INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECK LIST

Case No. — SDG No. 001 Date Rec'd 8 / 20 / 91

Site Name Cedar Falls Fmgs Act. No. DSX72 SAS No. 65686

EPA Lab ID KC Region: VII

CLP Lab ID ~~[illegible]~~ AATS

CLP Lab Location: Broken Arrow, OK

Re-Submitted CSF? Yes__ No ✓

COMMENTS:

ORIGINALS	YES	NO	N/A
CUSTODY SEALS			
1. Present on package?	✓		
2. Intact upon receipt?	✓		
FORM DC-2			
3. Numbering scheme accurate?			✓
4. Are enclosed documents listed?			✓
5. Are listed documents enclosed?			✓
FORM DC-1			
6. Present?			✓
7. Complete?			✓
8. Accurate?			✓
CHAIN-OF-CUSTODY RECORD(s)			
9. Signed?		✓	
10. Dated?		✓	
TRAFFIC REPORTS (s) PACKING LISTS (s)			
11. Signed?		✓	
12. Dated?		✓	
AIRBILLS/AIRBILL STICKER			
13. Present?			✓
14. Signed?			✓
15. Dated?			✓
SAMPLE TAGS			
16. Does DC-1 list tags as being included?			✓
17. Present?			✓
OTHER DOCUMENTS			
18. Complete?			✓
19. Legible?		✓	
20. Original?		✓	
20a. If "NO," does the copy indicate where original documents are located?		✓	

Audited by: Nicole Robles (Signature) NICOLE ROBLES/SCC (Print Name and Title) 8/20/91 (Date)

Additional comments:

55

30216190

Superfund

OU-00

AMERICAN ANALYTICAL TECHNICAL SERVICES

SAS 6568G

SDG -001

DSX72

Cedar Falls Fnc

RECEIVED 8/19/91

DSM2

American Analytical Technical Services
1700 West Albany, Suite C / Broken Arrow, OK
918-251-2858

Cedar Falls

FMG8

CASE NARRATIVE

August 15, 1991

CASE NO.: SAS 6568G

SAMPLE NOS.: 6568G-001 thru 6568G-009, 6568G-011, 6568G-017 thru 6568G-026

SDG NO.: -001

VOLATILE FRACTION

The surrogates and internal standard areas were outside the QC limits for sample 6568G-009 and its reanalysis, indicating a matrix effect. Both analyses are billable.

SEMIVOLATILE FRACTION

No unusual problems were encountered during the analyses.

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

Jayant Shringarpure, Ph.D. Date 8-15-91
Program Manager

EPA

PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Packing List/Chain of Custody

65686

0002

1. Sample Description (Enter in Column A)	2. Preservative (Enter in Column C)	3. Region No.	Sampling Co.	5. Date Shipped	Carrier	7. Date Received - Received by
1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil 7. Waste 8. Other (Specify)	1. HCl 2. HNO3 3. $NAHSO_4$ 4. H_2SO_4 5. NAOH 6. Other (SAS) (Specify) 7. Ice only N. Not preserved	01		7/31/91	Fed. Exp.	8/1/91 MSherman
		Sampler (Name): Bob Aston		Airbill Number: 065792 0752		Laboratory: AATS
		Sampler Signature: Bob Aston		6. Ship To: AATS		8. Transfer to / Date Received
		4. Type of Activity: Lead: SF, PRP, ST, FED; Pre-Remedial: PA, SSI, LSI; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST				Received by
						Laboratory

Sample Numbers	A Matrix Enter from Box 1	B Conc Low Med High	C Preservative Used from Box 2	D Analysis	E Sample used for spike and/or duplicate	F Regional Specific Tracking Number or Tag Number	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Sample Condition On Receipt
1. 65686-001	5	L	7	VOA and -14 Ag TH		DSX72-001	7/30/91 09:30	15	BA	Intact
2. 002						002	1SS	7/30/91 9:50		
3. 003						003	3S	7/30/91 11:25		
4. 004						004	3SS	11:40		
5. 005						005	4S	12:35		
6. 006						006	1SS	12:55		
7. 007						007	2S	15:15		
8. 008						008	2SS	15:20		
9. 009						008D	2SS-D	15:20		
10. 010						010F	TRIPBL.	7/30/91		

Shipment for SAS complete? (Y/N) (Y)

Pg 1 of 3

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Nicole Robb	7/31/91 4:00	Fed. Exp.			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Received by: (Signature)	Date / Time	Received for Laboratory by: (Signature) MSherman	Date / Time 8/1/91 0915	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-3 (4-91)

DISTRIBUTION:
White - Region Copy Yellow - SMO Copy Pink - Lab Copy for Return to SMO Gold - Lab Copy

S 00132

EPA | PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Packing List/Chain of Custody | 65686

0003

1. Sample Description (Enter in Column A)	2. Preservative (Enter in Column C)	3. Region No.	Sampling Co.	5. Date Shipped	Carrier	7. Date Received -- Received by
1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil 7. Waste 8. Other (Specify)	1. HCl 2. HNO_3 3. $NAHSO_4$ 4. H_2SO_4 5. NAOH 6. Other (SAS) (Specify) 7. Ice only N. Not preserved	01		7/31/91	Fed. Exp.	8/1/91 MDSherman

Sampler (Name)	Airbill Number	Laboratory
Bob Aston	065 792 0752	AATS

Sampler Signature	6. Ship To	8. Transfer to	Date Received
Bob Aston	AATS		

4. Type of Activity

	Lead	Pre-Remedial	Remedial		Removal	
SF			RIFS		CLEM	
PRP		PA	RD	X	REMA	
ST		SSI	RA		REM	
FED		LSI	O&M		OIL	
			NPLD		UST	

Received by

Laboratory

Sample Numbers	A Matrix Enter from Box 1	B Conc Low Med High	C Preservative Used from Box 2	D Analysis	E Sample used for spike and/or duplicate	F Regional Specific Tracking Number or Tag Number	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Sample Condition On Receipt
1. 65686-011	5	L	7	VOA-14-Day		DSX72-101	background	7/30/91 16:10	BA	Intact
2. 012						103	well #3	10:45		
3. 013						104	" #2	11:30		broken
4. 014						105	Blank	—		Intact
5. 015						106	Rinsate	15:45		
6. 016						DSX72-PE-VOA	PE-952P	7/31/91 —		
7. 017	5	L	7	BNA-14 Day		001	15	7/30/91 09:??		
8. 018						002	155	9:50		
9. 019						003	35	11:25		
10. 020						004	355	11:40		

Shipment for SAS complete? (Y/N) (Y) Pg. 2 of 3

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Received by: (Signature)	Date / Time	Received for Laboratory by: (Signature) MDSherman	Date / Time 8/1/91 0915	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-3 (4-91)

DISTRIBUTION:
White - Region Copy Yellow - SMO Copy Pink - Lab Copy for Return to SMO Gold - Lab Copy

S 00133

EPA

PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Packing List/Chain of Custody

0004

1. Sample Description (Enter in Column A)	2. Preservative (Enter in Column C)	3. Region No.	Sampling Co.	5. Date Shipped	Carrier	7. Date Received -- Received by
1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil 7. Waste 8. Other (Specify)	1. HCl 2. HNO3 3. $NAHSO_4$ 4. H_2SO_4 5. NAOH 6. Other (SAS) (Specify) 7. Ice only N. Not preserved	07		7/31/91	Fed. Exp.	8/1/91 MSherman
		Sampler (Name): Bob Aston		Airbill Number: 0657920752		Laboratory: AATS
		Sampler Signature: Bob Aston		6. Ship To: AATS		8. Transfer to / Date Received
		4. Type of Activity: Lead: SF, PRP, ST, FED; Pre-Remedial: PA, SSI, LSI; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST				Received by
						Laboratory

	Sample Numbers	A Matrix Enter from Box 1	B Conc Low Med High	C Preservative Used from Box 2	D Analysis	E Sample used for spike and/or duplicate	F Regional Specific Tracking Number or Tag Number	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Sample Condition On Receipt
1.	67686-021	5	L	7	BNA-14Day		DSX72-005	45	7/30/91 12:35	BA	Intact
2.	022	5					006	455	12:55		
3.	023	5					007	25	15:15		
4.	024	5					008	255	15:20		
5.	025	5					008D	255-D	15:20		
6.	026	5		Final Sample is SOG			101	[illegible]	16:10		
7.	027	2					103	well #3	10:45		
8.	028						104	#2	11:20		
9.	029						106F	hip blank	—		
10.	030						DSX72PE-BNA	PE-9488	7/31/91		

Shipment for SAS complete? (Y/N) (Y)

Pg. 3 of 3

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Nicole Kolly	7/31/91 4:00	Fed. Exp.			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Received by: (Signature)	Date / Time	Received for Laboratory by: (Signature) MSherman	Date / Time 8/1/91 0915	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-3 (4-91)

DISTRIBUTION:
White - Region Copy Yellow - SMO Copy Pink - Lab Copy for Return to SMO Gold - Lab Copy

S 00133

2B

SOIL VOLATILE SURROGATE RECOVERY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TOL) #	S2 (BFB) #	S3 (DCE) #	OTHER	TOT OUT
01	6568G-001	91	96	108	0	0
02	6568G-002	106	91	105	0	0
03	6568G-003	104	100	113	0	0
04	6568G-004	100	87	107	0	0
05	6568G-004	100	87	107	0	0
06	6568G-005	116	77	91	0	0
07	6568G-006	107	83	106	0	0
08	6568G-007	108	85	96	0	0
09	6568G-008	104	75	117	0	0
10	6568G-009	119 *	91	109	0	1
11	6568G-009RE	98	78	124 *	0	1
12	6568G-011	101	86	100	0	0
13	6568G-003MS	105	87	94	0	0
14	6568G-003MSD	105	91	102	0	0
15	VBLK1	97	104	95	0	0
16	VBLK2	107	102	100	0	0
17	VBLK3	94	91	94	0	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: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Matrix Spike - EPA Sample No.: 6568G-003 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	52.6	0	47.3	90	59-172
Trichloroethene	52.6	0	50.9	97	62-137
Benzene	52.6	0	53.9	102	66-142
Toluene	52.6	0	56.9	108	59-139
Chlorobenzene	52.6	0	52.9	101	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	52.6	49.6	94	-4	22	59-172
Trichloroethene	52.6	49.5	94	3	24	62-137
Benzene	52.6	56.9	108	-6	21	66-142
Toluene	52.6	58.2	111	-3	21	59-139
Chlorobenzene	52.6	56.1	107	-6	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:

VOLATILE METHOD BLANK SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID: K6298 Lab Sample ID: VBLK1

Date Analyzed: 08/07/91 Time Analyzed: 1057

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

Instrument ID: K

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	6568G-001	684301	K6305	1509
02	6568G-003	684303	K6307	1602
03	6568G-004	684304	K6308	1628
04	6568G-006	684306	K6310	1721
05	6568G-009	684309	K6313	1840

COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: SWL-TULSA Contract:

ab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Lab File ID: K6318 Lab Sample ID: VBLK2

Date Analyzed: 08/08/91 Time Analyzed: 1150

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

Instrument ID: K

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	6568G-002	684302	K6324	1643
02	6568G-008	684308	K6327	1802
03	6568G-009RE	684309	K6328	1828
04	6568G-003MS	684303MS	K6320	1403
05	6568G-003MSD	684303MSD	K6321	1431

COMMENTS:

VOLATILE METHOD BLANK SUMMARY

Lab Name: SWL-TULSA Contract: _____

ab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID: K6336 Lab Sample ID: VBLK3

Date Analyzed: 08/09/91 Time Analyzed: 1600

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

Instrument ID: K

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	6568G-005	684305	K6338	1712
02	6568G-007	684307	K6339	1737
03	6568G-011	684311	K6340	1803

COMMENTS:

5A

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

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 65666 SDG No.: -001

Lab File ID: K6153 BFB Injection Date: 07/25/91

Instrument ID: K BFB Injection Time: 1001

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.6
75	30.0 - 60.0% of mass 95	54.1
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	82.2
175	5.0 - 9.0% of mass 174	6.2 (7.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	82.1 (99.9)1
177	5.0 - 9.0% of mass 176	5.8 (7.1)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	VSTD50	VSTD50	K6154	07/25/91	1127
02	VSTD200	VSTD200	K6155	07/25/91	1224
03	VSTD150	VSTD150	K6156	07/25/91	1257
04	VSTD100	VSTD100	K6157	07/25/91	1325
05	VSTD20	VSTD20	K6158	07/25/91	1350

5A

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

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Lab File ID: K6296 BFB Injection Date: 08/07/91

Instrument ID: K BFB Injection Time: 0956

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.8
75	30.0 - 60.0% of mass 95	57.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	77.3
175	5.0 - 9.0% of mass 174	6.0 (7.8)1
176	Greater than 95.0%, but less than 101.0% of mass 174	75.0 (97.0)1
177	5.0 - 9.0% of mass 176	5.3 (7.1)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	VSTD50	VSTD50	K6297	08/07/91	1015
02	VBLK1	VBLK1	K6298	08/07/91	1057
03	6568G-001	684301	K6305	08/07/91	1509
04	6568G-003	684303	K6307	08/07/91	1602
05	6568G-004	684304	K6308	08/07/91	1628
06	6568G-006	684306	K6310	08/07/91	1721
07	6568G-009	684309	K6313	08/07/91	1840

5A

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

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID: K6316 BFB Injection Date: 08/08/91

Instrument ID: K BFB Injection Time: 0953

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	25.7
75	30.0 - 60.0% of mass 95	58.6
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	78.6
175	5.0 - 9.0% of mass 174	5.7 (7.2)1
176	Greater than 95.0%, but less than 101.0% of mass 174	75.1 (95.6)1
177	5.0 - 9.0% of mass 176	4.4 (5.9)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	VSTD50	VSTD50	K6317	08/08/91	1103
02	VBLK2	VBLK2	K6318	08/08/91	1150
03	6568G-003MS	684303MS	K6320	08/08/91	1403
04	6568G-003MSD	684303MSD	K6321	08/08/91	1431
05	6568G-002	684302	K6324	08/08/91	1643
06	6568G-008	684308	K6327	08/08/91	1802
07	6568G-009RE	684309	K6328	08/08/91	1828

5A

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

Lab Name: SWL-TULSA Contract:

ab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Lab File ID: K6330 BFB Injection Date: 08/09/91

Instrument ID: K BFB Injection Time: 0926

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	23.6
75	30.0 - 60.0% of mass 95	58.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.6
173	Less than 2.0% of mass 174	0.4 (0.5)1
174	Greater than 50.0% of mass 95	78.7
175	5.0 - 9.0% of mass 174	5.6 (7.4)1
176	Greater than 95.0%, but less than 101.0% of mass 174	76.3 (97.0)1
177	5.0 - 9.0% of mass 176	5.3 (7.0)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	VSTD50	VSTD50	K6331	08/09/91	1214
02	VSTD200	VSTD200	K6332	08/09/91	1324
03	VSTD150	VSTD150	K6333	08/09/91	1406
04	VSTD100	VSTD100	K6334	08/09/91	1444
05	VSTD20	VSTD20	K6335	08/09/91	1510
06	VBLK3	VBLK3	K6336	08/09/91	1600
07	6568G-005	684305	K6338	08/09/91	1712
08	6568G-007	684307	K6339	08/09/91	1737
09	6568G-011	684311	K6340	08/09/91	1803

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

65686-001

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 65686 SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684301

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6305

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 3 Date Analyzed: 08/07/91

Column: (pack/cap) CAP 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	14	
67-64-1	Acetone	49	B
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	0.9	BJ
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	12	
79-34-5	1,1,2,2-Tetrachloroethane	5	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	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-001

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684301

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6305

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 3 Date Analyzed: 08/07/91

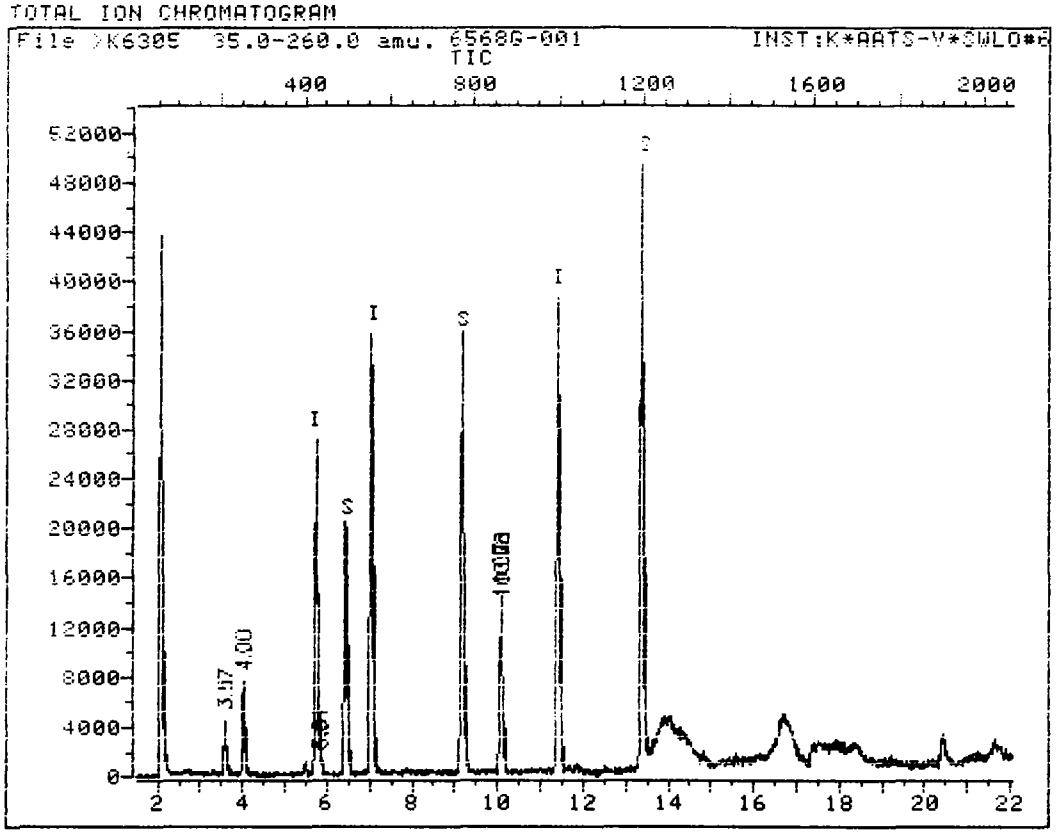
Column (pack/cap) CAP Dilution Factor: 1.0

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: >K6305::L2 Quant Output File: ^K6305::D6
Name: 6568G-001
Misc: INST:K*AATS-V*SWLO#6843.01*5GM*C#(6568G)

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

Operator ID: DEBBIE
Quant Time: 910807 15:33
Injected at: 910807 15:09

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910807 15:33
Output File: ^K6305::D6 Injected at: 910807 15:09
Data File: >K6305::L2 Dilution Factor: 1.00000
Name: 6568G-001
Misc: INST:K*AATS-V*SWLO#6843.01*5GM*C#(6568G)

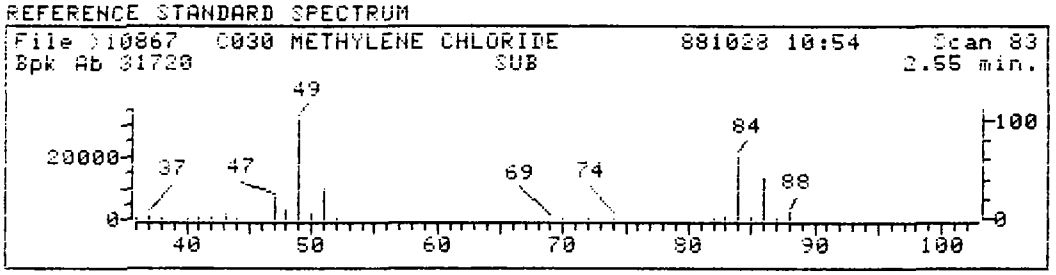
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.70	128.0	15047	50.00	ng/mL	93
6)	C030 METHYLENE CHLORIDE	4.00	84.0	6357	13.84	ng/mL	93
7)	C035 ACETONE	3.57	43.0	11113	47.74	ng/mL	100
14)	C060 CHLOROFORM	5.81	83.0	1303	.92	ng/mL	80
17)	CS15 1,2-DICHLOROETHANE-D4	6.44	65.1	42754	54.22	ng/mL	84
18)	*CI10 1,4-DIFLUOROBENZENE	7.02	114.0	58100	50.00	ng/mL	97
~~26)~~	~~C155 DIBROMOCHLOROMETHANE~~	~~10.08~~	~~129.0~~	~~8050~~	~~6.76~~	~~ng/mL~~ FP	100
32)	*CI20 CHLOROBENZENE-D5	11.39	117.0	45119	50.00	ng/mL	97
35)	C220 TETRACHLOROETHENE	10.07	164.0	8094	11.77	ng/mL	91
46)	CS05 TOLUENE-D8	9.14	98.0	56077	45.74	ng/mL	88
47)	CS10 BROMOFLUOROBENZENE	13.38	95.0	42284	47.90	ng/mL	99

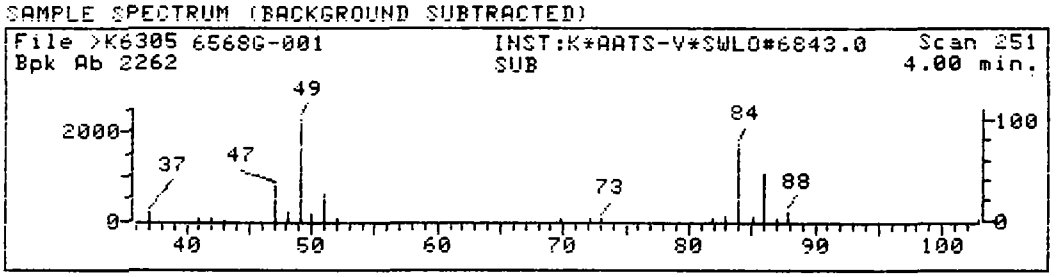
* Compound is ISTD

FP = FALSE POSITIVE

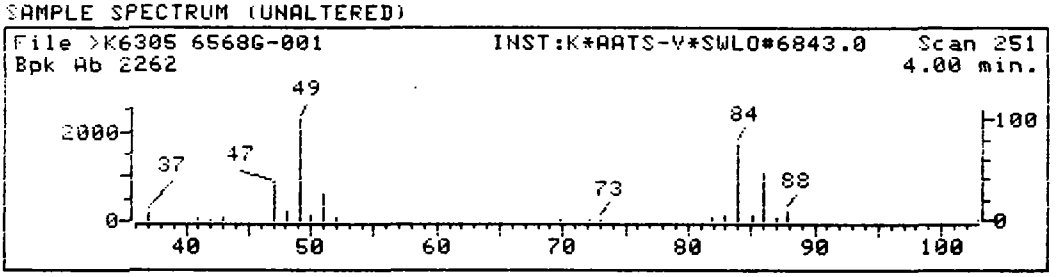
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



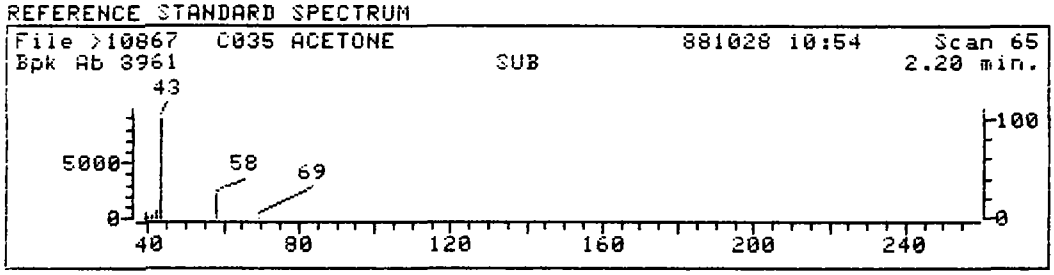
SAMPLE SPECTRUM (UNALTERED)



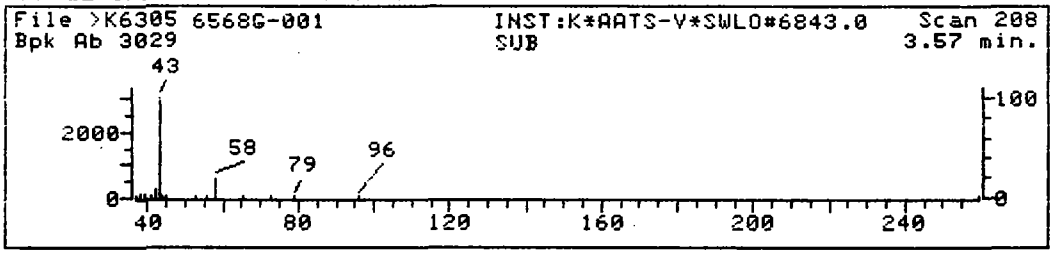
Data File: >K6305::L2 Quant Output File: ^K6305::D6
Name: 6568G-001
Misc: INST:K*AATS-V*SWLO#6843.01*5GM*C#(6568G)
Quant Time: 910807 15:33 Quant ID File: IDV023::EX
Injected at: 910807 15:09 Last Calibration: 910807 11:06

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 251
Retention Time: 4.00 min.
Quant Ion: 84.0
Area: 6357
Concentration: 13.84 ng/mL
q-value: 93

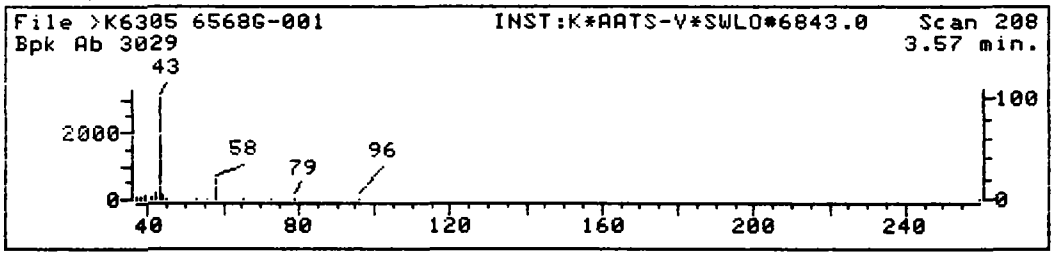
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



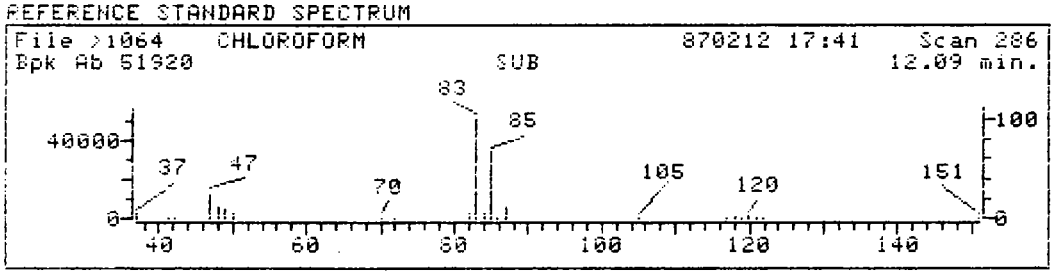
SAMPLE SPECTRUM (UNALTERED)



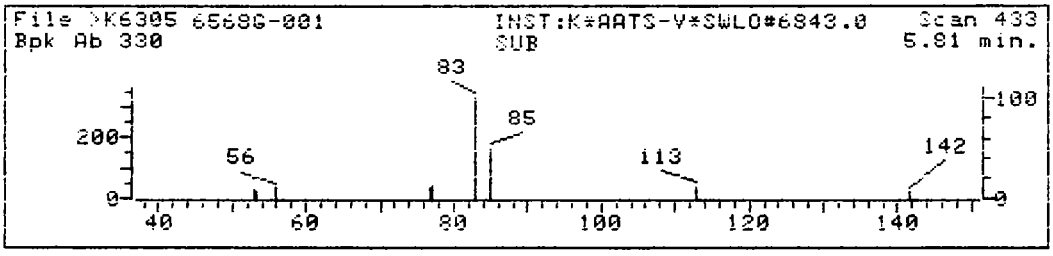
Data File: >K6305::L2 Quant Output File: ^K6305::D6
Name: 6568G-001
Misc: INST:K*AATS-V*SWLO#6843.01*5GM*C#(6568G)
Quant Time: 910807 15:33 Quant ID File: IDV023::EX
Injected at: 910807 15:09 Last Calibration: 910807 11:06

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 208
Retention Time: 3.57 min.
Quant Ion: 43.0
Area: 11113
Concentration: 47.74 ng/mL
q-value: 100

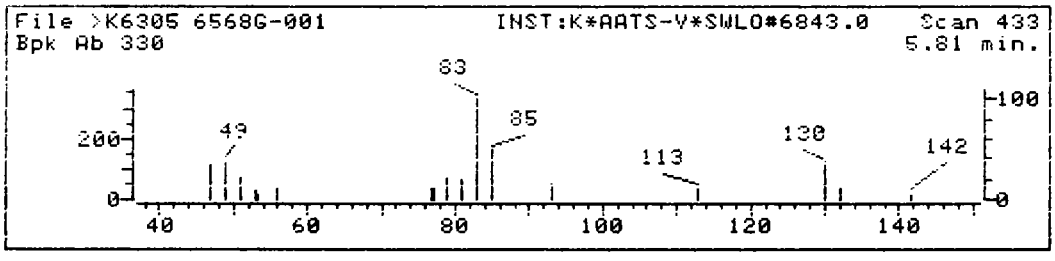
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



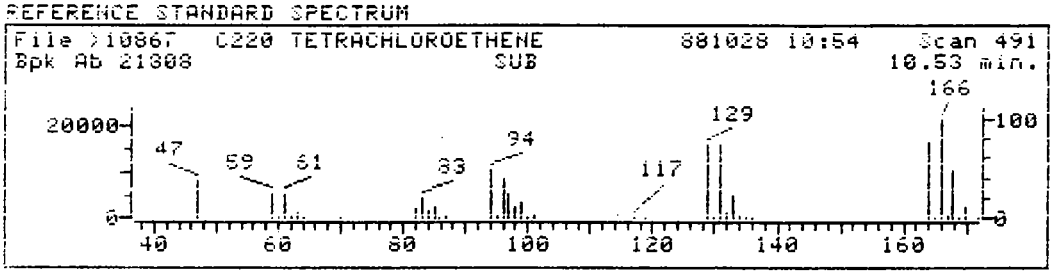
SAMPLE SPECTRUM (UNALTERED)



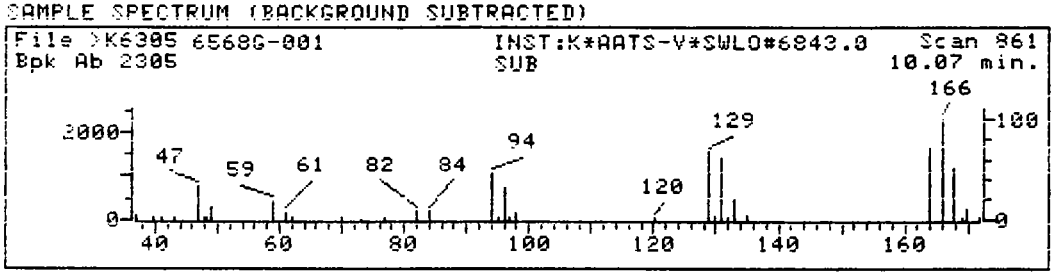
Data File: >K6305::L2 Quant Output File: ^K6305::D6
Name: 6568G-001
Misc: INST:K*AATS-V*SWLO#6843.01*5GM*C#(6568G)
Quant Time: 910807 15:33 Quant ID File: IDV023::EX
Injected at: 910807 15:09 Last Calibration: 910807 11:06

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 433
Retention Time: 5.81 min.
Quant Ion: 83.0
Area: 1303
Concentration: .92 ng/mL
q-value: 80

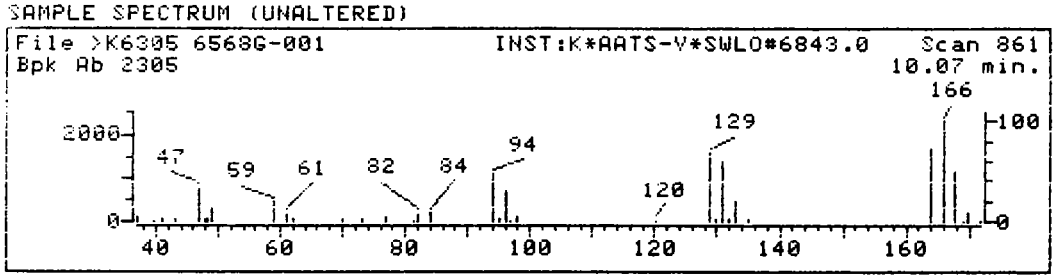
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6305::L2 Quant Output File: ^K6305::D6
Name: 6568G-001
Misc: INST:K*AATS-V*SWLO#6843.01*5GM*C#(6568G)
Quant Time: 910807 15:33 Quant ID File: IDV023::EX
Injected at: 910807 15:09 Last Calibration: 910807 11:06

Compound No: 35
Compound Name: C220 TETRACHLOROETHENE
Scan Number: 861
Retention Time: 10.07 min.
Quant Ion: 164.0
Area: 8094
Concentration: 11.77 ng/mL
q-value: 91

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

65686-002

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 65686 SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684302

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6324

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 5 Date Analyzed: 08/08/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	12	B
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	1	BJ
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	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	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	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	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-002

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684302

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6324

Level: (low/med) LOW Date Received: 08/01/91

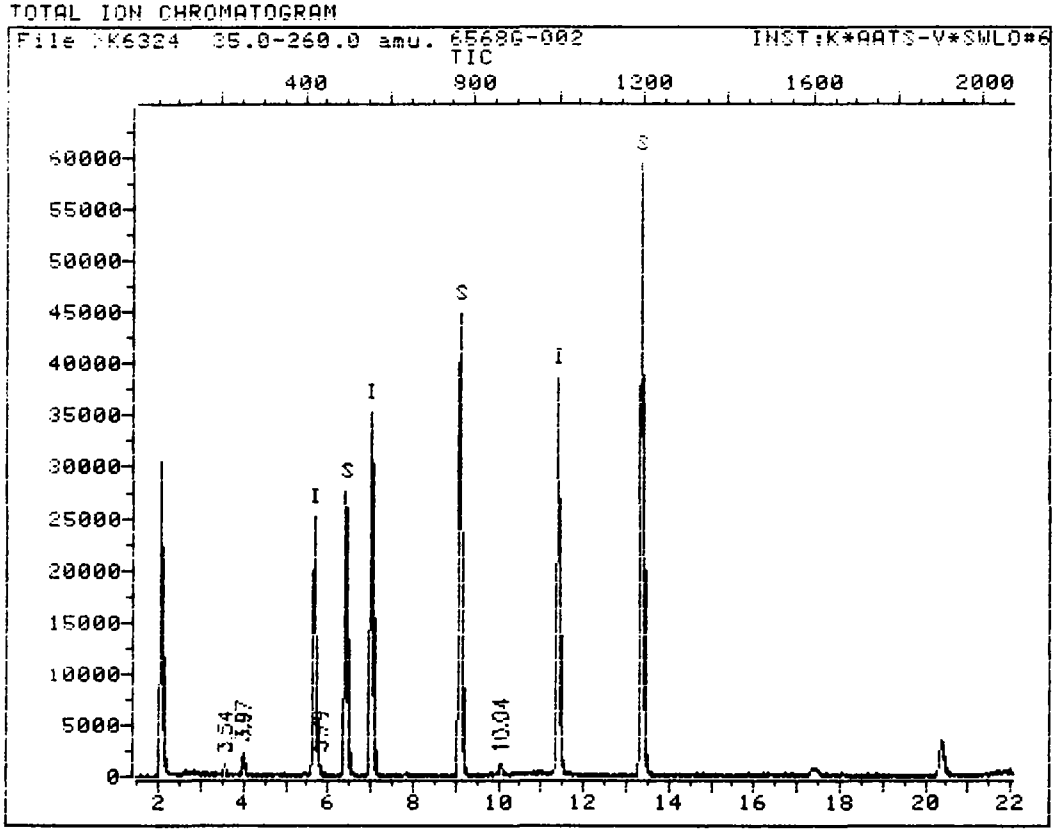
% Moisture: not dec. 5 Date Analyzed: 08/08/91

Column (pack/cap) CAP 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 PNA	20.35	4.2	J

TOTAL ION CHROMATOGRAM



Data File: >K6324::L2 Quant Output File: ^K6324::D6
Name: 6568G-002
Misc: INST:K*AATS-V*SWL0#6843.02*5GM*C#(6568G)

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

Operator ID: DEBBIE
Quant Time: 910808 17:07
Injected at: 910808 16:43

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910808 17:07
Output File: ^K6324::D6 Injected at: 910808 16:43
Data File: >K6324::L2 Dilution Factor: 1.00000
Name: 6568G-002
Misc: INST:K*AATS-V*SWLO#6843.02*5GM*C#(6568G)

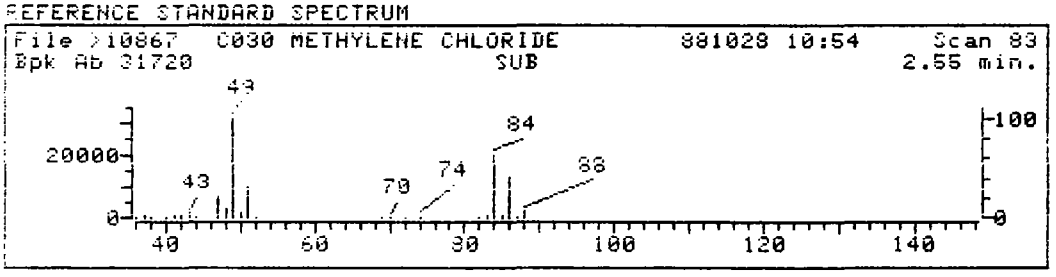
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.67	128.0	14807	50.00	ng/mL	88
6)	C030 METHYLENE CHLORIDE	3.97	84.0	1713	3.45	ng/mL	91
7)	C035 ACETONE	3.54	43.0	2941	11.25	ng/mL	100
14)	C060 CHLOROFORM	5.79	83.0	1494	.98	ng/mL	98
17)	CS15 1,2-DICHLOROETHANE-D4	6.40	65.1	55524	52.42	ng/mL	85
18)	*CI10 1,4-DIFLUOROBENZENE	6.99	114.0	56297	50.00	ng/mL	96
~~26)~~	~~C155 DIBROMOCHLOROMETHANE~~	10.04	129.0	619	.50	ng/mL	100
32)	*CI20 CHLOROBENZENE-D5	11.36	117.0	42999	50.00	ng/mL	95
46)	CS05 TOLUENE-D8	9.09	98.0	72735	53.19	ng/mL	94
47)	CS10 BROMOFLUOROBENZENE	13.34	95.0	49258	45.53	ng/mL	95

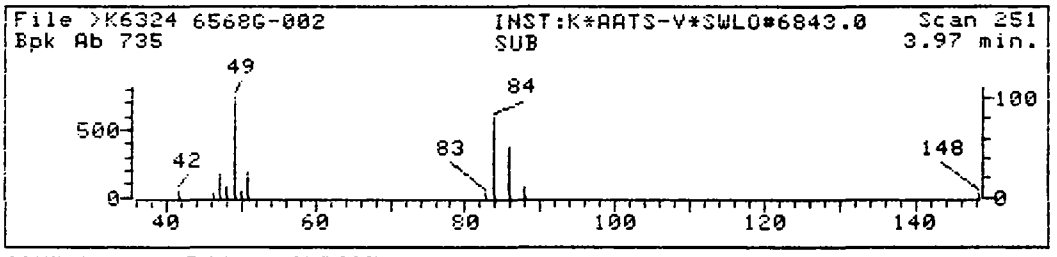
* Compound is ISTD

FP = FALSE POSITIVE

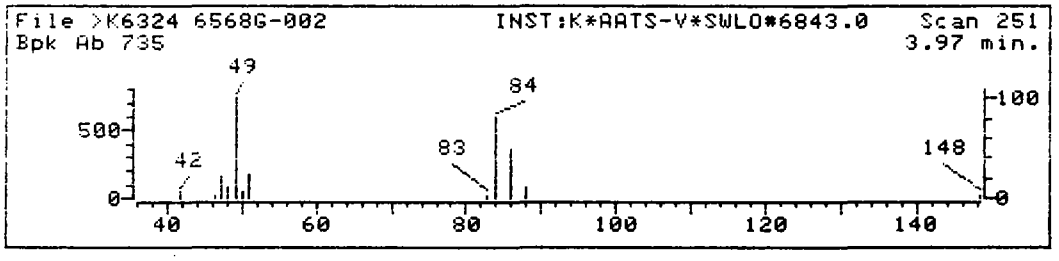
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



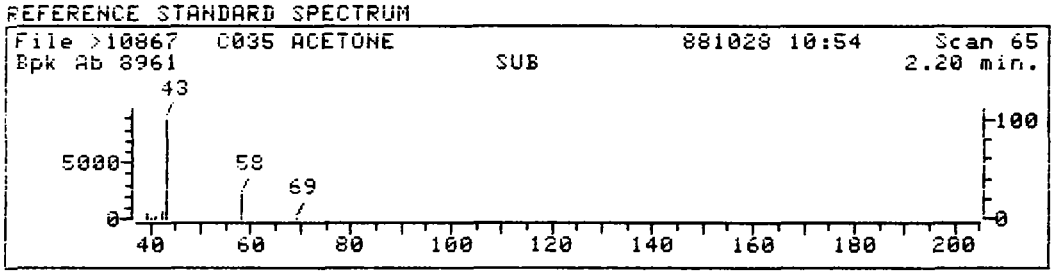
SAMPLE SPECTRUM (UNALTERED)



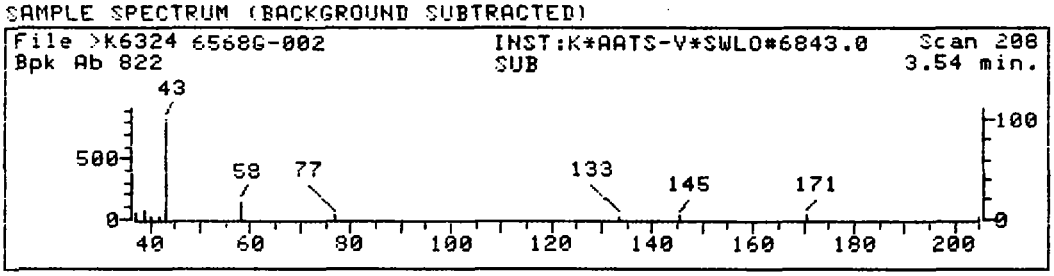
Data File: >K6324::L2 Quant Output File: ^K6324::D6
Name: 6568G-002
Misc: INST:K*AATS-V*SWL0#6843.02*5GM*C#(6568G)
Quant Time: 910808 17:07 Quant ID File: IDV023::EX
Injected at: 910808 16:43 Last Calibration: 910808 11:48

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 251
Retention Time: 3.97 min.
Quant Ion: 84.0
Area: 1713
Concentration: 3.45 ng/mL
q-value: 91

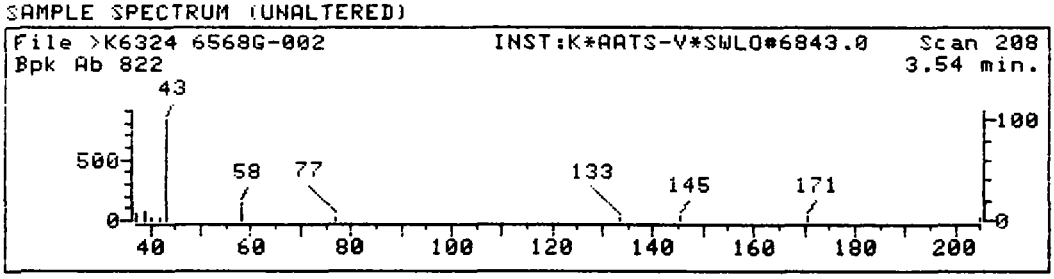
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



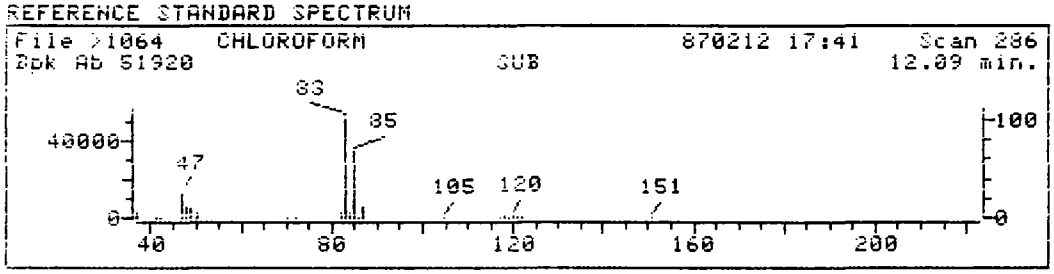
SAMPLE SPECTRUM (UNALTERED)



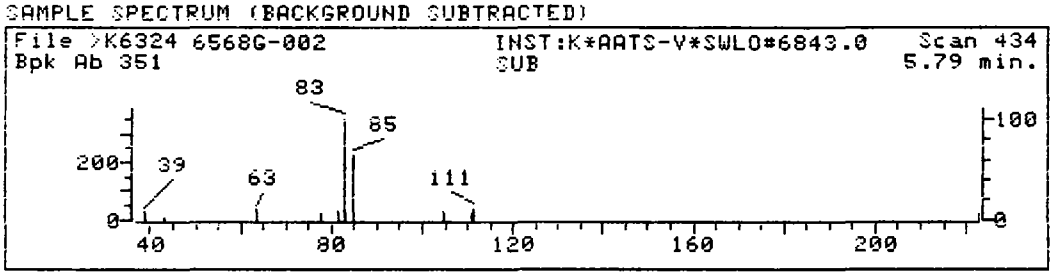
Data File: >K6324::L2 Quant Output File: ^K6324::D6
Name: 6568G-002
Misc: INST:K*AATS-V*SWLO#6843.02*5GM*C#(6568G)
Quant Time: 910808 17:07 Quant ID File: IDV023::EX
Injected at: 910808 16:43 Last Calibration: 910808 11:48

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 208
Retention Time: 3.54 min.
Quant Ion: 43.0
Area: 2941
Concentration: 11.25 ng/mL
q-value: 100

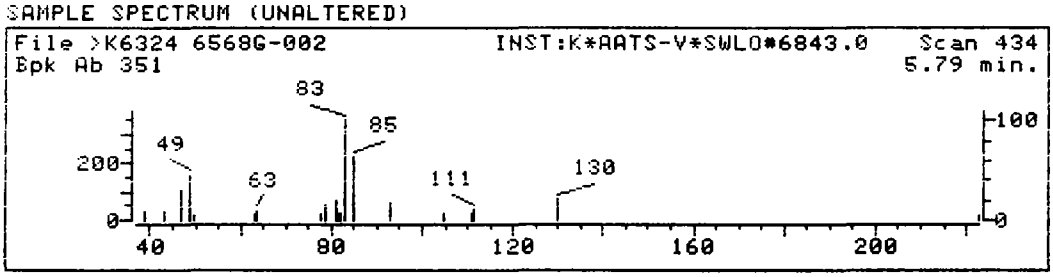
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6324::L2 Quant Output File: ^K6324::D6
Name: 6568G-002
Misc: INST:K*AATS-V*SWLO#6843.02*5GM*C#(6568G)
Quant Time: 910808 17:07 Quant ID File: IDV023::EX
Injected at: 910808 16:43 Last Calibration: 910808 11:48

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 434
Retention Time: 5.79 min.
Quant Ion: 83.0
Area: 1494
Concentration: .98 ng/mL
q-value: 98

MS data file header from : >K6324

Sample: 6568G-002 Operator: DEBBIE MS 8/08/91 16:43
Misc : INST:K*AATS-V*SWL0#6843.02*5GM*C#(6568G)
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: #STD2 Tuning file: #2TUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 200 Transfer line temp. : 0

Chromatographic temperatures :	45.	150.	0.	0.	0.
Chromatographic times, min. :	3.0	5.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	.1	0.0

>K6324 6568G-002 INST:K*AATS-V*SWL0#6843.02*5GM*C#(6568G)

35.0| 260.0 CLP ADC TIC
Upslope: .00 Area Reject: 11497. Max Peaks: 1 Bunching: 1
Dnslope: 0.00 Results File IK6324 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	20.35	1885	1898	1899	3337	13701	12431	100.00	100.000

Sum of corrected areas: 12431.

Summary of Unknowns PBM Library Search and Quantitation

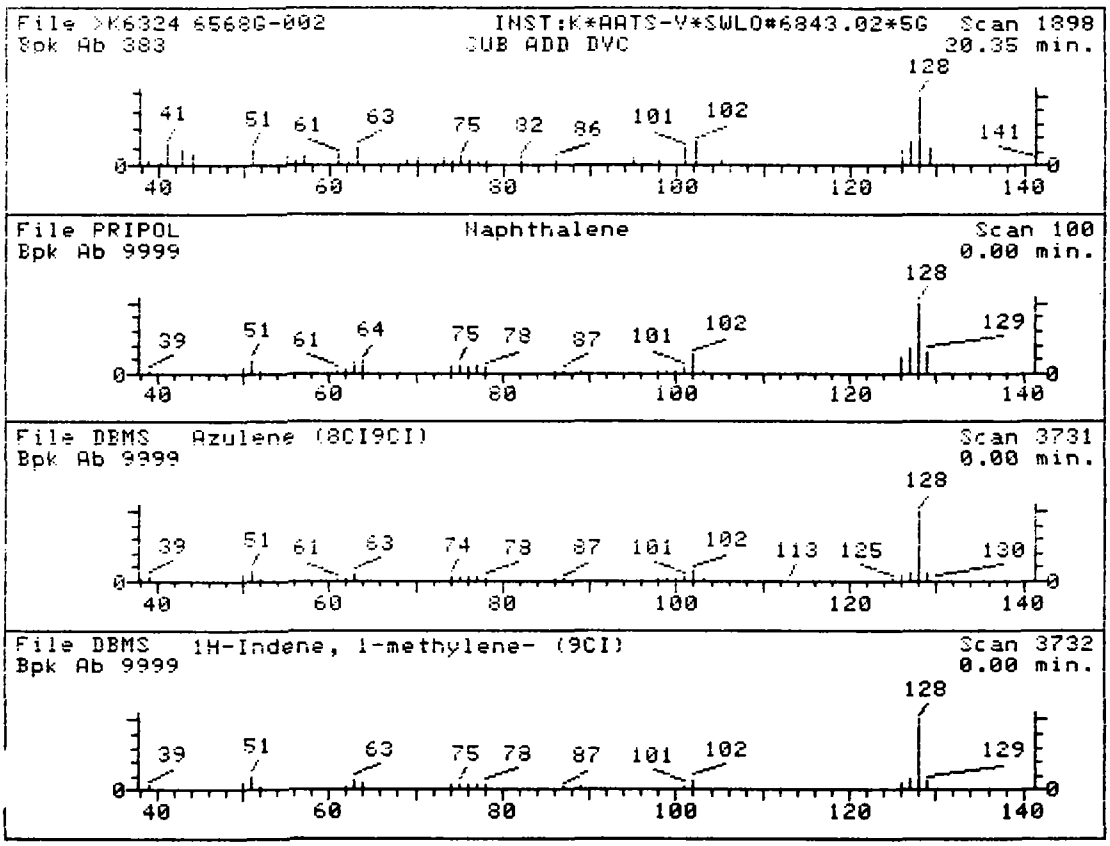
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	114967.	5.67	3.00 - 6.33
2	50.0	160414.	6.99	6.33 - 9.18
3	50.0	163871.	11.36	9.18 - 22.04

Dilution Factor (DF) = 0.00 Fractional Solids (FS) = 0.00
Amount Method (AM) = 0.00 Amount Used (AU) = 0.00

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

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

5:41 PM THU., 8 AUG., 1991



UNKNOWN

PMA

Sample: 6568G-002 Operator: DEBBIE MS 8/08/91 16:43

Unknown #,1
Area = 12431.00 Tentative Concentration is 4.00

1.	Naphthalene	128 C10H8
2.	Azulene (8CI9CI)	128 C10H8
3.	1H-Indene, 1-methylene- (9CI)	128 C10H8
4.	1,2-Benzenedicarbonitrile (9CI)	128 C8H4N2
5.	1,3-Benzenedicarbonitrile (9CI)	128 C8H4N2
6.	1,4-Benzenedicarbonitrile (9CI)	128 C8H4N2
7.	Naphthalene	128 C10H8

Sample file: >K6324 Spectrum #: 1898
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.	46*	100	195	PRIPOL	46	64	2	0	80	22	0030	7
2.	27*	275514	15020	DBMS	27	71	3	0	100	38	10	13

3.	26*	2471843	15021	DBMS	22	79	3	0	100	38	10	12
4.	25*	91156	15063	DBMS	32	58	3	0	100	48	7	13
5.	25*	626175	15065	DBMS	28	63	3	0	100	47	7	13
6.	25*	623267	15064	DBMS	26	69	3	0	100	46	7	13
7.	11	96	191	PRIPOL	39	46	2	0	235	63	2	13

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

65686-003

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 65686 SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684303

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6307

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 5 Date Analyzed: 08/07/91

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	15	
67-64-1	Acetone	10	BJ
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	1	BJ
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	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	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	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	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: 6568G-003

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684303

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6307

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 5 Date Analyzed: 08/07/91

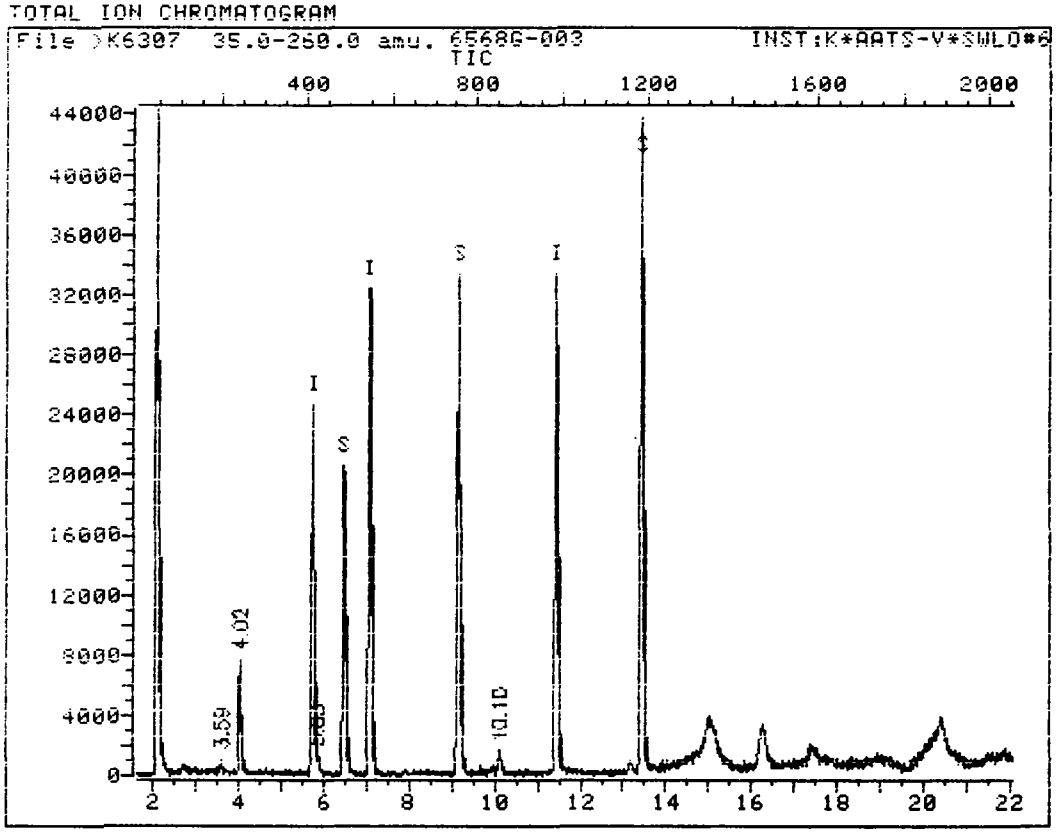
Column (pack/cap) CAP Dilution Factor: 1.0

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: >K6307::L2 Quant Output File: ^K6307::D6
Name: 6568G-003
Misc: INST:K*AATS-V*SWLO#6843.03*5GM*C#(6568G)

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

Operator ID: DEBBIE
Quant Time: 910807 16:25
Injected at: 910807 16:02

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910807 16:25
Output File: ^K6307::D6 Injected at: 910807 16:02
Data File: >K6307::L2 Dilution Factor: 1.00000
Name: 6568G-003
Misc: INST:K*AATS-V*SWLO#6843.03*5GM*C#(6568G)

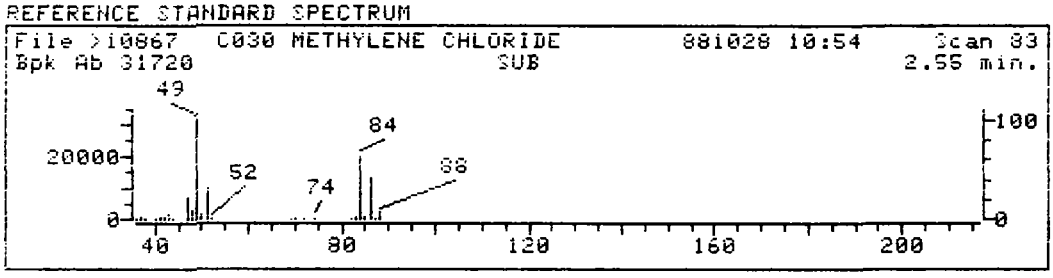
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.73	128.0	14092	50.00	ng/mL	90
6)	C030 METHYLENE CHLORIDE	4.02	84.0	6083	14.14	ng/mL	73
7)	C035 ACETONE	3.59	43.0	2148	9.85	ng/mL	100
14)	C060 CHLOROFORM	5.83	83.0	1243	.93	ng/mL	94
17)	CS15 1,2-DICHLOROETHANE-D4	6.44	65.1	41740	56.52	ng/mL	80
18)	*CI10 1,4-DIFLUOROBENZENE	7.05	114.0	54027	50.00	ng/mL	95
~~26)~~	~~C155 DIBROMOCHLOROMETHANE~~	~~10.10~~	~~129.0~~	~~430~~	~~.39~~	~~ng/mL~~	~~100~~
32)	*CI20 CHLOROBENZENE-D5	11.42	117.0	39250	50.00	ng/mL	90
46)	CS05 TOLUENE-D8	9.16	98.0	55307	51.86	ng/mL	87
47)	CS10 BROMOFLUOROBENZENE	13.41	95.0	38364	49.96	ng/mL	83

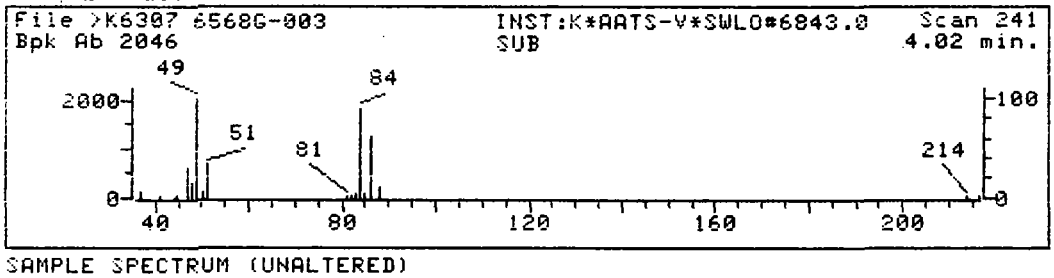
* Compound is ISTD

FP = FALSE POSITIVE

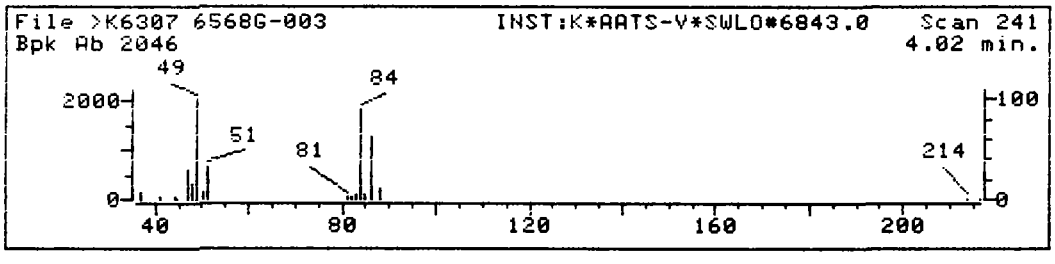
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



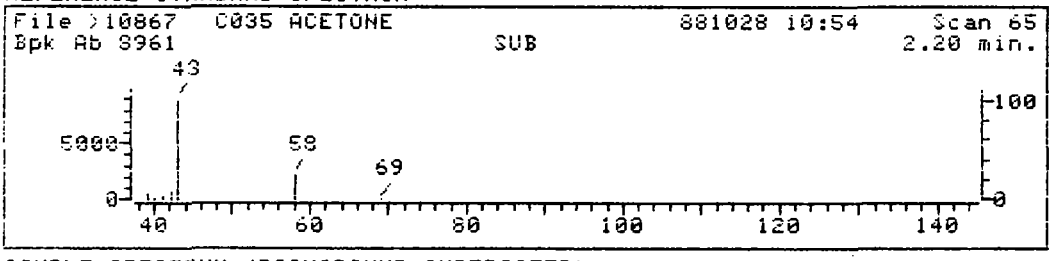
SAMPLE SPECTRUM (UNALTERED)



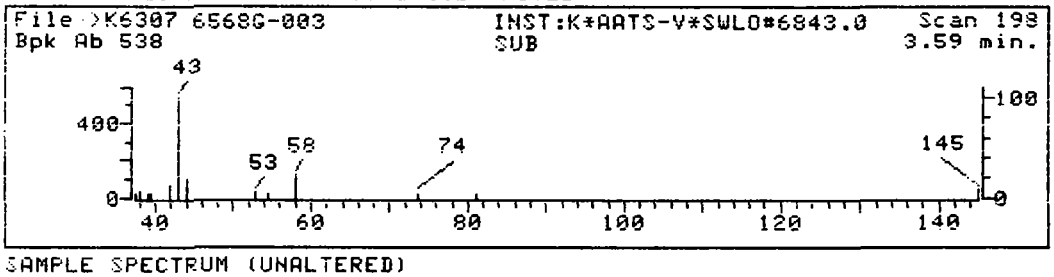
Data File: >K6307::L2 Quant Output File: ^K6307::D6
Name: 6568G-003
Misc: INST:K*AATS-V*SWL0#6843.03*5GM*C#(6568G)
Quant Time: 910807 16:25 Quant ID File: IDV023::EX
Injected at: 910807 16:02 Last Calibration: 910807 11:06

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 241
Retention Time: 4.02 min.
Quant Ion: 84.0
Area: 6083
Concentration: 14.14 ng/mL
q-value: 73

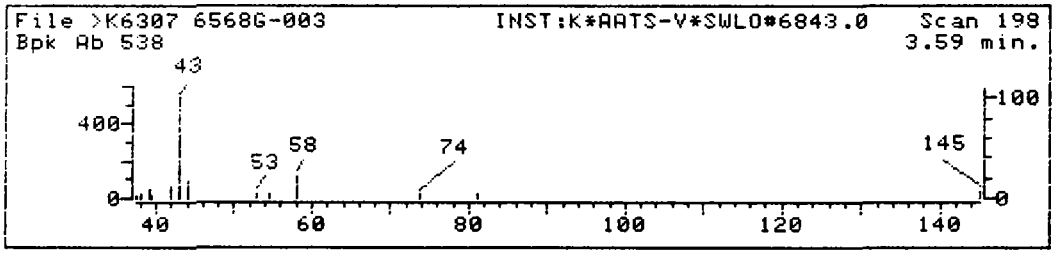
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



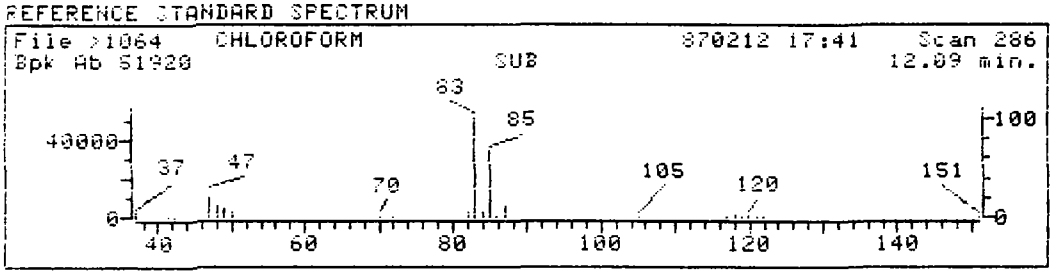
SAMPLE SPECTRUM (UNALTERED)



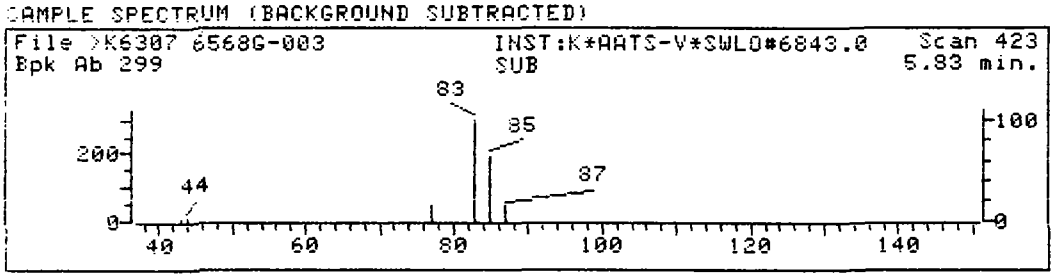
Data File: >K6307::L2 Quant Output File: ^K6307::D6
Name: 6568G-003
Misc: INST:K*AATS-V*SWL0#6843.03*5GM*C#(6568G)
Quant Time: 910807 16:25 Quant ID File: IDV023::EX
Injected at: 910807 16:02 Last Calibration: 910807 11:06

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 198
Retention Time: 3.59 min.
Quant Ion: 43.0
Area: 2148
Concentration: 9.85 ng/mL
q-value: 100

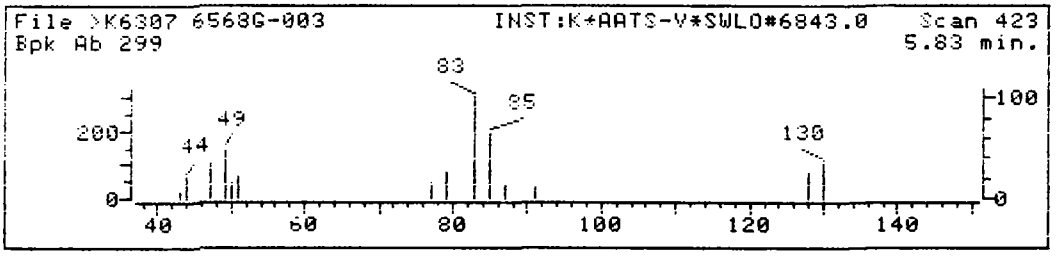
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6307::L2 Quant Output File: ^K6307::D6
Name: 6568G-003
Misc: INST:K*AATS-V*SWLO#6843.03*5GM*C#(6568G)
Quant Time: 910807 16:25 Quant ID File: IDV023::EX
Injected at: 910807 16:02 Last Calibration: 910807 11:06

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 423
Retention Time: 5.83 min.
Quant Ion: 83.0
Area: 1243
Concentration: .93 ng/mL
q-value: 94

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-004

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684304

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6308

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 12 Date Analyzed: 08/07/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	15	
67-64-1	Acetone	11	BJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	1	BJ
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	4	J
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	0.6	J
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	50	
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	0.7	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

65688-004

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 65688 SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684304

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6308

Level: (low/med) LOW Date Received: 08/01/91

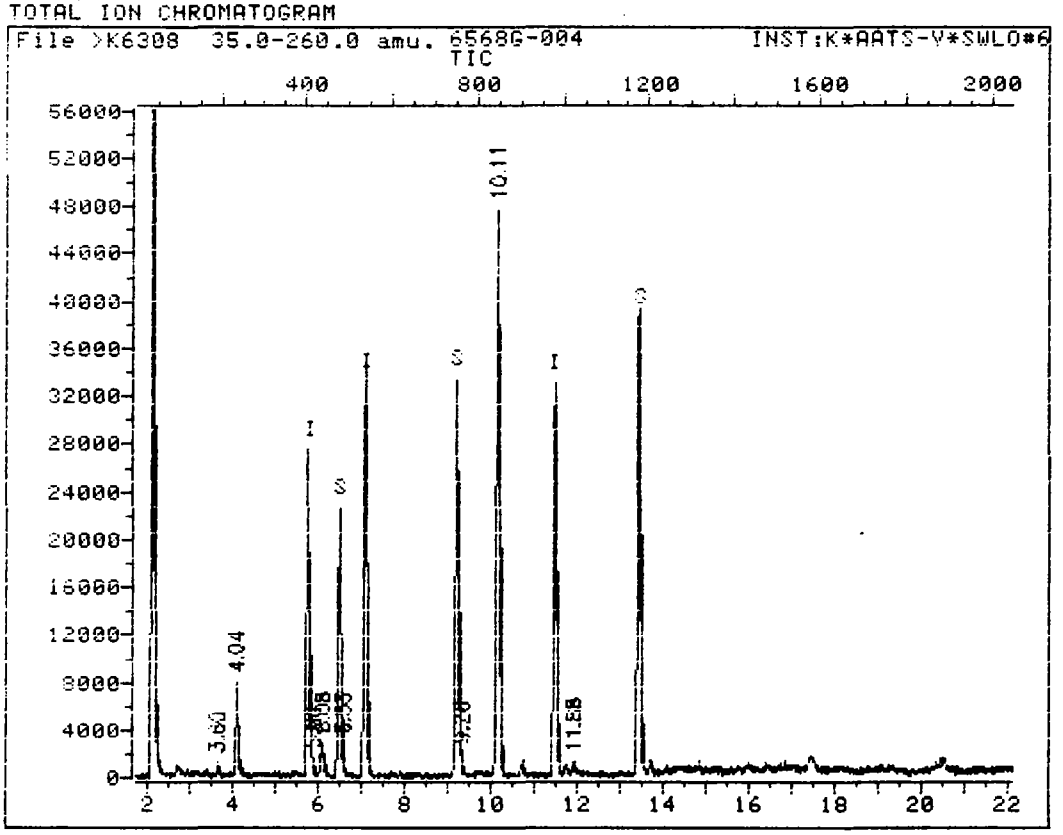
% Moisture: not dec. 12 Date Analyzed: 08/07/91

Column (pack/cap) CAP 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: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWLO#6843.04*5GM*C#(6568G)

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

Operator ID: DEBBIE
Quant Time: 910807 16:52
Injected at: 910807 16:28

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910807 16:52
Output File: ^K6308::D6 Injected at: 910807 16:28
Data File: >K6308::L2 Dilution Factor: 1.00000
Name: 6568G-004
Misc: INST:K*AATS-V*SWL0#6843.04*5GM*C#(6568G)

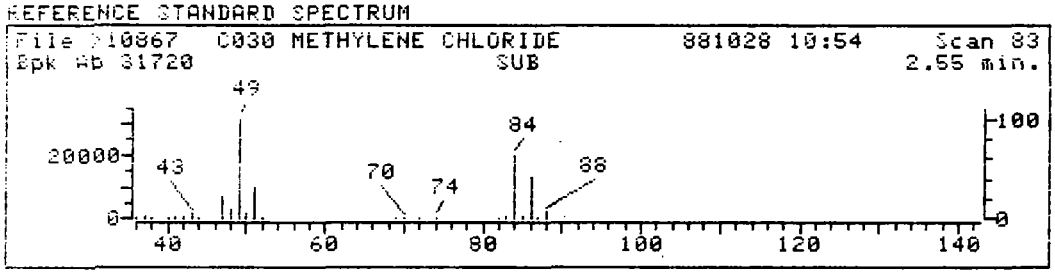
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.74	128.0	16167	50.00	ng/mL	92
6)	C030 METHYLENE CHLORIDE	4.04	84.0	6683	13.55	ng/mL	82
7)	C035 ACETONE	3.60	43.0	2481	9.92	ng/mL	100
14)	C060 CHLOROFORM	5.86	83.0	1498	.98	ng/mL	90
17)	CS15 1,2-DICHLOROETHANE-D4	6.46	65.1	45127	53.27	ng/mL	85
18)	*CI10 1,4-DIFLUOROBENZENE	7.06	114.0	57225	50.00	ng/mL	95
19)	C115 1,1,1-TRICHLOROETHANE	6.08	96.9	4412	3.59	ng/mL	95
~~24)~~	~~C155 DIBROMOCHLOROMETHANE~~	~~10.11~~	~~129.0~~	~~25531~~	~~21.76~~	~~ng/mL~~ FP	100
28)	C165 BENZENE	6.53	78.0	597	.49	ng/mL	65
32)	*CI20 CHLOROBENZENE-D5	11.43	117.0	39432	50.00	ng/mL	90
35)	C220 TETRACHLOROETHENE	10.11	164.0	26519	44.14	ng/mL	94
37)	C230 TOLUENE	9.28	92.0	1495	1.99	ng/mL	77
~~41)~~	~~C250 o-XYLENE~~	~~11.88~~	~~106.0~~	~~407~~	~~.53~~	~~ng/mL~~ FP	64
42)	C299 m,p-XYLENES	11.88	106.0	407	.64	ng/mL	64
46)	CS05 TOLUENE-D8	9.17	98.0	53833	50.25	ng/mL	86
47)	CS10 BROMOFLUOROBENZENE	13.41	95.0	33479	43.39	ng/mL	98

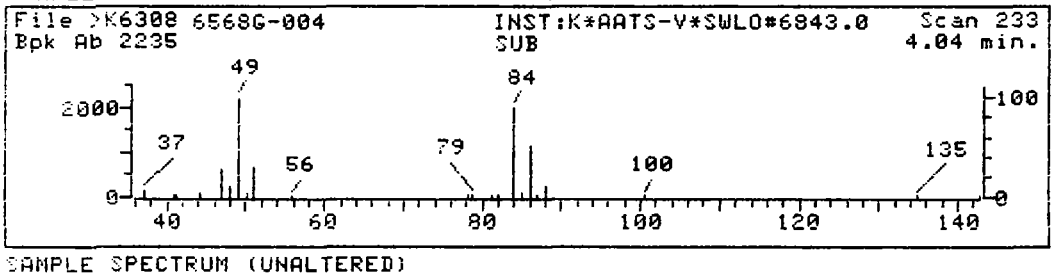
* Compound is ISTD

FP = FALSE POSITIVE

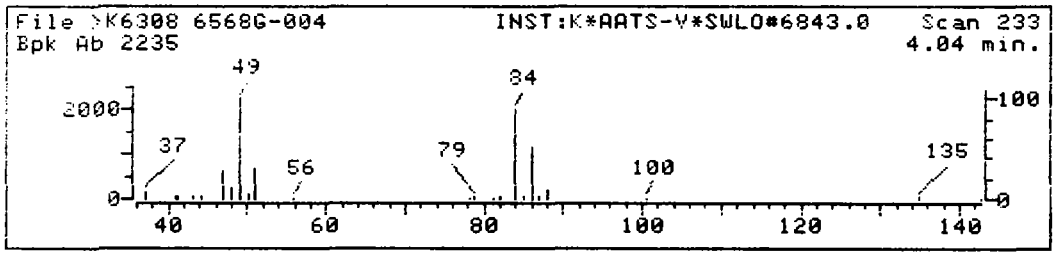
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



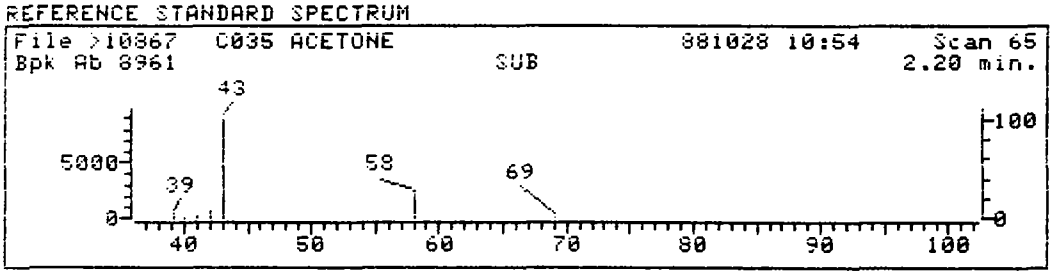
SAMPLE SPECTRUM (UNALTERED)



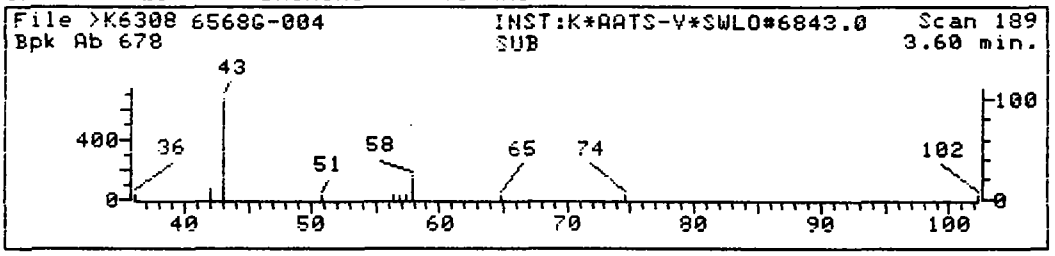
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWL0#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 233
Retention Time: 4.04 min.
Quant Ion: 84.0
Area: 6683
Concentration: 13.55 ng/mL
q-value: 82

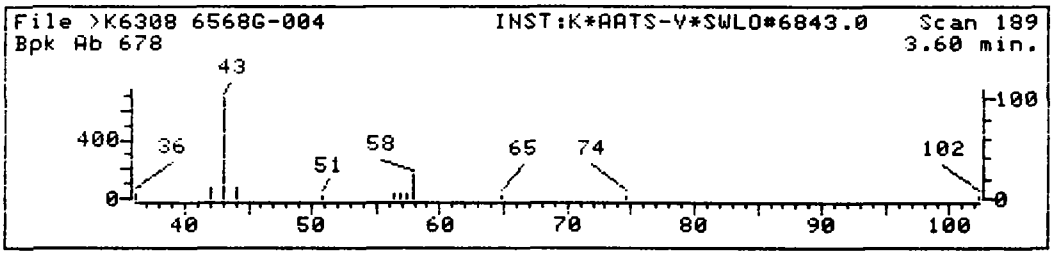
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



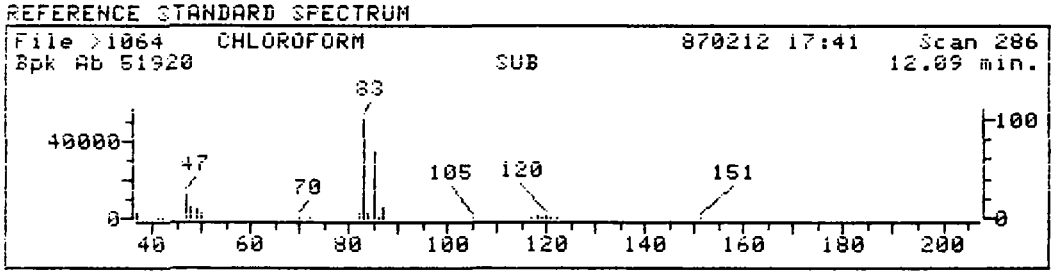
SAMPLE SPECTRUM (UNALTERED)



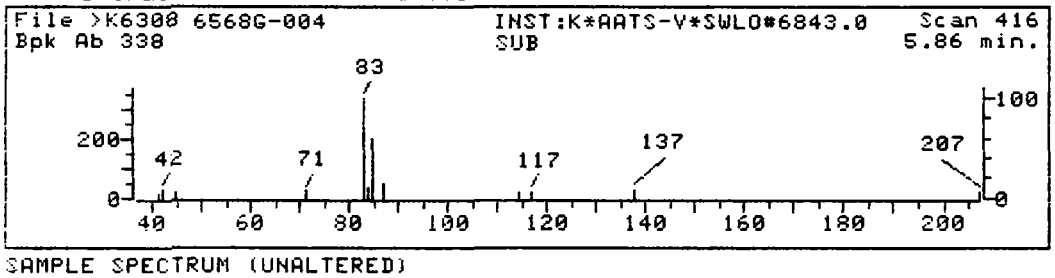
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWL0#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 189
Retention Time: 3.60 min.
Quant Ion: 43.0
Area: 2481
Concentration: 9.92 ng/mL
q-value: 100

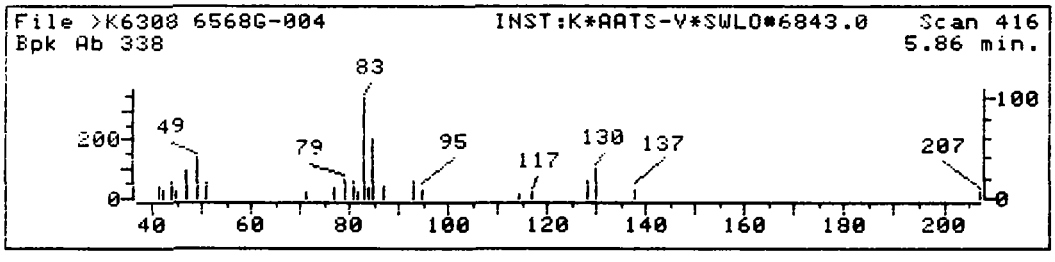
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



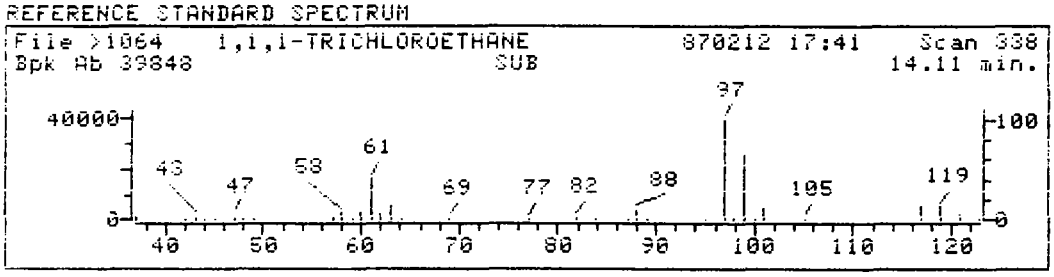
SAMPLE SPECTRUM (UNALTERED)



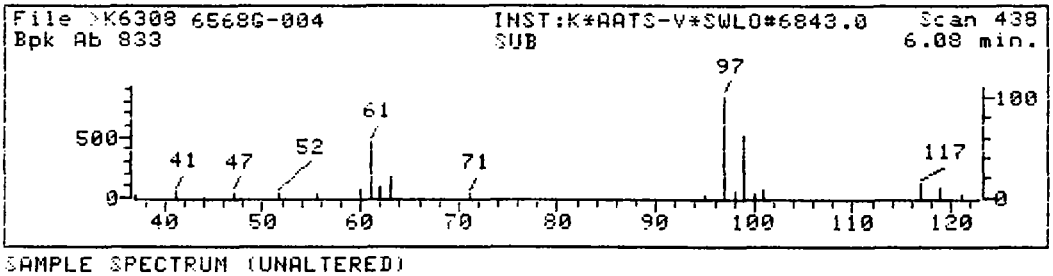
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWLO#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 416
Retention Time: 5.86 min.
Quant Ion: 83.0
Area: 1498
Concentration: .98 ng/mL
q-value: 90

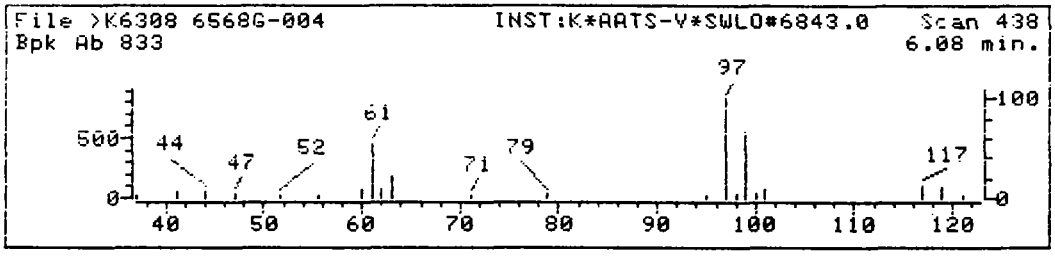
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



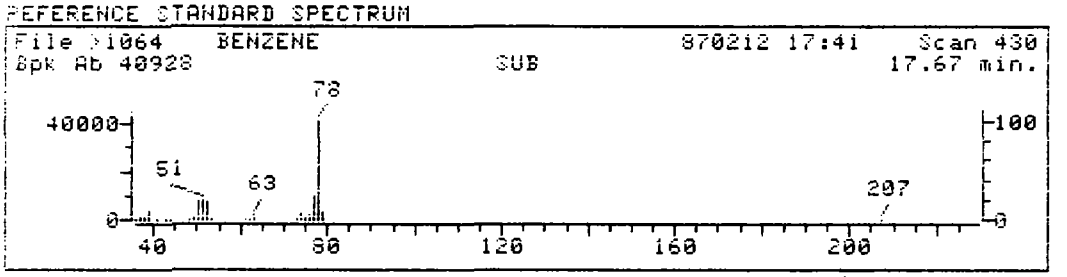
SAMPLE SPECTRUM (UNALTERED)



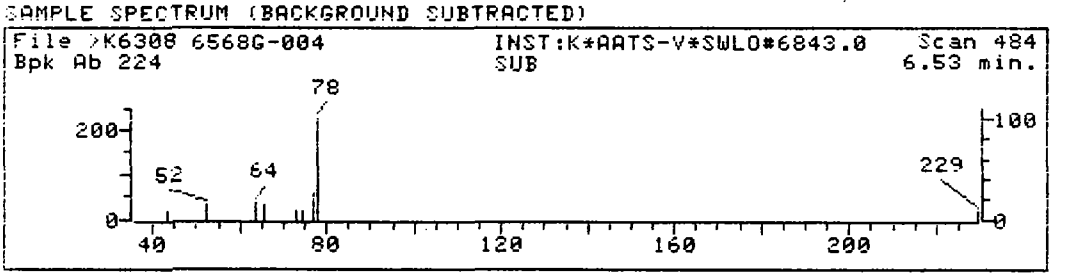
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWLO#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 19
Compound Name: C115 1,1,1-TRICHLOROETHANE
Scan Number: 438
Retention Time: 6.08 min.
Quant Ion: 96.9
Area: 4412
Concentration: 3.59 ng/mL
q-value: 95

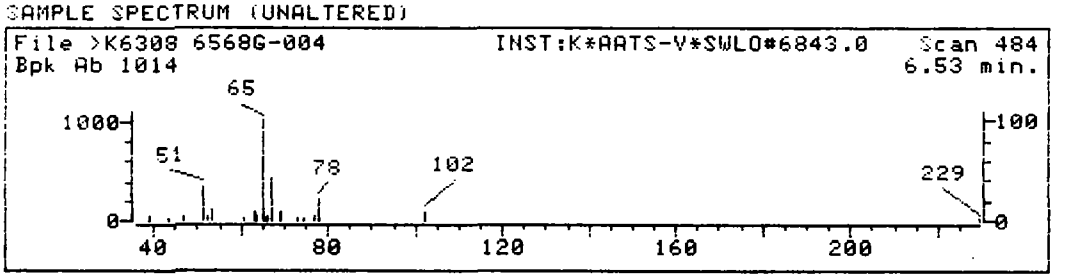
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



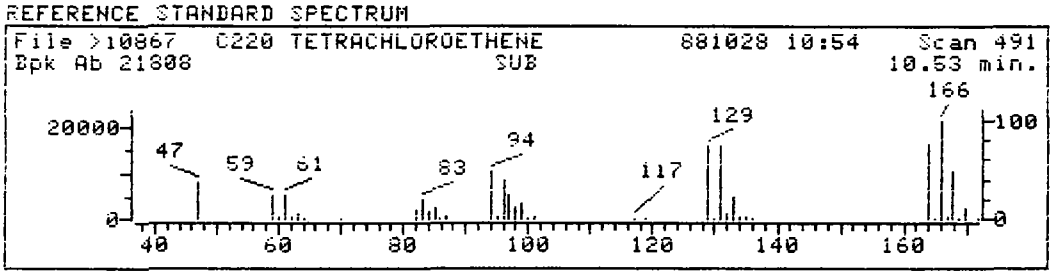
SAMPLE SPECTRUM (UNALTERED)



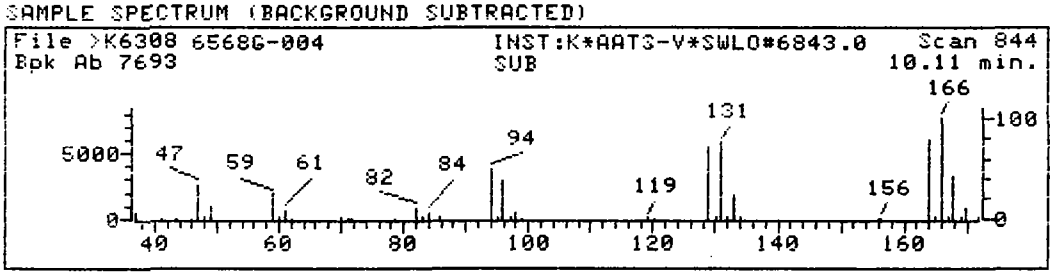
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWLO#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 28
Compound Name: C165 BENZENE
Scan Number: 484
Retention Time: 6.53 min.
Quant Ion: 78.0
Area: 597
Concentration: .49 ng/mL
q-value: 65

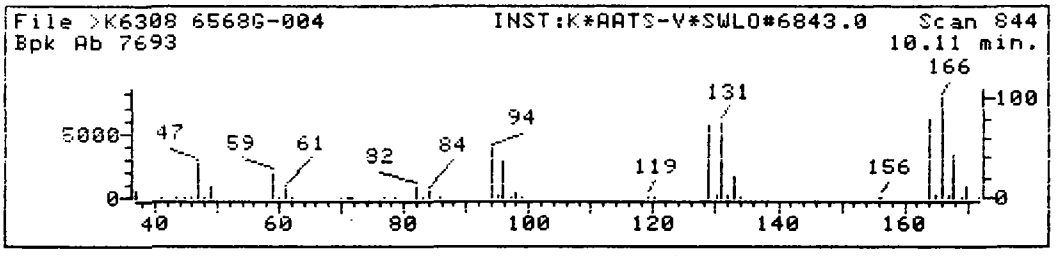
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



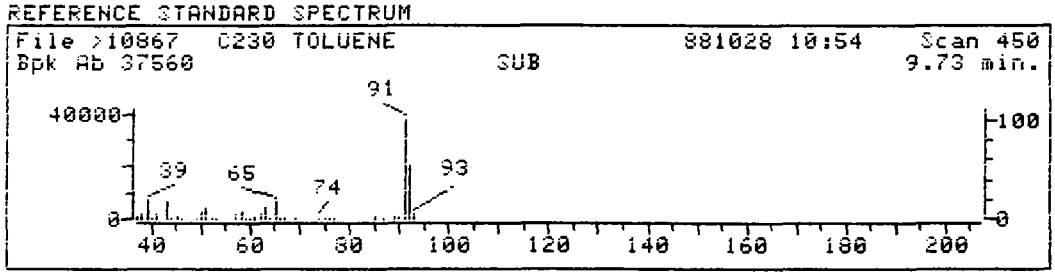
SAMPLE SPECTRUM (UNALTERED)



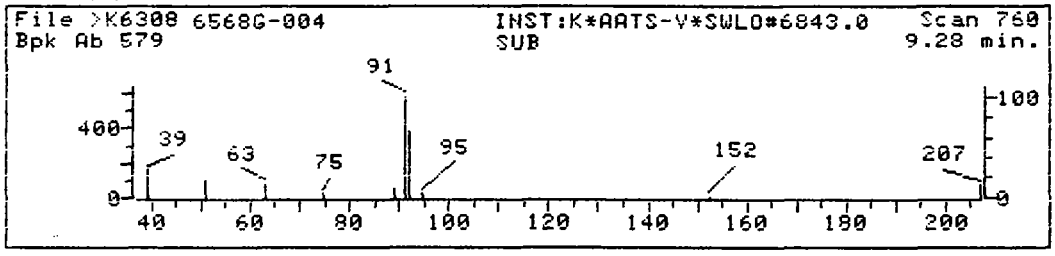
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWLO#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 35
Compound Name: C220 TETRACHLOROETHENE
Scan Number: 844
Retention Time: 10.11 min.
Quant Ion: 164.0
Area: 26519
Concentration: 44.14 ng/mL
q-value: 94

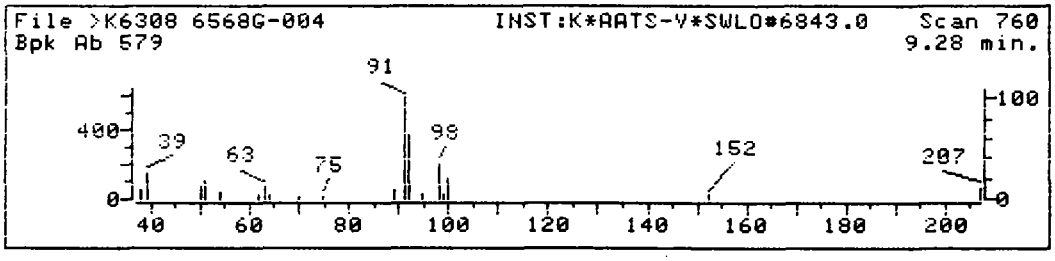
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



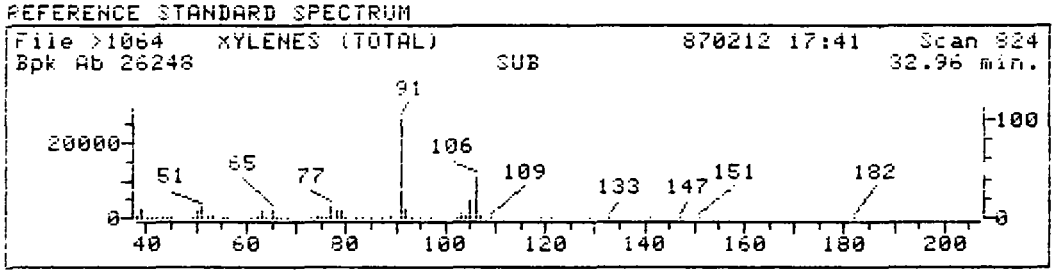
SAMPLE SPECTRUM (UNALTERED)



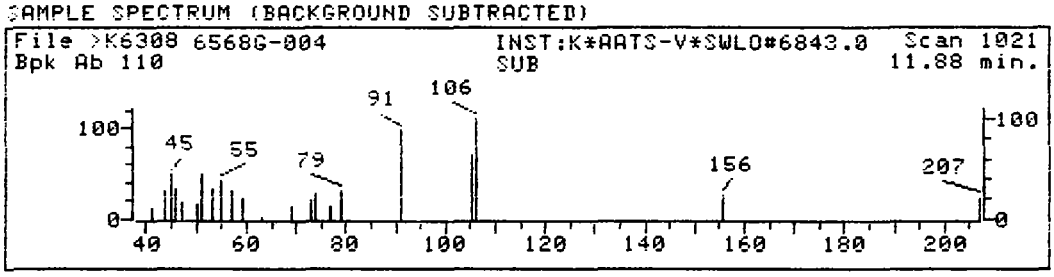
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWLO#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 37
Compound Name: C230 TOLUENE
Scan Number: 760
Retention Time: 9.28 min.
Quant Ion: 92.0
Area: 1495
Concentration: 1.99 ng/mL
q-value: 77

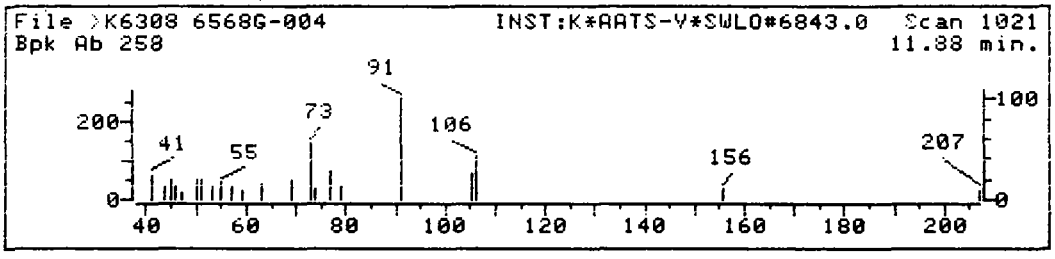
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



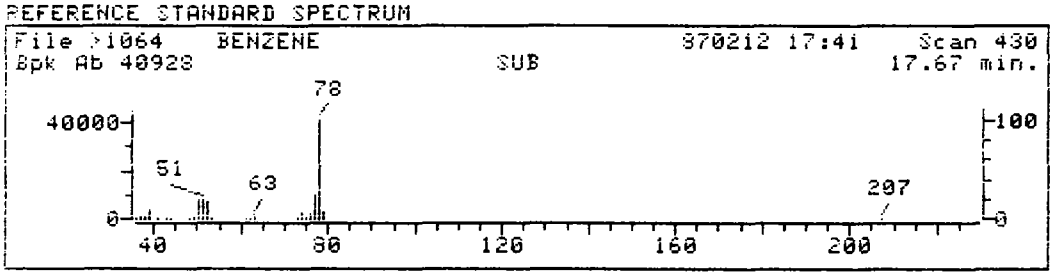
SAMPLE SPECTRUM (UNALTERED)



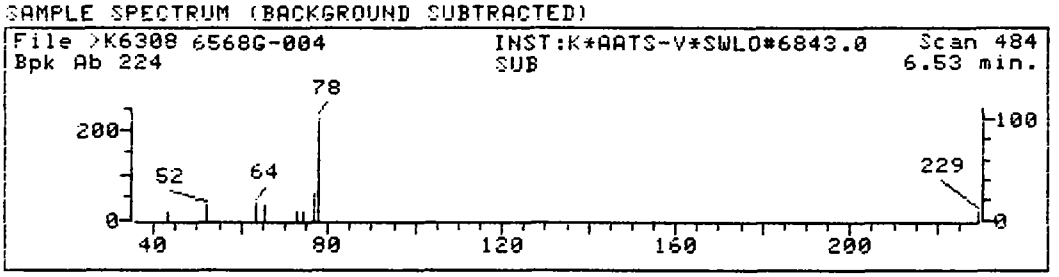
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWLO#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 42
Compound Name: C299 m,p-XYLENES
Scan Number: 1021
Retention Time: 11.88 min.
Quant Ion: 106.0
Area: 407
Concentration: .64 ng/mL
q-value: 64

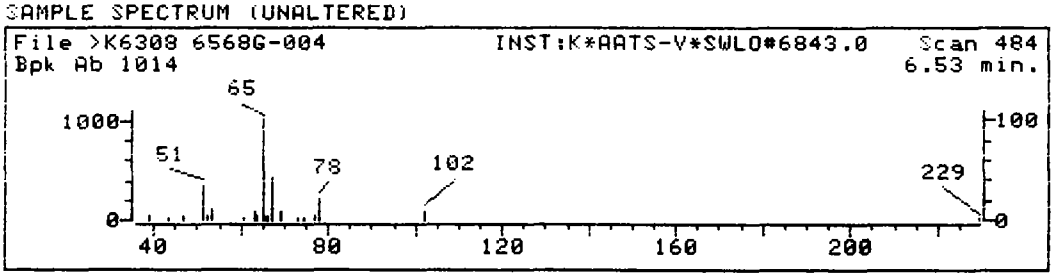
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



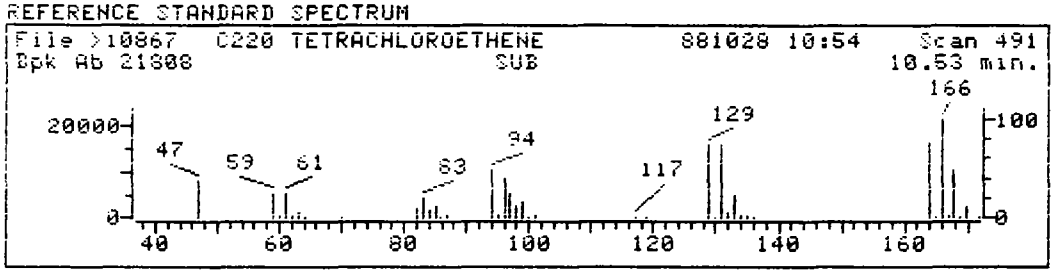
SAMPLE SPECTRUM (UNALTERED)



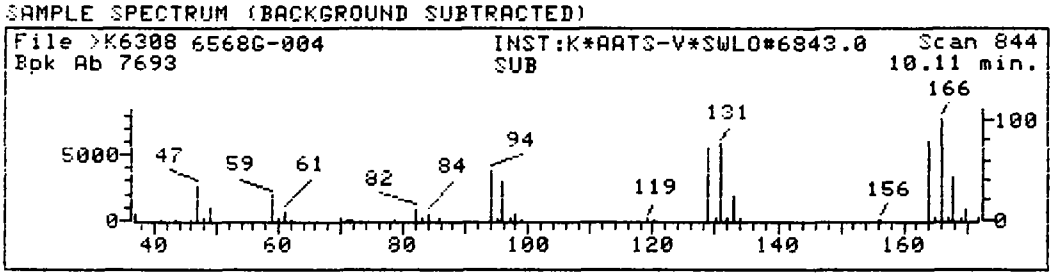
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWLO#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 28
Compound Name: C165 BENZENE
Scan Number: 484
Retention Time: 6.53 min.
Quant Ion: 78.0
Area: 597
Concentration: .49 ng/mL
q-value: 65

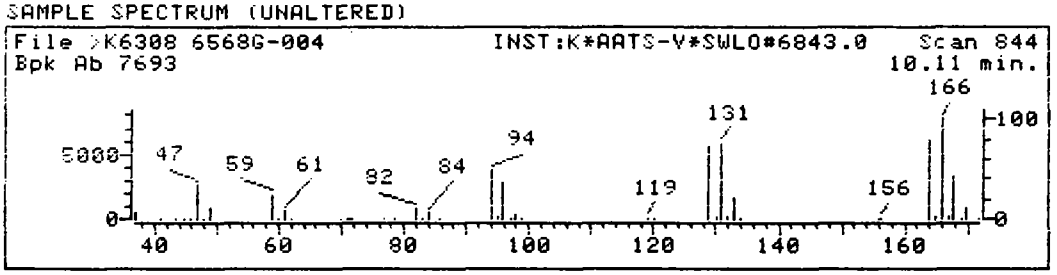
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



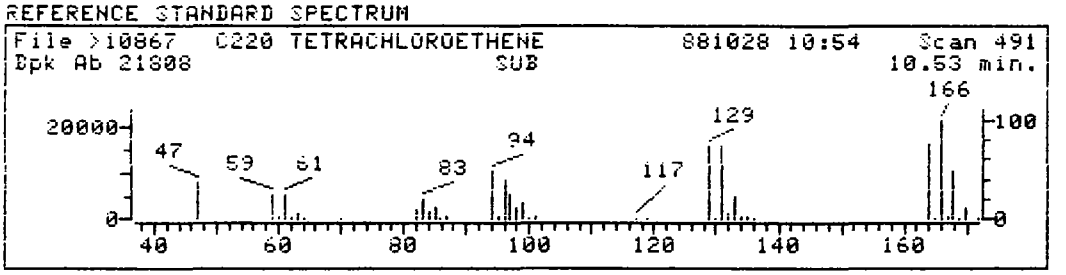
SAMPLE SPECTRUM (UNALTERED)



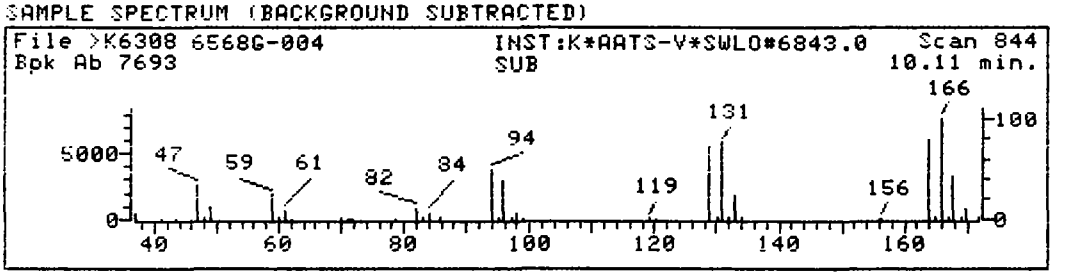
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWLO#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 35
Compound Name: C220 TETRACHLOROETHENE
Scan Number: 844
Retention Time: 10.11 min.
Quant Ion: 164.0
Area: 26519
Concentration: 44.14 ng/mL
q-value: 94

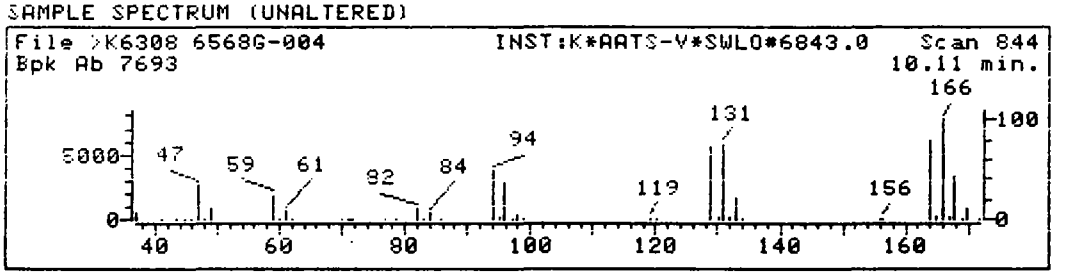
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



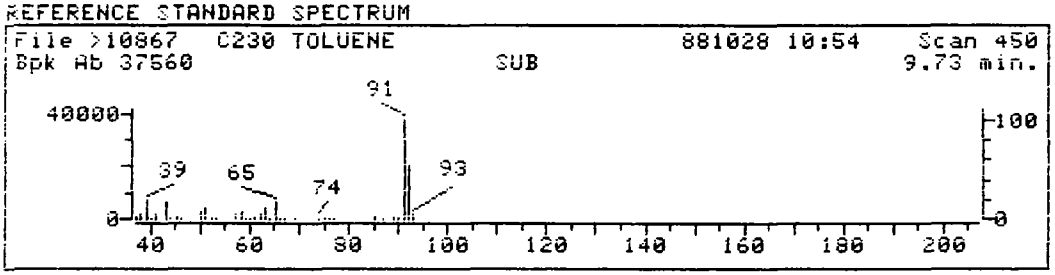
SAMPLE SPECTRUM (UNALTERED)



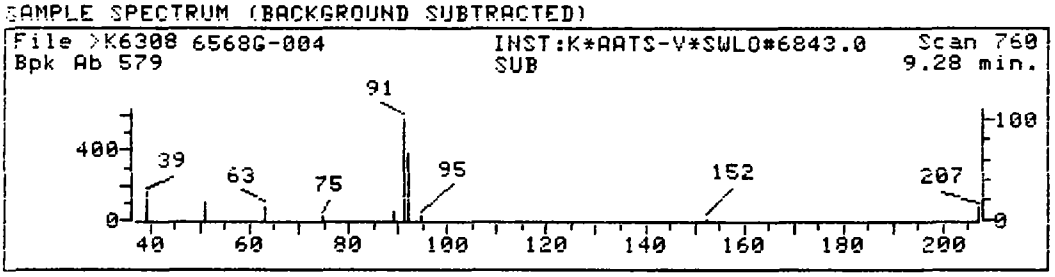
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWL0#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 35
Compound Name: C220 TETRACHLOROETHENE
Scan Number: 844
Retention Time: 10.11 min.
Quant Ion: 164.0
Area: 26519
Concentration: 44.14 ng/mL
q-value: 94

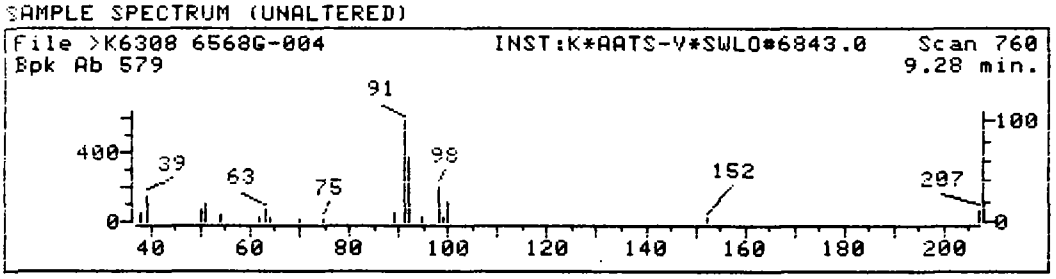
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



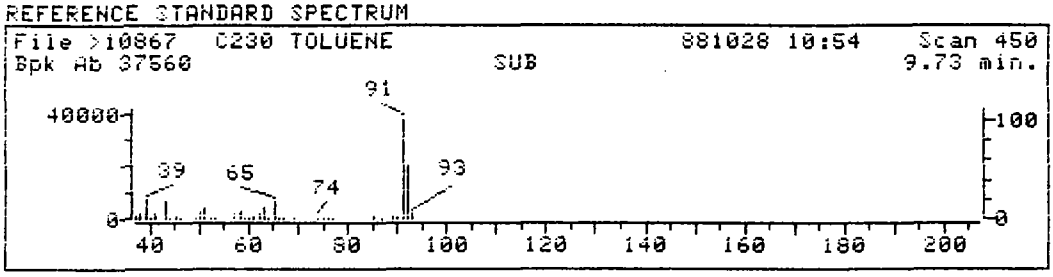
SAMPLE SPECTRUM (UNALTERED)



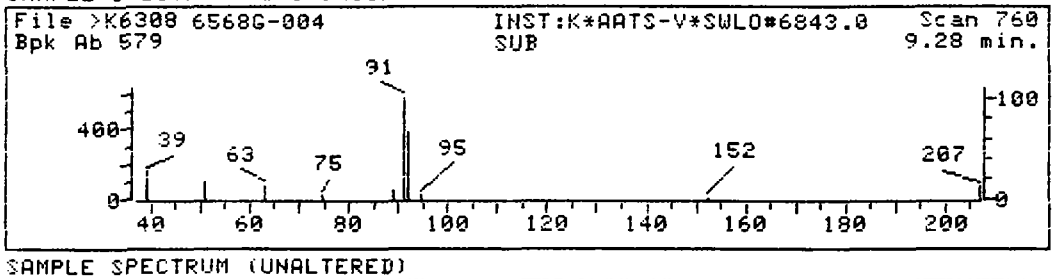
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWL0#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 37
Compound Name: C230 TOLUENE
Scan Number: 760
Retention Time: 9.28 min.
Quant Ion: 92.0
Area: 1495
Concentration: 1.99 ng/mL
q-value: 77

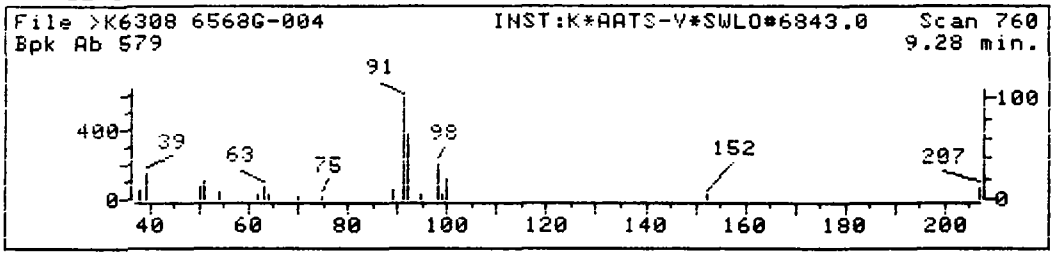
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



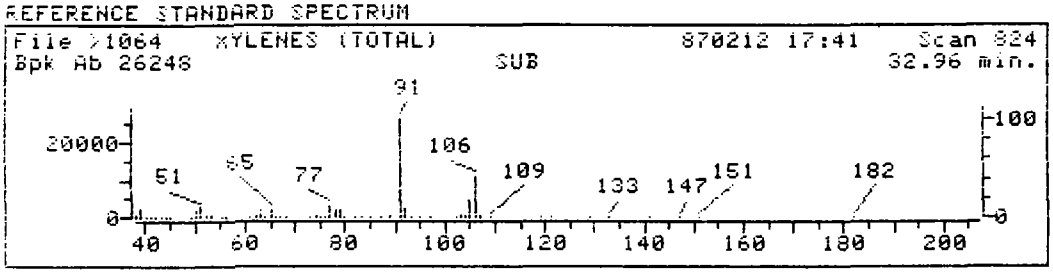
SAMPLE SPECTRUM (UNALTERED)



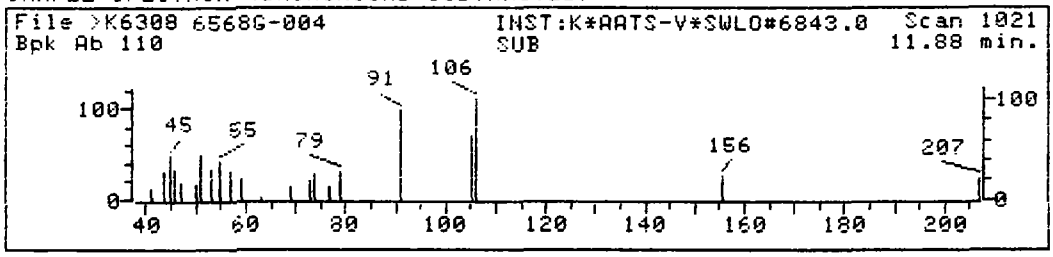
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWLO#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 37
Compound Name: C230 TOLUENE
Scan Number: 760
Retention Time: 9.28 min.
Quant Ion: 92.0
Area: 1495
Concentration: 1.99 ng/mL
q-value: 77

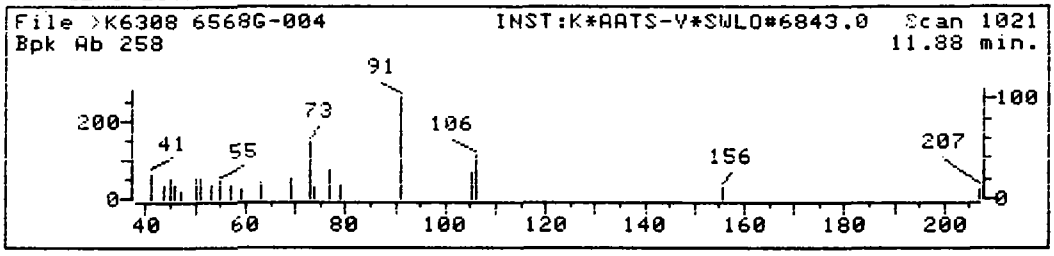
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



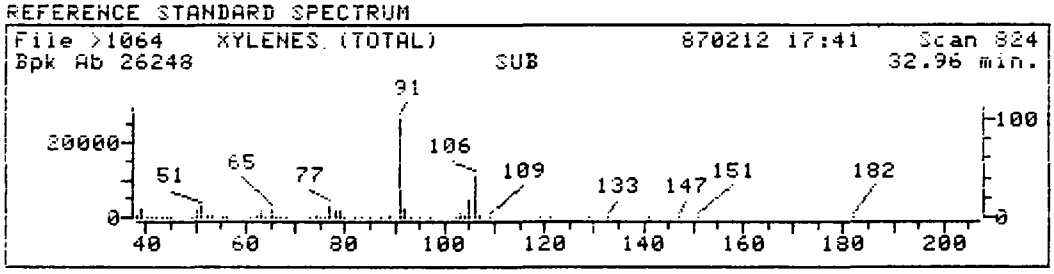
SAMPLE SPECTRUM (UNALTERED)



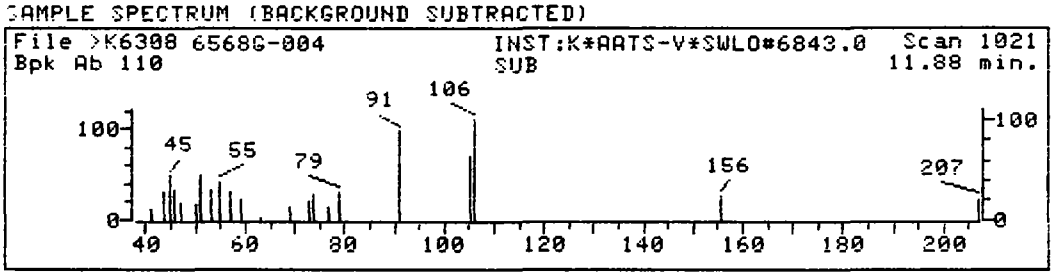
Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWL0#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 42
Compound Name: C299 m,p-XYLENES
Scan Number: 1021
Retention Time: 11.88 min.
Quant Ion: 106.0
Area: 407
Concentration: .64 ng/mL
q-value: 64

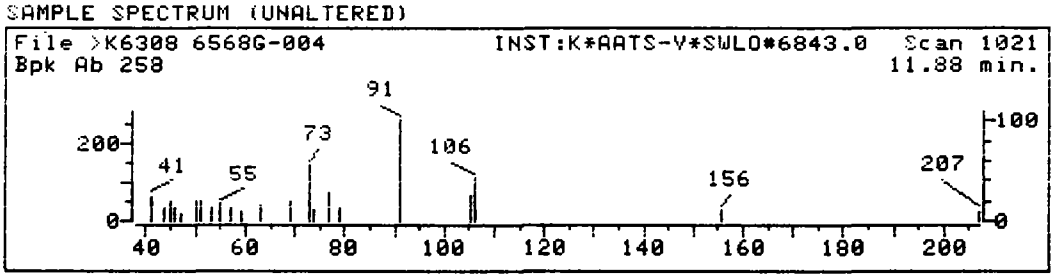
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6308::L2 Quant Output File: ^K6308::D6
Name: 6568G-004
Misc: INST:K*AATS-V*SWLO#6843.04*5GM*C#(6568G)
Quant Time: 910807 16:52 Quant ID File: IDV023::EX
Injected at: 910807 16:28 Last Calibration: 910807 11:06

Compound No: 42
Compound Name: C299 m,p-XYLENES
Scan Number: 1021
Retention Time: 11.88 min.
Quant Ion: 106.0
Area: 407
Concentration: .64 ng/mL
q-value: 64

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-005

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684305

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6338

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 11 Date Analyzed: 08/09/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	4	J
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	1	BJ
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	12	
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	1	J
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	15	
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	3	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	1	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: 6568G-005

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684305

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6338

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 11 Date Analyzed: 08/09/91

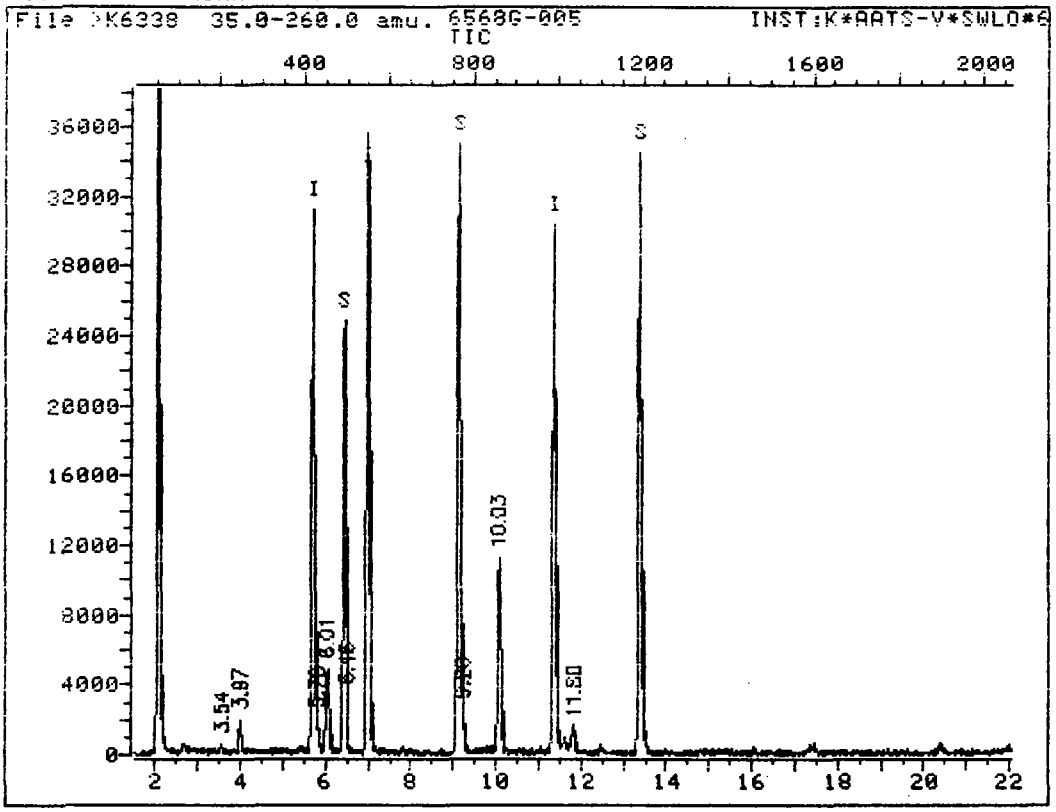
Column (pack/cap) CAP Dilution Factor: 1.0

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: >K6338::D7 Quant Output File: ^K6338::D6
Name: 6568G-005
Misc: INST:K*AATS-V*SWLO#6843.05*5GM*C#(6568G)

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 15:52

Operator ID: DEBBIE
Quant Time: 910809 17:35
Injected at: 910809 17:12

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910809 17:35
Output File: ^K6338::D6 Injected at: 910809 17:12
Data File: >K6338::D7 Dilution Factor: 1.00000
Name: 6568G-005
Misc: INST:K*AATS-V*SWLO#6843.05*5GM*C#(6568G)

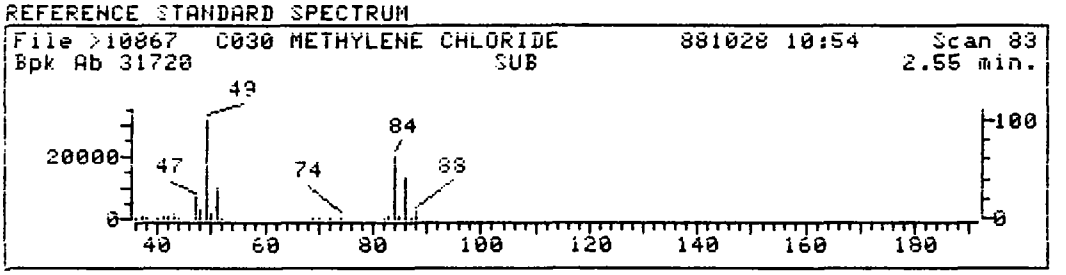
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 15:52

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.67	128.0	18245	50.00	ng/mL	86
6)	C030 METHYLENE CHLORIDE	3.97	84.0	1472	3.02	ng/mL	76
7)	C035 ACETONE	3.54	43.0	1102	4.00	ng/mL	100
14)	C060 CHLOROFORM	5.78	83.0	1780	1.08	ng/mL	78
17)	CS15 1,2-DICHLOROETHANE-D4	6.40	65.1	50533	45.65	ng/mL	87
18)	*CI10 1,4-DIFLUOROBENZENE	6.97	114.0	59567M	50.00	ng/mL	91
19)	C115 1,1,1-TRICHLOROETHANE	6.01	96.9	8421	6.40	ng/mL	89
~~26)~~	~~C155 DIBROMOCHLOROMETHANE~~	~~10.03~~	~~129.0~~	~~6265~~	~~5.78~~	~~ng/mL~~ FP	100
28)	C165 BENZENE	6.46	78.0	778	.77	ng/mL	94
32)	*CI20 CHLOROBENZENE-D5	11.36	117.0	35478	50.00	ng/mL	91
35)	C220 TETRACHLOROETHENE	10.03	164.0	6560	13.18	ng/mL	91
7)	C230 TOLUENE	9.20	92.0	1641	2.95	ng/mL	74
~~41)~~	~~C250 o-XYLENE~~	~~11.80~~	~~106.0~~	~~623~~	~~1.10~~	~~ng/mL~~ FP	93
42)	C299 m,p-XYLENES	11.80	106.0	623	1.32	ng/mL	93
46)	CS05 TOLUENE-D8	9.10	98.0	57835	58.24	ng/mL	90
47)	CS10 BROMOFLUOROBENZENE	13.33	95.0	30362	38.28	ng/mL	96

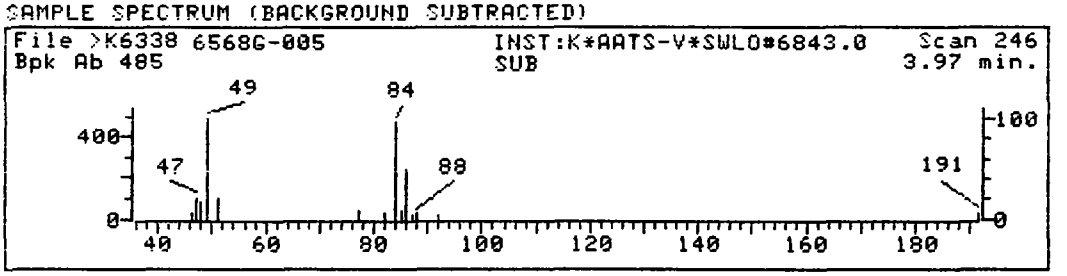
* Compound is ISTD

FP = false positive

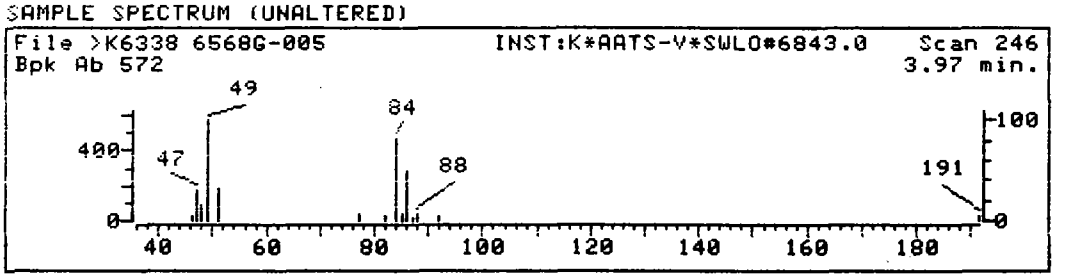
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



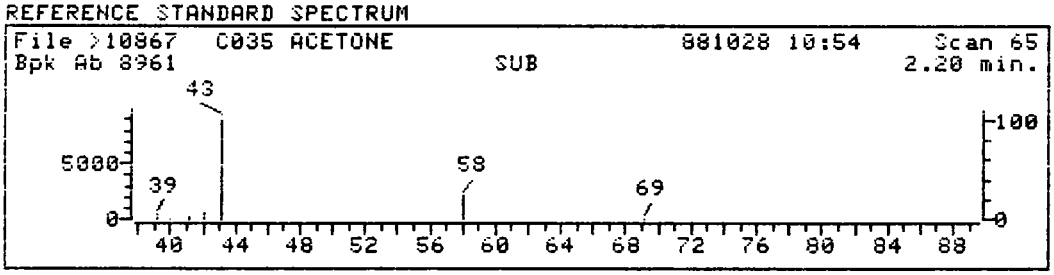
SAMPLE SPECTRUM (UNALTERED)



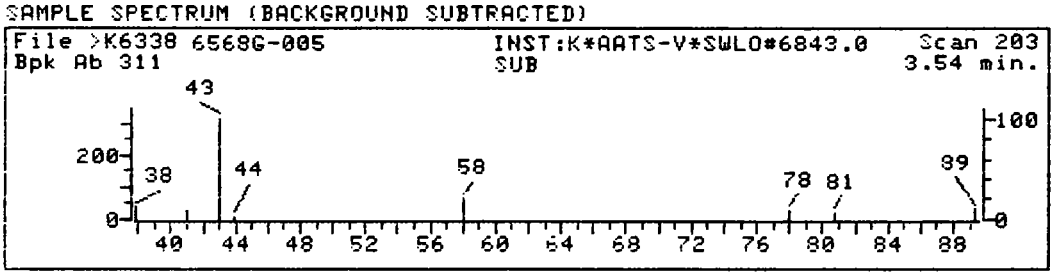
Data File: >K6338::D7 Quant Output File: ^K6338::D6
Name: 6568G-005
Misc: INST:K*AATS-V*SWLO#6843.05*5GM*C#(6568G)
Quant Time: 910809 17:35 Quant ID File: IDV023::EX
Injected at: 910809 17:12 Last Calibration: 910809 15:52

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 246
Retention Time: 3.97 min.
Quant Ion: 84.0
Area: 1472
Concentration: 3.02 ng/mL
q-value: 76

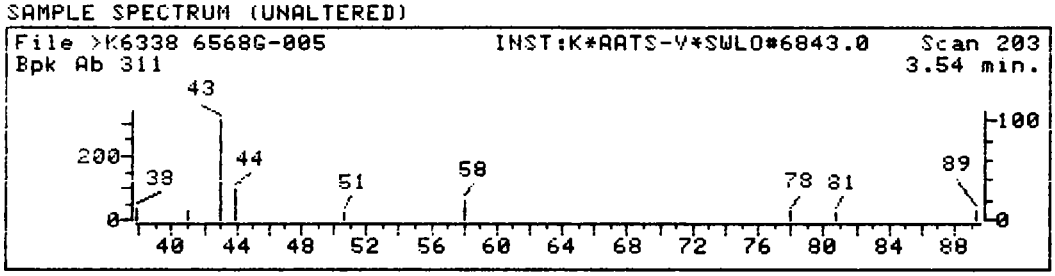
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



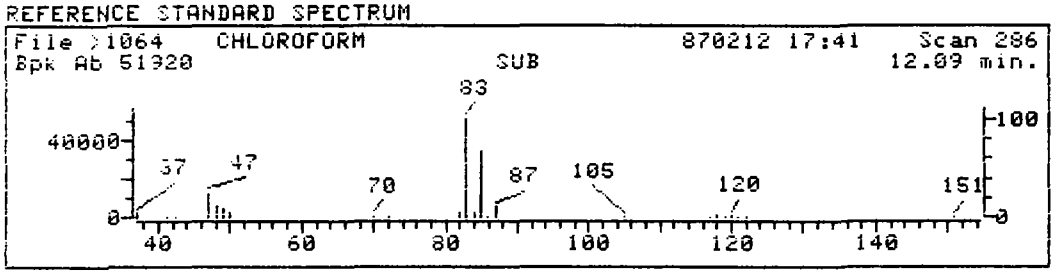
SAMPLE SPECTRUM (UNALTERED)



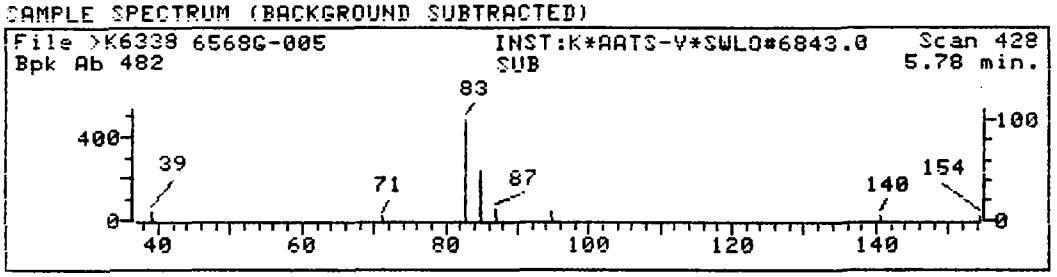
Data File: >K6338::D7 Quant Output File: ^K6338::D6
Name: 6568G-005
Misc: INST:K*AATS-V*SWLO#6843.05*5GM*C#(6568G)
Quant Time: 910809 17:35 Quant ID File: IDV023::EX
Injected at: 910809 17:12 Last Calibration: 910809 15:52

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 203
Retention Time: 3.54 min.
Quant Ion: 43.0
Area: 1102
Concentration: 4.00 ng/mL
q-value: 100

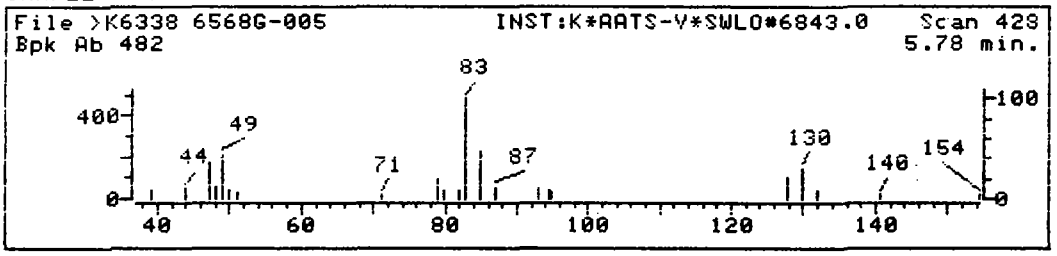
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



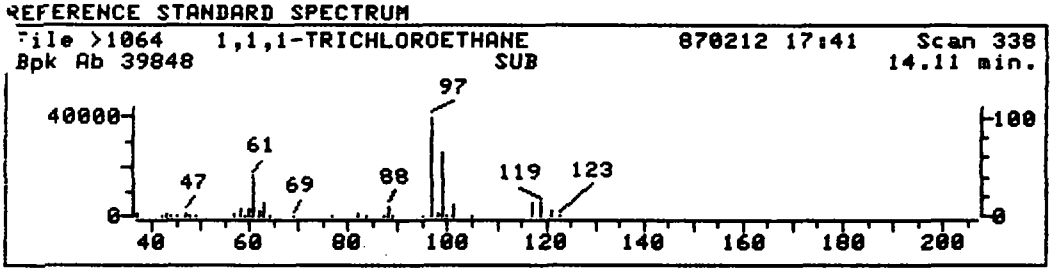
SAMPLE SPECTRUM (UNALTERED)



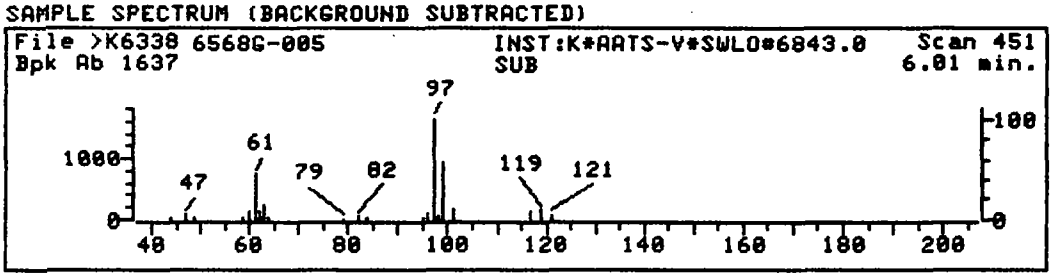
Data File: >K6338::D7 Quant Output File: ^K6338::D6
Name: 6568G-005
Misc: INST:K*AATS-V*SWL0#6843.05*5GM*C#(6568G)
Quant Time: 910809 17:35 Quant ID File: IDV023::EX
Injected at: 910809 17:12 Last Calibration: 910809 15:52

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 428
Retention Time: 5.78 min.
Quant Ion: 83.0
Area: 1780
Concentration: 1.08 ng/mL
q-value: 78

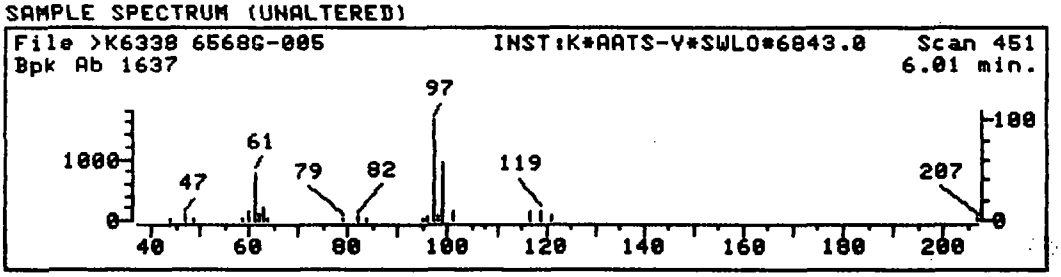
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



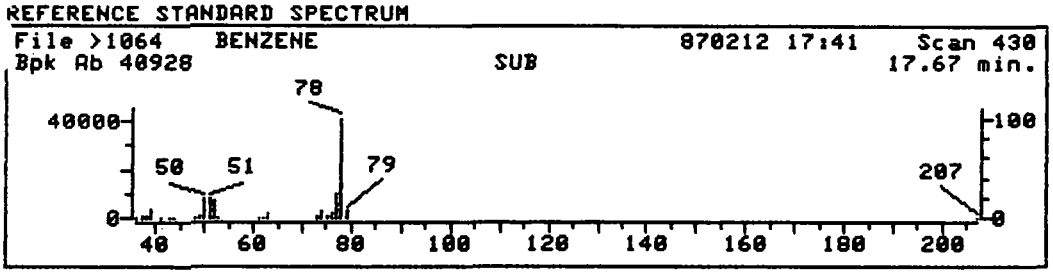
SAMPLE SPECTRUM (UNALTERED)



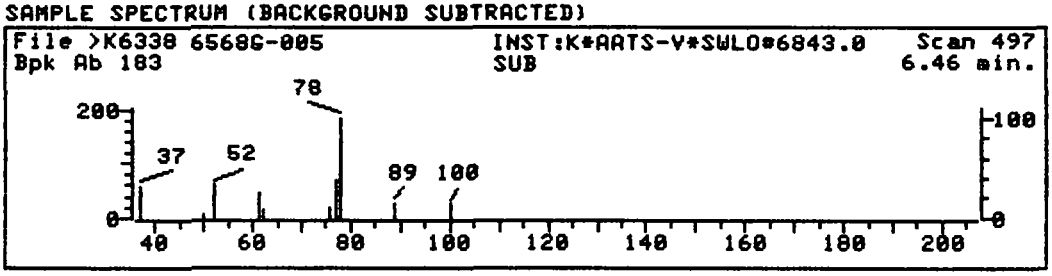
Data File: >K6338::D7 Quant Output File: ^K6338::D6
Name: 6568G-005
Misc: INST:K*AATS-V*SWLO#6843.05*5GM*C#(6568G)
Quant Time: 910809 17:35 Quant ID File: IDV023::EX
Injected at: 910809 17:12 Last Calibration: 910809 15:52

Compound No: 19
Compound Name: C115 1,1,1-TRICHLOROETHANE
Scan Number: 451
Retention Time: 6.01 min.
Quant Ion: 96.9
Area: 8421
Concentration: 6.40 ng/mL
q-value: 89

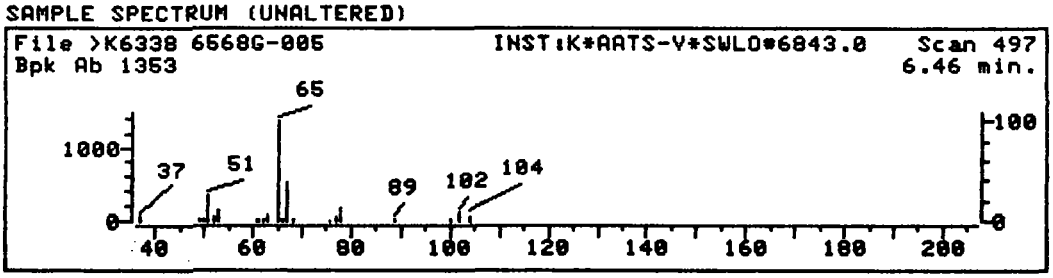
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



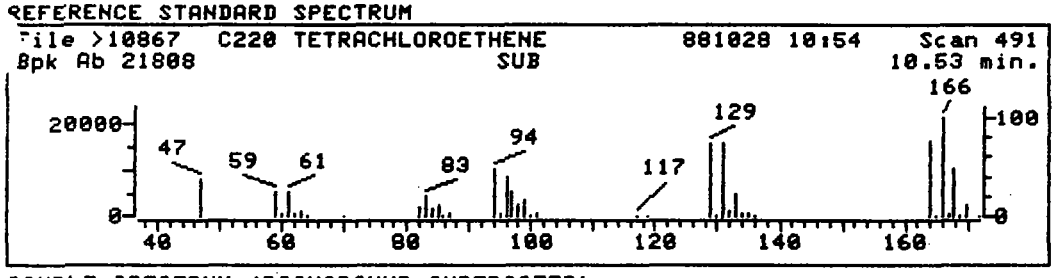
SAMPLE SPECTRUM (UNALTERED)



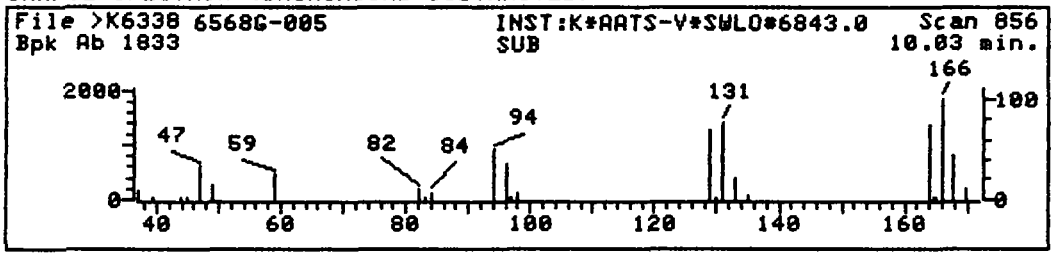
Data File: >K6338::D7 Quant Output File: ^K6338::D6
Name: 6568G-005
Misc: INST:K*AATS-V*SWLO#6843.05*5GM*C#(6568G)
Quant Time: 910809 17:35 Quant ID File: IDV023::EX
Injected at: 910809 17:12 Last Calibration: 910809 15:52

Compound No: 28
Compound Name: C165 BENZENE
Scan Number: 497
Retention Time: 6.46 min.
Quant Ion: 78.0
Area: 778
Concentration: .77 ng/mL
q-value: 94

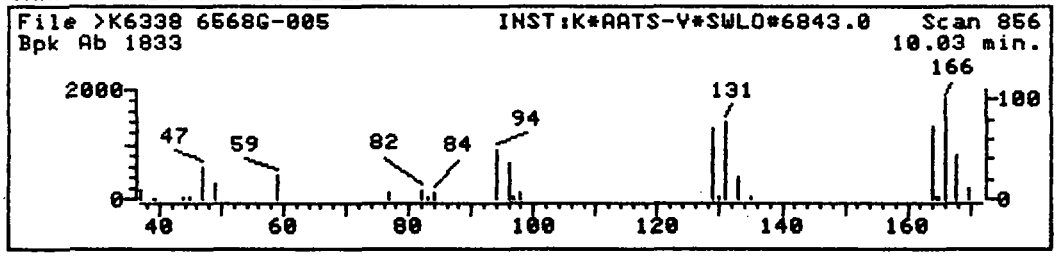
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



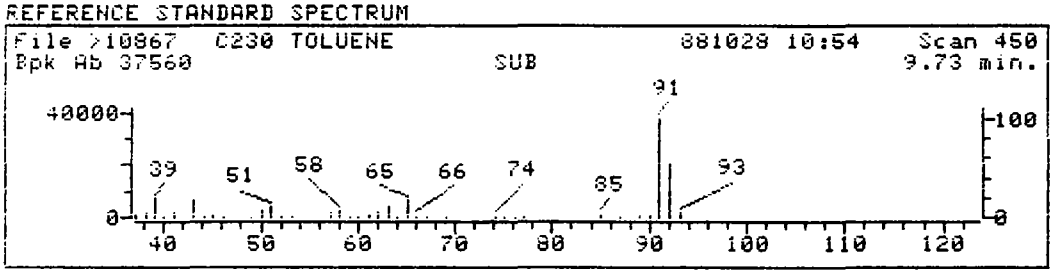
SAMPLE SPECTRUM (UNALTERED)



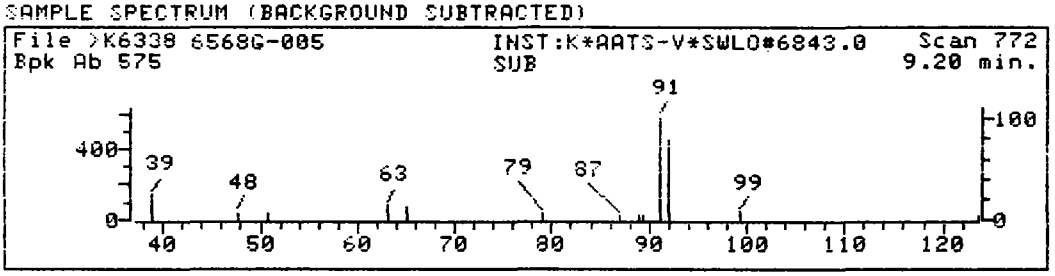
Data File: >K6338::D7 Quant Output File: ^K6338::D6
Name: 6568G-005
Misc: INST:K*AATS-V*SWLO#6843.05*5GM*C#(6568G)
Quant Time: 910809 17:35 Quant ID File: IDV023::EX
Injected at: 910809 17:12 Last Calibration: 910809 15:52

Compound No: 35
Compound Name: C220 TETRACHLOROETHENE
Scan Number: 856
Retention Time: 10.03 min.
Quant Ion: 164.0
Area: 6560
Concentration: 13.18 ng/mL
q-value: 91

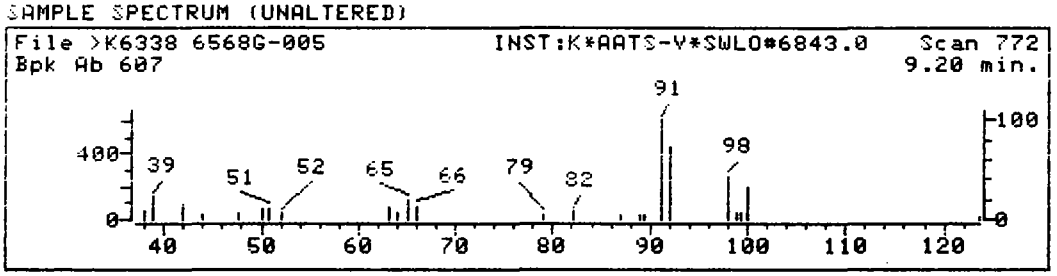
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



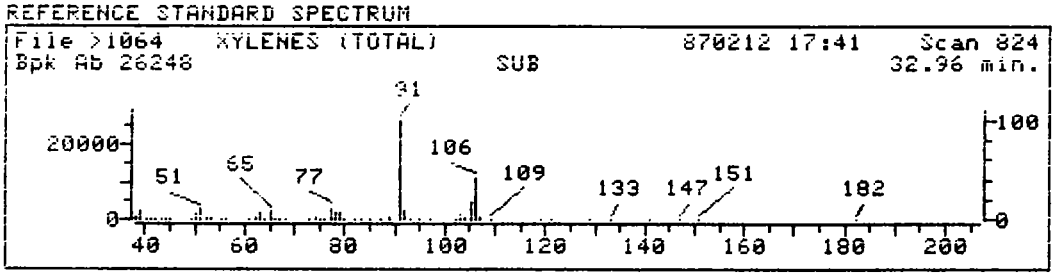
SAMPLE SPECTRUM (UNALTERED)



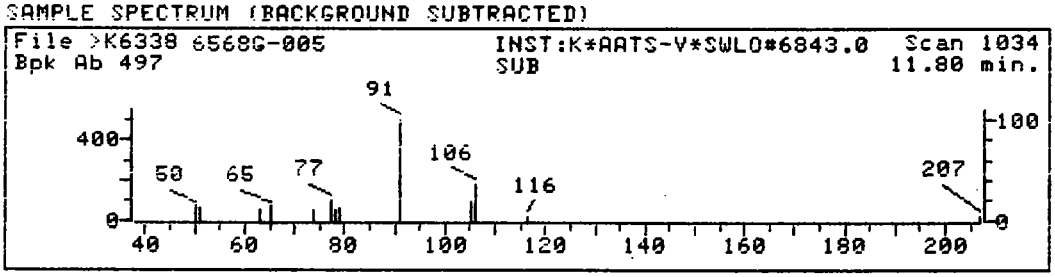
Data File: >K6338::D7 Quant Output File: ^K6338::D6
Name: 6568G-005
Misc: INST:K*AATS-V*SWLO#6843.05*5GM*C#(6568G)
Quant Time: 910809 17:35 Quant ID File: IDV023::EX
Injected at: 910809 17:12 Last Calibration: 910809 15:52

Compound No: 37
Compound Name: C230 TOLUENE
Scan Number: 772
Retention Time: 9.20 min.
Quant Ion: 92.0
Area: 1641
Concentration: 2.95 ng/mL
q-value: 74

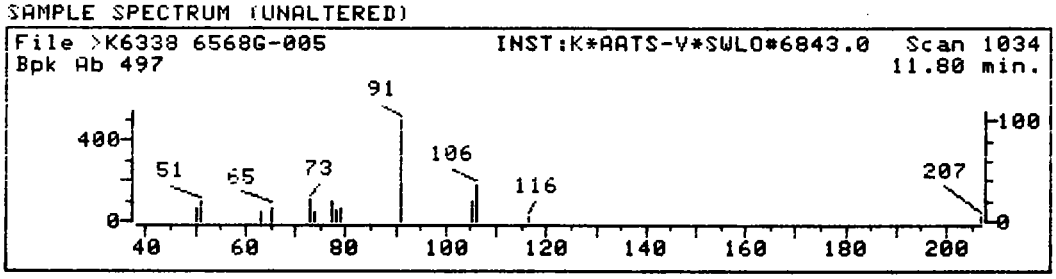
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6338::D7 Quant Output File: ^K6338::D6
Name: 6568G-005
Misc: INST:K*AATS-V*SWLO#6843.05*5GM*C#(6568G)
Quant Time: 910809 17:35 Quant ID File: IDV023::EX
Injected at: 910809 17:12 Last Calibration: 910809 15:52

Compound No: 42
Compound Name: C299 m,p-XYLENES
Scan Number: 1034
Retention Time: 11.80 min.
Quant Ion: 106.0
Area: 623
Concentration: 1.32 ng/mL
q-value: 93

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: 6568G-006

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684306

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6310

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 16 Date Analyzed: 08/07/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	14	
67-64-1	Acetone	11	BJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	1	BJ
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	4	J
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	13	
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-006

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684306

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6310

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 16 Date Analyzed: 08/07/91

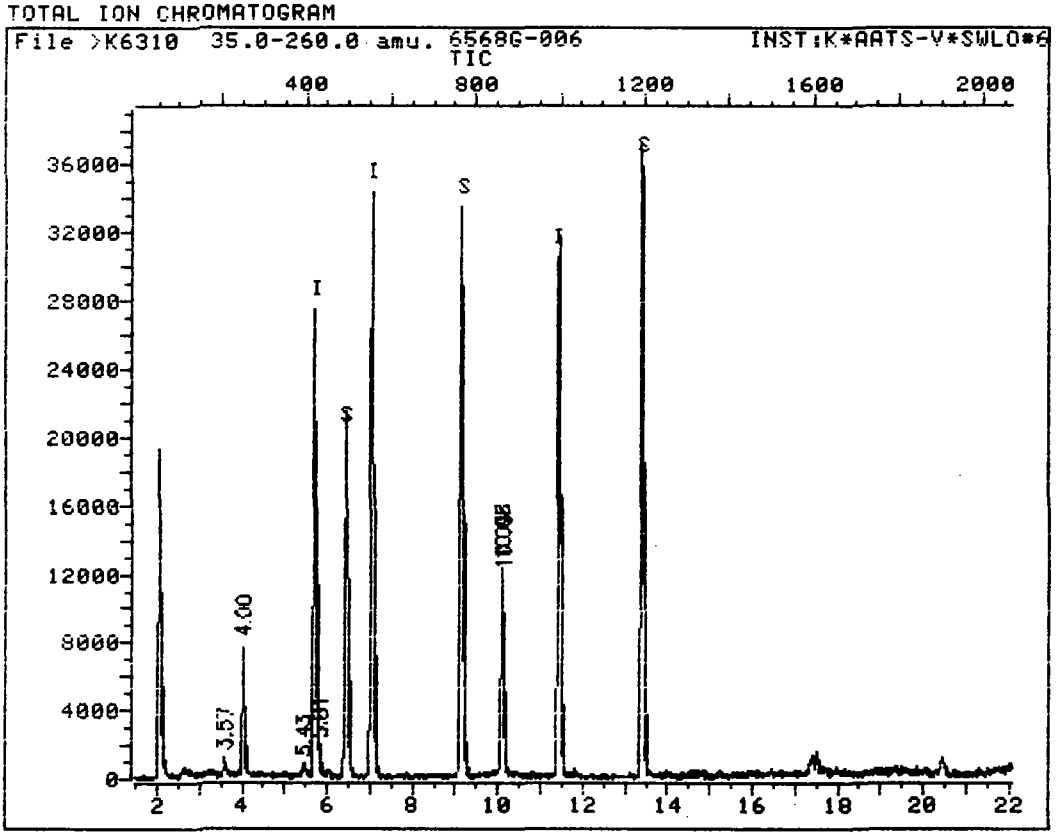
Column (pack/cap) CAP Dilution Factor: 1.0

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: >K6310::L2 Quant Output File: ^K6310::D6
Name: 6568G-006
Misc: INST:K*AATS-V*SWLO#6843.06*5GM*C#(6568G)

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

Operator ID: DEBBIE
Quant Time: 910807 17:46
Injected at: 910807 17:21

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910807 17:46
Output File: ^K6310::D6 Injected at: 910807 17:21
Data File: >K6310::L2 Dilution Factor: 1.00000
Name: 6568G-006
Misc: INST:K*AATS-V*SWL0#6843.06*5GM*C#(6568G)

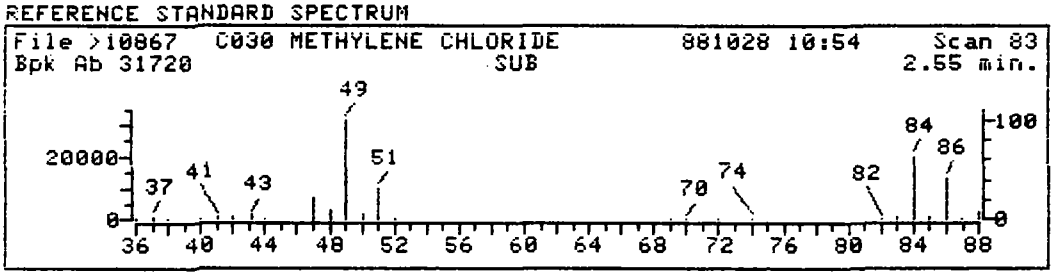
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.70	128.0	15956	50.00	ng/mL	90
6)	C030 METHYLENE CHLORIDE	4.00	84.0	5810	11.93	ng/mL	85
7)	C035 ACETONE	3.57	43.0	2346	9.50	ng/mL	100
14)	C060 CHLOROFORM	5.81	83.0	1450	.96	ng/mL	72
16)	C110 2-BUTANONE	5.43	72.0	248	3.65	ng/mL	67
17)	CS15 1,2-DICHLOROETHANE-D4	6.42	65.1	44499	53.22	ng/mL	82
18)	*CI10 1,4-DIFLUOROBENZENE	7.03	114.0	52870	50.00	ng/mL	96
~~26)~~	~~C155 DIBROMOCHLOROMETHANE~~	~~10.08~~	~~129.0~~	~~6558~~	~~6.05~~	~~ng/mL~~	~~100~~
32)	*CI20 CHLOROBENZENE-D5	11.38	117.0	37623	50.00	ng/mL	95
35)	C220 TETRACHLOROETHENE	10.09	164.0	6463	11.28	ng/mL	91
46)	CS05 TOLUENE-D8	9.14	98.0	54569	53.38	ng/mL	85
47)	CS10 BROMOFLUOROBENZENE	13.38	95.0	30721	41.73	ng/mL	97

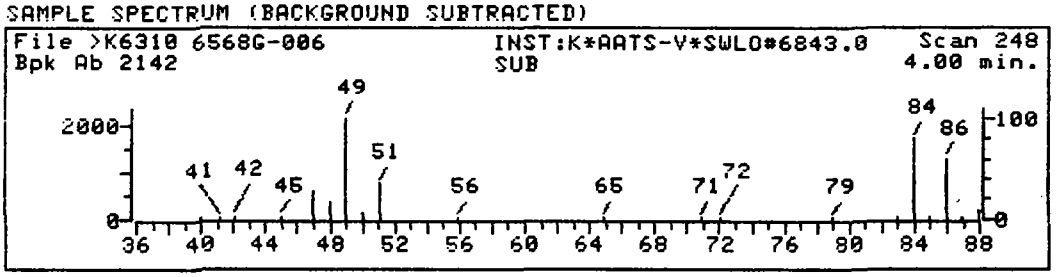
* Compound is ISTD

FP = FALSE POSITIVE

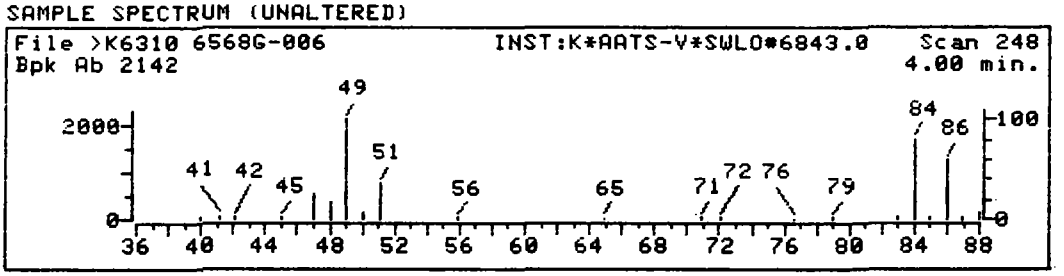
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



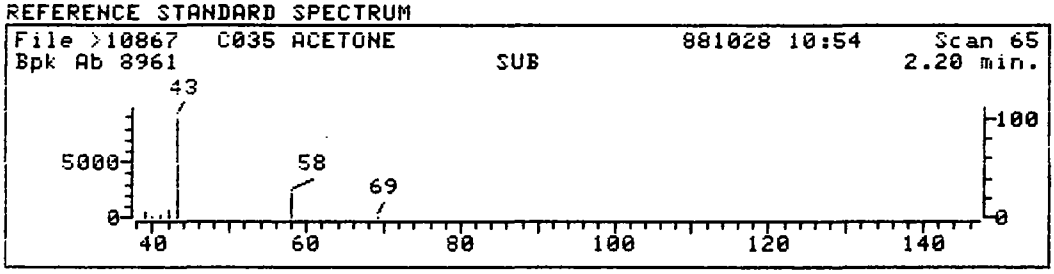
SAMPLE SPECTRUM (UNALTERED)



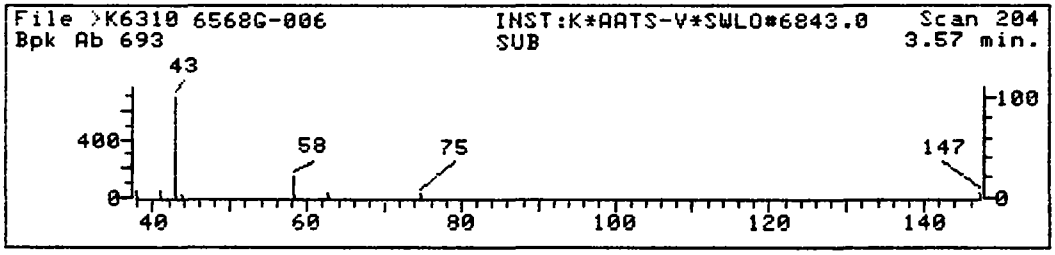
Data File: >K6310::L2 Quant Output File: ^K6310::D6
Name: 6568G-006
Misc: INST:K*AATS-V*SWLO#6843.06*5GM*C#(6568G)
Quant Time: 910807 17:46 Quant ID File: IDV023::EX
Injected at: 910807 17:21 Last Calibration: 910807 11:06

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 248
Retention Time: 4.00 min.
Quant Ion: 84.0
Area: 5810
Concentration: 11.93 ng/mL
q-value: 85

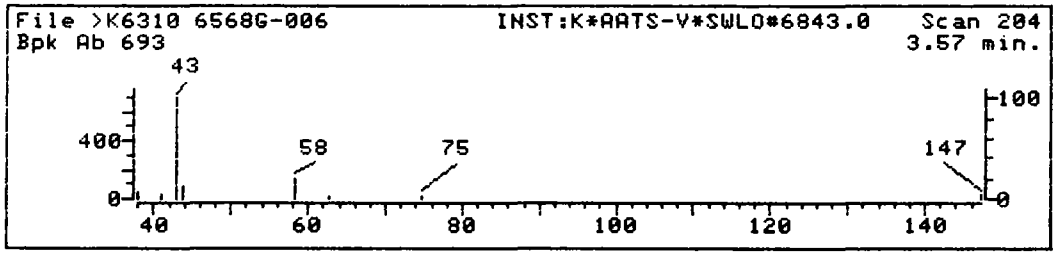
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



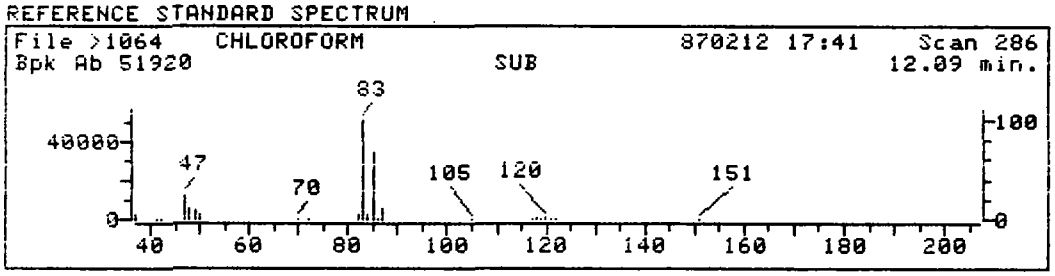
SAMPLE SPECTRUM (UNALTERED)



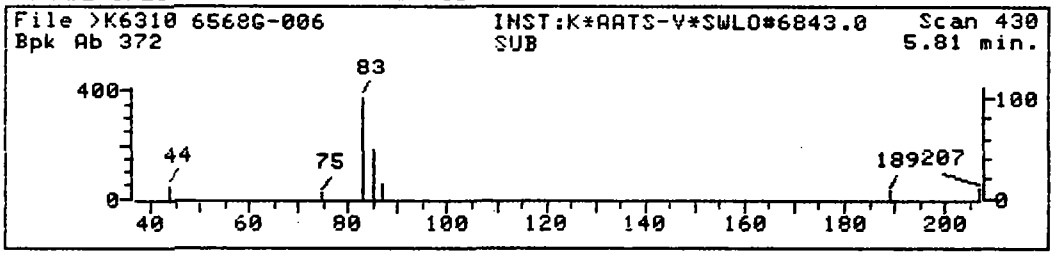
Data File: >K6310::L2 Quant Output File: ^K6310::D6
Name: 6568G-006
Misc: INST:K*AATS-V*SWL0#6843.06*5GM*C#(6568G)
Quant Time: 910807 17:46 Quant ID File: IDV023::EX
Injected at: 910807 17:21 Last Calibration: 910807 11:06

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 204
Retention Time: 3.57 min.
Quant Ion: 43.0
Area: 2346
Concentration: 9.50 ng/mL
q-value: 100

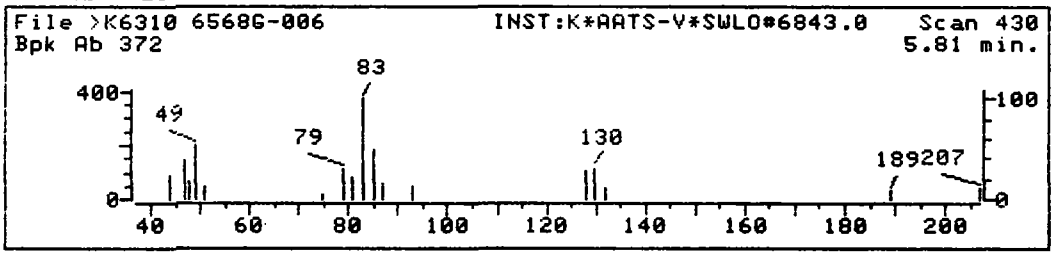
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



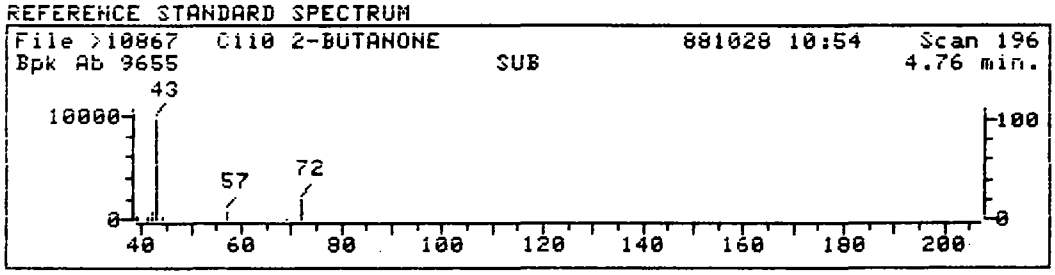
SAMPLE SPECTRUM (UNALTERED)



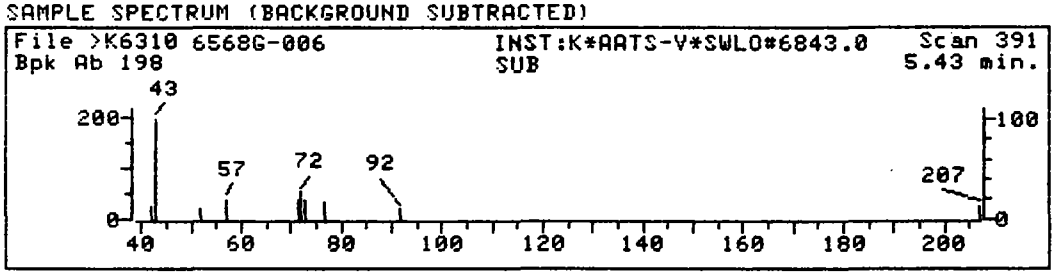
Data File: >K6310::L2 Quant Output File: ^K6310::D6
Name: 6568G-006
Misc: INST:K*AATS-V*SWL0#6843.06*5GM*C#(6568G)
Quant Time: 910807 17:46 Quant ID File: IDV023::EX
Injected at: 910807 17:21 Last Calibration: 910807 11:06

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 430
Retention Time: 5.81 min.
Quant Ion: 83.0
Area: 1450
Concentration: .96 ng/mL
q-value: 72

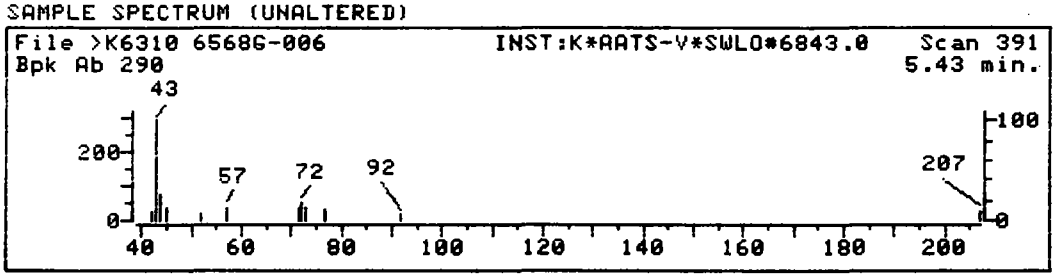
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



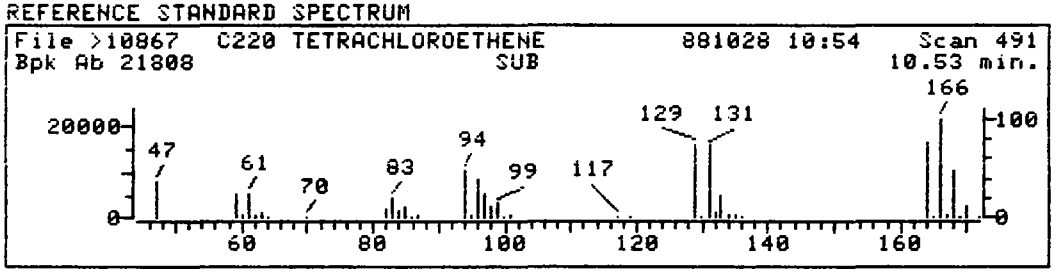
SAMPLE SPECTRUM (UNALTERED)



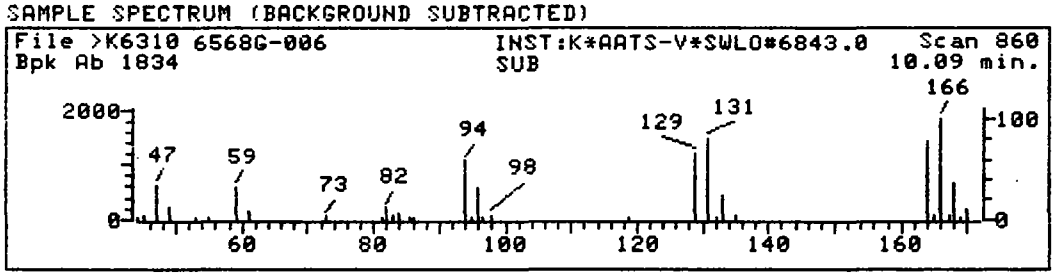
Data File: >K6310::L2 Quant Output File: ^K6310::D6
Name: 6568G-006
Misc: INST:K*AATS-V*SWL0#6843.06*5GM*C#(6568G)
Quant Time: 910807 17:46 Quant ID File: IDV023::EX
Injected at: 910807 17:21 Last Calibration: 910807 11:06

Compound No: 16
Compound Name: C110 2-BUTANONE
Scan Number: 391
Retention Time: 5.43 min.
Quant Ion: 72.0
Area: 248
Concentration: 3.65 ng/mL
q-value: 67

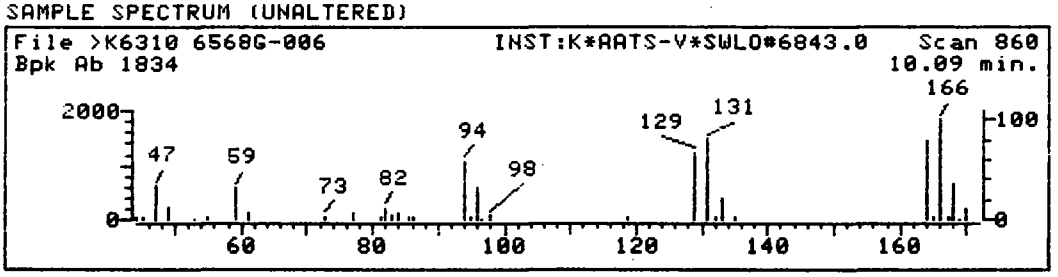
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6310::L2 Quant Output File: ^K6310::D6
Name: 6568G-006
Misc: INST:K*AATS-V*SWLO#6843.06*5GM*C#(6568G)
Quant Time: 910807 17:46 Quant ID File: IDV023::EX
Injected at: 910807 17:21 Last Calibration: 910807 11:06

Compound No: 35
Compound Name: C220 TETRACHLOROETHENE
Scan Number: 860
Retention Time: 10.09 min.
Quant Ion: 164.0
Area: 6463
Concentration: 11.28 ng/mL
q-value: 91

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-007

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684307

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6339

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 11 Date Analyzed: 08/09/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	5	J
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	1	BJ
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	22	
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	3	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	0.8	J
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: 6568G-007

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684307

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6339

Level: (low/med) LOW Date Received: 08/01/91

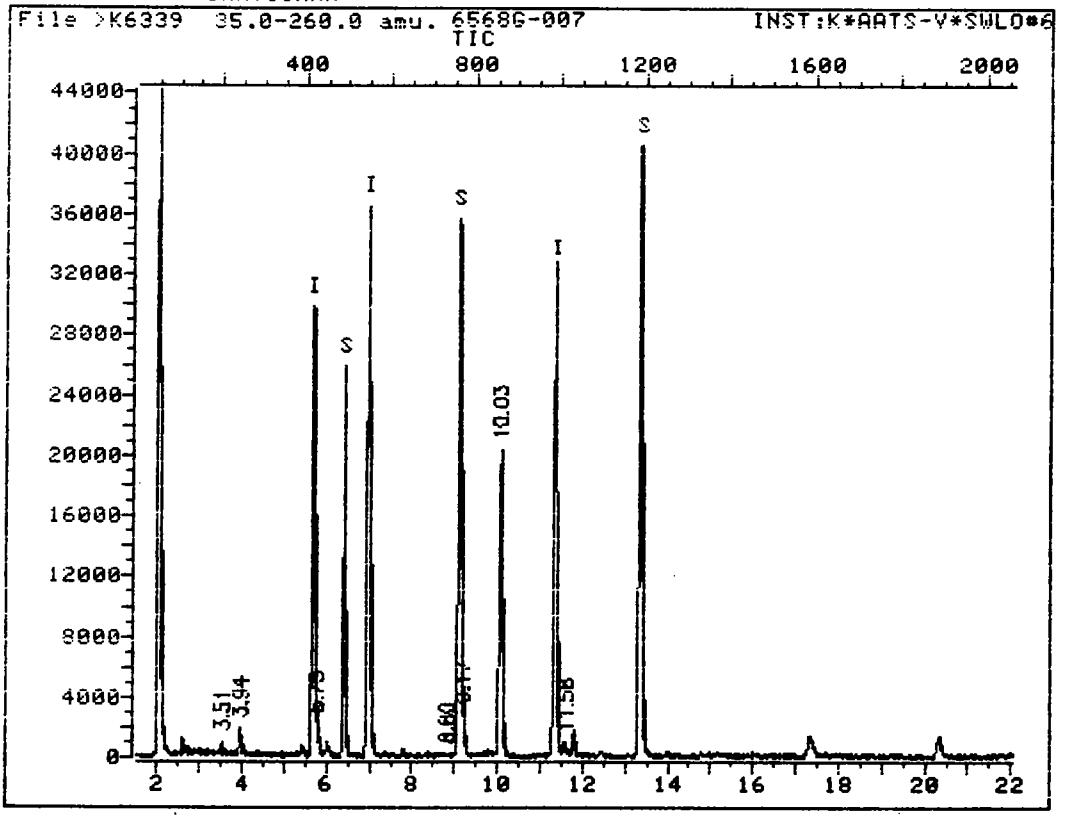
% Moisture: not dec. 11 Date Analyzed: 08/09/91

Column (pack/cap) CAP 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: >K6339::D7 Quant Output File: ^K6339::D6
Name: 6568G-007
Misc: INST:K*AATS-V*SWLO#6843.07*5GM*C#(6568G)

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 15:52

Operator ID: DEBBIE
Quant Time: 910809 18:01
Injected at: 910809 17:37

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910809 18:01
Output File: ^K6339::D6 Injected at: 910809 17:37
Data File: >K6339::D7 Dilution Factor: 1.00000
Name: 6568G-007
Misc: INST:K*AATS-V*SWL0#6843.07*5GM*C#(6568G)

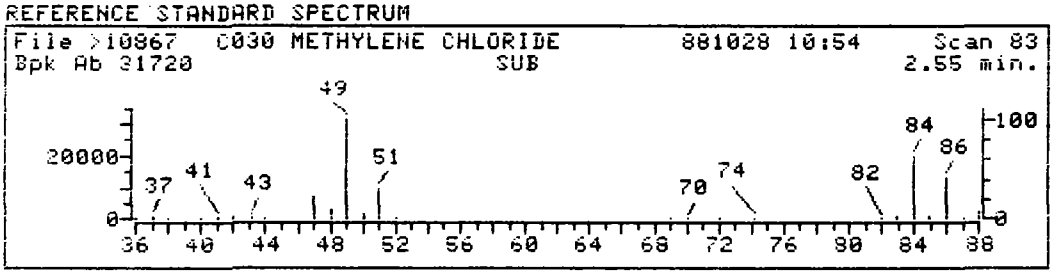
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 15:52

	Compound	R.T.	Q ion	Area	Conc.	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.64	128.0	17838	50.00	ng/mL	86
6)	C030 METHYLENE CHLORIDE	3.94	84.0	1486	3.12	ng/mL	89
7)	C035 ACETONE	3.51	43.0	1301	4.83	ng/mL	100
14)	C060 CHLOROFORM	5.75	83.0	1608	1.00	ng/mL	94
17)	CS15 1,2-DICHLOROETHANE-D4	6.38	65.1	51682	47.75	ng/mL	82
18)	*CI10 1,4-DIFLUOROBENZENE	6.97	114.0	58606	50.00	ng/mL	97
~~24)~~	~~C155 DIBROMOCHLOROMETHANE~~	~~10.03~~	~~129.0~~	~~11031~~	~~10.20~~	~~ng/mL~~ FP	100
30)	C175 2-CHLOROETHYL VINYL ETHER	8.80	63.0	50	.27	ng/mL	80
32)	*CI20 CHLOROBENZENE-D5	11.33	117.0	38944	50.00	ng/mL	93
35)	C220 TETRACHLOROETHENE	10.03	164.0	10899	19.95	ng/mL	93
37)	C230 TOLUENE	9.17	92.0	1761	2.88	ng/mL	95
39)	C240 ETHYLBENZENE	11.58	106.0	302	.73	ng/mL	93
~~42)~~	~~C299 m,p-XYLENES~~	~~11.58~~	~~106.0~~	~~302~~	~~.58~~ ng/mL FP		93
46)	CS05 TOLUENE-D8	9.07	98.0	58922	54.05	ng/mL	92
47)	CS10 BROMOFLUOROBENZENE	13.32	95.0	37158	42.68	ng/mL	87

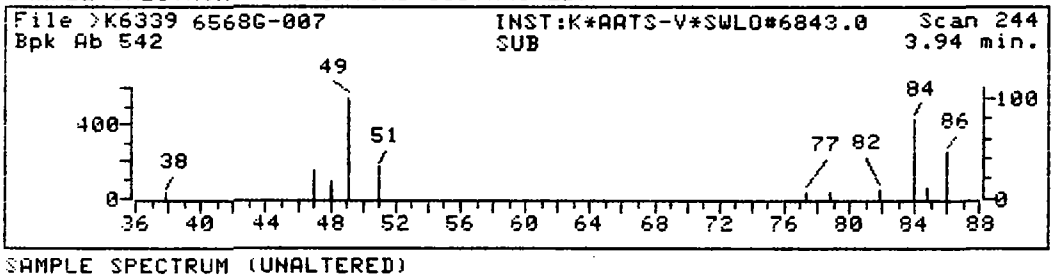
* Compound is ISTD

FP = FALSE POSITIVE

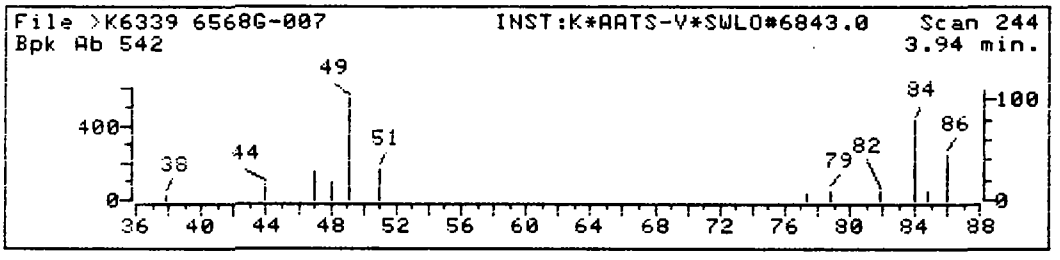
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



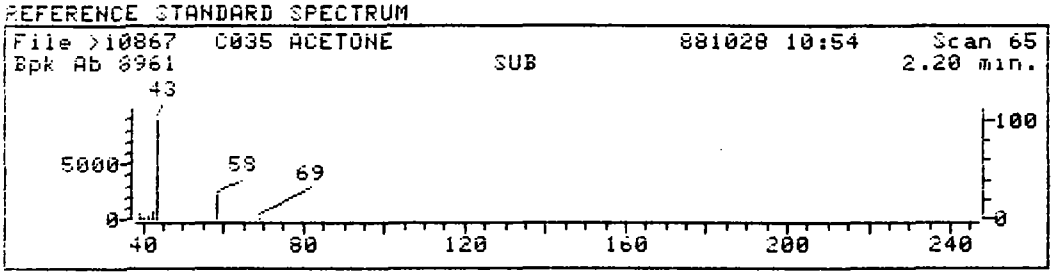
SAMPLE SPECTRUM (UNALTERED)



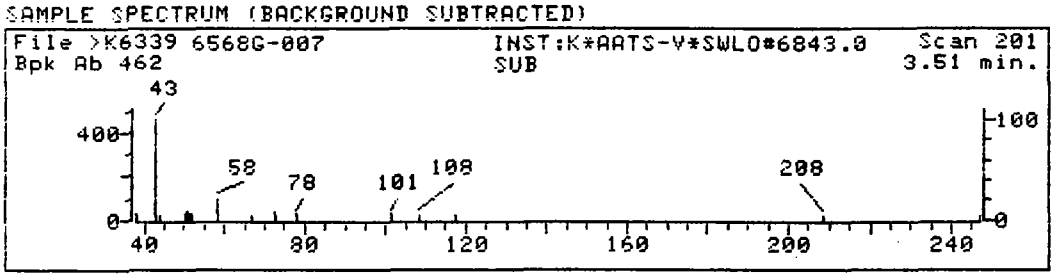
Data File: >K6339::D7 Quant Output File: ^K6339::D6
Name: 6568G-007
Misc: INST:K*AATS-V*SWLO#6843.07*5GM*C#(6568G)
Quant Time: 910809 18:01 Quant ID File: IDV023::EX
Injected at: 910809 17:37 Last Calibration: 910809 15:52

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 244
Retention Time: 3.94 min.
Quant Ion: 84.0
Area: 1486
Concentration: 3.12 ng/mL
q-value: 89

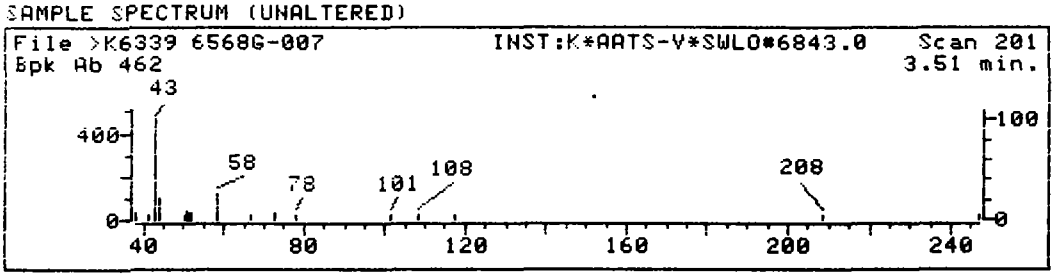
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



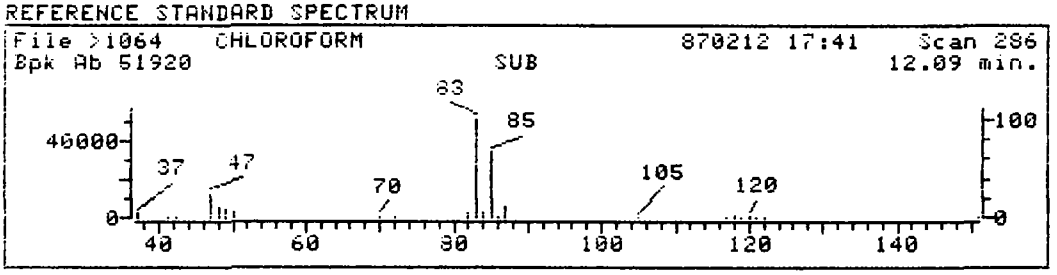
SAMPLE SPECTRUM (UNALTERED)



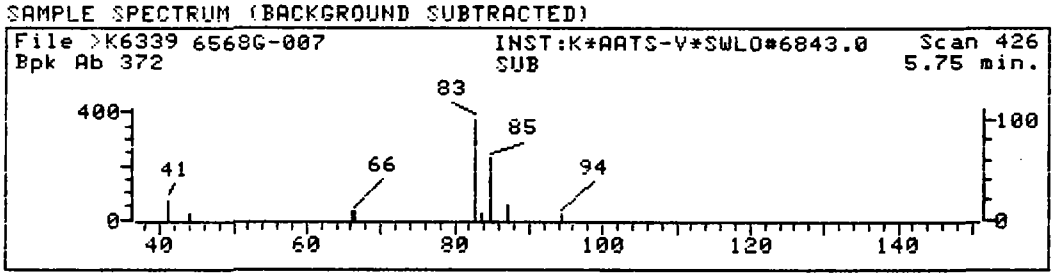
Data File: >K6339::D7 Quant Output File: ^K6339::D6
Name: 6568G-007
Misc: INST:K*AATS-V*SWLO#6843.07*5GM*C#(6568G)
Quant Time: 910809 18:01 Quant ID File: IDV023::EX
Injected at: 910809 17:37 Last Calibration: 910809 15:52

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 201
Retention Time: 3.51 min.
Quant Ion: 43.0
Area: 1301
Concentration: 4.83 ng/mL
q-value: 100

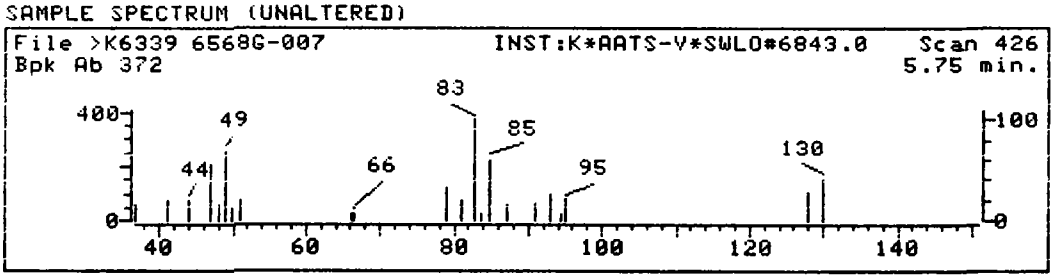
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



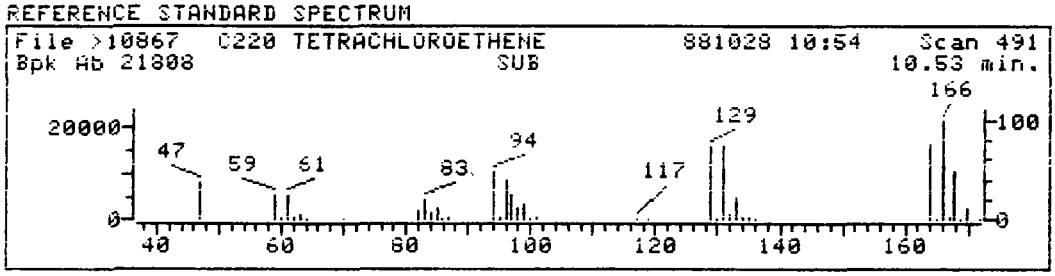
SAMPLE SPECTRUM (UNALTERED)



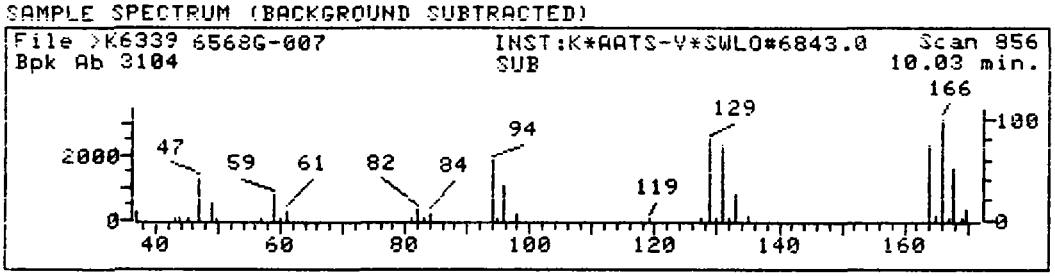
Data File: >K6339::D7 Quant Output File: ^K6339::D6
Name: 6568G-007
Misc: INST:K*AATS-V*SWLO#6843.07*5GM*C#(6568G)
Quant Time: 910809 18:01 Quant ID File: IDV023::EX
Injected at: 910809 17:37 Last Calibration: 910809 15:52

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 426
Retention Time: 5.75 min.
Quant Ion: 83.0
Area: 1608
Concentration: 1.00 ng/mL
q-value: 94

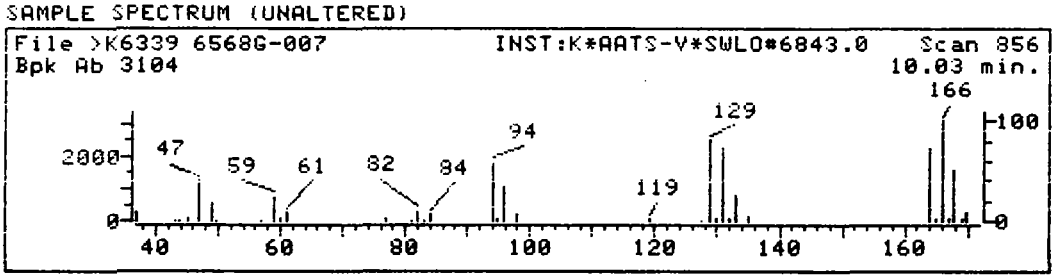
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



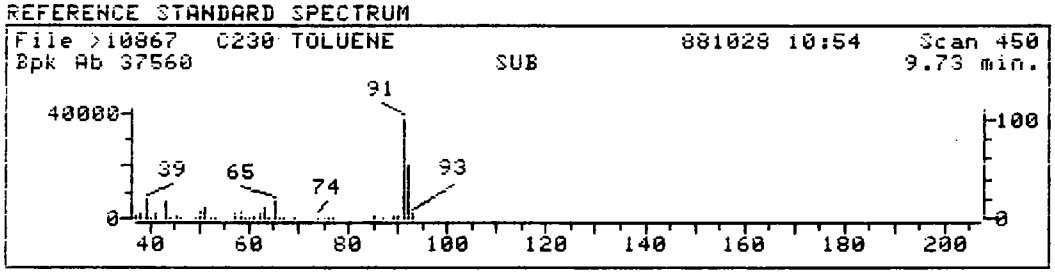
SAMPLE SPECTRUM (UNALTERED)



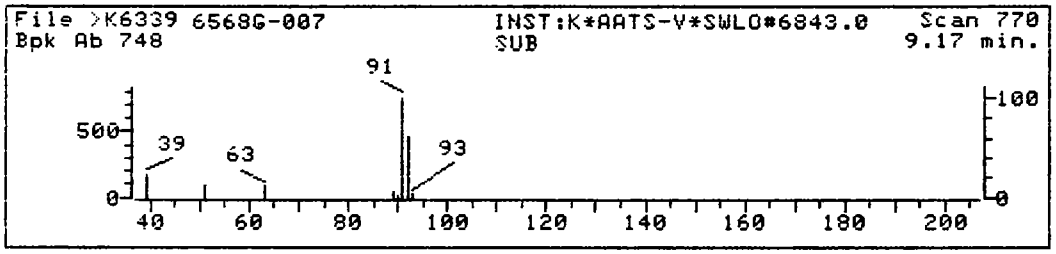
Data File: >K6339::D7 Quant Output File: ^K6339::D6
Name: 6568G-007
Misc: INST:K*AATS-V*SWLO#6843.07*5GM*C#(6568G)
Quant Time: 910809 18:01 Quant ID File: IDV023::EX
Injected at: 910809 17:37 Last Calibration: 910809 15:52

Compound No: 35
Compound Name: C220 TETRACHLOROETHENE
Scan Number: 856
Retention Time: 10.03 min.
Quant Ion: 164.0
Area: 10899
Concentration: 19.95 ng/mL
q-value: 93

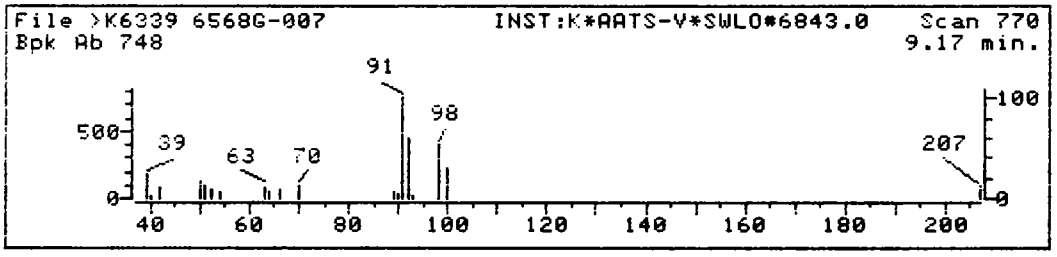
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



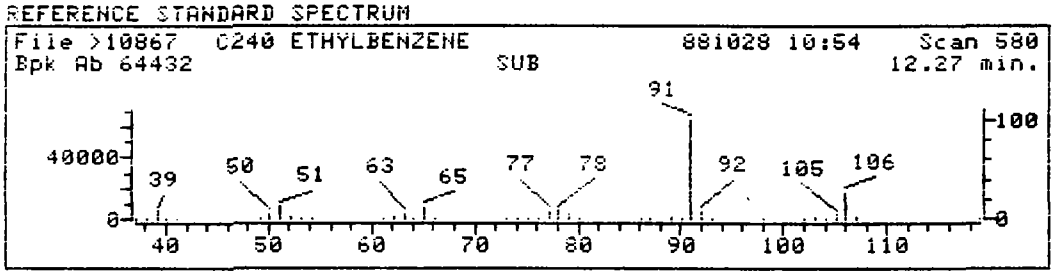
SAMPLE SPECTRUM (UNALTERED)



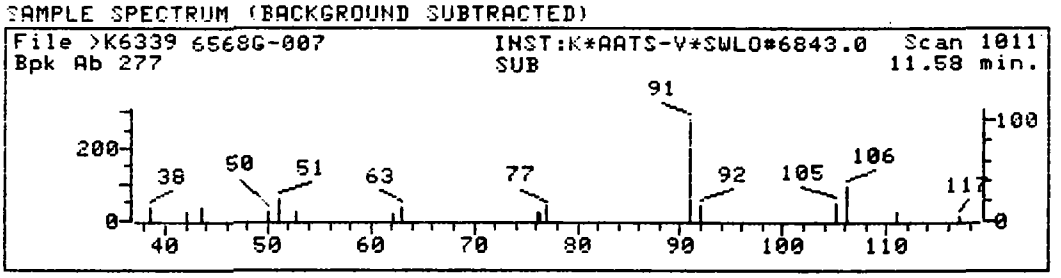
Data File: >K6339::D7 Quant Output File: ^K6339::D6
Name: 6568G-007
Misc: INST:K*AATS-V*SWLO#6843.07*5GM*C#(6568G)
Quant Time: 910809 18:01 Quant ID File: IDV023::EX
Injected at: 910809 17:37 Last Calibration: 910809 15:52

Compound No: 37
Compound Name: C230 TOLUENE
Scan Number: 770
Retention Time: 9.17 min.
Quant Ion: 92.0
Area: 1761
Concentration: 2.88 ng/mL
q-value: 95

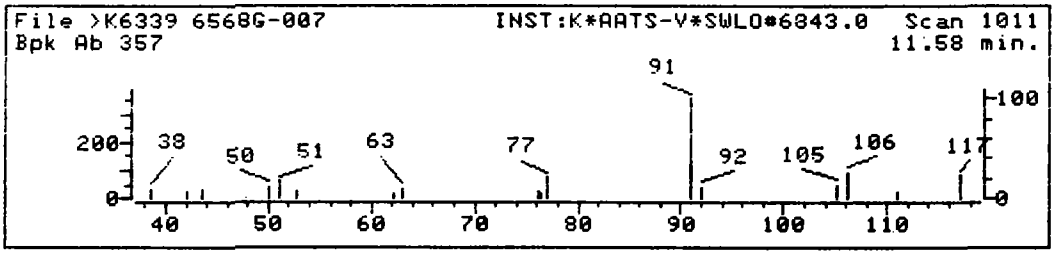
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6339::D7 Quant Output File: ^K6339::D6
Name: 6568G-007
Misc: INST:K*AATS-V*SWLO#6843.07*5GM*C#(6568G)
Quant Time: 910809 18:01 Quant ID File: IDV023::EX
Injected at: 910809 17:37 Last Calibration: 910809 15:52

Compound No: 39
Compound Name: C240 ETHYLBENZENE
Scan Number: 1011
Retention Time: 11.58 min.
Quant Ion: 106.0
Area: 302
Concentration: .73 ng/mL
q-value: 93

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-008

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684308

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6327

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 16 Date Analyzed: 08/08/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	
67-64-1	Acetone	9	BJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	2	BJ
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	20	
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	1	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-008

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684308

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6327

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 16 Date Analyzed: 08/08/91

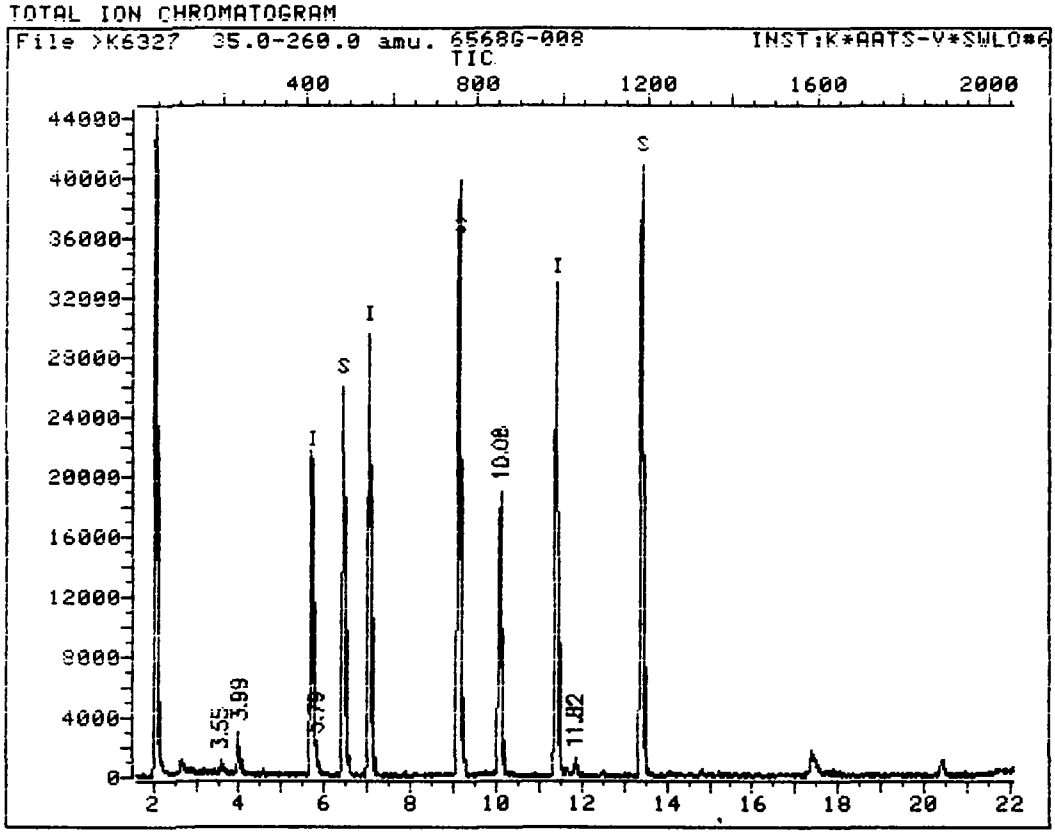
Column (pack/cap) CAP Dilution Factor: 1.0

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: >K6327::L2 Quant Output File: ^K6327::D6
Name: 6568G-008
Misc: INST:K*AATS-V*SWLO#6843.08*5GM*C#(6568G)

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

Operator ID: DEBBIE
Quant Time: 910808 18:26
Injected at: 910808 18:02

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910808 18:26
Output File: ^K6327::D6 Injected at: 910808 18:02
Data File: >K6327::L2 Dilution Factor: 1.00000
Name: 6568G-008
Misc: INST:K*AATS-V*SWL0#6843.08*5GM*C#(6568G)

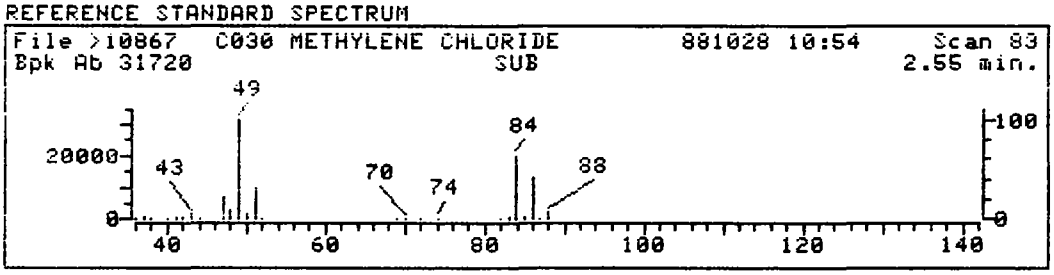
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.70	128.0	12416	50.00	ng/mL	97
6)	C030 METHYLENE CHLORIDE	3.99	84.0	2144	5.14	ng/mL	97
7)	C035 ACETONE	3.55	43.0	1592	7.26	ng/mL	100
14)	C060 CHLOROFORM	5.79	83.0	1970	1.54	ng/mL	95
17)	CS15 1,2-DICHLOROETHANE-D4	6.43	65.1	52124	58.68	ng/mL	84
18)	*CI10 1,4-DIFLUOROBENZENE	7.02	114.0	47492	50.00	ng/mL	95
~~26)~~	~~C155 DIBROMOCHLOROMETHANE~~	~~10.08~~	~~129.0~~	~~10622~~	~~10.24~~	~~ng/mL~~	~~100~~
32)	*CI20 CHLOROBENZENE-D5	11.38	117.0	38754	50.00	ng/mL	94
35)	C220 TETRACHLOROETHENE	10.08	164.0	10066	16.46	ng/mL	93
~~41)~~	~~C250 o-XYLENE~~	~~11.82~~	~~106.0~~	~~605~~	~~.84~~	~~ng/mL~~	93
42)	C299 m,p-XYLENES	11.82	106.0	605	1.00	ng/mL	93
46)	CS05 TOLUENE-D8	9.11	98.0	64316	52.18	ng/mL	83
47)	CS10 BROMOFLUOROBENZENE	13.37	95.0	36331	37.26	ng/mL	87

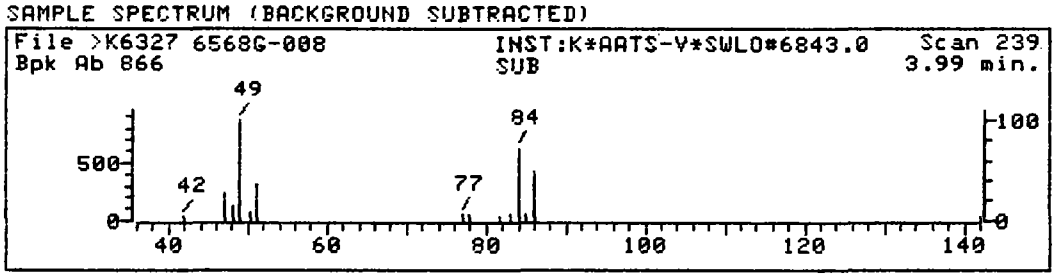
* Compound is ISTD

FP = FALSE POSITIVE

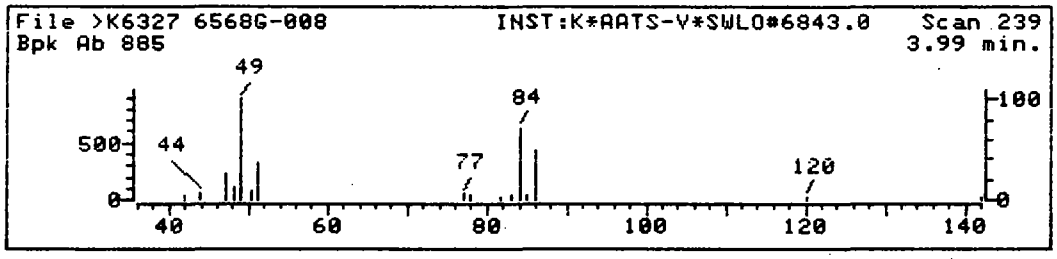
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



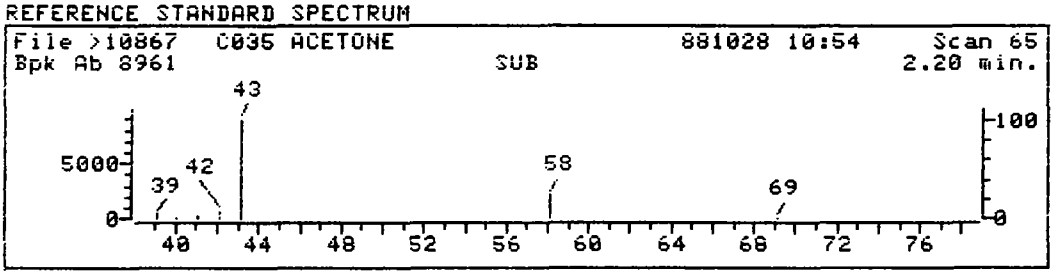
SAMPLE SPECTRUM (UNALTERED)



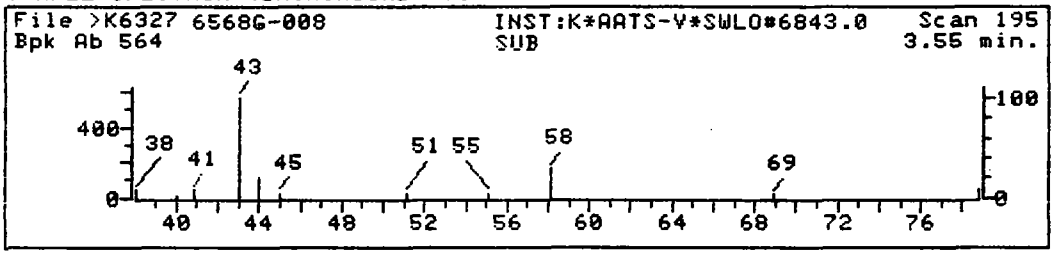
Data File: >K6327::L2 Quant Output File: ^K6327::D6
Name: 6568G-008
Misc: INST:K*AATS-V*SWLO#6843.08*5GM*C#(6568G)
Quant Time: 910808 18:26 Quant ID File: IDV023::EX
Injected at: 910808 18:02 Last Calibration: 910808 11:48

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 239
Retention Time: 3.99 min.
Quant Ion: 84.0
Area: 2144
Concentration: 5.14 ng/mL
q-value: 97

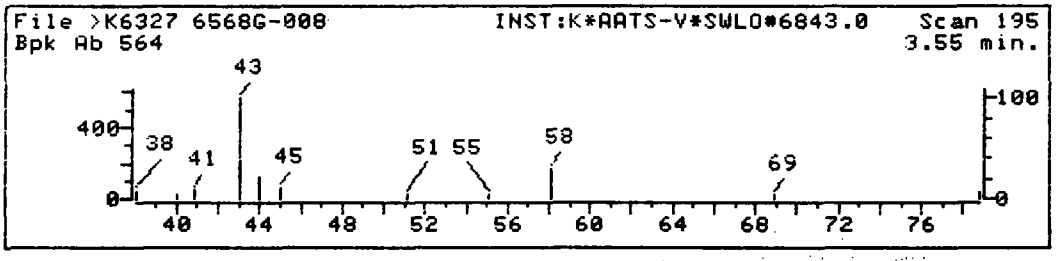
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



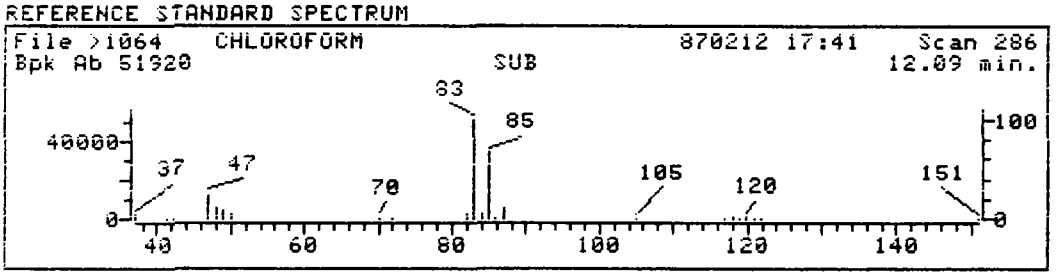
SAMPLE SPECTRUM (UNALTERED)



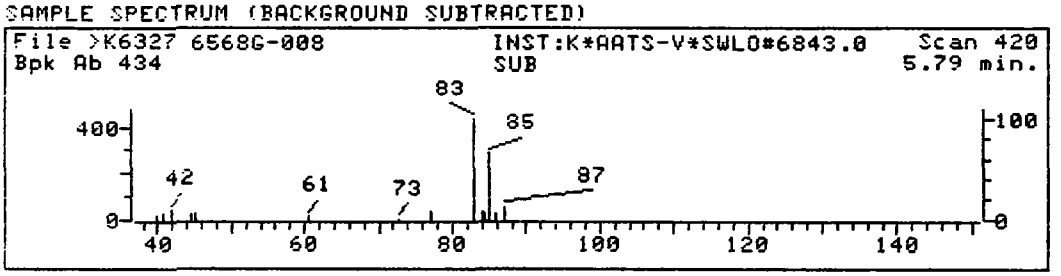
Data File: >K6327::L2 Quant Output File: ^K6327::D6
Name: 6568G-008
Misc: INST:K*AATS-V*SWLO#6843.08*5GM*C#(6568G)
Quant Time: 910808 18:26 Quant ID File: IDV023::EX
Injected at: 910808 18:02 Last Calibration: 910808 11:48

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 195
Retention Time: 3.55 min.
Quant Ion: 43.0
Area: 1592
Concentration: 7.26 ng/mL
q-value: 100

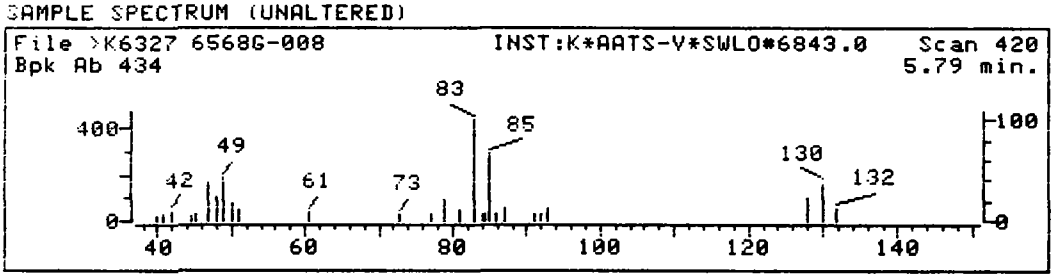
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



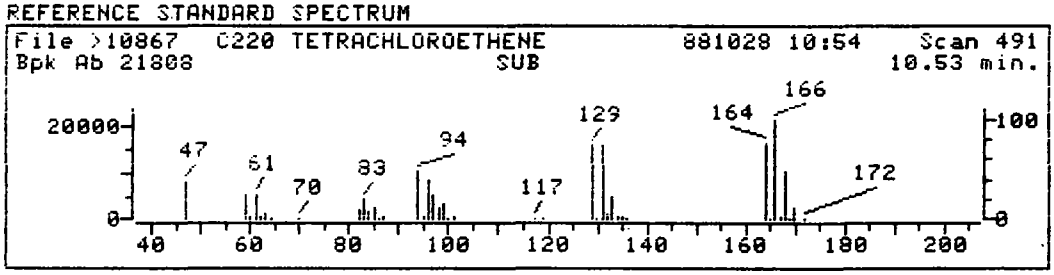
SAMPLE SPECTRUM (UNALTERED)



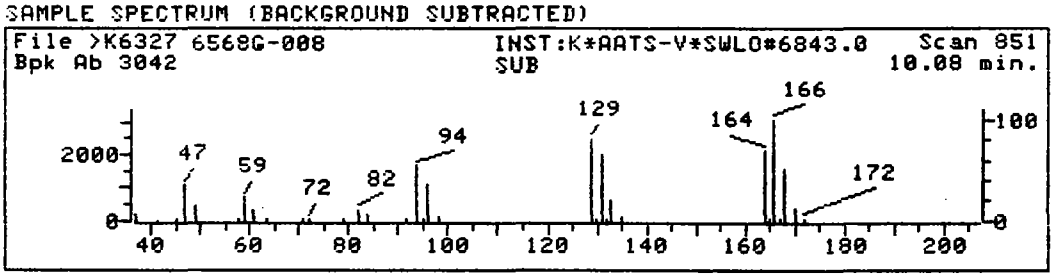
Data File: >K6327::L2 Quant Output File: ^K6327::D6
Name: 6568G-008
Misc: INST:K*AATS-V*SWL0#6843.08*5GM*C#(6568G)
Quant Time: 910808 18:26 Quant ID File: IDV023::EX
Injected at: 910808 18:02 Last Calibration: 910808 11:48

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 420
Retention Time: 5.79 min.
Quant Ion: 83.0
Area: 1970
Concentration: 1.54 ng/mL
q-value: 95

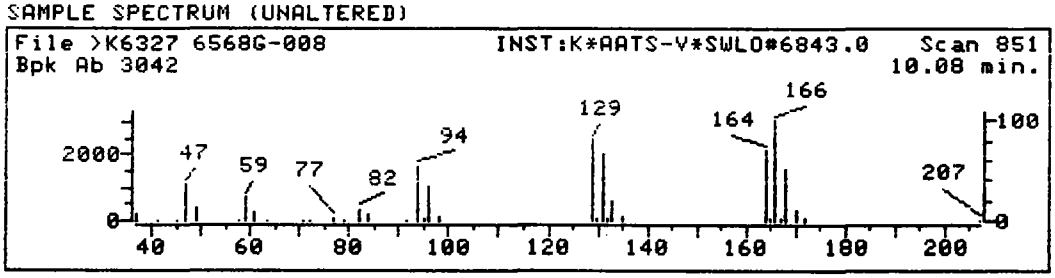
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



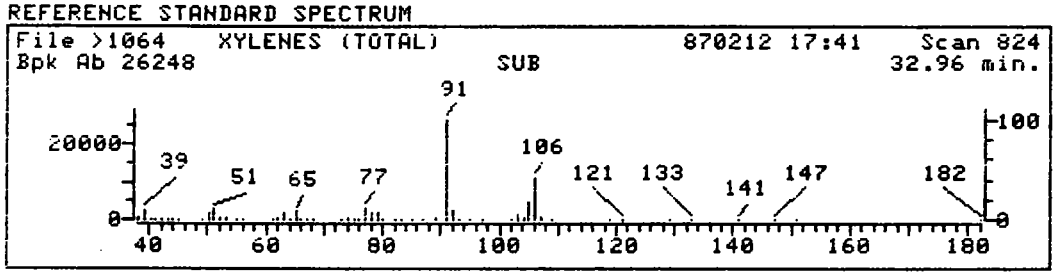
SAMPLE SPECTRUM (UNALTERED)



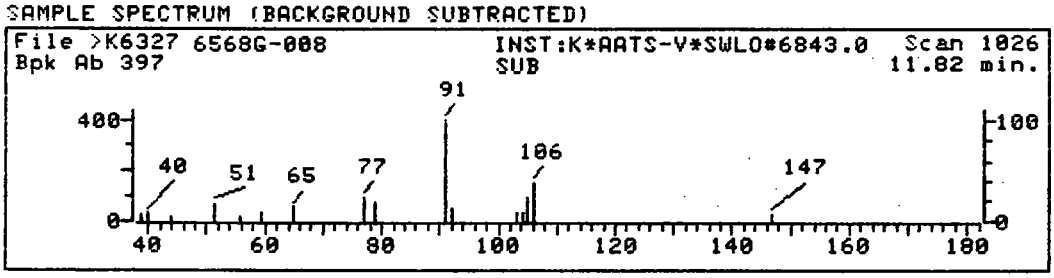
Data File: >K6327::L2 Quant Output File: ^K6327::D6
Name: 6568G-008
Misc: INST:K*AATS-V*SWL0#6843.08*5GM*C#(6568G)
Quant Time: 910808 18:26 Quant ID File: IDV023::EX
Injected at: 910808 18:02 Last Calibration: 910808 11:48

Compound No: 35
Compound Name: C220 TETRACHLOROETHENE
Scan Number: 851
Retention Time: 10.08 min.
Quant Ion: 164.0
Area: 10066
Concentration: 16.46 ng/mL
q-value: 93

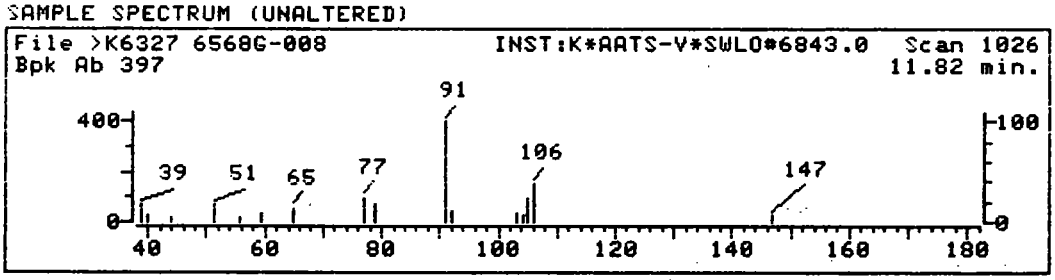
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6327::L2 Quant Output File: ^K6327::D6
Name: 6568G-008
Misc: INST:K*AATS-V*SWLO#6843.08*5GM*C#(6568G)
Quant Time: 910808 18:26 Quant ID File: IDV023::EX
Injected at: 910808 18:02 Last Calibration: 910808 11:48

Compound No: 42
Compound Name: C299 m,p-XYLENES
Scan Number: 1026
Retention Time: 11.82 min.
Quant Ion: 106.0
Area: 605
Concentration: 1.00 ng/mL
q-value: 93

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-009

Lab Name: SWL-TULSA Contract:

ab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684309

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6313

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 16 Date Analyzed: 08/07/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	17	
67-64-1	Acetone	14	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	1	BJ
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	0.5	J
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	2	J
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	110	
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	7	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	2	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

65686-009

Lab Name: SWL-TULSA Contract:

ab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684309

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6313

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 16 Date Analyzed: 08/07/91

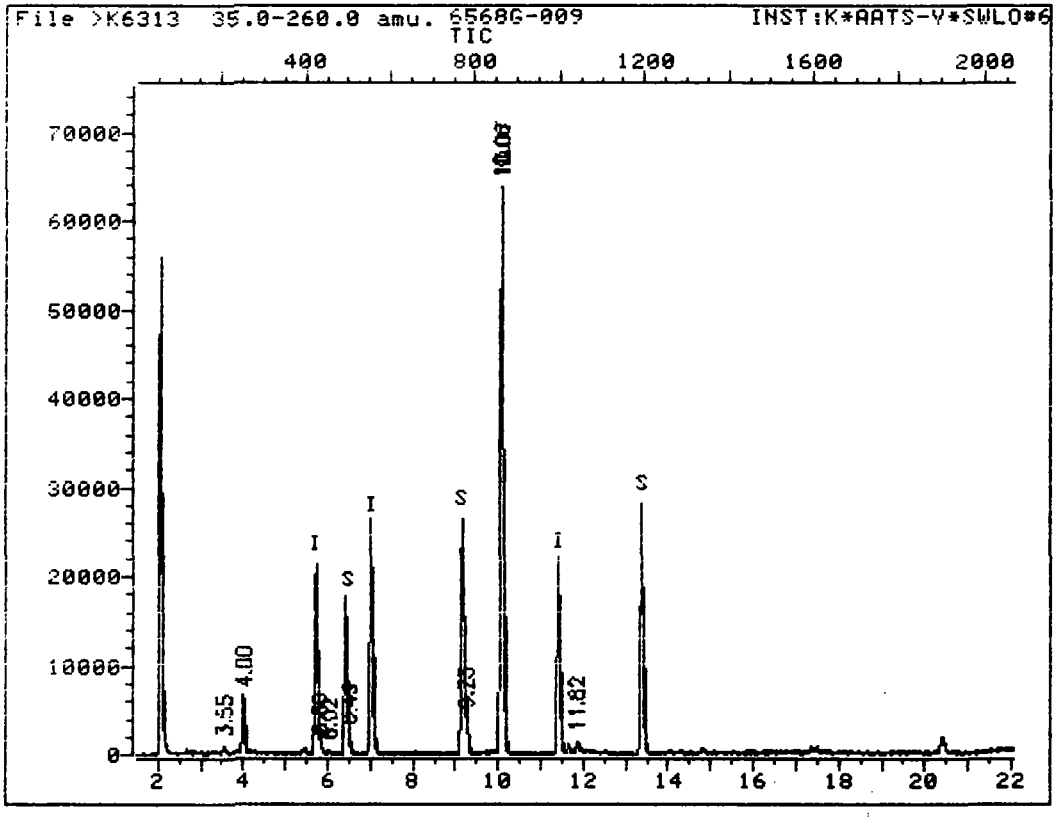
Column (pack/cap) CAP Dilution Factor: 1.0

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: >K6313::L2 Quant Output File: ^K6313::D6
Name: 6568G-009
Misc: INST:K*AATS-V*SWLO#6843.09*5GM*C#(6568G)

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

Operator ID: DEBBIE
Quant Time: 910807 19:04
Injected at: 910807 18:40

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910807 19:04
Output File: ^K6313::D6 Injected at: 910807 18:40
Data File: >K6313::L2 Dilution Factor: 1.00000
Name: 6568G-009
Misc: INST:K*AATS-V*SWLO#6843.09*5GM*C#(6568G)

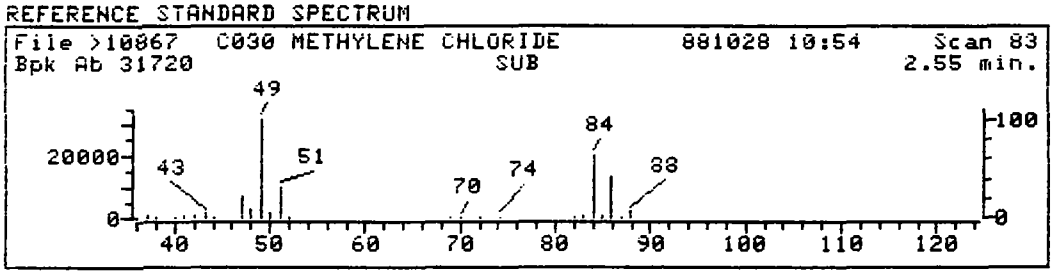
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.69	128.0	12492	50.00	ng/mL	93
6)	C030 METHYLENE CHLORIDE	4.00	84.0	5622	14.75	ng/mL	79
7)	C035 ACETONE	3.55	43.0	2335	12.08	ng/mL	100
14)	C060 CHLOROFORM	5.80	83.0	1285	1.09	ng/mL	78
17)	CS15 1,2-DICHLOROETHANE-D4	6.42	65.1	35685	54.51	ng/mL	83
18)	*CI10 1,4-DIFLUOROBENZENE	7.00	114.0	42634	50.00	ng/mL	98
19)	C115 1,1,1-TRICHLOROETHANE	6.02	96.9	377	.41	ng/mL	94
~~26)~~	~~C155 DIBROMOCHLOROMETHANE~~	~~10.07~~	~~129.0~~	~~37604~~	~~43.02~~	~~ng/mL~~	~~100~~
28)	C165 BENZENE	6.49	78.0	1547	1.71	ng/mL	59
32)	*CI20 CHLOROBENZENE-D5	11.40	117.0	26314	50.00	ng/mL	97
35)	C220 TETRACHLOROETHENE	10.06	164.0	36803	91.80	ng/mL	94
37)	C230 TOLUENE	9.23	92.0	3096	6.17	ng/mL	90
~~39)~~	~~C240 ETHYLBENZENE~~	~~11.82~~	~~106.0~~	~~616~~	~~1.88~~	~~ng/mL~~	~~75~~
~~41)~~	~~C250 o-XYLENE~~	~~11.82~~	~~106.0~~	~~616~~	~~1.21~~	~~ng/mL~~	~~75~~
42)	C299 m,p-XYLENES	11.82	106.0	616	1.46	ng/mL	75
46)	CS05 TOLUENE-D8	9.13	98.0	42597	59.58	ng/mL	92
47)	CS10 BROMOFLUOROBENZENE	13.37	95.0	23548	45.74	ng/mL	93

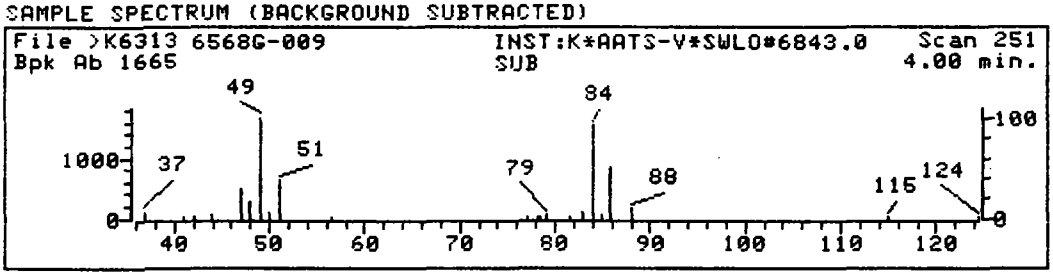
* Compound is ISTD

FP = FALSE POSITIVE

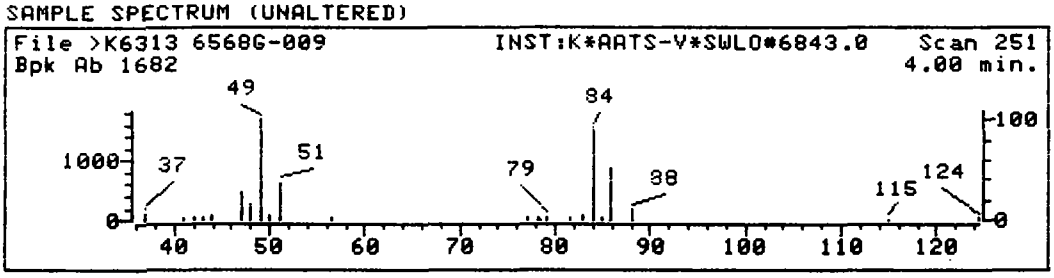
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



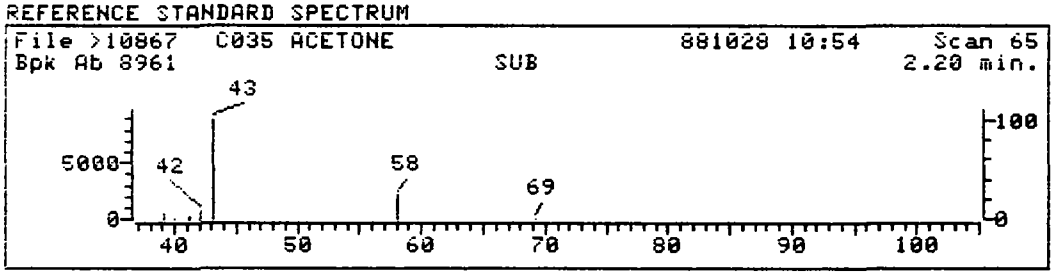
SAMPLE SPECTRUM (UNALTERED)



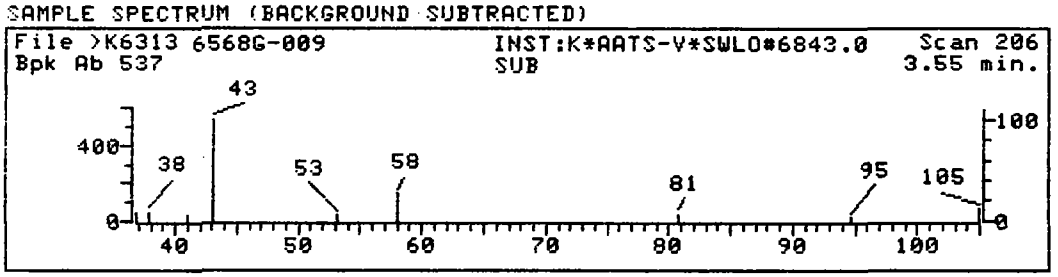
Data File: >K6313::L2 Quant Output File: ^K6313::D6
Name: 6568G-009
Misc: INST:K*AATS-V*SWLO#6843.09*5GM*C#(6568G)
Quant Time: 910807 19:04 Quant ID File: IDV023::EX
Injected at: 910807 18:40 Last Calibration: 910807 11:06

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 251
Retention Time: 4.00 min.
Quant Ion: 84.0
Area: 5622
Concentration: 14.75 ng/mL
q-value: 79

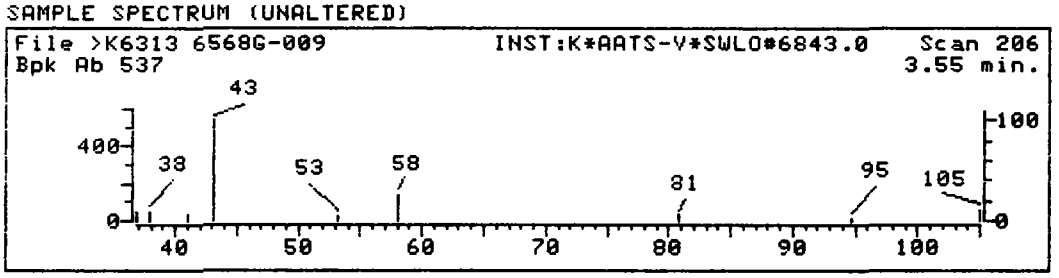
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



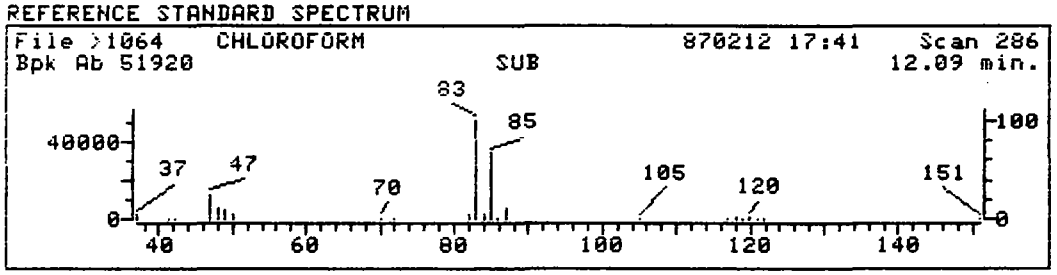
SAMPLE SPECTRUM (UNALTERED)



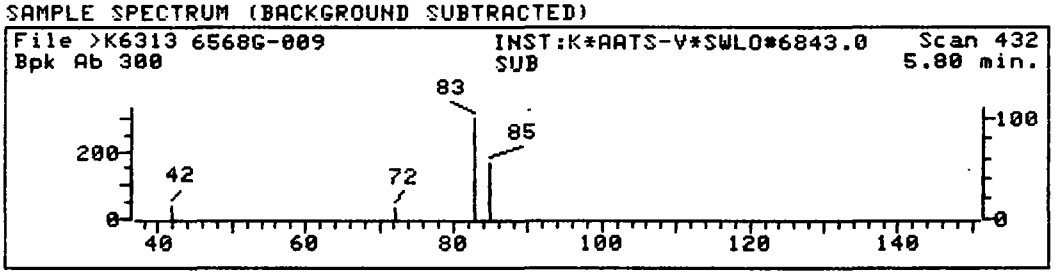
Data File: >K6313::L2 Quant Output File: ^K6313::D6
Name: 6568G-009
Misc: INST:K*AATS-V*SWLO#6843.09*5GM*C#(6568G)
Quant Time: 910807 19:04 Quant ID File: IDV023::EX
Injected at: 910807 18:40 Last Calibration: 910807 11:06

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 206
Retention Time: 3.55 min.
Quant Ion: 43.0
Area: 2335
Concentration: 12.08 ng/mL
q-value: 100

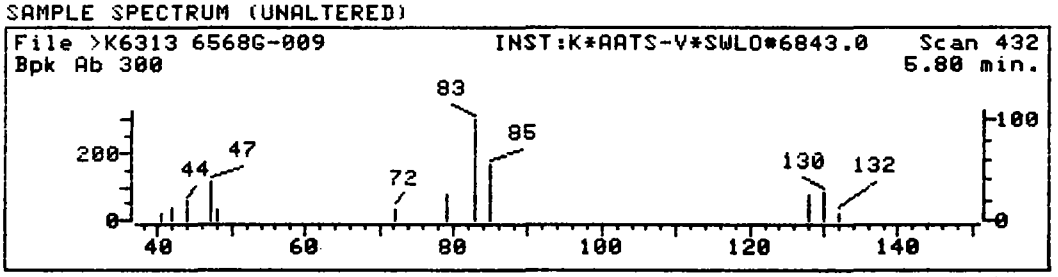
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



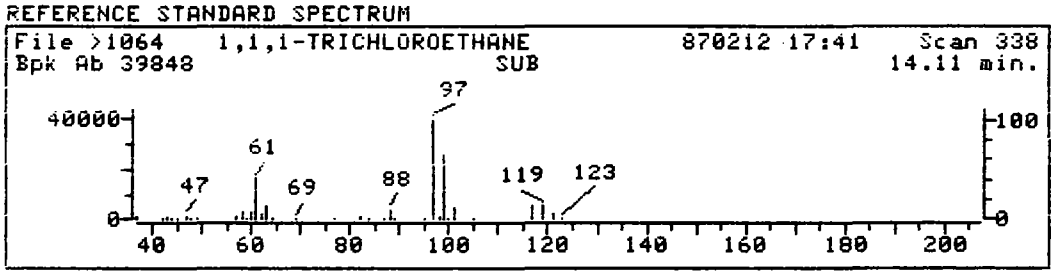
SAMPLE SPECTRUM (UNALTERED)



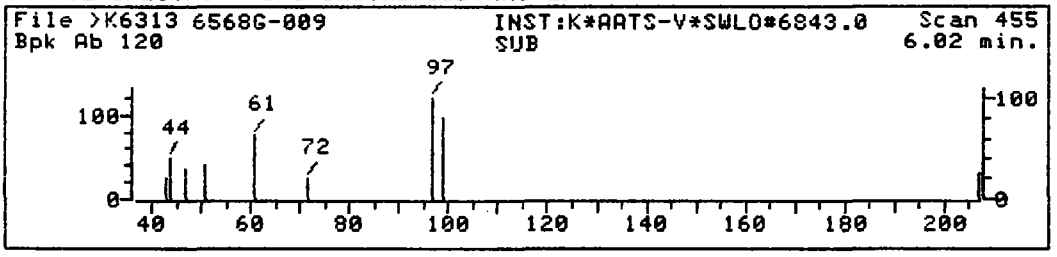
Data File: >K6313::L2 Quant Output File: ^K6313::D6
Name: 6568G-009
Misc: INST:K*AATS-V*SWLO#6843.09*5GM*C#(6568G)
Quant Time: 910807 19:04 Quant ID File: IDV023::EX
Injected at: 910807 18:40 Last Calibration: 910807 11:06

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 432
Retention Time: 5.80 min.
Quant Ion: 83.0
Area: 1285
Concentration: 1.09 ng/mL
q-value: 78

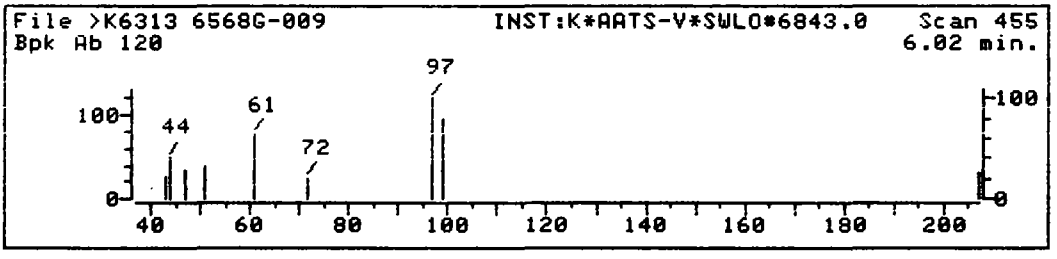
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



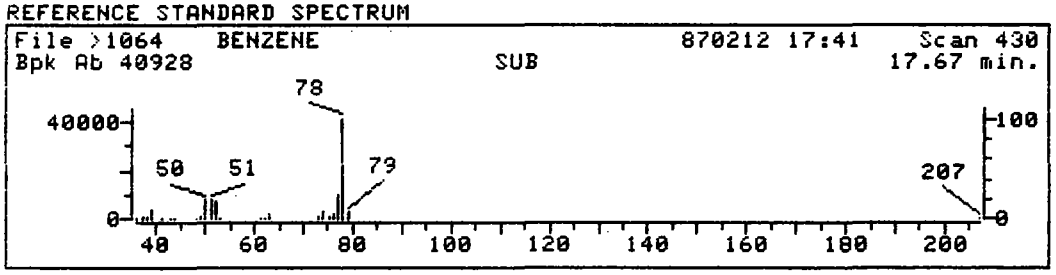
SAMPLE SPECTRUM (UNALTERED)



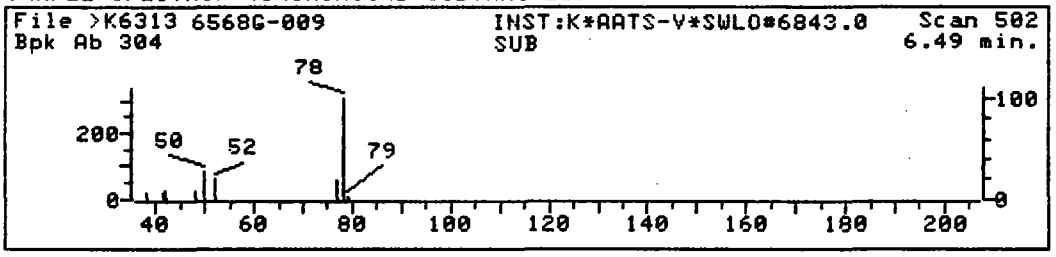
Data File: >K6313::L2 Quant Output File: ^K6313::D6
Name: 6568G-009
Misc: INST:K*AATS-V*SWLO#6843.09*5GM*C#(6568G)
Quant Time: 910807 19:04 Quant ID File: IDV023::EX
Injected at: 910807 18:40 Last Calibration: 910807 11:06

Compound No: 19
Compound Name: C115 1,1,1-TRICHLOROETHANE
Scan Number: 455
Retention Time: 6.02 min.
Quant Ion: 96.9
Area: 377
Concentration: .41 ng/mL
q-value: 94

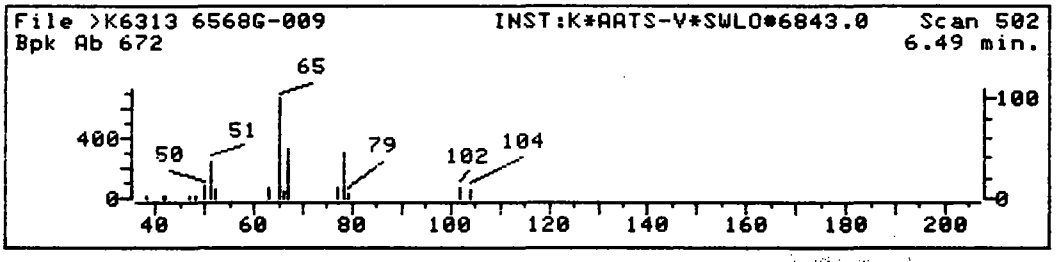
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



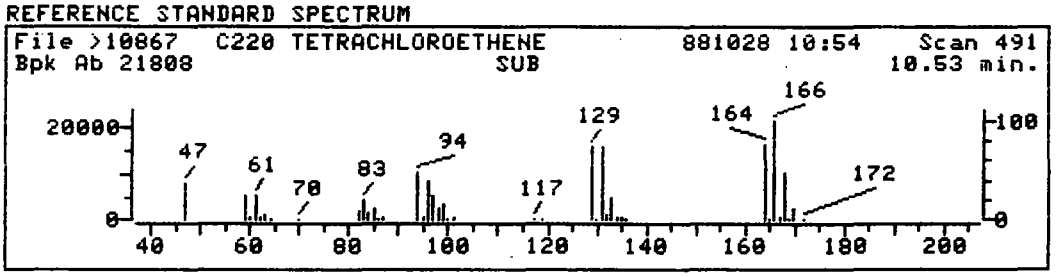
SAMPLE SPECTRUM (UNALTERED)



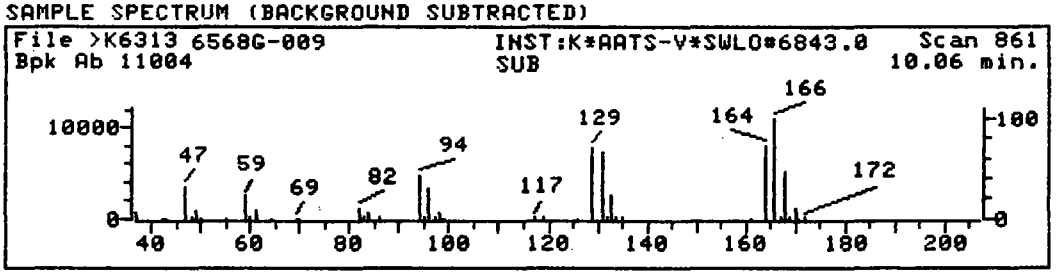
Data File: >K6313::L2 Quant Output File: ^K6313::D6
Name: 6568G-009
Misc: INST:K*AATS-V*SWLO#6843.09*5GM*C#(6568G)
Quant Time: 910807 19:04 Quant ID File: IDV023::EX
Injected at: 910807 18:40 Last Calibration: 910807 11:06

Compound No: 28
Compound Name: C165 BENZENE
Scan Number: 502
Retention Time: 6.49 min.
Quant Ion: 78.0
Area: 1547
Concentration: 1.71 ng/mL
q-value: 59

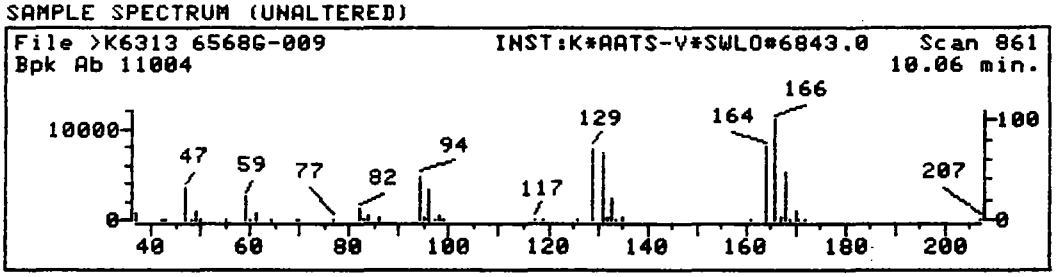
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



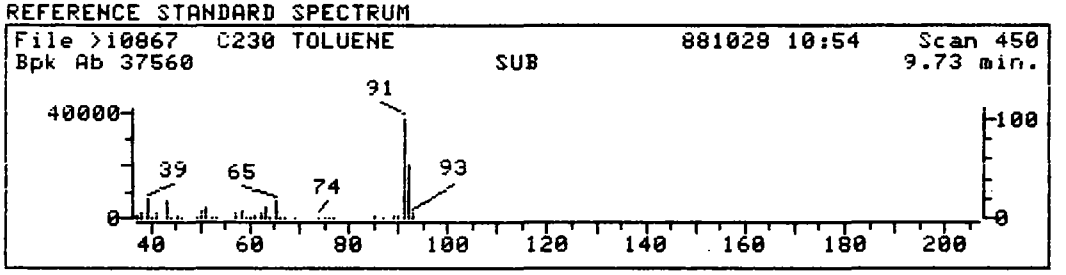
SAMPLE SPECTRUM (UNALTERED)



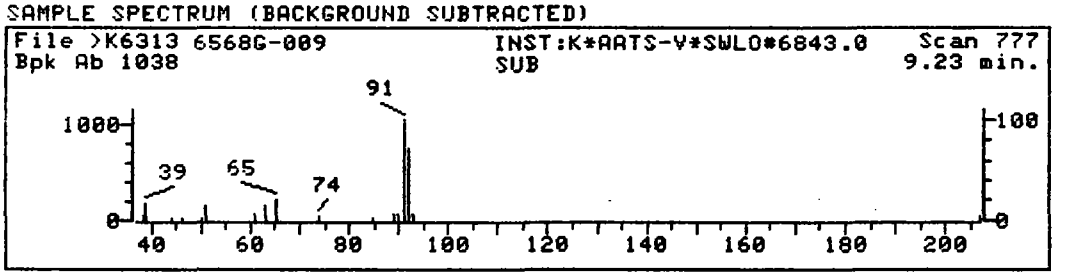
Data File: >K6313::L2 Quant Output File: ^K6313::D6
Name: 6568G-009
Misc: INST:K*AATS-V*SWLO#6843.09*5GM*C#(6568G)
Quant Time: 910807 19:04 Quant ID File: IDV023::EX
Injected at: 910807 18:40 Last Calibration: 910807 11:06

Compound No: 35
Compound Name: C220 TETRACHLOROETHENE
Scan Number: 861
Retention Time: 10.06 min.
Quant Ion: 164.0
Area: 36803
Concentration: 91.80 ng/mL
q-value: 94

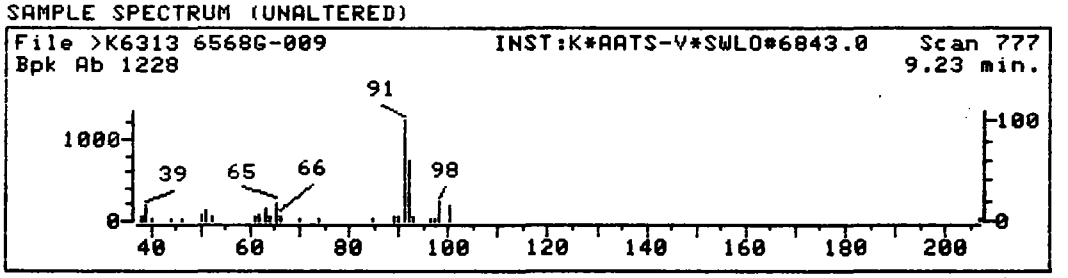
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



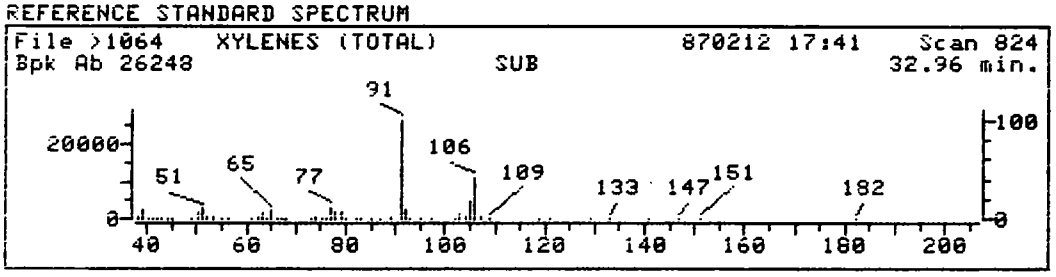
SAMPLE SPECTRUM (UNALTERED)



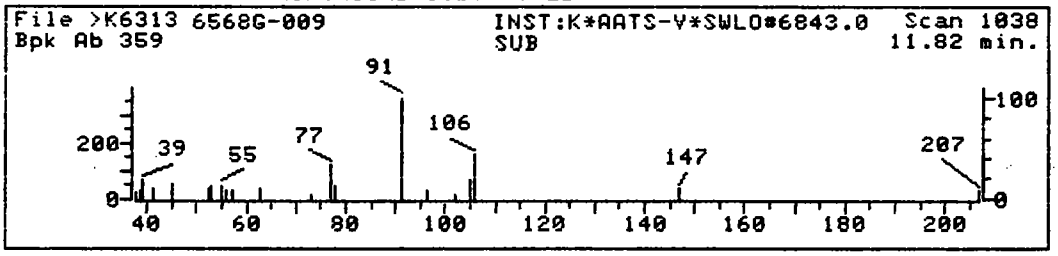
Data File: >K6313::L2 Quant Output File: ^K6313::D6
Name: 6568G-009
Misc: INST:K*AATS-V*SWL0#6843.09*5GM*C#(6568G)
Quant Time: 910807 19:04 Quant ID File: IDV023::EX
Injected at: 910807 18:40 Last Calibration: 910807 11:06

Compound No: 37
Compound Name: C230 TOLUENE
Scan Number: 777
Retention Time: 9.23 min.
Quant Ion: 92.0
Area: 3096
Concentration: 6.17 ng/mL
q-value: 90

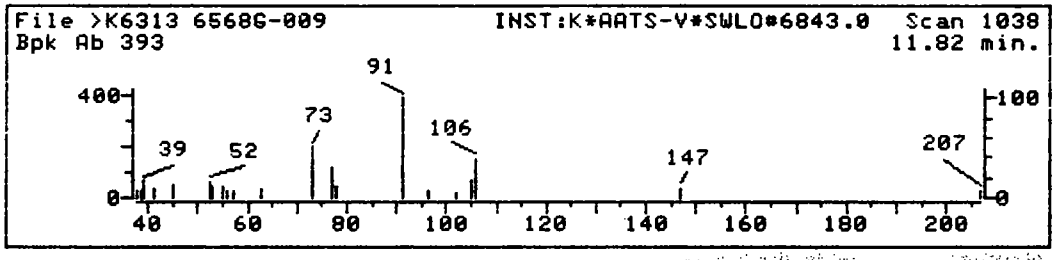
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6313::L2 Quant Output File: ^K6313::D6
Name: 6568G-009
Misc: INST:K*AATS-V*SWLO#6843.09*5GM*C#(6568G)
Quant Time: 910807 19:04 Quant ID File: IDV023::EX
Injected at: 910807 18:40 Last Calibration: 910807 11:06

Compound No: 42
Compound Name: C299 m,p-XYLENES
Scan Number: 1038
Retention Time: 11.82 min.
Quant Ion: 106.0
Area: 616
Concentration: 1.46 ng/mL
q-value: 75

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-009RE

Lab Name: SWL-TULSA Contract:

ab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684309

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6328

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 16 Date Analyzed: 08/08/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	7	
67-64-1	Acetone	12	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	1	BJ
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	Trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	21	
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-009RE

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684309

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6328

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 16 Date Analyzed: 08/08/91

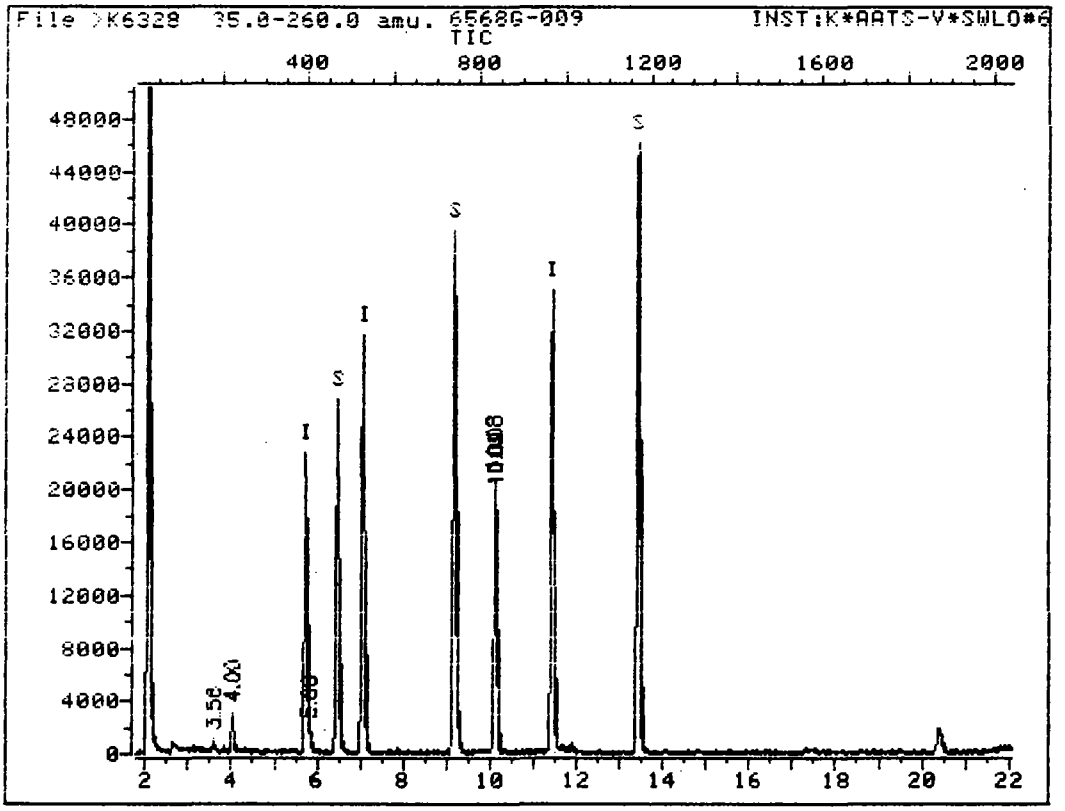
Column (pack/cap) CAP Dilution Factor: 1.0

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: >K6328::L2 Quant Output File: ^K6328::D6
Name: 6568G-009 RE
Misc: INST:K*AATS-V*SWLO#6843.09*5GM*C#(6568G)

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

Operator ID: DEBBIE
Quant Time: 910808 18:52
Injected at: 910808 18:28

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910808 18:52
Output File: ^K6328::D6 Injected at: 910808 18:28
Data File: >K6328::L2 Dilution Factor: 1.00000
Name: 6568G-009
Misc: INST:K*AATS-V*SWL0#6843.09*5GM*C#(6568G)

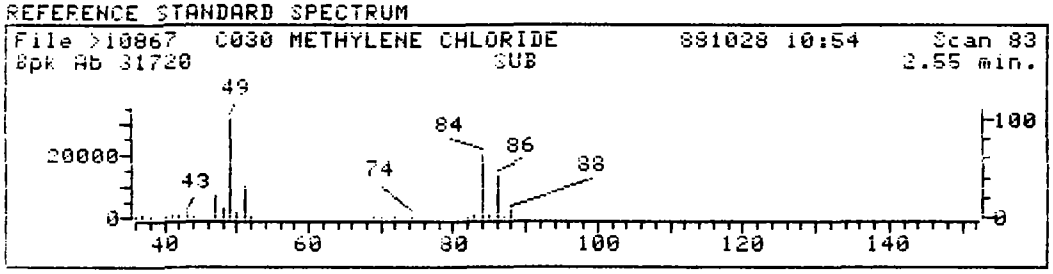
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.70	128.0	12525	50.00	ng/mL	79
6)	C030 METHYLENE CHLORIDE	4.00	84.0	2367	5.63	ng/mL	96
7)	C035 ACETONE	3.56	43.0	2198	9.94	ng/mL	100
14)	C060 CHLOROFORM	5.80	83.0	1631	1.26	ng/mL	79
17)	CS15 1,2-DICHLOROETHANE-D4	6.43	65.1	55557	62.00	ng/mL	88
18)	*CI10 1,4-DIFLUOROBENZENE	7.03	114.0	49981	50.00	ng/mL	92
~~26)~~	~~C155 DIBROMOCHLOROMETHANE~~	~~10.08~~	~~129.0~~	~~11259~~	~~10.32~~	~~ng/mL~~ FP	100
32)	*CI20 CHLOROBENZENE-D5	11.39	117.0	40130	50.00	ng/mL	97
35)	C220 TETRACHLOROETHENE	10.09	164.0	11032	17.42	ng/mL	92
46)	CS05 TOLUENE-D8	9.14	98.0	62667	49.10	ng/mL	99
47)	CS10 BROMOFLUOROBENZENE	13.38	95.0	39235	38.86	ng/mL	92

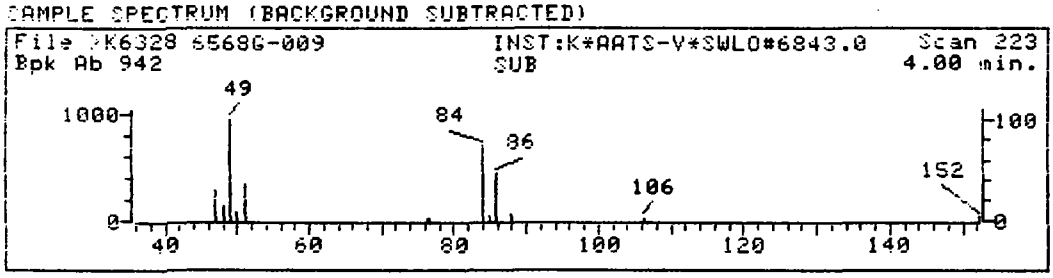
* Compound is ISTD

FP = FALSE POSITIVE

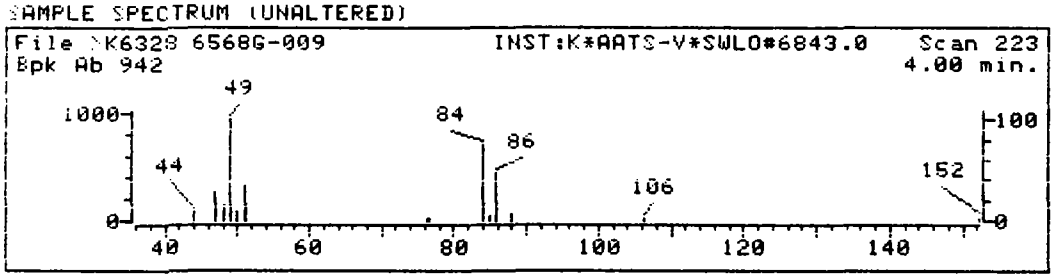
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



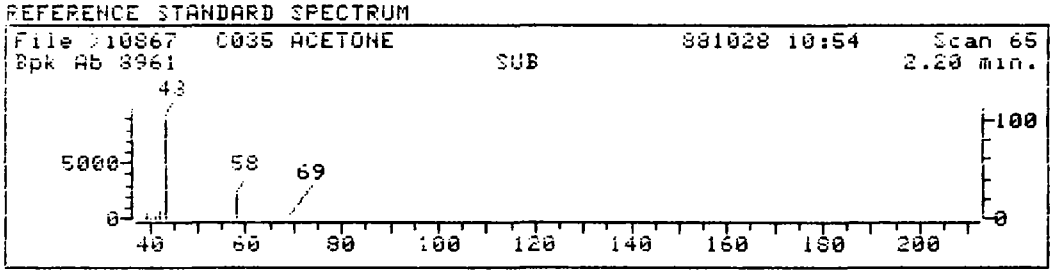
SAMPLE SPECTRUM (UNALTERED)



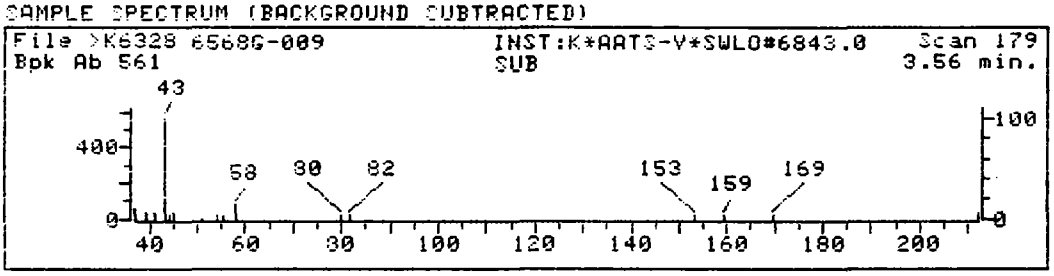
Data File: >K6328::L2 Quant Output File: ^K6328::D6
Name: 6568G-009
Misc: INST:K*AATS-V*SWL0#6843.09*5GM*C#(6568G)
Quant Time: 910808 18:52 Quant ID File: IDV023::EX
Injected at: 910808 18:28 Last Calibration: 910808 11:48

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 223
Retention Time: 4.00 min.
Quant Ion: 84.0
Area: 2367
Concentration: 5.63 ng/mL
q-value: 96

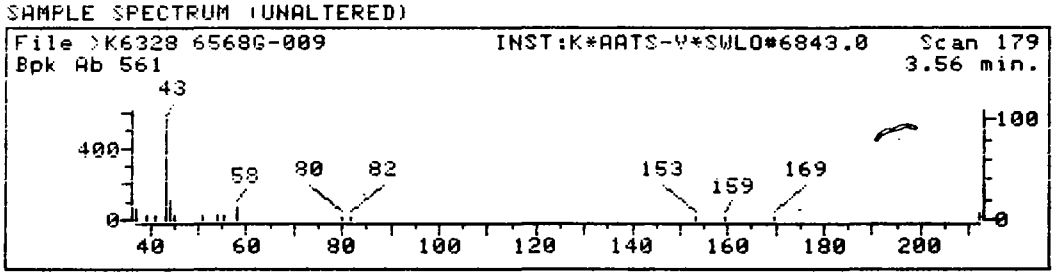
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



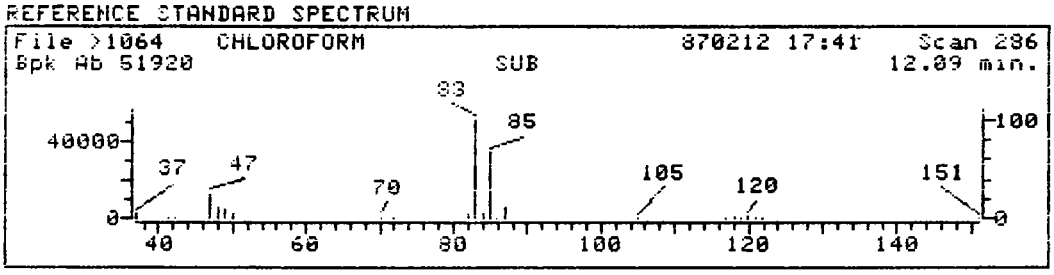
SAMPLE SPECTRUM (UNALTERED)



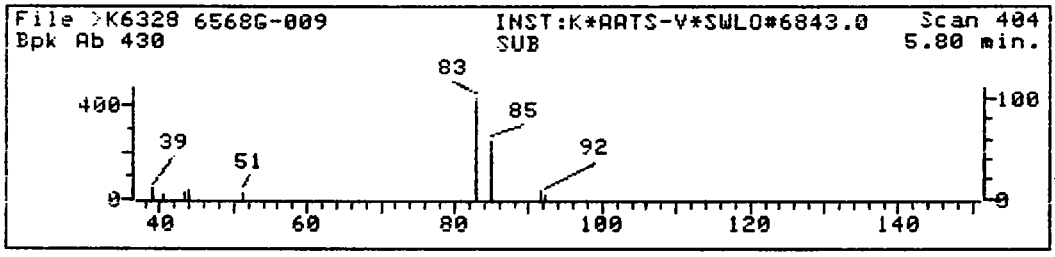
Data File: >K6328::L2 Quant Output File: ^K6328::D6
Name: 6568G-009
Misc: INST:K*AATS-V*SWLO#6843.09*5GM*C#(6568G)
Quant Time: 910808 18:52 Quant ID File: IDV023::EX
Injected at: 910808 18:28 Last Calibration: 910808 11:48

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 179
Retention Time: 3.56 min.
Quant Ion: 43.0
Area: 2198
Concentration: 9.94 ng/mL
q-value: 100

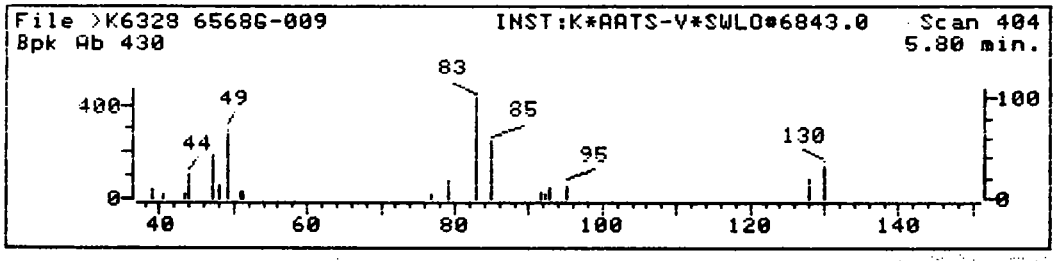
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



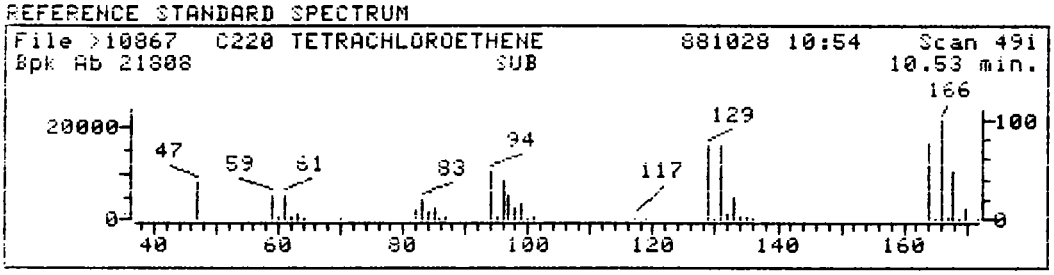
SAMPLE SPECTRUM (UNALTERED)



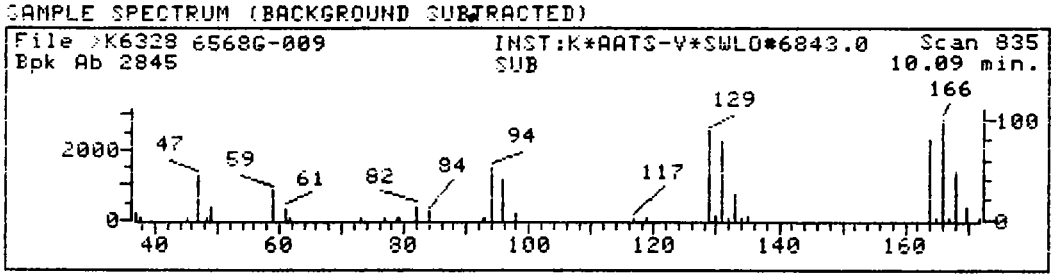
Data File: >K6328::L2 Quant Output File: ^K6328::D6
Name: 6568G-009
Misc: INST:K*AATS-V*SWLO#6843.09*5GM*C#(6568G)
Quant Time: 910808 18:52 Quant ID File: IDV023::EX
Injected at: 910808 18:28 Last Calibration: 910808 11:48

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 404
Retention Time: 5.80 min.
Quant Ion: 83.0
Area: 1631
Concentration: 1.26 ng/mL
q-value: 79

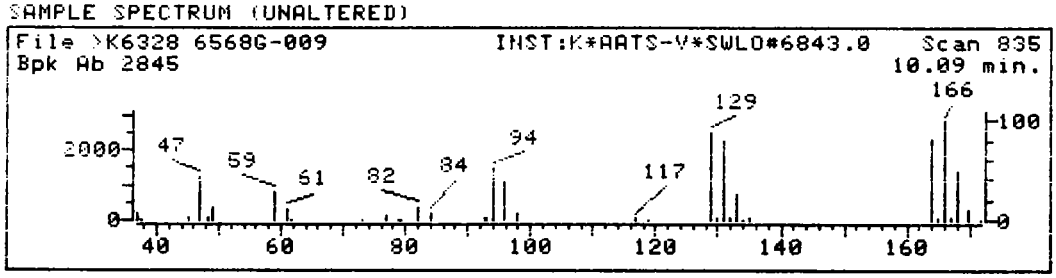
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6328::L2 Quant Output File: ^K6328::D6
Name: 6568G-009
Misc: INST:K*AATS-V*SWL0#6843.09*5GM*C#(6568G)
Quant Time: 910808 18:52 Quant ID File: IDV023::EX
Injected at: 910808 18:28 Last Calibration: 910808 11:48

Compound No: 35
Compound Name: C220 TETRACHLOROETHENE
Scan Number: 835
Retention Time: 10.09 min.
Quant Ion: 164.0
Area: 11032
Concentration: 17.42 ng/mL
q-value: 92

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-011

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684311

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6340

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 5 Date Analyzed: 08/09/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	4	J
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	1	BJ
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	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	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	13	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	3	J
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	0.7	J
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	2	J

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-011

Lab Name: SWL-TULSA Contract:

ab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684311

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6340

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 5 Date Analyzed: 08/09/91

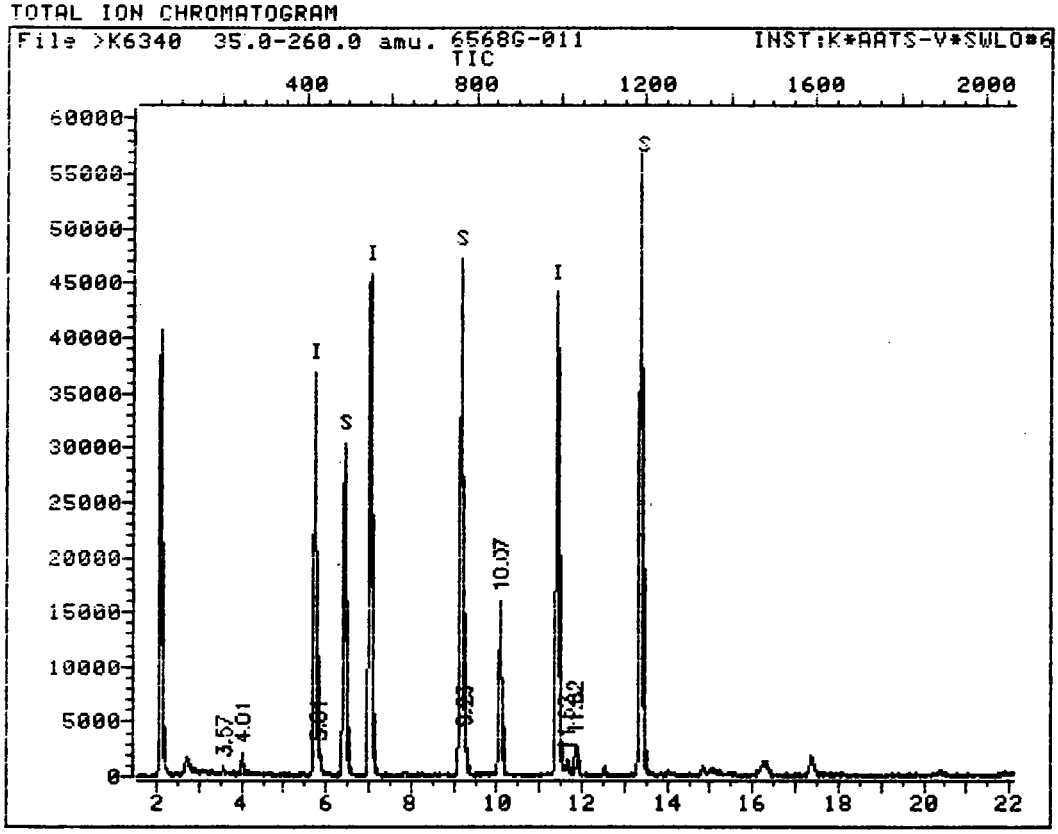
Column (pack/cap) CAP Dilution Factor: 1.0

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: >K6340::D7 Quant Output File: ^K6340::D6
Name: 6568G-011
Misc: INST:K*AATS-V*SWLO#6843.11*5GM*C#(6568G)

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 15:52

Operator ID: DEBBIE
Quant Time: 910809 18:27
Injected at: 910809 18:03

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910809 18:27
Output File: ^K6340::06 Injected at: 910809 18:03
Data File: >K6340::07 Dilution Factor: 1.00000
Name: 6568G-011
Misc: INST:K*AATS-V*SWL0#6843.11*5GM*C#(6568G)

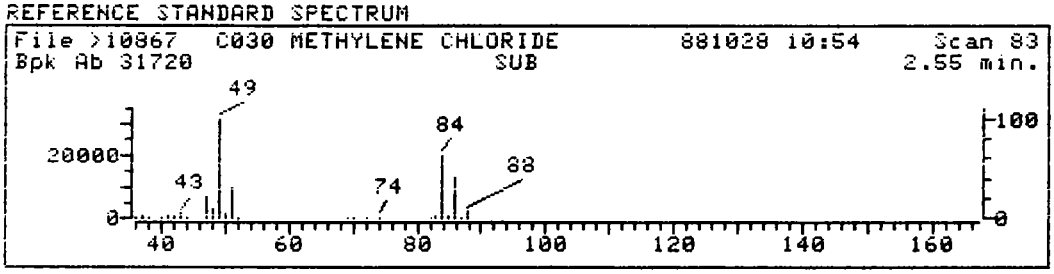
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 15:52

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.70	128.0	20501	50.00	ng/mL	91
6)	C030 METHYLENE CHLORIDE	4.01	84.0	1396	2.55	ng/mL	98
7)	C035 ACETONE	3.57	43.0	1140	3.68	ng/mL	100
14)	C060 CHLOROFORM	5.81	83.0	1850	1.00	ng/mL	95
17)	CS15 1,2-DICHLOROETHANE-D4	6.43	65.1	62269	50.06	ng/mL	84
18)	*CI10 1,4-DIFLUOROBENZENE	7.02	114.0	73780	50.00	ng/mL	94
~~26)~~	~~C155 DIBROMOCHLOROMETHANE~~	~~10.07~~	~~129.0~~	~~8601~~	~~6.32~~	~~ng/mL~~ FP	100
32)	*CI20 CHLOROBENZENE-D5	11.38	117.0	52558	50.00	ng/mL	89
35)	C220 TETRACHLOROETHENE	10.07	164.0	8979	12.18	ng/mL	89
37)	C230 TOLUENE	9.23	92.0	2336	2.83	ng/mL	99
39)	C240 ETHYLBENZENE	11.62	106.0	359	.65	ng/mL	81
~~41)~~	~~C250 o-XYLENE~~	~~11.82~~	~~106.0~~	~~1249~~	~~1.48~~	~~ng/mL~~ FP	69
~~42)~~	~~C299 m,p-XYLENES~~	~~11.62~~	~~106.0~~	~~359~~	~~.51~~	~~ng/mL~~ FP	81
42)	C299 m,p-XYLENES	11.82	106.0	1249	1.79	ng/mL	69
46)	CS05 TOLUENE-D8	9.13	98.0	74580	50.70	ng/mL	93
47)	CS10 BROMOFLUOROBENZENE	13.37	95.0	50295	42.80	ng/mL	88

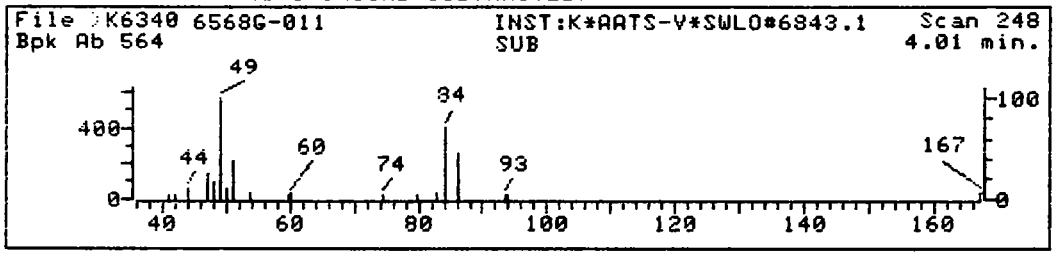
* Compound is ISTD

FP = FALSE POSITIVE

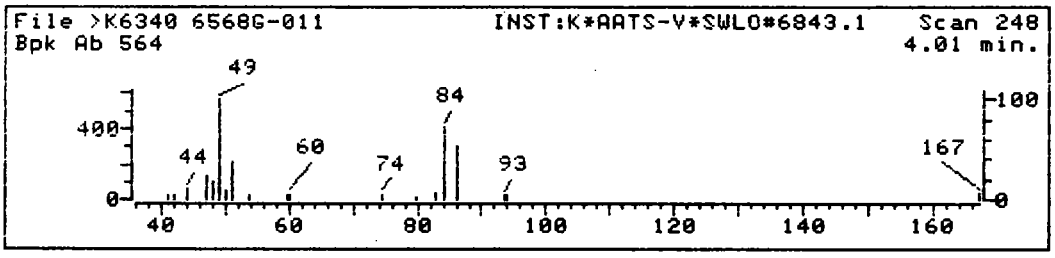
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



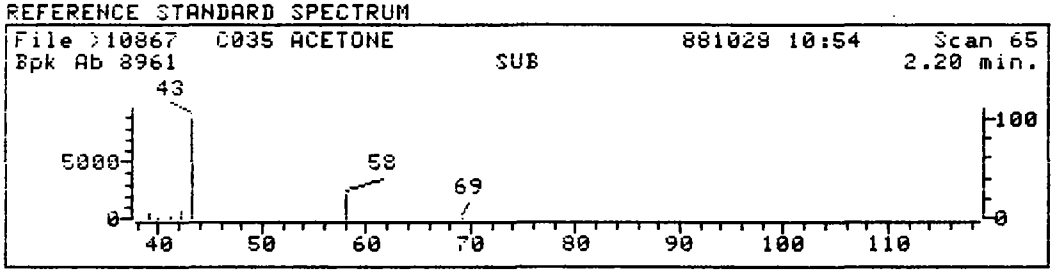
SAMPLE SPECTRUM (UNALTERED)



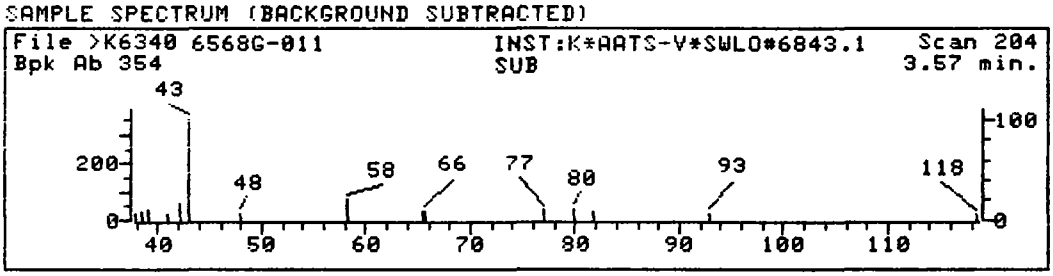
Data File: >K6340::D7 Quant Output File: ^K6340::D6
Name: 6568G-011
Misc: INST:K*AATS-V*SWLO#6843.11*5GM*C#(6568G)
Quant Time: 910809 18:27 Quant ID File: IDV023::EX
Injected at: 910809 18:03 Last Calibration: 910809 15:52

Compound No: 6
Compound Name: C030 METHYLENE CHLORIDE
Scan Number: 248
Retention Time: 4.01 min.
Quant Ion: 84.0
Area: 1396
Concentration: 2.55 ng/mL
q-value: 98

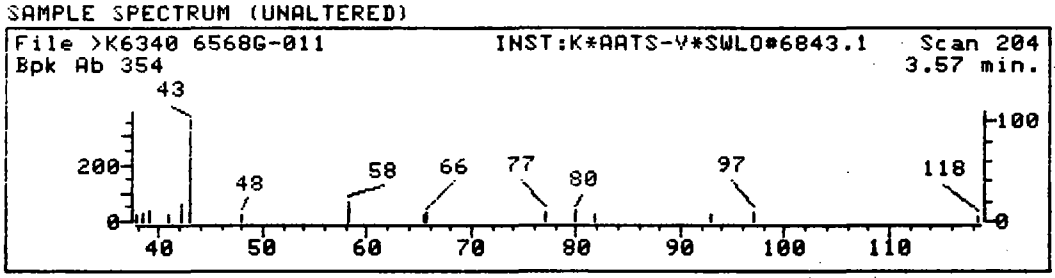
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



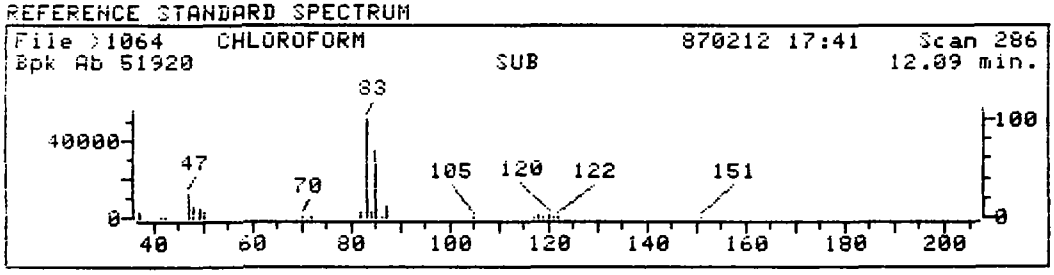
SAMPLE SPECTRUM (UNALTERED)



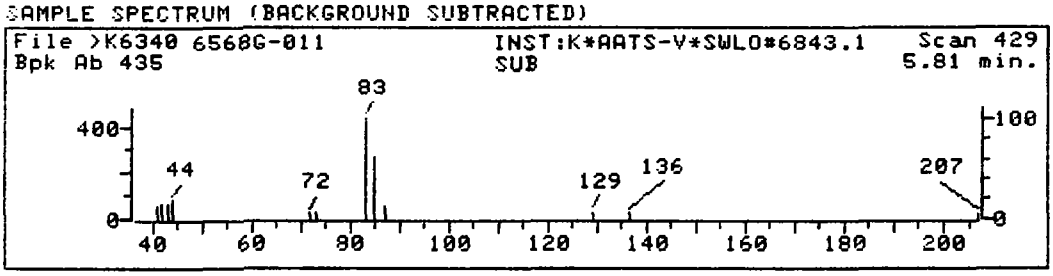
Data File: >K6340::D7 Quant Output File: ^K6340::D6
Name: 6568G-011
Misc: INST:K*AATS-V*SWL0#6843.11*5GM*C#(6568G)
Quant Time: 910809 18:27 Quant ID File: IDV023::EX
Injected at: 910809 18:03 Last Calibration: 910809 15:52

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 204
Retention Time: 3.57 min.
Quant Ion: 43.0
Area: 1140
Concentration: 3.68 ng/mL
q-value: 100

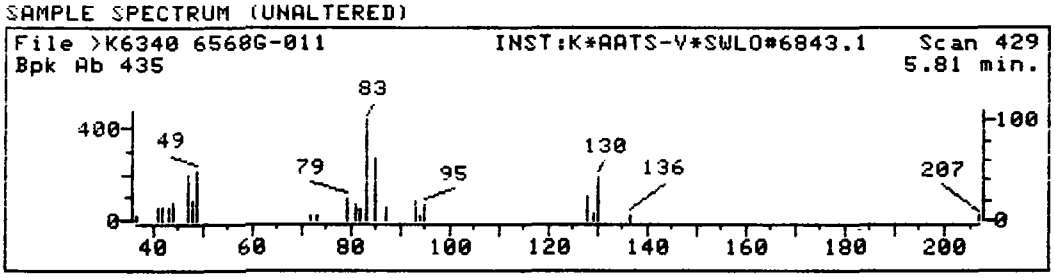
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



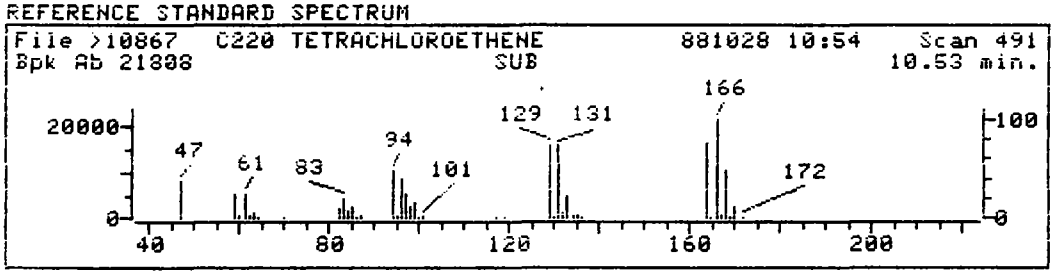
SAMPLE SPECTRUM (UNALTERED)



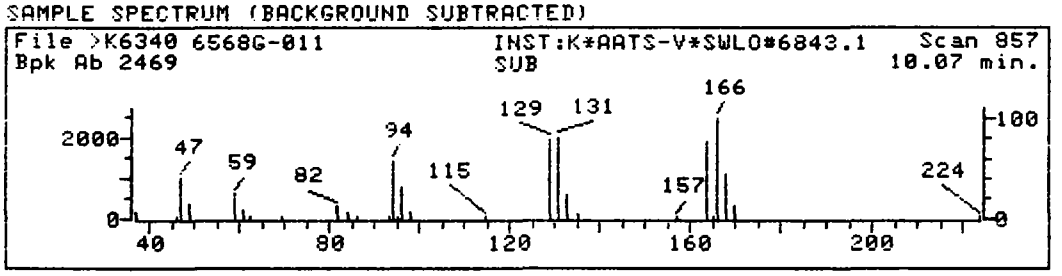
Data File: >K6340::D7 Quant Output File: ^K6340::D6
Name: 6568G-011
Misc: INST:K*AATS-V*SWLO#6843.11*5GM*C#(6568G)
Quant Time: 910809 18:27 Quant ID File: IDV023::EX
Injected at: 910809 18:03 Last Calibration: 910809 15:52

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 429
Retention Time: 5.81 min.
Quant Ion: 83.0
Area: 1850
Concentration: 1.00 ng/mL
q-value: 95

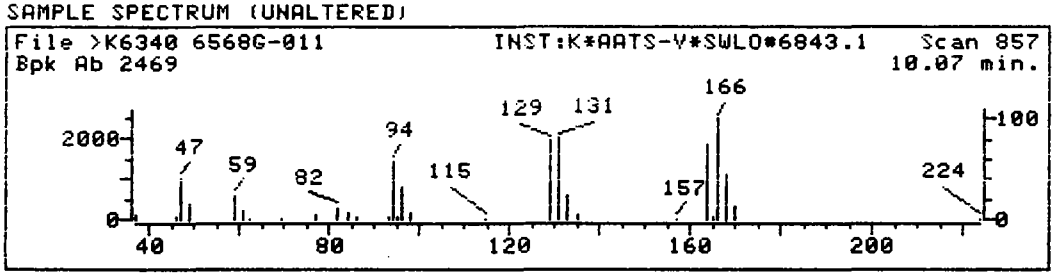
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



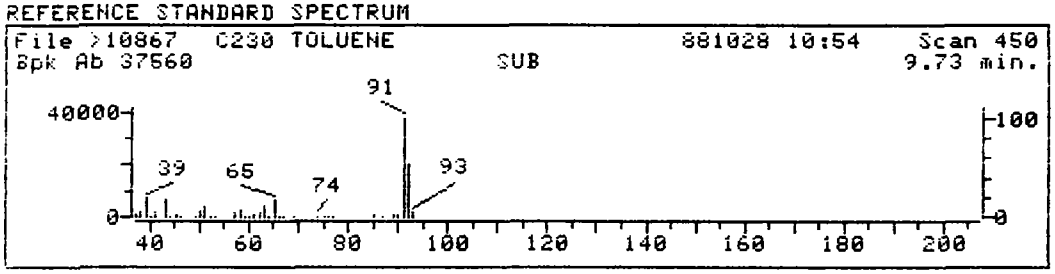
SAMPLE SPECTRUM (UNALTERED)



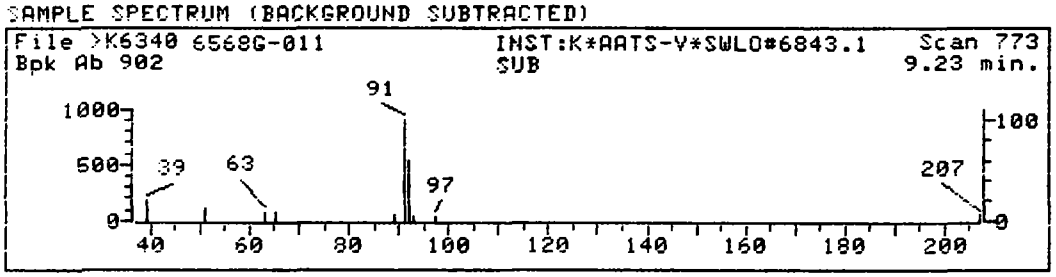
Data File: >K6340::D7 Quant Output File: ^K6340::D6
Name: 6568G-011
Misc: INST:K*AATS-V*SWLO#6843.11*5GM*C#(6568G)
Quant Time: 910809 18:27 Quant ID File: IDV023::EX
Injected at: 910809 18:03 Last Calibration: 910809 15:52

Compound No: 35
Compound Name: C220 TETRACHLOROETHENE
Scan Number: 857
Retention Time: 10.07 min.
Quant Ion: 164.0
Area: 8979
Concentration: 12.18 ng/mL
q-value: 89

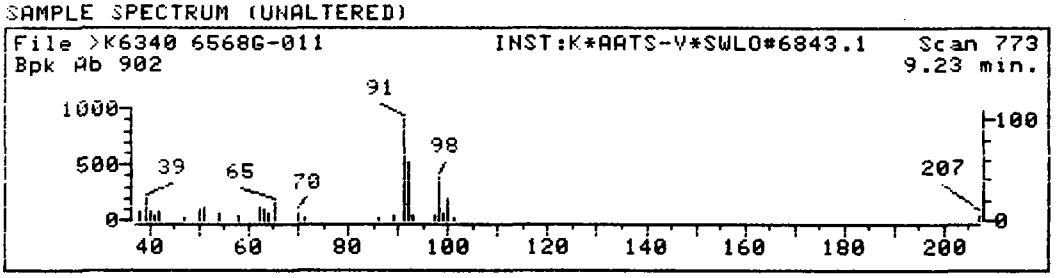
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



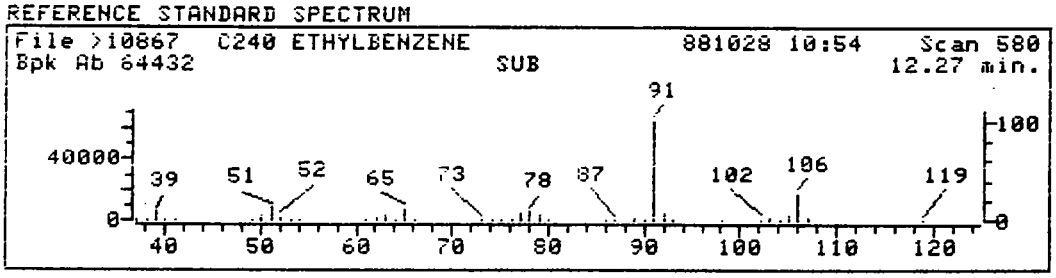
SAMPLE SPECTRUM (UNALTERED)



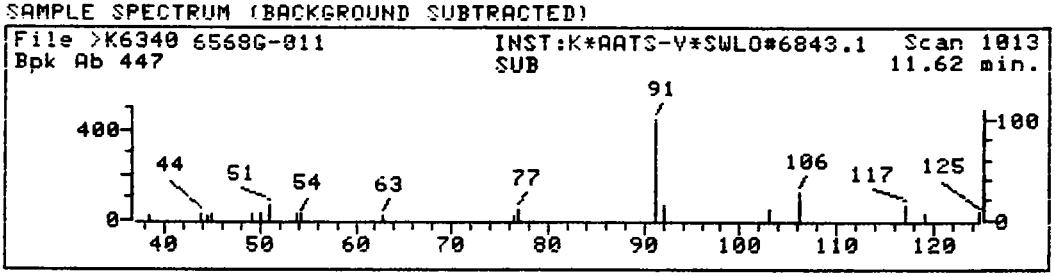
Data File: >K6340::D7 Quant Output File: ^K6340::D6
Name: 6568G-011
Misc: INST:K*AATS-V*SWLO#6843.11*5GM*C#(6568G)
Quant Time: 910809 18:27 Quant ID File: IDV023::EX
Injected at: 910809 18:03 Last Calibration: 910809 15:52

Compound No: 37
Compound Name: C230 TOLUENE
Scan Number: 773
Retention Time: 9.23 min.
Quant Ion: 92.0
Area: 2336
Concentration: 2.83 ng/mL
q-value: 99

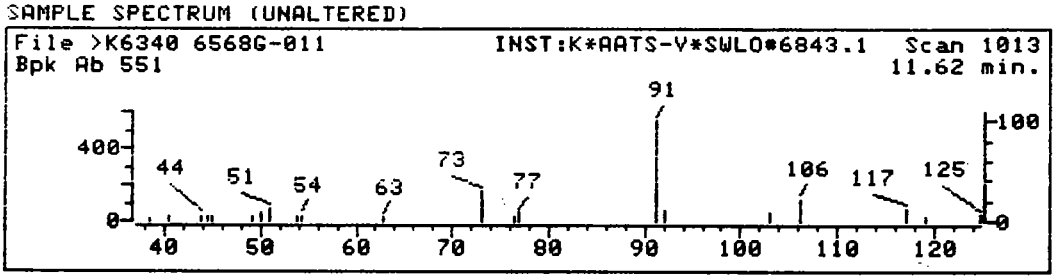
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



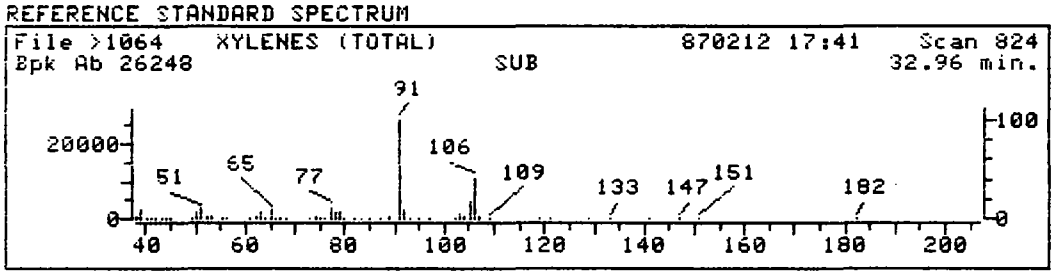
SAMPLE SPECTRUM (UNALTERED)



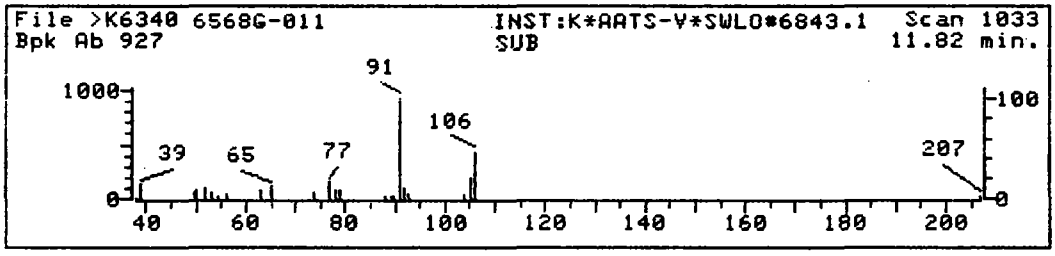
Data File: >K6340::D7 Quant Output File: ^K6340::D6
Name: 6568G-011
Misc: INST:K*AATS-V*SWLO#6843.11*5GM*C#(6568G)
Quant Time: 910809 18:27 Quant ID File: IDV023::EX
Injected at: 910809 18:03 Last Calibration: 910809 15:52

Compound No: 39
Compound Name: C240 ETHYLBENZENE
Scan Number: 1013
Retention Time: 11.62 min.
Quant Ion: 106.0
Area: 359
Concentration: .65 ng/mL
q-value: 81

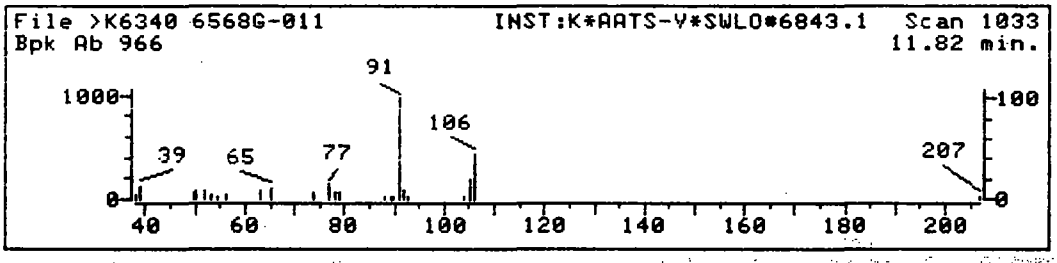
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6340::D7 Quant Output File: ^K6340::D6
Name: 6568G-011
Misc: INST:K*AATS-V*SWLO#6843.11*5GM*C#(6568G)
Quant Time: 910809 18:27 Quant ID File: IDV023::EX
Injected at: 910809 18:03 Last Calibration: 910809 15:52

Compound No: 42
Compound Name: C299 m,p-XYLENES
Scan Number: 1033
Retention Time: 11.82 min.
Quant Ion: 106.0
Area: 1249
Concentration: 1.79 ng/mL
q-value: 69

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Instrument ID: K Calibration Date(s): 07/25/91 07/25/91

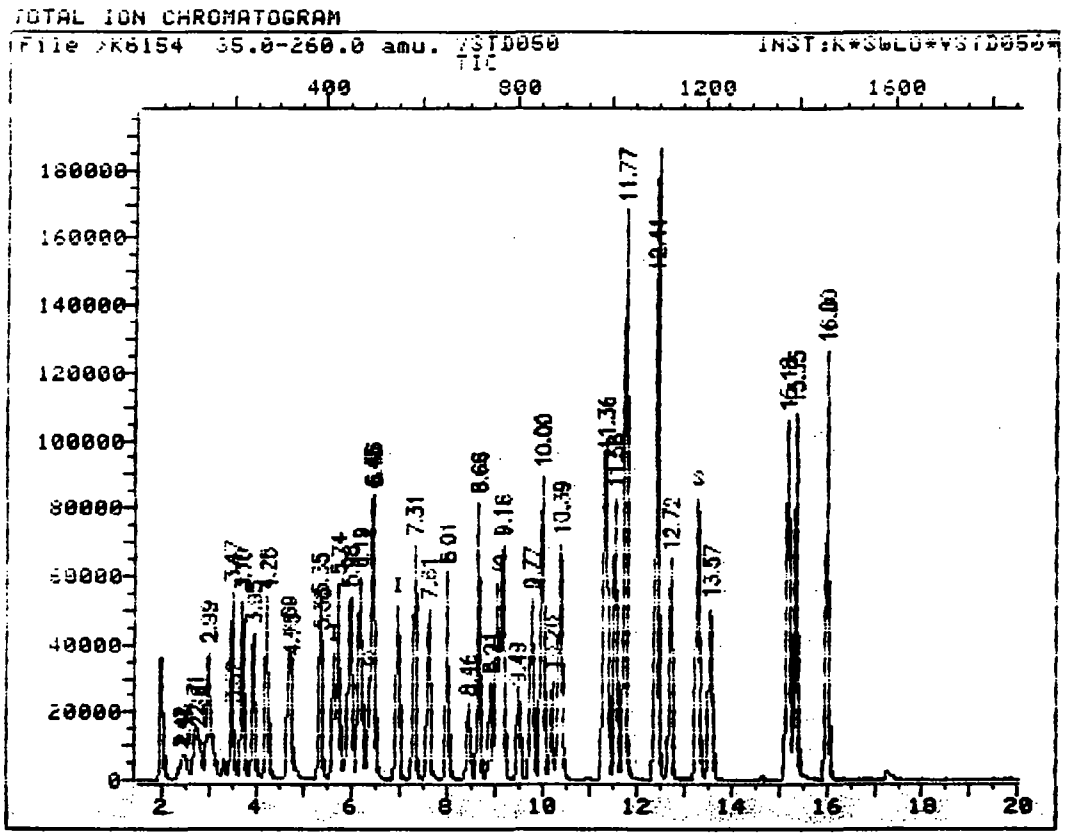
Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

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

LAB FILE ID: RRF20 = K6158 RRF50 = K6154

RRF100= K6157 RRF150= K6156 RRF200= K6155

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane #	0.557	0.660	0.522	0.739	0.622	0.620	13.8#
Bromomethane	1.851	1.871	1.703	1.696	1.673	1.759	5.4
Vinyl Chloride *	1.281	1.314	1.174	1.177	1.208	1.231	5.2*
Chloroethane	0.742	0.913	0.887	0.879	0.906	0.865	8.1
Methylene Chloride	1.678	1.668	1.634	1.550	1.574	1.621	3.5
Acetone	1.152	1.040	1.100	1.098	1.197	1.117	5.3
Carbon Disulfide	6.040	6.325	6.129	5.842	6.222	6.112	3.0
1,1-Dichloroethene *	1.712	1.747	1.662	1.610	1.600	1.666	3.8*
1,1-Dichloroethane #	3.824	3.696	3.556	3.492	3.547	3.623	3.7#
1,2-Dichloroethene (total)	1.837	1.826	1.745	1.698	1.787	1.779	3.2
Chloroform *	4.958	4.750	4.624	4.323	4.381	4.607	5.7*
1,2-Dichloroethane	4.013	3.707	3.645	3.503	3.348	3.643	6.8
2-Butanone	0.321	0.276	0.333	0.328	0.301	0.312	7.5
1,1,1-Trichloroethane	1.054	1.023	0.994	0.959	1.021	1.010	3.5
Carbon Tetrachloride	1.122	1.067	1.057	1.000	1.050	1.059	4.1
Vinyl Acetate	1.150	1.006	1.259	1.150	0.752	1.063	18.4
Bromodichloromethane	1.177	1.116	1.168	1.078	1.152	1.138	3.6
1,2-Dichloropropane *	0.481	0.449	0.473	0.435	0.450	0.458	4.1*
cis-1,3-Dichloropropene	0.986	0.927	0.916	0.885	0.946	0.932	4.0
Trichloroethene	0.646	0.609	0.615	0.572	0.607	0.610	4.3
Dibromochloromethane	1.085	1.021	1.104	1.094	1.018	1.064	3.9
1,1,2-Trichloroethane	0.504	0.432	0.499	0.462	0.446	0.469	6.8
Benzene	1.144	1.064	1.124	1.074	1.157	1.113	3.7
Trans-1,3-Dichloropropene	0.587	0.562	0.581	0.565	0.539	0.567	3.3
Bromoform #	1.076	0.902	1.157	1.037	0.926	1.020	10.4#
4-Methyl-2-Pentanone	1.125	0.733	0.551	0.835	0.652	0.779	28.2
2-Hexanone	0.994	0.782	0.928	0.878	0.667	0.850	15.1
Tetrachloroethene	0.848	0.797	0.755	0.734	0.714	0.770	7.0
1,1,2,2-Tetrachloroethane #	0.669	0.966	0.740	1.087	0.913	0.875	19.4#
Toluene *	0.987	0.969	0.955	0.925	0.927	0.953	2.8*
Chlorobenzene #	1.428	1.426	1.389	1.377	1.366	1.397	2.0#
Ethylbenzene *	0.633	0.638	0.626	0.603	0.625	0.625	2.1*
Styrene	1.507	1.600	1.658	1.555	1.725	1.609	5.3
Xylene (total)	0.915	0.986	0.968	0.929	0.942	0.948	3.0
Toluene-d8	1.392	1.352	1.241	1.229	1.246	1.292	5.8
Bromofluorobenzene	1.006	1.067	0.961	0.984	1.005	1.005	3.9
1,2-Dichloroethane-d4	2.846	2.667	2.540	2.433	2.343	2.566	7.7



Data File: >K6154::D7 Quant Output File: ^K6154::L2
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

Operator ID: DEBBIE
Quant Time: 910725 11:48
Injected at: 910725 11:27

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910725 11:48
Output File: ^K6154::L2 Injected at: 910725 11:27
Data File: ^K6154::D7 Dilution Factor: 1.00000
Name: USTD050
Misc: INST:K*SWLO*USTD050*5mL

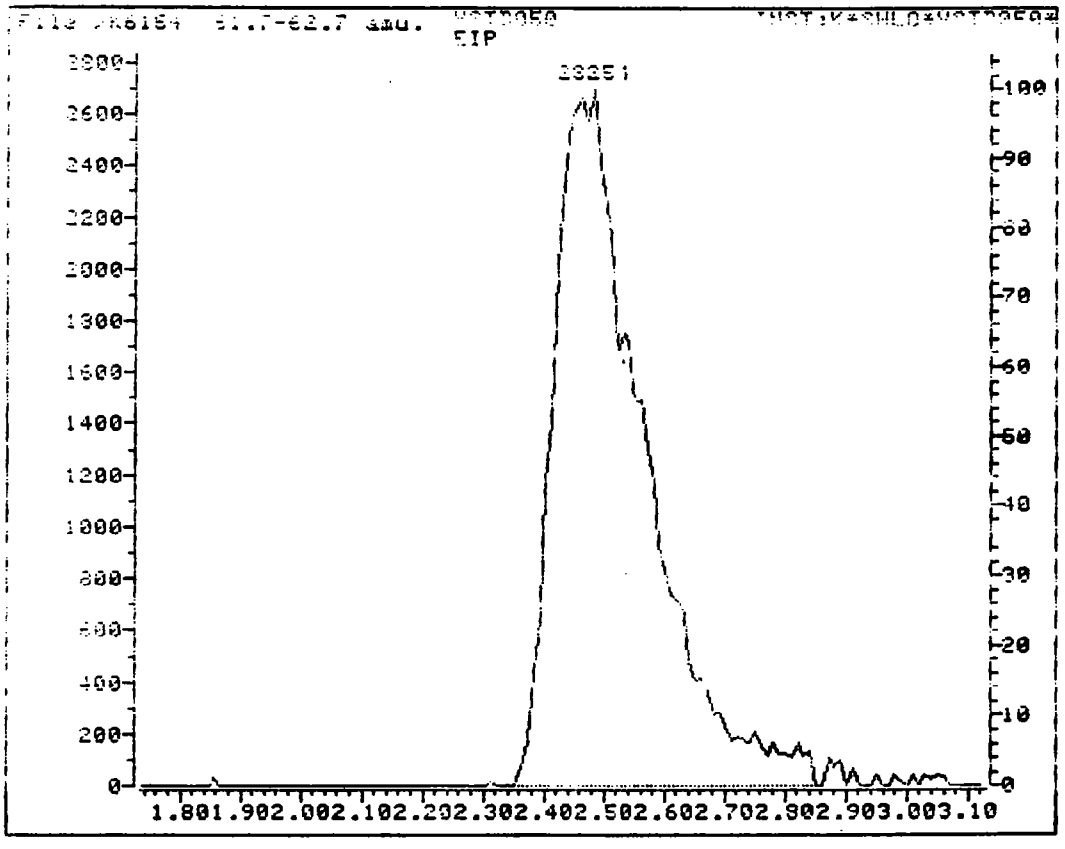
ID File: IDU023::EX
Title: UOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

	Compound	P.T.	Q ion	Area	Conc	Units	q
1)	*C101 BROMOCHLOROMETHANE	5.64	128.0	21476	50.00	ng/mL	77
2)	C010 CHLOROMETHANE	2.42	50.0	14198	64.18	ng/mL	94
3)	C015 BROMOMETHANE	2.71	94.0	40235	168.08	ng/mL	97
4)	C020 VINYL CHLORIDE	2.48	62.0	28254M	77.00	ng/mL	100
5)	C025 CHLOROETHANE	2.81	64.0	19632M	168.48	ng/ml	100
6)	C030 METHYLENE CHLORIDE	3.95	84.0	35863	59.38	ng/mL	97
7)	C035 ACETONE	3.52	43.0	22353	88.01	ng/ml	100
8)	C040 CARBON DISULFIDE	3.70	76.0	135981	59.91	ng/ml	100
9)	C255 TRICHLOROFLUOROMETHANE	2.99	101.0	86255	64.36	ng/mL	96
10)	C045 1,1-DICHLOROETHENE	3.47	96.0	37562	63.10	ng/mL	91
11)	C050 1,1-DICHLOROETHANE	4.69	63.0	79465	59.72	ng/mL	94
12)	C053 1,2-DICHLOROETHENE-TRANS	4.25	96.0	39249	58.23	ng/mL	89
13)	C055 1,2-DICHLOROETHENE-CIS	5.35	96.0	42654	60.14	ng/mL	95
14)	C060 CHLOROFORM	5.74	83.0	102115	60.16	ng/mL	99
15)	C065 1,2-DICHLOROETHANE	6.46	62.0	79697	64.38	ng/mL	91
16)	C110 2-BUTANONE	5.38	72.0	5924	85.20	ng/mL	90
17)	CS15 1,2-DICHLOROETHANE-D4	6.36	65.1	57336	58.96	ng/mL	95
18)	*C110 1,4-DIFLUOROBENZENE	6.95	114.0	89428	50.00	ng/mL	95
19)	C115 1,1,1-TRICHLOROETHANE	5.98	96.9	91447	58.76	ng/ml	97
20)	C120 CARBON TETRACHLORIDE	6.19	117.0	95408	59.66	ng/mL	96
21)	C125 VINYL ACETATE	4.75	43.0	89969	62.88	ng/ml	100
22)	C130 BROMODICHLOROMETHANE	8.01	83.0	99735	59.67	ng/ml	94
23)	C140 1,2-DICHLOROPROPANE	7.61	63.0	40148	60.41	ng/mL	92
24)	C172 TRANS-1,3-DICHLOROPROPENE	9.49	75.0	36148	45.65	ng/mL	84
25)	C150 TRICHLOROETHENE	7.31	130.0	54410	57.75	ng/mL	98
26)	C155 DIBROMOCHLOROMETHANE	10.39	129.0	91264	104.21	ng/mL	100
27)	C160 1,1,2-TRICHLOROETHANE	9.77	97.0	38636	60.50	ng/mL	100
28)	C165 BENZENE	6.45	78.0	95156	57.11	ng/mL	84
29)	C143 CIS-1,3-DICHLOROPROPENE	8.66	75.0	106045	77.22	ng/mL	92
30)	C175 2-CHLOROETHYL VINYL ETHER	8.46	63.0	21765	132.14	ng/mL	97
31)	C180 BROMOFORM	12.72	172.8	80638	64.42	ng/mL	97
32)	*C120 CHLOROBENZENE-D5	11.31	117.0	69801	50.00	ng/mL	96
33)	C205 4-METHYL-2-PENTANONE	8.91	43.0	51174	72.78	ng/mL	82
34)	C210 2-HEXANONE	10.20	43.0	54597	99.52	ng/mL	95
35)	C220 TETRACHLOROETHENE	10.00	164.0	55664	55.12	ng/mL	95
36)	C225 1,1,2,2-TETRACHLOROETHANE	13.57	83.0	67395	64.70	ng/mL	94
37)	C230 TOLUENE	9.16	92.0	47670	58.01	ng/mL	93
38)	C235 CHLOROBENZENE	11.36	112.0	99512	57.83	ng/mL	99
39)	C240 ETHYLBENZENE	11.56	106.0	44510	59.58	ng/mL	89
40)	C245 STYRENE	12.45	104.0	111463M	55.54	ng/mL	
41)	C250 o-XYLENE	12.41	106.0	68829	56.07	ng/ml	97
42)	C299 m,p-XYLENES	11.77	106.0	113271	119.48	ng/mL	99
43)	C265 1,3-DICHLOROBENZENE	15.18	146.0	115137	64.69	ng/mL	95

	Compound	R.T.	Q ion	Area	Conc	Units	
44)	C270 1,4-DICHLOROBENZENE	15.35	146.0	121169	65.03	ng/ml	9
45)	C260 1,2-DICHLOROBENZENE	16.00	146.0	134915	67.59	ng/ml	9
46)	CS05 TOLUENE-D8	9.05	98.0	94354	54.50	ng/mL	9
47)	CS10 BROMOFLUOROBENZENE	13.29	95.0	74475	58.47	ng/ml	9

* Compound is ISTD

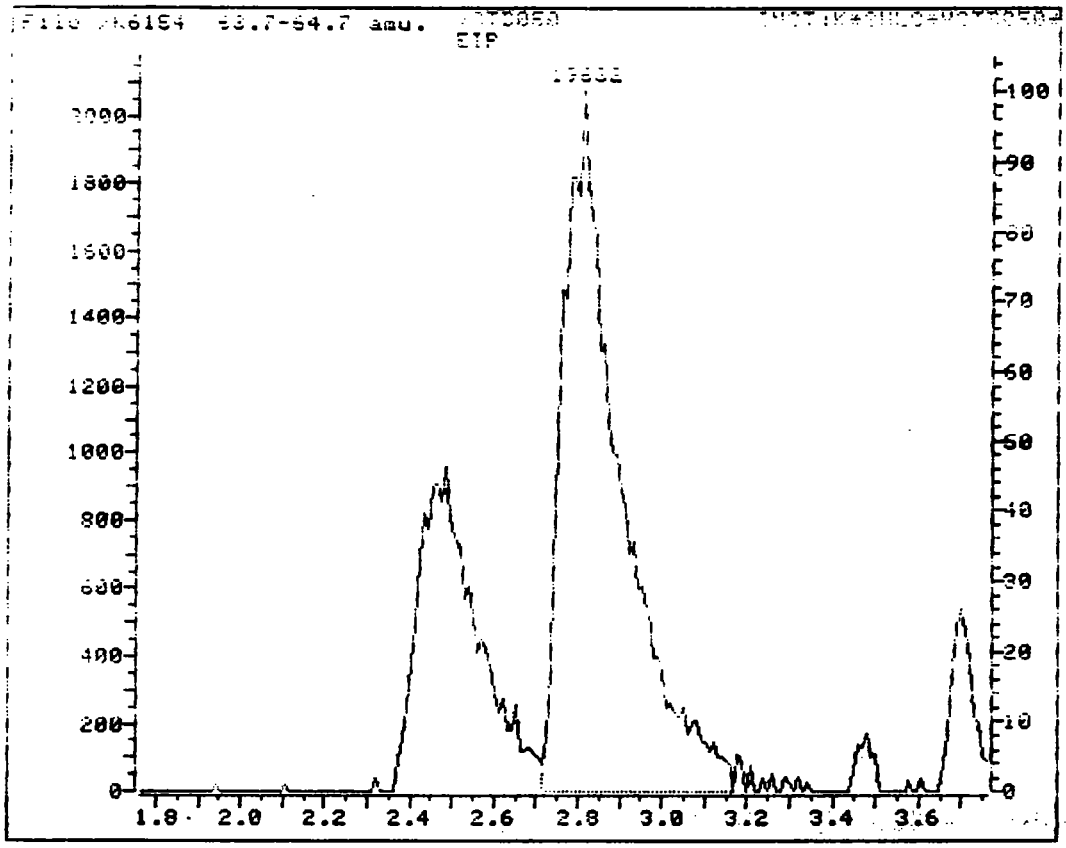
VSTD50
cont.K
K6154
07/23/91
11:27



Data File: >K6154::D7 Quant Output File: ^K6154::L2
Name: USTD050
Misc: INST:K*SWLO*USTD050*5mL
Quant Time: 910725 11:48 Quant ID File: IDU023::EX
Injected at: 910725 11:27 Last Calibration: 910724 11:03

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 98
Retention Time: 2.48 min.
Quant Ion: 62.0
Area: 28254M
Concentration: 77.00 ng/mL
q-value: 100

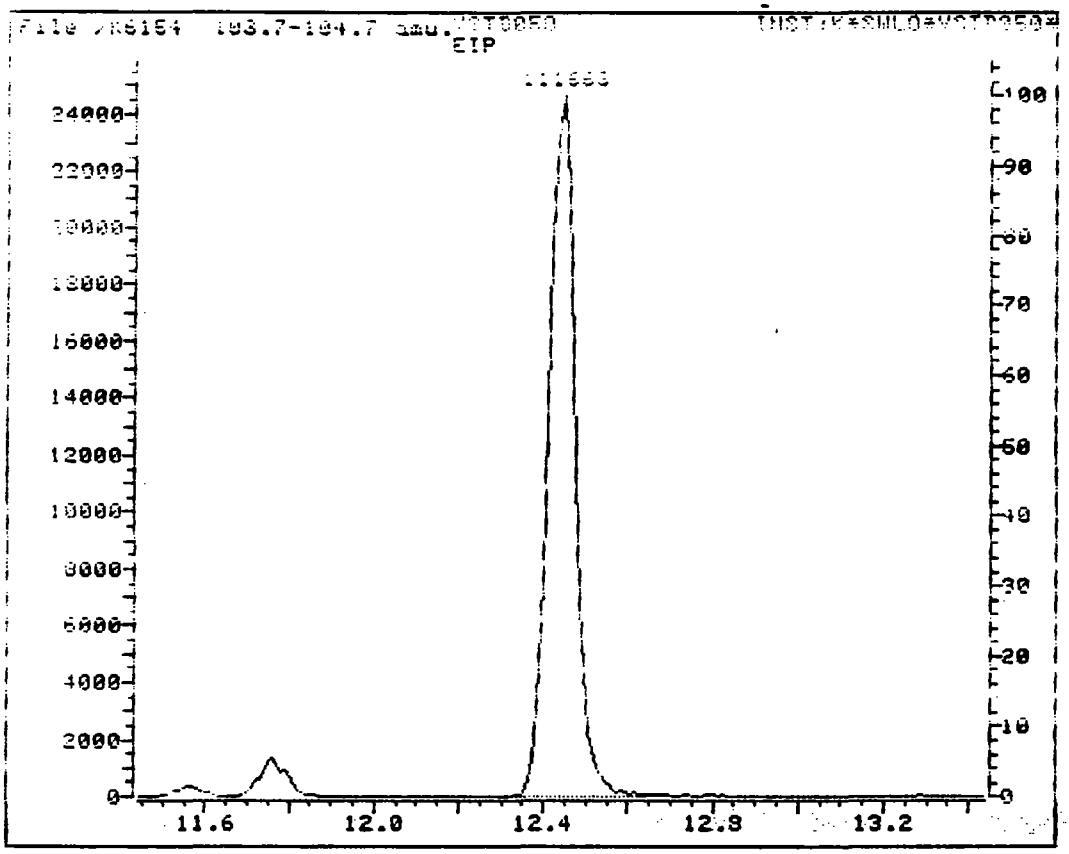
This report was produced by QAREA on: 910729 17:32



Data File: >K6154::D7 Quant Output File: ^K6154::L2
Name: USTD050
Misc: INST:K*SWLO*USTD050*5mL
Quant Time: 910725 11:48 Quant ID File: IDU023::FY
Injected at: 910725 11:27 Last Calibration: 910724 11:03

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 131
Retention Time: 2.81 min.
Quant Ion: 64.0
Area: 19632M
Concentration: 169.48 ng/mL
q-value: 100

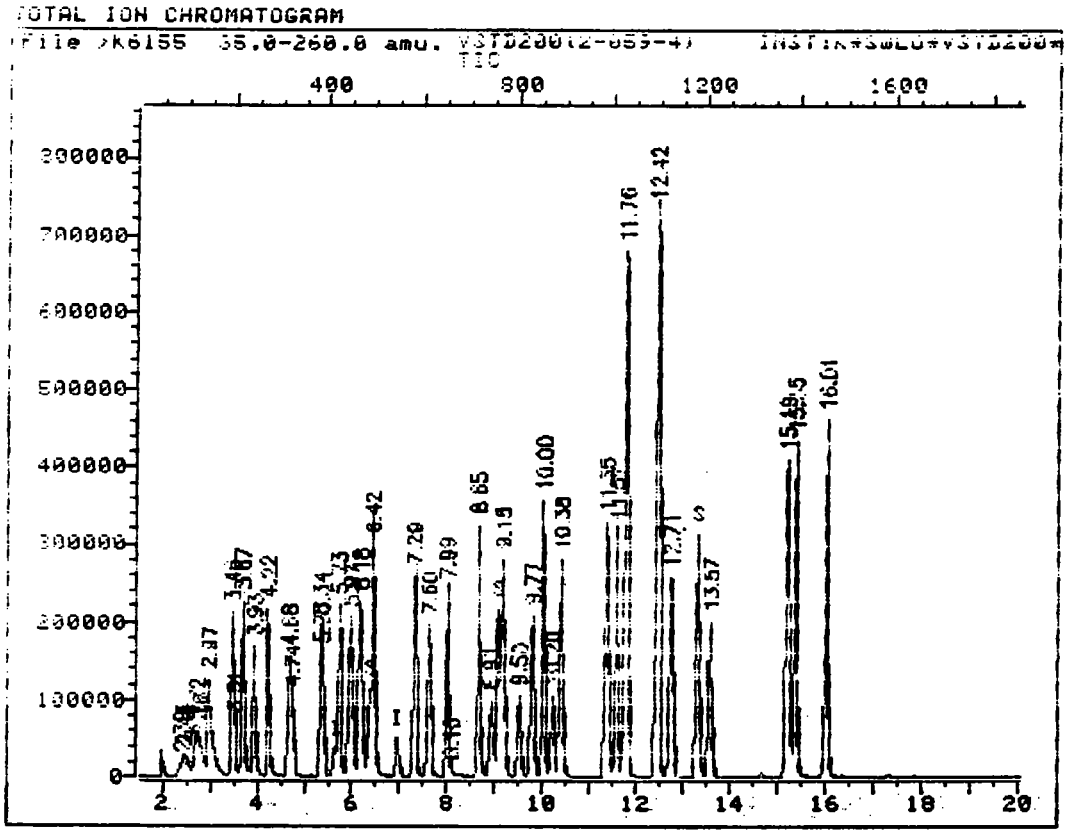
This report was produced by QAREA on: 910729 17:33



Data File: >K6154::D7 Quant Output File: ^K6154::L2
Name: USTD050
Misc: INST:K*SWLO*USTD050*5mL
Quant Time: 910725 11:48 Quant ID File: IDU023::EX
Injected at: 910725 11:27 Last Calibration: 910724 11:03

Compound Nn: 40
Compound Name: C245 STYRENE
Scan Number: 1099
Retention Time: 12.45 min.
Quant Ion: 104.0
Area: 111663M
Concentration: 55.54 ng/mL

This report was produced by QAREA on: 910729 17:34



Data File: >K6155::D7 Quant Output File: ^K6155::L2
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

Operator ID: DEBBIE
Quant Time: 910725 12:46
Injected at: 910725 12:24

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910725 12:44
Output File: HK6155::L2 Injected at: 910725 12:24
Data File: HK6155::D7 Dilution Factor: 1.00000
Name: USTD200(2-059-4)
Misc: INST:K*SWLO*USTD200*5ML

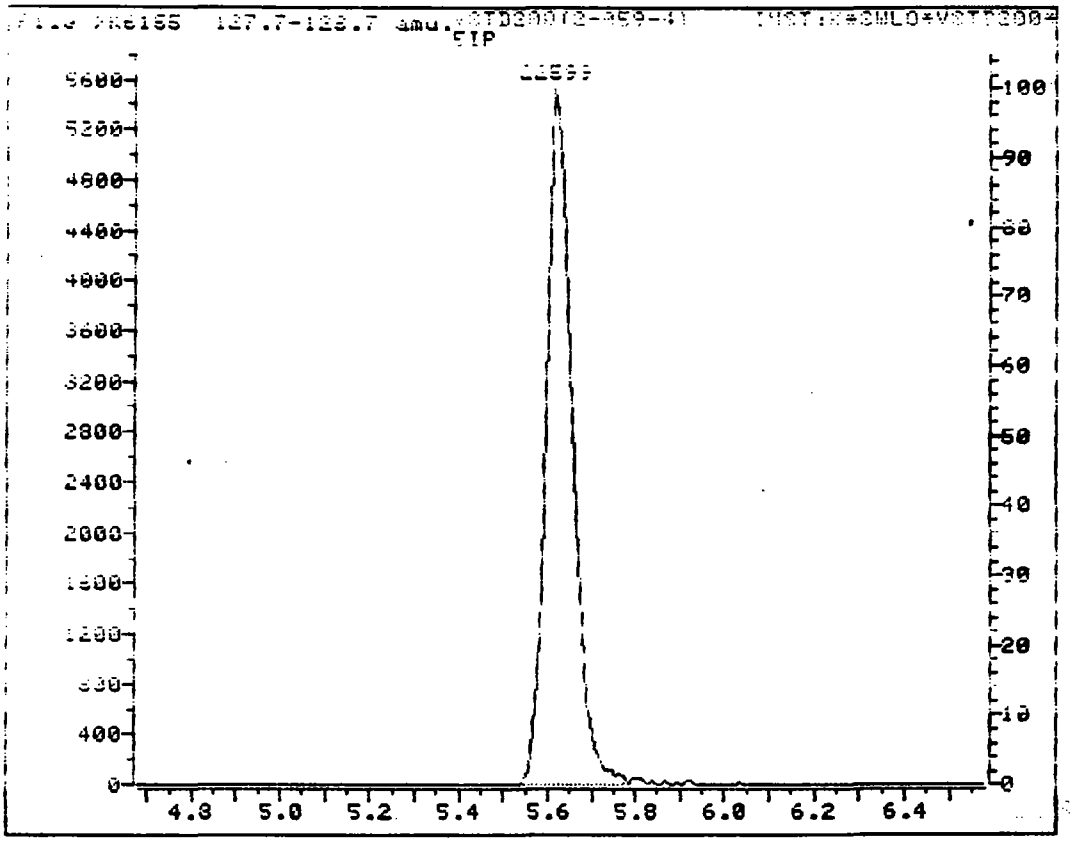
ID File: IDU023::EX
Title: UOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:07

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.62	128.0	22599M	50.00	ng/ml	
2)	C010 CHLOROMETHANE	2.39	50.0	56262	241.48	ng/ml	95
3)	C015 BROMOMETHANE	2.72	94.0	151264	600.51	ng/ml	97
4)	C020 VINYL CHLORIDE	2.45	62.0	109229	282.97	ng/ml	100
5)	C025 CHLOROETHANE	2.79	64.0	81922M	468.12	ng/ml	100
6)	C030 METHYLENE CHLORIDE	3.93	84.0	142267	223.86	ng/ml	94
7)	C035 ACETONE	3.51	43.0	108188	404.80	ng/ml	100
8)	C040 CARBON DISULFIDE	3.67	76.0	562499	235.51	ng/ml	100
9)	C255 TRICHLOROFLUOROMETHANE	2.97	101.0	325370	230.72	ng/ml	97
10)	C045 1,1-DICHLOROETHENE	3.46	96.0	144678	230.98	ng/ml	99
11)	C050 1,1-DICHLOROETHANE	4.68	63.0	320648	228.99	ng/ml	98
12)	C053 1,2-DICHLOROETHENE-TRANS	4.22	96.0	161530	227.73	ng/ml	89
)	C055 1,2-DICHLOROETHENE-CIS	5.34	96.0	166737	223.43	ng/ml	97
)	C060 CHLOROFORM	5.73	83.0	396031	221.72	ng/ml	99
15)	C065 1,2-DICHLOROETHANE	6.44	62.0	302691M	232.37	ng/ml	
16)	C110 2-BUTANONE	5.37	72.0	27230	372.16	ng/ml	93
17)	CS15 1,2-DICHLOROETHANE-D4	6.35	65.1	211816	207.01	ng/ml	86
18)	*CI10 1,4-DIFLUOROBENZENE	6.93	114.0	86888	50.00	ng/ml	99
19)	C115 1,1,1-TRICHLOROETHANE	5.97	96.9	354760	234.61	ng/ml	99
20)	C120 CARBON TETRACHLORIDE	6.18	117.0	365073	234.96	ng/ml	99
21)	C125 VINYL ACETATE	4.74	43.0	261487	188.11	ng/ml	100
22)	C130 BROMODICHLOROMETHANE	7.99	83.0	400251	246.48	ng/ml	95
23)	C140 1,2-DICHLOROPROPANE	7.60	63.0	156509	242.36	ng/ml	99
24)	C172 TRANS-1,3-DICHLOROPROPENE	8.50	75.0	134974	175.44	ng/ml	84
25)	C150 TRICHLOROETHENE	7.29	130.0	211069	230.59	ng/ml	95
26)	C155 DIBROMOCHLOROMETHANE	10.38	129.0	353959	416.00	ng/ml	100
27)	C160 1,1,2-TRICHLOROETHANE	9.77	97.0	154864	249.58	ng/ml	100
28)	C165 BENZENE	6.42	78.0	402097	248.38	ng/ml	82
29)	C143 CIS-1,3-DICHLOROPROPENE	8.65	75.0	420810	315.34	ng/ml	93
30)	C175 2-CHLOROETHYL VINYL ETHER	8.45	63.0	2462M	15.38	ng/ml	97
31)	C180 BROMOFORM	12.71	172.8	321902	264.69	ng/ml	90
32)	*CI20 CHLOROBENZENE-D5	11.31	117.0	72063	50.00	ng/ml	95
33)	C205 4-METHYL-2-PENTANONE	8.91	43.0	187973	268.96	ng/ml	91
34)	C210 2-HEXANONE	10.20	43.0	192391	339.46	ng/ml	99
35)	C220 TETRACHLOROETHENE	10.00	164.0	205929	197.53	ng/ml	99
36)	C225 1,1,2,2-TETRACHLOROETHANE	13.57	83.0	263249	244.91	ng/ml	99
37)	C230 TOLUENE	9.15	92.0	267378	222.01	ng/ml	99
38)	C235 CHLOROBENZENE	11.75	112.0	393863	221.48	ng/ml	94
	C240 ETHYLBENZENE	11.57	106.0	180192	233.62	ng/ml	95
40)	C245 STYRENE	12.44	104.0	497597M	239.74	ng/ml	
41)	C250 o-XYLENE	12.42	106.0	271702	214.39	ng/ml	97
42)	C299 m,p-XYLENES	11.76	106.0	469358	480.34	ng/ml	90
43)	C265 1,3-DICHLOROBENZENE	15.19	146.0	452479	246.24	ng/ml	99

	Compound	R.T.	Q ion	Area	Conc	Units	
44)	C270 1,4-DICHLOROBENZENE	15.35	146.0	471695	245.21	ng/ml	9[illegible]
45)	C260 1,2-DICHLOROBENZENE	16.01	146.0	548508	266.12	ng/ml	9[illegible]
46)	CS05 TOLUENE-D8	9.05	98.0	359455	201.12	ng/ml	9[illegible]
47)	CS10 BROMOFLUOROBENZENE	13.29	95.0	289897	220.45	ng/ml	9[illegible]

* Compound is ISTD

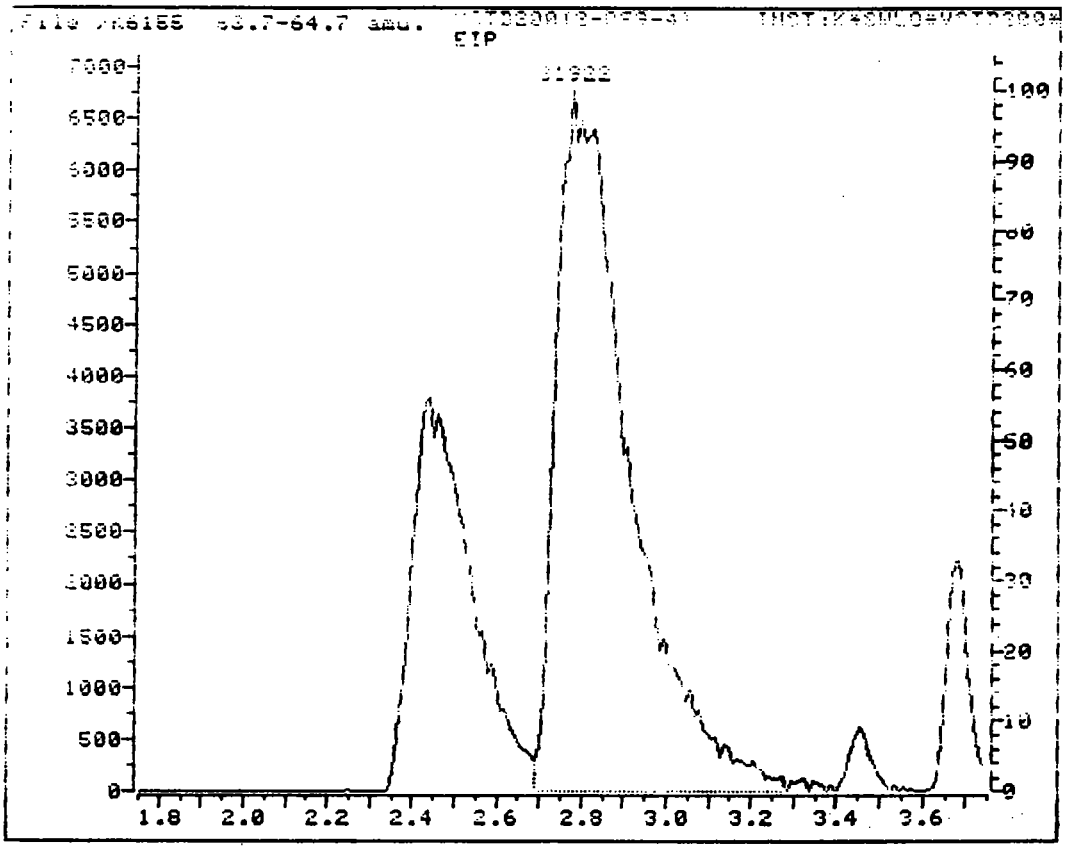
USTD200
Inst:K
K6155
07/25/91
12:24



Data File: >K6155::D7 Quant Output File: ^K6155::L2
Name: USTD200(2-059-4)
Misc: INST:K*SWLO*USTD200*5ML
Quant Time: 910725 12:46 Quant ID File: IDU023::EX
Injected at: 910725 12:24 Last Calibration: 910724 11:03

Compound No: 1 (ISTD)
Compound Name: CI01 BROMOCHLOROMETHANE
Scan Number: 412
Retention Time: 5.62 min.
Quant Ion: 128.0
Area: 22599M
Concentration: 50.00 ng/mL

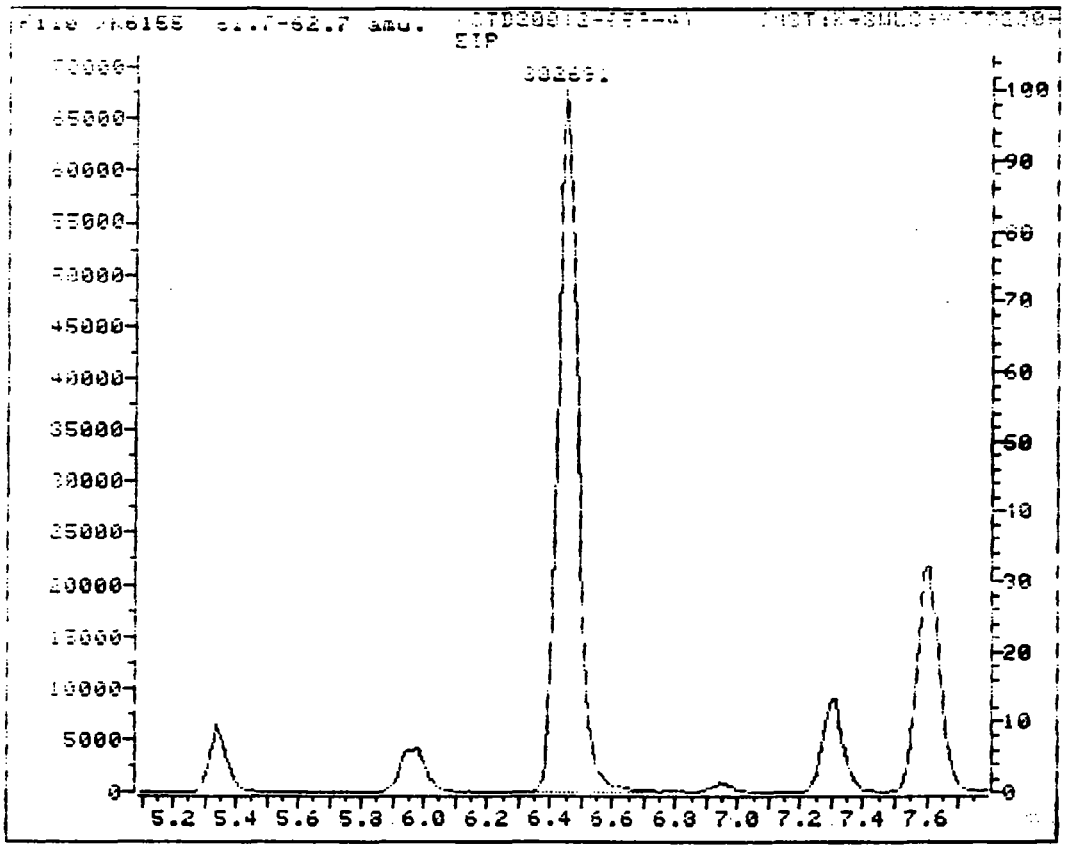
This report was produced By QAREA on: 910729 17:51



Data File: >K6155::D7 Quant Output File: ^K6155::L2
Name: USTD200(2-059-4)
Misc: INST:K*SWLO*USTD200*5ML
Quant Time: 910725 12:46 Quant ID File: IDU023::EX
Injected at: 910725 12:24 Last Calibration: 910724 11:03

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 127
Retention Time: 2.78 min.
Quant Ion: 64.0
Area: 81922M
Concentration: 668.12 ng/mL
q-value: 100

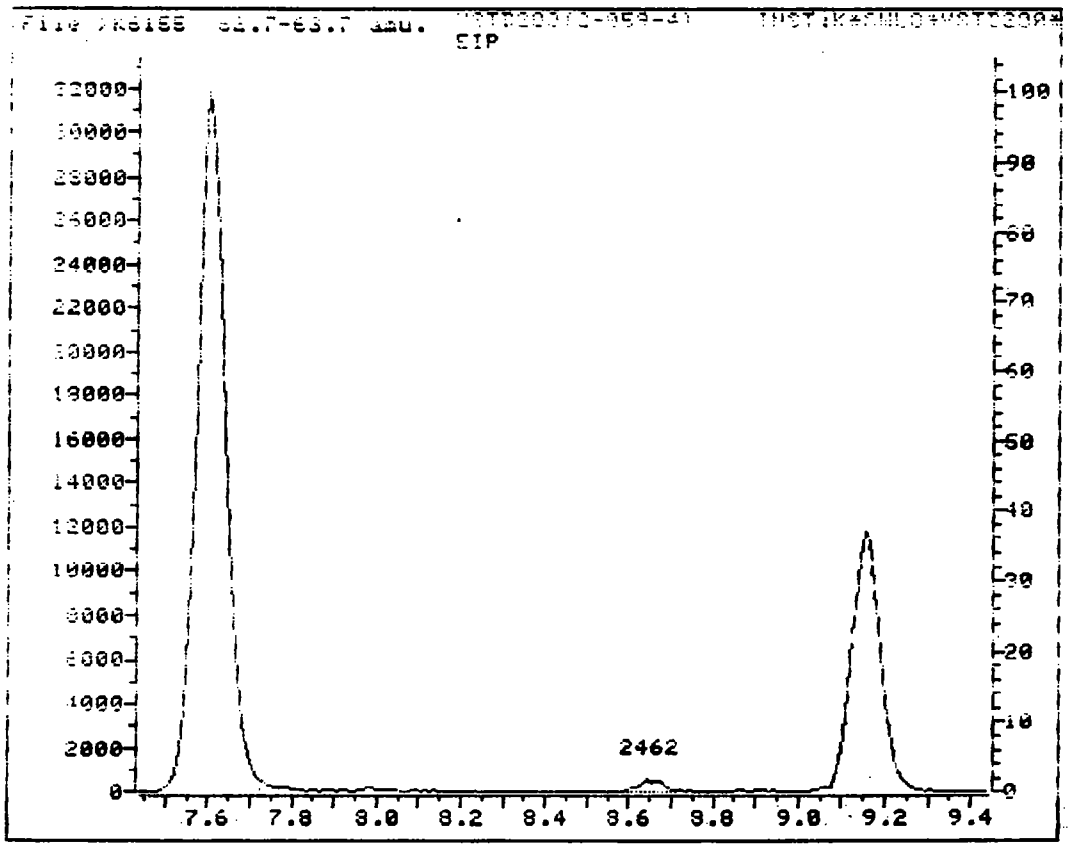
This report was produced by QAREA on: 910729 17:52



Data File: >K6155::D7 Quant Output File: ^K6155::L2
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML
Quant Time: 910725 12:46 Quant ID File: IDV023::EX
Injected at: 910725 12:24 Last Calibration: 910724 11:03

Compound No: 15
Compound Name: C065 1,2-DICHLOROETHANE
Scan Number: 495
Retention Time: 6.44 min.
Quant Ion: 62.0
Area: 302691M
Concentration: 232.37 ng/mL

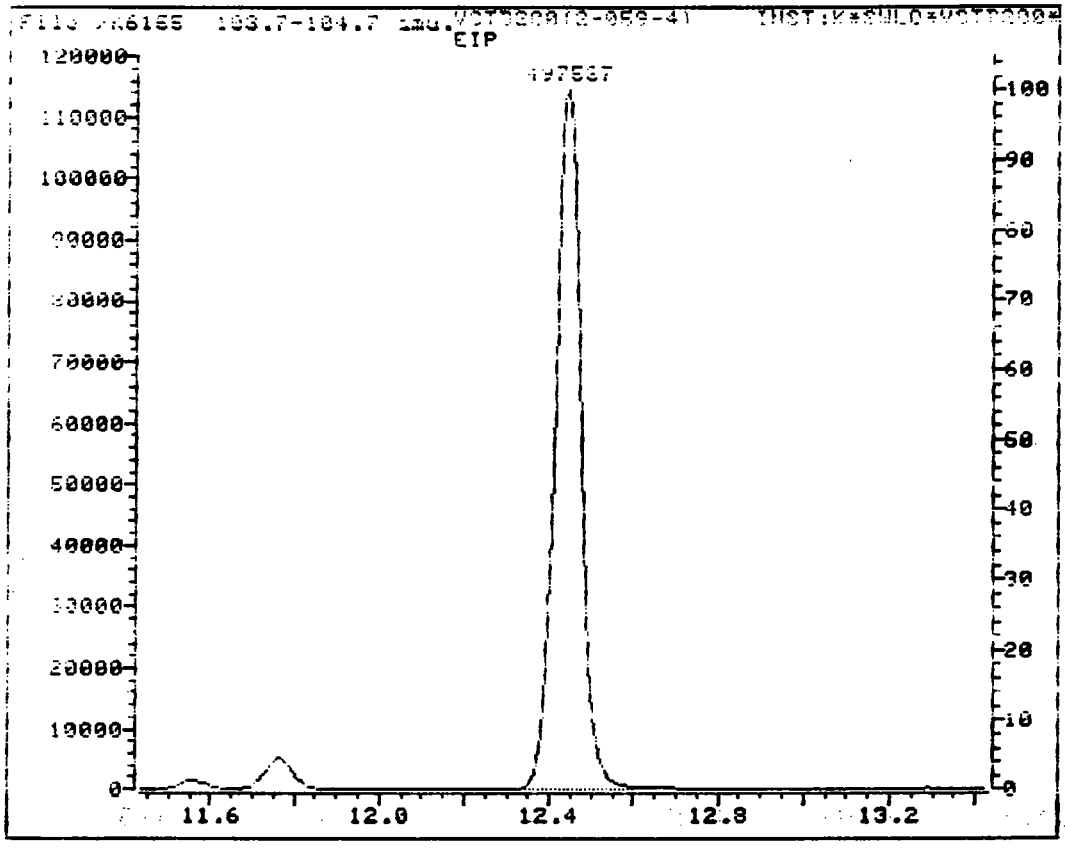
This report was produced by QAREA on: 910729 17:53



Data File: >K6155::D7 Quant Output File: ^K6155::L2
Name: USTD200(2-059-4)
Misc: INST:K*SWLO*USTD200*5ML
Quant Time: 910725 12:46 Quant ID File: IDU023::EX
Injected at: 910725 12:24 Last Calibration: 910724 11:03

Compound No: 30
Compound Name: C175 2-CHLOROETHYL VINYL ETHER
Scan Number: 716
Retention Time: 8.65 min.
Quant Ion: 63.0
Area: 2462M
Concentration: 15.38 ng/mL
q-value: 97

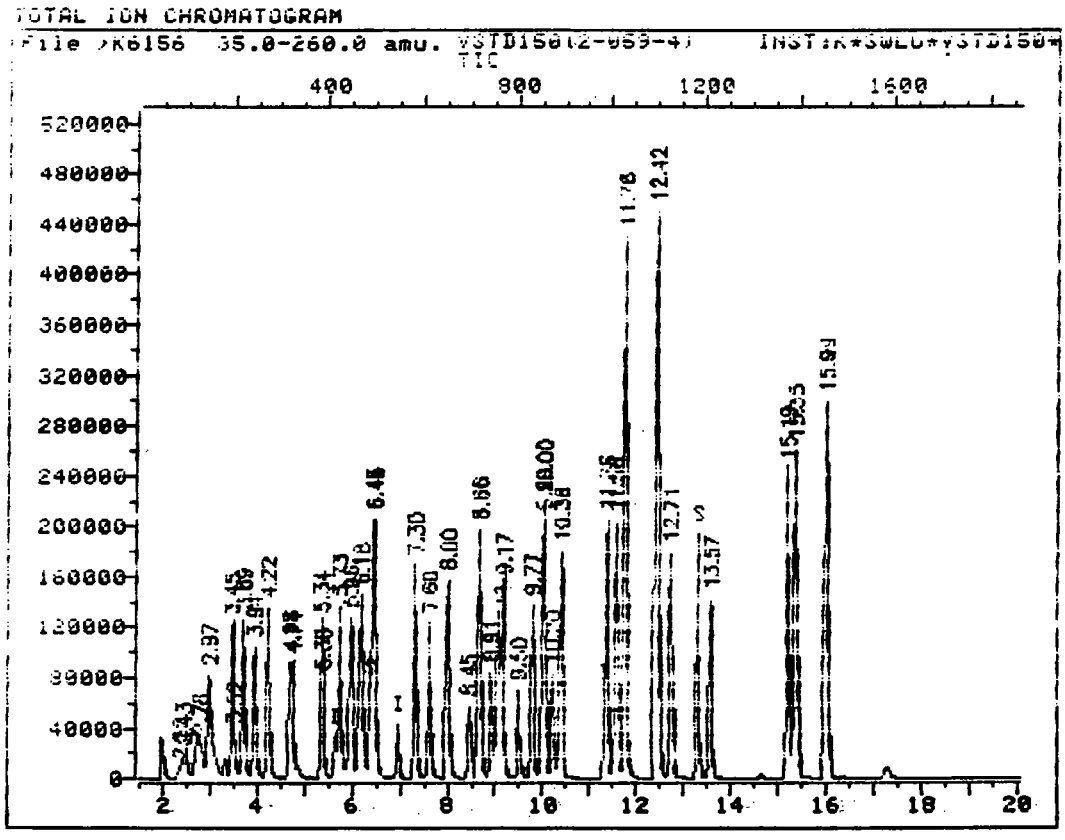
This report was produced by QAREA on: 910729 17:55



Data File: >K6155::D7 Quant Output File: ^K6155::L2
Name: USTD200(2-059-4)
Misc: INST:K*SWLO*USTD200*5ML
Quant Time: 910725 12:46 Quant ID File: IDU023::EX
Injected at: 910725 12:24 Last Calibration: 910724 11:03

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1097
Retention Time: 12.44 min.
Quant Ion: 104.0
Area: 497587M
Concentration: 239.74 ng/mL

This report was produced by QAREA on: 910729 17:56



Data File: >K6156::D7 Quant Output File: ^K6156::L2
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

Operator ID: DEBBIE
Quant Time: 910725 13:19
Injected at: 910725 12:57

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910725 13:19
Output File: AK6156::L2 Injected at: 910725 10:57
Data File: AK6156::07 Dilution Factor: 1.00000
Name: USTD150(2-059-4)
Misc: INST:K*SULO*USTD150*5ML

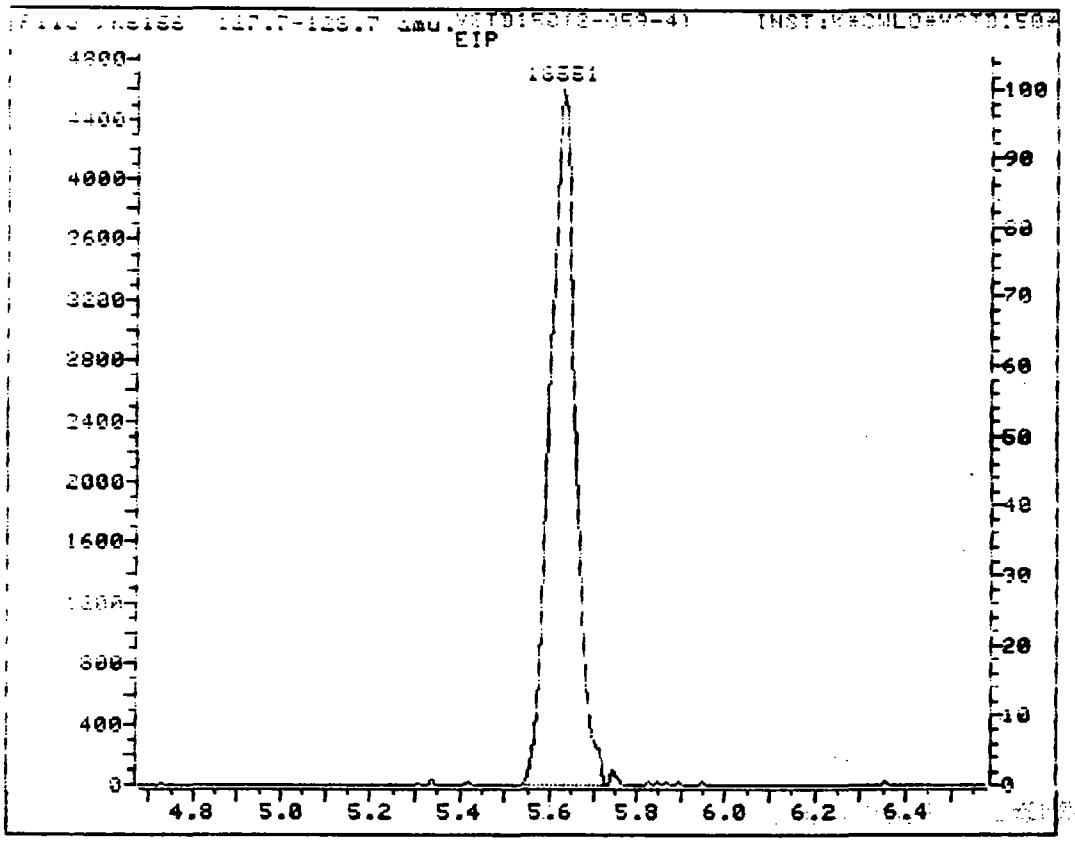
ID File: IDU023::EX
Title: UOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:07

	Compound	R.T.	Q ion	Area	Conc	Units	
1)	*C101 BROMOCHLOROMETHANE	5.63	128.0	18551M	50.00	ng/ml	
2)	C010 CHLOROMETHANE	2.38	50.0	41226M	215.73	ng/ml	91
3)	C015 BROMOMETHANE	2.74	94.0	94639M	457.49	ng/ml	
4)	C020 VINYL CHLORIDE	2.43	62.0	65659M	207.14	ng/ml	100
5)	C025 CHLOROETHANE	2.93	64.0	49033M	487.15	ng/ml	100
6)	C070 METHYLENE CHLORIDE	3.94	84.0	96482	165.77	ng/ml	94
7)	C035 ACETONE	3.52	43.0	61294	279.34	ng/ml	100
8)	C040 CARBON DISULFIDE	3.49	76.0	325971	166.26	ng/ml	100
9)	C255 TRICHLOROFLUOROMETHANE	2.97	101.0	193390	167.05	ng/ml	97
10)	C045 1,1-DICHLOROETHENE	3.45	96.0	89923	174.69	ng/ml	99
11)	C050 1,1-DICHLOROETHANE	4.68	63.0	194859	169.53	ng/ml	97
12)	C053 1,2-DICHLOROETHENE-TRANS	4.22	96.0	94757	162.74	ng/ml	85
13)	C055 1,2-DICHLOROETHENE-CIS	5.34	96.0	102708	167.66	ng/ml	93
14)	C060 CHLOROFORM	5.73	83.0	241222	164.52	ng/ml	94
15)	C065 1,2-DICHLOROETHANE	6.45	62.0	195483	182.82	ng/ml	83
16)	C110 2-BUTANONE	5.38	72.0	18302	304.72	ng/ml	85
17)	CS15 1,2-DICHLOROETHANE-D4	6.36	65.1	135769	161.64	ng/ml	93
18)	*C110 1,4-DIFLUOROBENZENE	6.94	114.0	74053	50.00	ng/ml	97
19)	C115 1,1,1-TRICHLOROETHANE	5.96	96.9	213131	165.38	ng/ml	94
20)	C120 CARBON TETRACHLORIDE	6.18	117.0	222355	167.91	ng/ml	97
21)	C125 VINYL ACETATE	4.74	43.0	255631	215.77	ng/ml	100
22)	C130 BROMODICHLOROMETHANE	8.00	83.0	239595	173.12	ng/ml	99
23)	C140 1,2-DICHLOROPROPANE	7.60	63.0	96717	175.73	ng/ml	98
24)	C172 TRANS-1,3-DICHLOROPROPENE	9.50	75.0	90448	137.94	ng/ml	89
25)	C150 TRICHLOROETHENE	7.30	130.0	127212	163.06	ng/ml	94
26)	C155 DIBROMOCHLOROMETHANE	10.38	129.0	243082	335.20	ng/ml	100
27)	C160 1,1,2-TRICHLOROETHANE	9.77	97.0	102717	194.23	ng/ml	100
28)	C165 BENZENE	6.44	78.0	238654	172.97	ng/ml	79
29)	C143 CIS-1,3-DICHLOROPROPENE	8.66	75.0	251950	221.54	ng/ml	94
30)	C175 2-CHLOROETHYL VINYL ETHER	8.45	63.0	61109	448.04	ng/ml	99
31)	C180 BROMOFORM	12.71	172.8	230598	222.48	ng/ml	94
32)	*C120 CHLOROBENZENE-D5	11.30	117.0	60059	50.00	ng/ml	98
33)	C205 4-METHYL-2-PENTANONE	8.91	43.0	150549	248.86	ng/ml	91
34)	C210 2-HEXANONE	10.20	43.0	158366	335.49	ng/ml	89
35)	C220 TETRACHLOROETHENE	9.99	164.0	132300	152.27	ng/ml	93
36)	C225 1,1,2,2-TETRACHLOROETHANE	13.57	83.0	195970	218.67	ng/ml	98
37)	C230 TOLUENE	9.17	92.0	166699	166.08	ng/ml	91
38)	C235 CHLOROBENZENE	11.36	112.0	248307	167.49	ng/ml	95
39)	C240 ETHYLBENZENE	11.56	106.0	108786	169.23	ng/ml	80
40)	C245 STYRENE	12.43	104.0	280429M	162.11	ng/ml	
41)	C250 o-XYLENE	12.42	106.0	167439	158.53	ng/ml	93
42)	C299 m,p-XYLENES	11.76	106.0	273828	336.24	ng/ml	85
43)	C265 1,3-DICHLOROBENZENE	15.19	146.0	280032	182.85	ng/ml	96

	Compound	R.T.	Q ion	Area	Conc	Units	[illegible]
44)	C270 1,4-DICHLOROBENZENE	15.35	146.0	289235	180.41	ng/ml	85
45)	C260 1,2-DICHLOROBENZENE	15.99	146.0	330584	192.45	ng/ml	95
46)	CS05 TOLUENE-D8	9.05	98.0	221572	148.75	ng/ml	90
47)	CS10 BROMOFLUOROBENZENE	13.29	95.0	177352	161.82	ng/ml	9[illegible]

* Compound is ISTD

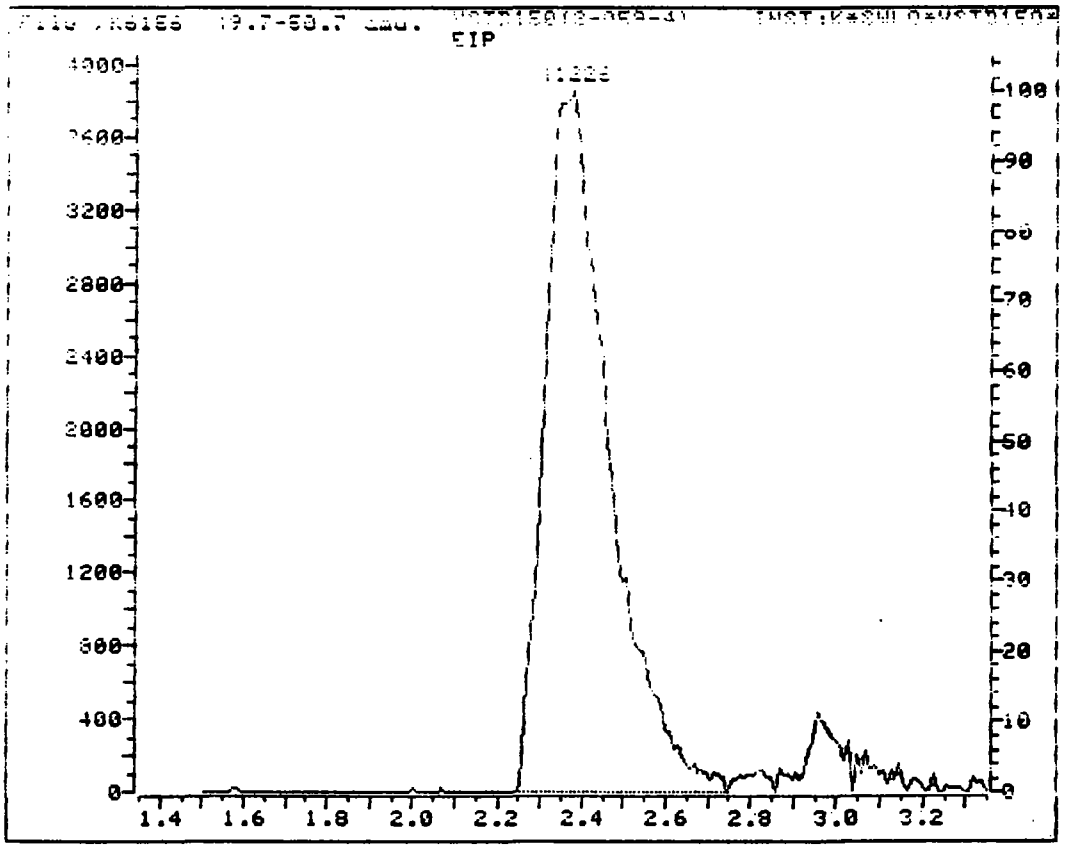
VSTD150
Instik
K6156
07/25/91
12:57



Data File: >K6156::D7 Quant Output File: ^K6156::L2
Name: USTD150(2-059-4)
Misc: INST:K*SWLO*USTD150*5ML
Quant Time: 910725 13:19 Quant ID File: IDU023::EX
Injected at: 910725 12:57 Last Calibration: 910724 11:03

Compound No: 1 (ISTD)
Compound Name: CI01 BROMOCHLOROMETHANE
Scan Number: 415
Retention Time: 5.63 min.
Quant Ion: 128.0
Area: 18551M
Concentration: 50.00 ng/mL

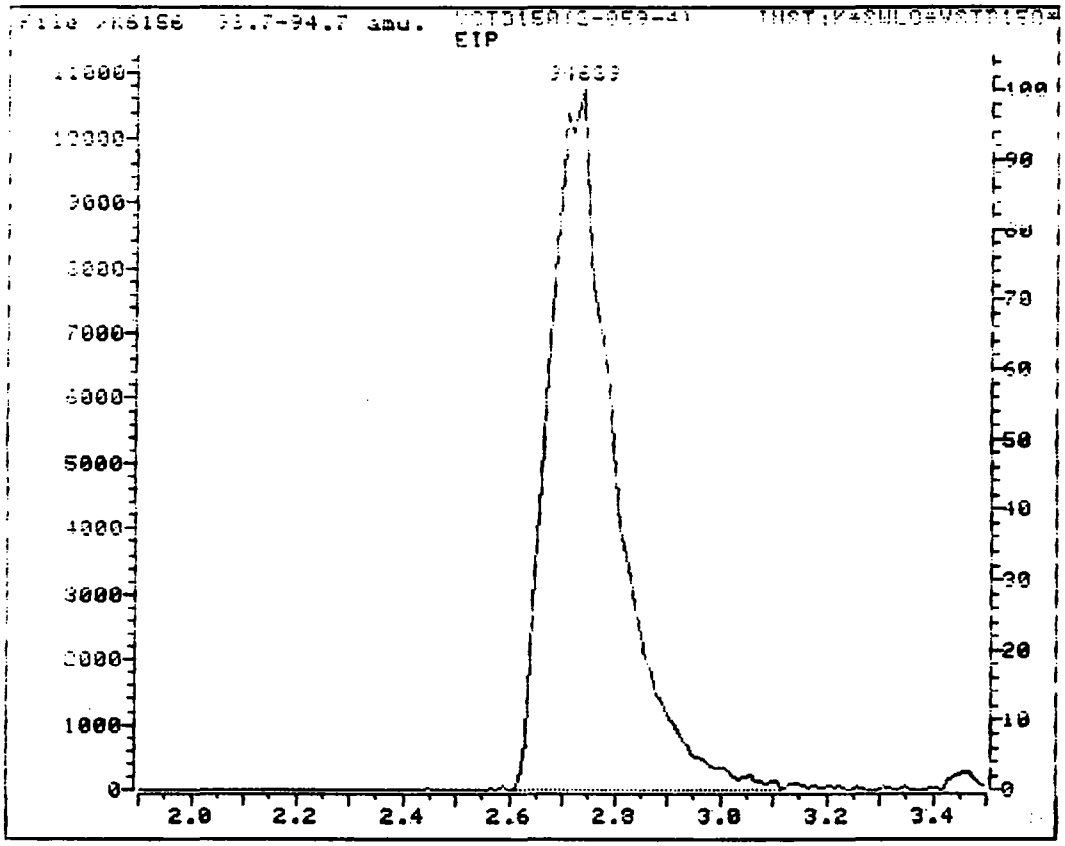
This report was produced By QAREA on: 910729 17:41



Data File: >K6156::D7 Quant Output File: ^K6156::L2
Name: USTD150(2-059-4)
Misc: INST:K*SWLO*USTD150*5ML
Quant Time: 910725 13:19 Quant ID File: IDU023::EX
Injected at: 910725 12:57 Last Calibration: 910724 11:03

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 89
Retention Time: 2.38 min.
Quant Ion: 50.0
Area: 41226M
Concentration: 215.73 ng/mL
q-value: 81

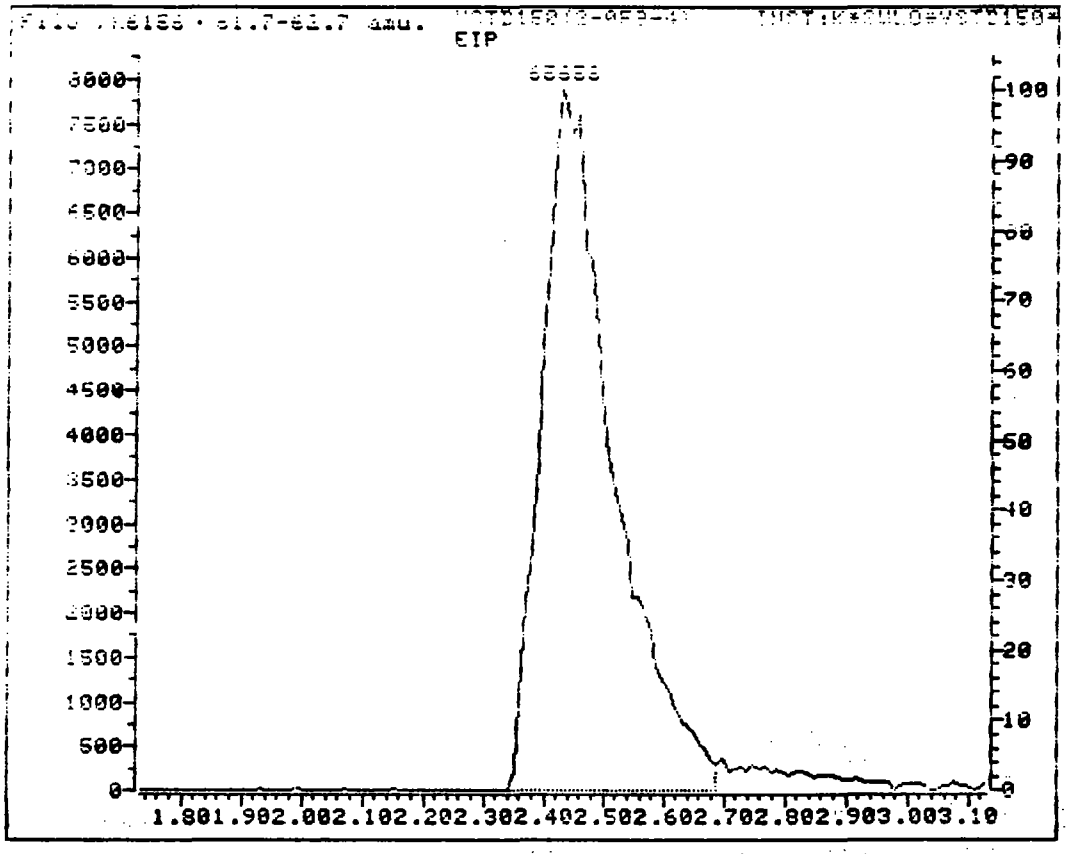
This report was produced by QAREA on: 910729 17:43



Data File: >K6156::D7 Quant Output File: ^K6156::L2
Name: USTD150(2-059-4)
Misc: INST:K*SWLO*USTD150*5ML
Quant Time: 910725 13:19 Quant ID File: IDV023::EX
Injected at: 910725 12:57 Last Calibration: 910724 11:03

Compound No: 3
Compound Name: C015 BROMOMETHANE
Scan Number: 125
Retention Time: 2.74 min.
Quant Ion: 94.0
Area: 94639M
Concentration: 457.69 ng/mL

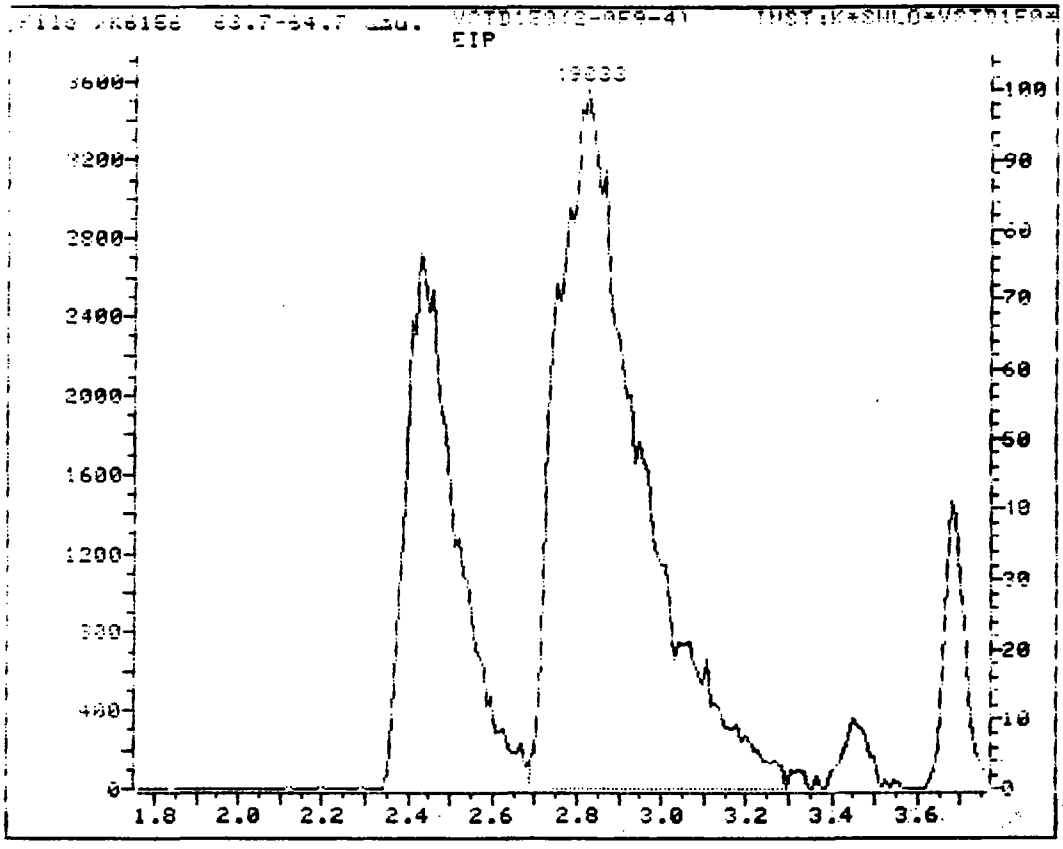
This report was produced by QAREA on: 910729 17:44



Data File: >K6156::D7 Quant Output File: ^K6156::L2
Name: USTD150(2-059-4)
Misc: INST:K*SWLO*USTD150*5ML
Quant Time: 910725 13:19 Quant ID File: IDU023::EX
Injected at: 910725 12:57 Last Calibration: 910724 11:03

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 94
Retention Time: 2.43 min.
Quant Ion: 62.0
Area: 65658M
Concentration: 207.14 ng/mL
q-value: 100

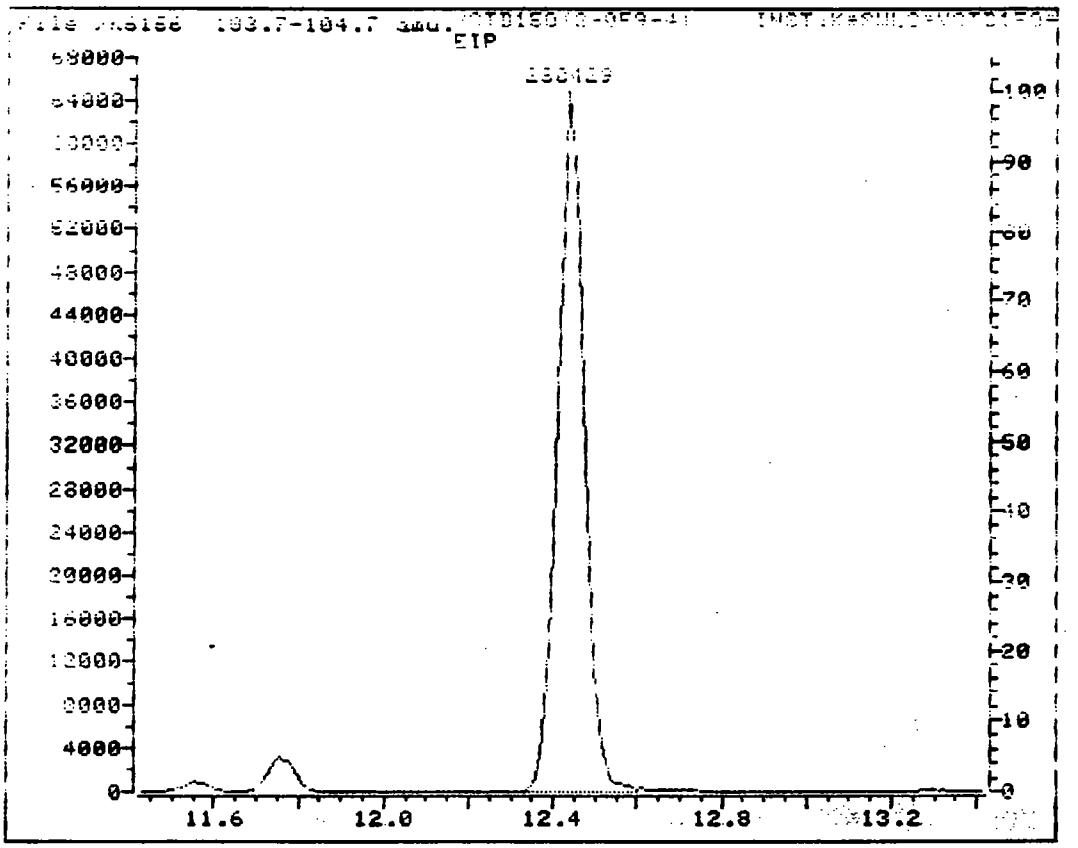
This report was produced by QAREA on: 910729 17:46



Data File: >K6156::D7 Quant Output File: ^K6156::L2
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML
Quant Time: 910725 13:19 Quant ID File: IDU023::EX
Injected at: 910725 12:57 Last Calibration: 910724 11:03

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 134
Retention Time: 2.83 min.
Quant Ion: 64.0
Area: 49033M
Concentration: 487.15 ng/mL
q-value: 100

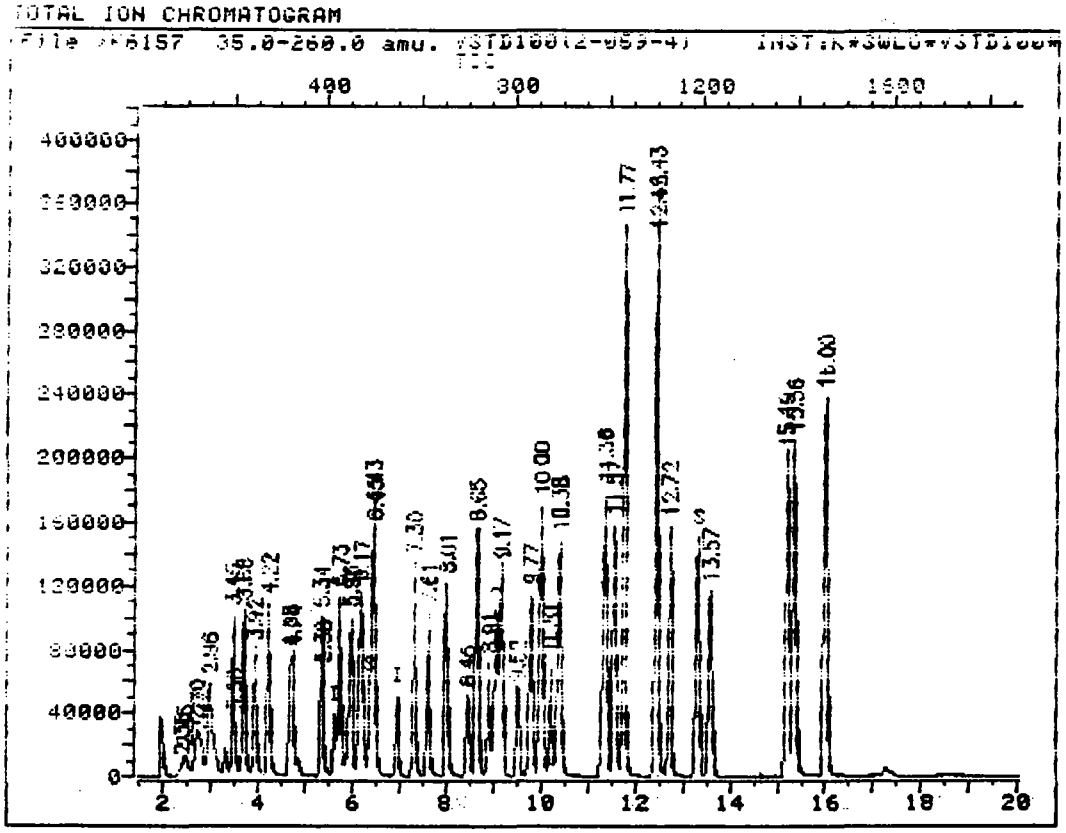
This report was produced by QAREA on: 910729 17:48



Data File: >K6156::D7 Quant Output File: ^K6156::L2
Name: USTD150(2-059-4)
Misc: INST:K*SWLO*USTD150*5ML
Quant Time: 910725 13:19 Quant ID File: IDU023::EX
Injected at: 910725 12:57 Last Calibration: 910724 11:03

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1098
Retention Time: 12.43 min.
Quant Ion: 104.0
Area: 280429M
Concentration: 162.11 ng/mL

This report was produced by QAREA on: 910729 17:49



Data File: >K6157::D7 Quant Output File: ^K6157::L2
Name: VSTD100(2-059-4)
Misc: INST:K*SWLO*VSTD100*5ML

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

Operator ID: DEBBIE
Quant Time: 910725 13:46
Injected at: 910725 13:25

QUANT REPORT

Operator ID: DEBBIE Quant Perf: 4 Quant Time: 910725 13:44
Output File: MK6157::L2 Injected at: 910725 13:35
Data File: MK6157::D7 Dilution Factor: 1.00000
Name: USTD100(2-059-4)
Misc: INST:K*SWLO*USTD100*5ML

ID File: IDV027::EX
Title: UOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:07

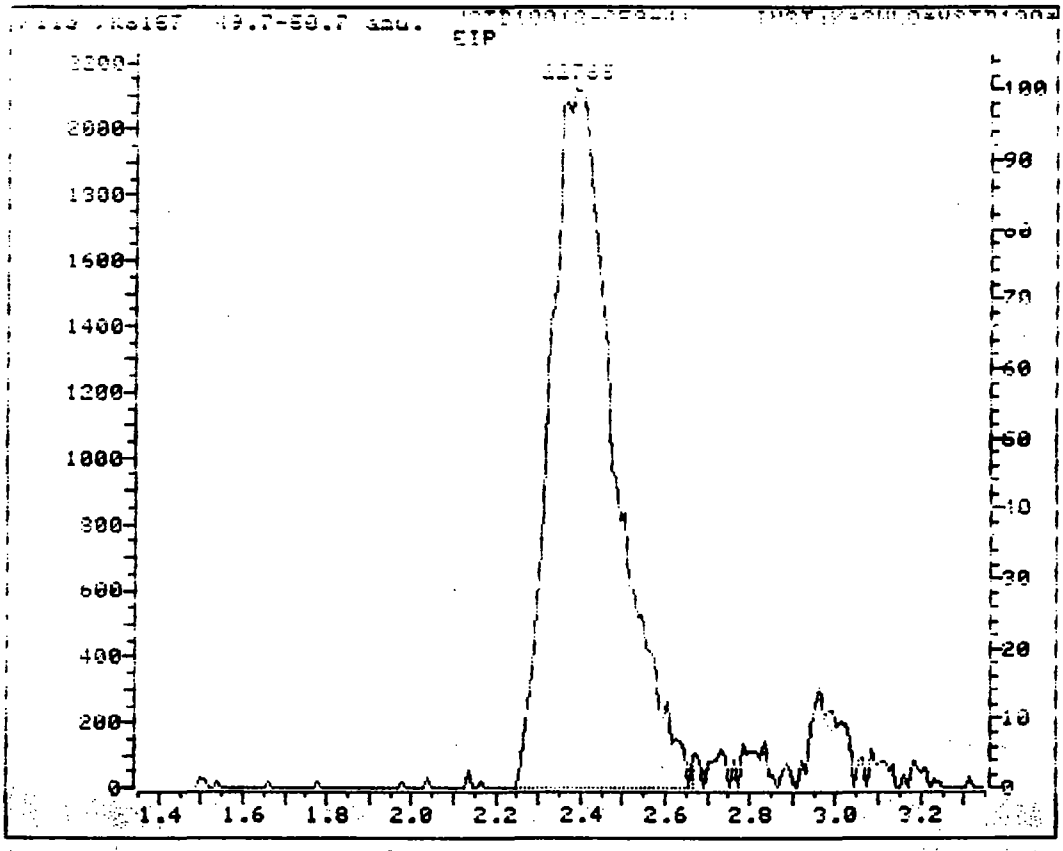
		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*C101	BROMOCHLOROMETHANE	5.63	128.0	21750	50.00	ng/ml	79
2)	C010	CHLOROMETHANE	2.38	50.0	22765M	101.41	ng/ml	93
3)	C015	BROMOMETHANE	2.70	94.0	24240	306.23	ng/ml	95
4)	C020	VINYL CHLORIDE	2.45	62.0	51199M	137.77	ng/ml	100
5)	C025	CHLOROETHANE	2.80	64.0	39681M	327.79	ng/ml	100
6)	C030	METHYLENE CHLORIDE	3.92	84.0	21250	116.49	ng/ml	90
7)	C035	ACETONE	3.50	43.0	47977	196.52	ng/ml	100
8)	C040	CARBON DISULFIDE	3.69	76.0	267237	116.25	ng/ml	100
9)	C255	TRICHLOROFLUOROMETHANE	2.96	101.0	156348	115.19	ng/ml	91
10)	C045	1,1-DICHLOROETHENE	3.45	96.0	72455	120.19	ng/ml	99
11)	C050	1,1-DICHLOROETHANE	4.68	63.0	155021	115.03	ng/mL	94
12)	C053	1,2-DICHLOROETHENE-TRANS	4.22	96.0	76088	111.46	ng/mL	88
13)	C055	1,2-DICHLOROETHENE-CIS	5.34	96.0	79932	111.29	ng/ml	86
14)	C060	CHLOROFORM	5.73	83.0	201615	117.28	ng/mL	91
15)	C065	1,2-DICHLOROETHANE	6.45	62.0	158937	126.78	ng/ml	99
16)	C110	2-BUTANONE	5.38	72.0	14499	205.90	ng/mL	83
17)	CS15	1,2-DICHLOROETHANE-D4	6.35	65.1	110737	112.45	ng/ml	96
18)	*C110	1,4-DIFLUOROBENZENE	6.94	114.0	87549	50.00	ng/mL	99
19)	C115	1,1,1-TRICHLOROETHANE	5.96	96.9	173977	114.19	ng/ml	97
20)	C120	CARBON TETRACHLORIDE	6.17	117.0	185008	118.17	ng/ml	99
21)	C125	VINYL ACETATE	4.74	43.0	220366	157.33	ng/ml	100
22)	C130	BROMODICHLOROMETHANE	8.01	83.0	204374	124.91	ng/mL	89
23)	C140	1,2-DICHLOROPROPANE	7.61	63.0	82833	127.30	ng/mL	99
24)	C172	TRANS-1,3-DICHLOROPROPENE	9.52	75.0	73268	94.51	ng/mL	86
25)	C150	TRICHLOROETHENE	7.30	130.0	107699	116.77	ng/ml	91
26)	C155	DIBROMOCHLOROMETHANE	10.38	129.0	193296	225.46	ng/mL	100
27)	C160	1,1,2-TRICHLOROETHANE	9.77	97.0	87354	139.71	ng/mL	100
28)	C165	BENZENE	6.43	78.0	196659	120.56	ng/ml	92
29)	C143	CIS-1,3-DICHLOROPROPENE	8.65	75.0	205184	152.61	ng/ml	99
30)	C175	2-CHLOROETHYL VINYL ETHER	8.45	63.0	53353	330.97	ng/ml	99
31)	C180	BROMOFORM	12.72	172.8	202409	165.18	ng/mL	83
32)	*C120	CHLOROBENZENE-D5	11.32	117.0	69439	50.00	ng/mL	86
33)	C205	4-METHYL-2-PENTANONE	8.91	43.0	76459	109.31	ng/ml	89
34)	C210	2-HEXANONE	10.20	43.0	128748	235.90	ng/mL	99
35)	C220	TETRACHLOROETHENE	10.00	164.0	104743	104.09	ng/ml	97
36)	C225	1,1,2,2-TETRACHLOROETHANE	13.57	83.0	102735	99.15	ng/ml	97
37)	C230	TOLUENE	9.17	92.0	132583	114.25	ng/ml	99
38)	C235	CHLOROBENZENE	11.36	112.0	192778	112.60	ng/mL	90
39)	C240	ETHYLBENZENE	11.57	106.0	96902	114.93	ng/ml	90
40)	C245	STYRENE	12.45	104.0	230088M	115.04	ng/ml	
41)	C250	o-XYLENE	12.43	106.0	134329	110.00	ng/ml	97
42)	C299	m,p-XYLENES	11.77	106.0	221492	235.24	ng/mL	97
43)	C265	1,3-DICHLOROBENZENE	15.19	146.0	228660	129.14	ng/ml	84

0147

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C270 1,4-DICHLOROBENZENE	15.36	146.0	218632	117.95	ng/mL	9
45)	C280 1,2-DICHLOROBENZENE	16.00	146.0	255445	128.62	ng/mL	9
46)	C305 TOLUENE-D8	9.05	98.0	172248	100.02	ng/mL	9
47)	C310 BROMOFLUOROBENZENE	13.30	95.0	133397	105.28	ng/mL	9

* Compound is ISTD

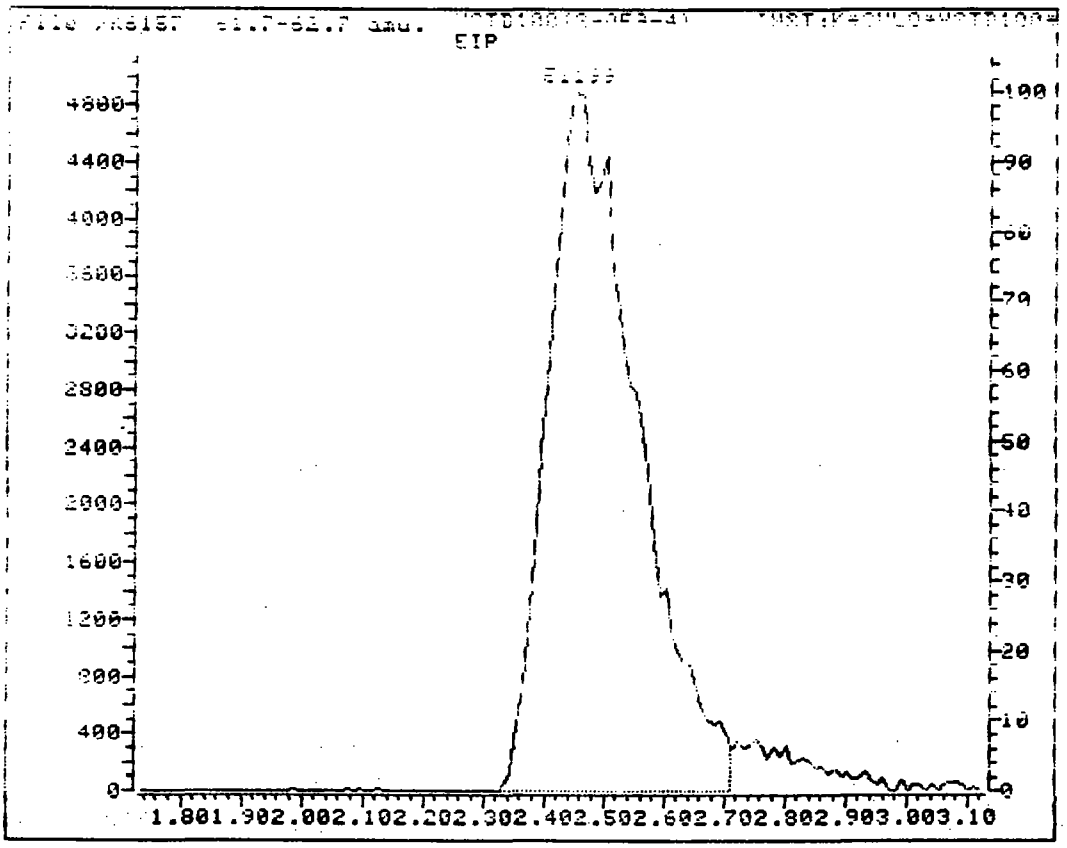
VSTD 100
Inst: K
K 6157
07/25/91
13:25



Data File: >K6157::D7 Quant Output File: ^K6157::L2
Name: VSTD100(2-059-4)
Misc: INST:K*SWLO*VSTD100*5ML
Quant Time: 910725 13:46 Quant ID File: IDV023::EX
Injected at: 910725 13:25 Last Calibration: 910724 11:03

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 91
Retention Time: 2.38 min.
Quant Ion: 50.0
Area: 22765M
Concentration: 101.61 ng/mL
q-value: 93

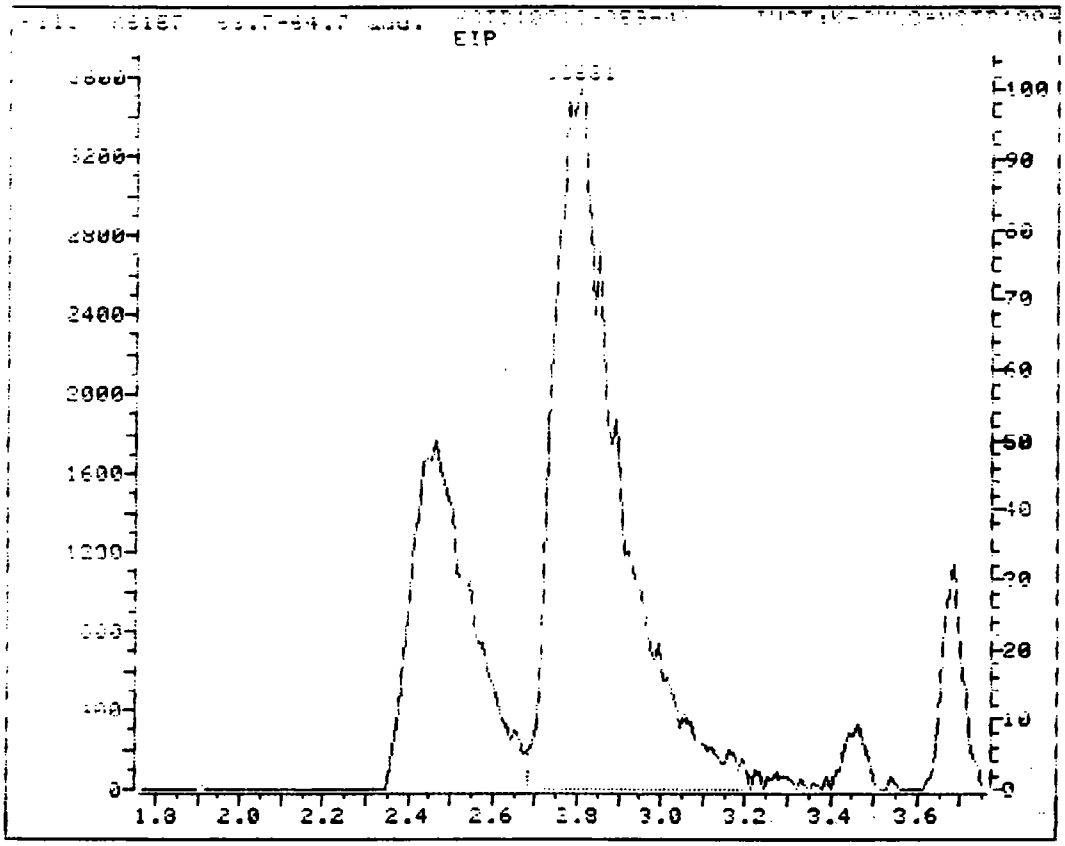
This report was produced by QAREA on: 910729 17:35



Data File: >K6157::D7 Quant Output File: ^K6157::L2
Name: USTD100(2-059-4)
Misc: INST:K*SWLO*USTD100*5ML
Quant Time: 910725 13:46 Quant ID File: IDV023::EX
Injected at: 910725 13:25 Last Calibration: 910724 11:03

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 98
Retention Time: 2.45 min.
Quant Ion: 62.0
Area: 51199M
Concentration: 137.77 ng/mL
q-value: 100

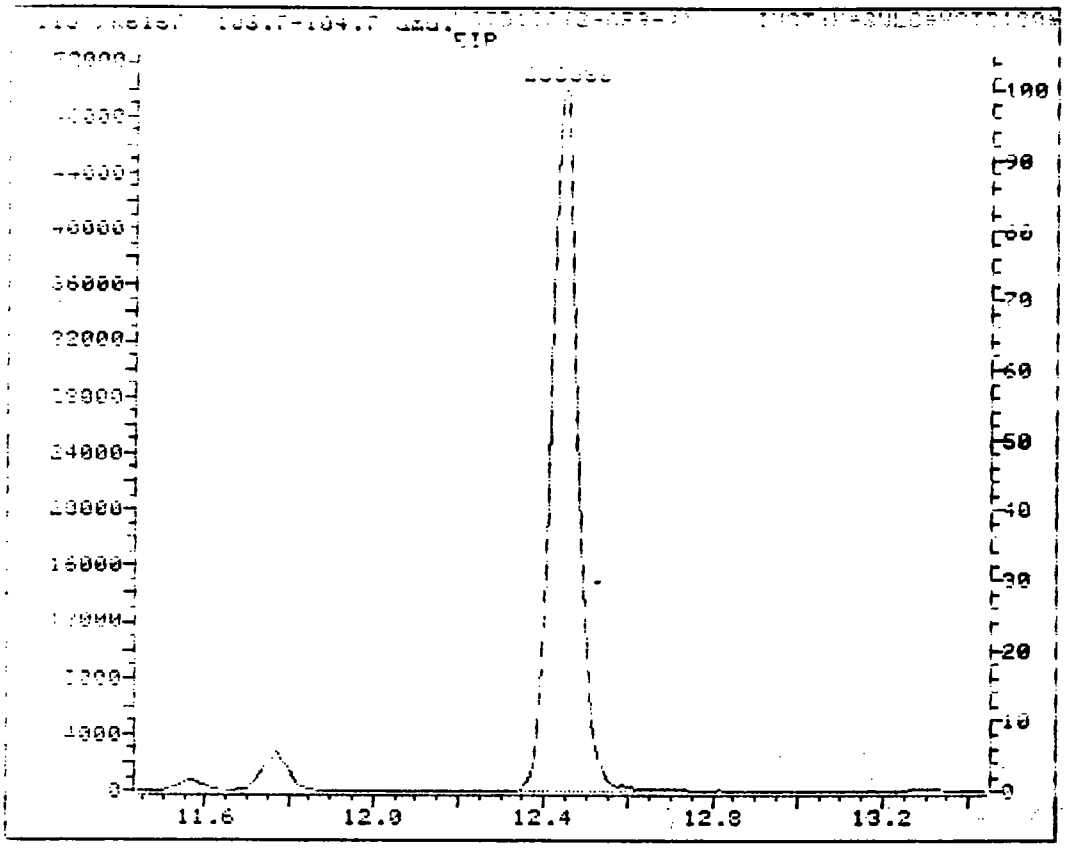
This report was produced by QAREA on: 910729 17:34



Data File: >K6157::D7 Quant Output File: ^K6157::L2
Name: USTD100(2-059-4)
Misc: INST:K*SWLO*USTD100*5ML
Quant Time: 910725 13:46 Quant ID File: IDU023::FX
Injected at: 910725 13:25 Last Calibration: 910724 11:03

Compound No: 5
Compound Name: 0025 CHLOROETHANE
Scan Number: 133
Retention Time: 2.80 min.
Quant Ion: 64.0
Area: 38681M
Concentration: 327.79 ng/mL
q-value: 100

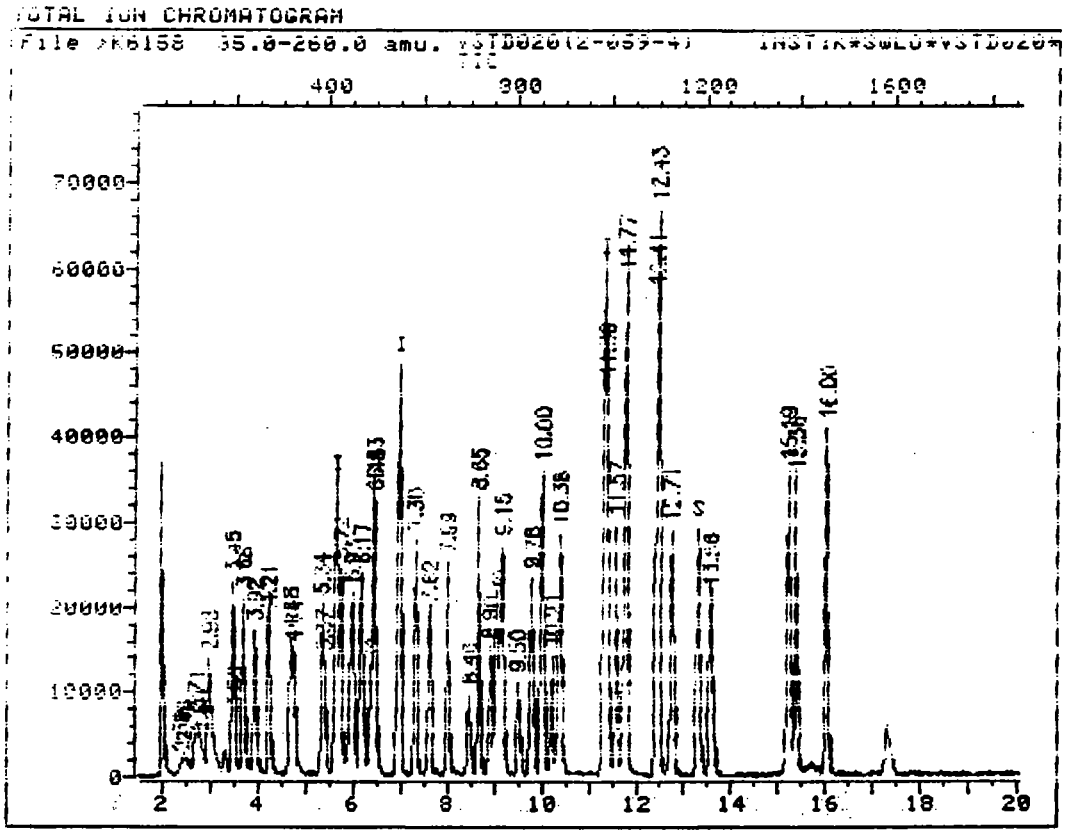
This report was produced by QAREA on: 910729 17:39



Data File: >K6157::D7 Quant Output File: ^K6157::L2
Name: USTD100(2-059-4)
Misc: INST:K*SWLO*USTD100*5ML
Quant Time: 910725 13:46 Quant ID File: IDU023::EX
Injected at: 910725 13:25 Last Calibration: 910724 11:03

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1100
Retention Time: 12.45 min.
Quant Ion: 104.0
Area: 230088M
Concentration: 115.04 ng/mL

This report was produced by QAREA on: 910729 17:39



Data File: >K6158::D7 Quant Output File: ^K6158::L2
Name: USTD020(2-059-4)
Misc: INST:K*SWLO*USTD020*5ML

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:03

Operator ID: DEBBIE
Quant Time: 910725 14:12
Injected at: 910725 13:50

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 4 Quant Time: 910725 14:10
Output File: \K6152::D2 Injected at: 910725 13:50
Data File: \K6159::D7 Dilution Factor: 1.00000
Name: USTD020(2-059-4)
Misc: INST:K*SWLO*USTD020*5ML

ID File: IDU023::EX
Title: UOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910724 11:07

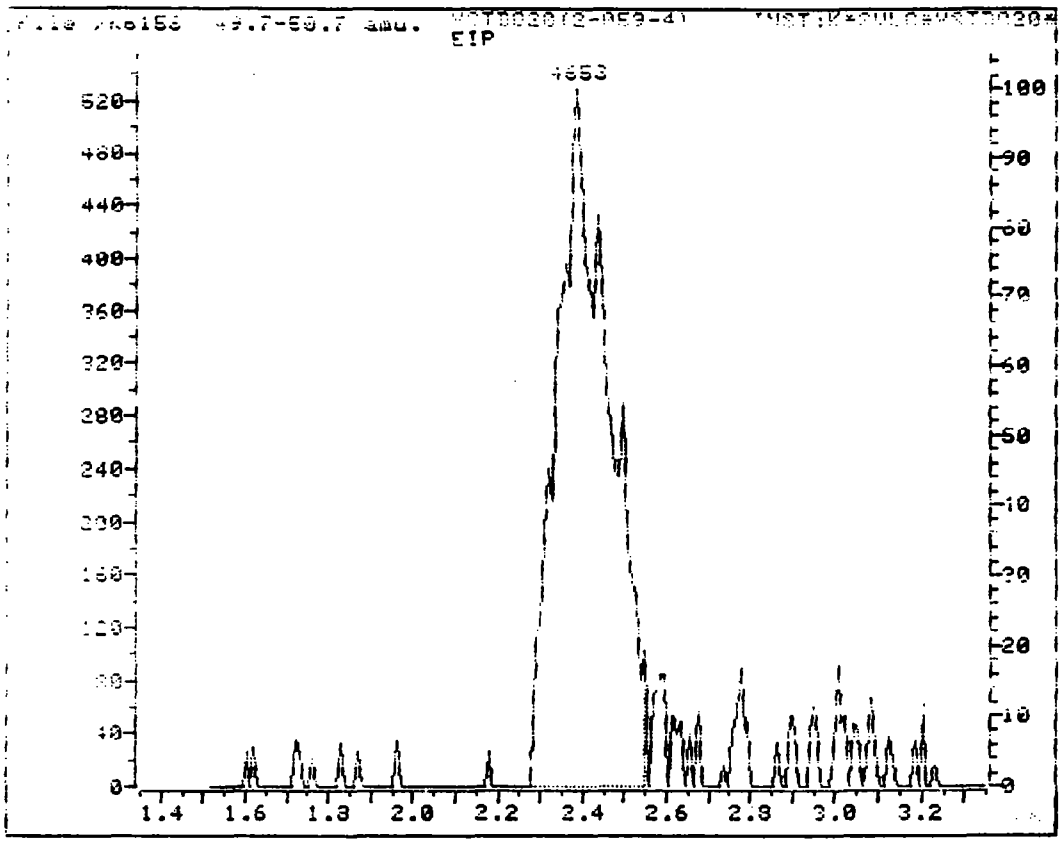
		Compound	R.T.	Q ion	Area	Conc	Units	Q
1)	*C101	BROMOCHLOROMETHANE	5.63	128.0	20876	50.00	ng/ml	91
2)	C010	CHLOROMETHANE	2.39	50.0	4653M	21.44	ng/ml	54
3)	C015	BROMOMETHANE	2.71	94.0	15474M	44.51	ng/ml	79
4)	C020	VINYL CHLORIDE	2.44	62.0	10712M	30.03	ng/ml	100
5)	C025	CHLOROETHANE	2.90	64.0	4207	54.30	ng/ml	100
6)	C030	METHYLENE CHLORIDE	3.92	84.0	14029	23.90	ng/ml	90
7)	C035	ACETONE	3.50	43.0	9632	39.01	ng/ml	100
8)	C040	CARBON DISULFIDE	3.68	76.0	50495	22.99	ng/mL	100
9)	C255	TRICHLOROFLUOROMETHANE	2.99	101.0	33501	25.70	ng/ml	96
10)	C045	1,1-DICHLOROETHENE	3.45	96.0	14311	24.73	ng/mL	99
11)	C050	1,1-DICHLOROETHANE	4.68	63.0	31972	24.72	ng/mL	99
12)	C053	1,2-DICHLOROETHENE-TRANS	4.21	96.0	15357	23.44	ng/mL	96
13)	C055	1,2-DICHLOROETHENE-CIS	5.34	96.0	16134	23.40	ng/mL	97
14)	C060	CHLOROFORM	5.72	83.0	41449	25.12	ng/mL	99
15)	C065	1,2-DICHLOROETHANE	6.45	62.0	33552	27.88	ng/ml	96
16)	C110	2-BUTANONE	5.37	72.0	2685	39.73	ng/mL	99
17)	CS15	1,2-DICHLOROETHANE-D4	6.35	65.1	23793	25.17	ng/ml	98
18)	*C110	1,4-DIFLUOROBENZENE	6.95	114.0	84116	50.00	ng/ml	97
19)	C115	1,1,1-TRICHLOROETHANE	5.97	96.9	35456	24.22	ng/ml	99
20)	C120	CARBON TETRACHLORIDE	6.17	117.0	37753	25.10	ng/ml	97
21)	C125	VINYL ACETATE	4.74	43.0	39689	29.75	ng/ml	100
22)	C130	BROMODICHLOROMETHANE	7.99	83.0	39601	25.19	ng/ml	97
23)	C140	1,2-DICHLOROPROPANE	7.62	63.0	16184	25.89	ng/mL	94
24)	C172	TRANS-1,3-DICHLOROPROPENE	9.50	75.0	14223	19.10	ng/mL	92
25)	C150	TRICHLOROETHENE	7.30	130.0	21721	24.51	ng/mL	89
26)	C155	DIBROMOCHLOROMETHANE	10.39	129.0	36494	44.30	ng/mL	100
27)	C160	1,1,2-TRICHLOROETHANE	9.78	97.0	16957	28.23	ng/mL	100
28)	C165	BENZENE	6.43	78.0	38484	24.56	ng/mL	94
29)	C143	CIS-1,3-DICHLOROPROPENE	8.65	75.0	42473	32.89	ng/ml	99
30)	C175	2-CHLOROETHYL VINYL ETHER	8.46	63.0	9917	64.01	ng/mL	95
31)	C180	BROMOFORM	12.71	172.8	36185	30.73	ng/mL	99
32)	-C120	CHLOROBENZENE-D5	11.31	117.0	66191	50.00	ng/ml	99
33)	C205	4-METHYL-2-PENTANONE	8.90	43.0	29799	44.69	ng/ml	97
34)	C210	2-HEXANONE	10.21	43.0	26333	50.62	ng/mL	99
35)	C220	TETRACHLOROETHENE	10.00	164.0	22454	23.45	ng/ml	94
36)	C225	1,1,2,2-TETRACHLOROETHANE	13.56	83.0	17727	17.95	ng/ml	69
37)	C230	TOLUENE	9.15	92.0	26131	23.62	ng/ml	99
38)	C235	CHLOROBENZENE	11.36	112.0	37805	23.17	ng/mL	97
39)	C240	ETHYLBENZENE	11.57	106.0	16750	23.64	ng/ml	94
40)	C245	STYRENE	12.43	104.0	39908M	20.93	ng/ml	
41)	C250	o-XYLENE	12.41	106.0	24238	20.82	ng/ml	91
42)	C299	m,p-XYLENES	11.77	106.0	38612	43.02	ng/mL	99
43)	C265	1,3-DICHLOROBENZENE	15.19	146.0	37565	22.26	ng/ml	96

0154

	Compound	R.T.	Q ion	Area	Conc	Units	q
(44)	0370 1,4-DICHLOROBENZENE	< 15.34	146.0	38941	22.05	ng/ml	9
(45)	0380 1,2-DICHLOROBENZENE	< 16.00	146.0	45275	23.82	ng/ml	9
(46)	0805 TOLUENE-D8	9.05	98.0	36864	22.46	ng/ml	7
(47)	0810 BROMOFLUOROBENZENE	17.30	95.0	26651	22.06	ng/ml	9

* Compound is ISTD

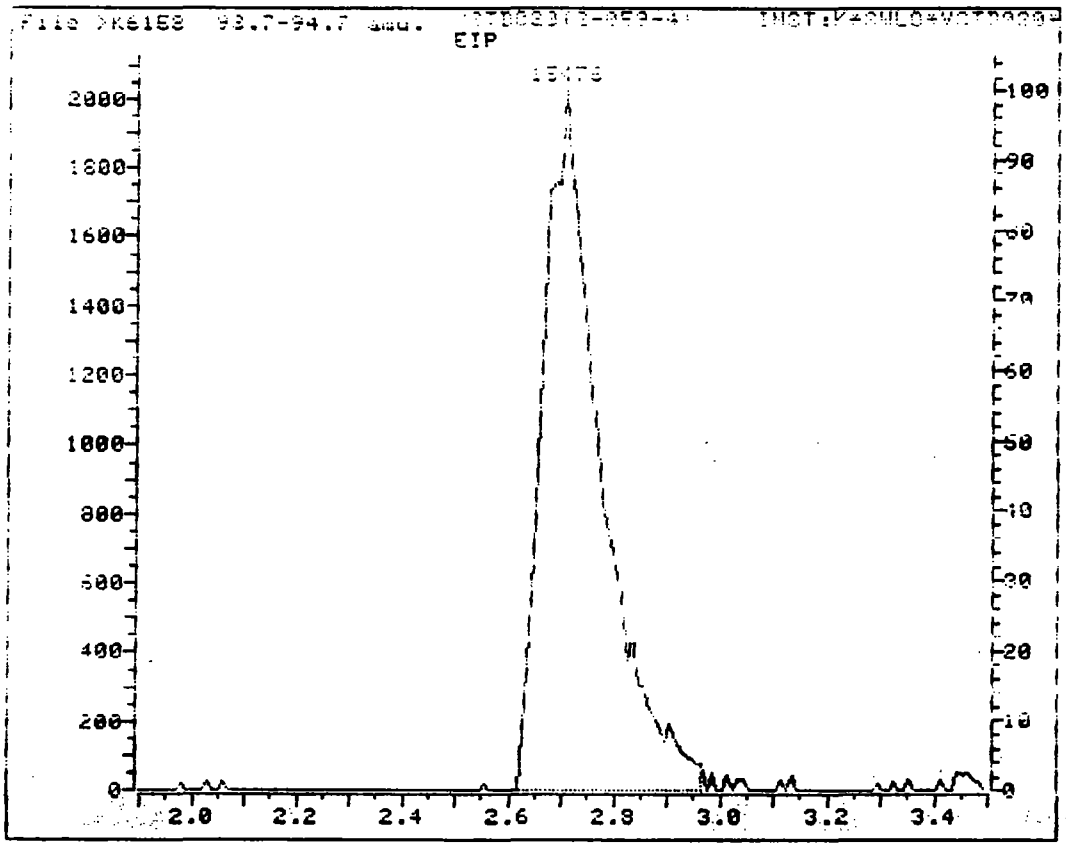
VSTD20
Chst.K
K6158
07/25/91
13:50



Data File: >K6158::D7 Quant Output File: ^K6158::L2
Name: USTD020(2-059-4)
Misc: INST:K*SWLO*VSTD020*5ML
Quant Time: 910725 14:12 Quant ID File: IDU023::EX
Injected at: 910725 13:50 Last Calibration: 910724 11:03

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 89
Retention Time: 2.39 min.
Quant Ion: 50.0
Area: 4653M
Concentration: 21.64 ng/mL
q-value: 54

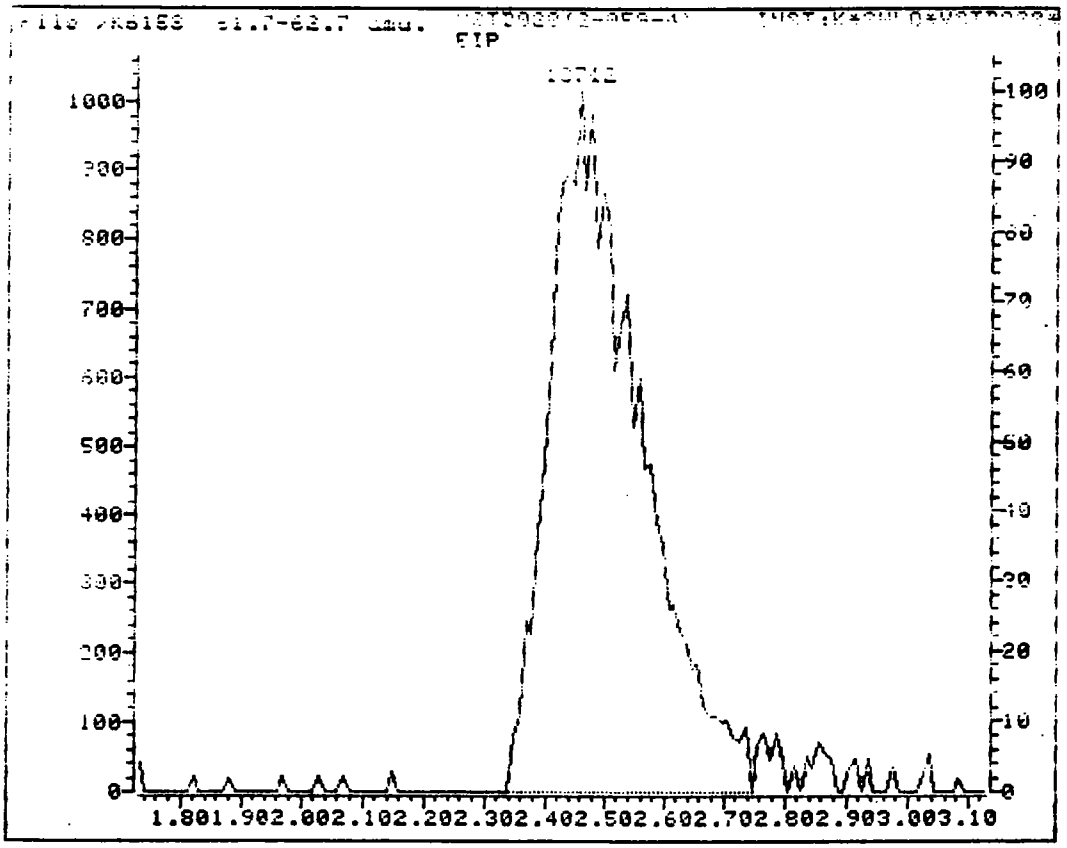
This report was produced by QAREA on: 910729 17:27



Data File: >K6158::D7 Quant Output File: ^K6158::L2
Name: USTD020(2-059-4)
Misc: INST:K*SWLO*USTD020*5ML
Quant Time: 910725 14:12 Quant ID File: IDU023::EX
Injected at: 910725 13:50 Last Calibration: 910724 11:03

Compound No: 3
Compound Name: C015 BROMOMETHANE
Scan Number: 121
Retention Time: 2.71 min.
Quant Ion: 94.0
Area: 15476M
Concentration: 66.51 ng/mL
q-value: 79

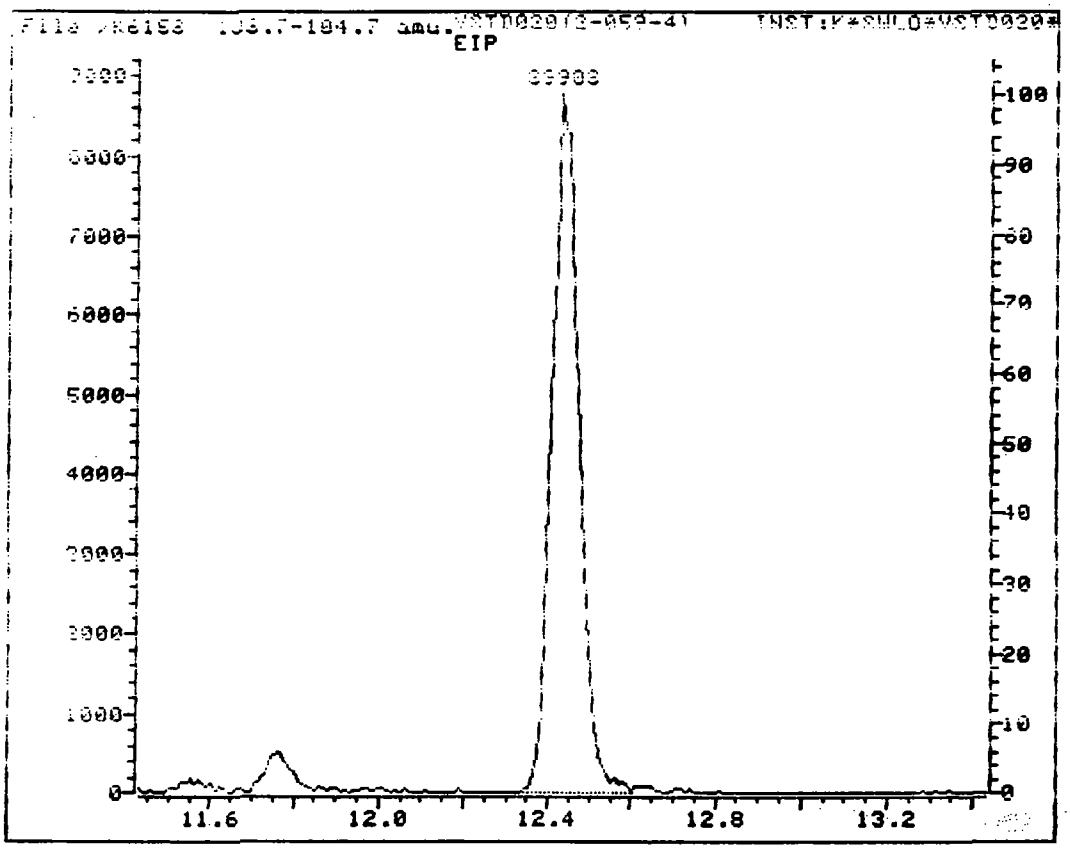
This report was produced by QAREA on: 910729 17:28



Data File: >K6158::D7 Quant Output File: ^K6158::L2
Name: USTD020(2-059-4)
Misc: INST:K*SWLO*USTD020*5ML
Quant Time: 910725 14:12 Quant ID File: IDV023::EX
Injected at: 910725 13:50 Last Calibration: 910724 11:03

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 96
Retention Time: 2.46 min.
Quant Ion: 62.0
Area: 10712M
Concentration: 30.03 ng/mL
q-value: 100

This report was produced by QAREA on: 910729 17:29



Data File: >K6158::D7 Quant Output File: ^K6158::L2
Name: USTD020(2-059-4)
Misc: INST:K*SWLO*USTD020*5ML
Quant Time: 910725 14:12 Quant ID File: IDU023::EX
Injected at: 910725 13:50 Last Calibration: 910724 11:03

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1097
Retention Time: 12.43 min.
Quant Ion: 104.0
Area: 39908M
Concentration: 20.93 ng/mL

This report was produced by QAREA on: 910729 17:30

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 65686 SDG No.: -001

Instrument ID: K Calibration Date(s): 08/09/91 08/09/91

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

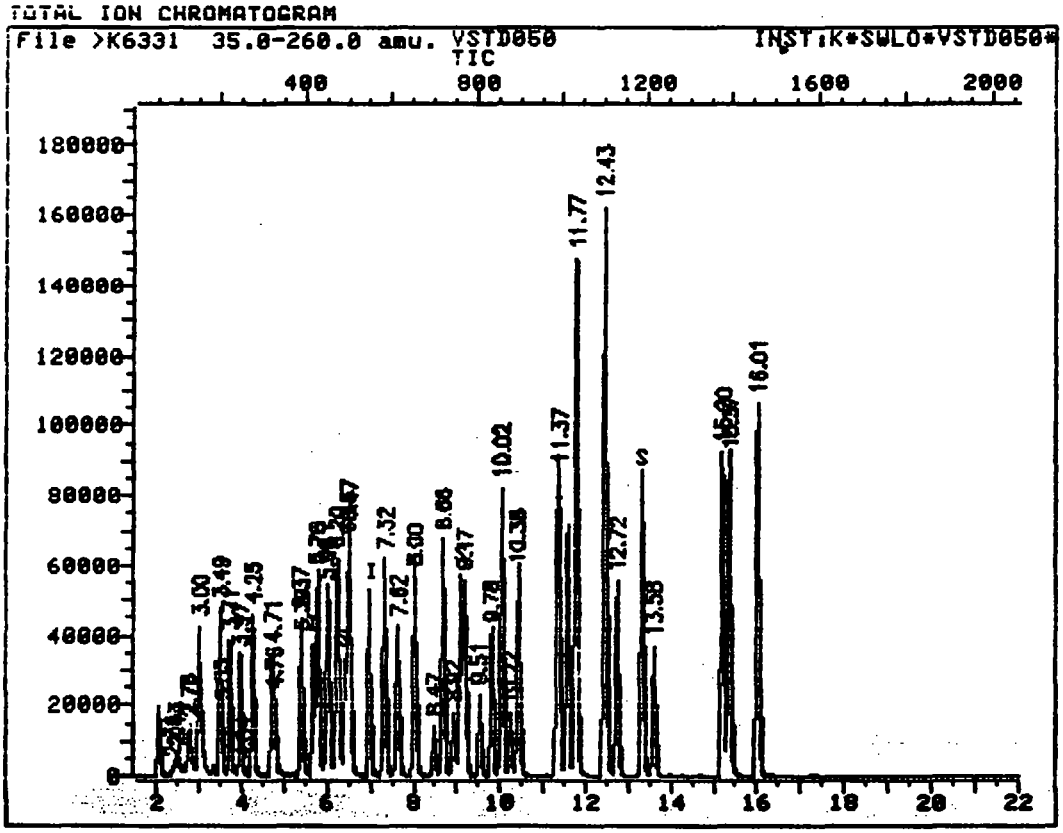
Min $\overline{RRF}$ for SPCC(#) = 0.300 (0.250 for Bromoform) Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = K6335 RRF50 = K6331

RRF100= K6334 RRF150= K6333 RRF200= K6332

COMPOUND	RRF20	RRF50	RRF100	RRF150	RRF200	$\overline{RRF}$	% RSD
Chloromethane #	0.317	0.420	0.329	0.325	0.343	0.347	12.1#
Bromomethane	1.071	1.424	1.154	1.178	1.222	1.210	10.9
Vinyl Chloride *	0.605	0.777	0.610	0.614	0.639	0.649	11.2*
Chloroethane	0.466	0.628	0.529	0.568	0.608	0.560	11.6
Methylene Chloride	1.175	1.337	1.119	1.112	1.182	1.185	7.7
Acetone	1.184	0.755	0.955	0.672	0.729	0.859	24.5
Carbon Disulfide	3.285	4.260	3.700	3.863	4.146	3.851	10.0
1,1-Dichloroethene *	1.070	1.352	1.120	1.154	1.246	1.188	9.4*
1,1-Dichloroethane #	2.412	3.111	2.503	2.526	2.624	2.635	10.5#
1,2-Dichloroethene (total)	1.081	1.433	1.204	1.259	1.305	1.256	10.3
Chloroform *	3.555	4.516	3.508	3.610	3.545	3.747	11.5*
1,2-Dichloroethane	2.971	3.461	2.931	2.842	2.977	3.036	8.0
2-Butanone	0.276	0.168	0.234	0.164	0.182	0.205	23.7
1,1,1-Trichloroethane	0.925	1.104	0.463	0.892	0.957	0.868	27.7
Carbon Tetrachloride	0.926	1.181	0.927	0.982	1.040	1.011	10.5
Vinyl Acetate	0.638	0.556	0.668	0.571	0.556	0.598	8.7
Bromodichloromethane	0.945	1.096	0.935	0.944	1.016	0.987	7.0
1,2-Dichloropropane *	0.298	0.332	0.296	0.291	0.315	0.306	5.5*
cis-1,3-Dichloropropene	0.698	0.781	0.677	0.686	0.737	0.716	6.0
Trichloroethene	0.445	0.538	0.429	0.450	0.486	0.470	9.3
Dibromochloromethane	0.870	0.922	0.847	0.842	0.922	0.881	4.5
1,1,2-Trichloroethane	0.367	0.343	0.334	0.310	0.348	0.340	6.1
Benzene	0.752	0.849	0.717	0.749	0.818	0.777	7.0
Trans-1,3-Dichloropropene	0.453	0.473	0.433	0.437	0.468	0.453	4.0
Bromoform #	0.820	0.767	0.794	0.739	0.800	0.784	4.0#
4-Methyl-2-Pentanone	0.756	0.453	0.603	0.429	0.451	0.538	26.0
2-Hexanone	0.753	0.451	0.609	0.448	0.477	0.548	24.2
Tetrachloroethene	0.587	0.701	0.562	0.576	0.568	0.599	9.7
1,1,2,2-Tetrachloroethane #	0.885	0.653	0.772	0.607	0.653	0.714	15.9#
Toluene *	0.683	0.785	0.653	0.666	0.663	0.690	7.9*
Chlorobenzene #	1.057	1.163	0.997	1.008	1.035	1.052	6.3#
Ethylbenzene *	0.467	0.528	0.427	0.443	0.454	0.464	8.4*
Styrene	1.182	1.392	1.156	1.177	1.290	1.239	8.1
Xylene (total)	0.710	0.802	0.705	0.702	0.732	0.730	5.7
Toluene-d8	1.226	1.400	1.161	1.213	1.112	1.222	8.9
Bromofluorobenzene	1.018	1.118	0.951	0.905	0.935	0.985	8.6
1,2-Dichloroethane-d4	2.737	3.036	2.611	2.510	2.608	2.700	7.6

TOTAL ION CHROMATOGRAM



Data File: >K6331::L2 Quant Output File: ^K6331::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

Operator ID: DEBBIE
Quant Time: 910809 12:37
Injected at: 910809 12:14

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910809 12:37
Output File: ^K6331::D6 Injected at: 910809 12:14
Data File: >K6331::L2 Dilution Factor: 1.00000
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL

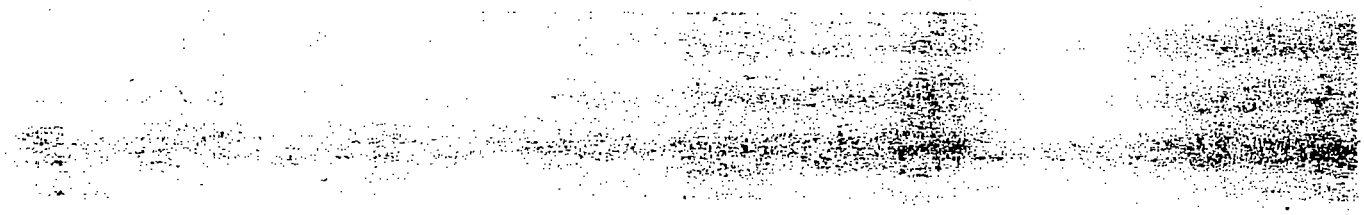
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

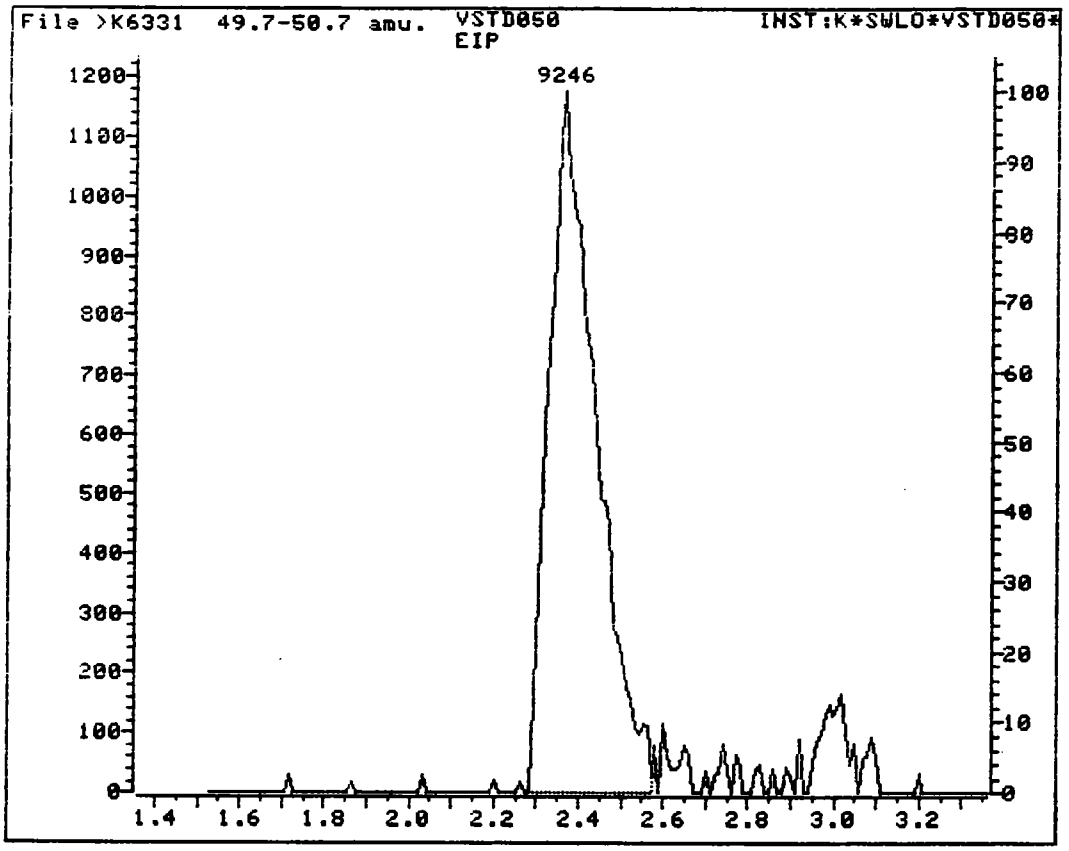
	Compound	R.T.	Q ion	Area	Conc	Units
1)	*CI01 BROMOCHLOROMETHANE	5.65	128.0	22019	50.00	ng/mL
2)	C010 CHLOROMETHANE	2.36	50.0	9246M	32.96	ng/mL
3)	C015 BROMOMETHANE	2.73	94.0	31329	39.28	ng/mL
4)	C020 VINYL CHLORIDE	2.44	62.0	17087M	37.19	ng/mL
5)	C025 CHLOROETHANE	2.76	64.0	13807M	39.12	ng/mL
6)	C030 METHYLENE CHLORIDE	3.97	84.0	29423	39.80	ng/mL
7)	C035 ACETONE	3.53	43.0	16614	42.74	ng/mL
8)	C040 CARBON DISULFIDE	3.71	76.0	93715	38.30	ng/mL
9)	C255 TRICHLOROFLUOROMETHANE	3.00	101.0	92234	43.44	ng/mL
10)	C045 1,1-DICHLOROETHENE	3.49	96.0	29754	39.56	ng/mL
11)	C050 1,1-DICHLOROETHANE	4.71	63.0	68443	42.90	ng/mL
12)	C053 1,2-DICHLOROETHENE-TRANS	4.25	96.0	31517	40.71	ng/mL
13)	C055 1,2-DICHLOROETHENE-CIS	5.37	96.0	35017	42.16	ng/mL
14)	C060 CHLOROFORM	5.76	83.0	99359	43.83	ng/mL
15)	C065 1,2-DICHLOROETHANE	6.47	62.0	76139	43.14	ng/mL
16)	C110 2-BUTANONE	5.39	72.0	3699	39.24	ng/mL
17)	CS15 1,2-DICHLOROETHANE-D4	6.38	65.1	66796	42.40	ng/mL
18)	*CI10 1,4-DIFLUOROBENZENE	6.97	114.0	84861	50.00	ng/mL
19)	C115 1,1,1-TRICHLOROETHANE	5.98	96.9	93712	43.52	ng/mL
20)	C120 CARBON TETRACHLORIDE	6.20	117.0	100294	44.71	ng/mL
21)	C125 VINYL ACETATE	4.76	43.0	47200	39.07	ng/mL
22)	C130 BROMODICHLOROMETHANE	8.00	83.0	93036	43.21	ng/mL
23)	C140 1,2-DICHLOROPROPANE	7.62	63.0	28214	40.19	ng/mL
24)	C172 TRANS-1,3-DICHLOROPROPENE	9.51	75.0	28922	30.21	ng/mL
25)	C150 TRICHLOROETHENE	7.32	130.0	45648	42.70	ng/mL
26)	C155 DIBROMOCHLOROMETHANE	10.38	129.0	78266	42.24	ng/mL
27)	C160 1,1,2-TRICHLOROETHANE	9.78	97.0	29089	39.80	ng/mL
28)	C165 BENZENE	6.45	78.0	72101	41.53	ng/mL
29)	C143 CIS-1,3-DICHLOROPROPENE	8.66	75.0	84914	53.38	ng/mL
30)	C175 2-CHLOROETHYL VINYL ETHER	8.47	63.0	13280	37.14	ng/mL
31)	C180 BROMOFORM	12.72	172.8	65151	41.25	ng/mL
32)	*CI20 CHLOROBENZENE-D5	11.32	117.0	67396	50.00	ng/mL
33)	C205 4-METHYL-2-PENTANONE	8.92	43.0	30528	41.88	ng/mL
34)	C210 2-HEXANONE	10.22	43.0	30376	42.93	ng/mL
35)	C220 TETRACHLOROETHENE	10.02	164.0	47275	44.46	ng/mL
36)	C225 1,1,2,2-TETRACHLOROETHANE	13.58	83.0	44017	40.47	ng/mL
37)	C230 TOLUENE	9.17	92.0	52881	44.18	ng/mL
38)	C235 CHLOROBENZENE	11.37	112.0	78388	43.91	ng/mL
39)	C240 ETHYLBENZENE	11.58	106.0	35578M	42.88	ng/mL
40)	C245 STYRENE	12.44	104.0	93795M	43.32	ng/mL
41)	C250 o-XYLENE	12.43	106.0	54027	43.29	ng/mL
42)	C299 m,p-XYLENES	11.77	106.0	89687	85.28	ng/mL
43)	C265 1,3-DICHLOROBENZENE	15.20	146.0	98796	44.46	ng/mL

	Compound	R.T.	Q ion	Area	Conc	Units
44)	C270 1,4-DICHLOROBENZENE	15.37	146.0	94986	43.29	ng/mL
45)	C260 1,2-DICHLOROBENZENE	16.01	146.0	110777	43.07	ng/mL
46)	CS05 TOLUENE-D8	9.07	98.0	94324	44.01	ng/mL
47)	CS10 BROMOFLUOROBENZENE	13.31	95.0	75337	44.43	ng/mL

* Compound is ISTD

VSTD50
amst:K
K6331
08/09/91
12:14

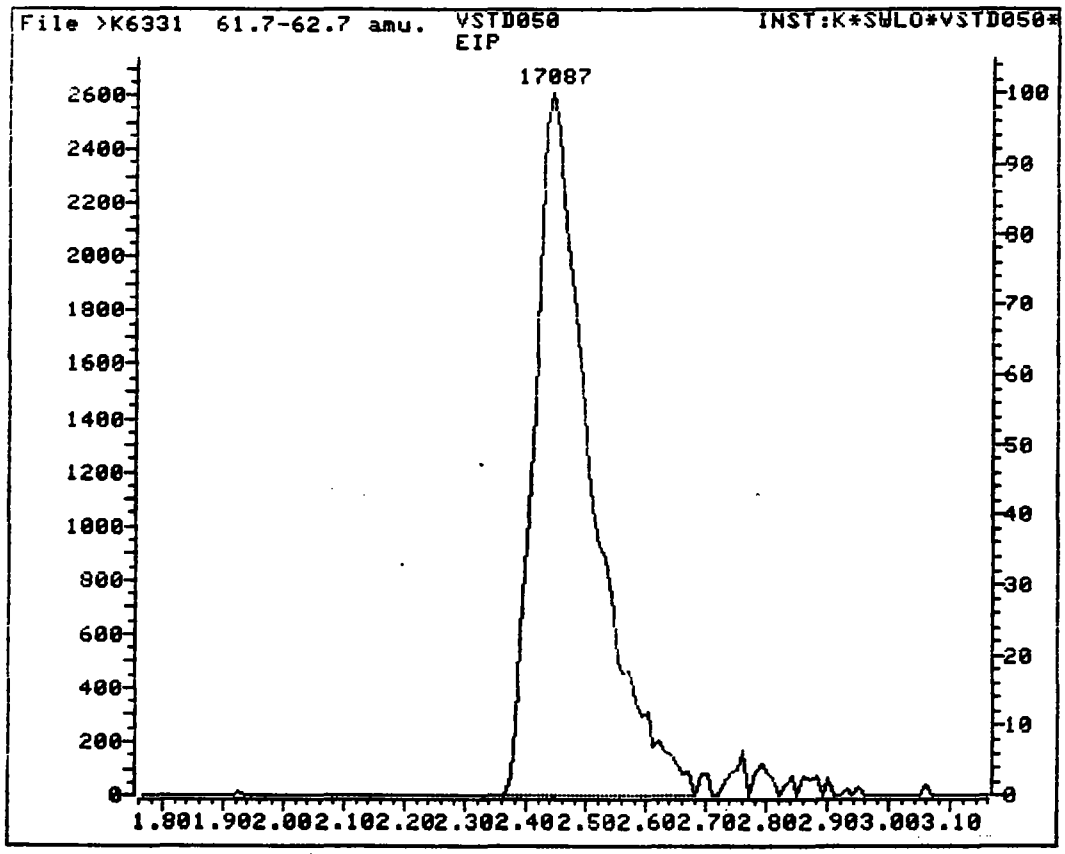




Data File: >K6331::L2 Quant Output File: ^K6331::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910809 12:37 Quant ID File: IDV023::EX
Injected at: 910809 12:14 Last Calibration: 910808 11:48

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 85
Retention Time: 2.36 min.
Quant Ion: 50.0
Area: 9246M
Concentration: 32.96 ng/mL
q-value: 92

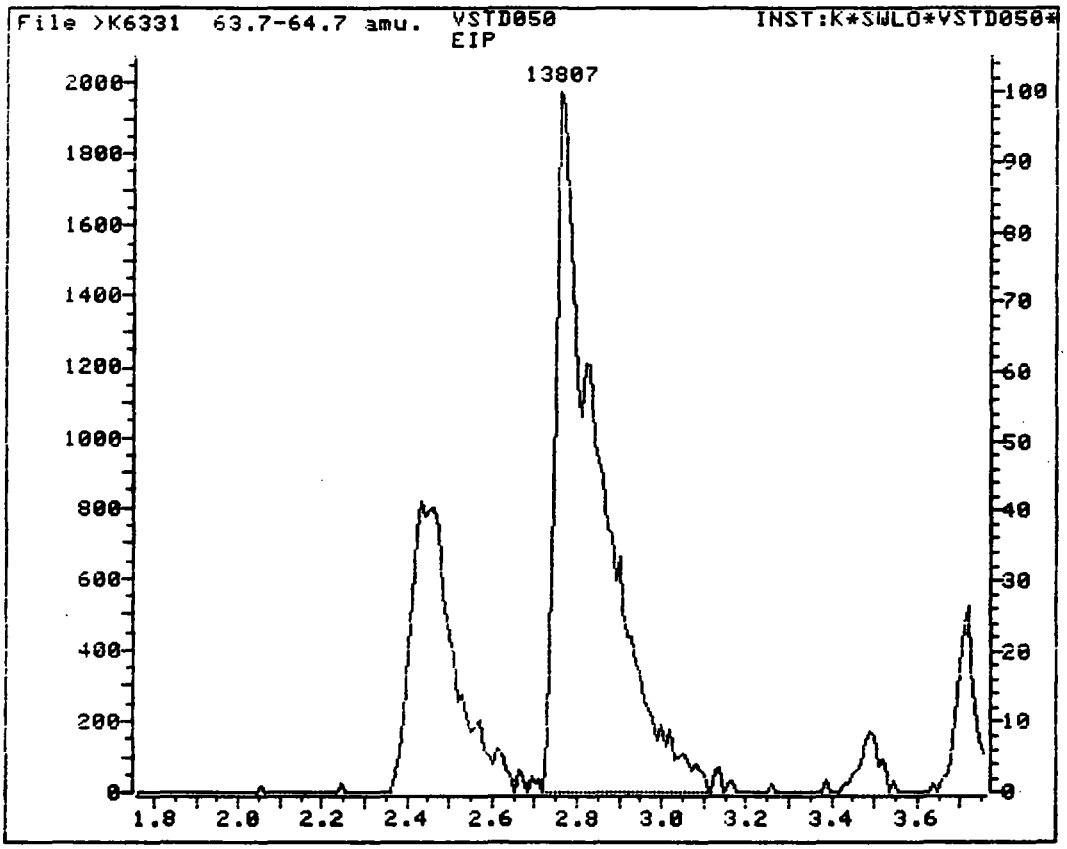
This report was produced by QAREA on: 910812 09:53



Data File: >K6331::L2 Quant Output File: ^K6331::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910809 12:37 Quant ID File: IDV023::EX
Injected at: 910809 12:14 Last Calibration: 910808 11:48

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 93
Retention Time: 2.44 min.
Quant Ion: 62.0
Area: 17087M
Concentration: 37.19 ng/mL
q-value: 100

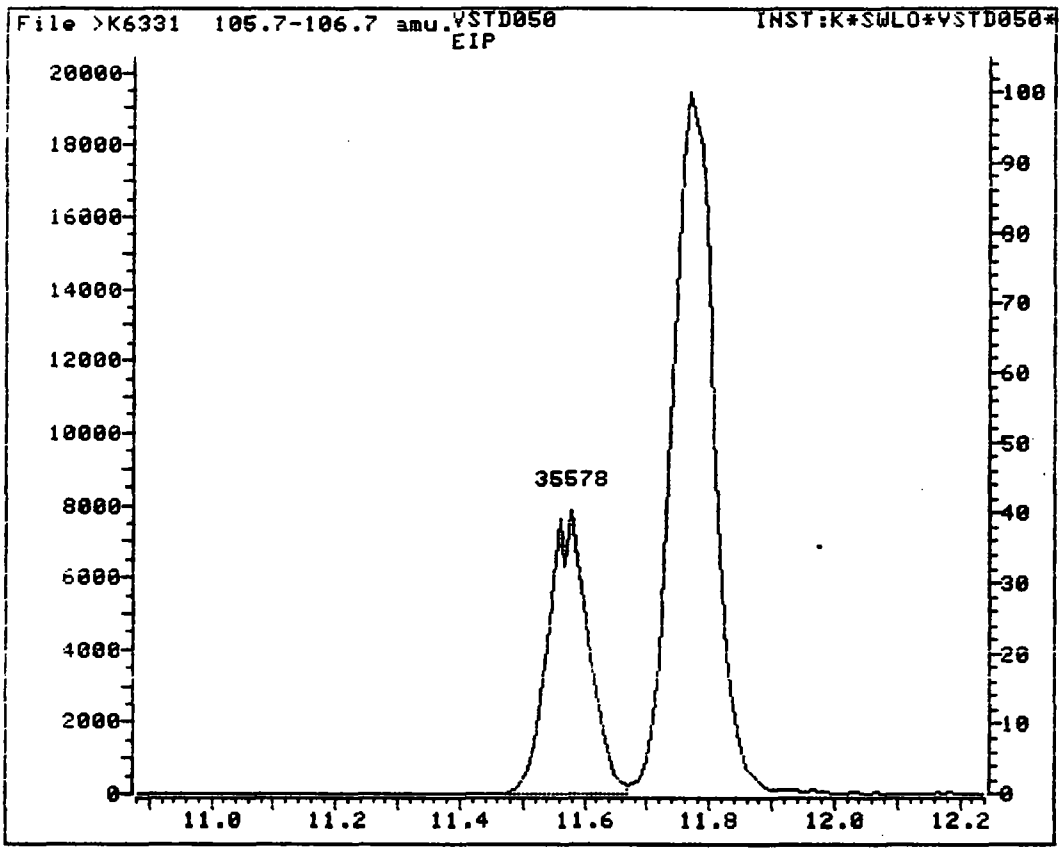
This report was produced by QAREA on: 910812 09:55



Data File: >K6331::L2 Quant Output File: ^K6331::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910809 12:37 Quant ID File: IDV023::EX
Injected at: 910809 12:14 Last Calibration: 910808 11:48

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 125
Retention Time: 2.76 min.
Quant Ion: 64.0
Area: 13807M
Concentration: 39.12 ng/mL
q-value: 100

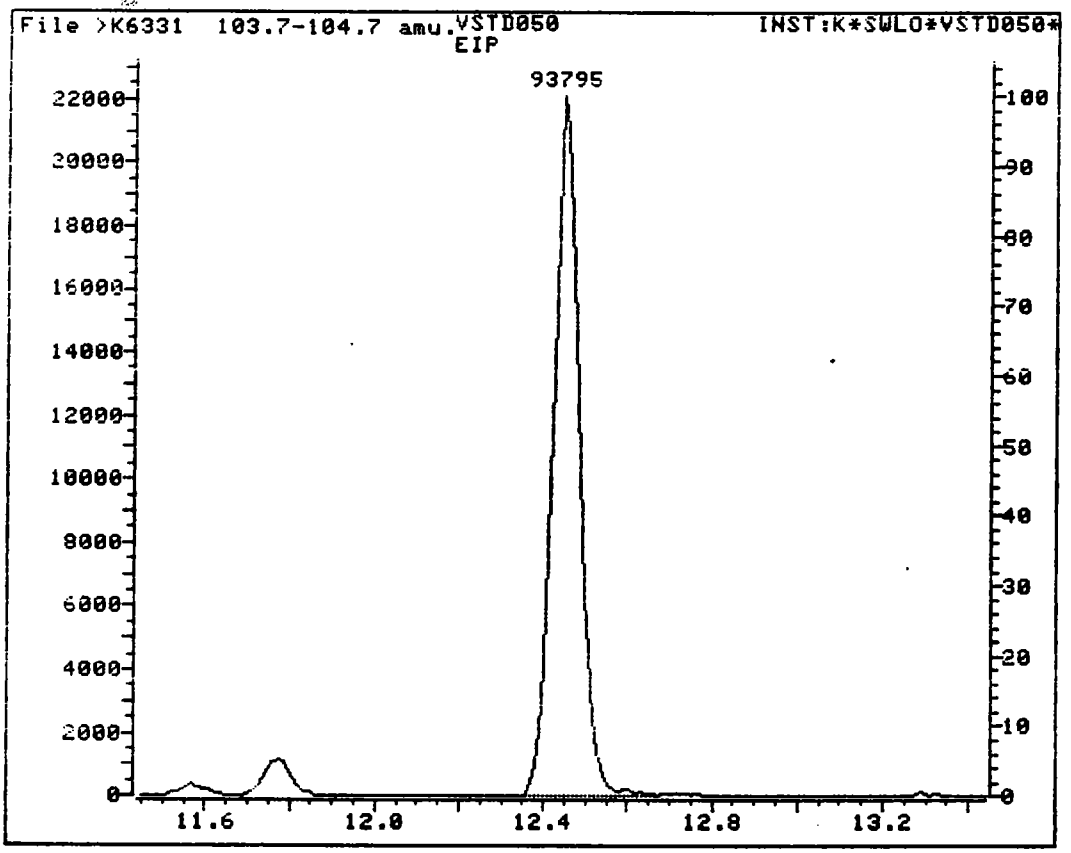
This report was produced by QAREA on: 910812 09:56



Data File: >K6331::L2 Quant Output File: ^K6331::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910809 12:37 Quant ID File: IDV023::EX
Injected at: 910809 12:14 Last Calibration: 910808 11:48

Compound No: 39
Compound Name: C240 ETHYLBENZENE
Scan Number: 1011
Retention Time: 11.58 min.
Quant Ion: 106.0
Area: 35578M
Concentration: 42.88 ng/mL

This report was produced by QAREA on: 910812 09:58

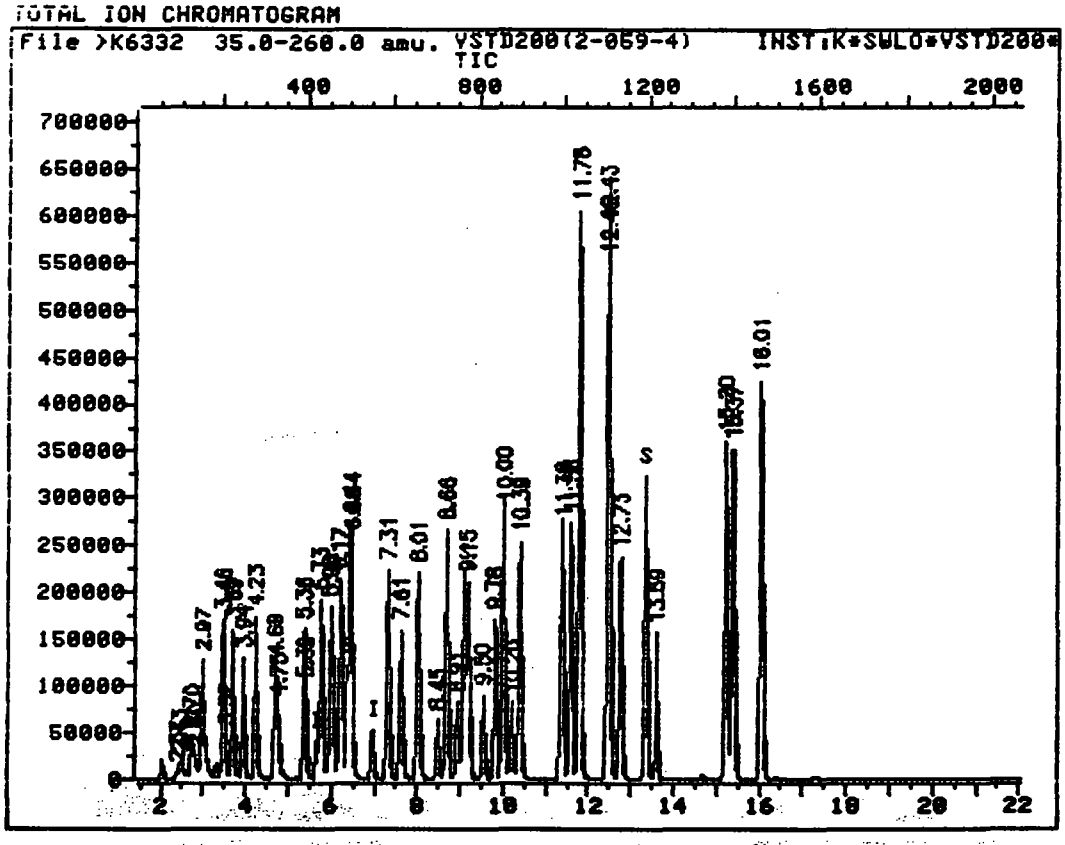


Data File: >K6331::L2 Quant Output File: ^K6331::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910809 12:37 Quant ID File: IDV023::EX
Injected at: 910809 12:14 Last Calibration: 910808 11:48

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1098
Retention Time: 12.44 min.
Quant Ion: 104.0
Area: 93795M
Concentration: 43.32 ng/mL

This report was produced by QAREA on: 910812 10:01

TOTAL ION CHROMATOGRAM



Data File: >K6332::L2 Quant Output File: ^K6332::D6
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 13:21

Operator ID: DEBBIE
Quant Time: 910809 13:48
Injected at: 910809 13:24

QUANT REPORT

Operator ID: DEBBIE
Output File: ^K6332::D6
Data File: >K6332::L2
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML

Quant Rev: 6
Quant Time: 910809 13:48
Injected at: 910809 13:24
Dilution Factor: 1.00000

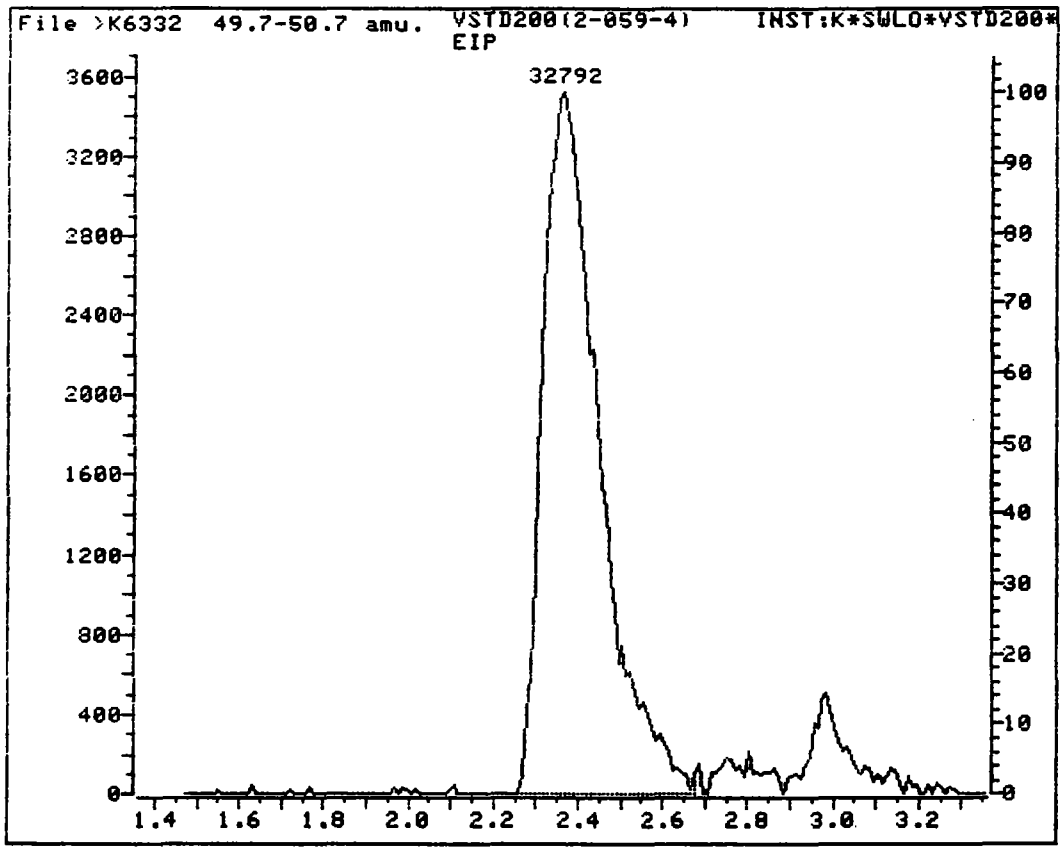
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 13:21

		Compound	R.T.	Q ion	Area	Conc	Units	c
1)	*CI01	BROMOCHLOROMETHANE	5.63	128.0	23885	50.00	ng/mL	E
2)	C010	CHLOROMETHANE	2.37	50.0	32792M	163.48	ng/mL	9
3)	C015	BROMOMETHANE	2.70	94.0	116797	171.84	ng/mL	9
4)	C020	VINYL CHLORIDE	2.43	62.0	61086M	164.79	ng/mL	1(
5)	C025	CHLOROETHANE	2.80	64.0	58151M	194.13	ng/mL	1(
6)	C030	METHYLENE CHLORIDE	3.94	84.0	112962	176.97	ng/mL	9
7)	C035	ACETONE	3.52	43.0	69686	193.34	ng/mL	1(
8)	C040	CARBON DISULFIDE	3.69	76.0	396375	194.96	ng/mL	1(
9)	C255	TRICHLOROFLUOROMETHANE	2.97	101.0	305757	152.80	ng/mL	9
10)	C045	1,1-DICHLOROETHENE	3.46	96.0	119152	184.59	ng/mL	9
11)	C050	1,1-DICHLOROETHANE	4.69	63.0	250824	168.92	ng/mL	9
12)	C053	1,2-DICHLOROETHENE-TRANS	4.23	96.0	124725	182.41	ng/mL	E
13)	C055	1,2-DICHLOROETHENE-CIS	5.36	96.0	127864	168.31	ng/mL	9
14)	C060	CHLOROFORM	5.73	83.0	338929	157.23	ng/mL	9
15)	C065	1,2-DICHLOROETHANE	6.46	62.0	284587	172.29	ng/mL	9
16)	C110	2-BUTANONE	5.39	72.0	17409	216.94	ng/mL	E
17)	CS15	1,2-DICHLOROETHANE-D4	6.36	65.1	249339	172.06	ng/mL	E
18)	*CI10	1,4-DIFLUOROBENZENE	6.96	114.0	87244	50.00	ng/mL	9
19)	C115	1,1,1-TRICHLOROETHANE	5.96	96.9	333869	173.27	ng/mL	9
20)	C120	CARBON TETRACHLORIDE	6.17	117.0	362565	175.81	ng/mL	E
21)	C125	VINYL ACETATE	4.75	43.0	193799	199.69	ng/mL	1(
22)	C130	BROMODICHLOROMETHANE	8.01	83.0	354203	185.16	ng/mL	9
23)	C140	1,2-DICHLOROPROPANE	7.61	63.0	109750	189.18	ng/mL	9
24)	C172	TRANS-1,3-DICHLOROPROPENE	9.50	75.0	117647	142.44	ng/mL	E
25)	C150	TRICHLOROETHENE	7.31	130.0	169391	180.47	ng/mL	9
26)	C155	DIBROMOCHLOROMETHANE	10.39	129.0	321578	199.83	ng/mL	1(
27)	C160	1,1,2-TRICHLOROETHANE	9.78	97.0	121210	202.65	ng/mL	1(
28)	C165	BENZENE	6.44	78.0	285339	192.47	ng/mL	E
29)	C143	CIS-1,3-DICHLOROPROPENE	8.66	75.0	328974	241.18	ng/mL	9
30)	C175	2-CHLOROETHYL VINYL ETHER	8.45	63.0	62873	230.25	ng/mL	9
31)	C180	BROMOFORM	12.73	172.8	279072	208.32	ng/mL	9
32)	*CI20	CHLOROBENZENE-D5	11.33	117.0	75720	50.00	ng/mL	9
33)	C205	4-METHYL-2-PENTANONE	8.91	43.0	136564	199.08	ng/mL	E
34)	C210	2-HEXANONE	10.20	43.0	144430	211.60	ng/mL	E
35)	C220	TETRACHLOROETHENE	10.00	164.0	172101	162.01	ng/mL	9
36)	C225	1,1,2,2-TETRACHLOROETHANE	13.59	83.0	197620	199.80	ng/mL	9
37)	C230	TOLUENE	9.15	92.0	200620	168.84	ng/mL	9
38)	C235	CHLOROBENZENE	11.38	112.0	313513	177.99	ng/mL	9
39)	C240	ETHYLBENZENE	11.58	106.0	137615	172.14	ng/mL	7
40)	C245	STYRENE	12.46	104.0	390627M	185.34	ng/mL	
41)	C250	o-XYLENE	12.43	106.0	221558	182.50	ng/mL	9
42)	C299	m,p-XYLENES	11.78	106.0	358747	356.03	ng/mL	9
43)	C265	1,3-DICHLOROBENZENE	15.20	146.0	375449	169.12	ng/mL	9

	Compound	R.T.	Q ion	Area	Conc	Units	c
44)	C270 1,4-DICHLOROBENZENE	15.37	146.0	372224	174.40	ng/mL	9
45)	C260 1,2-DICHLOROBENZENE	16.01	146.0	429243	172.44	ng/mL	8
46)	CS05 TOLUENE-D8	9.06	98.0	336603	158.81	ng/mL	9
47)	CS10 BROMOFLUOROBENZENE	13.31	95.0	283157	167.27	ng/mL	9

* Compound is ISTD

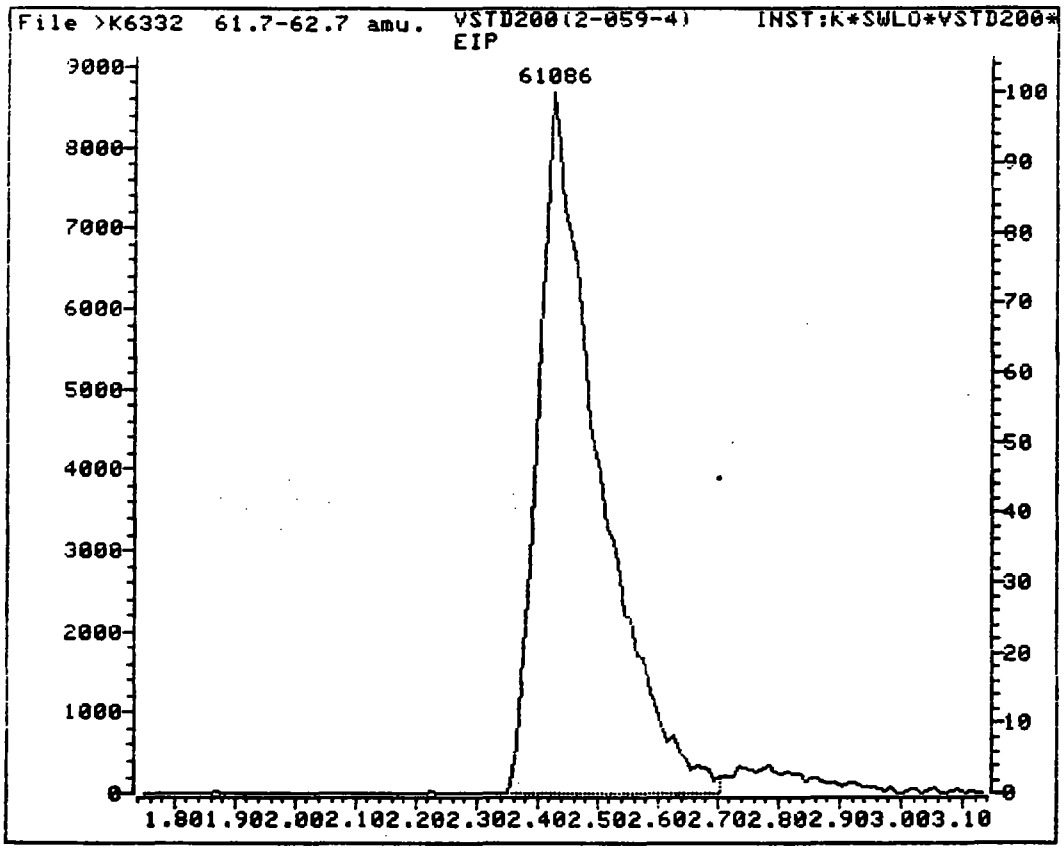
VSTD200
dnot,K
K6332
08/09/91
13:24



Data File: >K6332::L2 Quant Output File: ^K6332::D6
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML
Quant Time: 910809 13:48 Quant ID File: IDV023::EX
Injected at: 910809 13:24 Last Calibration: 910809 13:21

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 91
Retention Time: 2.37 min.
Quant Ion: 50.0
Area: 32792M
Concentration: 163.48 ng/mL
q-value: 97

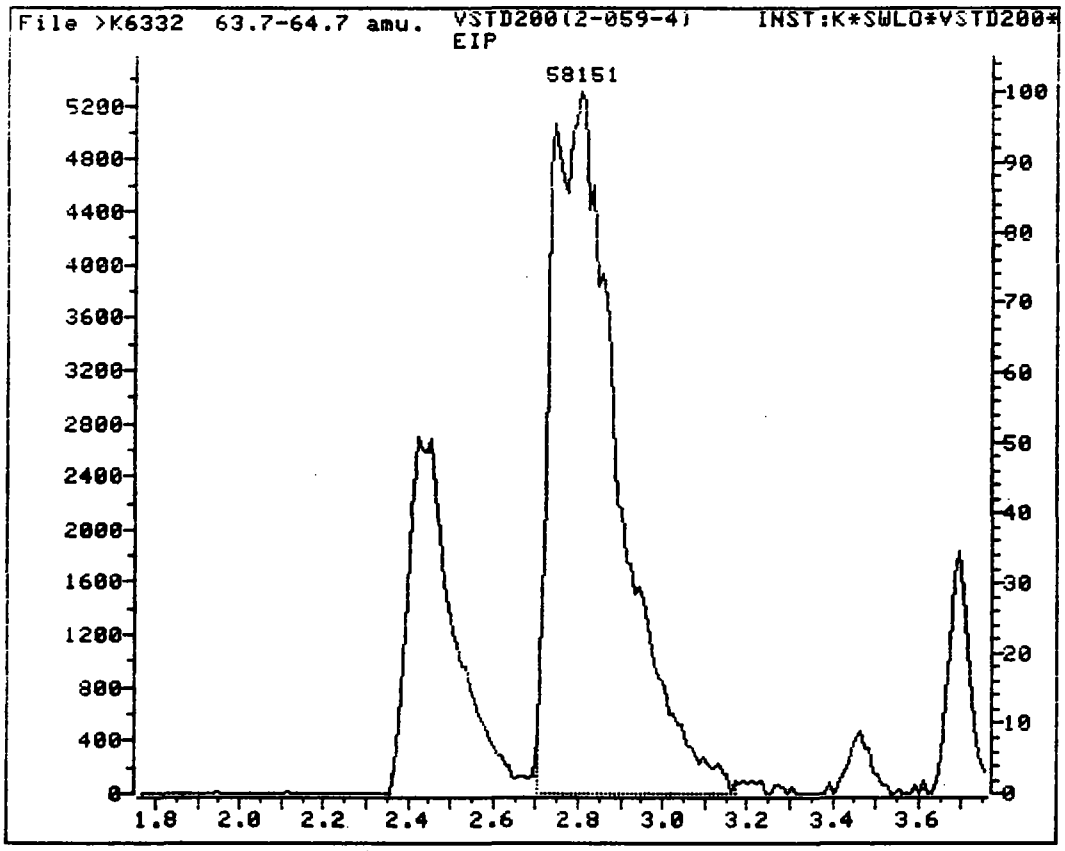
This report was produced by QAREA on: 910812 10:25



Data File: >K6332::L2 Quant Output File: ^K6332::D6
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML
Quant Time: 910809 13:48 Quant ID File: IDV023::EX
Injected at: 910809 13:24 Last Calibration: 910809 13:21

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 97
Retention Time: 2.43 min.
Quant Ion: 62.0
Area: 61086M
Concentration: 164.79 ng/mL
q-value: 100

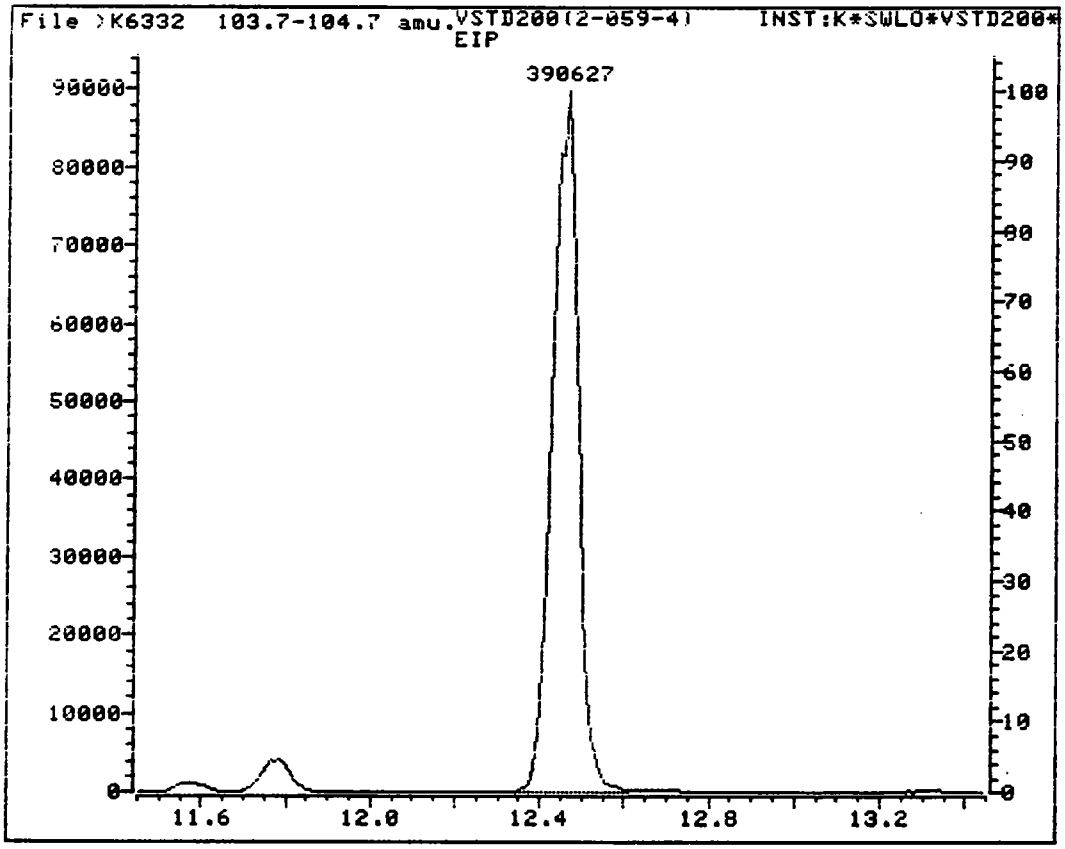
This report was produced by QAREA on: 910812 10:27



Data File: >K6332::L2 Quant Output File: ^K6332::D6
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML
Quant Time: 910809 13:48 Quant ID File: IDV023::EX
Injected at: 910809 13:24 Last Calibration: 910809 13:21

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 135
Retention Time: 2.80 min.
Quant Ion: 64.0
Area: 58151M
Concentration: 194.13 ng/mL
q-value: 100

This report was produced by QAREA on: 910812 10:28

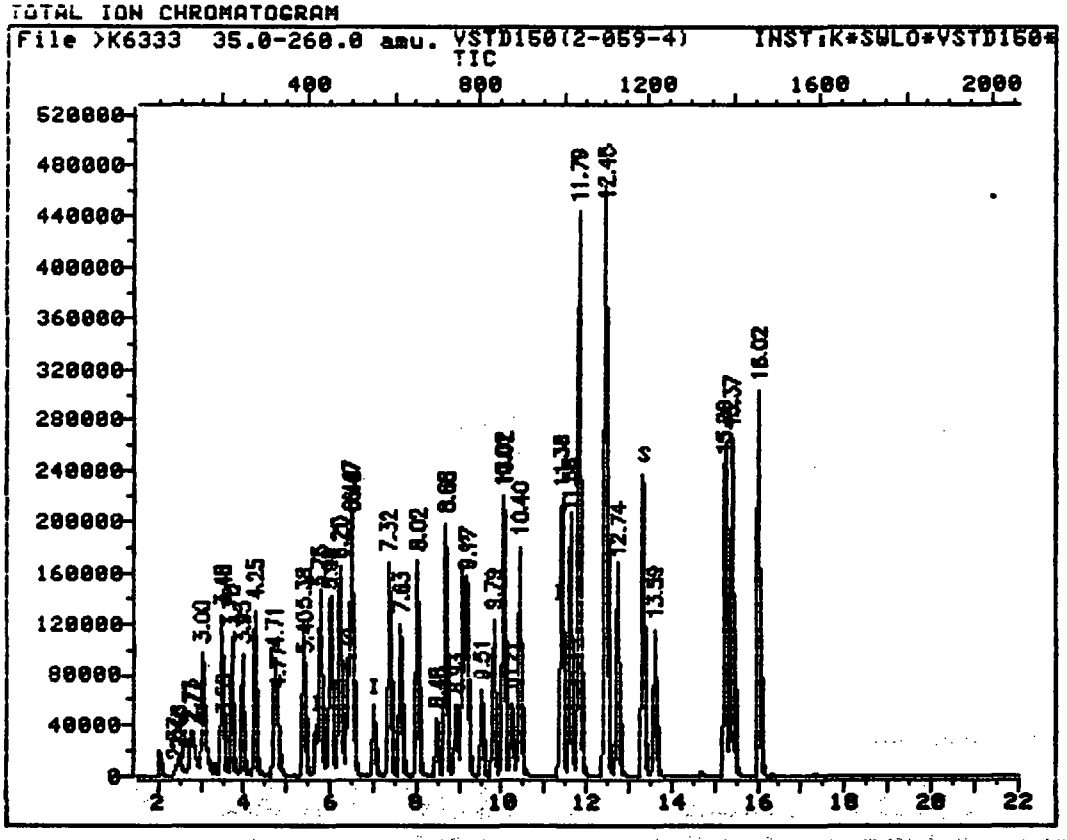


Data File: >K6332::L2 Quant Output File: ^K6332::D6
Name: VSTD200(2-059-4)
Misc: INST:K*SWLO*VSTD200*5ML
Quant Time: 910809 13:48 Quant ID File: IDV023::EX
Injected at: 910809 13:24 Last Calibration: 910809 13:21

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1104
Retention Time: 12.46 min.
Quant Ion: 104.0
Area: 390627M
Concentration: 185.34 ng/mL

This report was produced by QAREA on: 910812 10:30

TOTAL ION CHROMATOGRAM



Data File: >K6333::L2 Quant Output File: ^K6333::D6
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 13:21

Operator ID: DEBBIE
Quant Time: 910809 14:29
Injected at: 910809 14:06

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910809 14:29
Output File: ^K6333::D6 Injected at: 910809 14:06
Data File: >K6333::L2 Dilution Factor: 1.00000
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML

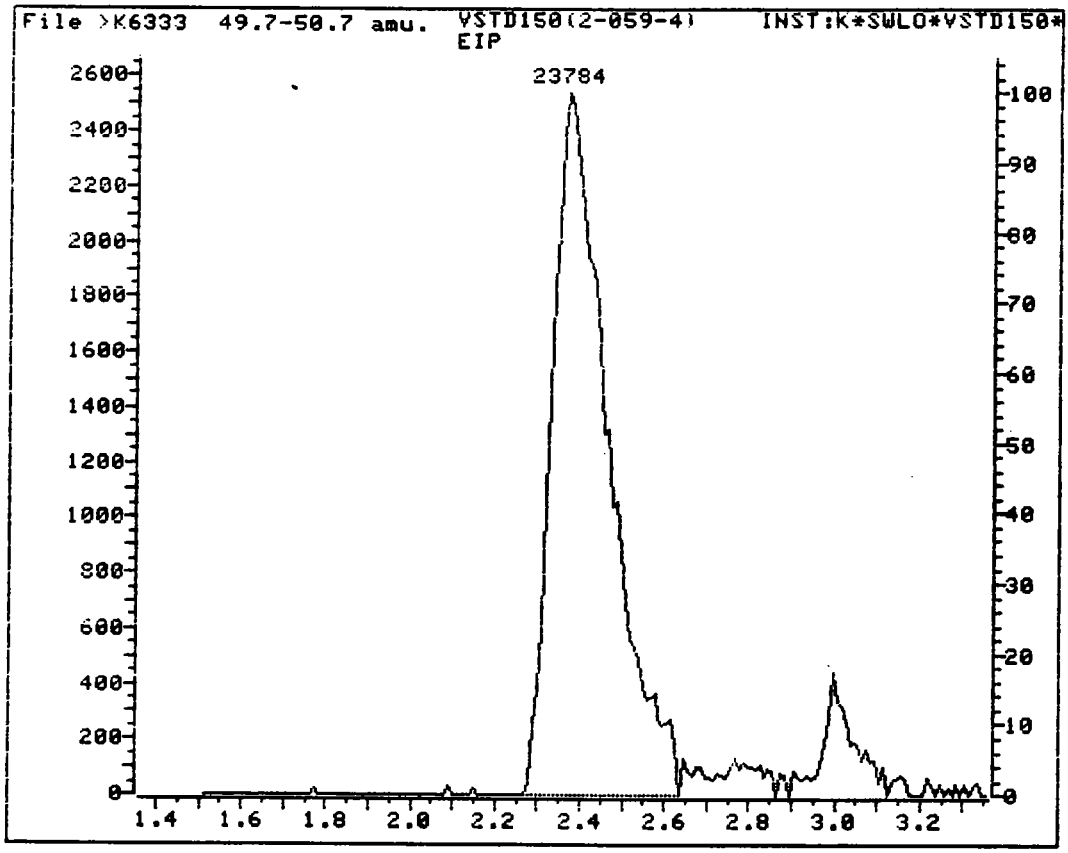
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 13:21

	Compound	R.T.	Q ion	Area	Conc	Units	
1)	*CI01 BROMOCHLOROMETHANE	5.65	128.0	24359	50.00	ng/mL	
2)	C010 CHLOROMETHANE	2.37	50.0	23784M	116.26	ng/mL	
3)	C015 BROMOMETHANE	2.73	94.0	86233	124.40	ng/mL	
4)	C020 VINYL CHLORIDE	2.46	62.0	44973M	118.96	ng/mL	1
5)	C025 CHLOROETHANE	2.77	64.0	41601M	136.18	ng/mL	1
6)	C030 METHYLENE CHLORIDE	3.95	84.0	81432	125.09	ng/mL	
7)	C035 ACETONE	3.53	43.0	49186	133.81	ng/mL	1
8)	C040 CARBON DISULFIDE	3.70	76.0	282739	136.36	ng/mL	1
9)	C255 TRICHLOROFLUOROMETHANE	3.00	101.0	228041	111.75	ng/mL	
10)	C045 1,1-DICHLOROETHENE	3.48	96.0	84473	128.32	ng/mL	
11)	C050 1,1-DICHLOROETHANE	4.71	63.0	184892	122.09	ng/mL	
12)	C053 1,2-DICHLOROETHENE-TRANS	4.25	96.0	92157	132.16	ng/mL	
13)	C055 1,2-DICHLOROETHENE-CIS	5.38	96.0	95867	123.74	ng/mL	
14)	C060 CHLOROFORM	5.75	83.0	264249	120.20	ng/mL	
15)	C065 1,2-DICHLOROETHANE	6.48	62.0	208063	123.51	ng/mL	
16)	C110 2-BUTANONE	5.40	72.0	11974	146.31	ng/mL	
17)	CS15 1,2-DICHLOROETHANE-D4	6.39	65.1	183725	124.32	ng/mL	
18)	*CI10 1,4-DIFLUOROBENZENE	6.96	114.0	92437	50.00	ng/mL	
19)	C115 1,1,1-TRICHLOROETHANE	5.99	96.9	247336	121.15	ng/mL	
20)	C120 CARBON TETRACHLORIDE	6.20	117.0	272262	124.61	ng/mL	
21)	C125 VINYL ACETATE	4.77	43.0	158301	153.95	ng/mL	1
22)	C130 BROMODICHLOROMETHANE	8.02	83.0	261700	129.12	ng/mL	
23)	C140 1,2-DICHLOROPROPANE	7.63	63.0	80580	131.10	ng/mL	
24)	C172 TRANS-1,3-DICHLOROPROPENE	9.51	75.0	87284	99.74	ng/mL	
25)	C150 TRICHLOROETHENE	7.32	130.0	124639	125.33	ng/mL	
26)	C155 DIBROMOCHLOROMETHANE	10.40	129.0	233450	136.92	ng/mL	1
27)	C160 1,1,2-TRICHLOROETHANE	9.79	97.0	85804	135.40	ng/mL	1
28)	C165 BENZENE	6.47	78.0	207568	132.15	ng/mL	
29)	C143 CIS-1,3-DICHLOROPROPENE	8.68	75.0	243274	168.33	ng/mL	
30)	C175 2-CHLOROETHYL VINYL ETHER	8.48	63.0	44028	152.18	ng/mL	
31)	C180 BROMOFORM	12.74	172.8	204863	144.34	ng/mL	
32)	*CI20 CHLOROBENZENE-D5	11.34	117.0	75102	50.00	ng/mL	
33)	C205 4-METHYL-2-PENTANONE	8.93	43.0	96705	142.14	ng/mL	
34)	C210 2-HEXANONE	10.21	43.0	100858	148.98	ng/mL	
35)	C220 TETRACHLOROETHENE	10.02	164.0	129770	123.17	ng/mL	
36)	C225 1,1,2,2-TETRACHLOROETHANE	13.59	83.0	136777	139.43	ng/mL	
37)	C230 TOLUENE	9.17	92.0	150006	127.28	ng/mL	
38)	C235 CHLOROBENZENE	11.38	112.0	227201	130.05	ng/mL	
39)	C240 ETHYLBENZENE	11.58	106.0	99822	125.89	ng/mL	
40)	C245 STYRENE	12.47	104.0	265148M	126.84	ng/mL	
41)	C250 o-XYLENE	12.45	106.0	158125	131.32	ng/mL	
42)	C299 m,p-XYLENES	11.79	106.0	270813	270.97	ng/mL	
43)	C265 1,3-DICHLOROBENZENE	15.20	146.0	272841M	123.91	ng/mL	

	Compound	R.T.	Q ion	Area	Conc	Units
44)	C270 1,4-DICHLOROBENZENE	15.37	146.0	282929	133.65	ng/mL
45)	C260 1,2-DICHLOROBENZENE	16.02	146.0	309552	125.38	ng/mL
46)	CS05 TOLUENE-D8	9.08	98.0	273219	129.97	ng/mL
47)	CS10 BROMOFLUOROBENZENE	13.31	95.0	203849	121.41	ng/mL

* Compound is ISTD

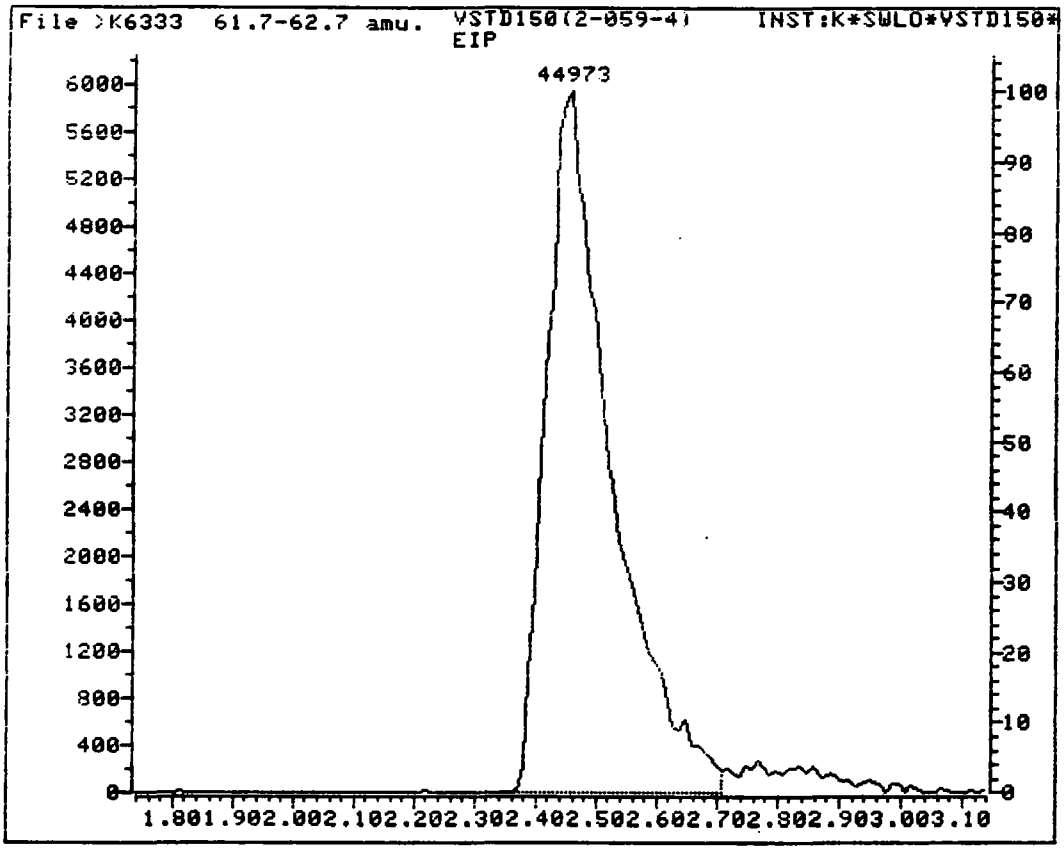
VSTD150
Comstik
K6333
08/09/91
14:06



Data File: >K6333::L2 Quant Output File: ^K6333::D6
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML
Quant Time: 910809 14:29 Quant ID File: IDV023::EX
Injected at: 910809 14:06 Last Calibration: 910809 13:21

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 87
Retention Time: 2.37 min.
Quant Ion: 50.0
Area: 23784M
Concentration: 116.26 ng/mL
q-value: 79

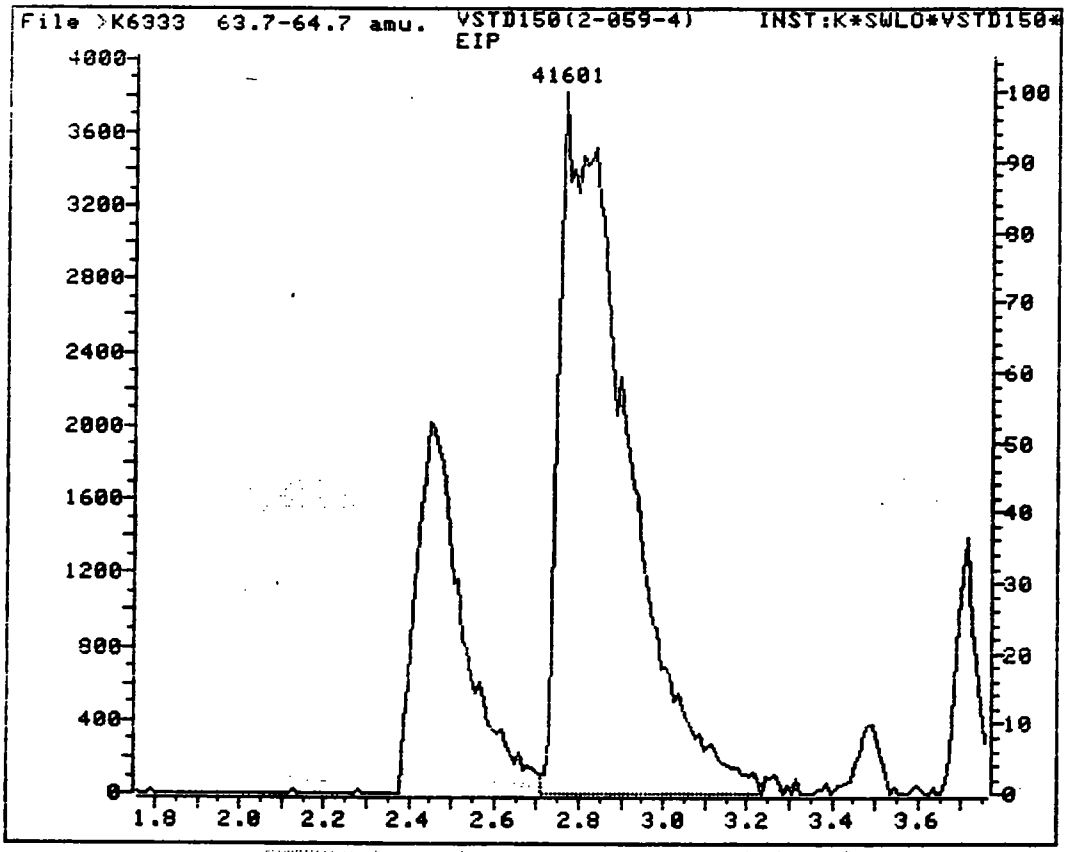
This report was produced by QAREA on: 910812 10:16



Data File: >K6333::L2 Quant Output File: ^K6333::D6
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML
Quant Time: 910809 14:29 Quant ID File: IDV023::EX
Injected at: 910809 14:06 Last Calibration: 910809 13:21

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 96
Retention Time: 2.46 min.
Quant Ion: 62.0
Area: 44973M
Concentration: 118.96 ng/mL
q-value: 100

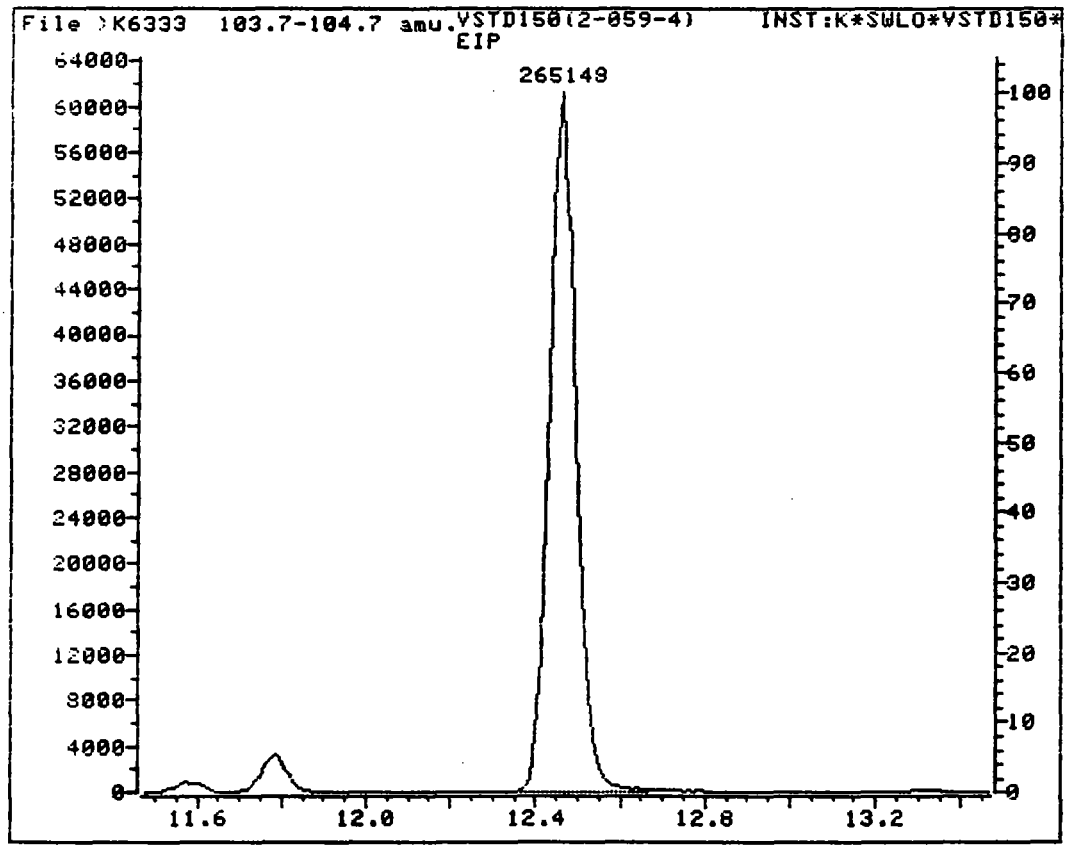
This report was produced by QAREA on: 910812 10:18



Data File: >K6333::L2 Quant Output File: ^K6333::D6
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML
Quant Time: 910809 14:29 Quant ID File: IDV023::EX
Injected at: 910809 14:06 Last Calibration: 910809 13:21

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 127
Retention Time: 2.77 min.
Quant Ion: 64.0
Area: 41601M
Concentration: 136.18 ng/mL
q-value: 100

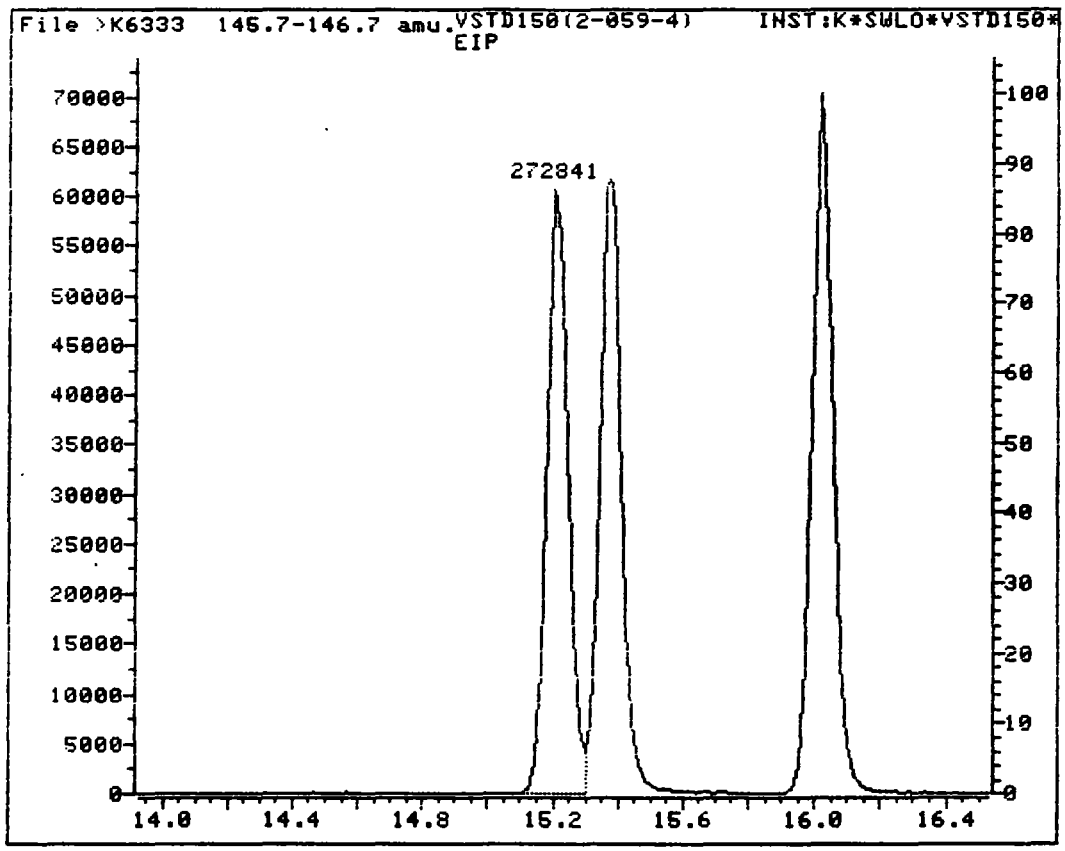
This report was produced by QAREA on: 910812 10:19



Data File: >K6333::L2 Quant Output File: ^K6333::D6
Name: VSTD150(2-059-4)
Misc: INST:K*SWL0*VSTD150*5ML
Quant Time: 910809 14:29 Quant ID File: IDV023::EX
Injected at: 910809 14:06 Last Calibration: 910809 13:21

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1100
Retention Time: 12.47 min.
Quant Ion: 104.0
Area: 265148M
Concentration: 126.84 ng/mL

This report was produced by QAREA on: 910812 10:21

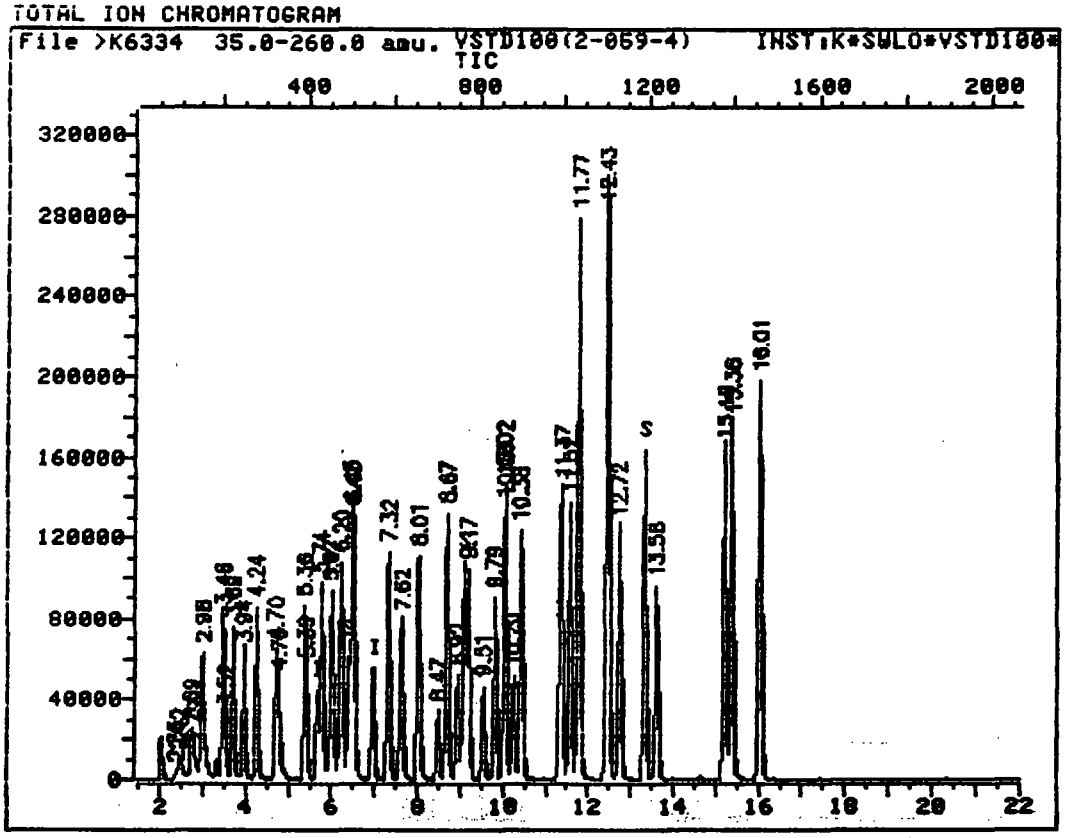


Data File: >K6333::L2 Quant Output File: ^K6333::D6
Name: VSTD150(2-059-4)
Misc: INST:K*SWLO*VSTD150*5ML
Quant Time: 910809 14:29 Quant ID File: IDV023::EX
Injected at: 910809 14:06 Last Calibration: 910809 13:21

Compound No: 43
Compound Name: C265 1,3-DICHLOROBENZENE
Scan Number: 1375
Retention Time: 15.20 min.
Quant Ion: 146.0
Area: 272841M
Concentration: 123.91 ng/mL
q-value: 99

This report was produced by QAREA on: 910812 10:23

TOTAL ION CHROMATOGRAM



Data File: >K6334::L2 Quant Output File: ^K6334::D6
Name: VSTD100(2-059-4)
Misc: INST:K*SWLO*VSTD100*5ML

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 13:21

Operator ID: DEBBIE
Quant Time: 910809 15:07
Injected at: 910809 14:44

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910809 15:07
Output File: ^K6334::D6 Injected at: 910809 14:44
Data File: >K6334::L2 Dilution Factor: 1.00000
Name: VSTD100(2-059-4)
Misc: INST:K*SWLO*VSTD100*5ML

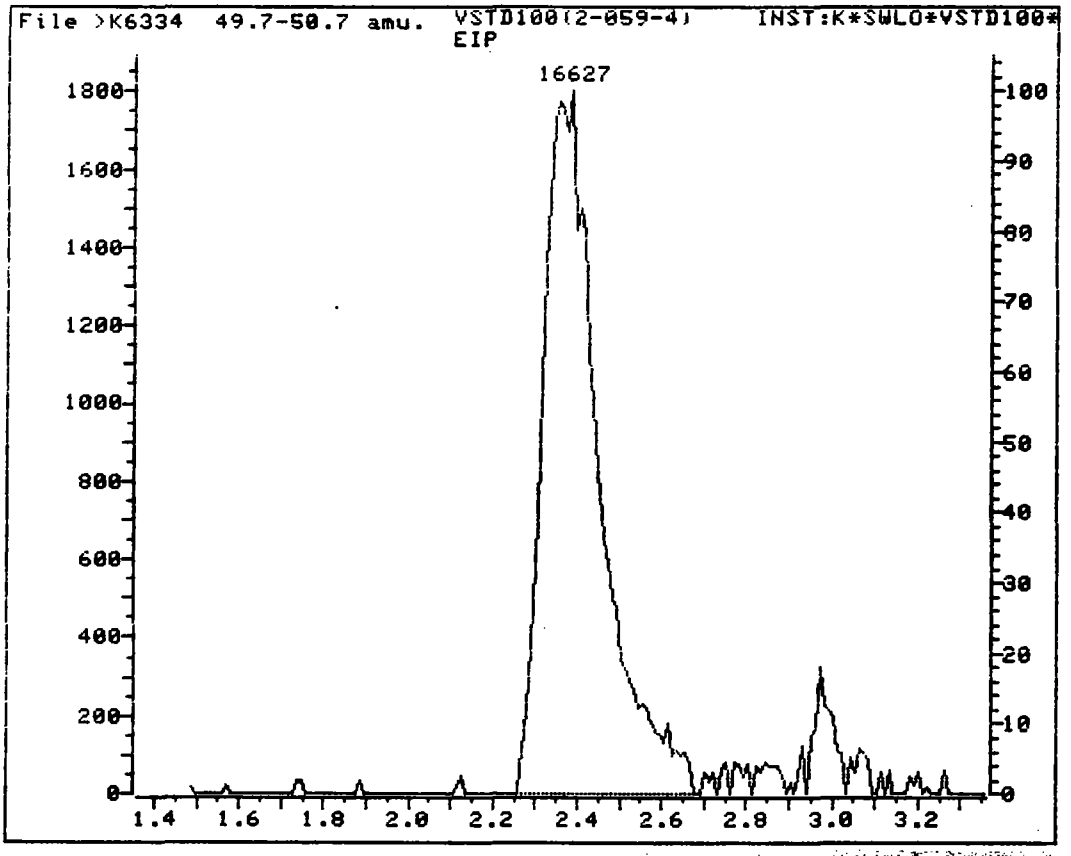
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 13:21

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.64	128.0	25340	50.00	ng/mL	6
2)	C010 CHLOROMETHANE	2.38	50.0	16627M	78.13	ng/mL	9
3)	C015 BROMOMETHANE	2.69	94.0	58401	80.99	ng/mL	9
4)	C020 VINYL CHLORIDE	2.42	62.0	30870M	78.49	ng/mL	10
5)	C025 CHLOROETHANE	2.81	64.0	26751M	84.18	ng/mL	10
6)	C030 METHYLENE CHLORIDE	3.94	84.0	56602	83.58	ng/mL	8
7)	C035 ACETONE	3.52	43.0	48306	126.32	ng/mL	10
8)	C040 CARBON DISULFIDE	3.69	76.0	187209	86.79	ng/mL	10
9)	C255 TRICHLOROFLUOROMETHANE	2.98	101.0	150831	71.05	ng/mL	9
10)	C045 1,1-DICHLOROETHENE	3.46	96.0	56646	82.72	ng/mL	9
11)	C050 1,1-DICHLOROETHANE	4.70	63.0	126641	80.39	ng/mL	9
12)	C053 1,2-DICHLOROETHENE-TRANS	4.24	96.0	60904	83.96	ng/mL	9
13)	C055 1,2-DICHLOROETHENE-CIS	5.36	96.0	66568	82.59	ng/mL	9
14)	C060 CHLOROFORM	5.74	83.0	177497	77.61	ng/mL	9
15)	C065 1,2-DICHLOROETHANE	6.47	62.0	148297	84.62	ng/mL	8
16)	C110 2-BUTANONE	5.39	72.0	11852	139.21	ng/mL	8
17)	CS15 1,2-DICHLOROETHANE-D4	6.37	65.1	132127	85.94	ng/mL	8
18)	*CI10 1,4-DIFLUOROBENZENE	6.97	114.0	94890	50.00	ng/mL	9
19)	C115 1,1,1-TRICHLOROETHANE	5.97	96.9	87861^	41.92	ng/mL	9
20)	C120 CARBON TETRACHLORIDE	6.20	117.0	175969	78.45	ng/mL	9
21)	C125 VINYL ACETATE	4.76	43.0	126832	120.16	ng/mL	10
22)	C130 BROMODICHLOROMETHANE	8.01	83.0	177497	85.31	ng/mL	9
23)	C140 1,2-DICHLOROPROPANE	7.62	63.0	56166	89.02	ng/mL	9
24)	C172 TRANS-1,3-DICHLOROPROPENE	9.51	75.0	59134	65.83	ng/mL	8
25)	C150 TRICHLOROETHENE	7.32	130.0	81459	79.79	ng/mL	8
26)	C155 DIBROMOCHLOROMETHANE	10.38	129.0	160783	91.86	ng/mL	10
27)	C160 1,1,2-TRICHLOROETHANE	9.79	97.0	63305	97.31	ng/mL	10
28)	C165 BENZENE	6.45	78.0	135999	84.34	ng/mL	8
29)	C143 CIS-1,3-DICHLOROPROPENE	8.67	75.0	164550	110.91	ng/mL	9
30)	C175 2-CHLOROETHYL VINYL ETHER	8.47	63.0	34575	116.42	ng/mL	9
31)	C180 BROMOFORM	12.72	172.8	150673	103.41	ng/mL	9
32)	*CI20 CHLOROBENZENE-D5	11.31	117.0	74847	50.00	ng/mL	9
33)	C205 4-METHYL-2-PENTANONE	8.92	43.0	90182	133.00	ng/mL	8
34)	C210 2-HEXANONE	10.20	43.0	91096	135.02	ng/mL	9
35)	C220 TETRACHLOROETHENE	10.02	164.0	84084	80.08	ng/mL	9
36)	C225 1,1,2,2-TETRACHLOROETHANE	13.58	83.0	115461	118.10	ng/mL	9
37)	C230 TOLUENE	9.17	92.0	97753	83.23	ng/mL	9
38)	C235 CHLOROBENZENE	11.37	112.0	149172	85.68	ng/mL	9
39)	C240 ETHYLBENZENE	11.57	106.0	63929	80.90	ng/mL	7
40)	C245 STYRENE	12.45	104.0	173016M	83.05	ng/mL	
41)	C250 o-XYLENE	12.43	106.0	105448	87.87	ng/mL	9
42)	C299 m,p-XYLENES	11.77	106.0	171314	172.00	ng/mL	9
43)	C265 1,3-DICHLOROBENZENE	15.19	146.0	174525	79.53	ng/mL	9

	Compound	R.T.	Q ion	Area	Conc	Units
44)	C270 1,4-DICHLOROBENZENE	15.36	146.0	178848	84.77	ng/mL
45)	C260 1,2-DICHLOROBENZENE	16.01	146.0	208309	84.66	ng/mL
46)	CS05 TOLUENE-D8	9.07	98.0	173739	82.93	ng/mL
47)	CS10 BROMOFLUOROBENZENE	13.30	95.0	142258	85.02	ng/mL

* Compound is ISTD

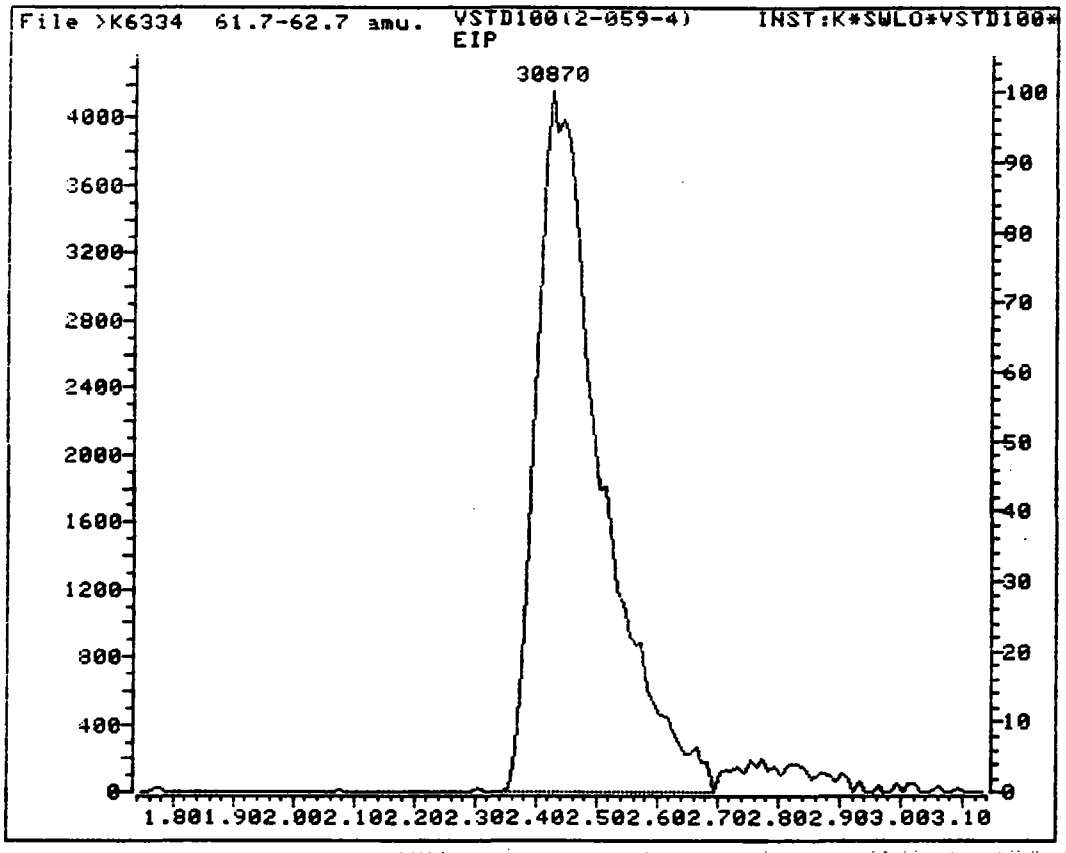
VSTD100
Inst:K
K6334
08/09/91
14:44



Data File: >K6334::L2 Quant Output File: ^K6334::D6
Name: VSTD100(2-059-4)
Misc: INST:K*SWLO*VSTD100*5ML
Quant Time: 910809 15:07 Quant ID File: IDV023::EX
Injected at: 910809 14:44 Last Calibration: 910809 13:21

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 91
Retention Time: 2.38 min.
Quant Ion: 50.0
Area: 16627M
Concentration: 78.13 ng/mL
q-value: 92

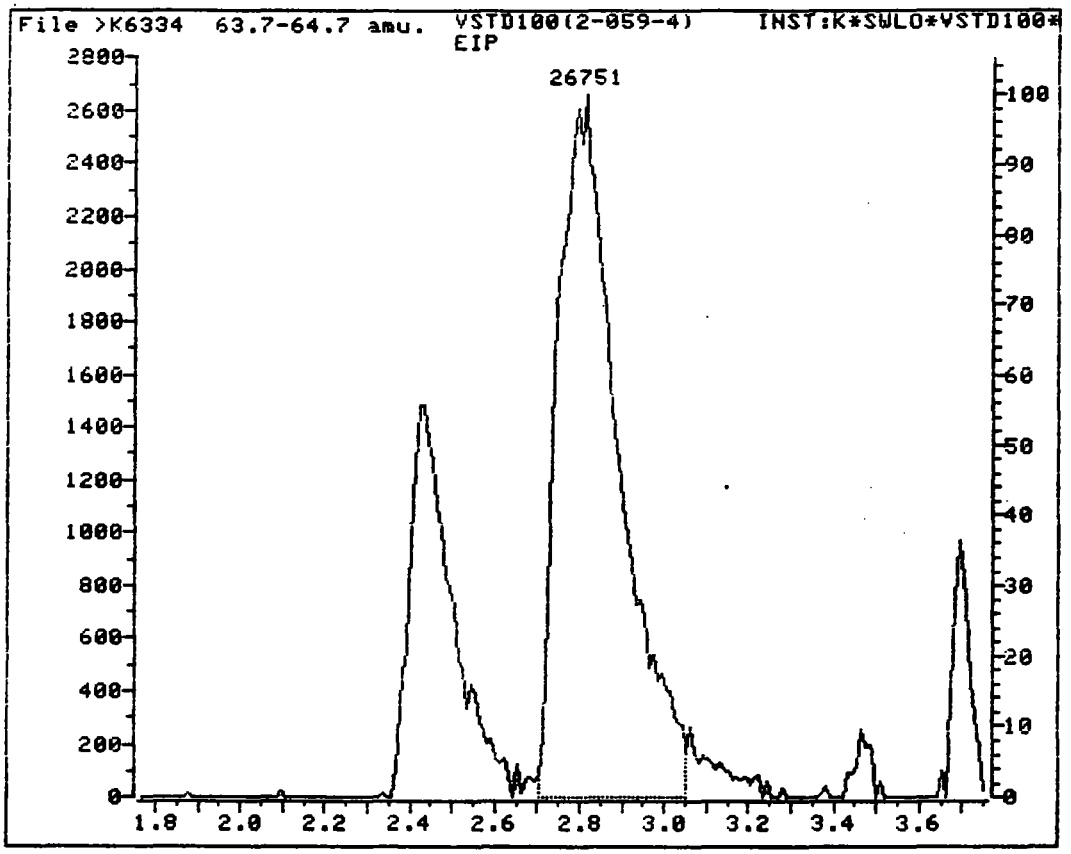
This report was produced by QAREA on: 910812 10:03



Data File: >K6334::L2 Quant Output File: ^K6334::D6
Name: VSTD100(2-059-4)
Misc: INST:K*SWLO*VSTD100*5ML
Quant Time: 910809 15:07 Quant ID File: IDV023::EX
Injected at: 910809 14:44 Last Calibration: 910809 13:21

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 95
Retention Time: 2.42 min.
Quant Ion: 62.0
Area: 30870M
Concentration: 78.49 ng/mL
q-value: 100

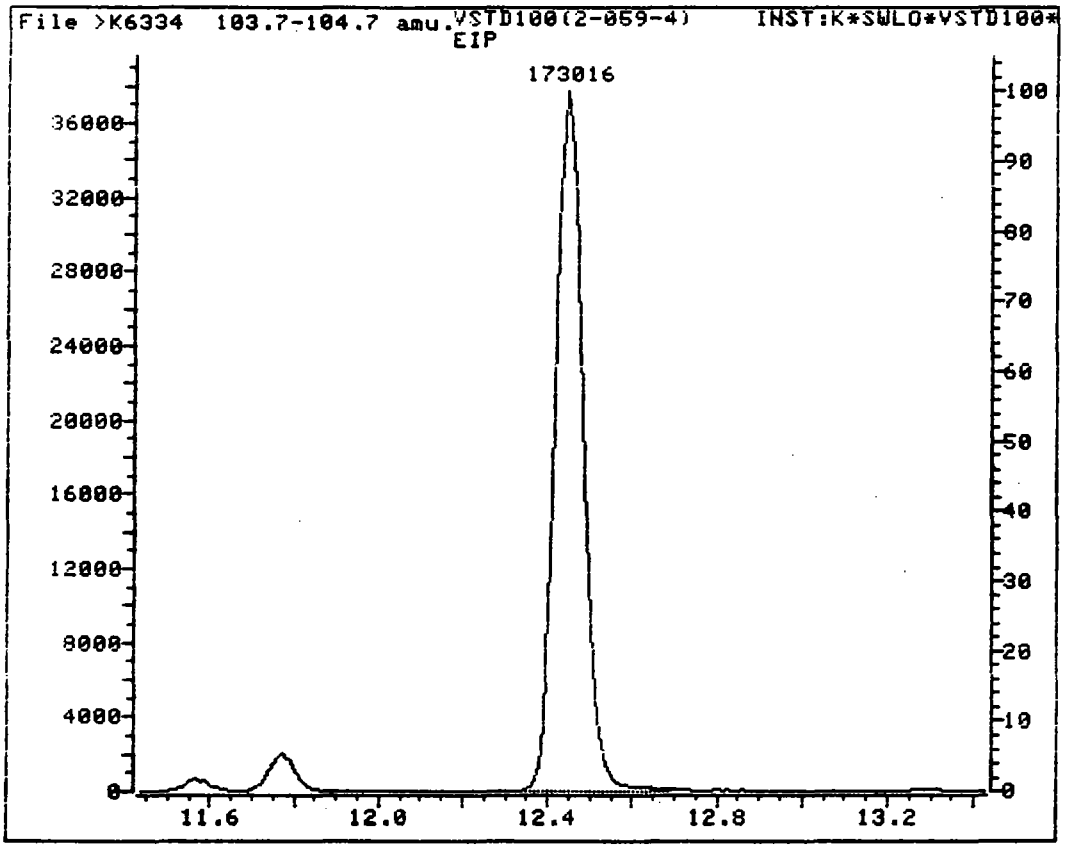
This report was produced by QAREA on: 910812 10:05



Data File: >K6334::L2 Quant Output File: ^K6334::D6
Name: VSTD100(2-059-4)
Misc: INST:K*SWLO*VSTD100*5ML
Quant Time: 910809 15:07 Quant ID File: IDV023::EX
Injected at: 910809 14:44 Last Calibration: 910809 13:21

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 134
Retention Time: 2.81 min.
Quant Ion: 64.0
Area: 26751M
Concentration: 84.18 ng/mL
q-value: 100

This report was produced by QAREA on: 910812 10:06

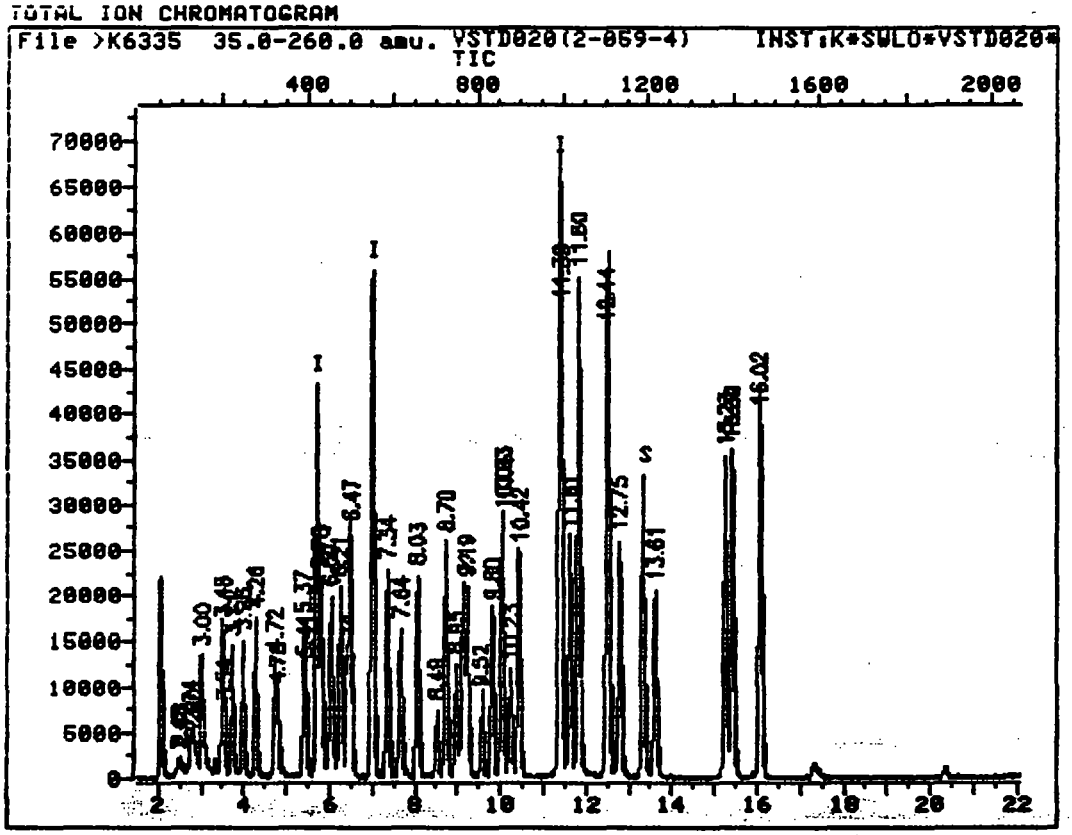


Data File: >K6334::L2 Quant Output File: ^K6334::D6
Name: VSTD100(2-059-4)
Misc: INST:K*SWLO*VSTD100*5ML
Quant Time: 910809 15:07 Quant ID File: IDV023::EX
Injected at: 910809 14:44 Last Calibration: 910809 13:21

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1101
Retention Time: 12.45 min.
Quant Ion: 104.0
Area: 173016M
Concentration: 83.05 ng/mL

This report was produced by QAREA on: 910812 10:08

TOTAL ION CHROMATOGRAM



Data File: >K6335::L2 Quant Output File: ^K6335::D6
Name: VSTD020(2-059-4)
Misc: INST:K*SWLO*VSTD020*5ML

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 13:21

Operator ID: DEBBIE
Quant Time: 910809 15:33
Injected at: 910809 15:10

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910809 15:33
Output File: ^K6335::D6 Injected at: 910809 15:10
Data File: >K6335::L2 Dilution Factor: 1.00000
Name: VSTD020(2-059-4)
Misc: INST:K*SWLO*VSTD020*5ML

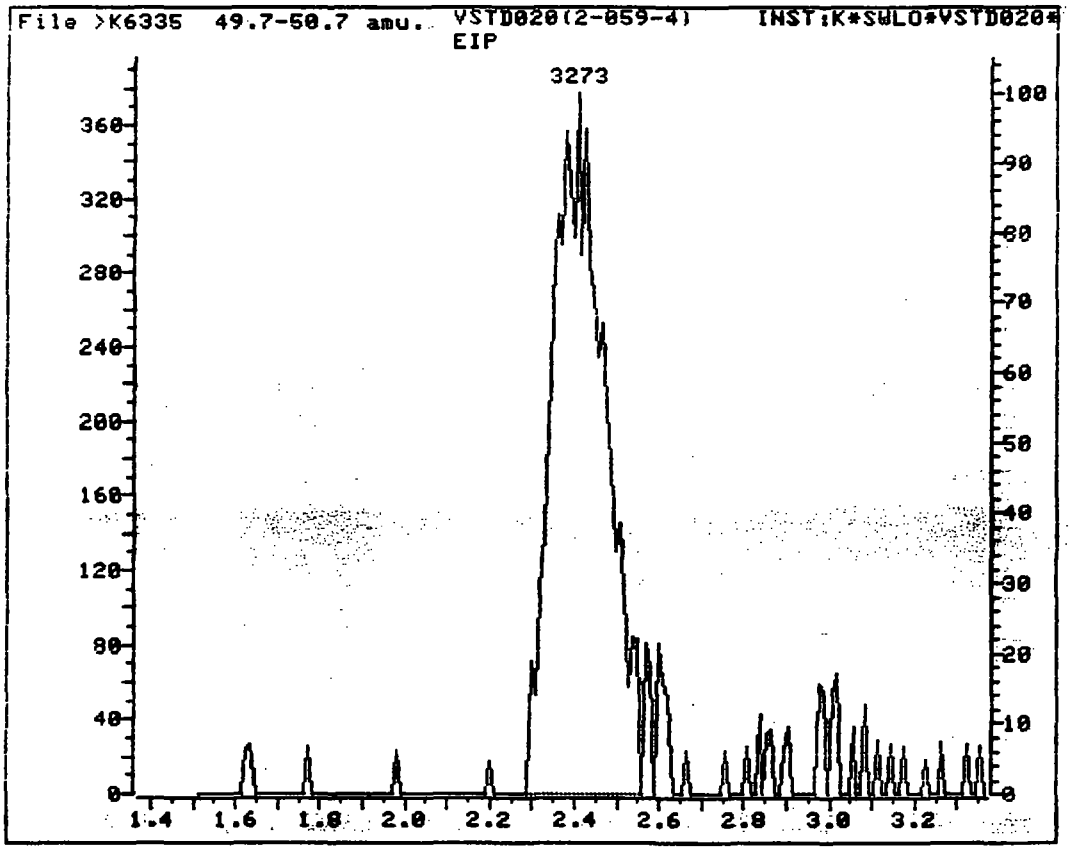
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 13:21

	Compound	R.T.	Q ion	Area	Conc	Units
1)	*CI01 BROMOCHLOROMETHANE	5.66	128.0	25784	50.00	ng/mL
2)	C010 CHLOROMETHANE	2.41	50.0	3273M	15.12	ng/mL
3)	C015 BROMOMETHANE	2.74	94.0	11050	15.06	ng/mL
4)	C020 VINYL CHLORIDE	2.48	62.0	6245M	15.61	ng/mL
5)	C025 CHLOROETHANE	2.82	64.0	4812M	14.88	ng/mL
6)	C030 METHYLENE CHLORIDE	3.96	84.0	12126	17.60	ng/mL
7)	C035 ACETONE	3.54	43.0	12223	31.41	ng/mL
8)	C040 CARBON DISULFIDE	3.71	76.0	33899	15.45	ng/mL
9)	C255 TRICHLOROFLUOROMETHANE	3.00	101.0	29549	13.68	ng/mL
10)	C045 1,1-DICHLOROETHENE	3.48	96.0	11041	15.84	ng/mL
11)	C050 1,1-DICHLOROETHANE	4.72	63.0	24896	15.53	ng/mL
12)	C053 1,2-DICHLOROETHENE-TRANS	4.26	96.0	11160	15.12	ng/mL
13)	C055 1,2-DICHLOROETHENE-CIS	5.37	96.0	12741	15.54	ng/mL
14)	C060 CHLOROFORM	5.76	83.0	36689	15.77	ng/mL
15)	C065 1,2-DICHLOROETHANE	6.49	62.0	30659M	17.19	ng/mL
16)	C110 2-BUTANONE	5.41	72.0	2851	32.91	ng/mL
17)	CS15 1,2-DICHLOROETHANE-D4	6.39	65.1	28243	18.05	ng/mL
18)	*CI10 1,4-DIFLUOROBENZENE	6.99	114.0	91347	50.00	ng/mL
19)	C115 1,1,1-TRICHLOROETHANE	6.00	96.9	33775	16.74	ng/mL
20)	C120 CARBON TETRACHLORIDE	6.21	117.0	33823	15.66	ng/mL
21)	C125 VINYL ACETATE	4.78	43.0	23282	22.91	ng/mL
22)	C130 BROMODICHLOROMETHANE	8.03	83.0	34514	17.23	ng/mL
23)	C140 1,2-DICHLOROPROPANE	7.64	63.0	10870	17.90	ng/mL
24)	C172 TRANS-1,3-DICHLOROPROPENE	9.52	75.0	11923	13.79	ng/mL
25)	C150 TRICHLOROETHENE	7.34	130.0	16237	16.52	ng/mL
26)	C155 DIBROMOCHLOROMETHANE	10.42	129.0	31770	18.86	ng/mL
27)	C160 1,1,2-TRICHLOROETHANE	9.80	97.0	13408	21.41	ng/mL
28)	C165 BENZENE	6.47	78.0	27469	17.70	ng/mL
29)	C143 CIS-1,3-DICHLOROPROPENE	8.70	75.0	32650	22.86	ng/mL
30)	C175 2-CHLOROETHYL VINYL ETHER	8.49	63.0	7038	24.62	ng/mL
31)	C180 BROMOFORM	12.75	172.8	29944	21.35	ng/mL
32)	*CI20 CHLOROBENZENE-D5	11.35	117.0	71467	50.00	ng/mL
33)	C205 4-METHYL-2-PENTANONE	8.95	43.0	21610	33.38	ng/mL
34)	C210 2-HEXANONE	10.23	43.0	21542	33.44	ng/mL
35)	C220 TETRACHLOROETHENE	10.03	164.0	16789	16.75	ng/mL
36)	C225 1,1,2,2-TETRACHLOROETHANE	13.61	83.0	25310	27.11	ng/mL
37)	C230 TOLUENE	9.19	92.0	19522	17.41	ng/mL
38)	C235 CHLOROBENZENE	11.39	112.0	30224	18.18	ng/mL
39)	C240 ETHYLBENZENE	11.61	106.0	13354	17.70	ng/mL
40)	C245 STYRENE	12.47	104.0	33813M	17.00	ng/mL
41)	C250 o-XYLENE	12.44	106.0	20297	17.71	ng/mL
42)	C299 m,p-XYLENES	11.80	106.0	33274	34.99	ng/mL
43)	C265 1,3-DICHLOROBENZENE	15.23	146.0	32755M	18.02	ng/mL

	Compound	R.T.	Q ion	Area	Conc	Units
44)	C270 1,4-DICHLOROBENZENE	15.39	146.0	37801	18.76	ng/mL
45)	C260 1,2-DICHLOROBENZENE	16.02	146.0	44517	18.95	ng/mL
46)	CS05 TOLUENE-D8	9.09	98.0	35054	17.52	ng/mL
47)	CS10 BROMOFLUOROBENZENE	13.33	95.0	29107	18.22	ng/mL

* Compound is ISTD

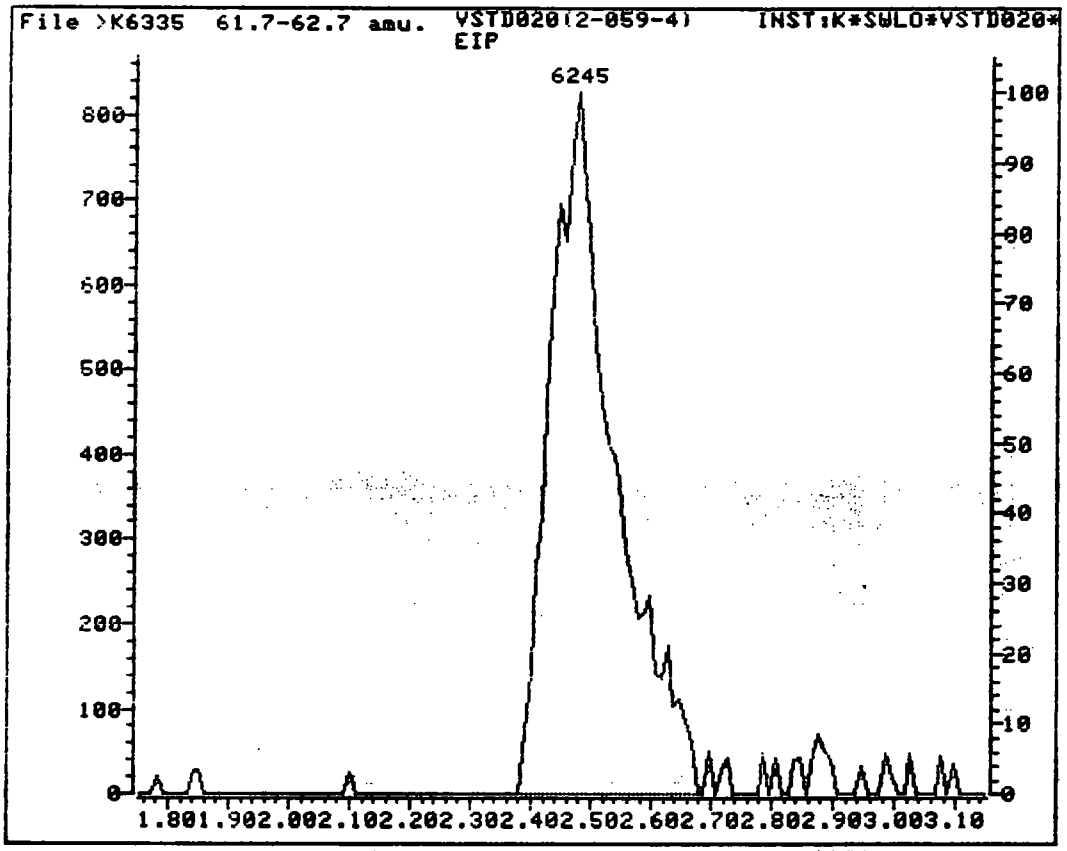
VSTD20
Onat,K
K6335
08/09/91
15:10



Data File: >K6335::L2 Quant Output File: ^K6335::D6
Name: VSTD020(2-059-4)
Misc: INST:K*SWLO*VSTD020*5ML
Quant Time: 910809 15:33 Quant ID File: IDV023::EX
Injected at: 910809 15:10 Last Calibration: 910809 13:21

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 91
Retention Time: 2.41 min.
Quant Ion: 50.0
Area: 3273M
Concentration: 15.12 ng/mL

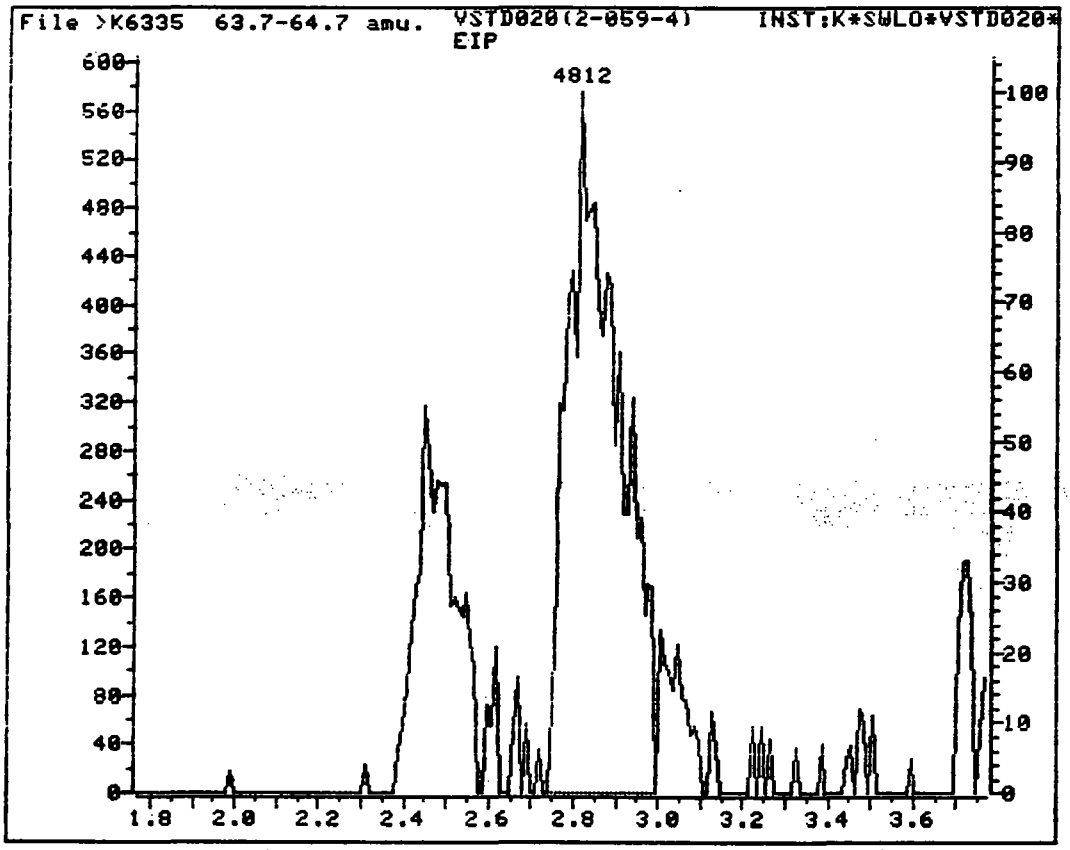
This report was produced by QAREA on: 910812 09:45



Data File: >K6335::L2 Quant Output File: ^K6335::D6
Name: VSTD020(2-059-4)
Misc: INST:K*SWLO*VSTD020*5ML
Quant Time: 910809 15:33 Quant ID File: IDV023::EX
Injected at: 910809 15:10 Last Calibration: 910809 13:21

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 98
Retention Time: 2.48 min.
Quant Ion: 62.0
Area: 6245M
Concentration: 15.61 ng/mL
q-value: 100

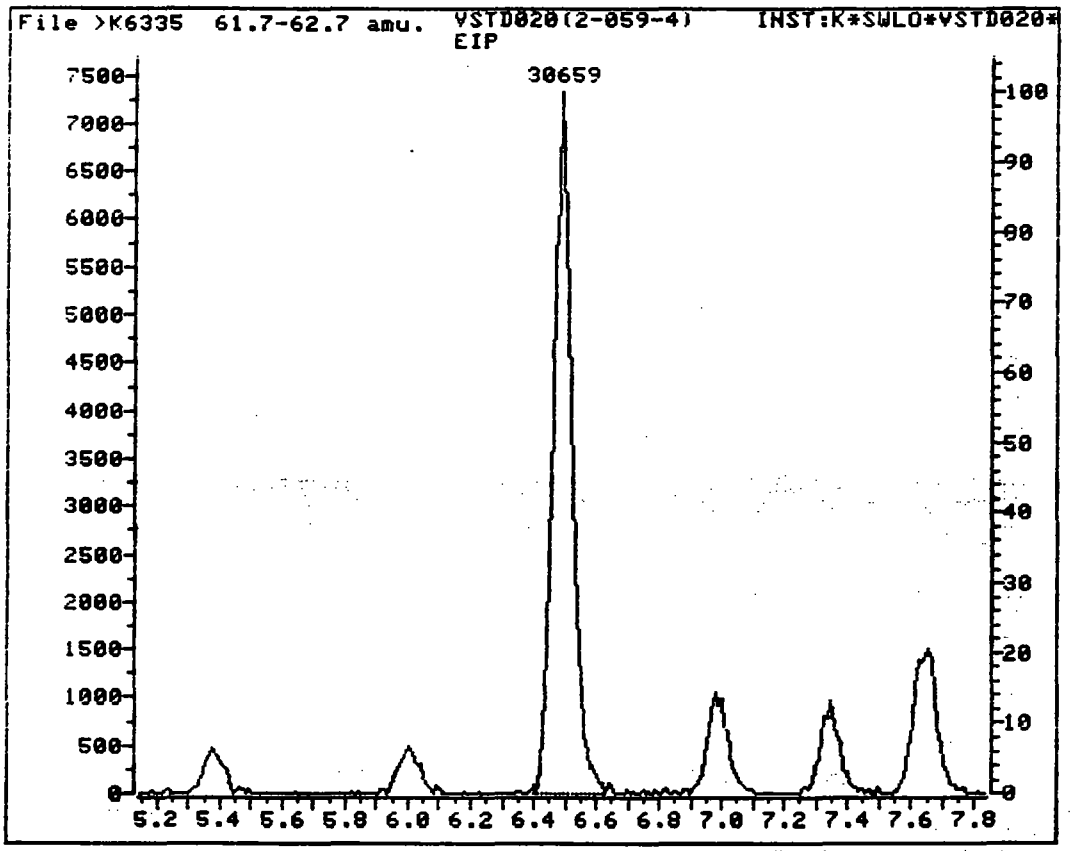
This report was produced by QAREA on: 910812 09:46



Data File: >K6335::L2 Quant Output File: ^K6335::D6
Name: VSTD020(2-059-4)
Misc: INST:K*SWLO*VSTD020*5ML
Quant Time: 910809 15:33 Quant ID File: IDV023::EX
Injected at: 910809 15:10 Last Calibration: 910809 13:21

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 132
Retention Time: 2.82 min.
Quant Ion: 64.0
Area: 4812M
Concentration: 14.88 ng/mL
q-value: 100

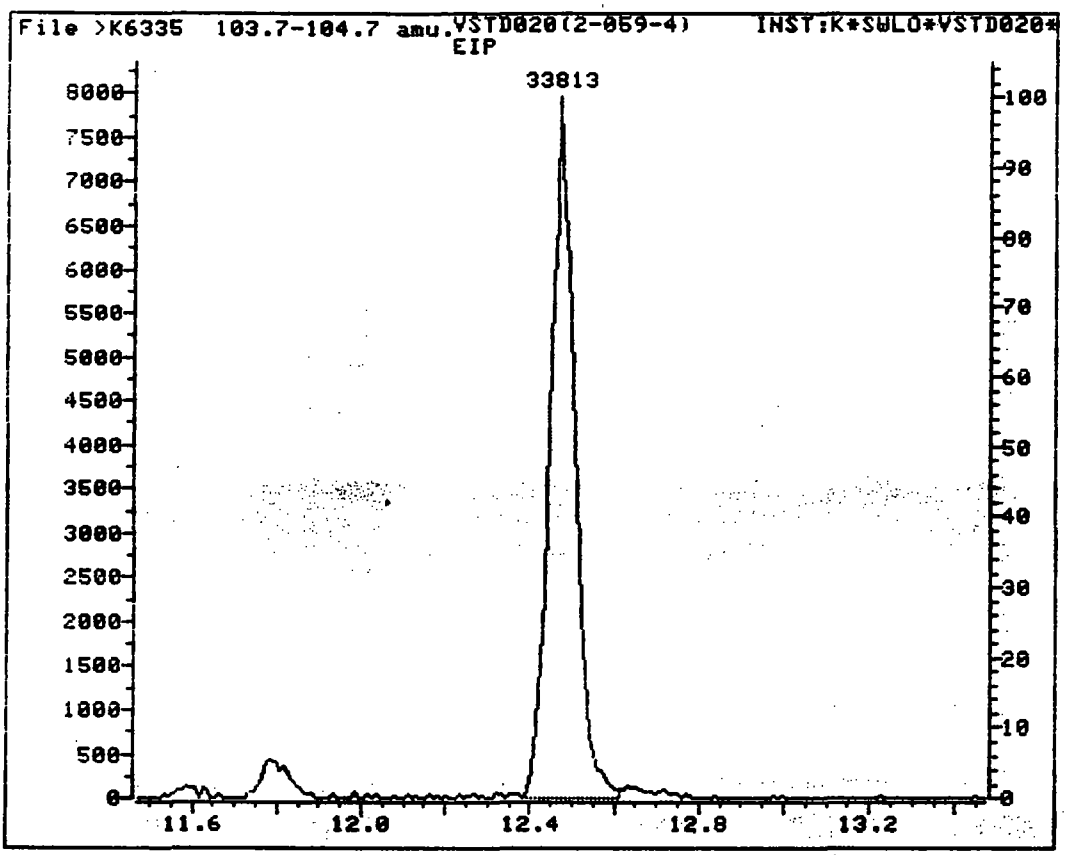
This report was produced by QAREA on: 910812 09:47



Data File: >K6335::L2 Quant Output File: ^K6335::D6
Name: VSTD020(2-059-4)
Misc: INST:K*SWLO*VSTD020*5ML
Quant Time: 910809 15:33 Quant ID File: IDV023::EX
Injected at: 910809 15:10 Last Calibration: 910809 13:21

Compound No: 15
Compound Name: C065 1,2-DICHLOROETHANE
Scan Number: 501
Retention Time: 6.49 min.
Quant Ion: 62.0
Area: 30659M
Concentration: 17.19 ng/mL

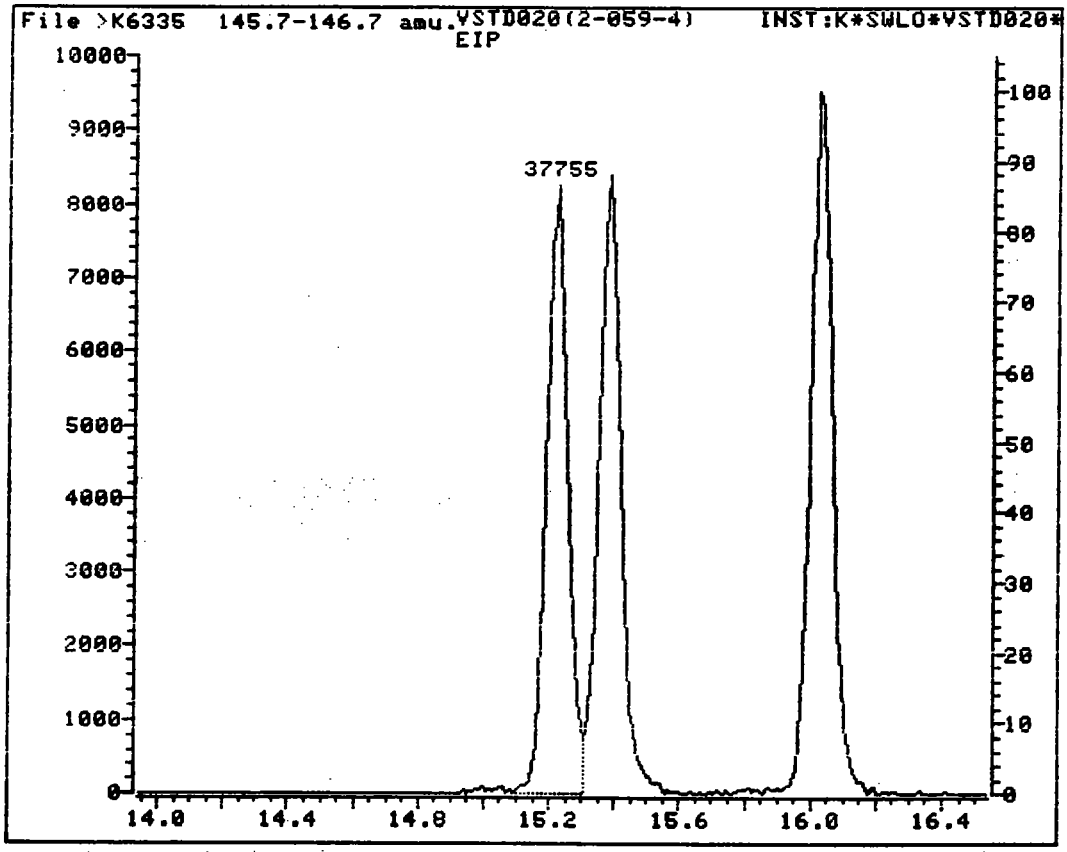
This report was produced by QAREA on: 910812 09:48



Data File: >K6335::L2 Quant Output File: ^K6335::D6
Name: VSTD020(2-059-4)
Misc: INST:K*SWLO*VSTD020*5ML
Quant Time: 910809 15:33 Quant ID File: IDV023::EX
Injected at: 910809 15:10 East Calibration: 910809 13:21

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1102
Retention Time: 12.47 min.
Quant Ion: 104.0
Area: 33813M
Concentration: 17.00 ng/mL

This report was produced by QAREA on: 910812 09:50



Data File: >K6335::L2 Quant Output File: ^K6335::D6
Name: VSTD020(2-059-4)
Misc: INST:K*SWLO*VSTD020*5ML
Quant Time: 910809 15:33 Quant ID File: IDV023::EX
Injected at: 910809 15:10 Last Calibration: 910809 13:21

Compound No: 43
Compound Name: C265 1,3-DICHLOROBENZENE
Scan Number: 1379
Retention Time: 15.23 min.
Quant Ion: 146.0
Area: 37755M
Concentration: 18.02 ng/mL
q-value: 95

This report was produced by QAREA on: 910812 09:51

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 65686 SDG No.: -001

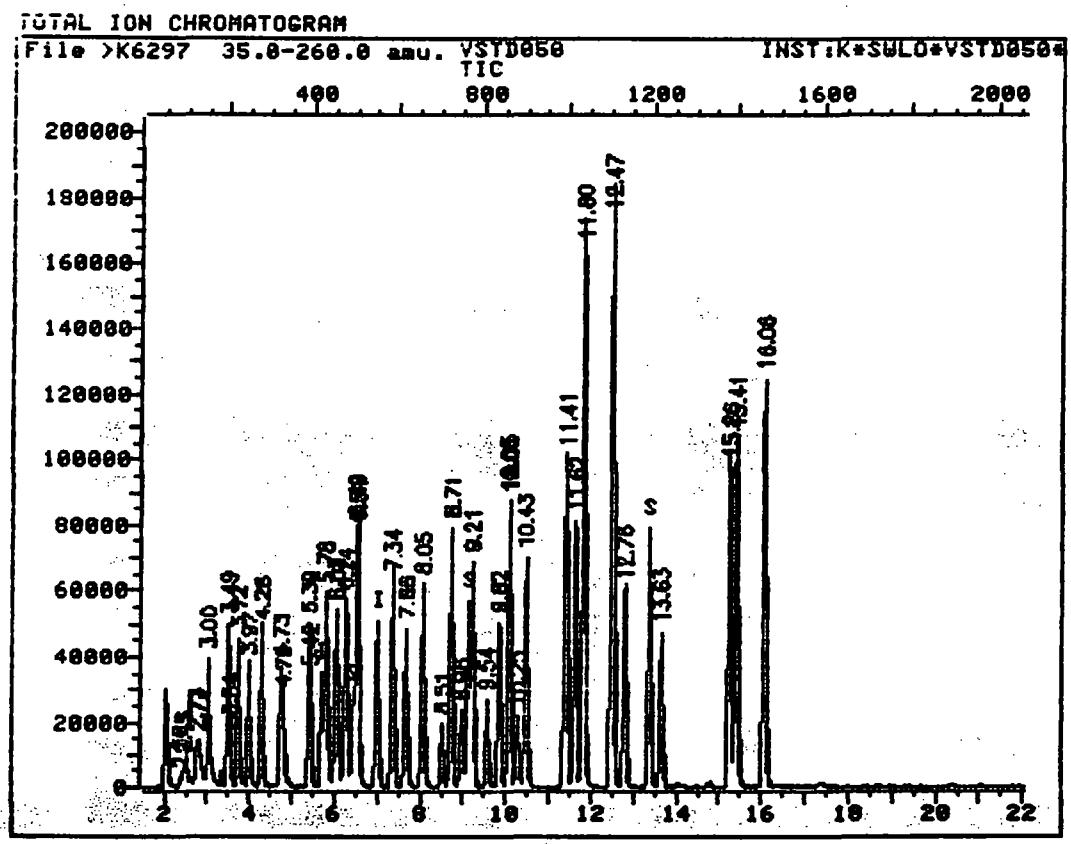
Instrument ID: K Calibration date: 08/07/91 Time: 1015

Lab File ID: K6297 Init. Calib. Date(s): 07/25/91 07/25/91

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

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

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.620	0.674	-8.7	#
Bromomethane		1.759	1.648	6.3	
Vinyl Chloride	*	1.231	1.066	13.4	*
Chloroethane		0.865	0.773	10.6	
Methylene Chloride		1.621	1.528	5.7	
Acetone		1.117	0.774	30.7	
Carbon Disulfide		6.112	5.448	10.9	
1,1-Dichloroethene	*	1.666	1.547	7.1	*
1,1-Dichloroethane	#	3.623	3.561	1.7	#
1,2-Dichloroethene (total)		1.779	1.771	0.4	
Chloroform	*	4.607	4.735	-2.8	*
1,2-Dichloroethane		3.643	3.641	0.1	
2-Butanone		0.312	0.213	31.7	
1,1,1-Trichloroethane		1.010	1.075	-6.4	
Carbon Tetrachloride		1.059	1.088	-2.7	
Vinyl Acetate		1.063	0.720	32.3	
Bromodichloromethane		1.138	1.146	-0.7	
1,2-Dichloropropane	*	0.458	0.428	6.6	*
cis-1,3-Dichloropropene		0.932	0.894	4.1	
Trichloroethene		0.610	0.609	0.2	
Dibromochloromethane		1.064	1.025	3.7	
1,1,2-Trichloroethane		0.469	0.263	43.9	
Benzene		1.113	1.061	4.7	
Trans-1,3-Dichloropropene		0.567	0.551	2.8	
Bromoform	#	1.020	0.863	15.4	#
4-Methyl-2-Pentanone		0.779	0.593	23.9	
2-Hexanone		0.850	0.566	33.4	
Tetrachloroethene		0.770	0.761	1.2	
1,1,2,2-Tetrachloroethane	#	0.875	0.857	2.1	#
Toluene	*	0.953	0.953	0.0	*
Chlorobenzene	#	1.397	1.385	0.9	#
Ethylbenzene	*	0.625	0.621	0.6	*
Styrene		1.609	1.696	-5.4	
Xylene (total)		0.948	0.970	-2.3	
Toluene-d8		1.292	1.358	-5.1	
Bromofluorobenzene		1.005	0.978	2.7	
1,2-Dichloroethane-d4		2.566	2.623	-2.2	



Data File: >K6297::L2 Quant Output File: ^K6297::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910806 10:44

Operator ID: DEBBIE
Quant Time: 910807 10:39
Injected at: 910807 10:15

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910807 10:39
Output File: ^K6297::D6 Injected at: 910807 10:15
Data File: >K6297::L2 Dilution Factor: 1.00000
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL

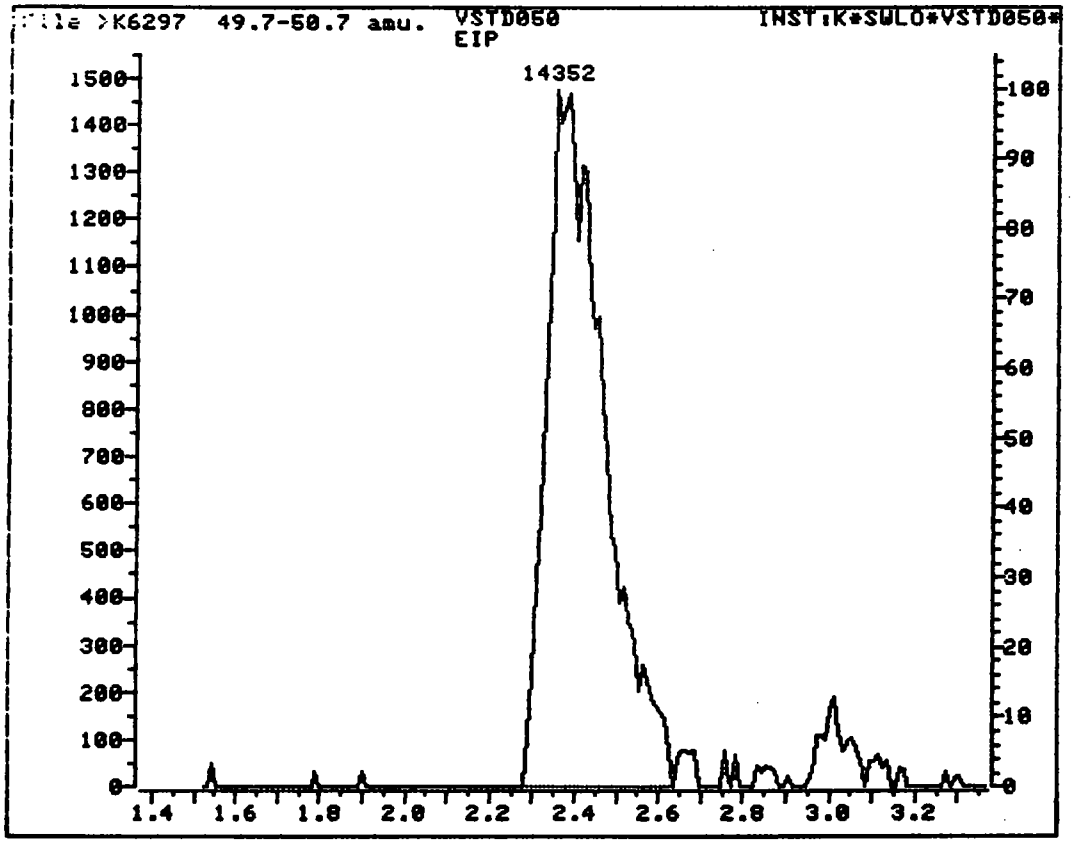
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910806 10:44

	Compound	R.T.	Q ion	Area	Conc	Units	
1)	*CI01 BROMOCHLOROMETHANE	5.68	128.0	21324	50.00	ng/mL	
2)	C010 CHLOROMETHANE	2.36	50.0	14352M	50.43	ng/mL	
3)	C015 BROMOMETHANE	2.73	94.0	35104	53.40	ng/mL	
4)	C020 VINYL CHLORIDE	2.45	62.0	22714	51.56	ng/mL	1
5)	C025 CHLOROETHANE	2.79	64.0	16470M	49.87	ng/mL	1
6)	C030 METHYLENE CHLORIDE	3.97	84.0	32538	51.18	ng/mL	
7)	C035 ACETONE	3.54	43.0	16493	48.52	ng/mL	1
8)	C040 CARBON DISULFIDE	3.72	76.0	116046	52.45	ng/mL	1
9)	C255 TRICHLOROFLUOROMETHANE	3.00	101.0	87807	54.14	ng/mL	
10)	C045 1,1-DICHLOROETHENE	3.49	96.0	32952	51.75	ng/mL	
11)	C050 1,1-DICHLOROETHANE	4.73	63.0	75851	55.27	ng/mL	
12)	C053 1,2-DICHLOROETHENE-TRANS	4.28	96.0	37730	55.38	ng/mL	
13)	C055 1,2-DICHLOROETHENE-CIS	5.39	96.0	40746	54.24	ng/mL	
14)	C060 CHLOROFORM	5.78	83.0	100848	56.32	ng/mL	
15)	C065 1,2-DICHLOROETHANE	6.51	62.0	77556	57.15	ng/mL	
16)	C110 2-BUTANONE	5.42	72.0	4541	52.42	ng/mL	
17)	CS15 1,2-DICHLOROETHANE-D4	6.41	65.1	55872	51.64	ng/mL	
18)	*CI10 1,4-DIFLUOROBENZENE	6.99	114.0	87412	50.00	ng/mL	
19)	C115 1,1,1-TRICHLOROETHANE	6.03	96.9	93970	57.94	ng/mL	
20)	C120 CARBON TETRACHLORIDE	6.24	117.0	95048	58.89	ng/mL	
21)	C125 VINYL ACETATE	4.79	43.0	62962	53.29	ng/mL	1
22)	C130 BROMODICHLOROMETHANE	8.05	83.0	100176	58.83	ng/mL	
23)	C140 1,2-DICHLOROPROPANE	7.66	63.0	37427	56.41	ng/mL	
24)	C172 TRANS-1,3-DICHLOROPROPENE	9.54	75.0	34681	41.94	ng/mL	
25)	C150 TRICHLOROETHENE	7.34	130.0	53233	56.43	ng/mL	
26)	C155 DIBROMOCHLOROMETHANE	10.43	129.0	89599	59.46	ng/mL	1
27)	C160 1,1,2-TRICHLOROETHANE	9.82	97.0	23003	35.24	ng/mL	1
28)	C165 BENZENE	6.49	78.0	92705	54.58	ng/mL	
29)	C143 CIS-1,3-DICHLOROPROPENE	8.71	75.0	100058	72.62	ng/mL	
30)	C175 2-CHLOROETHYL VINYL ETHER	8.51	63.0	19652	57.19	ng/mL	
31)	C180 BROMOFORM	12.76	172.8	75417	59.48	ng/mL	
32)	*CI20 CHLOROBENZENE-D5	11.36	117.0	69365	50.00	ng/mL	
33)	C205 4-METHYL-2-PENTANONE	8.96	43.0	41164	56.93	ng/mL	
34)	C210 2-HEXANONE	10.25	43.0	39294	55.08	ng/mL	
35)	C220 TETRACHLOROETHENE	10.06	164.0	52840	54.58	ng/mL	
36)	C225 1,1,2,2-TETRACHLOROETHANE	13.63	83.0	59500	55.82	ng/mL	
37)	C230 TOLUENE	9.21	92.0	66113	54.72	ng/mL	
38)	C235 CHLOROBENZENE	11.41	112.0	96101	55.51	ng/mL	
39)	C240 ETHYLBENZENE	11.62	106.0	43113	55.23	ng/mL	
40)	C245 STYRENE	12.49	104.0	117672M	57.13	ng/mL	
41)	C250 o-XYLENE	12.42	106.0	67317	56.89	ng/mL	
42)	C299 m,p-XYLENES	11.80	106.0	111153	112.69	ng/mL	
43)	C265 1,3-DICHLOROBENZENE	15.26	146.0	115167	60.94	ng/mL	

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C270 1,4-DICHLOROBENZENE	15.41	146.0	111846	56.41	ng/mL	9
45)	C260 1,2-DICHLOROBENZENE	16.06	146.0	129605	56.36	ng/mL	9
46)	CS05 TOLUENE-D8	9.11	98.0	94236	51.55	ng/mL	9
47)	CS10 BROMOFLUOROBENZENE	13.35	95.0	67859	51.25	ng/mL	9

* Compound is ISTD

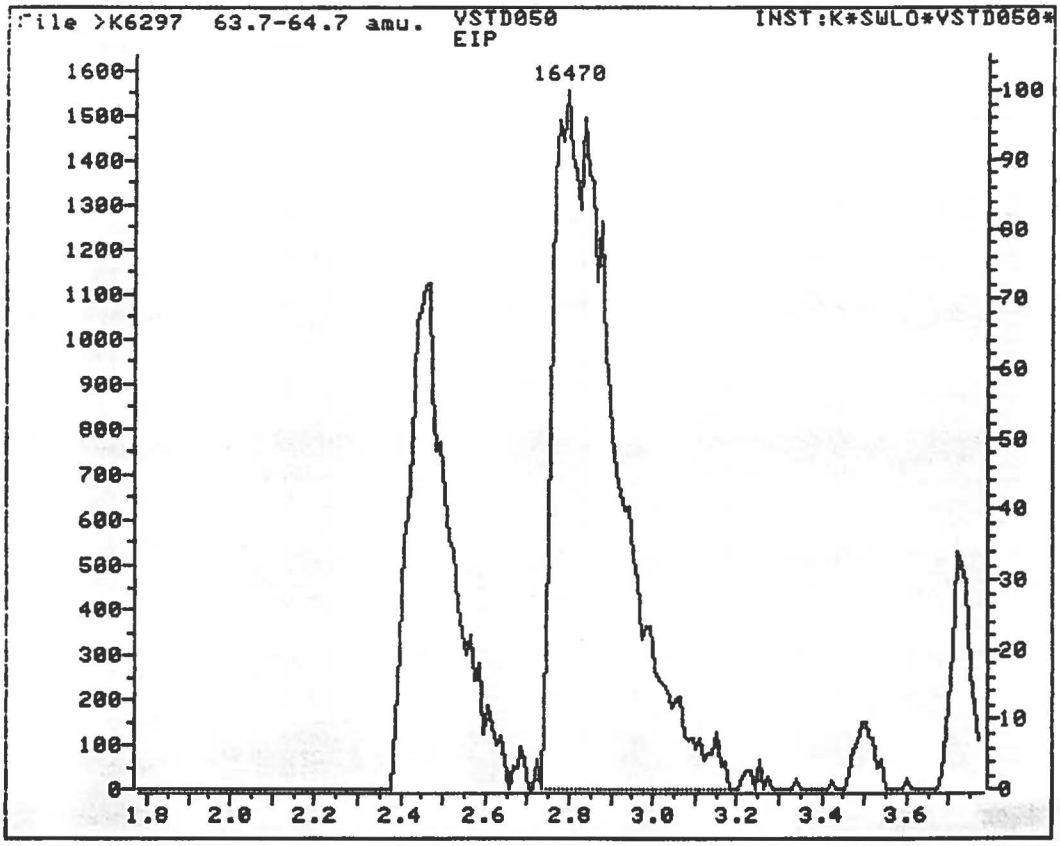
VSTD50
dmst;K
K6297
08/07/91
10:15



Data File: >K6297::L2 Quant Output File: ^K6297::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910807 10:39 Quant ID File: IDV023::EX
Injected at: 910807 10:15 Last Calibration: 910806 10:44

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 85
Retention Time: 2.36 min.
Quant Ion: 50.0
Area: 14352M
Concentration: 50.43 ng/mL
q-value: 75

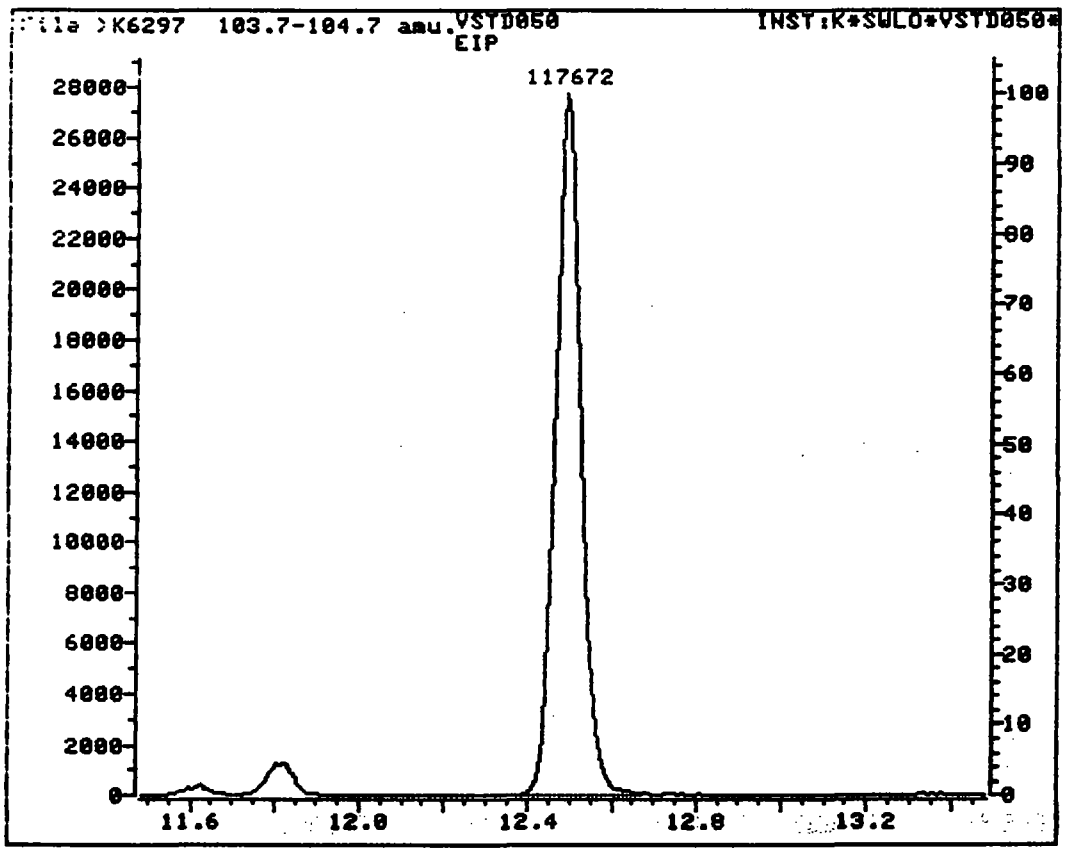
This report was produced by QAREA on: 910807 10:57



Data File: >K6297::L2 Quant Output File: >K6297::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910807 10:39 Quant ID File: IDV023::EX
Injected at: 910807 10:15 Last Calibration: 910806 10:44

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 129
Retention Time: 2.79 min.
Quant Ion: 64.0
Area: 16470M
Concentration: 49.87 ng/mL
q-value: 100

This report was produced by QAREA on: 910807 11:03



Data File: >K6297::L2 Quant Output File: ^K6297::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910807 10:39 Quant ID File: IDV023::EX
Injected at: 910807 10:15 Last Calibration: 910806 10:44

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1103
Retention Time: 12.49 min.
Quant Ion: 104.0
Area: 117672M
Concentration: 57.13 ng/mL

This report was produced by QAREA on: 910807 11:02

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Instrument ID: K Calibration date: 08/08/91 Time: 1103

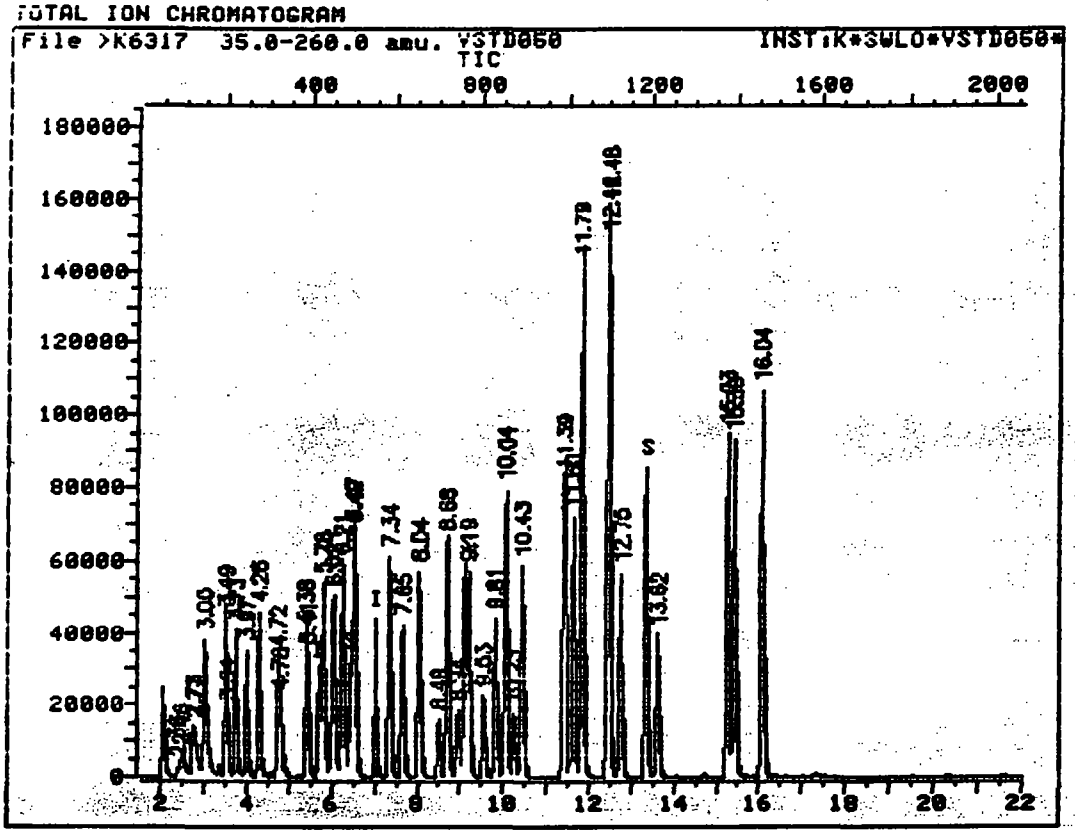
Lab File ID: K6317 Init. Calib. Date(s): 07/25/91 07/25/91

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

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

COMPOUND		RRF	RRF50	%D	
Chloromethane	#	0.620	0.636	-2.6	#
Bromomethane		1.759	1.808	-2.8	
Vinyl Chloride	*	1.231	1.041	15.4	*
Chloroethane		0.865	0.800	7.5	
Methylene Chloride		1.621	1.676	-3.4	
Acetone		1.117	0.881	21.1	
Carbon Disulfide		6.112	5.547	9.2	
1,1-Dichloroethene	*	1.666	1.705	-2.3	*
1,1-Dichloroethane	#	3.623	3.616	0.2	#
1,2-Dichloroethene (total)		1.779	1.755	1.3	
Chloroform	*	4.607	5.138	-11.5	*
1,2-Dichloroethane		3.643	4.001	-9.8	
2-Butanone		0.312	0.214	31.4	
1,1,1-Trichloroethane		1.010	1.269	-25.6	
Carbon Tetrachloride		1.059	1.322	-24.8	
Vinyl Acetate		1.063	0.712	33.0	
Bromodichloromethane		1.138	1.269	-11.5	
1,2-Dichloropropane	*	0.458	0.414	9.6	*
cis-1,3-Dichloropropene		0.932	0.938	-0.6	
Trichloroethene		0.610	0.630	-3.3	
Dibromochloromethane		1.064	1.092	-2.6	
1,1,2-Trichloroethane		0.469	0.431	8.1	
Benzene		1.113	1.023	8.1	
Trans-1,3-Dichloropropene		0.567	0.564	0.5	
Bromoform	#	1.020	0.931	8.7	#
4-Methyl-2-Pentanone		0.779	0.541	30.6	
2-Hexanone		0.850	0.525	38.2	
Tetrachloroethene		0.770	0.789	-2.5	
1,1,2,2-Tetrachloroethane	#	0.875	0.807	7.8	#
Toluene	*	0.953	0.888	6.8	*
Chlorobenzene	#	1.397	1.324	5.2	#
Ethylbenzene	*	0.625	0.615	1.6	*
Styrene		1.609	1.606	0.2	
Xylene (total)		0.948	0.926	2.3	
Toluene-d8		1.292	1.590	-23.1	
Bromofluorobenzene		1.005	1.258	-25.2	
1,2-Dichloroethane-d4		2.566	3.571	-39.2	

TOTAL ION CHROMATOGRAM



Data File: >K6317::L2 Quant Output File: ^K6317::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

Operator ID: DEBBIE
Quant Time: 910808 11:27
Injected at: 910808 11:03

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910808 11:27
Output File: ^K6317::D6 Injected at: 910808 11:03
Data File: >K6317::L2 Dilution Factor: 1.00000
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL

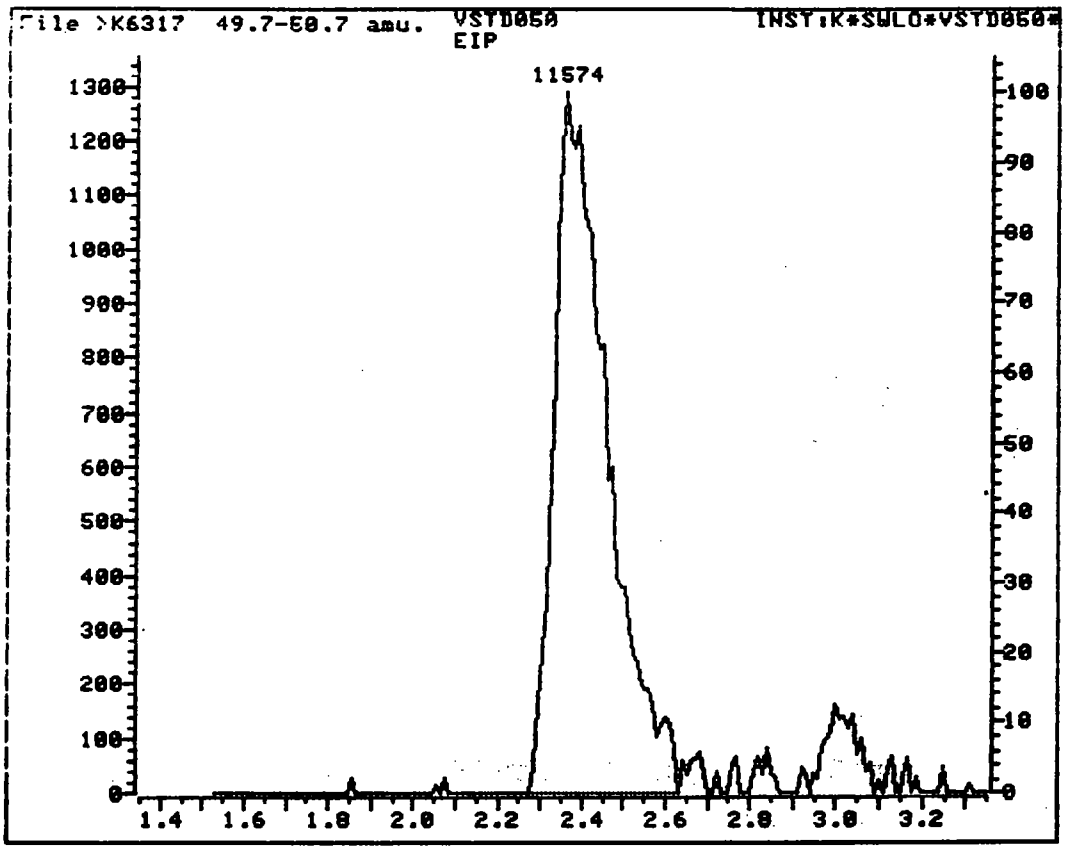
ID File: IDV023::EX
Title: V0A (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.66	128.0	18168	50.00	ng/mL	6
2)	C010 CHLOROMETHANE	2.36	50.0	11574M	47.33	ng/mL	9
3)	C015 BROMOMETHANE	2.73	94.0	32907M	55.01	ng/mL	9
4)	C020 VINYL CHLORIDE	2.46	62.0	18953M	48.97	ng/mL	10
5)	C025 CHLOROETHANE	2.77	64.0	14562M	51.89	ng/mL	10
6)	C030 METHYLENE CHLORIDE	3.97	84.0	30501	55.01	ng/mL	8
7)	C035 ACETONE	3.54	43.0	16038	57.07	ng/mL	10
8)	C040 CARBON DISULFIDE	3.73	76.0	100949	51.05	ng/mL	10
9)	C255 TRICHLOROFLUOROMETHANE	3.00	101.0	87602	58.55	ng/mL	9
10)	C045 1,1-DICHLOROETHENE	3.49	96.0	31031	55.26	ng/mL	9
11)	C050 1,1-DICHLOROETHANE	4.72	63.0	65819	50.92	ng/mL	9
12)	C053 1,2-DICHLOROETHENE-TRANS	4.26	96.0	31940	49.68	ng/mL	9
13)	C055 1,2-DICHLOROETHENE-CIS	5.38	96.0	34267	49.35	ng/mL	9
14)	C060 CHLOROFORM	5.78	83.0	93518	54.42	ng/mL	9
15)	C065 1,2-DICHLOROETHANE	6.49	62.0	72816	55.10	ng/mL	8
16)	C110 2-BUTANONE	5.41	72.0	3889	50.26	ng/mL	8
17)	CS15 1,2-DICHLOROETHANE-D4	6.40	65.1	64987	68.26	ng/mL	8
18)	*CI10 1,4-DIFLUOROBENZENE	6.99	114.0	71629	50.00	ng/mL	9
19)	C115 1,1,1-TRICHLOROETHANE	6.02	96.9	90876	59.01	ng/mL	9
20)	C120 CARBON TETRACHLORIDE	6.21	117.0	94665	60.77	ng/mL	9
21)	C125 VINYL ACETATE	4.78	43.0	50980	49.41	ng/mL	10
22)	C130 BROMODICHLOROMETHANE	8.04	83.0	90869	55.35	ng/mL	9
23)	C140 1,2-DICHLOROPROPANE	7.65	63.0	29630	48.31	ng/mL	9
24)	C172 TRANS-1,3-DICHLOROPROPENE	9.53	75.0	29091	36.85	ng/mL	8
25)	C150 TRICHLOROETHENE	7.34	130.0	45113	51.71	ng/mL	9
26)	C155 DIBROMOCHLOROMETHANE	10.43	129.0	78207	53.26	ng/mL	10
27)	C160 1,1,2-TRICHLOROETHANE	9.81	97.0	30842	81.81	ng/mL	10
28)	C165 BENZENE	6.47	78.0	73263	48.22	ng/mL	8
29)	C143 CIS-1,3-DICHLOROPROPENE	8.68	75.0	85927	67.07	ng/mL	9
30)	C175 2-CHLOROETHYL VINYL ETHER	8.49	63.0	15092	46.86	ng/mL	9
31)	C180 BROMOFORM	12.75	172.8	66650	53.92	ng/mL	9
32)	*CI20 CHLOROBENZENE-D5	11.35	117.0	58981	50.00	ng/mL	9
33)	C205 4-METHYL-2-PENTANONE	8.94	43.0	31900	45.57	ng/mL	7
34)	C210 2-HEXANONE	10.23	43.0	30959	46.33	ng/mL	8
35)	C220 TETRACHLOROETHENE	10.04	164.0	46532	51.78	ng/mL	9
36)	C225 1,1,2,2-TETRACHLOROETHANE	13.62	83.0	47587	47.03	ng/mL	9
37)	C230 TOLUENE	9.19	92.0	52376	46.58	ng/mL	91
38)	C235 CHLOROBENZENE	11.39	112.0	78121	47.80	ng/mL	91
39)	C240 ETHYLBENZENE	11.60	106.0	36305	49.52	ng/mL	8
40)	C245 STYRENE	12.48	104.0	94747M	47.35	ng/mL	
41)	C250 o-XYLENE	12.46	106.0	54613	47.71	ng/mL	9
42)	C299 m,p-XYLENES	11.79	106.0	92041	97.38	ng/mL	9
43)	C265 1,3-DICHLOROBENZENE	15.23	146.0	97239	49.65	ng/mL	9

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C270 1,4-DICHLOROBENZENE	15.39	146.0	96019	50.48	ng/mL	9
45)	C260 1,2-DICHLOROBENZENE	16.04	146.0	112537	51.06	ng/mL	9
46)	CS05 TOLUENE-D8	9.09	98.0	93789	58.52	ng/mL	9
47)	CS10 BROMOFLUOROBENZENE	13.33	95.0	74196	64.29	ng/mL	9

* Compound is ISTD

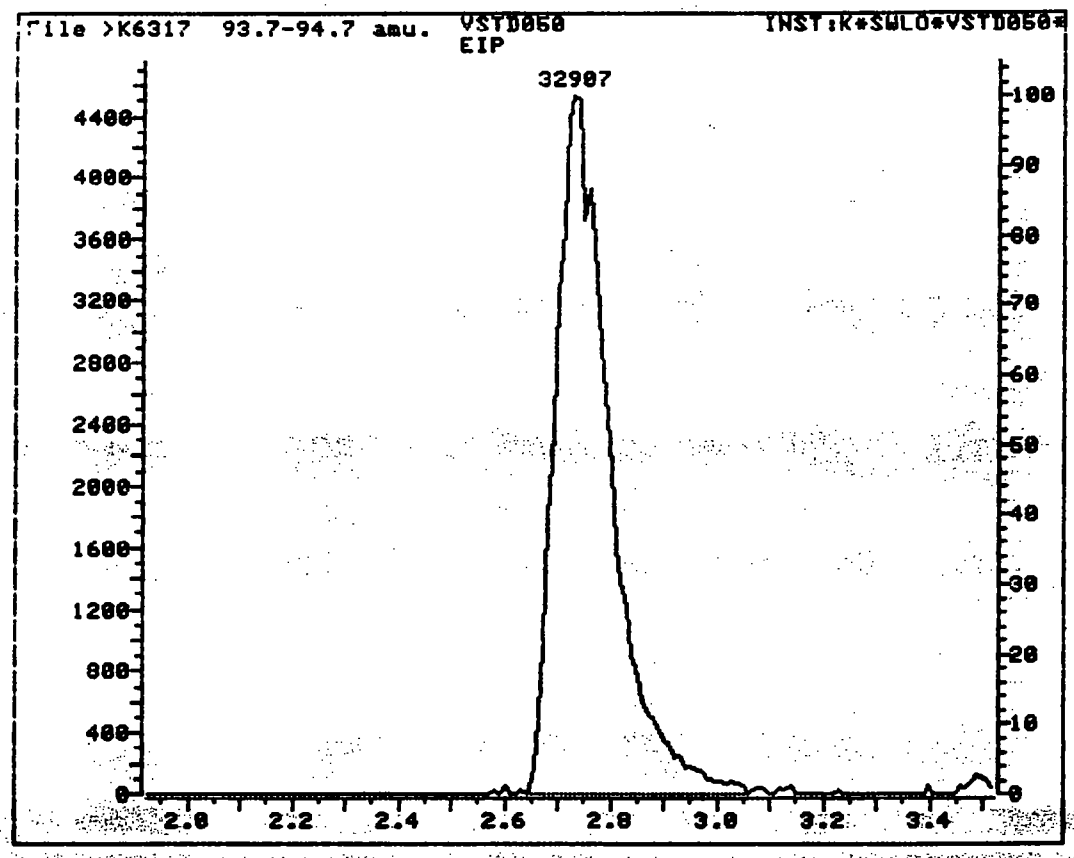
K6217
V2T050
8/8/91 11:03
INST: K



Data File: >K6317::L2 Quant Output File: ^K6317::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910808 11:27 Quant ID File: IDV023::EX
Injected at: 910808 11:03 Last Calibration: 910807 11:06

Compound No: 2
Compound Name: C010 CHLOROMETHANE
Scan Number: 85
Retention Time: 2.36 min.
Quant Ion: 50.0
Area: 11574M
Concentration: 47.33 ng/mL
q-value: 91

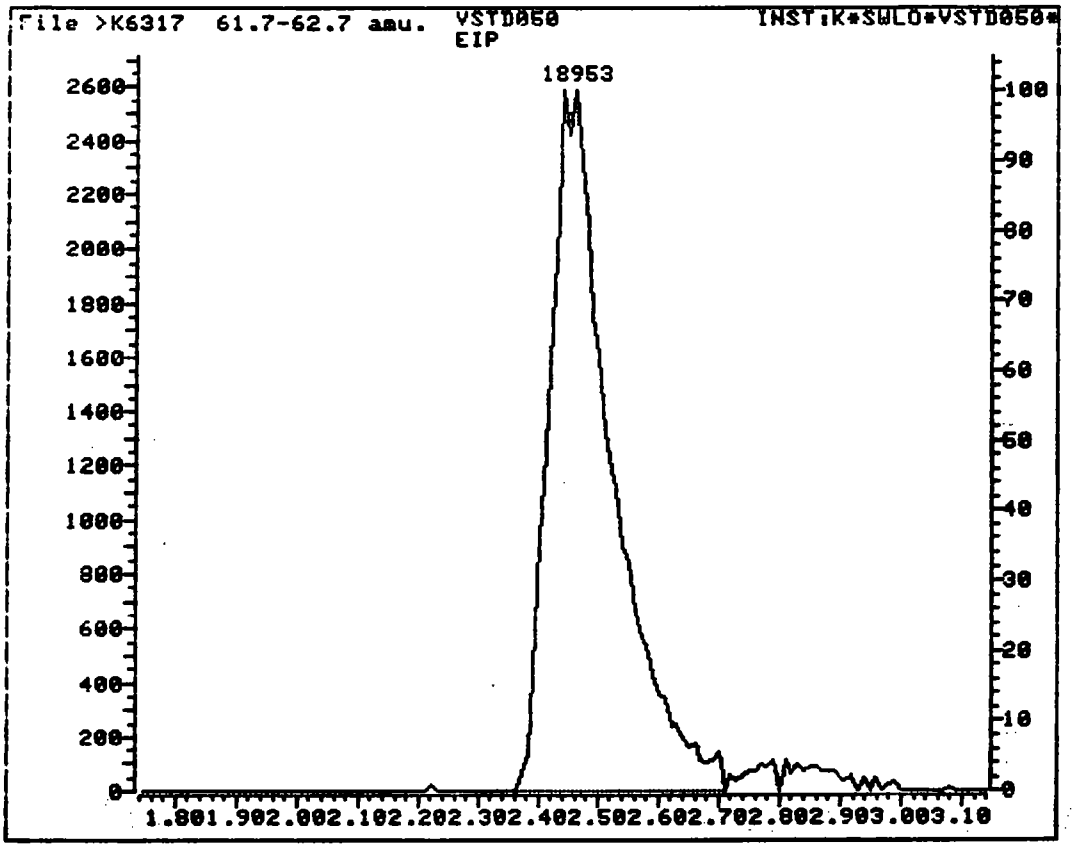
This report was produced by QAREA on: 910808 12:45



Data File: >K6317::L2 Quant Output File: ^K6317::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910808 11:27 Quant ID File: IDV023::EX
Injected at: 910808 11:03 Last Calibration: 910807 11:06

Compound No: 3
Compound Name: C015 BROMOMETHANE
Scan Number: 122
Retention Time: 2.73 min.
Quant Ion: 94.0
Area: 32907M
Concentration: 55.01 ng/mL
q-value: 93

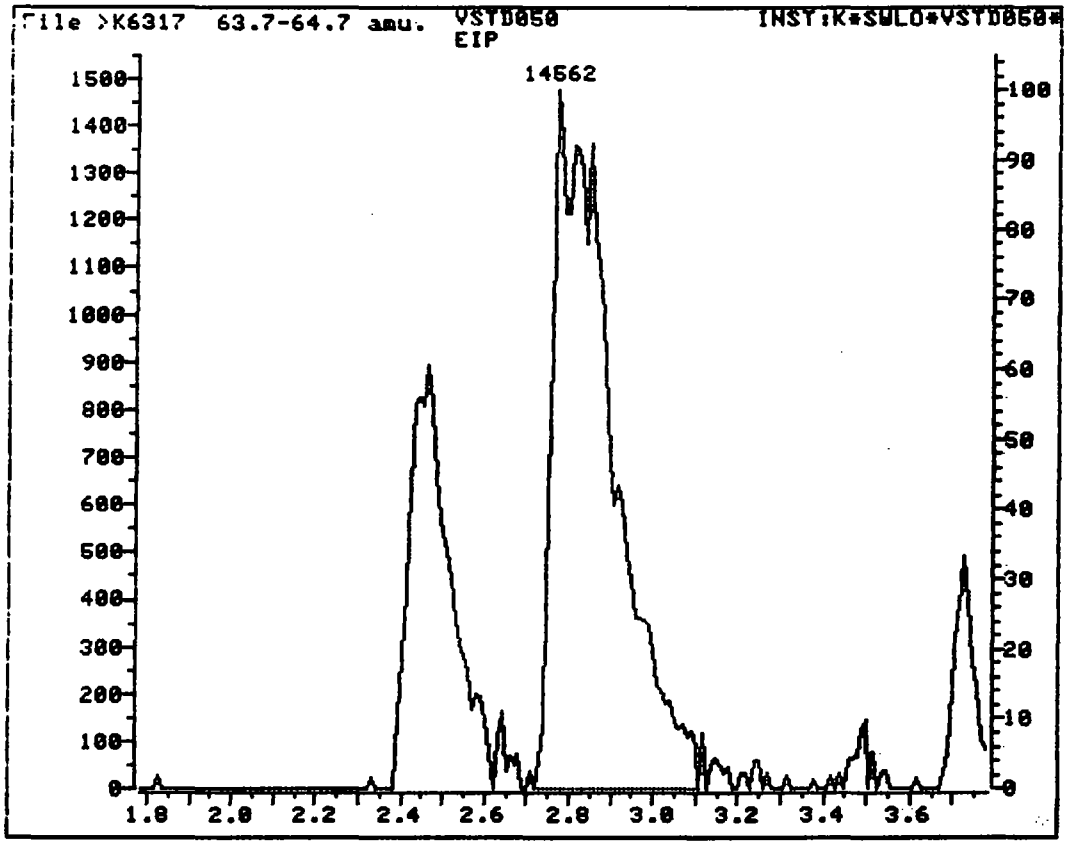
This report was produced by QAREA on: 910808 12:46



Data File: >K6317::L2 Quant Output File: ^K6317::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910808 11:27 Quant ID File: IDV023::EX
Injected at: 910808 11:03 Last Calibration: 910807 11:06

Compound No: 4
Compound Name: C020 VINYL CHLORIDE
Scan Number: 95
Retention Time: 2.46 min.
Quant Ion: 62.0
Area: 18953M
Concentration: 48.97 ng/mL
q-value: 100

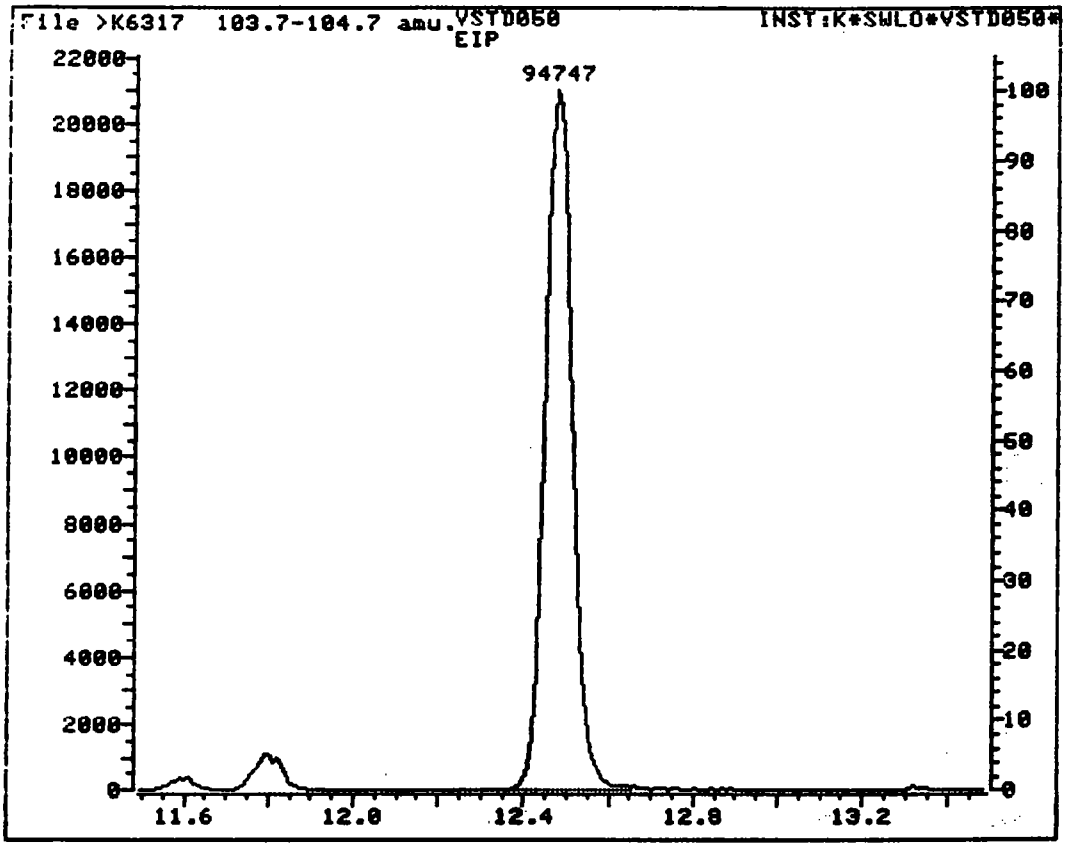
This report was produced by QAREA on: 910808 12:47



Data File: >K6317::L2 Quant Output File: ^K6317::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910808 11:27 Quant ID File: IDV023::EX
Injected at: 910808 11:03 Last Calibration: 910807 11:06

Compound No: 5
Compound Name: C025 CHLOROETHANE
Scan Number: 126
Retention Time: 2.77 min.
Quant Ion: 64.0
Area: 14562M
Concentration: 51.89 ng/mL
q-value: 100

This report was produced by QAREA on: 910808 12:48



Data File: >K6317::L2 Quant Output File: ^K6317::D6
Name: VSTD050
Misc: INST:K*SWLO*VSTD050*5mL
Quant Time: 910808 11:27 Quant ID File: IDV023::EX
Injected at: 910808 11:03 Last Calibration: 910807 11:06

Compound No: 40
Compound Name: C245 STYRENE
Scan Number: 1100
Retention Time: 12.48 min.
Quant Ion: 104.0
Area: 94747M
Concentration: 47.35 ng/mL

This report was produced by QAREA on: 910808 12:49

8A

VOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID (Standard): K6297 Date Analyzed: 08/07/91

Instrument ID: K Time Analyzed: 1015

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

	IS1(BCM) AREA	#	RT	IS2(DFB) AREA	#	RT	IS3(CBZ) AREA	#	RT
12 HOUR STD	21300		5.68	87400		7.00	69400		11.37
UPPER LIMIT	42600			174800			138800		
LOWER LIMIT	10650			43700			34700		
	EPA SAMPLE NO.								
01	6568G-001		5.70	58100		7.02	45100		11.39
02	6568G-003		5.73	54000		7.05	39200		11.42
03	6568G-004		5.73	57200		7.07	39400		11.44
04	6568G-006		5.70	52900		7.03	37600		11.39
05	6568G-009		5.68	42600	*	7.00	26300	*	11.40
06	VBLK1		5.77	81700		7.08	63300		11.45

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: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID (Standard): K6317 Date Analyzed: 08/08/91

Instrument ID: K Time Analyzed: 1103

Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

		IS1(BCM) AREA	#	RT	IS2(DFB) AREA	#	RT	IS3(CBZ) AREA	#	RT
	12 HOUR STD	18200		5.67	71600		6.98	59000		11.35
	UPPER LIMIT	36400			143200			118000		
	LOWER LIMIT	9100			35800			29500		
	EPA SAMPLE NO.									
01	6568G-002	14800		5.67	56300		6.98	43000		11.37
02	6568G-008	12400		5.70	47500		7.02	38800		11.39
03	6568G-009RE	12500		5.70	50000		7.03	40100		11.39
04	6568G-003MS	17100		5.68	63400		6.98	47000		11.37
05	6568G-003MSD	16100		5.70	59400		7.03	45500		11.39
06	VBLK2	18600		5.67	69100		6.98	54100		11.35

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: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID (Standard): K6331 Date Analyzed: 08/09/91

Instrument ID: K Time Analyzed: 1214

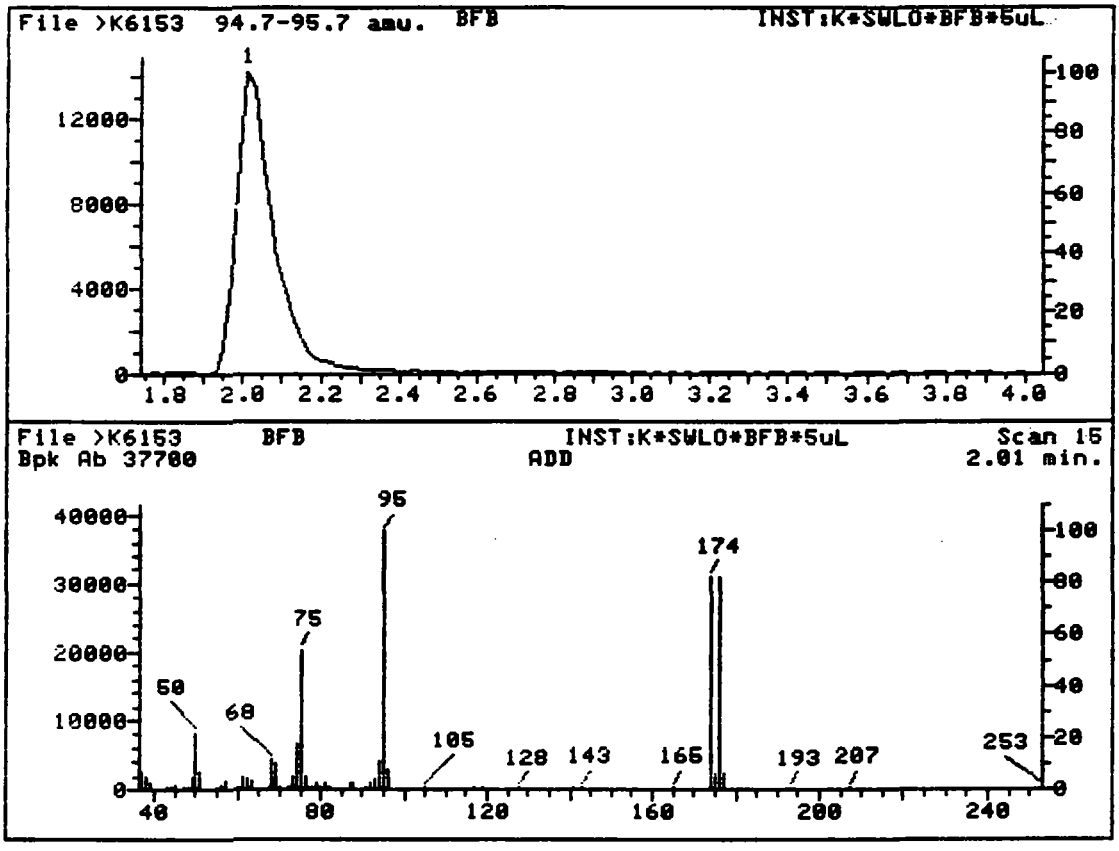
Matrix:(soil/water) SOIL Level:(low/med) LOW Column:(pack/cap) CAP

		IS1(BCM) AREA	#	RT	IS2(DFB) AREA	#	RT	IS3(CBZ) AREA	#	RT
	12 HOUR STD	22000		5.65	84900		6.97	67400		11.32
	UPPER LIMIT	44000			169800			134800		
	LOWER LIMIT	11000			42450			33700		
	EPA SAMPLE NO.									
01	6568G-005	18200		5.67	59600		6.97	35500		11.37
02	6568G-007	17800		5.63	58600		6.97	38900		11.34
03	6568G-011	20500		5.70	73800		7.02	52600		11.39
04	VBLK3	20200		5.63	70600		6.97	55000		11.34

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



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	21.61	21.61	Ok
75	30-60% of mass 95	54.08	54.08	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.21	7.21	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	82.18	82.18	Ok
175	5-9% of mass 174	6.23	7.58	Ok
176	95-101% of mass 174	82.11	99.91	Ok
177	5-9% of mass 176	5.83	7.10	Ok

Injection Date: 07/25/91
Injection Time: 10:01
Data File: >K6153
Scan: 15

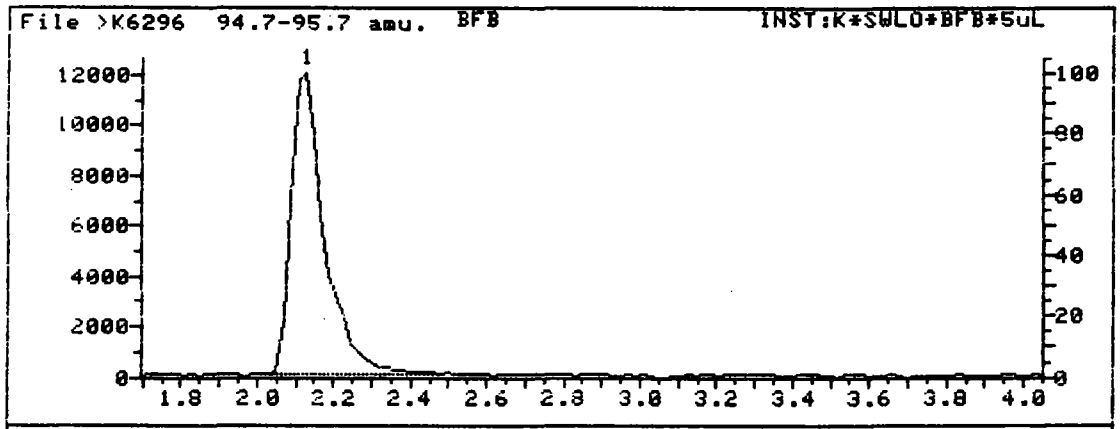
>K6153 BFB INST:K*SWLO*BFB*5uL

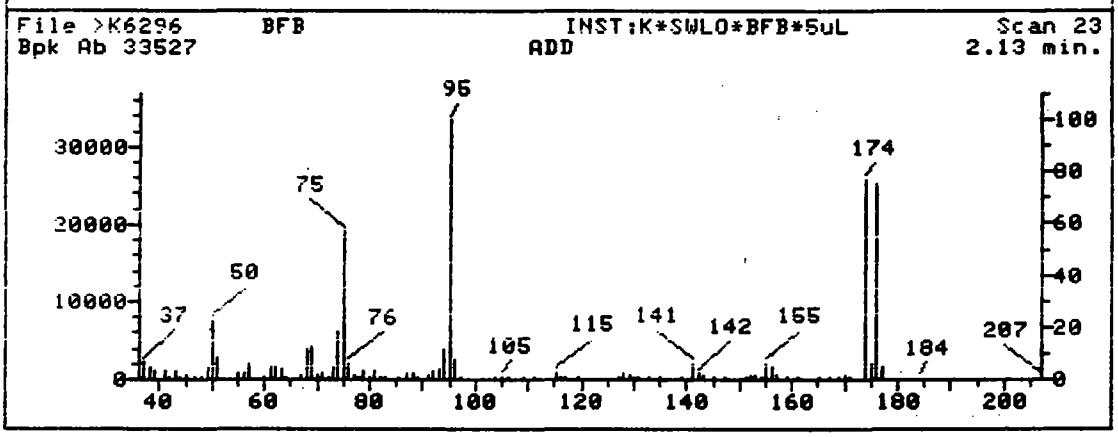
15 ADD NRM

07/25/91
10:01

File: >K6153 Scan #: 15 Retn. time: 2.01

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	1.011	61.00	5.011	84.05	.064	115.95	.361	151.10	.114
37.00	6.401	62.00	4.631	85.05	.146	116.95	.549	152.00	.093
38.00	4.989	63.10	3.363	85.95	.050	117.95	.416	155.10	.183
39.00	2.223	65.00	.058	87.05	2.592	119.05	.536	157.00	.180
41.10	.430	67.20	.867	87.95	2.692	121.05	.093	161.00	.082
43.00	.740	68.00	11.525	88.75	.095	122.90	.056	165.10	.549
44.10	1.313	69.10	10.411	91.05	1.029	125.10	.077	166.20	.204
45.00	1.499	70.00	1.058	92.05	2.751	127.90	.509	167.10	.318
47.10	.698	71.20	.101	93.05	3.830	128.90	.188	170.85	.069
48.00	.775	72.00	.692	94.05	10.873	129.90	.279	171.95	.095
49.00	5.204	72.95	5.141	95.05	100.000	130.90	.109	172.35	.125
50.00	21.610	74.05	17.080	96.05	7.210	135.00	.149	173.95	82.183
51.00	6.740	75.05	54.077	97.15	.143	136.00	.204	174.95	6.233
52.00	.257	76.05	4.857	102.85	.058	136.90	.231	175.95	82.106
53.50	.066	77.05	.666	103.95	.316	137.10	.074	176.95	5.828
55.10	1.069	77.95	.586	105.05	.618	140.90	.695	177.95	.215
56.00	1.833	78.95	2.820	105.95	.284	143.00	.719	182.15	.416
57.00	3.154	79.85	.655	106.95	.077	145.90	.064	190.95	.098
58.10	.130	80.95	2.706	109.15	.098	146.90	.093	193.05	.191
59.00	.408	81.95	.698	110.75	.064	147.90	.215	207.05	.796
60.00	.992	82.85	.172	112.95	.056	148.90	.170	253.10	.103





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	22.76	22.76	Ok
75	30-60% of mass 95	57.03	57.03	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	7.17	7.17	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	77.30	77.30	Ok
175	5-9% of mass 174	6.01	7.78	Ok
176	95-101% of mass 174	75.02	97.04	Ok
177	5-9% of mass 176	5.35	7.13	Ok

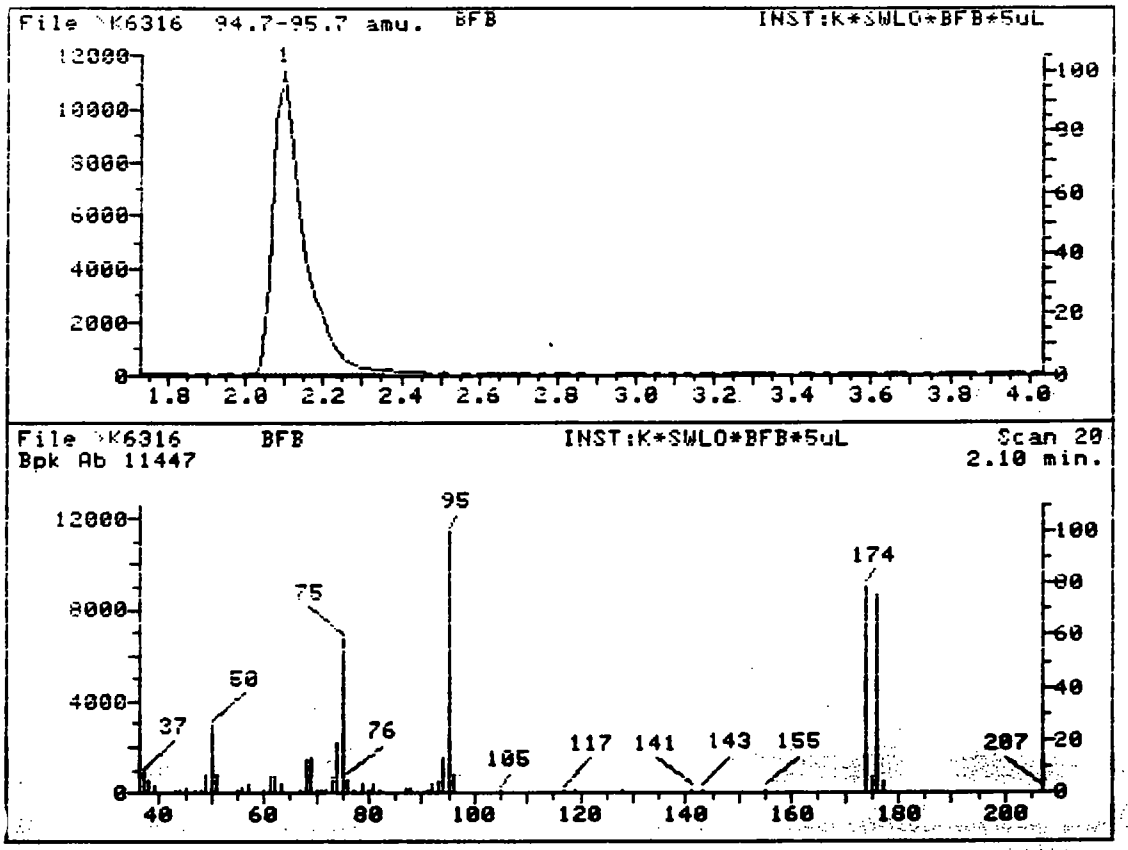
Injection Date: 08/07/91
Injection Time: 09:56
Data File: >K6296
Scan: 23

08/07/91
09:56

>K6296 BFB INST:K*SWLO*BFB*5uL
23 ADD NRM

File: >K6296 Scan #: 23 Retn. time: 2.13

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	1.259	66.10	.066	96.05	7.167	131.00	.713	160.10	.119
37.00	6.666	67.10	1.596	97.05	.916	132.00	.337	161.00	.770
38.10	5.351	68.00	11.937	98.05	.283	133.00	.507	162.10	.477
39.00	3.451	69.00	12.733	99.05	.307	134.00	.063	163.10	.257
41.10	3.010	70.10	1.739	102.05	.191	135.00	.582	164.10	.069
42.00	.525	71.10	2.923	103.05	.158	137.10	.304	165.20	.943
43.10	3.174	72.10	.814	103.95	.552	138.10	.057	166.10	.149
44.00	1.130	72.95	5.393	105.05	.966	139.10	1.011	167.10	.531
45.00	1.554	74.05	18.290	106.05	.540	140.10	.358	167.90	.075
47.00	.650	75.05	57.035	107.05	.283	141.10	6.153	169.10	.895
48.10	.638	76.05	5.921	109.05	.507	142.10	2.419	170.05	1.924
49.10	5.187	77.05	1.813	111.15	.710	143.10	1.703	171.05	.775
50.10	22.758	78.05	.892	112.15	.197	144.10	.304	172.05	.367
51.00	8.232	78.95	3.379	113.05	.230	145.10	.790	173.95	77.305
52.00	.197	79.95	.957	115.05	2.950	146.00	.307	174.95	6.013
53.00	.149	80.95	3.621	116.05	.850	147.10	.767	175.95	75.020
54.00	.107	82.05	.868	116.95	1.038	148.00	.236	176.95	5.348
55.10	2.711	83.05	1.220	118.05	.346	149.10	.131	177.95	.218
56.10	2.267	84.15	.370	119.15	.987	150.00	.119	181.05	.084
57.10	5.566	85.15	1.196	120.05	.092	151.10	.623	182.05	.200
58.00	.415	86.15	.262	121.05	.158	152.00	1.456	184.05	.352
59.00	.379	87.05	2.762	123.10	.224	153.10	1.626	185.05	.089
59.30	.101	88.05	2.720	125.00	.218	154.00	.954	187.15	.274
60.10	1.074	89.05	.594	125.50	.060	155.10	6.070	188.05	.161
61.00	5.455	91.05	1.784	126.10	.424	156.10	5.133	191.05	.051
62.00	5.145	92.05	3.185	127.10	1.193	157.10	1.539	193.05	.098
63.10	4.411	93.05	4.274	128.00	2.341	158.20	.107	194.05	.152
64.00	.707	94.05	11.716	129.00	1.623	159.10	1.095	207.05	.665
65.10	.349	95.05	100.000	130.00	.689				



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	25.69	25.69	Ok
75	30-60% of mass 95	58.57	58.57	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.41	6.41	Ok
173	Less than 2% of mass 174	0.00	0.00	Ok
174	Greater than 50% of mass 95	78.60	78.60	Ok
175	5-9% of mass 174	5.65	7.19	Ok
176	95-101% of mass 174	75.16	95.62	Ok
177	5-9% of mass 176	4.46	5.94	Ok

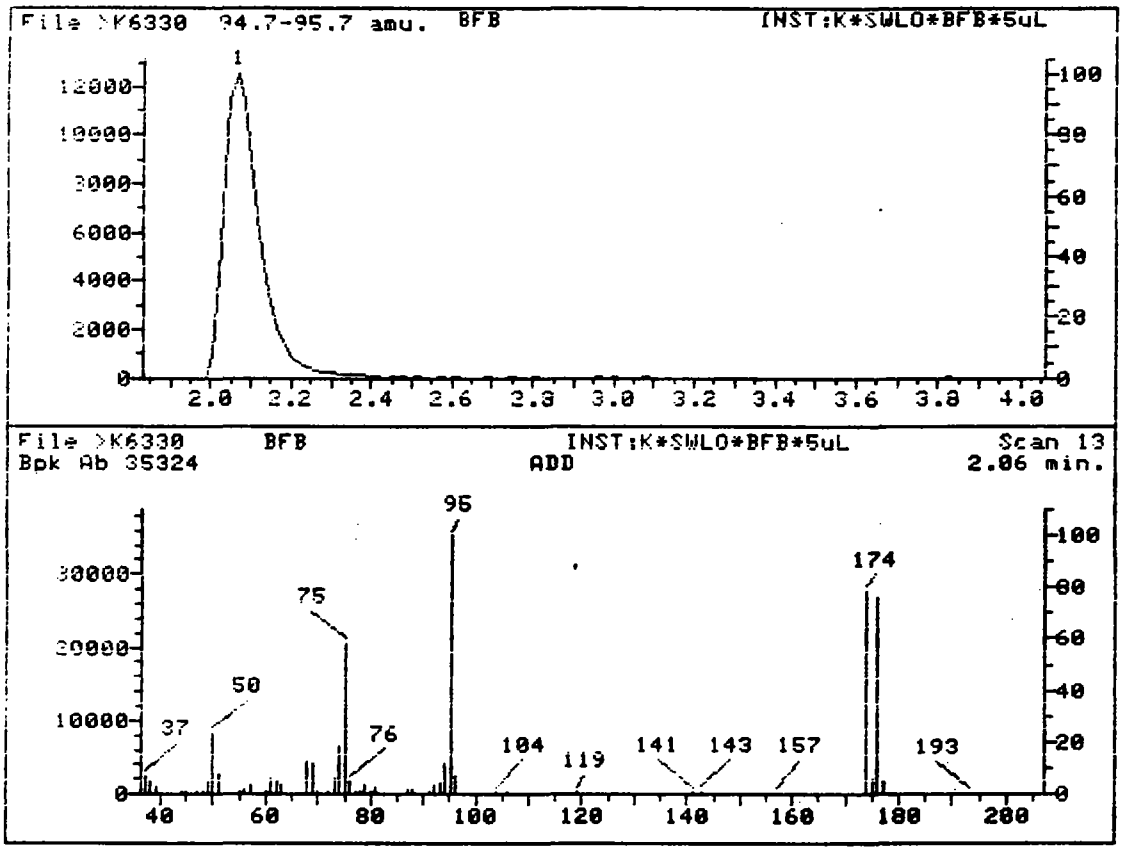
Injection Date: 08/08/91
Injection Time: 09:53
Data File: >K6316
Scan: 20

>K6316 BFB INST:K*SWLO*BFB*5uL
20 NRM

8/8/91 09:53

File: >K6316 Scan #: 20 Retn. time: 2.10

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	1.284	57.10	3.774	77.05	.708	103.95	.437	148.80	.175
37.00	7.469	60.10	1.249	78.15	.437	105.05	.568	152.00	.236
38.00	5.364	61.00	5.801	78.85	3.293	105.95	.411	153.00	.367
39.10	2.193	62.00	6.194	80.05	1.040	111.15	.236	155.00	1.040
43.00	1.057	63.10	3.503	80.95	3.564	116.95	.664	155.90	.288
44.00	1.179	67.10	.777	81.95	.777	117.95	.480	157.00	.393
45.00	1.389	68.00	12.344	83.05	.393	118.95	.629	166.10	.210
47.00	.882	69.10	13.602	87.05	2.105	128.00	.646	170.05	.498
48.00	.926	70.10	.891	87.95	1.948	129.00	.297	170.95	.166
49.00	6.377	71.10	.594	91.05	1.153	129.90	.280	173.95	78.597
50.00	25.692	72.00	.699	91.95	3.180	131.00	.314	174.95	5.652
51.10	6.971	73.05	6.264	93.05	4.429	132.90	.175	175.95	75.155
52.00	.498	73.95	19.306	94.05	13.148	141.00	.926	176.95	4.464
55.00	1.013	75.05	58.566	95.05	100.000	143.00	.996	207.05	.638
56.00	2.097	76.05	5.364	96.05	6.412	147.90	.236		



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	23.61	23.61	Ok
75	30-60% of mass 95	57.97	57.97	Ok
95	Base peak, 100% relative abundance	100.00	100.00	Ok
96	5-9% of mass 95	6.63	6.63	Ok
173	Less than 2% of mass 174	.36	.46	Ok
174	Greater than 50% of mass 95	78.66	78.66	Ok
175	5-9% of mass 174	5.81	7.38	Ok
176	95-101% of mass 174	76.32	97.03	Ok
177	5-9% of mass 176	5.32	6.97	Ok

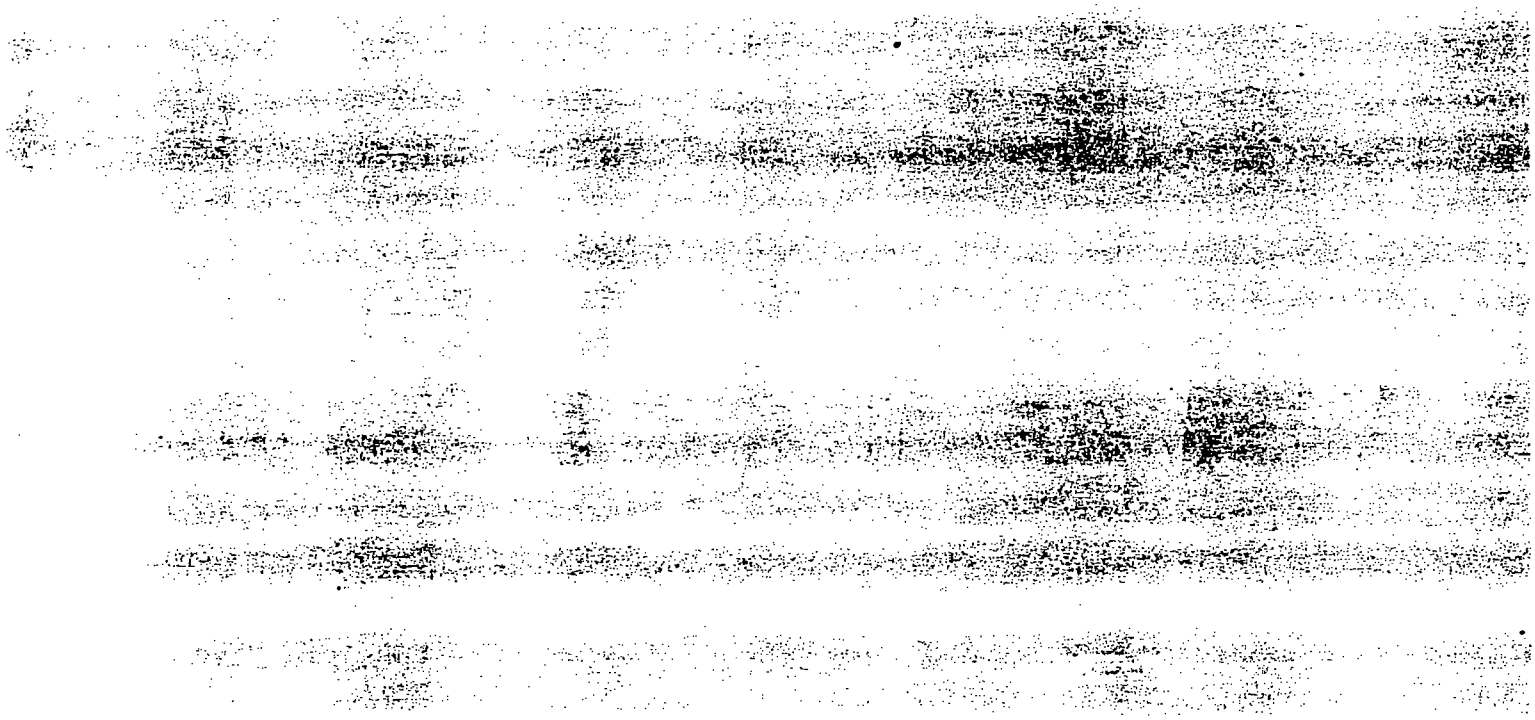
Injection Date: 08/09/91
Injection Time: 09:26
Data File: >K6330
Scan: 13

08/09/9
09:26

K6330 BFB INST:K*SWLO*BFB*5uL
13 ADD NRM

File: K6330 Scan #: 13 Retn. time: 2.06

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.10	1.192	57.00	3.210	78.05	.538	102.85	.059	142.90	.937
37.00	7.004	59.20	.093	78.85	3.004	103.95	.566	147.10	.170
38.00	5.362	60.00	1.288	79.95	.739	104.95	.303	147.90	.201
39.00	2.225	61.00	5.512	80.25	.161	105.95	.541	149.00	.085
40.10	.059	62.00	5.416	80.85	2.738	106.95	.161	155.00	.105
41.10	.164	63.10	3.564	81.85	.450	114.95	.099	156.90	.167
43.00	.147	64.00	.229	86.05	.088	115.95	.275	160.90	.068
44.00	1.028	67.10	.436	86.95	2.081	116.95	.422	166.10	.051
45.00	1.229	68.00	12.281	87.95	1.798	117.85	.085	171.35	.198
47.10	.677	69.10	11.663	90.95	.929	118.95	.532	172.95	.362
48.00	.790	70.00	.988	92.05	3.023	127.90	.201	173.95	78.660
49.00	5.345	72.10	.722	93.05	4.269	128.90	.065	174.95	5.806
50.00	23.607	72.95	5.631	94.05	11.530	129.90	.459	175.95	76.325
51.00	7.171	73.95	17.923	95.05	100.000	130.90	.068	176.95	5.319
52.10	.091	75.05	57.972	96.05	6.630	134.90	.249	192.95	.105
55.00	.682	75.95	4.861	97.05	.125	140.90	.578	207.05	.844
56.00	1.934	77.05	.795						



1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: VBLK1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6298

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 08/07/91

Column: (pack/cap) CAP 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	5	U
67-64-1	Acetone	2	J
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	0.8	J
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	0.8	J
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	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	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK1

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: VBLK1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6298

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

% Moisture: not dec. _____ Date Analyzed: 08/07/91

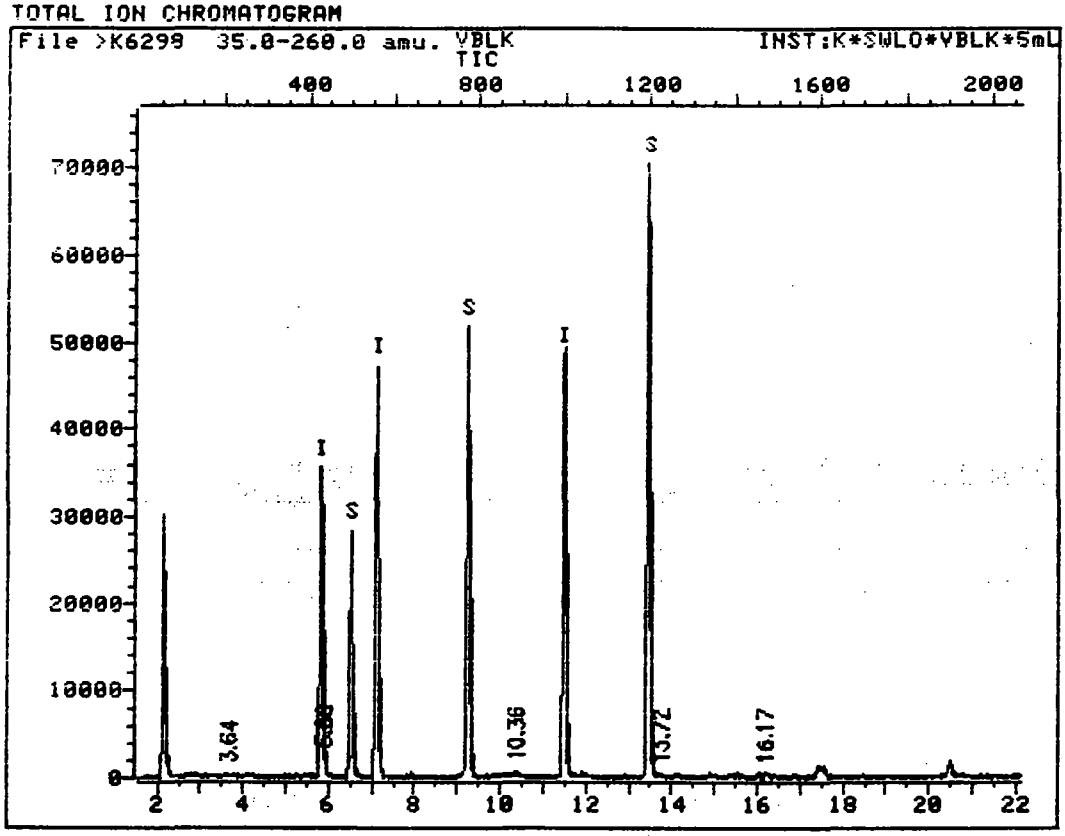
Column (pack/cap) CAP Dilution Factor: 1.0

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: >K6298::L2 Quant Output File: ^K6298::D6
Name: VBLK
Misc: INST:K*SWLO*VBLK*5mL

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

Operator ID: DEBBIE
Quant Time: 910807 11:20
Injected at: 910807 10:57

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910807 11:20
Output File: ^K6298::D6 Injected at: 910807 10:57
Data File: >K6298::L2 Dilution Factor: 1.00000
Name: VBLK
Misc: INST:K*SWLO*VBLK*5mL

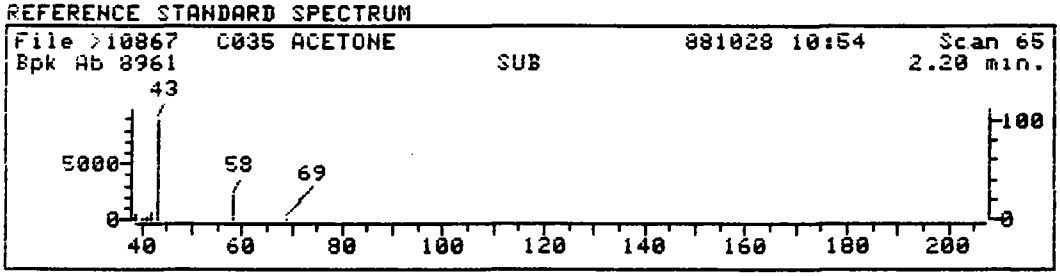
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910807 11:06

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.77	128.0	21687	50.00	ng/mL	8
7)	C035 ACETONE	3.64	43.0	626	1.87	ng/mL	10
14)	C060 CHLOROFORM	5.88	83.0	1660	.81	ng/mL	9
17)	CS15 1,2-DICHLOROETHANE-D4	6.50	65.1	54039	47.55	ng/mL	9
18)	*CI10 1,4-DIFLUOROBENZENE	7.09	114.0	81742	50.00	ng/mL	9
32)	*CI20 CHLOROBENZENE-D5	11.45	117.0	63266	50.00	ng/mL	9
34)	C210 2-HEXANONE	10.36	43.0	584	.81	ng/mL	6
~~36)~~	~~C225 1,1,2,2-TETRACHLOROETHANE~~	~~13.72~~	~~83.0~~	~~258~~	~~.24~~	~~ng/mL~~ FP	9
~~43)~~	~~C265 1,3-DICHLOROBENZENE~~	~~16.17~~	~~146.0~~	~~276~~	~~.13~~	~~ng/mL~~ FP	7
~~45)~~	~~C260 1,2-DICHLOROBENZENE~~	16.17	146.0	276	~~.12~~	~~ng/mL~~ FP	8
46)	CS05 TOLUENE-D8	9.20	98.0	83581	48.62	ng/mL	9
47)	CS10 BROMOFLUOROBENZENE	13.44	95.0	64192	51.86	ng/mL	9

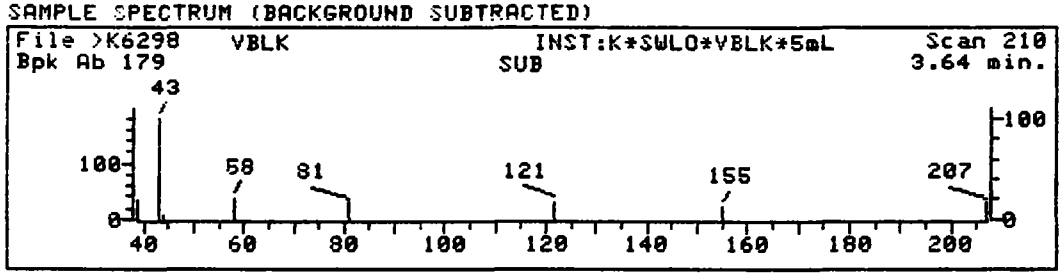
* Compound is ISTD

FP = FALSE POSITIVE

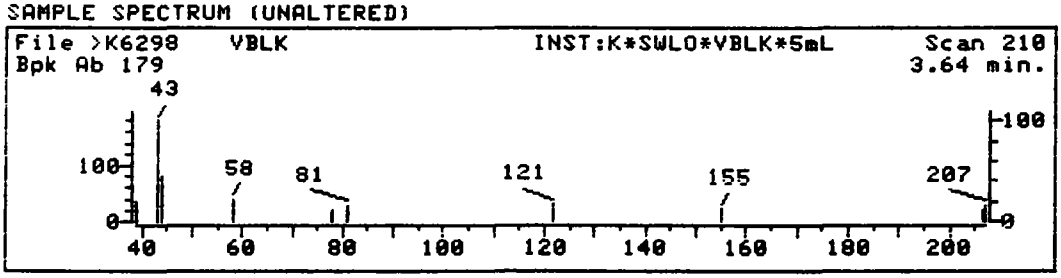
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)

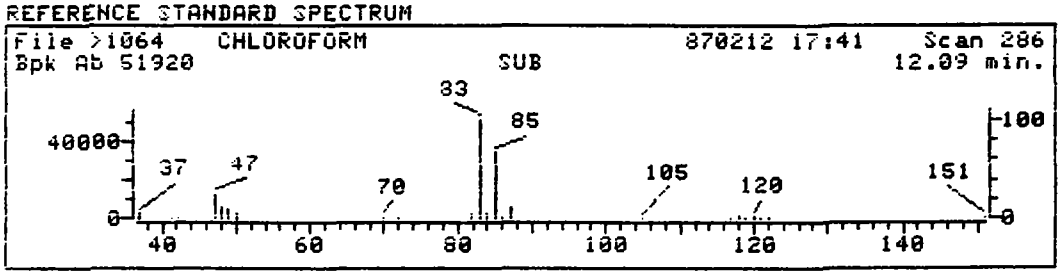


Data File: >K6298::L2
Name: VBLK /
Misc: INST:K*SWLO*VBLK*5mL
Quant Time: 910807 11:20
Injected at: 910807 10:57

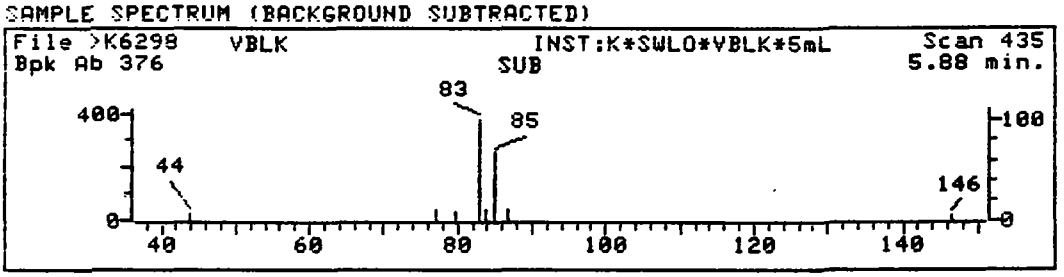
Quant Output File: ^K6298::D6
Quant ID File: IDV023::EX
Last Calibration: 910807 11:06

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 210
Retention Time: 3.64 min.
Quant Ion: 43.0
Area: 626
Concentration: 1.87 ng/mL
q-value: 100

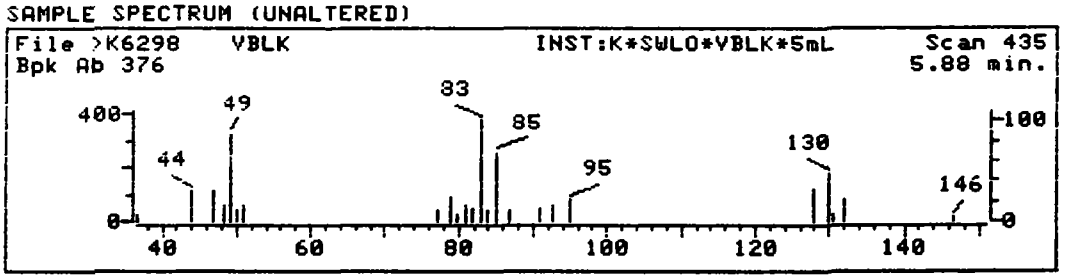
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



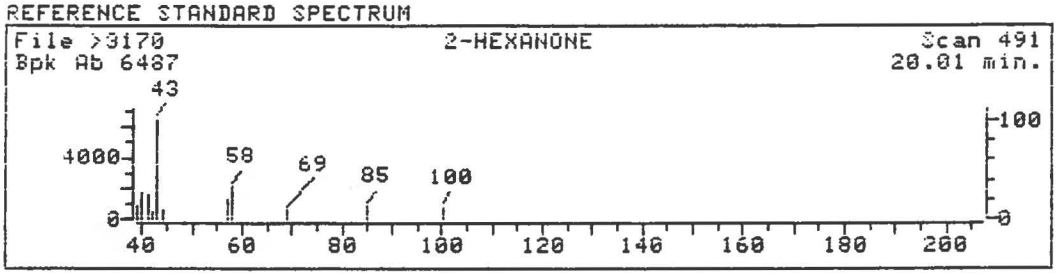
SAMPLE SPECTRUM (UNALTERED)



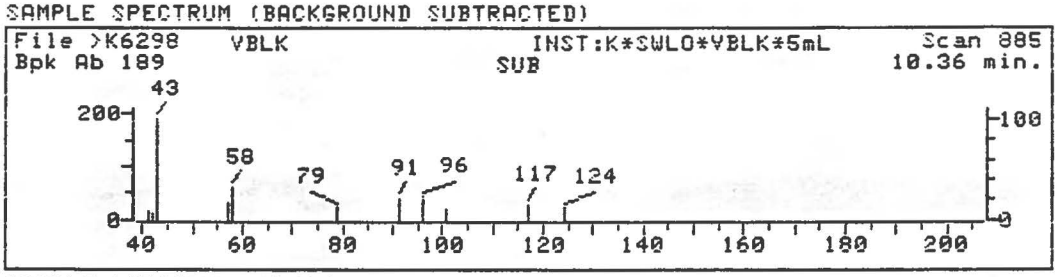
Data File: >K6298::L2 Quant Output File: ^K6298::D6
Name: VBLK (
Misc: INST:K*SWLO*VBLK*5mL
Quant Time: 910807 11:20 Quant ID File: IDV023::EX
Injected at: 910807 10:57 Last Calibration: 910807 11:06

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 435
Retention Time: 5.88 min.
Quant Ion: 83.0
Area: 1660
Concentration: .81 ng/mL
q-value: 97

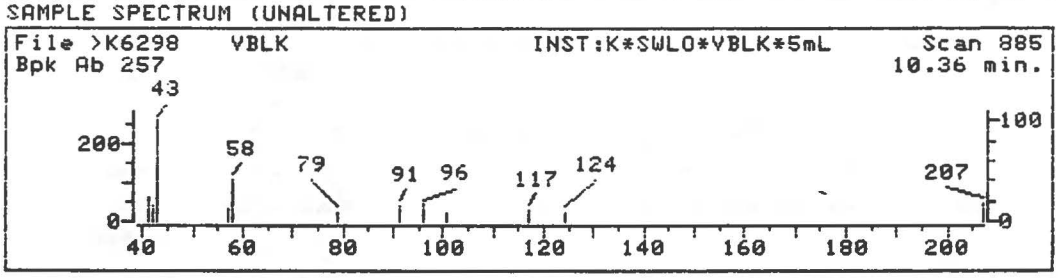
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6298::L2 Quant Output File: ^K6298::D6
Name: VBLK I
Misc: INST:K*SWLO*VBLK*5mL
Quant Time: 910807 11:20 Quant ID File: IDV023::EX
Injected at: 910807 10:57 Last Calibration: 910807 11:06

Compound No: 34
Compound Name: C210 2-HEXANONE
Scan Number: 885
Retention Time: 10.36 min.
Quant Ion: 43.0
Area: 584
Concentration: .81 ng/mL
q-value: 66

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK2

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: VBLK2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6318

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 08/08/91

Column: (pack/cap) CAP 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	5	U
67-64-1	Acetone	1	J
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	0.9	J
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	5	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	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: VBLK2

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: VBLK2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6318

Level: (low/med) LOW Date Received:

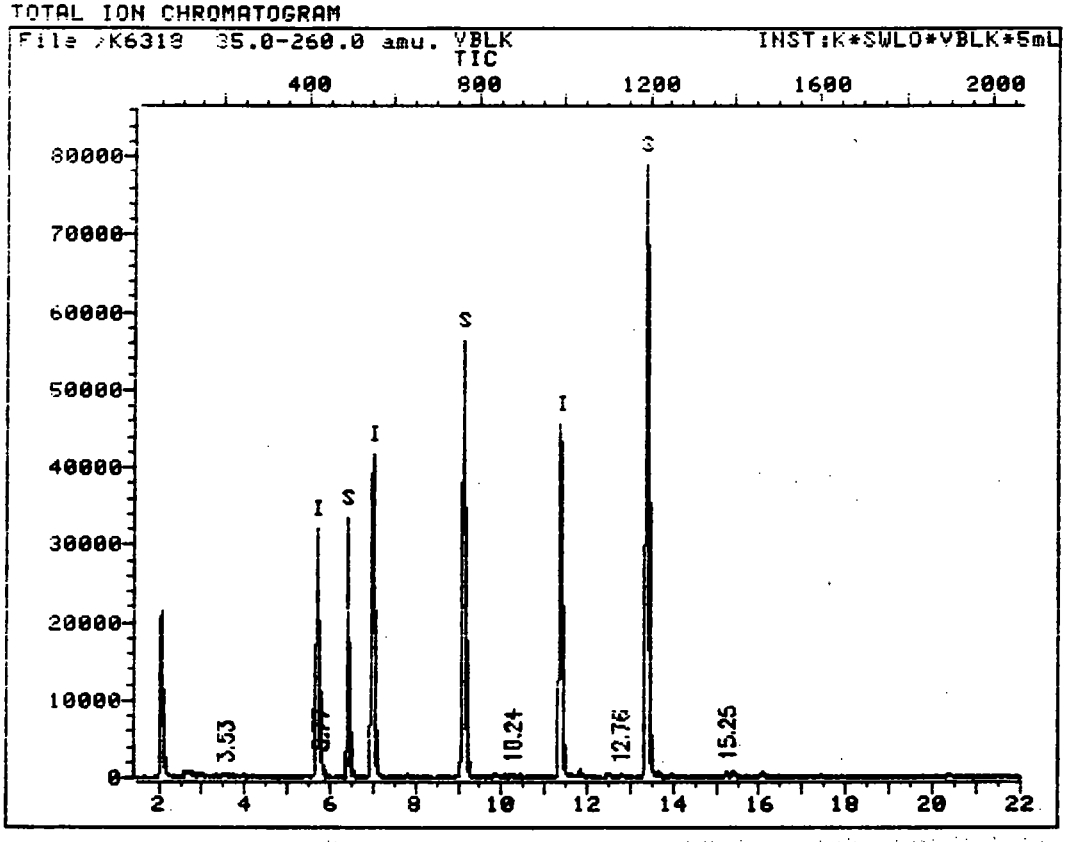
% Moisture: not dec. Date Analyzed: 08/08/91

Column (pack/cap) CAP 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: >K6318::L2 Quant Output File: ^K6318::D6
Name: VBLK2
Misc: INST:K*SWLO*VBLK*5mL

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

Operator ID: DEBBIE
Quant Time: 910808 12:13
Injected at: 910808 11:50

QUANT REPORT

Operator ID: DEBBIE
Output File: ^K6318::D6
Data File: >K6318::L2
Name: VBLK2
Misc: INST:K*SWLO*VBLK*5mL

Quant Rev: 6
Quant Time: 910808 12:13
Injected at: 910808 11:50
Dilution Factor: 1.00000

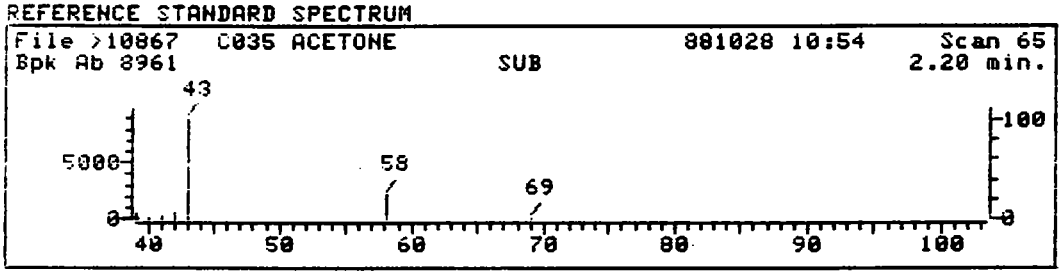
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.66	128.0	18573	50.00	ng/mL	8
7)	C035 ACETONE	3.53	43.0	419	1.28	ng/mL	10
14)	C060 CHLOROFORM	5.77	83.0	1639	.86	ng/mL	9
17)	CS15 1,2-DICHLOROETHANE-D4	6.39	65.1	66552	50.09	ng/mL	8
18)	*CI10 1,4-DIFLUOROBENZENE	6.99	114.0	69105	50.00	ng/mL	9
~~31)~~	~~C180 BROMOFORM~~	~~12.76~~	~~172.8~~	~~326~~	~~.25~~	~~ng/mL~~	~~6~~
32)	*CI20 CHLOROBENZENE-D5	11.35	117.0	54145	50.00	ng/mL	9
~~34)~~	~~C210 2-HEXANONE~~	~~10.24~~	~~43.0~~	~~858~~	~~1.51~~	~~ng/mL~~	~~7~~
~~43)~~	~~C265 1,3-DICHLOROBENZENE~~	~~15.25~~	~~146.0~~	~~508~~	~~.28~~	~~ng/mL~~	~~8~~
~~44)~~	~~C270 1,4-DICHLOROBENZENE~~	~~15.25~~	~~146.0~~	~~508~~	~~.29~~	~~ng/mL~~	~~8~~
46)	CS05 TOLUENE-D8	9.09	98.0	91924	53.38	ng/mL	8
47)	CS10 BROMOFLUOROBENZENE	13.33	95.0	69803	51.24	ng/mL	9

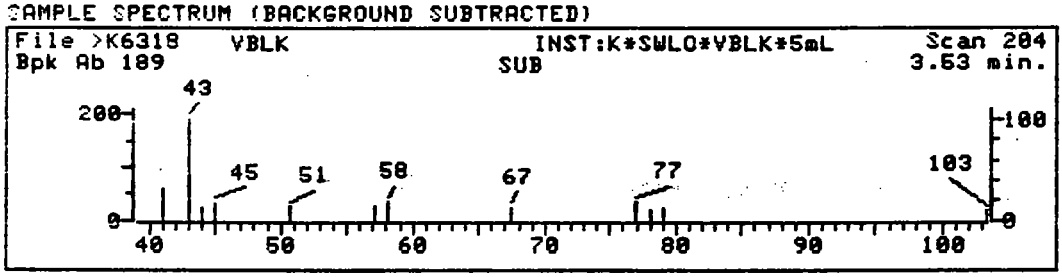
* Compound is ISTD

FP = FALSE POSITIVE

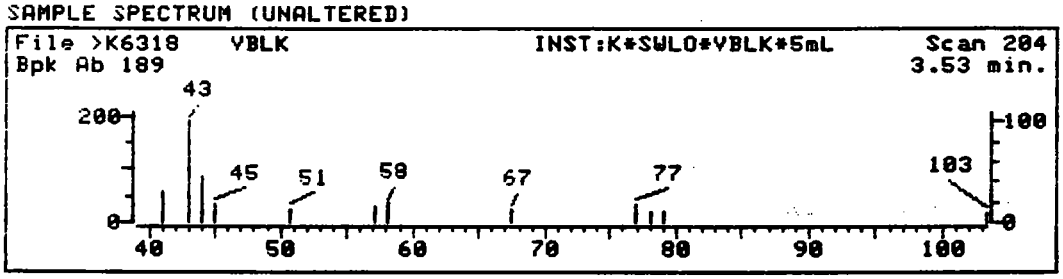
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



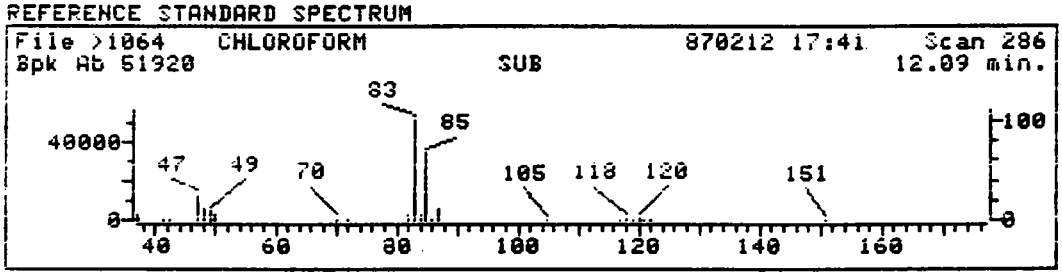
SAMPLE SPECTRUM (UNALTERED)



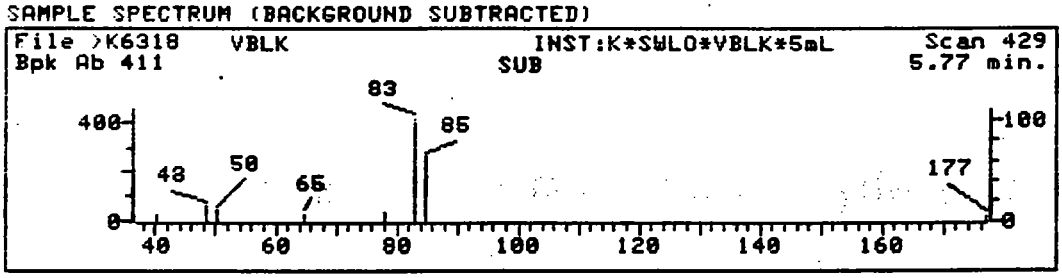
Data File: >K6318::L2 Quant Output File: ^K6318::D6
Name: VBLK2
Misc: INST:K*SWLO*VBLK*5mL
Quant Time: 910808 12:13 Quant ID File: IDV023::EX
Injected at: 910808 11:50 Last Calibration: 910808 11:48

Compound No: 7
Compound Name: C035 ACETONE
Scan Number: 204
Retention Time: 3.53 min.
Quant Ion: 43.0
Area: 419
Concentration: 1.28 ng/mL
q-value: 100

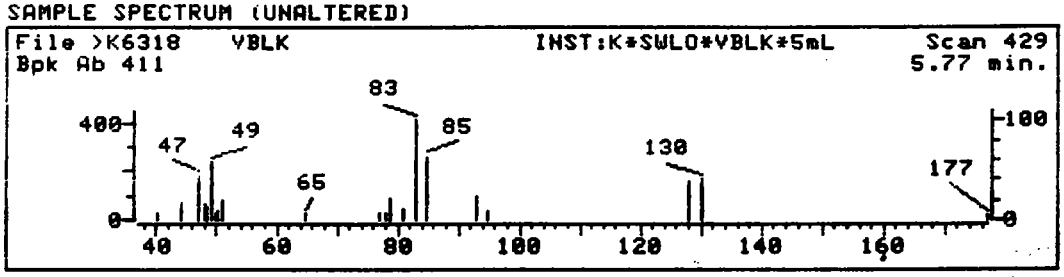
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6318::L2 Quant Output File: ^K6318::D6
Name: VBLK2
Misc: INST:K*SWLO*VBLK*5mL
Quant Time: 910808 12:13 Quant ID File: IDV023::EX
Injected at: 910808 11:50 Last Calibration: 910808 11:48

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 429
Retention Time: 5.77 min.
Quant Ion: 83.0
Area: 1639
Concentration: .86 ng/mL
q-value: 96

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK3

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: VBLK3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6336

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 08/09/91

Column: (pack/cap) CAP 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	5	U
67-64-1	Acetone	10	U
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	0.9	J
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	5	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	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK3

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: VBLK3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6336

Level: (low/med) LOW Date Received:

% Moisture: not dec. Date Analyzed: 08/09/91

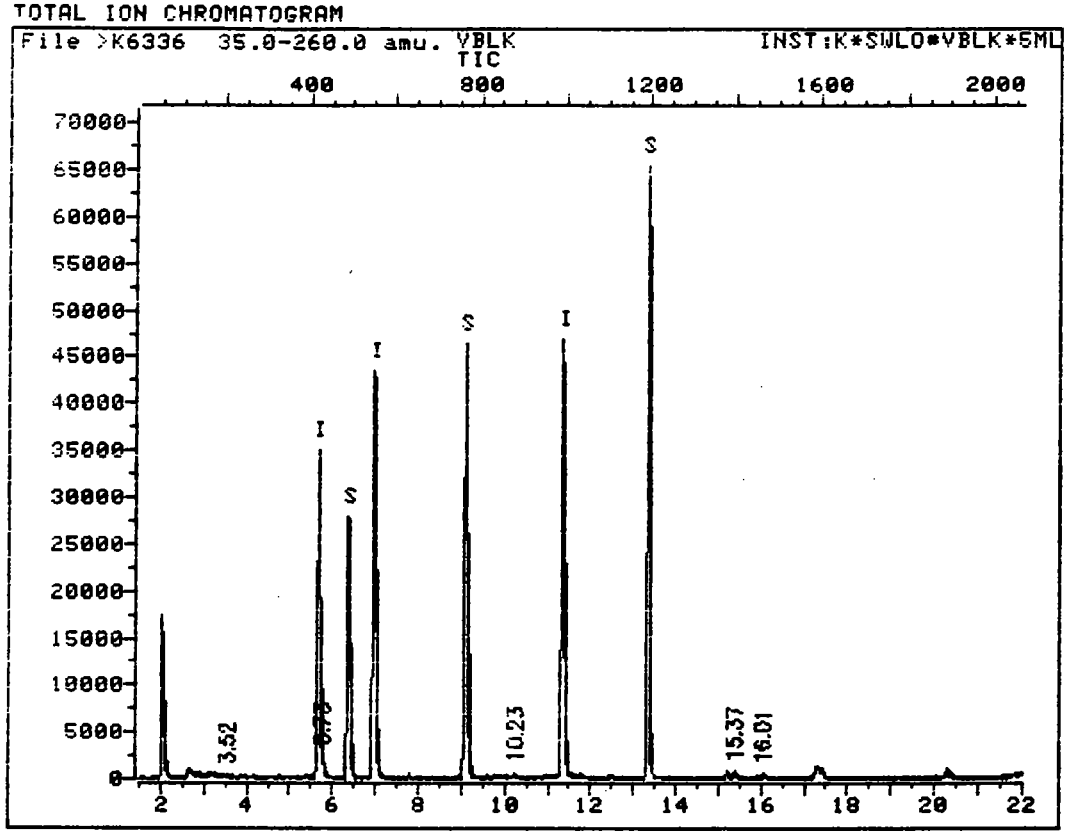
Column (pack/cap) CAP Dilution Factor: 1.0

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: >K6336::D7 Quant Output File: ^K6336::D6
Name: VBLK3
Misc: INST:K*SWLO#VBLK*5ML

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 15:52

Operator ID: DEBBIE
Quant Time: 910809 16:23
Injected at: 910809 16:00

QUANT REPORT

Operator ID: DEBBIE
Output File: ^K6336::D6
Data File: >K6336::D7
Name: VBLK3
Misc: INST:K*SWLO#VBLK*5ML

Quant Rev: 6
Quant Time: 910809 16:23
Injected at: 910809 16:00
Dilution Factor: 1.00000

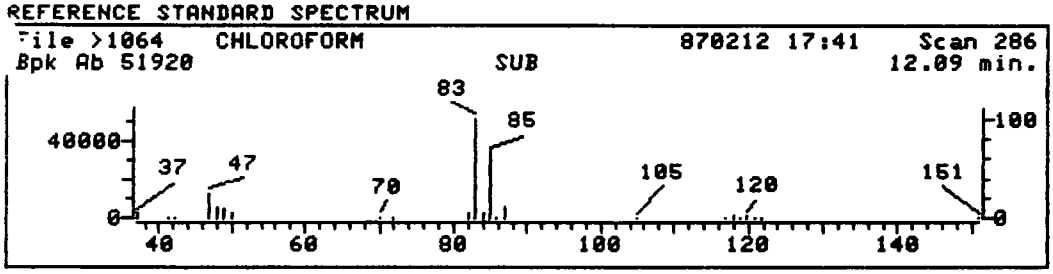
ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910809 15:52

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.63	128.0	20237	50.00	ng/mL	8
~~7)~~	~~C035 ACETONE~~	~~3.52~~	~~43.0~~	~~517~~	~~1.69~~	~~ng/mL~~	~~10~~
14)	C060 CHLOROFORM	5.73	83.0	1726	.95	ng/mL	8
17)	CS15 1,2-DICHLOROETHANE-D4	6.36	65.1	57436	46.78	ng/mL	9
18)	*CI10 1,4-DIFLUOROBENZENE	6.96	114.0	70626	50.00	ng/mL	9
32)	*CI20 CHLOROBENZENE-D5	11.33	117.0	54979	50.00	ng/mL	9
~~34)~~	~~C210 2-HEXANONE~~	~~10.23~~	~~43.0~~	~~970~~	~~1.96~~	~~ng/mL~~	~~7~~
43)	C265 1,3-DICHLOROBENZENE	15.37	146.0	841	.52	ng/mL	9
~~43)~~	~~C265 1,3-DICHLOROBENZENE~~	16.01	146.0	561	.35	ng/mL	FP 8
44)	C270 1,4-DICHLOROBENZENE	15.37	146.0	841	.54	ng/mL	9
45)	C260 1,2-DICHLOROBENZENE	16.01	146.0	561	.31	ng/mL	8
46)	CS05 TOLUENE-D8	9.07	98.0	72269	46.96	ng/mL	9
47)	CS10 BROMOFLUOROBENZENE	13.31	95.0	55834	45.43	ng/mL	9

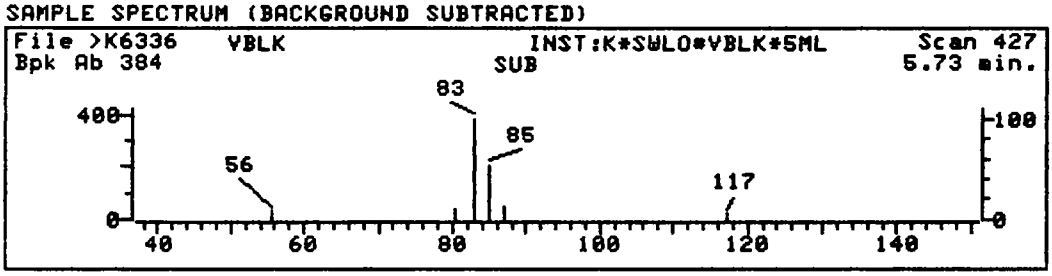
* Compound is ISTD

FP = FALSE POSITIVE

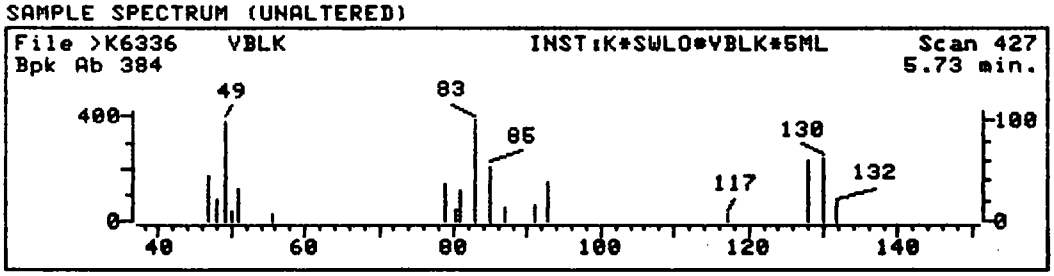
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >K6336::D7 Quant Output File: ^K6336::D6
Name: VBLK
Misc: INST:K*SWLO*VBLK*5ML
Quant Time: 910809 16:23 Quant ID File: IDV023::EX
Injected at: 910809 16:00 Last Calibration: 910809 15:52

Compound No: 14
Compound Name: C060 CHLOROFORM
Scan Number: 427
Retention Time: 5.73 min.
Quant Ion: 83.0
Area: 1726
Concentration: .95 ng/mL
q-value: 85

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-003MS

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684303MS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6320

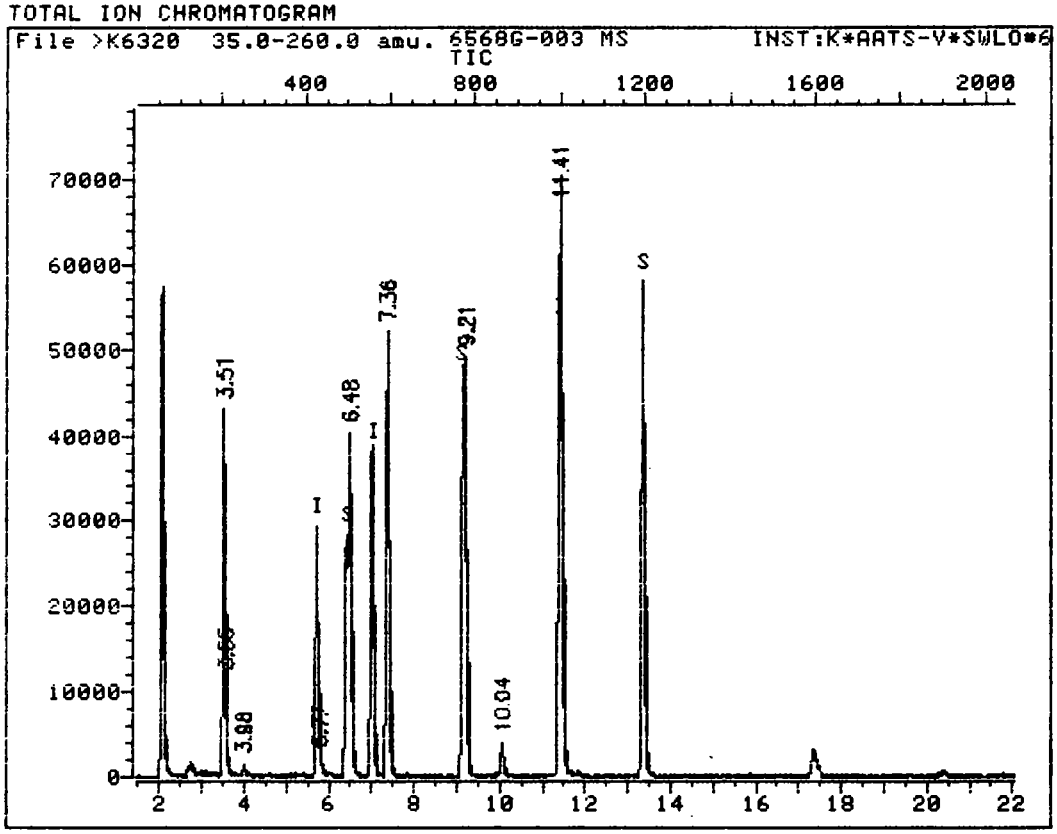
Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 5 Date Analyzed: 08/08/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	0.9	BJ
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	0.9	BJ
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	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	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	3	J
79-34-5	1,1,2,2-Tetrachloroethane	5	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	Xylene (total)	5	U

TOTAL ION CHROMATOGRAM



Data File: >K6320::L2 Quant Output File: ^K6320::D6
Name: 6568G-003 MS
Misc: INST:K*AATS-V*SWLO#6843.03MS*5GM

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

Operator ID: DEBBIE
Quant Time: 910808 14:26
Injected at: 910808 14:03

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910808 14:26
Output File: ^K6320::D6 Injected at: 910808 14:03
Data File: >K6320::L2 Dilution Factor: 1.00000
Name: 6568G-003 MS
Misc: INST:K*AATS-V*SWL0#6843.03MS*5GM

ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.68	128.0	17109	50.00	ng/mL	96
6)	C030 METHYLENE CHLORIDE	3.98	84.0	1276	2.22	ng/mL	84
7)	C035 ACETONE	3.55	43.0	257	.85	ng/mL	100
10)	C045 1,1-DICHLOROETHENE	3.51	96.0	26233	44.89	ng/mL	86
14)	C060 CHLOROFORM	5.77	83.0	1477	.84	ng/mL	91
17)	CS15 1,2-DICHLOROETHANE-D4	6.40	65.1	57502	46.98	ng/mL	86
18)	*CI10 1,4-DIFLUOROBENZENE	6.99	114.0	63441	50.00	ng/mL	99
25)	C150 TRICHLOROETHENE	7.36	130.0	38675	48.40	ng/mL	96
~~26)~~	~~C155 DIBROMOCHLOROMETHANE~~	~~10.04~~	~~129.0~~	~~2011~~	~~1.45~~	~~ng/mL~~	100
28)	C165 BENZENE	6.48	78.0	66407	51.17	ng/mL	83
32)	*CI20 CHLOROBENZENE-D5	11.36	117.0	46987	50.00	ng/mL	92
35)	C220 TETRACHLOROETHENE	10.04	164.0	2154	2.91	ng/mL	87
37)	C230 TOLUENE	9.21	92.0	45119	54.07	ng/mL	93
38)	C235 CHLOROBENZENE	11.41	112.0	62636	50.32	ng/mL	88
46)	CS05 TOLUENE-D8	9.10	98.0	78386	52.46	ng/mL	86
47)	CS10 BROMOFLUOROBENZENE	13.34	95.0	51241	43.35	ng/mL	97

* Compound is ISTD

FP = FALSE POSITIVE

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-003MSD

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684303MSD

Sample wt/vol: 5.0 (g/mL) G Lab File ID: K6321

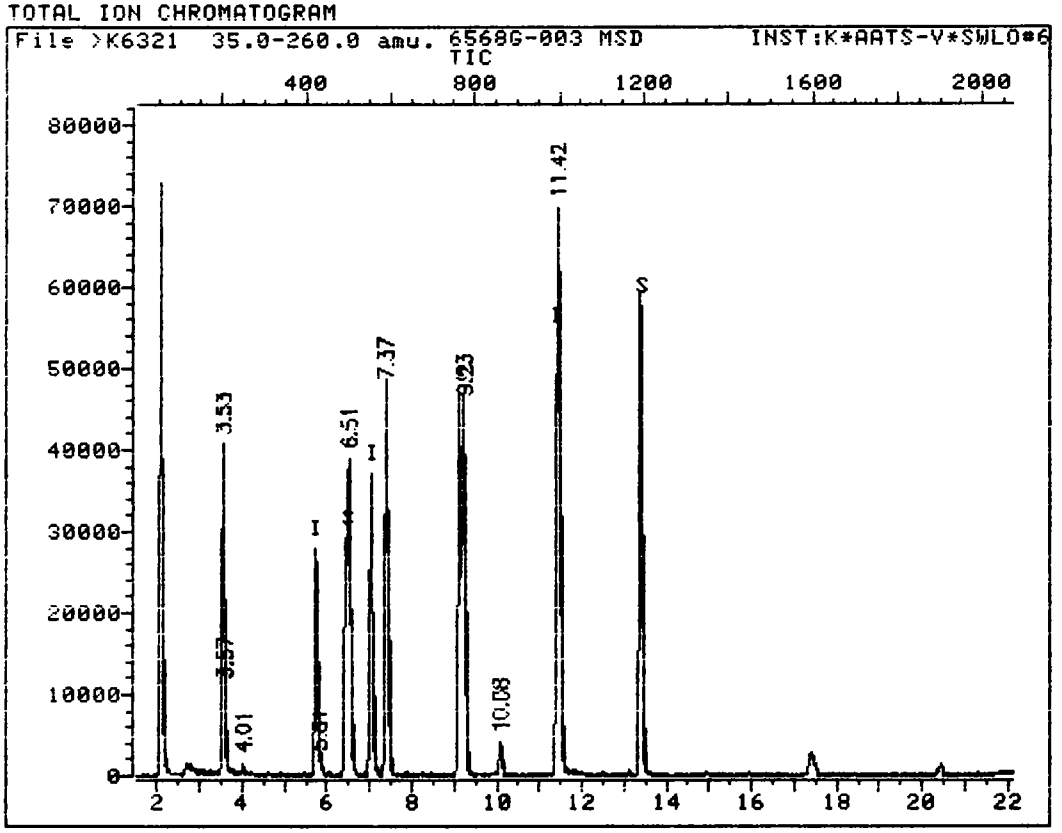
Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 5 Date Analyzed: 08/08/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	1	BJ
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	0.7	BJ
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	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	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	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	Xylene (total)	5	U

TOTAL ION CHROMATOGRAM



Data File: >K6321::L2 Quant Output File: ^K6321::D6
Name: 6568G-003 MSD
Misc: INST:K*AATS-V*SWLO#6843.03MSD*5GM

Id File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

Operator ID: DEBBIE
Quant Time: 910808 14:55
Injected at: 910808 14:31

QUANT REPORT

Operator ID: DEBBIE Quant Rev: 6 Quant Time: 910808 14:55
Output File: ^K6321::D6 Injected at: 910808 14:31
Data File: >K6321::L2 Dilution Factor: 1.00000
Name: 6568G-003 MSD
Misc: INST:K*AATS-V*SWL0#6843.03MSD*5GM

ID File: IDV023::EX
Title: VOA (EPA CLP) 5G HEATED PURGE (SOILS) INST:D
Last Calibration: 910808 11:48

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI01 BROMOCHLOROMETHANE	5.70	128.0	16091	50.00	ng/mL	90
6)	C030 METHYLENE CHLORIDE	4.01	84.0	1220	2.26	ng/mL	95
7)	C035 ACETONE	3.57	43.0	323	1.14	ng/mL	100
10)	C045 1,1-DICHLOROETHENE	3.53	96.0	25901	47.12	ng/mL	88
14)	C060 CHLOROFORM	5.81	83.0	1080	.65	ng/mL	88
17)	CS15 1,2-DICHLOROETHANE-D4	6.44	65.1	58920	51.18	ng/mL	84
18)	*CI10 1,4-DIFLUOROBENZENE	7.03	114.0	59381	50.00	ng/mL	98
25)	C150 TRICHLOROETHENE	7.37	130.0	35169	47.02	ng/mL	94
~~26)~~	~~C155 DIBROMOCHLOROMETHANE~~	~~10.08~~	~~129.0~~	~~2270~~	~~1.75~~	~~ng/mL~~ FP	100
28)	C165 BENZENE	6.51	78.0	65691	54.08	ng/mL	84
32)	*CI20 CHLOROBENZENE-D5	11.38	117.0	45537	50.00	ng/mL	88
37)	C230 TOLUENE	9.23	92.0	44729	55.31	ng/mL	98
38)	C235 CHLOROBENZENE	11.42	112.0	64242	53.26	ng/mL	95
46)	CS05 TOLUENE-D8	9.13	98.0	75714	52.28	ng/mL	99
47)	CS10 BROMOFLUOROBENZENE	13.37	95.0	52230	45.59	ng/mL	95

* Compound is ISTD

FP = FALSE POSITIVE

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: SWL-TULSA Contract: _____

Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Level:(low/med) LOW

dkl 8/15/91

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	6568G-017	56	69	76	78	67	118	0	0
02	6568G-018	68	71	81 ~~77~~	84	76	129 *	0	1
03	6568G-019	38	72	114	53	53	140 *	0	1
04	6568G-020	60	92	111	77	72	184 *	0	1
05	6568G-021	76	79	92	88	84	164 *	0	1
06	6568G-022	64	69	86	73	76	87	0	0
07	6568G-023	60	56	81	67	69	65	0	0
08	6568G-024	65	72	74	68	69	78	0	0
09	6568G-025	63	64	73	81	84	55	0	0
10	6568G-026	70	78	93	68	74	90	0	0
11	6568G-026MS	59	57	80	63	66	70	0	0
12	6568G-026MSD	66	68	83	70	74	63	0	0
13	SBLK1	50	59	77	66	63	120	0	0
14	SBLK2	53	63	78	56	56	85	0	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: SWL-TULSA Contract: _____

b Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Matrix Spike - EPA Sample No.: 6568G-026 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	14700	0	10200	69	26- 90
2-Chlorophenol	14700	0	8940	61	25-102
1,4-Dichlorobenzene	7330	0	5300	72	28 104
N-Nitroso-di-n-prop.(1)	7330	0	5800	79	41 126
1,2,4-Trichlorobenzene	7330	0	5110	70	38 107
4-Chloro-3-methylphenol	14700	0	9600	65	26 103
Acenaphthene	7330	0	5170	71	31-137
4-Nitrophenol	14700	0	11100	76	11-114
2,4-Dinitrotoluene	7330	0	6330	86	28- 89
Pentachlorophenol	14700	0	11700	80	17-109
Pyrene	7330	0	5450	74	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	14700	9680	66	4	35	26- 90
2-Chlorophenol	14700	9750	66	-8	50	25-102
1,4-Dichlorobenzene	7330	5700	78	-8	27	28 104
N-Nitroso-di-n-prop.(1)	7330	5860	80	-1	38	41 126
1,2,4-Trichlorobenzene	7330	5170	71	-1	23	38 107
4-Chloro-3-methylphenol	14700	8870	60	8	33	26 103
Acenaphthene	7330	5760	79	-11	19	31-137
4-Nitrophenol	14700	10600	72	5	50	11-114
2,4-Dinitrotoluene	7330	6330	86	0	47	28- 89
Pentachlorophenol	14700	10600	72	11	47	17-109
Pyrene	7330	5950	81	-9	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:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID: FF097 Lab Sample ID: SBLK1

Date Extracted: 08/02/91 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed: 08/13/91 Time Analyzed: 2136

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

Instrument ID: F

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	6568G-017	684317	FF098	08/13/91
02	6568G-018	685318	FF099	08/13/91
03	6568G-019	684319	FF100	08/13/91
04	6568G-020	684320	FF101	08/14/91
05	6568G-021	684321	FF102	08/14/91
06	6568G-025	684325	FF137	08/15/91

COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID: A6879 Lab Sample ID: SBLK2

Date Extracted: 08/02/91 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed: 08/14/91 Time Analyzed: 0142

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

Instrument ID: A

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	6568G-022	684322	A6880	08/14/91
02	6568G-023	684323	A6881	08/14/91
03	6568G-024	684324	A6882	08/14/91
04	6568G-026	684326	A6923	08/15/91
05	6568G-026MS	684326MS	A6907	08/14/91
06	6568G-026MSD	684326MSD	A6886	08/14/91

COMMENTS: SBLK CS6567G AATS-V
INST:A 080205 30

5B

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

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID: A6865 DFTPP Injection Date: 08/13/91

Instrument ID: A DFTPP Injection Time: 1450

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	50.4
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	65.8
70	Less than 2.0% of mass 69	0.8 (1.2)1
127	40.0 - 60.0% of mass 198	45.3
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	20.1
365	Greater than 1.00% of mass 198	2.24
441	Present, but less than mass 443	10.6
442	Greater than 40.0% of mass 198	67.2
443	17.0 - 23.0% of mass 442	12.6 (18.8)2

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

IS 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	SSTD20	SSTD20	A6867	08/13/91	1649
02	SSTD50	SSTD50	A6868	08/13/91	1728
03	SSTD80	SSTD80	A6869	08/13/91	1806
04	SSTD120	SSTD120	A6870	08/13/91	1845
05	SSTD160	SSTD160	A6871	08/13/91	1923

5B

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

Lab Name: SWL-TULSA Contract: _____

b Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID: FF087 DFTPP Injection Date: 08/13/91

Instrument ID: F DFTPP Injection Time: 1454

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	53.6
68	Less than 2.0% of mass 69	1.0 (1.6)1
69	Mass 69 relative abundance	64.5
70	Less than 2.0% of mass 69	0.3 (0.5)1
127	40.0 - 60.0% of mass 198	45.9
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	21.5
365	Greater than 1.00% of mass 198	2.85
441	Present, but less than mass 443	7.2
442	Greater than 40.0% of mass 198	50.5
443	17.0 - 23.0% of mass 442	9.2 (18.2)2

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

IS 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	SSTD50	SSTD50	FF088	08/13/91	1521
02	SSTD20	SSTD20	FF089	08/13/91	1615
03	SSTD80	SSTD80	FF090	08/13/91	1655
04	SSTD120	SSTD120	FF091	08/13/91	1735
05	SSTD160	SSTD160	FF092	08/13/91	1815
06	SBLK1	SBLK1	FF097	08/13/91	2136
07	6568G-017	684317	FF098	08/13/91	2216
08	6568G-018	685318	FF099	08/13/91	2256
09	6568G-019	684319	FF100	08/13/91	2336
10	6568G-020	684320	FF101	08/14/91	0016
11	6568G-021	684321	FF102	08/14/91	0056

5B

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

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID: A6887 DFTPP Injection Date: 08/13/91

Instrument ID: A DFTPP Injection Time: 2350

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	44.0
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	57.5
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	44.0
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.8
275	10.0 - 30.0% of mass 198	20.6
365	Greater than 1.00% of mass 198	2.47
441	Present, but less than mass 443	10.6
442	Greater than 40.0% of mass 198	67.2
443	17.0 - 23.0% of mass 442	12.0 (17.8)2

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

IS 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	SSTD50	SSTD50	A6888	08/14/91	0011
02	SBLK2	SBLK2	A6879	08/14/91	0142
03	6568G-022	684322	A6880	08/14/91	0220
04	6568G-023	684323	A6881	08/14/91	0258
05	6568G-024	684324	A6882	08/14/91	0336
06	6568G-026MSD	684326MSD	A6886	08/14/91	0609

5B

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

Lab Name: SWL-TULSA Contract:

b Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Lab File ID: A6895 DFTPP Injection Date: 08/14/91

Instrument ID: A DFTPP Injection Time: 0930

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	40.9
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	53.1
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	40.8
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	6.5
275	10.0 - 30.0% of mass 198	20.6
365	Greater than 1.00% of mass 198	2.26
441	Present, but less than mass 443	10.2
442	Greater than 40.0% of mass 198	65.8
443	17.0 - 23.0% of mass 442	12.8 (19.5)2

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

IS 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	SSTD160	SSTD160	A6890	08/14/91	1307
02	SSTD120	SSTD120	A6891	08/14/91	1345
03	SSTD50	SSTD50	A6893	08/14/91	1502
04	SSTD20	SSTD20	A6894	08/14/91	1541
05	SSTD80	SSTD80	A6906	08/14/91	1637
06	6568G-026MS	684326MS	A6907	08/14/91	1722

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-017

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684317

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF098

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 4 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/13/91

GPC Cleanup: (Y/N) Y pH: 7.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	690	U
111-44-4	bis(2-Chloroethyl)Ether	690	U
95-57-8	2-Chlorophenol	690	U
541-73-1	1,3-Dichlorobenzene	690	U
106-46-7	1,4-Dichlorobenzene	690	U
100-51-6	Benzyl Alcohol	690	U
95-50-1	1,2-Dichlorobenzene	690	U
95-48-7	2-Methylphenol	690	U
108-60-1	bis(2-Chloroisopropyl)ether	690	U
106-44-5	4-Methylphenol	690	U
621-64-7	N-Nitroso-Di-n-Propylamine	690	U
67-72-1	Hexachloroethane	690	U
98-95-3	Nitrobenzene	690	U
78-59-1	Isophorone	690	U
88-75-5	2-Nitrophenol	690	U
105-67-9	2,4-Dimethylphenol	690	U
65-85-0	Benzoic Acid	3300	U
111-91-1	bis(2-Chloroethoxy)Methane	690	U
120-83-2	2,4-Dichlorophenol	690	U
120-82-1	1,2,4-Trichlorobenzene	690	U
91-20-3	Naphthalene	690	U
106-47-8	4-Chloroaniline	690	U
87-68-3	Hexachlorobutadiene	690	U
59-50-7	4-Chloro-3-Methylphenol	690	U
91-57-6	2-Methylnaphthalene	690	U
77-47-4	Hexachlorocyclopentadiene	690	U
88-06-2	2,4,6-Trichlorophenol	690	U
95-95-4	2,4,5-Trichlorophenol	3300	U
91-58-7	2-Chloronaphthalene	690	U
88-74-4	2-Nitroaniline	3300	U
131-11-3	Dimethyl Phthalate	690	U
208-96-8	Acenaphthylene	690	U
606-20-2	2,6-Dinitrotoluene	690	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-017

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684317

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF098

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 4 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/13/91

GPC Cleanup: (Y/N) Y pH: 7.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3300	U
83-32-9	Acenaphthene	690	U
51-28-5	2,4-Dinitrophenol	3300	U
100-02-7	4-Nitrophenol	3300	U
132-64-9	Dibenzofuran	690	U
121-14-2	2,4-Dinitrotoluene	690	U
84-66-2	Diethylphthalate	690	U
7005-72-3	4-Chlorophenyl-phenylether	690	U
86-73-7	Fluorene	690	U
100-01-6	4-Nitroaniline	3300	U
534-52-1	4,6-Dinitro-2-Methylphenol	3300	U
86-30-6	N-Nitrosodiphenylamine (1)	690	U
101-55-3	4-Bromophenyl-phenylether	690	U
118-74-1	Hexachlorobenzene	690	U
87-86-5	Pentachlorophenol	3300	U
85-01-8	Phenanthrene	170	J
120-12-7	Anthracene	690	U
84-74-2	Di-n-Butylphthalate	690	U
206-44-0	Fluoranthene	210	J
129-00-0	Pyrene	290	J
85-68-7	Butylbenzylphthalate	690	U
91-94-1	3,3'-Dichlorobenzidine	1400	U
56-55-3	Benzo(a)Anthracene	160	J
218-01-9	Chrysene	180	J
117-81-7	bis(2-Ethylhexyl)Phthalate	56	J
117-84-0	Di-n-Octyl Phthalate	690	U
205-99-2	Benzo(b)Fluoranthene	220	J
207-08-9	Benzo(k)Fluoranthene	690	U
50-32-8	Benzo(a)Pyrene	150	J
193-39-5	Indeno(1,2,3-cd)Pyrene	690	U
53-70-3	Dibenz(a,h)Anthracene	690	U
191-24-2	Benzo(g,h,i)Perylene	690	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: 6568G-017

Lab Name: SWL-TULSA Contract:

o Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684317

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF098

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 4 dec. Date Extracted: 08/02/91

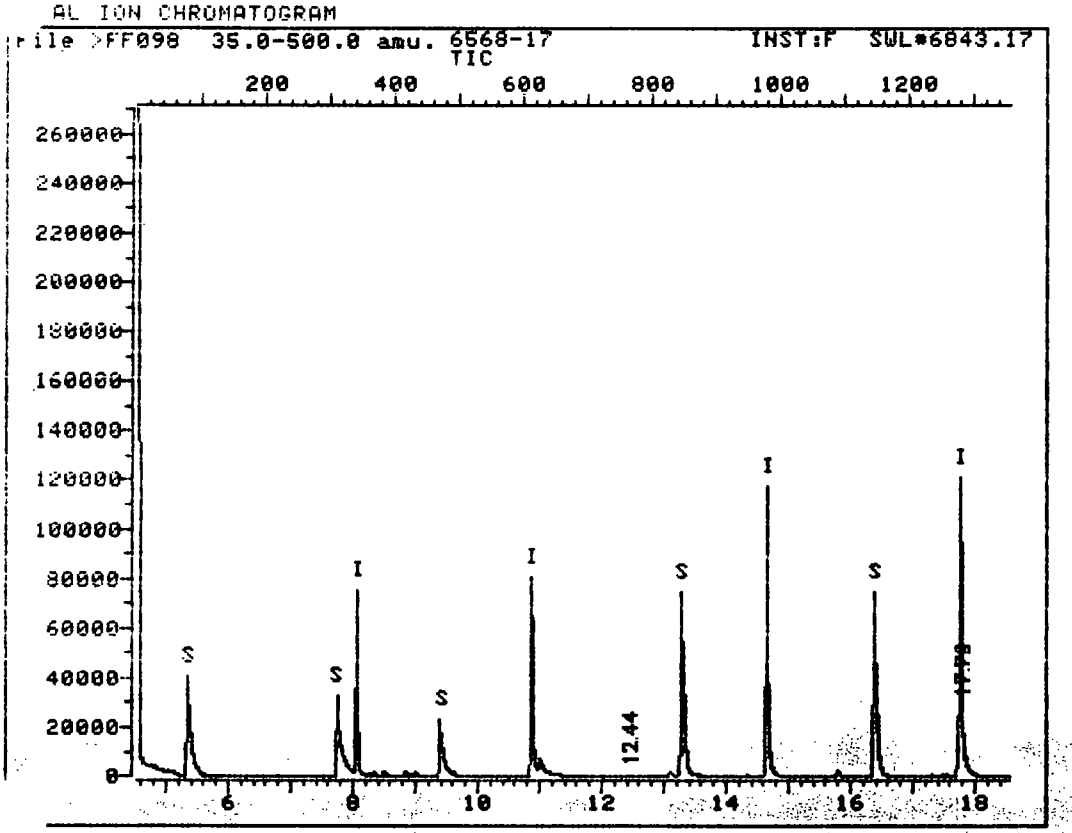
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/13/91

GPC Cleanup: (Y/N) Y pH: 7.2 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

AL ION CHROMATOGRAM



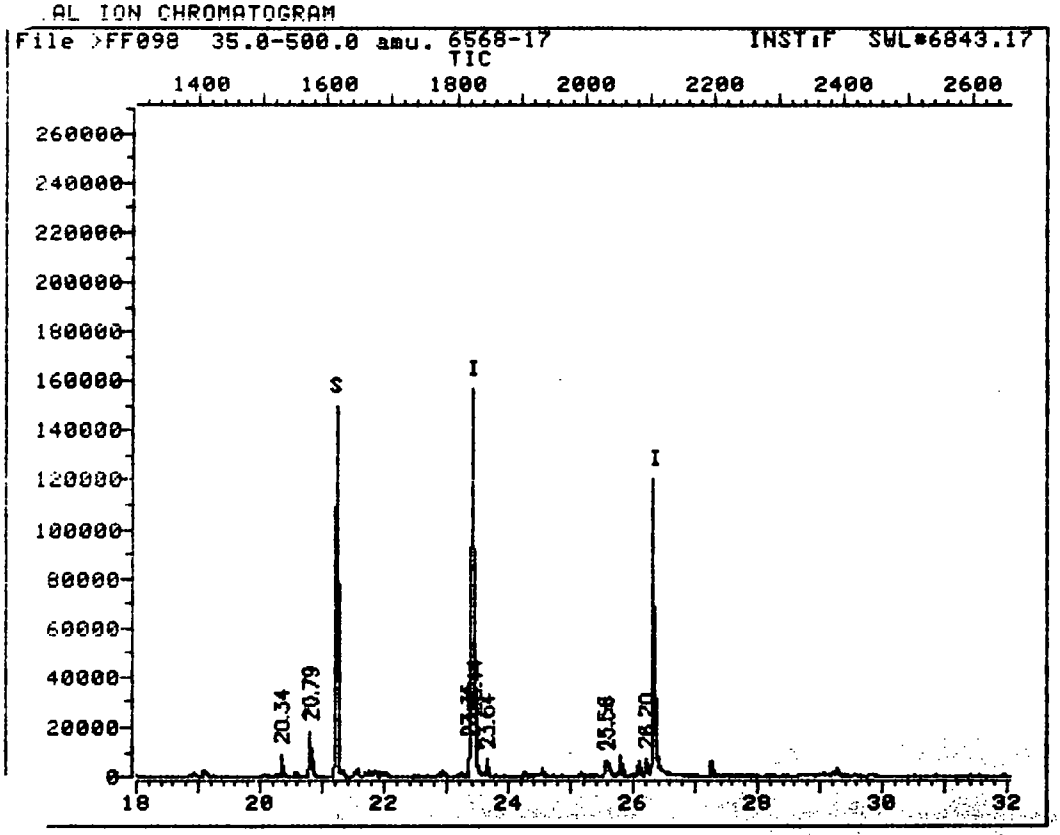
Data File: >FF098::D6 Quant Output File: ^FF098::D7
Name: 6568-17
Misc: INST:F SWL#6843.17 30G/1ML/1UL BTL#10

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 22:51
Injected at: 910813 22:16

TIC page 1 of 2

AL ION CHROMATOGRAM



Data File: >FF098::D6 Quant Output File: ^FF098::D7
Name: 6568-17
Misc: INST:F SWL#6843.17 30G/1ML/1UL BTL#10

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 22:51
Injected at: 910813 22:16

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA Quant Rev: 6 Quant Time: 910813 22:51
Output File: ^FF098::D7 Injected at: 910813 22:16
Data File: >FF098::D6 Dilution Factor: 1.00000
Name: 6568-17
Misc: INST:F SWL#6843.17 30G/1ML/1UL BTL#10

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

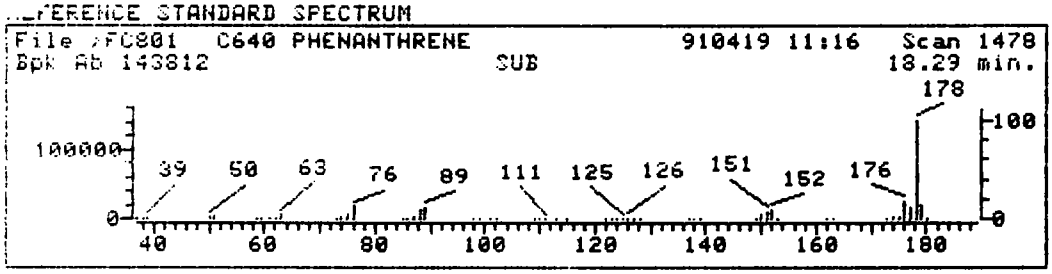
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	8.04	152.0	28075	40.00	NG/UL	93
5)	CS50 2-FLUOROPHENOL	5.34	112.0	40659	67.36	NG/UL	92
6)	CS45 PHENOL-D5	7.72	99.0	66878	77.81	NG/UL	87
7)	*CI40 NAPHTHALENE-D8	10.85	136.0	111403	40.00	NG/UL	96
~~30)~~	~~C470 2-METHYLNAPHTHALENE~~	~~12.44~~	~~142.0~~	~~215~~	~~.89~~	~~NG/UL~~ FP	~~93~~
31)	CS20 NITROBENZENE-D5	9.39	82.0	28823	27.77	NG/UL	84
32)	*CI50 ACENAPHTHENE-D10	14.64	164.0	75855	40.00	NG/UL	97
51)	CS25 2-FLUOROBIPHENYL	13.27	172.0	86382	34.26	NG/UL	97
52)	CS55 2,4,6-TRIBROMOPHENOL	16.37	329.8	39261	117.96	NG/UL	93
57)	*CI60 PHENANTHRENE-D10	17.75	188.0	156277	40.00	NG/UL	93
	C640 PHENANTHRENE	17.79	178.0	9729	2.39	NG/UL	98
6.	C655 FLUORANTHENE	20.34	202.0	13339	2.99	NG/UL	87
63)	*CI70 CHRYSENE-D12	23.39	240.0	170352	40.00	NG/UL	93
64)	C715 PYRENE	20.79	202.0	22516	4.16	NG/UL	86
67)	C730 BENZO(A)ANTHRACENE	23.35	228.0	10792	2.26	NG/UL	96
68)	C740 CHRYSENE	23.44	228.0	11619	2.54	NG/UL	96
69)	C745 BIS(2-ETHYLHEXYL)PHTHALAT	23.64	149.0	3690	.81	NG/UL	92
70)	CS30 TERPHENYL-D14	21.21	244.0	128448	37.96	NG/UL	89
71)	*CI75 PERYLENE-D12	26.31	264.0	157645	40.00	NG/UL	96
73)	C765 BENZO(B)FLUORANTHENE **	25.56	252.0	13882	3.18	NG/UL	95
~~74)~~	~~C770 BENZO(K)FLUORANTHENE~~	~~25.56~~	~~252.0~~	~~13882~~	~~3.21~~	~~NG/UL~~	~~88~~
75)	C775 BENZO(A)PYRENE	26.20	252.0	8720	2.10	NG/UL	95

* Compound is ISTD

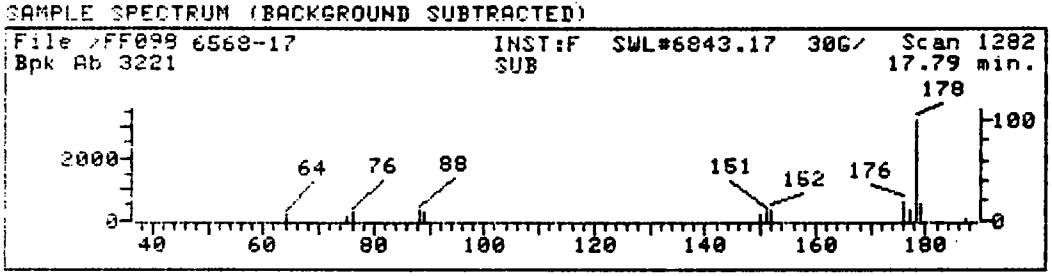
** TOTAL BENZO (B,K) FLUORANTHENE

FP = FALSE POSITIVE

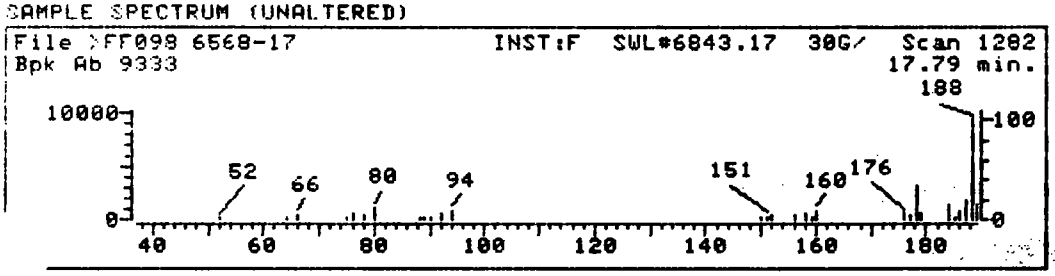
..FERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



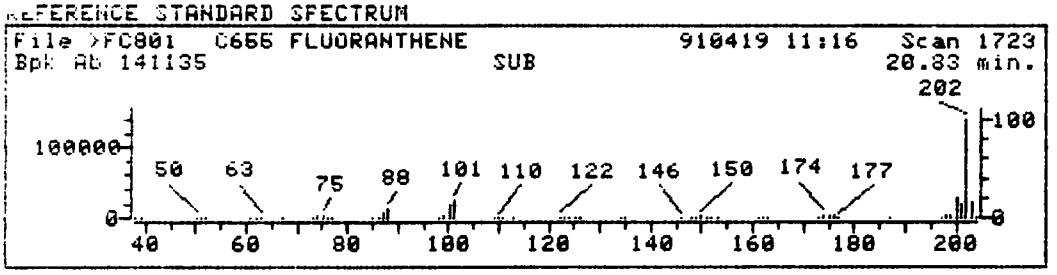
SAMPLE SPECTRUM (UNALTERED)



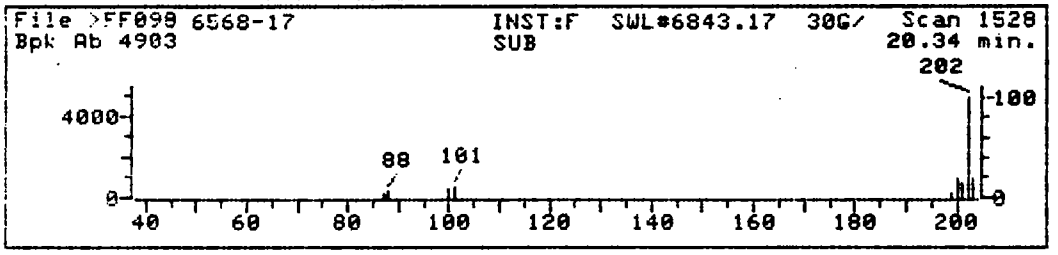
Data File: >FF098::D6 Quant Output File: ^FF098::D7
Name: 6568-17
Misc: INST:F SWL#6843.17 30G/1ML/1UL BTL#10
Quant Time: 910813 22:51 Quant ID File: ID_BN2::EX
Injected at: 910813 22:16 Last Calibration: 910813 16:27

Compound No: 59
Compound Name: C640 PHENANTHRENE
Scan Number: 1282
Retention Time: 17.79 min.
Quant Ion: 178.0
Area: 9729
Concentration: 2.39 NG/UL
q-value: 98

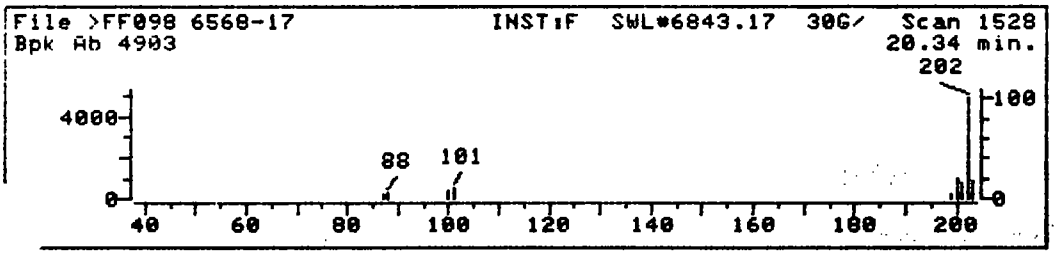
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



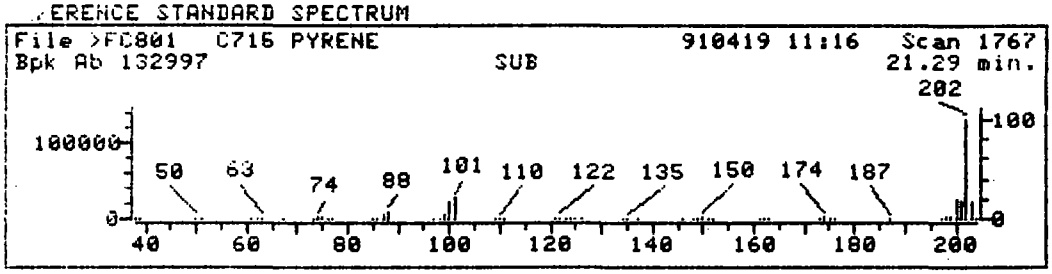
SAMPLE SPECTRUM (UNALTERED)



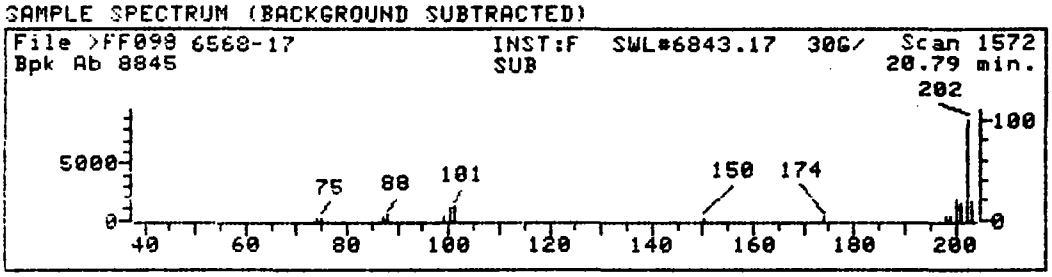
Data File: >FF098::D6 Quant Output File: ^FF098::D7
Name: 6568-17
Misc: INST:F SWL#6843.17 30G/1ML/1UL BTL#10
Quant Time: 910813 22:51 Quant ID File: ID_BN2::EX
Injected at: 910813 22:16 Last Calibration: 910813 16:27

Compound No: 62
Compound Name: C655 FLUORANTHENE
Scan Number: 1528
Retention Time: 20.34 min.
Quant Ion: 202.0
Area: 13339
Concentration: 2.99 NG/UL
q-value: 87

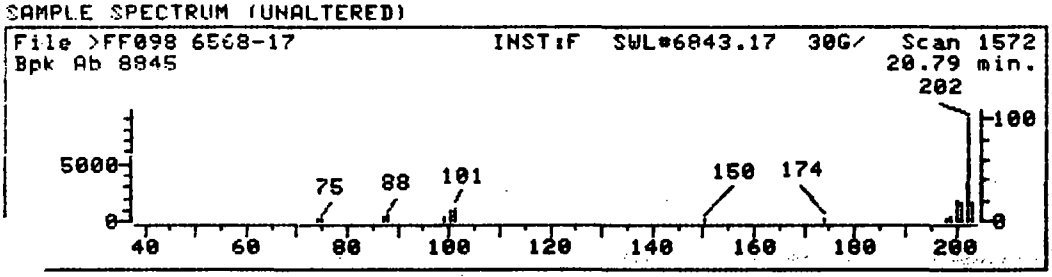
ERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



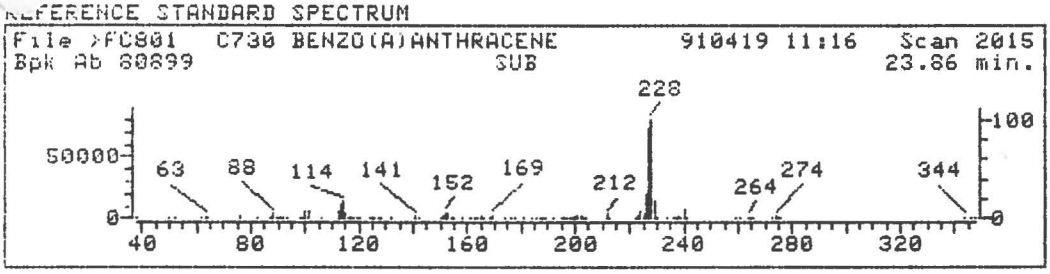
SAMPLE SPECTRUM (UNALTERED)



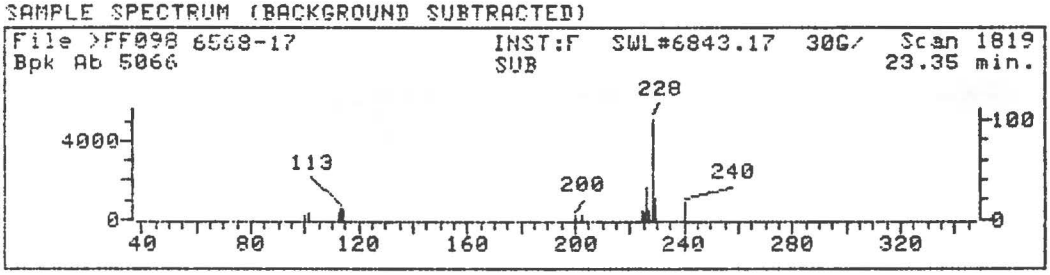
Data File: >FF098::D6 Quant Output File: ^FF098::D7
Name: 6568-17
Misc: INST:F SWL#6843.17 30G/1ML/1UL BTL#10
Quant Time: 910813 22:51 Quant ID File: ID_BN2::EX
Injected at: 910813 22:16 Last Calibration: 910813 16:27

Compound No: 64
Compound Name: C715 PYRENE
Scan Number: 1572
Retention Time: 20.79 min.
Quant Ion: 202.0
Area: 22516
Concentration: 4.16 NG/UL
q-value: 86

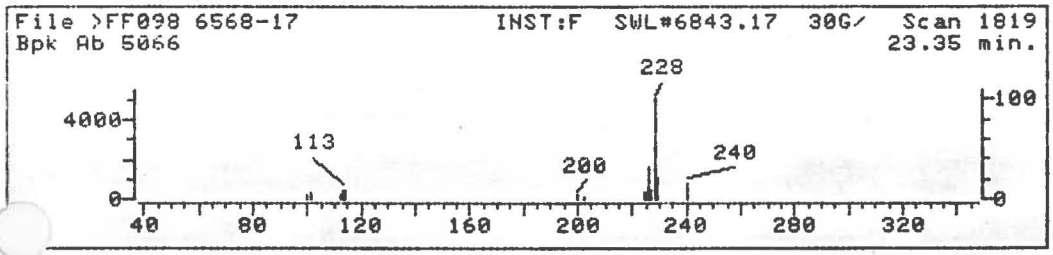
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



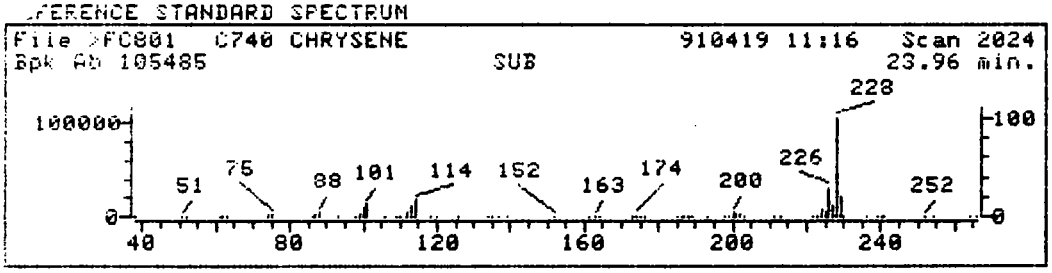
SAMPLE SPECTRUM (UNALTERED)



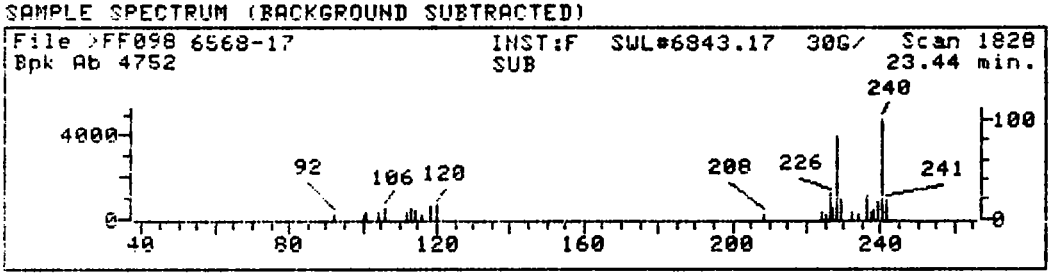
Data File: >FF098::D6 Quant Output File: ^FF098::D7
Name: 6568-17
Misc: INST:F SWL#6843.17 30G/1ML/1UL BTL#10
Quant Time: 910813 22:51 Quant ID File: ID_BN2::EX
Injected at: 910813 22:16 Last Calibration: 910813 16:27

Compound No: 67
Compound Name: C730 BENZO(A)ANTHRACENE
Scan Number: 1819
Retention Time: 23.35 min.
Quant Ion: 228.0
Area: 10792
Concentration: 2.26 NG/UL
q-value: 96

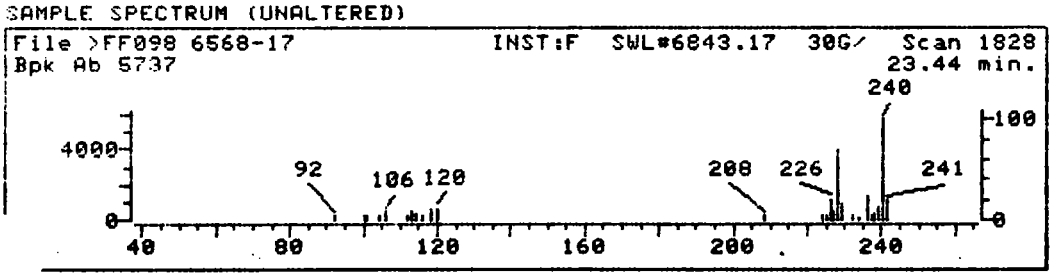
FERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



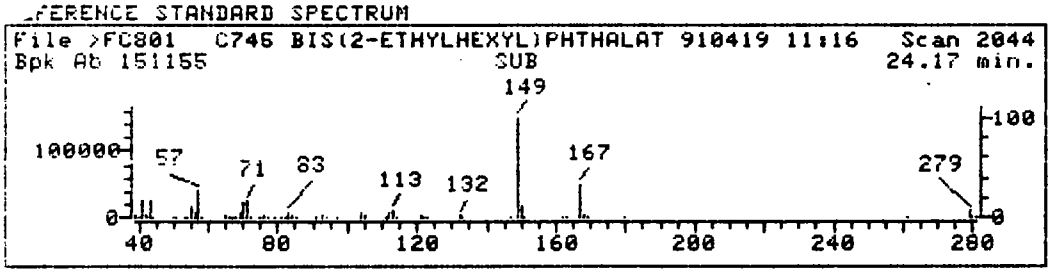
SAMPLE SPECTRUM (UNALTERED)



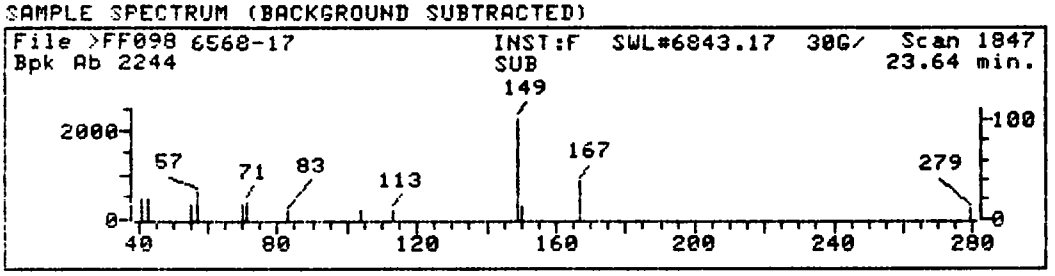
Data File: >FF098::D6 Quant Output File: ^FF098::D7
Name: 6568-17
Misc: INST:F SWL#6843.17 30G/1ML/1UL BTL#10
Quant Time: 910813 22:51 Quant ID File: ID_BN2::EX
Injected at: 910813 22:16 Last Calibration: 910813 16:27

Compound No: 68
Compound Name: C740 CHRYSENE
Scan Number: 1828
Retention Time: 23.44 min.
Quant Ion: 228.0
Area: 11619
Concentration: 2.54 NG/UL
q-value: 96

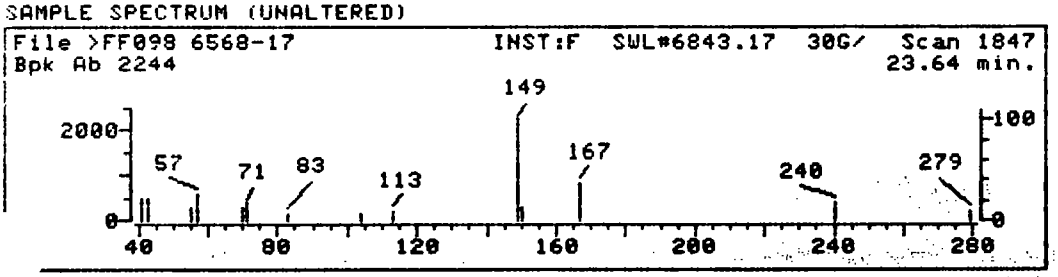
FERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



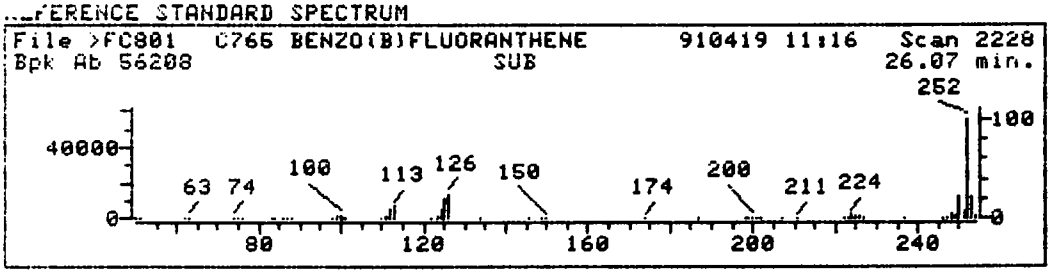
SAMPLE SPECTRUM (UNALTERED)



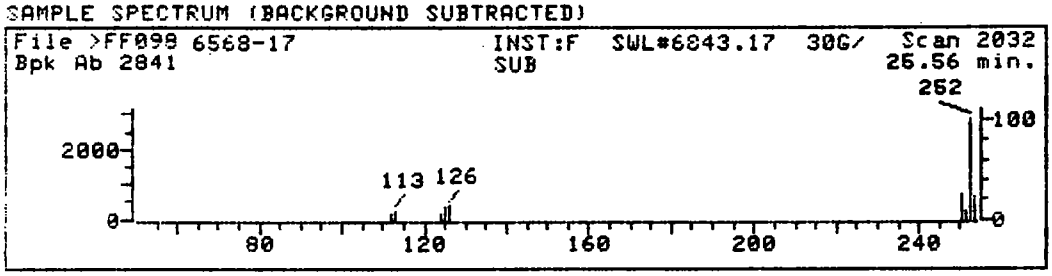
Data File: >FF098::D6 Quant Output File: ^FF098::D7
Name: 6568-17
Misc: INST:F SWL#6843.17 30G/1ML/1UL BTL#10
Quant Time: 910813 22:51 Quant ID File: ID_BN2::EX
Injected at: 910813 22:16 Last Calibration: 910813 16:27

Compound No: 69
Compound Name: C745 BIS(2-ETHYLHEXYL)PHTHALAT
Scan Number: 1847
Retention Time: 23.64 min.
Quant Ion: 149.0
Area: 3690
Concentration: .81 NG/UL
q-value: 92

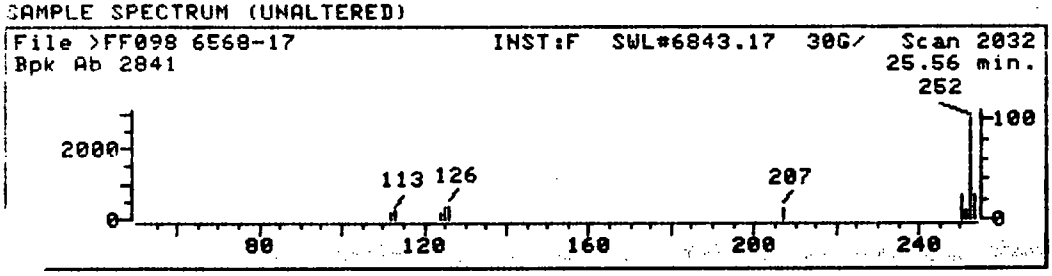
...FERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



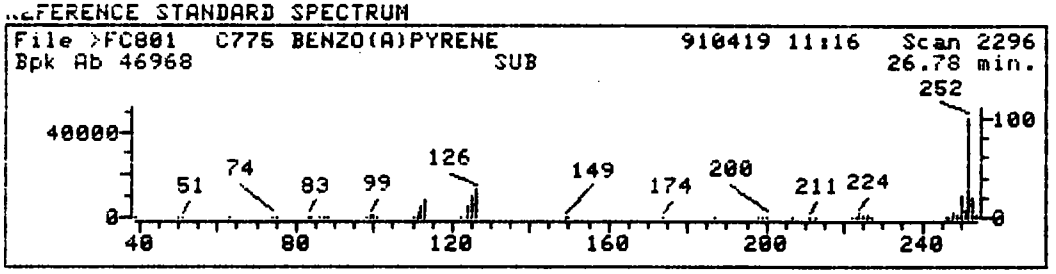
SAMPLE SPECTRUM (UNALTERED)



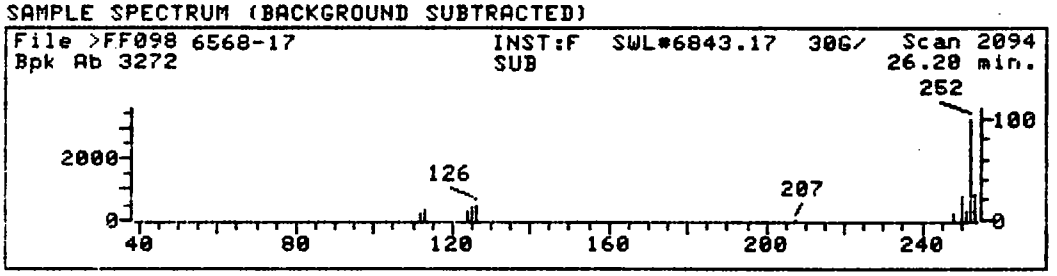
Data File: >FF098::D6 Quant Output File: ^FF098::D7
Name: 6568-17
Misc: INST:F SWL#6843.17 30G/1ML/1UL BTL#10
Quant Time: 910813 22:51 Quant ID File: ID_BN2::EX
Injected at: 910813 22:16 Last Calibration: 910813 16:27

Compound No: 73
Compound Name: C765 BENZO(B)FLUORANTHENE
Scan Number: 2032
Retention Time: 25.56 min.
Quant Ion: 252.0
Area: 13882
Concentration: 3.18 NG/UL
q-value: 95

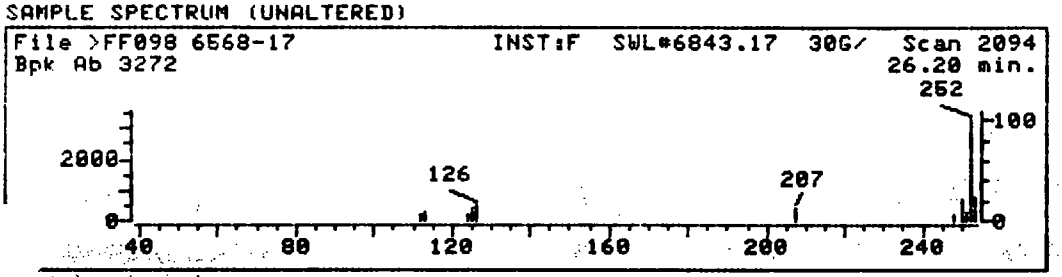
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >FF098::D6 Quant Output File: ^FF098::D7
Name: 6568-17
Misc: INST:F SWL#6843.17 30G/1ML/1UL BTL#10
Quant Time: 910813 22:51 Quant ID File: ID_BN2::EX
Injected at: 910813 22:16 Last Calibration: 910813 16:27

Compound No: 75
Compound Name: C775 BENZO(A)PYRENE
Scan Number: 2094
Retention Time: 26.20 min.
Quant Ion: 252.0
Area: 8720
Concentration: 2.10 NG/UL
q-value: 95

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: 6568G-018

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 685318

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF099

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 10 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/13/91

GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	730	U
111-44-4	bis(2-Chloroethyl)Ether	730	U
95-57-8	2-Chlorophenol	730	U
541-73-1	1,3-Dichlorobenzene	730	U
106-46-7	1,4-Dichlorobenzene	730	U
100-51-6	Benzyl Alcohol	730	U
95-50-1	1,2-Dichlorobenzene	730	U
95-48-7	2-Methylphenol	730	U
108-60-1	bis(2-Chloroisopropyl)ether	730	U
106-44-5	4-Methylphenol	730	U
621-64-7	N-Nitroso-Di-n-Propylamine	730	U
67-72-1	Hexachloroethane	730	U
98-95-3	Nitrobenzene	730	U
78-59-1	Isophorone	730	U
88-75-5	2-Nitrophenol	730	U
105-67-9	2,4-Dimethylphenol	730	U
65-85-0	Benzoic Acid	3600	U
111-91-1	bis(2-Chloroethoxy)Methane	730	U
120-83-2	2,4-Dichlorophenol	730	U
120-82-1	1,2,4-Trichlorobenzene	730	U
91-20-3	Naphthalene	730	U
106-47-8	4-Chloroaniline	730	U
87-68-3	Hexachlorobutadiene	730	U
59-50-7	4-Chloro-3-Methylphenol	730	U
91-57-6	2-Methylnaphthalene	730	U
77-47-4	Hexachlorocyclopentadiene	730	U
88-06-2	2,4,6-Trichlorophenol	730	U
95-95-4	2,4,5-Trichlorophenol	3600	U
91-58-7	2-Chloronaphthalene	730	U
88-74-4	2-Nitroaniline	3600	U
131-11-3	Dimethyl Phthalate	730	U
208-96-8	Acenaphthylene	730	U
606-20-2	2,6-Dinitrotoluene	730	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-018

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 685318

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF099

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 10 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/13/91

GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3600	U
83-32-9	Acenaphthene	730	U
51-28-5	2,4-Dinitrophenol	3600	U
100-02-7	4-Nitrophenol	3600	U
132-64-9	Dibenzofuran	730	U
121-14-2	2,4-Dinitrotoluene	730	U
84-66-2	Diethylphthalate	730	U
7005-72-3	4-Chlorophenyl-phenylether	730	U
86-73-7	Fluorene	730	U
100-01-6	4-Nitroaniline	3600	U
534-52-1	4,6-Dinitro-2-Methylphenol	3600	U
86-30-6	N-Nitrosodiphenylamine (1)	730	U
101-55-3	4-Bromophenyl-phenylether	730	U
118-74-1	Hexachlorobenzene	730	U
87-86-5	Pentachlorophenol	3600	U
85-01-8	Phenanthrene	730	U
120-12-7	Anthracene	730	U
84-74-2	Di-n-Butylphthalate	730	U
206-44-0	Fluoranthene	730	U
129-00-0	Pyrene	73	J
85-68-7	Butylbenzylphthalate	730	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)Anthracene	730	U
218-01-9	Chrysene	730	U
117-81-7	bis(2-Ethylhexyl)Phthalate	730	U
117-84-0	Di-n-Octyl Phthalate	730	U
205-99-2	Benzo(b)Fluoranthene	730	U
207-08-9	Benzo(k)Fluoranthene	730	U
50-32-8	Benzo(a)Pyrene	730	U
193-39-5	Indeno(1,2,3-cd)Pyrene	730	U
53-70-3	Dibenz(a,h)Anthracene	730	U
191-24-2	Benzo(g,h,i)Perylene	730	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-018

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 685318

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF099

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 10 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/13/91

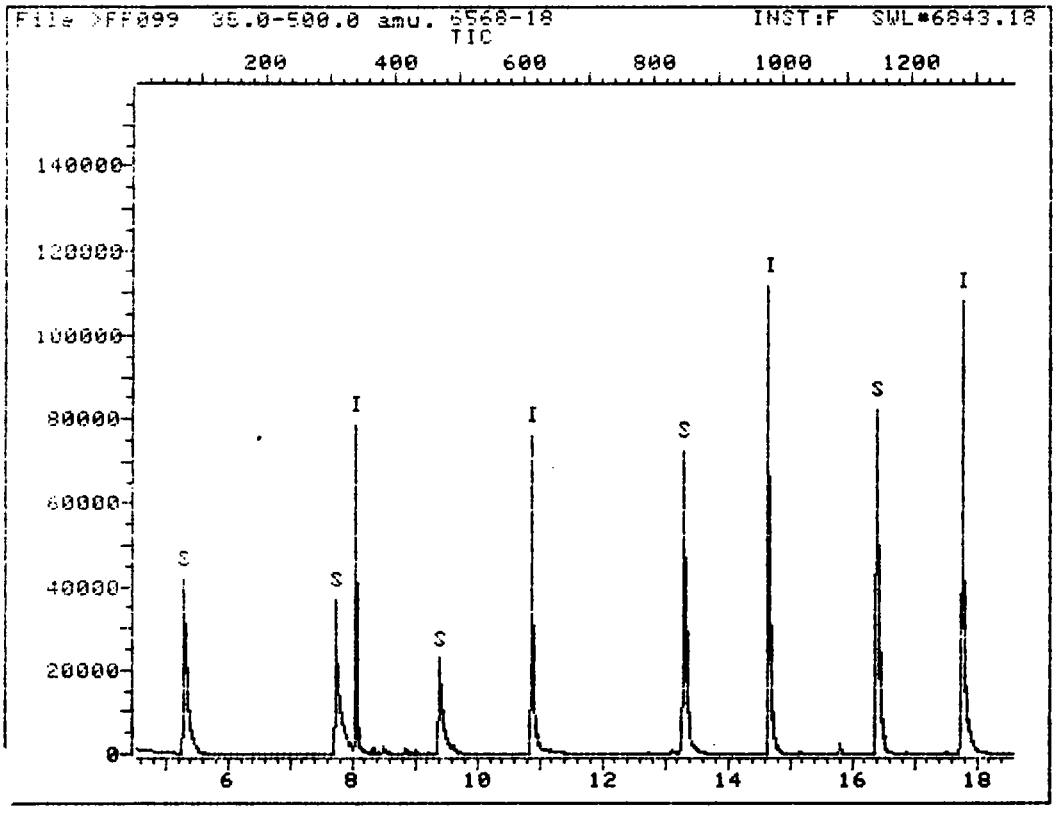
GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN COMPOUND	29.29	1000	J

TOTAL ION CHROMATOGRAM



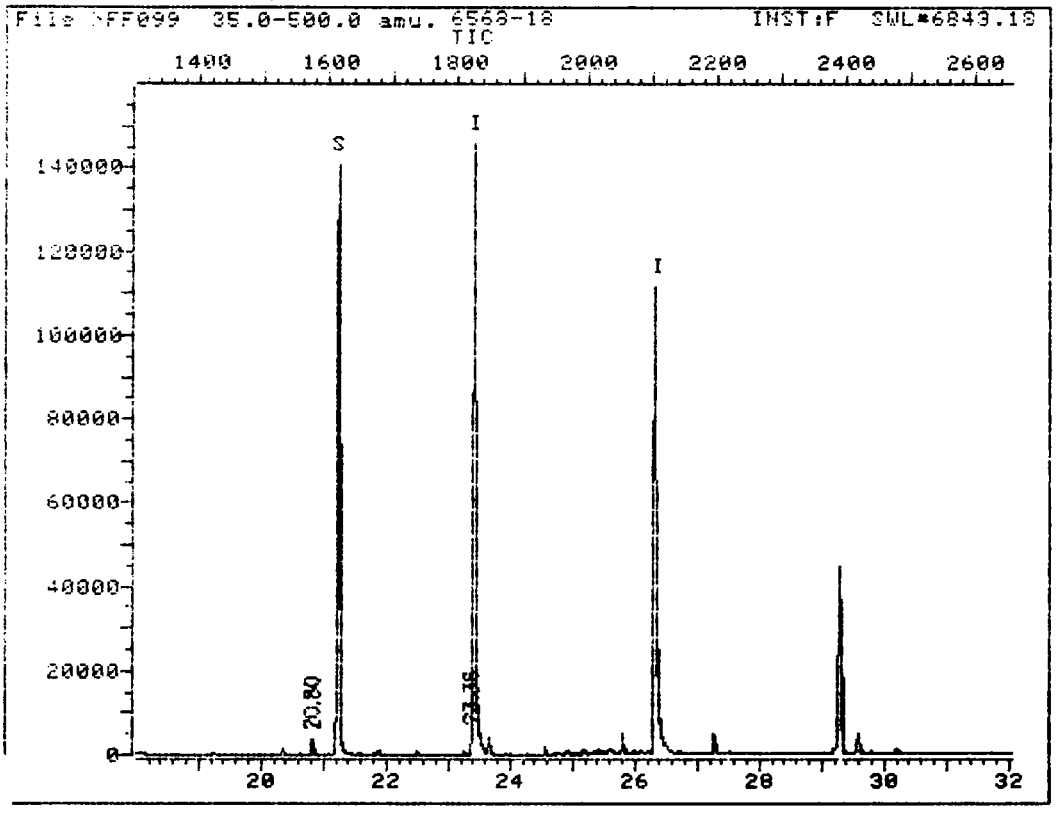
Data File: >FF099::D6 Quant Output File: ^FF099::D7
Name: 6568-18
Misc: INST:F SWL#6843.18 30G/1ML/1UL BTL#11

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 23:31
Injected at: 910813 22:56

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >FF099::D6 Quant Output File: ^FF099::D7
Name: 6568-18
Misc: INST:F SWL#6843.18 30G/1ML/1UL BTL#11

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 23:31
Injected at: 910813 22:56

TIC page 2 of 2

QUANT REPORT

Operator Id: LINDA Quant Rev: y Quant Time: 10815 13:11
Output File: F0281.D Injected at: 10815 22:50
Acq File: ...F0281.D Dilution Factor: 1.00000
Name: 1000 ng
Misc: WL#6043.18 500 ML/1UL Vial#11

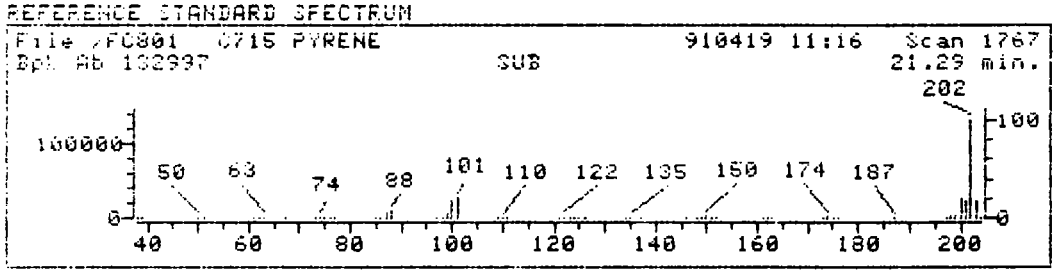
Data File: D_LN1:[...]
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 10813 10:27

		Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*C150	1,4-DICHLOROBENZENE-D4	8.04	540	27958	40.00	NG/UL	94
15)	CS50	2-FLUOROPHENOL	5.28	74	45494	75.74	NG/UL	90
16)	CS45	PHENOL-D5	7.71	508	71465	83.55	NG/UL	88
21)	*C140	NAPHTHALENE-D8	10.86	612	105323	40.00	NG/UL	98
31)	CS20	NITROBENZENE-D5	9.39	470	33238	33.87	NG/UL	89
42)	*C150	ACENAPHTHENE-D10	14.64	977	74965	40.00	NG/UL	98
43)	CS25	2-FLUOROBIPHENYL	13.28	846	67897	35.27	NG/UL	97
52)	CS55	2,4,6-TRIBROMOPHENOL	16.58	1145	42537	129.52	NG/UL	93
53)	*C160	PHENANTHRENE-D10	17.75	1277	158814	40.00	NG/UL	91
62)	*C170	CHRYSENE-D12	23.40	1823	166607M	40.00	NG/UL	93
64)	C715	PYRENE	20.80	1572	5201	.98	NG/UL	85
~~67)~~	~~C730~~	~~BENZO(A)ANTHRACENE~~	~~23.36~~	~~1819~~	2660	.57	NG/UL	~~94~~
70)	CS30	TERPHENYL-D14	21.21	1612	134200	40.56	NG/UL	90
71)	*C175	PERYLENE-D12	26.32	2105	158278	40.00	NG/UL	97

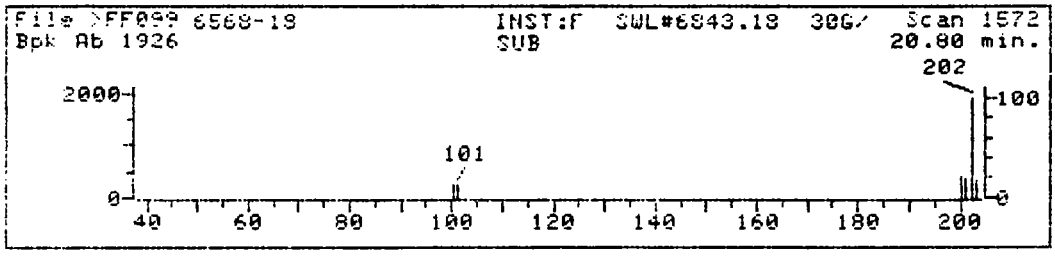
* Compound is ISTD

0281

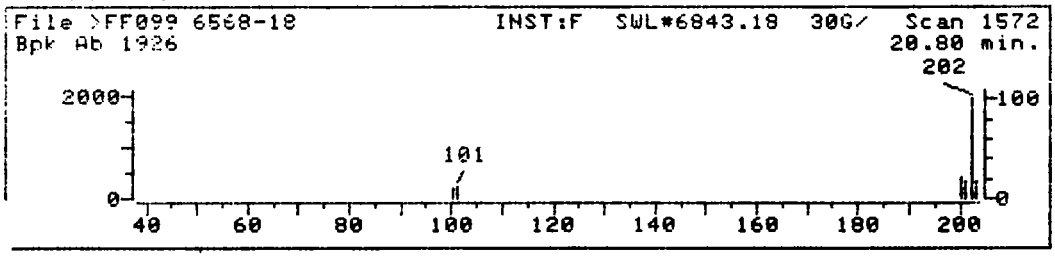
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >FF099::D6 Quant Output File: ^FF099::D7
Name: 6568-18
Misc: INST:F SWL#6843.18 30G/1ML/1UL BTL#11
Quant Time: 910813 23:31 Quant ID File: ID_BN2::EX
Injected at: 910813 22:56 Last Calibration: 910813 16:27

Compound No: 64
Compound Name: C715 PYRENE
Scan Number: 1572
Retention Time: 20.80 min.
Quant Ion: 202.0
Area: 5201
Concentration: .94 NG/UL
q-value: 85

MS data file header from : >FF099

Sample: 6568-18 Operator: LINDA MS 8/13/91 22:56
Misc : INST:F SWL#6843.18 30G/1ML/1UL BTL#11
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: #STDF Tuning file: F2TUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 300 Transfer line temp. : 0

Chromatographic temperatures : 45. 300. 0. 0. 0.
Chromatographic times, min. : 4.0 9.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 12.0 0.0 0.0 0.0 0.0

FF099 6568-18 INST:F SWL#6843.18 30G/1ML/1UL
35.01 500.0 CLP ADC TIC
Upslope: .20 Area Reject: 16834. Max Peaks: 1 Bunching: 1
Onslope: 0.00 Results File IFF099 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	29.28	2385	2391	2396	44280	130323	127552	100.00	100.000

Sum of corrected areas: 127552.

Summary of Unknowns PBM Library Search and Quantitation

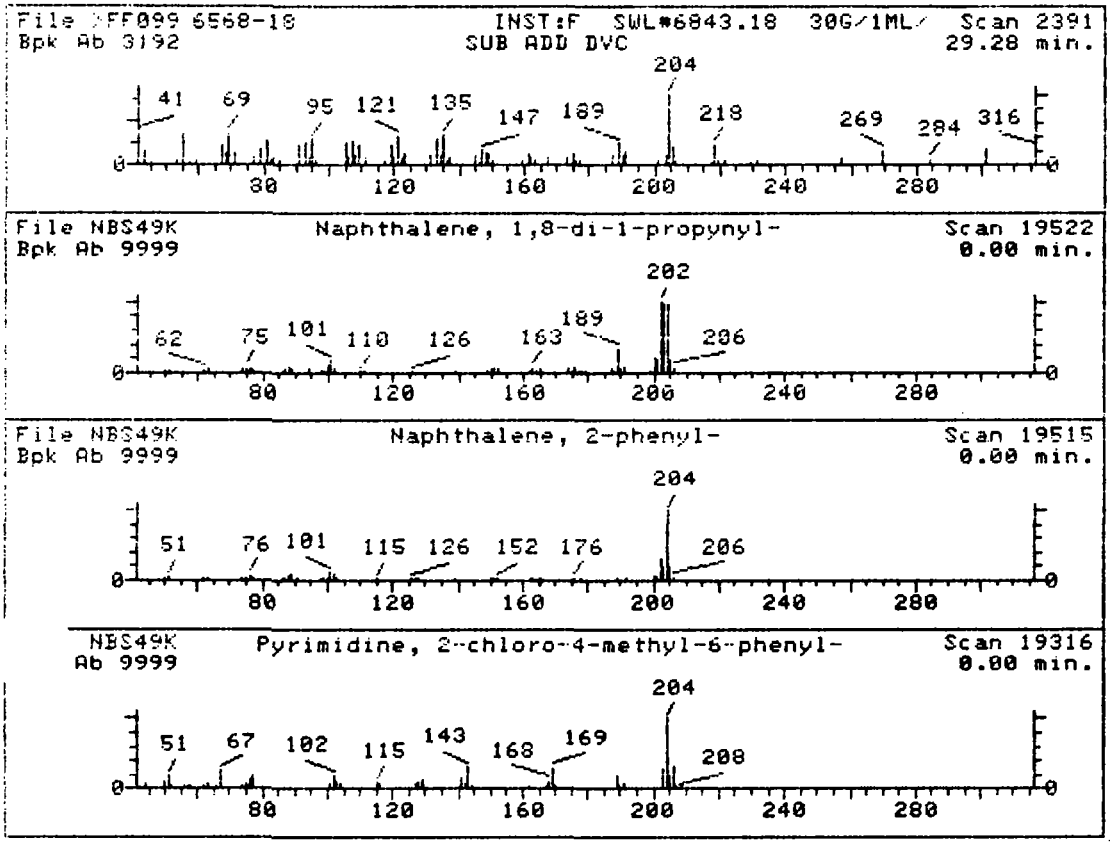
Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	168338.	8.04	4.53 - 9.45
2	40.0	206929.	10.86	9.45 - 12.75
3	40.0	297836.	14.64	12.75 - 16.19
4	40.0	356273.	17.74	16.19 - 20.57
5	40.0	412333.	23.40	20.57 - 24.86
6	40.0	352732.	26.32	24.86 - 32.04

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

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

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

12:18 AM WED., 14 AUG., 1991



UNKNOWN

Sample: 6568-18 Operator: LINDA MS 8/13/91 22:56

. Unknown #,1
Area = 127552.0 Tentative Concentration is 14.00

1.	Naphthalene, 1,8-di-1-propynyl-	204	C16H12
2.	Naphthalene, 2-phenyl-	204	C16H12
3.	Pyrimidine, 2-chloro-4-methyl-6-phenyl-	204	C11H9ClN2
4.	1,4-Naphthalenedione, 5,8-dihydroxy-2-methyl-	204	C11H8O4
5.	Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, (1.alpha.,4a.alpha.,8a.alpha.)-	204	C15H24
6.	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylethenyl)-, [1R-(1.alpha.,7.beta.,8a.alpha.)]-	204	C15H24
7.	[1,1'-Biphenyl]-4,4'-dicarbonitrile	204	C14H8N2

0284

Sample file: >FF099 Spectrum #: 2391
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

65686-019

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 65686 SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684319

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF100

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 8 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/13/91

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 2.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1400	U
111-44-4	bis(2-Chloroethyl)Ether	1400	U
95-57-8	2-Chlorophenol	1400	U
541-73-1	1,3-Dichlorobenzene	1400	U
106-46-7	1,4-Dichlorobenzene	1400	U
100-51-6	Benzyl Alcohol	1400	U
95-50-1	1,2-Dichlorobenzene	1400	U
95-48-7	2-Methylphenol	1400	U
108-60-1	bis(2-Chloroisopropyl)ether	1400	U
106-44-5	4-Methylphenol	1400	U
621-64-7	N-Nitroso-Di-n-Propylamine	1400	U
67-72-1	Hexachloroethane	1400	U
98-95-3	Nitrobenzene	1400	U
78-59-1	Isophorone	1400	U
88-75-5	2-Nitrophenol	1400	U
105-67-9	2,4-Dimethylphenol	1400	U
65-85-0	Benzoic Acid	7000	U
111-91-1	bis(2-Chloroethoxy)Methane	1400	U
120-83-2	2,4-Dichlorophenol	1400	U
120-82-1	1,2,4-Trichlorobenzene	1400	U
91-20-3	Naphthalene	760	J
106-47-8	4-Chloroaniline	1400	U
87-68-3	Hexachlorobutadiene	1400	U
59-50-7	4-Chloro-3-Methylphenol	1400	U
91-57-6	2-Methylnaphthalene	580	J
77-47-4	Hexachlorocyclopentadiene	1400	U
88-06-2	2,4,6-Trichlorophenol	1400	U
95-95-4	2,4,5-Trichlorophenol	7000	U
91-58-7	2-Chloronaphthalene	1400	U
88-74-4	2-Nitroaniline	7000	U
131-11-3	Dimethyl Phthalate	1400	U
208-96-8	Acenaphthylene	4900	
606-20-2	2,6-Dinitrotoluene	1400	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-019

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684319

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF100

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 8 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/13/91

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 2.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	7000	U
83-32-9	Acenaphthene	350	J
51-28-5	2,4-Dinitrophenol	7000	U
100-02-7	4-Nitrophenol	7000	U
132-64-9	Dibenzofuran	1400	U
121-14-2	2,4-Dinitrotoluene	1400	U
84-66-2	Diethylphthalate	1400	U
7005-72-3	4-Chlorophenyl-phenylether	1400	U
86-73-7	Fluorene	800	J
100-01-6	4-Nitroaniline	7000	U
534-52-1	4,6-Dinitro-2-Methylphenol	7000	U
86-30-6	N-Nitrosodiphenylamine (1)	1400	U
101-55-3	4-Bromophenyl-phenylether	1400	U
118-74-1	Hexachlorobenzene	1400	U
87-86-5	Pentachlorophenol	7000	U
85-01-8	Phenanthrene	2000	
120-12-7	Anthracene	1800	
84-74-2	Di-n-Butylphthalate	1400	U
206-44-0	Fluoranthene	12000	
129-00-0	Pyrene	16000	
85-68-7	Butylbenzylphthalate	1400	U
91-94-1	3,3'-Dichlorobenzidine	2900	U
56-55-3	Benzo(a)Anthracene	14000	
218-01-9	Chrysene	11000	
117-81-7	bis(2-Ethylhexyl)Phthalate	1400	U
117-84-0	Di-n-Octyl Phthalate	1400	U
205-99-2	Benzo(b)Fluoranthene	21000	
207-08-9	Benzo(k)Fluoranthene	1400	U
50-32-8	Benzo(a)Pyrene	9200	
193-39-5	Indeno(1,2,3-cd)Pyrene	4800	
53-70-3	Dibenz(a,h)Anthracene	1500	
191-24-2	Benzo(g,h,i)Perylene	4800	

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-019

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684319

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF100

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 8 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/13/91

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 2.0

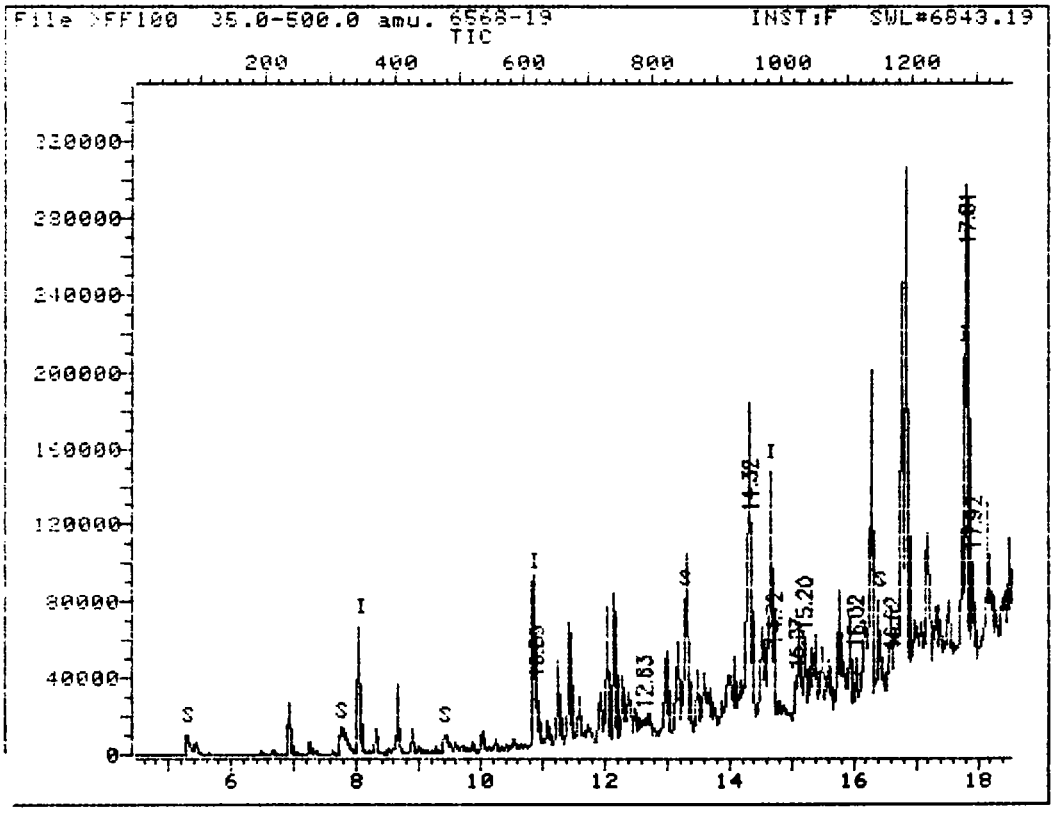
Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN HYDROCARBON	16.27	5400	J
2.		UNKNOWN HYDROCARBON	16.79	7200	J
3.		UNKNOWN HYDROCARBON	16.85	8700	J
4.		UNKNOWN COMPOUND	17.19	3900	J
5.		UNKNOWN COMPOUND	19.12	6500	J
6.		UNKNOWN COMPOUND	20.30	4200	J
7.		UNKNOWN COMPOUND	20.59	5500	J
8.		UNKNOWN PNA	21.10	1900	J
9.		UNKNOWN PNA	21.39	2900	J
10.		UNKNOWN PNA	21.64	5500	J
11.		UNKNOWN PNA	21.75	2900	J
12.		UNKNOWN PNA	21.84	3600	J
13.		UNKNOWN PNA	22.02	2600	J
14.		UNKNOWN PNA	22.09	2200	J
15.		UNKNOWN PNA	24.30	2600	J
16.		UNKNOWN PNA	24.59	1900	J
17.		UNKNOWN PNA	26.29	4300	J
18.		UNKNOWN COMPOUND	26.67	3300	J
19.		UNKNOWN COMPOUND	27.59	5100	J
20.		UNKNOWN COMPOUND	28.37	6500	J

c

TOTAL ION CHROMATOGRAM



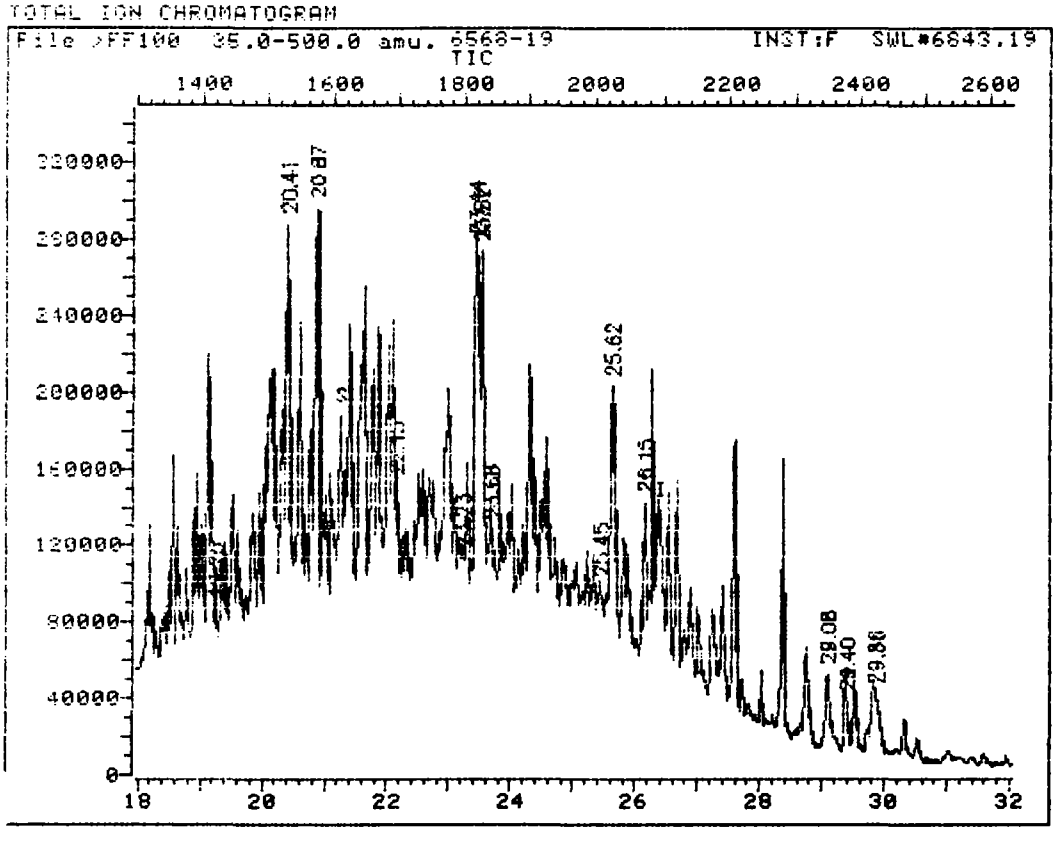
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910814 00:11
Injected at: 910813 23:36

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910814 00:11
Injected at: 910813 23:36

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA Quant Rev: 6 Quant Time: 910814 00:11
Output File: ^FF100::D7 Injected at: 910813 23:36
Data File: >FF100::D6 Dilution Factor: 1.00000
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	8.04	152.0	29495	40.00	NG/UL	93
15)	CS50 2-FLUOROPHENOL	5.28	112.0	16781	26.46	NG/UL	88
16)	CS45 PHENOL-D5	7.75	99.0	24096	26.68	NG/UL	89
17)	*CI40 NAPHTHALENE-D8	10.85	136.0	117016	40.00	NG/UL	97
26)	C450 NAPHTHALENE	10.89	128.0	14856	5.27	NG/UL	98
30)	C470 2-METHYLNAPHTHALENE	12.63	142.0	10073	4.03	NG/UL	99
31)	CS20 NITROBENZENE-D5	9.40	82.0	10439	9.57	NG/UL	88
32)	*CI50 ACENAPHTHENE-D10	14.65	164.0	64834	40.00	NG/UL	99
39)	C540 ACENAPHTHYLENE	14.32	152.0	95824	33.96	NG/UL	98
[illegible])	C550 ACENAPHTHENE	14.72	153.0	3968	2.40	NG/UL	96
	~~C565 DIBENZOFURAN~~	~~15.07~~	~~168.0~~	~~4302~~	~~1.60~~	~~NG/UL~~	~~72~~
~~46)~~	~~C570 2,4-DINITROTOLUENE~~	~~15.20~~	~~165.0~~	~~993~~	~~1.28~~	~~NG/UL~~	~~78~~
49)	C590 FLUORENE	16.02	166.0	9438	5.53	NG/UL	94
51)	CS25 2-FLUOROBIPHENYL	13.28	172.0	38907	18.05	NG/UL	96
52)	CS55 2,4,6-TRIBROMOPHENOL	16.40	329.8	19963	70.17	NG/UL	92
53)	*CI60 PHENANTHRENE-D10	17.77	188.0	135490	40.00	NG/UL	91
~~54)~~	~~C610 4,6-DINITRO-2-METHYLPHENO~~	~~16.62~~	~~198.0~~	~~307~~	~~.58~~	~~NG/UL~~	~~100~~
59)	C640 PHENANTHRENE	17.81	178.0	48388	13.74	NG/UL	96
60)	C645 ANTHRACENE	17.92	178.0	42245	12.18	NG/UL	96
~~61)~~	~~C650 DI-N-BUTYLPHTHALATE~~	~~19.25~~	~~149.0~~	~~1845~~	~~.36~~	~~NG/UL~~	~~85~~
62)	C655 FLUORANTHENE	20.41	202.0	311903	80.52	NG/UL	83
63)	*CI70 CHRYSENE-D12	23.47	240.0	101567	40.00	NG/UL	92
64)	C715 PYRENE	20.87	202.0	356613	110.59	NG/UL	80
~~65)~~	~~C720 BUTYLBENZYLPHTHALATE~~	22.15	149.0	1086	.55	NG/UL	92
~~66)~~	~~C725 3,3'-DICHLOROBENZIDINE~~	~~23.23~~	~~252.0~~	~~547~~	~~1.85~~	~~NG/UL~~	~~88~~
67)	C730 BENZO(A)ANTHRACENE	23.44	228.0	267259	94.01	NG/UL	86
68)	C740 CHRYSENE	23.52	228.0	202463	74.16	NG/UL	92
~~69)~~	~~C745 BIS(2-ETHYLHEXYL)PHTHALAT~~	~~23.68~~	~~149.0~~	~~1702~~	~~.62~~	~~NG/UL~~	~~88~~
70)	CS30 TERPHENYL-D14	21.25	244.0	57461	28.48	NG/UL	86
71)	*CI75 PERYLENE-D12	26.38	264.0	64969	40.00	NG/UL	95
~~72)~~	~~C760 DI-N-OCTYLPHTHALATE~~	~~25.45~~	~~149.0~~	~~893~~	~~.31~~	~~NG/UL~~	~~100~~
73)	C765 BENZO(B)FLUORANTHENE **	25.62	252.0	257298	143.15	NG/UL	91
~~74)~~	~~C770 BENZO(K)FLUORANTHENE~~	~~25.62~~	~~252.0~~	~~252563~~	~~141.50~~	~~NG/UL~~	~~84~~
75)	C775 BENZO(A)PYRENE	26.15	252.0	108407	63.40	NG/UL	90
76)	C780 INDENO(1,2,3-CD)PYRENE	29.08	276.0	63352	33.51	NG/UL	91
	C785 DIBENZ(A,H)ANTHRACENE	29.40	278.0	15005	10.15	NG/UL	92
	C790 BENZO(G,H,I)PERYLENE	29.86	276.0	55743	33.03	NG/UL	92

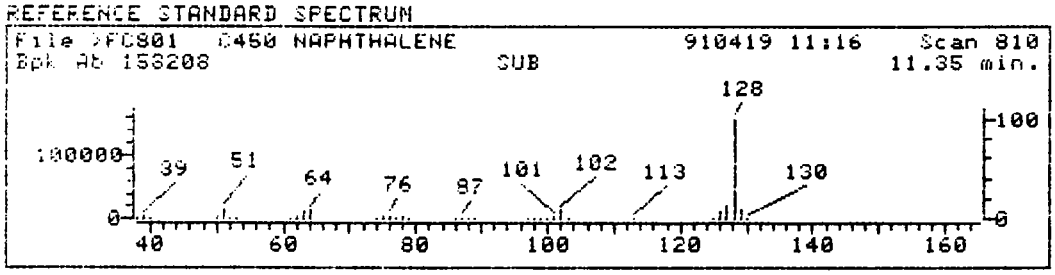
* Compound is ISTD

** TOTAL BENZO(B,K)FLUORANTHENE

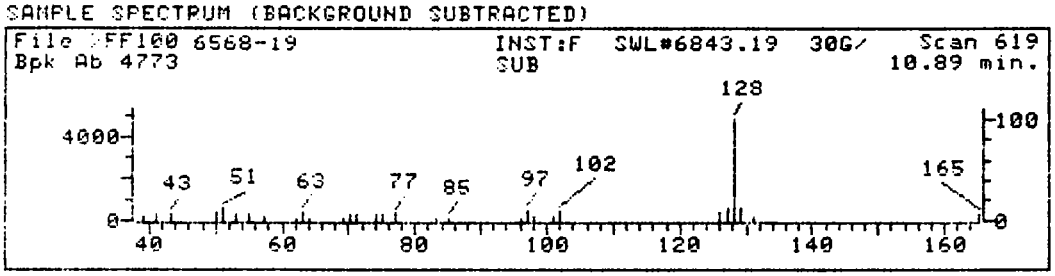
0290

FALSE POSITIVE

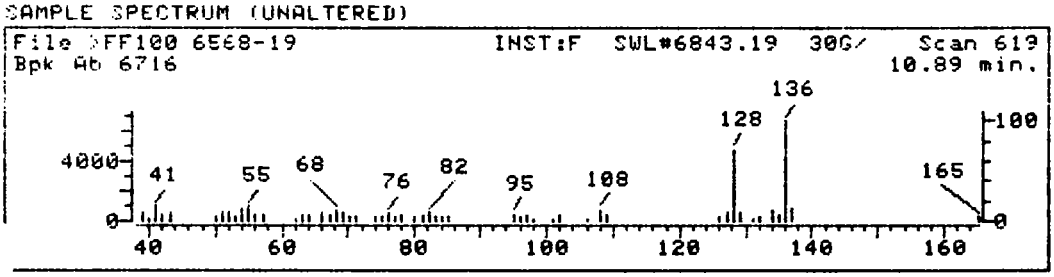
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



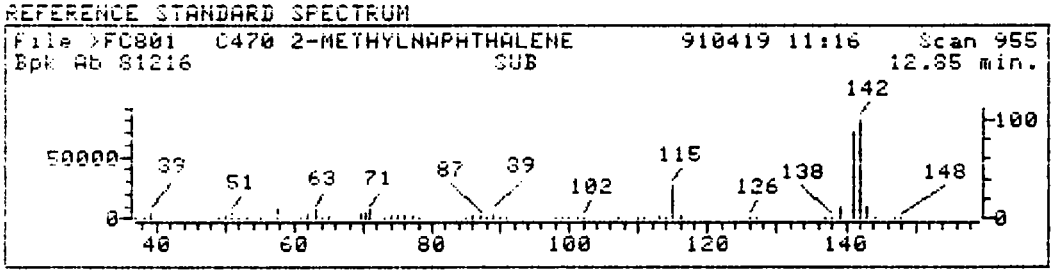
SAMPLE SPECTRUM (UNALTERED)



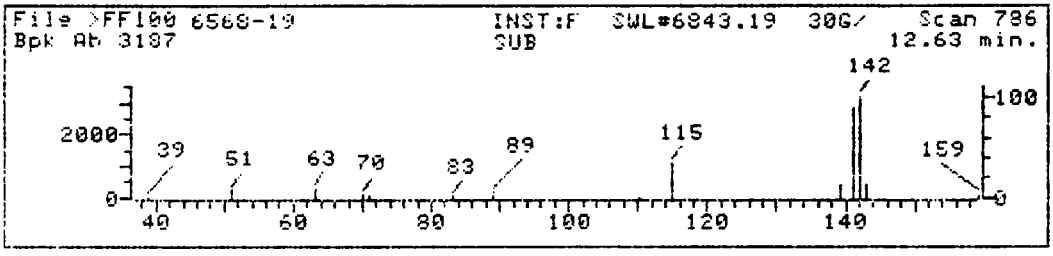
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 26
Compound Name: C450 NAPHTHALENE
Scan Number: 619
Retention Time: 10.89 min.
Quant Ion: 128.0
Area: 14856
Concentration: 5.27 NG/UL
q-value: 98

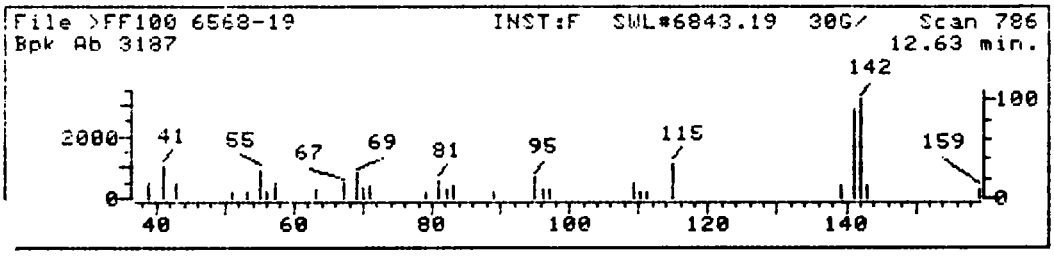
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



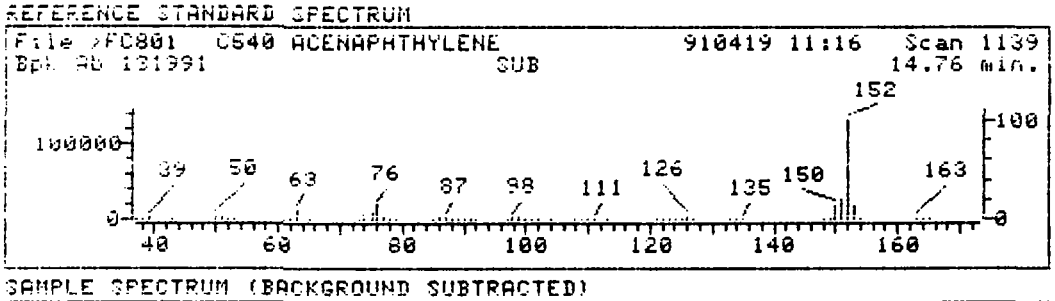
SAMPLE SPECTRUM (UNALTERED)



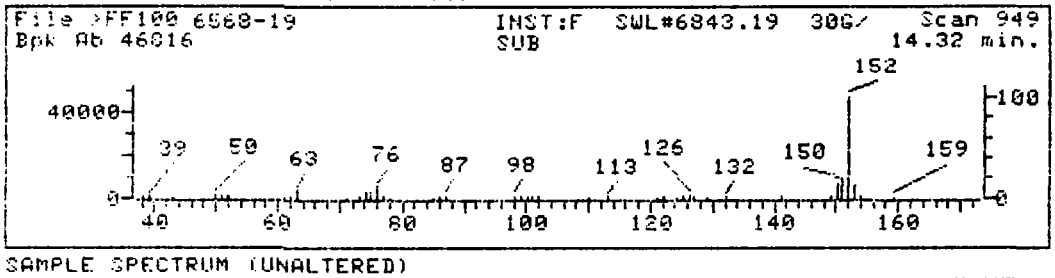
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 30
Compound Name: C470 2-METHYLNAPHTHALENE
Scan Number: 786
Retention Time: 12.63 min.
Quant Ion: 142.0
Area: 10073
Concentration: 4.03 NG/UL
q-value: 99

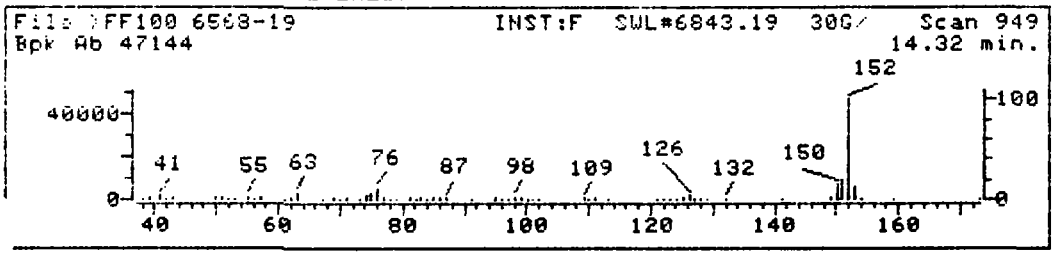
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



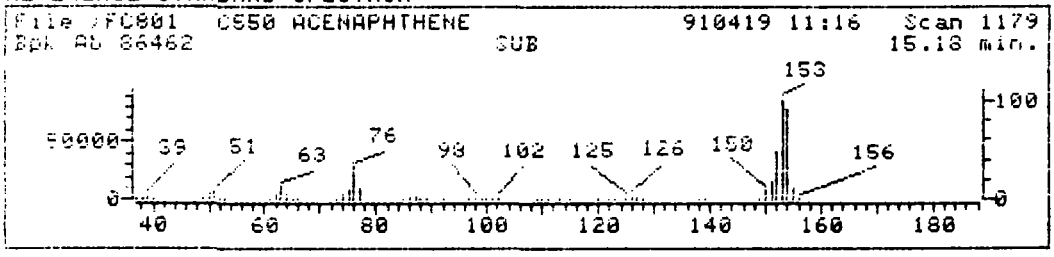
SAMPLE SPECTRUM (UNALTERED)



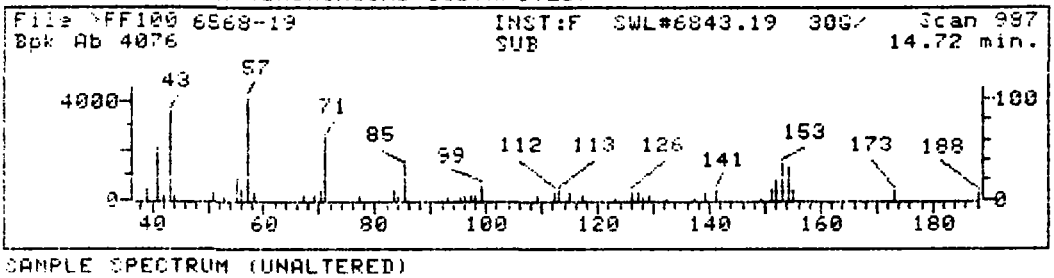
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 39
Compound Name: C540 ACENAPHTHYLENE
Scan Number: 949
Retention Time: 14.32 min.
Quant Ion: 152.0
Area: 95824
Concentration: 33.96 NG/UL
q-value: 98

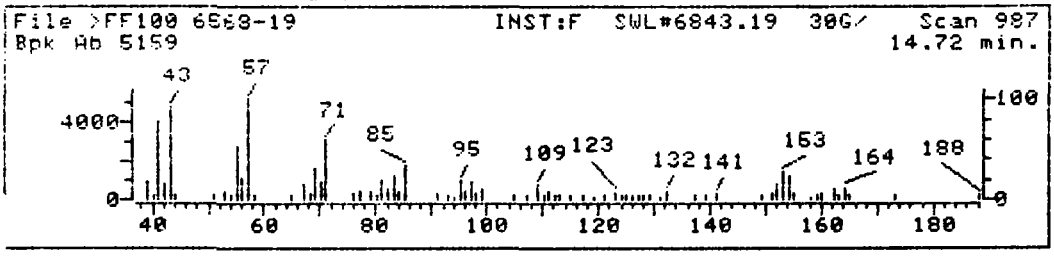
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



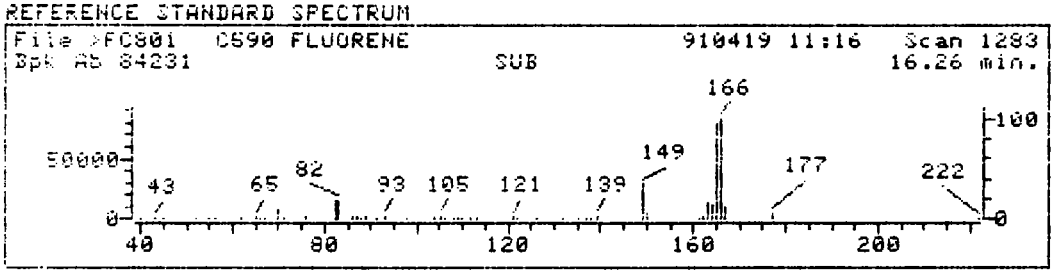
SAMPLE SPECTRUM (UNALTERED)



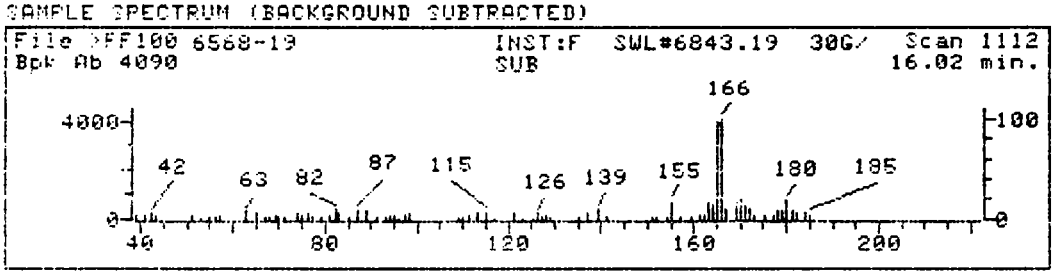
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 42
Compound Name: C550 ACENAPHTHENE
Scan Number: 987
Retention Time: 14.72 min.
Quant Ion: 153.0
Area: 3968
Concentration: 2.40 NG/UL
q-value: 96

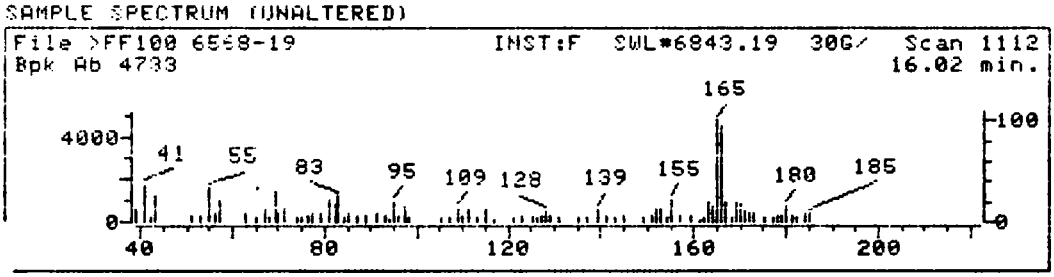
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



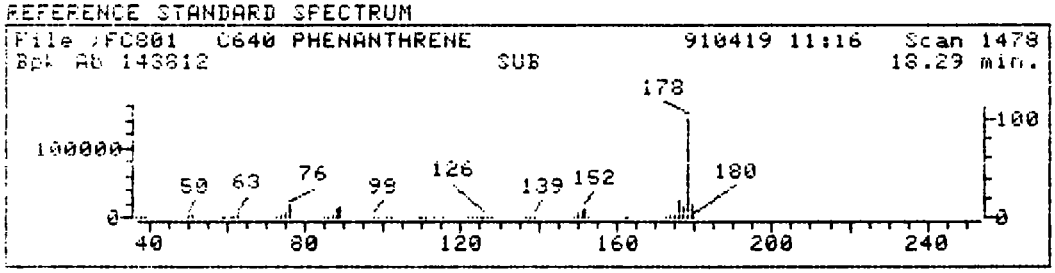
SAMPLE SPECTRUM (UNALTERED)



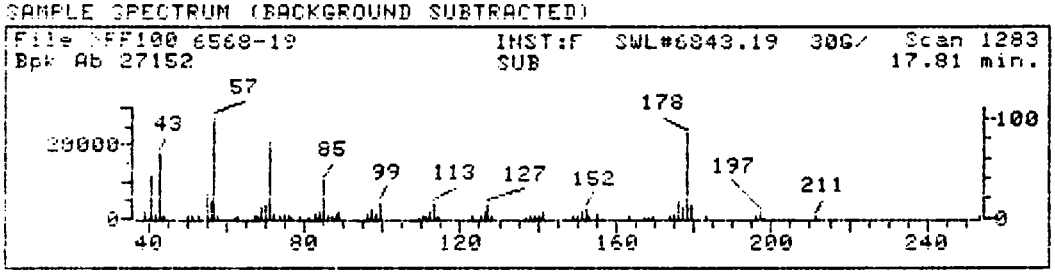
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 49
Compound Name: C590 FLUORENE
Scan Number: 1112
Retention Time: 16.02 min.
Quant Ion: 166.0
Area: 9438
Concentration: 5.53 NG/UL
q-value: 94

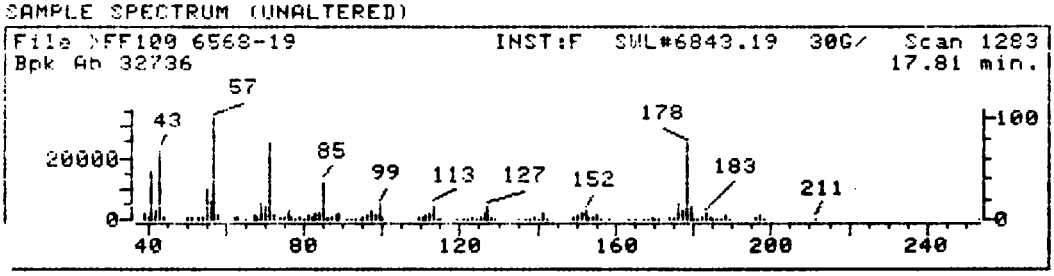
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



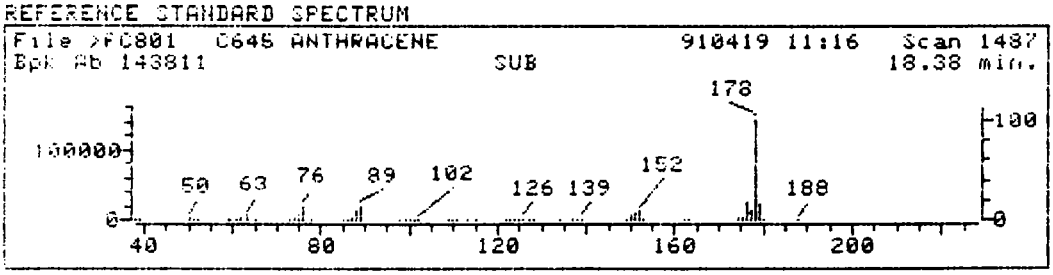
SAMPLE SPECTRUM (UNALTERED)



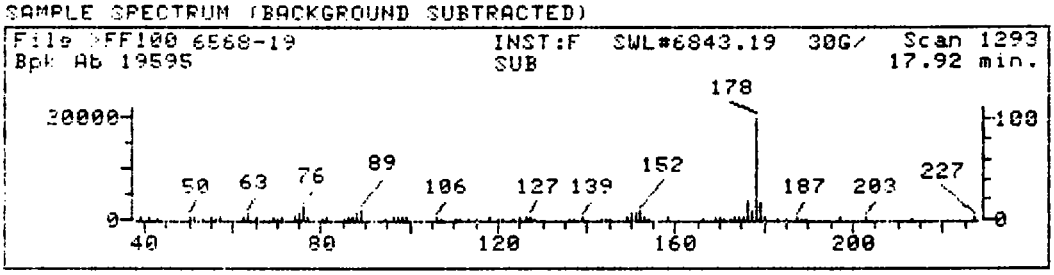
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 59
Compound Name: C640 PHENANTHRENE
Scan Number: 1283
Retention Time: 17.81 min.
Quant Ion: 178.0
Area: 48388
Concentration: 13.74 NG/UL
q-value: 96

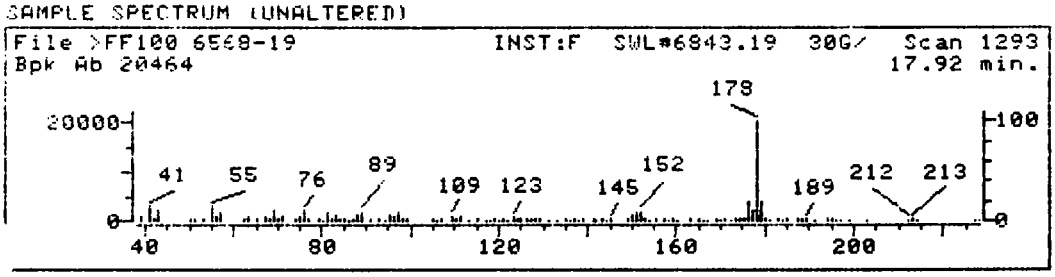
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



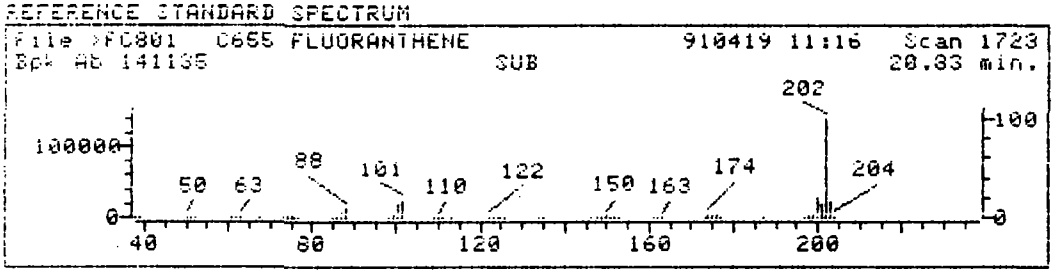
SAMPLE SPECTRUM (UNALTERED)



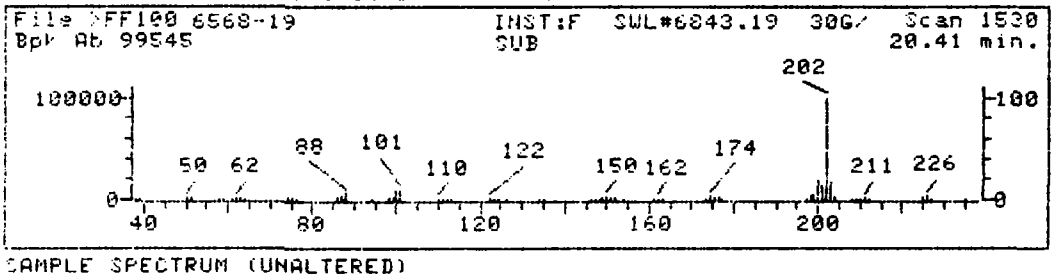
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 60
Compound Name: C645 ANTHRACENE
Scan Number: 1293
Retention Time: 17.92 min.
Quant Ion: 178.0
Area: 42245
Concentration: 12.18 NG/UL
q-value: 96

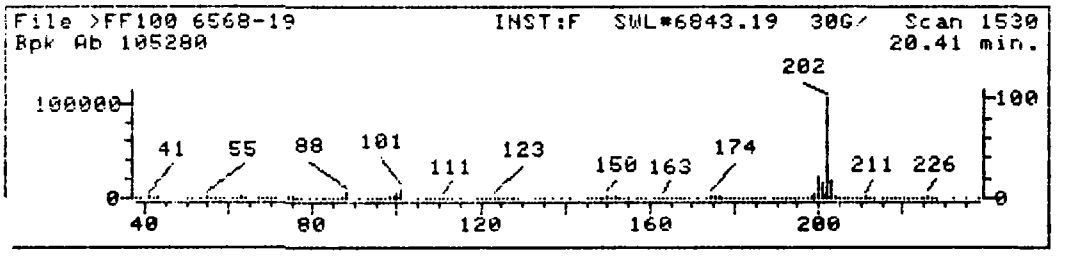
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



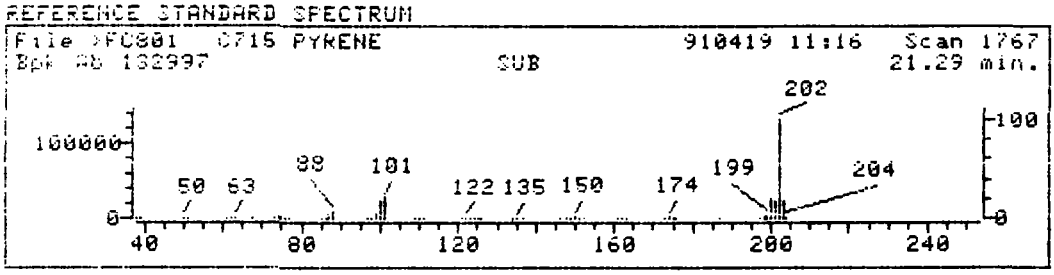
SAMPLE SPECTRUM (UNALTERED)



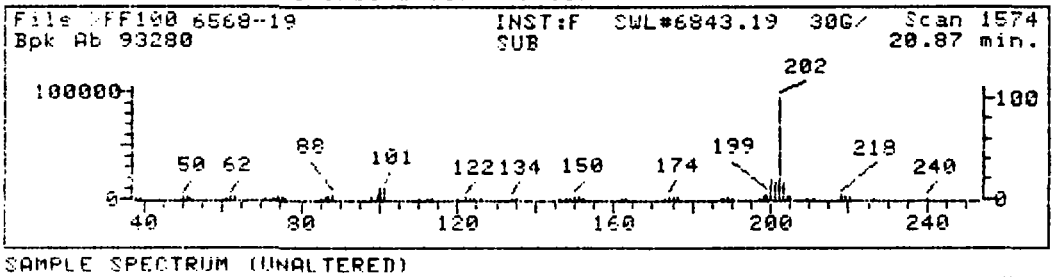
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 62
Compound Name: C655 FLUORANTHENE
Scan Number: 1530
Retention Time: 20.41 min.
Quant Ion: 202.0
Area: 311903
Concentration: 80.52 NG/UL
q-value: 83

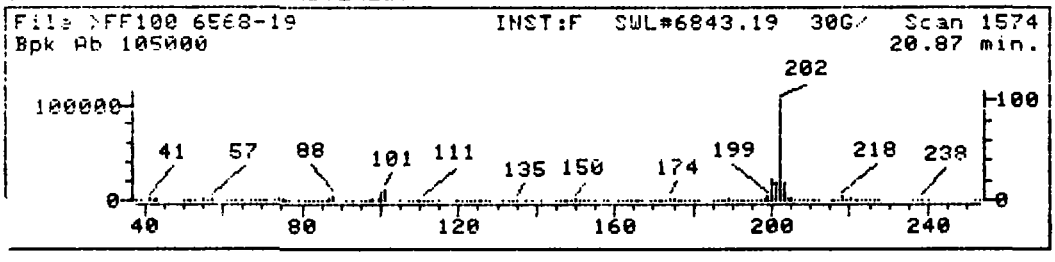
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



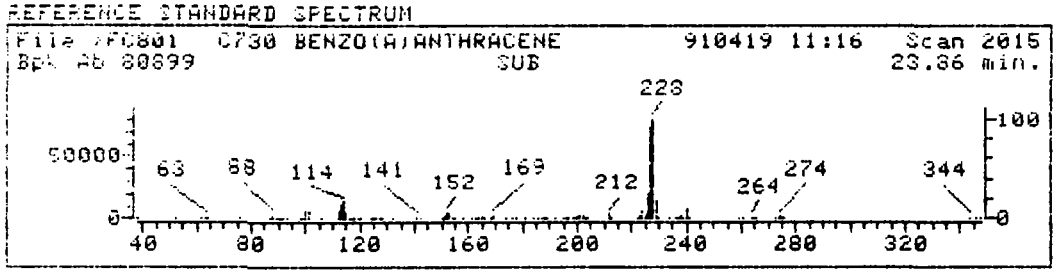
SAMPLE SPECTRUM (UNALTERED)



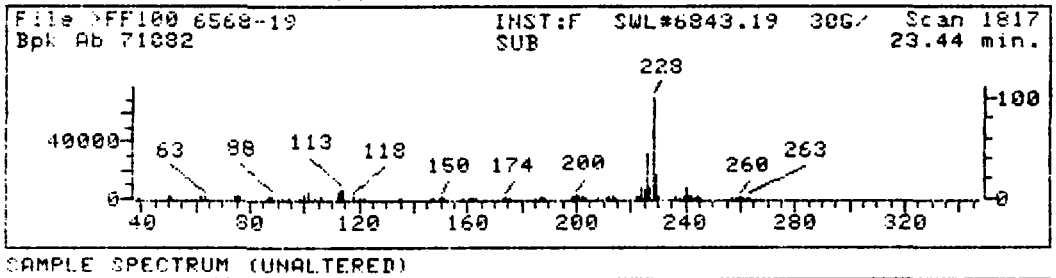
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 64
Compound Name: C715 PYRENE
Scan Number: 1574
Retention Time: 20.87 min.
Quant Ion: 202.0
Area: 356613
Concentration: 110.59 NG/UL
q-value: 80

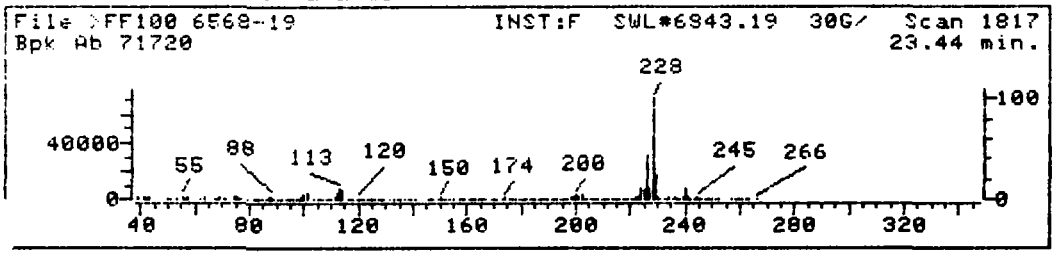
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



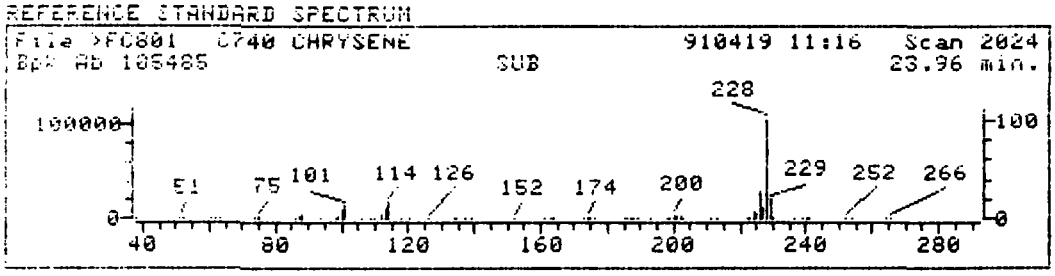
SAMPLE SPECTRUM (UNALTERED)



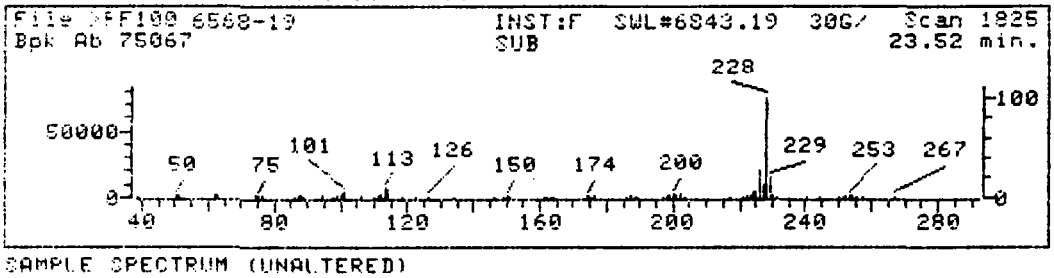
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 67
Compound Name: C730 BENZO(A)ANTHRACENE
Scan Number: 1817
Retention Time: 23.44 min.
Quant Ion: 228.0
Area: 267259
Concentration: 94.01 NG/UL
q-value: 86

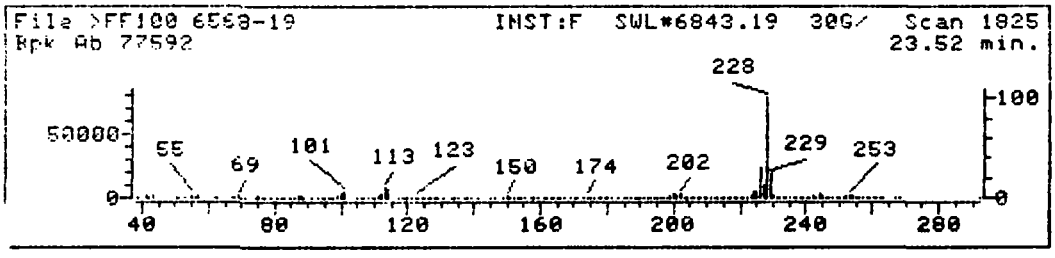
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



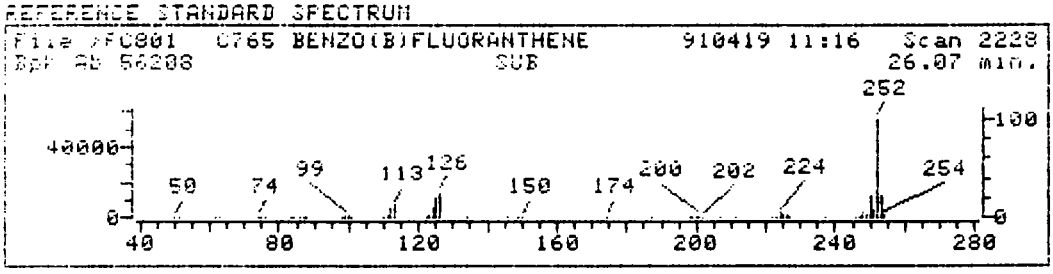
SAMPLE SPECTRUM (UNALTERED)



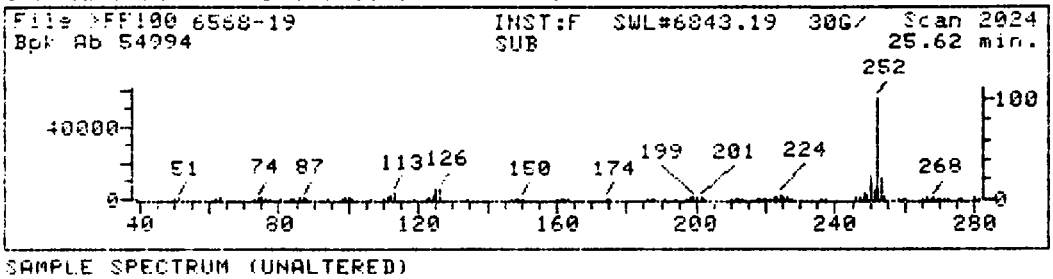
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 68
Compound Name: C740 CHRYSENE
Scan Number: 1825
Retention Time: 23.52 min.
Quant Ion: 228.0
Area: 202463
Concentration: 74.16 NG/UL
q-value: 92

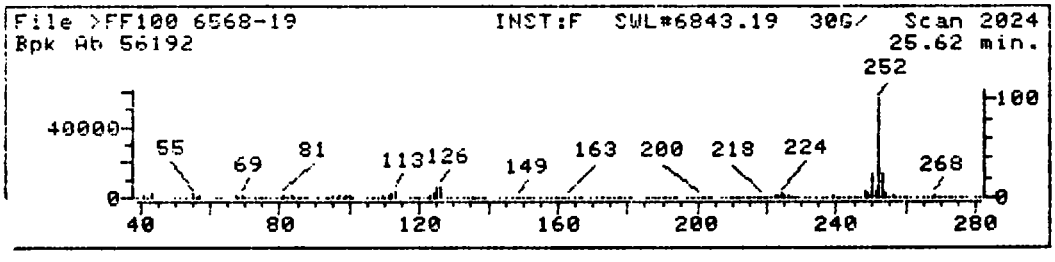
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



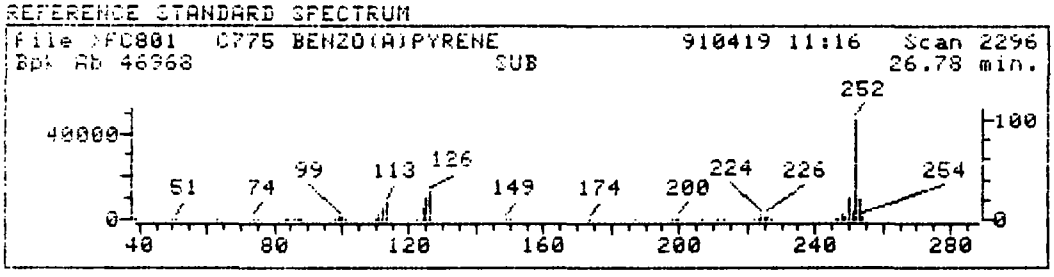
SAMPLE SPECTRUM (UNALTERED)



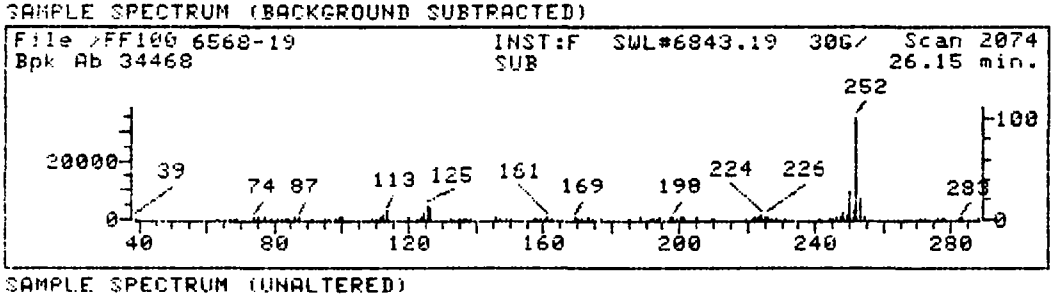
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 73
Compound Name: C765 BENZO(B)FLUORANTHENE
Scan Number: 2024
Retention Time: 25.62 min.
Quant Ion: 252.0
Area: 257298
Concentration: 143.15 NG/UL
q-value: 91

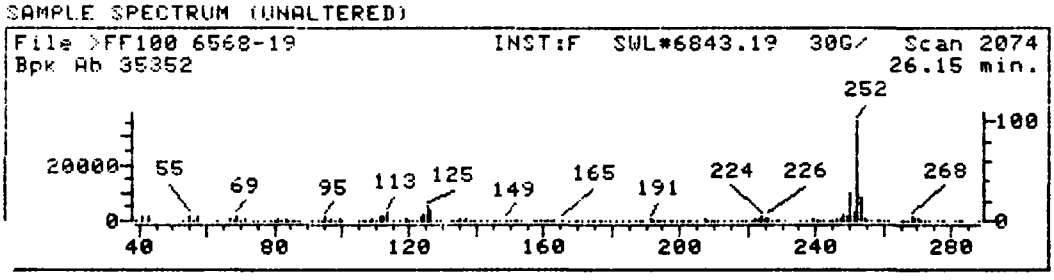
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



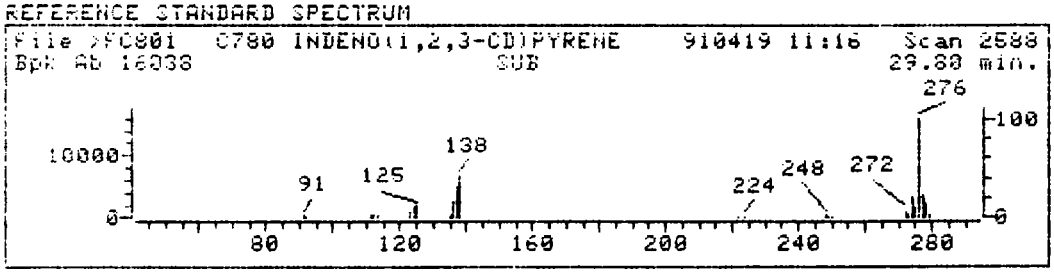
SAMPLE SPECTRUM (UNALTERED)



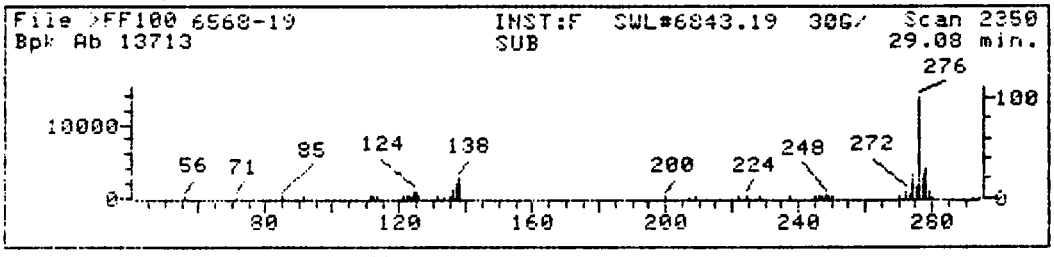
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 75
Compound Name: C775 BENZO(A)PYRENE
Scan Number: 2074
Retention Time: 26.15 min.
Quant Ion: 252.0
Area: 108407
Concentration: 63.40 NG/UL
q-value: 90

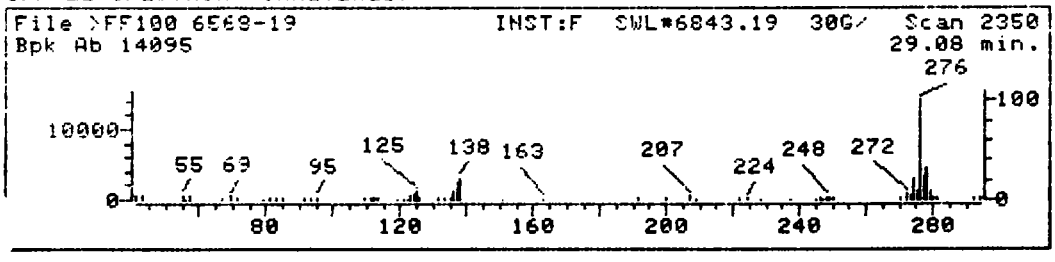
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



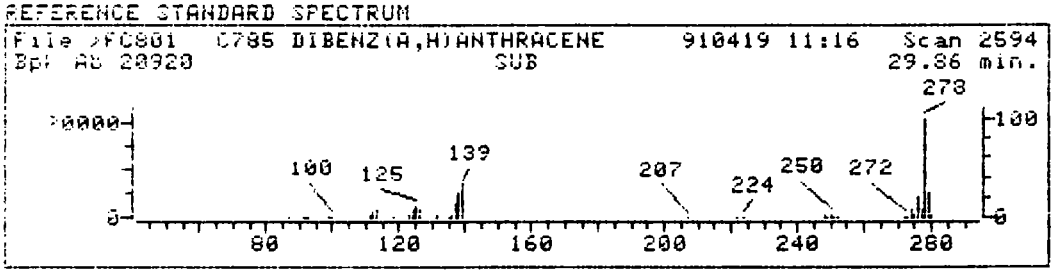
SAMPLE SPECTRUM (UNALTERED)



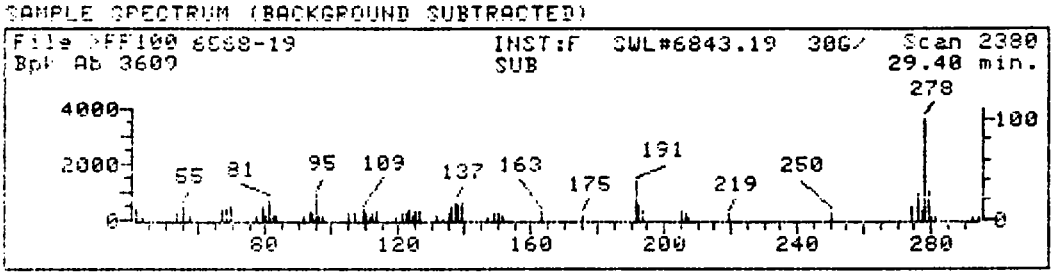
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 76
Compound Name: C780 INDENO(1,2,3-CD)PYRENE
Scan Number: 2350
Retention Time: 29.08 min.
Quant Ion: 276.0
Area: 63352
Concentration: 33.51 NG/UL
q-value: 91

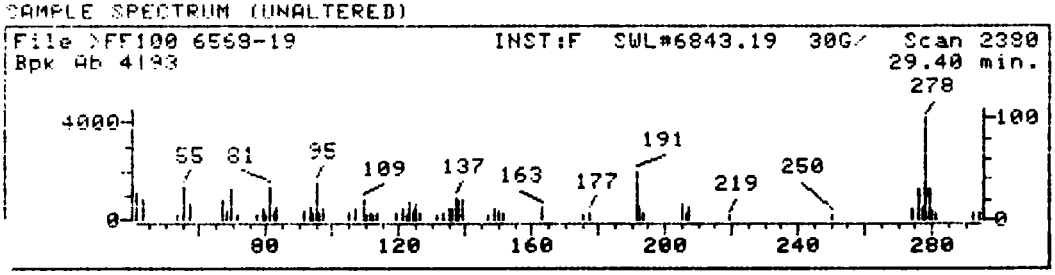
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



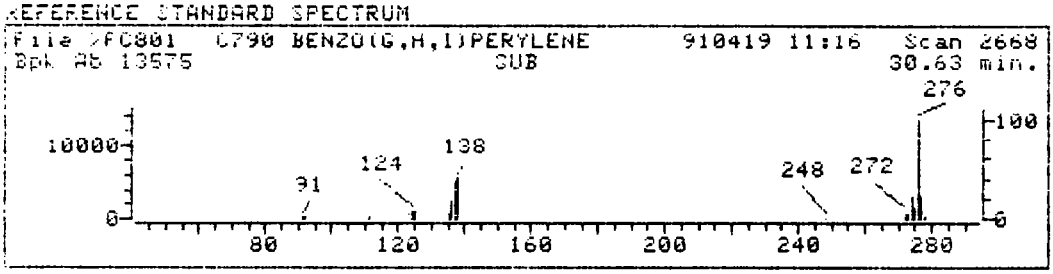
SAMPLE SPECTRUM (UNALTERED)



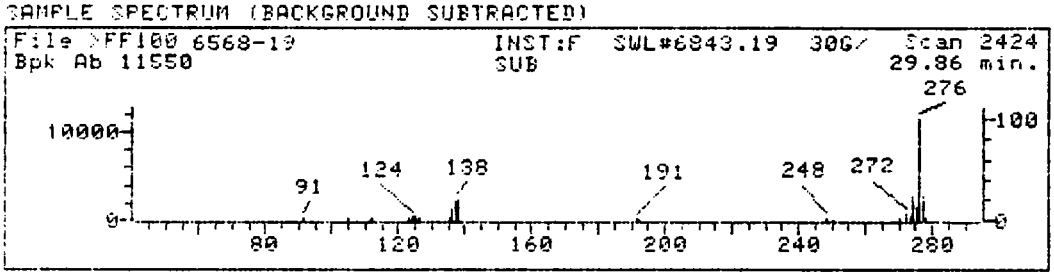
Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 77
Compound Name: C785 DIBENZ(A,H)ANTHRACENE
Scan Number: 2380
Retention Time: 29.40 min.
Quant Ion: 278.0
Area: 15005
Concentration: 10.15 NG/UL
q-value: 92

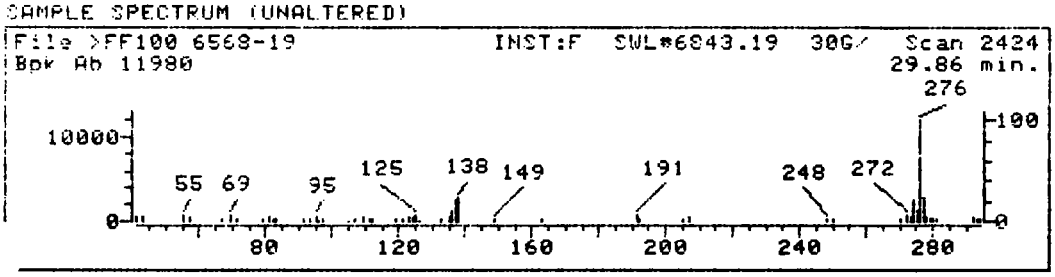
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >FF100::D6 Quant Output File: ^FF100::D7
Name: 6568-19
Misc: INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Quant Time: 910814 00:11 Quant ID File: ID_BN2::EX
Injected at: 910813 23:36 Last Calibration: 910813 16:27

Compound No: 78
Compound Name: C790 BENZO(G,H,I)PERYLENE
Scan Number: 2424
Retention Time: 29.86 min.
Quant Ion: 276.0
Area: 55743
Concentration: 33.03 NG/UL
q-value: 92

data file header from : >FF100

Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36
Misc : INST:F SWL#6843.19 30G/1ML/1UL 1:1 DIL BTL#12
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: #STDF Tuning file: F2TUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 300 Transfer line temp. : 0

Chromatographic temperatures :	45.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	9.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	12.0	0.0	0.0	0.0	0.0

>FF100 6568-19 INST:F SWL#6843.19 30G/1ML/1UL 1:1 DI

35.01 500.0 CLP ADC TIC
Upslope: .20 Area Reject: 16806. Max Peaks: 20 Bunching: 1
Dnslope: 0.00 Results File IFF100 Sorted by Time/Area INT

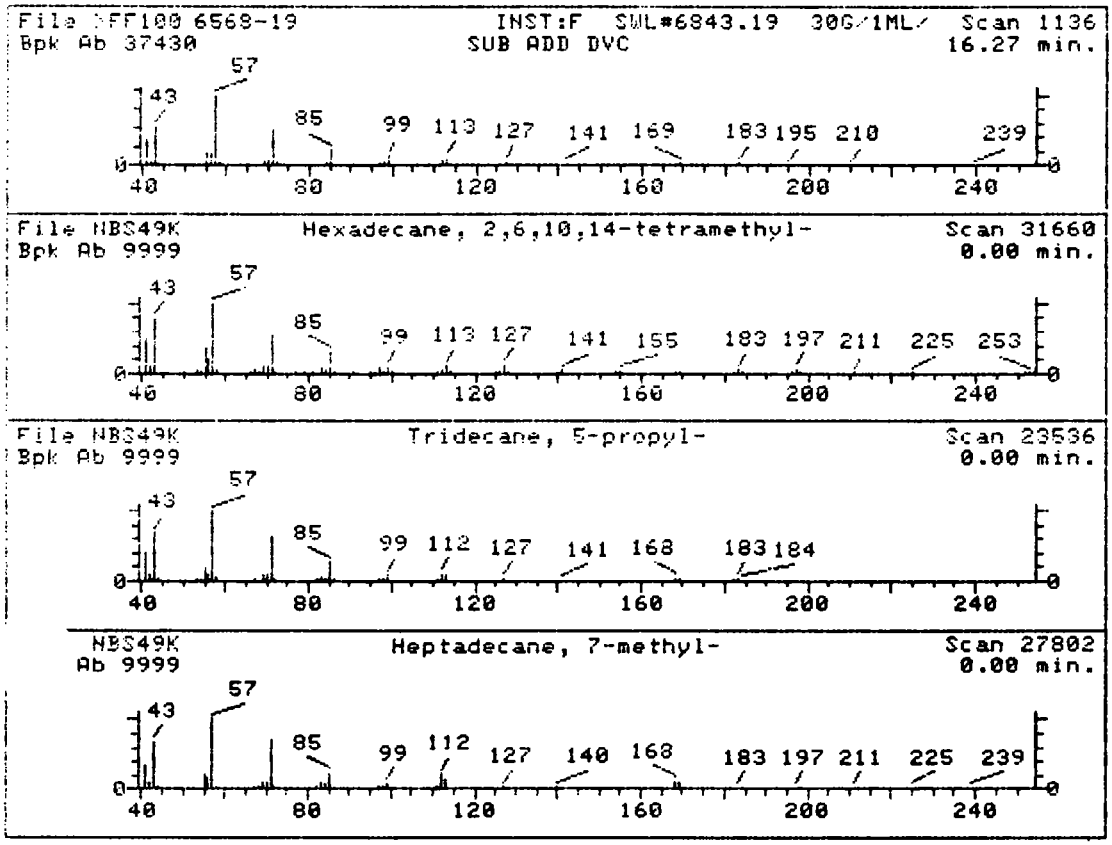
Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	16.27	1132	1136	1139	170592	468665	330613	42.65	4.185
2	16.78	1177	1185	1187	183412	850215	446437	57.59	5.651
3	16.85	1187	1191	1194	256469	754712	534911	69.00	6.770
	17.18	1218	1223	1229	65904	580887	240171	30.98	3.040
5	19.11	1402	1407	1410	142412	798726	399686	51.56	5.059
6	20.30	1515	1520	1522	85239	726577	257925	33.27	3.265
7	20.59	1543	1547	1553	131893	1005352	341138	44.01	4.318
8	21.10	1591	1596	1601	63926	863920	266525	34.38	3.373
9	21.39	1618	1623	1628	129127	1089493	417036	53.80	5.279
10	21.63	1634	1646	1650	153125	1814460	775209	100.00	9.812
11	21.75	1650	1657	1661	108097	1128589	403876	52.10	5.112
12	21.83	1661	1665	1673	130536	1300114	505679	65.23	6.400
13	22.02	1678	1683	1685	119022	829984	362439	46.75	4.587
14	22.08	1685	1689	1691	131715	700197	297552	38.38	3.766
15	24.30	1894	1899	1904	113740	1012655	364973	47.08	4.620
16	24.58	1922	1925	1931	83804	803734	269134	34.72	3.406
17	26.28	2080	2082	2085	139430	800982	386022	49.80	4.886
18	26.67	2114	2119	2124	96921	651341	288909	37.27	3.657
19	27.58	2199	2206	2210	141661	684310	442418	57.07	5.600
20	28.37	2268	2281	2291	144994	863508	569991	73.53	7.214

Sum of corrected areas: 7900644.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	168059.	8.04	4.48 - 9.44
2	40.0	329452.	10.85	9.44 - 12.75
3	40.0	299296.	14.66	12.75 - 16.21
4	40.0	355703.	17.77	16.21 - 20.62
5	40.0	815453.	23.47	20.62 - 24.93

0307



UNKNOWN

Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

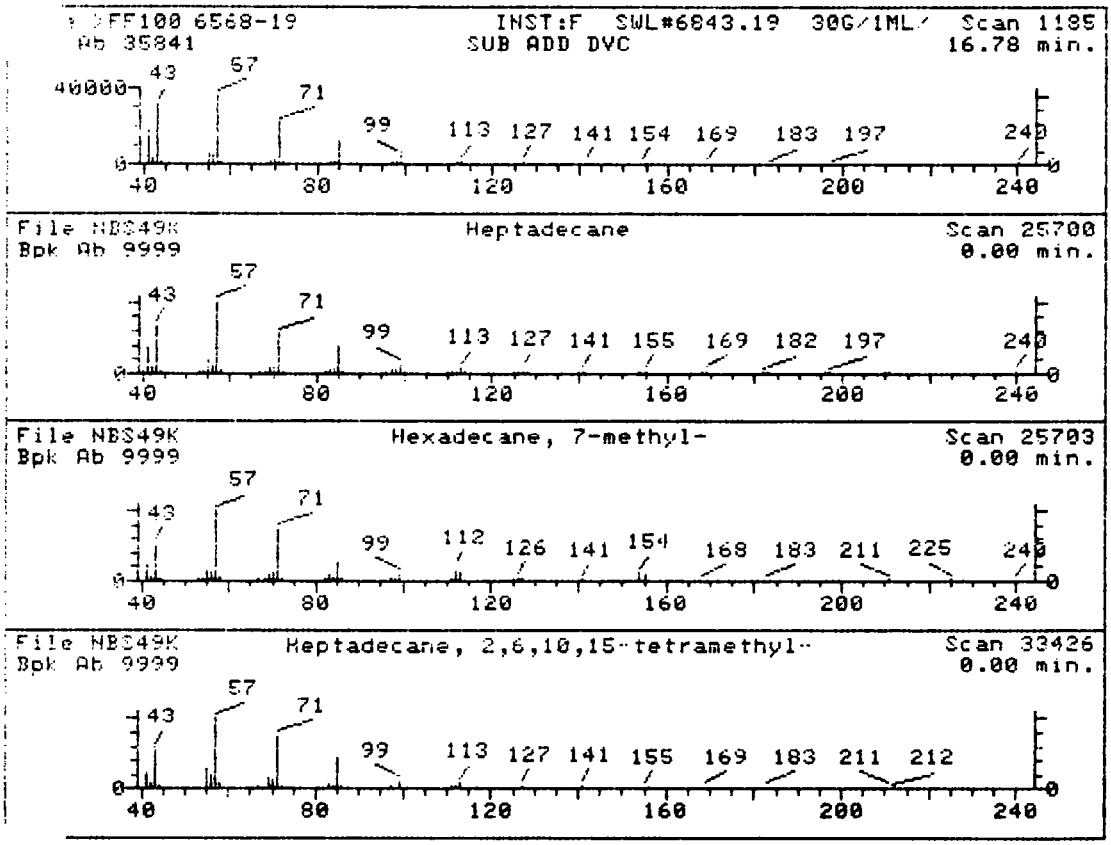
. Unknown #,1
Area = 330613.0 Tentative Concentration is 37.00

1.	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42
2.	Tridecane, 5-propyl-	226	C16H34
3.	Heptadecane, 7-methyl-	254	C18H38
4.	Undecane, 4,6-dimethyl-	184	C13H28
5.	Dodecane, 2,7,10-trimethyl-	212	C15H32
6.	Heptane, 3-ethyl-5-methyl-	142	C10H22
7.	Undecane, 5-ethyl-	184	C13H28

Sample file: >FF100 Spectrum #: 1136
Search speed: 1 Tilting option: N No. of ion ranges searched: 48

0308

Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	% CON	C_I	R_IV



UNKNOWN

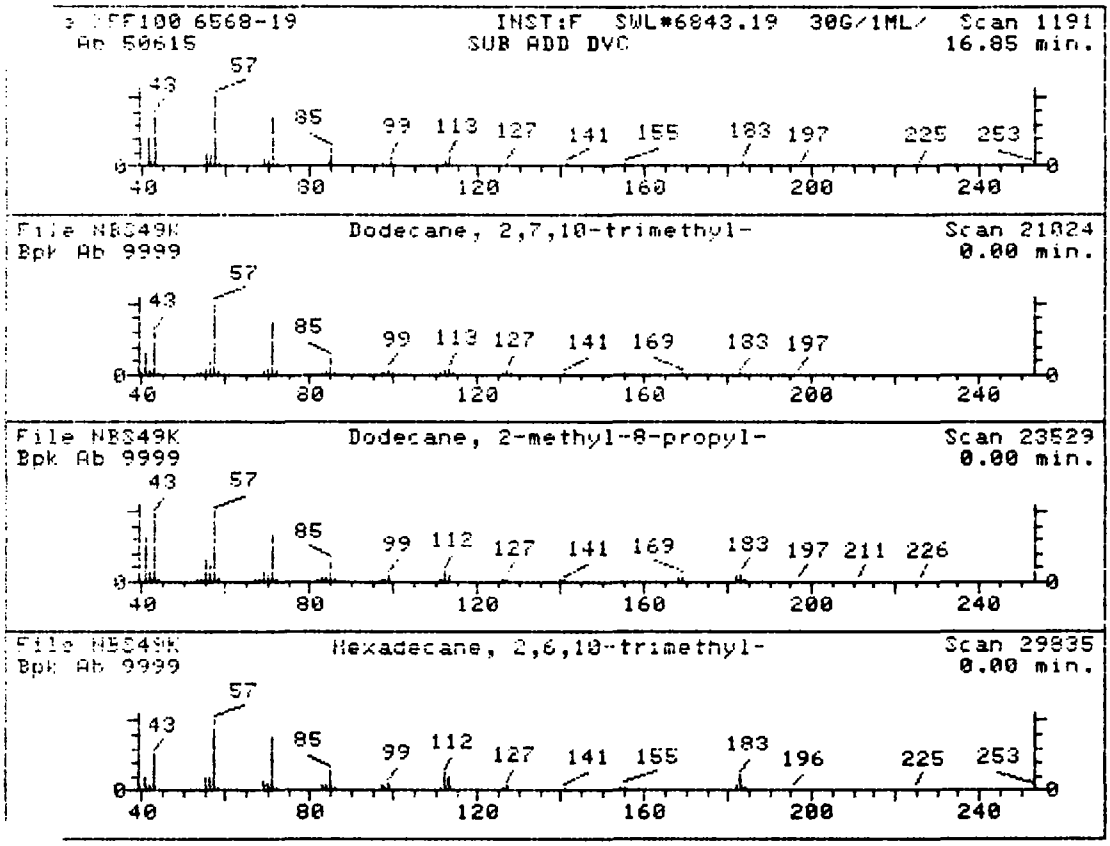
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

. Unknown #,2
Area = 446437.0 Tentative Concentration is 50.00

1.	Heptadecane	240	C17H36
2.	Hexadecane, 7-methyl-	240	C17H36
3.	Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44
4.	Hexadecane	226	C16H34
5.	Octacosane	394	C28H58
6.	Eicosane	282	C20H42
7.	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3

Sample file: >FF100 Spectrum #: 1185
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.	93*	629787	6846	NBS49K	86	35	1	0	74	1	68	83
2.	83*	26730201	4433	NBS49K	51	73	2	0	82	5	57	85
3.	83	54833486	6878	NBS49K	92	43	2	0	72	4	57	29
4.	83	544763	6835	NBS49K	81	39	2	0	90	4	57	22
5.	83	630024	6906	NBS49K	83	58	2	0	86	2	57	23



UNKNOWN

Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

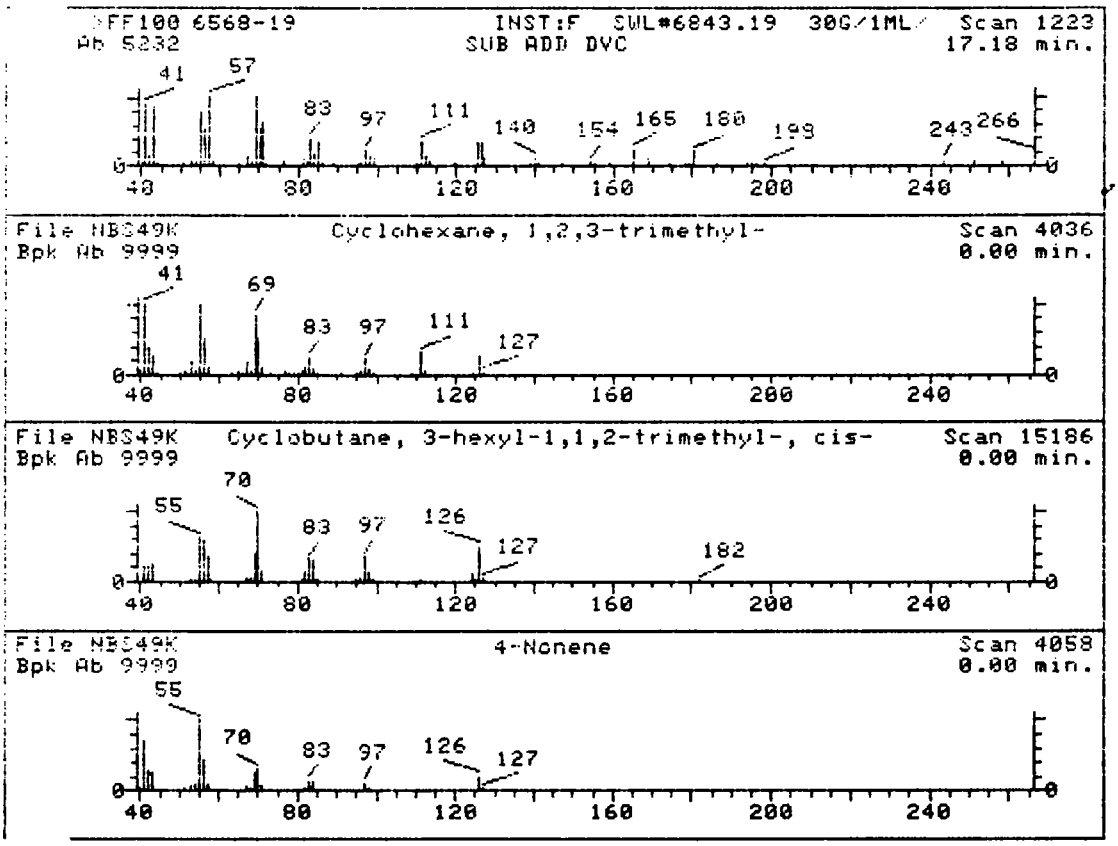
. Unknown #,3
Area = 534911.0 Tentative Concentration is 60.00

1.	Dodecane, 2,7,10-trimethyl-	212 C15H32
2.	Dodecane, 2-methyl-8-propyl-	226 C16H34
3.	Hexadecane, 2,6,10-trimethyl-	268 C19H40
4.	Heptane, 3-ethyl-5-methyl-	142 C10H22
5.	Tridecane, 5-propyl-	226 C16H34
6.	Decane, 5-propyl-	184 C13H28
7.	Decane, 5-ethyl-5-methyl-	184 C13H28

Sample file: >FF100 Spectrum #: 1191
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.	79	74645980	4422	NBS49K	91	18	0	0	95	14	43	66
2.	78	55045073	25013	NBS49K	76	52	3	0	73	4	55	14
3.	78	55000527	25030	NBS49K	68	66	2	0	80	0	55	15
4.	69*	52896909	4332	NBS49K	60	34	0	0	61	40	28	73
5.	67	55045119	12214	NBS49K	65	50	1	0	68	11	34	23
6.	62*	17312628	4395	NBS49K	67	44	2	0	68	26	25	46

0310



UNKNOWN

Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

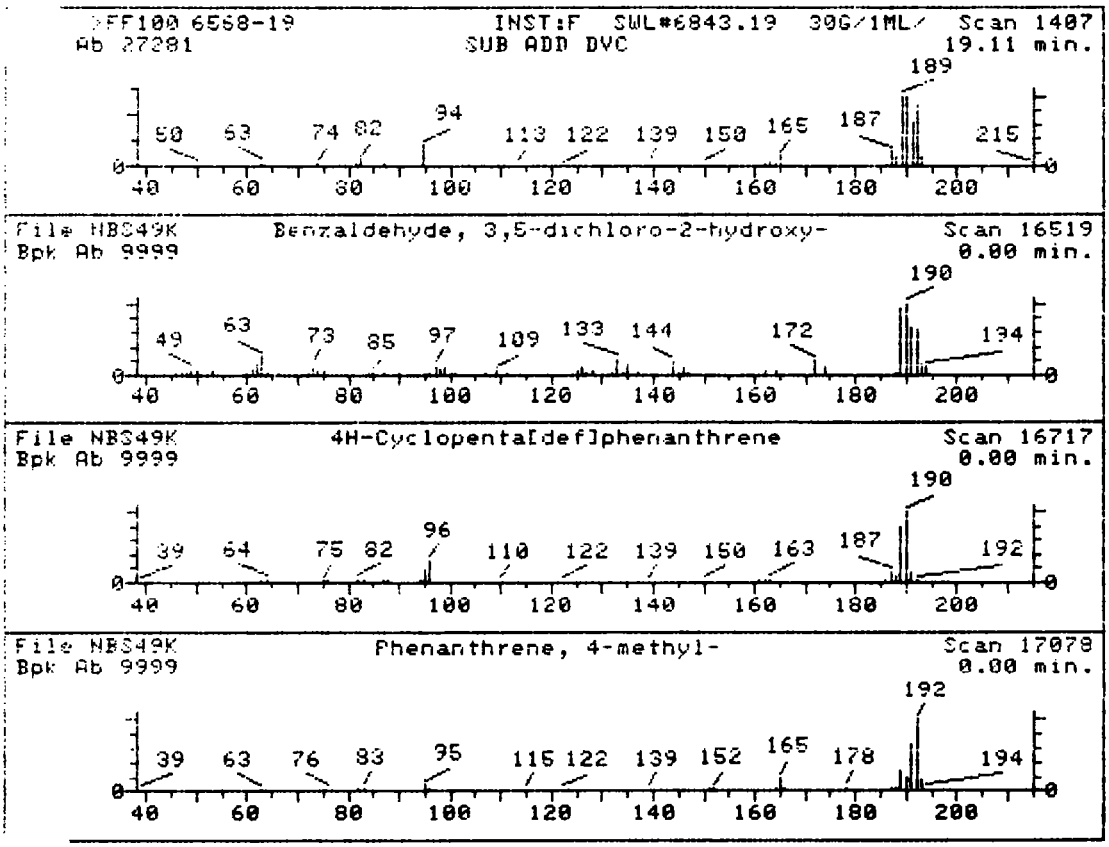
. Unknown #,4
Area = 240171.0 Tentative Concentration is 27.00

1.	Cyclohexane, 1,2,3-trimethyl-	126 C9H18
2.	Cyclobutane, 3-hexyl-1,1,2-trimethyl-, cis-	182 C13H26
3.	4-Nonene	126 C9H18
4.	1,2-Diazabicyclo[2.2.2]octan-3-one	126 C6H10N2O
5.	Cyclopropane, 1-methyl-2-pentyl-	126 C9H18
6.	1-Dodecanol, 3,7,11-trimethyl-	228 C15H32O
7.	Cyclooctane, 1,4-dimethyl-, trans-	140 C10H20

Sample file: >FF100 Spectrum #: 1223
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.	23*	1678973	14775	NBS49K	64	55	2	0	79	60	6	43
2.	15	49622211	14862	NBS49K	62	64	2	0	51	58	3	13
3.	15*	2198234	14778	NBS49K	31	72	2	0	126	60	3	34
4.	15*	1632264	14706	NBS49K	26	74	2	0	43	60	3	14
5.	15*	41977371	14773	NBS49K	30	81	3	0	86	60	3	13
6.	15	6750341	14903	NBS49K	80	76	3	0	69	60	3	14

0311



UNKNOWN

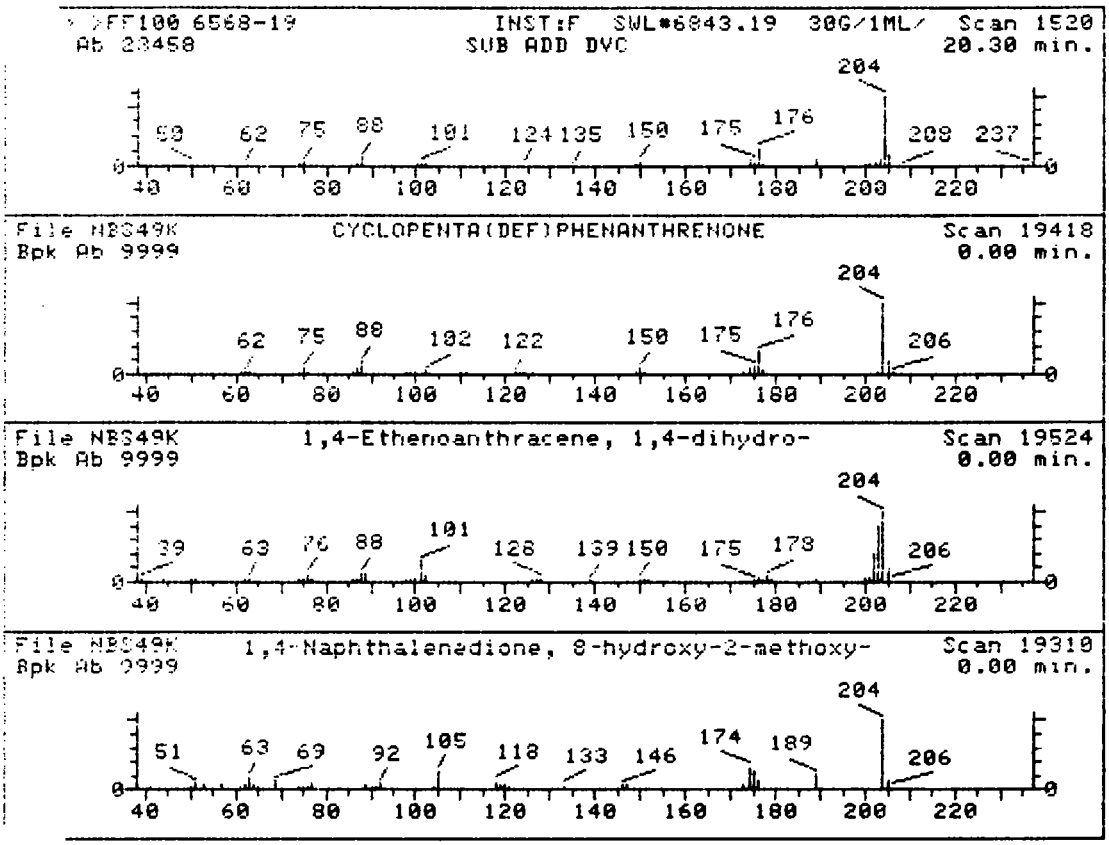
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

. Unknown #,5
Area = 399686.0 Tentative Concentration is 45.00

1.	Benzaldehyde, 3,5-dichloro-2-hydroxy-	190 C7H4Cl2O2
2.	4H-Cyclopenta[def]phenanthrene	190 C15H10
3.	Phenanthrene, 4-methyl-	192 C15H12
4.	9H-Fluorene, 9-ethylidene-	192 C15H12
5.	1H-Indene, 1-phenyl-	192 C15H12
6.	Anthracene, 2-methyl-	192 C15H12
7.	1H-Indene, 2-phenyl-	192 C15H12

Sample file: >FF100 Spectrum #: 1407
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.	52*	90608	25949	NBS49K	40	109	3	0	91	17	20	13
2.	26*	203645	26042	NBS49K	38	77	2	0	98	41	8	14
3.	24*	832644	26334	NBS49K	50	61	2	0	74	53	7	23
4.	20*	7151646	26331	NBS49K	24	96	3	0	87	53	9	12
5.	15*	1961962	26339	NBS49K	35	72	2	0	83	60	3	14
6.	15*	613127	26329	NBS49K	39	77	2	0	72	58	3	14



UNKNOWN

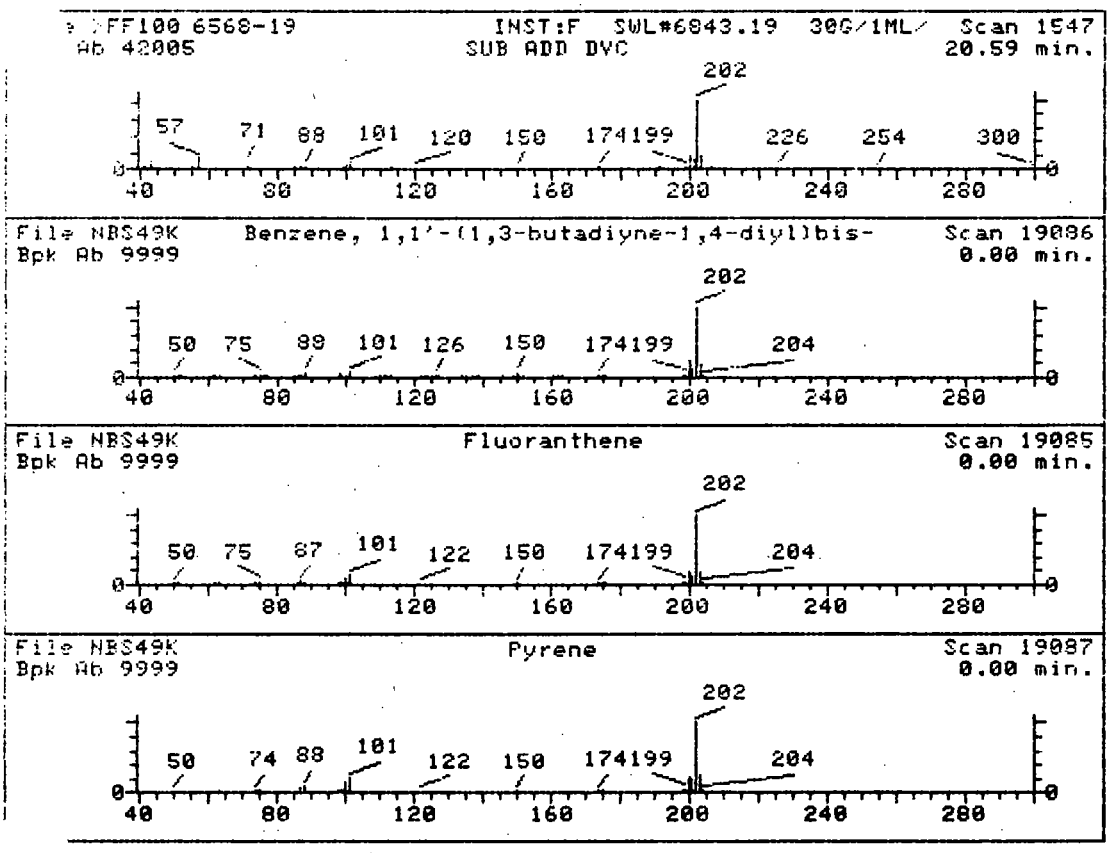
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

. Unknown #,6
Area = 257925.0 Tentative Concentration is 29.00

1.	CYCLOPENTA(DEF)PHENANTHRENONE	204 C15H8O
2.	1,4-Ethenoanthracene, 1,4-dihydro-	204 C16H12
3.	1,4-Naphthalenedione, 8-hydroxy-2-methoxy-	204 C11H8O4
4.	5H-Dibenzo[a,d]cycloheptene, 5-methylene-	204 C16H12
5.	Anthracene, 9-ethenyl-	204 C16H12
6.	Indeno[2,1-a]indene, 5,10-dihydro-	204 C16H12
7.	1,4-Naphthalenedione, 5,8-dihydroxy-2-methyl-	204 C11H8O4

Sample file: >FF100 Spectrum #: 1520
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.	94*	5737133	28398	NBS49K	102	12	1	0	71	16	60	95
2.	42*	27765964	28456	NBS49K	27	98	3	0	100	23	17	13
3.	41*	15254769	28344	NBS49K	22	106	3	0	100	23	17	12
4.	41*	2975793	28447	NBS49K	22	108	3	0	100	21	17	12
5.	37*	2444680	28451	NBS49K	42	89	2	0	105	30	14	14
6.	35*	6543299	28453	NBS49K	24	104	3	0	100	27	14	12



UNKNOWN

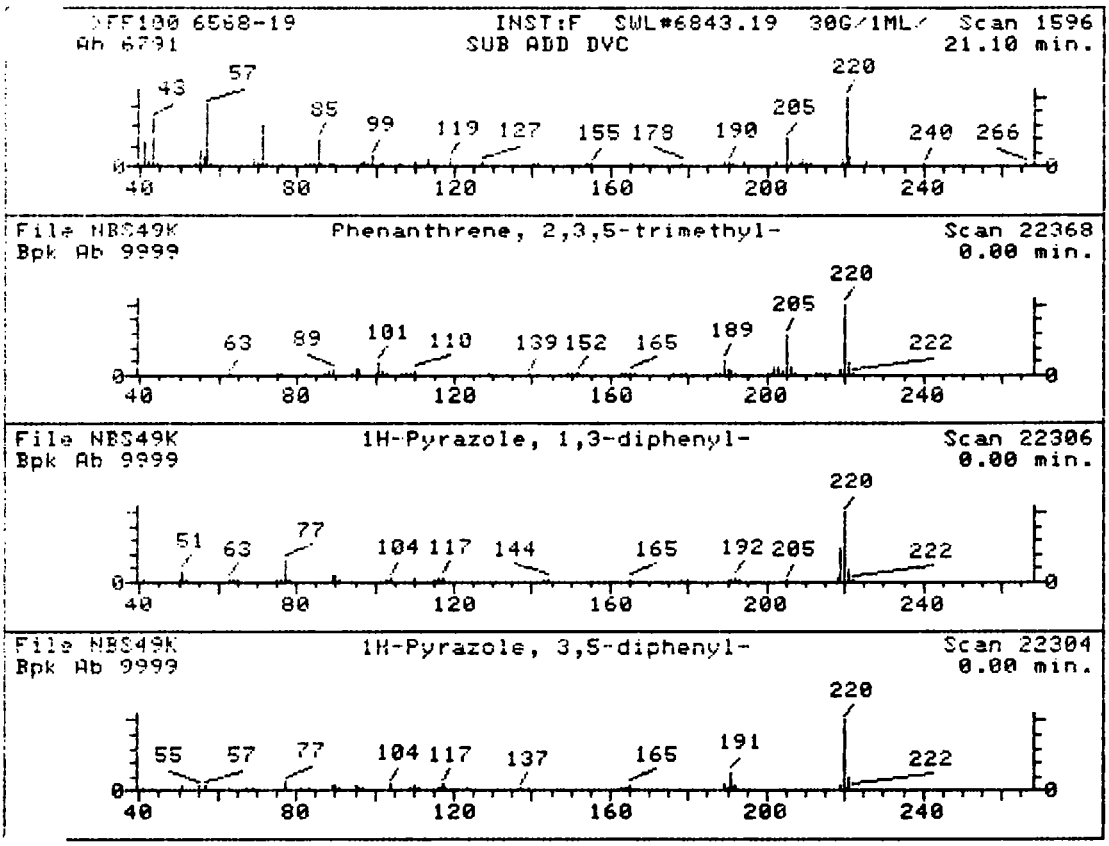
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

. Unknown #,7
Area = 341138.0 Tentative Concentration is 38.00

1. Benzene, 1,1'-(1,3-butadiyne-1,4-diyl)bis- 202 C16H10
2. Fluoranthene 202 C16H10
3. Pyrene 202 C16H10

Sample file: >FF100 Spectrum #: 1547
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.	67*	886668	28080	NBS49K	52	55	2	0	100	15	34	27
2.	67*	206440	28079	NBS49K	80	33	1	0	63	47	20	77
.	63*	129000	28081	NBS49K	57	57	2	0	71	19	30	34



UNKNOWN DWK

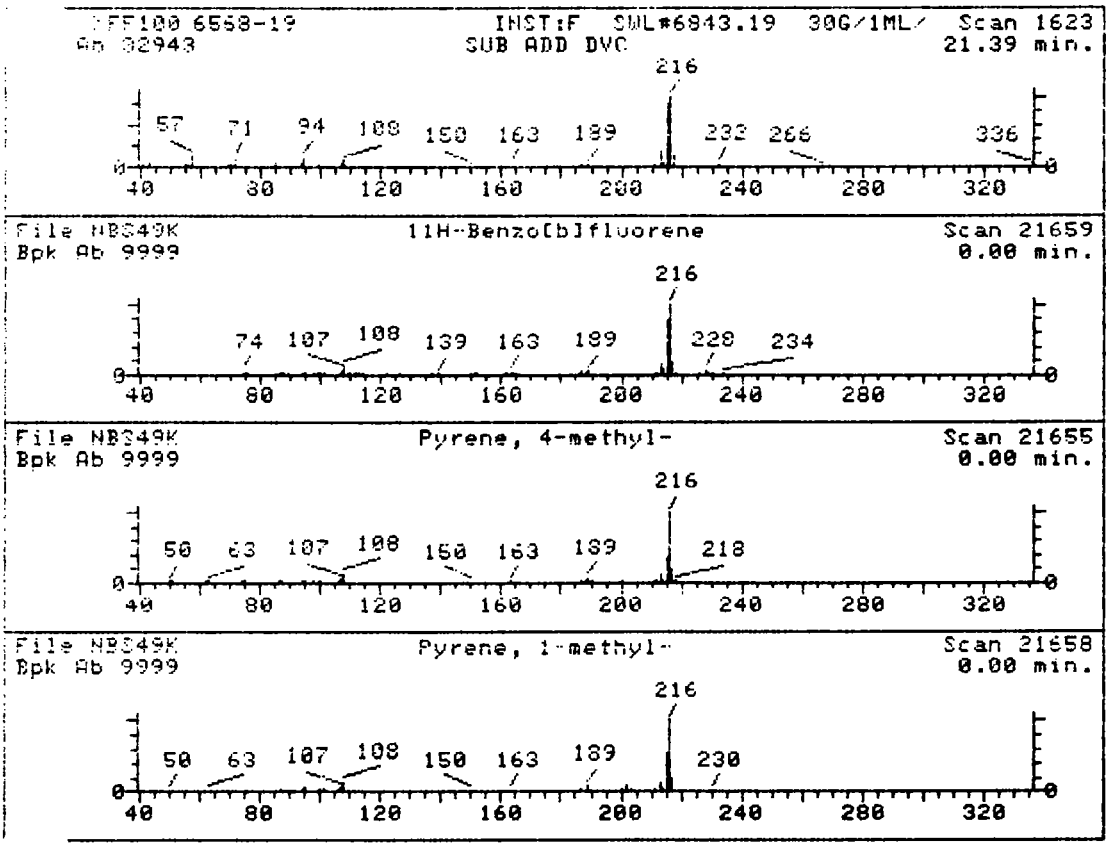
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

. Unknown #,8
Area = 266525.0 Tentative Concentration is 13.00

1.	Phenanthrene, 2,3,5-trimethyl-	220	C17H16
2.	1H-Pyrazole, 1,3-diphenyl-	220	C15H12N2
3.	1H-Pyrazole, 3,5-diphenyl-	220	C15H12N2
4.	8,8'-Bi-8-azabicyclo[3.2.1]octane	220	C14H24N2
5.	2-Phenazinecarbonitrile, 7-amino-	220	C13H8N4
6.	Furan, 2,5-diphenyl-	220	C16H12O
7.	Cinnoline, 6-methyl-4-phenyl-	220	C15H12N2

Sample file: >FF100 Spectrum #: 1596
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.	44*	3674735	30857	NBS49K	52	85	2	0	69	31	16	27
2.	25*	4492017	30843	NBS49K	26	98	3	0	100	50	7	13
3.	20*	1145013	30841	NBS49K	27	98	3	0	100	51	5	13
4.	20*	56847100	30829	NBS49K	27	103	3	0	100	51	5	13
5.	15*	18450221	30810	NBS49K	23	24	2	0	100	56	3	13
6.	15*	955839	30851	NBS49K	23	89	3	0	100	56	3	12



UNKNOWN pwk

Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

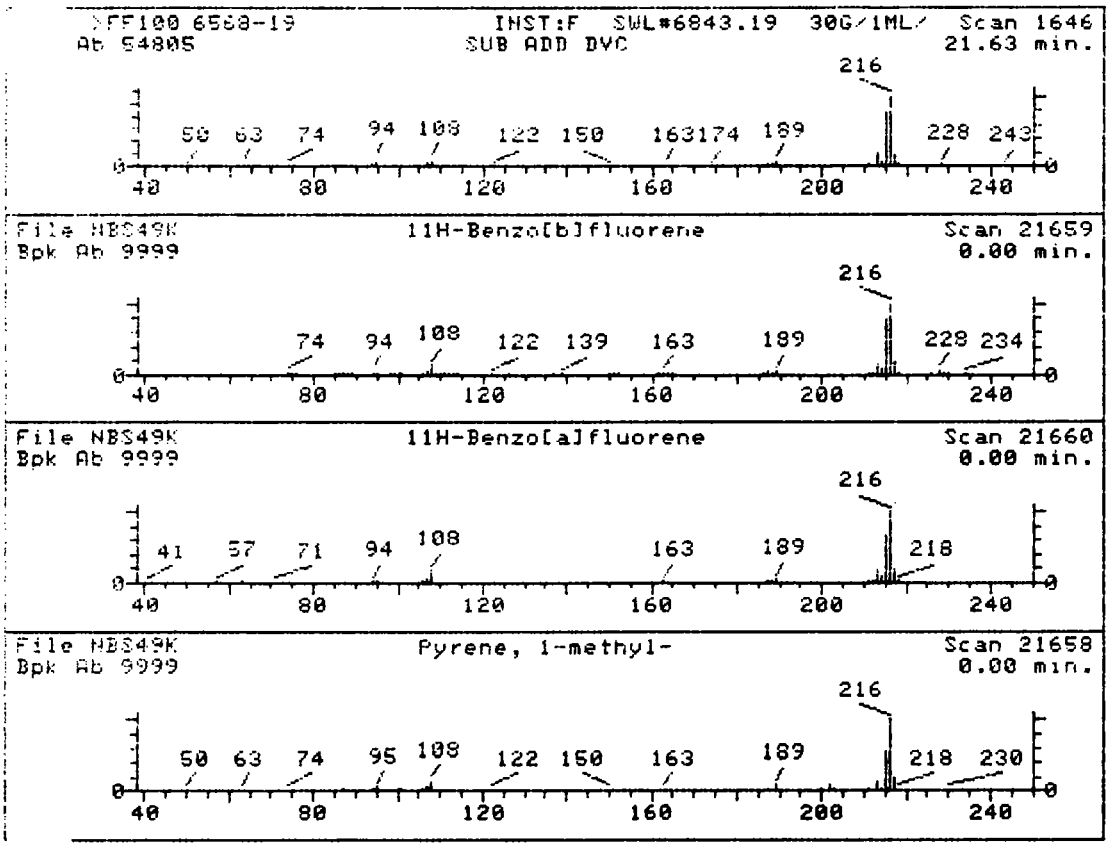
. Unknown #,9
Area = 417036.0 Tentative Concentration is 20.00

1.	11H-Benzo[b]fluorene	216	C17H12
2.	Pyrene, 4-methyl-	216	C17H12
3.	Pyrene, 1-methyl-	216	C17H12
4.	Pyrene, 2-methyl-	216	C17H12
5.	3,5-DIHYDROXY-4-METHOXYDIPHENYL	216	C13H1203
6.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy	216	C12H804
7.	11H-Benzo[a]fluorene	216	C17H12

Sample file: >FF100 Spectrum #: 1623
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.	62*	243174	30235	NBS49K	66	55	2	0	72	27	25	45
2.	38*	3353126	30231	NBS49K	51	67	2	0	70	40	14	25
3.	33*	2381217	30234	NBS49K	48	77	2	0	67	38	10	19
4.	26*	3442782	30233	NBS49K	41	78	2	0	71	41	8	14
5.	20*	54960962	30205	NBS49K	22	86	3	0	100	55	5	12
6.	20*	4481601	30176	NBS49K	23	92	3	0	100	55	5	12

0216



UNKNOWN PNT

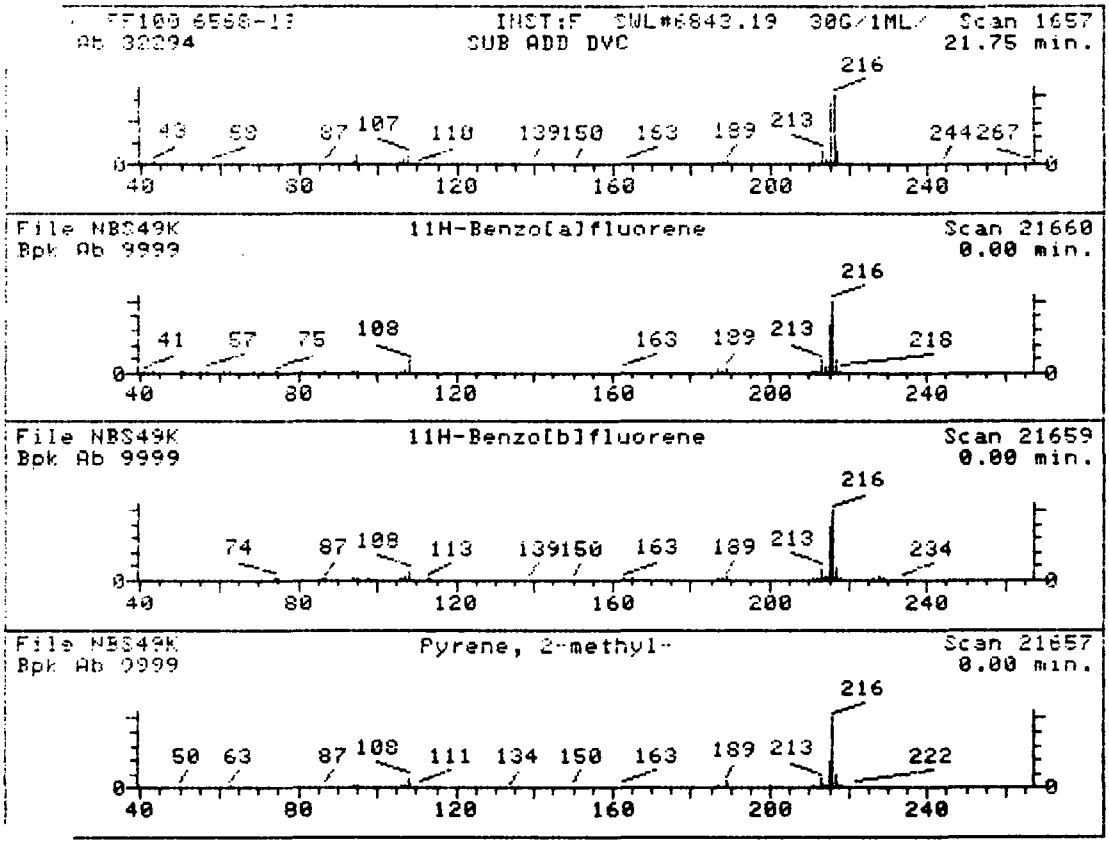
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

. Unknown #,10
Area = 775209.0 Tentative Concentration is 38.00

1.	11H-Benzo[b]fluorene	216	C17H12
2.	11H-Benzo[a]fluorene	216	C17H12
3.	Pyrene, 1-methyl-	216	C17H12
4.	Pyrene, 4-methyl-	216	C17H12
5.	Pyrene, 2-methyl-	216	C17H12
6.	3,5-DIHYDROXY-4-METHOXYDIPHENYL	216	C13H12O3
7.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy	216	C12H8O4

Sample file: >FF100 Spectrum #: 1646
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.	89*	243174	30235	NBS49K	88	33	1	0	87	8	62	86
2.	86*	238846	30236	NBS49K	66	54	3	0	100	3	60	33
3.	62*	2381217	30234	NBS49K	68	57	2	0	81	27	25	49
4.	58*	3353126	30231	NBS49K	69	49	2	0	85	37	19	49
5.	58*	3442782	30233	NBS49K	68	51	2	0	86	37	19	49
6.	20*	54960962	30205	NBS49K	27	81	3	0	100	54	5	13



UNKNOWN PWB

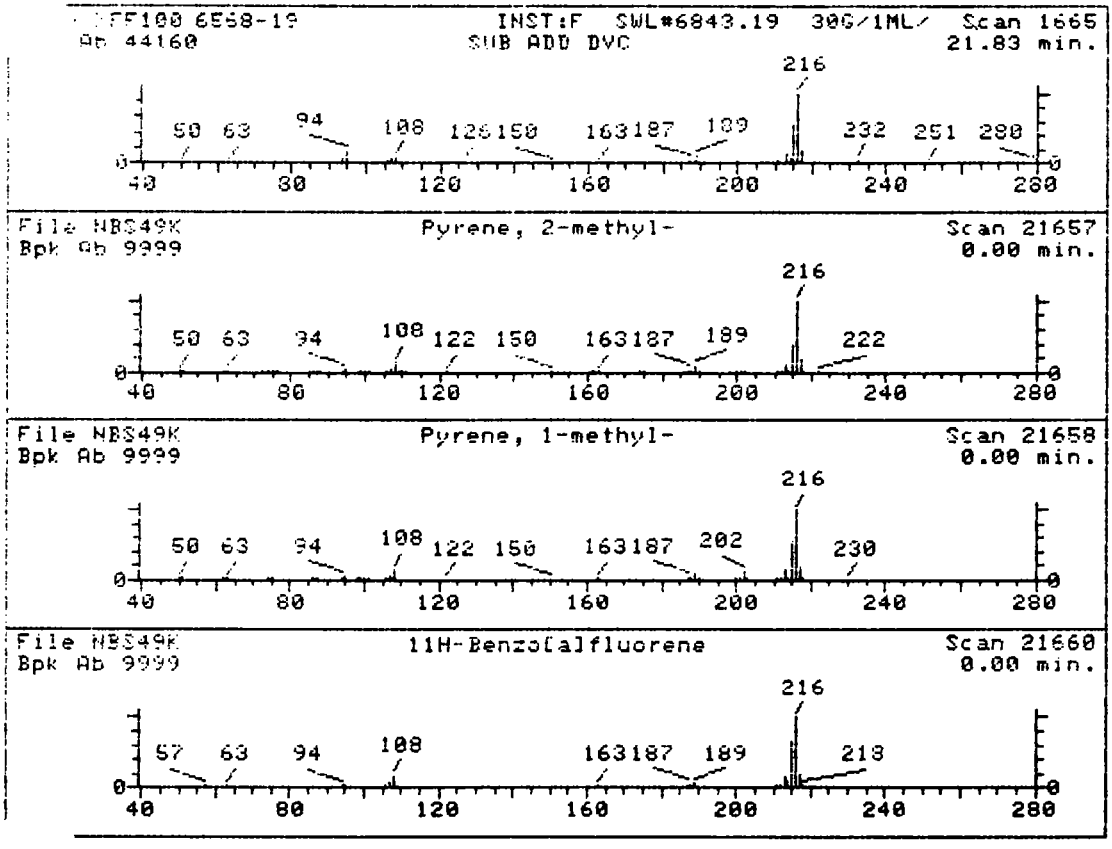
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

. Unknown #,11
Area = 403876.0 Tentative Concentration is 20.00

1.	11H-Benzo[a]fluorene	216 C17H12
2.	11H-Benzo[b]fluorene	216 C17H12
3.	Pyrene, 2-methyl-	216 C17H12
4.	Pyrene, 1-methyl-	216 C17H12
5.	Pyrene, 4-methyl-	216 C17H12

Sample file: >FF100 Spectrum #: 1657
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
	86*	238846	30236	NBS49K	63	57	3	0	100	4	60	31
.	83*	243174	30235	NBS49K	59	62	3	0	100	4	57	25
3	37*	3442782	30233	NBS49K	50	69	3	0	100	27	14	14
4	36*	2381217	30234	NBS49K	47	78	3	0	100	27	14	13
5	28*	3353126	30231	NBS49K	50	68	3	0	100	36	10	14



UNKNOWN PNA 1

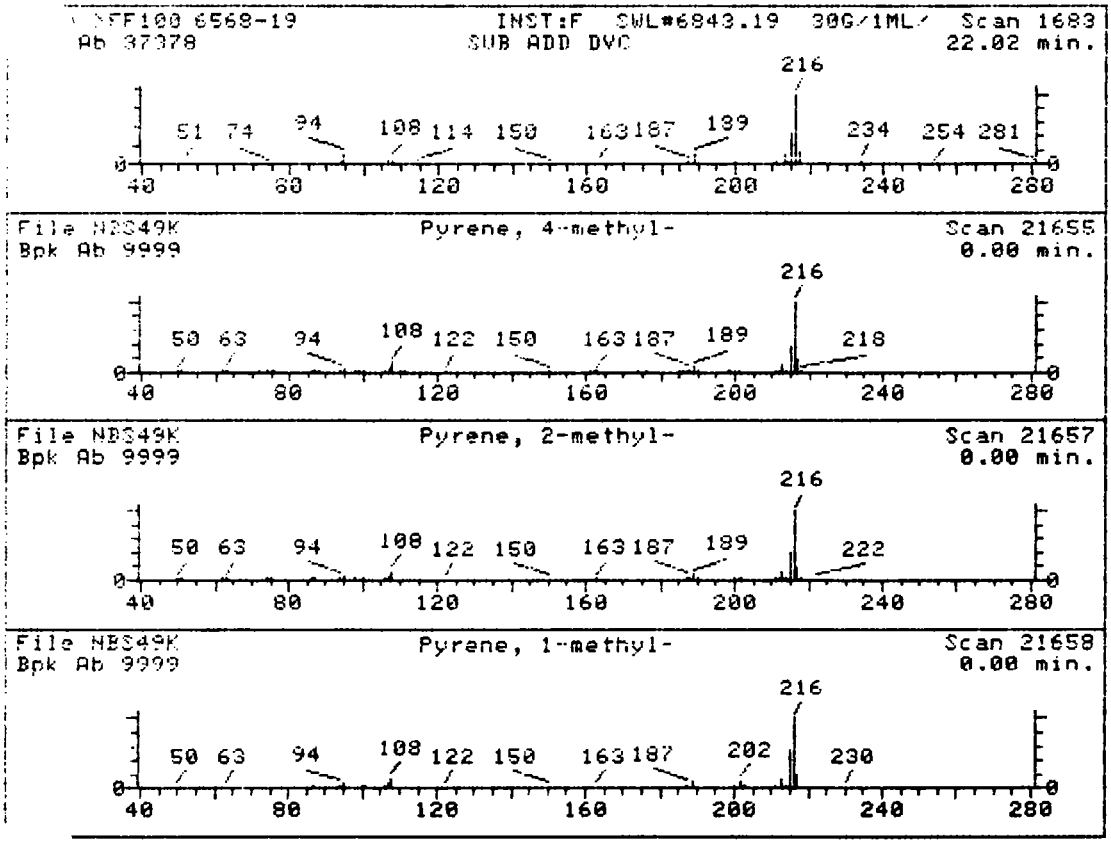
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

. Unknown #,12
Area = 505679.0 Tentative Concentration is 25.00

1.	Pyrene, 2-methyl-	216	C17H12
2.	Pyrene, 1-methyl-	216	C17H12
3.	11H-Benzo[a]fluorene	216	C17H12
4.	Pyrene, 4-methyl-	216	C17H12
5.	11H-Benzo[b]fluorene	216	C17H12

Sample file: >FF100 Spectrum #: 1665
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
	89*	3442782	30233	NBS49K	85	34	2	0	100	4	66	66
..	89*	2381217	30234	NBS49K	84	41	2	0	99	4	66	65
3.	83*	238846	30236	NBS49K	74	46	2	0	83	6	54	56
4.	79*	3353126	30231	NBS49K	80	38	2	0	100	15	43	61
5.	74*	243174	30235	NBS49K	69	52	2	0	70	13	39	49



UNKNOWN PNA !

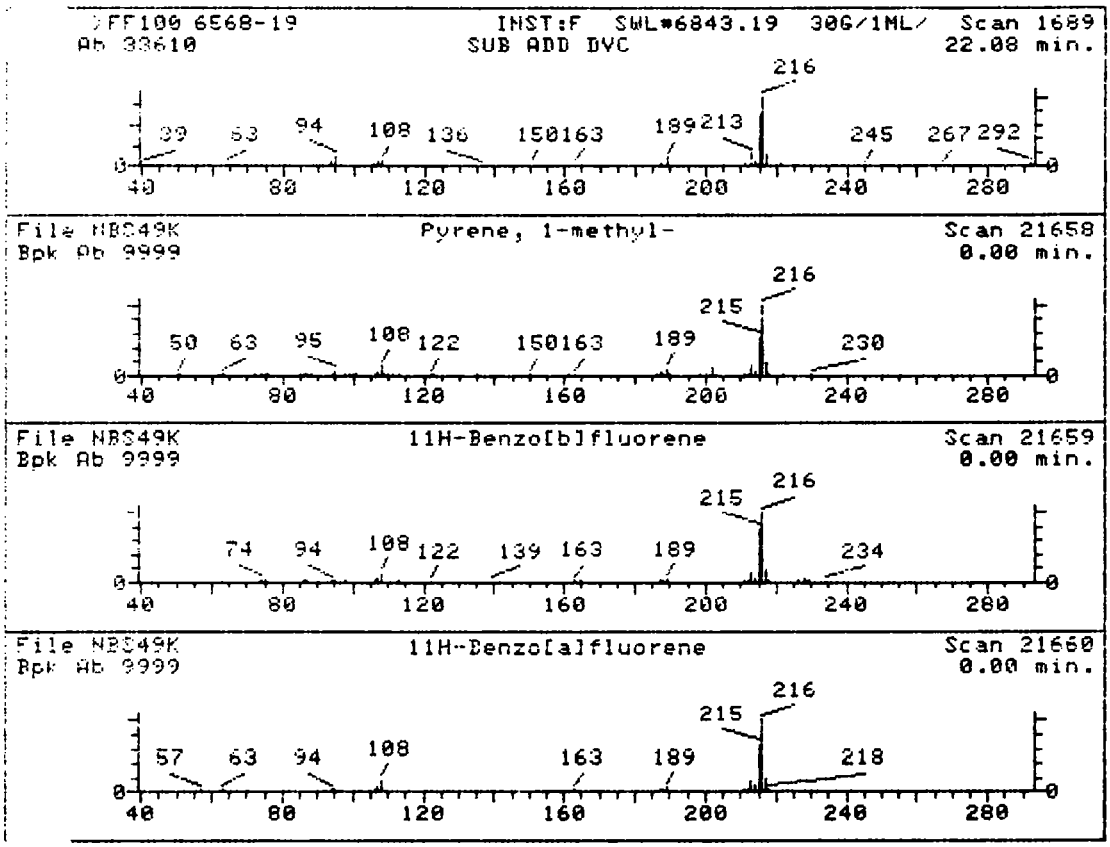
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

. Unknown #,13
Area = 362439.0 Tentative Concentration is 18.00

1.	Pyrene, 4-methyl-	216	C17H12
2.	Pyrene, 2-methyl-	216	C17H12
3.	Pyrene, 1-methyl-	216	C17H12
4.	11H-Benzo[a]fluorene	216	C17H12
5.	11H-Benzo[b]fluorene	216	C17H12
6.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy	216	C12H8O4

Sample file: >FF100 Spectrum #: 1683
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
.	89*	3353126	30231	NBS49K	78	40	2	0	91	5	66	60
2.	88*	3442782	30233	NBS49K	74	45	2	0	91	5	65	56
3.	88*	2381217	30234	NBS49K	77	48	2	0	80	5	65	59
4.	42*	238846	30236	NBS49K	51	69	2	0	66	33	16	25
5.	31*	243174	30235	NBS49K	41	80	2	0	56	33	10	24
6.	25*	4481601	30176	NBS49K	29	86	3	0	100	44	8	13



UNKNOWN NOW

Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

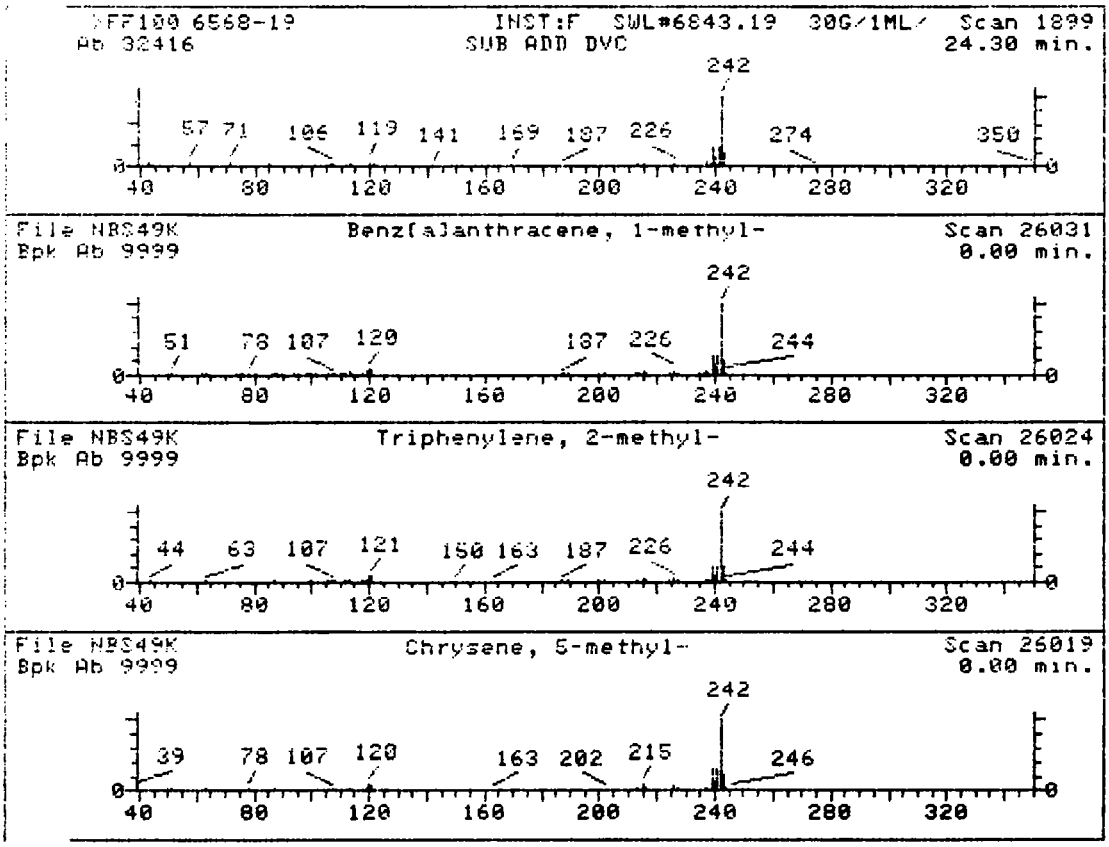
. Unknown #,14
Area = 297552.0 Tentative Concentration is 15.00

1.	Pyrene, 1-methyl-	216	C17H12
2.	11H-Benzo[b]fluorene	216	C17H12
3.	11H-Benzo[a]fluorene	216	C17H12
4.	Pyrene, 2-methyl-	216	C17H12
5.	Pyrene, 4-methyl-	216	C17H12
6.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy	216	C12H8O4
7.	3,5-DIHYDROXY-4-METHOXYDIPHENYL	216	C13H12O3

Sample file: >FF100 Spectrum #: 1689
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.	88*	2381217	30234	NBS49K	72	53	2	0	92	3	65	54
2.	87*	243174	30235	NBS49K	66	55	2	0	87	5	63	45
3.	87*	238846	30236	NBS49K	63	57	2	0	88	5	63	41
4.	39*	3442782	30233	NBS49K	49	70	2	0	87	32	10	22
5.	36*	3353126	30231	NBS49K	58	60	3	0	100	36	14	23
6.	20*	4481601	30176	NBS49K	29	86	3	0	100	55	5	13

0321



UNKNOWN PNA

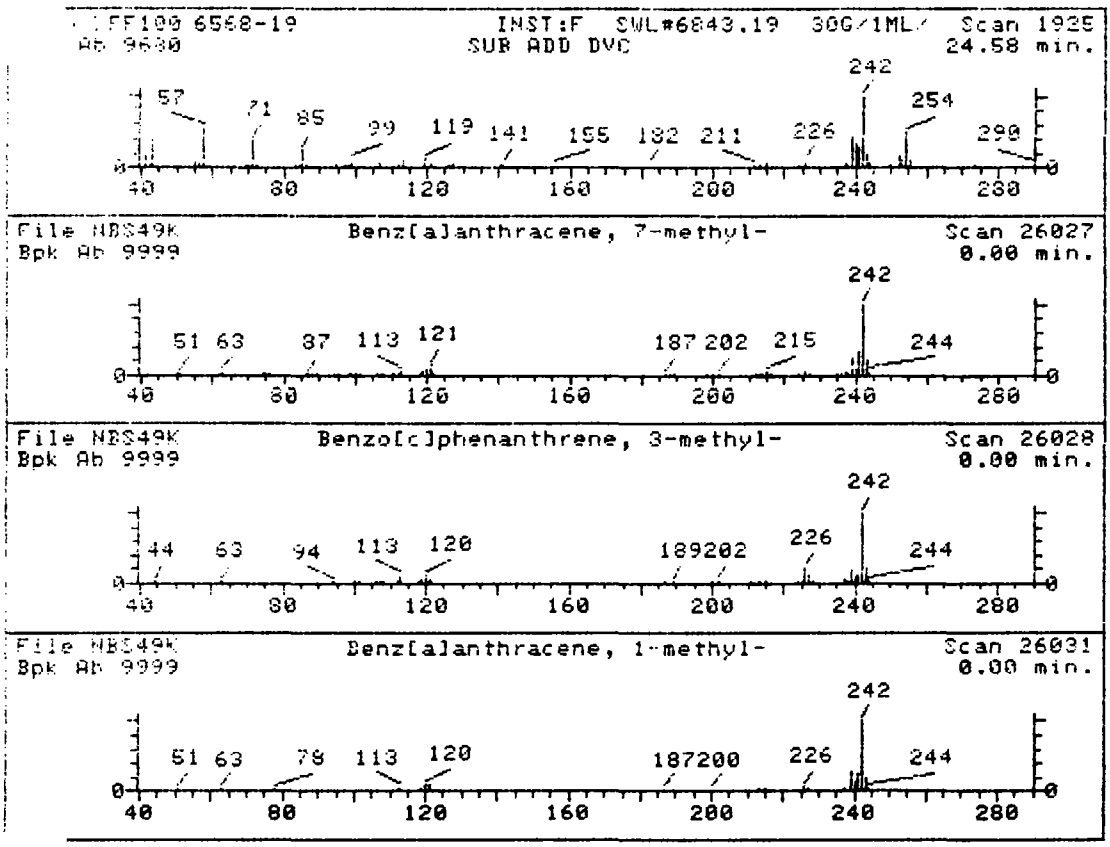
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

. Unknown #,15
Area = 364973.0 Tentative Concentration is 18.00

1.	Benz[a]anthracene, 1-methyl-	242	C19H14
2.	Triphenylene, 2-methyl-	242	C19H14
3.	Chrysene, 5-methyl-	242	C19H14
4.	Benz[a]anthracene, 7-methyl-	242	C19H14
5.	Benz[a]anthracene, 2-methyl-	242	C19H14
6.	Chrysene, 3-methyl-	242	C19H14
7.	Benz[a]anthracene, 4-methyl-	242	C19H14

Sample file: >FF100 Spectrum #: 1899
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.	83*	2498773	33246	NBS49K	77	52	2	0	97	8	54	59
2.	81*	1705846	33239	NBS49K	80	50	1	0	67	22	41	77
3.	74*	3697243	33234	NBS49K	65	70	2	0	93	11	39	48
4.	74*	2541697	33242	NBS49K	67	63	2	0	90	11	39	48
5.	74*	2498762	33245	NBS49K	63	62	2	0	96	14	39	41
6.	74*	3351313	33229	NBS49K	63	62	2	0	94	14	39	41



UNKNOWN PNT

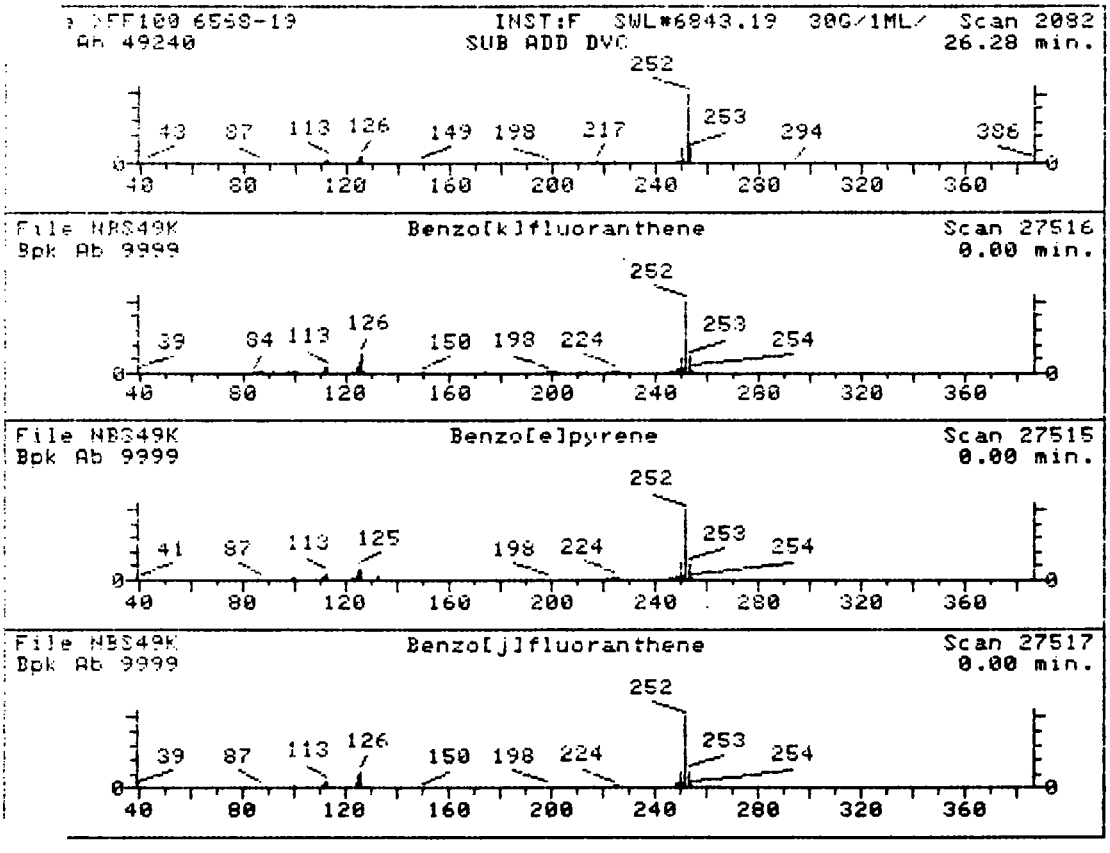
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

Unknown #,16
Area = 269134.0 Tentative Concentration is 13.00

1.	Benz[a]anthracene, 7-methyl-	242	C19H14
2.	Benzo[c]phenanthrene, 3-methyl-	242	C19H14
3.	Benz[a]anthracene, 1-methyl-	242	C19H14
4.	Benzo[c]phenanthrene, 5-methyl-	242	C19H14
5.	Benzo[c]phenanthrene, 6-methyl-	242	C19H14
6.	Benz[a]anthracene, 12-methyl-	242	C19H14
7.	Triphenylene, 2-methyl-	242	C19H14

Sample file: >FF100 Spectrum #: 1925
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.	37*	2541697	33242	NBS49K	53	77	2	0	83	45	12	28
2.	35*	2381193	33243	NBS49K	59	77	2	0	93	49	11	36
3.	31*	2498773	33246	NBS49K	48	81	2	0	96	42	13	23
4.	30*	652040	33227	NBS49K	51	80	2	0	93	49	10	25
5.	30*	2381342	33230	NBS49K	52	84	2	0	96	49	10	27
6.	30*	2422799	33228	NBS49K	44	89	1	0	68	43	12	21



UNKNOWN PNA

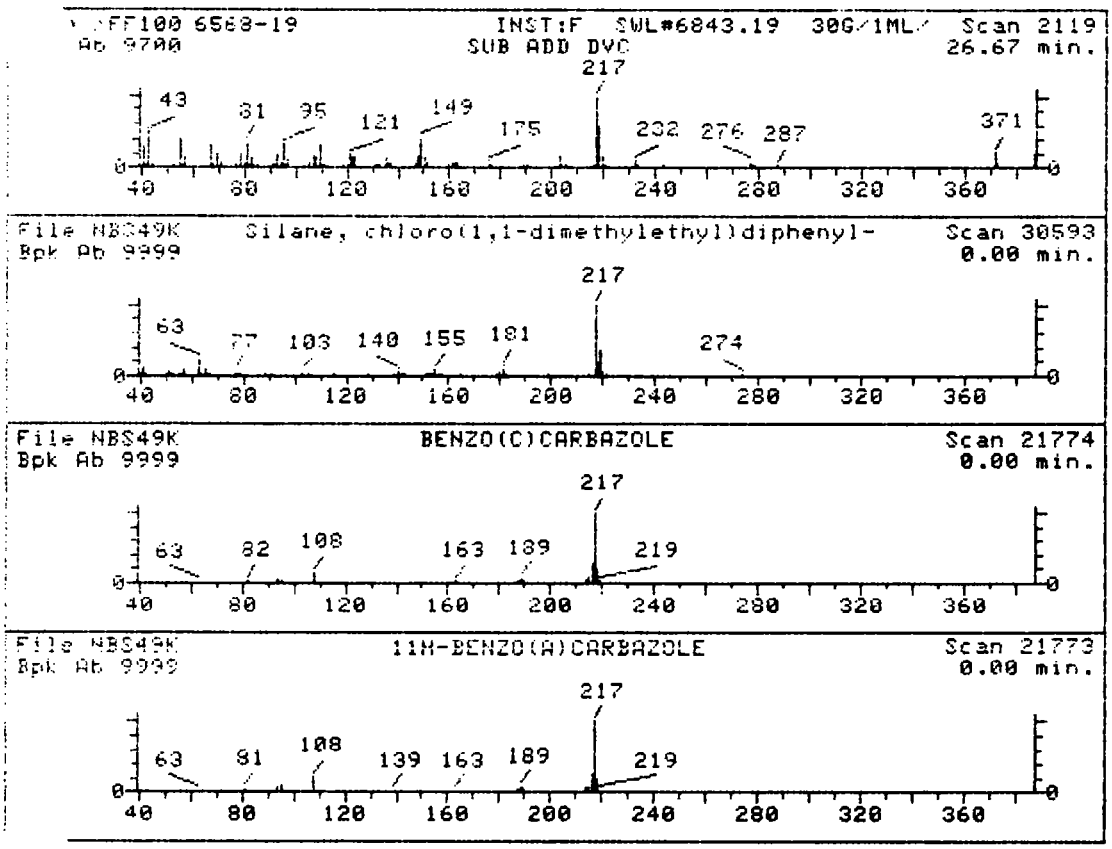
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

. Unknown #,17
Area = 386022.0 Tentative Concentration is 30.00

1.	Benzo[k]fluoranthene	252 C20H12
2.	Benzo[e]pyrene	252 C20H12
3.	Benzo[j]fluoranthene	252 C20H12
4.	Benzo[a]pyrene	252 C20H12
5.	Benz[e]acephenanthrylene	252 C20H12

Sample file: >FF100 Spectrum #: 2082
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
.	76*	207089	34161	NBS49K	70	62	2	0	93	13	40	50
..	55*	192972	34160	NBS49K	84	49	1	0	52	51	25	80
3.	38*	205823	34162	NBS49K	50	62	0	0	44	55	11	60
4.	26*	50328	34158	NBS49K	48	63	0	0	47	56	7	57
5.	24*	205992	34159	NBS49K	42	70	1	0	42	53	7	21



UNKNOWN

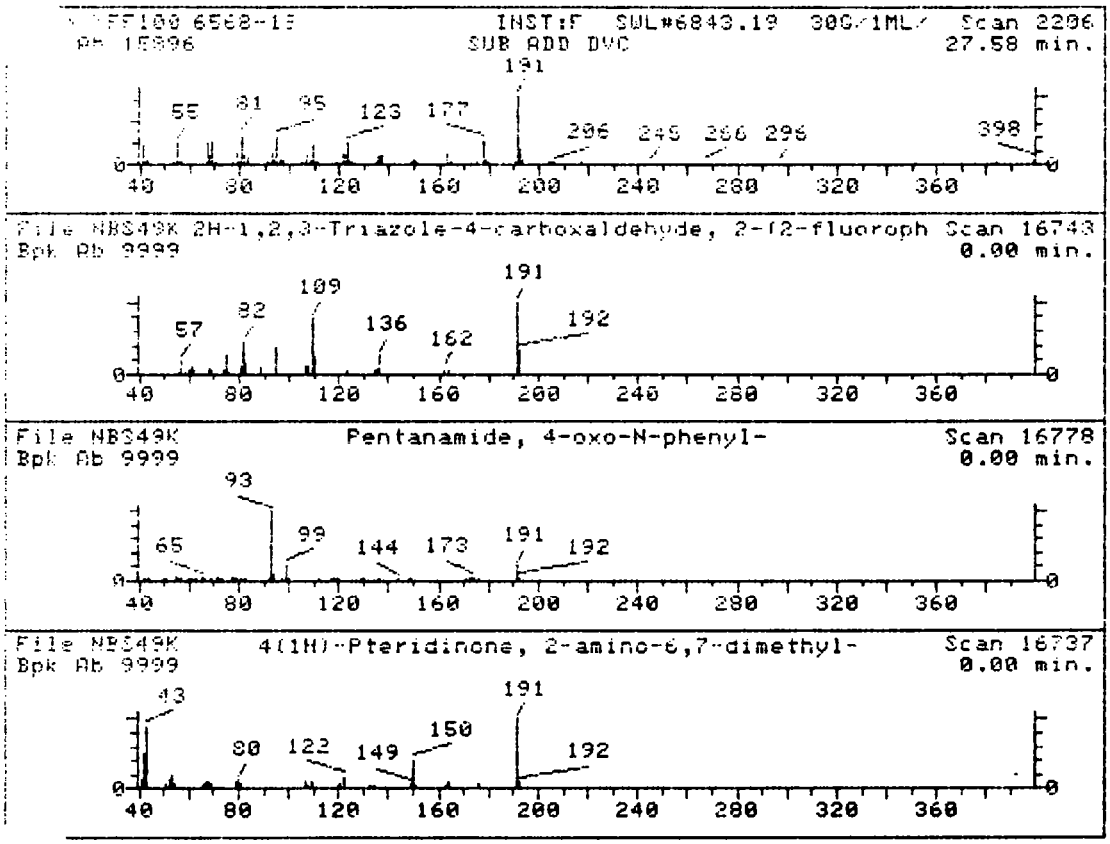
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

. Unknown #,18
Area = 288909.0 Tentative Concentration is 23.00

1.	Silane, chloro(1,1-dimethylethyl)diphenyl-	274	C16H19ClSi
2.	BENZO(C)CARBAZOLE	217	C16H11N
3.	11H-BENZO(A)CARBAZOLE	217	C16H11N
4.	1,4-Methanonaphthalene, 1,4-dihydro-9-phenyl-	218	C17H14
5.	Benzothiazole, 2-methyl-5-(trifluoromethyl)-	217	C9H6F3NS

Sample file: >FF100 Spectrum #: 2119
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
.	25*	58479611	30366	NBS49K	24	104	3	0	100	50	7	12
.	20*	34777338	30330	NBS49K	28	85	2	0	98	53	5	14
3.	20*	239010	30329	NBS49K	29	87	2	0	66	53	5	14
4.	20*	55028734	30568	NBS49K	28	114	3	0	59	55	5	13
5.	20*	398992	30285	NBS49K	22	112	3	0	100	52	5	12



UNKNOWN

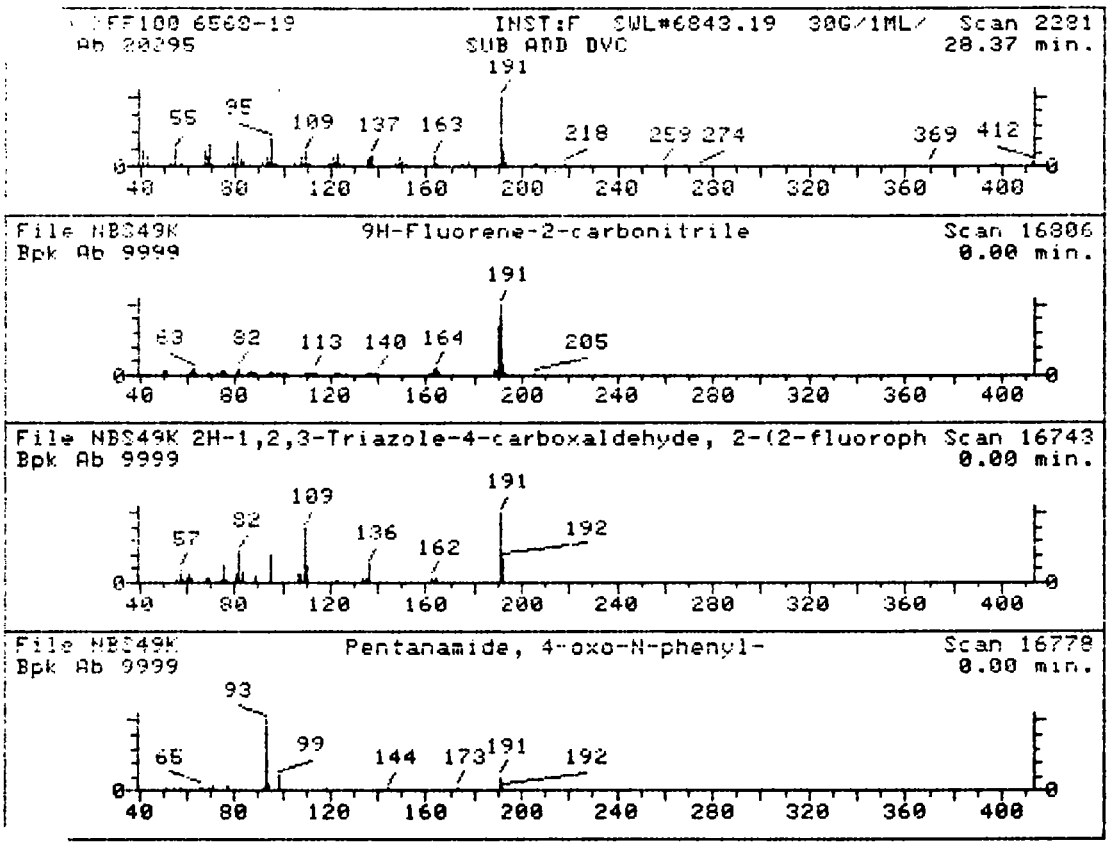
Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

. Unknown #,19
Area = 442418.0 Tentative Concentration is 35.00

1.	2H-1,2,3-Triazole-4-carboxaldehyde, 2-(2-fluorophenyl)-	191	C9H6FN3O
2.	Pentanamide, 4-oxo-N-phenyl-	191	C11H13NO2
3.	4(1H)-Pteridinone, 2-amino-6,7-dimethyl-	191	C8H9N5O
4.	Pyrido[3,4-d]pyrimidine-2,4(1H,3H)-dione, 1,3-dimethyl-	191	C9H9N3O2
5.	9H-Fluorene-9-carbonitrile	191	C14H9N
6.	Pyrido[3,4-d]pyrimidine-2,4(1H,3H)-dione, 6,8-dimethyl-	191	C9H9N3O2

Sample file: >FF100 Spectrum #: 2206
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.	36*	51306435	26126	NBS49K	32	104	3	0	100	29	14	13
2.	35*	23132356	26139	NBS49K	23	79	3	0	499	29	14	13
3.	28*	611552	26124	NBS49K	35	89	2	0	73	40	10	14
4.	27*	22389839	26127	NBS49K	26	87	3	0	100	36	10	13



UNKNOWN

Sample: 6568-19 Operator: LINDA MS 8/13/91 23:36

Unknown #,20
Area = 569991.0 Tentative Concentration is 45.00

1.	9H-Fluorene-2-carbonitrile	191	C14H9N
2.	2H-1,2,3-Triazole-4-carboxaldehyde, 2-(2-fluorophenyl)-	191	C9H6FN3O
3.	Pentanamide, 4-oxo-N-phenyl-	191	C11H13NO2
4.	Pyrido[3,2-d]pyrimidine-2,4(1H,3H)-dione, 1,3-dimethyl-	191	C9H9N3O2
5.	Pyrido[3,4-d]pyrimidine-2,4(1H,3H)-dione, 6,8-dimethyl-	191	C9H9N3O2
6.	9H-Fluorene-9-carbonitrile	191	C14H9N
7.	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN	206	C11H18Si2

Sample file: >FF100 Spectrum #: 2281
Search speed: 1 Tilting option: N No. of ion ranges searched: 44

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	42*	2523480	26147	NBS49K	28	81	3	0	100	21	17	13
2.	42*	51306435	26126	NBS49K	32	104	3	0	100	21	17	13
3.	41*	23132356	26139	NBS49K	23	79	3	0	499	21	17	12

0327

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-020

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684320

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF101

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 13 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 7.2 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	430	J
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	400	J
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	1400	
606-20-2	2,6-Dinitrotoluene	760	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-020

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684320

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF101

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 13 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 7.2 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	95	J
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	130	J
7005-72-3	4-Chlorophenyl-phenylether	760	U
86-73-7	Fluorene	260	J
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	700	J
120-12-7	Anthracene	430	J
84-74-2	Di-n-Butylphthalate	760	U
206-44-0	Fluoranthene	3500	
129-00-0	Pyrene	5600	
85-68-7	Butylbenzylphthalate	760	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)Anthracene	3800	
218-01-9	Chrysene	3300	
117-81-7	bis(2-Ethylhexyl)Phthalate	90	J
117-84-0	Di-n-Octyl Phthalate	99	J
205-99-2	Benzo(b)Fluoranthene	5900	
207-08-9	Benzo(k)Fluoranthene	760	U
50-32-8	Benzo(a)Pyrene	3800	
193-39-5	Indeno(1,2,3-cd)Pyrene	1400	
53-70-3	Dibenz(a,h)Anthracene	470	J
191-24-2	Benzo(g,h,i)Perylene	1200	

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-020

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684320

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF101

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 13 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

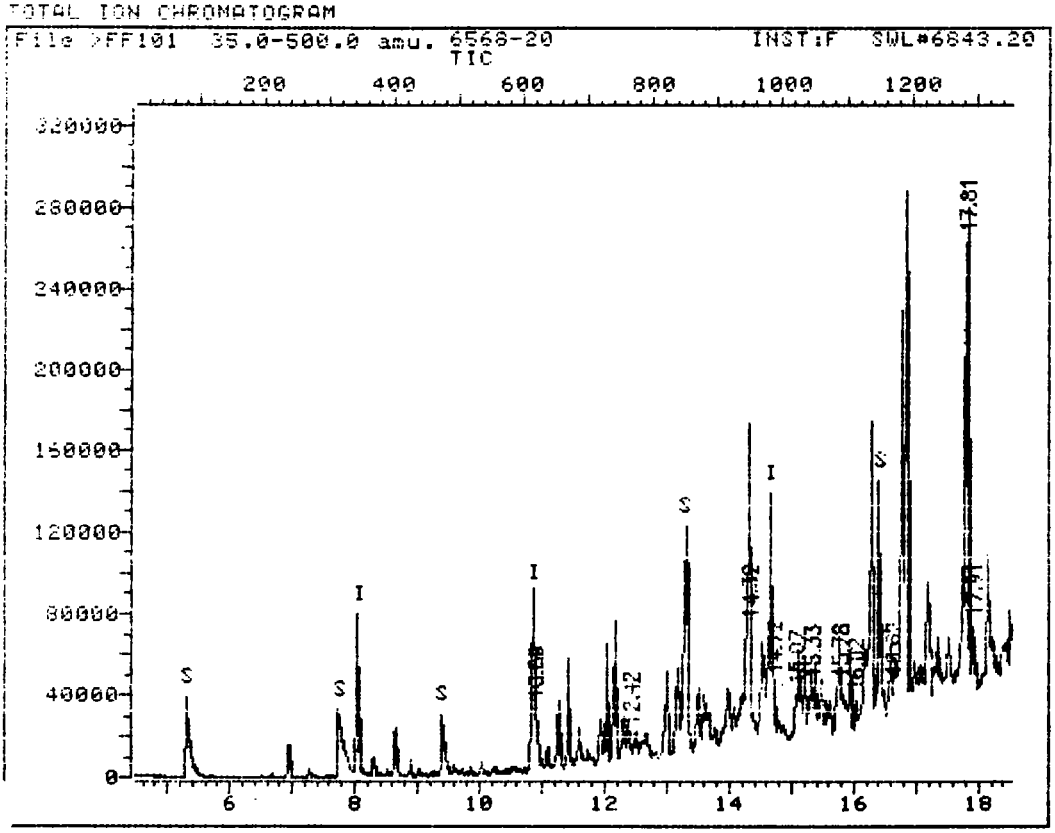
GPC Cleanup: (Y/N) Y pH: 7.2 Dilution Factor: 1.0

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN HYDROCARBON	16.27	2400	J
2.		UNKNOWN HYDROCARBON	16.77	3600	J
3.		UNKNOWN HYDROCARBON	16.84	4400	J
4.		UNKNOWN COMPOUND	17.19	1700	J
5.		UNKNOWN HYDROCARBON	18.57	1500	J
6.		UNKNOWN COMPOUND	19.10	2100	J
7.		UNKNOWN COMPOUND	20.14	1600	J
8.		UNKNOWN PNA	20.29	1500	J
9.		UNKNOWN PNA	20.57	1700	J
10.		UNKNOWN COMPOUND	20.77	770	J
11.		UNKNOWN PNA	21.37	770	J
12.		UNKNOWN PNA	21.60	2200	J
13.		UNKNOWN PNA	21.72	840	J
14.		UNKNOWN PNA	22.00	840	J
15.		UNKNOWN PNA	24.29	1100	J
16.		UNKNOWN COMPOUND	26.67	1800	J
17.		UNKNOWN COMPOUND	27.57	2500	J
18.		UNKNOWN COMPOUND	28.37	3300	J
19.		UNKNOWN COMPOUND	28.74	1400	J
20.		UNKNOWN COMPOUND	29.39	1400	J

TOTAL ION CHROMATOGRAM



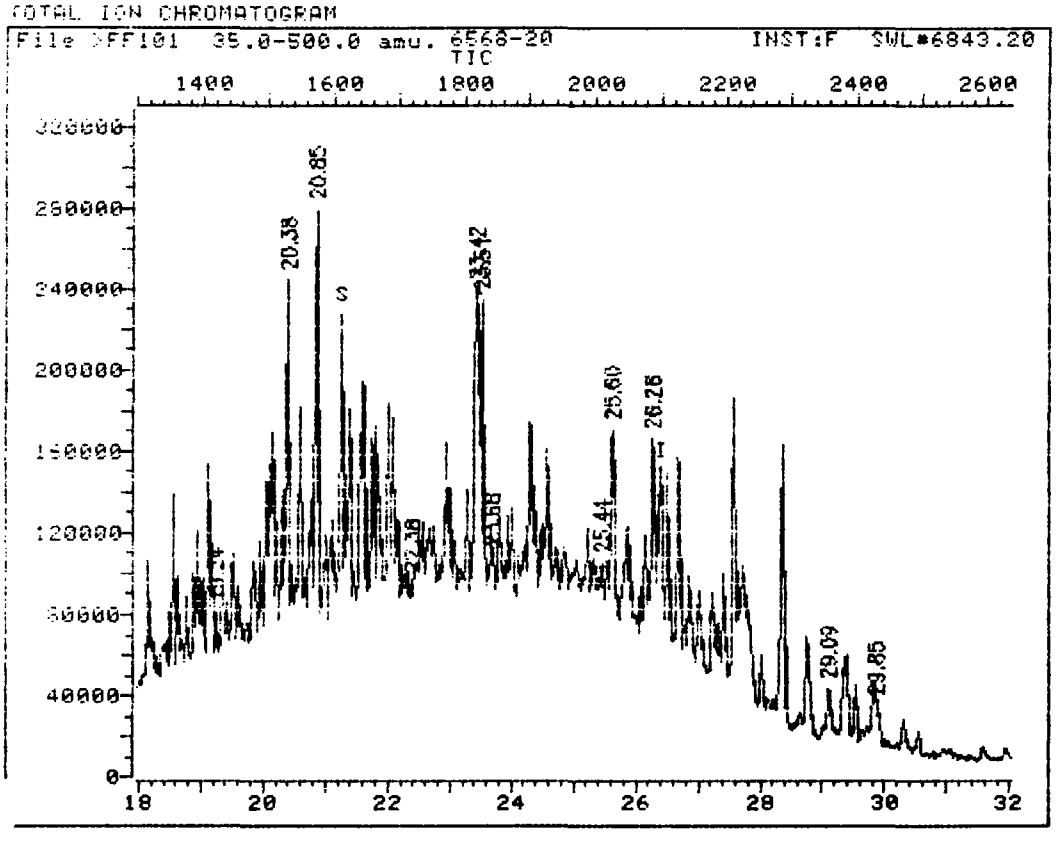
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910814 00:51
Injected at: 910814 00:16

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910814 00:51
Injected at: 910814 00:16

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA Quant Rev: 6 Quant Time: 910814 00:51
Output File: ^FF101::D7 Injected at: 910814 00:16
Data File: >FF101::D6 Dilution Factor: 1.00000
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13

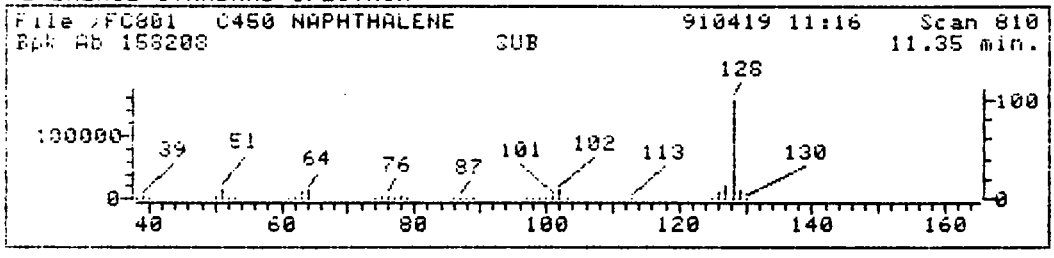
ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30	1,4-DICHLOROBENZENE-D4	8.04	152.0	29608	40.00	NG/UL	94
15)	CS50	2-FLUOROPHENOL	5.29	112.0	45866	72.05	NG/UL	88
16)	CS45	PHENOL-D5	7.73	99.0	69753	76.95	NG/UL	88
17)	*CI40	NAPHTHALENE-D8	10.85	136.0	120701	40.00	NG/UL	97
26)	C450	NAPHTHALENE	10.89	128.0	16208	5.57	NG/UL	99
30)	C470	2-METHYLNAPHTHALENE	12.42	142.0	13329	5.17	NG/UL	96
31)	CS20	NITROBENZENE-D5	9.38	82.0	33698	29.96	NG/UL	88
32)	*CI50	ACENAPHTHENE-D10	14.65	164.0	60558	40.00	NG/UL	97
39)	C540	ACENAPHTHYLENE	14.32	152.0	49648	18.84	NG/UL	99
?)	C550	ACENAPHTHENE	14.72	153.0	1909	1.24	NG/UL	97
)	~~C565~~	~~DIBENZOFURAN~~	~~15.07~~	~~168.0~~	~~3725~~	~~1.49~~	~~NG/UL~~ FM	~~68~~
)	~~C570~~	~~2,4-DINITROTOLUENE~~	~~15.33~~	~~165.0~~	~~1552~~	~~2.00~~	~~NG/UL~~	~~93~~
47)	C580	DIETHYLPHTHALATE	15.78	149.0	3431	1.69	NG/UL	89
49)	C590	FLUORENE	16.02	166.0	5363	3.36	NG/UL	99
51)	CS25	2-FLUOROBIPHENYL	13.28	172.0	92773	46.09	NG/UL	98
52)	CS55	2,4,6-TRIBROMOPHENOL	16.40	329.8	48807	183.68	NG/UL	93
53)	*CI60	PHENANTHRENE-D10	17.77	188.0	151524	40.00	NG/UL	92
~~54)~~	~~C610~~	~~4,6-DINITRO-2-METHYLPHENO~~	~~16.62~~	~~198.0~~	~~394~~	~~.67~~	~~NG/UL~~	~~100~~
59)	C640	PHENANTHRENE	17.81	178.0	35823	9.09	NG/UL	95
60)	C645	ANTHRACENE	17.91	178.0	21648	5.58	NG/UL AP	94
~~61)~~	~~C650~~	~~DI-N-BUTYLPHTHALATE~~	~~19.24~~	~~149.0~~	~~1654~~	~~.29~~	~~NG/UL~~	~~87~~
62)	C655	FLUORANTHENE	20.38	202.0	197614	45.62	NG/UL	85
63)	*CI70	CHRYSENE-D12	23.45	240.0	118398	40.00	NG/UL	93
64)	C715	PYRENE	20.85	202.0	275082	73.18	NG/UL	82
~~65)~~	~~C720~~	~~BUTYLBENZYLPHTHALATE~~	~~22.38~~	~~149.0~~	~~939~~	~~.41~~	~~NG/UL~~	~~81~~
67)	C730	BENZO(A)ANTHRACENE	23.42	228.0	162626	49.07	NG/UL	88
68)	C740	CHRYSENE	23.51	228.0	138361	43.47	NG/UL	94
69)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	23.68	149.0	3723	1.17	NG/UL	88
70)	CS30	TERPHENYL-D14	21.25	244.0	130075	55.31	NG/UL	86
71)	*CI75	PERYLENE-D12	26.38	264.0	71382	40.00	NG/UL	97
72)	C760	DI-N-OCTYLPHTHALATE	25.44	149.0	4087	1.29	NG/UL	100
73)	C765	BENZO(B)FLUORANTHENE **	25.60	252.0	150949	76.44	NG/UL	90
75)	C775	BENZO(A)PYRENE	26.26	252.0	92696	49.34	NG/UL	94
76)	C780	INDENO(1,2,3-CD)PYRENE	29.09	276.0	38856	18.71	NG/UL	93
77)	C785	DIBENZ(A,H)ANTHRACENE	29.09	278.0	9876	6.08	NG/UL	95
)	C790	BENZO(G,H,I)PERYLENE	29.85	276.0	30303	16.34	NG/UL	89

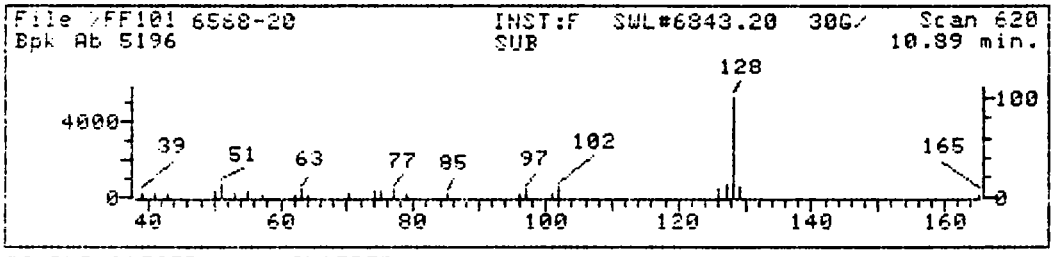
* Compound is ISTD

** TOTAL BENZO(B,K)FLUORANTHENE

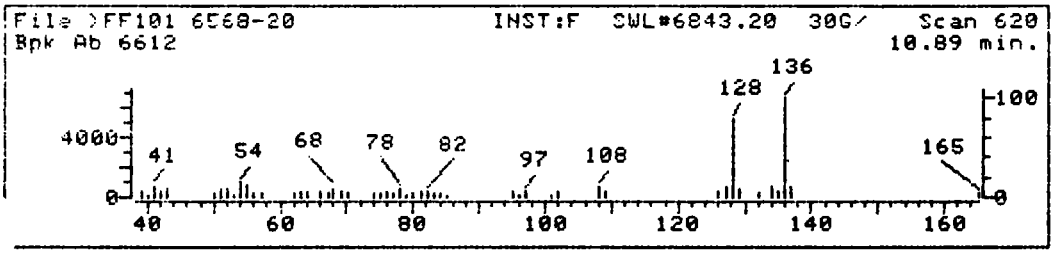
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



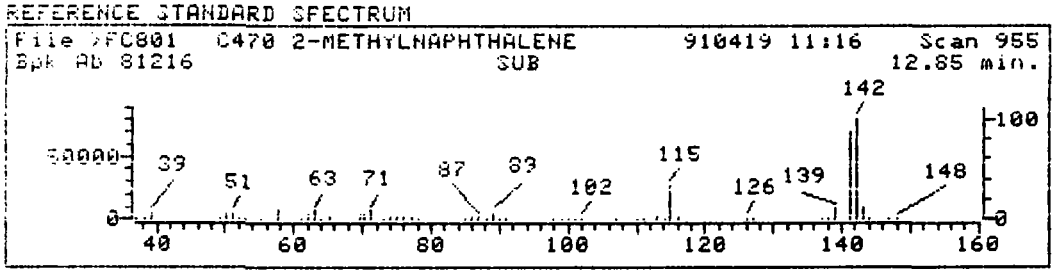
SAMPLE SPECTRUM (UNALTERED)



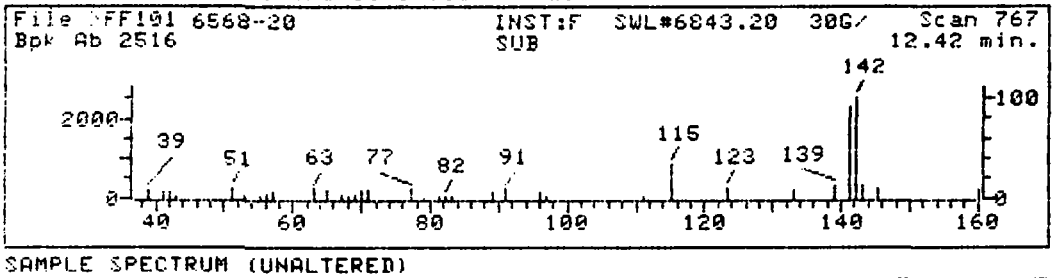
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 26
Compound Name: C450 NAPHTHALENE
Scan Number: 620
Retention Time: 10.89 min.
Quant Ion: 128.0
Area: 16208
Concentration: 5.57 NG/UL
q-value: 99

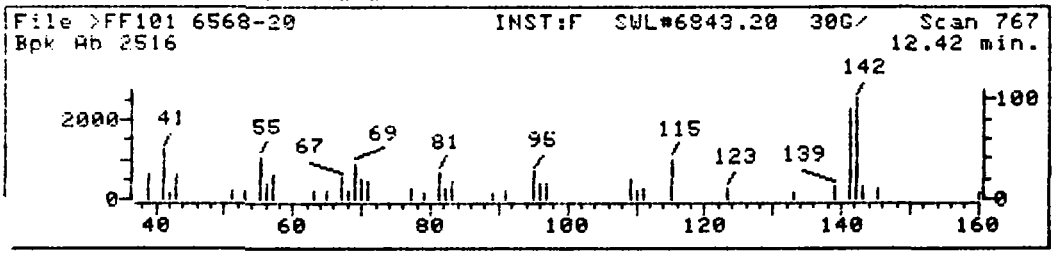
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



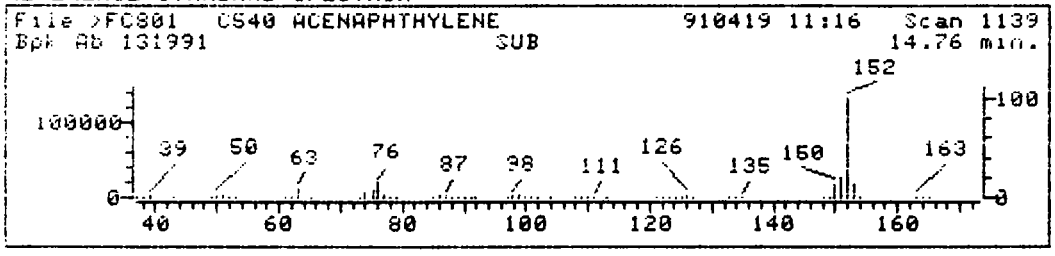
SAMPLE SPECTRUM (UNALTERED)



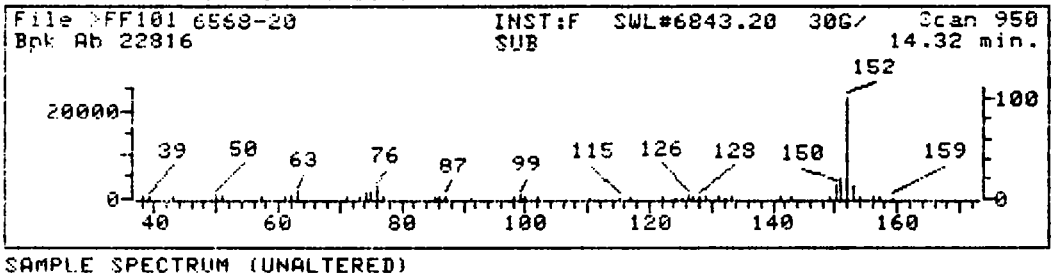
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 30
Compound Name: C470 2-METHYLNAPHTHALENE
Scan Number: 767
Retention Time: 12.42 min.
Quant Ion: 142.0
Area: 13329
Concentration: 5.17 NG/UL
q-value: 96

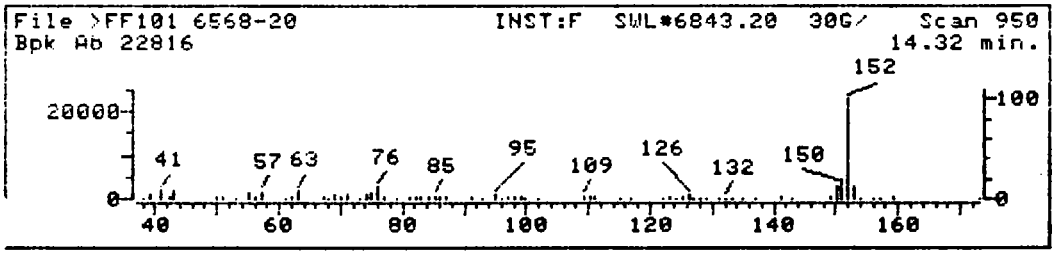
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



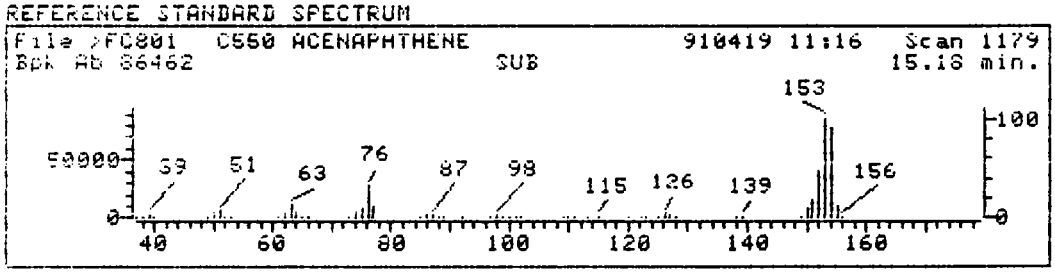
SAMPLE SPECTRUM (UNALTERED)



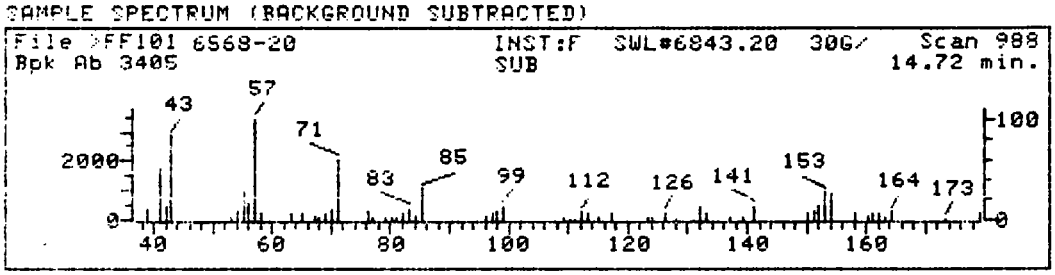
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 39
Compound Name: C540 ACENAPHTHYLENE
Scan Number: 950
Retention Time: 14.32 min.
Quant Ion: 152.0
Area: 49648
Concentration: 18.84 NG/UL
q-value: 99

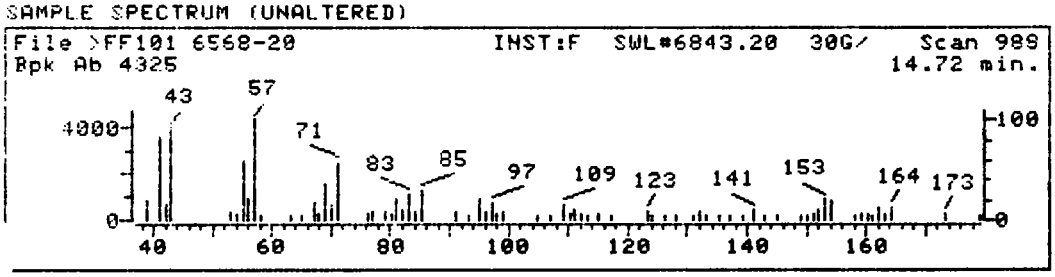
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



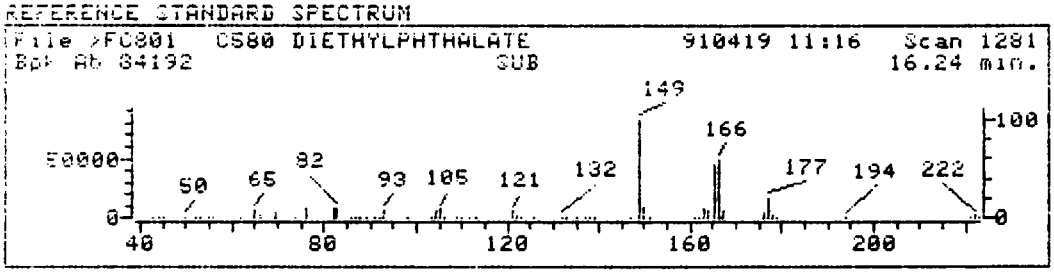
SAMPLE SPECTRUM (UNALTERED)



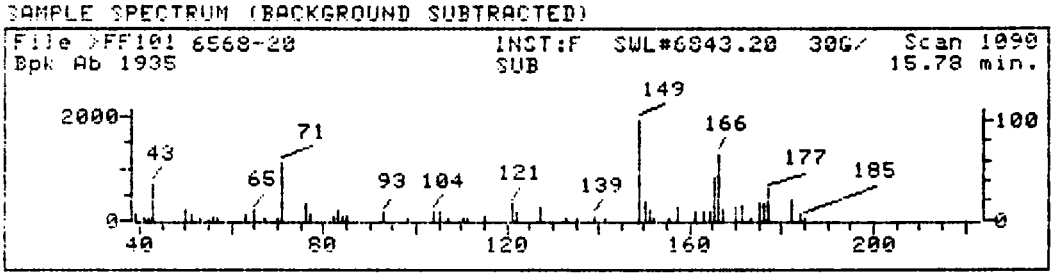
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 42
Compound Name: C550 ACENAPHTHENE
Scan Number: 988
Retention Time: 14.72 min.
Quant Ion: 153.0
Area: 1909
Concentration: 1.24 NG/UL
q-value: 97

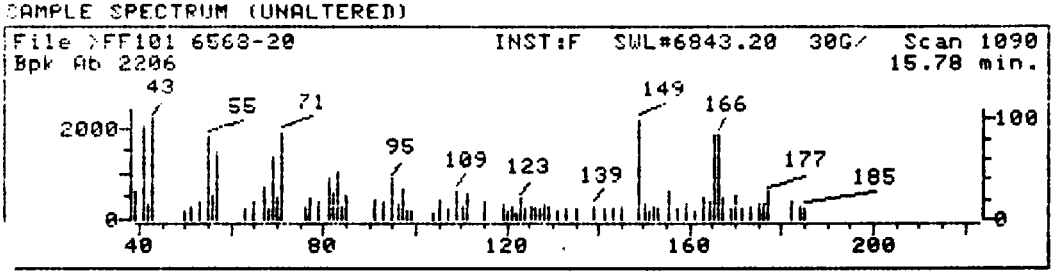
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



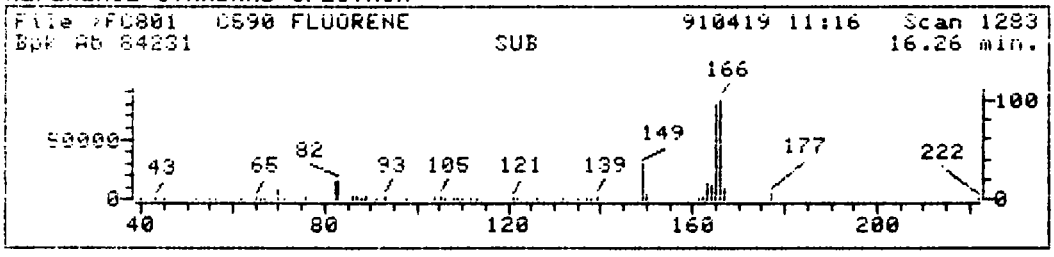
SAMPLE SPECTRUM (UNALTERED)



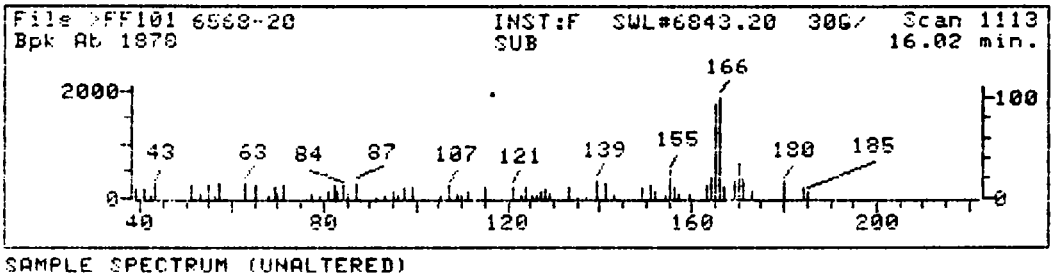
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 47
Compound Name: C580 DIETHYLPHTHALATE
Scan Number: 1090
Retention Time: 15.78 min.
Quant Ion: 149.0
Area: 3431
Concentration: 1.69 NG/UL
q-value: 89

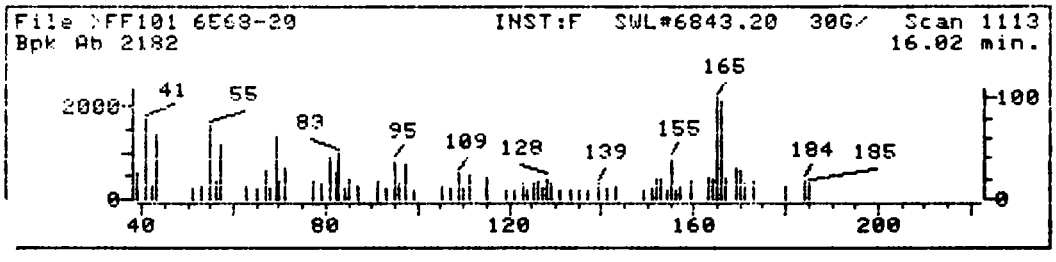
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



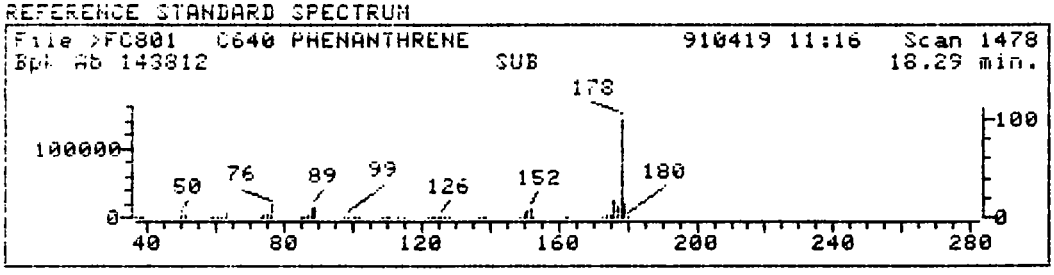
SAMPLE SPECTRUM (UNALTERED)



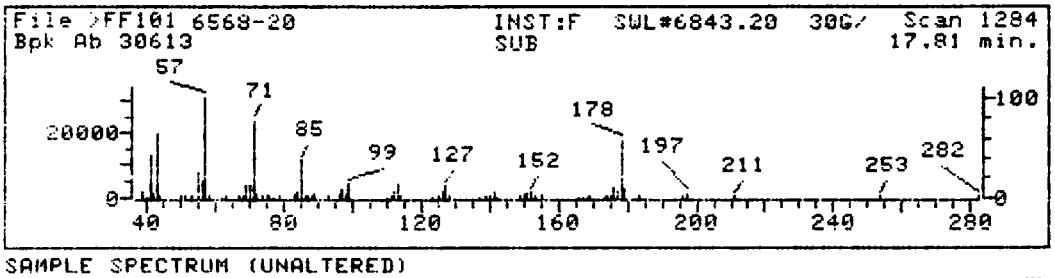
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 49
Compound Name: C590 FLUORENE
Scan Number: 1113
Retention Time: 16.02 min.
Quant Ion: 166.0
Area: 5363
Concentration: 3.36 NG/UL
q-value: 99

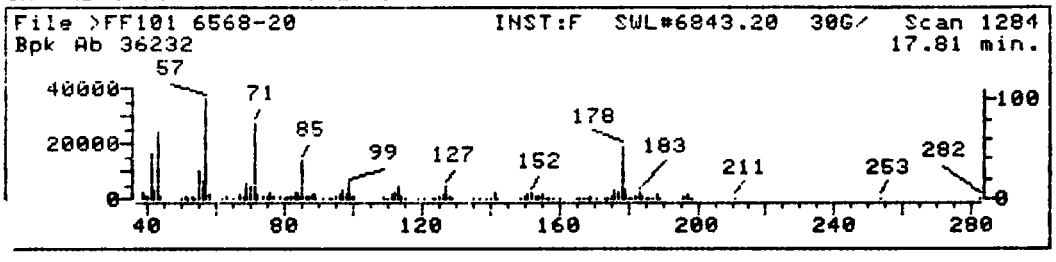
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



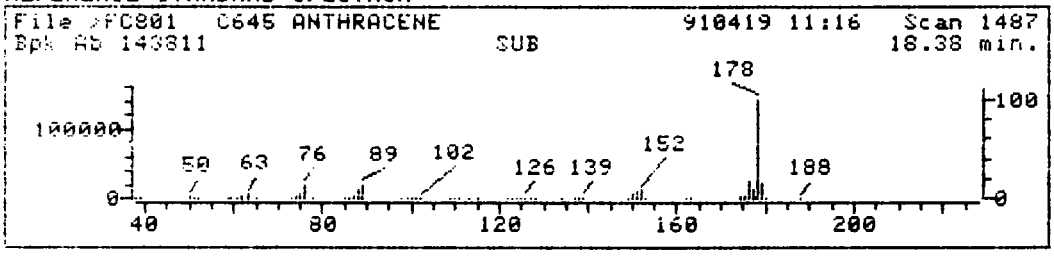
SAMPLE SPECTRUM (UNALTERED)



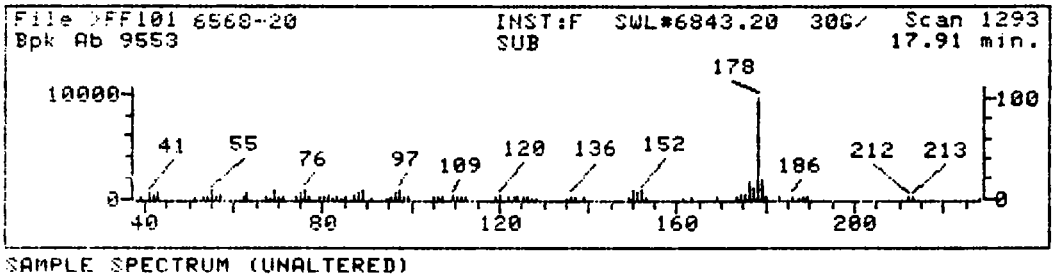
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 59
Compound Name: C640 PHENANTHRENE
Scan Number: 1284
Retention Time: 17.81 min.
Quant Ion: 178.0
Area: 35823
Concentration: 9.09 NG/UL
q-value: 95

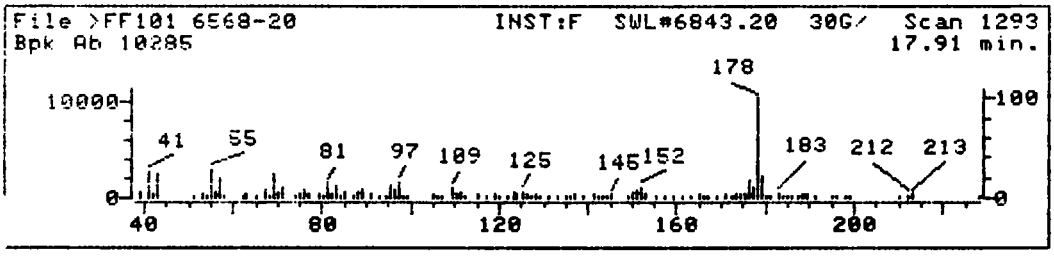
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



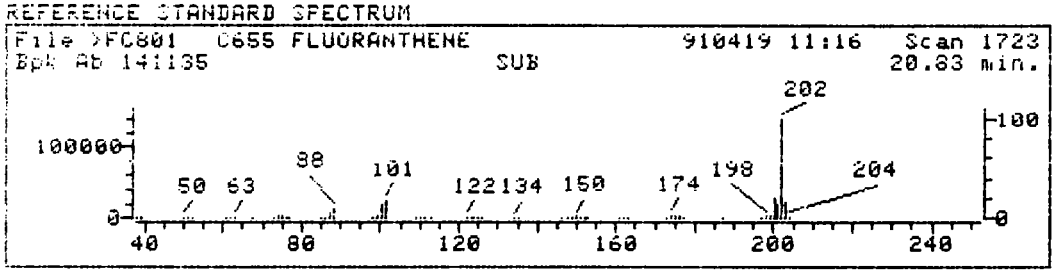
SAMPLE SPECTRUM (UNALTERED)



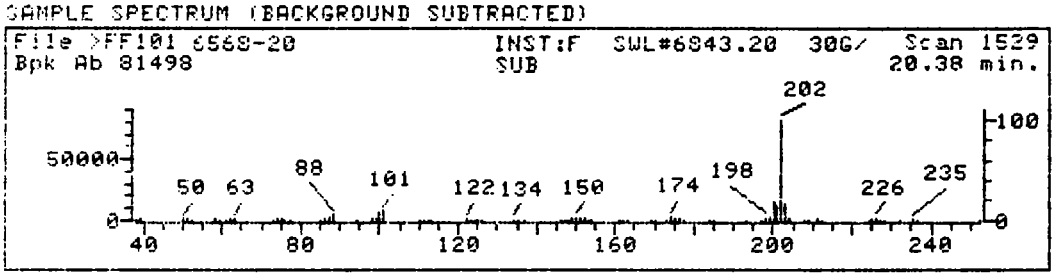
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 60
Compound Name: C645 ANTHRACENE
Scan Number: 1293
Retention Time: 17.91 min.
Quant Ion: 178.0
Area: 21648
Concentration: 5.58 NG/UL
q-value: 94

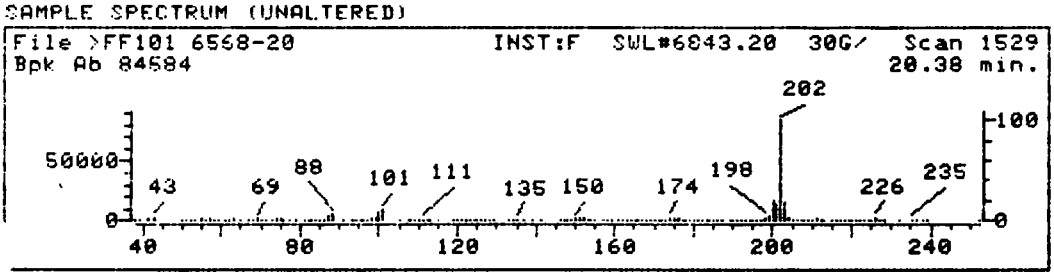
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



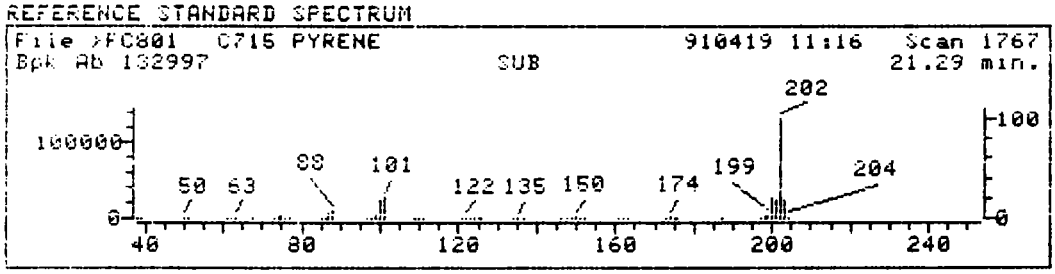
SAMPLE SPECTRUM (UNALTERED)



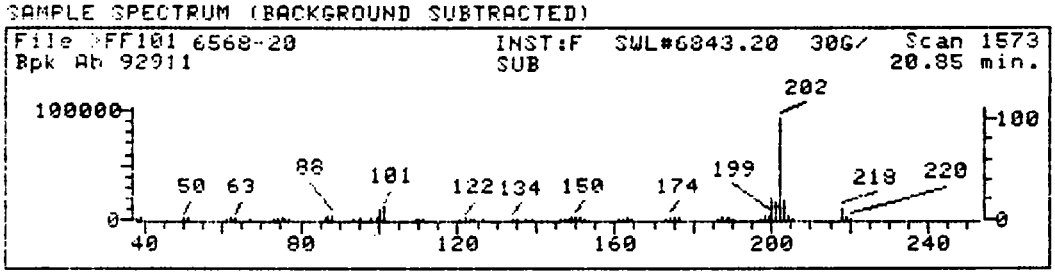
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 62
Compound Name: C655 FLUORANTHENE
Scan Number: 1529
Retention Time: 20.38 min.
Quant Ion: 202.0
Area: 197614
Concentration: 45.62 NG/UL
q-value: 85

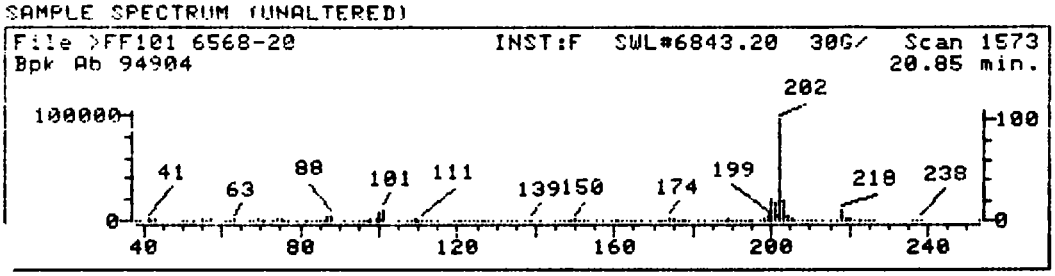
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



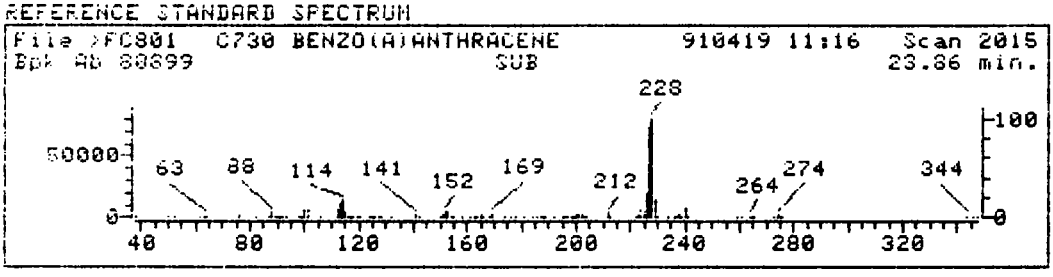
SAMPLE SPECTRUM (UNALTERED)



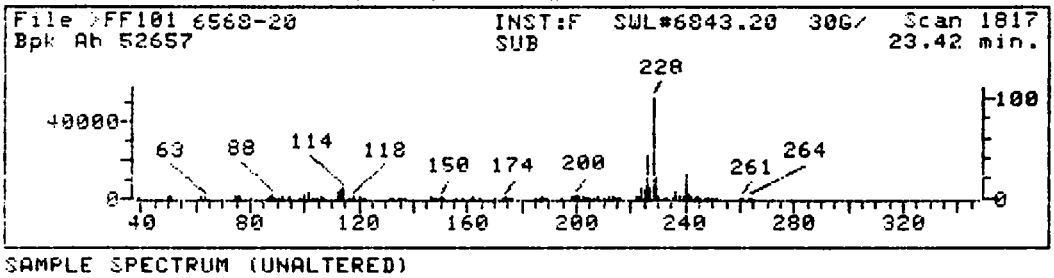
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 64
Compound Name: C715 PYRENE
Scan Number: 1573
Retention Time: 20.85 min.
Quant Ion: 202.0
Area: 275082
Concentration: 73.18 NG/UL
q-value: 82

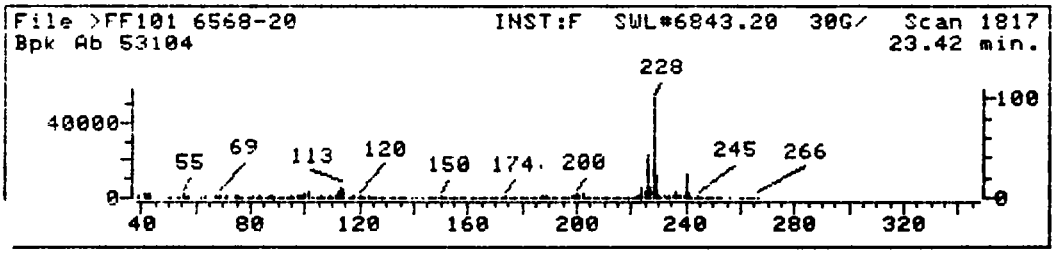
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



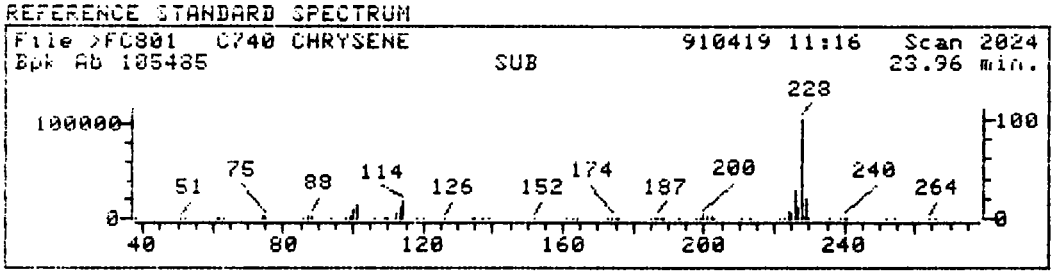
SAMPLE SPECTRUM (UNALTERED)



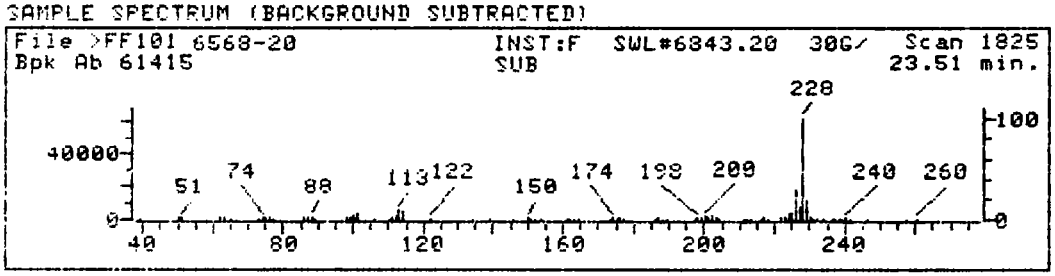
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 67
Compound Name: C730 BENZO(A)ANTHRACENE
Scan Number: 1817
Retention Time: 23.42 min.
Quant Ion: 228.0
Area: 162626
Concentration: 49.07 NG/UL
q-value: 88

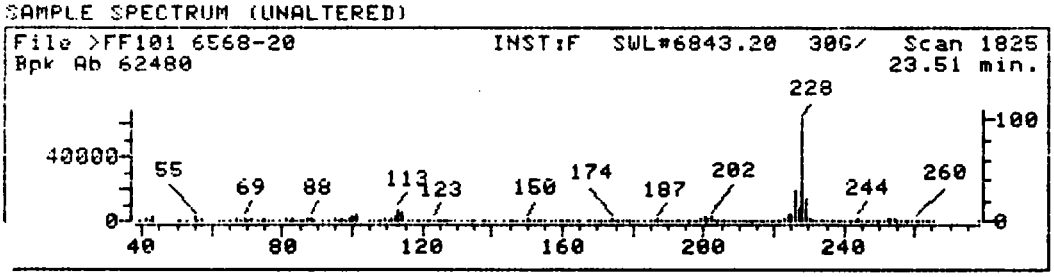
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



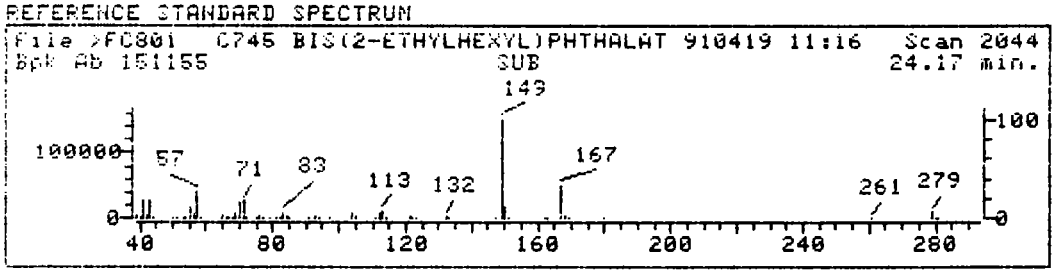
SAMPLE SPECTRUM (UNALTERED)



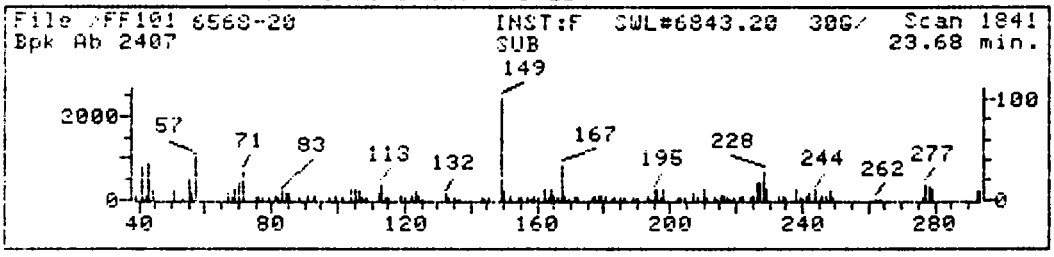
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 68
Compound Name: C740 CHRYSENE
Scan Number: 1825
Retention Time: 23.51 min.
Quant Ion: 228.0
Area: 138361
Concentration: 43.47 NG/UL
q-value: 94

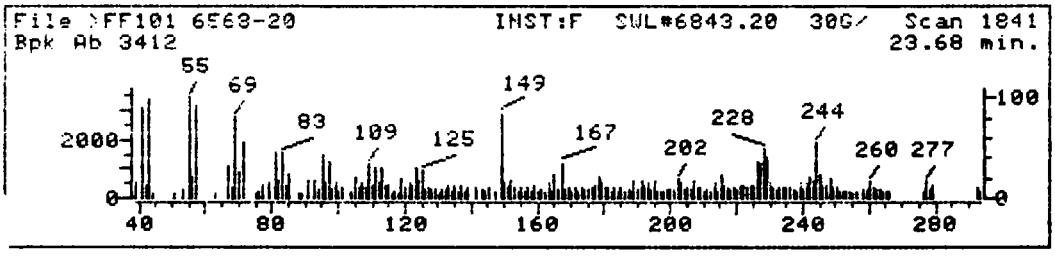
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



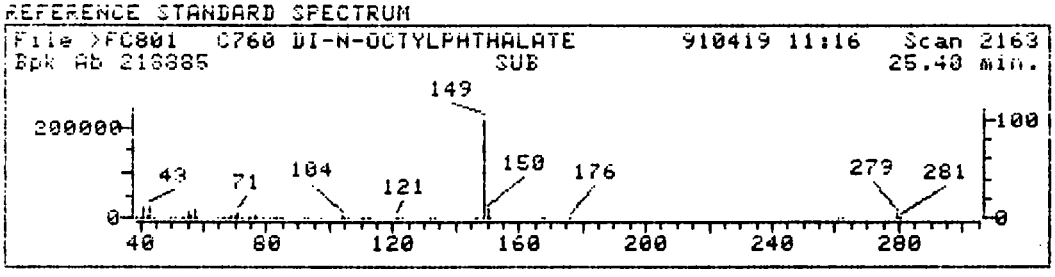
SAMPLE SPECTRUM (UNALTERED)



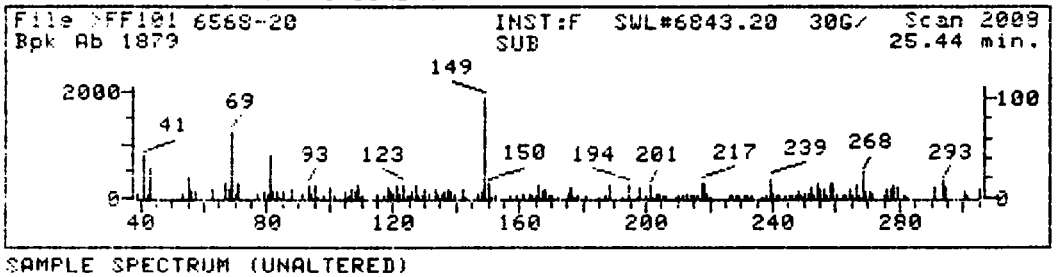
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 69
Compound Name: C745 BIS(2-ETHYLHEXYL)PHTHALAT
Scan Number: 1841
Retention Time: 23.68 min.
Quant Ion: 149.0
Area: 3723
Concentration: 1.17 NG/UL
q-value: 88

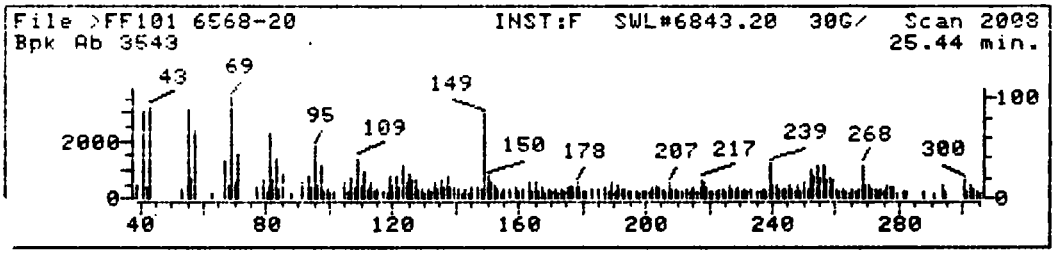
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



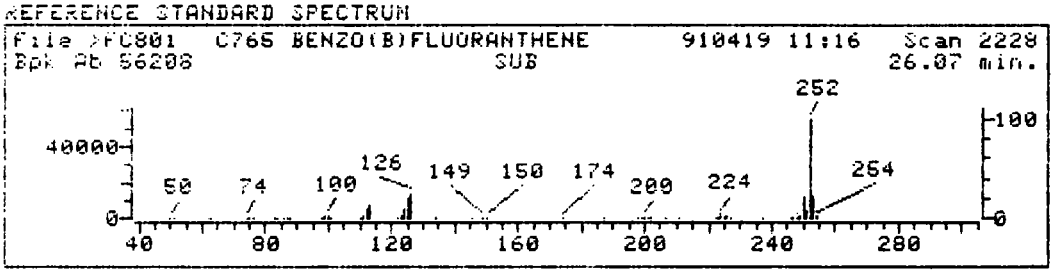
SAMPLE SPECTRUM (UNALTERED)



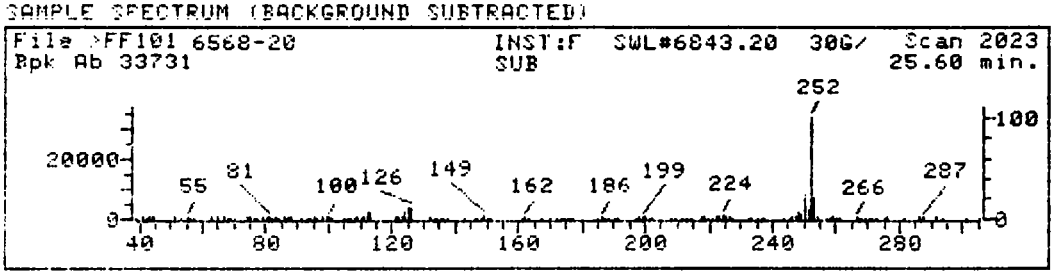
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 72
Compound Name: C760 DI-N-OCTYLPHTHALATE
Scan Number: 2008
Retention Time: 25.44 min.
Quant Ion: 149.0
Area: 4087
Concentration: 1.29 NG/UL
q-value: 100

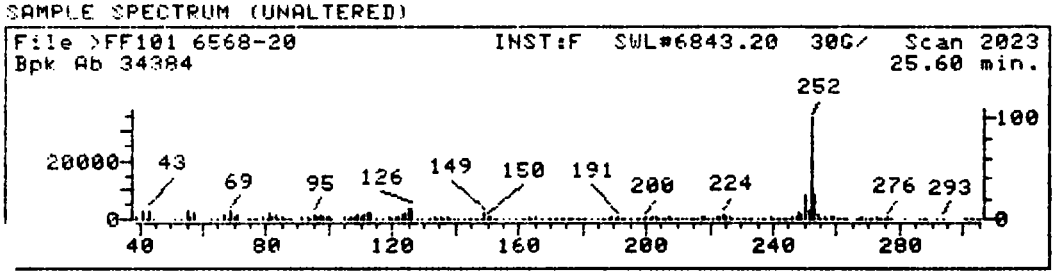
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



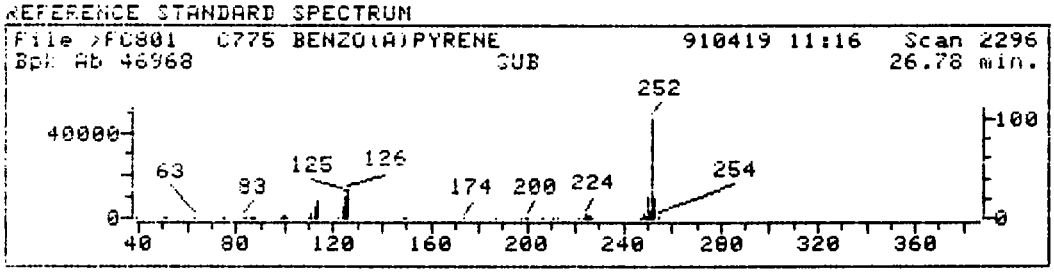
SAMPLE SPECTRUM (UNALTERED)



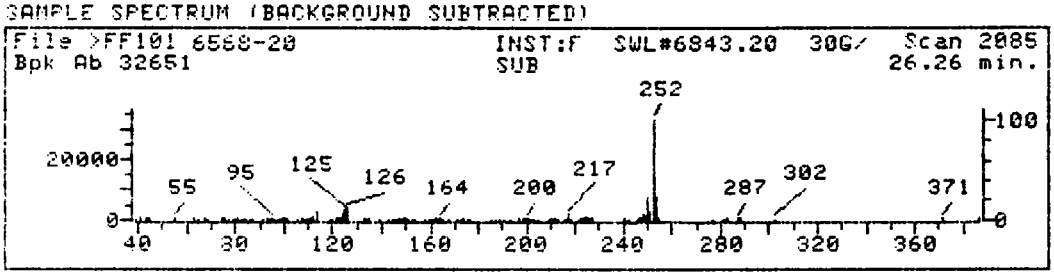
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 73
Compound Name: C765 BENZO(B)FLUORANTHENE
Scan Number: 2023
Retention Time: 25.60 min.
Quant Ion: 252.0
Area: 150949
Concentration: 76.44 NG/UL
q-value: 90

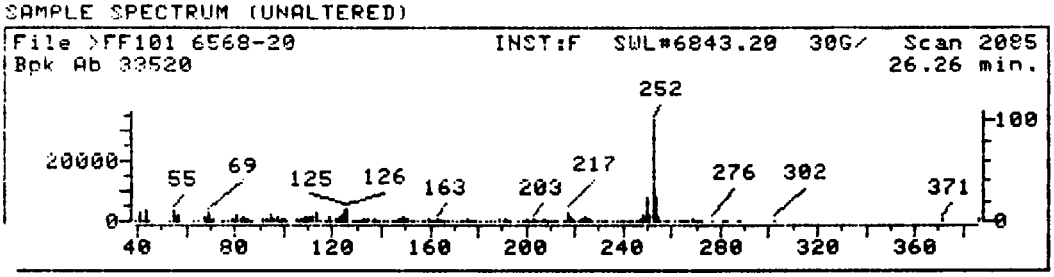
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



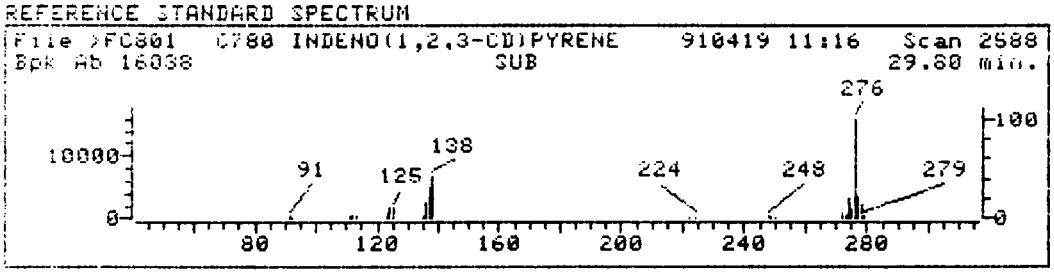
SAMPLE SPECTRUM (UNALTERED)



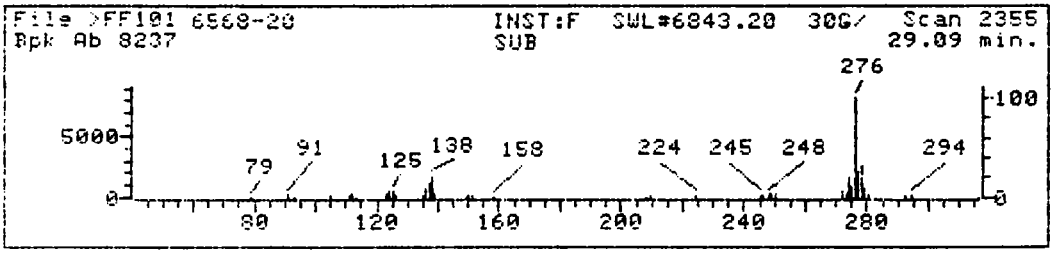
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 75
Compound Name: C775 BENZO(A)PYRENE
Scan Number: 2085
Retention Time: 26.26 min.
Quant Ion: 252.0
Area: 92696
Concentration: 49.34 NG/UL
q-value: 94

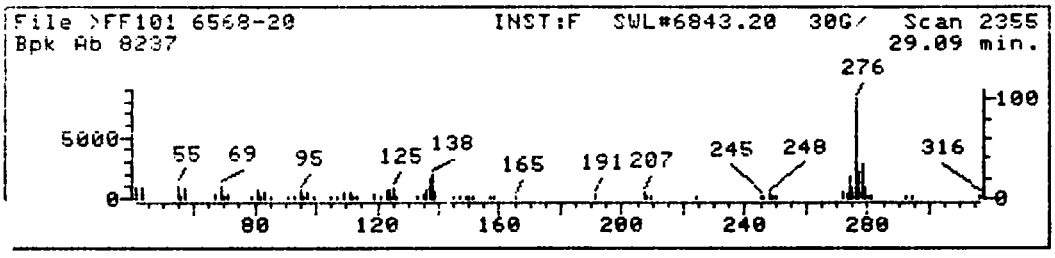
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



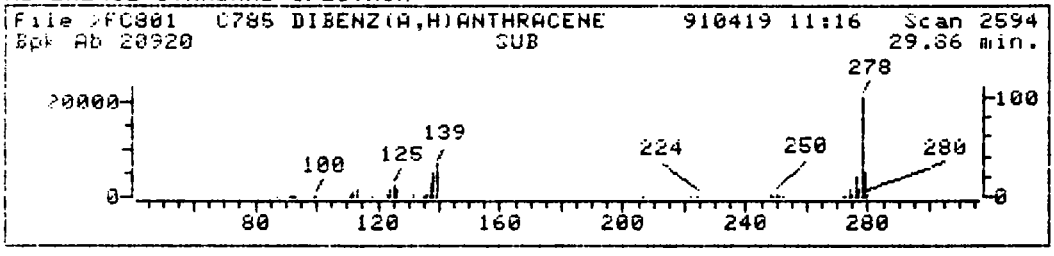
SAMPLE SPECTRUM (UNALTERED)



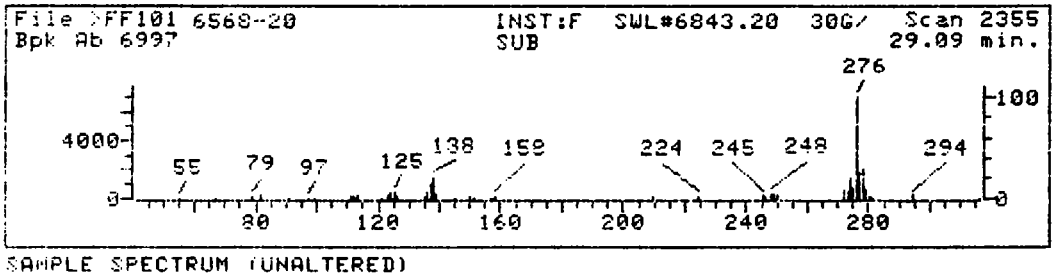
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 76
Compound Name: C780 INDENO(1,2,3-CD)PYRENE
Scan Number: 2355
Retention Time: 29.09 min.
Quant Ion: 276.0
Area: 38856
Concentration: 18.71 NG/UL
q-value: 93

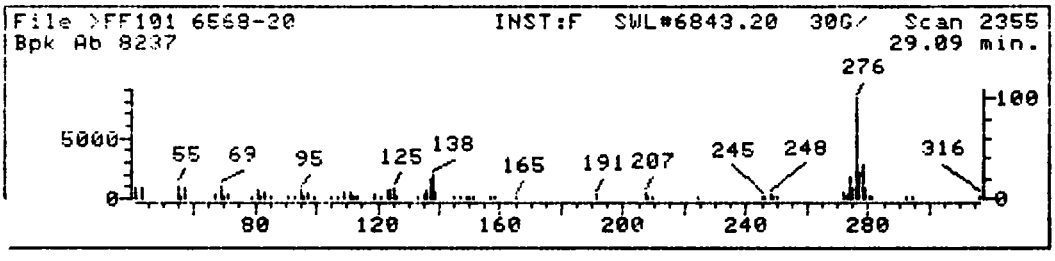
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



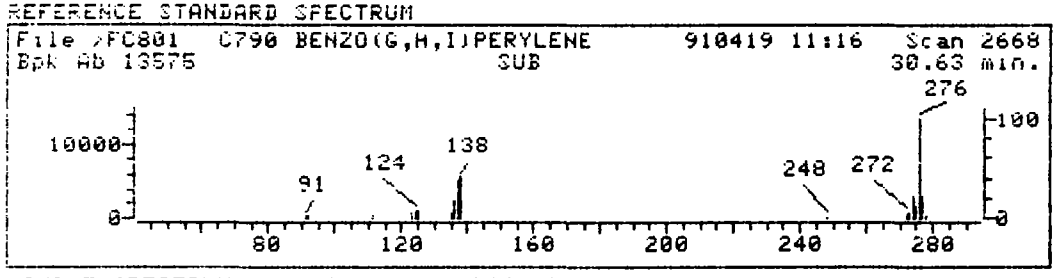
SAMPLE SPECTRUM (UNALTERED)



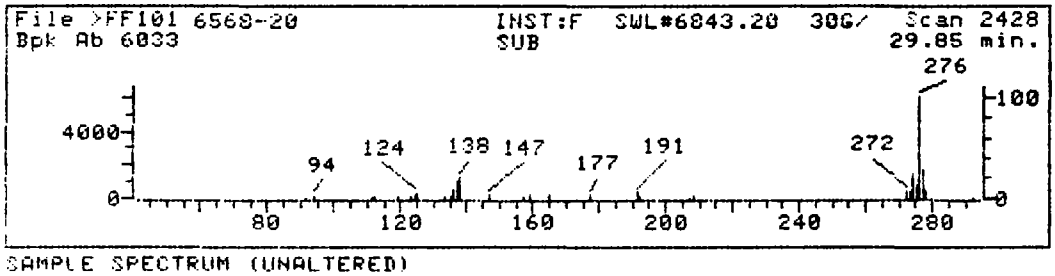
Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 77
Compound Name: C785 DIBENZ(A,H)ANTHRACENE
Scan Number: 2355
Retention Time: 29.09 min.
Quant Ion: 278.0
Area: 9876
Concentration: 6.08 NG/UL
q-value: 95

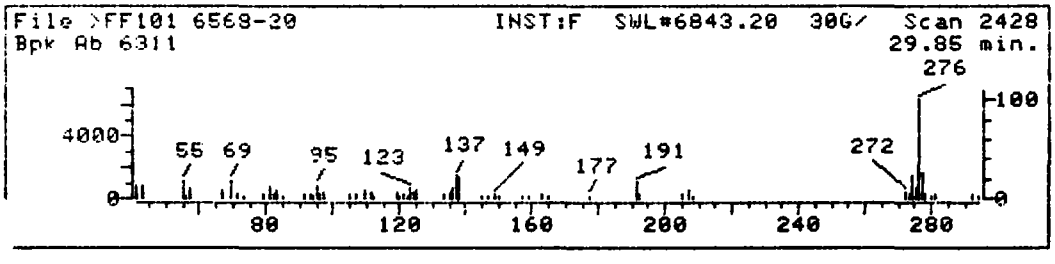
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >FF101::D6 Quant Output File: ^FF101::D7
Name: 6568-20
Misc: INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Quant Time: 910814 00:51 Quant ID File: ID_BN2::EX
Injected at: 910814 00:16 Last Calibration: 910813 16:27

Compound No: 78
Compound Name: C790 BENZO(G,H,I)PERYLENE
Scan Number: 2428
Retention Time: 29.85 min.
Quant Ion: 276.0
Area: 30303
Concentration: 16.34 NG/UL
q-value: 89

data file header from : >FF101

Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16
Misc : INST:F SWL#6843.20 30G/1ML/1UL BTL#13
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: #STDF Tuning file: F2TUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 300 Transfer line temp. : 0

Chromatographic temperatures : 45. 300. 0. 0. 0.
Chromatographic times, min. : 4.0 9.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 12.0 0.0 0.0 0.0 0.0

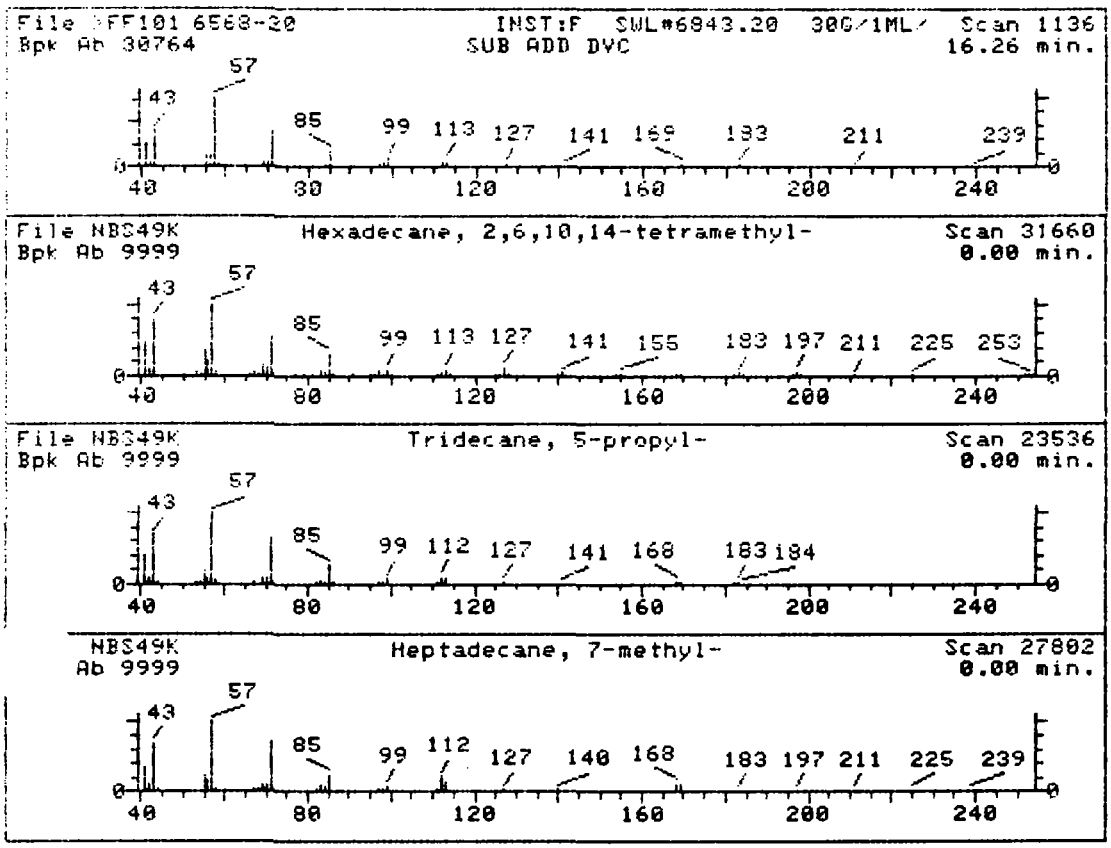
>FF101 6568-20 INST:F SWL#6843.20 30G/1ML/1UL
35.01 500.0 CLP ADC TIC
Upslope: .20 Area Reject: 16754. Max Peaks: 20 Bunching: 1
Onslope: 0.00 Results File IFF101 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	16.26	1133	1136	1140	141852	423669	279767	53.48	5.185
2	16.77	1176	1185	1187	177627	787528	422381	80.74	7.829
3	16.84	1187	1191	1194	246471	706023	523116	100.00	9.696
4	17.18	1219	1224	1230	55687	472591	197708	37.79	3.664
5	18.57	1352	1356	1359	83797	414609	170225	32.54	3.155
6	19.10	1403	1407	1410	92876	504112	237292	45.36	4.398
7	20.14	1503	1506	1509	80210	530065	192257	36.75	3.563
8	20.28	1514	1519	1521	63520	517106	174774	33.41	3.239
9	20.57	1543	1547	1551	94308	642215	197594	37.77	3.662
10	20.76	1559	1565	1567	55292	574701	164800	31.50	3.054
11	21.37	1622	1623	1628	91524	504591	166833	31.89	3.092
12	21.60	1635	1644	1648	105831	1200546	466772	89.23	8.651
13	21.72	1653	1656	1661	71842	669484	186342	35.62	3.454
14	22.00	1678	1682	1685	83588	627888	182355	34.86	3.380
15	24.29	1895	1899	1904	73686	811106	233752	44.68	4.332
16	26.67	2119	2124	2129	93623	674650	273256	52.24	5.065
17	27.57	2204	2210	2214	126641	765921	393326	75.19	7.290
18	28.36	2278	2285	2294	138506	760095	513362	98.14	9.515
19	28.74	2316	2322	2333	49901	421084	210030	40.15	3.893
20	29.38	2373	2383	2389	40857	408002	209431	40.04	3.882

Sum of corrected areas: 5395373.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	167540.	8.04	4.48 - 9.44
2	40.0	336121.	10.85	9.44 - 12.75
3	40.0	288528.	14.65	12.75 - 16.21
4	40.0	358012.	17.77	16.21 - 20.61
5	40.0	649331.	23.45	20.61 - 24.92
6	40.0	473848.	26.38	24.92 - 32.02



UNKNOWN

Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

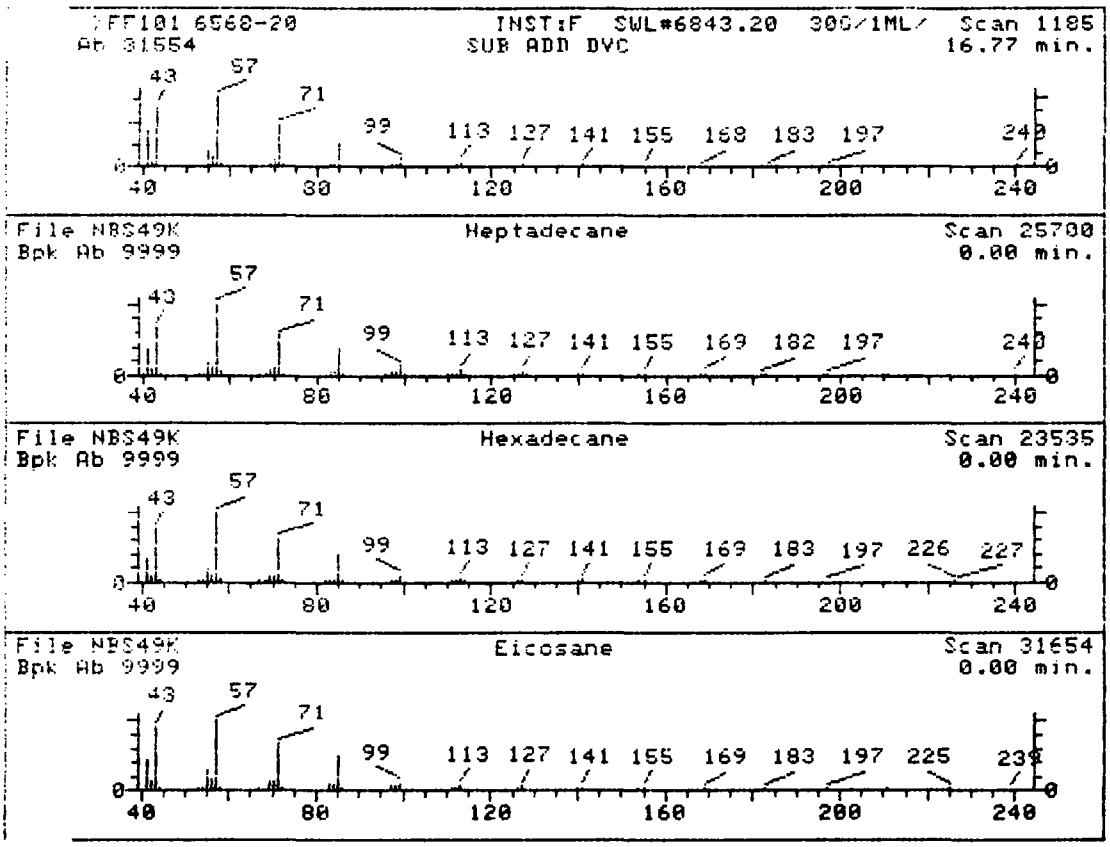
. Unknown #,1
Area = 279767.0 Tentative Concentration is 31.00

1.	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42
2.	Tridecane, 5-propyl-	226	C16H34
3.	Heptadecane, 7-methyl-	254	C18H38
4.	Heptane, 3-ethyl-5-methyl-	142	C10H22
5.	Undecane, 4,6-dimethyl-	184	C13H28
6.	Undecane, 5-ethyl-	184	C13H28
7.	Undecane, 2,5-dimethyl-	184	C13H28

Sample file: >FF101 Spectrum #: 1136
Search speed: 1 Tilting option: N No. of ion ranges searched: 48

0354

Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	% CON	C_I	R_IV



UNKNOWN

Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

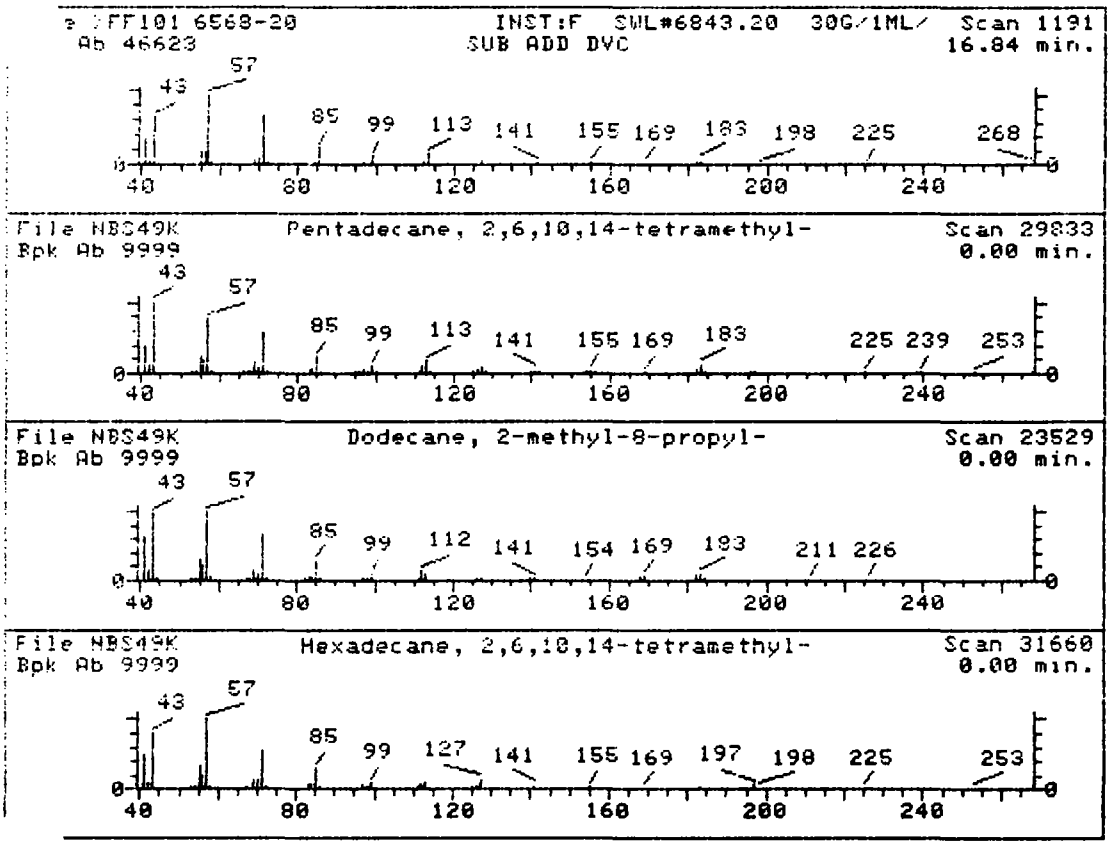
. Unknown #,2
Area = 422381.0 Tentative Concentration is 47.00

1.	Heptadecane	240	C17H36
2.	Hexadecane	226	C16H34
3.	Eicosane	282	C20H42
4.	Tetracosane, 11-decyl-	478	C34H70
5.	Octacosane	394	C28H58
6.	Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44
7.	Pentadecane	212	C15H32

Sample file: >FF101 Spectrum #: 1185
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.	93*	629787	6846	NBS49K	92	29	1	0	68	7	68	92
2.	83	544763	6835	NBS49K	81	39	2	0	92	4	57	22
3.	83	112958	6871	NBS49K	82	57	2	0	67	4	57	22
4.	78	55429840	6913	NBS49K	64	94	2	0	89	4	55	14
5.	76	630024	6906	NBS49K	98	43	3	0	84	9	45	22
6.	76	54833486	6878	NBS49K	93	42	2	0	63	7	45	28

0355



UNKNOWN

Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

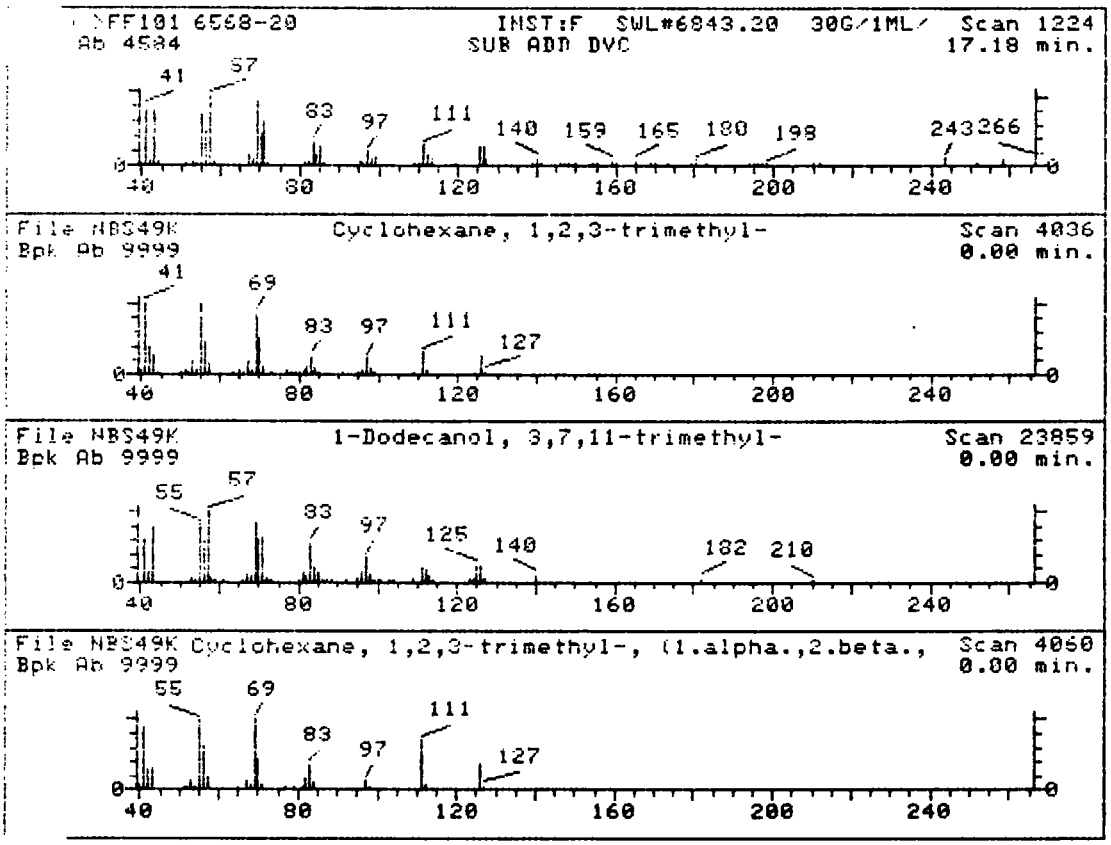
. Unknown #,3
Area = 523116.0 Tentative Concentration is 58.00

1.	Pentadecane, 2,6,10,14-tetramethyl-	268	C19H40
2.	Dodecane, 2-methyl-8-propyl-	226	C16H34
3.	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42
4.	Dodecane, 2,7,10-trimethyl-	212	C15H32
5.	Undecane, 3,6-dimethyl-	184	C13H28
6.	Decane, 5-propyl-	184	C13H28
7.	Heptane, 3-ethyl-5-methyl-	142	C10H22

Sample file: >FF101 Spectrum #: 1191
Search speed: 1 Tilting option: N No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	78*	1921706	25029	NBS49K	78	56	1	0	57	29	37	76
2.	78	55045073	25013	NBS49K	73	55	3	0	70	4	55	13
3.	78	638368	15180	NBS49K	73	66	2	0	69	4	55	18
4.	73	74645980	4422	NBS49K	85	24	0	0	87	21	92	61
5.	67*	17301289	4386	NBS49K	54	43	3	0	182	14	34	21
6.	62*	17312628	4395	NBS49K	68	43	2	0	67	26	25	49

0256



UNKNOWN

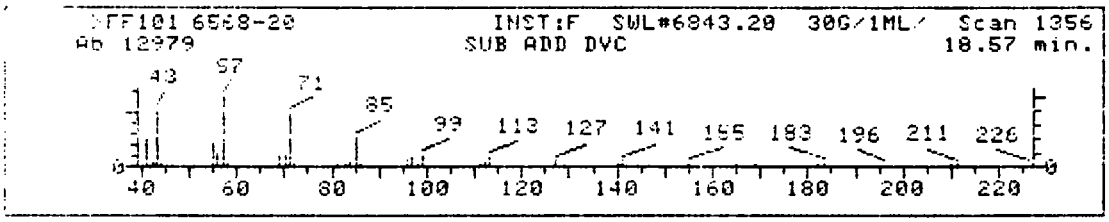
Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

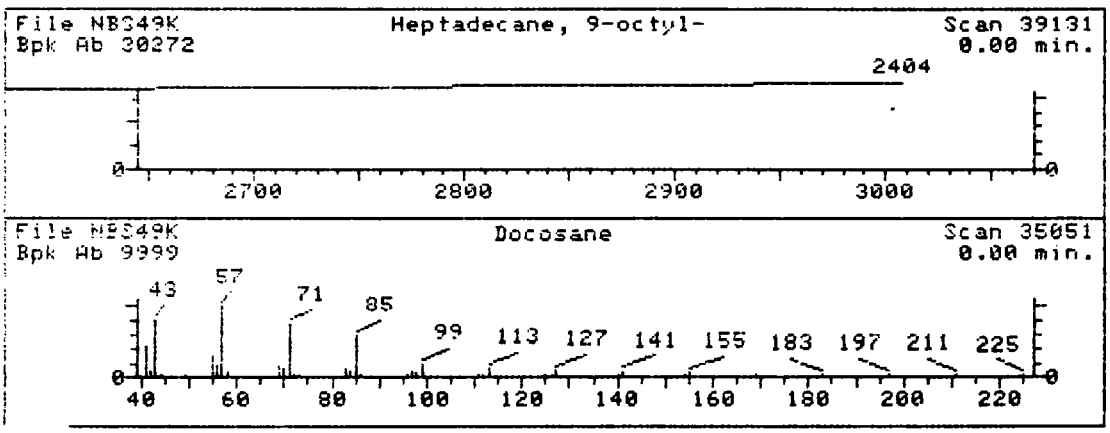
. Unknown #,4
Area = 197708.0 Tentative Concentration is 22.00

1.	Cyclohexane, 1,2,3-trimethyl-	126	C9H18
2.	1-Dodecanol, 3,7,11-trimethyl-	228	C15H32O
3.	Cyclohexane, 1,2,3-trimethyl-, (1.alpha.,2.beta.,3.alpha.)-	126	C9H18
4.	4-Nonene	126	C9H18
5.	1,2-Diazabicyclo[2.2.2]octan-3-one	126	C6H10N2O
6.	Cyclohexane, 1,1,2,3-tetramethyl-	140	C10H20
7.	2-Octene, 2,6-dimethyl-	140	C10H20

Sample file: >FF101 Spectrum #: 1224
Search speed: 1 Tilting option: N No. of ion ranges searched: 44

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	38*	1678973	14775	NBS49K	79	40	2	0	74	53	11	60
2.	27	6750341	14903	NBS49K	82	74	3	0	77	44	8	37
3.	24*	1678815	14779	NBS49K	57	62	3	0	75	53	7	22
4.	20*	2198234	14778	NBS49K	31	72	2	0	116	53	5	14
5.	20*	1632264	14706	NBS49K	26	74	2	0	36	53	5	14





UNKNOWN hyke

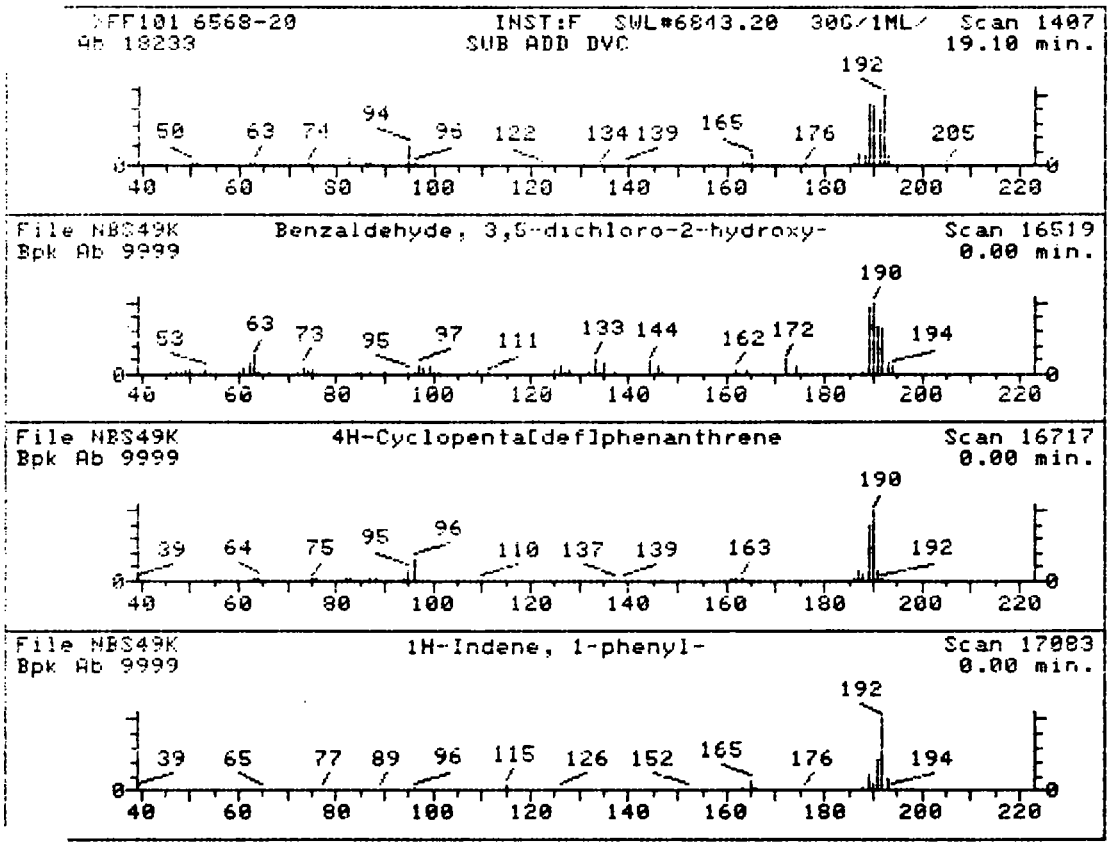
Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

. Unknown #,5
Area = 170225.0 Tentative Concentration is 19.00

1.	Tetracosane, 11-decyl-	478	C34H70
2.	Heptadecane, 9-octyl-	352	C25H52
3.	Docosane	310	C22H46
4.	Docosane, 11-decyl-	450	C32H66
5.	Tetracosane	338	C24H50
6.	Heptacosane	380	C27H56
7.	Decane, 3,6-dimethyl-	170	C12H26

Sample file: >FF101 Spectrum #: 1356
Search speed: 1 Tilting option: N No. of ion ranges searched: 44

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	87	55429840	6913	NBS49K	108	50	2	0	97	4	63	44
2.	86	7225641	6893	NBS49K	98	49	2	0	91	5	60	31
3.	86	629970	6886	NBS49K	96	53	2	0	75	5	60	30
4.	83	55401553	6909	NBS49K	95	64	2	0	91	4	57	29
5.	83	646311	6891	NBS49K	86	59	2	0	72	5	57	24
6.	83	593497	6904	NBS49K	89	66	2	0	94	4	57	26



UNKNOWN

Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

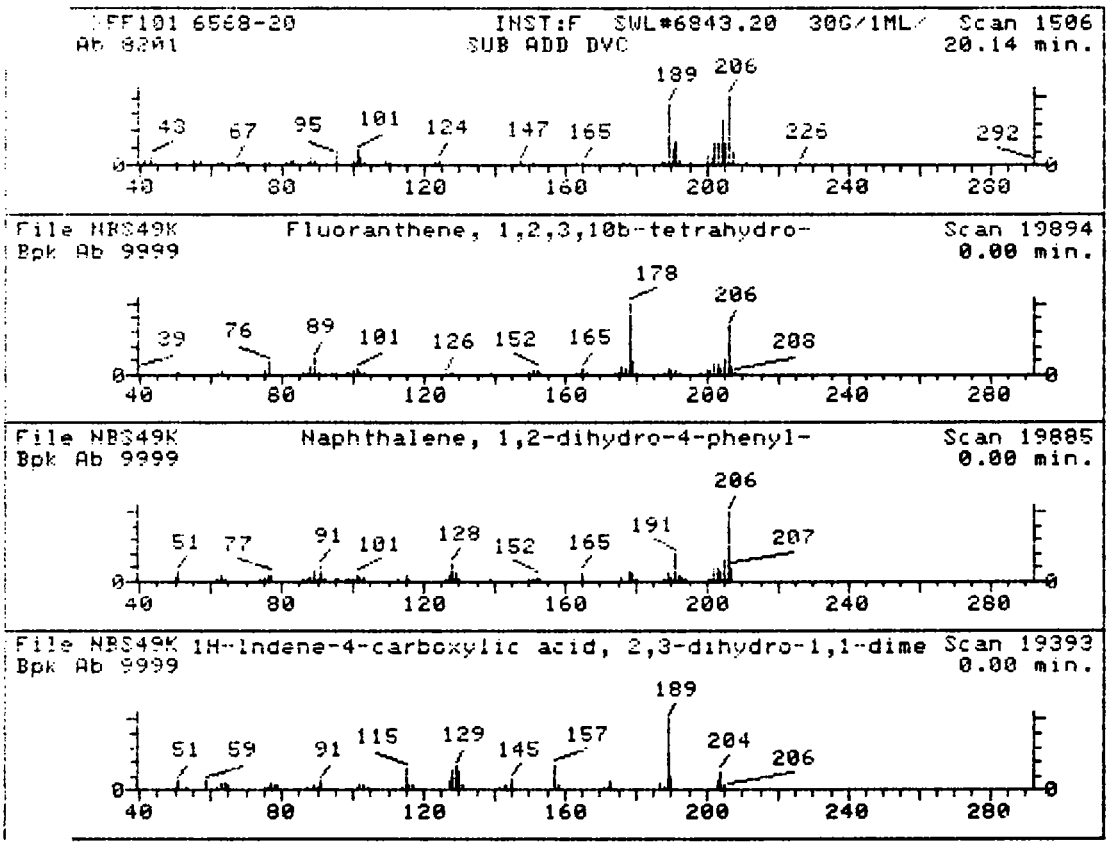
Unknown #,6
Area = 237292.0 Tentative Concentration is 27.00

1.	Benzaldehyde, 3,5-dichloro-2-hydroxy-	190 C7H4C12O2
2.	4H-Cyclopenta[def]phenanthrene	190 C15H10
3.	1H-Indene, 1-phenyl-	192 C15H12
4.	Anthracene, 2-methyl-	192 C15H12
5.	8,9-DIHYDROCYCLOPENTA[DEF]PHENANTHRENE	192 C15H12
6.	Phenanthrene, 4-methyl-	192 C15H12
7.	Phenanthrene, 9-methyl-	192 C15H12

Sample file: >FF101 Spectrum #: 1407
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.	36*	90608	25949	NBS49K	37	112	3	0	84	27	14	13
2.	34*	203645	26042	NBS49K	51	64	2	0	84	42	12	25
3.	28*	1961962	26339	NBS49K	50	57	1	0	99	53	8	32
4.	25*	613127	26329	NBS49K	42	74	2	0	86	50	7	14
5.	21*	27410555	26333	NBS49K	57	60	2	0	85	59	5	34
6.	20*	832644	26334	NBS49K	45	66	2	0	88	51	5	15

0359



UNKNOWN

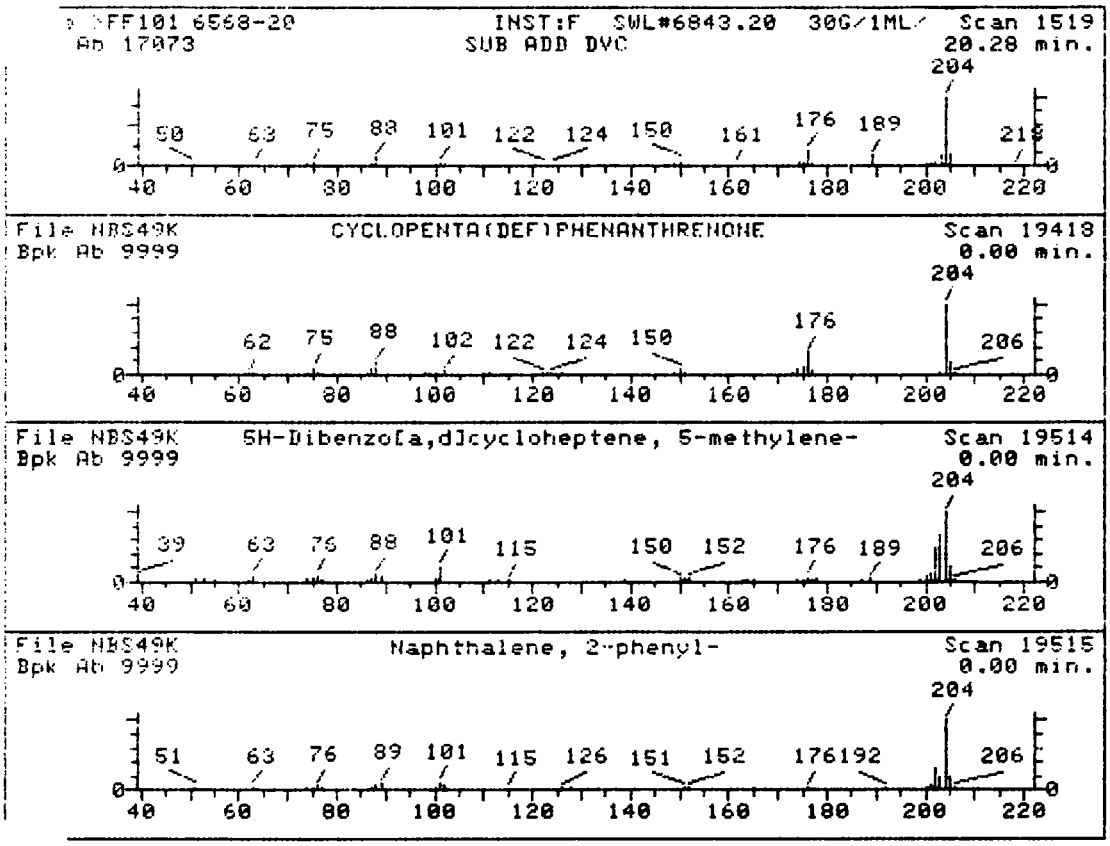
Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

. Unknown #,7
Area = 192257.0 Tentative Concentration is 21.00

1.	Fluoranthene, 1,2,3,10b-tetrahydro-	206	C16H14
2.	Naphthalene, 1,2-dihydro-4-phenyl-	206	C16H14
3.	1H-Indene-4-carboxylic acid, 2,3-dihydro-1,1-dimethy l-, methyl ester	204	C13H16O2
4.	1H-Inden-1-one, 2,3-dihydro-5,6-dimethoxy-3-methyl-	206	C12H14O3
5.	2-CHLORO-4-(2-HYDROXYPHENYL)PYRIMIDINE	206	C10H7ClN2O
6.	LATHODORATIN	206	C11H10O4
7.	Benzoic acid, p-[[(dimethylamino)methylene]amino]-, methyl ester	206	C11H14N2O2

Sample file: >FF101 Spectrum #: 1506
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.	25*	20279214	28866	NBS49K	25	106	3	0	145	50	7	13
2.	25*	7469401	28858	NBS49K	26	117	3	0	100	50	7	13
3.	15*	55591112	25894	NBS49K	23	121	3	0	87	57	3	12
4.	11*	4082251	28801	NBS49K	29	95	3	0	108	65	2	13



UNKNOWN PNA

Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

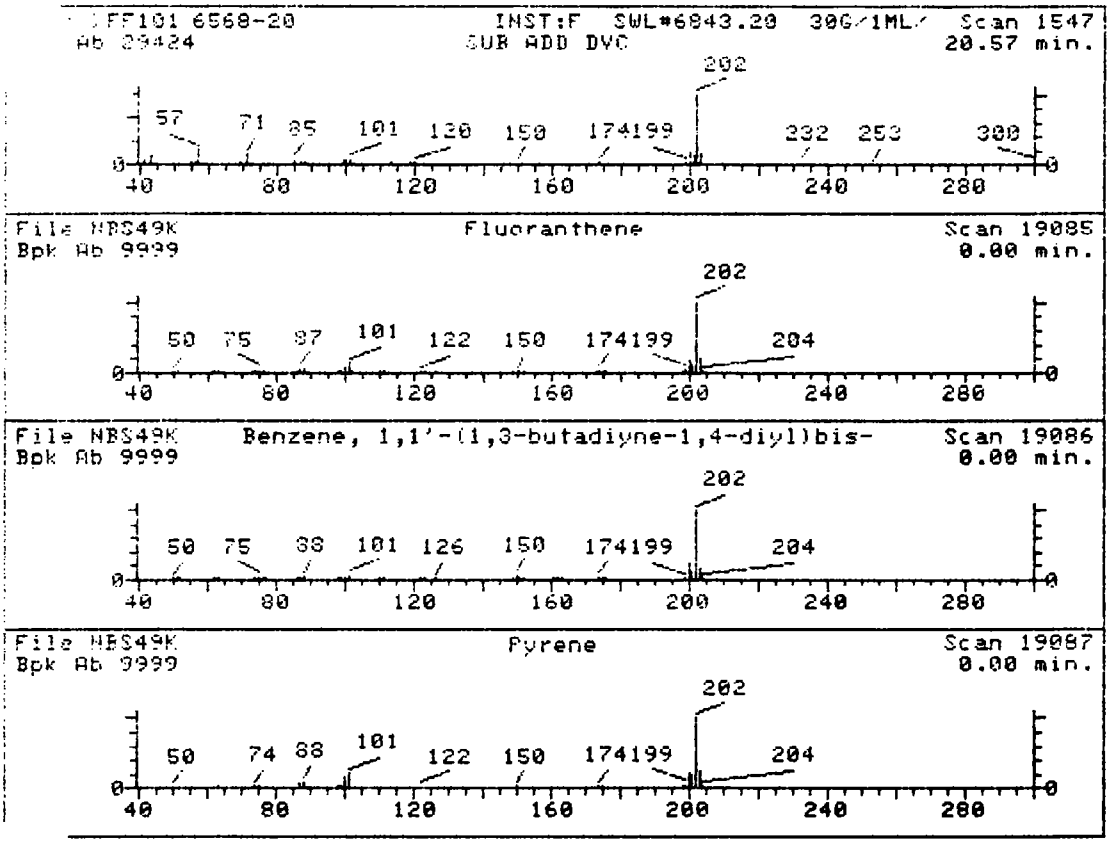
. Unknown #,8
Area = 174774.0 Tentative Concentration is 20.00

1.	CYCLOPENTA(DEF)PHENANTHRENONE	204 C15H8O
2.	5H-Dibenzo[a,d]cycloheptene, 5-methylene-	204 C16H12
3.	Naphthalene, 2-phenyl-	204 C16H12
4.	Indeno[2,1-a]indene, 5,10-dihydro-	204 C16H12
5.	1,4-Naphthalenedione, 5,8-dihydroxy-2-methyl-	204 C11H8O4
6.	[1,1'-Biphenyl]-4,4'-dicarbonitrile	204 C14H8N2
7.	Ethanone, 1-[5-[(5-methyl-2-furanyl)methyl]-2-furanyl]-	204 C12H12O3

Sample file: >FF101 Spectrum #: 1519
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.	93*	5737133	28398	NBS49K	96	18	1	0	69	20	60	93
2.	60*	2975793	28447	NBS49K	22	108	3	0	100	15	30	12
3.	52*	612942	28448	NBS49K	30	83	2	0	87	19	20	12
4.	52*	6543299	28453	NBS49K	24	104	3	0	100	17	20	12
5.	52*	14554097	28343	NBS49K	24	114	3	0	100	17	20	12

0361



UNKNOWN pwk

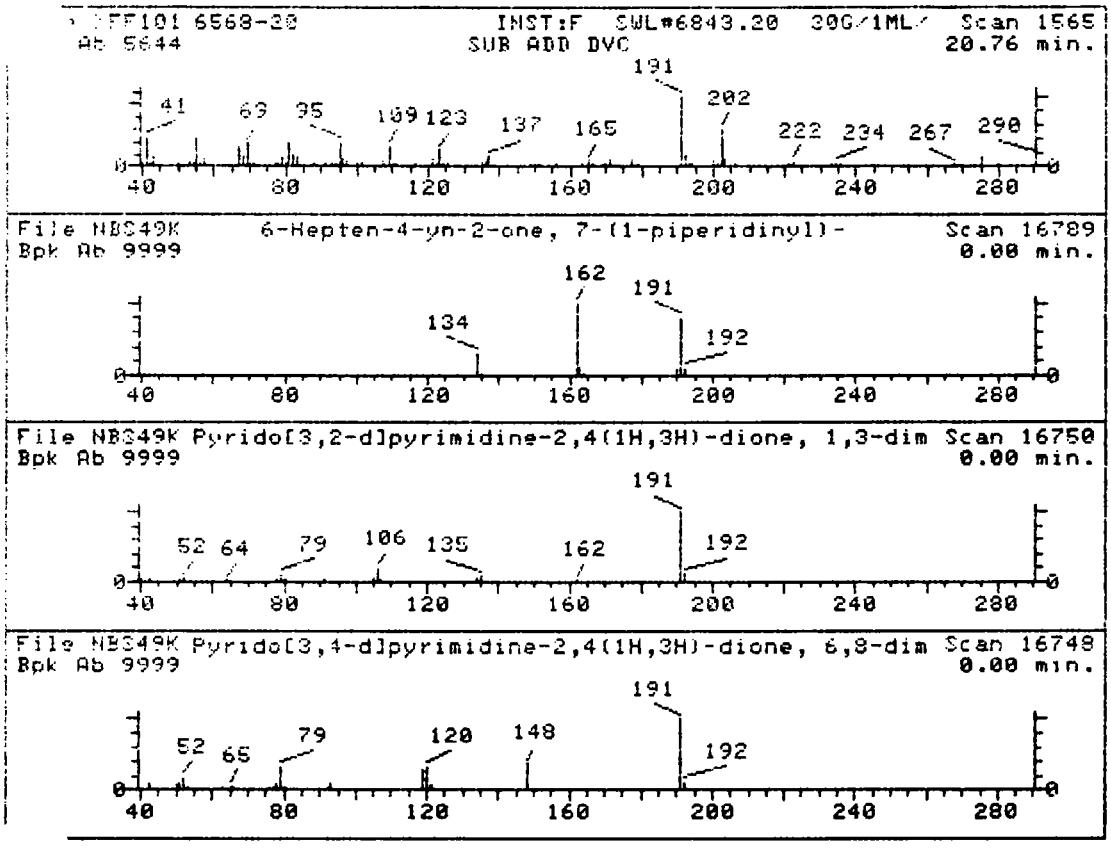
Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

. Unknown #,9
Area = 197594.0 Tentative Concentration is 22.00

1.	Fluoranthene	202	C16H10
2.	Benzene, 1,1'-(1,3-butadiyne-1,4-diyl)bis-	202	C16H10
3.	Pyrene	202	C16H10

Sample file: >FF101 Spectrum #: 1547
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.	66*	206440	28079	NBS49K	75	38	1	0	62	45	24	73
2.	60*	886668	28080	NBS49K	41	66	2	0	100	14	30	14
.	58*	129000	28081	NBS49K	52	44	0	0	39	45	18	63



UNKNOWN

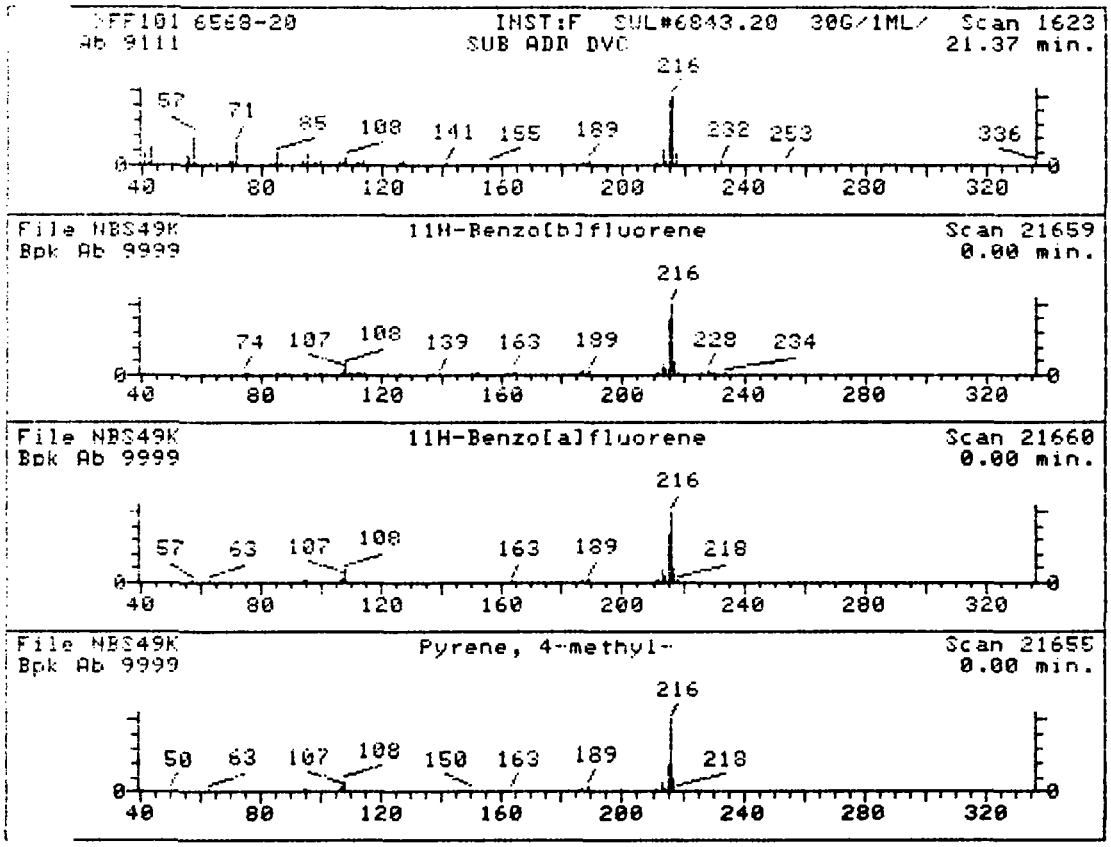
Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

. Unknown #,10
Area = 164800.0 Tentative Concentration is 10.00

1.	6-Hepten-4-yn-2-one, 7-(1-piperidinyl)-	191	C12H17NO
2.	Pyrido[3,2-d]pyrimidine-2,4(1H,3H)-dione, 1,3-dimeth yl-	191	C9H9N3O2
3.	Pyrido[3,4-d]pyrimidine-2,4(1H,3H)-dione, 6,8-dimeth yl-	191	C9H9N3O2
4.	Pyrido[2,3-d]pyrimidine-2,4(1H,3H)-dione, 1,3-dimeth yl-	191	C9H9N3O2

Sample file: >FF101 Spectrum #: 1565
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.	25*	54798946	26142	NBS49K	27	41	2	0	126	50	7	14
2.	25*	24410251	26130	NBS49K	29	70	2	0	100	50	7	14
3.	25*	22389873	26129	NBS49K	29	86	3	0	100	50	7	13
4.	25*	24410217	26128	NBS49K	23	101	3	0	100	50	7	12



UNKNOWN PNK

Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

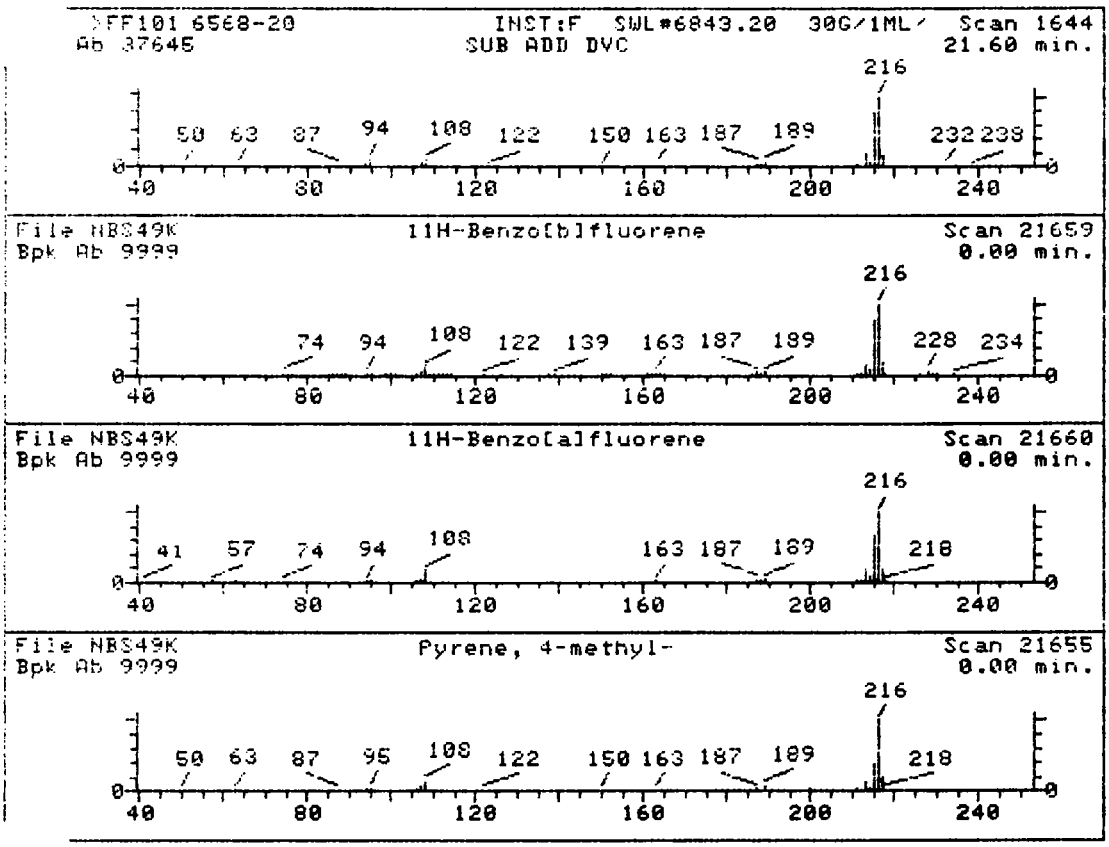
. Unknown #,11
Area = 166833.0 Tentative Concentration is 10.00

1.	11H-Benzo[b]fluorene	216	C17H12
2.	11H-Benzo[a]fluorene	216	C17H12
3.	Pyrene, 4-methyl-	216	C17H12
4.	Pyrene, 1-methyl-	216	C17H12
5.	Pyrene, 2-methyl-	216	C17H12
6.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy	216	C12H8O4
7.	Phenol, o-(o-methoxyphenoxy)-	216	C13H12O3

Sample file: >FF101 Spectrum #: 1623
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IU
1.	79*	243174	30235	NBS49K	60	61	2	0	82	9	48	37
2.	78*	238846	30236	NBS49K	56	64	3	0	100	4	55	19
3.	38*	3353126	30231	NBS49K	51	67	2	0	83	38	14	15
4.	37*	2381217	30234	NBS49K	43	82	2	0	81	29	14	14
5.	31*	3442782	30233	NBS49K	46	73	2	0	82	38	10	17
6.	20*	4481601	30176	NBS49K	23	92	3	0	100	55	5	12

0064



UNKNOWN PWJ 11

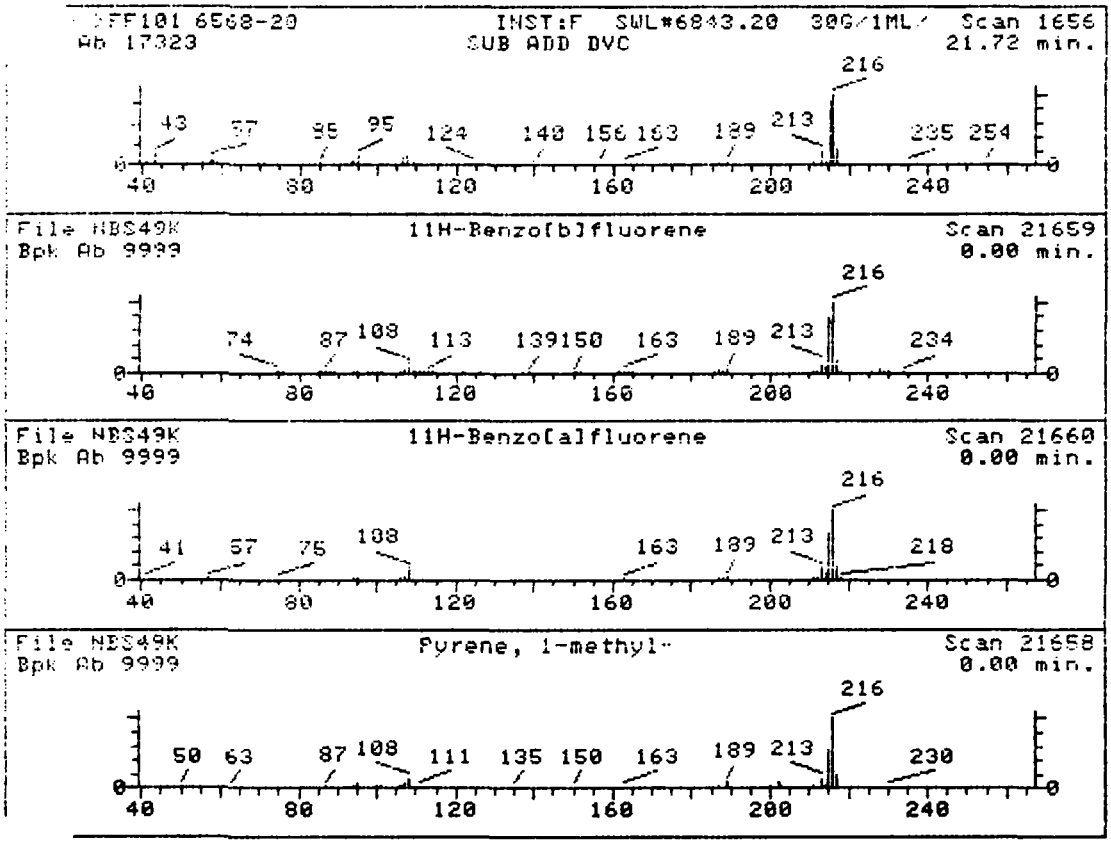
Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

. Unknown #,12
Area = 466772.0 Tentative Concentration is 29.00

1.	11H-Benzo[b]fluorene	216	C17H12
2.	11H-Benzo[a]fluorene	216	C17H12
3.	Pyrene, 4-methyl-	216	C17H12
4.	Pyrene, 1-methyl-	216	C17H12
5.	Pyrene, 2-methyl-	216	C17H12
6.	3,5-DIHYDROXY-4-METHOXYDIPHENYL	216	C13H1203
7.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy	216	C12H804

Sample file: >FF101 Spectrum #: 1644
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.	89*	243174	30235	NBS49K	78	43	2	0	88	5	66	60
2.	68*	238846	30236	NBS49K	71	49	2	0	66	25	30	52
3.	64*	3353126	30231	NBS49K	69	49	2	0	85	35	22	49
4.	64*	2381217	30234	NBS49K	66	59	2	0	82	25	20	65
5.	50*	3442782	30233	NBS49K	57	62	2	0	87	35	20	34
6.	20*	54960962	30205	NBS49K	32	76	3	0	100	53	5	13



UNKNOWN ANT

Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

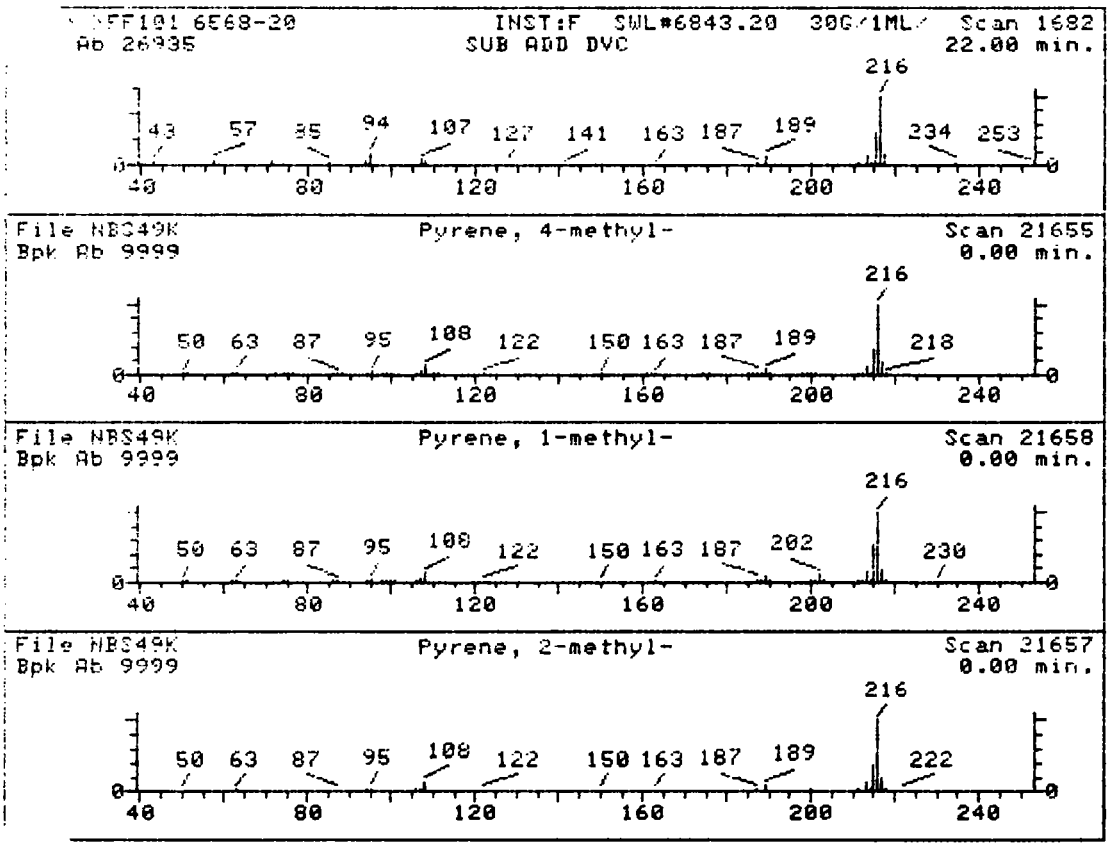
. Unknown #,13
Area = 186342.0 Tentative Concentration is 11.00

1.	11H-Benzo[b]fluorene	216	C17H12
2.	11H-Benzo[a]fluorene	216	C17H12
3.	Pyrene, 1-methyl-	216	C17H12
4.	Pyrene, 4-methyl-	216	C17H12
5.	Pyrene, 2-methyl-	216	C17H12
6.	Phenol, o-(o-methoxyphenoxy)-	216	C13H12O3

Sample file: >FF101 Spectrum #: 1656
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
.	93*	243174	30235	NBS49K	92	29	1	0	78	9	68	92
2.	86*	238846	30236	NBS49K	68	52	3	0	100	4	60	35
3.	58*	2381217	30234	NBS49K	61	64	2	0	88	27	24	38
4.	46*	3353126	30231	NBS49K	58	60	2	0	92	36	17	35
5.	46*	3442782	30233	NBS49K	58	61	2	0	93	36	15	39
6.	20*	21905602	30209	NBS49K	23	115	3	0	111	54	5	12

0066



UNKNOWN PNA

Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

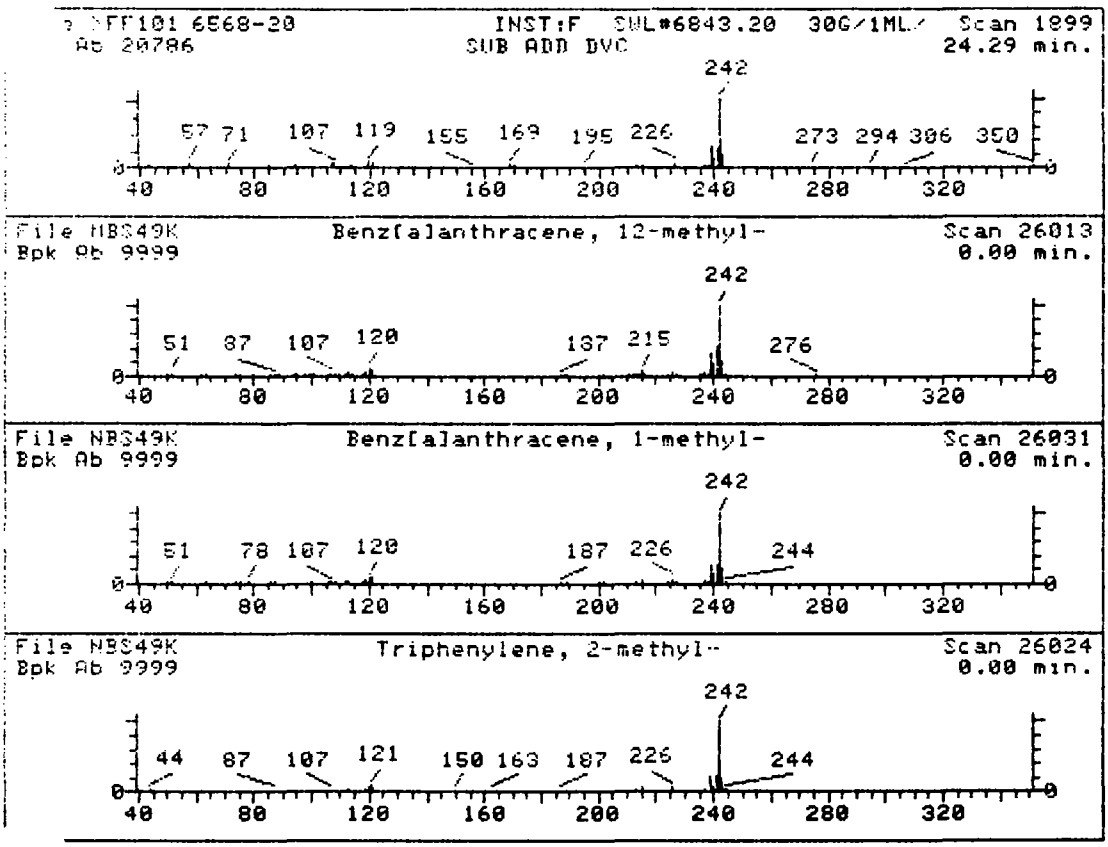
. Unknown #,14
Area = 182355.0 Tentative Concentration is 11.00

1.	Pyrene, 4-methyl-	216	C17H12
2.	Pyrene, 1-methyl-	216	C17H12
3.	Pyrene, 2-methyl-	216	C17H12
4.	11H-Benzo[a]fluorene	216	C17H12
5.	11H-Benzo[b]fluorene	216	C17H12
6.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy	216	C12H804
7.	3,5-DIHYDROXY-4-METHOXYDIPHENYL	216	C13H1203

Sample file: >FF101 Spectrum #: 1682
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.	89*	3353126	30231	NBS49K	89	29	2	0	94	4	66	67
2.	89*	2381217	30234	NBS49K	88	37	2	0	83	4	66	67
3.	89*	3442782	30233	NBS49K	80	39	2	0	94	4	66	67
4.	83*	238846	30236	NBS49K	74	46	2	0	69	7	54	56
5.	31*	243174	30235	NBS49K	40	81	2	0	59	33	12	14
6.	25*	4481601	30176	NBS49K	34	81	3	0	100	44	8	13

0387



UNKNOWN pwk

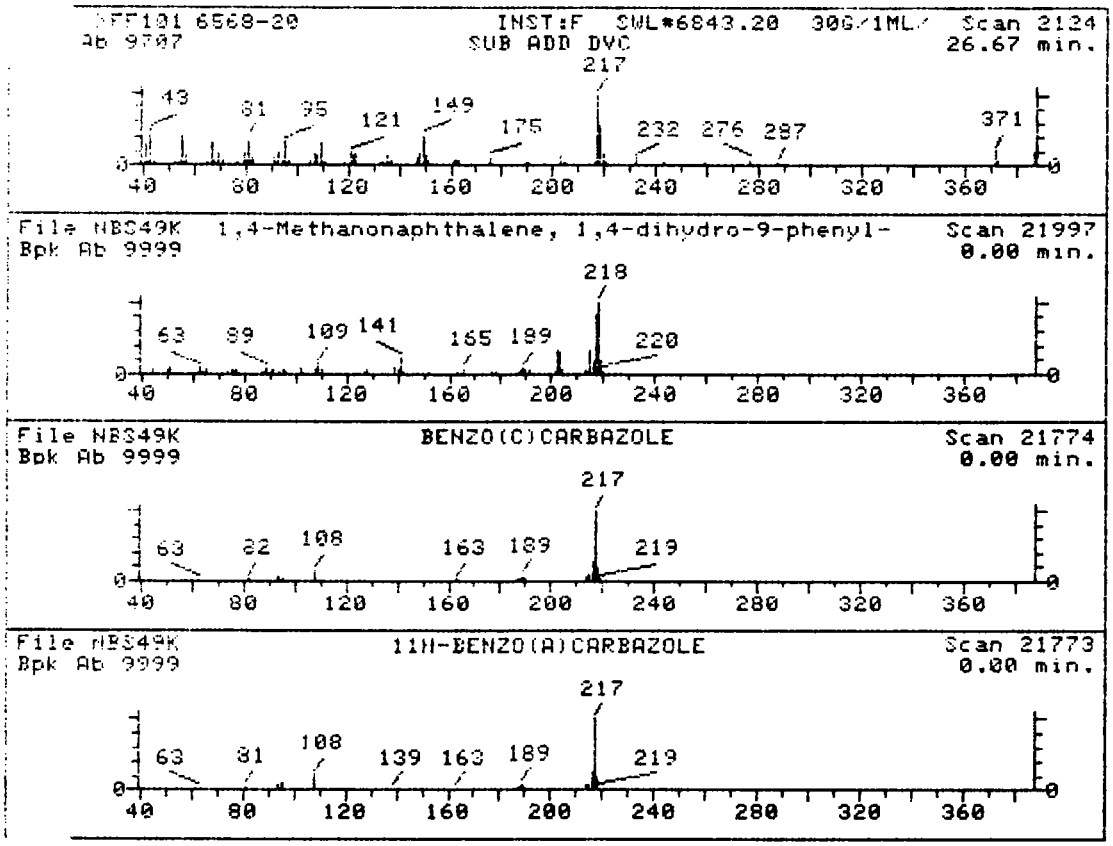
Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

. Unknown #,15
Area = 233752.0 Tentative Concentration is 14.00

1.	Benz[a]anthracene, 12-methyl-	242	C19H14
2.	Benz[a]anthracene, 1-methyl-	242	C19H14
3.	Triphenylene, 2-methyl-	242	C19H14
4.	Chrysene, 5-methyl-	242	C19H14
5.	Benz[a]anthracene, 7-methyl-	242	C19H14
6.	Chrysene, 3-methyl-	242	C19H14
7.	Benz[a]anthracene, 2-methyl-	242	C19H14

Sample file: >FF101 Spectrum #: 1899
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.	87*	2422799	33228	NBS49K	90	43	1	0	67	13	55	89
2.	83*	2498773	33246	NBS49K	80	49	1	0	75	13	51	77
3.	81*	1705846	33239	NBS49K	81	49	1	0	76	23	40	68
4.	76*	3697243	33234	NBS49K	71	64	2	0	93	13	40	52
5.	70*	2541697	33242	NBS49K	73	57	2	0	90	16	32	55
6.	66*	3351313	33229	NBS49K	63	62	2	0	95	20	31	41



UNKNOWN

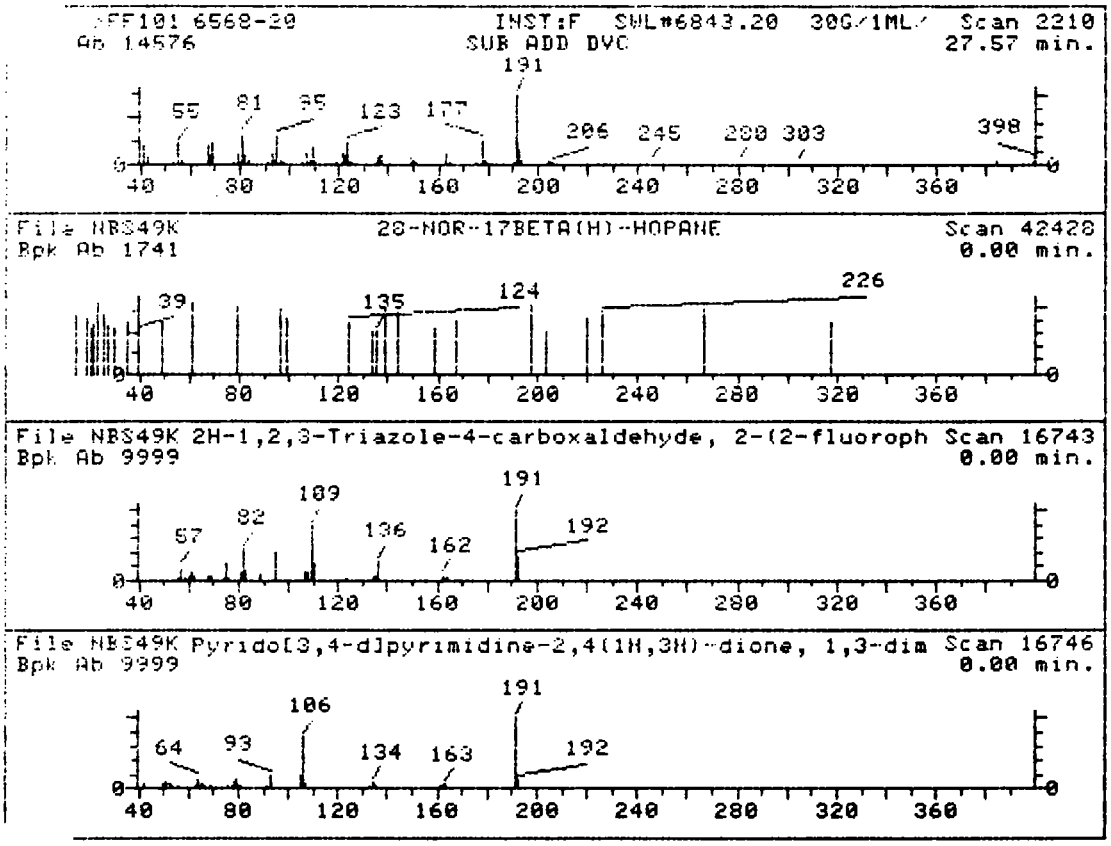
Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

. Unknown #,16
Area = 273256.0 Tentative Concentration is 23.00

1.	1,4-Methanonaphthalene, 1,4-dihydro-9-phenyl-	218	C17H14
2.	BENZO(C)CARBAZOLE	217	C16H11N
3.	11H-BENZO(A)CARBAZOLE	217	C16H11N
4.	Benzothiazole, 2-methyl-5-(trifluoromethyl)-	217	C9H6F3NS

Sample file: >FF101 Spectrum #: 2124
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.	25*	55028734	30568	NBS49K	28	114	3	0	56	50	7	13
	20*	34777338	30330	NBS49K	28	85	2	0	94	53	5	14
	20*	239010	30329	NBS49K	25	91	3	0	100	53	5	13
4.	20*	398992	30285	NBS49K	22	112	3	0	100	52	5	12



UNKNOWN

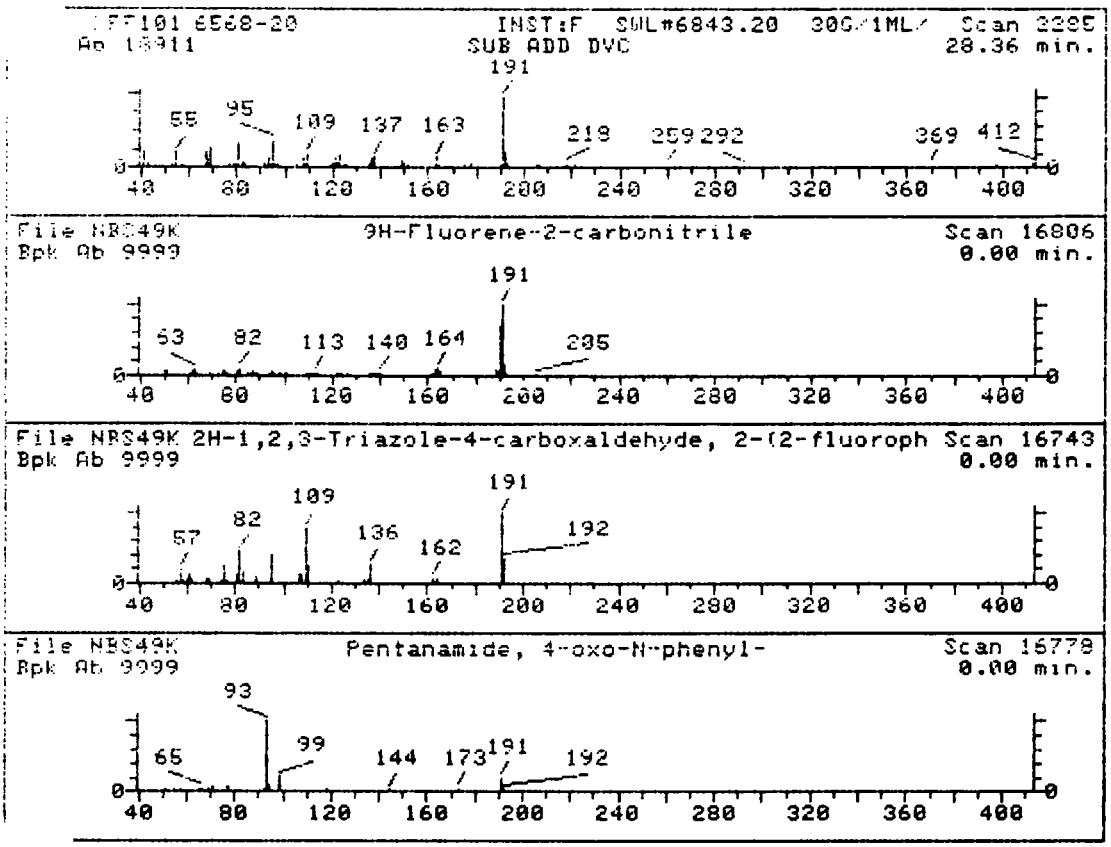
Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

Unknown #,17
Area = 393326.0 Tentative Concentration is 33.00

1.	28-NOR-17BETA(H)-HOPANE	398	C29H50
2.	2H-1,2,3-Triazole-4-carboxaldehyde, 2-(2-fluorophenyl)-	191	C9H6FN3O
3.	Pyrido[3,4-d]pyrimidine-2,4(1H,3H)-dione, 1,3-dimethyl-	191	C9H9N3O2
4.	9H-Fluorene-9-carbonitrile	191	C14H9N
5.	Pyrido[3,2-d]pyrimidine-2,4(1H,3H)-dione, 1,3-dimethyl-	191	C9H9N3O2
6.	Pyrido[3,4-d]pyrimidine-2,4(1H,3H)-dione, 6,8-dimethyl-	191	C9H9N3O2

Sample file: >FF101 Spectrum #: 2210
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.	34*	36728720	45420	NBS49K	51	106	2	0	43	45	12
2.	30*	51306435	26126	NBS49K	32	104	3	0	100	32	12
3.	28*	22389839	26127	NBS49K	27	86	2	0	83	38	10



UNKNOWN

Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

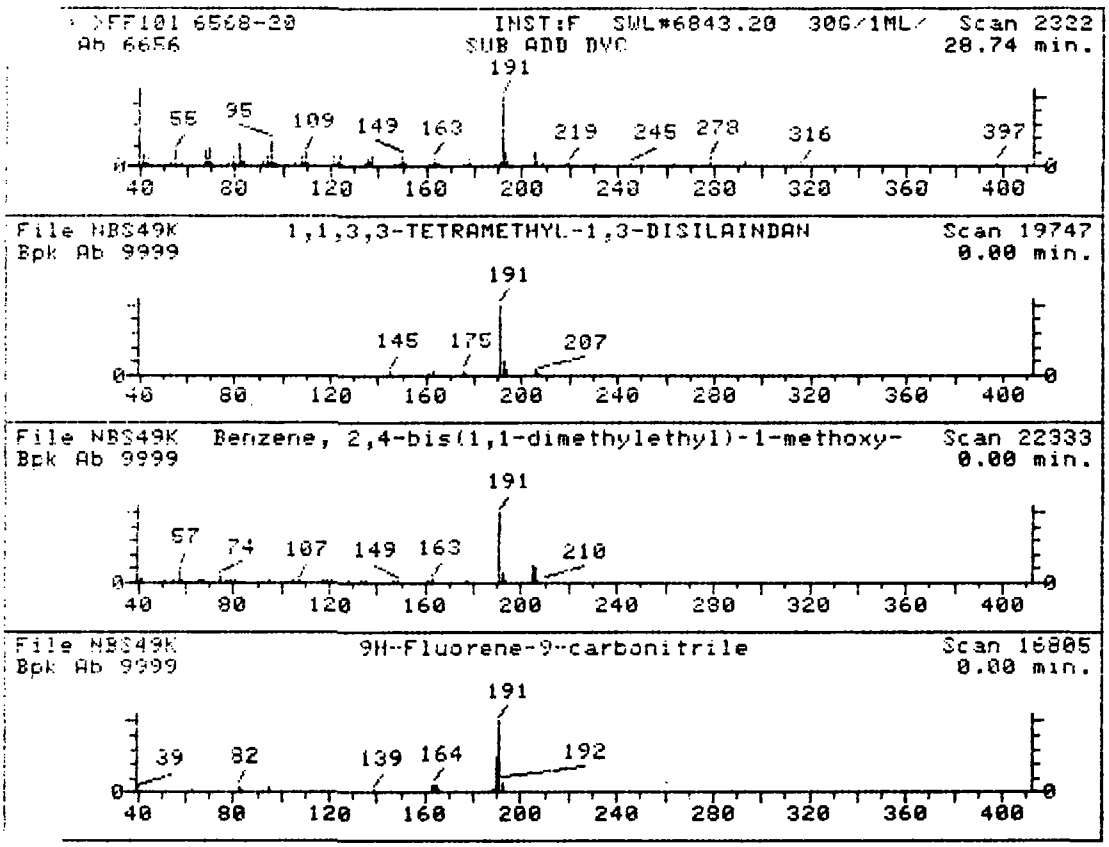
. Unknown #,18
Area = 513362.0 Tentative Concentration is 43.00

1.	9H-Fluorene-2-carbonitrile	191	C14H9N
2.	2H-1,2,3-Triazole-4-carboxaldehyde, 2-(2-fluorophenyl)-	191	C9H6FN3O
3.	Pentanamide, 4-oxo-N-phenyl-	191	C11H13NO2
4.	Pyrido[3,2-d]pyrimidine-2,4(1H,3H)-dione, 1,3-dimethyl-	191	C9H9N3O2
5.	9H-Fluorene-9-carbonitrile	191	C14H9N
6.	Pyrido[3,4-d]pyrimidine-2,4(1H,3H)-dione, 6,8-dimethyl-	191	C9H9N3O2
7.	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN	206	C11H18Si2

Sample file: >FF101 Spectrum #: 2285
Search speed: 1 Tilting option: N No. of ion ranges searched: 44

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	42*	2523480	26147	NBS49K	28	81	3	0	100	21	17	13
2.	42*	51306435	26126	NBS49K	32	104	3	0	97	21	17	13
3.	41*	23132356	26139	NBS49K	23	79	3	0	499	21	17	12

0371



UNKNOWN

Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

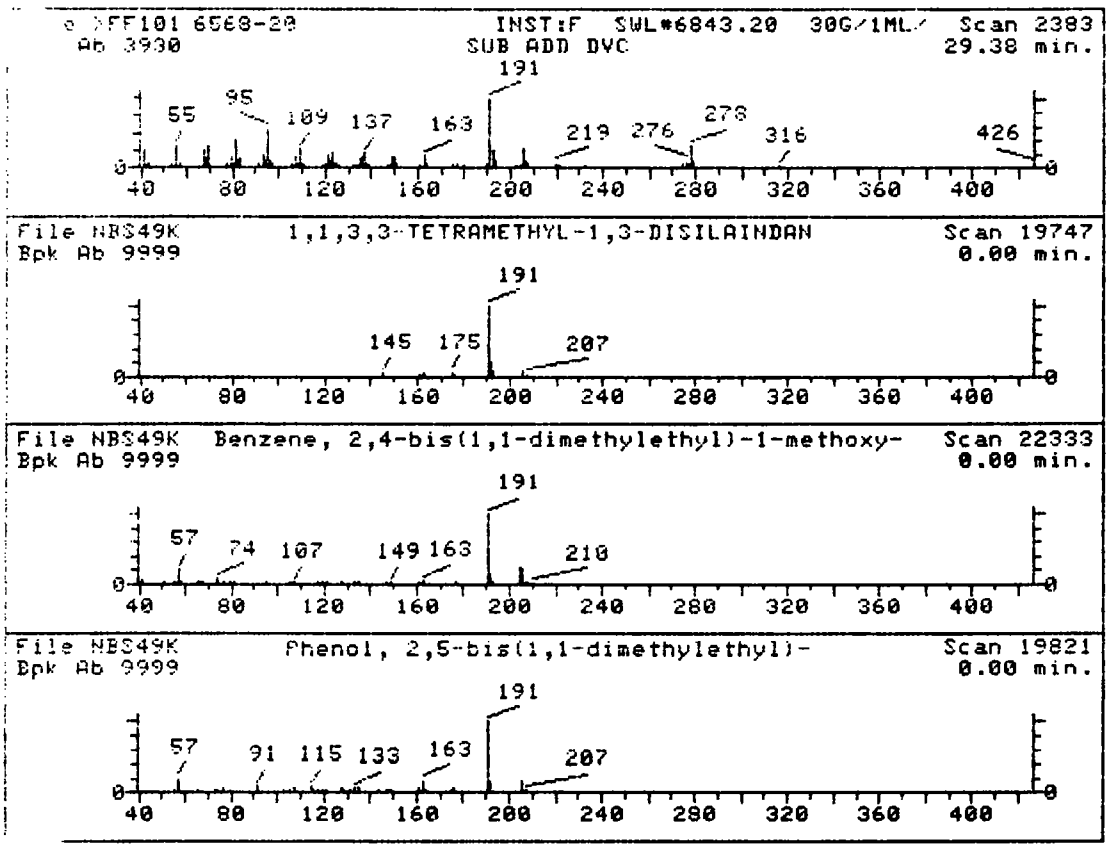
Unknown #,19
Area = 210030.0 Tentative Concentration is 18.00

1.	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN	206	C11H18Si2
2.	Benzene, 2,4-bis(1,1-dimethylethyl)-1-methoxy-	220	C15H24O
3.	9H-Fluorene-9-carbonitrile	191	C14H9N
4.	9H-Fluorene-2-carbonitrile	191	C14H9N
5.	2H-1,2,3-Triazole-4-carboxaldehyde, 2-(2-fluorophenyl)-	191	C9H6FN3O
6.	Pyrido[3,2-d]pyrimidine-2,4(1H,3H)-dione, 1,3-dimethyl-	191	C9H9N3O2
7.	4(1H)-Pteridinone, 2-amino-6,7-dimethyl-	191	C8H9N5O

Sample file: >FF101 Spectrum #: 2322
Search speed: 1 Tilting option: N No. of ion ranges searched: 44

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	64*	54113938	26153	NBS49K	54	12	1	0	72	35	22	49
2.	38	17177989	26172	NBS49K	34	75	0	0	86	29	14	15
3.	32*	1529404	26146	NBS49K	36	59	2	0	100	35	12	15
4.	30*	2523480	26147	NBS49K	28	81	3	0	100	35	12	13

0372



UNKNOWN

Sample: 6568-20 Operator: LINDA MS 8/14/91 0:16

. Unknown #,20
Area = 209431.0 Tentative Concentration is 18.00

1.	1,1,3,3-TETRAMETHYL-1,3-DISILAINDAN	206	C11H18Si2
2.	Benzene, 2,4-bis(1,1-dimethylethyl)-1-methoxy-	220	C15H24O
3.	Phenol, 2,5-bis(1,1-dimethylethyl)-	206	C14H22O
4.	Phenol, bis(1,1-dimethylethyl)-	206	C14H22O
5.	Phenol, 2,4-bis(1,1-dimethylethyl)-	206	C14H22O
6.	2H-1,2,3-Triazole-4-carboxaldehyde, 2-(2-fluorophenyl)-	191	C9H6FN3O
7.	Pyrido[3,4-d]pyrimidine-2,4(1H,3H)-dione, 1,3-dimethyl-	191	C9H9N3O2

Sample file: >FF101 Spectrum #: 2383
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.	39*	54113938	26153	NBS49K	44	22	1	0	100	40	14	22
2.	32	17177989	26172	NBS49K	29	80	0	0	100	35	12	15
3.	26*	5875456	26156	NBS49K	37	77	2	0	80	45	8	14
4.	26*	26746383	26157	NBS49K	23	87	1	0	79	45	8	14

AMERICAN ANALYTICAL TECHNICAL SERVICES

SAS 6568G

SDG -001

VOLUME II

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-021

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684321

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF102

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 14 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 4.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	770	U
111-44-4	bis(2-Chloroethyl)Ether	770	U
95-57-8	2-Chlorophenol	770	U
541-73-1	1,3-Dichlorobenzene	770	U
106-46-7	1,4-Dichlorobenzene	770	U
100-51-6	Benzyl Alcohol	770	U
95-50-1	1,2-Dichlorobenzene	770	U
95-48-7	2-Methylphenol	770	U
108-60-1	bis(2-Chloroisopropyl)ether	770	U
106-44-5	4-Methylphenol	770	U
621-64-7	N-Nitroso-Di-n-Propylamine	770	U
67-72-1	Hexachloroethane	770	U
98-95-3	Nitrobenzene	770	U
78-59-1	Isophorone	770	U
88-75-5	2-Nitrophenol	770	U
105-67-9	2,4-Dimethylphenol	770	U
65-85-0	Benzoic Acid	3700	U
111-91-1	bis(2-Chloroethoxy)Methane	770	U
120-83-2	2,4-Dichlorophenol	770	U
120-82-1	1,2,4-Trichlorobenzene	770	U
91-20-3	Naphthalene	770	U
106-47-8	4-Chloroaniline	770	U
87-68-3	Hexachlorobutadiene	770	U
59-50-7	4-Chloro-3-Methylphenol	770	U
91-57-6	2-Methylnaphthalene	770	U
77-47-4	Hexachlorocyclopentadiene	770	U
88-06-2	2,4,6-Trichlorophenol	770	U
95-95-4	2,4,5-Trichlorophenol	3700	U
91-58-7	2-Chloronaphthalene	770	U
88-74-4	2-Nitroaniline	3700	U
131-11-3	Dimethyl Phthalate	770	U
208-96-8	Acenaphthylene	770	U
606-20-2	2,6-Dinitrotoluene	770	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-021

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684321

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF102

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 14 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 4.0 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	770	U
51-28-5	2,4-Dinitrophenol	3700	U
100-02-7	4-Nitrophenol	3700	U
132-64-9	Dibenzofuran	770	U
121-14-2	2,4-Dinitrotoluene	770	U
84-66-2	Diethylphthalate	770	U
7005-72-3	4-Chlorophenyl-phenylether	770	U
86-73-7	Fluorene	770	U
100-01-6	4-Nitroaniline	3700	U
534-52-1	4,6-Dinitro-2-Methylphenol	3700	U
86-30-6	N-Nitrosodiphenylamine (1)	770	U
101-55-3	4-Bromophenyl-phenylether	770	U
118-74-1	Hexachlorobenzene	770	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	140	J
120-12-7	Anthracene	770	U
84-74-2	Di-n-Butylphthalate	770	U
206-44-0	Fluoranthene	350	J
129-00-0	Pyrene	370	J
85-68-7	Butylbenzylphthalate	770	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)Anthracene	240	J
218-01-9	Chrysene	300	J
117-81-7	bis(2-Ethylhexyl)Phthalate	75	J
117-84-0	Di-n-Octyl Phthalate	770	U
205-99-2	Benzo(b)Fluoranthene	460	J
207-08-9	Benzo(k)Fluoranthene	770	U
50-32-8	Benzo(a)Pyrene	230	J
193-39-5	Indeno(1,2,3-cd)Pyrene	83	J
53-70-3	Dibenz(a,h)Anthracene	770	U
191-24-2	Benzo(g,h,i)Perylene	770	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

65686-021

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684321

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF102

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 14 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

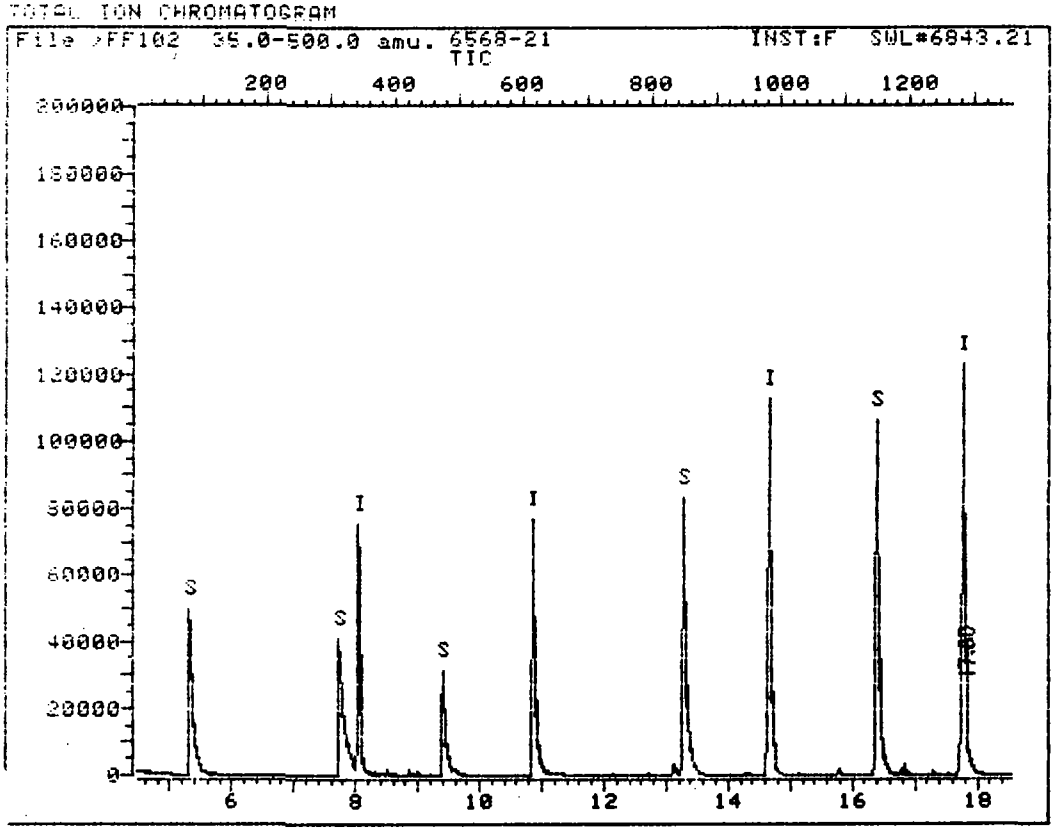
GPC Cleanup: (Y/N) Y pH: 4.0 Dilution Factor: 1.0

Number TICs found: 7

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN HYDROCARBON	25.82	390	J
2.		UNKNOWN PNA	26.12	230	J
3.		UNKNOWN HYDROCARBON	27.29	470	J
4.		UNKNOWN COMPOUND	27.52	310	J
5.		UNKNOWN COMPOUND	27.71	7000	J
6.		UNKNOWN COMPOUND	29.32	1800	J
7.		UNKNOWN COMPOUND	29.61	470	J

TOTAL ION CHROMATOGRAM



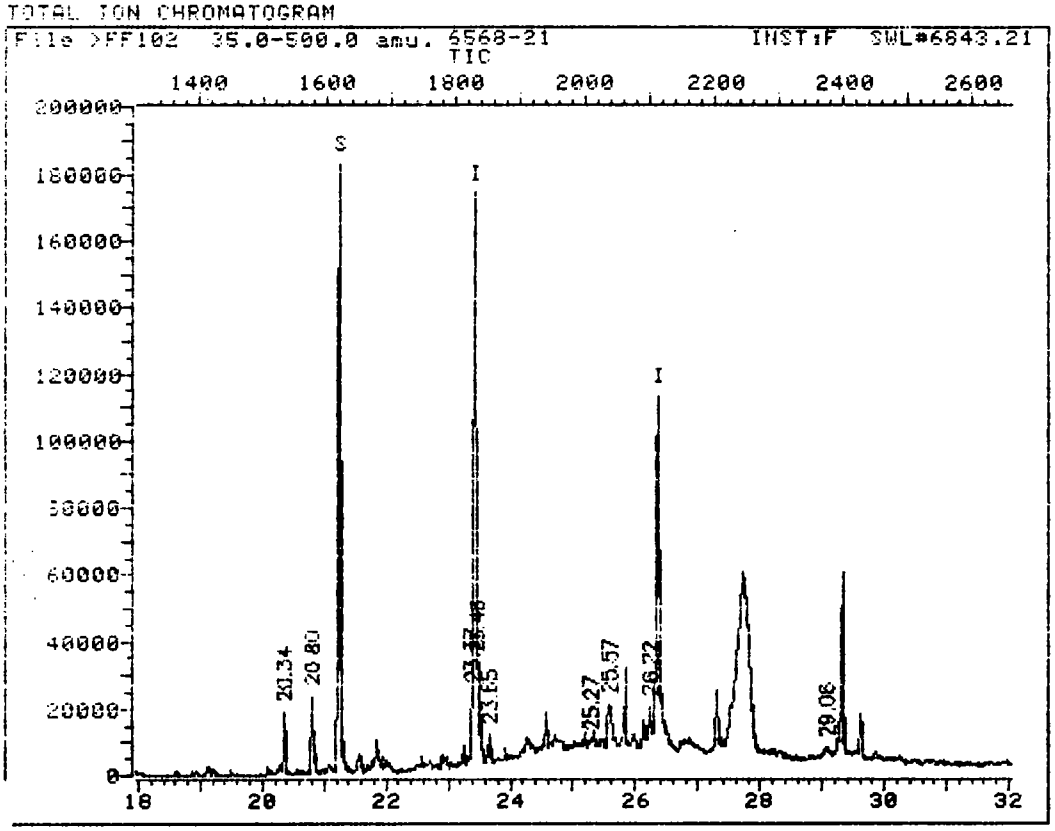
Data File: >FF102::D6 Quant Output File: ^FF102::D7
Name: 6568-21
Misc: INST:F SWL#6843.21 30G/1ML/1UL BTL#14

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910814 01:31
Injected at: 910814 00:56

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >FF102::D6 Quant Output File: ^FF102::D7
Name: 6568-21
Misc: INST:F SWL#6843.21 30G/1ML/1UL BTL#14

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910814 01:31
Injected at: 910814 00:56

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA Quant Rev: 6 Quant Time: 910814 01:31
Output File: ^FF102::07 Injected at: 910814 00:56
Data File: >FF102::D6 Dilution Factor: 1.00000
Name: 6568-21
Misc: INST:F SWL#6843.21 30G/1ML/1UL BTL#14

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

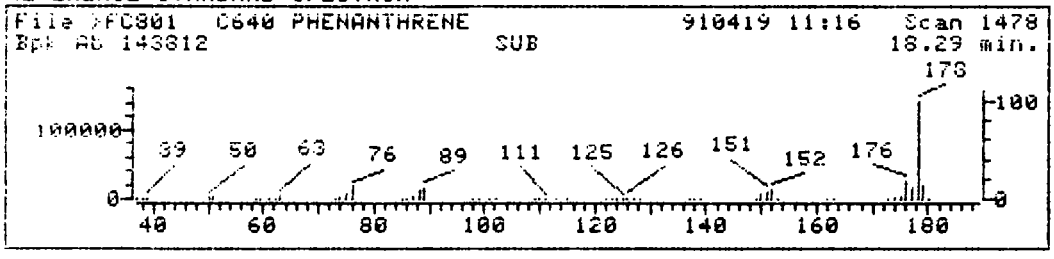
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	8.04	152.0	29072	40.00	NG/UL	94
15)	CS50 2-FLUOROPHENOL	5.30	112.0	52216	83.54	NG/UL	89
16)	CS45 PHENOL-D5	7.73	99.0	78373	88.05	NG/UL	89
17)	*CI40 NAPHTHALENE-D8	10.85	136.0	114479	40.00	NG/UL	98
31)	CS20 NITROBENZENE-D5	9.38	82.0	40422	37.89	NG/UL	85
32)	*CI50 ACENAPHTHENE-D10	14.64	164.0	82212	40.00	NG/UL	99
51)	CS25 2-FLUOROBIPHENYL	13.28	172.0	107705	39.41	NG/UL	96
52)	CS55 2,4,6-TRIBROMOPHENOL	16.39	329.8	59135	163.93	NG/UL	93
53)	*CI60 PHENANTHRENE-D10	17.75	188.0	172098	40.00	NG/UL	91
59)	C640 PHENANTHRENE	17.80	178.0	8165	1.82	NG/UL	99
)	C655 FLUORANTHENE	20.34	202.0	22172	4.51	NG/UL	87
,)	*CI70 CHRYSENE-D12	23.42	240.0	173512	40.00	NG/UL	92
64)	C715 PYRENE	20.80	202.0	25969	4.71	NG/UL	84
67)	C730 BENZO(A)ANTHRACENE	23.37	228.0	15064	3.10	NG/UL	89
68)	C740 CHRYSENE	23.46	228.0	17992	3.86	NG/UL	97
69)	C745 BIS(2-ETHYLHEXYL)PHTHALAT	23.65	149.0	4524	.97	NG/UL	91
70)	CS30 TERPHENYL-D14	21.22	244.0	159009	46.14	NG/UL	88
71)	*CI75 PERYLENE-D12	26.34	264.0	132487	40.00	NG/UL	97
72)	~~C760 DI-N-OCTYLPHTHALATE~~	~~25.27~~	~~149.0~~	~~2020~~	~~.34~~	~~NG/UL~~	~~100~~
73)	C765 BENZO(B)FLUORANTHENE **	25.57	252.0	21626	5.90	NG/UL	96
75)	C775 BENZO(A)PYRENE	26.22	252.0	10345	2.97	NG/UL	94
76)	C780 INDENO(1,2,3-CD)PYRENE	29.06	276.0	4124	1.07	NG/UL	97

FV

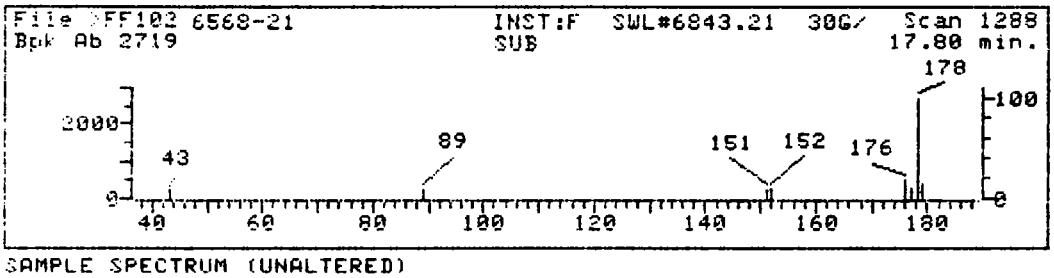
* Compound is ISTD

**TOTAL BENZO(B,K)FLUORANTHENE

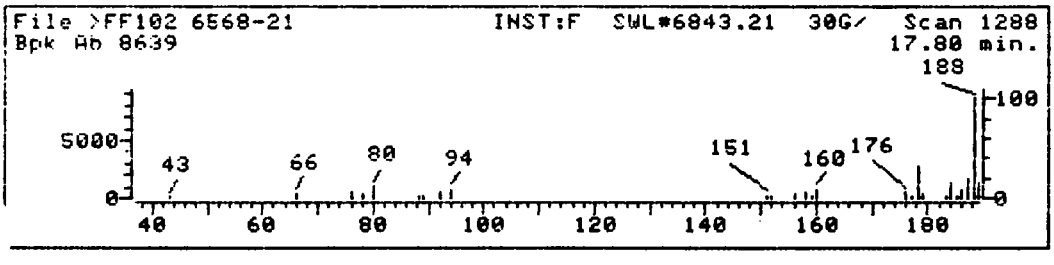
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



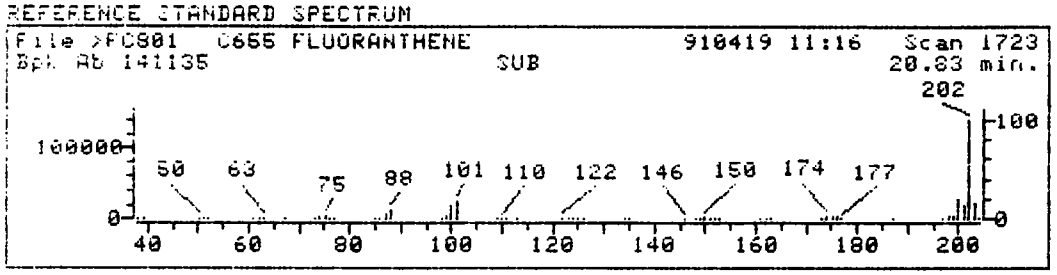
SAMPLE SPECTRUM (UNALTERED)



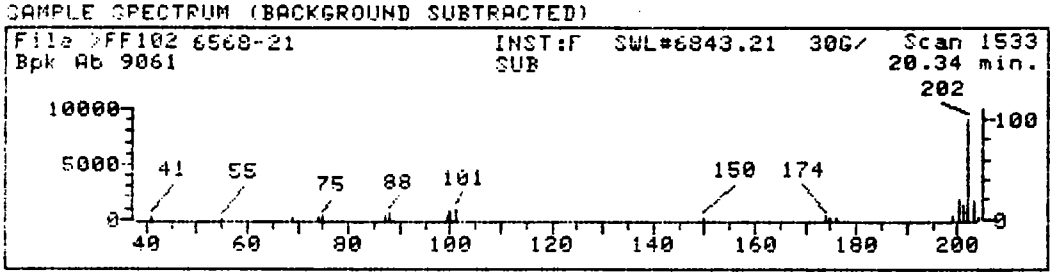
Data File: >FF102::D6 Quant Output File: ^FF102::D7
Name: 6568-21
Misc: INST:F SWL#6843.21 30G/1ML/1UL BTL#14
Quant Time: 910814 01:31 Quant ID File: ID_BN2::EX
Injected at: 910814 00:56 Last Calibration: 910813 16:27

Compound No: 59
Compound Name: C640 PHENANTHRENE
Scan Number: 1288
Retention Time: 17.80 min.
Quant Ion: 178.0
Area: 8165
Concentration: 1.82 NG/UL
q-value: 99

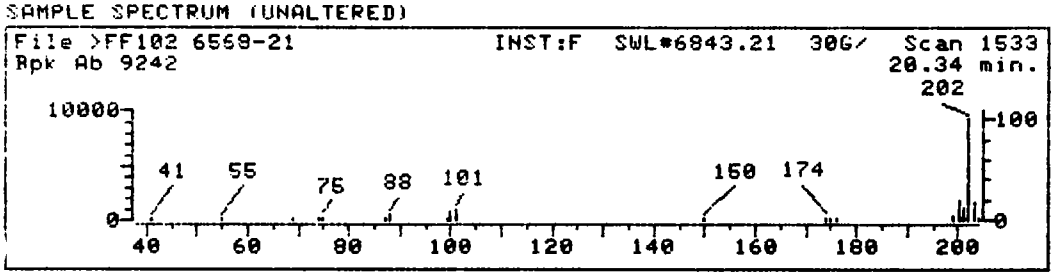
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



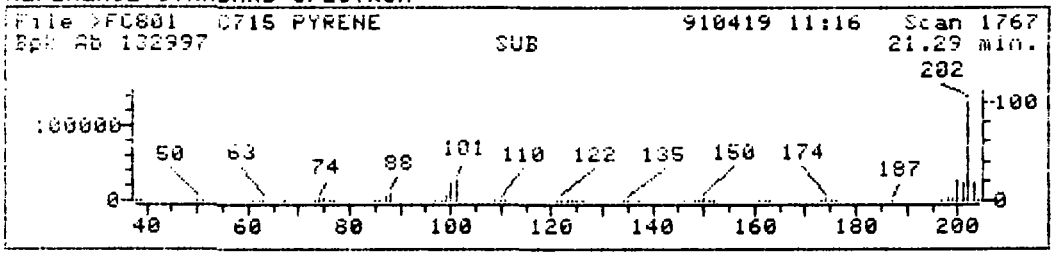
SAMPLE SPECTRUM (UNALTERED)



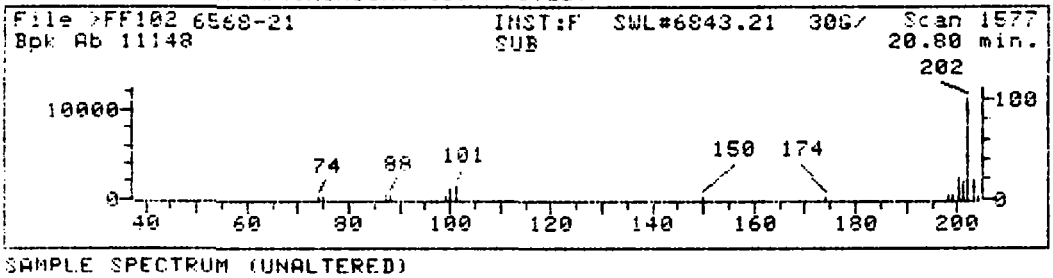
Data File: >FF102::D6 Quant Output File: ^FF102::D7
Name: 6568-21
Misc: INST:F SWL#6843.21 30G/1ML/1UL BTL#14
Quant Time: 910814 01:31 Quant ID File: ID_BN2::EX
Injected at: 910814 00:56 Last Calibration: 910813 16:27

Compound No: 62
Compound Name: C655 FLUORANTHENE
Scan Number: 1533
Retention Time: 20.34 min.
Quant Ion: 202.0
Area: 22172
Concentration: 4.51 NG/UL
q-value: 87

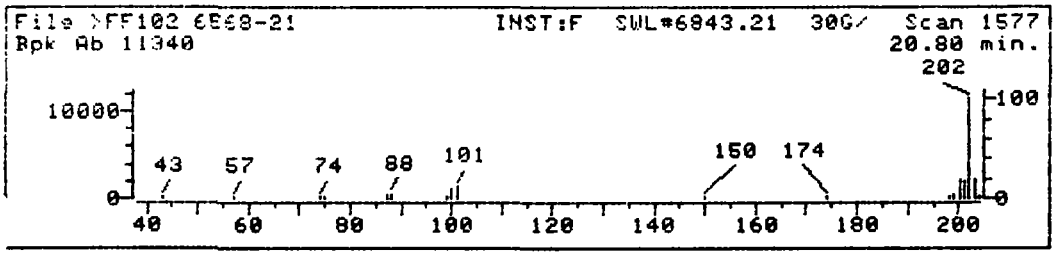
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



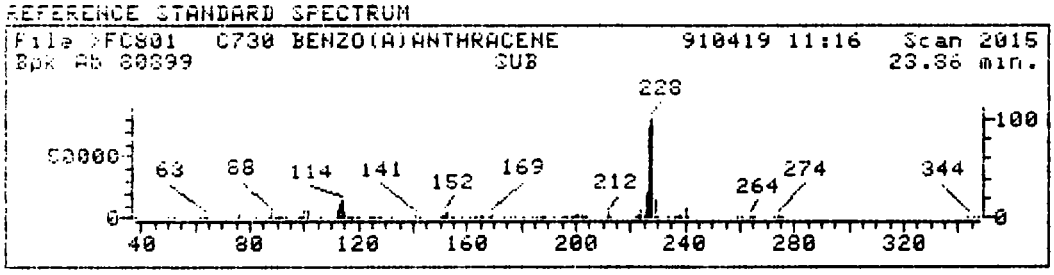
SAMPLE SPECTRUM (UNALTERED)



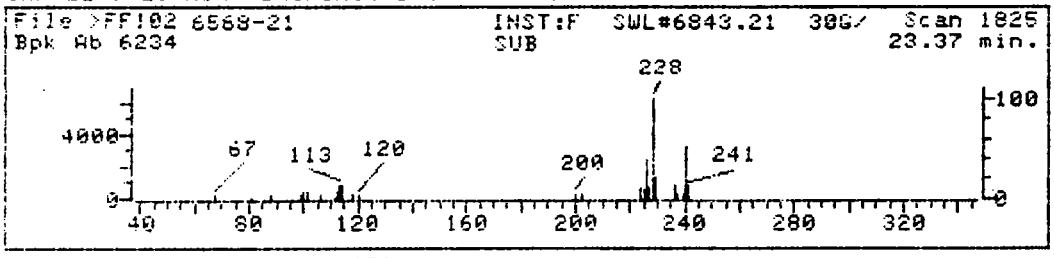
Data File: >FF102::D6 Quant Output File: ^FF102::D7
Name: 6568-21
Misc: INST:F SWL#6843.21 30G/1ML/1UL BTL#14
Quant Time: 910814 01:31 Quant ID File: ID_BN2::EX
Injected at: 910814 00:56 Last Calibration: 910813 16:27

Compound No: 64
Compound Name: C715 PYRENE
Scan Number: 1577
Retention Time: 20.80 min.
Quant Ion: 202.0
Area: 25969
Concentration: 4.71 NG/UL
q-value: 84

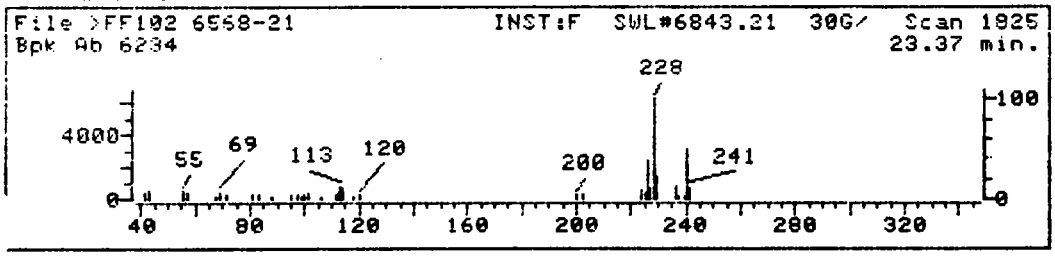
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



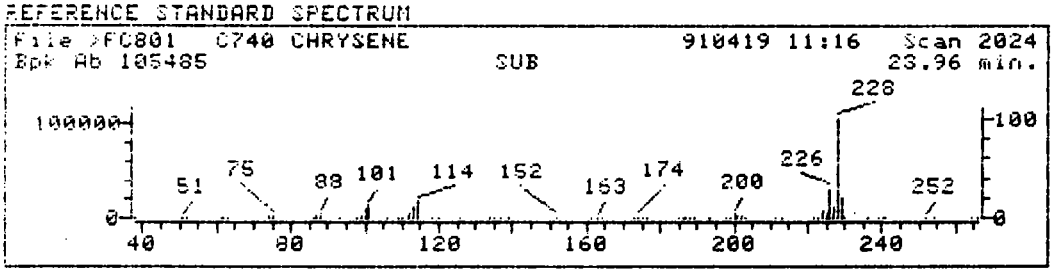
SAMPLE SPECTRUM (UNALTERED)



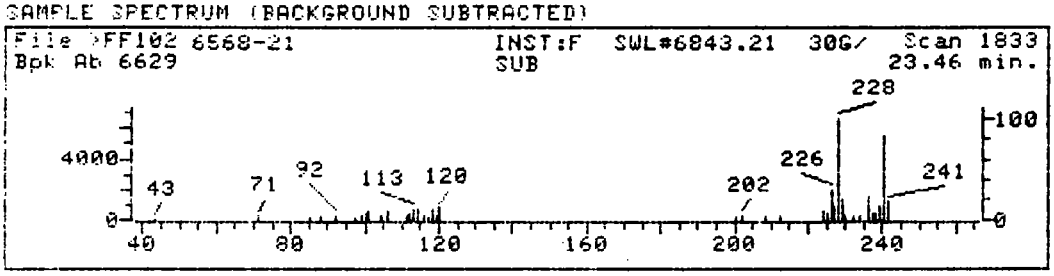
Data File: >FF102::D6 Quant Output File: ^FF102::D7
Name: 6568-21
Misc: INST:F SWL#6843.21 30G/1ML/1UL BTL#14
Quant Time: 910814 01:31 Quant ID File: ID_BN2::EX
Injected at: 910814 00:56 Last Calibration: 910813 16:27

Compound No: 67
Compound Name: C730 BENZO(A)ANTHRACENE
Scan Number: 1825
Retention Time: 23.37 min.
Quant Ion: 228.0
Area: 15064
Concentration: 3.10 NG/UL
q-value: 89

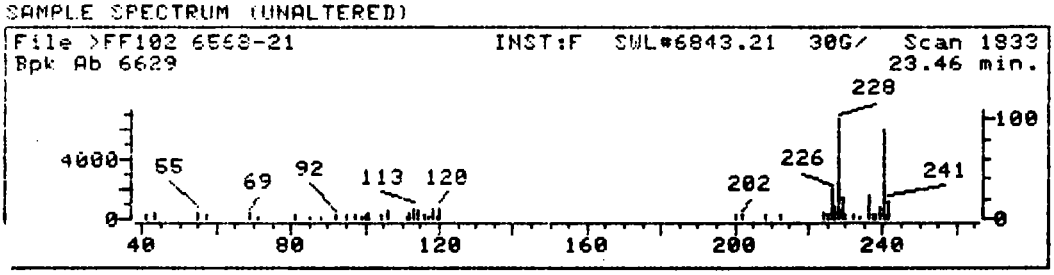
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



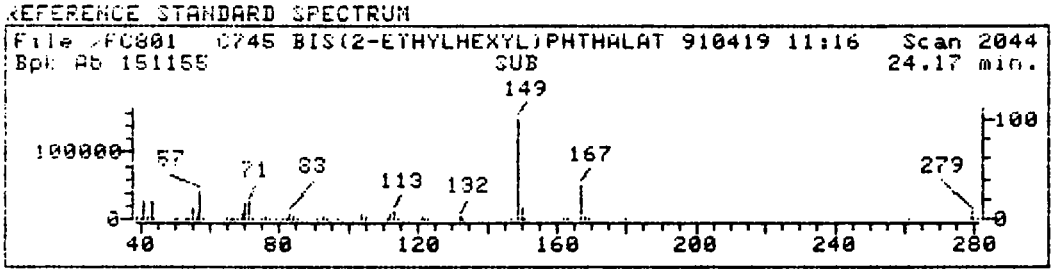
SAMPLE SPECTRUM (UNALTERED)



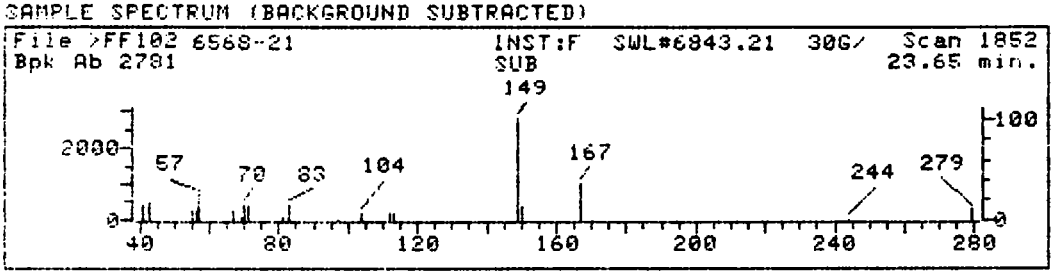
Data File: >FF102::D6 Quant Output File: ^FF102::D7
Name: 6568-21
Misc: INST:F SWL#6843.21 30G/1ML/1UL BTL#14
Quant Time: 910814 01:31 Quant ID File: ID_BN2::EX
Injected at: 910814 00:56 Last Calibration: 910813 16:27

Compound No: 68
Compound Name: C740 CHRYSENE
Scan Number: 1833
Retention Time: 23.46 min.
Quant Ion: 228.0
Area: 17992
Concentration: 3.86 NG/UL
q-value: 97

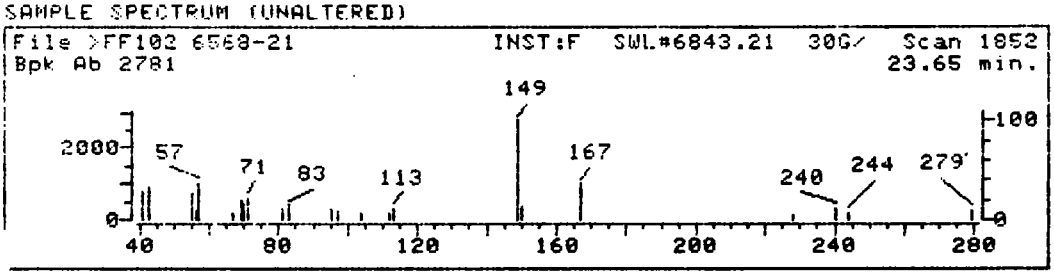
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



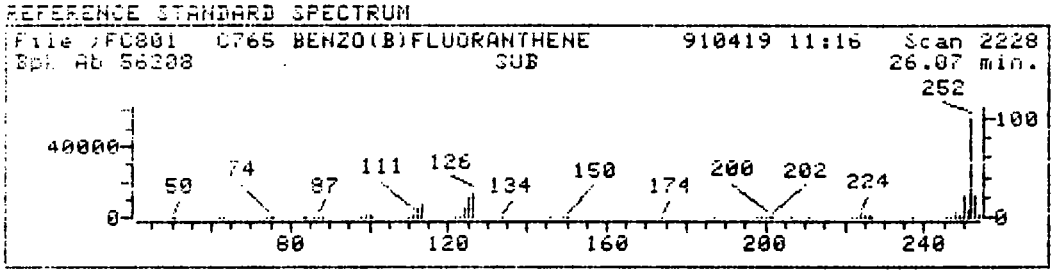
SAMPLE SPECTRUM (UNALTERED)



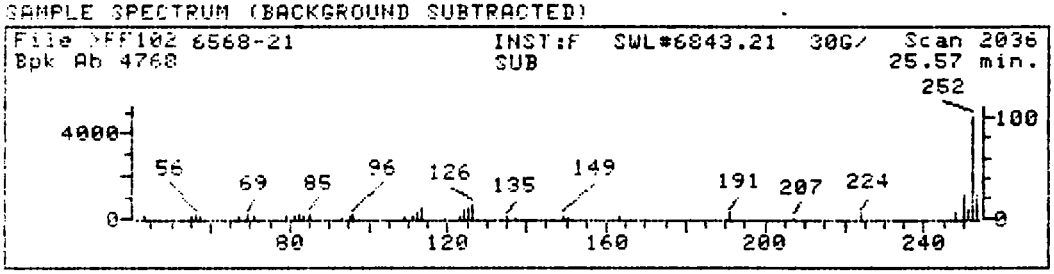
Data File: >FF102::D6 Quant Output File: ^FF102::D7
Name: 6568-21
Misc: INST:F SWL#6843.21 30G/1ML/1UL BTL#14
Quant Time: 910814 01:31 Quant ID File: ID_BN2::EX
Injected at: 910814 00:56 Last Calibration: 910813 16:27

Compound No: 69
Compound Name: C745 BIS(2-ETHYLHEXYL)PHTHALAT
Scan Number: 1852
Retention Time: 23.65 min.
Quant Ion: 149.0
Area: 4524
Concentration: .97 NG/UL
q-value: 91

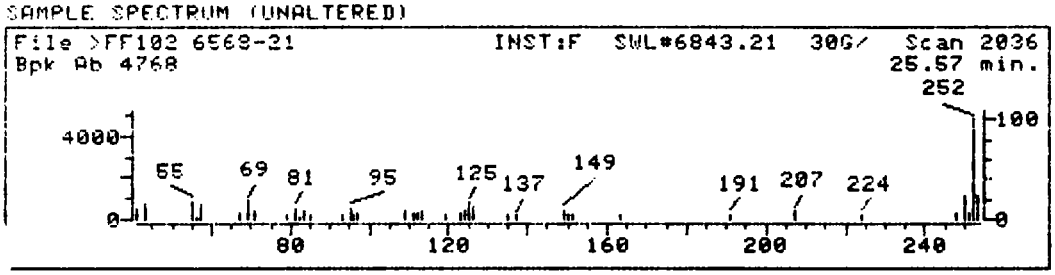
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



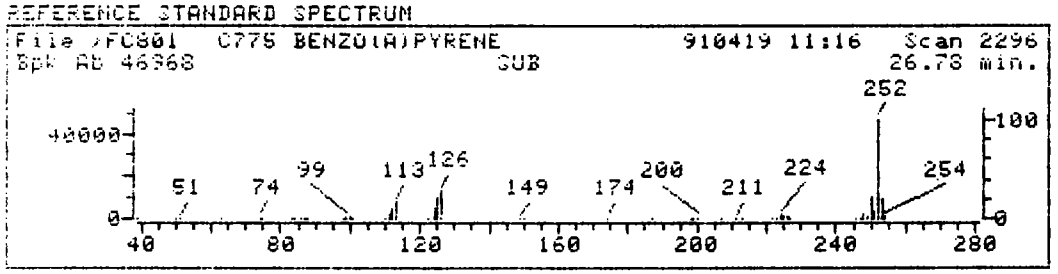
SAMPLE SPECTRUM (UNALTERED)



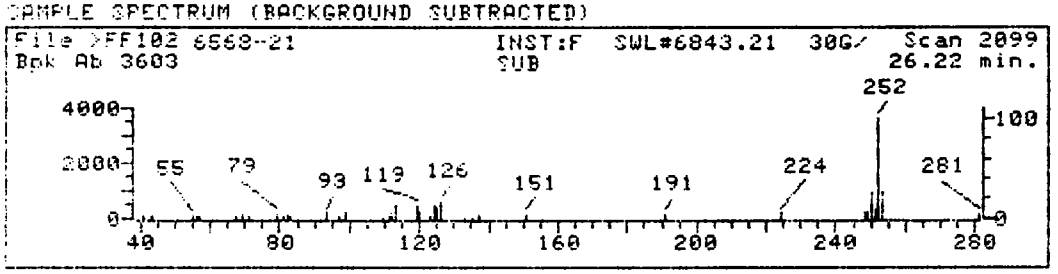
Data File: >FF102::D6 Quant Output File: ^FF102::D7
Name: 6568-21
Misc: INST:F SWL#6843.21 30G/1ML/1UL BTL#14
Quant Time: 910814 01:31 Quant ID File: ID_BN2::EX
Injected at: 910814 00:56 Last Calibration: 910813 16:27

Compound No: 73
Compound Name: C765 BENZO(B)FLUORANTHENE
Scan Number: 2036
Retention Time: 25.57 min.
Quant Ion: 252.0
Area: 21626
Concentration: 5.90 NG/UL
q-value: 96

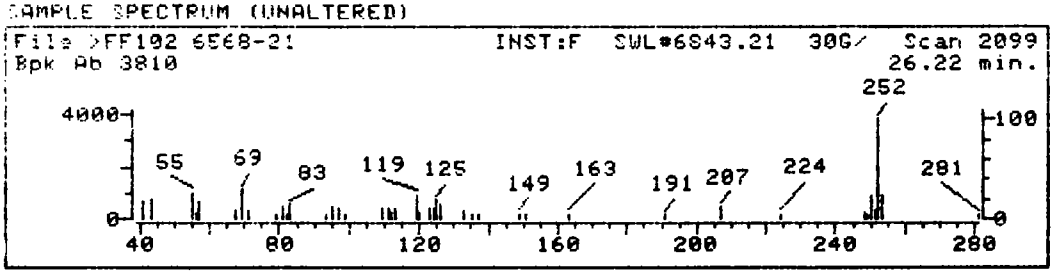
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



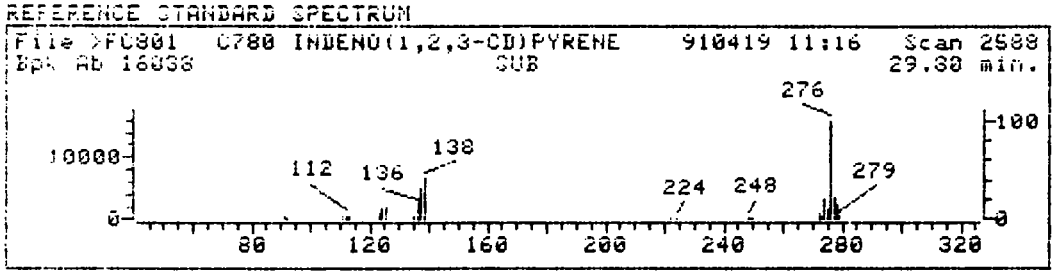
SAMPLE SPECTRUM (UNALTERED)



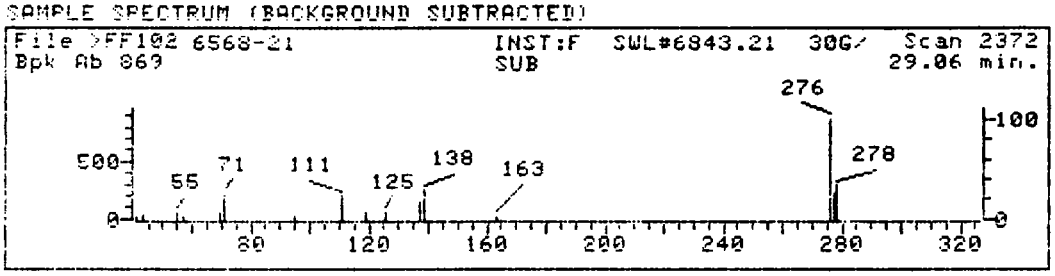
Data File: >FF102::D6 Quant Output File: ^FF102::D7
Name: 6568-21
Misc: INST:F SWL#6843.21 30G/1ML/1UL BTL#14
Quant Time: 910814 01:31 Quant ID File: ID_BN2::EX
Injected at: 910814 00:56 Last Calibration: 910813 16:27

Compound No: 75
Compound Name: C775 BENZO(A)PYRENE
Scan Number: 2099
Retention Time: 26.22 min.
Quant Ion: 252.0
Area: 10345
Concentration: 2.97 NG/UL
q-value: 94

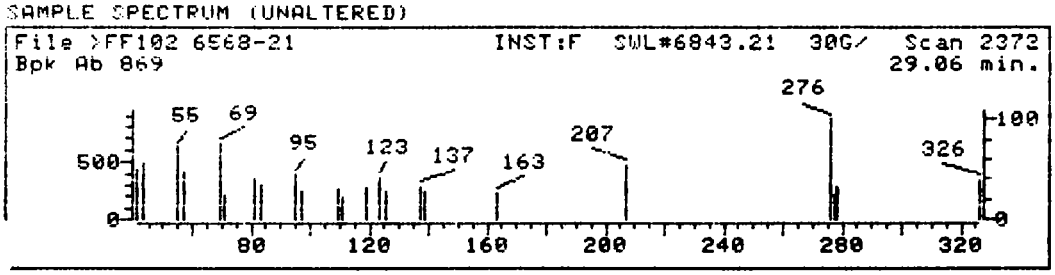
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >FF102::D6 Quant Output File: ^FF102::D7
Name: 6568-21
Misc: INST:F SWL#6843.21 30G/1ML/1UL BTL#14
Quant Time: 910814 01:31 Quant ID File: ID_BN2::EX
Injected at: 910814 00:56 Last Calibration: 910813 16:27

Compound No: 76
Compound Name: C780 INDENO(1,2,3-CD)PYRENE
Scan Number: 2372
Retention Time: 29.06 min.
Quant Ion: 276.0
Area: 4124
Concentration: 1.07 NG/UL
q-value: 97

data file header from : >FF102

Sample: 6568-21 Operator: LINDA MS 8/14/91 0:56
Misc : INST:F SWL#6843.21 30G/1ML/1UL BTL#14
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: #STDF Tuning file: F2TUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 300 Transfer line temp. : 0

Chromatographic temperatures :	45.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	9.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	12.0	0.0	0.0	0.0	0.0

>FF102 6568-21 INST:F SWL#6843.21 30G/1ML/1UL
35.01 500.0 CLP ADC TIC
Upslope: .20 Area Reject: 17003. Max Peaks: 10 Bunching: 1
Dnslope: 0.00 Results File IFF102 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	21.55	1643	1650	1655	5104	28222	18414	2.77	1.714
2	21.82	1673	1676	1684	9041	39244	25155	3.78	2.341
3	24.56	1936	1939	1944	10596	61021	18988	2.86	1.767
4	25.81	2056	2059	2063	22170	78014	35846	5.39	3.337
5	26.11	2084	2088	2092	7321	65742	20469	3.08	1.905
6	27.28	2196	2201	2207	17513	98889	43179	6.49	4.019
7	27.52	2217	2224	2225	11728	85417	32626	4.91	3.037
8	27.70	2229	2241	2264	53685	824949	664876	100.00	61.887
9	29.31	2389	2396	2403	54297	230288	173182	26.05	16.120
10	29.60	2419	2424	2430	13048	77723	41611	6.26	3.873

Sum of corrected areas: 1074346.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	170033.	8.04	4.47 - 9.44
2	40.0	221465.	10.85	9.44 - 12.75
3	40.0	325108.	14.65	12.75 - 16.20
4	40.0	400469.	17.75	16.20 - 20.58
5	40.0	498036.	23.42	20.58 - 24.88
6	40.0	297047.	26.34	24.88 - 32.03

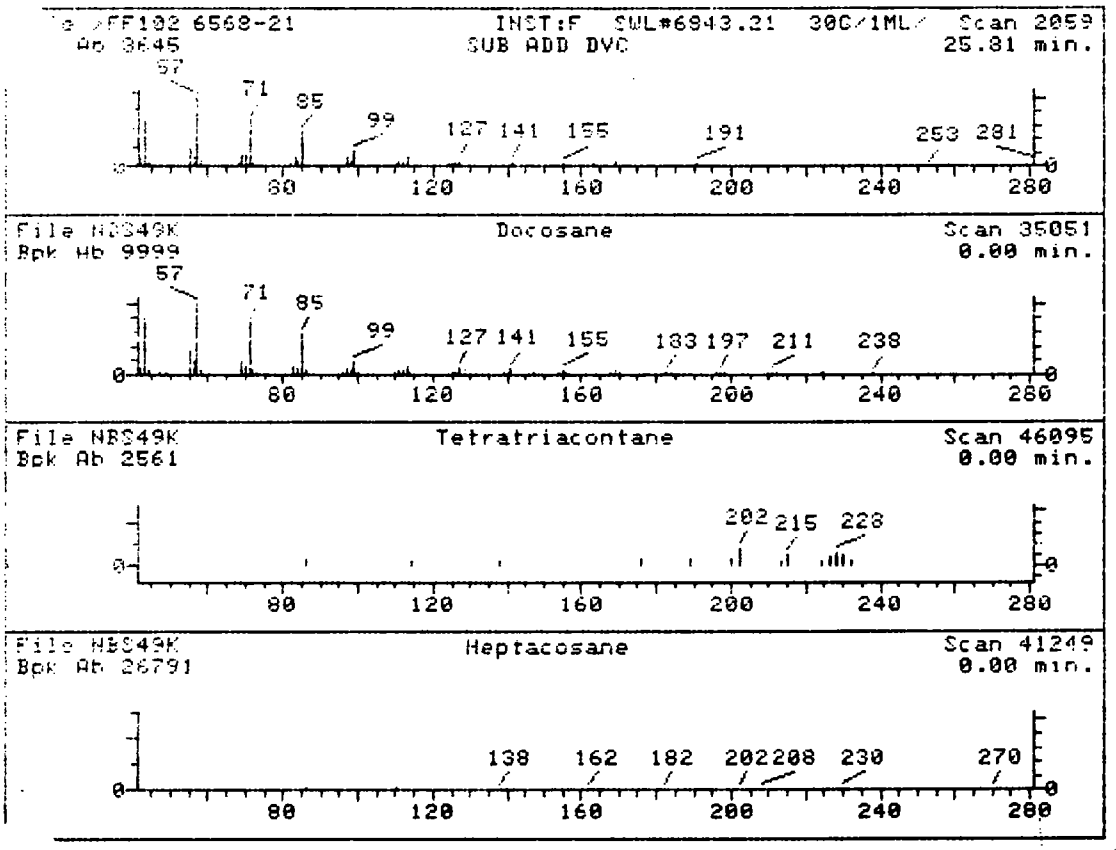
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

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

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

0389

2:04 AM WED., 14 AUG., 1991



UNKNOWN 4h

Sample: 6568-21 Operator: LINDA MS 8/14/91 0:56

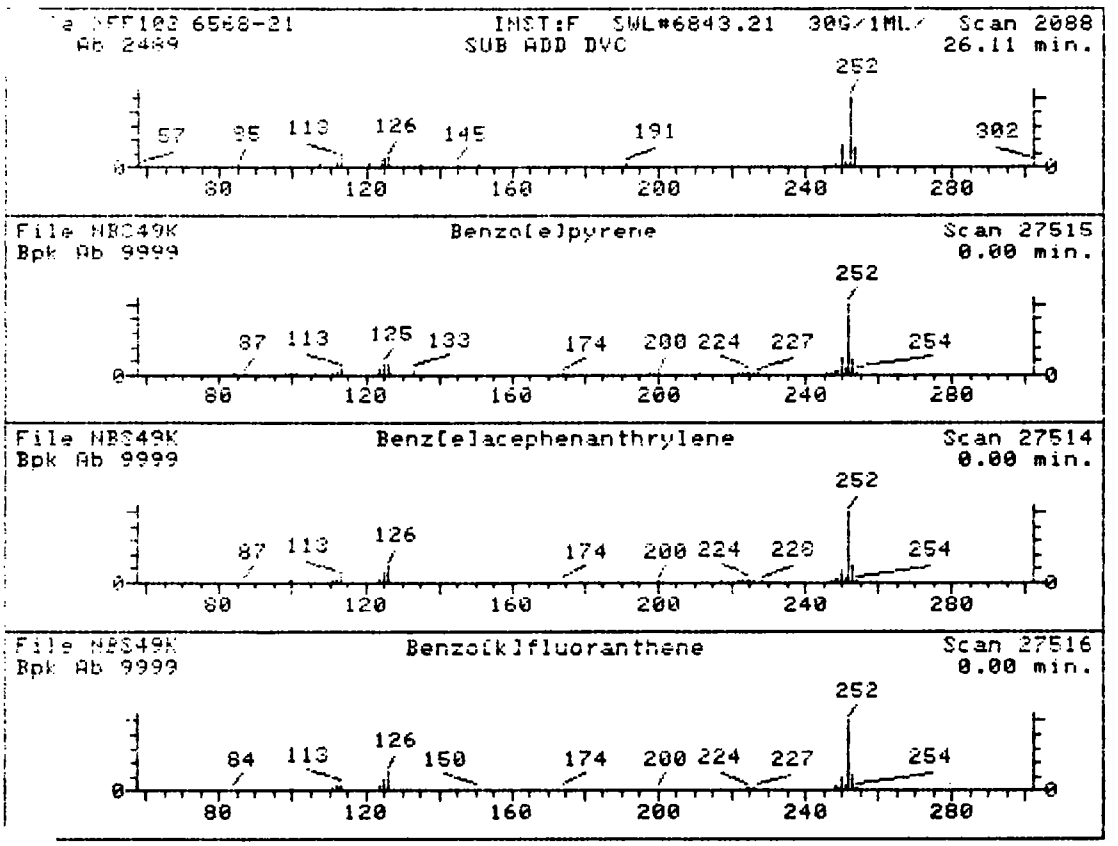
Unknown #,4
Area = 35846.00 Tentative Concentration is 5.00

1.	Docosane	310 C22H46
2.	Tetratriacontane	478 C34H70
3.	Heptacosane	380 C27H56
4.	Tetratetracontane	618 C44H90
5.	Eicosane, 7-hexyl-	366 C26H54
6.	Docosane, 11-decyl-	450 C32H66
7.	Tetracosane	338 C24H50

Sample file: >FF102 Spectrum #: 2059
Search speed: 1 Tilting option: N No. of ion ranges searched: 46

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	74	629970	6886	NBS49K	123	26	3	0	89	12	39	48
2.	67	14167590	6912	NBS49K	95	68	3	0	100	12	34	21
3.	66	593497	6904	NBS49K	107	48	2	0	88	17	3[illegible]	[illegible]
4.	56	7098228	9995	NBS49K	93	67	2	0	91	21	22	28
5.	52	55333998	6899	NBS49K	88	61	3	0	100	17	20	17
6.	52	55401553	6909	NBS49K	82	77	3	0	100	19	20	15

0390



UNKNOWN pure

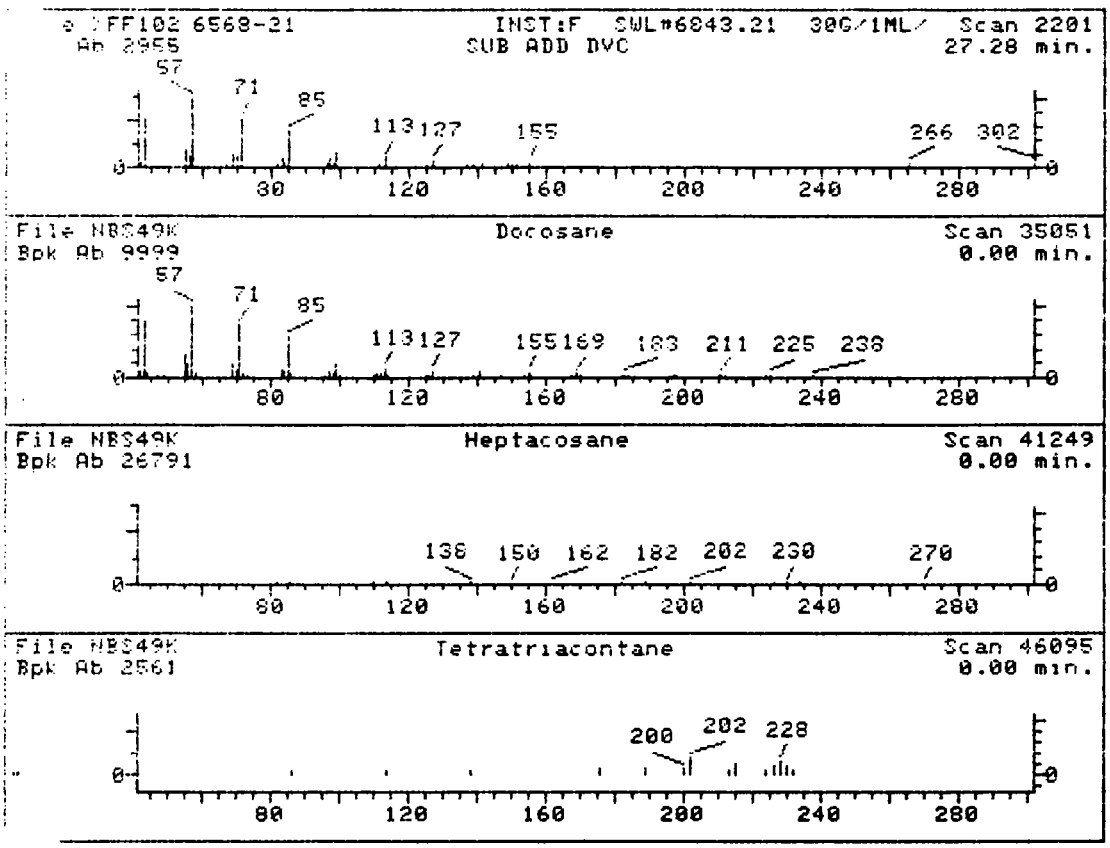
Sample: 6568-21 Operator: LINDA MS 8/14/91 0:56

. Unknown #,5
Area = 20469.00 Tentative Concentration is 3.00

1.	Benzo[e]pyrene	252 C20H12
2.	Benz[e]acephenanthrylene	252 C20H12
3.	Benzo[k]fluoranthene	252 C20H12
4.	Benzo[j]fluoranthene	252 C20H12
5.	Benzo[a]pyrene	252 C20H12

Sample file: >FF102 Spectrum #: 2088
Search speed: 1 Tilting option: N No. of ion ranges searched: 61

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
.	71*	192972	34160	NBS49K	57	76	2	0	89	13	38	34
.	60*	205992	34159	NBS49K	50	82	3	0	100	13	30	14
3.	60*	207089	34161	NBS49K	50	82	3	0	100	13	30	14
4.	58*	205823	34162	NBS49K	49	83	2	0	74	19	25	22
5.	43*	50328	34158	NBS49K	44	87	2	0	70	23	17	31



UNKNOWN

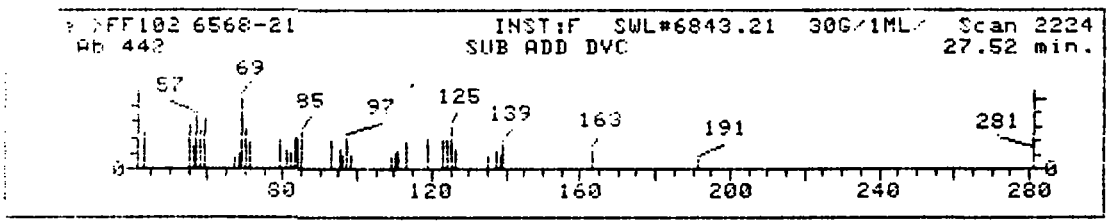
Sample: 6568-21 Operator: LINDA MS 8/14/91 0:56

. Unknown #,6
Area = 43179.00 Tentative Concentration is 6.00

1.	Docosane	310 C22H46
2.	Heptacosane	380 C27H56
3.	Tetratriacontane	478 C34H70
4.	Heptadecane, 9-octyl-	352 C25H52
5.	Tetratetracontane	618 C44H90
6.	Hexatriacontane	506 C36H74
7.	Eicosane, 7-hexyl-	366 C26H54

Sample file: >FF102 Spectrum #: 2201
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.	83	629970	6886	NBS49K	112	37	2	0	87	8	54	50
2.	71	593497	6904	NBS49K	96	59	2	0	100	13	38	30
3.	70	14167590	6912	NBS49K	91	72	3	0	100	8	40	32
4.	60	7225641	6893	NBS49K	87	60	3	0	100	15	30	17
5.	58	7098228	9995	NBS49K	82	78	2	0	100	20	25	22
6.	52	630068	9992	NBS49K	82	81	3	0	100	18	20	15



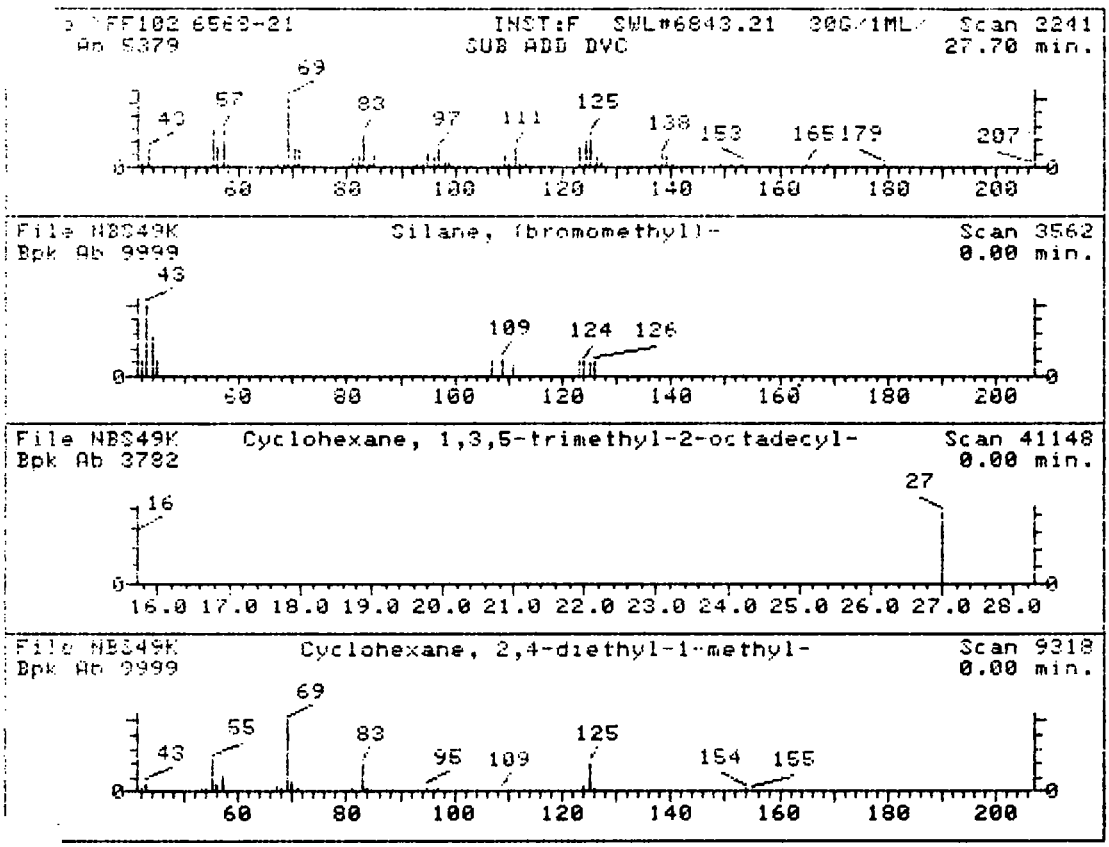
NO LIBRARY MATCH FOUND - UNKNOWN

Sample: 6568-21 Operator: LINDA MS 8/14/91 0:56

. Unknown #,7
Area = 32626.00 Tentative Concentration is 4.00

Sample file: >FF102 Spectrum #: 2224

No data base entries were retrieved.



UNKNOWN

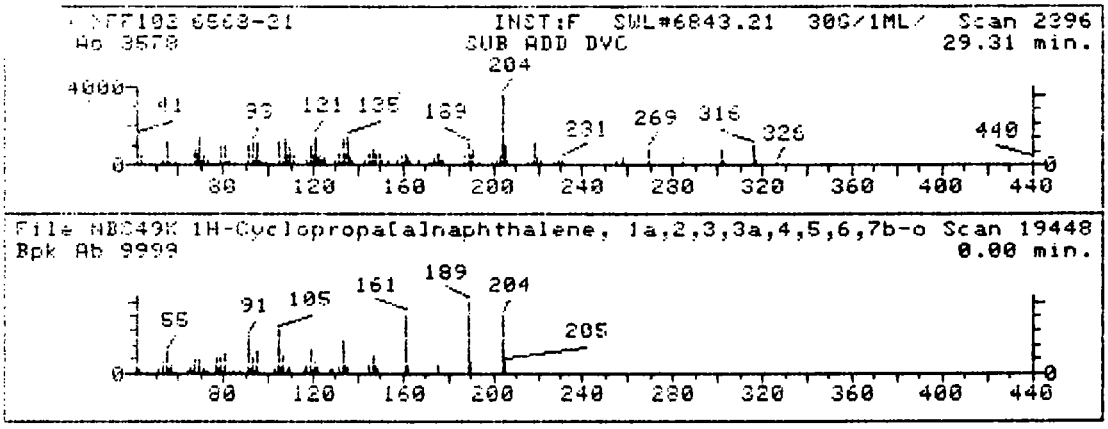
Sample: 6568-21 Operator: LINDA MS 8/14/91 0:56

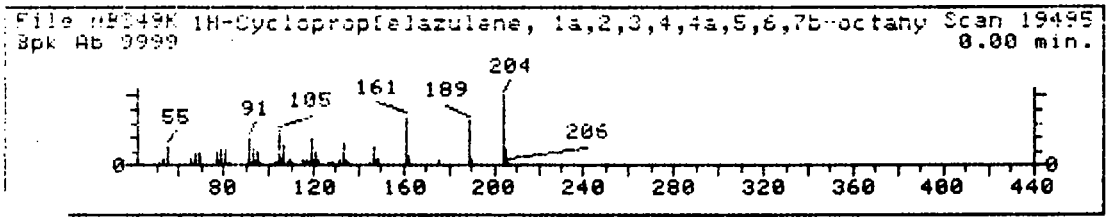
. Unknown #,8
Area = 664876.0 Tentative Concentration is 90.00

1.	Silane, (bromomethyl)-	124	CH5BrSi
2.	Cyclohexane, 1,3,5-trimethyl-2-octadecyl-	378	C27H54
3.	Cyclohexane, 2,4-diethyl-1-methyl-	154	C11H22
4.	Pyrrolidine, 1-(2-methyl-1-propenyl)-	125	C8H15N
5.	Cyclohexane, 1,1,3,5-tetramethyl-, trans-	140	C10H20
6.	2-Propanamine, N,N'-1,2-ethanediylidenebis-	140	C8H16N2
7.	Cyclohexanamine, N-butylidene-	153	C10H19N

Sample file: >FF102 Spectrum #: 2241
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.	24*	7570210	14670	NBS49K	22	92	3	0	195	43	8	12
2.	20	55282343	14663	NBS49K	62	92	1	0	124	51	5	19
3.	15	61142709	14506	NBS49K	38	56	0	0	100	56	3	14
4.	15*	2403578	14453	NBS49K	31	67	2	0	38	57	3	14
5.	15*	50876318	14481	NBS49K	26	63	1	0	46	60	3	14
6.	15*	24764907	14473	NBS49K	24	72	2	0	95	56	3	14
7.												





UNKNOWN

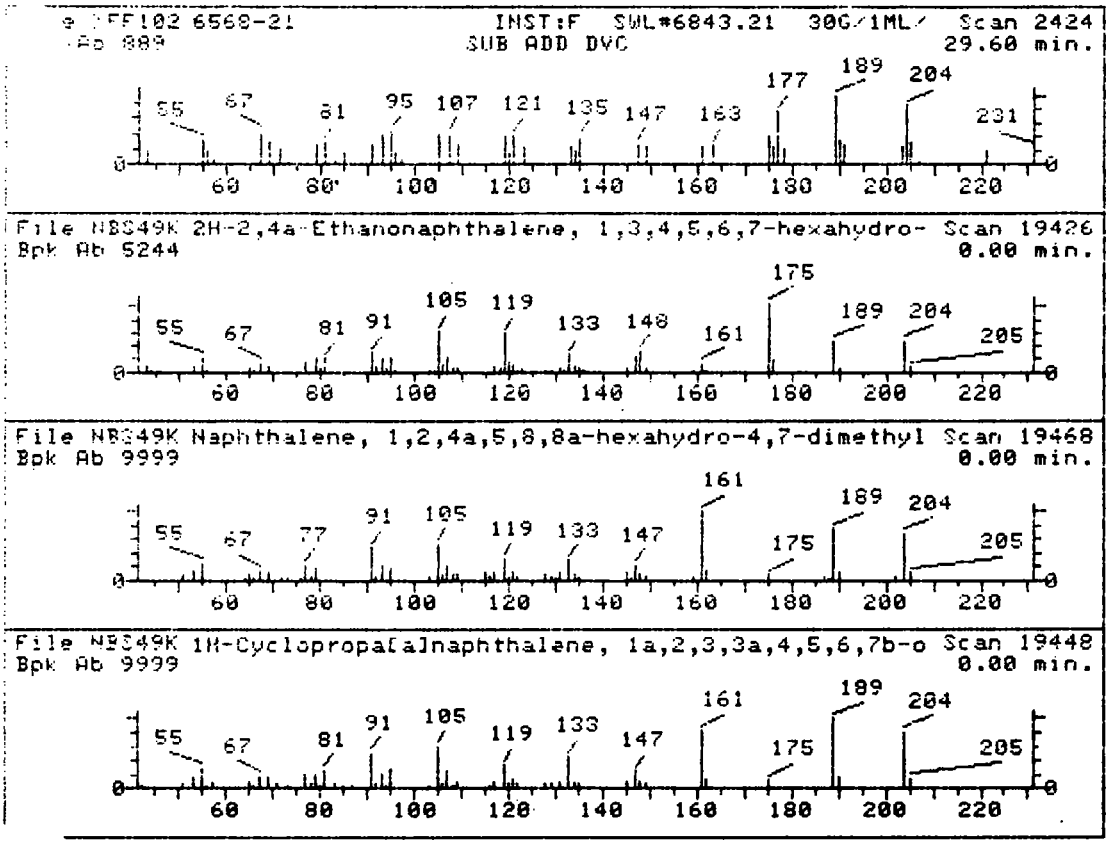
Sample: 6568-21 Operator: LINDA MS 8/14/91 0:56

Unknown #,9
Area = 173182.0 Tentative Concentration is 23.00

1.	1H-Cyclopropa[a]naphthalene, 1a,2,3,3a,4,5,6,7b-octahydro-1,1,3a,7-tetramethyl-, [1aR-(1a.alpha.,3a.alpha.,7b.alpha.)]-	204	C15H24
2.	.beta.-L-Galactopyranoside, methyl 6-deoxy-2,3,4-tris-O-(trimethylsilyl)-	394	C16H38O5Si3
3.	1H-Cyclopropa[e]azulene, 1a,2,3,4,4a,5,6,7b-octahydro-1,1,4,7-tetramethyl-, [1aR-(1a.alpha.,4.alpha.,4a.beta.,7b.alpha.)]-	204	C15H24
4.	[1,1'-Biphenyl]-2,2'-dicarbonitrile	204	C14H8N2
5.	5H-Dibenzo[a,d]cycloheptene, 5-methylene-	204	C16H12
6.	Pyrene, 4,5-dihydro-	204	C16H12
7.	2-METHYLTHIO-1,4-NAPHTHOQUINONE	204	C11H8O2S

Sample file: >FF102 Spectrum #: 2396
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_	R_
1.	32*	489292	28413	NBS49K	68	88	2	0	83	55	9	49



UNKNOWN

Sample: 6568-21 Operator: LINDA MS 8/14/91 0:56

. Unknown #,10
Area = 41611.00 Tentative Concentration is 6.00

1.	2H-2,4a-Ethanonaphthalene, 1,3,4,5,6,7-hexahydro-2,5,5-trimethyl-	204	C15H24
2.	Naphthalene, 1,2,4a,5,8,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, (1.alpha.,4a.beta.,8a.alpha.)-(.+-.)-	204	C15H24
3.	1H-Cyclopropa[a]naphthalene, 1a,2,3,3a,4,5,6,7b-octahydro-1,1,3a,7-tetramethyl-, [1aR-(1a.alpha.,3a.alpha.,7b.alpha.)]-	204	C15H24
4.	.DELTA.-SELINENE	204	C15H24
5.	[1,1'-Biphenyl]-2,2'-dicarbonitrile	204	C14H8N2
6.	Benzenamine, 4-[(butylimino)methyl]-N,N-dimethyl-	204	C13H20N2
7.	Naphthalene, decahydro-4a-methyl-1-methylene-7-(1-methylethylidene)-, (4aR-trans)-	204	C15H24

Sample file: >FF102 Spectrum #: 2424
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

0396

Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	% CON	C_I	R_IV

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-022

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684322

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6880

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 24 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 3.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	870	U
111-44-4	bis(2-Chloroethyl)Ether	870	U
95-57-8	2-Chlorophenol	870	U
541-73-1	1,3-Dichlorobenzene	870	U
106-46-7	1,4-Dichlorobenzene	870	U
100-51-6	Benzyl Alcohol	870	U
95-50-1	1,2-Dichlorobenzene	870	U
95-48-7	2-Methylphenol	870	U
108-60-1	bis(2-Chloroisopropyl)ether	870	U
106-44-5	4-Methylphenol	870	U
621-64-7	N-Nitroso-Di-n-Propylamine	870	U
67-72-1	Hexachloroethane	870	U
98-95-3	Nitrobenzene	870	U
78-59-1	Isophorone	870	U
88-75-5	2-Nitrophenol	870	U
105-67-9	2,4-Dimethylphenol	870	U
65-85-0	Benzoic Acid	4200	U
111-91-1	bis(2-Chloroethoxy)Methane	870	U
120-83-2	2,4-Dichlorophenol	870	U
120-82-1	1,2,4-Trichlorobenzene	870	U
91-20-3	Naphthalene	82	J
106-47-8	4-Chloroaniline	870	U
87-68-3	Hexachlorobutadiene	870	U
59-50-7	4-Chloro-3-Methylphenol	870	U
91-57-6	2-Methylnaphthalene	100	J
77-47-4	Hexachlorocyclopentadiene	870	U
88-06-2	2,4,6-Trichlorophenol	870	U
95-95-4	2,4,5-Trichlorophenol	4200	U
91-58-7	2-Chloronaphthalene	870	U
88-74-4	2-Nitroaniline	4200	U
131-11-3	Dimethyl Phthalate	870	U
208-96-8	Acenaphthylene	320	J
606-20-2	2,6-Dinitrotoluene	870	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-022

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684322

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6880

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 24 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 3.2 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4200	U
83-32-9	Acenaphthene	870	U
51-28-5	2,4-Dinitrophenol	4200	U
100-02-7	4-Nitrophenol	4200	U
132-64-9	Dibenzofuran	47	J
121-14-2	2,4-Dinitrotoluene	870	U
84-66-2	Diethylphthalate	870	U
7005-72-3	4-Chlorophenyl-phenylether	870	U
86-73-7	Fluorene	240	J
100-01-6	4-Nitroaniline	4200	U
534-52-1	4,6-Dinitro-2-Methylphenol	4200	U
86-30-6	N-Nitrosodiphenylamine (1)	870	U
101-55-3	4-Bromophenyl-phenylether	870	U
118-74-1	Hexachlorobenzene	870	U
87-86-5	Pentachlorophenol	4200	U
85-01-8	Phenanthrene	1600	
120-12-7	Anthracene	330	J
84-74-2	Di-n-Butylphthalate	870	U
206-44-0	Fluoranthene	1700	
129-00-0	Pyrene	2600	
85-68-7	Butylbenzylphthalate	870	U
91-94-1	3,3'-Dichlorobenzidine	1700	U
56-55-3	Benzo(a)Anthracene	1500	
218-01-9	Chrysene	870	U
117-81-7	bis(2-Ethylhexyl)Phthalate	96	J
117-84-0	Di-n-Octyl Phthalate	180	J
205-99-2	Benzo(b)Fluoranthene	1100	
207-08-9	Benzo(k)Fluoranthene	870	U
50-32-8	Benzo(a)Pyrene	1100	
193-39-5	Indeno(1,2,3-cd)Pyrene	650	J
53-70-3	Dibenz(a,h)Anthracene	240	J
191-24-2	Benzo(g,h,i)Perylene	200	J

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: 6568G-022

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684322

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6880

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 24 dec. Date Extracted: 08/02/91

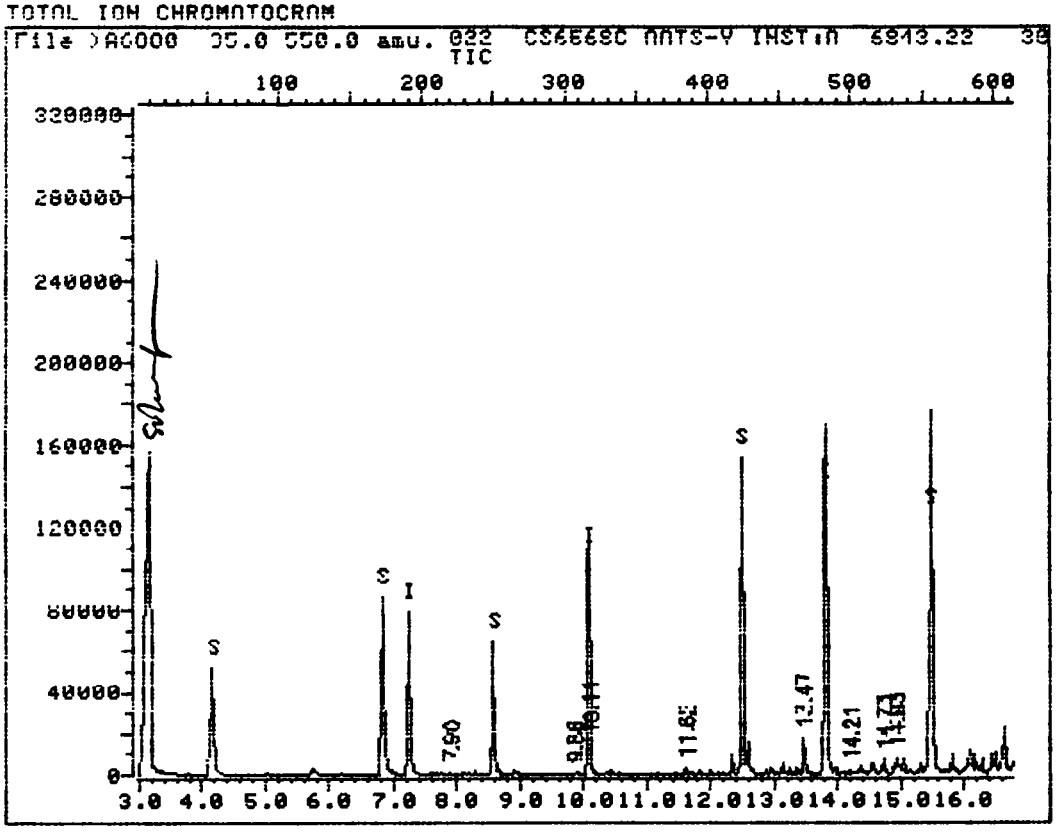
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 3.2 Dilution Factor: 1.0

Number TICs found: 19 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Dibenzothiophene, methyl-	17.57	440	J
2.		Phenanthrene, methyl-	17.95	790	J
3.		Phenanthrene, methyl-	18.00	440	J
4.		UNKNOWN COMPOUND	18.15	1100	J
5.		UNKNOWN COMPOUND	18.62	530	J
6.		Phenanthrene, dimethyl-	19.15	790	J
7.		UNKNOWN PNA	19.59	350	J
8.		UNKNOWN PNA	20.59	700	J
9.		Pyrene, methyl-	20.79	530	J
10.		Pyrene, methyl-	20.99	350	J
11.		UNKNOWN COMPOUND	21.50	260	J
12.		UNKNOWN COMPOUND	21.67	350	J
13.		UNKNOWN COMPOUND	21.87	350	J
14.		UNKNOWN PNA	21.95	350	J
15.		UNKNOWN COMPOUND	23.24	260	J
16.		UNKNOWN COMPOUND	23.40	260	J
17.		UNKNOWN PNA	24.97	610	J
18.		UNKNOWN COMPOUND	27.71	1800	J
19.		UNKNOWN COMPOUND	27.96	610	J

TOTAL ION CHROMATOGRAM



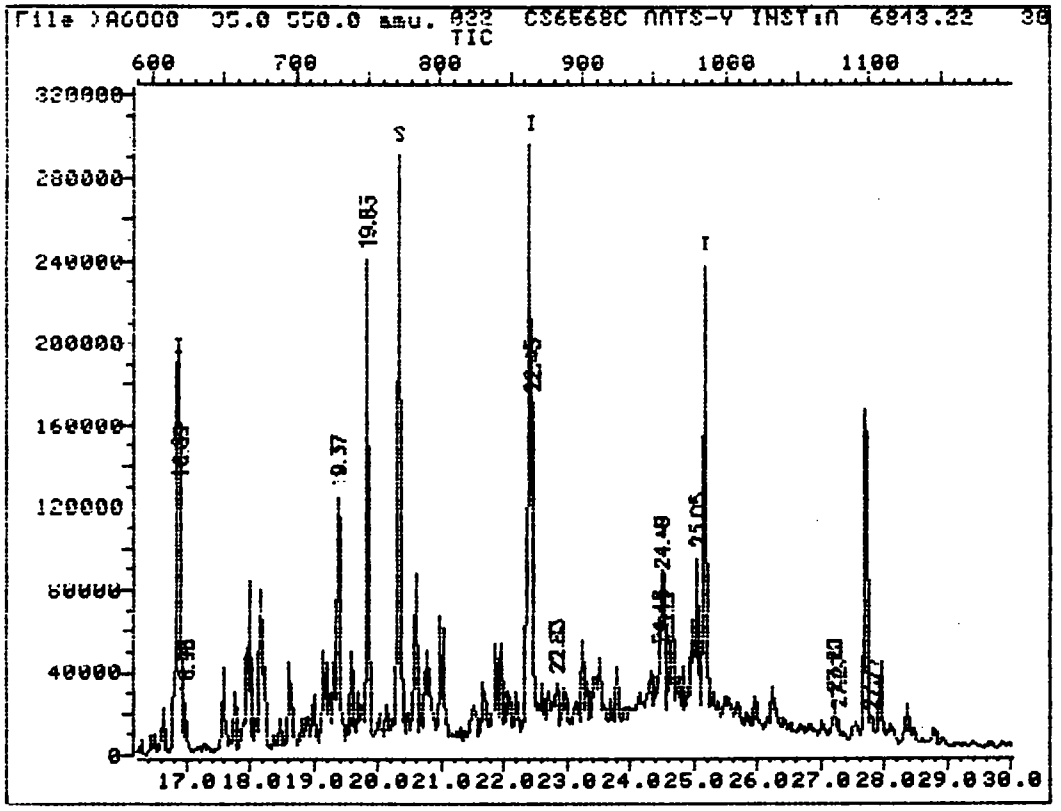
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: AATS
Quant Time: 910814 02:52
Injected at: 910814 02:20

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19

Id File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: AATS
Quant Time: 910814 02:52
Injected at: 910814 02:20

TIC page 2 of 2

QUANT REPORT

Operator ID: AATS Quant Rev: 6 Quant Time: 910814 02:52
Output File: ^A6880::L1 Injected at: 910814 02:20
Data File: >A6880::D9 Dilution Factor: 1.00000
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.23	152.0	34690	40.00	NG/UL	98
~~10)~~	~~C360 BIS(2-CHLOROISOPROPYL)ETH~~	~~7.90~~	~~45.0~~	~~299~~	~~.15~~	~~NG/UL~~	~~100~~
14)	CS50 2-FLUOROPHENOL	4.16	112.0	52623	75.96	NG/UL	100
15)	CS45 PHENOL-D5	6.82	99.0	84861	72.75	NG/UL	79
16)	*CI40 NAPHTHALENE-D8	10.06	136.0	148671	40.00	NG/UL	99
~~21)~~	~~C430 BENZOIC ACID~~	~~9.86~~	~~122.0~~	~~347~~	~~.36~~	~~NG/UL~~	~~77~~
25)	C450 NAPHTHALENE	10.11	128.0	3373	.93	NG/UL	99
29)	C470 2-METHYLNAPHTHALENE	11.62	142.0	2593	1.18	NG/UL	87
30)	CS20 NITROBENZENE-D5	8.58	82.0	43026	31.95	NG/UL	82
31)	*CI50 ACENAPHTHENE-D10	13.80	164.0	103433	40.00	NG/UL	94
38)	C540 ACENAPHTHYLENE	13.47	152.0	17400	3.69	NG/UL	92
~~41)~~	~~C550 ACENAPHTHENE~~	~~13.47~~	~~153.0~~	~~2086~~	~~.68~~	~~NG/UL~~	~~100~~
[illegible])	C565 DIBENZOFURAN	14.21	168.0	2283	.54	NG/UL	100
~~45)~~	~~C570 2,4-DINITROTOLUENE~~	~~14.73~~	~~165.0~~	~~2793~~	~~2.62~~	~~NG/UL~~	~~52~~
48)	C590 FLUORENE	14.93	166.0	7451	2.73	NG/UL	98
50)	CS25 2-FLUOROBIPHENYL	12.50	172.0	107801	34.44	NG/UL	100
51)	CS55 2,4,6-TRIBROMOPHENOL	15.47	330.0	69024	87.20	NG/UL	88
52)	*CI60 PHENANTHRENE-D10	16.85	188.0	190712	40.00	NG/UL	98
58)	C640 PHENANTHRENE	16.89	178.0	105368	18.35	NG/UL	100
59)	C645 ANTHRACENE	16.98	178.0	18699	3.80	NG/UL	100
61)	C655 FLUORANTHENE	19.37	202.0	123922	19.92	NG/UL	100
62)	*CI70 CHRYSENE-D12	22.40	240.0	195273	40.00	NG/UL	96
63)	C715 PYRENE	19.83	202.0	176778	29.81	NG/UL	100
66)	C730 BENZO(A)ANTHRACENE	22.45	228.0	89109	16.75	NG/UL	97
~~67)~~	~~C740 CHRYSENE~~	~~22.45~~	~~228.0~~	~~89109~~	~~16.75~~	~~NG/UL~~	~~97~~
68)	C745 BIS(2-ETHYLHEXYL)PHTHALAT	22.83	149.0	6347	1.09	NG/UL	82
69)	CS30 TERPHENYL-D14	20.32	244.0	169152	43.04	NG/UL	99
70)	*CI75 PERYLENE-D12	25.17	264.0	175117	40.00	NG/UL	97
71)	C760 DI-N-OCTYLPHTHALATE	24.46	149.0	19110	2.03	NG/UL	100
72)	C765 BENZO(B)FLUORANTHENE	24.49	252.0	86581	12.06	NG/UL	97
74)	C775 BENZO(A)PYRENE	25.05	252.0	51885	12.78	NG/UL	97
75)	C780 INDENO(1,2,3-CD)PYRENE	27.20	276.0	22645	7.40	NG/UL	93
76)	C785 DIBENZ(A,H)ANTHRACENE	27.27	278.0	9947	2.70	NG/UL	99
77)	C790 BENZO(G,H,I)PERYLENE	27.77	276.0	7066	2.31	NG/UL	92

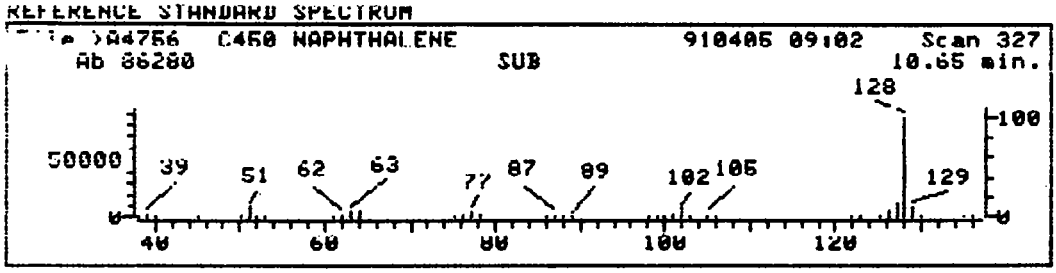
* Compound is ISTD

Total Benzo(B)+(K)

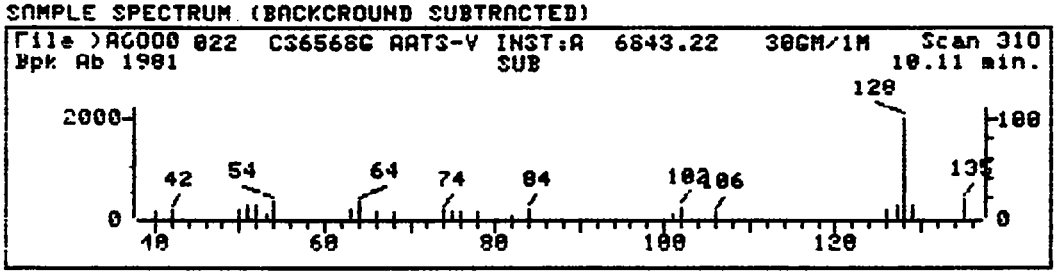
FALSE POSITIVE

0402

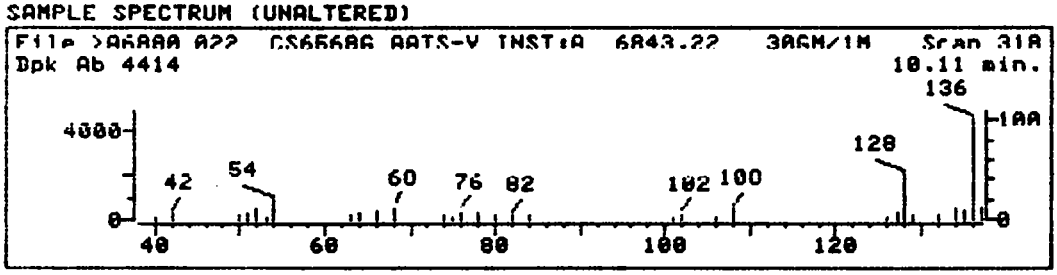
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



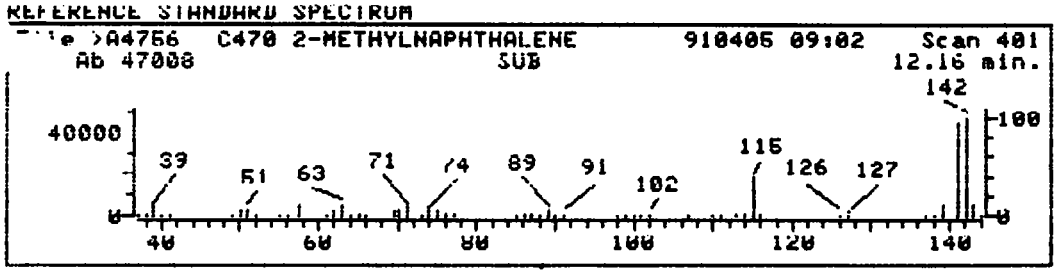
SAMPLE SPECTRUM (UNALTERED)



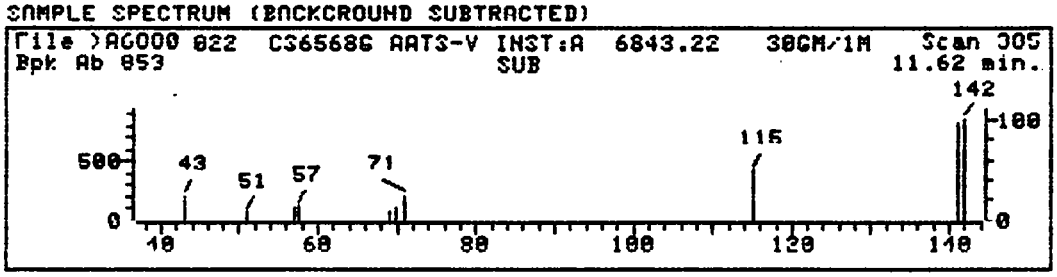
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID_BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 25
Compound Name: C450 NAPHTHALENE
Scan Number: 318
Retention Time: 10.11 min.
Quant Ion: 128.0
Area: 3373
Concentration: .93 NG/UL
q-value: 99

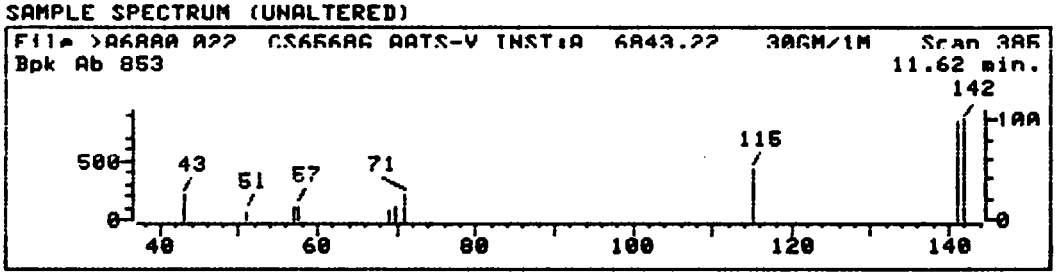
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



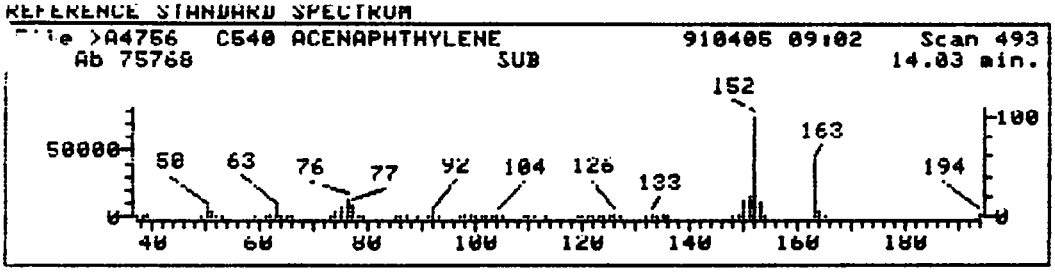
SAMPLE SPECTRUM (UNALTERED)



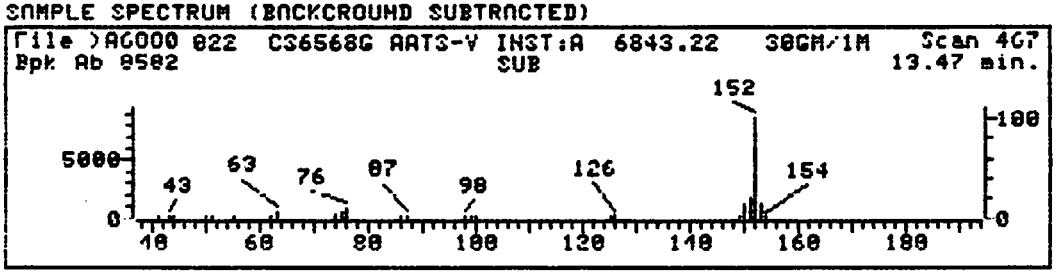
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 29
Compound Name: C470 2-METHYLNAPHTHALENE
Scan Number: 385
Retention Time: 11.62 min.
Quant Ion: 142.0
Area: 2593
Concentration: 1.18 NG/UL
q-value: 87

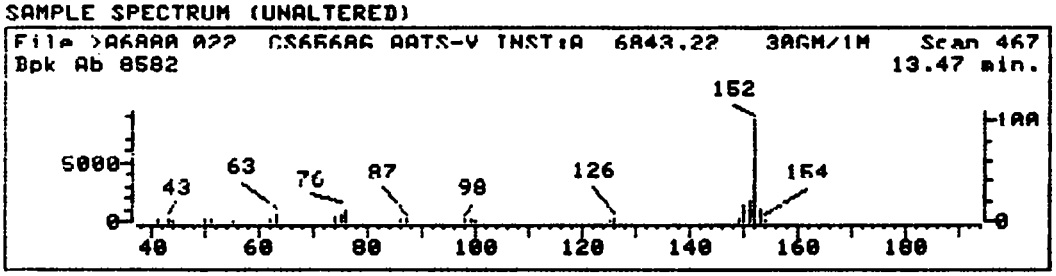
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



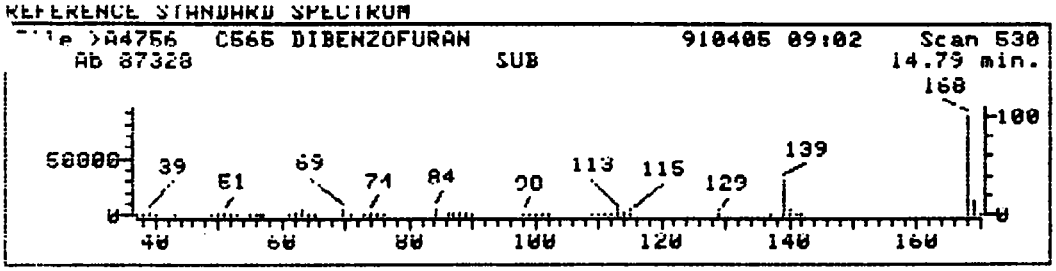
SAMPLE SPECTRUM (UNALTERED)



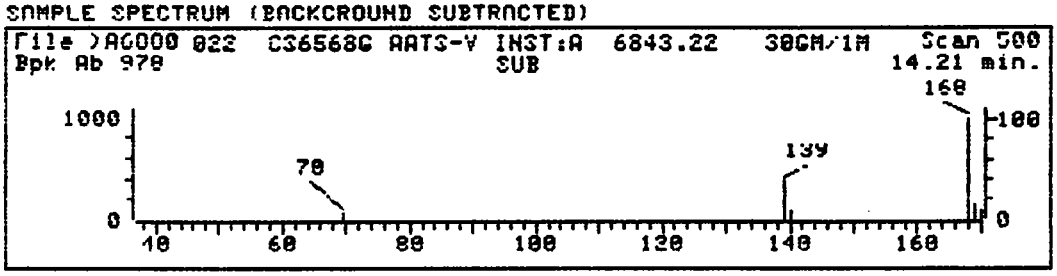
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID_BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 38
Compound Name: C540 ACENAPHTHYLENE
Scan Number: 467
Retention Time: 13.47 min.
Quant Ion: 152.0
Area: 17400
Concentration: 3.69 NG/UL
q-value: 92

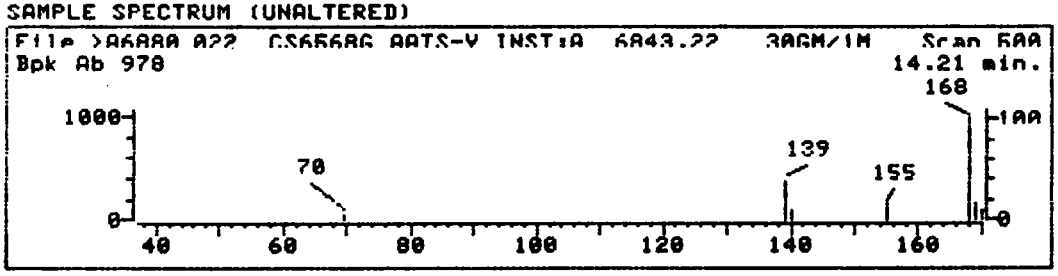
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



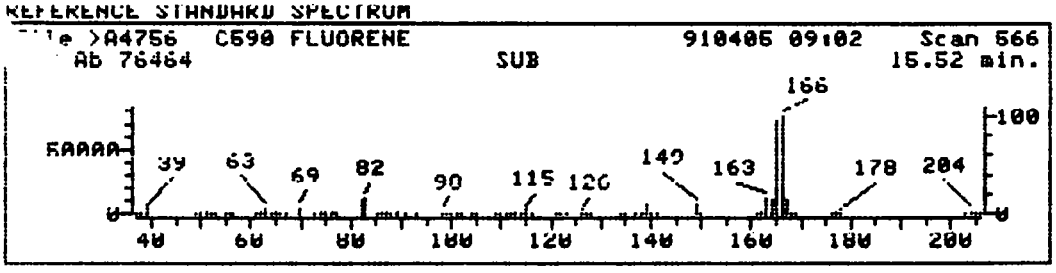
SAMPLE SPECTRUM (UNALTERED)



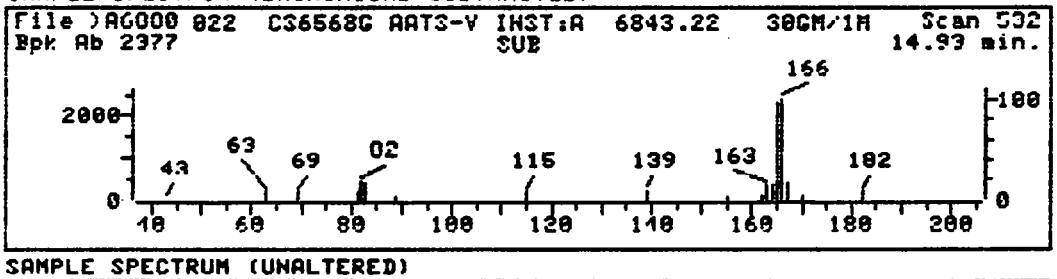
Data File: >A6880::09 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 44
Compound Name: C565 DIBENZOFURAN
Scan Number: 500
Retention Time: 14.21 min.
Quant Ion: 168.0
Area: 2283
Concentration: .54 NG/UL
q-value: 100

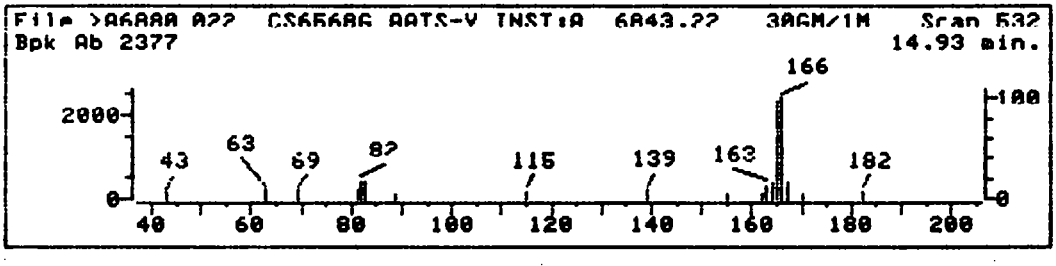
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



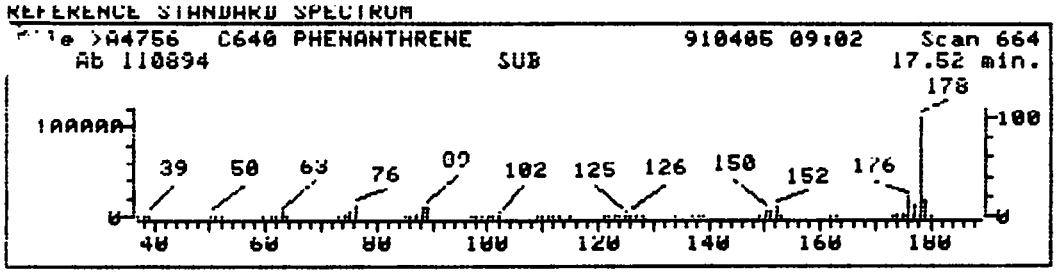
SAMPLE SPECTRUM (UNALTERED)



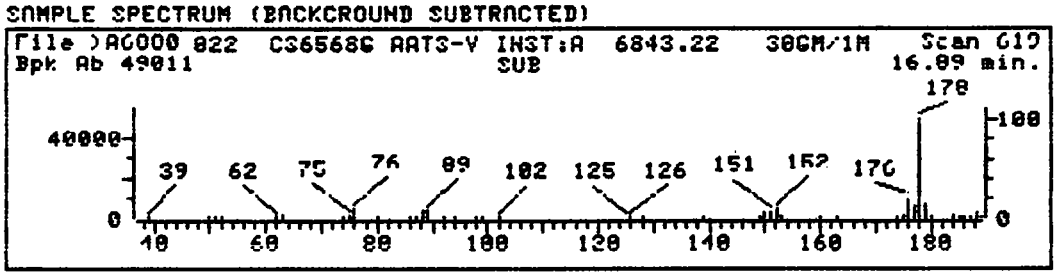
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 48
Compound Name: C590 FLUORENE
Scan Number: 532
Retention Time: 14.93 min.
Quant Ion: 166.0
Area: 7451
Concentration: 2.73 NG/UL
q-value: 98

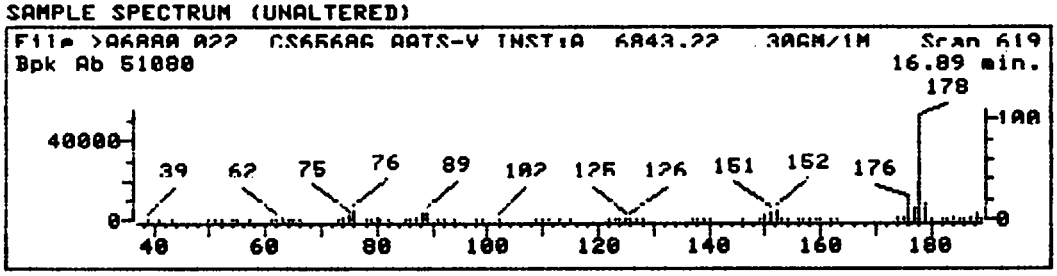
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



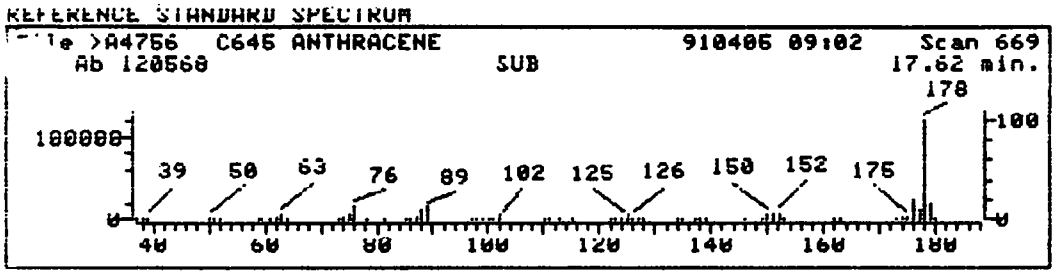
SAMPLE SPECTRUM (UNALTERED)



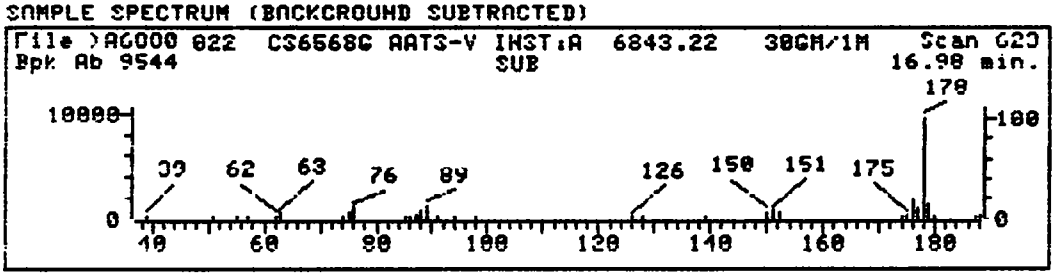
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 58
Compound Name: C640 PHENANTHRENE
Scan Number: 619
Retention Time: 16.89 min.
Quant Ion: 178.0
Area: 105368
Concentration: 18.35 NG/UL
q-value: 100

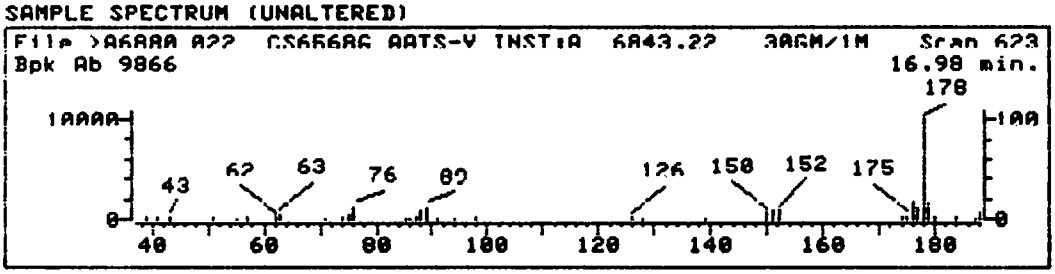
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



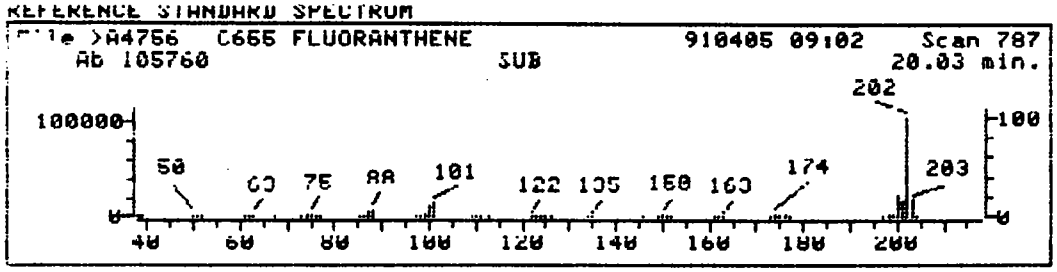
SAMPLE SPECTRUM (UNALTERED)



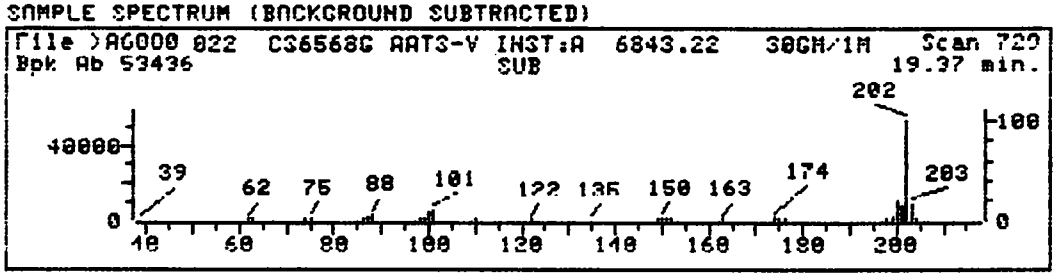
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 59
Compound Name: C645 ANTHRACENE
Scan Number: 623
Retention Time: 16.98 min.
Quant Ion: 178.0
Area: 18699
Concentration: 3.80 NG/UL
q-value: 100

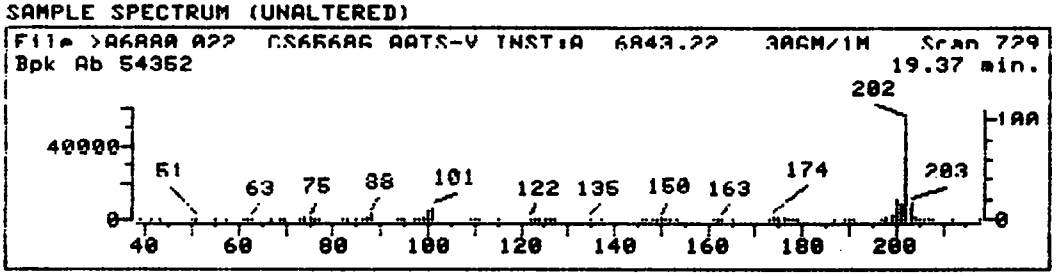
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



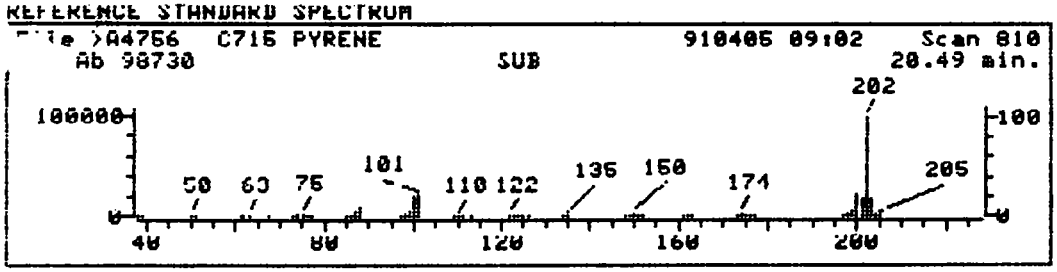
SAMPLE SPECTRUM (UNALTERED)



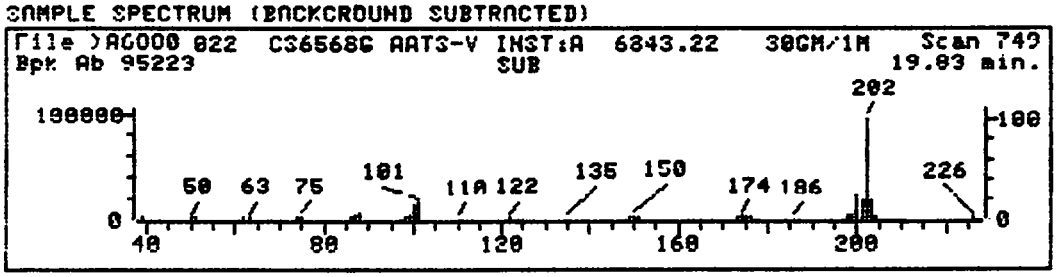
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 61
Compound Name: C655 FLUORANTHENE
Scan Number: 729
Retention Time: 19.37 min.
Quant Ion: 202.0
Area: 123922
Concentration: 19.92 NG/UL
q-value: 100

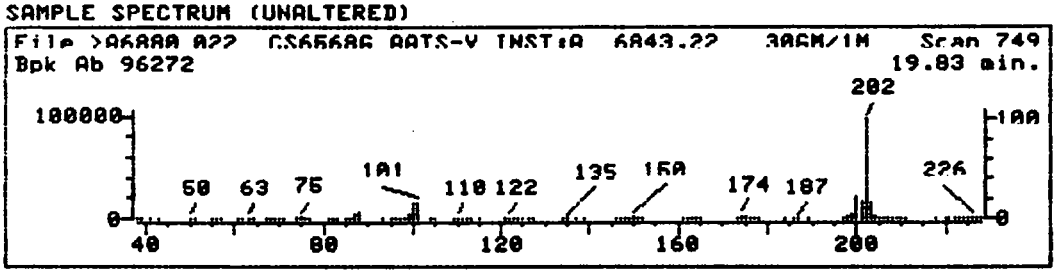
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



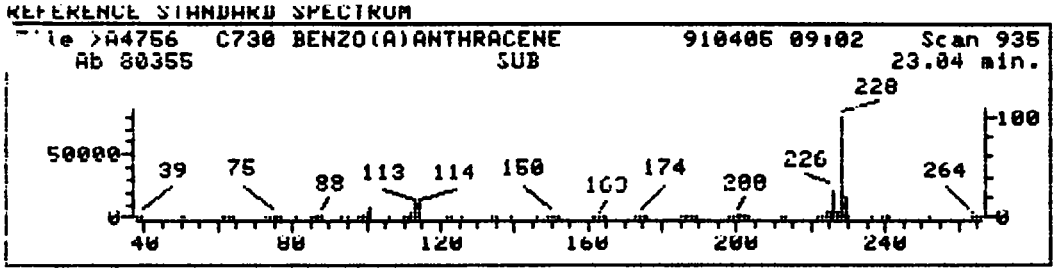
SAMPLE SPECTRUM (UNALTERED)



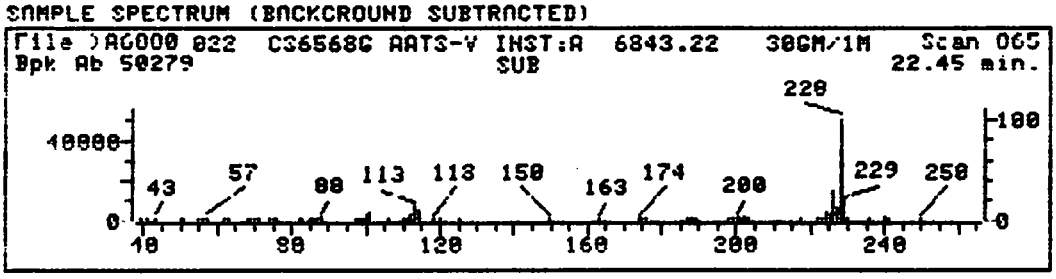
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID_BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 63
Compound Name: C715 PYRENE
Scan Number: 749
Retention Time: 19.83 min.
Quant Ion: 202.0
Area: 176778
Concentration: 29.81 NG/UL
q-value: 100

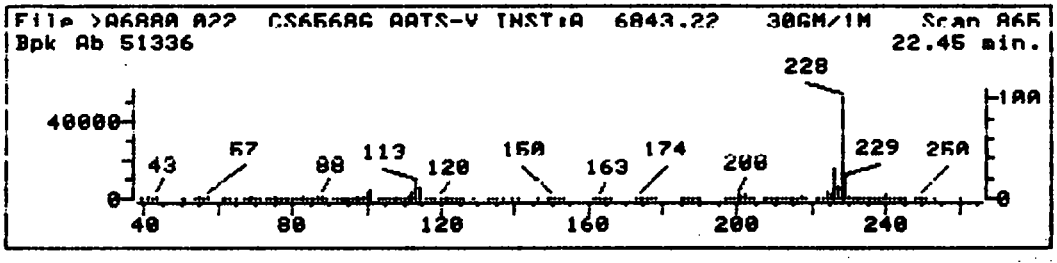
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



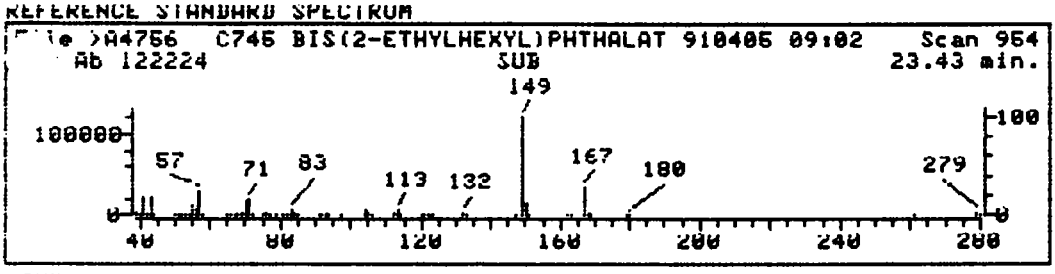
SAMPLE SPECTRUM (UNALTERED)



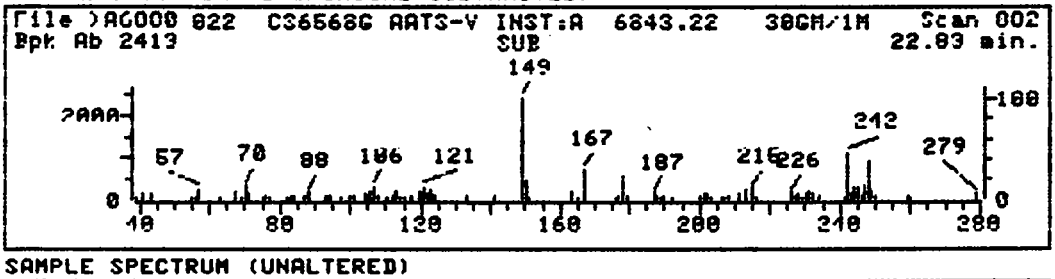
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID_BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 66
Compound Name: C730 BENZO(A)ANTHRACENE
Scan Number: 865
Retention Time: 22.45 min.
Quant Ion: 228.0
Area: 89109
Concentration: 16.75 NG/UL
q-value: 97

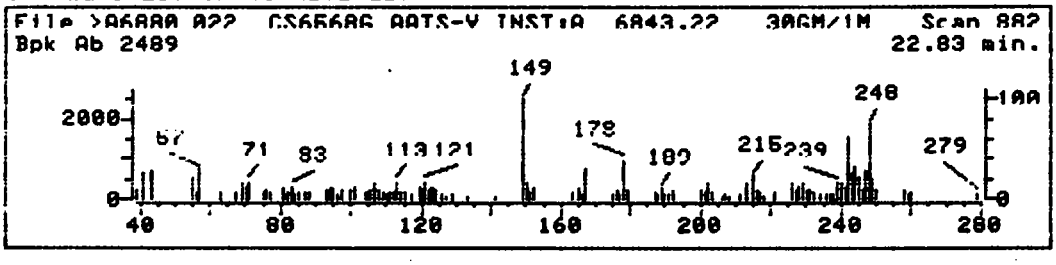
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



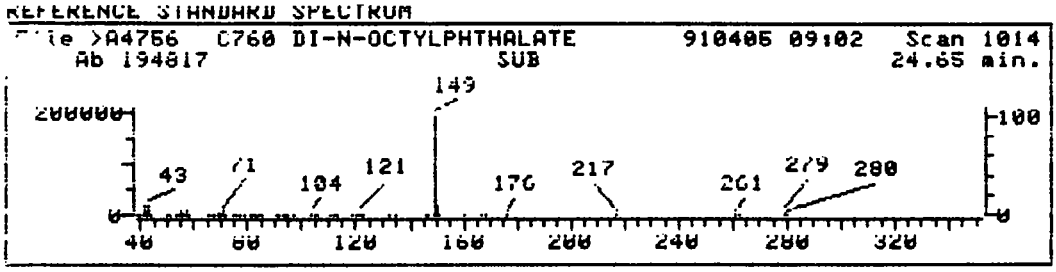
SAMPLE SPECTRUM (UNALTERED)



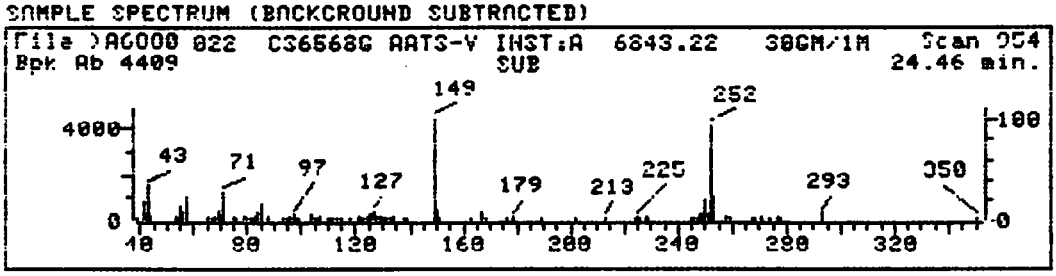
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 68
Compound Name: C745 BIS(2-ETHYLHEXYL)PHTHALAT
Scan Number: 882
Retention Time: 22.83 min.
Quant Ion: 149.0
Area: 6347
Concentration: 1.09 NG/UL
q-value: 82

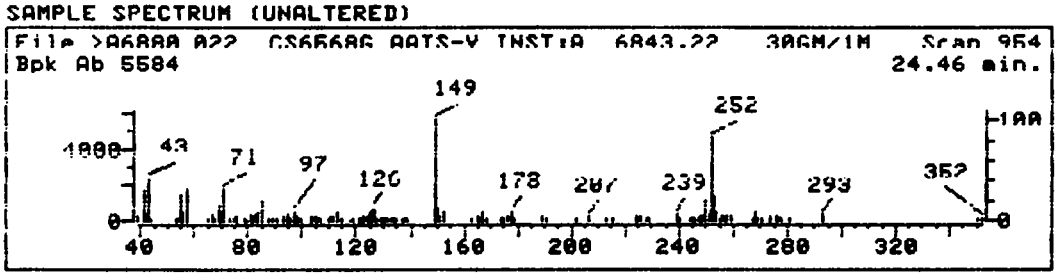
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



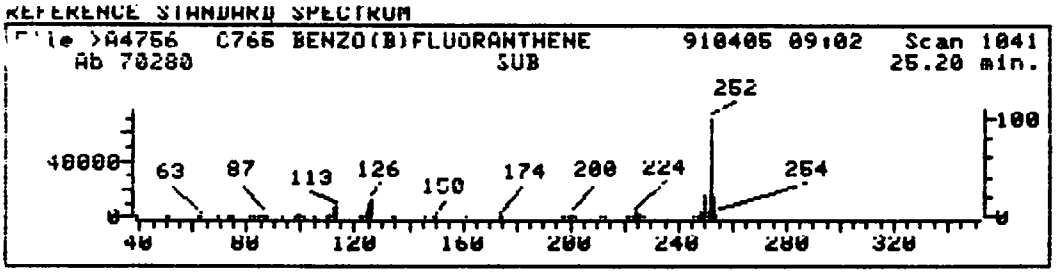
SAMPLE SPECTRUM (UNALTERED)



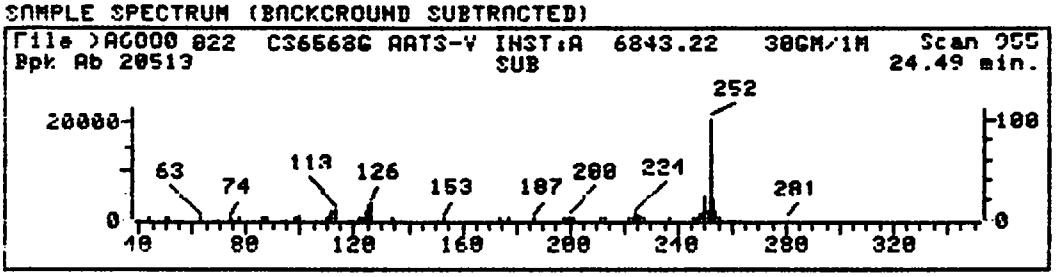
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID_BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 71
Compound Name: C760 DI-N-OCTYLPHTHALATE
Scan Number: 954
Retention Time: 24.46 min.
Quant Ion: 149.0
Area: 19110
Concentration: 2.03 NG/UL
q-value: 100

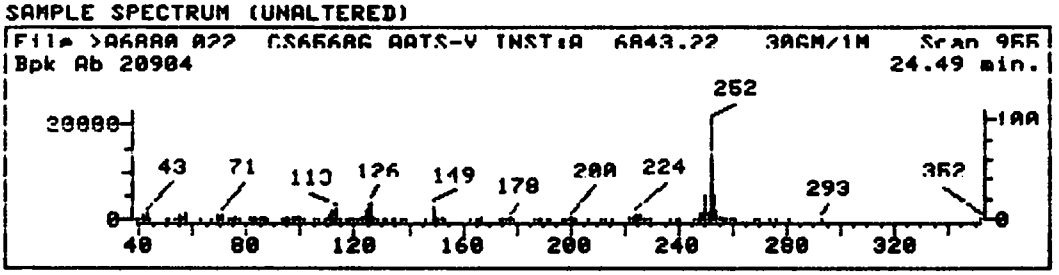
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



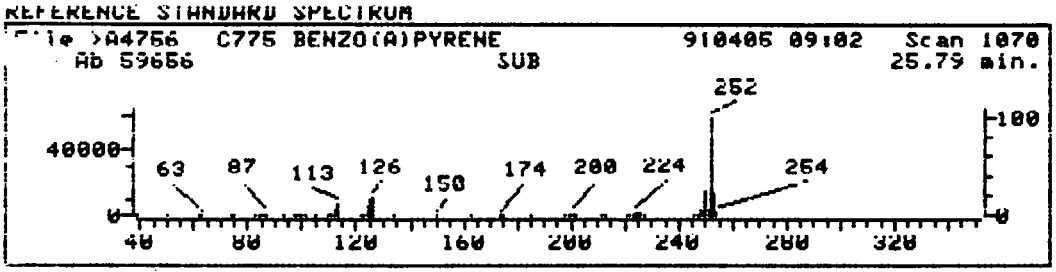
SAMPLE SPECTRUM (UNALTERED)



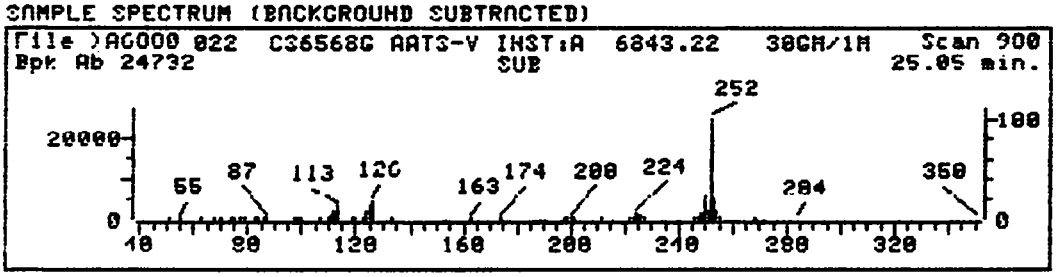
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID_BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 72
Compound Name: C765 BENZO(B)FLUORANTHENE
Scan Number: 955
Retention Time: 24.49 min.
Quant Ion: 252.0
Area: 86581
Concentration: 12.06 NG/UL
q-value: 97

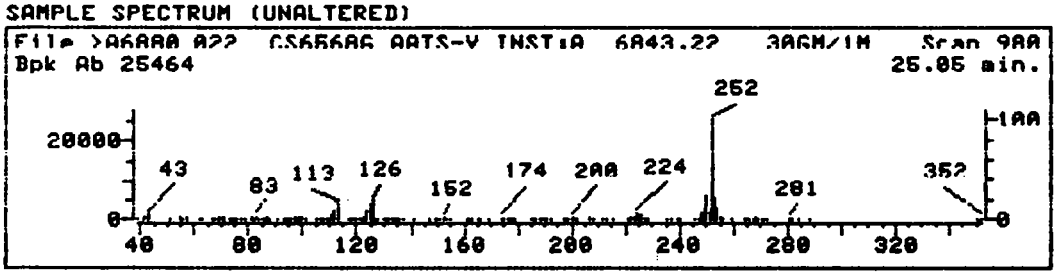
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



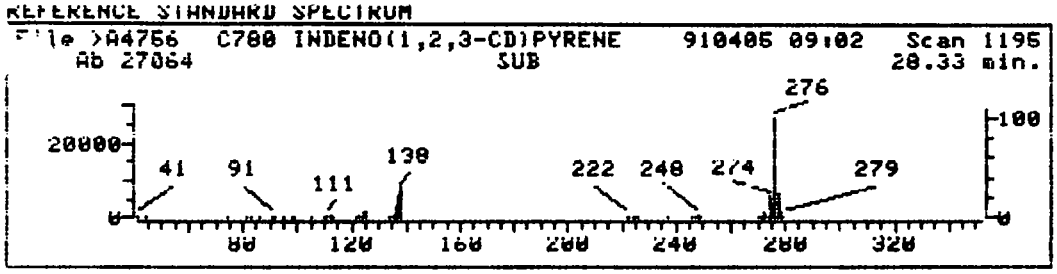
SAMPLE SPECTRUM (UNALTERED)



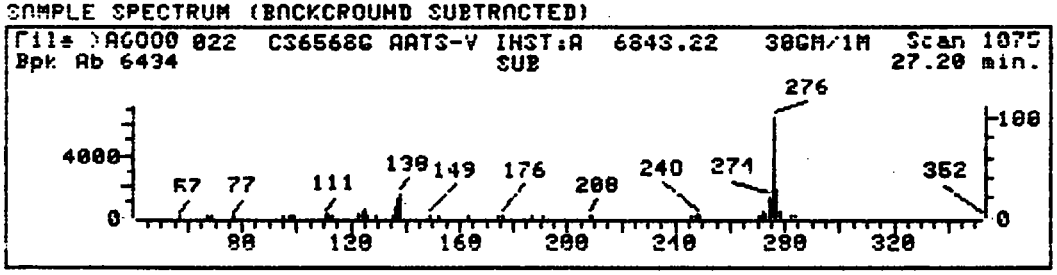
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 74
Compound Name: C775 BENZO(A)PYRENE
Scan Number: 980
Retention Time: 25.05 min.
Quant Ion: 252.0
Area: 51885
Concentration: 12.78 NG/UL
q-value: 97

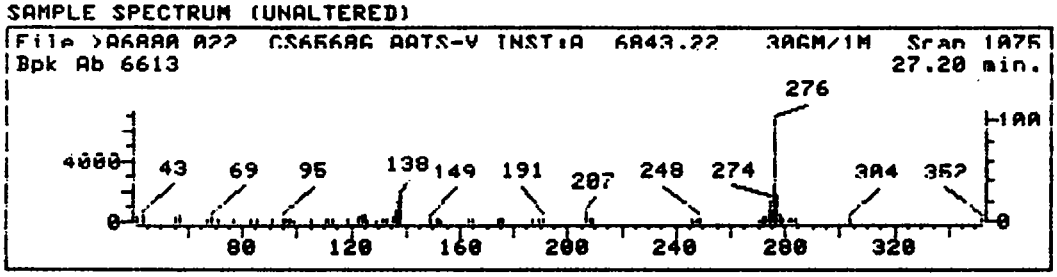
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



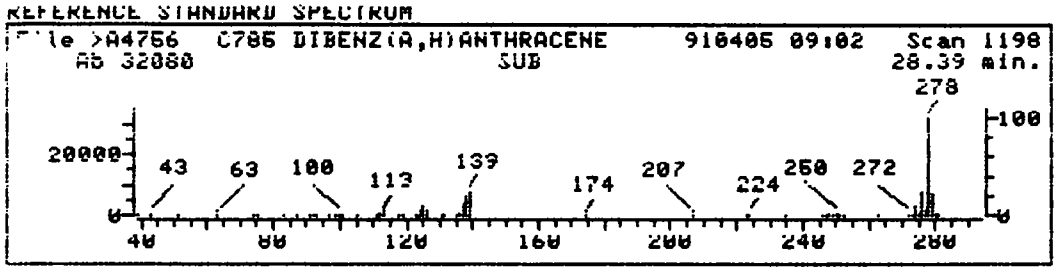
SAMPLE SPECTRUM (UNALTERED)



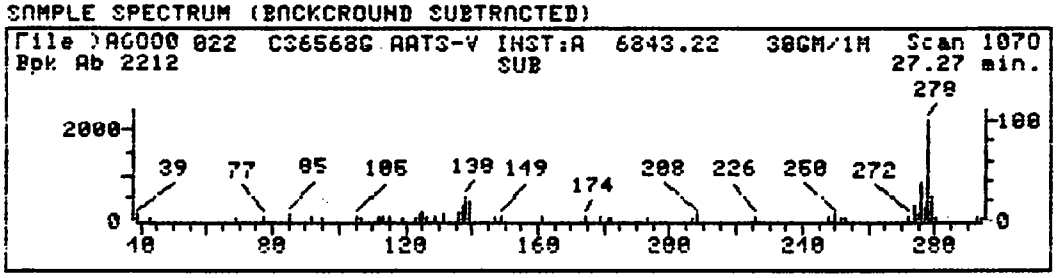
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID_BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 75
Compound Name: C780 INDENO(1,2,3-CD)PYRENE
Scan Number: 1075
Retention Time: 27.20 min.
Quant Ion: 276.0
Area: 22645
Concentration: 7.40 NG/UL
q-value: 93

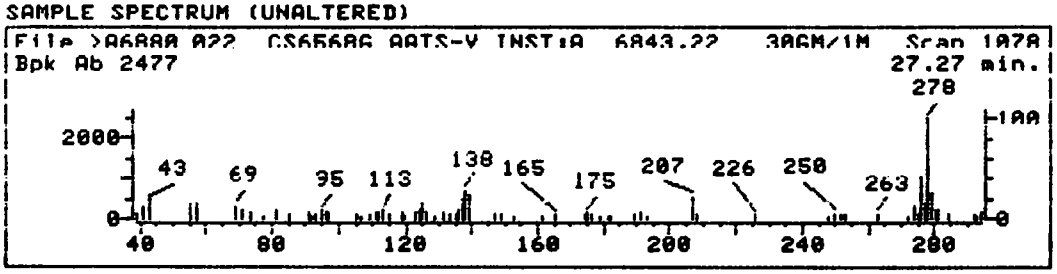
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



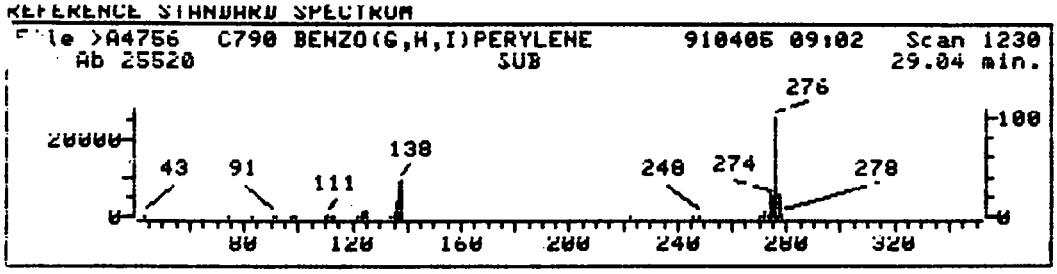
SAMPLE SPECTRUM (UNALTERED)



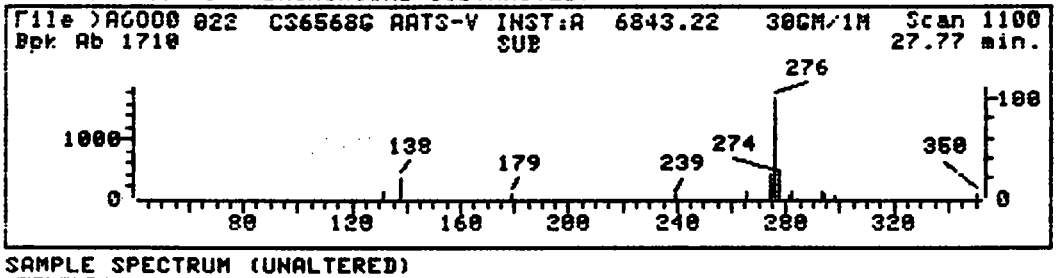
Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID_BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 76
Compound Name: C785 DIBENZ(A,H)ANTHRACENE
Scan Number: 1078
Retention Time: 27.27 min.
Quant Ion: 278.0
Area: 9947
Concentration: 2.70 NG/UL
q-value: 99

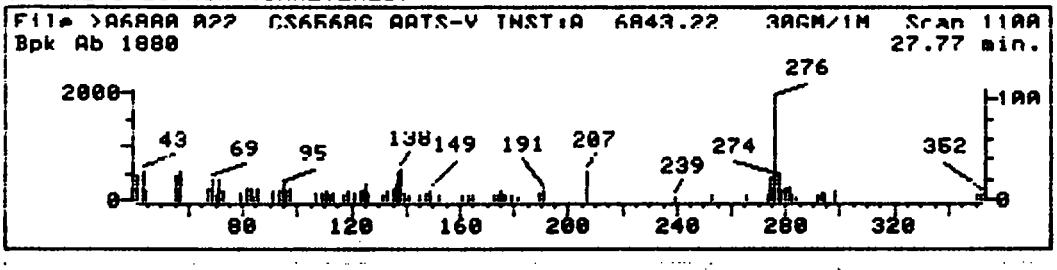
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >A6880::D9 Quant Output File: ^A6880::L1
Name: 022 CS6568G AATS-V
Misc: INST:A 6843.22 30GM/1ML/1UL BTL#19
Quant Time: 910814 02:52 Quant ID File: ID BN2::EX
Injected at: 910814 02:20 Last Calibration: 910814 01:01

Compound No: 77
Compound Name: C790 BENZO(G,H,I)PERYLENE
Scan Number: 1100
Retention Time: 27.77 min.
Quant Ion: 276.0
Area: 7066
Concentration: 2.31 NG/UL
q-value: 92

Data file header from : >A6880

Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20
Misc : INST:A 6843.22 30GM/1ML/1UL BTL#19
Sys. #: 2 MS model: 70 SW/HW rev.: 1A ALS # : 0
Method file: #STD02 Tuning file: #ATUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 280 Transfer line temp. : 0

Chromatographic temperatures : 45. 300. 0. 0. 0.
Chromatographic times, min. : 4.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 12.0 0.0 0.0 0.0 0.0

>A6880 022 CS6568G AATS-V INST:A 6843.22 30GM/1ML/1UL
35.01 550.0 CLP ADC TIC
Upslope: .20 Area Reject: 22343. Max Peaks: 20 Bunching: 1
Dnslope: 0.00 Results File 1A6880 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	3.17	3	10	12	155752	852245	843106	100.00	22.787
2	17.57	643	649	652	40723	144822	117900	13.98	3.187
3	17.95	659	666	667	48620	250578	213564	25.33	5.772
4	18.00	667	668	670	79698	137484	120940	14.34	3.269
5	18.15	673	675	680	75530	339917	295726	35.08	7.993
	18.61	692	695	701	40129	216306	146744	17.41	3.966
7	19.15	715	719	722	44251	265541	205800	24.41	5.562
8	19.58	737	738	741	42152	147025	101895	12.09	2.754
9	20.59	778	783	785	76592	336690	226682	26.89	6.127
10	20.78	787	791	794	37718	296486	171829	20.38	4.644
11	20.98	796	800	801	55244	214064	132323	15.69	3.576
12	21.50	819	823	827	14312	193040	89159	10.58	2.410
13	21.66	827	830	834	25648	209726	116153	13.78	3.139
14	21.86	837	839	841	43292	174073	117623	13.95	3.179
15	21.95	841	843	845	43706	174002	116741	13.85	3.155
16	23.24	898	900	902	39273	188795	99694	11.82	2.694
17	23.40	905	907	910	19309	207887	85141	10.10	2.301
18	24.96	974	976	978	42394	219685	95302	11.30	2.576
19	27.70	1094	1097	1098	158319	349277	298452	35.40	8.066
20	27.95	1105	1108	1111	35680	174962	105211	12.48	2.844

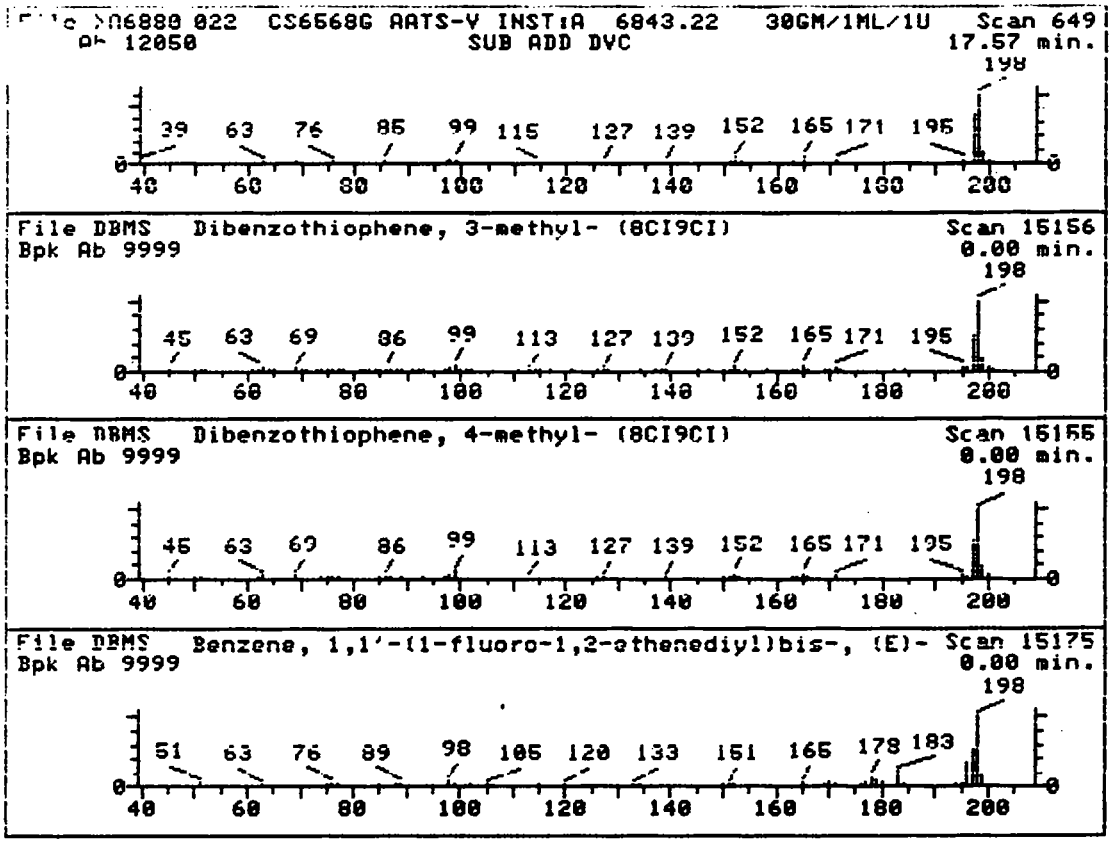
Sum of corrected areas: 3699984.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	223425.	7.23	2.97 - 8.65
2	40.0	334617.	10.06	8.65 - 11.93
3	40.0	511946.	13.80	11.93 - 15.33
4	40.0	960588.	16.85	15.33 - 19.63
5	40.0	1186263.	22.40	19.63 - 23.78
6	40.0	585111.	25.17	23.78 - 30.02

0420

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00



Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

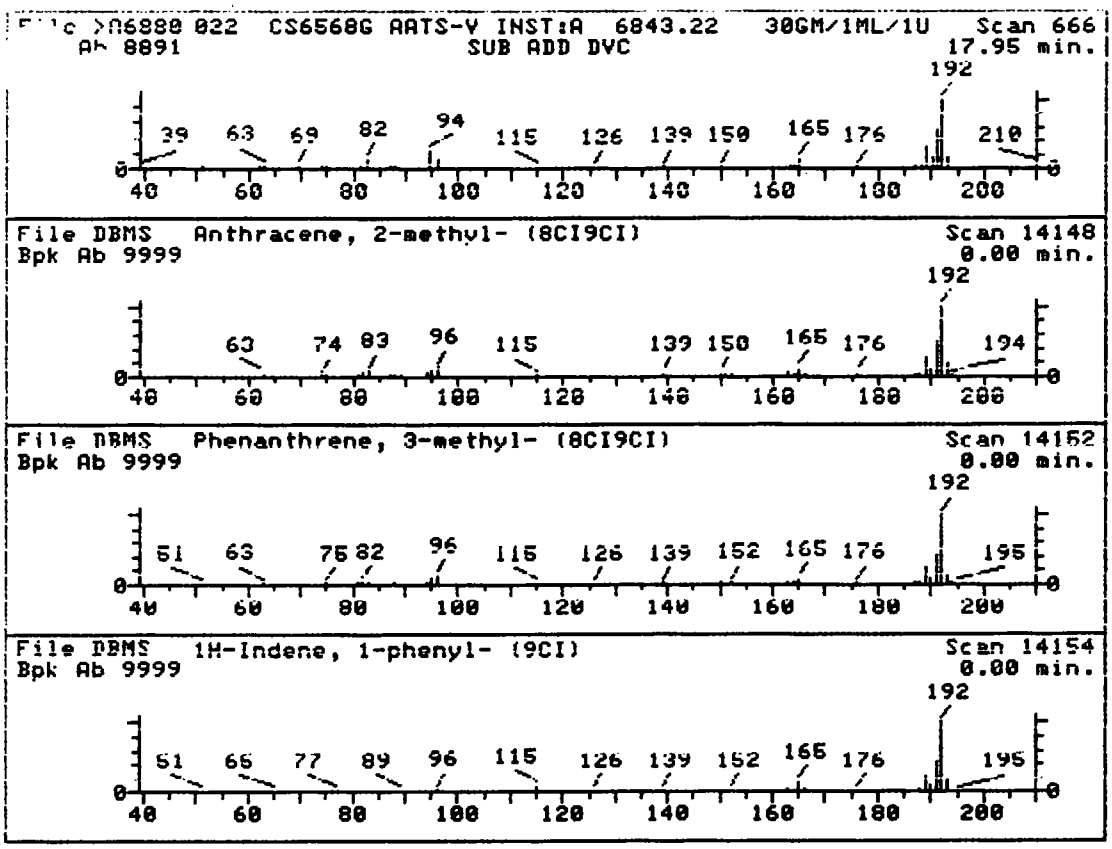
Unknown #,2
Area = 117900.0 Tentative Concentration is 5.00

1.	Dibenzothiophene, 3-methyl- (8CI9CI)	198	C13H10S
2.	Dibenzothiophene, 4-methyl- (8CI9CI)	198	C13H10S
3.	Benzene, 1,1'-(1-fluoro-1,2-ethenediyl)bis-, (E)- (9CI)	198	C14H11F
4.	Benzene, 1-fluoro-4-(2-phenylethenyl)-, (E)- (9CI)	198	C14H11F
5.	Benzene, 1-fluoro-3-(2-phenylethenyl)-, (E)- (9CI)	198	C14H11F
6.	Methanethione, diphenyl- (8CI9CI)	198	C13H10S
7.	9H-Thioxanthene (9CI)	198	C13H10S

Sample file: >A6880 Spectrum #: 649
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.	95*	16582523	24726	DBMS	87	29	0	0	89	6	68	95
2.	95*	7372885	24725	DBMS	80	36	0	0	80	6	68	94
3.	60*	671192	24729	DBMS	33	94	3	0	100	12	30	13
4.	60*	718252	24730	DBMS	29	93	3	0	100	15	30	13
5.	60*	3041814	24731	DBMS	33	97	3	0	100	15	30	13
6.	52*	1450313	24724	DBMS	29	97	3	0	100	20	20	13

7.	31*	261314	24/23	DBMS	44	67	2	0	84	54	12	14



Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

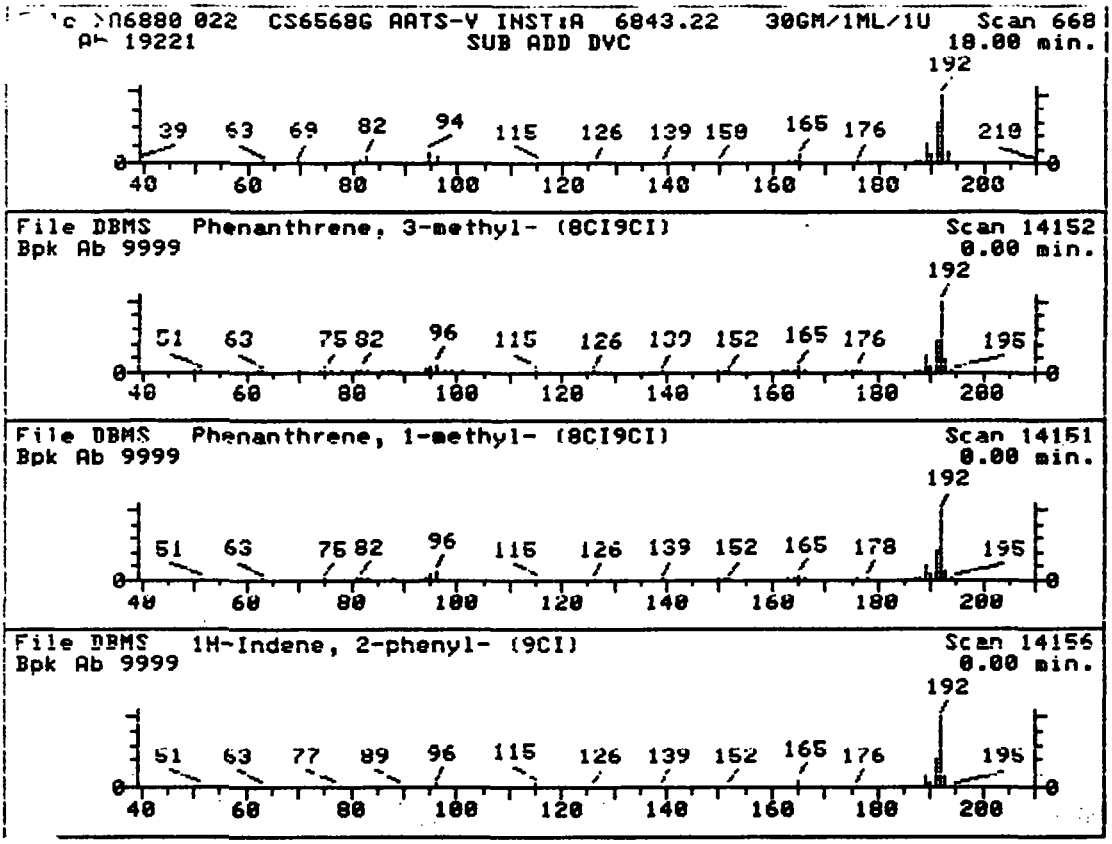
Unknown #.3
Area = 213564.0 Tentative Concentration is 9.00

1.	Anthracene, 2-methyl- (8CI9CI)	192	C15H12
2.	Phenanthrene, 3-methyl- (8CI9CI)	192	C15H12
3.	1H-Indene, 1-phenyl- (9CI)	192	C15H12
4.	Phenanthrene, 1-methyl- (8CI9CI)	192	C15H12
5.	Phenanthrene, 9-methyl- (8CI9CI)	192	C15H12
6.	Phenanthrene, 4-methyl- (8CI9CI)	192	C15H12
7.	Phenanthrene, 2-methyl- (8CI9CI)	192	C15H12

Sample file: >A6880 Spectrum #: 666
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.	86*	613127	23932	DBMS	80	36	1	0	90	9	59	77
2.	84*	832713	23936	DBMS	69	42	1	0	97	9	55	67
3.	81*	1961962	23938	DBMS	68	39	2	0	100	10	53	49
4.	81*	832699	23935	DBMS	68	41	2	0	98	9	53	49
5.	79*	883205	23937	DBMS	62	47	1	0	100	11	43	66
6.	79*	832644	23934	DBMS	60	56	2	0	86	10	48	37
7.	74*	2531842	23939	DBMS	62	47	2	0	97	11	39	40

D422



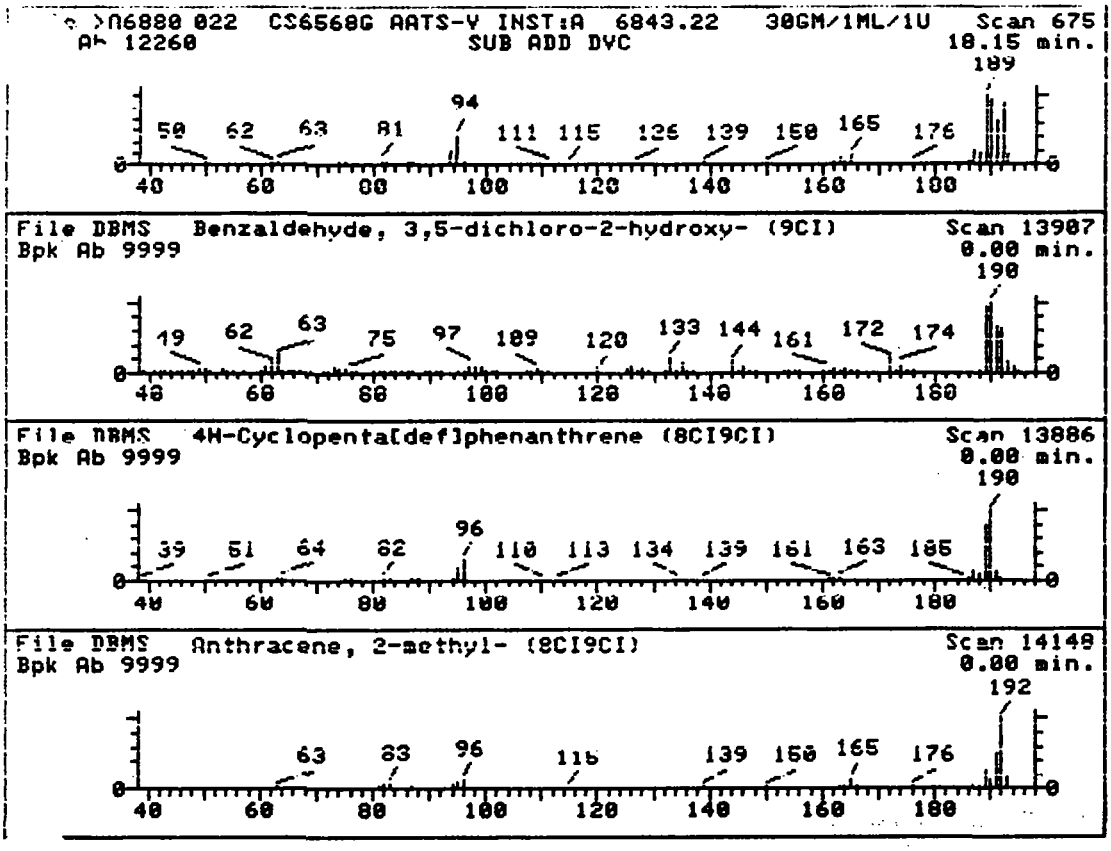
Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

Unknown #.4
Area = 120940.0 Tentative Concentration is 5.00

1.	Phenanthrene, 3-methyl- (8CI9CI)	192	C15H12
2.	Phenanthrene, 1-methyl- (8CI9CI)	192	C15H12
3.	1H-Indene, 2-phenyl- (9CI)	192	C15H12
4.	1H-Indene, 1-phenyl- (9CI)	192	C15H12
5.	Anthracene, 2-methyl- (8CI9CI)	192	C15H12
6.	Phenanthrene, 4-methyl- (8CI9CI)	192	C15H12
7.	9H-Fluorene, 9-ethylidene- (9CI)	192	C15H12

Sample File: >A6880 Spectrum #: 668
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROUT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	88*	832713	23936	DBMS	70	41	2	0	100	5	65	50
2.	86*	832699	23935	DBMS	71	38	3	0	100	5	60	36
3.	83*	4505480	23940	DBMS	74	34	2	0	100	8	54	56
4.	83*	1961962	23938	DBMS	73	34	2	0	100	6	54	55
5.	81*	613127	23932	DBMS	71	45	1	0	73	16	45	0423
6.	81*	832644	23934	DBMS	65	51	2	0	86	6	53	44
7.	70*	7151646	23941	DBMS	53	67	3	0	94	9	42	16



UNKNOWN

Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

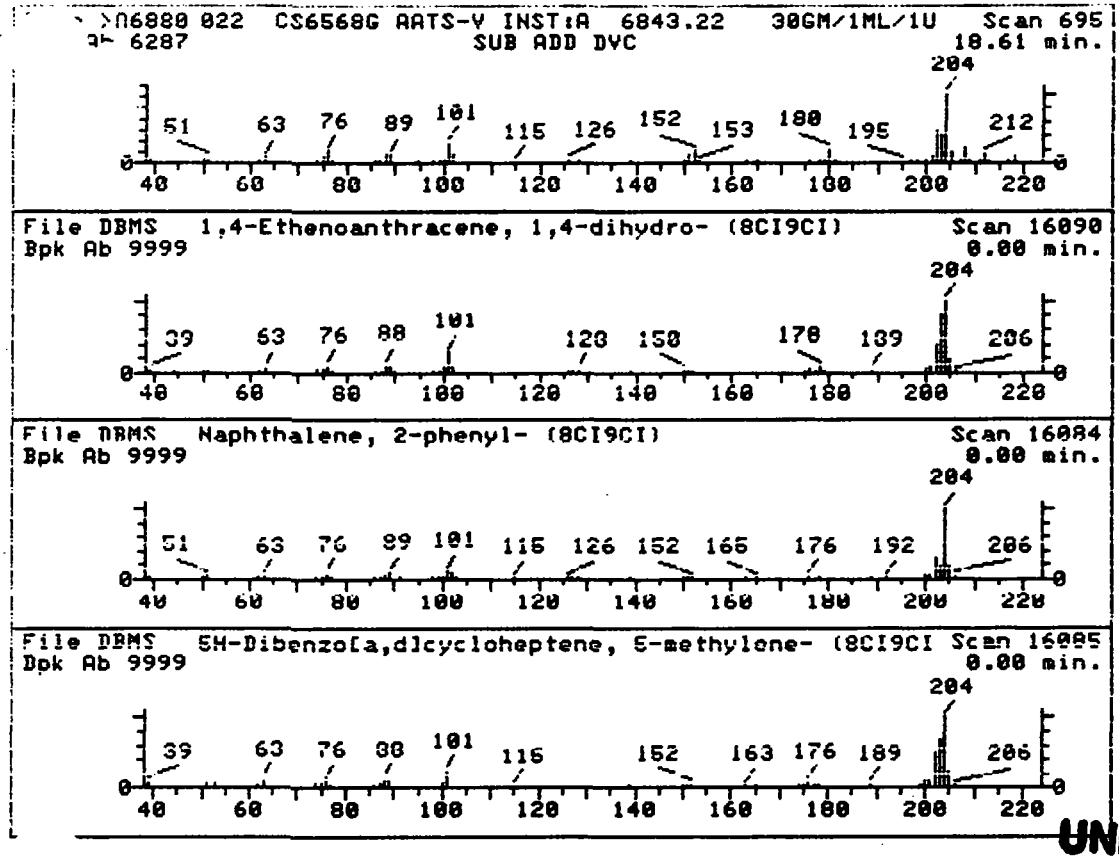
Unknown #.5
Area = 295726.0 Tentative Concentration is 12.00

1.	Benzaldehyde, 3,5-dichloro-2-hydroxy- (9CI)	190 C7H4Cl2O2
2.	4H-Cyclopenta[def]phenanthrene (8CI9CI)	190 C15H10
3.	Anthracene, 2-methyl- (8CI9CI)	192 C15H12
4.	9H-Fluorene, 9-ethylidene- (9CI)	192 C15H12
5.	1H-Indene, 2-phenyl- (9CI)	192 C15H12
6.	1H-Indene, 1-phenyl- (9CI)	192 C15H12
7.	Phenanthrene, 2-methyl- (8CI9CI)	192 C15H12

Sample file: >A6880 Spectrum #: 675
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROUT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	42*	90608	23874	DBMS	48	101	3	0	92	22	17	13
2.	34*	203645	23749	DBMS	51	64	2	0	92	44	12	25
3.	20*	613127	23932	DBMS	46	70	2	0	80	54	5	17
4.	15*	7151646	23941	DBMS	38	82	3	0	88	58	3	14
5.	12*	4505480	23940	DBMS	46	62	1	0	77	62	2	21
6.	12*	1961962	23938	DBMS	41	66	1	0	85	62	2	21
7.	11*	2531842	23939	DBMS	33	76	2	0	88	63	2	14

0424



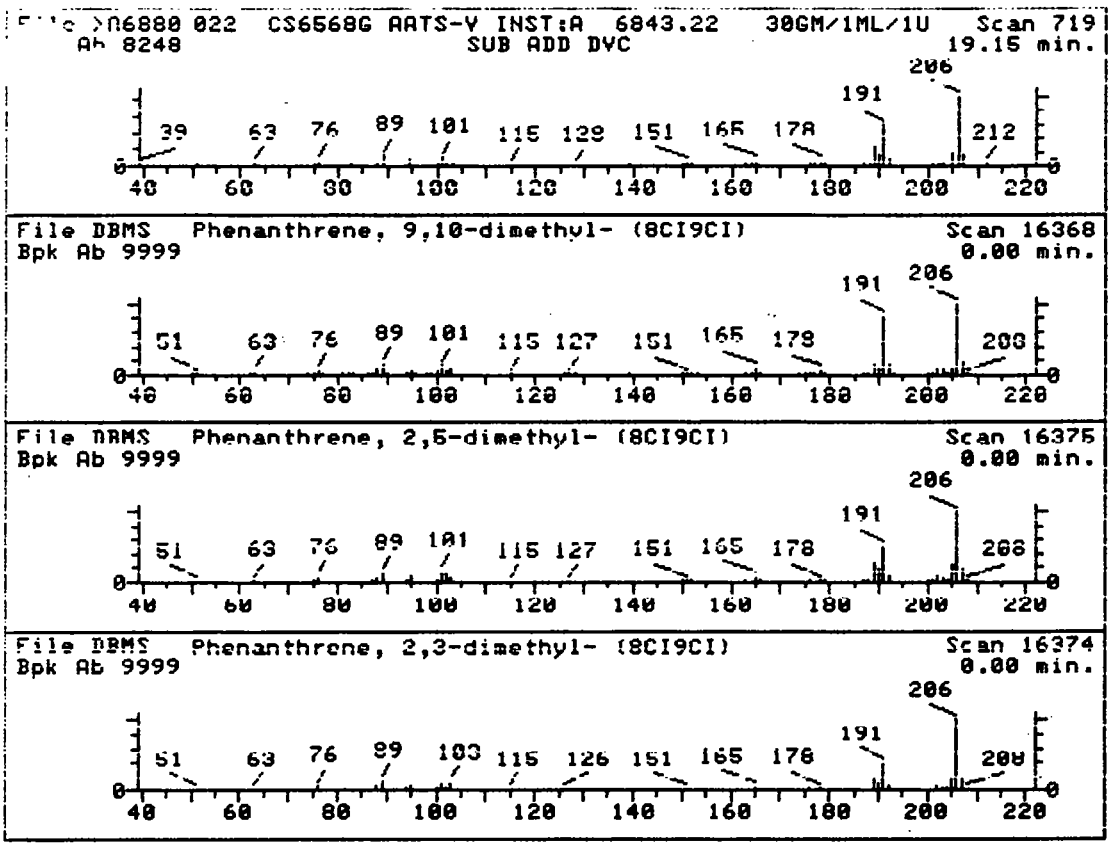
Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

Unknown #.6
Area = 146744.0 Tentative Concentration is 6.00

1.	1,4-Ethenoanthracene, 1,4-dihydro- (8CI9CI)	204 C16H12
2.	Naphthalene, 2-phenyl- (8CI9CI)	204 C16H12
3.	5H-Dibenzo[a,d]cycloheptene, 5-methylene- (8CI9CI)	204 C16H12
4.	Naphthalene, 1-phenyl- (8CI9CI)	204 C16H12
5.	1H-Indene, 1-(phenylmethylene)- (9CI)	204 C16H12
6.	Benzo[1,2-b:4,3-b']dithiophene, 1-methyl- (8CI)	204 C11H8S2
7.	Benzene, 1,1'-(1-buten-3-yne-1,4-diyl)bis- (9CI)	204 C16H12

Sample File: >A688U Spectrum #: 695
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_1	R_IV
1.	50*	27765964	25217	DBMS	78	47	2	0	99	50	14	60
2.	47*	612942	25211	DBMS	61	52	1	0	91	50	13	57
3.	44*	2975793	25212	DBMS	67	63	1	0	60	53	11	66
4.	43*	605027	25210	DBMS	53	72	0	0	51	53	11	65
5.	30*	5394865	25213	DBMS	50	59	2	0	103	46	10	42
6.	25*	13640863	25187	DBMS	40	84	3	0	74	48	7	13
7.	21*	13141452	25215	DBMS	38	79	0	0	55	59	5	35



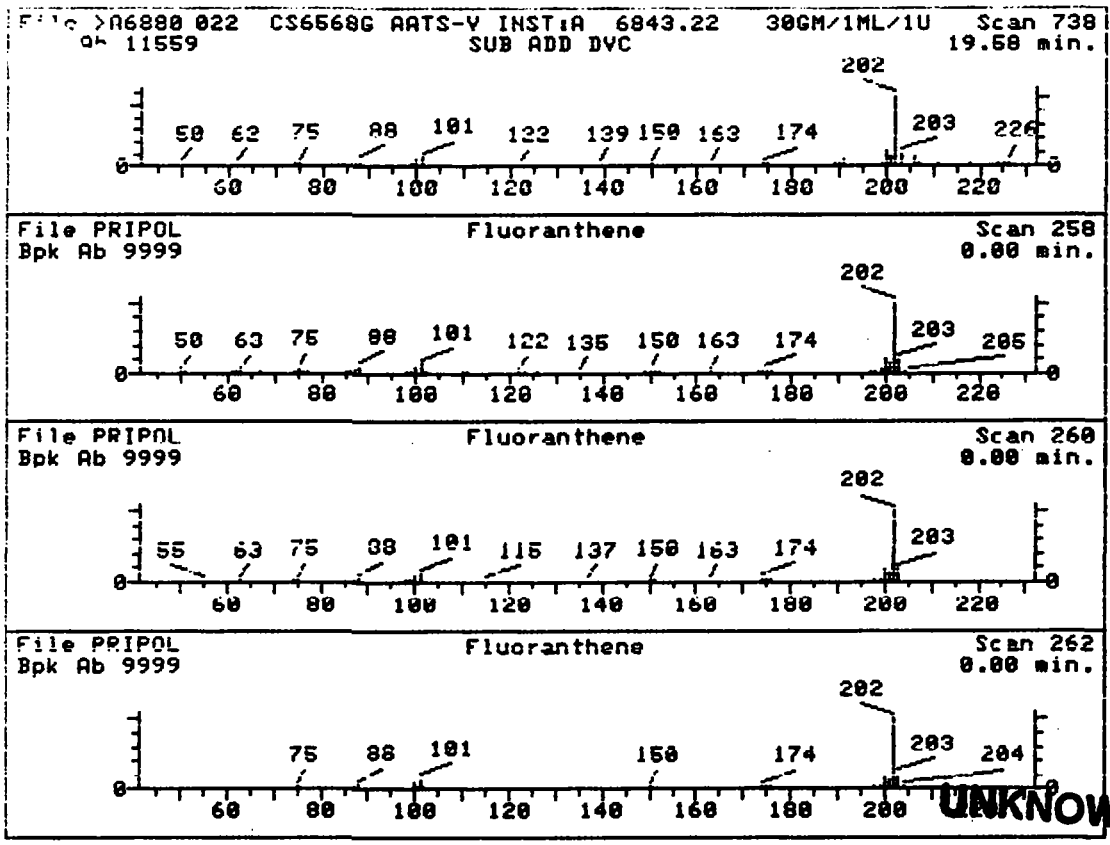
Sample: U22 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

Unknown #,7
Area = 205800.0 Tentative Concentration is 7.00

1.	Phenanthrene, ~~9,10~~-dimethyl- (8CI9CI)	206	C16H14
2.	Phenanthrene, 2,5-dimethyl- (8CI9CI)	206	C16H14
3.	Phenanthrene, 2,3-dimethyl- (8CI9CI)	206	C16H14
4.	Anthracene, 2-ethyl- (9CI)	206	C16H14
5.	Phenanthrene, 3,6-dimethyl- (8CI9CI)	206	C16H14
6.	Phenanthrene, 2,7-dimethyl- (8CI9CI)	206	C16H14
7.	Phenanthrene, 4,5-dimethyl- (8CI9CI)	206	C16H14

Sample file: >A6880 Spectrum #: 719
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.	95*	604831	25448	DBMS	90	41	0	0	69	17	60	96
2.	94*	3674666	25455	DBMS	112	20	2	0	80	2	72	92
3.	73*	3674655	25454	DBMS	70	60	1	0	78	24	32	69
4.	68*	52251715	25464	DBMS	76	54	2	0	68	21	30	64
5.	68*	1576676	25451	DBMS	71	59	2	0	96	21	38	52
6.	62*	1576698	25452	DBMS	69	53	2	0	85	28	25	49
7.	57*	3674699	25456	DBMS	55	80	1	0	58	34	22	42



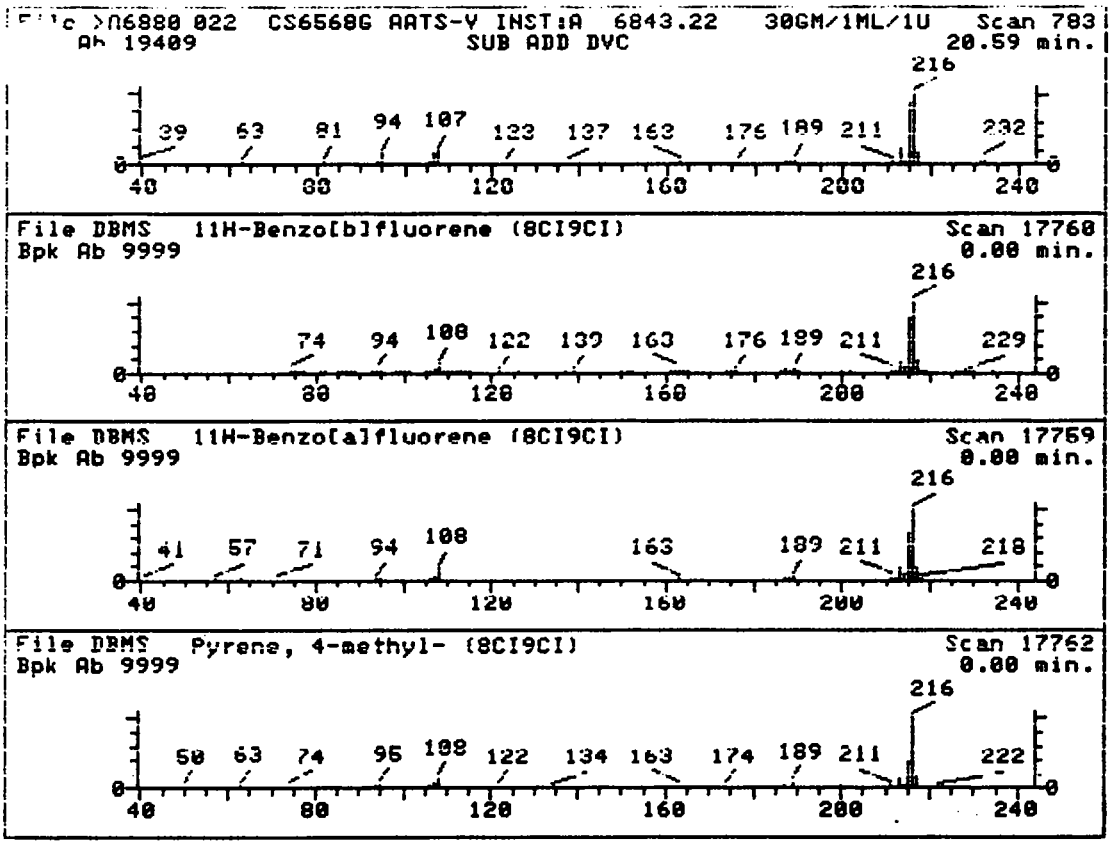
Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

Unknown #.8
Area = 101895.0 Tentative Concentration is 4.00

1.	Fluoranthene	202 C16H10
2.	Fluoranthene	202 C16H10
3.	Fluoranthene	202 C16H10
4.	Fluoranthene (8C19C1)	202 C16H10
5.	Pyrene	202 C16H10
6.	Fluoranthene	202 C16H10
7.	Pyrene	202 C16H10

Sample File: >A6880 Spectrum #: 738
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROUT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	93*	258	352	PRIPOL	104	8	0	0	85	31	50	97
2.	93*	260	354	PRIPOL	96	13	0	0	97	31	50	97
3.	91*	262	356	PRIPOL	81	28	0	0	89	31	50	94
4.	91*	206440	25070	DBMS	82	31	0	0	72	34	50	94
5.	77*	253	348	PRIPOL	66	46	0	0	70	34	30	77
6.	76*	259	353	PRIPOL	80	35	1	0	67	34	32	77
7.	69*	249	344	PRIPOL	78	36	2	0	99	31	26	60



UNKNOWN PNK

Sample: U22 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

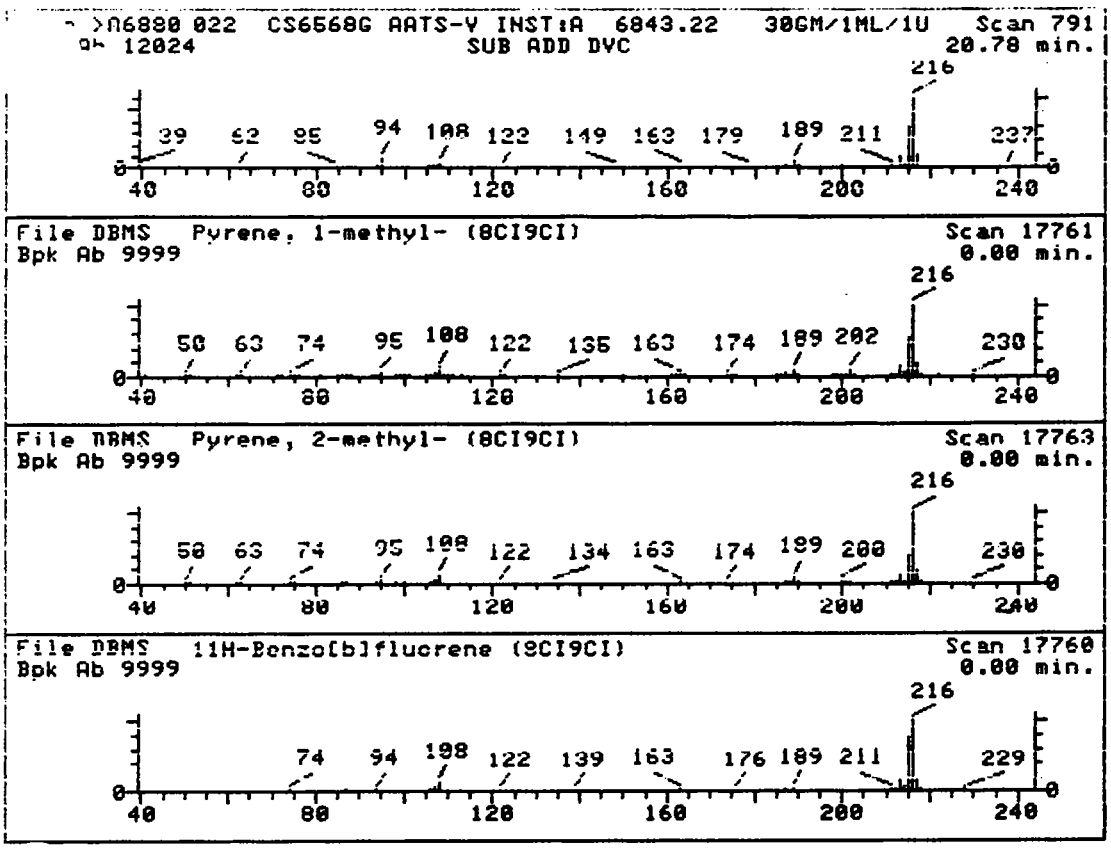
Unknown #.9
Area = 226682.0 Tentative Concentration is 8.00

1.	11H-Benzo[b]fluorene (8CI9CI)	216	C17H12
2.	11H-Benzo[a]fluorene (8CI9CI)	216	C17H12
3.	Pyrene, 4-methyl- (8CI9CI)	216	C17H12
4.	Pyrene, 2-methyl- (8CI9CI)	216	C17H12
5.	Pyrene, 1-methyl- (8CI9CI)	216	C17H12
6.	7H-Benzo[c]fluorene (8CI9CI)	216	C17H12
7.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy 1- (8CI9CI)	216	C12H8O4

Sample file: >A6880 Spectrum #: 783
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.	88*	243174	26427	DBMS	70	51	2	0	95	5	65	50
2.	83*	238846	26426	DBMS	61	59	3	0	100	5	52	28
3.	44*	3353126	26429	DBMS	56	62	2	0	96	37	10	0428
4.	38*	3442782	26430	DBMS	52	67	3	0	100	28	14	15
5.	38*	2381217	26428	DBMS	52	73	3	0	100	28	14	15
6.	33	205129	26425	DBMS	57	6	1	0	881	44	12	24

7.	19*	4481601	26389	DBMS	28	87	3	0	100	96	9	19



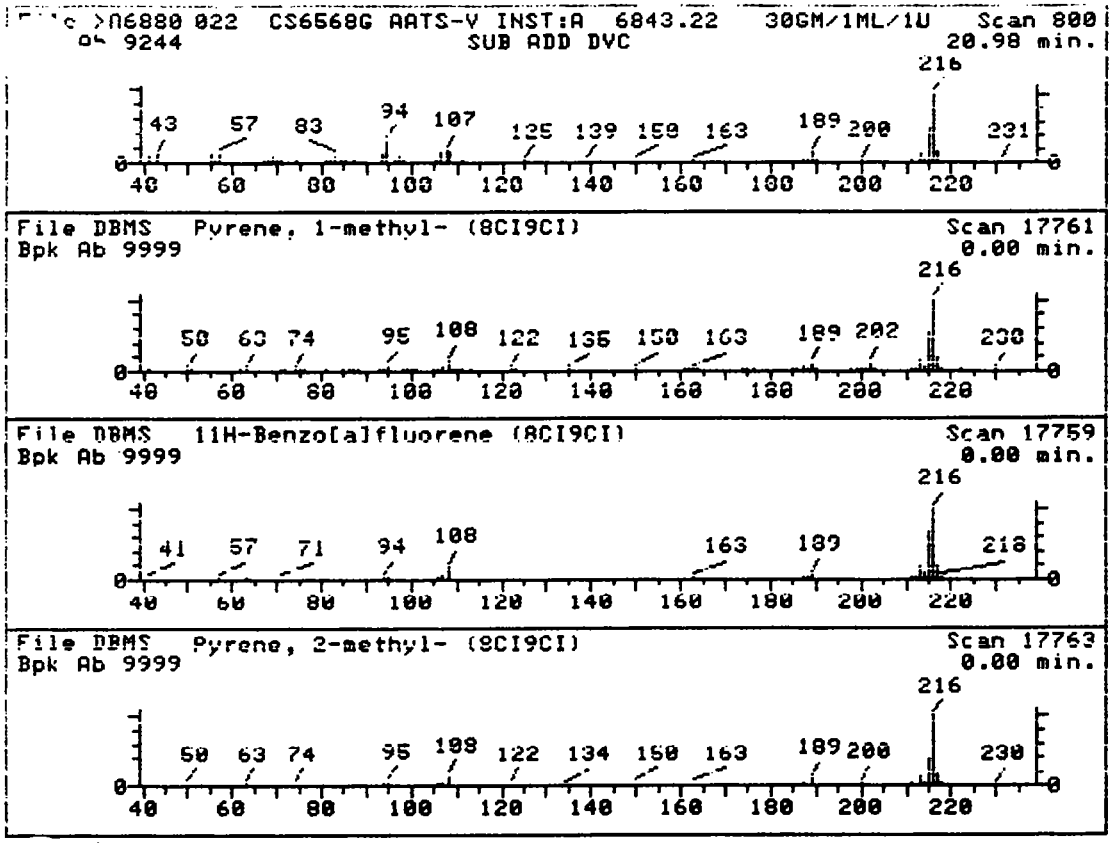
Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

. Unknown #.10
Area = 171829.0 Tentative Concentration is 6.00

1.	Pyrene, 1-methyl- (8CI9CI)	216	C17H12
2.	Pyrene, 2-methyl- (8CI9CI)	216	C17H12
3.	11H-Benzo[b]fluorene (8CI9CI)	216	C17H12
4.	11H-Benzo[a]fluorene (8CI9CI)	216	C17H12
5.	Pyrene, 4-methyl- (8CI9CI)	216	C17H12
6.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy 1- (8CI9CI)	216	C12H8O4

Sample file: >A6880 Spectrum #: 791
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.	89*	2381217	26428	DBMS	89	36	2	0	100	1	66	67
2.	89*	3442782	26430	DBMS	85	34	2	0	100	1	66	66
3.	88*	243174	26427	DBMS	77	44	2	0	77	5	69	49
4.	87*	238846	26426	DBMS	69	51	2	0	90	4	65	49
5.	79*	3353126	26429	DBMS	90	28	2	0	100	12	43	69
6.	27*	4481601	26385	DBMS	34	81	3	0	100	40	10	13



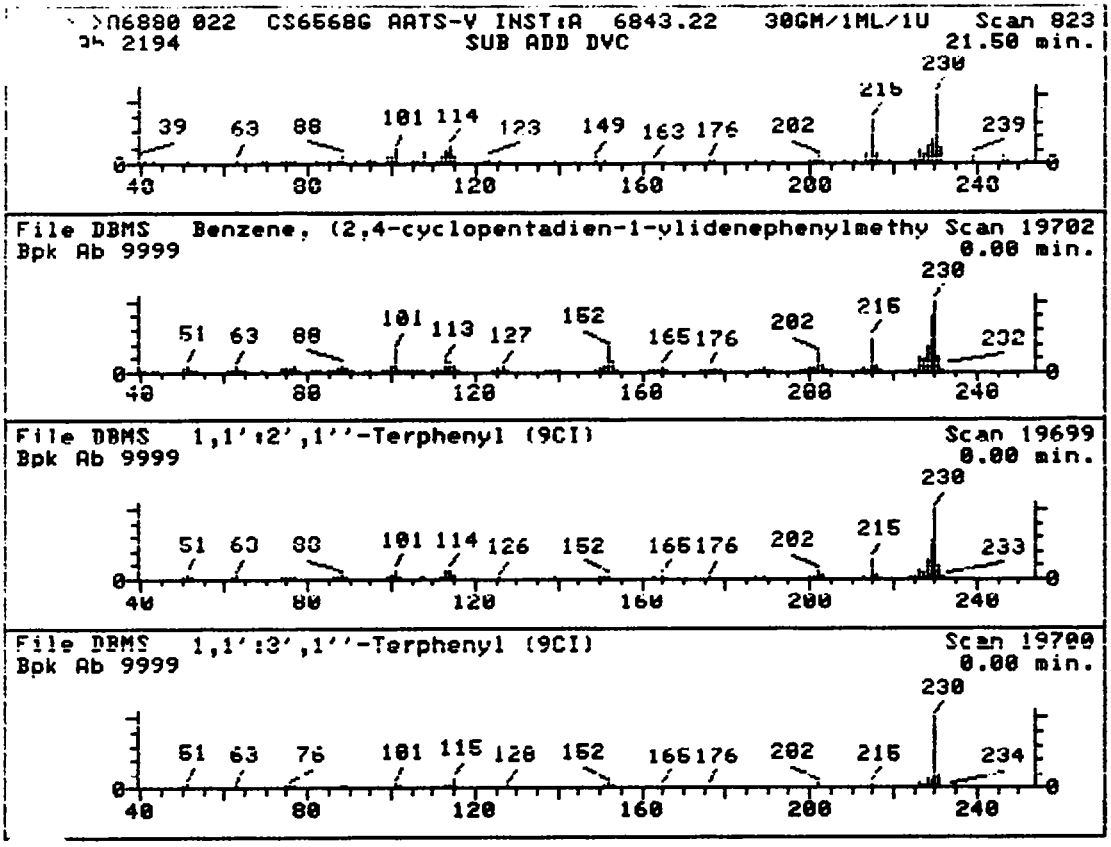
Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

Unknown #,11
Area = 132323.0 Tentative Concentration is 4.00

1.	Pyrene, 1-methyl- (8CI9CI)	216	C17H12
2.	11H-Benzo[a]fluorene (8CI9CI)	216	C17H12
3.	Pyrene, 2-methyl- (8CI9CI)	216	C17H12
4.	Pyrene, 4-methyl- (8CI9CI)	216	C17H12
5.	11H-Benzo[b]fluorene (8CI9CI)	216	C17H12
6.	Phenol, o-(o-methoxyphenoxy)- (8CI)	216	C13H12O3
7.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy 1- (8CI9CI)	216	C12H8O4

Sample file: >A6880 Spectrum #: 800
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.	89*	2381217	26428	DBMS	79	46	2	0	90	1	66	60
2.	81*	238846	26426	DBMS	65	55	2	0	78	7	53	44
3.	79*	3442782	26430	DBMS	72	47	3	0	100	7	48	37
4.	79*	3353126	26429	DBMS	71	47	3	0	100	10	48	36
5.	52*	243174	26427	DBMS	59	62	2	0	66	34	20	36
6.	25*	21905602	26401	DBMS	22	116	3	0	111	48	7	12



UNKNOWN

Sample: U22 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

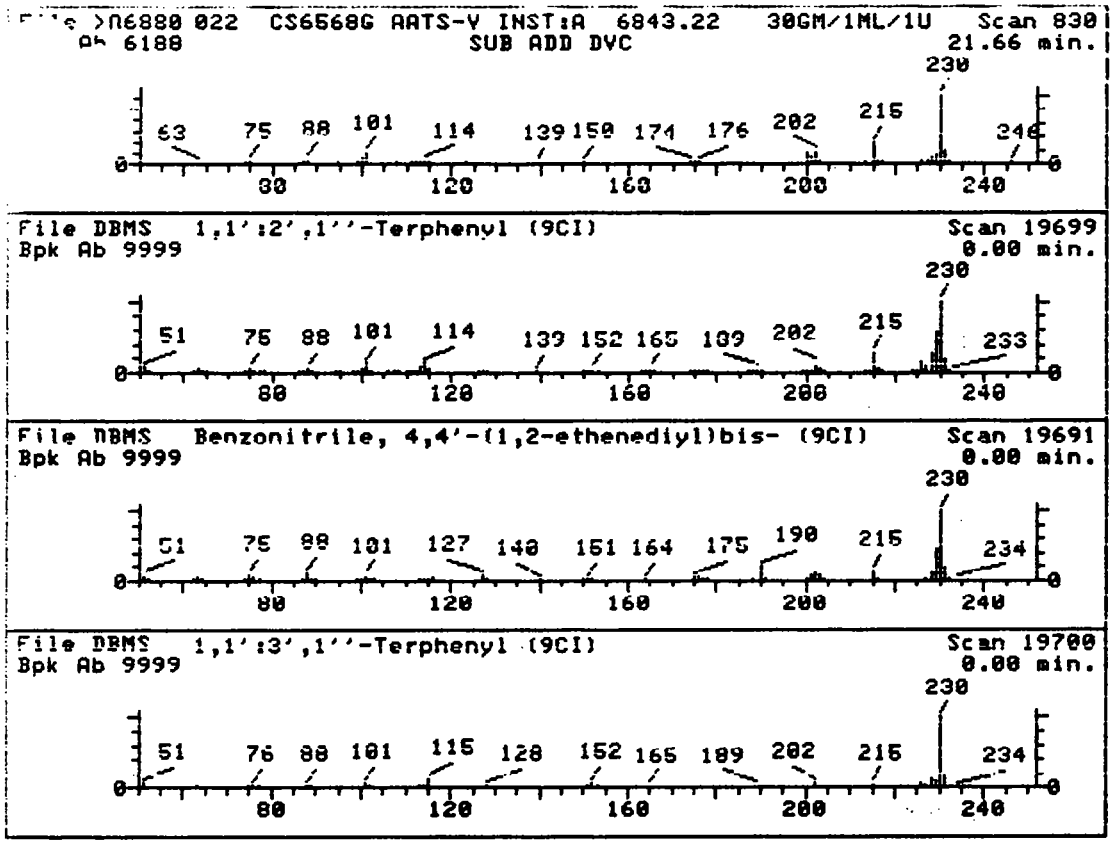
Unknown #,12
Area = 89159.00 Tentative Concentration is 3.00

1.	Benzene, (2,4-cyclopentadien-1-ylidenephenylmethyl)- (9CI)	230	C18H14
2.	1,1':2',1''-Terphenyl (9CI)	230	C18H14
3.	1,1':3',1''-Terphenyl (9CI)	230	C18H14
4.	Terphenyl (8CI9CI)	230	C18H14
5.	Benzonitrile, 4,4'-(1,2-ethenediyl)bis- (9CI)	230	C16H10N2
6.	1,1':4',1''-Terphenyl (9CI)	230	C18H14
7.	9H-Furo[2,3-f][1]benzopyran-9-one, 4-methoxy-7-methyl- (8CI9CI)	230	C13H10O4

Sample file: >A6880 Spectrum #: 823
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
1.	63*	2175908	27533	DBMS	65	91	3	0	100	16	30	33
2.	28*	84151	27530	DBMS	37	99	2	0	85	38	10	21
3.	25*	92068	27531	DBMS	36	82	2	0	90	48	7	14
4.	25*	26140603	27535	DBMS	34	82	2	0	100	48	7	14
5.	25*	6292622	27528	DBMS	37	99	3	0	100	44	8	13

6.	25*	92944	27532	DBMS	25	95	2	0	81	50	7	14
7.	15*	17226765	27506	DBMS	22	101	3	0	100	60	3	12



UNKNOWN

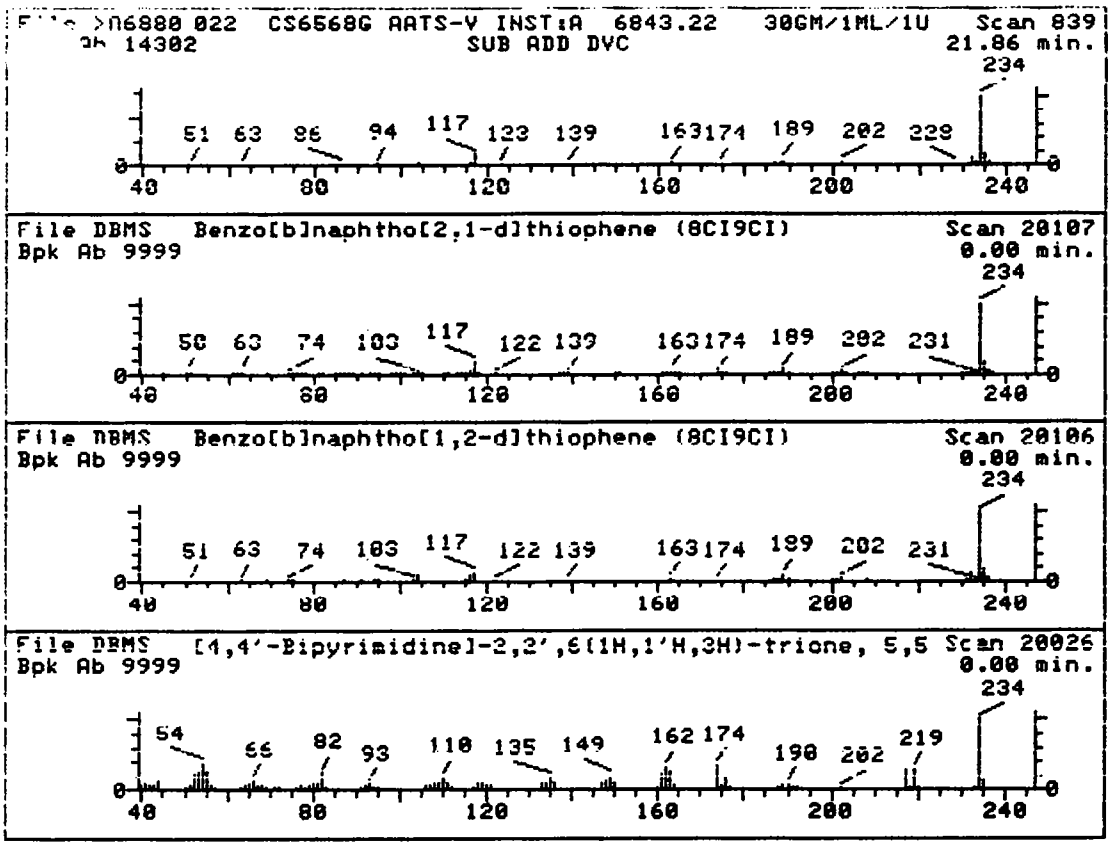
Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

Unknown #.13
Area = 116153.0 Tentative Concentration is 4.00

1.	1,1':2',1''-Terphenyl (9CI)	230 C18H14
2.	Benzonitrile, 4,4'-(1,2-ethenediyl)bis- (9CI)	230 C16H10N2
3.	1,1':3',1''-Terphenyl (9CI)	230 C18H14
4.	Terphenyl (8CI9CI)	230 C18H14
5.	1,1':4',1''-Terphenyl (9CI)	230 C18H14
6.	Dibenzo[c,h][2,6]naphthyridine (8CI9CI)	230 C16H10N2
7.	7H-Benz[de]anthracen-7-one (8CI9CI)	230 C17H10O

Sample File: >A6880 Spectrum #: 830
Search speed: 1 Tilting option: N No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
.	70*	84151	27530	DBMS	72	64	2	0	100	18	32	54
2.	52*	6292622	27528	DBMS	37	99	3	0	100	17	20	13
3.	48*	92068	27531	DBMS	48	70	2	0	100	21	17	19
4.	43*	26140603	27535	DBMS	42	74	2	0	100	22	17	24
5.	42*	92944	27532	DBMS	48	72	3	0	100	21	17	13
6.	42*	218304	27527	DBMS	35	91	3	0	100	25	17	13
7.	23*	82053	27529	DBMS	69	59	2	0	59	57	6	49



UNKNOWN

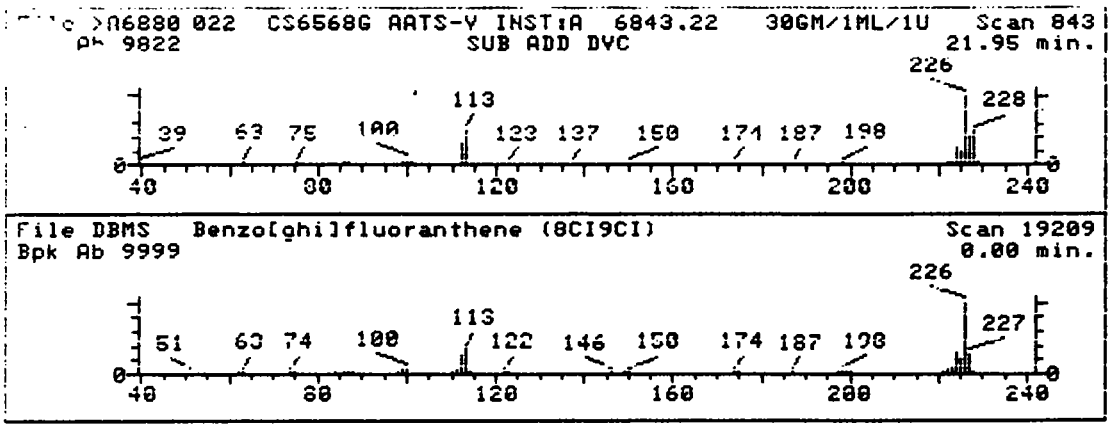
Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

Unknown #.14
Area = 11/623.0 Tentative Concentration is 4.00

1.	Benzo[b]naphtho[2,1-d]thiophene (8CI9CI)	234	C16H10S
2.	Benzo[b]naphtho[1,2-d]thiophene (8CI9CI)	234	C16H10S
3.	[4,4'-Bipyrimidine]-2,2',6(1H,1'H,3H)-trione, 5,5'-dimethyl- (9CI)	234	C10H10N4O3
4.	4H-1-Benzopyran-2-carboxylic acid, 7-hydroxy-4-oxo-, ethyl ester (8CI9CI)	234	C12H10O5

Sample file: >A6880 Spectrum #: 839
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
	95*	239350	27899	DBMS	102	16	1	0	85	5	72	95
	87*	205436	27898	DBMS	92	30	1	0	66	37	47	92
3.	42*	20545680	27862	DBMS	25	135	3	0	100	25	17	13
4.	36*	23866720	27875	DBMS	29	88	3	0	100	27	16	13



UNKNOWN PWA

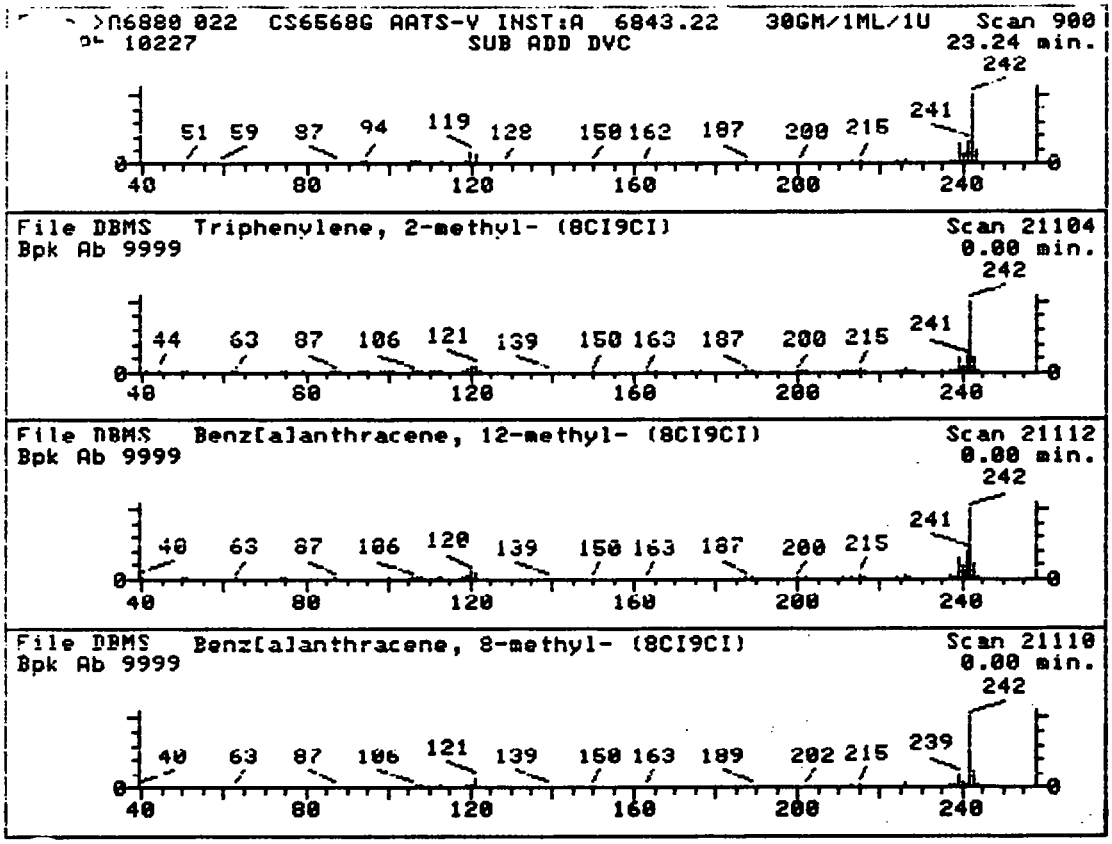
Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

Unknown #,15
Area = 116/41.0 Tentative Concentration is 4.00

1. Benzo[ghi]fluoranthene (8CI9CI) 226 C18H10

Sample file: >A6880 Spectrum #: 843
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CUN #	ROOT	K	UK	#FLG	TILT	%	CUN	C_I	R_IV
1.	67*	203123	27347	DBMS	73	52	2	0	96	27	27	55



UNKNOWN

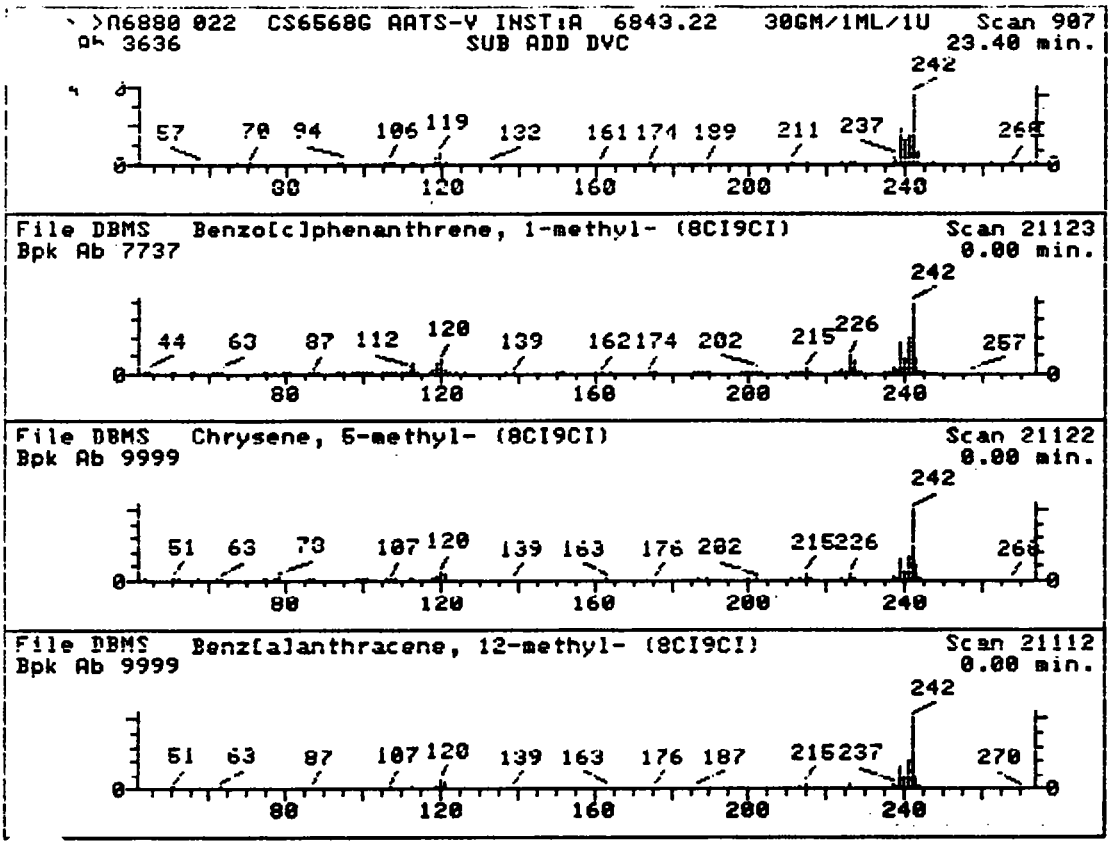
Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

Unknown #.16
Area = 99694.00 Tentative Concentration is 3.00

1.	Triphenylene, 2-methyl- (8CI9CI)	242	C19H14
2.	Benz[a]anthracene, 12-methyl- (8CI9CI)	242	C19H14
3.	Benz[a]anthracene, 8-methyl- (8CI9CI)	242	C19H14
4.	Benz[a]anthracene, 7-methyl- (8CI9CI)	242	C19H14
5.	Benz[a]anthracene, 1-methyl- (8CI9CI)	242	C19H14
6.	Benzo[c]phenanthrene, 5-methyl- (8CI9CI)	242	C19H14
7.	Benz[a]anthracene, 11-methyl- (8CI9CI)	242	C19H14

Sample File: >A6880 Spectrum #: 900
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.	95*	1705846	28563	DBMS	104	26	1	0	100	7	68	95
2.	95*	2422799	28571	DBMS	99	34	1	0	81	7	68	94
3.	92*	2381319	28569	DBMS	93	32	1	0	93	15	64	92
4.	89*	2541697	28575	DBMS	91	39	1	0	88	10	6[illegible]	[illegible]
5.	89*	2498773	28574	DBMS	88	41	1	0	83	7	62	86
6.	88*	652040	28561	DBMS	77	54	2	0	98	5	65	59
7.	86*	6111780	28584	DBMS	74	51	1	0	100	10	59	72



UNKNOWN

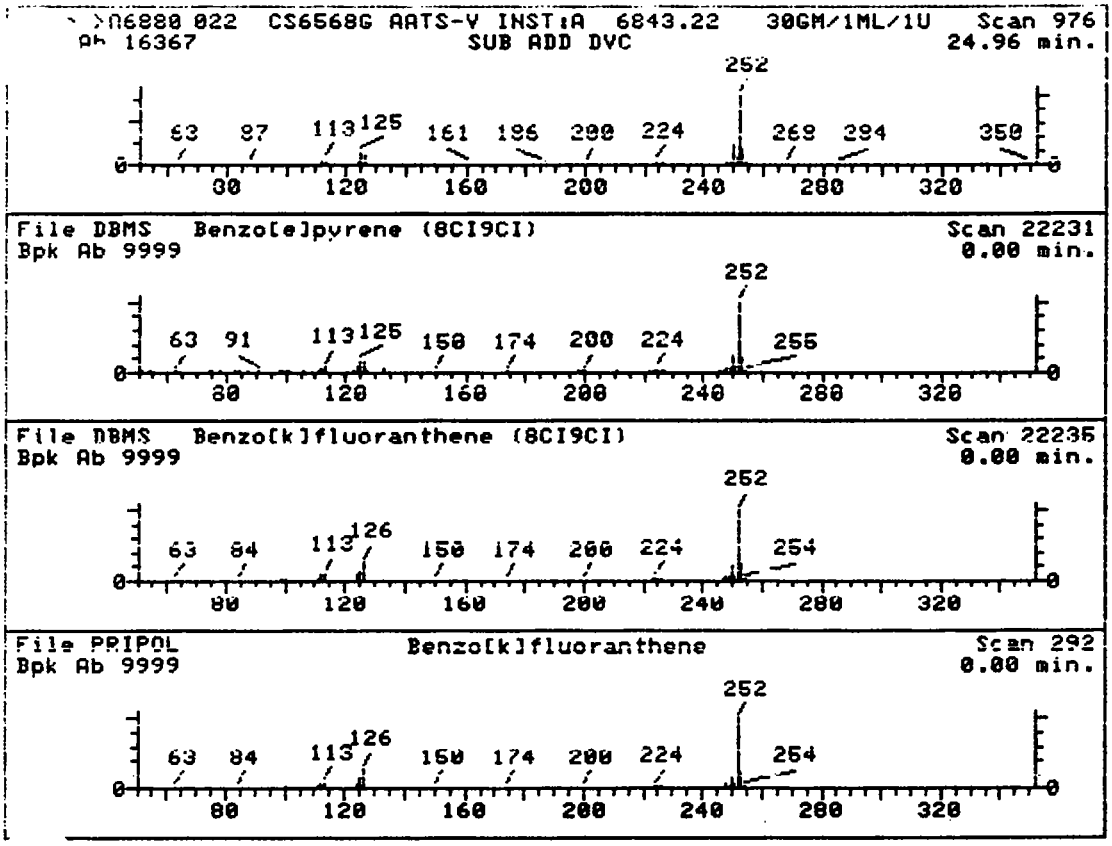
Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

Unknown #.17
Area = 85141.00 Tentative Concentration is 3.00

1.	Benzo[c]phenanthrene, 1-methyl- (8CI9CI)	242	C19H14
2.	Chrysene, 5-methyl- (8CI9CI)	242	C19H14
3.	Benz[a]anthracene, 12-methyl- (8CI9CI)	242	C19H14
4.	Triphenylene, 1-methyl- (8CI)	242	C19H14
5.	Benz[a]anthracene, 7-methyl- (8CI9CI)	242	C19H14
6.	9H-Fluorene, 9-phenyl- (9CI)	242	C19H14
7.	Benz[a]anthracene, 1-methyl- (8CI9CI)	242	C19H14

Sample File: >A6880 Spectrum #: 907
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROUT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	55*	4076395	28582	DBMS	58	91	2	0	83	27	24	35
2.	44*	3697243	28581	DBMS	49	86	2	0	92	27	19	22
3.	38*	2422799	28571	DBMS	45	88	2	0	95	27	14	15
4.	37*	2871912	28577	DBMS	51	88	3	0	85	27	14	14
5.	37*	2541697	28575	DBMS	37	93	2	0	95	29	14	14
6.	30*	789242	28562	DBMS	30	100	3	0	82	31	12	13
7.	28*	2498773	28574	DBMS	39	90	2	0	93	36	10	14



UNKNOWN pwd

Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

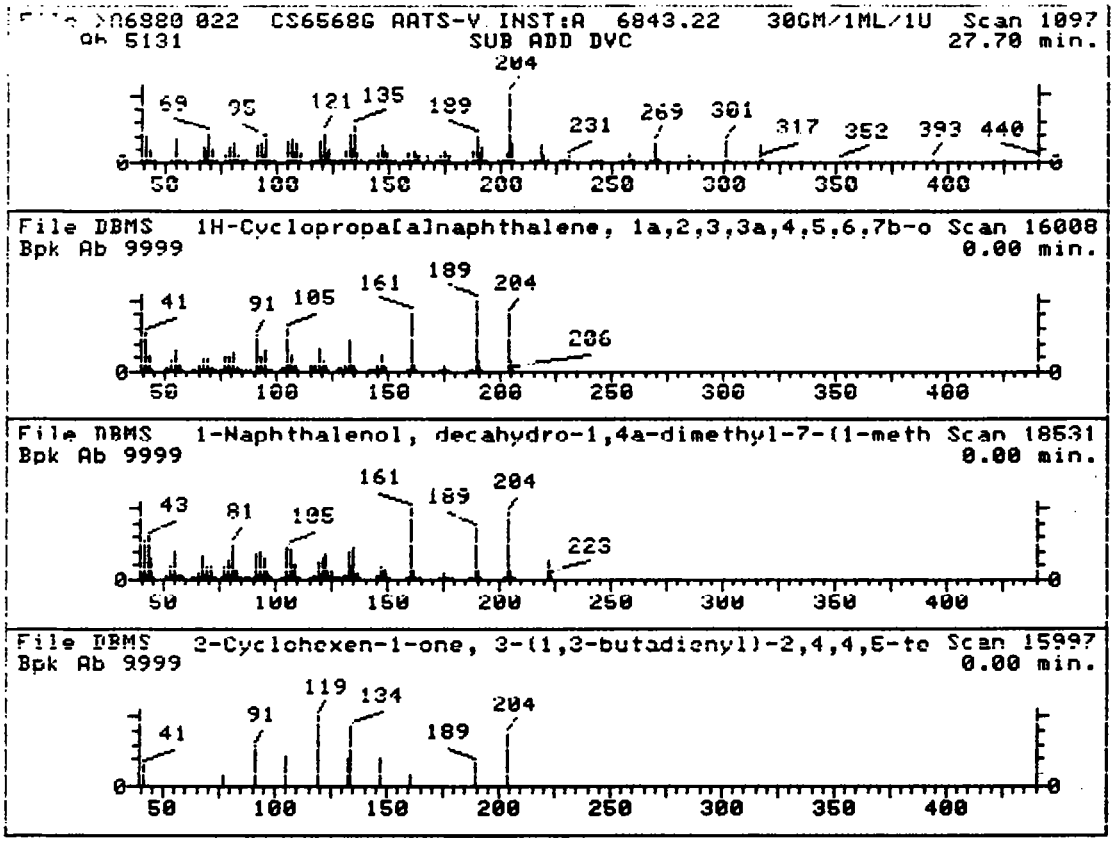
Unknown #.18
Area = 95302.00 Tentative Concentration is 7.00

1.	Benzo[e]pyrene (8CI9CI)	252 C20H12
2.	Benzo[k]fluoranthene (8CI9CI)	252 C20H12
3.	Benzo[k]fluoranthene	252 C20H12
4.	Benzo[j]fluoranthene (8CI9CI)	252 C20H12
5.	Benzo[a]pyrene	252 C20H12
6.	Benzle]acephenanthrylene (8CI9CI)	252 C20H12
7.	Benzo[a]pyrene	252 C20H12

Sample file: >A6880 Spectrum #: 976
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.	97*	192972	29385	DBMS	118	15	1	0	91	9	68	97
2.	95*	207089	29389	DBMS	114	18	1	0	83	12	64	96
3.	94*	292	412	PRIPOL	99	36	1	0	83	12	64	94
4.	89*	205823	29387	DBMS	103	29	2	0	89	9	62	94
5.	87*	288	408	PRIPOL	84	49	1	0	92	14	55	80
6.	86*	205992	29388	DBMS	93	39	2	0	99	9	59	72
7.	86*	290	410	PRIPOL	67	63	0	0	66	17	50	80

0437



UNKNOWN

Sample: U22 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

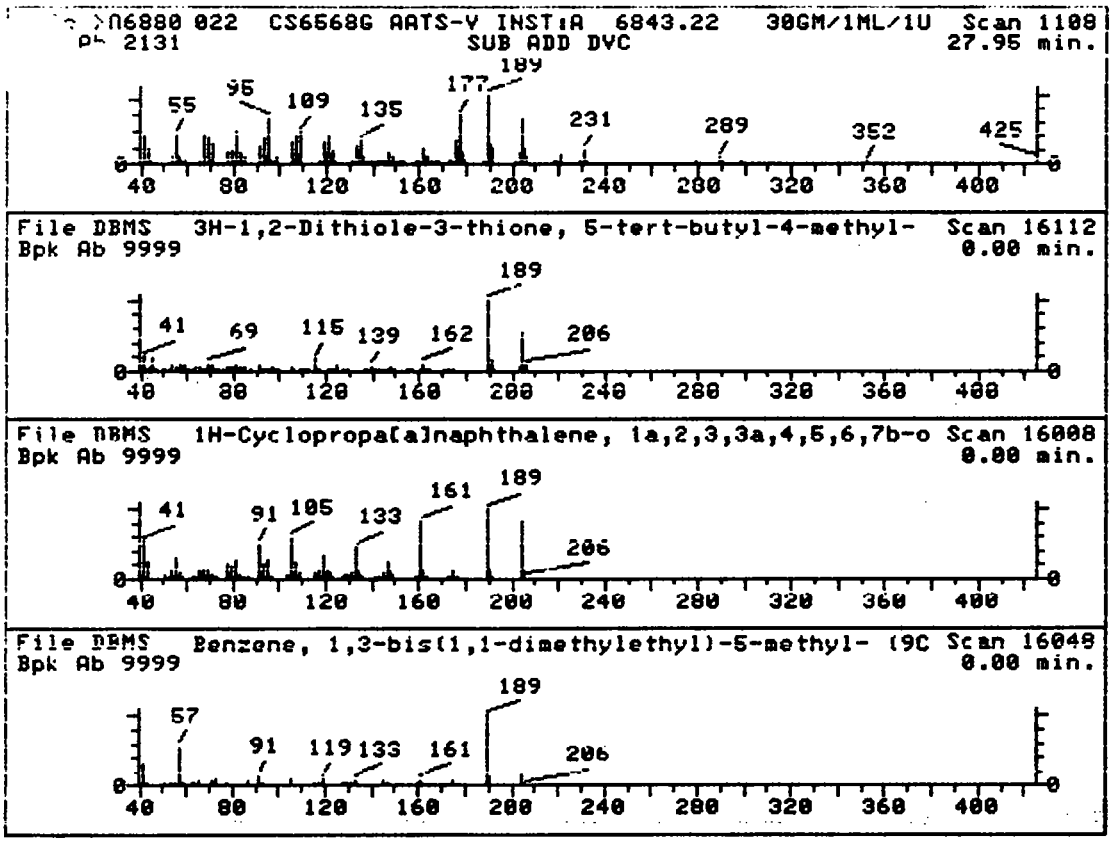
Unknown #,19
Area = 298452.0 Tentative Concentration is 20.00

1.	1H-Cyclopropa[a]naphthalene, 1a,2,3,3a,4,5,6,7b-octahydro-1,1,3a,7-tetramethyl-, [1aR-(1a.alpha.,3a.alpha.,7b.alpha.)]- (9CI)	204	C15H24
2.	1-Naphthalenol, decahydro-1,4a-dimethyl-7-(1-methylethylidene)-, [1R-(1.alpha.,4a.beta.,8a.alpha.)]- (9C	222	C15H26O
3.	2-Cyclohexen-1-one, 3-(1,3-butadienyl)-2,4,4,5-tetramethyl-, (E)- (9CI)	204	C14H20O
4.	Naphthalene, 1,2,4a,5,6,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, (1.alpha.,4a.alpha.,8a.alpha.)- (9CI)	204	C15H24
5.	Benzo[1,2-c:3,4-c':5,6-c'']tris[1,2,5]oxadiazole (9C	204	C6N6O3
6.	Naphthalene, 2-phenyl- (8CI9CI)	204	C16H12
7.	Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(1-methylethylidene)-, (4aR-trans)- (9CI)	204	C15H24

Sample file: >A6880 Spectrum #: 1097
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

0438

Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	% CON	C_I	R_IV



UNKNOWN

Sample: 022 CS6568G AATS-V Operator: AATS MS 8/14/91 2:20

Unknown #,20
Area = 105211.0 Tentative Concentration is 7.00

1.	3H-1,2-Dithiole-3-thione, 5-tert-butyl-4-methyl- (8C	204	C8H12S3
2.	1H-Cyclopropa[a]naphthalene, 1a,2,3,3a,4,5,6,7b-octa hydro-1,1,3a,7-tetramethyl-, [1aR-(1a.alpha.,3a.alph a.,7b.alpha.)]- (9CI)	204	C15H24
3.	Benzene, 1,3-bis(1,1-dimethylethyl)-5-methyl- (9CI)	204	C15H24
4.	Benzene, p-di-tert-pentyl- (8CI)	218	C16H26
5.	Acetic acid, [(2,4,6-triethylbenzoyl)thio]- (9CI)	280	C15H20O3S
6.	Pyrido[3,4-d]pyrimidin-4(3H)-one, 3,6,8-trimethyl- (8CI)	189	C10H11N3O
7.	Butyrophenone, 4'-tert-butyl-2',6'-dimethyl- (8CI)	232	C16H24O

Sample file: >A6880 Spectrum #: 1108
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.	25*	13120768	23666	DBMS	44	79	2	0	100	47	7	39
2.	15*	489292	25199	DBMS	55	101	1	0	58	63	3	42
3.	15*	15181110	23662	DBMS	20	98	2	0	100	60	3	13
4.	12*	3373102	23676	DBMS	39	76	1	0	85	65	2	21

0439

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-023

Lab Name: SWL-TULSA Contract:

Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684323

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6881

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 13 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 6.6 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	130	J
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	330	J
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	460	J
606-20-2	2,6-Dinitrotoluene	760	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-023

Lab Name: SWL-TULSA Contract:

Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684323

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6881

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 13 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 6.6 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	140	J
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	
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	3400	
120-12-7	Anthracene	700	J
84-74-2	Di-n-Butylphthalate	760	U
206-44-0	Fluoranthene	3400	
129-00-0	Pyrene	1600	
85-68-7	Butylbenzylphthalate	760	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)Anthracene	2500	
218-01-9	Chrysene	760	U
117-81-7	bis(2-Ethylhexyl)Phthalate	120	J
117-84-0	Di-n-Octyl Phthalate	760	U
205-99-2	Benzo(b)Fluoranthene	1000	
207-08-9	Benzo(k)Fluoranthene	760	U
50-32-8	Benzo(a)Pyrene	470	J
193-39-5	Indeno(1,2,3-cd)Pyrene	110	J
53-70-3	Dibenz(a,h)Anthracene	260	J
191-24-2	Benzo(g,h,i)Perylene	760	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-023

Lab Name: SWL-TULSA Contract:

Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684323

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6881

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 13 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

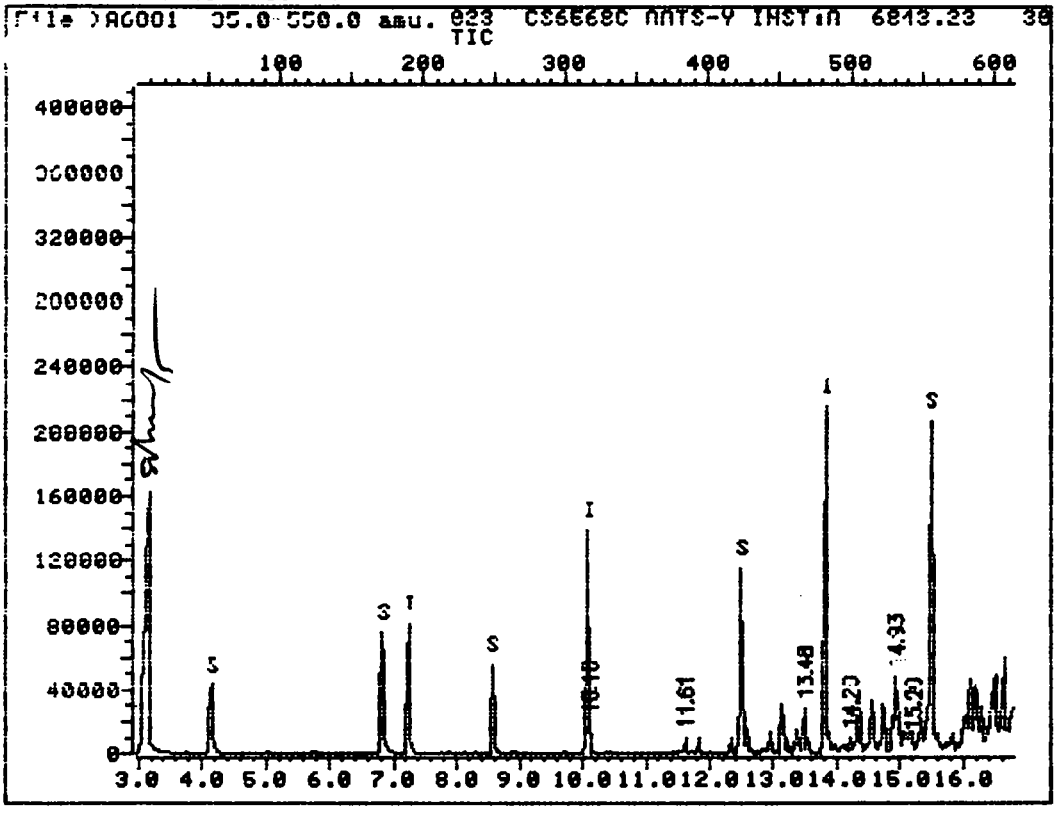
GPC Cleanup: (Y/N) Y pH: 6.6 Dilution Factor: 1.0

Number TICs found: 17

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN COMPOUND	16.52	920	J
2.		UNKNOWN PNA	17.95	2400	J
3.		PHENANTHRENE, METHYL-	18.02	2100	J
4.		PHENANTHRENE, METHYL-	18.19	4400	J
5.	84651	9,10-Anthracenedione (9CI)	18.64	2100	J
6.		UNKNOWN PNA	18.90	770	J
7.		PHENANTHRENE, METHYL-	18.99	1100	J
8.		PHENANTHRENE, DIMETHYL-	19.17	2800	J
9.		PHENANTHRENE, DIMETHYL-	19.27	1300	J
10.		UNKNOWN PNA	19.62	1200	J
11.		UNKNOWN PNA	20.60	1300	J
12.		UNKNOWN PNA	20.82	540	J
13.		UNKNOWN COMPOUND	21.67	540	J
14.		UNKNOWN PNA	21.87	460	J
15.		UNKNOWN PNA	22.72	540	J
16.		UNKNOWN PNA	23.27	610	J
17.		UNKNOWN PNA	23.42	380	J

TOTAL ION CHROMATOGRAM



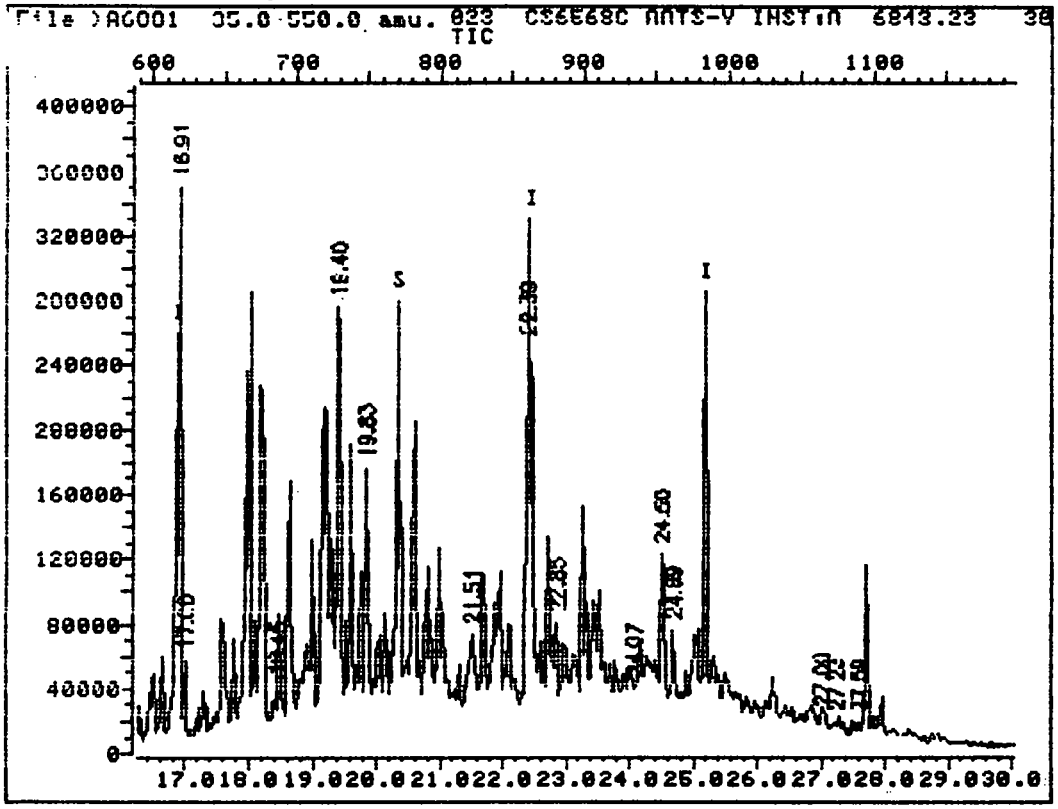
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20

Id File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: AATS
Quant Time: 910814 03:30
Injected at: 910814 02:58

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: AATS
Quant Time: 910814 03:30
Injected at: 910814 02:58

TIC page 2 of 2

QUANT REPORT

Operator ID: AATS Quant Rev: 6 Quant Time: 910814 03:30
Output File: ^A6881::L1 Injected at: 910814 02:58
Data File: >A6881::D9 Dilution Factor: 1.00000
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.24	152.0	34509	40.00	NG/UL	93
14)	CS50 2-FLUOROPHENOL	4.13	112.0	47669	69.17	NG/UL	100
15)	CS45 PHENOL-D5	6.81	99.0	77419	66.72	NG/UL	79
16)	*CI40 NAPHTHALENE-D8	10.08	136.0	147515	40.00	NG/UL	92
25)	C450 NAPHTHALENE	10.10	128.0	6171	1.71	NG/UL	99
29)	C470 2-METHYLNAPHTHALENE	11.61	142.0	9313	4.26	NG/UL	97
30)	CS20 NITROBENZENE-D5	8.57	82.0	40381	30.22	NG/UL	85
31)	*CI50 ACENAPHTHENE-D10	13.82	164.0	109269	40.00	NG/UL	91
38)	C540 ACENAPHTHYLENE	13.48	152.0	29603	5.94	NG/UL FP	88
~~41)~~	~~C550 ACENAPHTHENE~~	~~13.48~~	~~153.0~~	~~3972~~	~~1.23~~	~~NG/UL~~ FP	~~100~~
44)	C565 DIBENZOFURAN	14.20	168.0	8486	1.89	NG/UL	100
~~45)~~	~~C570 2,4-DINITROTOLUENE~~	~~14.93~~	~~165.0~~	~~31453~~	~~27.91~~	~~NG/UL~~	~~46~~
)	C590 FLUORENE	14.93	166.0	28685	9.95	NG/UL	98
)	~~C595 4-NITROANILINE~~	~~14.93~~	~~138.0~~	~~273~~	~~.52~~	~~NG/UL~~ FP	~~100~~
50)	CS25 2-FLUOROBIPHENYL	12.49	172.0	92823	28.07	NG/UL	100
51)	CS55 2,4,6-TRIBROMOPHENOL	15.49	330.0	54169	64.78	NG/UL	91
52)	*CI60 PHENANTHRENE-D10	16.87	188.0	190909	40.00	NG/UL	95
~~54)~~	~~C615 N-NITROSODIPHENYLAMINE~~	~~15.20~~	~~169.0~~	~~1481~~	~~.75~~	~~NG/UL~~ FP	~~74~~
58)	C640 PHENANTHRENE	16.91	178.0	251306	43.73	NG/UL	100
59)	C645 ANTHRACENE	17.00	178.0	44744	9.09	NG/UL	100
~~60)~~	~~C650 DI-N-BUTYLPHTHALATE~~	~~18.45~~	~~149.0~~	~~2630~~	~~.35~~	~~NG/UL~~	~~93~~
61)	C655 FLUORANTHENE	19.40	202.0	273804	43.96	NG/UL	100
62)	*CI70 CHRYSENE-D12	22.42	240.0	186538	40.00	NG/UL	96
63)	C715 PYRENE	19.83	202.0	117010	20.66	NG/UL	100
~~64)~~	~~C720 BUTYLBENZYLPHTHALATE~~	~~21.51~~	~~149.0~~	~~973~~	~~.22~~	~~NG/UL~~	~~66~~
66)	C730 BENZO(A)ANTHRACENE	22.39	228.0	162657	32.00	NG/UL	94
~~67)~~	~~C740 CHRYSENE~~	~~22.39~~	~~228.0~~	~~162657~~	~~32.00~~	~~NG/UL~~	~~92~~
68)	C745 BIS(2-ETHYLHEXYL)PHTHALAT	22.85	149.0	8810	1.58	NG/UL	72
69)	CS30 TERPHENYL-D14	20.33	244.0	151753	40.42	NG/UL	96
70)	*CI75 PERYLENE-D12	25.18	264.0	192091	40.00	NG/UL	99
71)	C760 DI-N-OCTYLPHTHALATE	24.07	149.0	736	.87	NG/UL	100
72)	C765 BENZO(B)FLUORANTHENE	24.50	252.0	104004	13.21	NG/UL *	96
74)	C775 BENZO(A)PYRENE	24.69	252.0	27382	6.15	NG/UL	96
75)	C780 INDENO(1,2,3-CD)PYRENE	27.23	276.0	4918	1.47	NG/UL	87
76)	C785 DIBENZ(A,H)ANTHRACENE	27.00	278.0	13803	3.42	NG/UL	92
~~77)~~	~~C790 BENZO(G,H,I)PERYLENE~~	~~27.59~~	~~276.0~~	~~1842~~	~~.55~~	~~NG/UL~~ FP	~~34~~

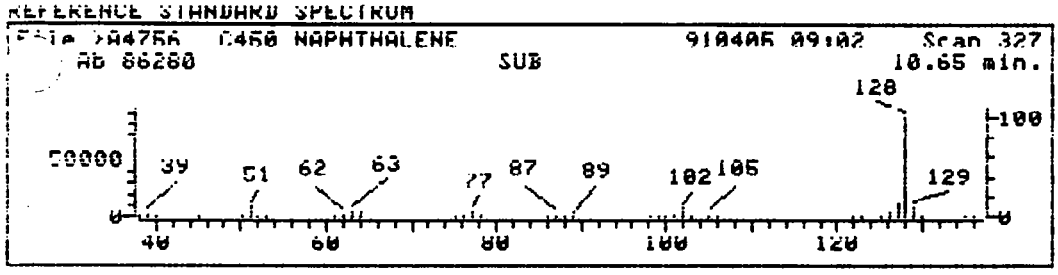
* Compound is ISTD

* Total Benzo(B) + (K)

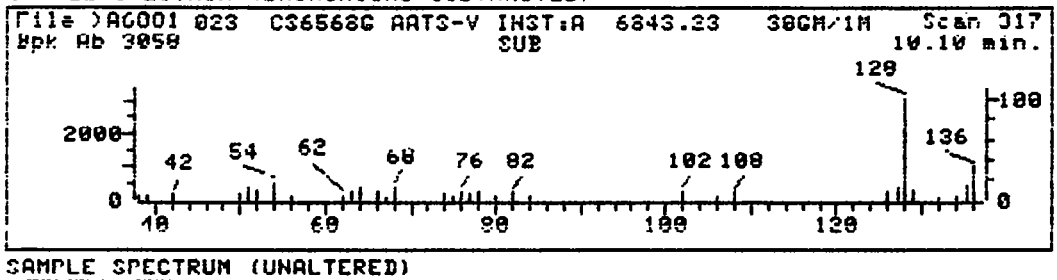
FP = FALSE POSITIVE

0445

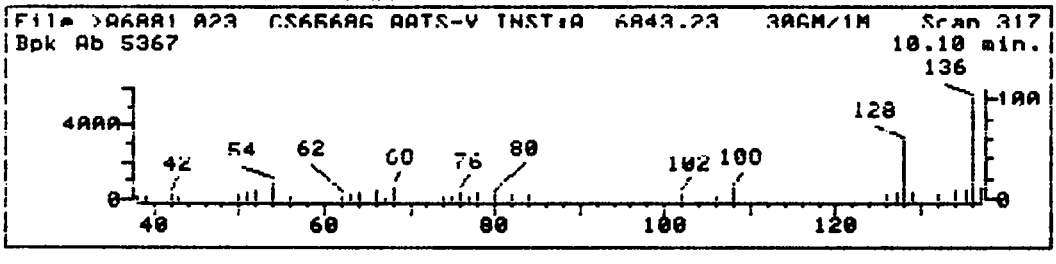
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



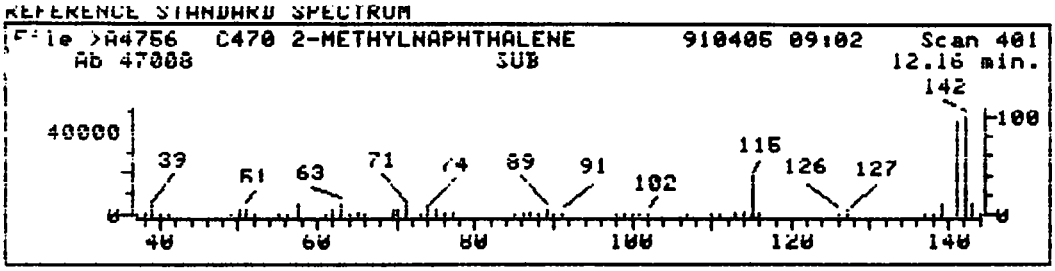
SAMPLE SPECTRUM (UNALTERED)



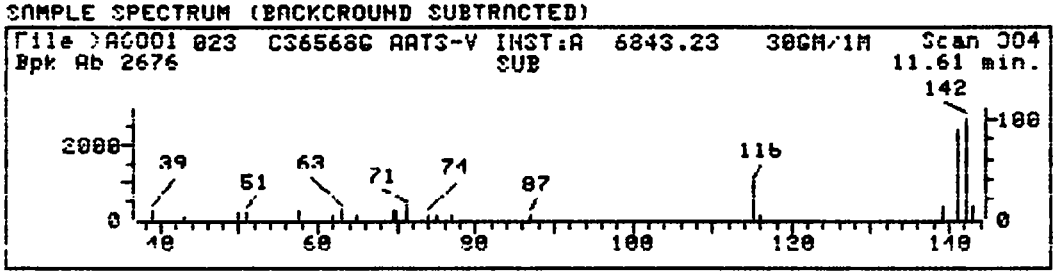
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 25
Compound Name: C450 NAPHTHALENE
Scan Number: 317
Retention Time: 10.10 min.
Quant Ion: 128.0
Area: 6171
Concentration: 1.71 NG/UL
q-value: 99

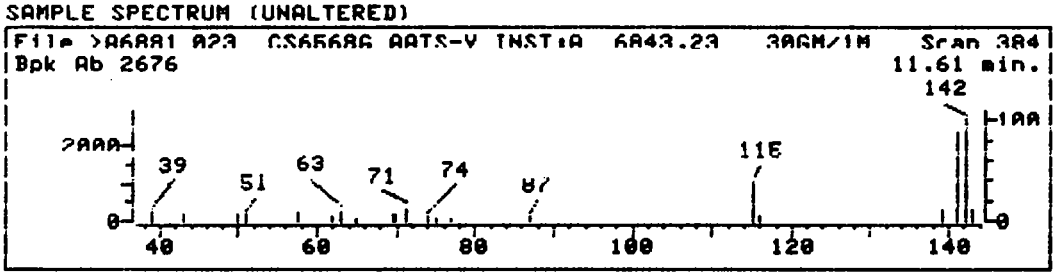
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



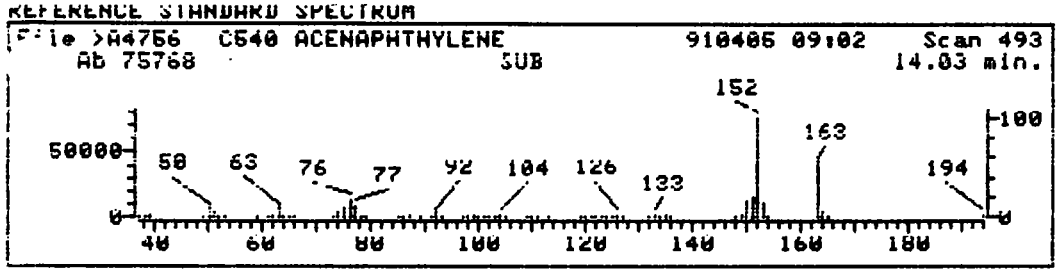
SAMPLE SPECTRUM (UNALTERED)



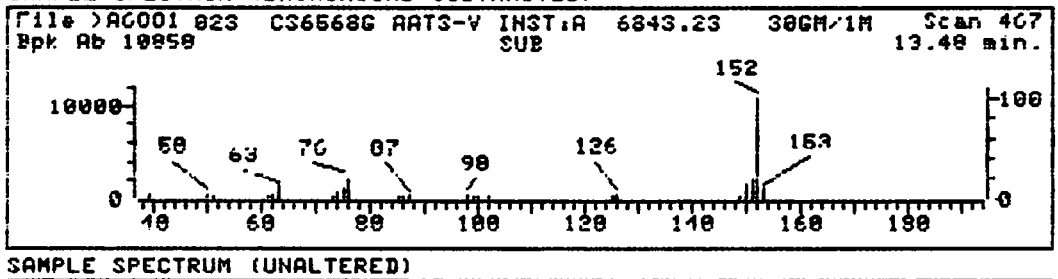
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID_BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 29
Compound Name: C470 2-METHYLNAPHTHALENE
Scan Number: 384
Retention Time: 11.61 min.
Quant Ion: 142.0
Area: 9313
Concentration: 4.26 NG/UL
q-value: 97

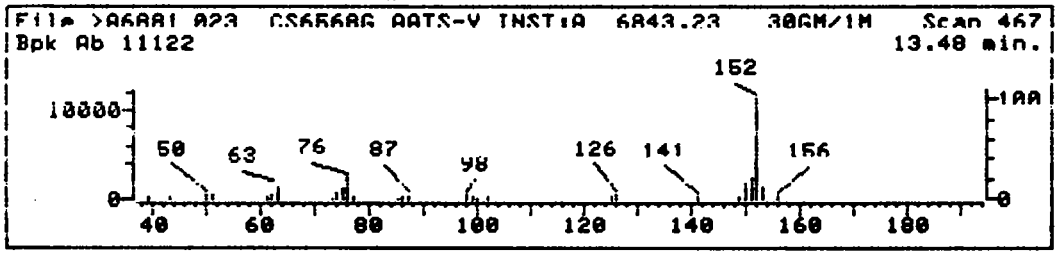
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



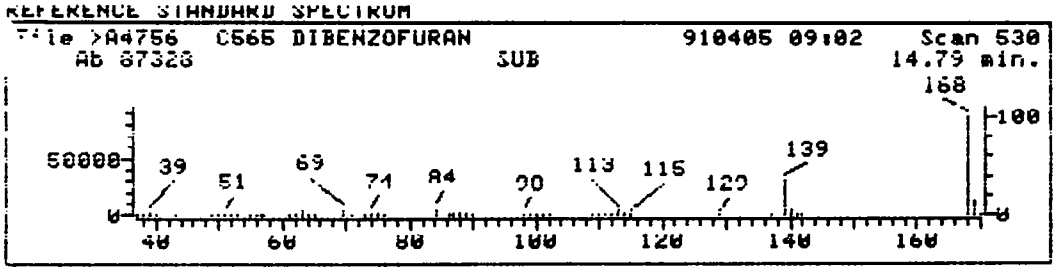
SAMPLE SPECTRUM (UNALTERED)



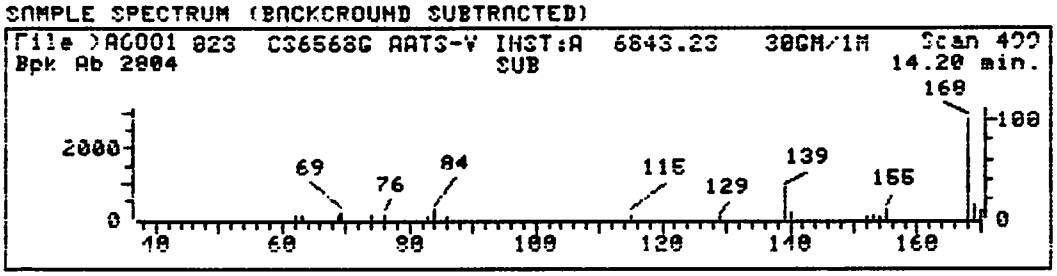
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID_BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 38
Compound Name: C540 ACENAPHTHYLENE
Scan Number: 467
Retention Time: 13.48 min.
Quant Ion: 152.0
Area: 29603
Concentration: 5.94 NG/UL
q-value: 88

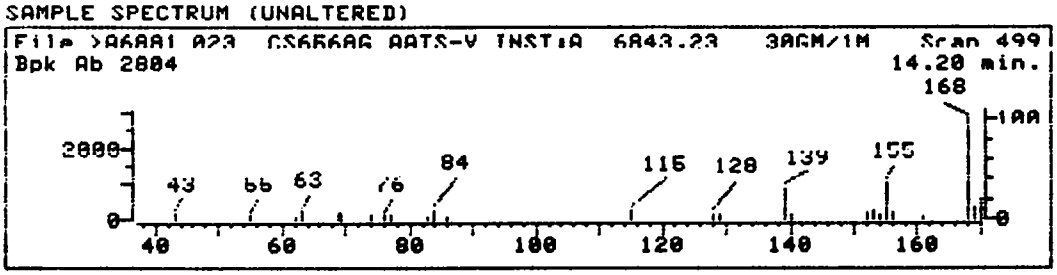
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



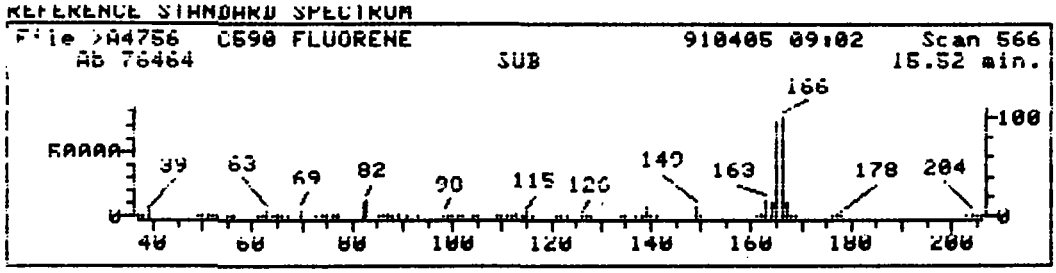
SAMPLE SPECTRUM (UNALTERED)



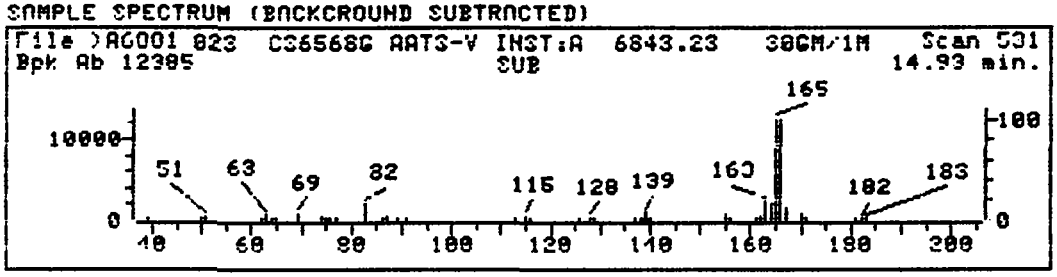
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 44
Compound Name: C565 DIBENZOFURAN
Scan Number: 499
Retention Time: 14.20 min.
Quant Ion: 168.0
Area: 8486
Concentration: 1.89 NG/UL
q-value: 100

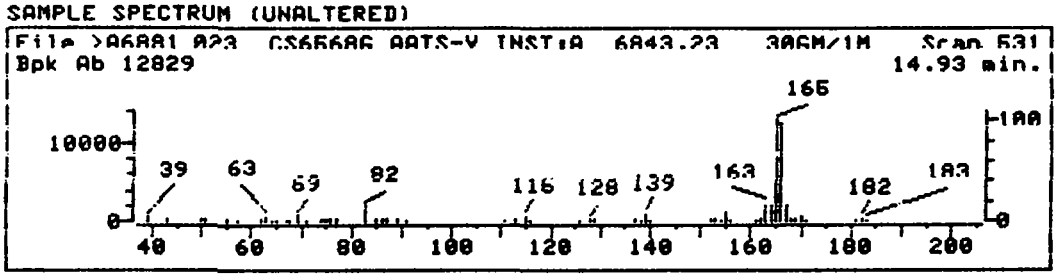
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



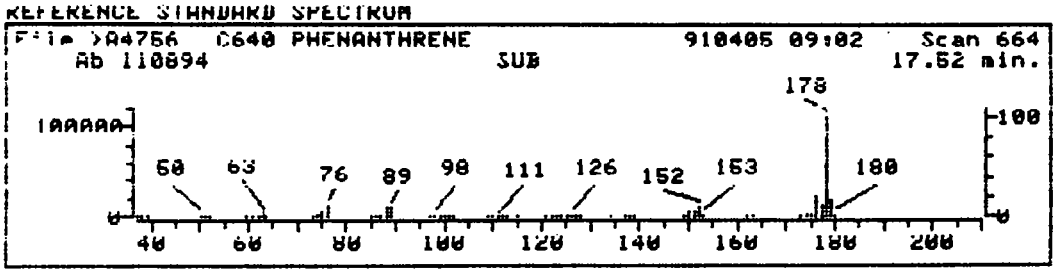
SAMPLE SPECTRUM (UNALTERED)



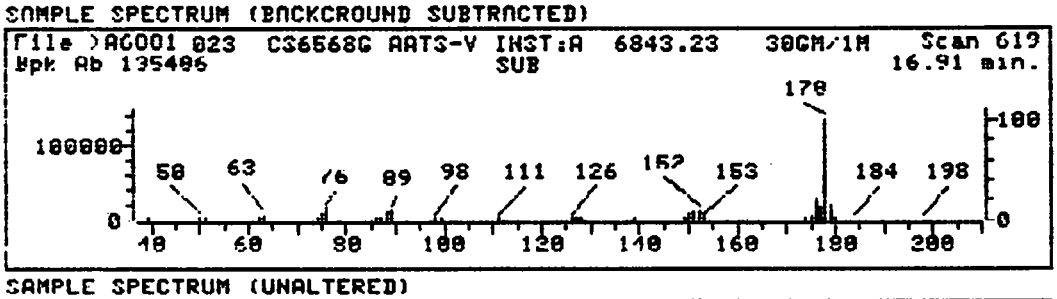
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 48
Compound Name: C590 FLUORENE
Scan Number: 531
Retention Time: 14.93 min.
Quant Ion: 166.0
Area: 28685
Concentration: 9.95 NG/UL
q-value: 98

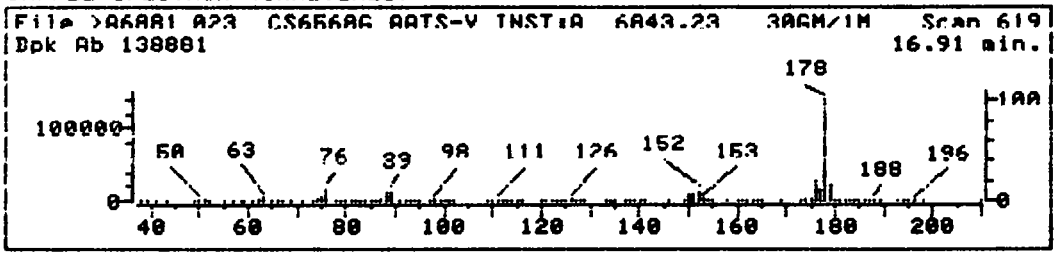
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



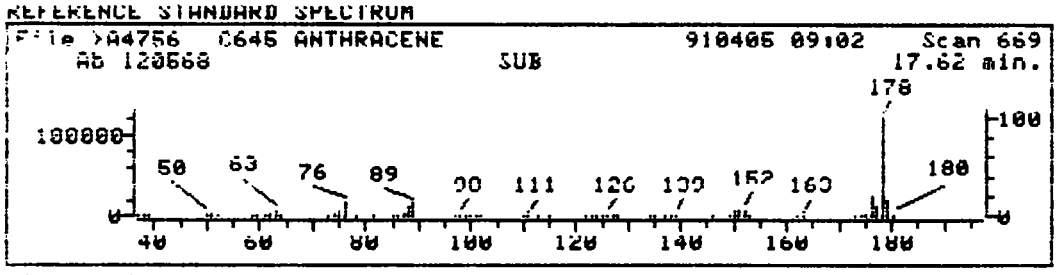
SAMPLE SPECTRUM (UNALTERED)



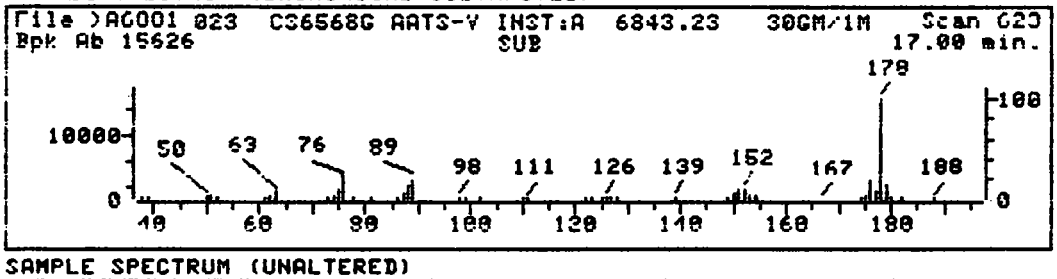
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID_BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 58
Compound Name: C640 PHENANTHRENE
Scan Number: 619
Retention Time: 16.91 min.
Quant Ion: 178.0
Area: 251306
Concentration: 43.73 NG/UL
q-value: 100

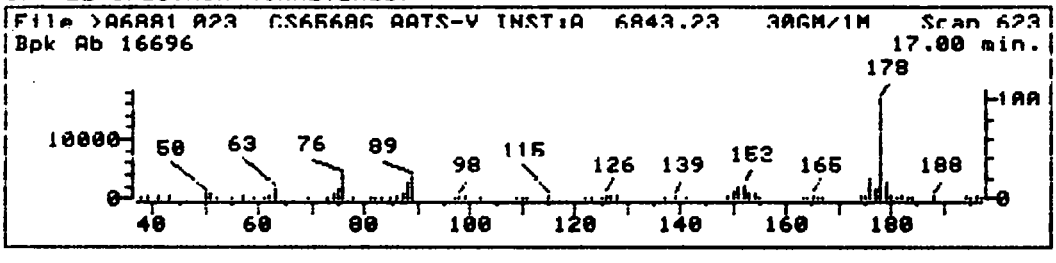
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



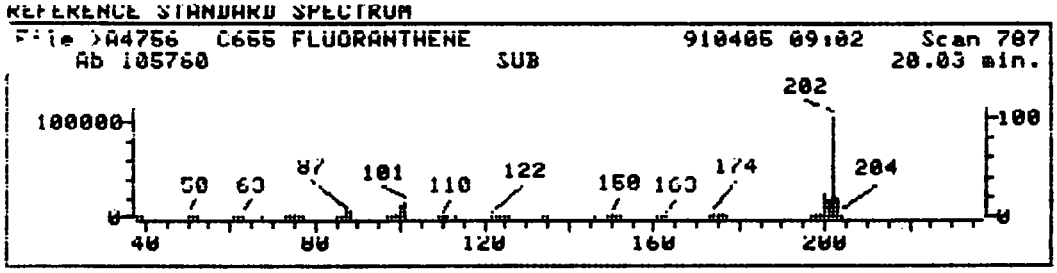
SAMPLE SPECTRUM (UNALTERED)



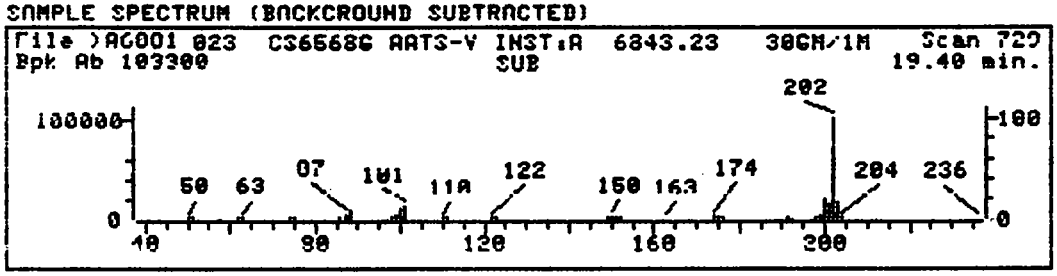
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 59
Compound Name: C645 ANTHRACENE
Scan Number: 623
Retention Time: 17.00 min.
Quant Ion: 178.0
Area: 44744
Concentration: 9.09 NG/UL
q-value: 100

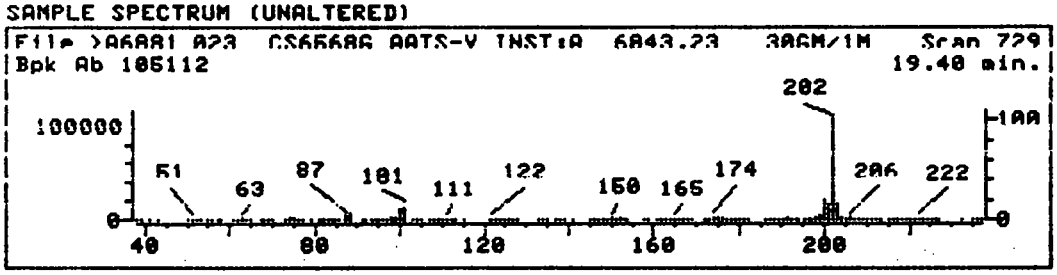
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



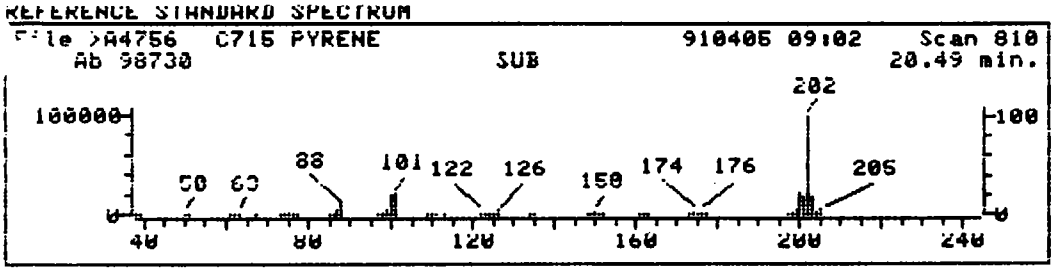
SAMPLE SPECTRUM (UNALTERED)



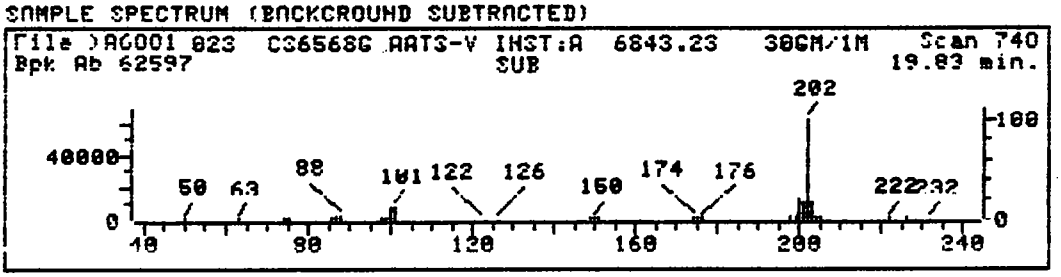
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 61
Compound Name: C655 FLUORANTHENE
Scan Number: 729
Retention Time: 19.40 min.
Quant Ion: 202.0
Area: 273804
Concentration: 43.96 NG/UL
q-value: 100

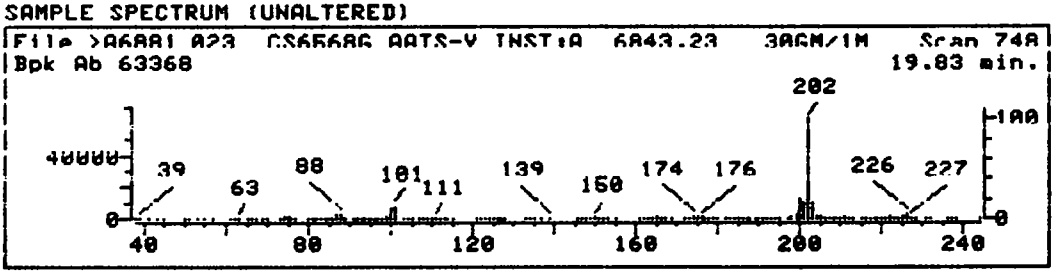
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



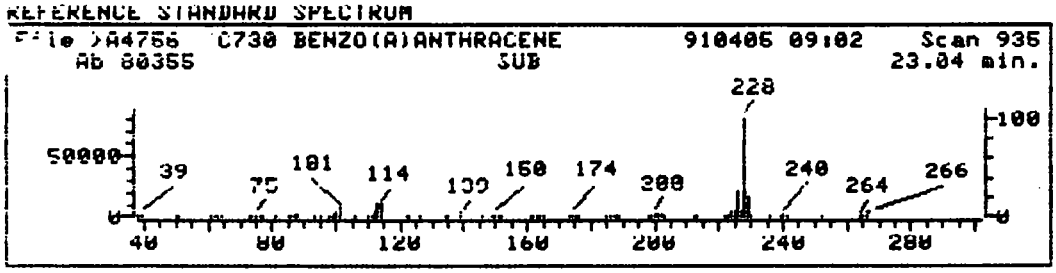
SAMPLE SPECTRUM (UNALTERED)



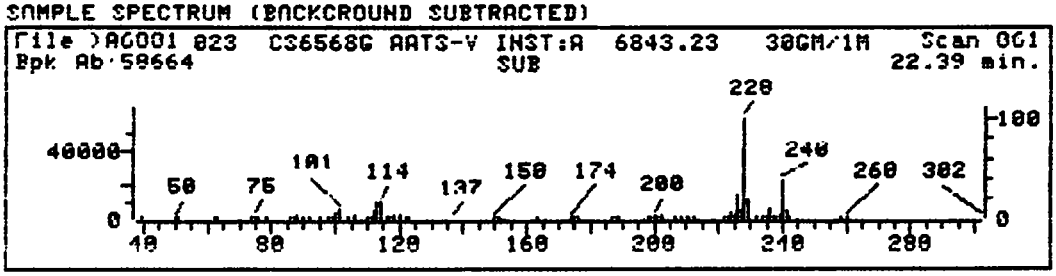
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 63
Compound Name: C715 PYRENE
Scan Number: 748
Retention Time: 19.83 min.
Quant Ion: 202.0
Area: 117010
Concentration: 20.66 NG/UL
q-value: 100

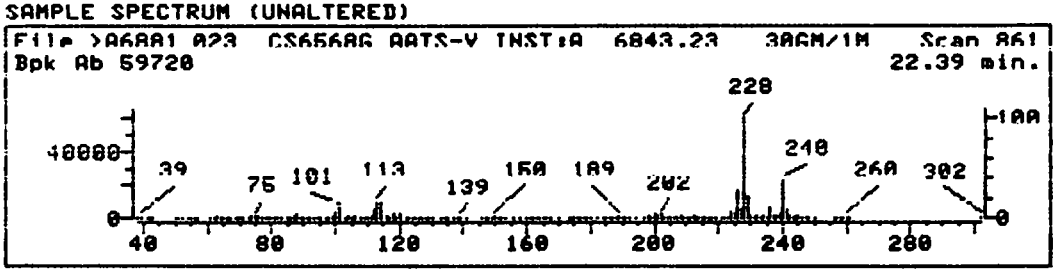
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



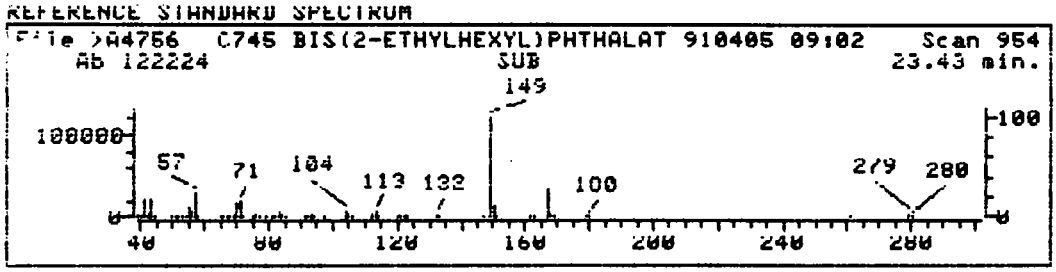
SAMPLE SPECTRUM (UNALTERED)



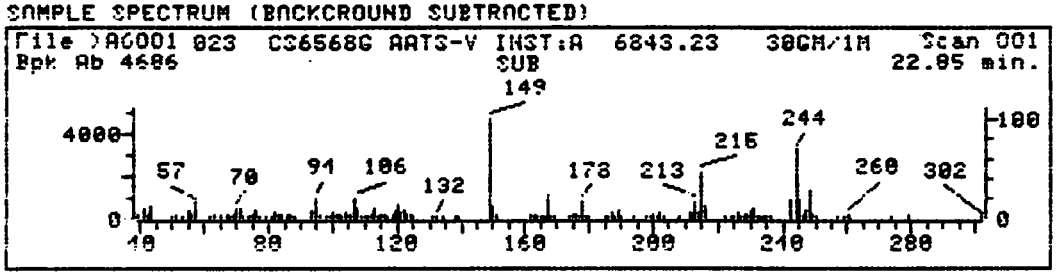
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID_BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 66
Compound Name: C730 BENZO(A)ANTHRACENE
Scan Number: 861
Retention Time: 22.39 min.
Quant Ion: 228.0
Area: 162657
Concentration: 32.00 NG/UL
q-value: 94

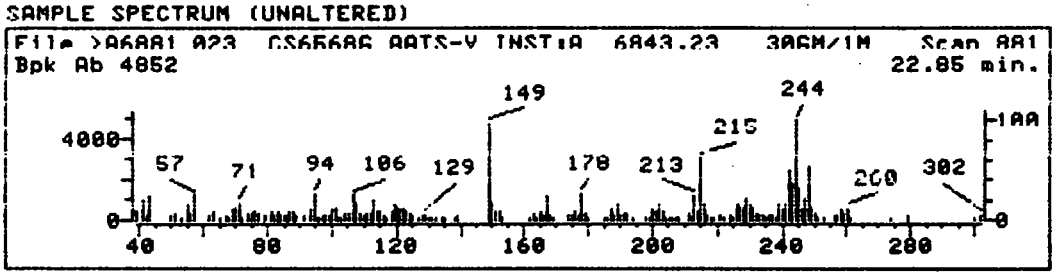
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



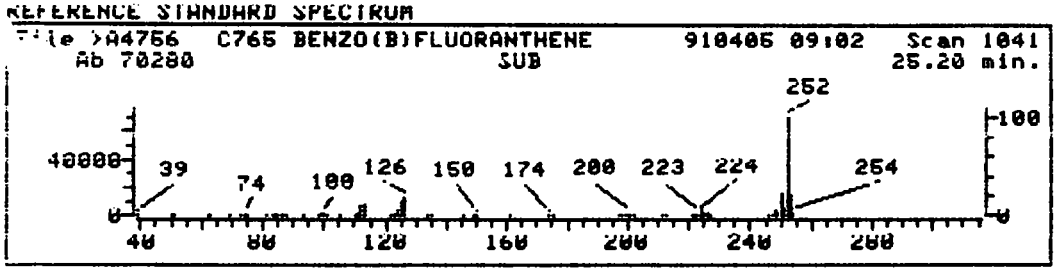
SAMPLE SPECTRUM (UNALTERED)



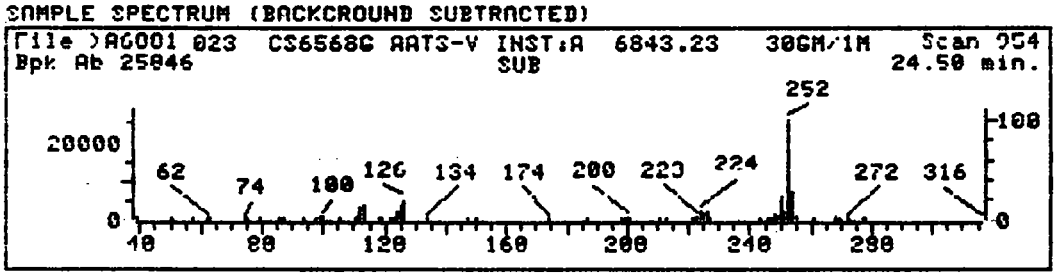
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 68
Compound Name: C745 BIS(2-ETHYLHEXYL)PHTHALAT
Scan Number: 881
Retention Time: 22.85 min.
Quant Ion: 149.0
Area: 8810
Concentration: 1.58 NG/UL
q-value: 72

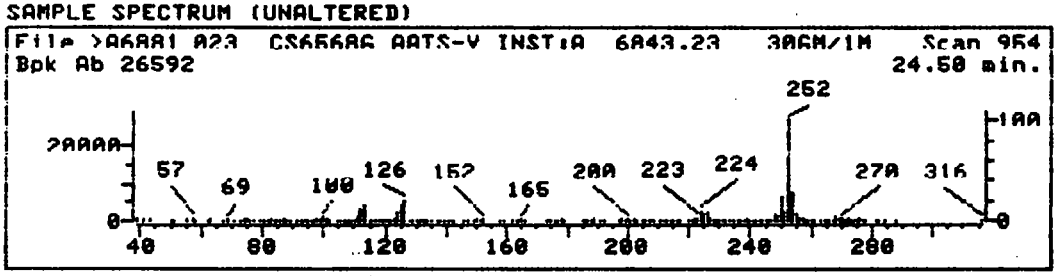
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



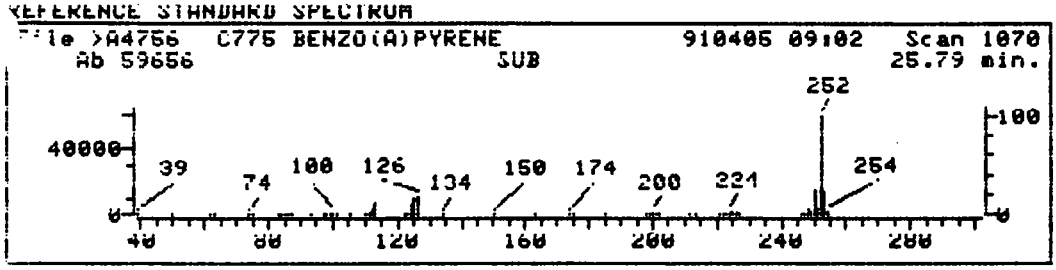
SAMPLE SPECTRUM (UNALTERED)



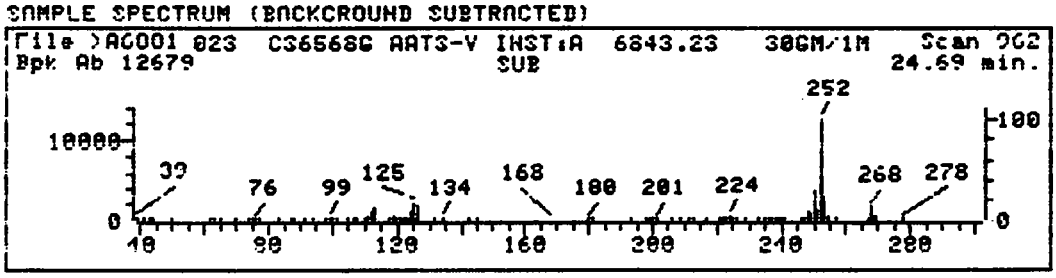
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID_BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 72
Compound Name: C765 BENZO(B)FLUORANTHENE
Scan Number: 954
Retention Time: 24.50 min.
Quant Ion: 252.0
Area: 104004
Concentration: 13.21 NG/UL
q-value: 96

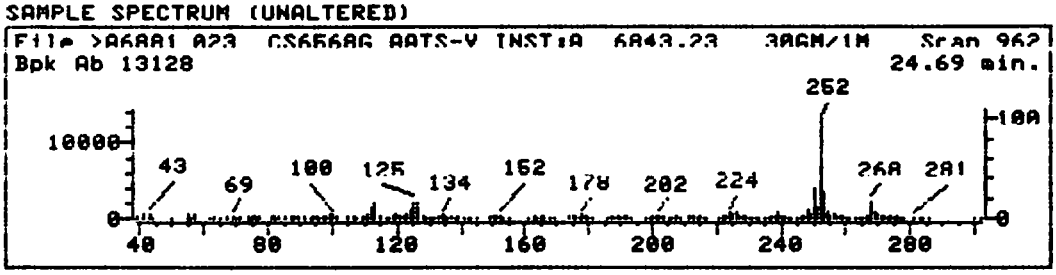
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



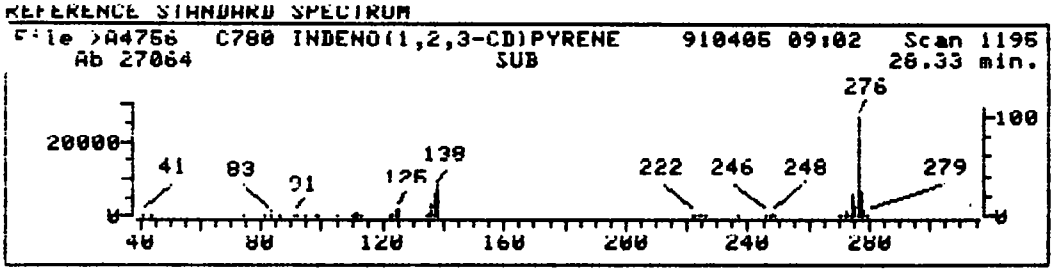
SAMPLE SPECTRUM (UNALTERED)



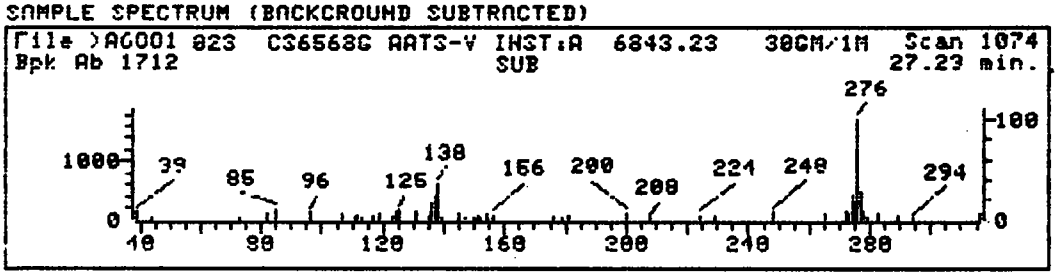
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID_BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 74
Compound Name: C775 BENZO(A)PYRENE
Scan Number: 962
Retention Time: 24.69 min.
Quant Ion: 252.0
Area: 27382
Concentration: 6.15 NG/UL
q-value: 96

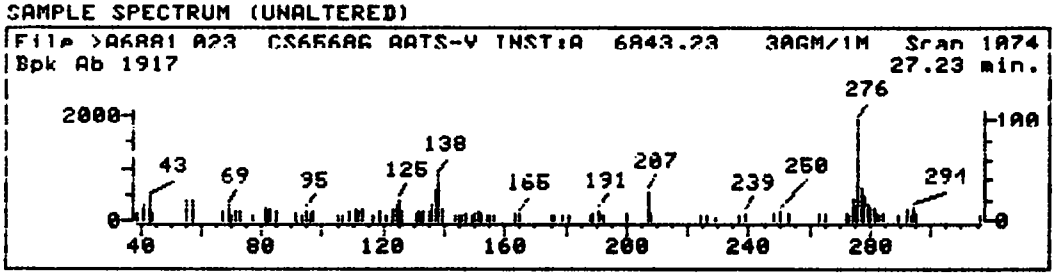
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



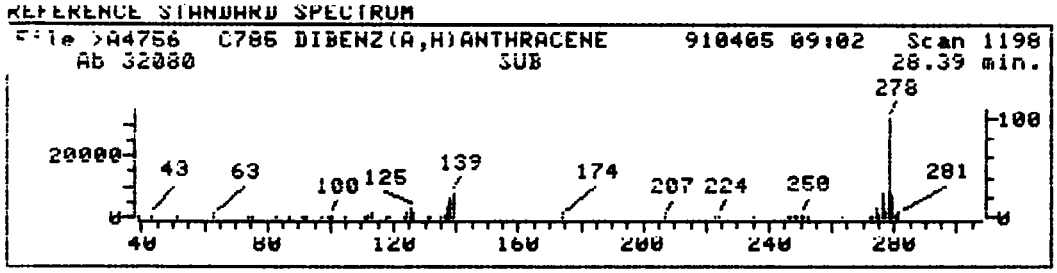
SAMPLE SPECTRUM (UNALTERED)



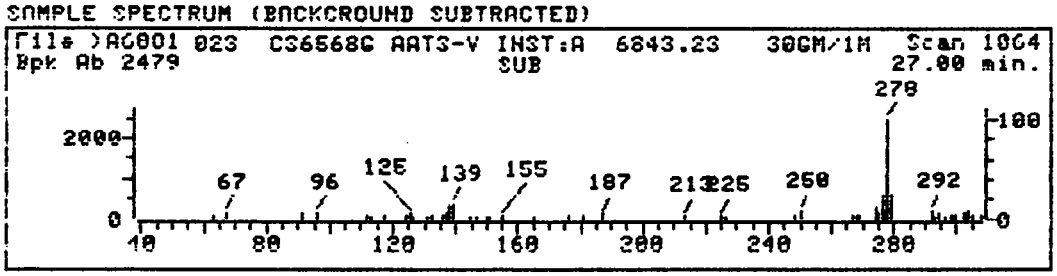
Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID_BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 75
Compound Name: C780 INDENO(1,2,3-CD)PYRENE
Scan Number: 1074
Retention Time: 27.23 min.
Quant Ion: 276.0
Area: 4918
Concentration: 1.47 NG/UL
q-value: 87

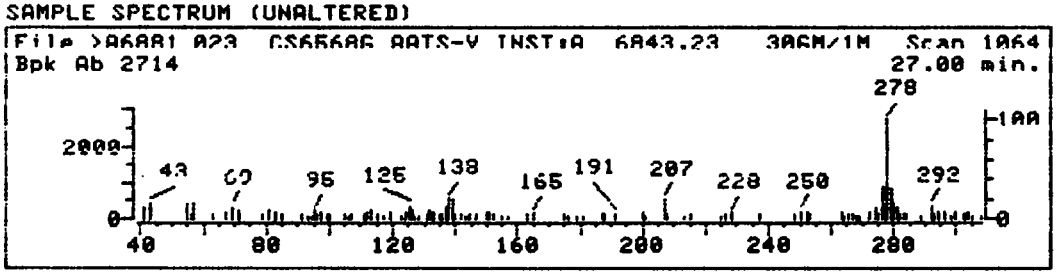
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >A6881::D9 Quant Output File: ^A6881::L1
Name: 023 CS6568G AATS-V
Misc: INST:A 6843.23 30GM/1ML/1UL BTL#20
Quant Time: 910814 03:30 Quant ID File: ID BN2::EX
Injected at: 910814 02:58 Last Calibration: 910814 01:01

Compound No: 76
Compound Name: C785 DIBENZ(A,H)ANTHRACENE
Scan Number: 1064
Retention Time: 27.00 min.
Quant Ion: 278.0
Area: 13803
Concentration: 3.42 NG/UL
q-value: 92

5.	11	67902787	23696	DBMS	34	45	0	0	98	69	2	18
6.	11*	22389793	23640	DBMS	26	77	1	0	71	64	2	14
7.	11*	1703908	23683	DBMS	26	86	1	0	82	65	2	14

Data file header from : >A6881

Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58
Misc : INST:A 6843.23 30GM/1ML/1UL BTL#20
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method File: #STD02 Tuning File: #ATUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 280 Transfer line temp. : 0

Chromatographic temperatures : 45. 300. 0. 0. 0.
Chromatographic times, min. : 4.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 12.0 0.0 0.0 0.0 0.0

>A6881 023 CS6568G AATS-V INST:A 6843.23 30GM/1ML/1UL
35.01 550.0 CLP ADC TIC
Upslope: .20 Area Reject: 21573. Max Peaks: 20 Bunching: 1
Dnslope: 0.00 Results File !A6881 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	3.17	3	9	11	15726U	844908	792212	71.20	9.486
2	16.51	593	601	603	40823	334582	227456	20.44	2.724
3	16.80	608	614	617	28138	364961	182329	16.39	2.183
4	17.52	646	648	654	66616	526002	326259	29.32	3.907
5	17.95	659	665	666	215202	803618	593256	53.32	7.104
	18.02	666	668	669	261721	641544	540595	48.58	6.473
7	18.18	673	675	680	206421	1311480	1112716	100.00	13.324
8	18.63	692	695	700	145166	808049	542941	48.79	6.501
9	18.90	704	707	709	38905	388147	186411	16.75	2.232
10	18.99	709	711	714	102418	476888	274769	24.69	3.290
11	19.17	714	719	720	185013	934951	692729	62.26	8.295
12	19.27	722	723	725	106784	470420	323743	29.09	3.877
13	19.61	736	738	740	148053	534223	304537	27.37	3.647
14	20.60	778	782	784	164210	1014476	678376	60.97	8.123
15	20.81	787	791	792	77698	543091	287159	25.81	3.439
16	21.67	827	829	833	73067	589946	271603	24.41	3.252
17	21.87	833	838	839	56111	533943	231170	20.78	2.768
18	22.71	873	875	878	92888	538712	259327	23.31	3.105
19	23.26	897	899	901	114743	518317	310200	27.88	3.715
20	23.41	904	906	909	53528	492852	213256	19.17	2.554

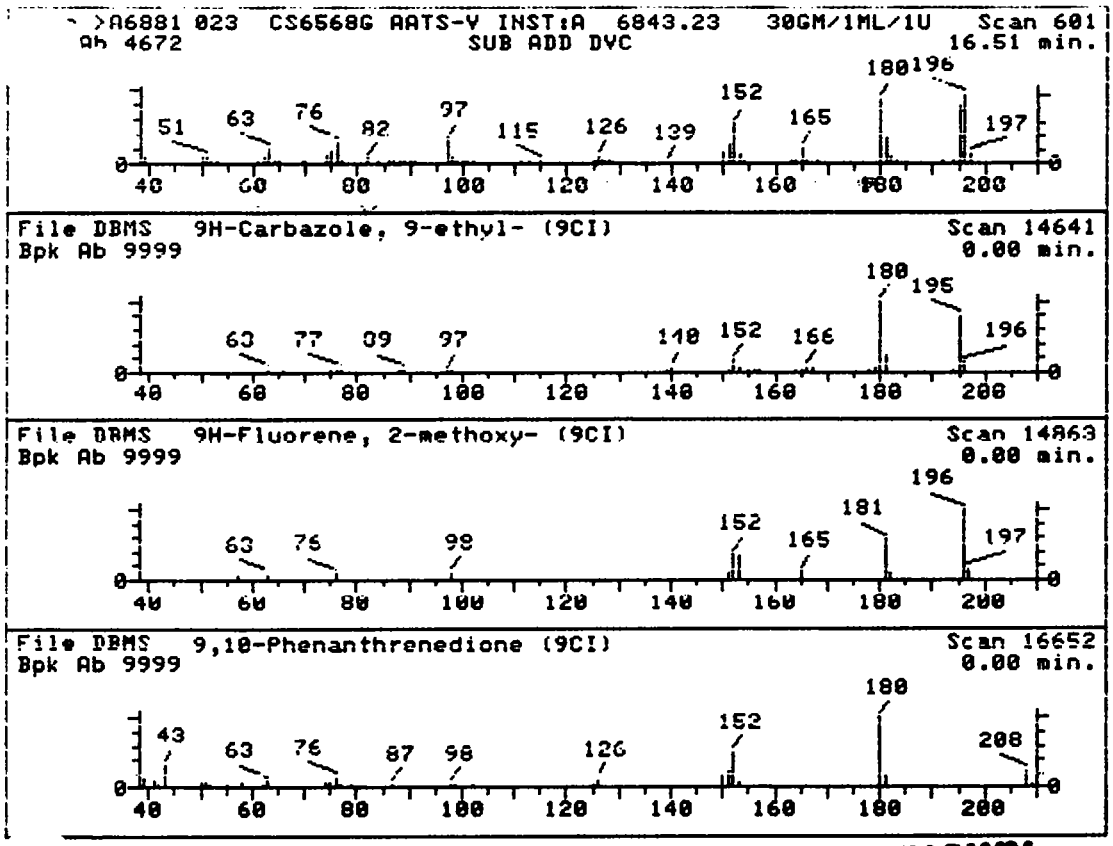
Sum of corrected areas: 8351040.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	215734.	7.24	2.98 - 8.66
2	40.0	339631.	10.08	8.66 - 11.95
3	40.0	511901.	13.82	11.95 - 15.34
4	40.0	774251.	16.87	15.34 - 19.64
5	40.0	1586235.	22.42	19.64 - 23.80
6	40.0	573322.	25.19	23.80 - 30.03

0461

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00



UNKNOWN

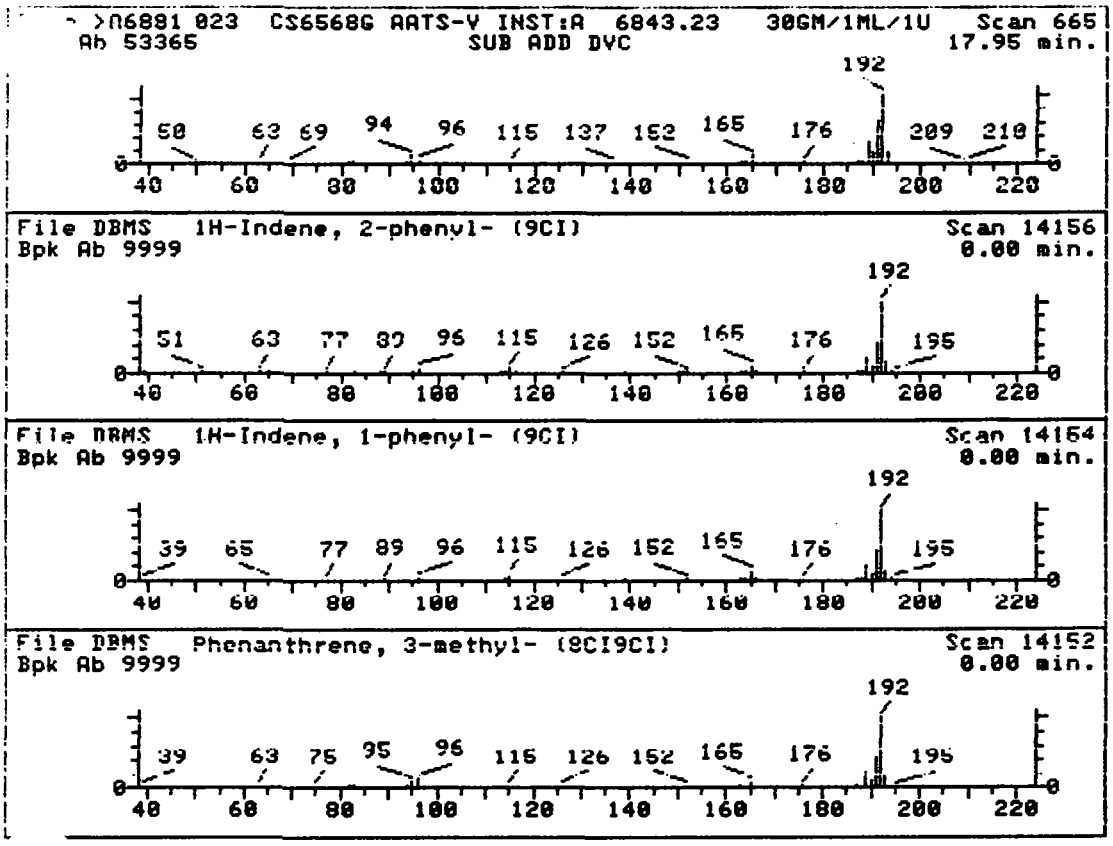
Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

Unknown #,2
Area = 227456.0 Tentative Concentration is 12.00

1.	9H-Carbazole, 9-ethyl- (9CI)	195 C14H13N
2.	9H-Fluorene, 2-methoxy- (9CI)	196 C14H12O
3.	9,10-Phenanthrenedione (9CI)	208 C14H8O2
4.	Phenol, 4-(2-phenylethenyl)-, (E)- (9CI)	196 C14H12O
5.	Thiophene, 2,4-bis(1,1-dimethylethyl)- (9CI)	196 C12H20S
6.	Phenol, 3-(2-phenylethenyl)-, (E)- (9CI)	196 C14H12O

Sample file: >A6881 Spectrum #: 601
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
	25*	86282	24363	DBMS	30	81	2	0	93	48	7	14
2.	18*	2523468	24479	DBMS	41	50	2	0	67	56	4	21
3.	15	84117	22674	DBMS	64	59	2	0	93	60	3	14
4.	11*	6554989	24480	DBMS	42	81	2	0	87	65	2	14
5.	11*	33369812	22756	DBMS	29	73	3	0	637	65	2	13
6.	11*	17861186	24482	DBMS	31	103	3	0	100	62	2	13



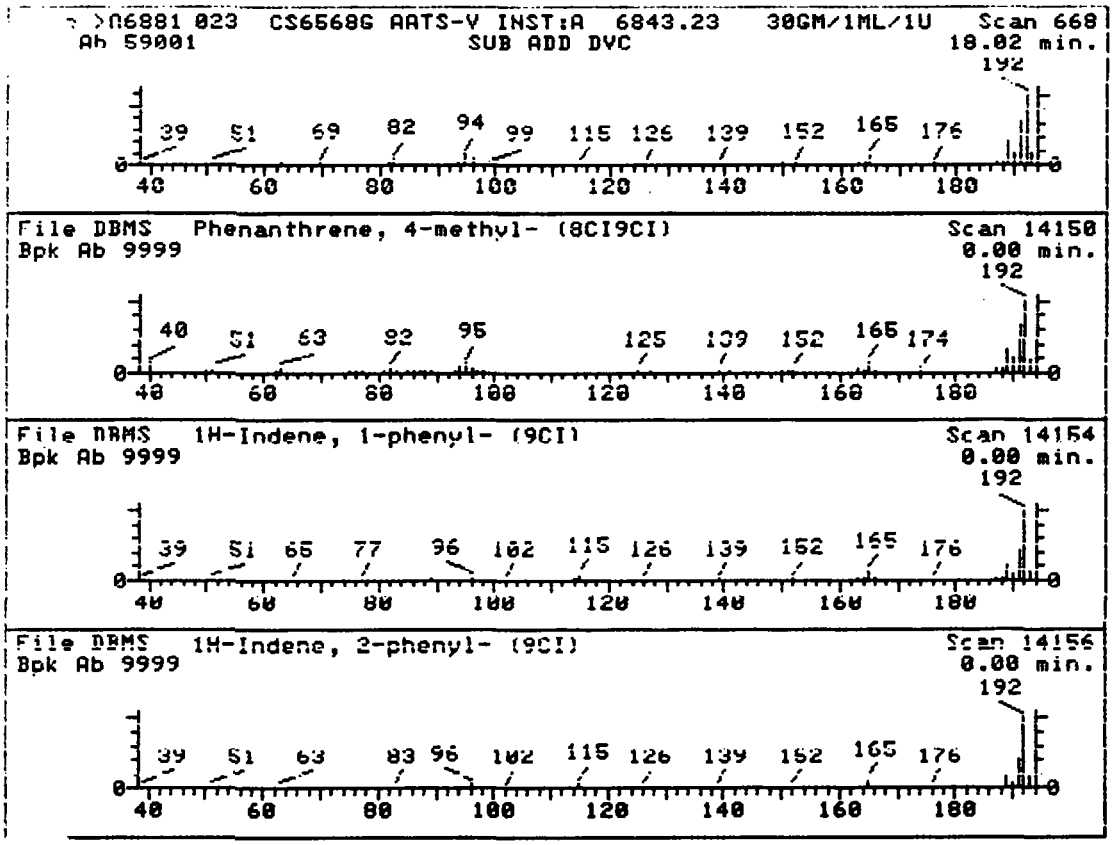
Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

Unknown #,5
Area = 593256.0 Tentative Concentration is 31.00

1.	1H-Indene, 2-phenyl- (9CI)	192	C15H12
2.	1H-Indene, 1-phenyl- (9CI)	192	C15H12
3.	Phenanthrene, 3-methyl- (8CI9CI)	192	C15H12
4.	Anthracene, 2-methyl- (8CI9CI)	192	C15H12
5.	Phenanthrene, 2-methyl- (8CI9CI)	192	C15H12
6.	Phenanthrene, 9-methyl- (8CI9CI)	192	C15H12
7.	Phenanthrene, 1-methyl- (8CI9CI)	192	C15H12

Sample file: >A6881 Spectrum #: 665
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.	86*	4505480	23940	DBMS	74	34	1	0	100	8	59	72
2.	84*	1961962	23938	DBMS	68	39	1	0	90	8	55	66
3.	83*	832713	23936	DBMS	71	40	2	0	95	6	54	52
4.	83*	613127	23932	DBMS	73	43	2	0	88	6	54	46
5.	79*	2531842	23939	DBMS	61	48	2	0	99	6	48	38
6.	79*	883205	23937	DBMS	60	49	2	0	98	9	48	37
7.	79*	832699	23935	DBMS	55	54	2	0	96	6	48	32



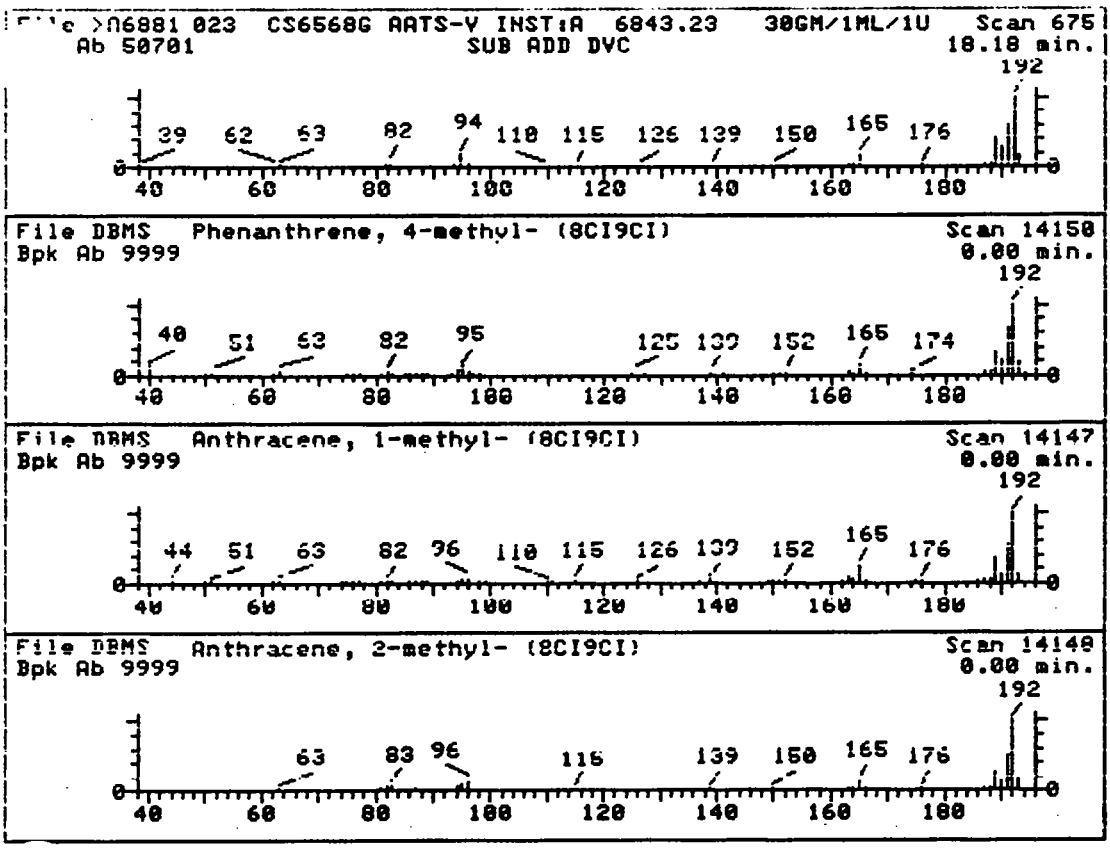
Sample: U23 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

Unknown #,6
Area = 540595.0 Tentative Concentration 28.00

1.	Phenanthrene, 4-methyl- (8CI9CI)	192 C15H12
2.	1H-Indene, 1-phenyl- (9CI)	192 C15H12
3.	1H-Indene, 2-phenyl- (9CI)	192 C15H12
4.	Phenanthrene, 3-methyl- (8CI9CI)	192 C15H12
5.	Phenanthrene, 1-methyl- (8CI9CI)	192 C15H12
6.	Anthracene, 2-methyl- (8CI9CI)	192 C15H12
7.	Phenanthrene, 2-methyl- (8CI9CI)	192 C15H12

Sample file: >A6881 Spectrum #: 668
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.	83*	832644	23934	DBMS	70	46	2	0	93	9	54	50
2.	81*	1961962	23938	DBMS	62	45	2	0	100	8	53	40
3.	76*	4505480	23940	DBMS	53	55	2	0	100	10	45	28
4.	76*	832713	23936	DBMS	53	58	2	0	100	6	45	28
5.	76*	832699	23935	DBMS	49	60	2	0	100	6	45	24
6.	75*	613127	23932	DBMS	70	46	1	0	69	17	35	69
7.	70*	2531842	23939	DBMS	44	65	2	0	100	9	42	14



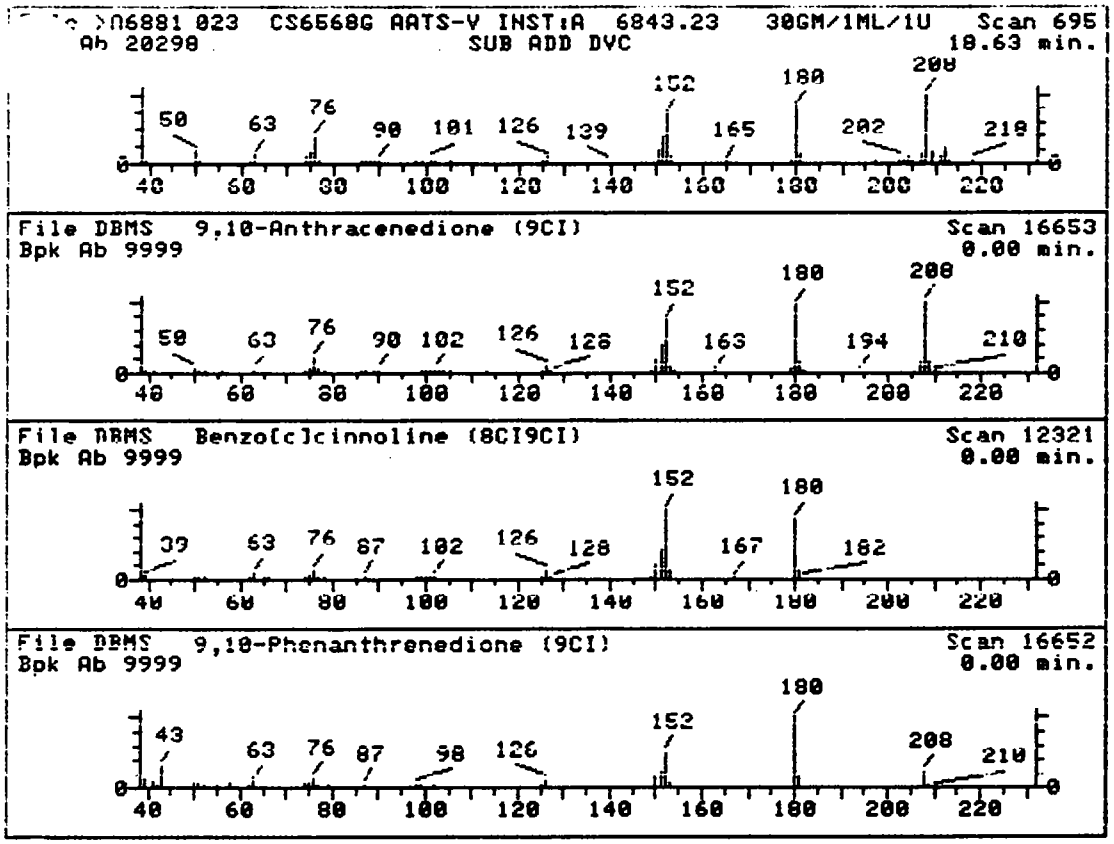
Sample: U23 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

Unknown #.7
Area = 1112716. Tentative Concentration is 57.00

1.	Phenanthrene, 4-methyl- (8CI9CI)	192 C15H12
2.	Anthracene, 1-methyl- (8CI9CI)	192 C15H12
3.	Anthracene, 2-methyl- (8CI9CI)	192 C15H12
4.	1H-Indene, 1-phenyl- (9CI)	192 C15H12
5.	Phenanthrene, 9-methyl- (8CI9CI)	192 C15H12
6.	9H-Fluorene, 9-ethylidene- (9CI)	192 C15H12
7.	1H-Indene, 2-phenyl- (9CI)	192 C15H12

Sample file: >A6881 Spectrum #: 675
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.	64*	832644	23934	DBMS	65	51	2	0	89	24	28	44
2.	54*	610480	23931	DBMS	57	61	2	0	70	26	24	34
3.	50*	613127	23932	DBMS	53	63	2	0	89	26	19	29
4.	40*	1961962	23938	DBMS	50	57	2	0	100	31	18	29
5.	37*	883205	23937	DBMS	38	71	2	0	98	30	14	14
6.	36*	7151646	23941	DBMS	44	76	3	0	95	29	14	13
7.	34*	4505480	23940	DBMS	38	70	1	0	90	39	14	21



Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

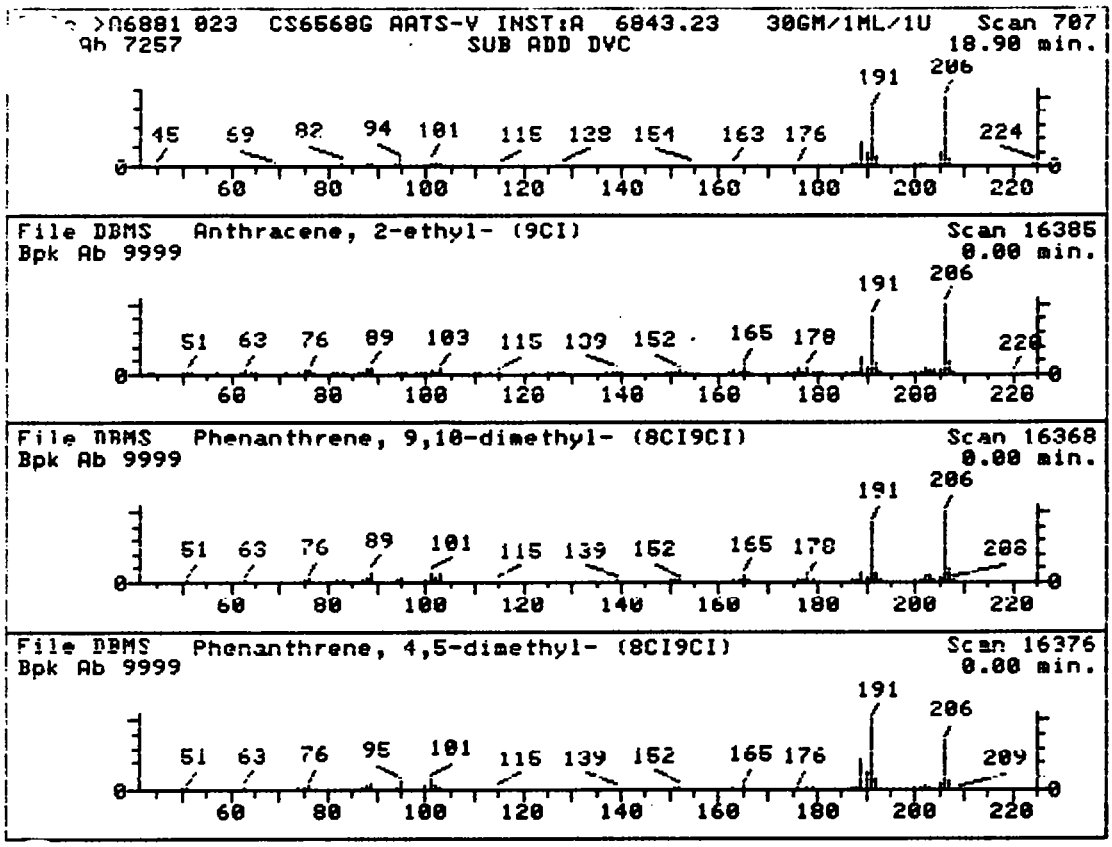
Unknown #,8
Area = 542941.0 Tentative Concentration is 28.00

1.	9,10-Anthracenedione (9CI)	208 C14H8O2
2.	Benzo[c]cinnoline (8CI9CI)	180 C12H8N2
3.	9,10-Phenanthrenedione (9CI)	208 C14H8O2
4.	1,4-Anthracenedione (8CI9CI)	208 C14H8O2
5.	9H-Fluoren-9-one (9CI)	180 C13H8O
6.	1,3-Benzenedicarboxaldehyde, 2,4-dihydroxy-6-methyl- (9CI)	180 C9H8O4
7.	Naphthalene, 2-(1-cyclohexen-1-yl)- (9CI)	208 C16H16

Sample file: >A6881 Spectrum #: 695
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.	97*	84651	25650	DBMS	125	10	0	0	85	21	53	99
2.	64*	230171	22622	DBMS	91	20	1	0	66	53	25	89
3.	48*	84117	22674	DBMS	61	62	0	0	79	52	16	66
4.	25*	635121	25651	DBMS	28	111	3	0	78	43	8	13
5.	23*	486259	22625	DBMS	44	60	0	0	82	59	6	49
6.	20*	10209571	22667	DBMS	32	82	3	0	76	54	5	13

7.	20*	9460/033	25671	DBMS	23	119	3	0	100	91	9	12



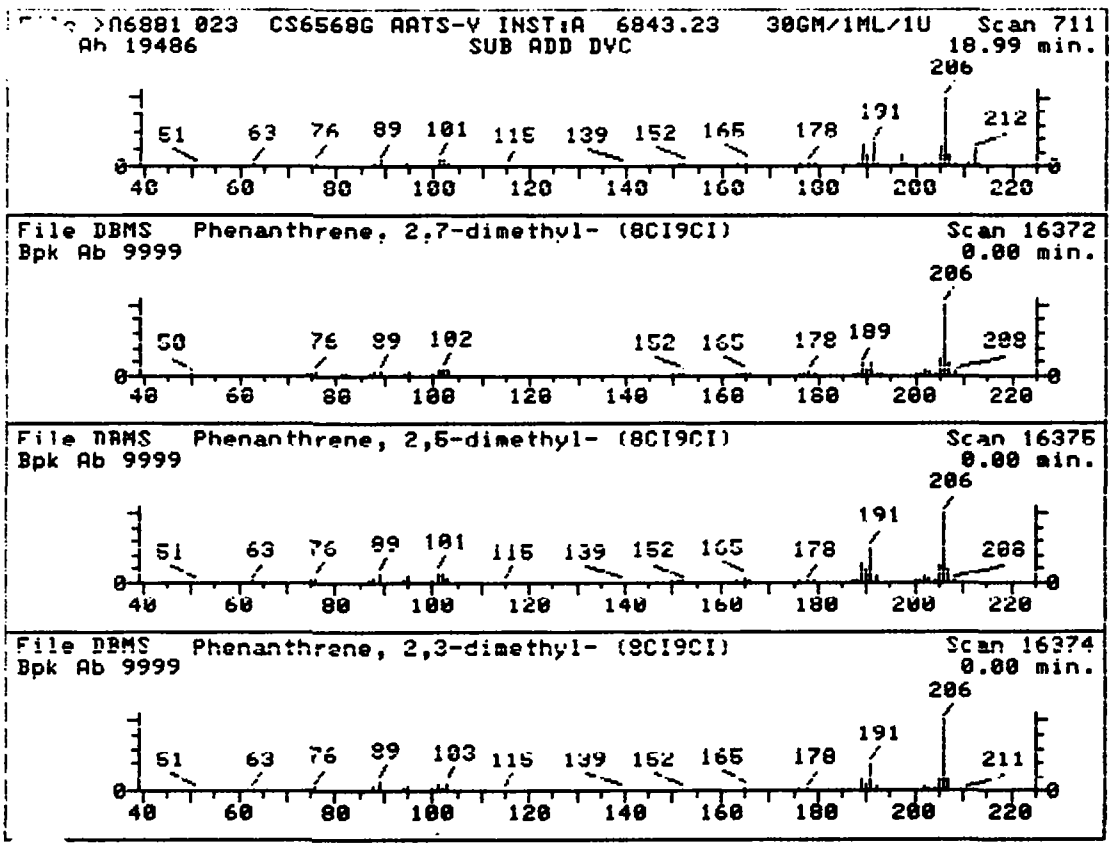
Sample: U23 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

Unknown #,9
Area = 186411.0 Tentative Concentration is 10.00

1.	Anthracene, 2-ethyl- (9CI)	206	C16H14
2.	Phenanthrene, 9,10-dimethyl- (8CI9CI)	206	C16H14
3.	Phenanthrene, 4,5-dimethyl- (8CI9CI)	206	C16H14
4.	Phenanthrene, 2,3-dimethyl- (8CI9CI)	206	C16H14
5.	Ethanone, 1-(3-butyl-2-hydroxy-5-methylphenyl)- (9CI	206	C13H18O2
6.	Phenanthrene, 9-ethyl- (8CI9CI)	206	C16H14
7.	9H-Purine, 6-methyl-9-(trimethylsilyl)- (8CI9CI)	206	C9H14N4Si

Sample File: >A6881 Spectrum #: 707
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

	Prob.	CAS #	CON #	ROOT	K	OK	#FLG	TILT	%	CON	C_I	R_IV
1.	60*	52251715	25464	DBMS	32	98	3	0	97	13	30	13
2.	52*	604831	25448	DBMS	32	99	3	0	98	19	20	13
3.	43*	3674699	25456	DBMS	50	85	3	0	82	23	17	14
4.	30*	3674655	25454	DBMS	30	100	3	0	100	31	12	13
5.	30*	54932808	25434	DBMS	26	104	3	0	82	32	12	13
6.	28*	3674757	25458	DBMS	25	108	2	0	61	38	10	14
7.	25*	32865795	25479	DBMS	25	104	3	0	82	44	8	13



Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

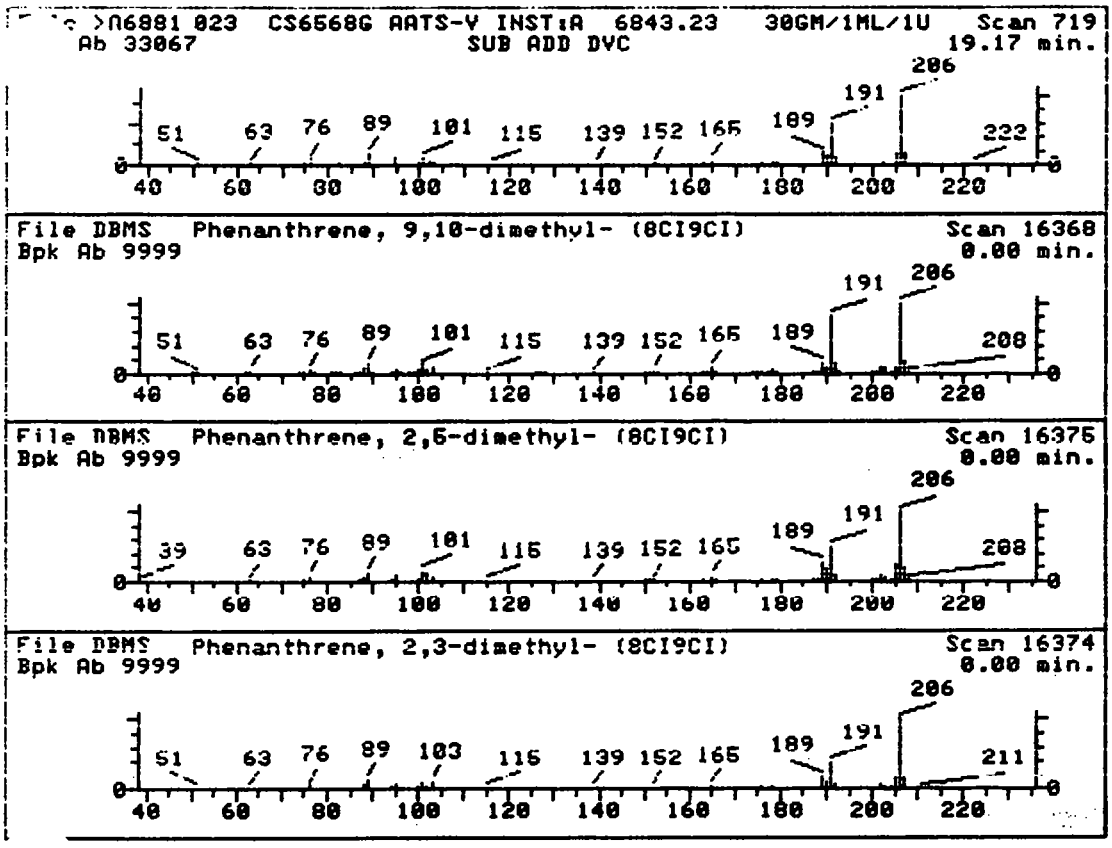
Unknown #,10
Area = 274769.0 Tentative Concentration is 14.00

1.	Phenanthrene, 2,7-dimethyl- (8CI9CI)	206	C16H14
2.	Phenanthrene, 2,5-dimethyl- (8CI9CI)	206	C16H14
3.	Phenanthrene, 2,3-dimethyl- (8CI9CI)	206	C16H14
4.	Benzene, 1,1'-(1-cyclobutene-1,2-diyl)bis- (9CI)	206	C16H14
5.	Naphthalene, 1,2-dihydro-4-phenyl- (8CI9CI)	206	C16H14
6.	Benzoic acid, p-[[(dimethylamino)methylene]amino]-, methyl ester (8CI)	206	C11H14N2O2
7.	Indeno[2,1-a]indene, 4b,5,9b,10-tetrahydro-, cis- (8CI9CI)	206	C16H14

Sample file: >A6881 Spectrum #: 711
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.	69*	15/6698	25452	DBMS	82	40	2	0	97	32	26	44
2.	56*	3674666	25455	DBMS	66	66	1	0	52	50	14	30
3.	54*	3674655	25454	DBMS	61	69	2	0	73	32	20	38
4.	42*	3306023	25453	DBMS	25	125	3	0	100	25	17	13
5.	35*	7469401	25460	DBMS	23	120	3	0	100	30	14	12

6.	90*	29590187	29416	DBMS	98	99	9	0	100	99	12	19
7.	27*	16293791	25461	DBMS	38	100	3	0	100	37	10	13



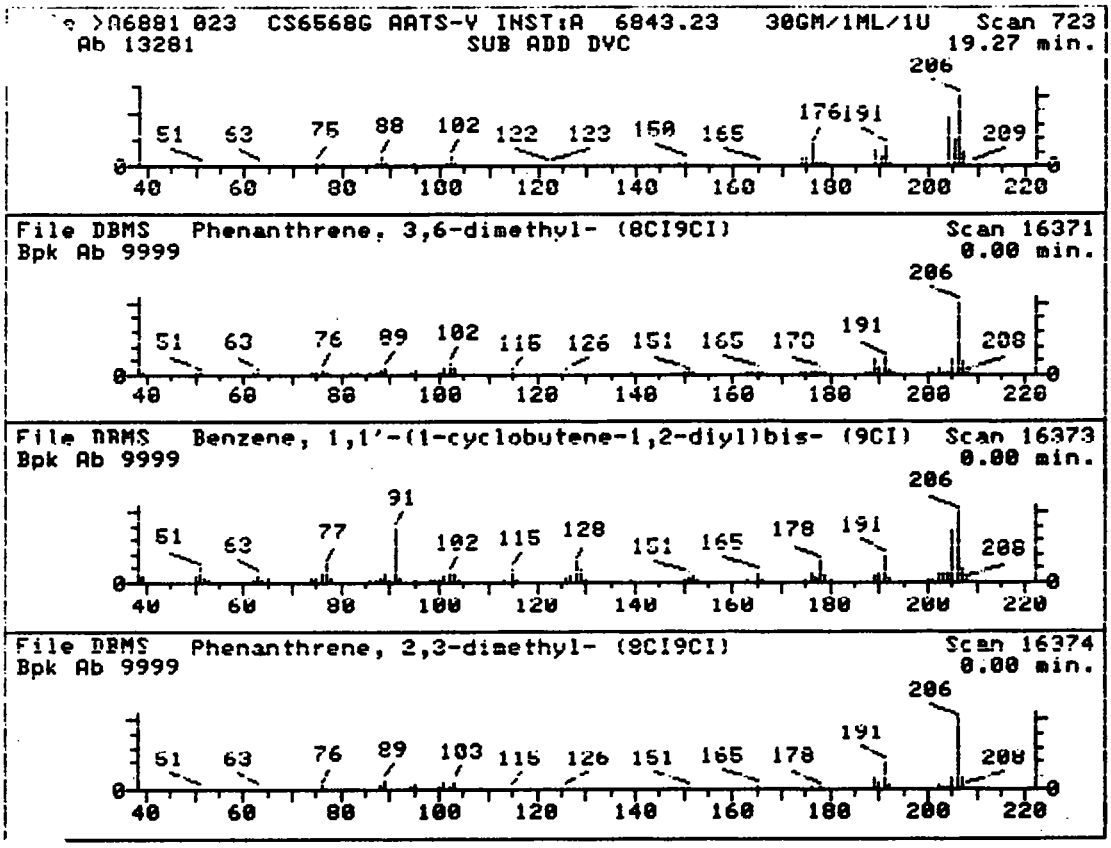
Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

Unknown #.11
Area = 692729.0 Tentative Concentration is 36.00

1.	Phenanthrene, ~~9,10~~-dimethyl- (8CI9CI)	206	C16H14
2.	Phenanthrene, 2,5-dimethyl- (8CI9CI)	206	C16H14
3.	Phenanthrene, 2,3-dimethyl- (8CI9CI)	206	C16H14
4.	Anthracene, 2-ethyl- (9CI)	206	C16H14
5.	Phenanthrene, 3,6-dimethyl- (8CI9CI)	206	C16H14
6.	Phenanthrene, 2,7-dimethyl- (8CI9CI)	206	C16H14
7.	Indeno[2,1-a]indene, 4b,5,9b,10-tetrahydro-, cis- (8CI9CI)	206	C16H14

Sample file: >A6881 Spectrum #: 719
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	OK	#FLG	TILT	%	CON	C_I	R_IV
1.	84*	604831	25448	DBMS	79	52	2	0	71	10	55	60
2.	83*	3674666	25455	DBMS	94	38	2	0	68	13	51	72
3.	83*	3674655	25454	DBMS	93	37	2	0	94	13	5[illegible]	
4.	83*	52251715	25464	DBMS	74	56	2	0	71	8	54	56
5.	79*	1576676	25451	DBMS	86	44	2	0	86	13	43	66
6.	59*	1576698	25452	DBMS	58	64	2	0	77	22	27	35



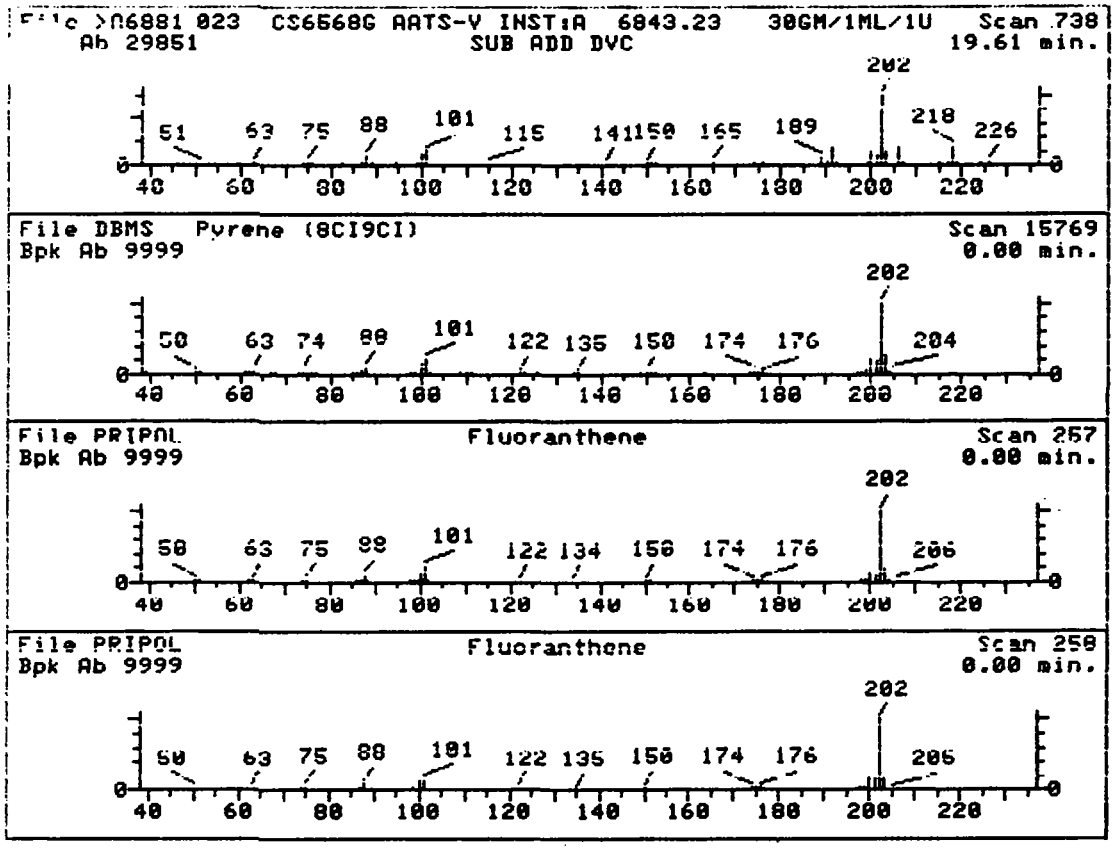
Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

Unknown #,12
Area = 323743.0 Tentative Concentration is 17.00

1.	Phenanthrene, 3,6-dimethyl- (8CI9CI)	206	C16H14
2.	Benzene, 1,1'-(1-cyclobutene-1,2-diyl)bis- (9CI)	206	C16H14
3.	Phenanthrene, 2,3-dimethyl- (8CI9CI)	206	C16H14
4.	Phenanthrene, 2,7-dimethyl- (8CI9CI)	206	C16H14
5.	Fluoranthene, 1,2,3,10b-tetrahydro- (8CI9CI)	206	C16H14
6.	Phenanthrene, 2-ethyl- (8CI)	206	C16H14
7.	Naphthalene, 1,2-dihydro-4-phenyl- (8CI9CI)	206	C16H14

Sample file: >A6881 Spectrum #: 723
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.	53*	1576676	25451	DBMS	60	70	2	0	89	34	20	37
2.	36*	3306023	25453	DBMS	33	117	3	0	100	29	14	13
3.	33*	3674655	25454	DBMS	48	82	2	0	77	39	10	19
4.	31*	1576698	25452	DBMS	43	79	2	0	100	35	12	14
5.	30*	20279214	25463	DBMS	25	106	3	0	145	33	12	13
6.	30*	3674746	25457	DBMS	25	113	3	0	127	31	12	13
7.	27*	7469401	25460	DBMS	26	117	3	0	100	37	10	13



UNKNOWN NA

Sample: U23 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

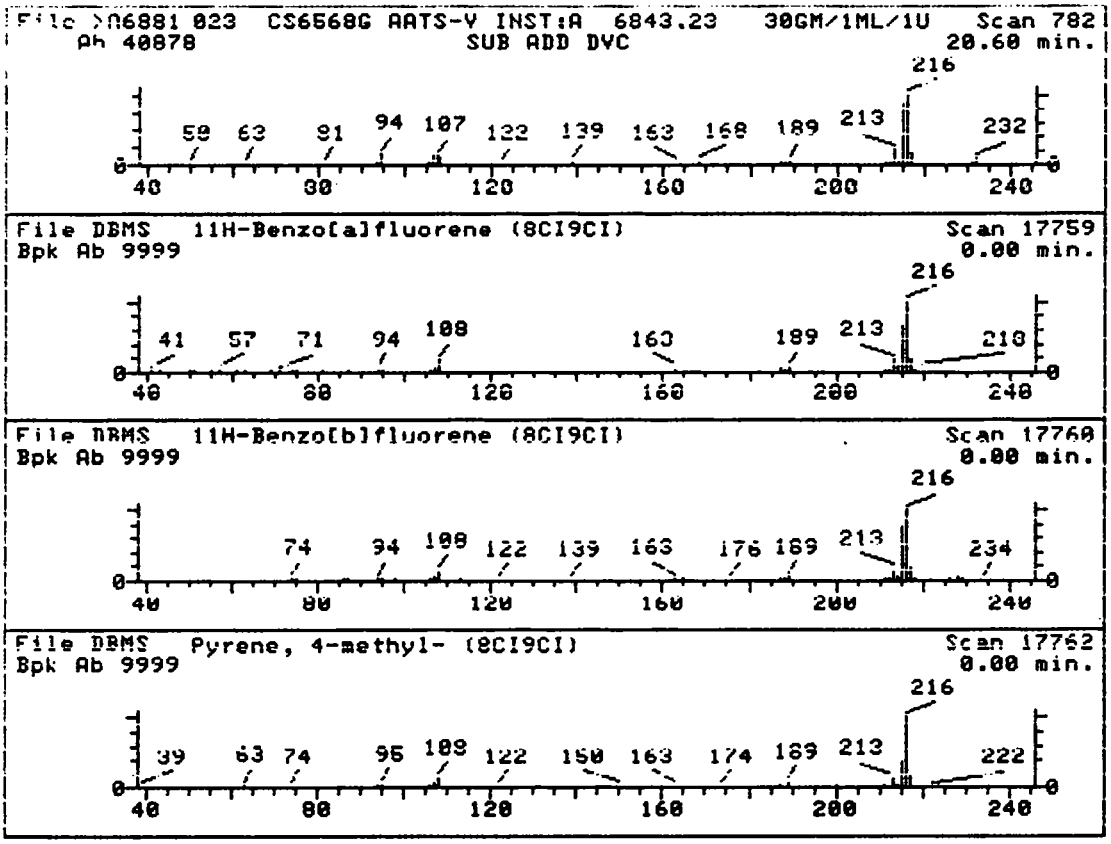
Unknown #.13
Area = 304537.0 Tentative Concentration is 16.00

1.	Pyrene (8CI9CI)	202 C16H10
2.	Fluoranthene	202 C16H10
3.	Fluoranthene	202 C16H10
4.	Fluoranthene (8CI9CI)	202 C16H10
5.	Pyrene	202 C16H10
6.	Fluoranthene	202 C16H10
7.	Fluoranthene	202 C16H10

Sample file: >A6881 Spectrum #: 738
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROOT	K	UK	#FLG	TILT	%	CON	C_I	R_IV
.	92*	129000	25069	DBMS	92	22	0	0	74	31	50	96
2.	88*	257	351	PRIPOL	77	35	0	0	96	40	47	93
3.	87*	258	352	PRIPOL	73	39	0	0	84	37	47	92
4.	87*	206440	25070	DBMS	73	40	0	0	99	40	47	93
5.	85*	249	344	PRIPOL	78	36	0	0	85	42	43	93
6.	76*	262	356	PRIPOL	67	42	0	0	100	40	37	80
7.	69*	259	353	PRIPOL	84	31	2	0	100	33	26	65

0471



UNKNOWN PNA

Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

Unknown #,14
Area = 678376.0 Tentative Concentration is 17.00

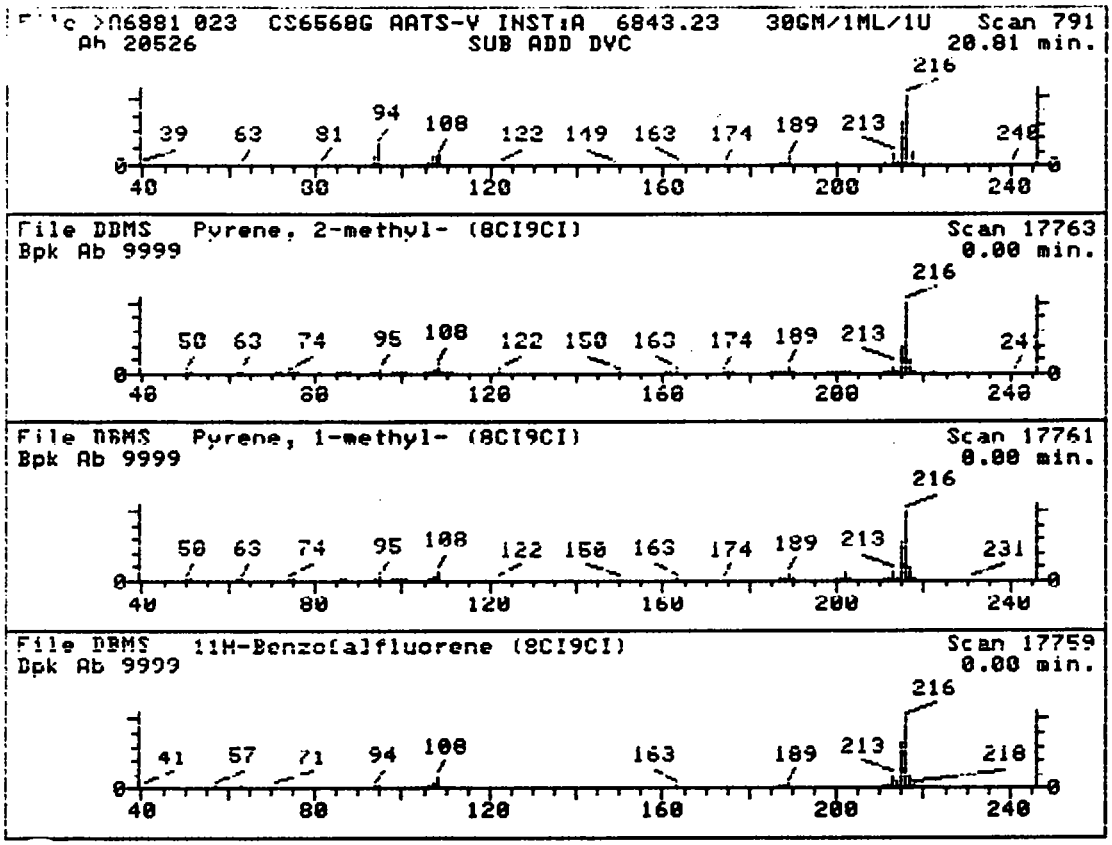
1.	11H-Benzo[a]fluorene (8CI9CI)	216	C17H12
2.	11H-Benzo[b]fluorene (8CI9CI)	216	C17H12
3.	Pyrene, 4-methyl- (8CI9CI)	216	C17H12
4.	Pyrene, 1-methyl- (8CI9CI)	216	C17H12
5.	Pyrene, 2-methyl- (8CI9CI)	216	C17H12
6.	7H-Benzo[c]fluorene (8CI9CI)	216	C17H12
7.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy 1- (8CI9CI)	216	C12H8O4

Sample file: >A6881 Spectrum #: 782
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.	83*	238846	26426	DBMS	75	45	2	0	92	7	54	57
2.	76*	243174	26427	DBMS	76	45	2	0	87	12	40	59
3.	38*	3353126	26429	DBMS	51	67	2	0	84	40	10	14
4.	31*	2381217	26428	DBMS	41	84	2	0	80	31	12	14
5.	28*	3442782	26430	DBMS	40	79	2	0	85	40	10	14
6.	25	205129	26425	DBMS	51	12	2	0	754	46	7	17

0472

7.	15*	4481601	26385	DBMS	28	87	3	0	100	99	3	13



UNKNOWN

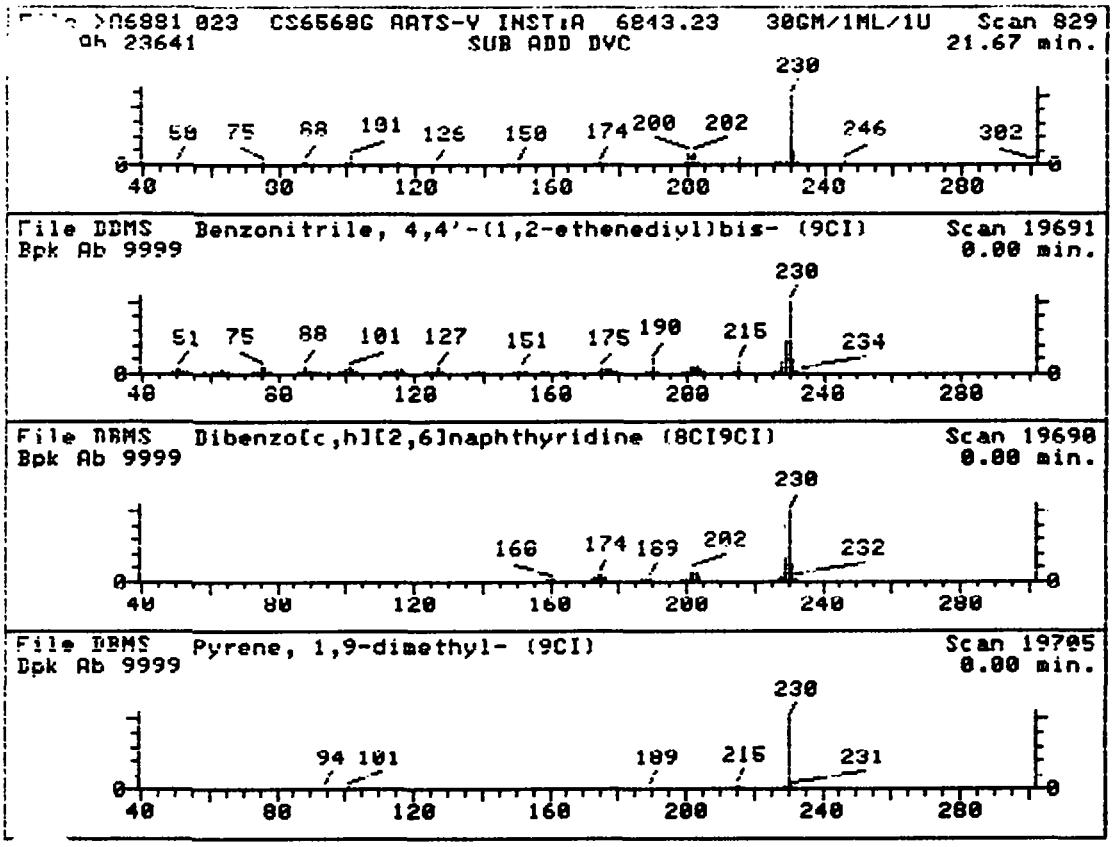
Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

Unknown #,15
Area = 287159.0 Tentative Concentration is 7.00

1.	Pyrene, 2-methyl- (8CI9CI)	216	C17H12
2.	Pyrene, 1-methyl- (8CI9CI)	216	C17H12
3.	11H-Benzo[a]fluorene (8CI9CI)	216	C17H12
4.	Pyrene, 4-methyl- (8CI9CI)	216	C17H12
5.	11H-Benzo[b]fluorene (8CI9CI)	216	C17H12
6.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy l- (8CI9CI)	216	C12H8O4
7.	Phenol, o-(o-methoxyphenoxy)- (8CI)	216	C13H12O3

Sample File: >A6881 Spectrum #: 791
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
1.	84*	3442782	26430	DBMS	87	32	2	0	100	10	55	66
2.	84*	2381217	26428	DBMS	86	39	2	0	100	7	55	66
3.	76*	238846	26426	DBMS	71	49	2	0	92	13	40	52
4.	75*	3353126	26429	DBMS	87	31	2	0	100	20	55	66
5.	70*	243174	26427	DBMS	71	50	2	0	79	16	32	52
6.	25*	4481601	26385	DBMS	28	87	3	0	100	46	7	13



UNKNOWN

Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

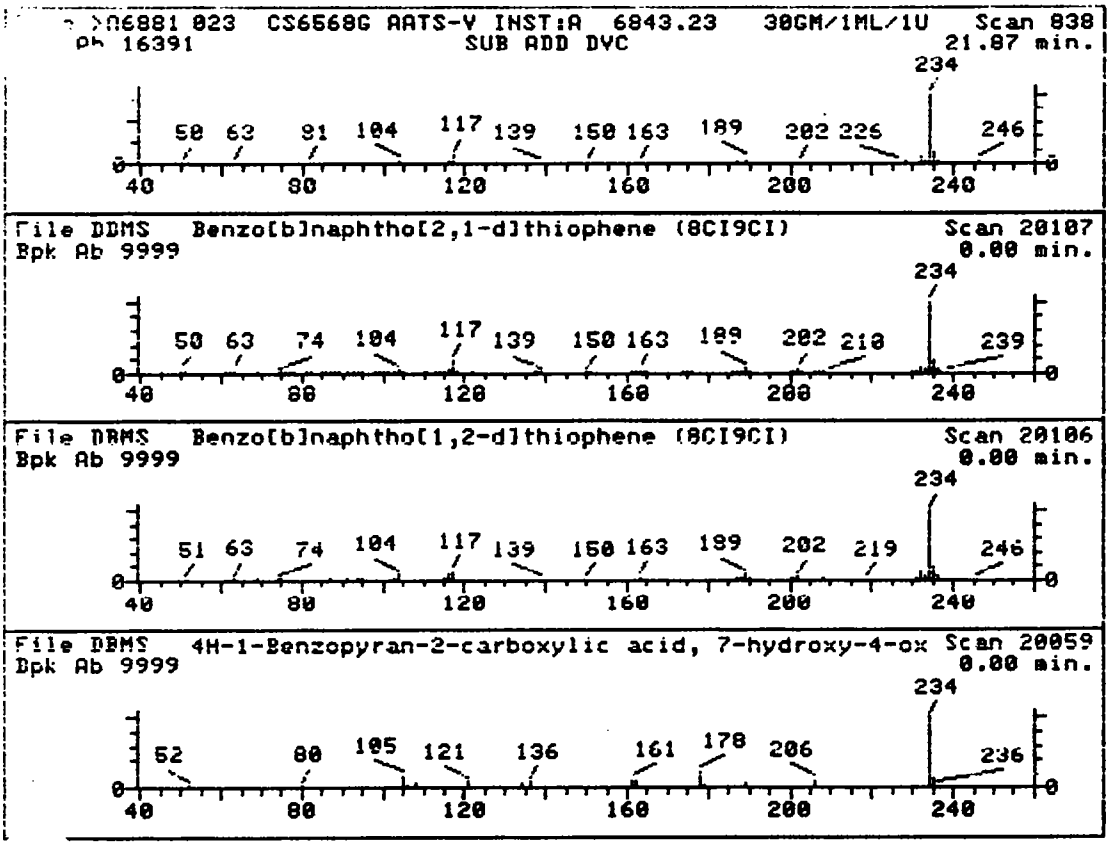
Unknown #,16
Area = 271603.0 Tentative Concentration is 7.00

1.	Benzonitrile, 4,4'-(1,2-ethenediyl)bis- (9CI)	230	C16H10N2
2.	Dibenzo[c,h][2,6]naphthyridine (8CI9CI)	230	C16H10N2
3.	Pyrene, 1,9-dimethyl- (9CI)	230	C18H14
4.	Terphenyl (8CI9CI)	230	C18H14
5.	1,1':3',1''-Terphenyl (9CI)	230	C18H14
6.	1,1':4',1''-Terphenyl (9CI)	230	C18H14
7.	Benzene, (2,4-cyclopentadien-1-ylidenephenylmethyl)- (9CI)	230	C18H14

Sample file: >A6881 Spectrum #: 829
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.	70*	6292622	27528	DBMS	37	99	3	0	100	9	42	13
2.	67*	218304	27527	DBMS	51	75	2	0	84	14	34	25
3.	64*	74298707	27536	DBMS	57	40	0	0	67	42	18	49
4.	52*	26140603	27535	DBMS	34	82	2	0	100	20	20	14
5.	52*	92068	27531	DBMS	35	83	2	0	100	18	20	14
6.	52*	92944	27532	DBMS	29	91	2	0	100	20	20	14

7.	52*	21759908	27999	DBMS	24	192	3	0	100	18	20	12



UNKNOWN pNA

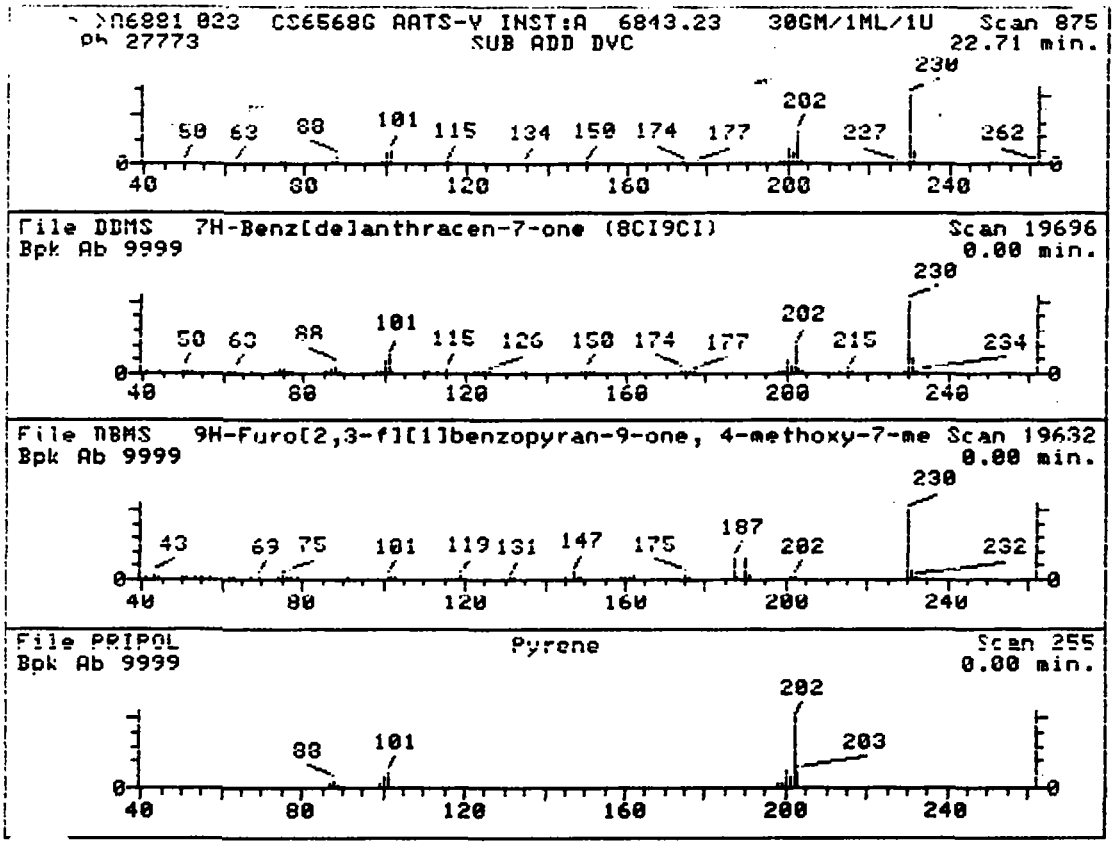
Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

Unknown #,17
Area = 231170.0 Tentative Concentration is 6.00

1. Benzo[b]naphtho[2,1-d]thiophene (8CI9CI) 234 C16H10S
2. Benzo[b]naphtho[1,2-d]thiophene (8CI9CI) 234 C16H10S
3. 4H-1-Benzopyran-2-carboxylic acid, 7-hydroxy-4-oxo-, ethyl ester (8CI9CI) 234 C12H10O5

Sample file: >A6881 Spectrum #: 838
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.	79*	239350	27899	DBMS	84	34	2	0	71	11	43	65
2.	74*	205436	27898	DBMS	65	57	2	0	88	11	39	44
	35*	23866720	27875	DBMS	24	93	3	0	100	28	14	12



UNKNOWN PYR

Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

Unknown #,18
Area = 259327.0 Tentative Concentration is 7.00

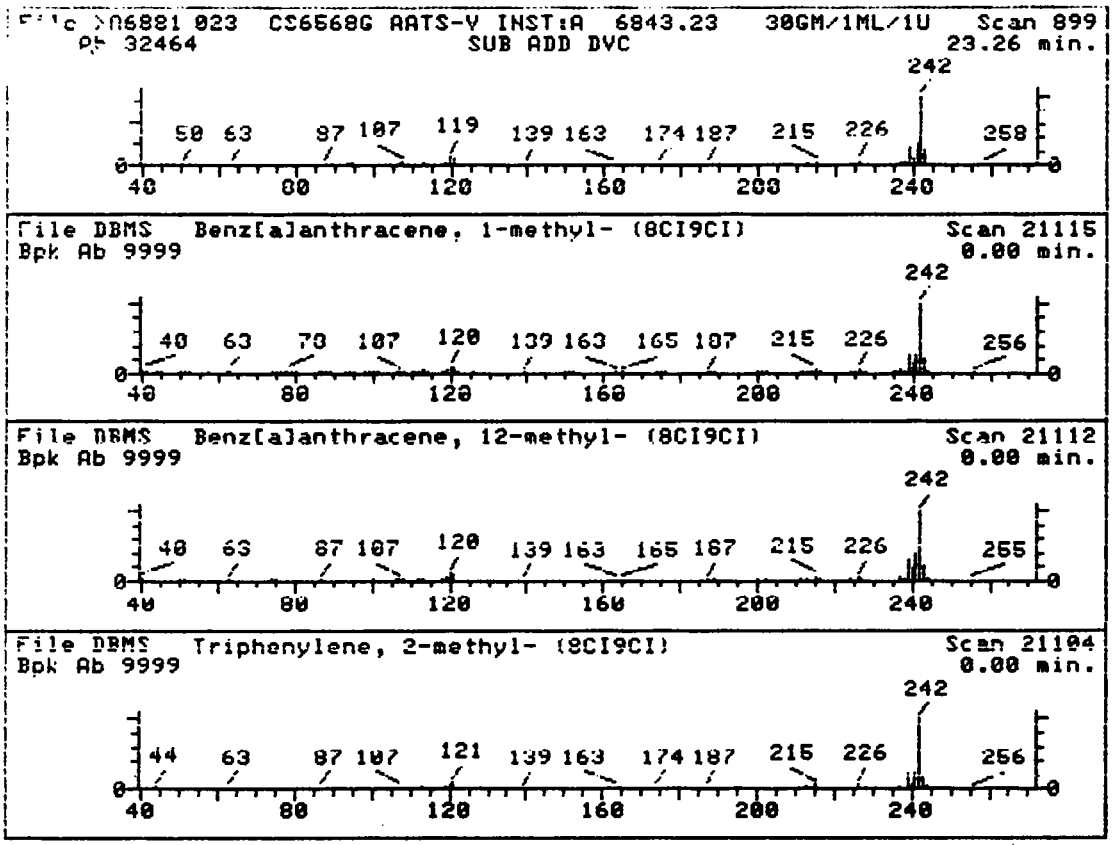
1.	7H-Benz[de]anthracen-7-one (8CI9CI)	230 C17H10O
2.	9H-Furo[2,3-f][1]benzopyran-9-one, 4-methoxy-7-methy l- (8CI9CI)	230 C13H10O4
3.	Pyrene	202 C16H10
4.	Pyrene	202 C16H10
5.	Pyrene	202 C16H10
6.	Fluoranthene	202 C16H10
7.	Pyrene (8CI9CI)	202 C16H10

Sample File: >A6881 Spectrum #: 875
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.	75*	82053	27529	DBMS	84	44	2	0	80	17	35	65
2.	20*	1/226765	27506	DBMS	22	101	3	0	100	52	5	12
3.	11*	255	350	PRIPOL	34	43	2	0	48	63	2	14
4.	11*	254	349	PRIPOL	20	46	1	0	44	65	2	14
5.	11*	252	347	PRIPOL	35	62	1	0	48	63	2	19
6.	11*	259	353	PRIPOL	35	62	1	0	48	65	2	19

0476

7.	11*	129000	25069	DBMS	31	65	1	0	48	62	2	17



UNKNOWN #19

Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

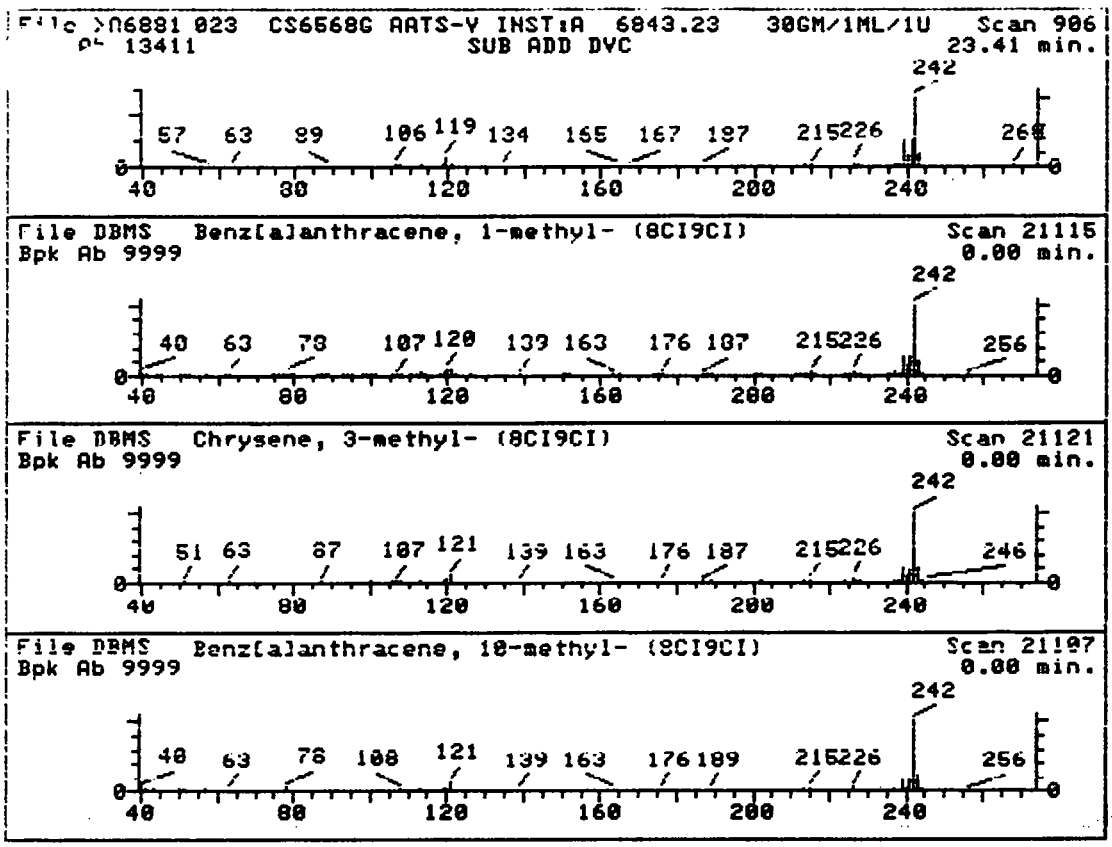
Unknown #.19
Area = 310200.0 Tentative Concentration is 8.00

1.	Benz[a]anthracene, 1-methyl- (8CI9CI)	242	C19H14
2.	Benz[a]anthracene, 12-methyl- (8CI9CI)	242	C19H14
3.	Triphenylene, 2-methyl- (8CI9CI)	242	C19H14
4.	Chrysene, 3-methyl- (8CI9CI)	242	C19H14
5.	Benz[a]anthracene, 8-methyl- (8CI9CI)	242	C19H14
6.	Chrysene, 5-methyl- (8CI9CI)	242	C19H14
7.	Benz[a]anthracene, 2-methyl- (8CI9CI)	242	C19H14

Sample File: >A6881 Spectrum #: 899
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.	95*	2498773	28574	DBMS	103	26	1	0	82	7	68	95
2.	95*	2422799	28571	DBMS	99	34	1	0	74	7	68	94
3.	93*	1705846	28563	DBMS	94	36	1	0	92	7	68	92
4.	92*	3351313	28580	DBMS	92	33	1	0	89	13	64	92
5.	86*	2381319	28569	DBMS	88	37	1	0	80	20	50	87
6.	84*	3697243	28581	DBMS	82	53	2	0	97	7	55	63
7.	83*	2498762	28573	DBMS	81	44	1	0	90	13	51	77

0477



UNKNOWN PAH

Sample: 023 CS6568G AATS-V Operator: AATS MS 8/14/91 2:58

Unknown #,20
Area = 213256.0 Tentative Concentration is 5.00

1.	Benz[a]anthracene, 1-methyl- (8CI9CI)	242	C19H14
2.	Chrysene, 3-methyl- (8CI9CI)	242	C19H14
3.	Benz[a]anthracene, 10-methyl- (8CI9CI)	242	C19H14
4.	Benz[a]anthracene, 2-methyl- (8CI9CI)	242	C19H14
5.	Benz[a]anthracene, 3-methyl- (8CI9CI)	242	C19H14
6.	Benzo[c]phenanthrene, 4-methyl- (8CI9CI)	242	C19H14
7.	Chrysene, 5-methyl- (8CI9CI)	242	C19H14

Sample File: >A6881 Spectrum #: 906
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROUT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
.	63*	2498773	28574	DBMS	60	69	2	0	91	16	30	37
2.	59*	3351313	28580	DBMS	55	70	2	0	88	25	27	32
3.	59*	2381159	28566	DBMS	54	69	2	0	90	25	27	31
4.	59*	2498762	28573	DBMS	55	70	2	0	90	25	27	32
5.	59*	2498751	28572	DBMS	55	70	2	0	87	25	27	32
6.	59*	4076408	28583	DBMS	57	78	2	0	89	25	27	34
7.	58*	3697243	28581	DBMS	61	74	3	0	100	16	25	28

0478

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-024

Lab Name: SWL-TULSA Contract:

Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684324

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6882

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 18 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	800	U
111-44-4	bis(2-Chloroethyl)Ether	800	U
95-57-8	2-Chlorophenol	800	U
541-73-1	1,3-Dichlorobenzene	800	U
106-46-7	1,4-Dichlorobenzene	800	U
100-51-6	Benzyl Alcohol	800	U
95-50-1	1,2-Dichlorobenzene	800	U
95-48-7	2-Methylphenol	800	U
108-60-1	bis(2-Chloroisopropyl)ether	800	U
106-44-5	4-Methylphenol	800	U
621-64-7	N-Nitroso-Di-n-Propylamine	800	U
67-72-1	Hexachloroethane	800	U
98-95-3	Nitrobenzene	800	U
78-59-1	Isophorone	800	U
88-75-5	2-Nitrophenol	800	U
105-67-9	2,4-Dimethylphenol	800	U
65-85-0	Benzoic Acid	3900	U
111-91-1	bis(2-Chloroethoxy)Methane	800	U
120-83-2	2,4-Dichlorophenol	800	U
120-82-1	1,2,4-Trichlorobenzene	800	U
91-20-3	Naphthalene	160	J
106-47-8	4-Chloroaniline	800	U
87-68-3	Hexachlorobutadiene	800	U
59-50-7	4-Chloro-3-Methylphenol	800	U
91-57-6	2-Methylnaphthalene	590	J
77-47-4	Hexachlorocyclopentadiene	800	U
88-06-2	2,4,6-Trichlorophenol	800	U
95-95-4	2,4,5-Trichlorophenol	3900	U
91-58-7	2-Chloronaphthalene	800	U
88-74-4	2-Nitroaniline	3900	U
131-11-3	Dimethyl Phthalate	800	U
208-96-8	Acenaphthylene	300	J
606-20-2	2,6-Dinitrotoluene	800	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-024

Lab Name: SWL-TULSA Contract:

Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684324

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6882

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 18 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3900	U
83-32-9	Acenaphthene	180	J
51-28-5	2,4-Dinitrophenol	3900	U
100-02-7	4-Nitrophenol	3900	U
132-64-9	Dibenzofuran	380	J
121-14-2	2,4-Dinitrotoluene	800	U
84-66-2	Diethylphthalate	800	U
7005-72-3	4-Chlorophenyl-phenylether	800	U
86-73-7	Fluorene	1400	
100-01-6	4-Nitroaniline	3900	U
534-52-1	4,6-Dinitro-2-Methylphenol	3900	U
86-30-6	N-Nitrosodiphenylamine (1)	800	U
101-55-3	4-Bromophenyl-phenylether	800	U
118-74-1	Hexachlorobenzene	800	U
87-86-5	Pentachlorophenol	3900	U
85-01-8	Phenanthrene	5800	
120-12-7	Anthracene	890	
84-74-2	Di-n-Butylphthalate	800	U
206-44-0	Fluoranthene	4000	
129-00-0	Pyrene	3700	
85-68-7	Butylbenzylphthalate	800	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)Anthracene	1900	
218-01-9	Chrysene	800	U
117-81-7	bis(2-Ethylhexyl)Phthalate	800	U
117-84-0	Di-n-Octyl Phthalate	800	U
205-99-2	Benzo(b)Fluoranthene	1200	
207-08-9	Benzo(k)Fluoranthene	800	U
50-32-8	Benzo(a)Pyrene	770	J
193-39-5	Indeno(1,2,3-cd)Pyrene	550	J
53-70-3	Dibenz(a,h)Anthracene	240	J
191-24-2	Benzo(g,h,i)Perylene	130	J

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-024

Lab Name: SWL-TULSA Contract:

Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684324

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6882

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 18 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

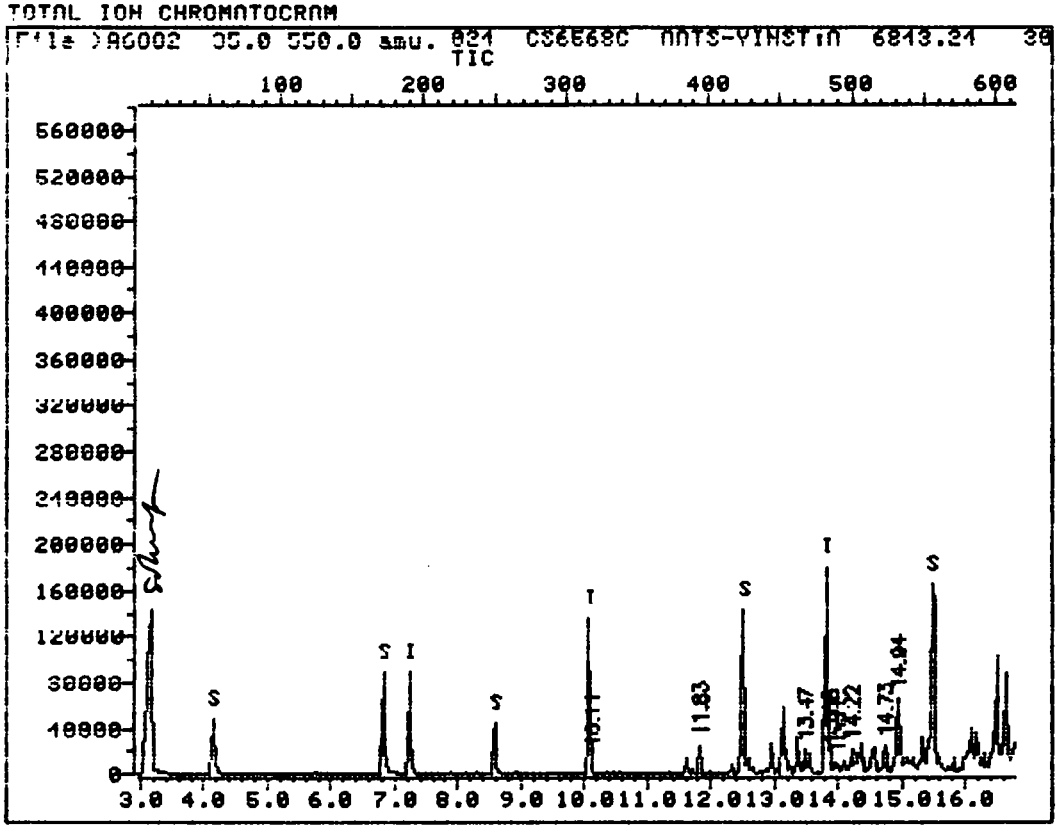
GPC Cleanup: (Y/N) Y pH: 7.3 Dilution Factor: 1.0

Number TICs found: 19

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		NAPHTHALENE, DIMETHYL-	13.14	1100	J
2.	132650	Dibenzothiophene (8CI9CI)	16.64	890	J
3.		Dibenzothiophene, methyl-	17.59	1400	J
4.		PHENANTHRENE, METHYL-	17.97	2300	J
5.		PHENANTHRENE, METHYL-	18.02	1400	J
6.		ANTHRACENE, METHYL-	18.19	2300	J
7.		ANTHRACENE, METHYL-	18.24	1100	J
8.	84651	9,10-Anthracenedione (9CI)	18.62	2000	J
9.		PHENANTHRENE, DIMETHYL-	18.99	650	J
10.		PHENANTHRENE, DIMETHYL-	19.17	1500	J
11.		UNKNOWN COMPOUND	19.29	1100	J
12.		UNKNOWN PNA	20.59	810	J
13.		PYRENE, METHYL-	20.79	570	J
14.		PYRENE, METHYL-	20.97	490	J
15.		UNKNOWN PNA	21.69	410	J
16.		UNKNOWN PNA	21.90	570	J
17.		UNKNOWN PNA	22.12	490	J
18.		UNKNOWN PNA	22.70	410	J
19.		UNKNOWN COMPOUND	27.72	2700	J

TOTAL ION CHROMATOGRAM



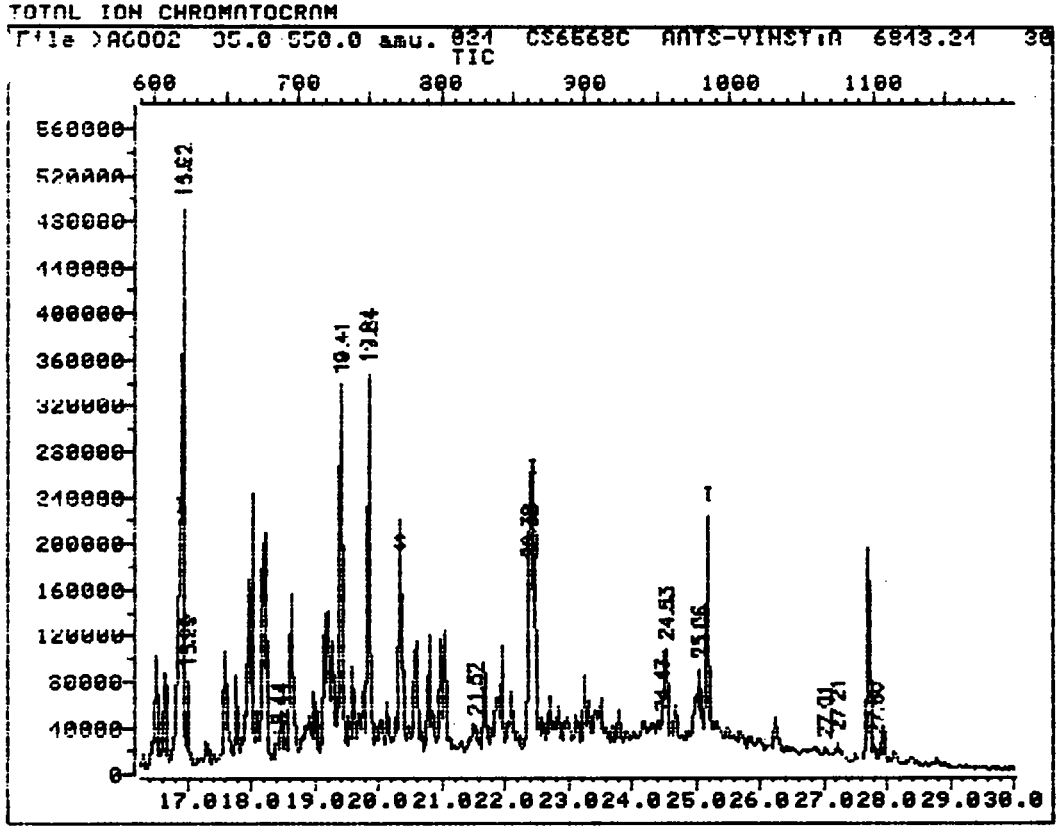
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: AATS
Quant Time: 910814 04:09
Injected at: 910814 03:36

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: AATS
Quant Time: 910814 04:09
Injected at: 910814 03:36

TIC page 2 of 2

QUANT REPORT

Operator ID: AATS Quant Rev: 6 Quant Time: 910814 04:09
Output File: ^A6882::L1 Injected at: 910814 03:36
Data File: >A6882::D9 Dilution Factor: 1.00000
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.23	152.0	35921	40.00	NG/UL	98
14)	CS50 2-FLUOROPHENOL	4.15	112.0	49523	69.04	NG/UL	100
15)	CS45 PHENOL-D5	6.83	99.0	81916	67.82	NG/UL	82
16)	*CI40 NAPHTHALENE-D8	10.07	136.0	139720	40.00	NG/UL	99
25)	C450 NAPHTHALENE	10.11	128.0	6550	1.92	NG/UL FP	97
~~26)~~	~~C455 4-CHLOROANILINE~~	~~10.11~~	~~127.0~~	~~872~~	~~1.11~~	~~NG/UL~~	~~32~~
29)	C470 2-METHYLNAPHTHALENE	11.83	142.0	14910	7.20	NG/UL	93
30)	CS20 NITROBENZENE-D5	8.58	82.0	41149	32.52	NG/UL	76
31)	*CI50 ACENAPHTHENE-D10	13.81	164.0	96235	40.00	NG/UL	96
38)	C540 ACENAPHTHYLENE	13.47	152.0	16052	3.66	NG/UL	87
~~39)~~	~~C543 2,6-DINITROTOLUENE~~	~~13.97~~	~~165.0~~	~~1150~~	~~8.00~~	~~NG/UL~~	~~81~~
41)	C550 ACENAPHTHENE	13.88	153.0	6286	2.21	NG/UL	100
)	C565 DIBENZOFURAN	14.22	168.0	18310	4.64	NG/UL	100
~~)~~	~~C570 2,4-DINITROTOLUENE~~	~~14.73~~	~~165.0~~	~~4169~~	~~4.20~~	~~NG/UL~~	~~73~~
48)	C590 FLUORENE	14.94	166.0	43731	17.23	NG/UL FP	98
~~49)~~	~~C595 4-NITROANILINE~~	~~14.94~~	~~138.0~~	~~384~~	~~.82~~	~~NG/UL~~	~~100~~
50)	CS25 2-FLUOROBIPHENYL	12.50	172.0	104676	35.94	NG/UL	100
51)	CS55 2,4,6-TRIBROMOPHENOL	15.48	330.0	57344	77.87	NG/UL	96
52)	*CI60 PHENANTHRENE-D10	16.86	188.0	181450	40.00	NG/UL	97
58)	C640 PHENANTHRENE	16.92	178.0	389995	71.40	NG/UL	100
59)	C645 ANTHRACENE	16.99	178.0	51331	10.98	NG/UL	100
~~60)~~	~~C650 DI-N-BUTYLPHTHALATE~~	~~18.44~~	~~149.0~~	~~2866~~	~~.40~~	~~NG/UL~~	~~93~~
61)	C655 FLUORANTHENE	19.41	202.0	290565	49.09	NG/UL	100
62)	*CI70 CHRYSENE-D12	22.40	240.0	199827	40.00	NG/UL	95
63)	C715 PYRENE	19.84	202.0	277758	45.77	NG/UL	100
~~64)~~	~~C720 BUTYLBENZYLPHTHALATE~~	~~21.52~~	~~149.0~~	~~793~~	~~.17~~	~~NG/UL~~	~~92~~
66)	C730 BENZO(A)ANTHRACENE	22.38	228.0	124810	22.92	NG/UL	94
~~67)~~	~~C740 CHRYSENE~~	~~22.38~~	~~228.0~~	~~124810~~	~~22.92~~	~~NG/UL~~	~~92~~
69)	CS30 TERPHENYL-D14	20.32	244.0	149373	37.14	NG/UL	89
70)	*CI75 PERYLENE-D12	25.17	264.0	158161	40.00	NG/UL	96
~~71)~~	~~C760 DI-N-OCTYLPHTHALATE~~	~~24.47~~	~~149.0~~	~~5349~~	~~.63~~	~~NG/UL~~	~~100~~
72)	C765 BENZO(B)FLUORANTHENE	24.53	252.0	96906	14.95	NG/UL FP	94
~~73)~~	~~C770 BENZO(K)FLUORANTHENE~~	~~24.53~~	~~252.0~~	~~96906~~	~~32.59~~	~~NG/UL~~	~~92~~
74)	C775 BENZO(A)PYRENE	25.06	252.0	34739	9.48	NG/UL	97
75)	C780 INDENO(1,2,3-CD)PYRENE	27.21	276.0	18662	6.75	NG/UL	96
76)	C785 DIBENZ(A,H)ANTHRACENE	27.01	278.0	10008	3.01	NG/UL FP	92
~~77)~~	~~C790 BENZO(G,H,I)PERYLENE~~	~~27.80~~	~~276.0~~	~~4335~~	~~1.57~~	~~NG/UL~~	~~93~~

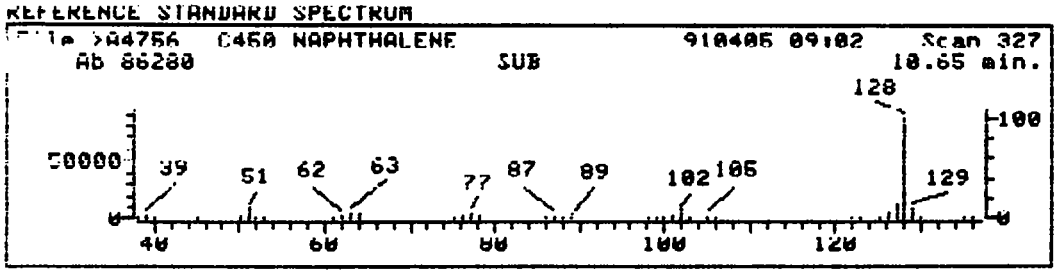
ompound is ISTD

- FALSE POSITIVE

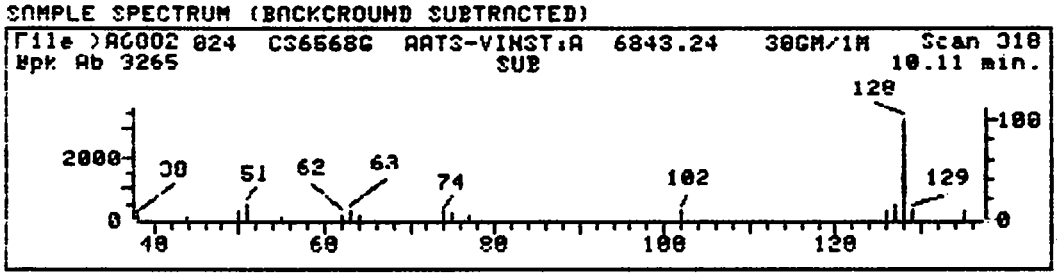
* Total Benzo (B) + (K)

0484

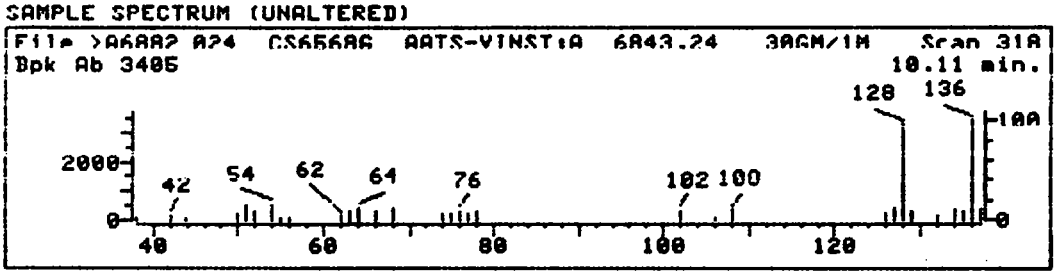
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



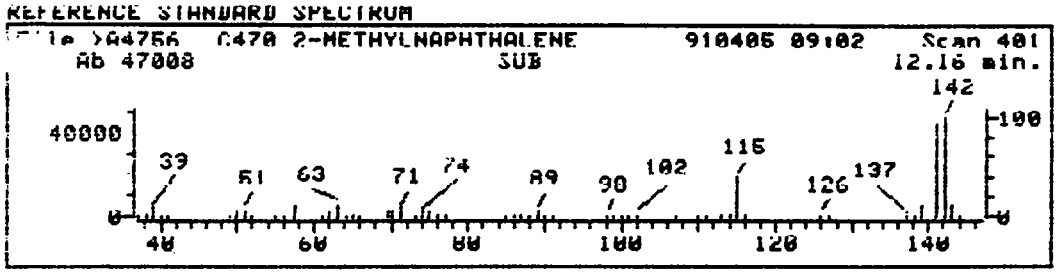
SAMPLE SPECTRUM (UNALTERED)



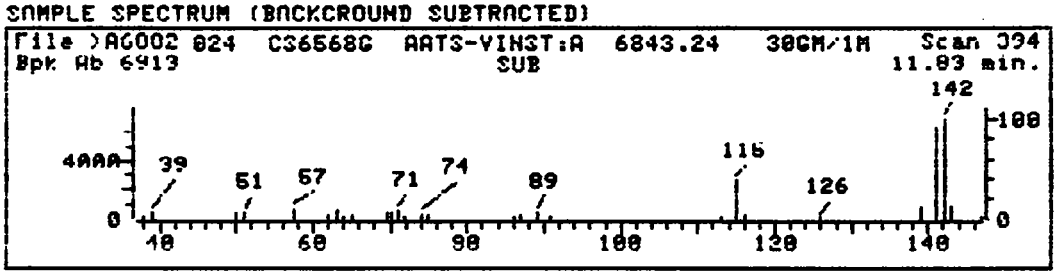
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 25
Compound Name: C450 NAPHTHALENE
Scan Number: 318
Retention Time: 10.11 min.
Quant Ion: 128.0
Area: 6550
Concentration: 1.92 NG/UL
q-value: 97

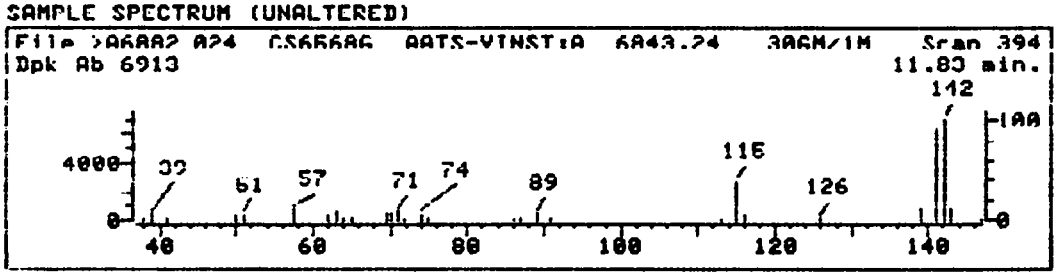
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



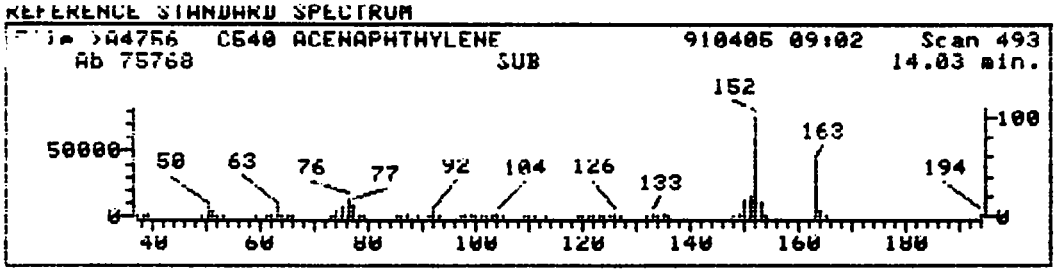
SAMPLE SPECTRUM (UNALTERED)



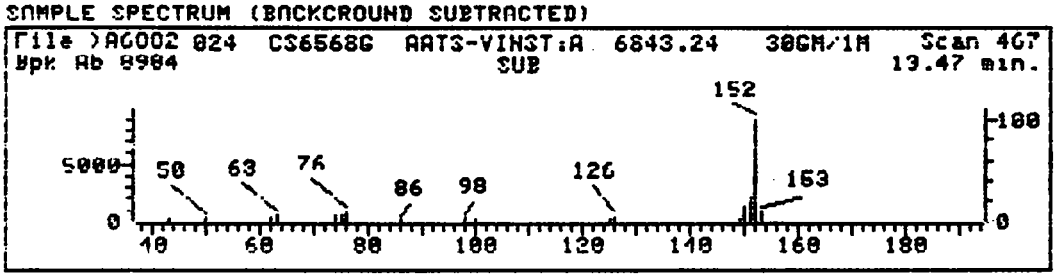
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID_BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 29
Compound Name: C470 2-METHYLNAPHTHALENE
Scan Number: 394
Retention Time: 11.83 min.
Quant Ion: 142.0
Area: 14910
Concentration: 7.20 NG/UL
q-value: 93

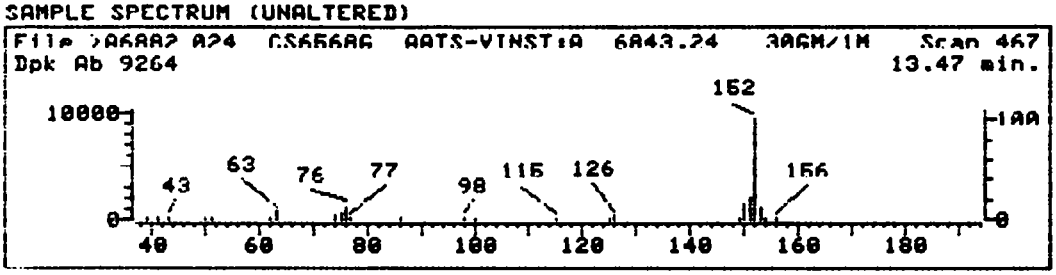
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



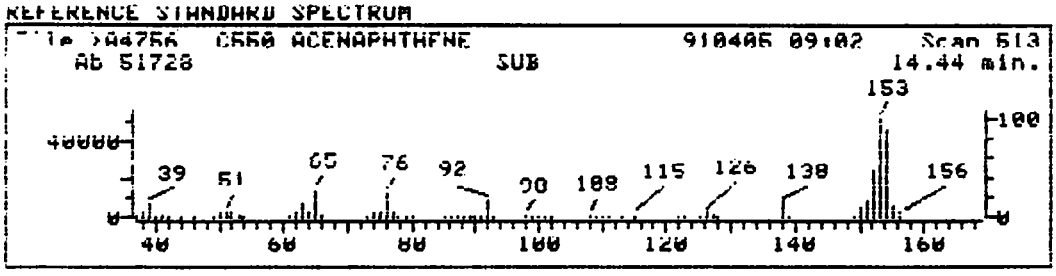
SAMPLE SPECTRUM (UNALTERED)



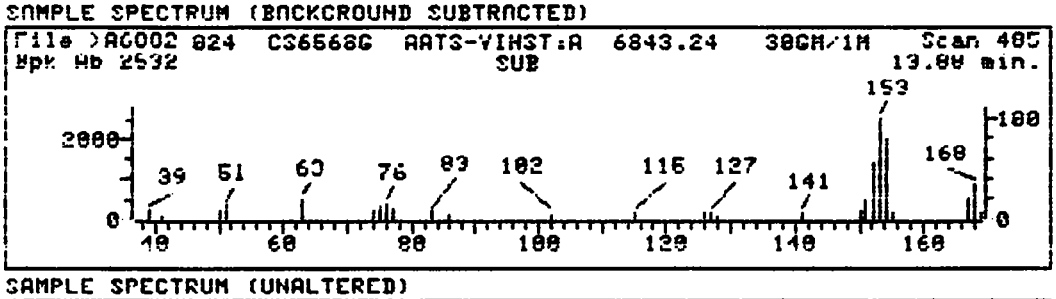
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID_BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 38
Compound Name: C540 ACENAPHTHYLENE
Scan Number: 467
Retention Time: 13.47 min.
Quant Ion: 152.0
Area: 16052
Concentration: 3.66 NG/UL
q-value: 87

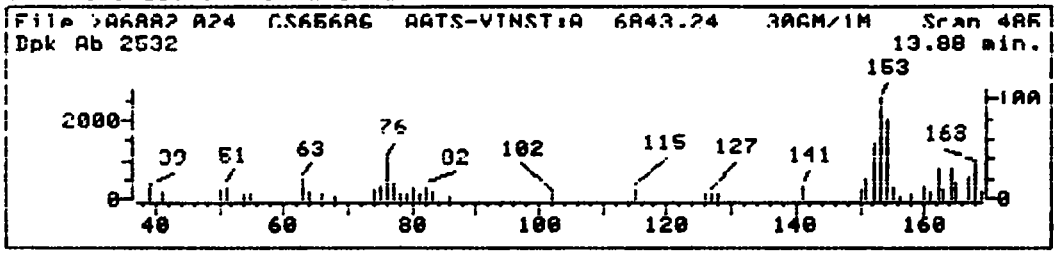
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



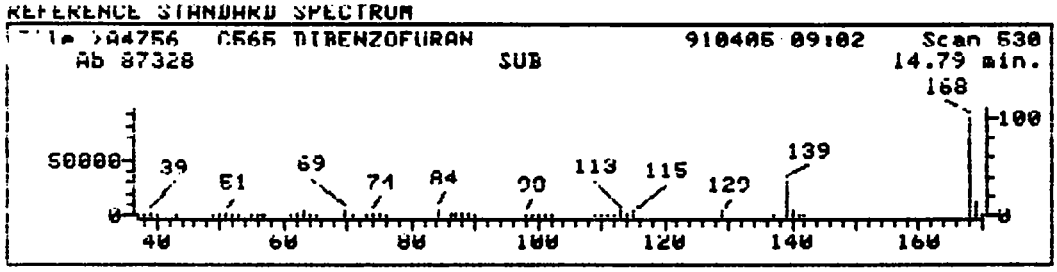
SAMPLE SPECTRUM (UNALTERED)



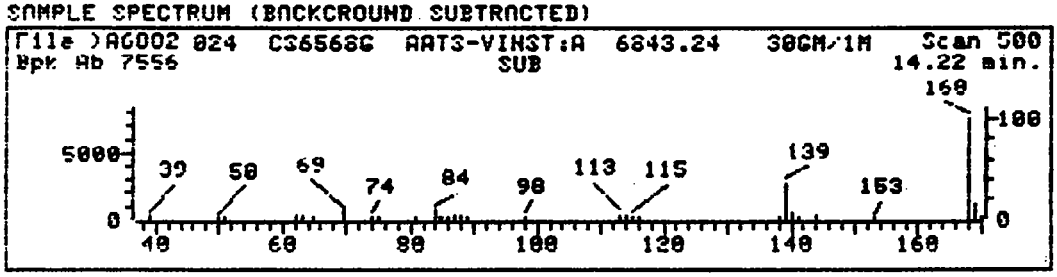
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G ANTS-V
Misc: INST:A 6843.24 30CM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 41
Compound Name: C550 ACENAPHTHENE
Scan Number: 485
Retention Time: 13.88 min.
Quant Ion: 153.0
Area: 6286
Concentration: 2.21 NG/UL
q-value: 100

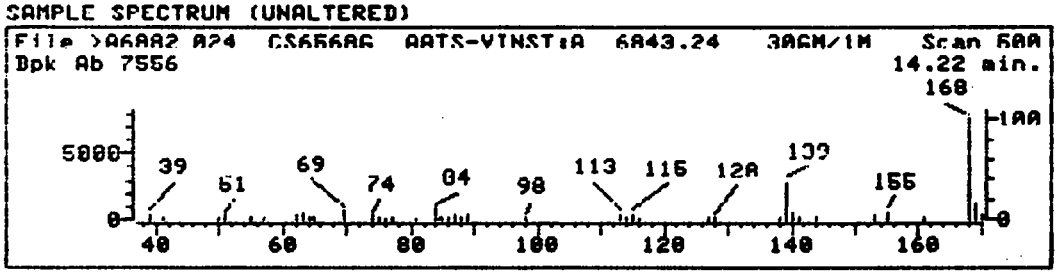
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



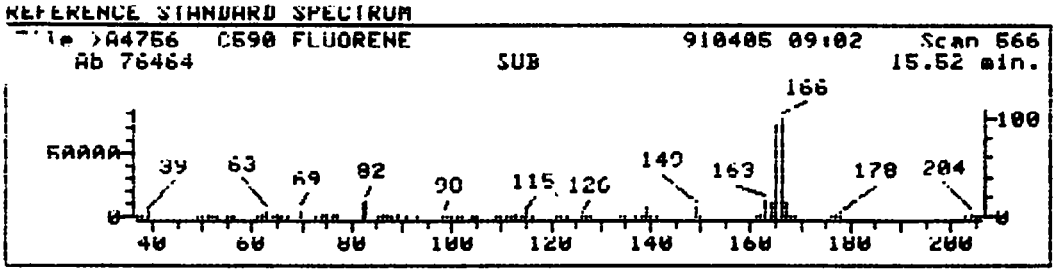
SAMPLE SPECTRUM (UNALTERED)



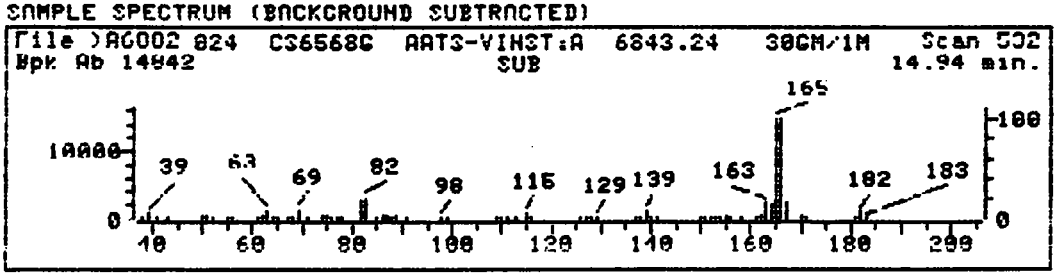
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID_BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 44
Compound Name: C565 DIBENZOFURAN
Scan Number: 500
Retention Time: 14.22 min.
Quant Ion: 168.0
Area: 18310
Concentration: 4.64 NG/UL
q-value: 100

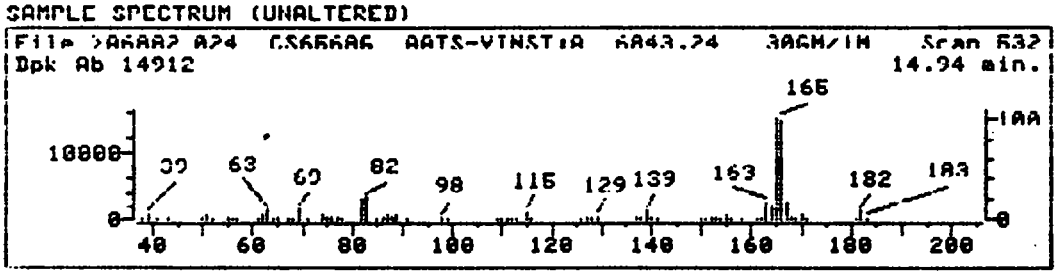
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



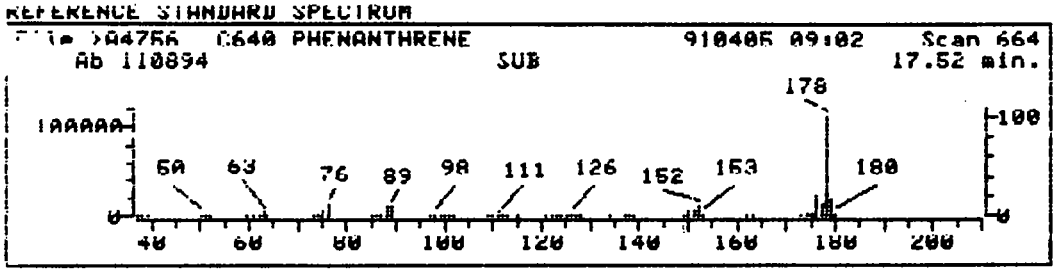
SAMPLE SPECTRUM (UNALTERED)



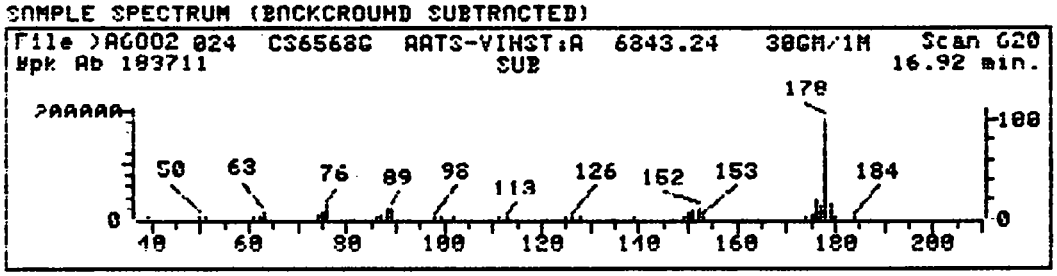
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID_BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 48
Compound Name: C590 FLUORENE
Scan Number: 532
Retention Time: 14.94 min.
Quant Ion: 166.0
Area: 43731
Concentration: 17.23 NG/UL
q-value: 98

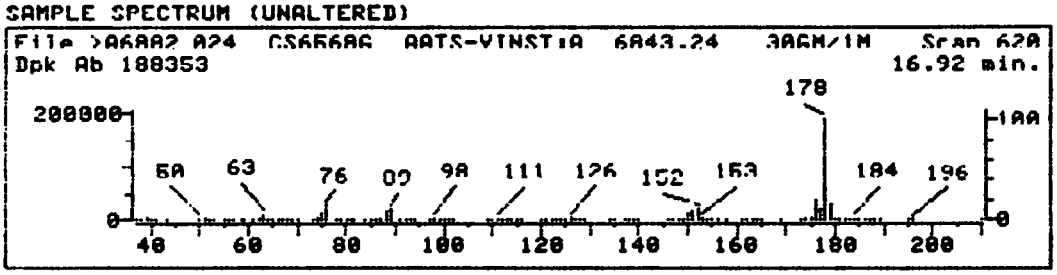
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



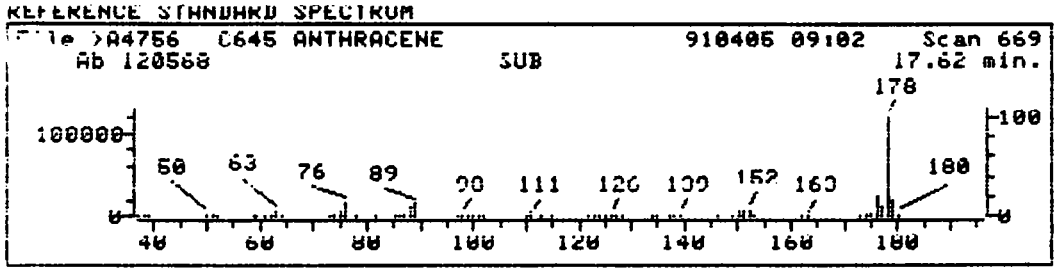
SAMPLE SPECTRUM (UNALTERED)



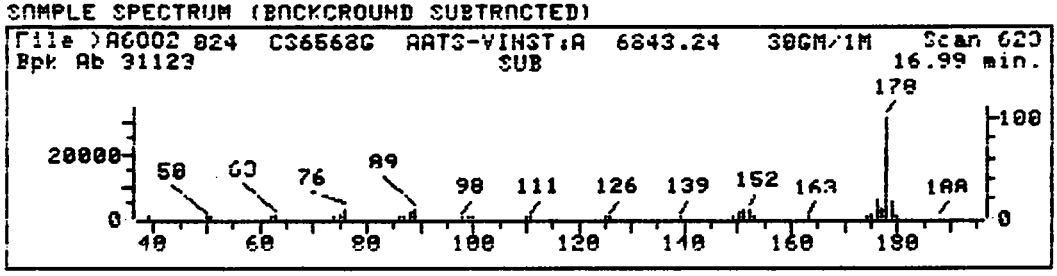
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID_BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 58
Compound Name: C640 PHENANTHRENE
Scan Number: 620
Retention Time: 16.92 min.
Quant Ion: 178.0
Area: 389995
Concentration: 71.40 NG/UL
q-value: 100

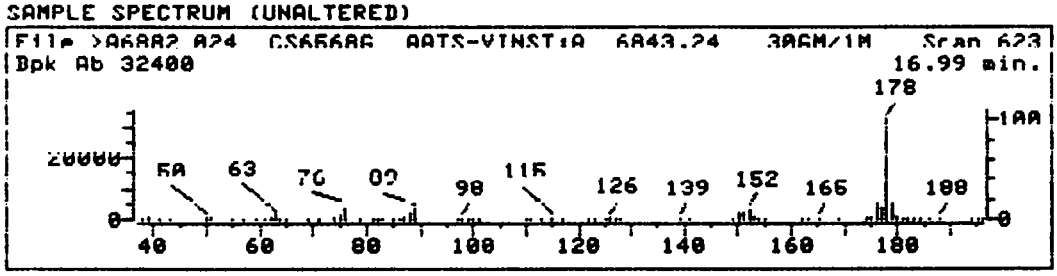
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



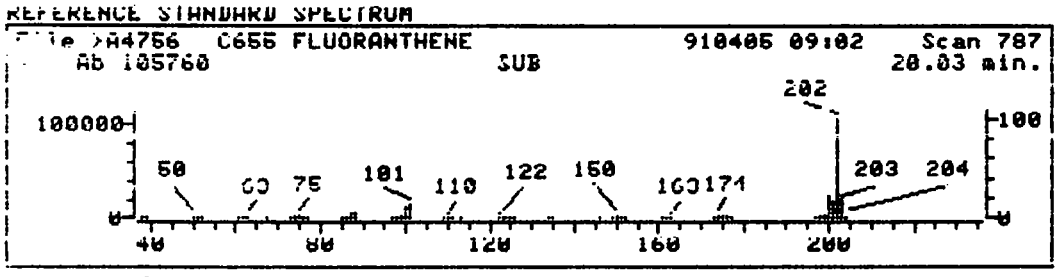
SAMPLE SPECTRUM (UNALTERED)



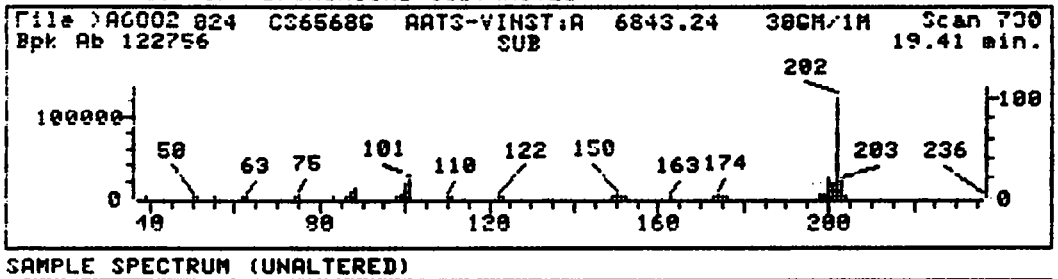
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID_BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 59
Compound Name: C645 ANTHRACENE
Scan Number: 623
Retention Time: 16.99 min.
Quant Ion: 178.0
Area: 51331
Concentration: 10.98 NG/UL
q-value: 100

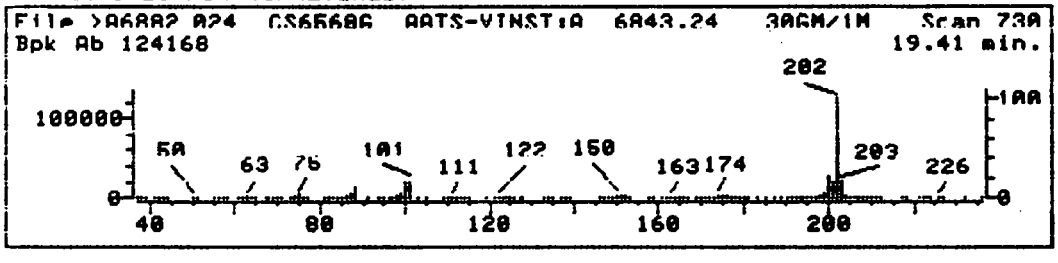
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



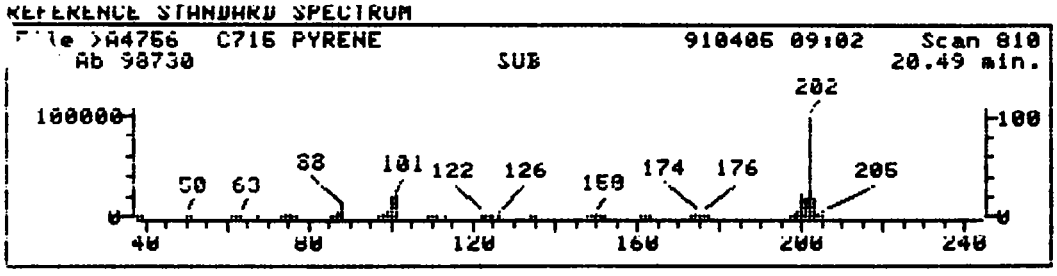
SAMPLE SPECTRUM (UNALTERED)



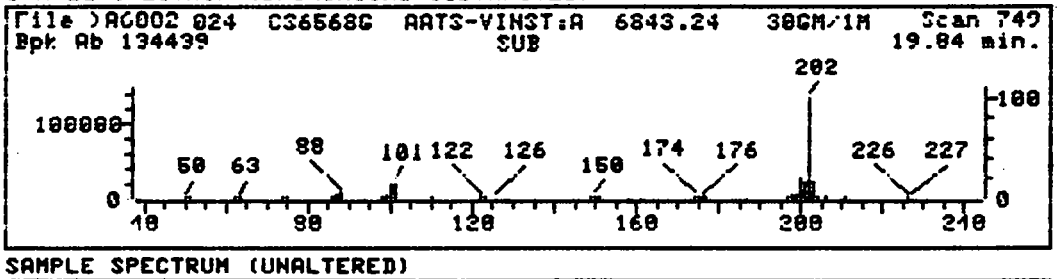
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 61
Compound Name: C655 FLUORANTHENE
Scan Number: 730
Retention Time: 19.41 min.
Quant Ion: 202.0
Area: 290565
Concentration: 49.09 NG/UL
q-value: 100

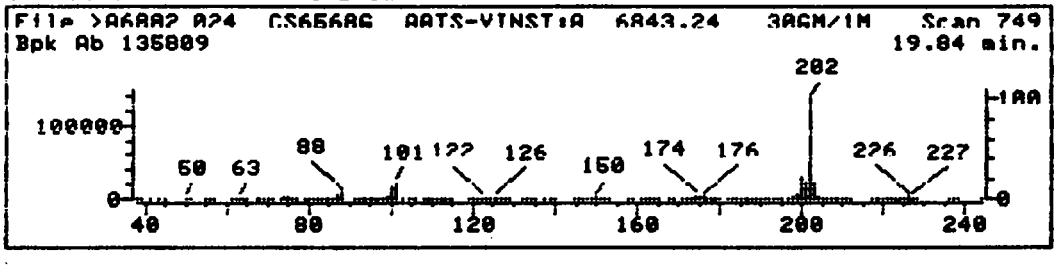
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



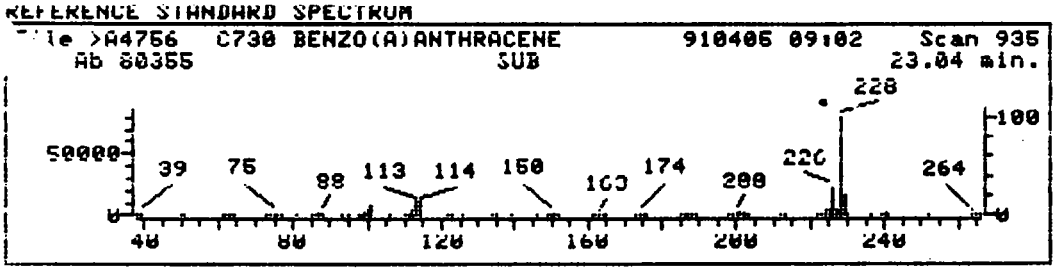
SAMPLE SPECTRUM (UNALTERED)



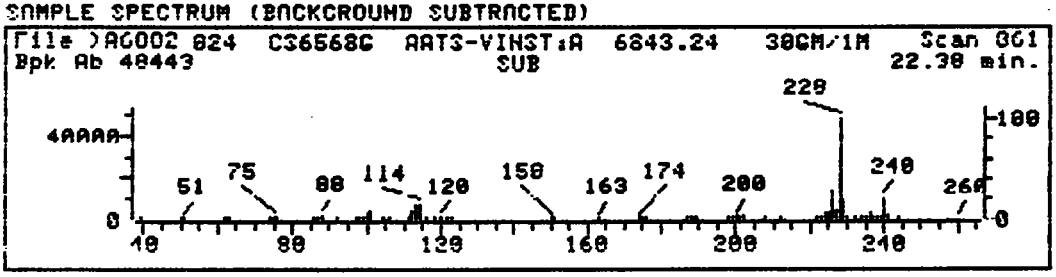
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID_BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 63
Compound Name: C715 PYRENE
Scan Number: 749
Retention Time: 19.84 min.
Quant Ion: 202.0
Area: 277758
Concentration: 45.77 NG/UL
q-value: 100

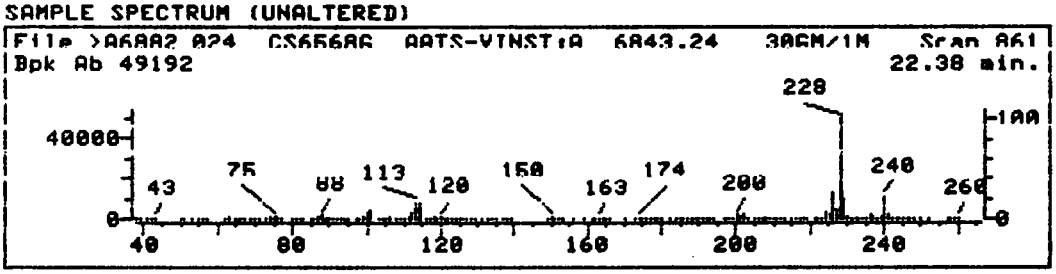
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



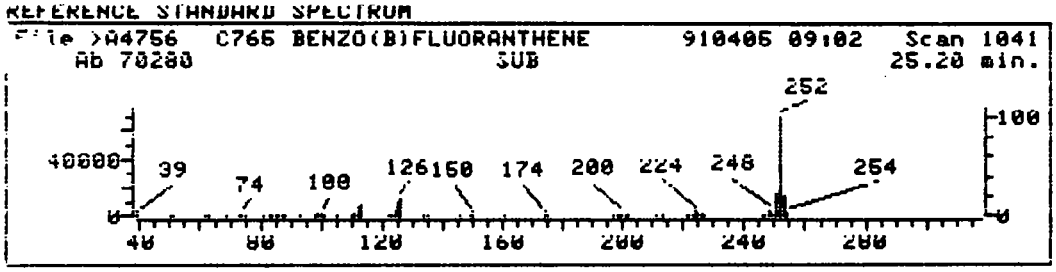
SAMPLE SPECTRUM (UNALTERED)



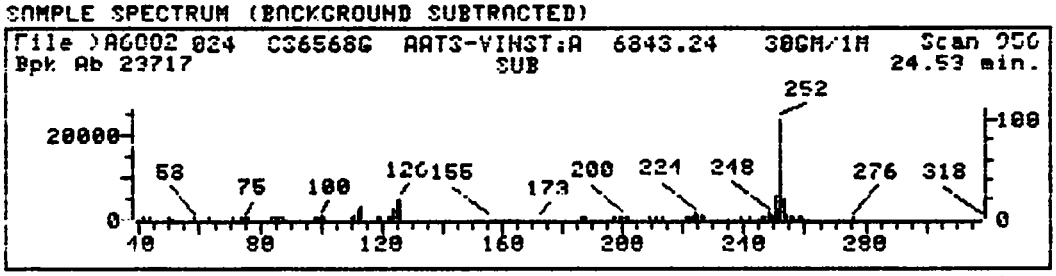
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID_BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 66
Compound Name: C730 BENZO(A)ANTHRACENE
Scan Number: 861
Retention Time: 22.38 min.
Quant Ion: 228.0
Area: 124810
Concentration: 22.92 NG/UL
q-value: 94

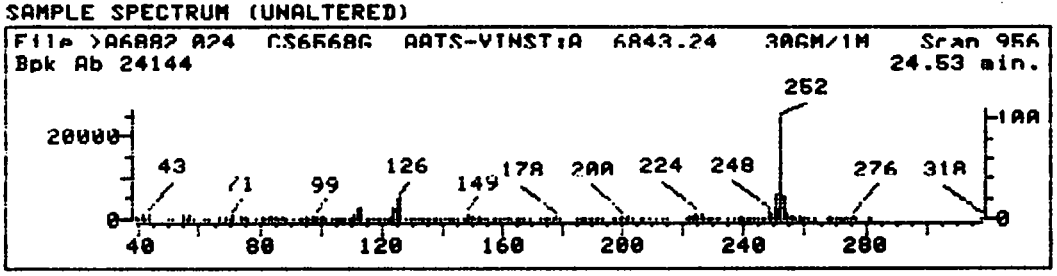
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



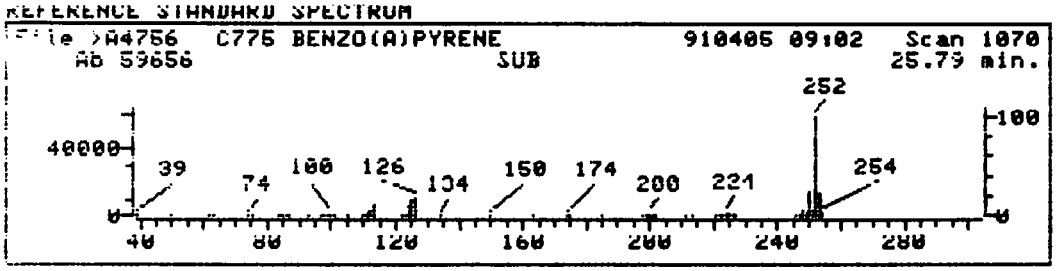
SAMPLE SPECTRUM (UNALTERED)



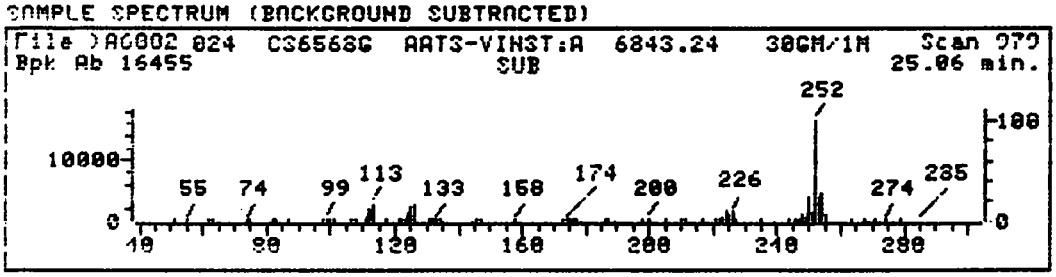
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID_BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 72
Compound Name: C765 BENZO(B)FLUORANTHENE
Scan Number: 956
Retention Time: 24.53 min.
Quant Ion: 252.0
Area: 96906
Concentration: 14.95 NG/UL
q-value: 94

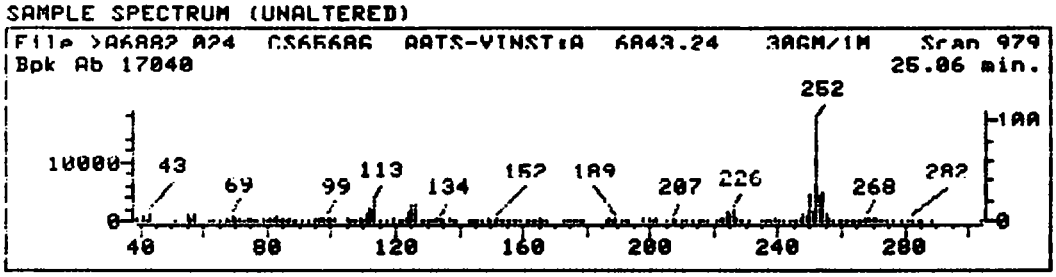
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



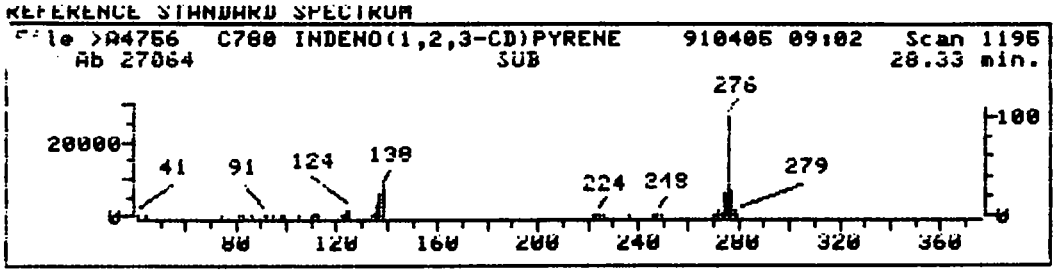
SAMPLE SPECTRUM (UNALTERED)



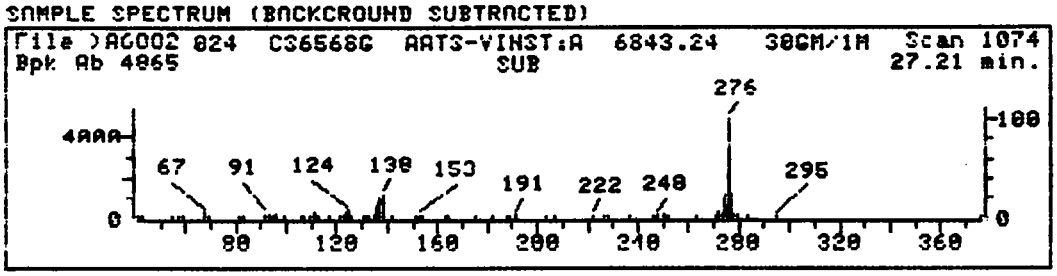
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID_BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 74
Compound Name: C775 BENZO(A)PYRENE
Scan Number: 979
Retention Time: 25.06 min.
Quant Ion: 252.0
Area: 34739
Concentration: 9.48 NG/UL
q-value: 97

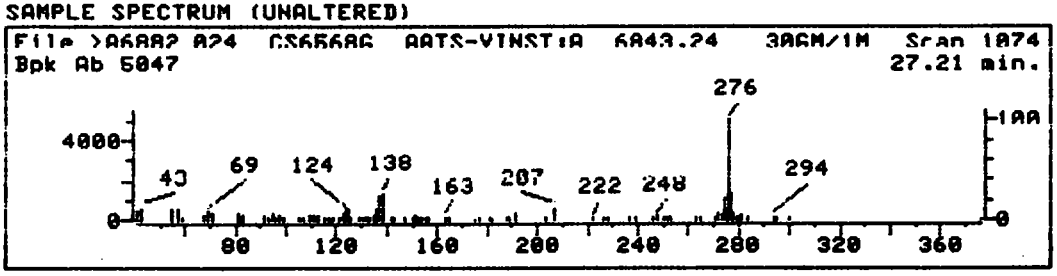
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



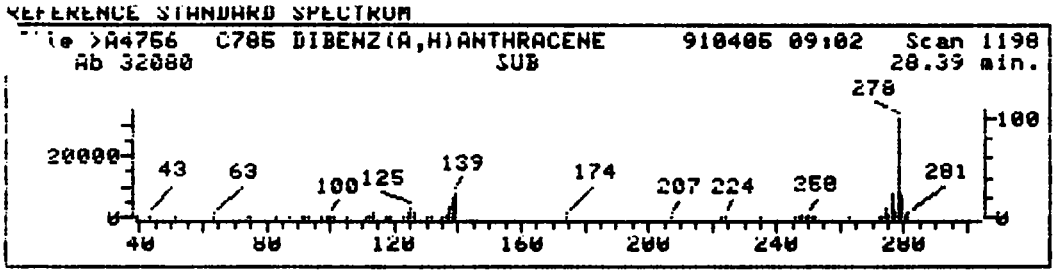
SAMPLE SPECTRUM (UNALTERED)



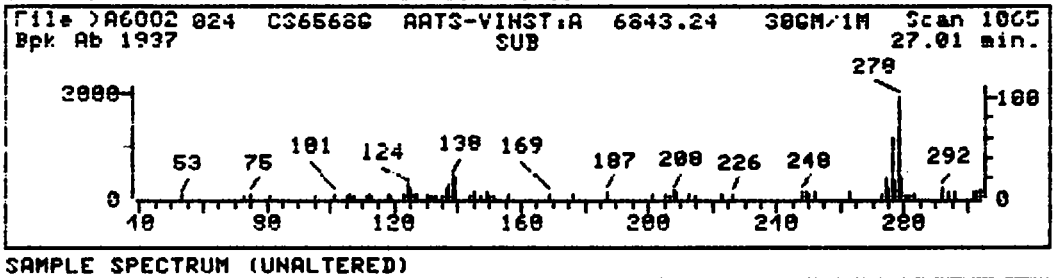
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 75
Compound Name: C780 INDENO(1,2,3-CD)PYRENE
Scan Number: 1074
Retention Time: 27.21 min.
Quant Ion: 276.0
Area: 18662
Concentration: 6.75 NG/UL
q-value: 96

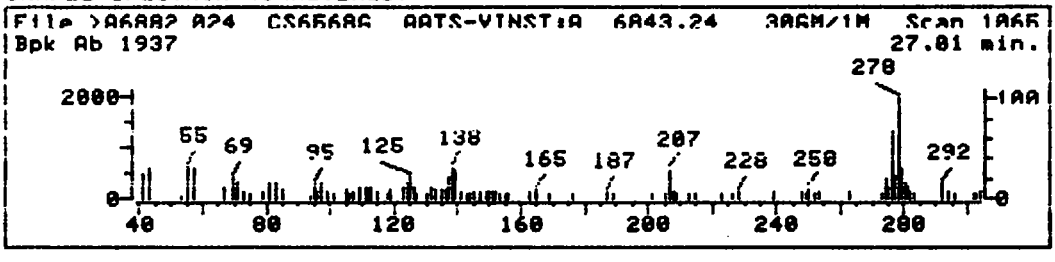
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



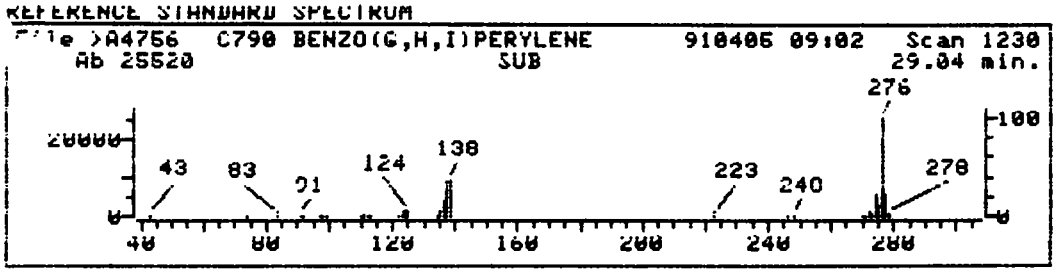
SAMPLE SPECTRUM (UNALTERED)



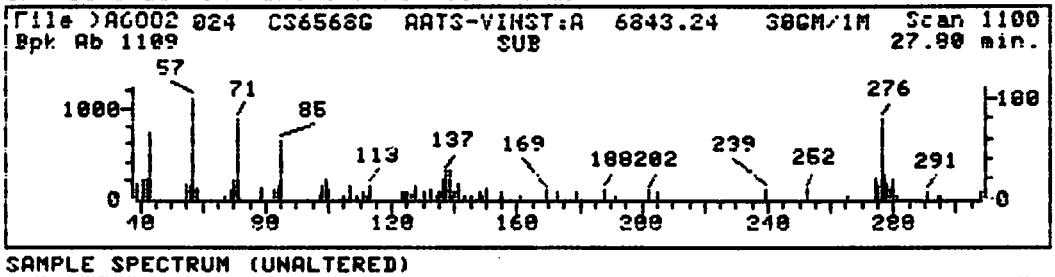
Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 76
Compound Name: C785 DIBENZ(A,H)ANTHRACENE
Scan Number: 1065
Retention Time: 27.01 min.
Quant Ion: 278.0
Area: 10008
Concentration: 3.01 NG/UL
q-value: 92

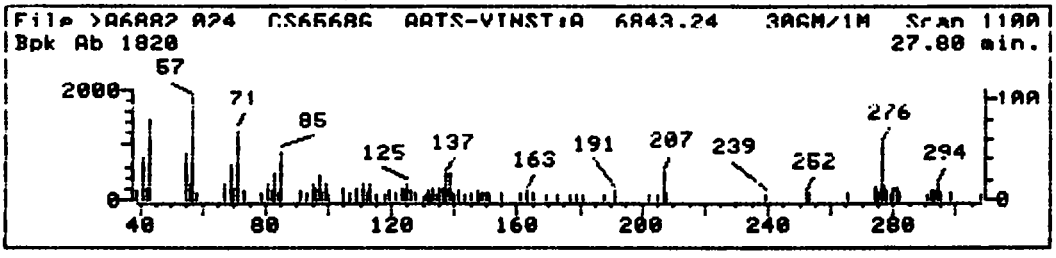
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



Data File: >A6882::D9 Quant Output File: ^A6882::L1
Name: 024 CS6568G AATS-V
Misc: INST:A 6843.24 30GM/1ML/1UL BTL#21
Quant Time: 910814 04:09 Quant ID File: ID BN2::EX
Injected at: 910814 03:36 Last Calibration: 910814 01:01

Compound No: 77
Compound Name: C790 BENZO(G,H,I)PERYLENE
Scan Number: 1100
Retention Time: 27.80 min.
Quant Ion: 276.0
Area: 4335
Concentration: 1.57 NG/UL
q-value: 93

Data file header from : >A6882

Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:56
Misc : INST:A 6843.24 30GM/1ML/1UL BTL#21
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: #STD02 Tuning file: #ATUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 280 Transfer line temp. : 0

Chromatographic temperatures : 45. 300. 0. 0. 0.
Chromatographic times, min. : 4.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 12.0 0.0 0.0 0.0 0.0

>A6882 024 CS6568G AATS-VINST:A 6843.24 30GM/1ML/1UL
35.01 550.0 CLP ADC TIC
Upslope: .20 Area Reject: 20753. Max Peaks: 20 Bunching: 1
Dnslope: 0.00 Results File IA6882 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	3.15	3	9	12	142051	784905	753680	100.00	11.290
2	13.13	449	452	455	58382	177918	168997	22.42	2.532
3	16.63	603	607	610	75262	329310	223317	29.63	3.345
4	17.58	643	649	655	93671	544975	353588	46.91	5.297
5	17.96	659	666	667	152580	773133	587260	77.92	8.797
	18.01	667	668	670	225191	424202	348220	46.20	5.216
7	18.19	673	676	677	179948	699669	588353	78.06	8.814
8	18.23	677	678	680	193326	331875	269256	35.73	4.034
9	18.62	692	695	700	137431	692789	497462	66.00	7.452
10	18.98	710	711	715	50644	301300	167962	22.29	2.516
11	19.16	715	719	720	120138	524581	391068	51.89	5.858
12	19.28	722	724	727	86120	480569	281380	37.33	4.215
13	20.59	778	782	785	85136	624876	346852	46.02	5.196
14	20.79	787	791	792	98657	385529	241609	32.06	3.619
15	20.97	798	799	801	87100	338587	219447	29.12	3.287
16	21.68	828	830	833	63937	348728	189992	25.21	2.846
17	21.90	833	840	841	42359	526163	273354	36.27	4.095
18	22.11	844	849	851	48337	423764	204092	27.08	3.057
19	22.70	873	875	879	42027	374691	165443	21.95	2.478
20	27.71	1093	1096	1097	184003	470888	404053	53.61	6.053

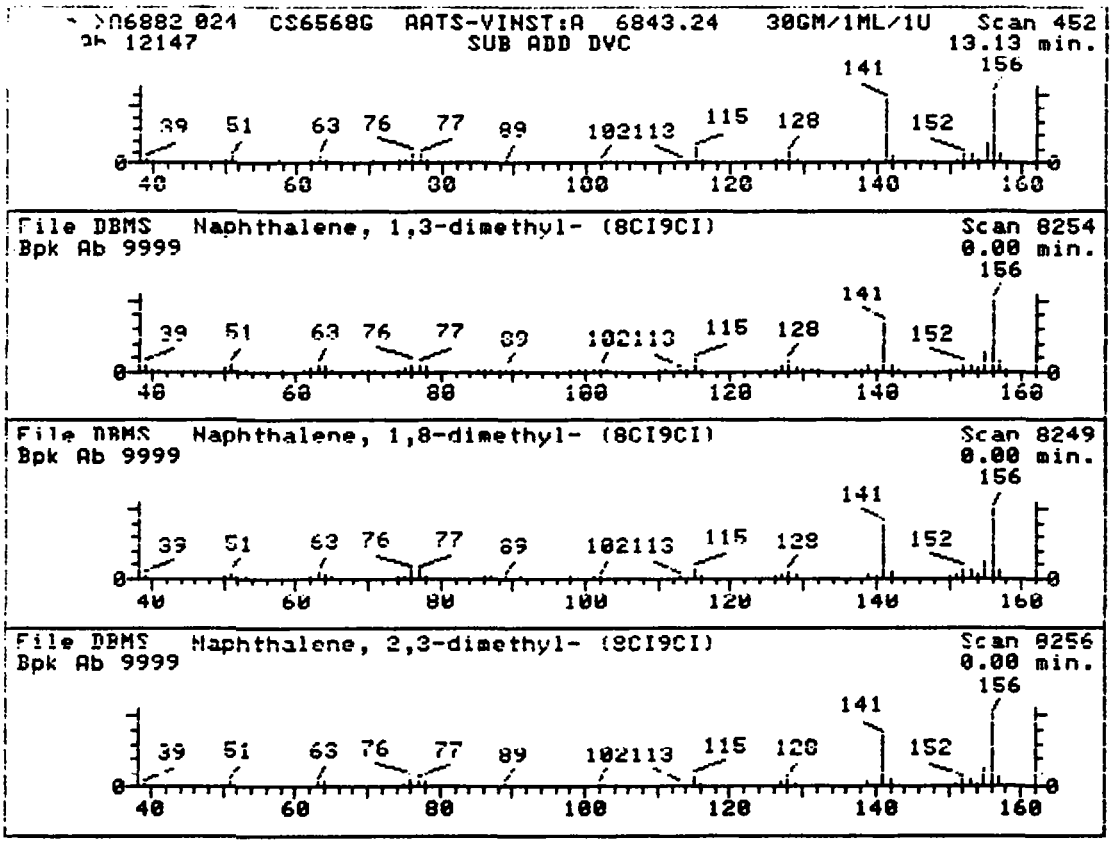
Sum of corrected areas: 6675385.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	207534.	7.23	2.97 - 8.65
2	40.0	305494.	10.07	8.65 - 11.94
3	40.0	502477.	13.81	11.94 - 15.33
4	40.0	826750.	16.86	15.33 - 19.63
5	40.0	1460062.	22.40	19.63 - 23.79
6	40.0	486713.	25.17	23.79 - 30.03

0501

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00



Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

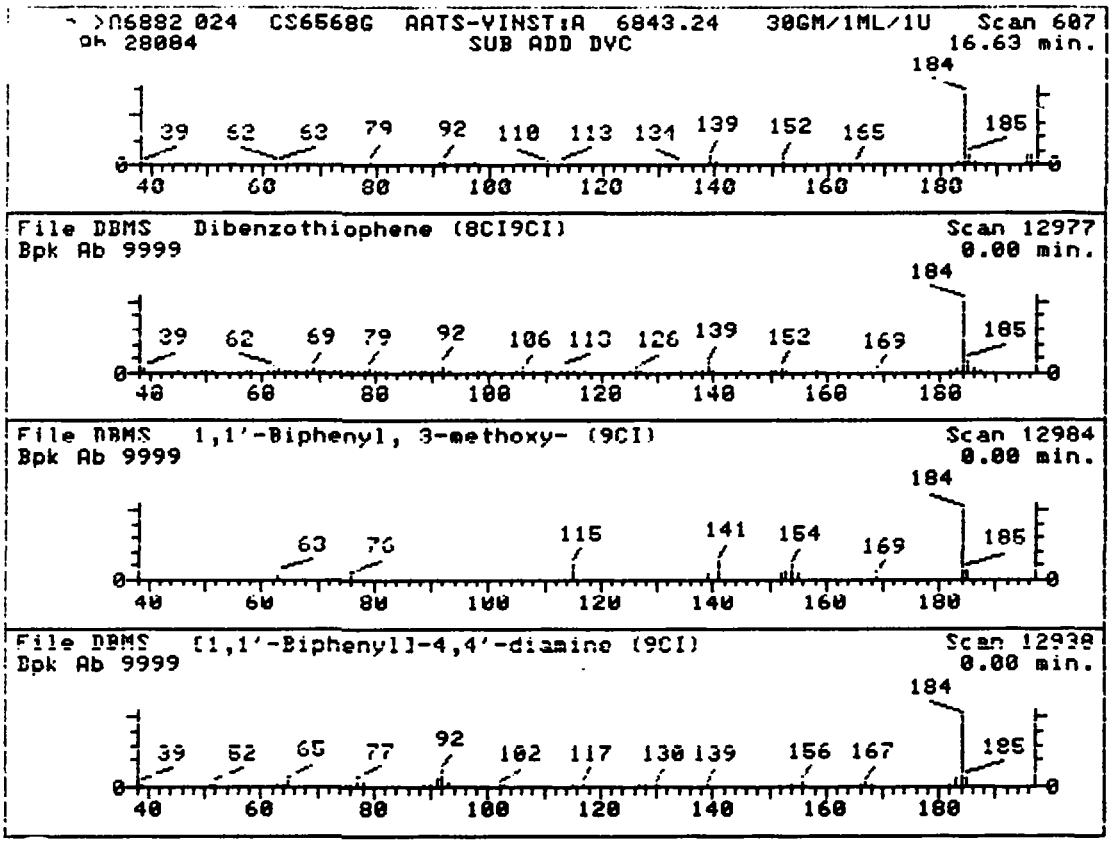
Unknown #,2
Area = 168997.0 Tentative Concentration is 13.00

1. Naphthalene, 1,3-dimethyl- (8CI9CI) 156 C12H12
2. Naphthalene, 1,8-dimethyl- (8CI9CI) 156 C12H12
3. Naphthalene, 2,3-dimethyl- (8CI9CI) 156 C12H12
4. Naphthalene, 1,7-dimethyl- (8CI9CI) 156 C12H12
5. Naphthalene, 1,2-dimethyl- (8CI9CI) 156 C12H12
6. Naphthalene, 1,5-dimethyl- (8CI9CI) 156 C12H12
7. Naphthalene, 1,6-dimethyl- (8CI9CI) 156 C12H12

Sample File: >A6882 Spectrum #: 452
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.	97*	575417	19613	DBMS	101	6	0	0	99	0	72	97
2.	97*	569415	19608	DBMS	95	15	0	0	100	3	72	97
3.	96*	581408	19615	DBMS	93	13	0	0	94	5	72	96
4.	96*	575371	19612	DBMS	93	15	0	0	100	3	72	96
5.	96*	573988	19611	DBMS	90	23	0	0	97	1	72	96
6.	95*	571619	19610	DBMS	92	17	0	0	98	19	60	96
7.	95*	575439	19614	DBMS	91	17	0	0	100	19	60	96

0502



Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

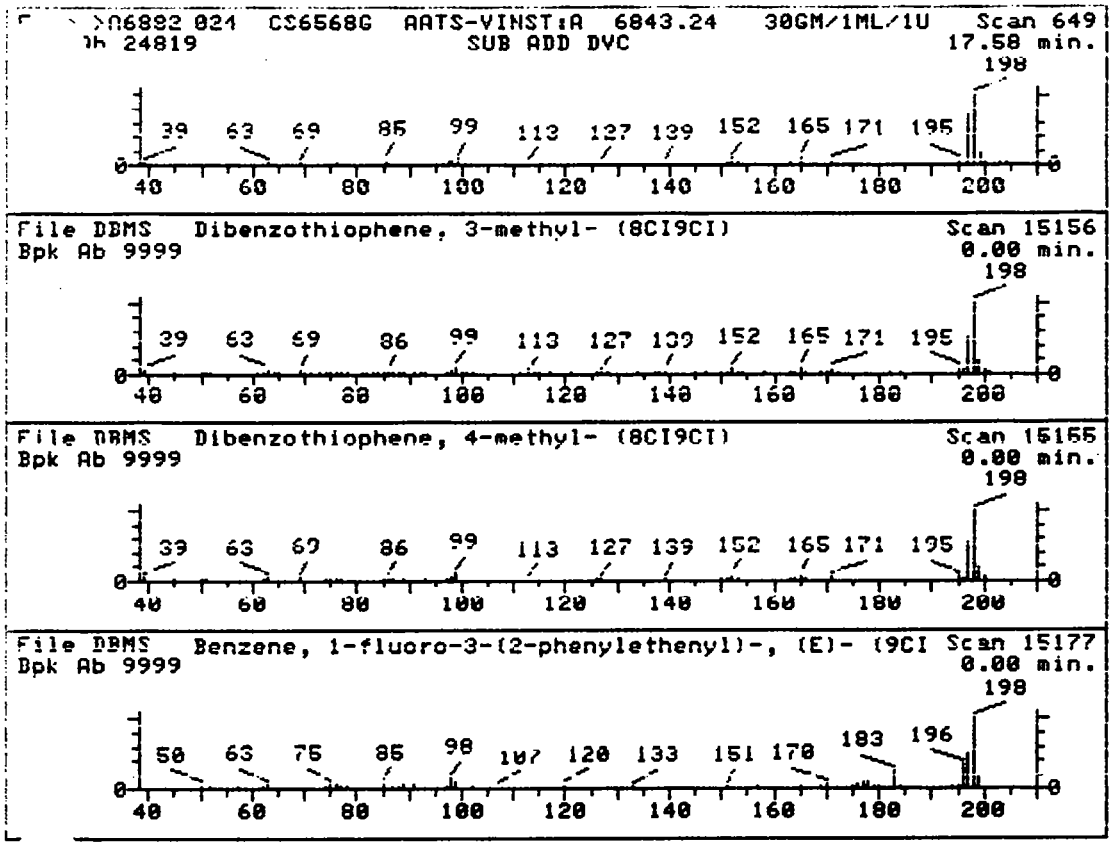
Unknown #,3
Area = 223317.0 Tentative Concentration is 11.00

1.	Dibenzothiophene (8CI9CI) ✓	184 C12H8S
2.	1,1'-Biphenyl, 3-methoxy- (9CI)	184 C13H12O
3.	[1,1'-Biphenyl]-4,4'-diamine (9CI)	184 C12H12N2
4.	[1,1'-Biphenyl]-4,4'-diamine	184 C12H12N2
5.	[1,1'-Biphenyl]-4,4'-diamine	184 C12H12N2
6.	2,2'-Bipyridine, 4,4'-dimethyl- (9CI)	184 C12H12N2
7.	4(3H)-Quinazolinone, 3-(2-propynyl)- (8CI)	184 C11H8N2O

Sample File: >A6882 Spectrum #: 607
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROUT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	61*	132650	23039	DBMS	21	32	1	0	56	50	20	21
2.	42*	2113566	23045	DBMS	25	66	3	0	100	24	17	13
3.	31*	92875	23026	DBMS	27	79	2	0	100	34	12	14
4.	31*	225	328	PRIPOL	27	79	2	0	100	34	12	14
5.	30*	227	330	PRIPOL	21	76	2	0	100	34	12	13
6.	30*	1134356	23028	DBMS	22	83	2	0	98	34	12	13
7.	26*	16347561	23023	DBMS	23	95	3	0	100	37	10	12

0503



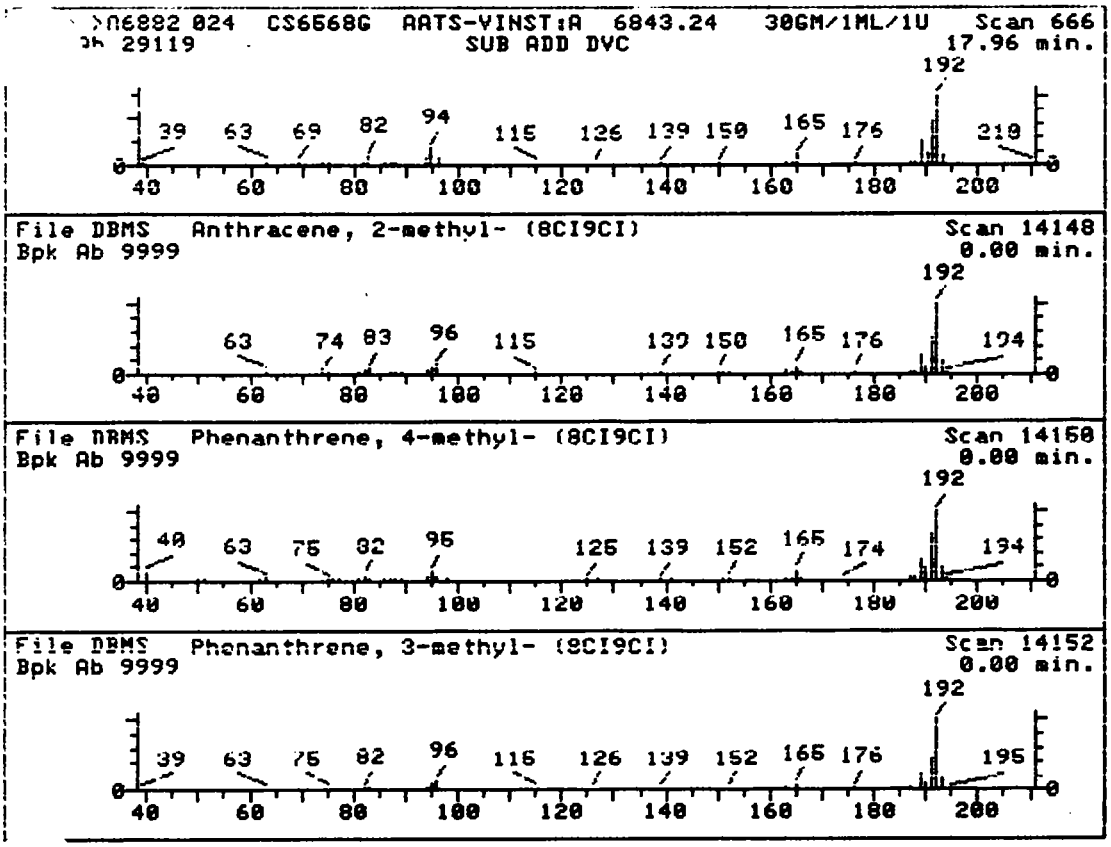
Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

Unknown #,4
Area = 353588.0 Tentative Concentration is 17.00

1.	Dibenzothiophene, 3-methyl- (8CI9CI)	198	C13H10S
2.	Dibenzothiophene, 4-methyl- (8CI9CI)	198	C13H10S
3.	Benzene, 1-fluoro-3-(2-phenylethenyl)-, (E)- (9CI)	198	C14H11F
4.	Benzene, 1-fluoro-4-(2-phenylethenyl)-, (E)- (9CI)	198	C14H11F
5.	Benzene, 1,1'-(1-fluoro-1,2-ethenediyl)bis-, (E)- (9CI)	198	C14H11F
6.	9H-Thioxanthene (9CI)	198	C13H10S
7.	9H-Pyrido[3,4-b]indol-7-ol, 1-methyl- (8CI9CI)	198	C12H10N2O

Sample file: >A6882 Spectrum #: 649
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.	96*	1658523	24726	DBMS	108	8	1	0	97	2	72	96
2.	93*	7372885	24725	DBMS	91	25	1	0	91	2	68	89
3.	52*	3041814	24731	DBMS	33	97	3	0	100	17	20	13
4.	52*	718252	24730	DBMS	29	93	3	0	100	17	20	13
5.	52*	671192	24729	DBMS	27	100	3	0	100	20	20	13
6.	37*	261314	24723	DBMS	43	68	2	0	71	30	14	14



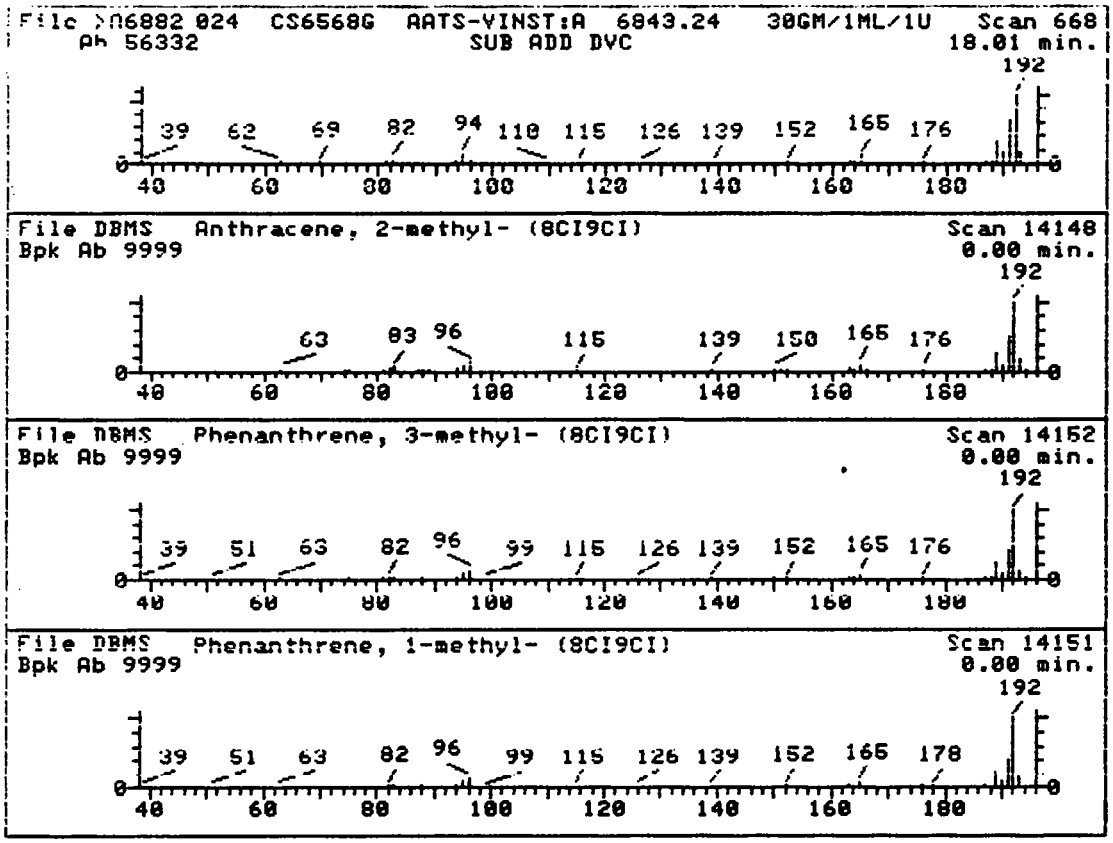
Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

Unknown #.5
Area = 587260.0 Tentative Concentration is 28.00

1.	Anthracene, 2-methyl- (8CI9CI)	192 C15H12
2.	Phenanthrene, 4-methyl- (8CI9CI)	192 C15H12
3.	Phenanthrene, 3-methyl- (8CI9CI)	192 C15H12
4.	1H-Indene, 1-phenyl- (9CI)	192 C15H12
5.	Phenanthrene, 9-methyl- (8CI9CI)	192 C15H12
6.	Anthracene, 1-methyl- (8CI9CI)	192 C15H12
7.	9H-Fluorene, 9-ethylidene- (9CI)	192 C15H12

Sample file: >A6882 Spectrum #: 666
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.	79*	613127	23932	DBMS	69	47	1	0	87	13	43	67
2.	79*	832644	23934	DBMS	66	50	1	0	66	14	43	66
3.	71*	832713	23936	DBMS	52	59	1	0	93	15	38	35
4.	63*	1961962	23938	DBMS	57	50	2	0	99	17	30	34
5.	58*	883205	23937	DBMS	41	68	1	0	96	17	25	21
6.	56*	610480	23931	DBMS	68	50	1	0	55	46	14	66
7.	52*	7151646	23941	DBMS	46	74	3	0	97	19	20	13



Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

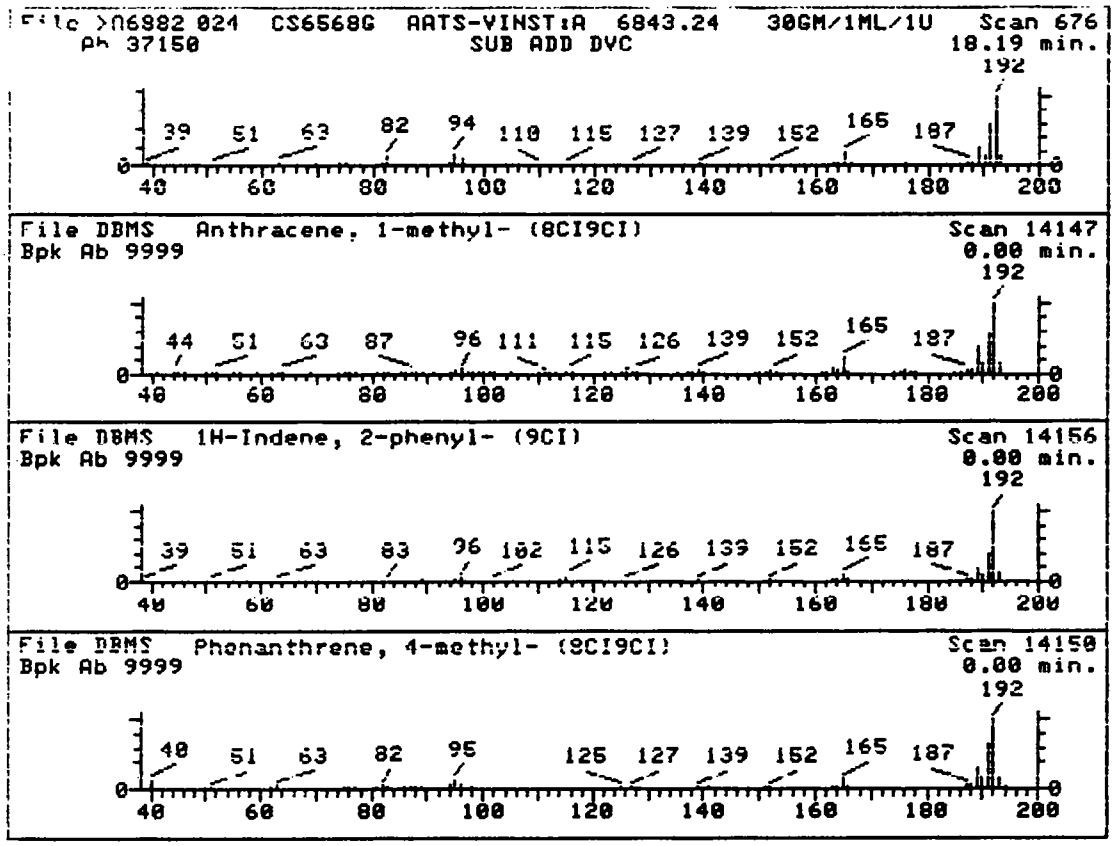
Unknown #,6
Area = 348220.0 Tentative Concentration is 17.00

1.	Anthracene, 2-methyl- (8CI9CI)	192	C15H12
2.	Phenanthrene, 3-methyl- (8CI9CI)	192	C15H12
3.	Phenanthrene, 1-methyl- (8CI9CI)	192	C15H12
4.	1H-Indene, 1-phenyl- (9CI)	192	C15H12
5.	Phenanthrene, 4-methyl- (8CI9CI)	192	C15H12
6.	1H-Indene, 2-phenyl- (9CI)	192	C15H12
7.	Phenanthrene, 2-methyl- (8CI9CI)	192	C15H12

Sample File: >A6882 Spectrum #: 668
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CUN #	ROOT	K	DK	#FLG	TILT	%	CUN	C_I	R_IO
.	87*	613127	23932	DBMS	68	48	2	0	88	5	63	49
2.	86*	832713	23936	DBMS	61	50	2	0	94	5	60	38
3.	86*	832699	23935	DBMS	55	54	2	0	96	5	60	32
4.	81*	1961962	23938	DBMS	67	40	2	0	98	6	53	36
5.	81*	832644	23934	DBMS	65	51	2	0	85	8	53	44
6.	79*	4505480	23940	DBMS	58	50	2	0	100	8	48	35
7.	76*	2531842	23939	DBMS	49	60	2	0	98	8	45	22

0506



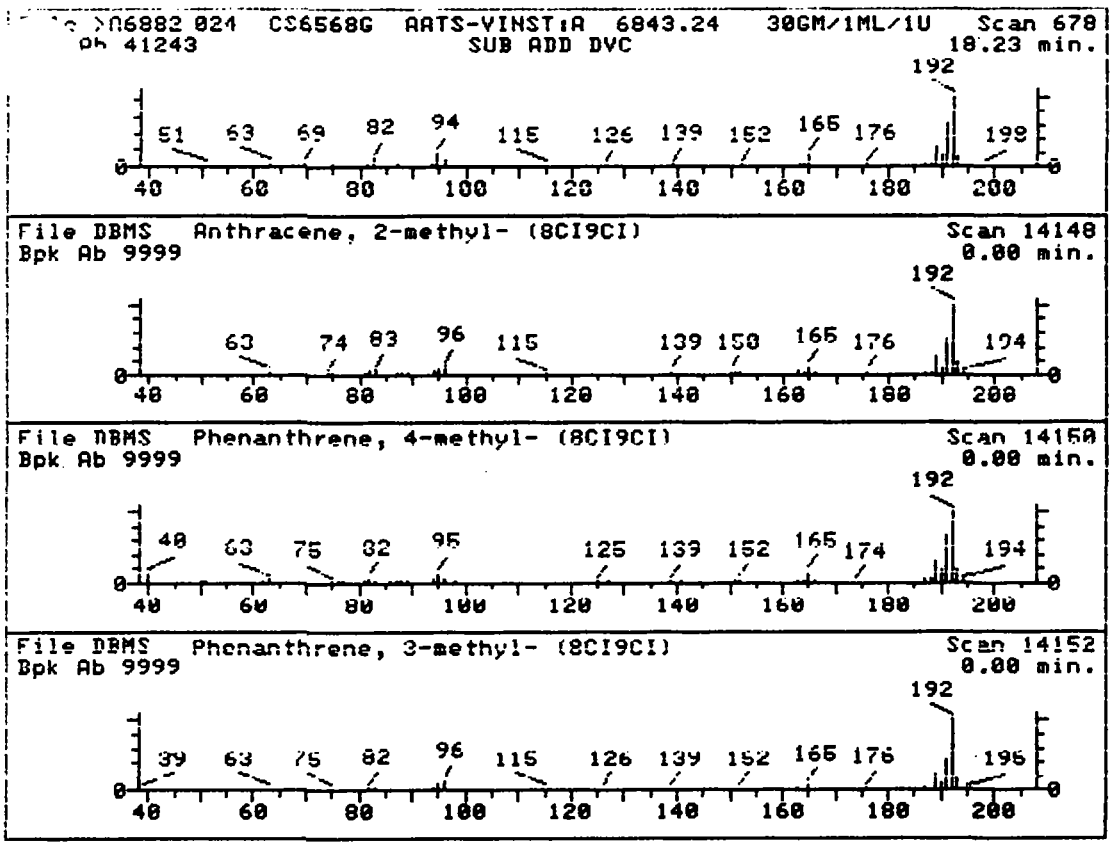
Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

Unknown #,7
Area = 588353.0 Tentative Concentration ~~16~~ 28.00

1.	Anthracene, ~~1~~-methyl- (8CI9CI)	192	C15H12
2.	1H-Indene, 2-phenyl- (9CI)	192	C15H12
3.	Phenanthrene, 4-methyl- (8CI9CI)	192	C15H12
4.	Anthracene, 2-methyl- (8CI9CI)	192	C15H12
5.	1H-Indene, 1-phenyl- (9CI)	192	C15H12
6.	9H-Fluorene, 9-ethylidene- (9CI)	192	C15H12
7.	Phenanthrene, 3-methyl- (8CI9CI)	192	C15H12

Sample file: >A6882 Spectrum #: 676
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
.	81*	610480	23931	DBMS	69	49	2	0	77	7	53	49
2.	79*	4505480	23940	DBMS	66	42	1	0	97	12	43	66
3.	76*	832644	23934	DBMS	75	41	2	0	72	12	40	57
4.	76*	613127	23932	DBMS	72	44	2	0	81	12	40	54
5.	74*	1961962	23938	DBMS	55	52	1	0	90	12	39	62
6.	70*	7151646	23941	DBMS	54	66	3	0	90	10	42	17
7.	46*	832713	23936	DBMS	47	64	1	0	72	26	19	24



Sample: U24 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

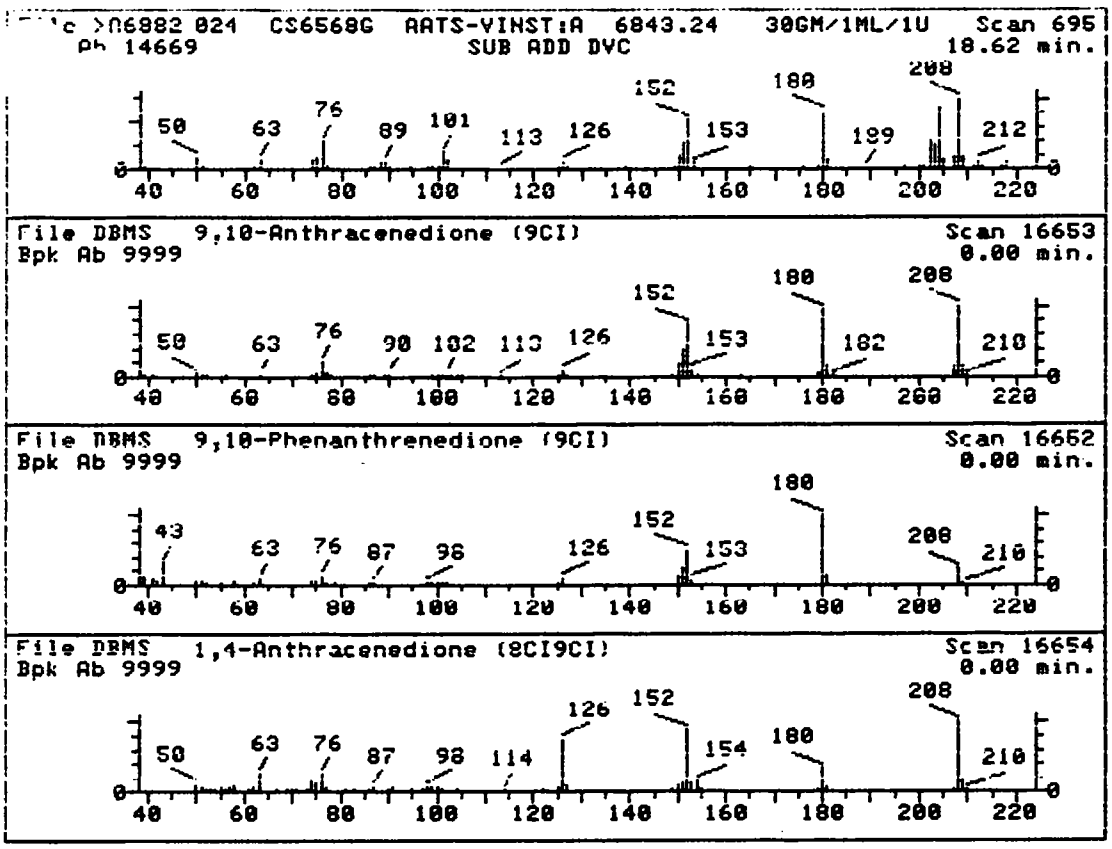
Unknown #,8
Area = 269256.0 Tentative Concentration = 13.00

1.	Anthracene, 2-methyl- (8CI9CI)	192 C15H12
2.	Phenanthrene, 4-methyl- (8CI9CI)	192 C15H12
3.	Phenanthrene, 3-methyl- (8CI9CI)	192 C15H12
4.	Anthracene, 1-methyl- (8CI9CI)	192 C15H12
5.	9H-Fluorene, 9-ethylidene- (9CI)	192 C15H12
6.	Phenanthrene, 2-methyl- (8CI9CI)	192 C15H12
7.	1H-Indene, 1-phenyl- (9CI)	192 C15H12

Sample File: >A6882 Spectrum #: 678
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CUN #	ROOT	K	DK	#FLG	TILT	%	CUN	C_I	R_IU
1.	74*	613127	23932	DBMS	57	59	1	0	80	13	39	46
2.	74*	832644	23934	DBMS	65	51	2	0	80	13	39	44
3.	57*	832713	23936	DBMS	53	58	1	0	76	27	24	37
4.	55*	610480	23931	DBMS	62	56	1	0	59	45	18	00
5.	52*	7151646	23941	DBMS	45	75	3	0	96	18	20	19
6.	49*	2531842	23939	DBMS	52	57	2	0	82	27	19	27
7.	49*	1961962	23938	DBMS	45	62	1	0	83	25	22	21

0508



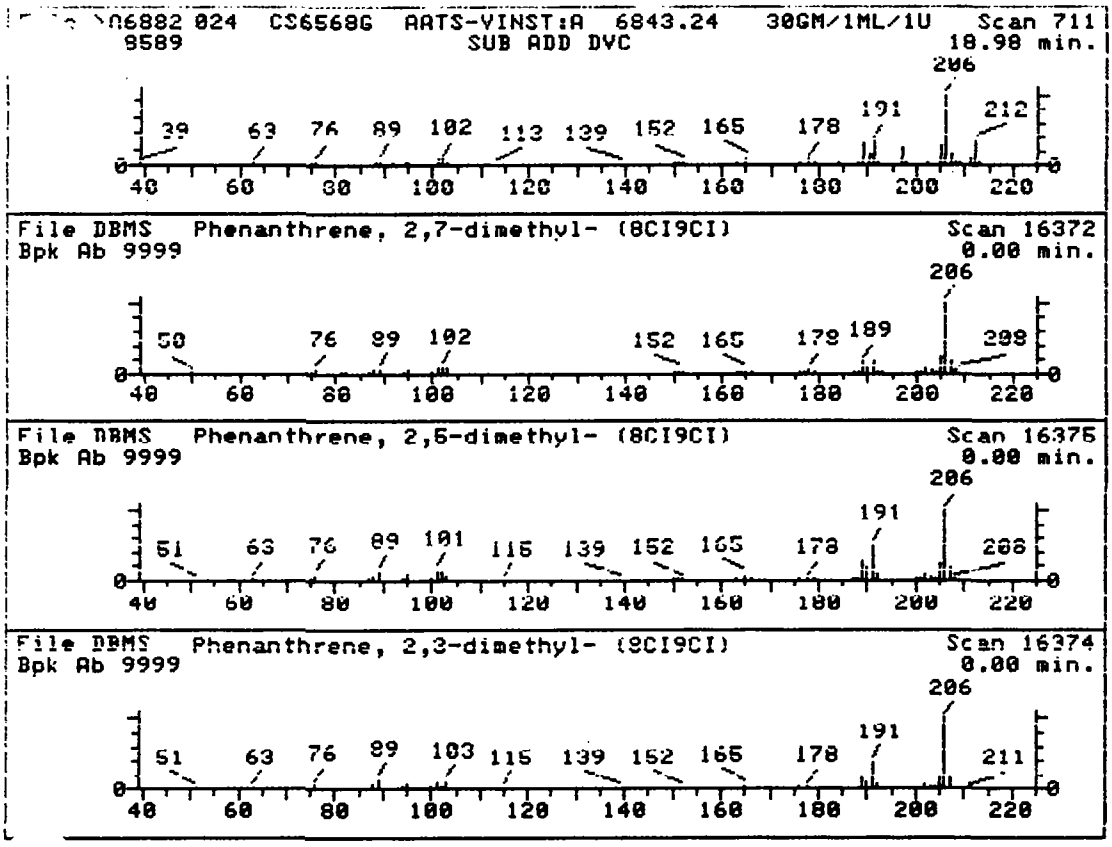
Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

Unknown #,9
Area = 497462.0 Tentative Concentration is 24.00

1.	9,10-Anthracenedione (9CI)	208 C14H8O2
2.	9,10-Phenanthrenedione (9CI)	208 C14H8O2
3.	1,4-Anthracenedione (8CI9CI)	208 C14H8O2
4.	Benzo[c]cinnoline (8CI9CI)	180 C12H8N2

Sample file: >A6882 Spectrum #: 695
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.	89*	84651	25650	DBMS	120	15	0	0	84	46	40	99
2.	18*	84117	22674	DBMS	51	72	0	0	78	65	5	61
	15*	635121	25651	DBMS	54	85	3	0	79	60	3	17
	15*	230171	22622	DBMS	75	36	1	0	70	68	5	73



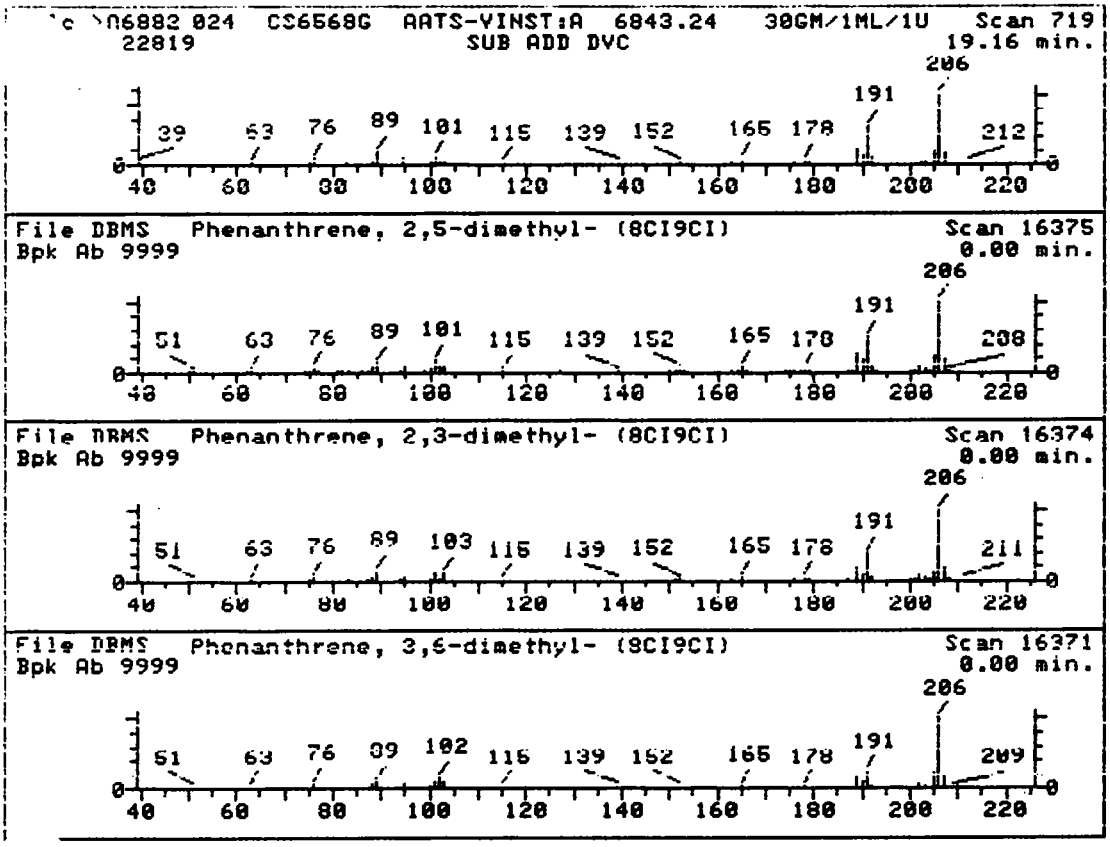
Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

Unknown #,10
Area = 167962.0 Tentative Concentration is 8.00

1.	Phenanthrene, 2,7-dimethyl- (8CI9CI)	206	C16H14
2.	Phenanthrene, 2,6-dimethyl- (8CI9CI)	206	C16H14
3.	Phenanthrene, 2,3-dimethyl- (8CI9CI)	206	C16H14
4.	Benzene, 1,1'-(1-cyclobutene-1,2-diyl)bis- (9CI)	206	C16H14
5.	Fluoranthene, 1,2,3,10b-tetrahydro- (8CI9CI)	206	C16H14
6.	Benzoic acid, p-[[(dimethylamino)methylene]amino]-, methyl ester (8CI)	206	C11H14N2O2
7.	2H-1-Benzopyran-2-one, 6,7-dimethoxy- (9CI)	206	C11H10O4

Sample File: >A6882 Spectrum #: 711
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.	59*	1576698	25452	DBMS	70	52	2	0	100	37	21	50
2.	47*	3674666	25455	DBMS	73	59	1	0	50	53	16	72
3.	36*	3674655	25454	DBMS	48	82	2	0	88	34	12	0510
4.	36*	3306023	25453	DBMS	25	125	3	0	100	30	14	13
5.	28*	20279214	25463	DBMS	32	99	2	0	136	39	10	14
6.	27*	29390167	25418	DBMS	38	93	3	0	100	39	10	13



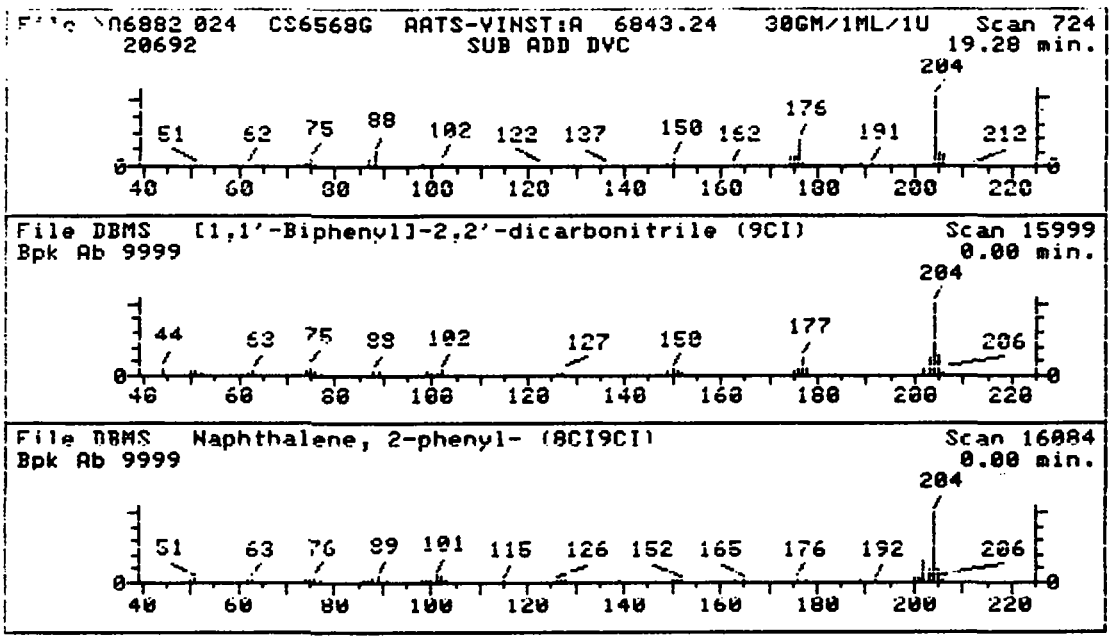
Sample: U24 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

Unknown #,11
Area = 391068.0 Tentative Concentration is 19.0U

1.	Phenanthrene, 2,5-dimethyl- (8CI9CI)	206 C16H14
2.	Phenanthrene, 2,3-dimethyl- (8CI9CI)	206 C16H14
3.	Phenanthrene, 3,6-dimethyl- (8CI9CI)	206 C16H14
4.	Anthracene, 2-ethyl- (9CI)	206 C16H14
5.	Naphthalene, 1,2-dihydro-4-phenyl- (8CI9CI)	206 C16H14
6.	Phenanthrene, 2,7-dimethyl- (8CI9CI)	206 C16H14
7.	Benzene, 1,1'-(1-cyclobutene-1,2-diyl)bis- (9CI)	206 C16H14

Sample File: >A6882 Spectrum #: 719
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.	94*	3674666	25455	DBMS	101	31	1	0	68	13	64	94
2.	89*	36/4655	25454	DBMS	90	40	2	0	97	2	66	69
3.	79*	1576676	25451	DBMS	87	43	2	0	90	15	43	66
4.	69*	52251715	25464	DBMS	65	65	1	0	57	32	20	46
5.	60*	7469401	25460	DBMS	47	96	3	0	100	13	30	13
6.	53*	1576698	25452	DBMS	56	66	2	0	80	27	24	33
7.	52*	3306023	25453	DBMS	24	126	3	0	100	18	20	12



UNKNOWN

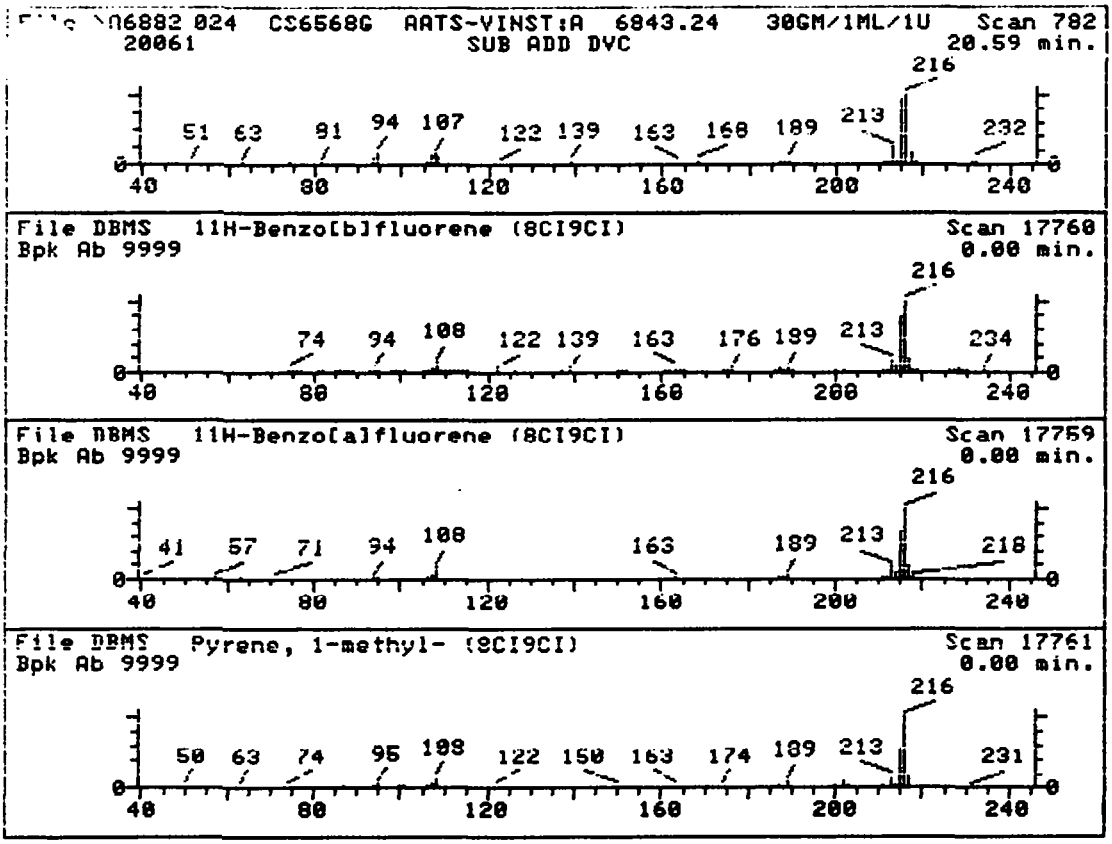
Sample: U24 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

Unknown #,12
Area = 281380.0 Tentative Concentration is 14.00

1. [1,1'-Biphenyl]-2,2'-dicarbonitrile (9CI) 204 C14H8N2
2. Naphthalene, 2-phenyl- (8CI9CI) 204 C16H12

Sample file: >A6882 Spectrum #: 724
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.	36*	4341020	25197	DBMS	26	96	3	0	100	29	14	13
2.	27*	612942	25211	DBMS	27	86	3	0	100	38	10	13



UNKNOWN

Sample: U24 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

Unknown #,13
Area = 346852.0 Tentative Concentration is 10.00

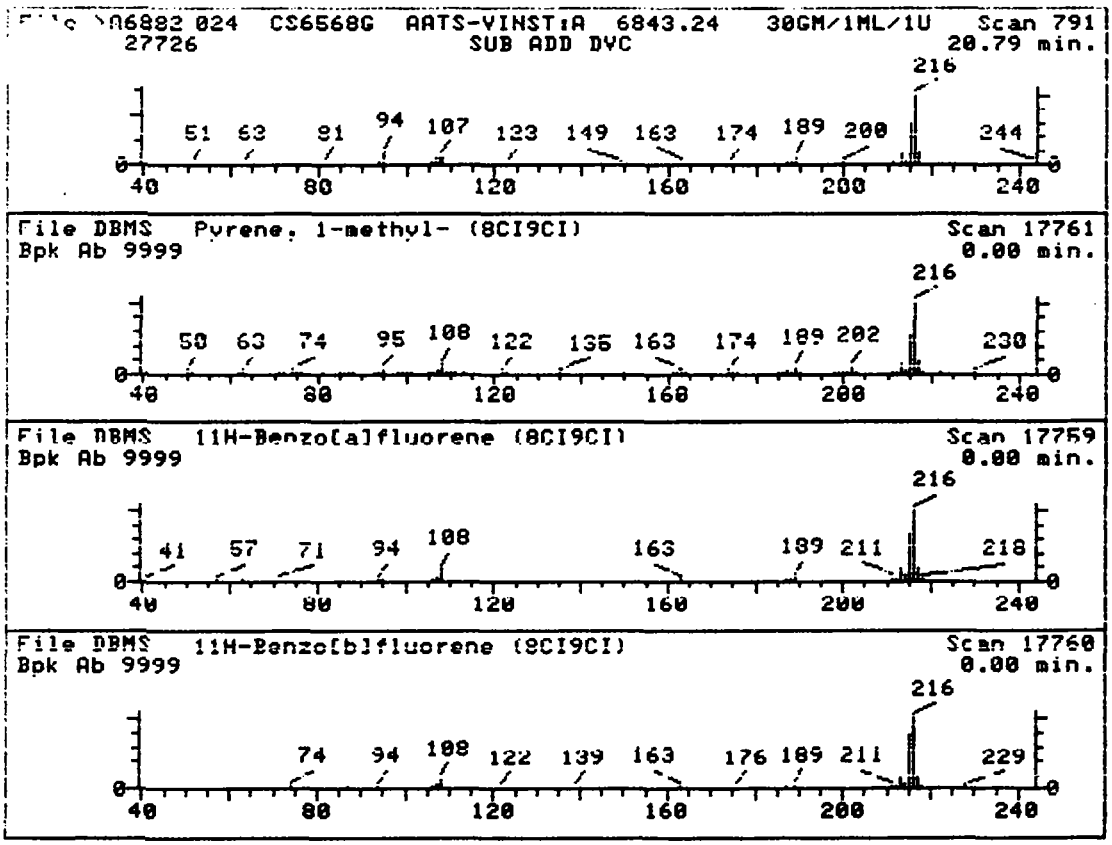
1.	11H-Benzo[b]fluorene (8CI9CI)	216	C17H12
2.	11H-Benzo[a]fluorene (8CI9CI)	216	C17H12
3.	Pyrene, 1-methyl- (8CI9CI)	216	C17H12
4.	Pyrene, 2-methyl- (8CI9CI)	216	C17H12
5.	7H-Benzo[c]fluorene (8CI9CI)	216	C17H12
6.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy 1- (8CI9CI)	216	C12H8O4
7.	Pyrene, 4-methyl- (8CI9CI)	216	C17H12

Sample file: >A6882 Spectrum #: 782
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.	86*	243174	26427	DBMS	74	47	1	0	82	9	59	72
2.	79*	238846	26426	DBMS	67	53	3	0	100	7	48	34
3.	37*	2381217	26428	DBMS	43	82	2	0	79	28	14	14
4.	31*	3442782	26430	DBMS	46	73	2	0	84	37	10	17
5.	29	205129	26425	DBMS	51	12	2	0	885	43	8	17
6.	20*	4481601	26385	DBMS	33	82	3	0	100	54	5	13

0513

7.	19*	3353126	26429	DBMS	33	89	1	0	62	60	9	18



Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

Unknown #,14
Area = 241609.0 Tentative Concentration is 7.00

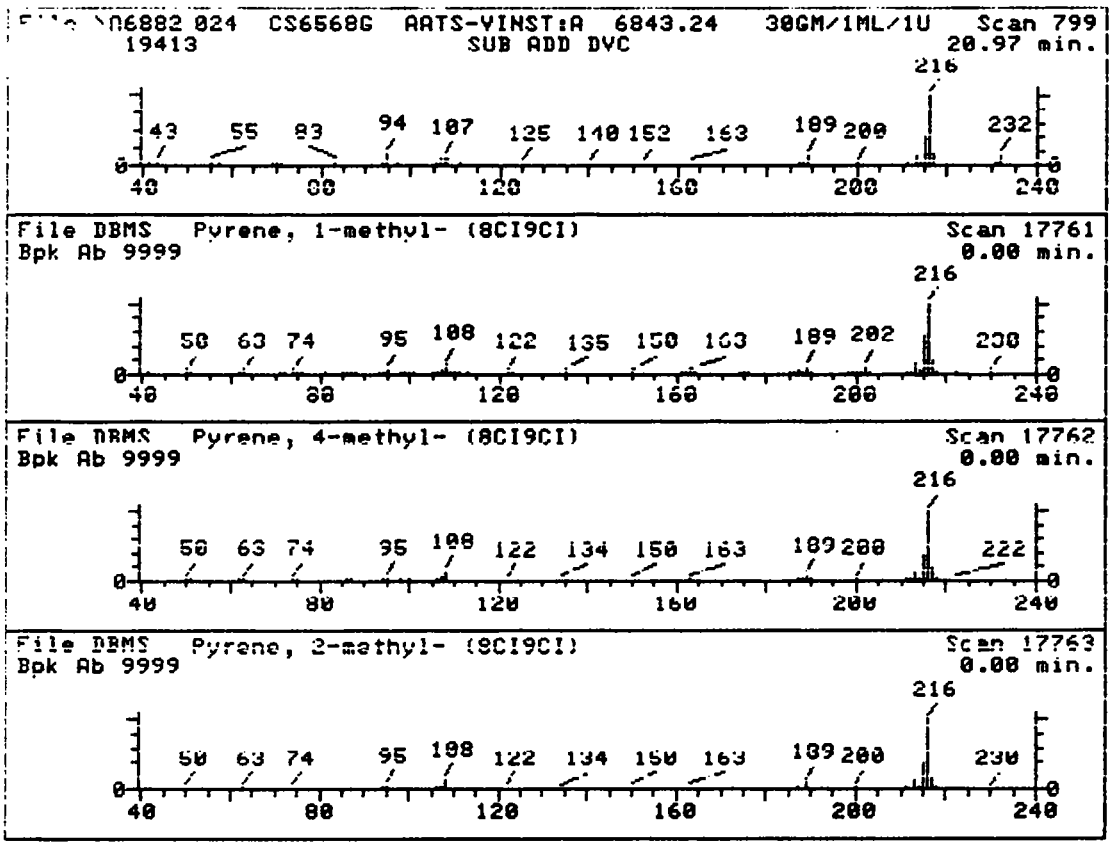
1.	Pyrene, 1-methyl- (8CI9CI)	216	C17H12
2.	11H-Benzo[a]fluorene (8CI9CI)	216	C17H12
3.	11H-Benzo[b]fluorene (8CI9CI)	216	C17H12
4.	Pyrene, 4-methyl- (8CI9CI)	216	C17H12
5.	Pyrene, 2-methyl- (8CI9CI)	216	C17H12
6.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy 1- (8CI9CI)	216	C12H8O4
7.	Phenol, o-(o-methoxyphenoxy)- (8CI)	216	C13H12O3

Sample File: >A6882 Spectrum #: 791
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
1.	89*	2381217	26428	DBMS	80	45	2	0	73	1	66	61
2.	86*	238846	26426	DBMS	74	46	3	0	90	5	60	59
3.	84*	243174	26427	DBMS	79	42	2	0	77	7	55	60
4.	83*	3353126	26429	DBMS	73	45	1	0	76	13	51	72
5.	83*	3442782	26430	DBMS	72	47	1	0	77	13	51	71
6.	25*	4481601	26385	DBMS	28	87	3	0	100	44	8	13

0514

7.	29*	21909602	26401	DBMS	28	110	3	0	111	47	7	13



Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

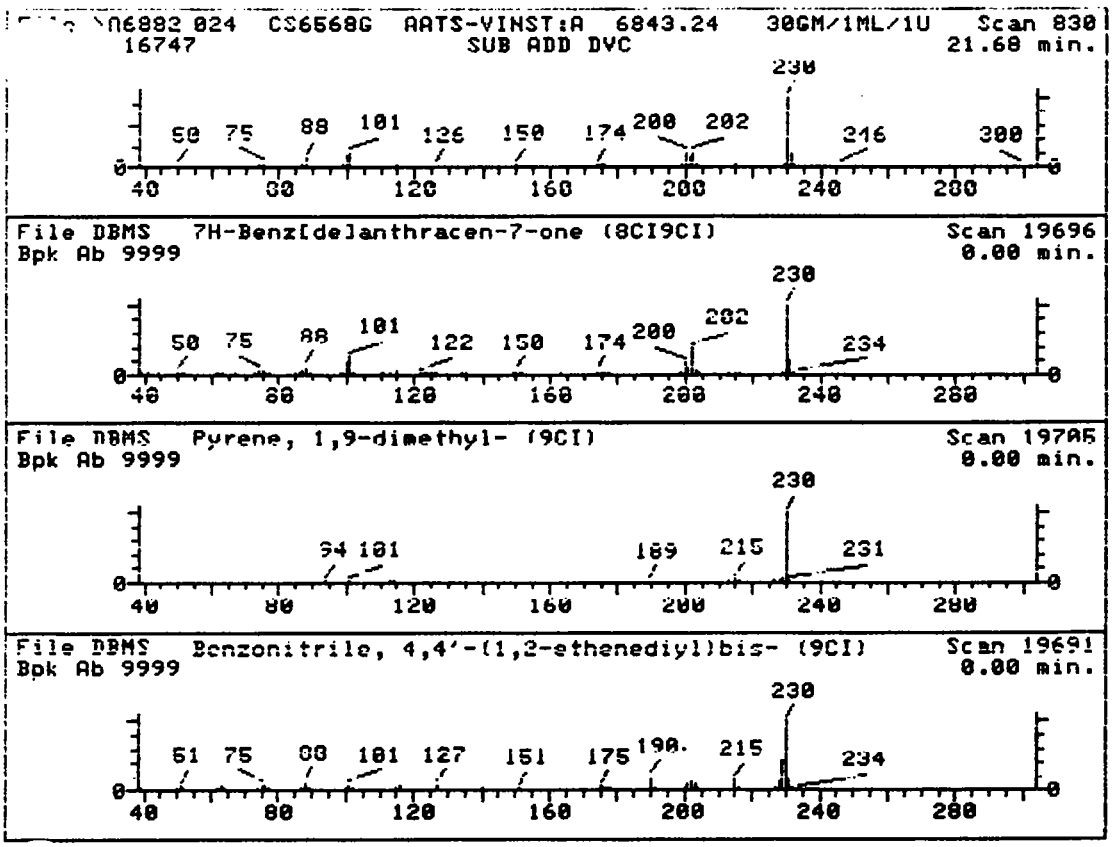
Unknown #.15
Area = 219447.0 Tentative Concentration is 6.00

1.	Pyrene, 1-methyl- (8CI9CI)	216	C17H12
2.	Pyrene, 4-methyl- (8CI9CI)	216	C17H12
3.	Pyrene, 2-methyl- (8CI9CI)	216	C17H12
4.	11H-Benzo[a]fluorene (8CI9CI)	216	C17H12
5.	11H-Benzo[b]fluorene (8CI9CI)	216	C17H12
6.	5H-Furo[3,2-g][1]benzopyran-5-one, 4-hydroxy-7-methy l- (8CI9CI)	216	C12H8O4
7.	7H-Benzo[c]fluorene (8CI9CI)	216	C17H12

Sample File: >A6882 Spectrum #: 799
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IO
1.	83*	2381217	26428	DBMS	77	48	2	0	68	8	54	59
2.	79*	3353126	26429	DBMS	70	48	3	0	100	8	48	56
3.	64*	3442782	26430	DBMS	68	51	2	0	72	21	28	19
4.	36*	238846	26426	DBMS	47	73	2	0	55	35	12	19
5.	29*	243174	26427	DBMS	45	76	2	0	55	37	10	15
6.	24*	4481601	26385	DBMS	23	92	3	0	100	45	8	12

7.	19	205129	26429	DBMS	58	29	2	0	962	60	3	19



UNKNOWN PNA

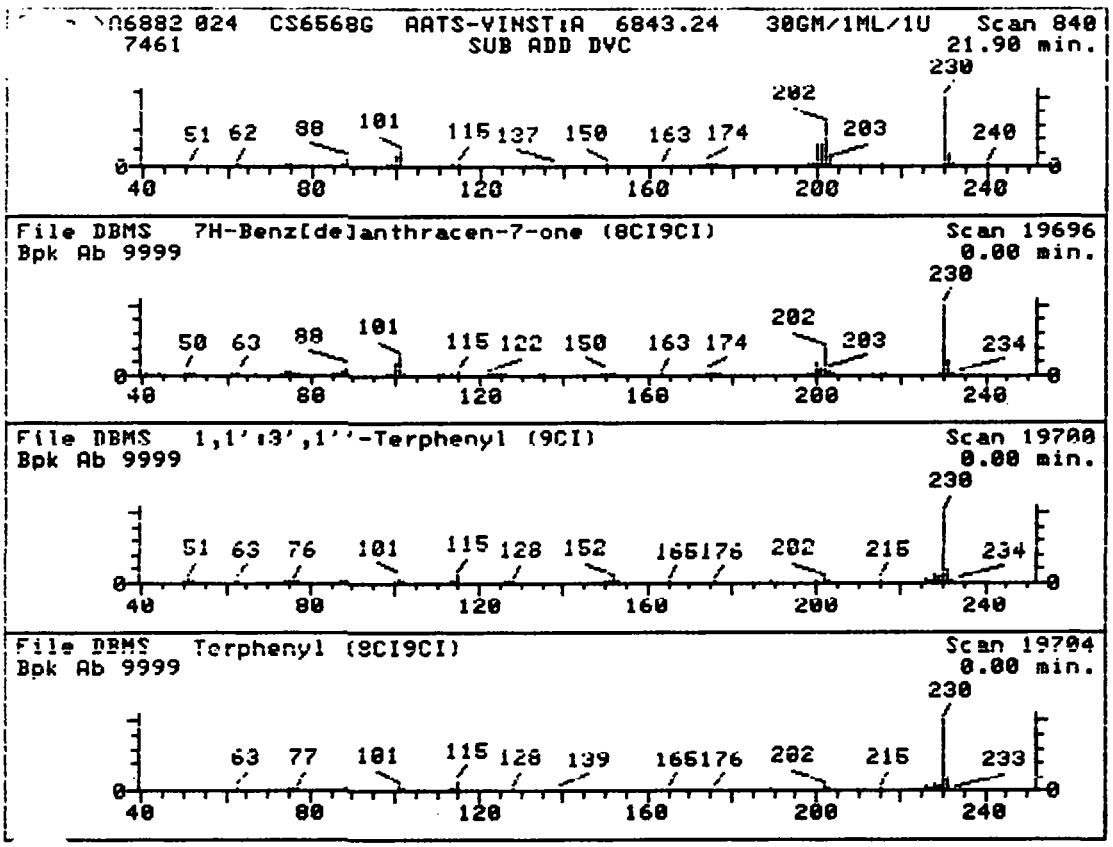
Sample: U24 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

Unknown #.16
Area = 189992.0 Tentative Concentration is 5.00

1.	7H-Benz[de]anthracen-7-one (8CI9CI)	230	C17H10O
2.	Pyrene, 1,9-dimethyl- (9CI)	230	C18H14
3.	Benzonitrile, 4,4'-(1,2-ethenediyl)bis- (9CI)	230	C16H10N2
4.	Dibenzo[c,h][2,6]naphthyridine (8CI9CI)	230	C16H10N2
5.	1,1':4',1''-Terphenyl (9CI)	230	C18H14
6.	9H-Furo[2,3-f][1]benzopyran-9-one, 4-methoxy-7-methyl- (8CI9CI)	230	C13H10O4

Sample file: >A6882 Spectrum #: 830
Search speed: 1 Tilting option: N No. of ion ranges searched: 42

	Prob.	CAS #	CON #	ROUT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	81*	82053	27529	DBMS	100	28	2	0	82	16	45	77
2.	40*	74298707	27536	DBMS	68	29	2	0	100	47	12	49
3.	36*	6292622	27528	DBMS	37	99	3	0	100	27	14	13
4.	31*	218304	27527	DBMS	33	93	2	0	79	33	12	14
5.	28*	92944	27532	DBMS	30	90	2	0	93	37	14	14
6.	24*	17226765	27506	DBMS	22	101	3	0	100	45	8	12



UNKNOWN PNTR

Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

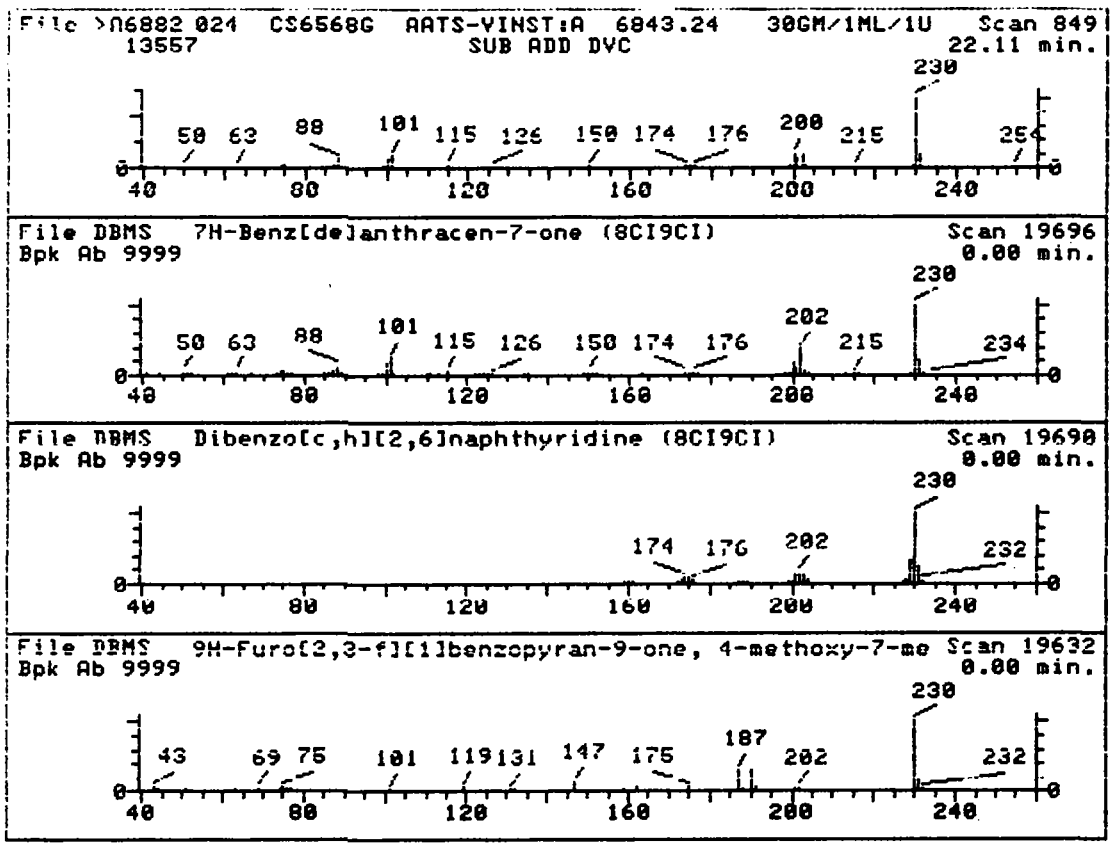
Unknown #,17
Area = 273354.0 Tentative Concentration is 7.00

1.	7H-Benz[de]anthracen-7-one (8CI9CI)	230 C17H10O
2.	1,1':3',1''-Terphenyl (9CI)	230 C18H14
3.	Terphenyl (8CI9CI)	230 C18H14
4.	1,1':4',1''-Terphenyl (9CI)	230 C18H14
5.	Fluoranthene	202 C16H10
6.	Pyrene	202 C16H10
7.	Pyrene	202 C16H10

Sample File: >A6882 Spectrum #: 840
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.	93*	82053	27529	DBMS	87	41	0	0	87	21	53	95
2.	25*	92068	27531	DBMS	30	88	3	0	100	46	7	13
3.	25*	26140603	27535	DBMS	29	87	3	0	100	46	7	13
4.	25*	92944	27532	DBMS	29	91	3	0	100	46	7	13
5.	23*	261	355	PRIPOL	64	51	2	0	60	57	6	45
6.	23*	252	347	PRIPOL	62	53	2	0	61	57	6	40
7.	21*	251	346	PRIPOL	54	66	2	0	61	60	5	31

0517



UNKNOWN PNR

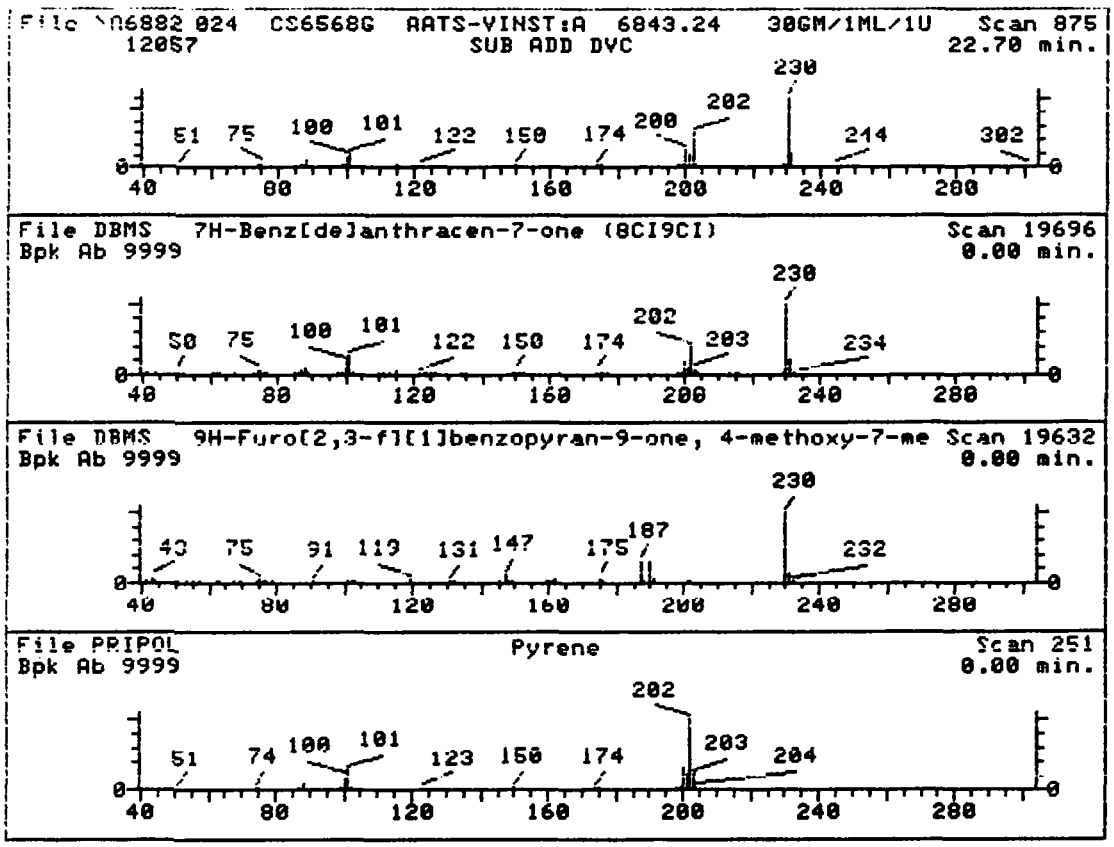
Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

Unknown #.18
Area = 204092.0 Tentative Concentration is 6.00

1.	7H-Benz[de]anthracen-7-one (8CI9CI)	230 C17H10O
2.	Dibenzo[c,h][2,6]naphthyridine (8CI9CI)	230 C16H10N2
3.	9H-Furo[2,3-f][1]benzopyran-9-one, 4-methoxy-7-methy l- (8CI9CI)	230 C13H10O4

Sample file: >A6882 Spectrum #: 849
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.	81*	82053	27529	DBMS	96	32	2	0	75	18	45	74
2.	31*	218304	27527	DBMS	31	95	2	0	83	35	12	14
	24*	17226765	27506	DBMS	22	101	3	0	100	45	8	12



UNKNOWN

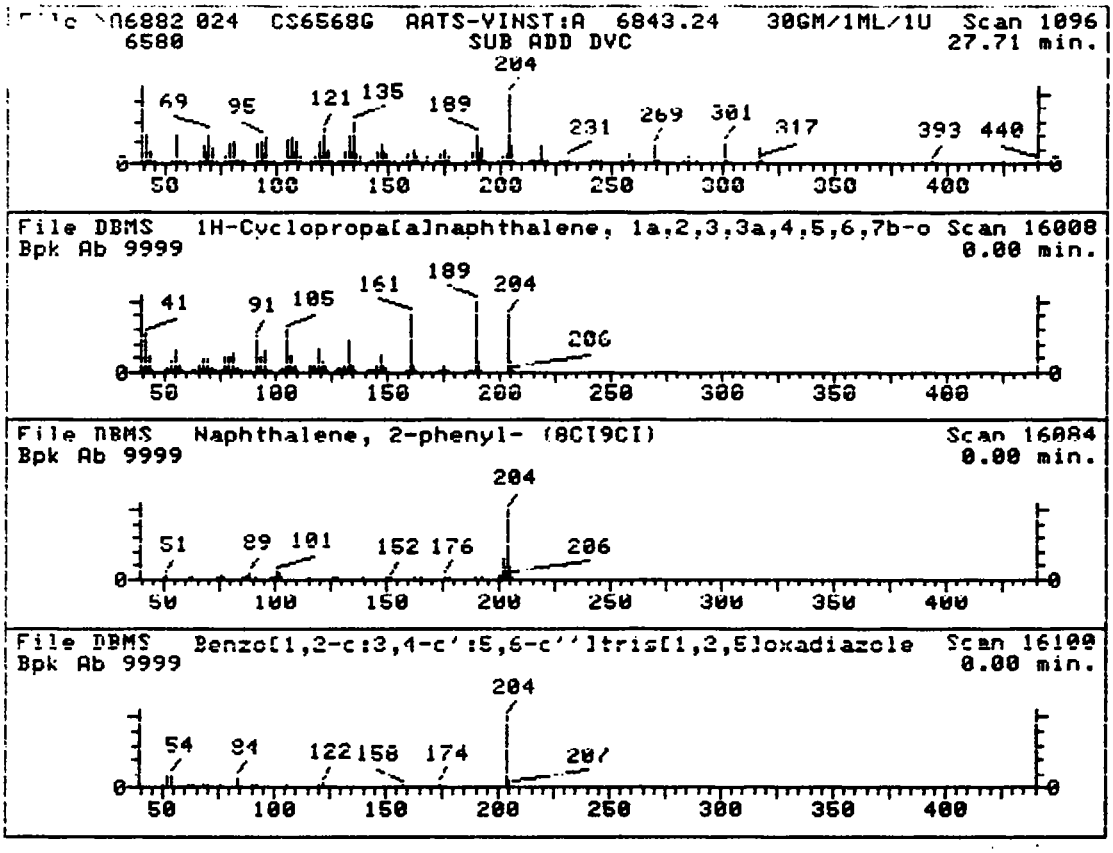
Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

. Unknown #,19
Area = 165443.0 Tentative Concentration is 5.00

1.	7H-Benz[de]anthracen-7-one (8CI9CI)	230 C17H10O
2.	9H-Furo[2,3-f][1]benzopyran-9-one, 4-methoxy-7-methy 1- (8CI9CI)	230 C13H10O4
3.	Pyrene	202 C16H10
4.	Pyrene	202 C16H10
5.	Pyrene	202 C16H10
6.	Fluoranthene	202 C16H10

Sample file: >A6882 Spectrum #: 875
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
.	68*	82053	27529	DBMS	73	55	1	0	62	40	28	72
2.	20*	17226765	27506	DBMS	22	101	3	0	100	52	5	12
3.	15*	251	346	PRIPOL	47	55	2	0	49	56	3	19
4.	15*	255	350	PRIPOL	40	37	2	0	49	60	3	16
5.	11*	252	347	PRIPOL	39	58	2	0	49	64	2	.16
6.	11*	261	355	PRIPOL	31	66	1	0	49	64	2	17



UNKNOWN

Sample: 024 CS6568G AATS-V Operator: AATS MS 8/14/91 3:36

Unknown #,20
Area = 404053.0 Tentative Concentration is 33.00

1.	1H-Cyclopropa[a]naphthalene, 1a,2,3,3a,4,5,6,7b-octahydro-1,1,3a,7-tetramethyl-, [1aR-(1a.alpha.,3a.alpha.,7b.alpha.)]- (9CI)	204	C15H24
2.	Naphthalene, 2-phenyl- (8CI9CI)	204	C16H12
3.	Benzo[1,2-c:3,4-c':5,6-c'']tris[1,2,5]oxadiazole (9C	204	C6N6O3
4.	1,4-Ethenoanthracene, 1,4-dihydro- (8CI9CI)	204	C16H12
5.	1,4-Naphthalenedione, 5,8-dihydroxy-2-methyl- (9CI)	204	C11H8O4
6.	[1,1'-Biphenyl]-4-ol, 3-chloro- (9CI)	204	C12H9ClO
7.	2,4-Imidazolidinedione, 3-ethyl-5-phenyl- (9CI)	204	C11H12N2O2

Sample File: >A6882 Spectrum #: 1096
Search speed: 1 Tilting option: N No. of ion ranges searched: 44

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	23*	489292	25199	DBMS	67	89	2	0	87	58	3	13
2.	15*	612942	25211	DBMS	34	79	3	0	100	58	3	13
3.	15*	16279155	25219	DBMS	29	75	3	0	100	58	3	13
4.	15*	27765964	25217	DBMS	33	92	3	0	100	58	3	13
5.	15*	14554097	25185	DBMS	39	99	3	0	100	58	3	13

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

65686-025

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684325

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF137

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 19 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/15/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	810	U
111-44-4	bis(2-Chloroethyl)Ether	810	U
95-57-8	2-Chlorophenol	810	U
541-73-1	1,3-Dichlorobenzene	810	U
106-46-7	1,4-Dichlorobenzene	810	U
100-51-6	Benzyl Alcohol	810	U
95-50-1	1,2-Dichlorobenzene	810	U
95-48-7	2-Methylphenol	810	U
108-60-1	bis(2-Chloroisopropyl)ether	810	U
106-44-5	4-Methylphenol	810	U
621-64-7	N-Nitroso-Di-n-Propylamine	810	U
67-72-1	Hexachloroethane	810	U
98-95-3	Nitrobenzene	810	U
78-59-1	Isophorone	810	U
88-75-5	2-Nitrophenol	810	U
105-67-9	2,4-Dimethylphenol	810	U
65-85-0	Benzoic Acid	4000	U
111-91-1	bis(2-Chloroethoxy)Methane	810	U
120-83-2	2,4-Dichlorophenol	810	U
120-82-1	1,2,4-Trichlorobenzene	810	U
91-20-3	Naphthalene	810	U
106-47-8	4-Chloroaniline	810	U
87-68-3	Hexachlorobutadiene	810	U
59-50-7	4-Chloro-3-Methylphenol	810	U
91-57-6	2-Methylnaphthalene	810	U
77-47-4	Hexachlorocyclopentadiene	810	U
88-06-2	2,4,6-Trichlorophenol	810	U
95-95-4	2,4,5-Trichlorophenol	4000	U
91-58-7	2-Chloronaphthalene	810	U
88-74-4	2-Nitroaniline	4000	U
131-11-3	Dimethyl Phthalate	810	U
208-96-8	Acenaphthylene	88	J
606-20-2	2,6-Dinitrotoluene	810	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-025

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684325

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF137

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 19 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/15/91

GPC Cleanup: (Y/N) Y 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	4000	U
83-32-9	Acenaphthene	810	U
51-28-5	2,4-Dinitrophenol	4000	U
100-02-7	4-Nitrophenol	4000	U
132-64-9	Dibenzofuran	810	U
121-14-2	2,4-Dinitrotoluene	810	U
84-66-2	Diethylphthalate	810	U
7005-72-3	4-Chlorophenyl-phenylether	810	U
86-73-7	Fluorene	190	J
100-01-6	4-Nitroaniline	4000	U
534-52-1	4,6-Dinitro-2-Methylphenol	4000	U
86-30-6	N-Nitrosodiphenylamine (1)	810	U
101-55-3	4-Bromophenyl-phenylether	810	U
118-74-1	Hexachlorobenzene	810	U
87-86-5	Pentachlorophenol	4000	U
85-01-8	Phenanthrene	2100	
120-12-7	Anthracene	260	J
84-74-2	Di-n-Butylphthalate	810	U
206-44-0	Fluoranthene	1200	
129-00-0	Pyrene	1400	
85-68-7	Butylbenzylphthalate	810	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)Anthracene	660	J
218-01-9	Chrysene	820	
117-81-7	bis(2-Ethylhexyl)Phthalate	130	J
117-84-0	Di-n-Octyl Phthalate	810	U
205-99-2	Benzo(b)Fluoranthene	620	J
207-08-9	Benzo(k)Fluoranthene	810	U
50-32-8	Benzo(a)Pyrene	200	J
193-39-5	Indeno(1,2,3-cd)Pyrene	810	U
53-70-3	Dibenz(a,h)Anthracene	810	U
191-24-2	Benzo(g,h,i)Perylene	810	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-025

Lab Name: SWL-TULSA Contract:

Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684325

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF137

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 19 dec. Date Extracted: 08/02/91

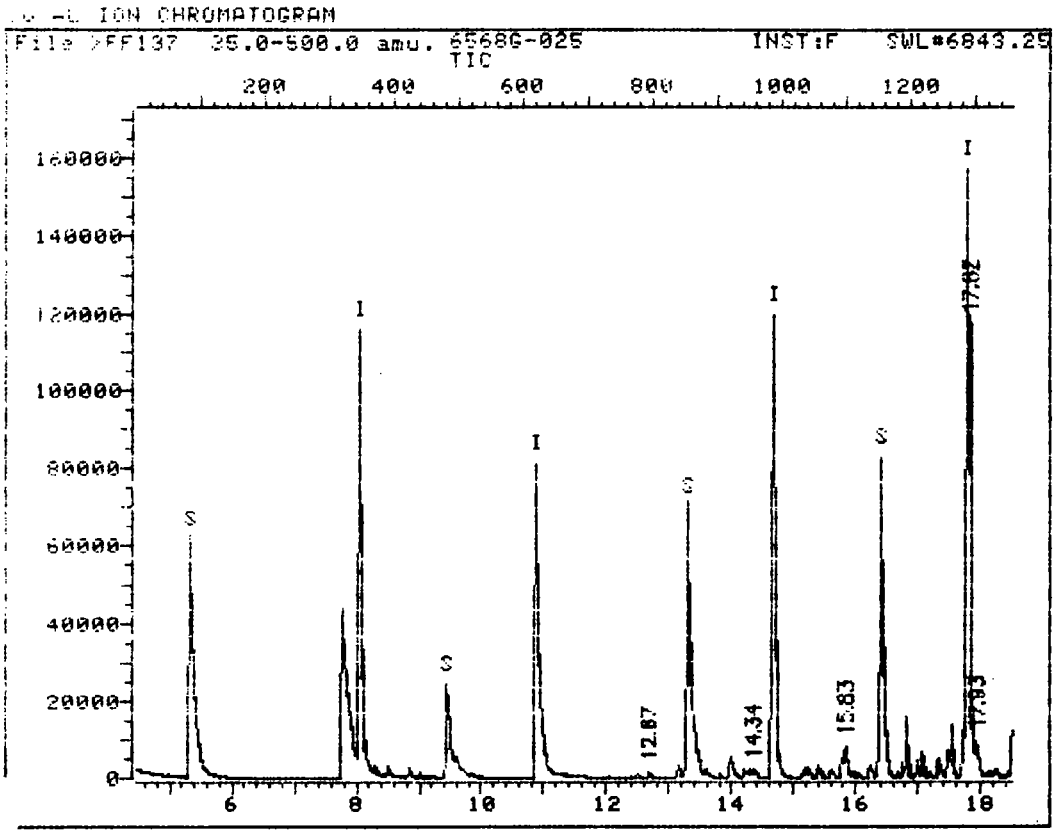
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/15/91

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

Number TICs found: 14

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN HYDROCARBON	16.82	250	J
2.		Dibenzothiophene, methyl-	18.50	250	J
3.		Anthracene, methyl-	18.87	660	J
4.		Anthracene, methyl-	18.94	660	J
5.		Anthracene, methyl-	19.10	910	J
6.		Anthracene, methyl-	19.17	490	J
7.	84651	9,10-Anthracenedione	19.62	330	J
8.		Phenanthrene, dimethyl-	20.07	580	J
9.		Phenanthrene, dimethyl-	20.14	330	J
10.		UNKNOWN COMPOUND	20.29	490	J
11.		UNKNOWN HYDROCARBON	25.82	580	J
12.		UNKNOWN HYDROCARBON	27.29	580	J
13.		UNKNOWN COMPOUND	29.32	6200	J
14.		UNKNOWN COMPOUND	29.62	740	J

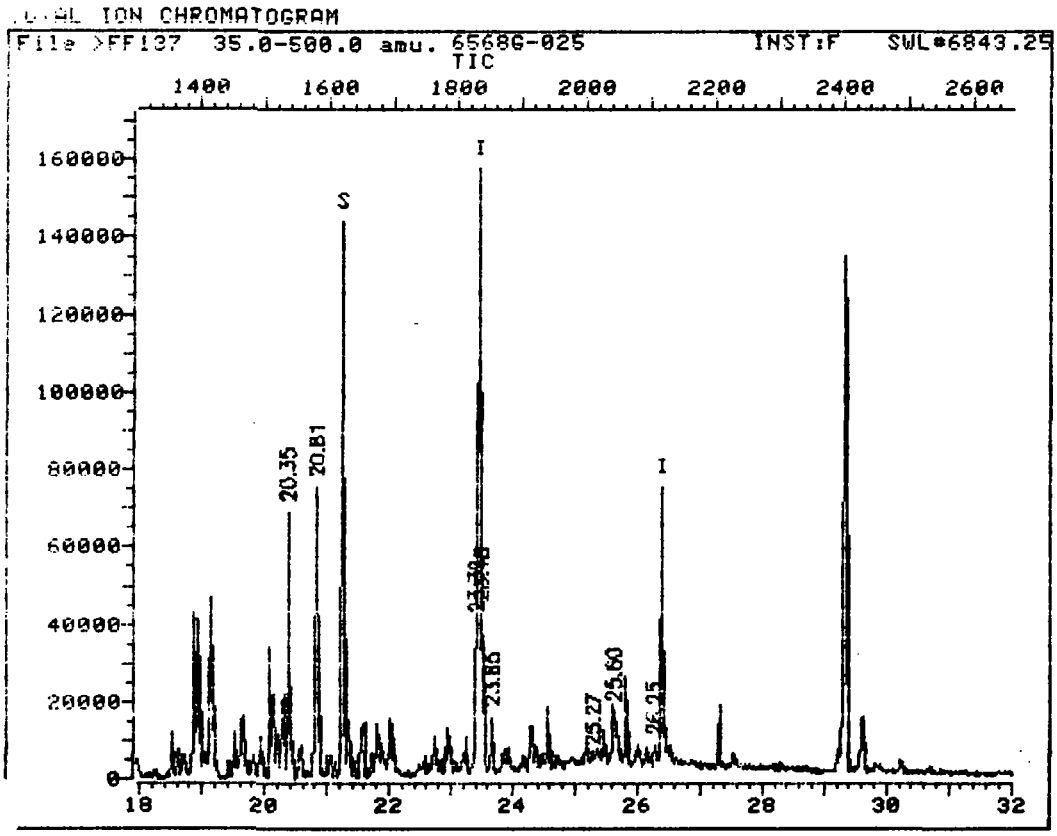


Data File: >FF137::D6 Quant Output File: ^FF137::D7
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910815 11:49

Operator ID: LINDA
Quant Time: 910815 15:36
Injected at: 910815 15:01

TIC page 1 of 2



Data File: >FF137::D6 Quant Output File: ^FF137::D7
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910815 11:49

Operator ID: LINDA
Quant Time: 910815 15:36
Injected at: 910815 15:01

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA Quant Rev: 6 Quant Time: 910815 15:36
Output File: ^FF137::D7 Injected at: 910815 15:01
Data File: >FF137::D6 Dilution Factor: 1.00000
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1

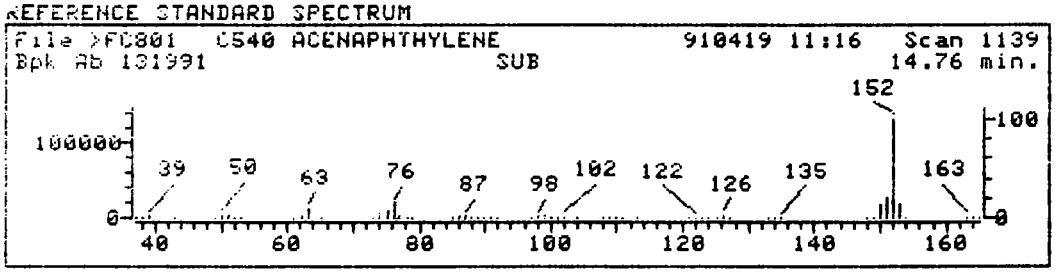
ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910815 11:49

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	8.04	152.0	45959	40.00	NG/UL	97
5)	CS50 2-FLUOROPHENOL	5.30	112.0	100817	84.44	NG/UL	95
6)	CS45 PHENOL-D5	7.75	99.0	140028M	81.16	NG/UL	
17)	*CI40 NAPHTHALENE-D8	10.87	136.0	164765	40.00	NG/UL	98
30)	C470 2-METHYLNAPHTHALENE	12.67	142.0	2433	.64	NG/UL	99
31)	CS20 NITROBENZENE-D5	9.42	82.0	55292	31.55	NG/UL	93
32)	*CI50 ACENAPHTHENE-D10	14.65	164.0	98592	40.00	NG/UL	99
39)	C540 ACENAPHTHYLENE	14.34	152.0	4964	1.07	NG/UL	93
49)	C590 FLUORENE	15.83	166.0	6855	2.33	NG/UL	94
51)	CS25 2-FLUOROBIPHENYL	13.29	172.0	102779	32.04	NG/UL	99
2)	CS55 2,4,6-TRIBROMOPHENOL	16.40	329.8	26262	54.82	NG/UL	90
53)	*CI60 PHENANTHRENE-D10	17.77	188.0	145873	40.00	NG/UL	89
59)	C640 PHENANTHRENE	17.82	178.0	105352	25.95	NG/UL	96
60)	C645 ANTHRACENE	17.93	178.0	13566	3.15	NG/UL	96
62)	C655 FLUORANTHENE	20.35	202.0	62477	14.58	NG/UL	96
63)	*CI70 CHRYSENE-D12	23.42	240.0	117223	40.00	NG/UL	95
64)	C715 PYRENE	20.81	202.0	65502	16.68	NG/UL	90
67)	C730 BENZO(A)ANTHRACENE	23.39	228.0	26378	8.02	NG/UL	99
68)	C740 CHRYSENE	23.48	228.0	31863	10.05	NG/UL	97
69)	C745 BIS(2-ETHYLHEXYL)PHTHALAT	23.65	149.0	5571	1.59	NG/UL	84
70)	CS30 TERPHENYL-D14	21.22	244.0	94554	36.37	NG/UL	87
71)	*CI75 PERYLENE-D12	26.36	264.0	83327	40.00	NG/UL	97
72)	C760 DI-N-OCTYLPHTHALATE	25.27	149.0	2790	.46	NG/UL	100
73)	C765 BENZO(B)FLUORANTHENE	25.60	252.0	19175	7.53	NG/UL *	89
74)	C770 BENZO(K)FLUORANTHENE	25.60	252.0	19175	7.01	NG/UL	89
75)	C775 BENZO(A)PYRENE	26.25	252.0	5109	2.42	NG/UL	79

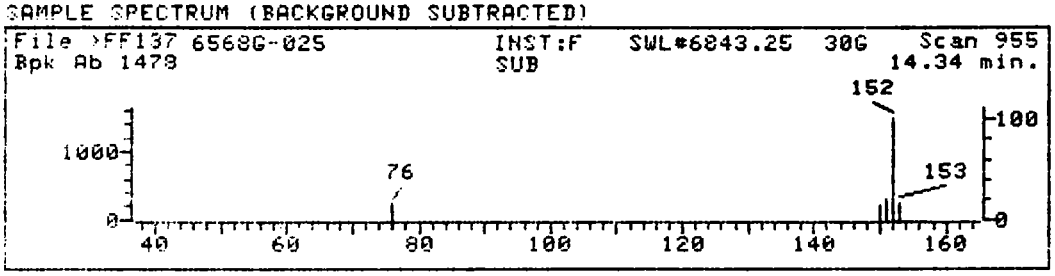
* Compound is ISTD

* Total Benzo(B)+(K)

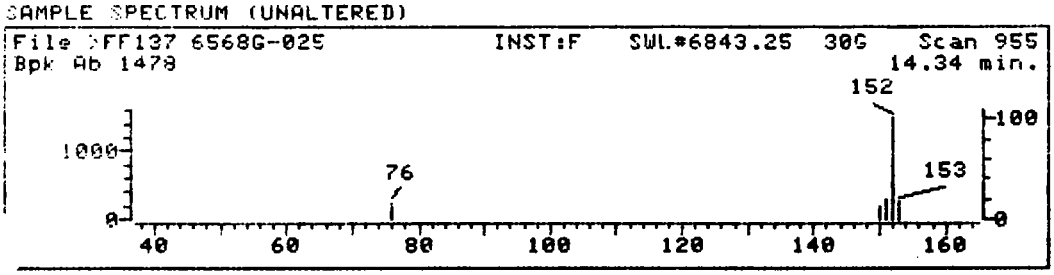
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



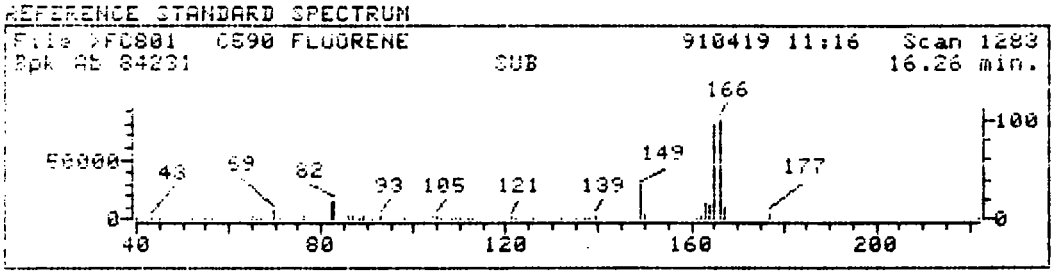
SAMPLE SPECTRUM (UNALTERED)



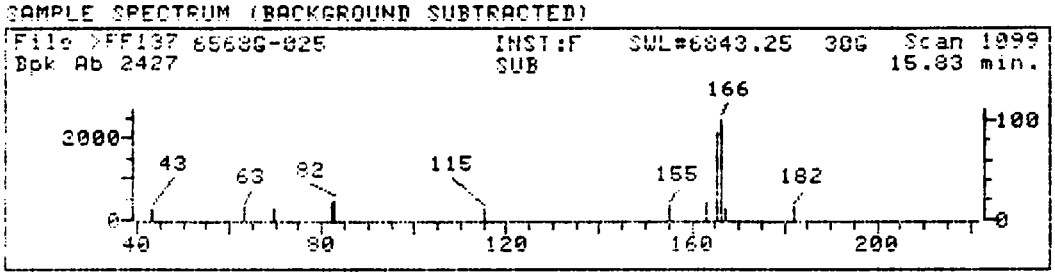
Data File: >FF137::D6 Quant Output File: ^FF137::D7
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1
Quant Time: 910815 15:36 Quant ID File: ID_BN2::EX
Injected at: 910815 15:01 Last Calibration: 910815 11:49

Compound No: 39
Compound Name: C540 ACENAPHTHYLENE
Scan Number: 955
Retention Time: 14.34 min.
Quant Ion: 152.0
Area: 4964
Concentration: 1.07 NG/UL
q-value: 93

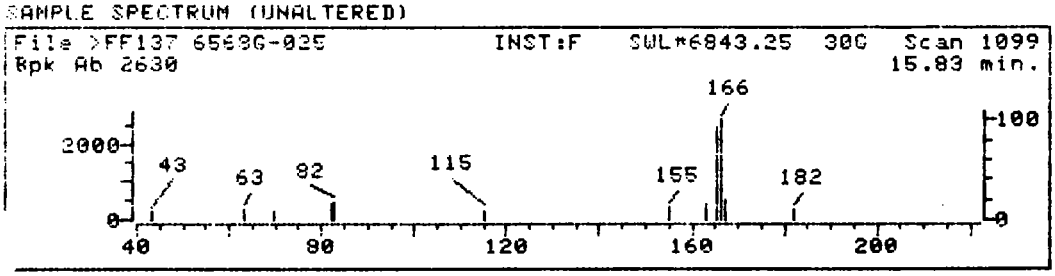
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



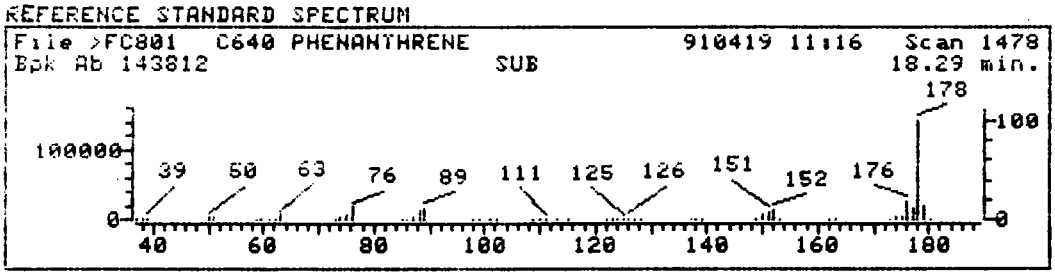
SAMPLE SPECTRUM (UNALTERED)



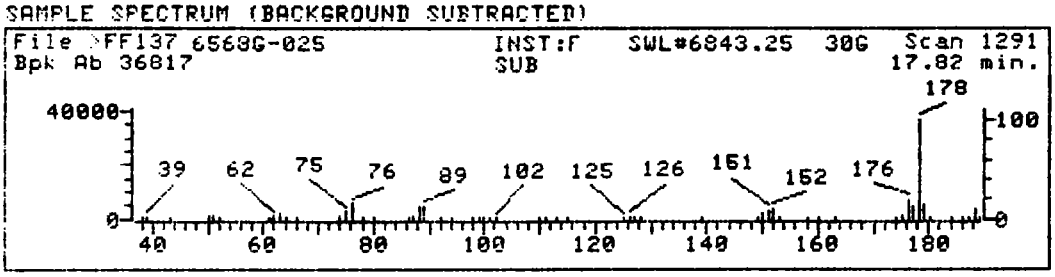
Data File: >FF137::D6 Quant Output File: ^FF137::D7
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1
Quant Time: 910815 15:36 Quant ID File: ID_BN2::EX
Injected at: 910815 15:01 Last Calibration: 910815 11:49

Compound No: 49
Compound Name: C590 FLUORENE
Scan Number: 1099
Retention Time: 15.83 min.
Quant Ion: 166.0
Area: 6855
Concentration: 2.33 NG/UL
q-value: 94

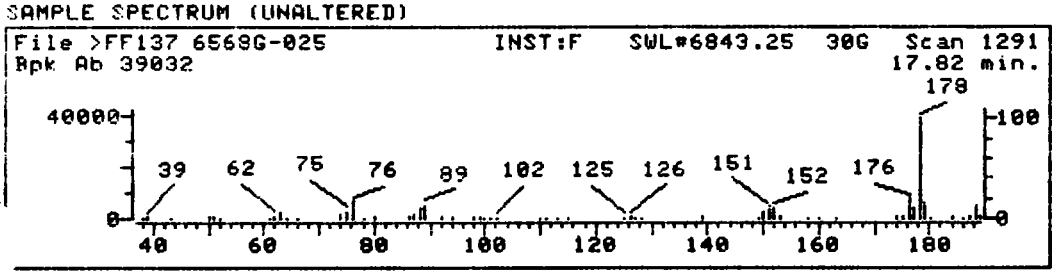
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



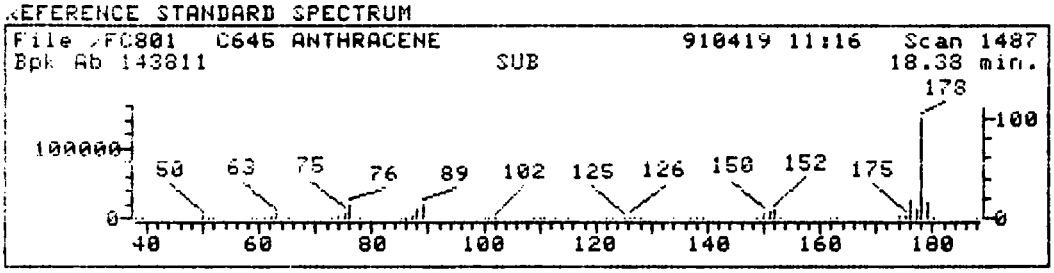
SAMPLE SPECTRUM (UNALTERED)



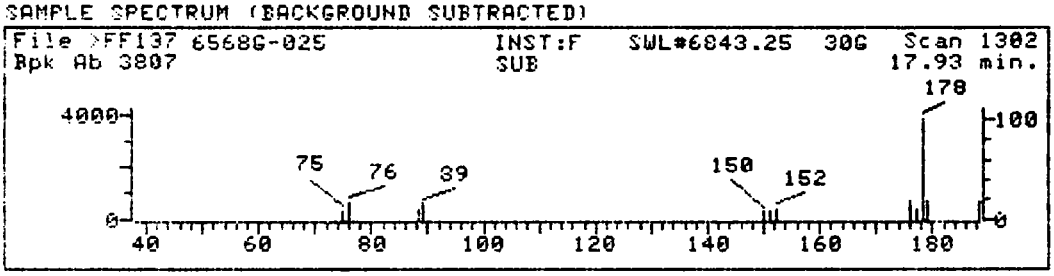
Data File: >FF137::D6 Quant Output File: ^FF137::D7
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1
Quant Time: 910815 15:36 Quant ID File: ID_BN2::EX
Injected at: 910815 15:01 Last Calibration: 910815 11:49

Compound No: 59
Compound Name: C640 PHENANTHRENE
Scan Number: 1291
Retention Time: 17.82 min.
Quant Ion: 178.0
Area: 105352
Concentration: 25.95 NG/UL
q-value: 96

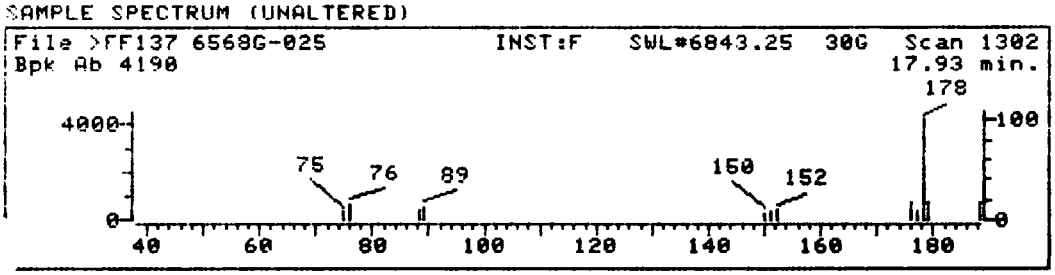
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



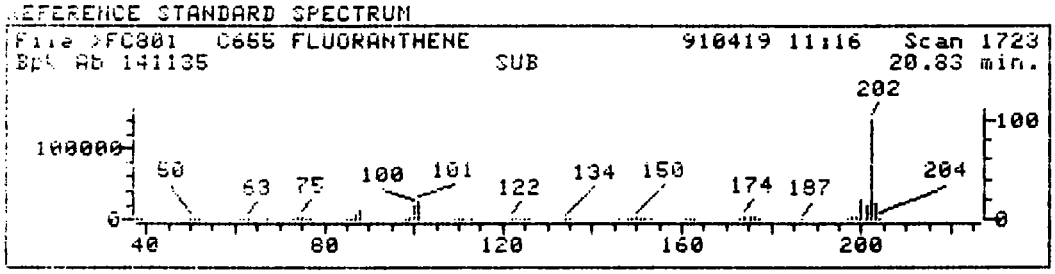
SAMPLE SPECTRUM (UNALTERED)



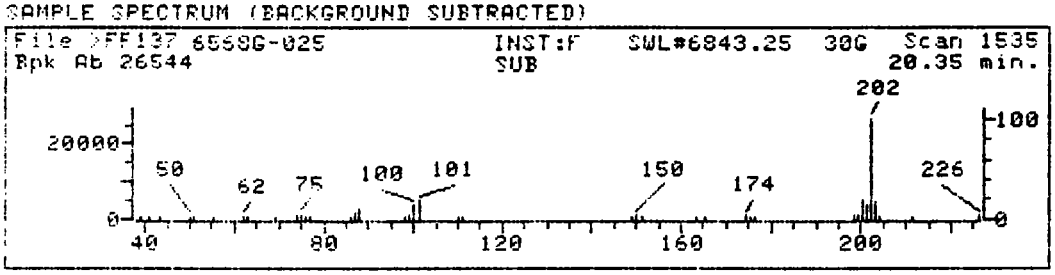
Data File: >FF137::D6 Quant Output File: ^FF137::D7
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1
Quant Time: 910815 15:36 Quant ID File: ID_BN2::EX
Injected at: 910815 15:01 Last Calibration: 910815 11:49

Compound No: 60
Compound Name: C645 ANTHRACENE
Scan Number: 1302
Retention Time: 17.93 min.
Quant Ion: 178.0
Area: 13566
Concentration: 3.15 NG/UL
q-value: 96

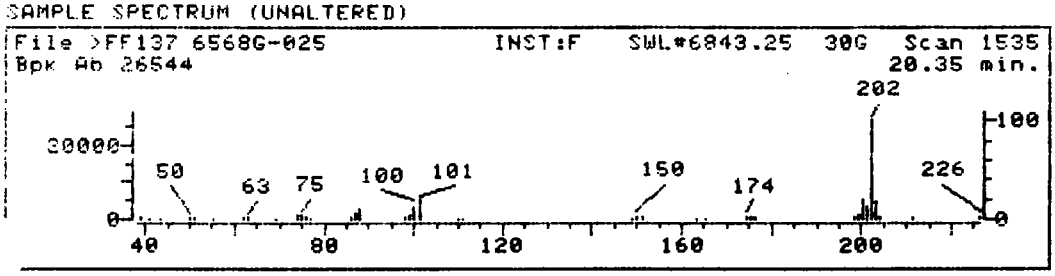
REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

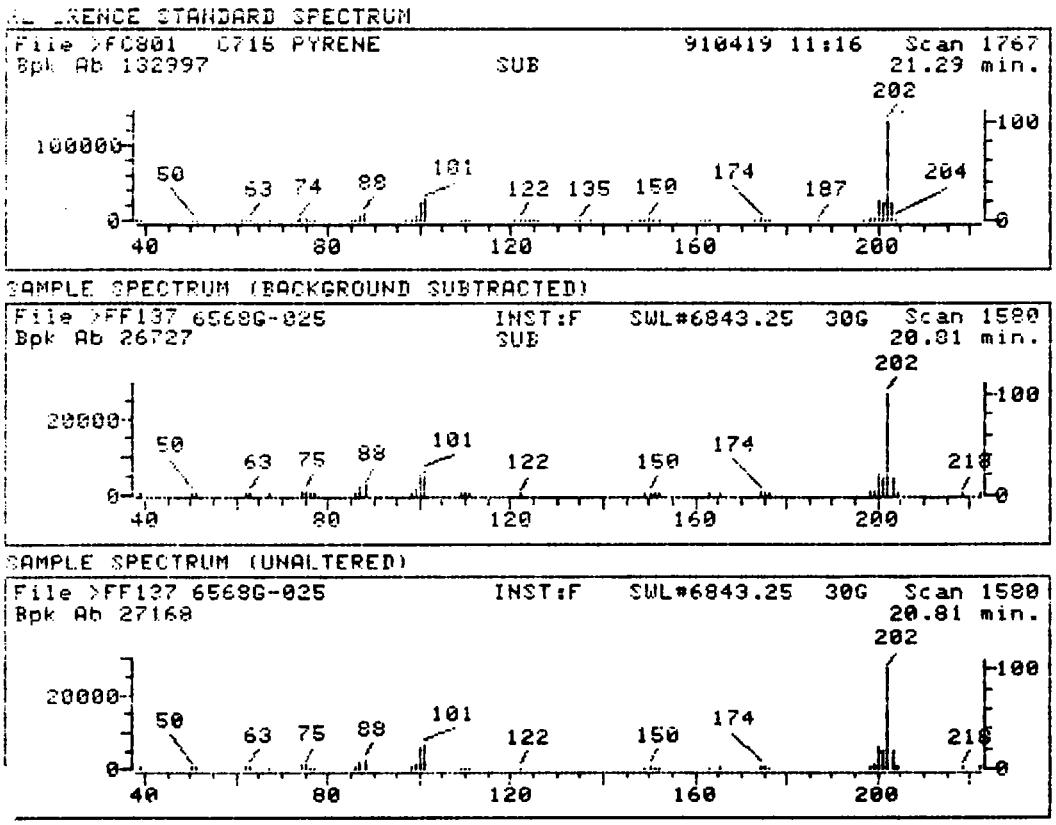


SAMPLE SPECTRUM (UNALTERED)



Data File: >FF137::D6 Quant Output File: ^FF137::D7
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1
Quant Time: 910815 15:36 Quant ID File: ID_BN2::EX
Injected at: 910815 15:01 Last Calibration: 910815 11:49

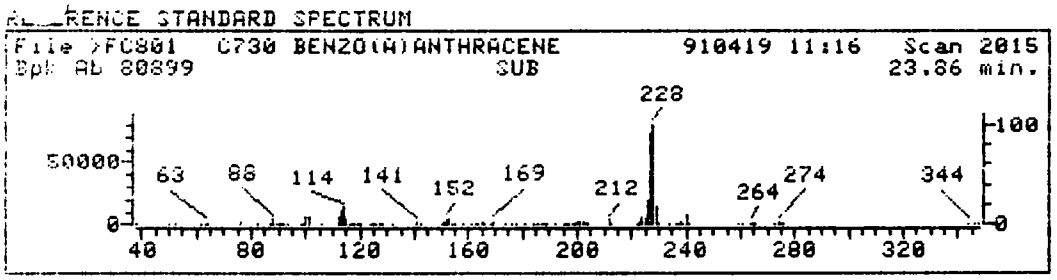
Compound No: 62
Compound Name: C655 FLUORANTHENE
Scan Number: 1535
Retention Time: 20.35 min.
Quant Ion: 202.0
Area: 62477
Concentration: 14.58 NG/UL
q-value: 96



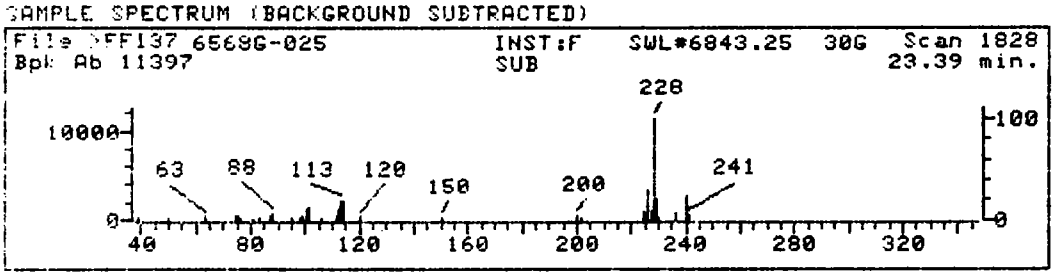
Data File: >FF137::D6 Quant Output File: ^FF137::D7
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1
Quant Time: 910815 15:36 Quant ID File: ID_BN2::EX
Injected at: 910815 15:01 Last Calibration: 910815 11:49

Compound No: 64
Compound Name: C715 PYRENE
Scan Number: 1580
Retention Time: 20.81 min.
Quant Ion: 202.0
Area: 65502
Concentration: 16.68 NG/UL
q-value: 90

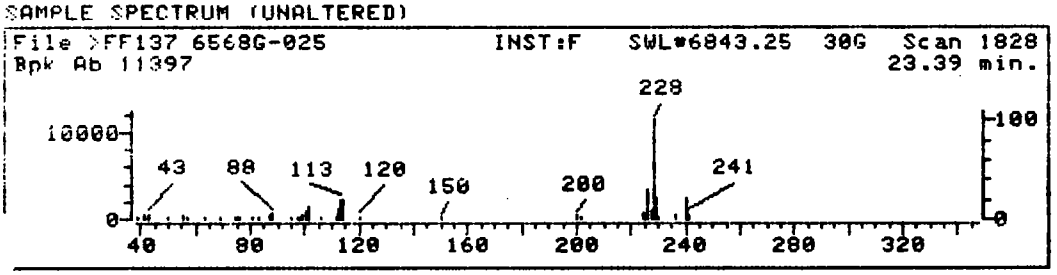
RENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



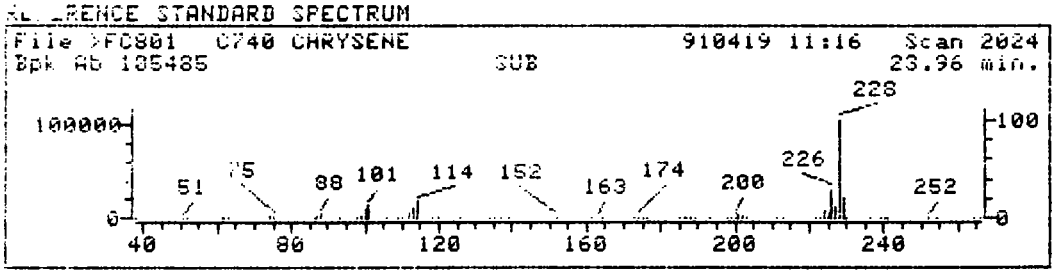
SAMPLE SPECTRUM (UNALTERED)



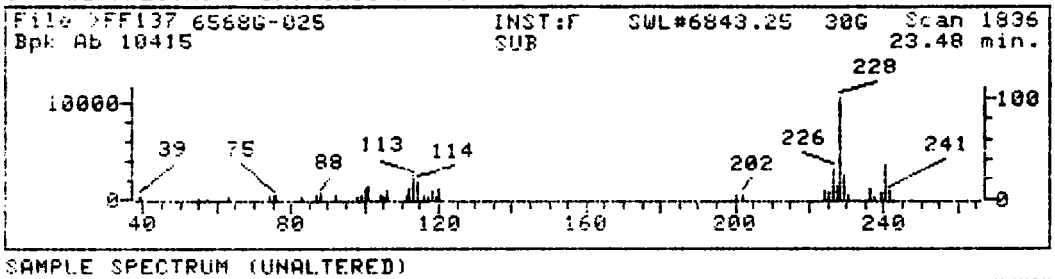
Data File: >FF137::D6 Quant Output File: ^FF137::D7
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1
Quant Time: 910815 15:36 Quant ID File: ID_BN2::EX
Injected at: 910815 15:01 Last Calibration: 910815 11:49

Compound No: 67
Compound Name: C730 BENZO(A)ANTHRACENE
Scan Number: 1828
Retention Time: 23.39 min.
Quant Ion: 228.0
Area: 26378
Concentration: 8.02 NG/UL
q-value: 99

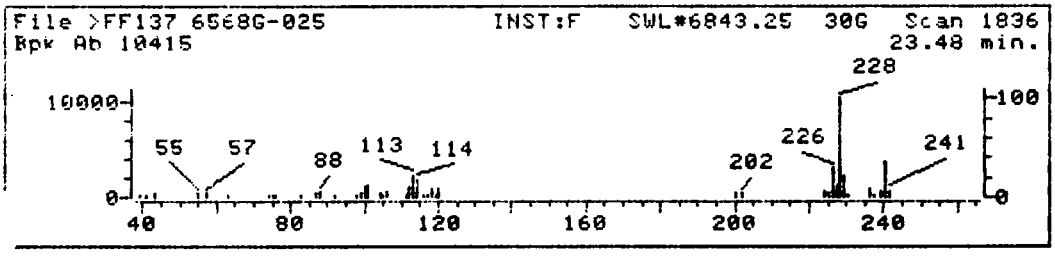
RE_ERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



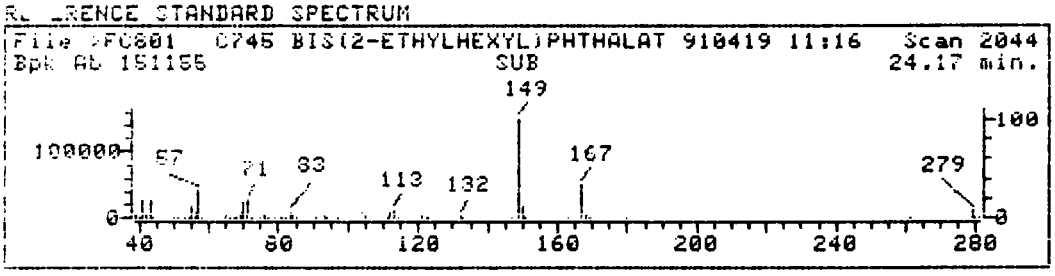
SAMPLE SPECTRUM (UNALTERED)



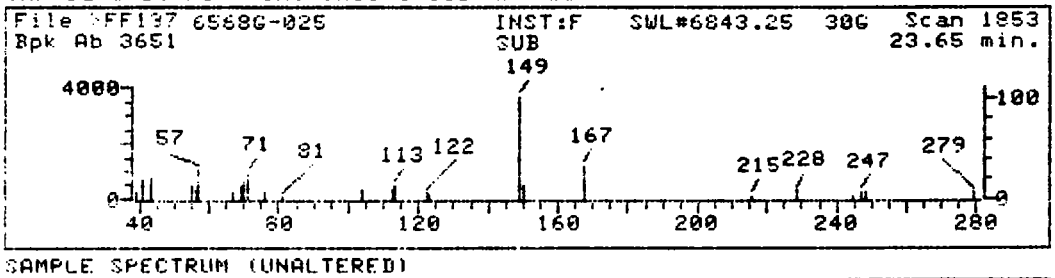
Data File: >FF137::D6 Quant Output File: ^FF137::D7
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1
Quant Time: 910815 15:36 Quant ID File: ID_BN2::EX
Injected at: 910815 15:01 Last Calibration: 910815 11:49

Compound No: 68
Compound Name: C740 CHRYSENE
Scan Number: 1836
Retention Time: 23.48 min.
Quant Ion: 228.0
Area: 31863
Concentration: 10.05 NG/UL
q-value: 97

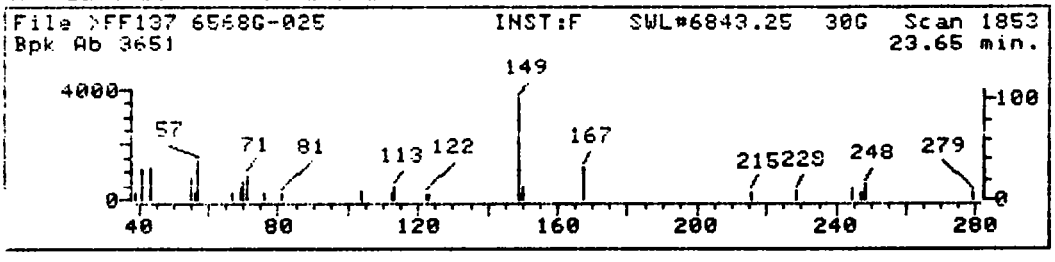
RE_RENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

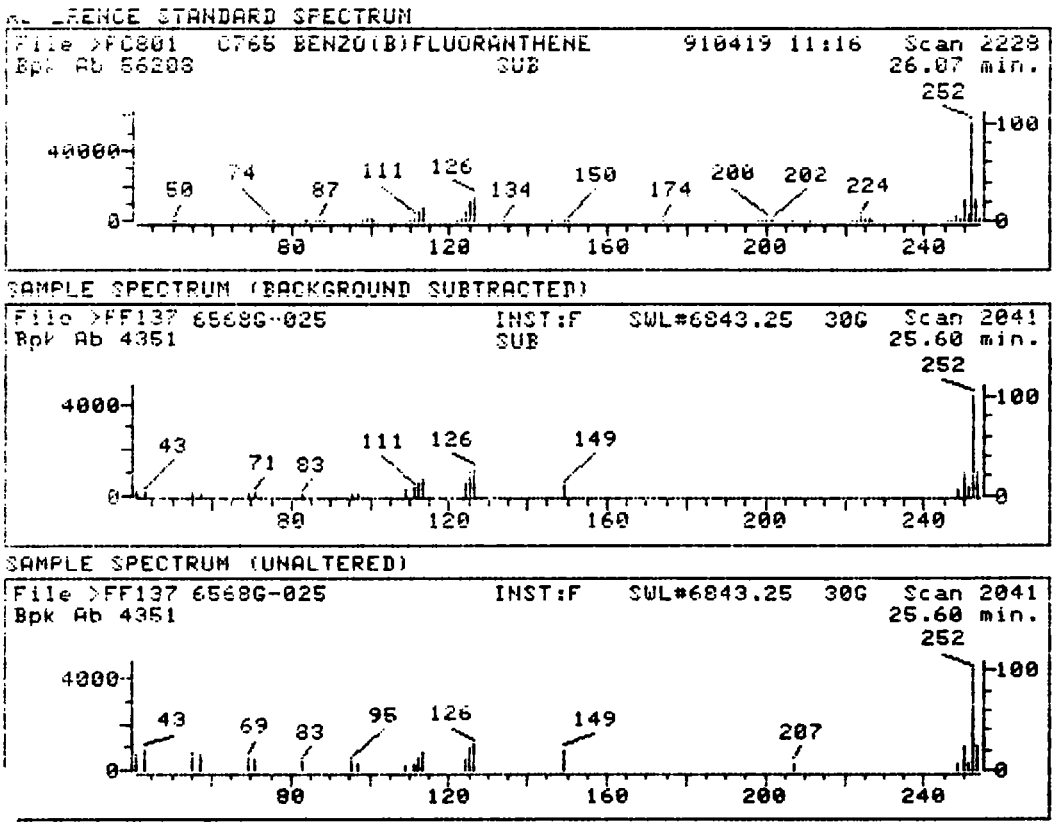


SAMPLE SPECTRUM (UNALTERED)



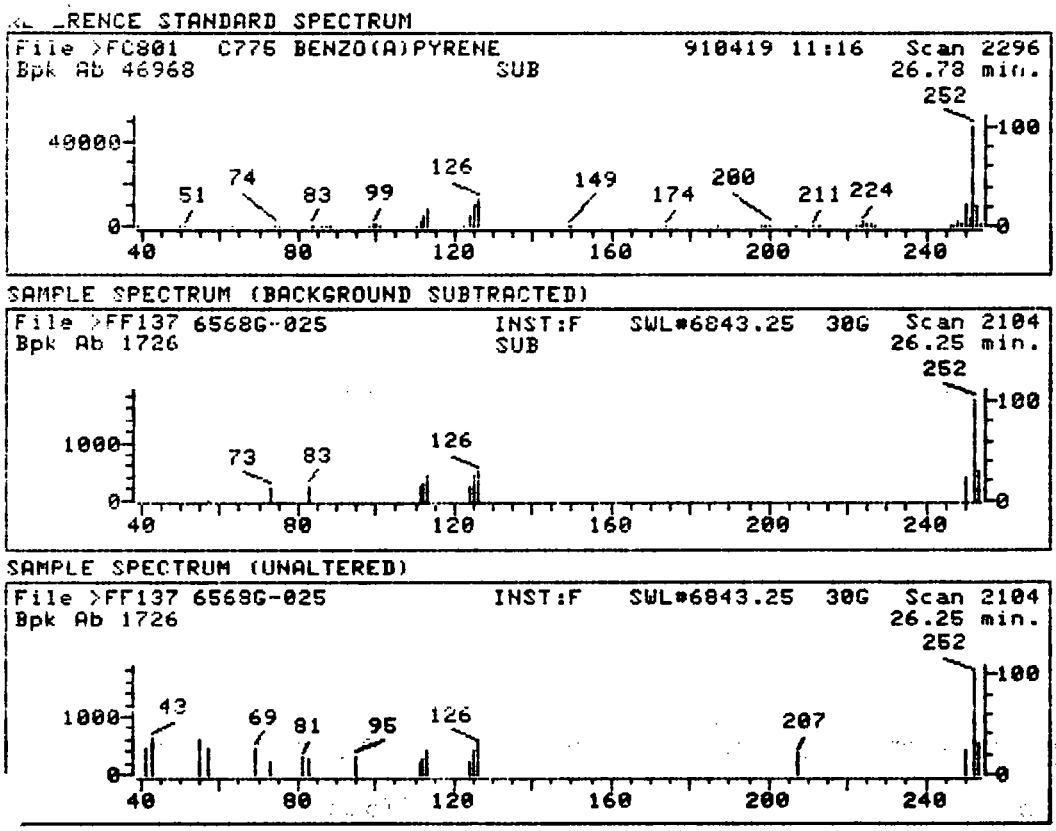
Data File: >FF137::D6 Quant Output File: ^FF137::D7
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1
Quant Time: 910815 15:36 Quant ID File: ID_BN2::EX
Injected at: 910815 15:01 Last Calibration: 910815 11:49

Compound No: 69
Compound Name: C745 BIS(2-ETHYLHEXYL)PHTHALAT
Scan Number: 1853
Retention Time: 23.65 min.
Quant Ion: 149.0
Area: 5571
Concentration: 1.59 NG/UL
q-value: 84



Data File: >FF137::D6 Quant Output File: ^FF137::D7
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1
Quant Time: 910815 15:36 Quant ID File: ID_BN2::EX
Injected at: 910815 15:01 Last Calibration: 910815 11:49

Compound No: 73
Compound Name: C765 BENZO(B)FLUORANTHENE
Scan Number: 2041
Retention Time: 25.60 min.
Quant Ion: 252.0
Area: 19175
Concentration: 7.53 NG/UL
q-value: 89



Data File: >FF137::D6 Quant Output File: ^FF137::D7
Name: 6568G-025
Misc: INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1
Quant Time: 910815 15:36 Quant ID File: ID_BN2::EX
Injected at: 910815 15:01 Last Calibration: 910815 11:49

Compound No: 75
Compound Name: C775 BENZO(A)PYRENE
Scan Number: 2104
Retention Time: 26.25 min.
Quant Ion: 252.0
Area: 5109
Concentration: 2.42 NG/UL
q-value: 79

MS : a file header from : >FF137

Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01
Misc : INST:F SWL#6843.25 30G/.95ML/1UL GPC BTL# 1
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: #STDF Tuning file: F2TUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 300 Transfer line temp. : 0

Chromatographic temperatures :	45.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	9.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	12.0	0.0	0.0	0.0	0.0

>FF137 6568G-025 INST:F SWL#6843.25 30G/.95ML/1UL GPC

35.01 500.0 CLP ADC TIC
Upslope: .20 Area Reject: 22393. Max Peaks: 20 Bunching: 1
Onslope: 0.00 Results File IFF137 Sorted by Time/Area INT

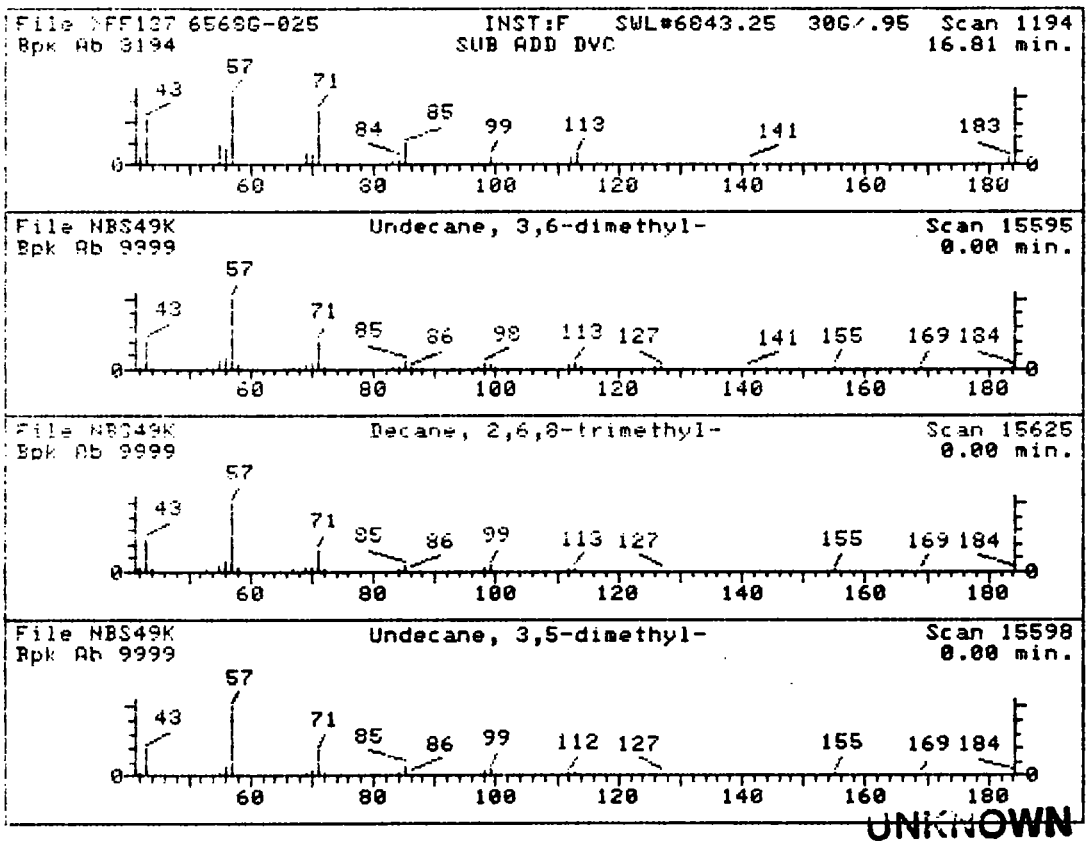
Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	16.81	1191	1194	1198	15816	27504	26473	6.34	1.955
2	18.50	1352	1357	1364	11970	35190	31460	7.53	2.324
3	18.87	1388	1392	1395	40922	95514	85942	20.57	6.347
4	18.93	1395	1398	1404	39056	95460	79360	19.00	5.861
5	19.10	1410	1415	1418	43902	130596	113592	27.19	8.390
6	19.16	1418	1420	1426	31852	74592	61976	14.84	4.577
7	19.62	1460	1465	1472	14560	60445	46005	11.01	3.398
8	20.07	1502	1508	1512	33601	79091	76313	18.27	5.636
9	20.13	1512	1514	1517	21678	44547	42649	10.21	3.150
10	20.28	1522	1528	1531	21273	68799	64500	15.44	4.764
11	20.57	1549	1556	1562	8269	33543	28978	6.94	2.140
12	21.79	1671	1674	1676	12258	33759	26824	6.42	1.981
13	21.98	1688	1692	1695	13160	41333	29087	6.96	2.148
14	22.84	1695	1698	1704	12015	41697	27971	6.70	2.066
15	24.28	1910	1914	1920	11186	52187	36457	8.73	2.693
16	24.56	1937	1941	1947	15906	48383	29732	7.12	2.196
17	25.81	2058	2061	2067	22517	62018	39256	9.40	2.899
18	27.28	2199	2203	2208	16409	55607	38466	9.21	2.841
19	29.32	2393	2400	2408	133110	436726	417704	100.00	30.850
20	29.61	2421	2428	2435	14922	68410	51223	12.26	3.783

Sum of corrected areas: 1353968.

Summary of Unknowns PBM Library Search and Quantitation

Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	307867.	8.04	4.46 - 9.46
2	40.0	319820.	10.87	9.46 - 12.76
3	40.0	428881.	14.65	12.76 - 16.21
4	40.0	412327.	17.77	16.21 - 20.60
5	40.0	429440.	23.42	20.60 - 24.89

0538



UNKNOWN

Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

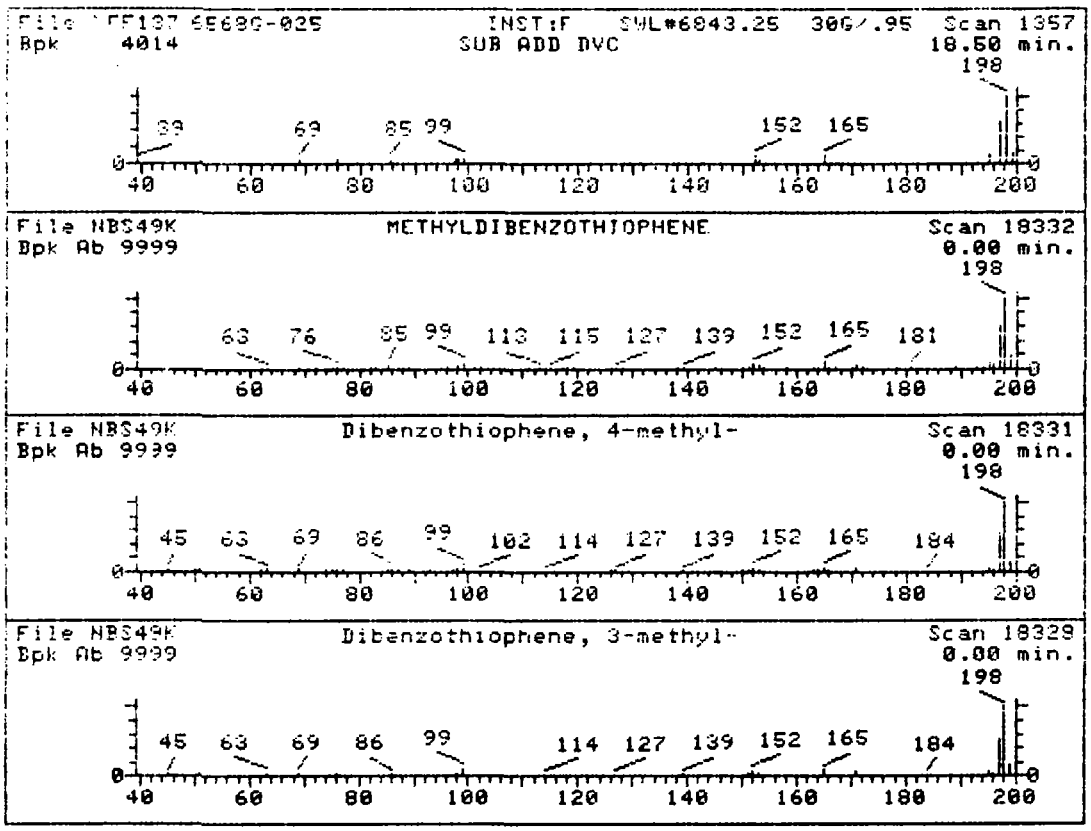
. Unknown #,1
Area = 26473.00 Tentative Concentration is 3.00

1.	Undecane, 3,6-dimethyl-	184 C13H28
2.	Decane, 2,6,8-trimethyl-	184 C13H28
3.	Undecane, 3,5-dimethyl-	184 C13H28
4.	Decane, 5-propyl-	184 C13H28
5.	Octadecane, 2,6-dimethyl-	282 C20H42
6.	Heptane, 3-ethyl-5-methyl-	142 C10H22
7.	Nonane, 4-methyl-5-propyl-	184 C13H28

Sample file: >FF137 Spectrum #: 1194
Search speed: 1 Tilting option: N No. of ion ranges searched: 46

0539

Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	% CON	C_I	R_IV



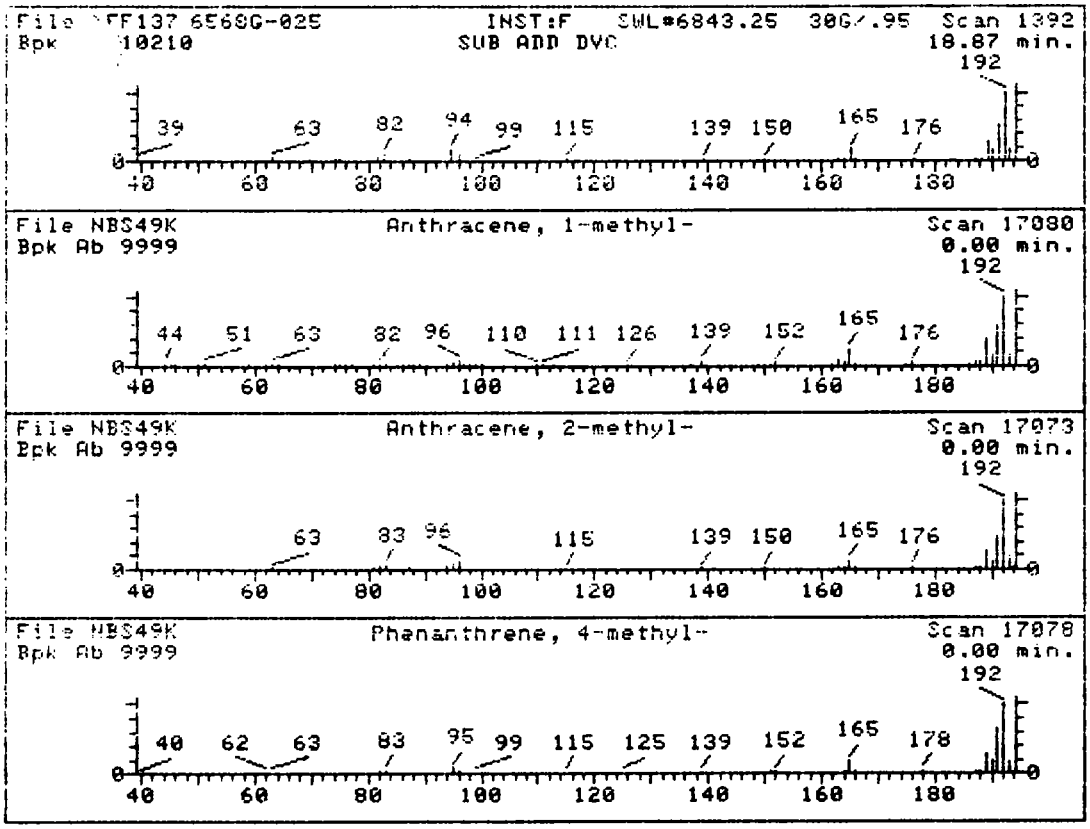
Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

. Unknown #,2
Area = 31460.00 Tentative Concentration is 3.00

1.	METHYLDIBENZOTHIOPHENE	198 C13H10S
2.	Dibenzothiophene, 4-methyl-	198 C13H10S
3.	Dibenzothiophene, 3-methyl-	198 C13H10S
4.	Thioxanthene (8CI)	198 C13H10S
5.	Benzene, 1-fluoro-3-(2-phenylethenyl)-, (E)-	198 C14H11F
6.	Benzene, 1-fluoro-4-(2-phenylethenyl)-, (E)-	198 C14H11F
7.	Benzene, 1,1'-(1-fluoro-1,2-ethenediyl)bis-, (E)-	198 C14H11F

Sample file: >FF137 Spectrum #: 1357
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.	88*	30995643	27489	NBS49K	77	39	2	0	100	2	65	59
2.	87*	7372885	27488	NBS49K	64	52	2	0	100	5	63	43
3.	86*	16587523	27486	NBS49K	58	58	2	0	100	5	60	34
4.	46*	261314	27263	NBS49K	54	57	3	0	156	21	17	17
5.	42*	3041814	27496	NBS49K	33	97	3	0	100	21	17	13
6.	42*	718252	27497	NBS49K	29	93	3	0	100	21	17	13



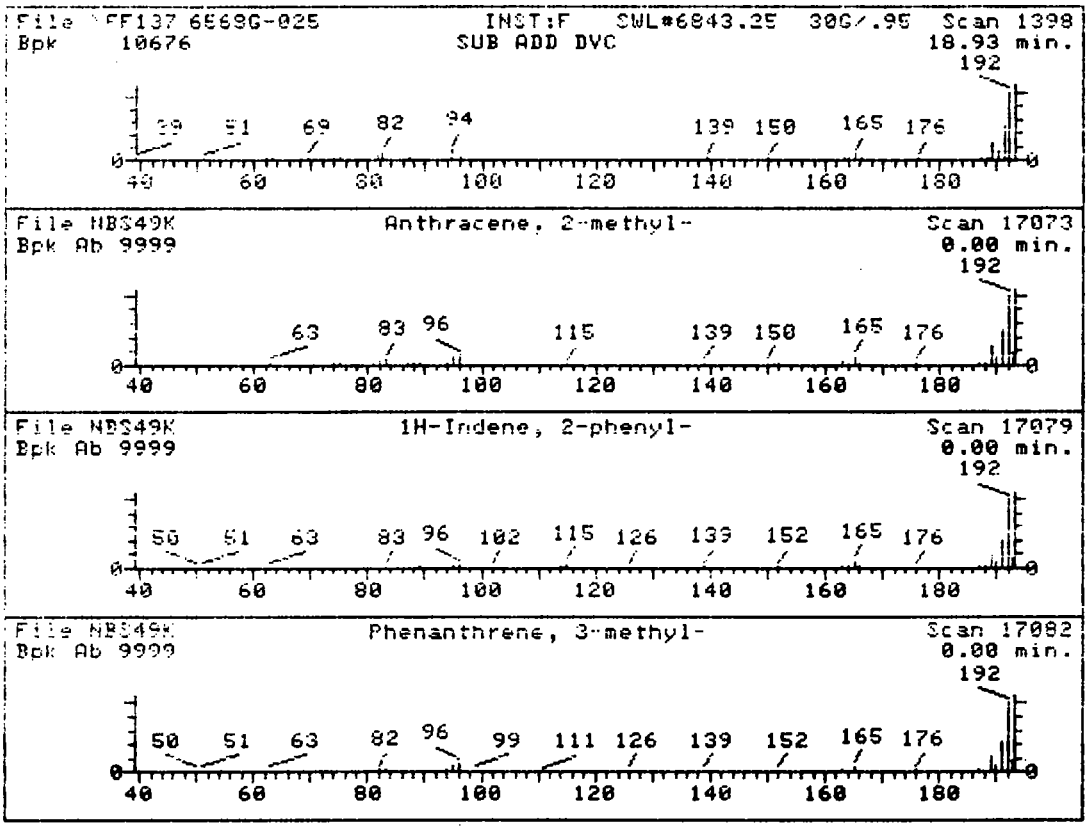
Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

. Unknown #,3
Area = 85942.00 Tentative Concentration is 8.00

1.	Anthracene, 1-methyl-	192 C15H12
2.	Anthracene, 2-methyl-	192 C15H12
3.	Phenanthrene, 4-methyl-	192 C15H12
4.	Phenanthrene, 3-methyl-	192 C15H12
5.	Phenanthrene, 9-methyl-	192 C15H12
6.	9H-Fluorene, 9-ethylidene-	192 C15H12
7.	1H-Indene, 1-phenyl-	192 C15H12

Sample file: >FF137 Spectrum #: 1392
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.	84*	610480	26336	NBS49K	81	37	2	0	76	7	55	61
2.	81*	613127	26329	NBS49K	56	60	1	0	79	7	53	44
3.	81*	832644	26334	NBS49K	64	47	2	0	82	10	53	43
4.	81*	832713	26338	NBS49K	57	54	1	0	85	10	53	41
5.	71*	883205	26328	NBS49K	50	59	1	0	91	13	38	32
6.	71*	7151646	26331	NBS49K	63	57	3	0	82	13	38	31



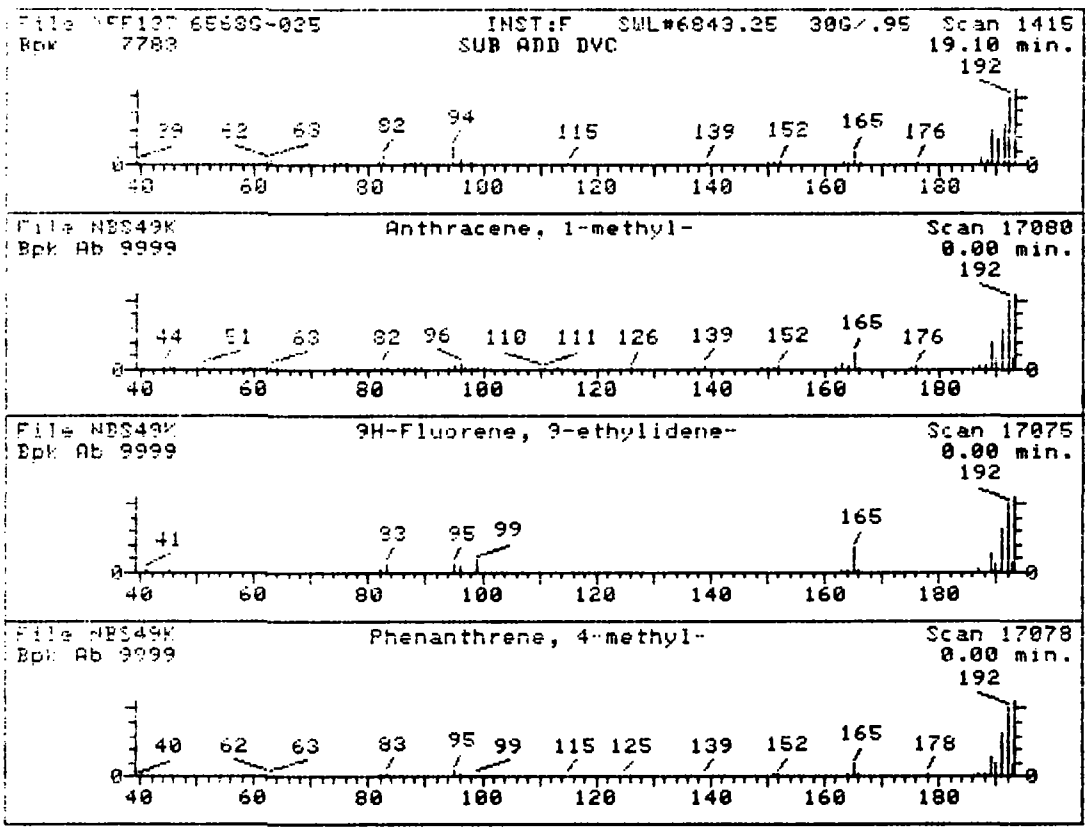
Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

. Unknown #,4
Area = 79360.00 Tentative Concentration is 8.00

1.	Anthracene, 2-methyl-	192 C15H12
2.	1H-Indene, 2-phenyl-	192 C15H12
3.	Phenanthrene, 3-methyl-	192 C15H12
4.	Phenanthrene, 9-methyl-	192 C15H12
5.	9H-Fluorene, 9-ethylidene-	192 C15H12
6.	Phenanthrene, 2-methyl-	192 C15H12
7.	Phenanthrene, 4-methyl-	192 C15H12

Sample file: >FF137 Spectrum #: 1398
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.	81*	613127	26329	NBS49K	69	47	2	0	76	6	53	49
2.	81*	4505480	26335	NBS49K	63	45	2	0	100	10	53	41
3.	81*	832713	26338	NBS49K	63	48	2	0	82	7	53	54
4.	79*	883205	26328	NBS49K	56	53	2	0	88	10	48	39
5.	76*	7151646	26331	NBS49K	59	61	3	0	80	10	45	25
6.	76*	2531842	26327	NBS49K	57	52	3	0	100	6	45	22



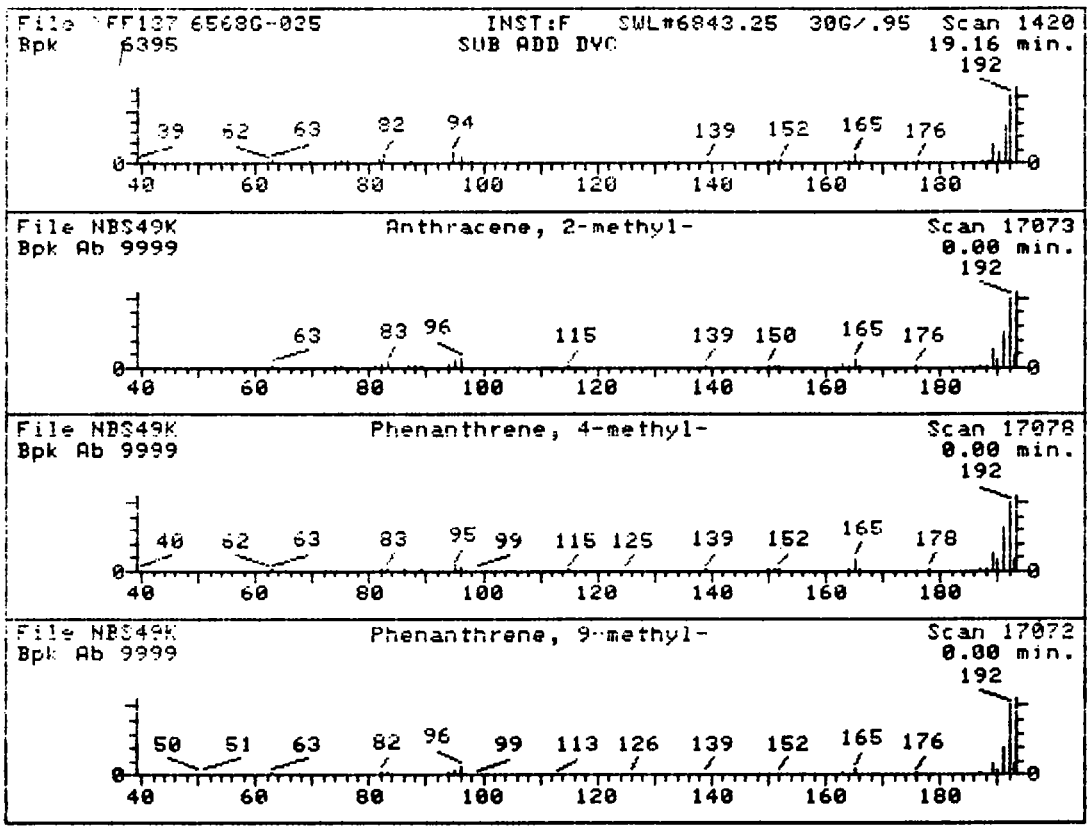
Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

Unknown #,5
Area = 113592.0 Tentative Concentration is 11.00

1.	Anthracene, 1-methyl-	192	C15H12
2.	9H-Fluorene, 9-ethylidene-	192	C15H12
3.	Phenanthrene, 4-methyl-	192	C15H12
4.	1H-Indene, 1-phenyl-	192	C15H12
5.	1H-Indene, 2-phenyl-	192	C15H12
6.	Anthracene, 2-methyl-	192	C15H12
7.	Phenanthrene, 9-methyl-	192	C15H12

Sample file: FF137 Spectrum #: 1415
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.	60*	610480	26336	NBS49K	66	52	2	0	75	32	22	45
2.	40*	7151646	26331	NBS49K	58	62	3	0	91	34	16	23
3.	28*	832644	26334	NBS49K	40	71	2	0	84	36	10	14
4.	28*	1961962	26339	NBS49K	35	72	2	0	95	37	10	14
5.	28*	4505480	26335	NBS49K	33	75	2	0	99	38	10	14
6.	26*	613127	26329	NBS49K	37	79	2	0	72	43	8	14



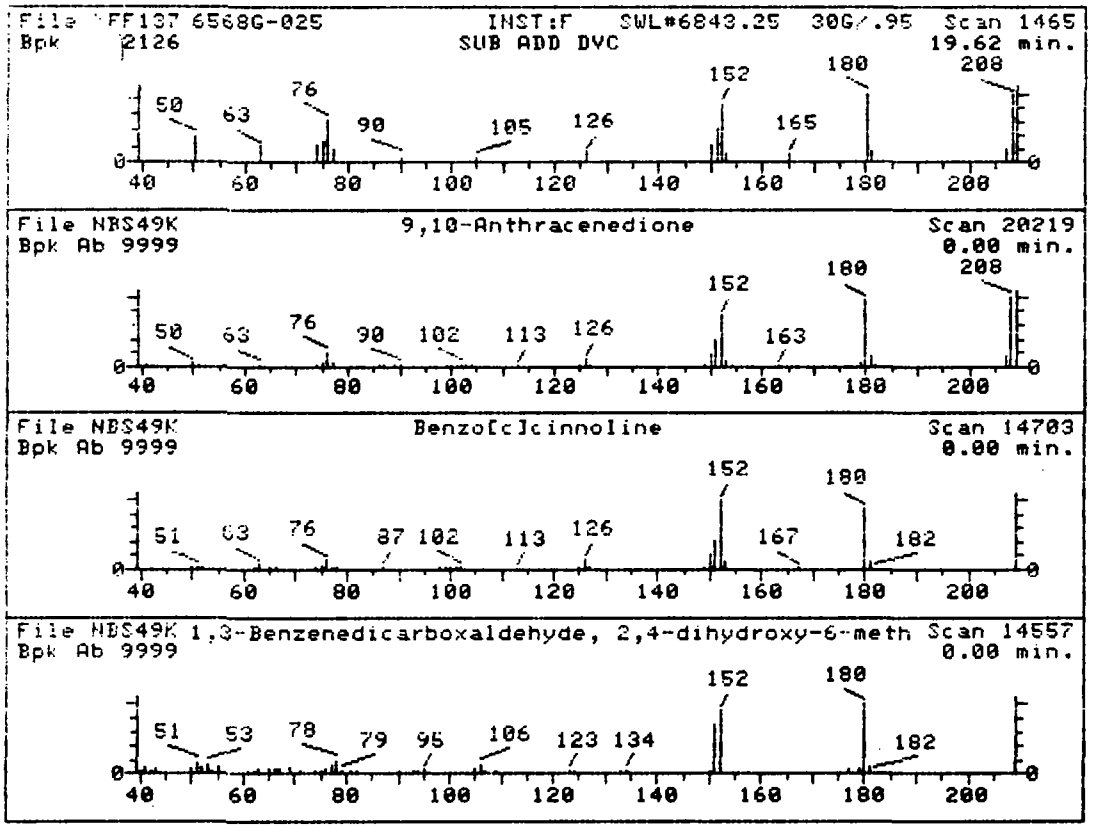
Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

. Unknown #,6
Area = 61976.00 Tentative Concentration is 6.00

1.	Anthracene, 2-methyl-	192	C15H12
2.	Phenanthrene, 4-methyl-	192	C15H12
3.	Phenanthrene, 9-methyl-	192	C15H12
4.	Phenanthrene, 2-methyl-	192	C15H12
5.	Phenanthrene, 1-methyl-	192	C15H12
6.	Phenanthrene, 3-methyl-	192	C15H12
7.	Anthracene, 1-methyl-	192	C15H12

Sample file: >FF137 Spectrum #: 1420
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.	83*	613127	26329	NBS49K	72	44	2	0	90	9	54	54
2.	71*	832644	26334	NBS49K	54	57	2	0	78	11	38	31
3.	71*	883205	26328	NBS49K	56	53	2	0	100	11	38	33
4.	67*	2531842	26327	NBS49K	51	58	2	0	93	11	34	25
5.	67*	832699	26337	NBS49K	51	58	2	0	95	11	34	25
6.	67*	832713	26338	NBS49K	52	59	2	0	97	11	34	27



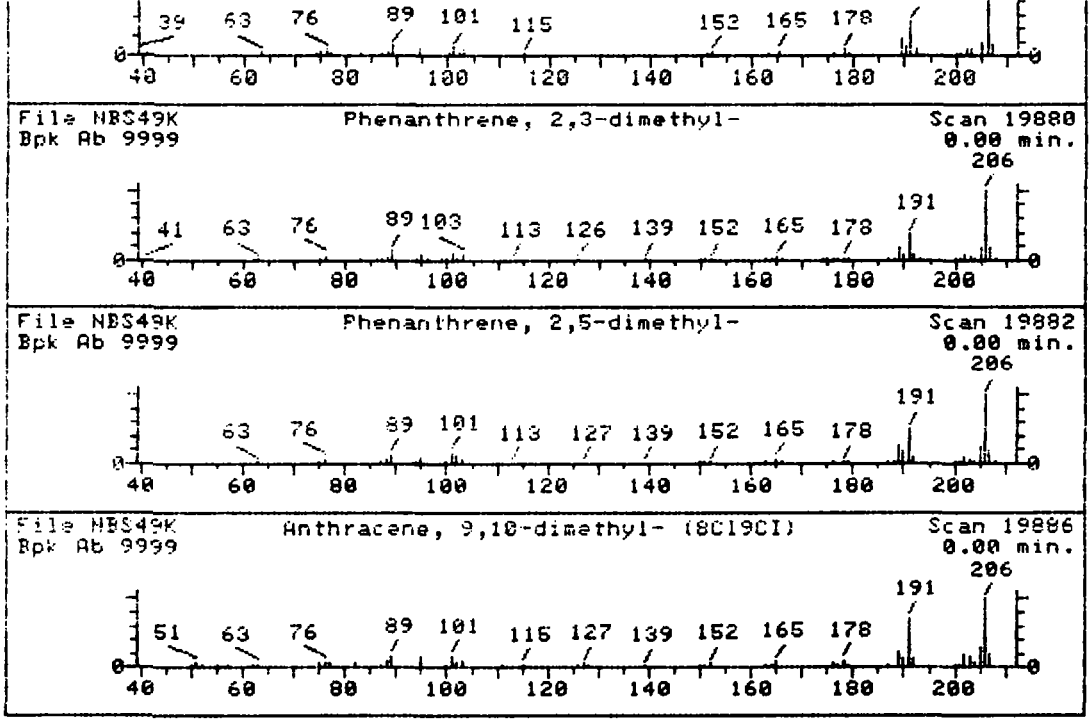
Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

Unknown #,7
Area = 46005.00 Tentative Concentration is 4.00

1.	9,10-Anthracenedione	208	C14H8O2
2.	Benzo[c]cinnoline	180	C12H8N2
3.	1,3-Benzenedicarboxaldehyde, 2,4-dihydroxy-6-methyl-	180	C9H8O4
4.	1,4-Anthracenedione	208	C14H8O2
5.	9,10-Phenanthrenedione	208	C14H8O2
6.	5,6,7,8-TETRAHYDRO-1-PHENYLNAPHTHALENE	208	C16H16
7.	1H-Phenalen-1-one	180	C13H8O

Sample file: >FF137 Spectrum #: 1465
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.	79*	84651	29154	NBS49K	81	54	2	0	98	14	43	61
2.	41*	230171	24483	NBS49K	54	57	2	0	84	42	14	31
3.	25*	10209571	24447	NBS49K	35	79	3	0	71	49	7	13
4.	25*	635121	29155	NBS49K	44	95	3	0	94	45	8	13
5.	25*	84117	24525	NBS49K	31	92	3	0	168	48	7	13
6.	15*	67064635	29184	NBS49K	25	117	3	0	98	58	3	13



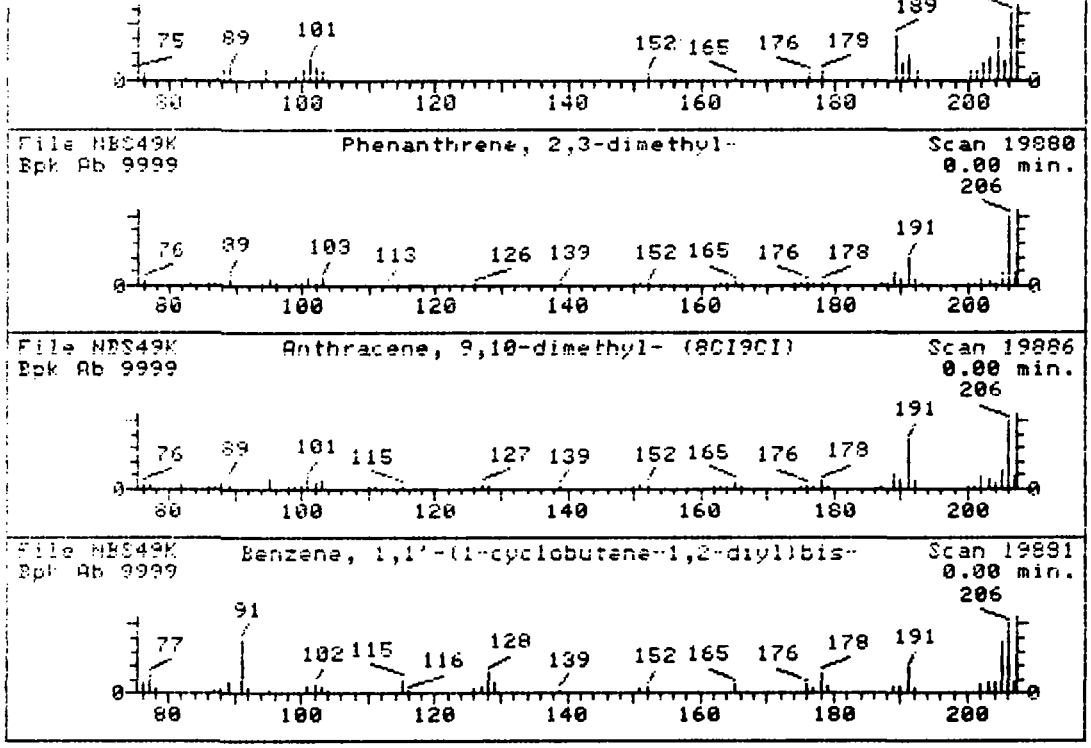
Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

. Unknown #,8
Area = 76313.00 Tentative Concentration is 7.00

1.	Phenanthrene, 2,3-dimethyl-	206	C16H14
2.	Phenanthrene, 2,5-dimethyl-	206	C16H14
3.	Anthracene, 9,10-dimethyl- (8CI9CI)	206	C16H14
4.	Phenanthrene, 3,6-dimethyl-	206	C16H14
5.	Phenanthrene, 2,7-dimethyl-	206	C16H14
6.	Naphthalene, 1,2-dihydro-4-phenyl-	206	C16H14
7.	Benzene, 1,1'-(1-cyclobutene-1,2-diyl)bis-	206	C16H14

Sample file: >FF137 Spectrum #: 1508
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.	93*	3674655	28853	NBS49K	105	25	2	0	90	2	68	83
2.	93*	3674666	28855	NBS49K	106	26	2	0	82	2	68	83
3.	84*	781431	28859	NBS49K	102	39	3	0	67	9	59	46
4.	70*	1576676	28868	NBS49K	75	55	2	0	97	16	32	57
5.	66*	1576698	28869	NBS49K	63	64	2	0	88	19	31	41
6.	60*	7469401	28858	NBS49K	47	96	3	0	100	11	30	13



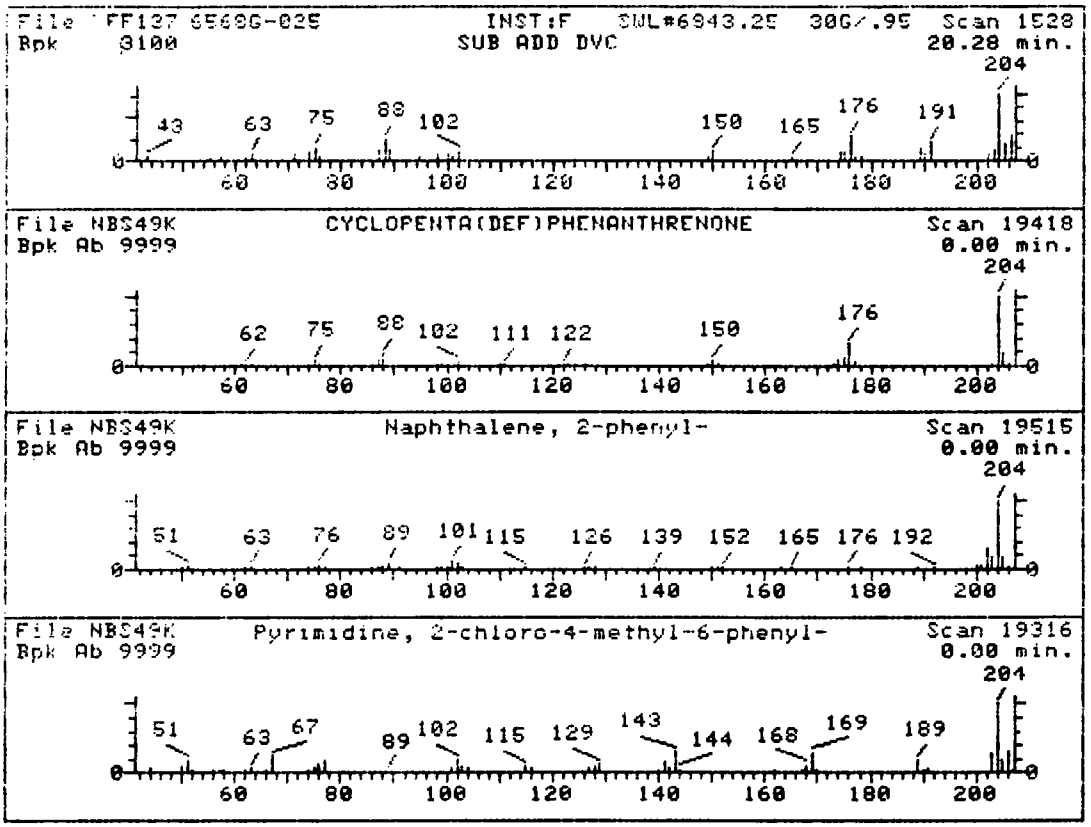
Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

Unknown #,9
Area = 42649.00 Tentative Concentration is 4.00

1.	Phenanthrene, 2,3-dimethyl-	206	C16H14
2.	Anthracene, 9,10-dimethyl- (8CI9CI)	206	C16H14
3.	Benzene, 1,1'-(1-cyclobutene-1,2-diyl)bis-	206	C16H14
4.	Phenanthrene, 3,6-dimethyl-	206	C16H14
5.	Naphthalene, 1,2-dihydro-4-phenyl-	206	C16H14
6.	Phenanthrene, 2,5-dimethyl-	206	C16H14
7.	Phenanthrene, 2,7-dimethyl-	206	C16H14

Sample file: >FF137 Spectrum #: 1514
Search speed: 1 Tilting option: N No. of ion ranges searched: 79

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	41*	3674655	28853	NBS49K	56	74	2	0	100	41	14	33
2.	34*	781431	28859	NBS49K	59	82	3	0	100	45	12	32
3.	30*	3306023	28854	NBS49K	42	108	3	0	100	35	12	15
4.	29*	1576676	28868	NBS49K	46	84	2	0	100	42	8	17
5.	28*	7469401	28858	NBS49K	50	93	3	0	100	37	10	14
6.	26*	3674666	28855	NBS49K	26	106	2	0	76	41	8	14



UNKNOWN

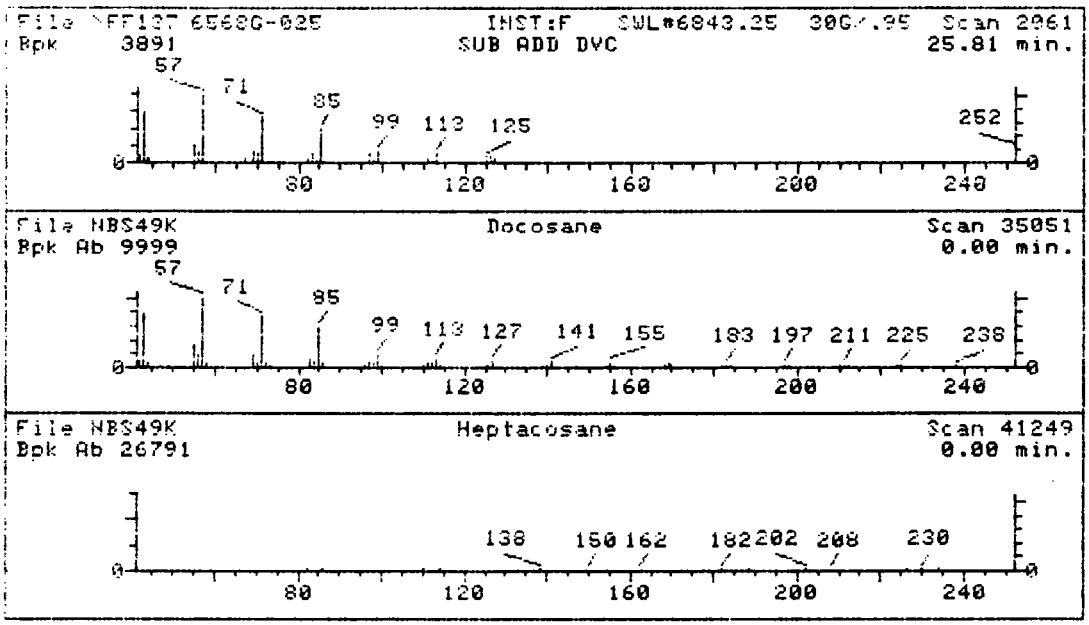
Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

Unknown #,10
Area = 64500.00 Tentative Concentration is 6.00

1.	CYCLOPENTA(DEF)PHENANTHRENONE	204 C15H8O
2.	Naphthalene, 2-phenyl-	204 C16H12
3.	Pyrimidine, 2-chloro-4-methyl-6-phenyl-	204 C11H9ClN2
4.	[1,1'-Biphenyl]-2-ol, 5-chloro-	204 C12H9ClO
5.	Benzene, 1-chloro-4-phenoxy-	204 C12H9ClO
6.	2-PHENYLNAPHTHALENE	204 C16H12
7.	5H-Dibenzo[a,d]cycloheptene, 5-methylene-	204 C16H12

Sample file: >FF137 Spectrum #: 1528
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.	41*	5737133	28398	NBS49K	58	56	2	0	100	44	14	35
2.	30*	612942	28448	NBS49K	50	63	2	0	91	48	10	23
3.	30*	32785403	28348	NBS49K	40	103	3	0	100	31	12	15
4.	27*	607125	28370	NBS49K	31	92	3	0	100	36	10	13
5.	26*	7005723	28365	NBS49K	24	93	3	0	100	39	10	12
6.	25*	35465715	28457	NBS49K	28	93	3	0	100	47	7	13



UNKNOWN

Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

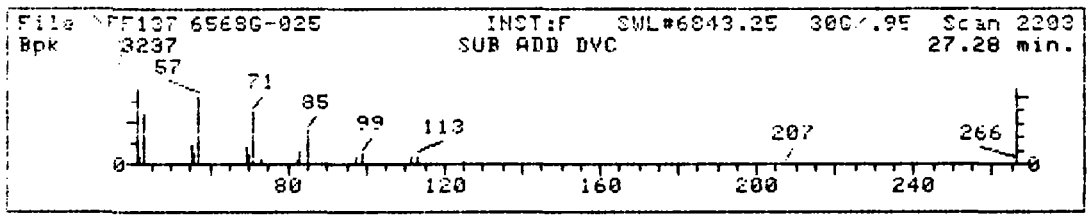
. Unknown #,17
Area = 39256.00 Tentative Concentration is 7.00

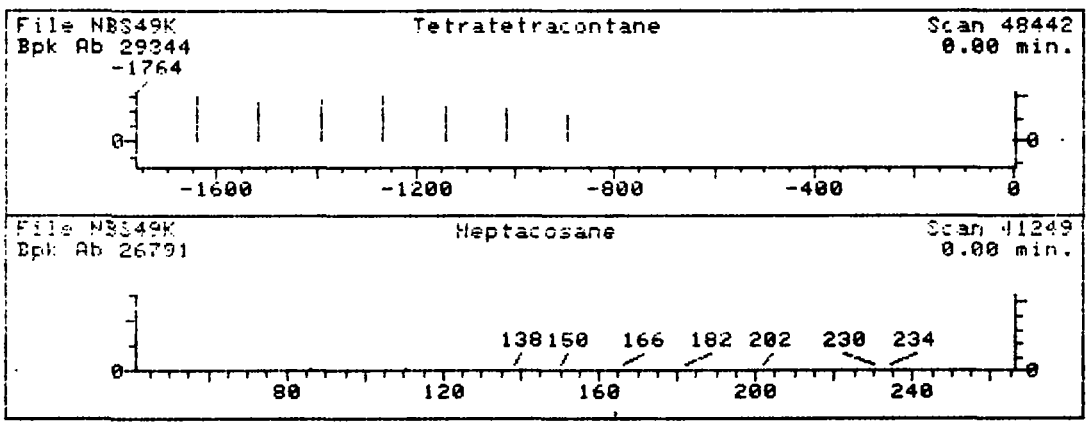
1.	Docosane	310 C22H46
2.	Heptacosane	380 C27H56
3.	Tetracosane, 11-decyl-	478 C34H70
4.	Pentatriacontane	492 C35H72
5.	Docosane, 11-decyl-	450 C32H66
6.	Tritetracontane	604 C43H88
7.	Tetratriacontane	478 C34H70

Sample file: >FF137 Spectrum #: 2061
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.	53	629970	6886	NBS49K	100	49	2	0	84	28	24	33
2.	51	593497	6904	NBS49K	98	57	2	0	91	28	24	31
3.	49	55429840	6913	NBS49K	92	66	2	0	84	28	18	29
4.	44	630079	6915	NBS49K	90	61	2	0	81	31	16	27
5.	42	55401553	6909	NBS49K	77	82	2	0	80	28	14	19
6.	42	7098217	6916	NBS49K	74	100	3	0	100	25	17	13

0549





UNKNOWN

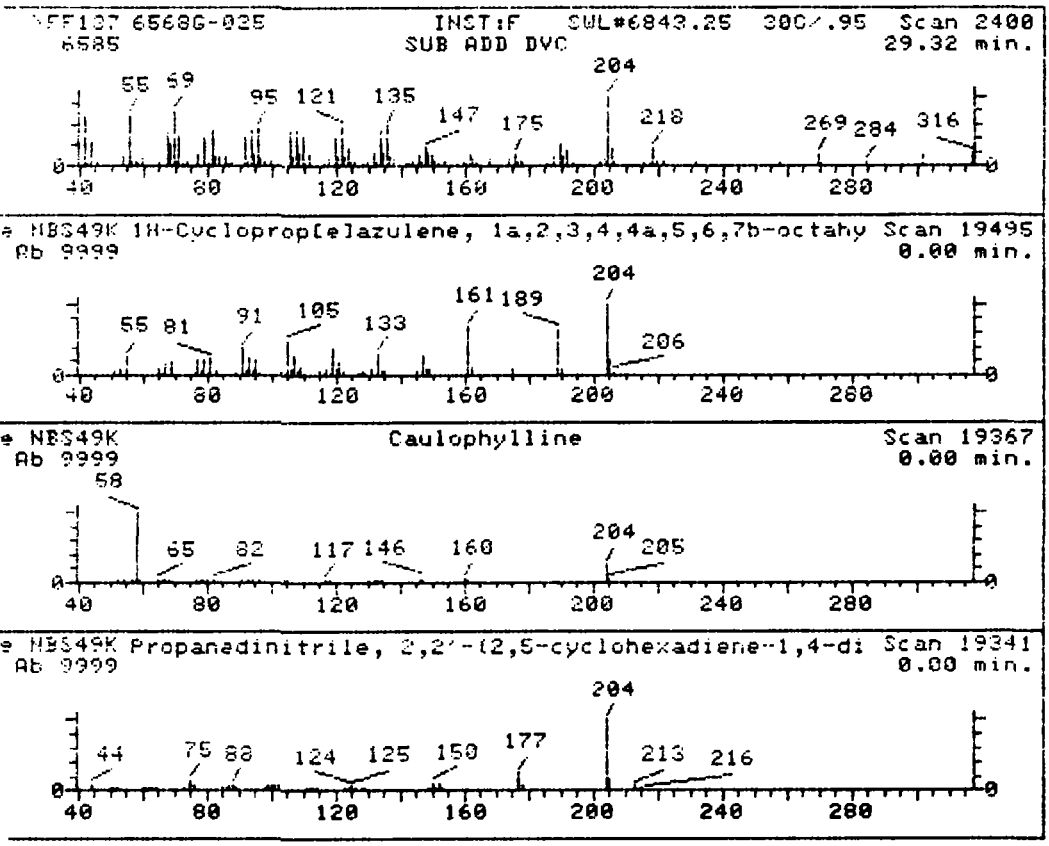
Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

. Unknown #,18
Area = 38466.00 Tentative Concentration is 7.00

1.	Pentatriacontane	492 C35H72
2.	Tetratetracontane	618 C44H90
3.	Heptacosane	380 C27H56
4.	Tetracosane, 11-decyl-	478 C34H70
5.	Hexatriacontane	506 C36H74
6.	Eicosane, 10-methyl-	296 C21H44

Sample file: >FF137 Spectrum #: 2203
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	630079	6915	NBS49K	72	79	2	0	85	3	55	17
2.	78	7098228	9995	NBS49K	72	88	2	0	100	3	55	17
3.	70	593497	6904	NBS49K	75	80	2	0	100	8	42	19
4.	70	55429840	6913	NBS49K	73	85	2	0	86	8	42	18
5.	70	630068	9992	NBS49K	63	100	2	0	93	8	42	13
6.	52	54833237	6879	NBS49K	71	66	2	0	91	16	20	17



UNKNOWN

Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

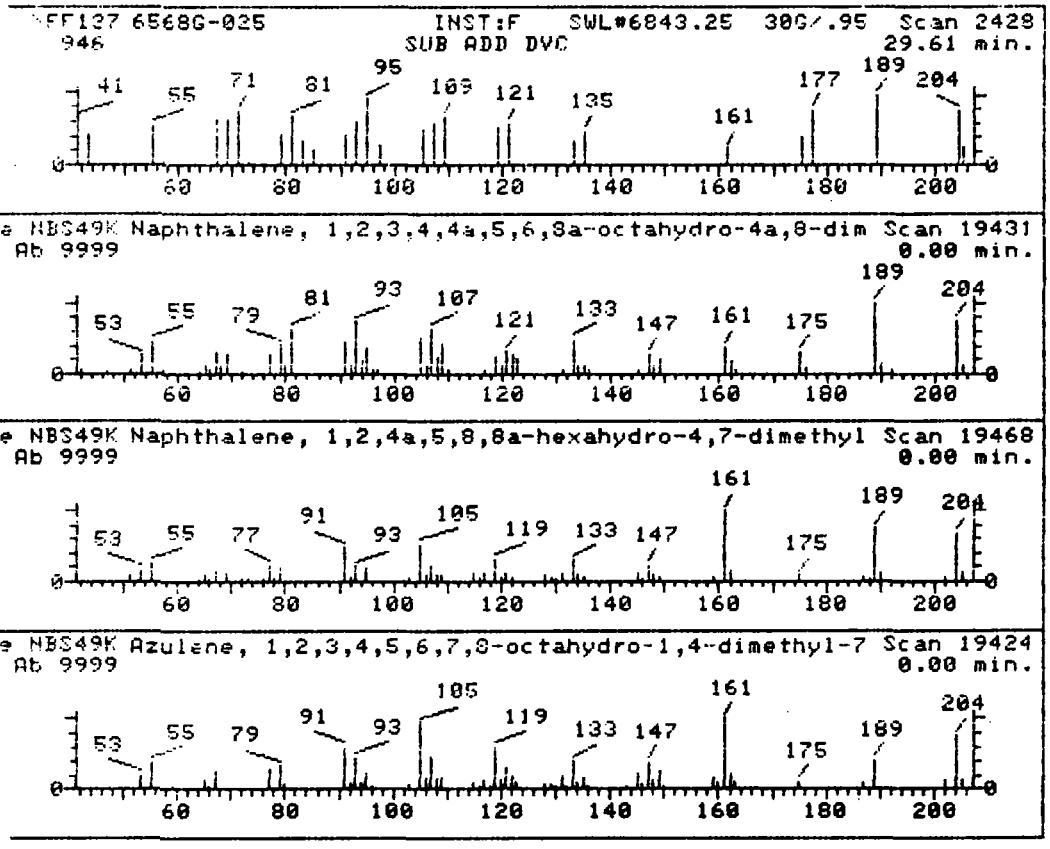
. Unknown #,19
Area = 417704.0 Tentative Concentration is 75.00

1.	1H-Cycloprop[e]azulene, 1a,2,3,4,4a,5,6,7b-octahydro-1,1,4,7-tetramethyl-, [1aR-(1a.alpha.,4.alpha.,4a.beta.,7b.alpha.)]-	204	C15H24
2.	Caulophylline	204	C12H16N2O
3.	Propanedinitrile, 2,2'-(2,5-cyclohexadiene-1,4-diylidene)bis-	204	C12H4N4
4.	Naphthalene, 1,2,3,5,6,7,8,8a-octahydro-1,8a-dimethyl-7-(1-methylethenyl)-, [1R-(1.alpha.,7.beta.,8a.alpha.)]-	204	C15H24
5.	Naphthalene, 2-phenyl-	204	C16H12
6.	Benzene, nonyl-	204	C15H24
7.	.DELTA.-SELINENE	204	C15H24

Sample file: >FF137 Spectrum #: 2400
Search speed: 1 Tilting option: N No. of ion ranges searched: 43

0551

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	47*	489407	28437	NBS49K	66	86	2	0	85	44	16	45



UNKNOWN

Sample: 6568G-025 Operator: LINDA MS 8/15/91 15:01

Unknown #,20
Area = 51223.00 Tentative Concentration is 9.00

1.	Naphthalene, 1,2,3,4,4a,5,6,8a-octahydro-4a,8-dimethyl-2-(1-methylethenyl)-, [2R-(2.alpha.,4a.alpha.,8a.beta.)]-	204	C15H24
2.	Naphthalene, 1,2,4a,5,8,8a-hexahydro-4,7-dimethyl-1-(1-methylethyl)-, (1.alpha.,4a.beta.,8a.alpha.)-(.+-.)-	204	C15H24
3.	Azulene, 1,2,3,4,5,6,7,8-octahydro-1,4-dimethyl-7-(1-methylethylidene)-, (1S-cis)-	204	C15H24
4.	Seychellene	204	C15H24
5.	1H-Cycloprop[e]azulene, decahydro-1,1,7-trimethyl-4-methylene-, [1aR-(1a.alpha.,4a.alpha.,7.alpha.,7a.beta.,7b.alpha.)]-	204	C15H24
6.	1H-Cycloprop[e]azulene, 1a,2,3,5,6,7,7a,7b-octahydro-1,1,4,7-tetramethyl-, [1aR-(1a.alpha.,7.alpha.,7a.beta.,7b.alpha.)]-	204	C15H24

0552

Sample file: >FF137 Spectrum #: 2428
Search speed: 1 Tilting option: N No. of ion ranges searched: 45

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-026

Lab Name: SWL-TULSA Contract:

Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684326

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6923

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 9 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/15/91

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	730	U
111-44-4	bis(2-Chloroethyl)Ether	730	U
95-57-8	2-Chlorophenol	730	U
541-73-1	1,3-Dichlorobenzene	730	U
106-46-7	1,4-Dichlorobenzene	730	U
100-51-6	Benzyl Alcohol	730	U
95-50-1	1,2-Dichlorobenzene	730	U
95-48-7	2-Methylphenol	730	U
108-60-1	bis(2-Chloroisopropyl)ether	730	U
106-44-5	4-Methylphenol	730	U
621-64-7	N-Nitroso-Di-n-Propylamine	730	U
67-72-1	Hexachloroethane	730	U
98-95-3	Nitrobenzene	730	U
78-59-1	Isophorone	730	U
88-75-5	2-Nitrophenol	730	U
105-67-9	2,4-Dimethylphenol	730	U
65-85-0	Benzoic Acid	3500	U
111-91-1	bis(2-Chloroethoxy)Methane	730	U
120-83-2	2,4-Dichlorophenol	730	U
120-82-1	1,2,4-Trichlorobenzene	730	U
91-20-3	Naphthalene	730	U
106-47-8	4-Chloroaniline	730	U
87-68-3	Hexachlorobutadiene	730	U
59-50-7	4-Chloro-3-Methylphenol	730	U
91-57-6	2-Methylnaphthalene	730	U
77-47-4	Hexachlorocyclopentadiene	730	U
88-06-2	2,4,6-Trichlorophenol	730	U
95-95-4	2,4,5-Trichlorophenol	3500	U
91-58-7	2-Chloronaphthalene	730	U
88-74-4	2-Nitroaniline	3500	U
131-11-3	Dimethyl Phthalate	730	U
208-96-8	Acenaphthylene	730	U
606-20-2	2,6-Dinitrotoluene	730	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: 6568G-026

Lab Name: SWL-TULSA Contract:

Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684326

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6923

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 9 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/15/91

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3500	U
83-32-9	Acenaphthene	730	U
51-28-5	2,4-Dinitrophenol	3500	U
100-02-7	4-Nitrophenol	3500	U
132-64-9	Dibenzofuran	730	U
121-14-2	2,4-Dinitrotoluene	730	U
84-66-2	Diethylphthalate	340	J
7005-72-3	4-Chlorophenyl-phenylether	730	U
86-73-7	Fluorene	730	U
100-01-6	4-Nitroaniline	3500	U
534-52-1	4,6-Dinitro-2-Methylphenol	3500	U
86-30-6	N-Nitrosodiphenylamine (1)	730	U
101-55-3	4-Bromophenyl-phenylether	730	U
118-74-1	Hexachlorobenzene	730	U
87-86-5	Pentachlorophenol	3500	U
85-01-8	Phenanthrene	730	U
120-12-7	Anthracene	730	U
84-74-2	Di-n-Butylphthalate	730	U
206-44-0	Fluoranthene	730	U
129-00-0	Pyrene	730	U
85-68-7	Butylbenzylphthalate	730	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)Anthracene	730	U
218-01-9	Chrysene	730	U
117-81-7	bis(2-Ethylhexyl)Phthalate	730	U
117-84-0	Di-n-Octyl Phthalate	730	U
205-99-2	Benzo(b)Fluoranthene	730	U
207-08-9	Benzo(k)Fluoranthene	730	U
50-32-8	Benzo(a)Pyrene	730	U
193-39-5	Indeno(1,2,3-cd)Pyrene	730	U
53-70-3	Dibenz(a,h)Anthracene	730	U
191-24-2	Benzo(g,h,i)Perylene	730	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

6568G-026

Lab Name: SWL-TULSA Contract:

Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684326

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6923

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 9 dec. Date Extracted: 08/02/91

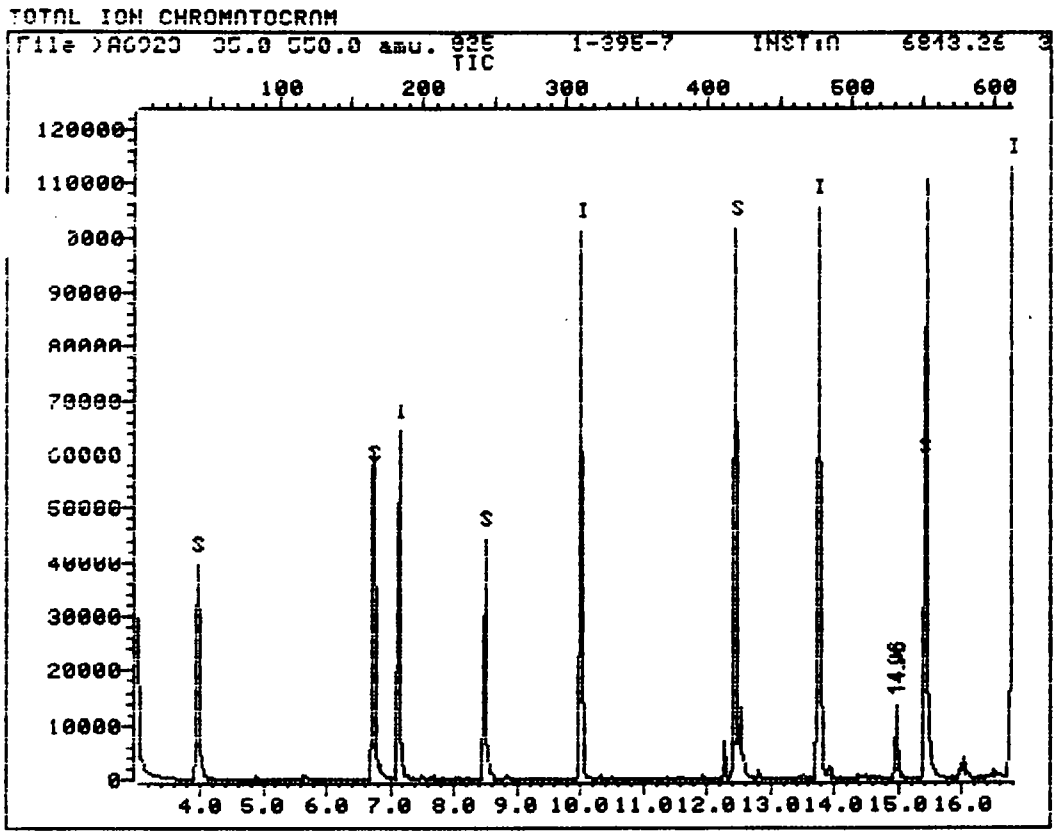
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/15/91

GPC Cleanup: (Y/N) Y pH: 7.1 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



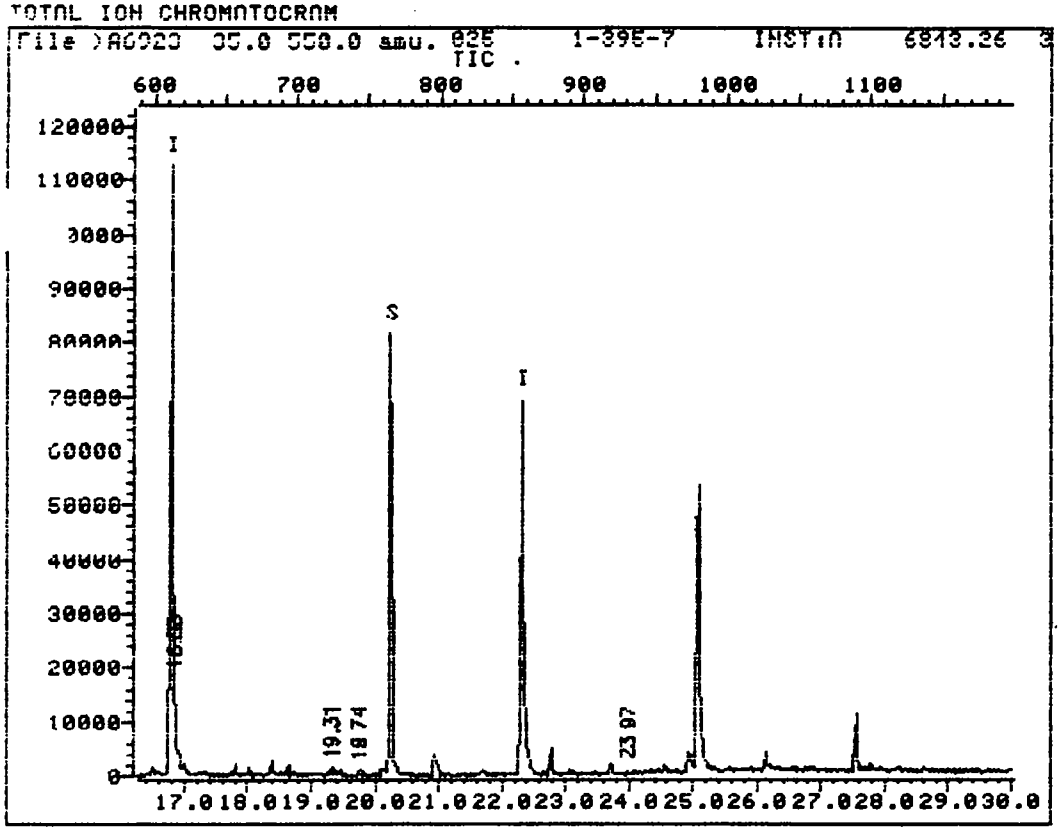
Data File: >A6923::D9 Quant Output File: ^A6923::L1
Name: 026 1-395-7
Misc: INST:A 6843.26 30/GM/1ML/1UL BTL# 3

Id File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910815 06:00

Operator ID: MAT
Quant Time: 910815 15:01
Injected at: 910815 14:29

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A6923::D9 Quant Output File: ^A6923::L1
Name: 025 1-395-7
Misc: INST:A 6843.26 30/GM/1ML/1UL BTL# 3

Id File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910815 06:00

Operator ID: MAT
Quant Time: 910815 15:01
Injected at: 910815 14:29

TIC page 2 of 2

QUANT REPORT

Operator ID: MAT Quant Rev: 6 Quant Time: 910815 15:01
Output File: ^A6923::L1 Injected at: 910815 14:29
Data File: >A6923::D9 Dilution Factor: 1.00000
me: 025 1-395-7
INST:A 6843.26 30/GM/1ML/1UL BTL# 3

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910815 06:00

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.14	152.0	25545	40.00	NG/UL	94
14)	CS50 2-FLUOROPHENOL	3.97	112.0	38824	73.72	NG/UL	100
15)	CS45 PHENOL-D5	6.72	99.0	61151	68.24	NG/UL	80
16)	*CI40 NAPHTHALENE-D8	10.00	136.0	114441	40.00	NG/UL	92
30)	CS20 NITROBENZENE-D5	8.49	82.0	35134	34.84	NG/UL	80
31)	*CI50 ACENAPHTHENE-D10	13.74	164.0	71310	40.00	NG/UL	95
46)	C580 DIETHYLPHTHALATE	14.96	149.0	11635	4.70	NG/UL	91
50)	CS25 2-FLUOROBIPHENYL	12.44	172.0	83443	39.18	NG/UL	100
51)	CS55 2,4,6-TRIBROMOPHENOL	15.41	330.0	43050M	90.08	NG/UL	
52)	*CI60 PHENANTHRENE-D10	16.78	188.0	120055	40.00	NG/UL	93
58)	C640 PHENANTHRENE	16.83	178.0	1467	.46	NG/UL	100
61)	C655 FLUORANTHENE	19.31	202.0	1488	.47	NG/UL	100
62)	*CI70 CHRYSENE-D12	22.30	240.0	73693	40.00	NG/UL	99
65)	C715 PYRENE	19.74	202.0	1605	.56	NG/UL	100
69)	CS30 TERPHENYL-D14	20.23	244.0	74967	46.49	NG/UL	98
70)	*CI75 PERYLENE-D12	25.05	264.0	70392	40.00	NG/UL	98
71)	C760 DI-N-OCTYLPHTHALATE	23.97	149.0	343	.06	NG/UL	100

Compound is ISTD

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 65686 SDG No.: -001

Instrument ID: A Calibration Date(s): 08/13/91 08/13/91

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

LAB FILE ID: RRF20 = A6867 RRF50 = A6868

RRF80 = A6869 RRF120= A6870 RRF160= A6871

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	1.380	1.270	1.203	1.317	1.420	1.318	6.5*
bis(2-Chloroethyl)Ether	1.021	1.002	1.044	0.936	0.958	0.992	4.5
2-Chlorophenol	1.139	1.097	1.161	1.084	1.114	1.119	2.8
1,3-Dichlorobenzene	1.379	1.291	1.424	1.314	1.357	1.353	3.9
1,4-Dichlorobenzene *	1.508	1.419	1.544	1.494	1.508	1.495	3.1*
Benzyl Alcohol	0.665	0.771	0.838	0.770	0.782	0.765	8.2
1,2-Dichlorobenzene	1.466	1.311	1.300	1.231	1.168	1.295	8.6
2-Methylphenol	1.136	1.058	1.193	1.069	1.092	1.110	5.0
bis(2-Chloroisopropyl)ether	2.438	2.318	2.478	2.311	2.415	2.392	3.1
4-Methylphenol	1.164	1.176	1.357	1.029	1.049	1.155	11.3
N-Nitroso-Di-n-Propylamine #	1.071	1.025	0.968	0.813	0.882	0.952	11.0#
Hexachloroethane	0.700	0.669	0.696	0.659	0.673	0.679	2.6
Nitrobenzene	0.284	0.359	0.365	0.394	0.242	0.329	19.2
Isophorone	0.670	0.668	0.730	0.568	0.520	0.631	13.5
2-Nitrophenol *	0.170	0.179	0.222	0.231	0.206	0.202	13.1*
2,4-Dimethylphenol	0.305	0.314	0.322	0.342	0.207	0.298	17.7
Benzoic Acid		0.213	0.255	0.155	0.276	0.225	23.7
bis(2-Chloroethoxy)Methane	0.400	0.476	0.420	0.435	0.354	0.417	10.8
2,4-Dichlorophenol *	0.301	0.292	0.345	0.323	0.262	0.305	10.3*
1,2,4-Trichlorobenzene	0.365	0.363	0.392	0.383	0.359	0.372	3.8
Naphthalene	0.908	0.845	1.044	0.901	0.943	0.928	7.9
4-Chloroaniline	0.338	0.264	0.243	0.257	0.266	0.274	13.5
Hexachlorobutadiene *	0.249	0.236	0.271	0.247	0.224	0.245	7.1*
4-Chloro-3-Methylphenol *	0.363	0.372	0.362	0.272	0.269	0.328	15.9*
2-Methylnaphthalene	0.690	0.622	0.574	0.437	0.424	0.549	21.2
Hexachlorocyclopentadiene #	0.341	0.349	0.478	0.507	0.521	0.439	19.9#
2,4,6-Trichlorophenol *	0.508	0.502	0.636	0.631	0.637	0.583	12.2*
2,4,5-Trichlorophenol		0.422	0.515	0.382	0.434	0.438	12.7
2-Chloronaphthalene	1.258	1.055	1.476	1.305	1.162	1.251	12.6
2-Nitroaniline		0.409	0.556	0.570	0.599	0.534	15.9
Dimethyl Phthalate	1.670	1.198	1.396	1.481	1.601	1.469	12.6
Acenaphthylene	2.391	1.838	2.132	1.546	1.764	1.934	17.1
2,6-Dinitrotoluene	0.372	0.313	0.302	0.421	0.355	0.353	13.6
3-Nitroaniline		0.179	0.201	0.225	0.249	0.214	14.1
Acenaphthene *	1.569	1.294	1.268	1.003	1.266	1.280	15.7*
2,4-Dinitrophenol #		0.176	0.208	0.251	0.259	0.224	17.3#
4-Nitrophenol #		0.164	0.209	0.236	0.216	0.206	14.8#

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 65686 SDG No.: -001

Instrument ID: A Calibration Date(s): 08/13/91 08/13/91

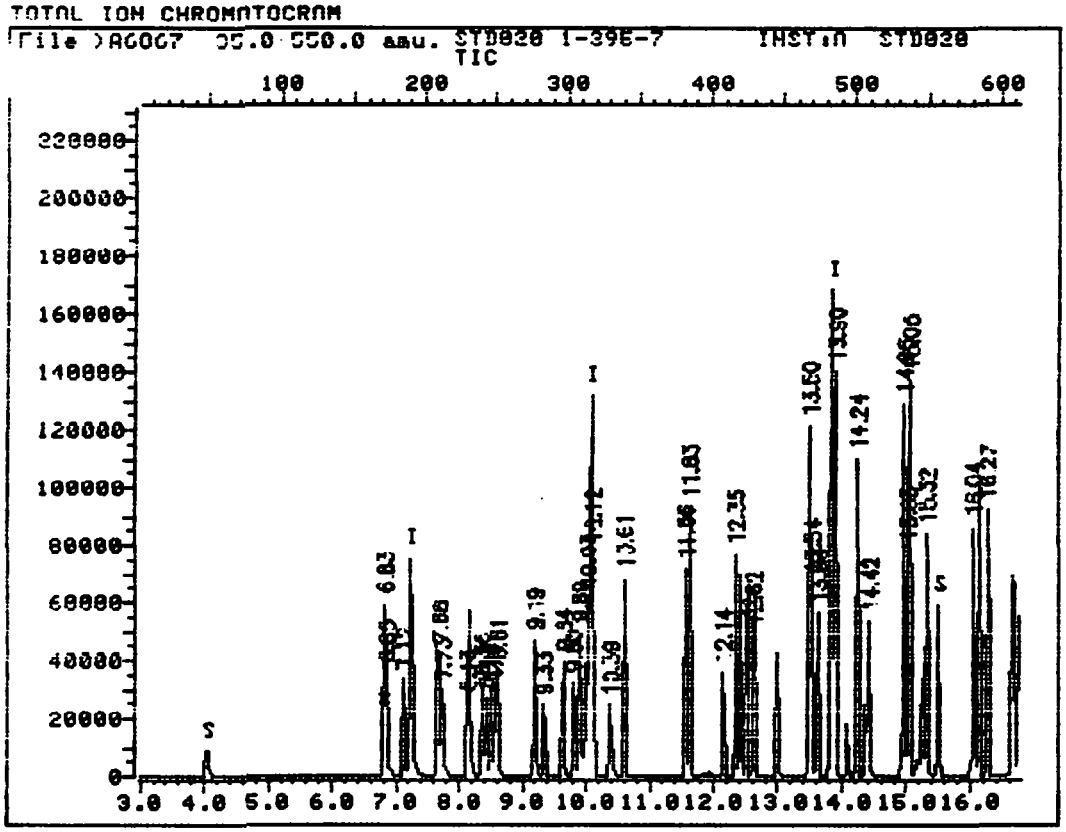
Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = A6867 RRF50 = A6868
RRF80 = A6869 RRF120= A6870 RRF160= A6871

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Dibenzofuran	2.191	1.811	1.759	1.487	1.498	1.749	16.4
2,4-Dinitrotoluene	0.528	0.425	0.469	0.567	0.507	0.499	10.9
Diethylphthalate	1.577	1.261	1.611	1.466	1.626	1.508	10.1
4-Chlorophenyl-phenylether	0.896	0.603	0.681	0.761	0.717	0.732	14.8
Fluorene	1.667	1.112	1.280	1.238	1.042	1.268	19.1
4-Nitroaniline		0.150	0.177	0.180	0.181	0.172	8.6
4,6-Dinitro-2-Methylphenol		0.135	0.154	0.148	0.160	0.149	7.2
N-Nitrosodiphenylamine (1) *	0.492	0.407	0.385	0.392	0.311	0.397	16.3*
4-Bromophenyl-phenylether	0.287	0.191	0.200	0.225	0.207	0.222	17.3
Hexachlorobenzene	0.383	0.350	0.307	0.330	0.221	0.318	19.2
Pentachlorophenol *		0.191	0.202	0.201	0.181	0.194	5.1*
Phenanthrene	1.088	1.186	1.112	1.064	0.848	1.060	12.0
Anthracene	1.113	1.125	1.044	1.094	0.803	1.036	12.9
Di-n-Butylphthalate	1.672	1.530	1.570	1.356	1.094	1.444	15.7
Fluoranthene *	1.282	1.055	1.304	0.969	1.032	1.128	13.6*
Pyrene	1.430	1.390	1.098	1.305	1.349	1.314	9.9
Butylbenzylphthalate	0.816	0.861	0.879	0.781	0.747	0.817	6.7
3,3'-Dichlorobenzidine	0.159	0.167	0.142	0.150	0.139	0.151	7.7
Benzo(a)Anthracene	1.163	1.094	1.072	1.230	1.369	1.186	10.1
Chrysene	1.201	1.179	0.942	1.004	0.992	1.064	11.1
bis(2-Ethylhexyl)Phthalate	1.380	1.136	1.087	1.437	1.454	1.299	13.4
Di-n-Octyl Phthalate *	2.128	1.902	1.738	1.634	1.230	1.726	19.4*
Benzo(b)Fluoranthene	1.067	1.090	1.196	1.253	1.186	1.158	6.7
Benzo(k)Fluoranthene	1.073	0.747	1.140	0.868	0.806	0.927	18.5
Benzo(a)Pyrene *	0.997	0.868	0.967	0.887	0.787	0.901	9.3*
Indeno(1,2,3-cd)Pyrene	0.917	0.863	0.954	0.994	0.963	0.938	5.4
Dibenz(a,h)Anthracene	0.789	0.779	0.867	0.862	0.724	0.804	7.5
Benzo(g,h,i)Perylene	0.888	0.895	1.014	0.896	0.801	0.899	8.4
Nitrobenzene-d5	0.326	0.347	0.372	0.388	0.359	0.358	6.6
2-Fluorobiphenyl	1.456	1.119	1.680	1.416	1.276	1.389	15.1
Terphenyl-d14	0.887	0.829	0.712	0.834	0.793	0.811	8.0
Phenol-d5	1.378	1.342	1.335	1.280	1.271	1.321	3.4
2-Fluorophenol	0.776	0.773	0.842	0.817	0.867	0.815	5.0
2,4,6-Tribromophenol	0.397	0.323	0.378	0.483	0.435	0.403	14.9

(1) Cannot be separated from Diphenylamine

TOTAL ION CHROMATOGRAM



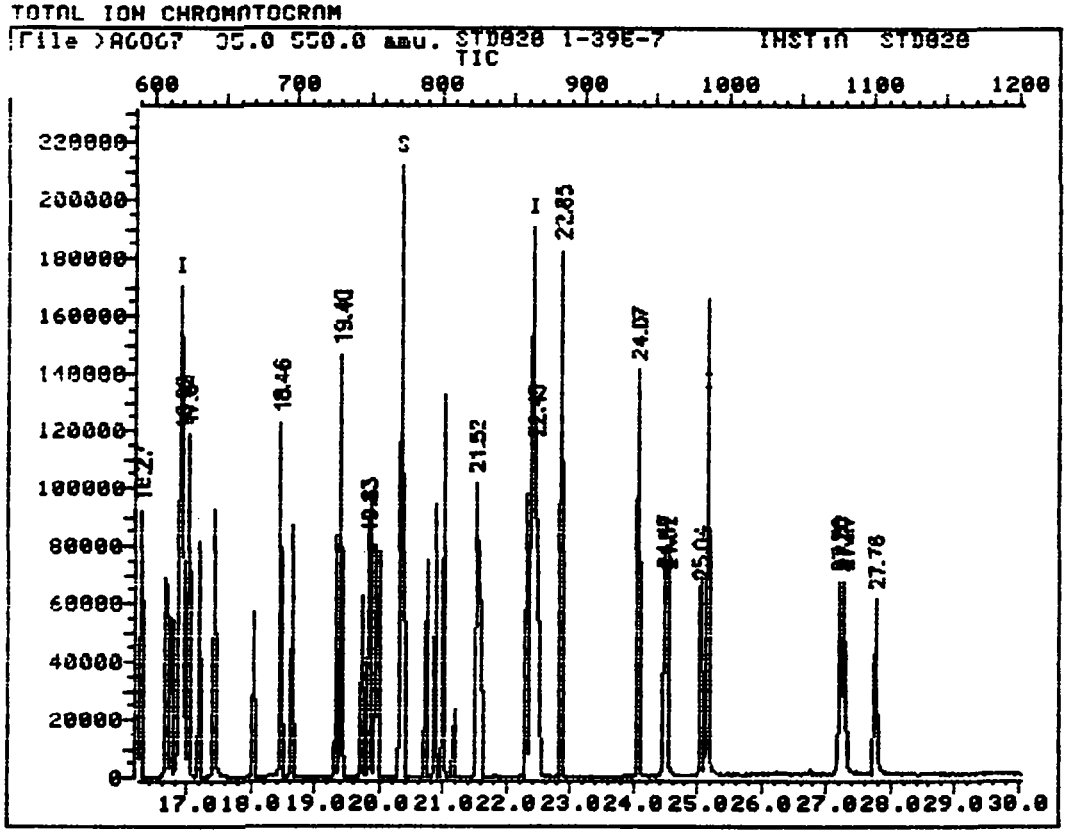
Data File: >A6867::D9 Quant Output File: ^A6867::L1
Name: STD020 1-395-7
Misc: INST:A STD020 BTL# 6

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

Operator ID: MANAGER
Quant Time: 910813 17:22
Injected at: 910813 16:49

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A6867::D9 Quant Output File: ^A6867::L1
Name: STD020 1-395-7
Misc: INST:A STD020 BTL# 6

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

Operator ID: MANAGER
Quant Time: 910813 17:22
Injected at: 910813 16:49

TIC page 2 of 2

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 910813 17:22
Output File: ^A6867::L1 Injected at: 910813 16:49
Data File: >A6867::D9 Dilution Factor: 1.00000
Name: STD020 1-395-7
Id: INST:A STD020 BTL# 6

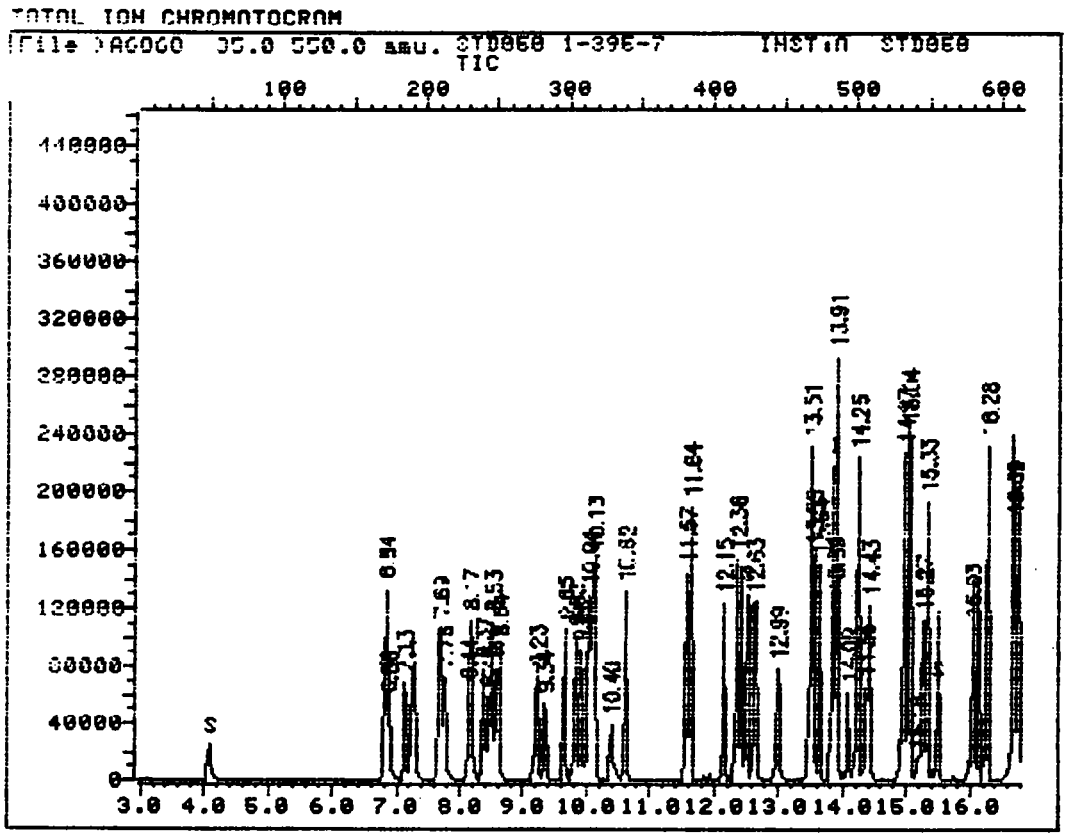
ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

	Compound		R.T.	Q ion	Area	Conc	Units	q
1)	*CI30	1,4-DICHLOROBENZENE-D4	7.23	152.0	30258	40.00	NG/UL	95
2)	C315	PHENOL	6.83	94.0	20911	21.31	NG/UL	73
3)	C325	BIS(2-CHLOROETHYL)ETHER	6.85	93.0	15464	20.37	NG/UL	91
4)	C330	2-CHLOROPHENOL	6.83	128.0	17251	22.27	NG/UL	91
5)	C335	1,3-DICHLOROBENZENE	7.12	146.0	20886	22.85	NG/UL	97
6)	C340	1,4-DICHLOROBENZENE	7.26	146.0	22840M	24.26	NG/UL	94
7)	C345	BENZYL ALCOHOL	7.73	108.0	10076	18.67	NG/UL	76
8)	C350	1,2-DICHLOROBENZENE	7.68	146.0	22213	23.60	NG/UL	98
9)	C355	2-METHYLPHENOL	8.16	108.0	17203	22.99	NG/UL	98
10)	C360	BIS(2-CHLOROISOPROPYL)ETH	8.13	45.0	36937	22.26	NG/UL	100
11)	C365	4-METHYLPHENOL	8.49	108.0	17632	21.74	NG/UL	97
12)	C370	N-NITROSO-DI-N-PROPYLAMIN	8.43	70.0	16226	22.07	NG/UL	79
13)	C375	HEXACHLOROETHANE	8.36	117.0	10601M	20.23	NG/UL	
14)	CS50	2-FLUOROPHENOL	4.06	112.0	11755	21.84	NG/UL	100
15)	CS45	PHENOL-D5	6.78	99.0	20872	22.37	NG/UL	80
16)	*CI40	NAPHTHALENE-D8	10.09	136.0	134669	40.00	NG/UL	91
17)	C410	NITROBENZENE	8.61	77.0	19155	16.77	NG/UL	89
18)	C415	ISOPHORONE	9.19	82.0	45198	20.60	NG/UL	87
19)	C420	2-NITROPHENOL	9.33	139.0	11455	19.86	NG/UL	72
20)	C425	2,4-DIMETHYLPHENOL	9.64	107.0	20597	24.05	NG/UL	92
21)	C430	BENZOIC ACID	10.00	122.0	13273	18.60	NG/UL	97
22)	C435	BIS(2-CHLOROETHOXY)METHAN	9.80	93.0	27029	21.41	NG/UL	95
23)	C440	2,4-DICHLOROPHENOL	9.89	162.0	20334	22.44	NG/UL	96
24)	C445	1,2,4-TRICHLOROBENZENE	10.03	180.0	24629	22.44	NG/UL	97
25)	C450	NAPHTHALENE	10.12	128.0	61323	24.60	NG/UL	98
26)	C455	4-CHLOROANILINE	10.39	127.0	22798	27.18	NG/UL	99
27)	C460	HEXACHLOROBUTADIENE	10.61	225.0	16814	23.06	NG/UL	97
28)	C465	4-CHLORO-3-METHYLPHENOL	11.56	107.0	24516	24.39	NG/UL	91
29)	C470	2-METHYLNAPHTHALENE	11.63	142.0	46565	24.75	NG/UL	94
30)	CS20	NITROBENZENE-D5	8.58	82.0	21990	19.71	NG/UL	81
31)	*CI50	ACENAPHTHENE-D10	13.83	164.0	75643	40.00	NG/UL	90
32)	C510	HEXACHLOROCYCLOPENTADIENE	12.14	237.0	12877	19.53	NG/UL	98
33)	C515	2,4,6-TRICHLOROPHENOL	12.35	196.0	19220	23.83	NG/UL	93
34)	C520	2,4,5-TRICHLOROPHENOL	12.42	196.0	20885	25.89	NG/UL	95
35)	C525	2-CHLORONAPHTHALENE	12.62	162.0	47537	25.01	NG/UL	99
36)	C530	2-NITROANILINE	12.98	138.0	17904	23.04	NG/UL	77
37)	C535	DIMETHYLPHTHALATE	13.54	163.0	63123	22.93	NG/UL	79
38)	C540	ACENAPHTHYLENE	13.50	152.0	90373	25.80	NG/UL	91
39)	C543	2,6-DINITROTOLUENE	13.63	165.0	14066M	22.10	NG/UL	
41)	C550	ACENAPHTHENE	13.90	153.0	59316	29.56	NG/UL	100
42)	C555	2,4-DINITROPHENOL	14.08	184.0	5289	16.43	NG/UL	98
43)	C560	4-NITROPHENOL	14.35	109.0	6065	23.70	NG/UL	91
	C565	DIBENZOFURAN	14.24	168.0	82806	29.83	NG/UL	100

		Compound	R.T.	Q ion	Area	Conc	Units	q
45)	C570	2,4-DINITROTOLUENE	14.42	165.0	19962	19.94	NG/UL	58
46)	C580	DIETHYLPHTHALATE	15.03	149.0	59623	21.27	NG/UL	96
47)	C585	4-CHLOROPHENYL-PHENYLETHE	15.05	204.0	33867	30.49	NG/UL	86
48)	C590	FLUORENE	14.96	166.0	63022	25.72	NG/UL	98
	C595	4-NITROANILINE	15.14	138.0	8827M	56.40	NG/UL	100
50)	CS25	2-FLUOROBIPHENYL	12.51	172.0	55021	30.12	NG/UL	100
51)	CS55	2,4,6-TRIBROMOPHENOL	15.50	330.0	15024M	24.45	NG/UL	
52)	*CI60	PHENANTHRENE-D10	16.88	188.0	155675	40.00	NG/UL	95
53)	C610	4,6-DINITRO-2-METHYLPHENO	15.23	198.0	8541	13.94	NG/UL	65
54)	C615	N-NITROSODIPHENYLAMINE	15.32	169.0	38369	26.28	NG/UL	93
55)	C625	4-BROMOPHENYLPHENYLETHER	16.04	248.0	22389	24.90	NG/UL	98
56)	C630	HEXACHLOROBENZENE	16.27	284.0	29868M	27.02	NG/UL	
57)	C635	PENTACHLOROPHENOL	16.67	266.0	15124	19.22	NG/UL	97
58)	C640	PHENANTHRENE	16.92	178.0	84833	21.65	NG/UL	100
59)	C645	ANTHRACENE	17.01	178.0	86798	23.09	NG/UL	100
60)	C650	DI-N-BUTYLPHTHALATE	18.46	149.0	130379	24.34	NG/UL	87
61)	C655	FLUORANTHENE	19.40	202.0	99997	24.64	NG/UL	100
62)	*CI70	CHRYSENE-D12	22.40	240.0	142757	40.00	NG/UL	95
63)	C715	PYRENE	19.83	202.0	102232	19.06	NG/UL	100
64)	C720	BUTYLBENZYLPHTHALATE	21.52	149.0	58359	14.32	NG/UL	90
65)	C725	3,3'-DICHLOROBENZIDINE	22.45	252.0	11384	28.14	NG/UL	99
66)	C730	BENZO(A)ANTHRACENE	22.38	228.0	83133M	17.81	NG/UL	96
67)	C740	CHRYSENE	22.45	228.0	85882	18.40	NG/UL	94
68)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	22.85	149.0	98634	19.47	NG/UL	77
69)	CS30	TERPHENYL-D14	20.33	244.0	63412	19.80	NG/UL	92
70)	*CI75	PERYLENE-D12	25.15	264.0	138167	40.00	NG/UL	97
71)	C760	DI-N-OCTYLPHTHALATE	24.07	149.0	146835	21.98	NG/UL	100
72)	C765	BENZO(B)FLUORANTHENE	24.47	252.0	73615	16.38	NG/UL	84
73)	C770	BENZO(K)FLUORANTHENE	24.52	252.0	74041M	27.19	NG/UL	
74)	C775	BENZO(A)PYRENE	25.04	252.0	68812	21.49	NG/UL	94
75)	C780	INDENO(1,2,3-CD)PYRENE	27.20	276.0	63285	22.08	NG/UL	99
76)	C785	DIBENZ(A,H)ANTHRACENE	27.27	278.0	54468	20.39	NG/UL	94
77)	C790	BENZO(G,H,I)PERYLENE	27.76	276.0	61301	21.26	NG/UL	96

* Compound is ISTD

A6867
SSTD20
8/13/91 16:49
INST: A

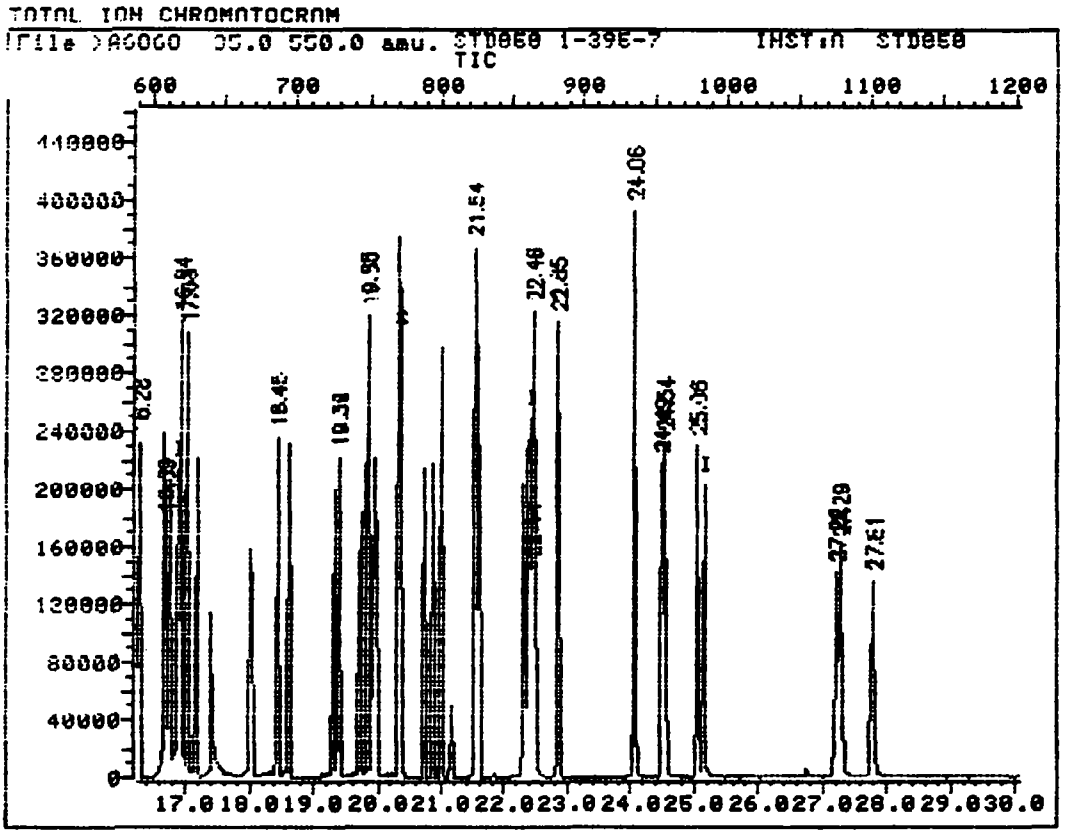


Data File: >A6868::D9 Quant Output File: ^A6868::L1
Name: STD050 1-395-7
Misc: INST:A STD050 BTL# 7

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

Operator ID: MANAGER
Quant Time: 910813 18:00
Injected at: 910813 17:28

TIC page 1 of 2



Data File: >A6868::D9 Quant Output File: ^A6868::L1
Name: STD050 1-395-7
Misc: INST:A STD050 BTL# 7

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

Operator ID: MANAGER
Quant Time: 910813 18:00
Injected at: 910813 17:28

TIC page 2 of 2

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 910813 18:00
Output File: ^A6868::L1 Injected at: 910813 17:28
Data File: >A6868::D9 Dilution Factor: 1.00000
Name: STD050 1-395-7
c: INST:A STD050 BTL# 7

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

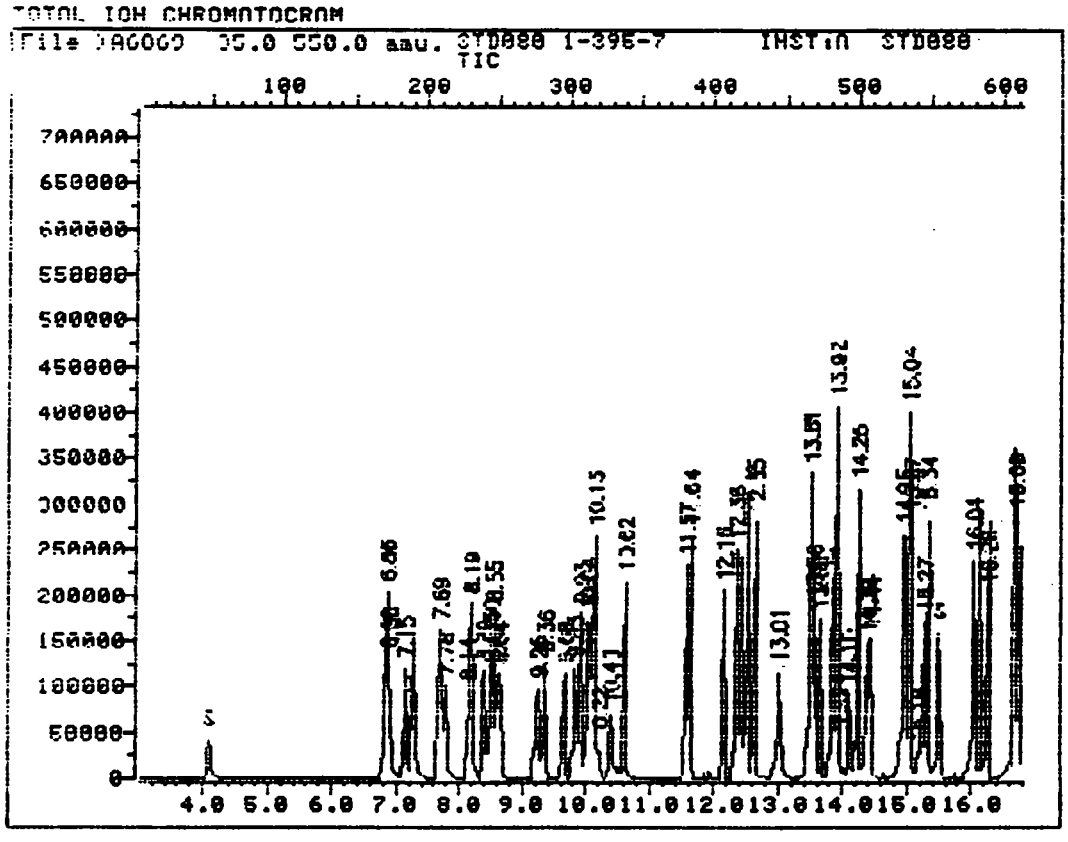
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.24	152.0	30767	40.00	NG/UL	88
2)	C315 PHENOL	6.84	94.0	48903	49.02	NG/UL	80
3)	C325 BIS(2-CHLOROETHYL)ETHER	6.88	93.0	38572	49.96	NG/UL	92
4)	C330 2-CHLOROPHENOL	6.84	128.0	42244	53.63	NG/UL	89
5)	C335 1,3-DICHLOROBENZENE	7.13	146.0	49692	53.47	NG/UL	98
6)	C340 1,4-DICHLOROBENZENE	7.29	146.0	54636M	57.08	NG/UL	92
7)	C345 BENZYL ALCOHOL	7.76	108.0	29673	54.07	NG/UL	76
8)	C350 1,2-DICHLOROBENZENE	7.69	146.0	50465	52.72	NG/UL	94
9)	C355 2-METHYLPHENOL	8.17	108.0	40731	53.54	NG/UL	95
10)	C360 BIS(2-CHLOROISOPROPYL)ETH	8.14	45.0	89247	52.90	NG/UL	100
11)	C365 4-METHYLPHENOL	8.53	108.0	45291	54.91	NG/UL	96
12)	C370 N-NITROSO-DI-N-PROPYLAMIN	8.46	70.0	39454	52.79	NG/UL	74
13)	C375 HEXACHLOROETHANE	8.37	117.0	25744M	48.32	NG/UL	
14)	CS50 2-FLUOROPHENOL	4.09	112.0	29757	54.37	NG/UL	100
15)	CS45 PHENOL-D5	6.81	99.0	51664	54.46	NG/UL	77
16)	*CI40 NAPHTHALENE-D8	10.10	136.0	131389	40.00	NG/UL	93
17)	C410 NITROBENZENE	8.64	77.0	58761	52.74	NG/UL	78
18)	C415 ISOPHORONE	9.23	82.0	109405	51.10	NG/UL	85
19)	C420 2-NITROPHENOL	9.34	139.0	29242	51.96	NG/UL	75
20)	C425 2,4-DIMETHYLPHENOL	9.65	107.0	51425	61.56	NG/UL	92
21)	C430 BENZOIC ACID	10.13	122.0	34869	50.07	NG/UL	89
22)	C435 BIS(2-CHLOROETHOXY)METHAN	9.83	93.0	77941	63.29	NG/UL	94
23)	C440 2,4-DICHLOROPHENOL	9.90	162.0	47863	54.14	NG/UL	96
24)	C445 1,2,4-TRICHLOROBENZENE	10.04	180.0	59508	55.57	NG/UL	98
25)	C450 NAPHTHALENE	10.13	128.0	138298	56.86	NG/UL	99
26)	C455 4-CHLOROANILINE	10.40	127.0	43250	52.85	NG/UL	98
27)	C460 HEXACHLOROBUTADIENE	10.62	225.0	38579	54.23	NG/UL	96
28)	C465 4-CHLORO-3-METHYLPHENOL	11.57	107.0	60969	62.17	NG/UL	87
29)	C470 2-METHYLNAPHTHALENE	11.64	142.0	101932	55.52	NG/UL	92
30)	CS20 NITROBENZENE-D5	8.59	82.0	56774	52.15	NG/UL	83
31)	*CI50 ACENAPHTHENE-D10	13.85	164.0	89864	40.00	NG/UL	93
32)	C510 HEXACHLOROCYCLOPENTADIENE	12.15	237.0	39197	50.04	NG/UL	96
33)	C515 2,4,6-TRICHLOROPHENOL	12.36	196.0	56434	58.89	NG/UL	98
34)	C520 2,4,5-TRICHLOROPHENOL	12.43	196.0	47421M	49.48	NG/UL	98
35)	C525 2-CHLORONAPHTHALENE	12.63	162.0	118541	52.51	NG/UL	98
36)	C530 2-NITROANILINE	12.99	138.0	45982M	49.80	NG/UL	59
37)	C535 DIMETHYLPHTHALATE	13.55	163.0	134588	41.15	NG/UL	86
38)	C540 ACENAPHTHYLENE	13.51	152.0	206586	49.65	NG/UL	89
39)	C543 2,6-DINITROTOLUENE	13.64	165.0	35211	46.57	NG/UL	68
40)	C545 3-NITROANILINE	13.89	138.0	20144M	20144.00	NO CALIB	
41)	C550 ACENAPHTHENE	13.91	153.0	145362	60.98	NG/UL	100
42)	C555 2,4-DINITROPHENOL	14.09	184.0	19809M	51.81	NG/UL	92
43)	C560 4-NITROPHENOL	14.36	109.0	18408M	60.56	NG/UL	94

0567

		Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C565	DIBENZOFURAN	14.25	168.0	203498	61.70	NG/UL	100
45)	C570	2,4-DINITROTOLUENE	14.43	165.0	47801	40.20	NG/UL	82
46)	C580	DIETHYLPHTHALATE	15.04	149.0	141705	42.55	NG/UL	94
47)	C585	4-CHLOROPHENYL-PHENYLETHE	15.04	204.0	67782M	51.37	NG/UL	70
	C590	FLUORENE	14.97	166.0	125021	42.94	NG/UL	90
4.)	C595	4-NITROANILINE	15.18	138.0	16847M	90.61	NG/UL	100
50)	CS25	2-FLUOROBIPHENYL	12.52	172.0	125720	57.93	NG/UL	100
51)	CS55	2,4,6-TRIBROMOPHENOL	15.49	330.0	36273M	49.69	NG/UL	
52)	*CI60	PHENANTHRENE-D10	16.89	188.0	162598	40.00	NG/UL	94
53)	C610	4,6-DINITRO-2-METHYLPHENO	15.27	198.0	27453	42.89	NG/UL	87
54)	C615	N-NITROSODIPHENYLAMINE	15.33	169.0	82877	54.35	NG/UL	93
55)	C625	4-BROMOPHENYLPHENYLETHER	16.03	248.0	38833	41.35	NG/UL	94
56)	C630	HEXACHLOROBENZENE	16.28	284.0	71265	61.73	NG/UL	65
57)	C635	PENTACHLOROPHENOL	16.69	266.0	38925	47.37	NG/UL	96
58)	C640	PHENANTHRENE	16.94	178.0	241688	59.05	NG/UL	100
59)	C645	ANTHRACENE	17.03	178.0	229219	58.38	NG/UL	100
60)	C650	DI-N-BUTYLPHTHALATE	18.45	149.0	311789	55.72	NG/UL	86
61)	C655	FLUORANTHENE	19.39	202.0	214889	50.69	NG/UL	100
62)	*CI70	CHRYSENE-D12	22.42	240.0	150576	40.00	NG/UL	95
63)	C715	PYRENE	19.85	202.0	262457	46.38	NG/UL	100
64)	C720	BUTYLBENZYLPHTHALATE	21.54	149.0	162593	37.83	NG/UL	77
65)	C725	3,3'-DICHLOROBENZIDINE	22.44	252.0	31433	73.67	NG/UL	99
66)	C730	BENZO(A)ANTHRACENE	22.37	228.0	206492M	41.94	NG/UL	97
67)	C740	CHRYSENE	22.46	228.0	222595	45.21	NG/UL	98
68)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	22.85	149.0	214425	40.13	NG/UL	76
69)	CS30	TERPHENYL-D14	20.34	244.0	156504	46.33	NG/UL	88
70)	*CI75	PERYLENE-D12	25.17	264.0	152577	40.00	NG/UL	98
71)	C760	DI-N-OCTYLPHTHALATE	24.06	149.0	363833	49.31	NG/UL	100
72)	C765	BENZO(B)FLUORANTHENE	24.49	252.0	208454	41.99	NG/UL	94
3)	C770	BENZO(K)FLUORANTHENE	24.54	252.0	142911	47.53	NG/UL	90
4)	C775	BENZO(A)PYRENE	25.06	252.0	166087	46.96	NG/UL	99
75)	C780	INDENO(1,2,3-CD)PYRENE	27.22	276.0	165017	52.14	NG/UL	96
76)	C785	DIBENZ(A,H)ANTHRACENE	27.29	278.0	148903	50.47	NG/UL	94
77)	C790	BENZO(G,H,I)PERYLENE	27.81	276.0	171186	53.75	NG/UL	90

* Compound is ISTD

A6868
SSTD50
8-13-91
17:28
INST. A



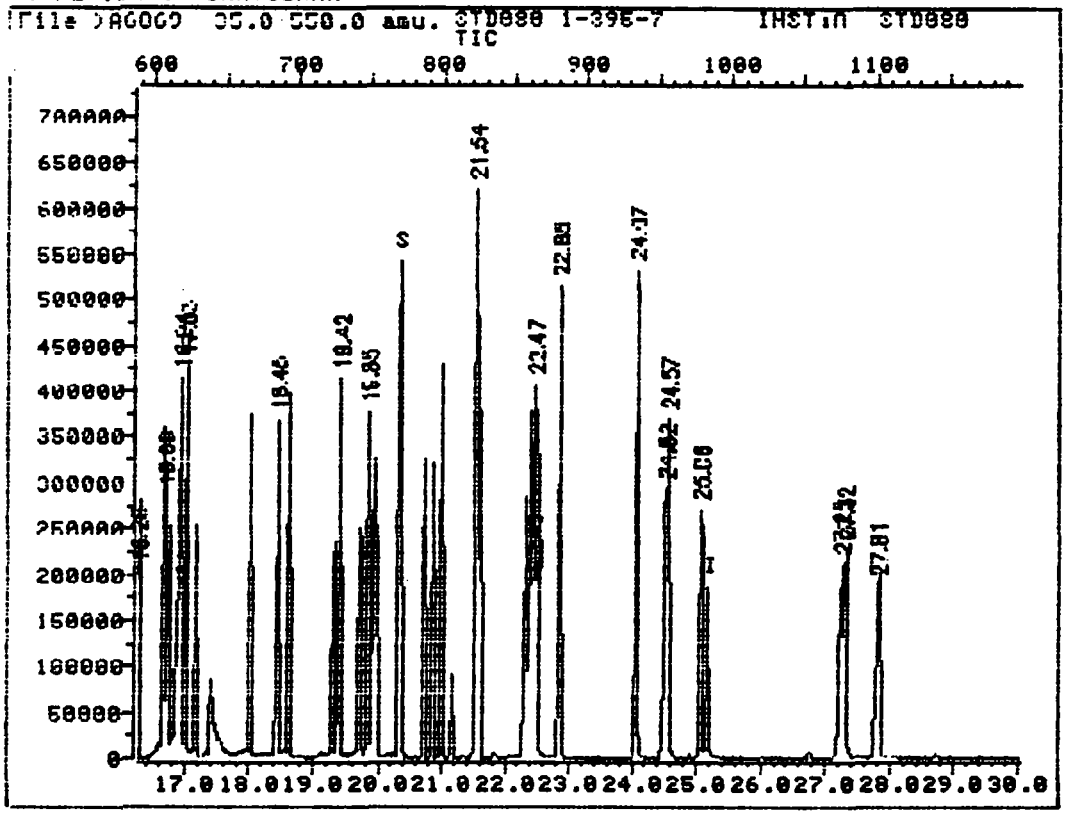
Data File: >A6869::D9 Quant Output File: ^A6869::L1
Name: STD080 1-395-7
Misc: INST:A STD080 BTL# 8

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

Operator ID: MANAGER
Quant Time: 910813 18:39
Injected at: 910813 18:06

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A6869::D9 Quant Output File: ^A6869::L1
Name: STD080 1-395-7
Misc: INST:A STD080 BTL# 8

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

Operator ID: MANAGER
Quant Time: 910813 18:39
Injected at: 910813 18:06

TIC page 2 of 2

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 910813 18:39
Output File: ^A6869::L1 Injected at: 910813 18:06
Data File: >A6869::D9 Dilution Factor: 1.00000
Name: STD080 1-395-7
Cmt: INST:A STD080 BTL# 8

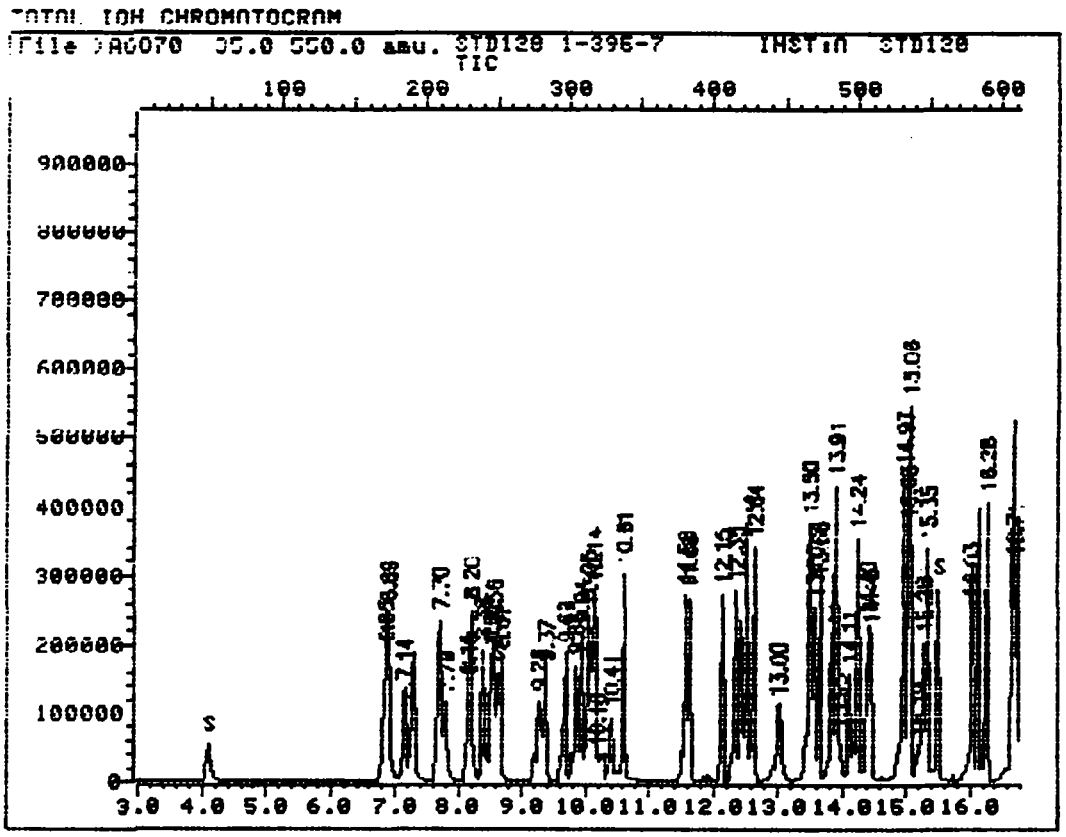
ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.24	152.0	30341	40.00	NG/UL	93
2)	C315 PHENOL	6.86	94.0	72896	74.09	NG/UL	76
3)	C325 BIS(2-CHLOROETHYL)ETHER	6.88	93.0	63250	83.08	NG/UL	91
4)	C330 2-CHLOROPHENOL	6.86	128.0	70355	90.58	NG/UL	87
5)	C335 1,3-DICHLOROBENZENE	7.15	146.0	86291	94.15	NG/UL	99
6)	C340 1,4-DICHLOROBENZENE	7.29	146.0	93580M	99.13	NG/UL	95
7)	C345 BENZYL ALCOHOL	7.78	108.0	50806	93.89	NG/UL	76
8)	C350 1,2-DICHLOROBENZENE	7.69	146.0	78801	83.48	NG/UL	99
9)	C355 2-METHYLPHENOL	8.19	108.0	72283	96.36	NG/UL	92
10)	C360 BIS(2-CHLOROISOPROPYL)ETH	8.14	45.0	150145	90.24	NG/UL	100
11)	C365 4-METHYLPHENOL	8.55	108.0	82217	101.07	NG/UL	99
12)	C370 N-NITROSO-DI-N-PROPYLAMIN	8.50	70.0	58675	79.61	NG/UL	61
13)	C375 HEXACHLOROETHANE	8.39	117.0	42198	80.32	NG/UL	69
14)	CS50 2-FLUOROPHENOL	4.09	112.0	51054	94.60	NG/UL	100
15)	CS45 PHENOL-D5	6.84	99.0	80916	86.49	NG/UL	76
16)	*CI40 NAPHTHALENE-D8	10.11	136.0	127841	40.00	NG/UL	93
17)	C410 NITROBENZENE	8.64	77.0	93447	86.19	NG/UL	86
18)	C415 ISOPHORONE	9.25	82.0	186974	89.76	NG/UL	85
19)	C420 2-NITROPHENOL	9.36	139.0	56731	103.60	NG/UL	59
20)	C425 2,4-DIMETHYLPHENOL	9.68	107.0	82424	101.40	NG/UL	86
21)	C430 BENZOIC ACID	10.22	122.0	65178	96.19	NG/UL	95
22)	C435 BIS(2-CHLOROETHOXY)METHAN	9.83	93.0	107505M	89.71	NG/UL	96
23)	C440 2,4-DICHLOROPHENOL	9.93	162.0	88396	102.76	NG/UL	98
24)	C445 1,2,4-TRICHLOROBENZENE	10.04	180.0	100264	96.22	NG/UL	98
25)	C450 NAPHTHALENE	10.15	128.0	267143	112.88	NG/UL	98
26)	C455 4-CHLOROANILINE	10.40	127.0	62234	78.16	NG/UL	99
27)	C460 HEXACHLOROBUTADIENE	10.62	225.0	69342	100.18	NG/UL	97
28)	C465 4-CHLORO-3-METHYLPHENOL	11.57	107.0	92686	97.14	NG/UL	94
29)	C470 2-METHYLNAPHTHALENE	11.64	142.0	147069	82.33	NG/UL	97
30)	CS20 NITROBENZENE-D5	8.62	82.0	95340	90.00	NG/UL	84
31)	*CI50 ACENAPHTHENE-D10	13.85	164.0	75666	40.00	NG/UL	99
32)	C510 HEXACHLOROCYCLOPENTADIENE	12.16	237.0	72364	109.71	NG/UL	97
33)	C515 2,4,6-TRICHLOROPHENOL	12.36	196.0	96309	119.35	NG/UL	97
34)	C520 2,4,5-TRICHLOROPHENOL	12.43	196.0	77917M	96.56	NG/UL	98
35)	C525 2-CHLORONAPHTHALENE	12.65	162.0	223431	117.54	NG/UL	93
36)	C530 2-NITROANILINE	13.01	138.0	84140M	108.23	NG/UL	49
37)	C535 DIMETHYLPHTHALATE	13.56	163.0	211432	76.77	NG/UL	85
38)	C540 ACENAPHTHYLENE	13.51	152.0	322730	92.11	NG/UL	91
39)	C543 2,6-DINITROTOLUENE	13.65	165.0	45717	71.81	NG/UL	93
40)	C545 3-NITROANILINE	13.94	138.0	30379M	30379.00	NO CALIB	65
41)	C550 ACENAPHTHENE	13.92	153.0	192032	95.67	NG/UL	100
42)	C555 2,4-DINITROPHENOL	14.10	184.0	31497	97.84	NG/UL	99
43)	C560 4-NITROPHENOL	14.39	109.0	31593	123.44	NG/UL	98

		Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C565	DIBENZOFURAN	14.25	168.0	266303	95.89	NG/UL	100
45)	C570	2,4-DINITROTOLUENE	14.44	165.0	70965	70.88	NG/UL	95
46)	C580	DIETHYLPHTHALATE	15.07	149.0	243894	86.97	NG/UL	88
47)	C585	4-CHLOROPHENYL-PHENYLETHE	15.04	204.0	103105	92.80	NG/UL	82
	C590	FLUORENE	14.95	166.0	193766	79.05	NG/UL	97
49)	C595	4-NITROANILINE	15.18	138.0	26819M	171.31	NG/UL	100
50)	CS25	2-FLUOROBIPHENYL	12.54	172.0	254371	139.21	NG/UL	100
51)	CS55	2,4,6-TRIBROMOPHENOL	15.50	330.0	57162M	93.01	NG/UL	
52)	*CI60	PHENANTHRENE-D10	16.89	188.0	165963	40.00	NG/UL	91
53)	C610	4,6-DINITRO-2-METHYLPHENO	15.27	198.0	51295	78.51	NG/UL	72
54)	C615	N-NITROSODIPHENYLAMINE	15.34	169.0	127690	82.03	NG/UL	88
55)	C625	4-BROMOPHENYLPHENYLETHER	16.04	248.0	66281	69.15	NG/UL	98
56)	C630	HEXACHLOROBENZENE	16.26	284.0	102040	86.59	NG/UL	52
57)	C635	PENTACHLOROPHENOL	16.69	266.0	66993	79.87	NG/UL	97
58)	C640	PHENANTHRENE	16.94	178.0	369234	88.38	NG/UL	100
59)	C645	ANTHRACENE	17.03	178.0	346499	86.46	NG/UL	100
60)	C650	DI-N-BUTYLPHTHALATE	18.45	149.0	521315	91.27	NG/UL	87
61)	C655	FLUORANTHENE	19.42	202.0	433033	100.08	NG/UL	100
62)	*CI70	CHRYSENE-D12	22.43	240.0	160696	40.00	NG/UL	98
63)	C715	PYRENE	19.85	202.0	353442	58.53	NG/UL	100
64)	C720	BUTYLBENZYLPHTHALATE	21.54	149.0	282956	61.69	NG/UL	90
65)	C725	3,3'-DICHLOROBENZIDINE	22.45	252.0	45829	100.65	NG/UL	97
66)	C730	BENZO(A)ANTHRACENE	22.40	228.0	345309M	65.72	NG/UL	97
67)	C740	CHRYSENE	22.47	228.0	303184	57.70	NG/UL	97
68)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	22.85	149.0	350048	61.38	NG/UL	75
69)	CS30	TERPHENYL-D14	20.35	244.0	229204	63.58	NG/UL	99
70)	*CI75	PERYLENE-D12	25.18	264.0	146107	40.00	NG/UL	99
71)	C760	DI-N-OCTYLPHTHALATE	24.07	149.0	507489	71.83	NG/UL	100
72)	C765	BENZO(B)FLUORANTHENE	24.52	252.0	349332M	73.49	NG/UL	
73)	C770	BENZO(K)FLUORANTHENE	24.57	252.0	332778M	115.57	NG/UL	89
74)	C775	BENZO(A)PYRENE	25.06	252.0	282482M	83.41	NG/UL	90
75)	C780	INDENO(1,2,3-CD)PYRENE	27.25	276.0	278617	91.94	NG/UL	97
76)	C785	DIBENZ(A,H)ANTHRACENE	27.32	278.0	253158	89.60	NG/UL	90
77)	C790	BENZO(G,H,I)PERYLENE	27.81	276.0	296185	97.12	NG/UL	98

* Compound is ISTD

AL686A
SSTD80
8-13-91
18:04
INST.A

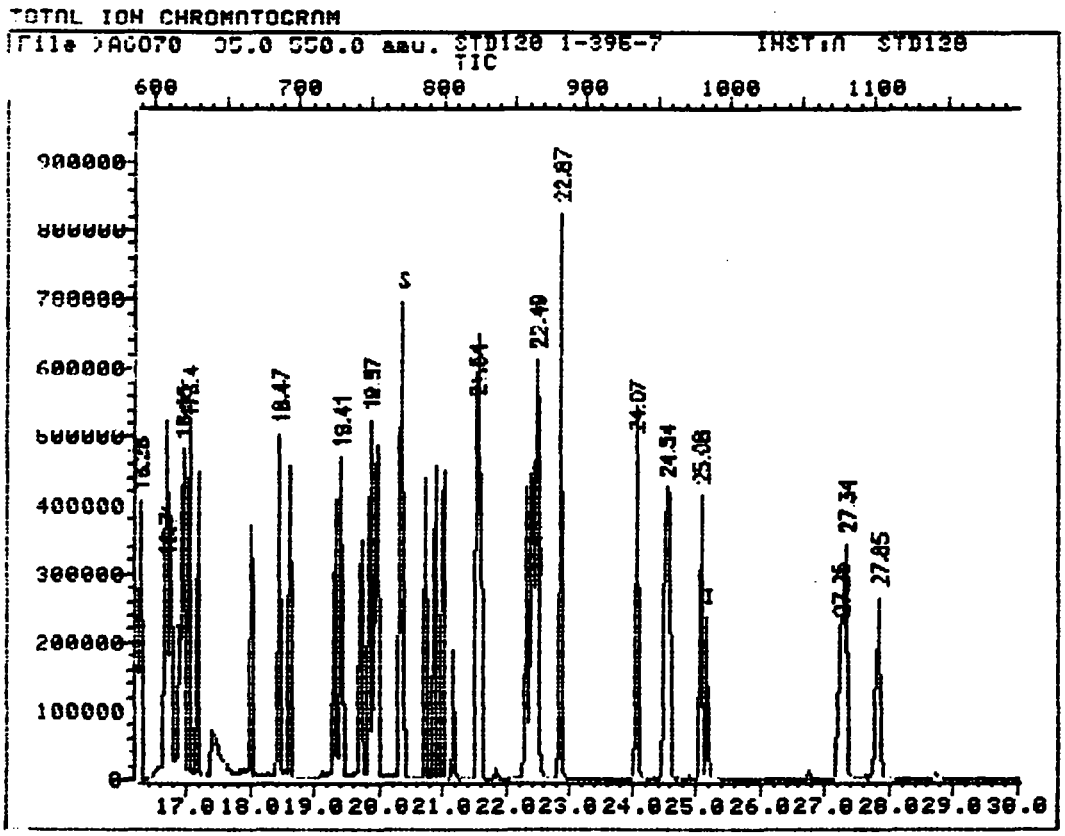


Data File: >A6870::D9 Quant Output File: ^A6870::L1
Name: STD120 1-395-7
Misc: INST:A STD120 BTL# 9

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

Operator ID: MANACER
Quant Time: 910813 19:17
Injected at: 910813 18:45

TIC page 1 of 2



Data File: >A6870::D9 Quant Output File: ^A6870::L1
Name: STD120 1-395-7
Misc: INST:A STD120 BTL# 9

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

Operator ID: MANAGER
Quant Time: 910813 19:17
Injected at: 910813 18:45

TIC page 2 of 2

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 910813 19:17
Output File: ^A6870::L1 Injected at: 910813 18:45
Data File: >A6870::D9 Dilution Factor: 1.00000
Name: STD120 1-395-7
Loc: INST:A STD120 BTL# 9

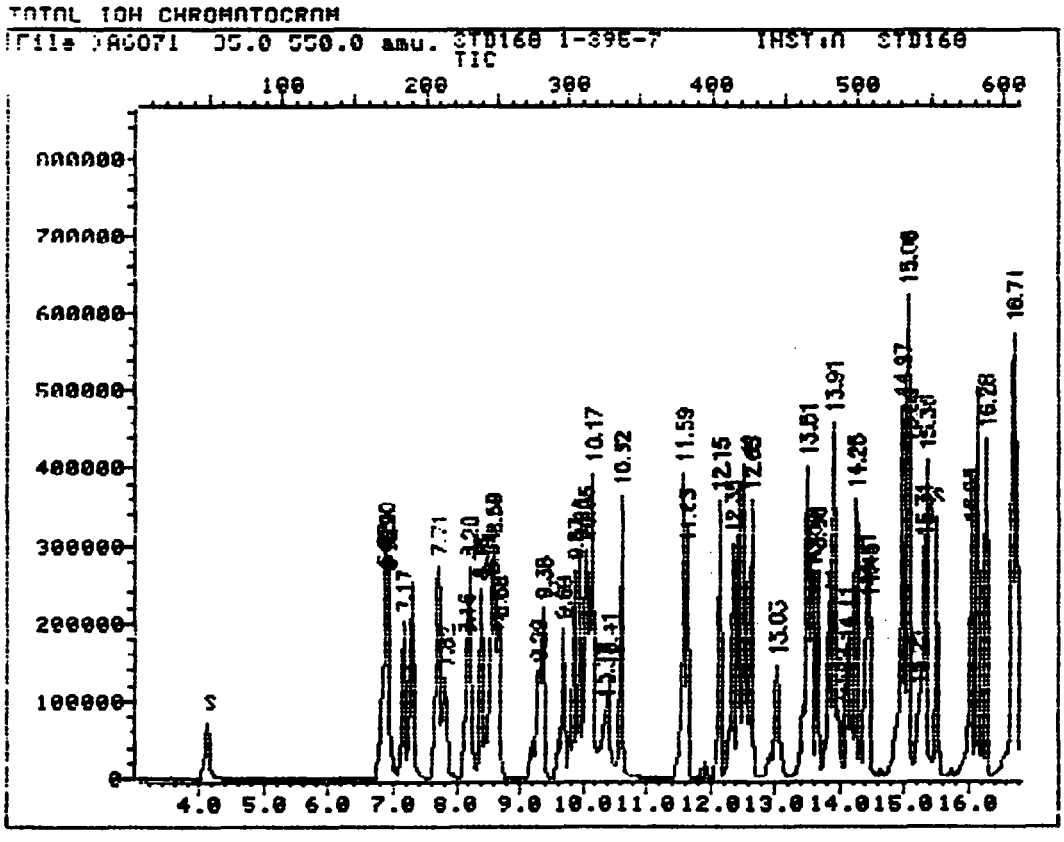
ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.25	152.0	30707	40.00	NG/UL	92
2)	C315 PHENOL	6.89	94.0	121282	121.80	NG/UL	80
3)	C325 BIS(2-CHLOROETHYL)ETHER	6.89	93.0	86207	111.88	NG/UL	72
4)	C330 2-CHLOROPHENOL	6.85	128.0	99839	127.00	NG/UL	92
5)	C335 1,3-DICHLOROBENZENE	7.14	146.0	121025	130.47	NG/UL	98
6)	C340 1,4-DICHLOROBENZENE	7.30	146.0	137601M	144.03	NG/UL	94
7)	C345 BENZYL ALCOHOL	7.79	108.0	70945	129.54	NG/UL	75
8)	C350 1,2-DICHLOROBENZENE	7.70	146.0	113336	118.63	NG/UL	98
9)	C355 2-METHYLPHENOL	8.20	108.0	98426	129.64	NG/UL	89
10)	C360 BIS(2-CHLOROISOPROPYL)ETH	8.15	45.0	212882	126.42	NG/UL	100
11)	C365 4-METHYLPHENOL	8.56	108.0	94774	115.12	NG/UL	96
12)	C370 N-NITROSO-DI-N-PROPYLAMIN	8.52	70.0	74898	100.41	NG/UL	68
13)	C375 HEXACHLOROETHANE	8.38	117.0	60685M	114.13	NG/UL	
14)	CS50 2-FLUOROPHENOL	4.10	112.0	75228	137.73	NG/UL	100
15)	CS45 PHENOL-D5	6.85	99.0	117859	124.48	NG/UL	76
16)	*CI40 NAPHTHALENE-D8	10.09	136.0	120615	40.00	NG/UL	96
17)	C410 NITROBENZENE	8.67	77.0	143148	139.94	NG/UL	72
8)	C415 ISOPHORONE	9.26	82.0	206210	104.92	NG/UL	88
19)	C420 2-NITROPHENOL	9.37	139.0	83837	162.28	NG/UL	48
20)	C425 2,4-DIMETHYLPHENOL	9.69	107.0	124318	162.11	NG/UL	89
21)	C430 BENZOIC ACID	10.18	122.0	56426	88.26	NG/UL	88
22)	C435 BIS(2-CHLOROETHOXY)METHAN	9.85	93.0	157839	139.61	NG/UL	95
23)	C440 2,4-DICHLOROPHENOL	9.94	162.0	117381	144.63	NG/UL	96
24)	C445 1,2,4-TRICHLOROBENZENE	10.05	180.0	139071	141.46	NG/UL	98
25)	C450 NAPHTHALENE	10.14	128.0	327200	146.55	NG/UL	98
26)	C455 4-CHLOROANILINE	10.41	127.0	93214	124.09	NG/UL	99
27)	C460 HEXACHLOROBUTADIENE	10.61	225.0	89710	137.37	NG/UL	95
28)	C465 4-CHLORO-3-METHYLPHENOL	11.58	107.0	98607	109.54	NG/UL	77
29)	C470 2-METHYLNAPHTHALENE	11.63	142.0	158640	94.13	NG/UL	92
30)	CS20 NITROBENZENE-D5	8.63	82.0	140848	140.93	NG/UL	80
31)	*CI50 ACENAPHTHENE-D10	13.84	164.0	69777	40.00	NG/UL	89
32)	C510 HEXACHLOROCYCLOPENTADIENE	12.15	237.0	106241	174.67	NG/UL	95
33)	C515 2,4,6-TRICHLOROPHENOL	12.35	196.0	132219	177.68	NG/UL	97
34)	C520 2,4,5-TRICHLOROPHENOL	12.42	196.0	79926M	107.41	NG/UL	96
35)	C525 2-CHLORONAPHTHALENE	12.64	162.0	273340	155.93	NG/UL	97
36)	C530 2-NITROANILINE	13.00	138.0	119442M	166.61	NG/UL	59
37)	C535 DIMETHYLPHTHALATE	13.57	163.0	310184	122.13	NG/UL	89
38)	C540 ACENAPHTHYLENE	13.50	152.0	323647	100.17	NG/UL	91
39)	C543 2,6-DINITROTOLUENE	13.66	165.0	88077	150.03	NG/UL	83
40)	C545 3-NITROANILINE	13.95	138.0	47179M	47179.00	NO CALIB	63
41)	C550 ACENAPHTHENE	13.91	153.0	210116	113.52	NG/UL	100
42)	C555 2,4-DINITROPHENOL	14.11	184.0	52507	176.87	NG/UL	98
43)	C560 4-NITROPHENOL	14.40	109.0	49363	209.15	NG/UL	96

		Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C565	DIBENZOFURAN	14.24	168.0	311418	121.60	NG/UL	100
45)	C570	2,4-DINITROTOLUENE	14.45	165.0	118730	128.60	NG/UL	86
46)	C580	DIETHYLPHTHALATE	15.06	149.0	306948	118.69	NG/UL	93
47)	C585	4-CHLOROPHENYL-PHENYLETHE	15.03	204.0	159320	155.49	NG/UL	80
	C590	FLUORENE	14.97	166.0	259127	114.63	NG/UL	98
4.)	C595	4-NITROANILINE	15.19	138.0	37623M	260.61	NG/UL	100
50)	CS25	2-FLUOROBIPHENYL	12.53	172.0	296518	175.97	NG/UL	100
51)	CS55	2,4,6-TRIBROMOPHENOL	15.51	330.0	101212M	178.58	NG/UL	
52)	*CI60	PHENANTHRENE-D10	16.89	188.0	161341	40.00	NG/UL	92
53)	C610	4,6-DINITRO-2-METHYLPHENO	15.28	198.0	71287	112.23	NG/UL	72
54)	C615	N-NITROSODIPHENYLAMINE	15.35	169.0	189490	125.22	NG/UL	89
55)	C625	4-BROMOPHENYLPHENYLETHER	16.03	248.0	108611	116.55	NG/UL	96
56)	C630	HEXACHLOROBENZENE	16.28	284.0	159209M	138.98	NG/UL	54
57)	C635	PENTACHLOROPHENOL	16.71	266.0	96993	118.95	NG/UL	98
58)	C640	PHENANTHRENE	16.95	178.0	514097	126.58	NG/UL	100
59)	C645	ANTHRACENE	17.04	178.0	528162	135.56	NG/UL	100
60)	C650	DI-N-BUTYLPHTHALATE	18.47	149.0	655188	118.00	NG/UL	95
61)	C655	FLUORANTHENE	19.41	202.0	468144	111.29	NG/UL	100
62)	*CI70	CHRYSENE-D12	22.42	240.0	134974	40.00	NG/UL	90
63)	C715	PYRENE	19.87	202.0	528485	104.19	NG/UL	100
64)	C720	BUTYLBENZYLPHTHALATE	21.54	149.0	316425	82.14	NG/UL	95
65)	C725	3,3'-DICHLOROBENZIDINE	22.44	252.0	60734	158.80	NG/UL	98
66)	C730	BENZO(A)ANTHRACENE	22.40	228.0	498200M	112.88	NG/UL	97
67)	C740	CHRYSENE	22.49	228.0	406439	92.09	NG/UL	97
68)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	22.87	149.0	582056	121.52	NG/UL	78
69)	CS30	TERPHENYL-D14	20.37	244.0	337941	111.60	NG/UL	96
70)	*CI75	PERYLENE-D12	25.17	264.0	149070	40.00	NG/UL	98
71)	C760	DI-N-OCTYLPHTHALATE	24.07	149.0	730615	101.36	NG/UL	100
72)	C765	BENZO(B)FLUORANTHENE	24.54	252.0	560014M	115.47	NG/UL	
3)	C770	BENZO(K)FLUORANTHENE	24.54	252.0	388181M	132.13	NG/UL	92
/4)	C775	BENZO(A)PYRENE	25.08	252.0	396537	114.77	NG/UL	96
75)	C780	INDENO(1,2,3-CD)PYRENE	27.25	276.0	444114	143.64	NG/UL	90
76)	C785	DIBENZ(A,H)ANTHRACENE	27.34	278.0	385300	133.66	NG/UL	95
77)	C790	BENZO(G,H,I)PERYLENE	27.85	276.0	400552	128.73	NG/UL	95

* Compound is ISTD

A6870
SSTD30
8-13-91
18:45
INST. A

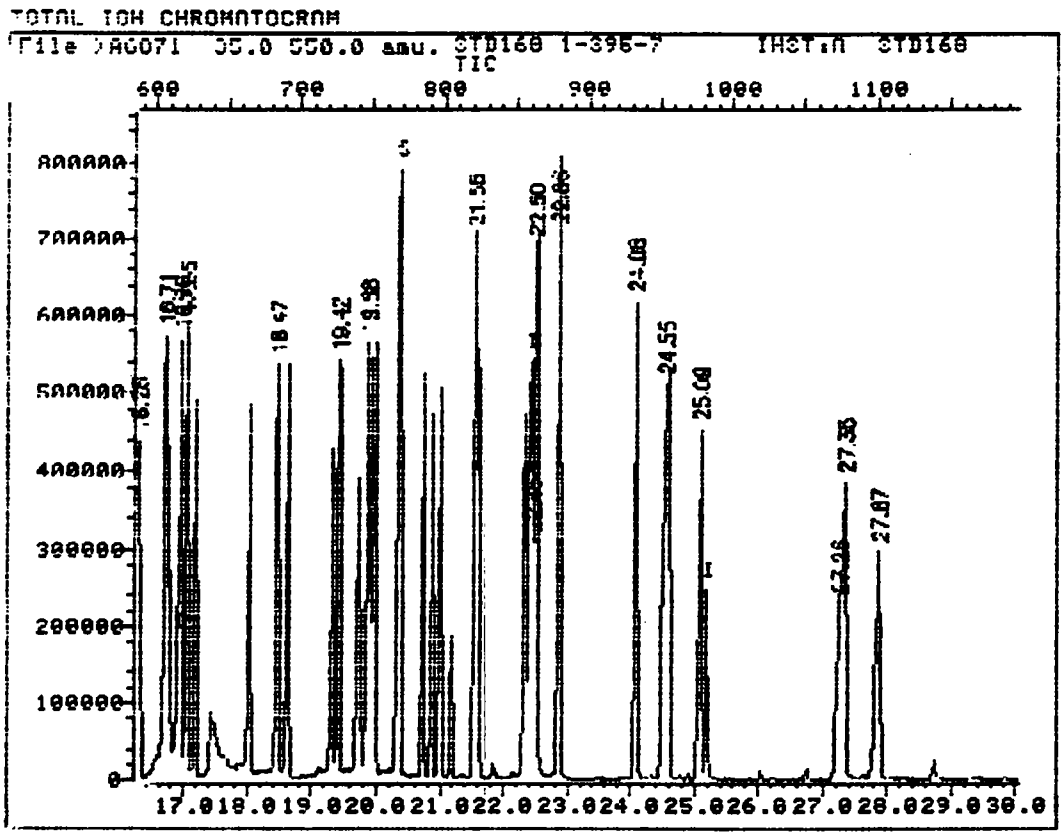


Data File: >A6871::D9 Quant Output File: ^A6871::L1
Name: STD160 1-395-7
Misc: INST:A STD160 BTL#10

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

Operator ID: MANAGER
Quant Time: 910813 19:56
Injected at: 910813 19:23

TIC page 1 of 2



Data File: >A6871::09 Quant Output File: ^A6871::L1
Name: STD160 1-395-7
Misc: INST:A STD160 BTL#10

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

Operator ID: MANAGER
Quant Time: 910813 19:56
Injected at: 910813 19:23

TIC page 2 of 2

QUANT REPORT

Operator ID: MANAGER
Output File: ^A6871::L1
Data File: >A6871::D9
Name: STD160 1-395-7
c: INST:A STD160

Quant Rev: 6 Quant Time: 910813 19:56
Injected at: 910813 19:23
Dilution Factor: 1.00000

BTL#10

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 10:39

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.26	152.0	29588	40.00	NG/UL	93
2)	C315 PHENOL	6.92	94.0	168092M	175.19	NG/UL	83
3)	C325 BIS(2-CHLOROETHYL)ETHER	6.90	93.0	113448	152.81	NG/UL	81
4)	C330 2-CHLOROPHENOL	6.87	128.0	131895	174.13	NG/UL	88
5)	C335 1,3-DICHLOROBENZENE	7.17	146.0	160658	179.75	NG/UL	98
6)	C340 1,4-DICHLOROBENZENE	7.30	146.0	178570M	193.98	NG/UL	95
7)	C345 BENZYL ALCOHOL	7.82	108.0	92615	175.50	NG/UL	76
8)	C350 1,2-DICHLOROBENZENE	7.71	146.0	138344	150.28	NG/UL	98
9)	C355 2-METHYLPHENOL	8.20	108.0	129290	176.73	NG/UL	91
10)	C360 BIS(2-CHLOROISOPROPYL)ETH	8.16	45.0	285913	176.22	NG/UL	100
11)	C365 4-METHYLPHENOL	8.59	108.0	124184	156.55	NG/UL	90
12)	C370 N-NITROSO-DI-N-PROPYLAMIN	8.54	70.0	104370	145.21	NG/UL	69
13)	C375 HEXACHLOROETHANE	8.38	117.0	79673M	155.50	NG/UL	
14)	CS50 2-FLUOROPHENOL	4.12	112.0	102642	195.03	NG/UL	100
15)	CS45 PHENOL-D5	6.87	99.0	150491	164.96	NG/UL	72
16)	*CI40 NAPHTHALENE-D8	10.10	136.0	128233	40.00	NG/UL	99
17)	C410 NITROBENZENE	8.68	77.0	123713	113.76	NG/UL	87
8)	C415 ISOPHORONE	9.29	82.0	266049	127.33	NG/UL	87
9)	C420 2-NITROPHENOL	9.38	139.0	105670	192.38	NG/UL	64
20)	C425 2,4-DIMETHYLPHENOL	9.69	107.0	106193	130.25	NG/UL	91
21)	C430 BENZOIC ACID	10.37	122.0	141561M	208.28	NG/UL	93
22)	C435 BIS(2-CHLOROETHOXY)METHAN	9.87	93.0	181277M	150.82	NG/UL	95
23)	C440 2,4-DICHLOROPHENOL	9.96	162.0	133937	155.22	NG/UL	92
24)	C445 1,2,4-TRICHLOROBENZENE	10.05	180.0	183939	175.98	NG/UL	98
25)	C450 NAPHTHALENE	10.17	128.0	483066	203.50	NG/UL	98
26)	C455 4-CHLOROANILINE	10.41	127.0	136030	170.33	NG/UL	99
27)	C460 HEXACHLOROBUTADIENE	10.62	225.0	114532	164.95	NG/UL	98
28)	C465 4-CHLORO-3-METHYLPHENOL	11.59	107.0	137747	143.93	NG/UL	88
29)	C470 2-METHYLNAPHTHALENE	11.63	142.0	217131	121.18	NG/UL	99
30)	CS20 NITROBENZENE-D5	8.63	82.0	183661	172.85	NG/UL	83
31)	*CI50 ACENAPHTHENE-D10	13.84	164.0	70610	40.00	NG/UL	85
32)	C510 HEXACHLOROCYCLOPENTADIENE	12.15	237.0	147194	239.14	NG/UL	97
33)	C515 2,4,6-TRICHLOROPHENOL	12.35	196.0	179921	238.94	NG/UL	98
34)	C520 2,4,5-TRICHLOROPHENOL	12.44	196.0	122670M	162.91	NG/UL	99
35)	C525 2-CHLORONAPHTHALENE	12.65	162.0	328135M	184.98	NG/UL	94
36)	C530 2-NITROANILINE	13.03	138.0	169278M	233.34	NG/UL	50
37)	C535 DIMETHYLPHTHALATE	13.57	163.0	452170	175.94	NG/UL	85
38)	C540 ACENAPHTHYLENE	13.51	152.0	498220M	152.38	NG/UL	91
39)	C543 2,6-DINITROTOLUENE	13.66	165.0	100176M	168.62	NG/UL	86
40)	C545 3-NITROANILINE	13.96	138.0	70331M	70331.00	NO CALIB	62
41)	C550 ACENAPHTHENE	13.91	153.0	357646M	190.95	NG/UL	100
42)	C555 2,4-DINITROPHENOL	14.11	184.0	73151	243.51	NG/UL	92
43)	C560 4-NITROPHENOL	14.41	109.0	61003	255.42	NG/UL	97

		Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C565	DIBENZOFURAN	14.25	168.0	422917	163.19	NG/UL	100
45)	C570	2,4-DINITROTOLUENE	14.45	165.0	143211	153.28	NG/UL	89
46)	C580	DIETHYLPHTHALATE	15.09	149.0	459316	175.51	NG/UL	93
47)	C585	4-CHLOROPHENYL-PHENYLETHE	15.06	204.0	202604	195.40	NG/UL	97
	C590	FLUORENE	14.97	166.0	294380	128.69	NG/UL	97
4.	C595	4-NITROANILINE	15.22	138.0	51227M	350.66	NG/UL	100
50)	CS25	2-FLUOROBIPHENYL	12.54	172.0	360490M	211.41	NG/UL	100
51)	CS55	2,4,6-TRIBROMOPHENOL	15.52	330.0	122772M	214.06	NG/UL	
52)	*CI60	PHENANTHRENE-D10	16.89	188.0	176025	40.00	NG/UL	98
53)	C610	4,6-DINITRO-2-METHYLPHENO	15.31	198.0	112434	162.25	NG/UL	76
54)	C615	N-NITROSODIPHENYLAMINE	15.36	169.0	219037	132.67	NG/UL	91
55)	C625	4-BROMOPHENYLPHENYLETHER	16.03	248.0	145870	143.48	NG/UL	98
56)	C630	HEXACHLOROBENZENE	16.28	284.0	155667	124.55	NG/UL	54
57)	C635	PENTACHLOROPHENOL	16.71	266.0	127297	143.09	NG/UL	95
58)	C640	PHENANTHRENE	16.96	178.0	596841	134.70	NG/UL	100
59)	C645	ANTHRACENE	17.05	178.0	565036	132.93	NG/UL	100
60)	C650	DI-N-BUTYLPHTHALATE	18.47	149.0	770340	127.16	NG/UL	98
61)	C655	FLUORANTHENE	19.42	202.0	726751	158.36	NG/UL	100
62)	*CI70	CHRYSENE-D12	22.43	240.0	119127	40.00	NG/UL	92
63)	C715	PYRENE	19.88	202.0	642113	143.43	NG/UL	100
64)	C720	BUTYLBENZYLPHTHALATE	21.55	149.0	355590	104.59	NG/UL	93
65)	C725	3,3'-DICHLOROBENZIDINE	22.45	252.0	65933	195.33	NG/UL	98
66)	C730	BENZO(A)ANTHRACENE	22.41	228.0	651669M	167.29	NG/UL	97
67)	C740	CHRYSENE	22.50	228.0	472058	121.19	NG/UL	97
68)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	22.86	149.0	691949	163.68	NG/UL	77
69)	CS30	TERPHENYL-D14	20.37	244.0	377567	141.27	NG/UL	95
70)	*CI75	PERYLENE-D12	25.18	264.0	147507	40.00	NG/UL	99
71)	C760	DI-N-OCTYLPHTHALATE	24.08	149.0	727850M	102.04	NG/UL	100
72)	C765	BENZO(B)FLUORANTHENE	24.55	252.0	702100M	146.31	NG/UL	
3)	C770	BENZO(K)FLUORANTHENE	24.55	252.0	477058M	164.10	NG/UL	
4)	C775	BENZO(A)PYRENE	25.09	252.0	465892M	136.27	NG/UL	89
75)	C780	INDENO(1,2,3-CD)PYRENE	27.26	276.0	570317	186.41	NG/UL	97
76)	C785	DIBENZ(A,H)ANTHRACENE	27.35	278.0	428902	150.36	NG/UL	93
77)	C790	BENZO(G,H,I)PERYLENE	27.87	276.0	474010	153.96	NG/UL	97

* Compound is ISTD

AL687|
SSTD160
8-13-91
19:23
INST. A

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Instrument ID: F Calibration Date(s): 08/13/91 08/13/91

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

LAB FILE ID: RRF20 = FF089 RRF50 = FF088
RRF80 = FF090 RRF120= FF091 RRF160= FF092

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	1.386	1.240	1.398	1.303	1.161	1.298	7.7*
bis(2-Chloroethyl)Ether	1.248	1.178	1.343	1.277	1.180	1.245	5.6
2-Chlorophenol	1.223	1.044	1.148	0.985	0.855	1.051	13.6
1,3-Dichlorobenzene	1.492	1.220	1.418	1.311	1.196	1.327	9.6
1,4-Dichlorobenzene *	1.613	1.274	1.446	1.362	1.148	1.369	12.8*
Benzyl Alcohol	0.582	0.604	0.786	0.827	0.826	0.725	16.8
1,2-Dichlorobenzene	1.527	1.183	1.323	1.133	1.006	1.234	16.1
2-Methylphenol	1.067	1.009	1.235	1.198	1.137	1.129	8.2
bis(2-Chloroisopropyl)ether	1.205	1.401	1.654	2.230	1.687	1.635	23.6
4-Methylphenol	1.117	0.994	1.208	1.154	0.925	1.080	10.8
N-Nitroso-Di-n-Propylamine #	0.973	0.866	0.957	0.925	0.669	0.878	14.1#
Hexachloroethane	0.633	0.540	0.613	0.567	0.509	0.572	8.9
Nitrobenzene	0.461	0.436	0.444	0.427	0.397	0.433	5.5
Isophorone	0.731	0.769	0.835	0.854	0.670	0.772	9.8
2-Nitrophenol *	0.191	0.199	0.236	0.233	0.222	0.216	9.4*
2,4-Dimethylphenol	0.302	0.316	0.318	0.323	0.311	0.314	2.5
Benzoic Acid		0.140	0.124	0.167	0.211	0.160	23.8
bis(2-Chloroethoxy)Methane	0.418	0.436	0.391	0.374	0.365	0.397	7.5
2,4-Dichlorophenol *	0.292	0.298	0.334	0.327	0.306	0.311	5.9*
1,2,4-Trichlorobenzene	0.387	0.348	0.394	0.370	0.358	0.371	5.2
Naphthalene	0.996	0.959	0.934	0.861	0.819	0.914	7.9
4-Chloroaniline	0.241	0.224	0.324	0.334	0.329	0.290	18.4
Hexachlorobutadiene *	0.253	0.214	0.259	0.242	0.228	0.239	7.7*
4-Chloro-3-Methylphenol *	0.304	0.308	0.338	0.316	0.289	0.311	5.8*
2-Methylnaphthalene	0.934	0.850	0.878	0.790	0.706	0.832	10.5
Hexachlorocyclopentadiene #	0.170	0.255	0.411	0.426	0.354	0.323	33.7#
2,4,6-Trichlorophenol *	0.395	0.397	0.519	0.425	0.299	0.407	19.3*
2,4,5-Trichlorophenol		0.428	0.584	0.513	0.370	0.474	19.8
2-Chloronaphthalene	1.205	1.169	1.270	0.966	0.900	1.102	14.5
2-Nitroaniline		0.422	0.503	0.467	0.407	0.450	9.7
Dimethyl Phthalate	1.473	1.271	1.238	1.090	0.993	1.213	15.2
Acenaphthylene	1.896	1.740	1.355	1.371	0.994	1.471	24.1
2,6-Dinitrotoluene	0.332	0.328	0.386	0.378	0.311	0.347	9.5
3-Nitroaniline		0.089	0.140	0.160	0.109	0.124	25.5
Acenaphthene *	1.215	1.020	1.046	0.929	0.823	1.007	14.5*
2,4-Dinitrophenol #		0.180	0.310	0.332	0.192	0.254	31.0#
4-Nitrophenol #		0.085	0.128	0.136	0.125	0.118	19.3#

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 65686 SDG No.: -001

Instrument ID: F Calibration Date(s): 08/13/91 08/13/91

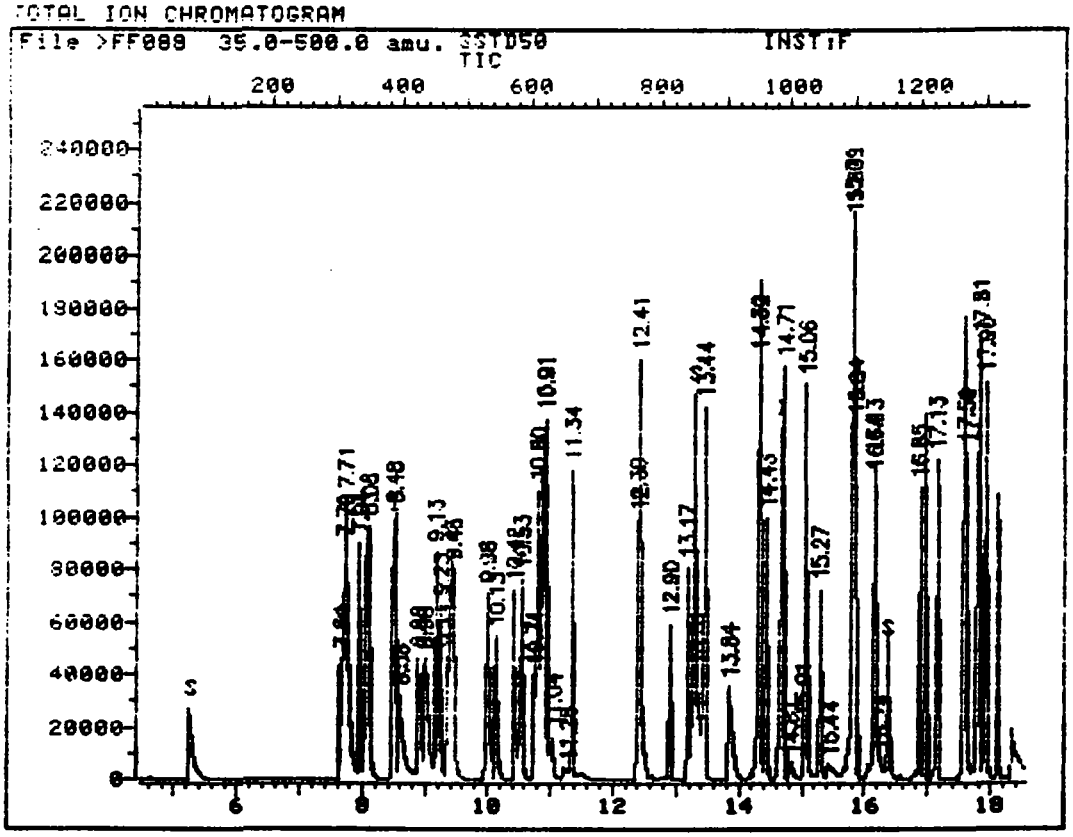
Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = FF089 RRF50 = FF088
RRF80 = FF090 RRF120= FF091 RRF160= FF092

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Dibenzofuran	1.743	1.654	1.464	1.618	1.256	1.547	12.4
2,4-Dinitrotoluene	0.472	0.512	0.669	0.650	0.525	0.566	15.6
Diethylphthalate	1.338	1.341	1.288	1.121	0.846	1.187	17.7
4-Chlorophenyl-phenylether	0.680	0.615	0.641	0.487	0.380	0.561	22.1
Fluorene	1.277	1.052	1.054	0.909	0.783	1.015	18.2
4-Nitroaniline		0.160	0.281	0.347	0.287	0.269	29.1
4,6-Dinitro-2-Methylphenol		0.156	0.188	0.185	0.184	0.178	8.4
N-Nitrosodiphenylamine (1) *	0.541	0.404	0.388	0.385	0.350	0.414	17.8*
4-Bromophenyl-phenylether	0.248	0.205	0.230	0.224	0.211	0.224	7.5
Hexachlorobenzene	0.341	0.275	0.301	0.284	0.276	0.295	9.3
Pentachlorophenol *		0.077	0.097	0.107	0.106	0.097	14.3*
Phenanthrene	1.145	1.040	0.915	0.924	0.901	0.985	10.7
Anthracene	1.140	1.024	0.897	0.853	0.777	0.938	15.4
Di-n-Butylphthalate	1.524	1.505	1.354	1.173	1.081	1.327	14.9
Fluoranthene *	1.229	1.144	1.117	0.998	0.948	1.087	10.4*
Pyrene	1.193	1.269	1.071	0.885	0.755	1.035	20.6
Butylbenzylphthalate	0.675	0.777	0.686	0.603	0.562	0.661	12.5
3,3'-Dichlorobenzidine	0.131	0.117	0.124	0.110	0.073	0.111	20.4
Benzo(a)Anthracene	1.130	1.119	1.049	0.933	0.860	1.018	11.6
Chrysene	1.036	1.075	1.055	0.989	0.938	1.019	5.4
bis(2-Ethylhexyl)Phthalate	0.933	1.075	0.909	0.806	0.732	0.891	14.7
Di-n-Octyl Phthalate *	1.529	1.771	1.491	1.339	1.133	1.453	16.3*
Benzo(b)Fluoranthene	1.022	1.107	1.331	1.357	1.303	1.224	12.2
Benzo(k)Fluoranthene	1.112	1.099	0.821	0.620	0.505	0.831	33.0
Benzo(a)Pyrene *	0.974	1.053	1.048	0.966	0.903	0.989	6.3*
Indeno(1,2,3-cd)Pyrene	1.129	1.164	1.092	0.916	0.826	1.025	14.3
Dibenz(a,h)Anthracene	0.879	0.911	0.866	0.735	0.679	0.814	12.4
Benzo(g,h,i)Perylene	0.957	1.039	0.942	0.812	0.725	0.895	14.0
Nitrobenzene-d5	0.343	0.371	0.387	0.380	0.362	0.369	4.6
2-Fluorobiphenyl	1.417	1.329	1.436	1.215	0.903	1.260	17.3
Terphenyl-d14	0.834	0.794	0.753	0.630	0.539	0.710	17.2
Phenol-d5	1.386	1.224	1.380	1.262	1.095	1.269	9.5
2-Fluorophenol	0.731	0.860	1.032	1.020	0.982	0.925	13.8
2,4,6-Tribromophenol	0.182	0.175	0.315	0.315	0.268	0.251	27.5

(1) Cannot be separated from Diphenylamine

TOTAL ION CHROMATOGRAM



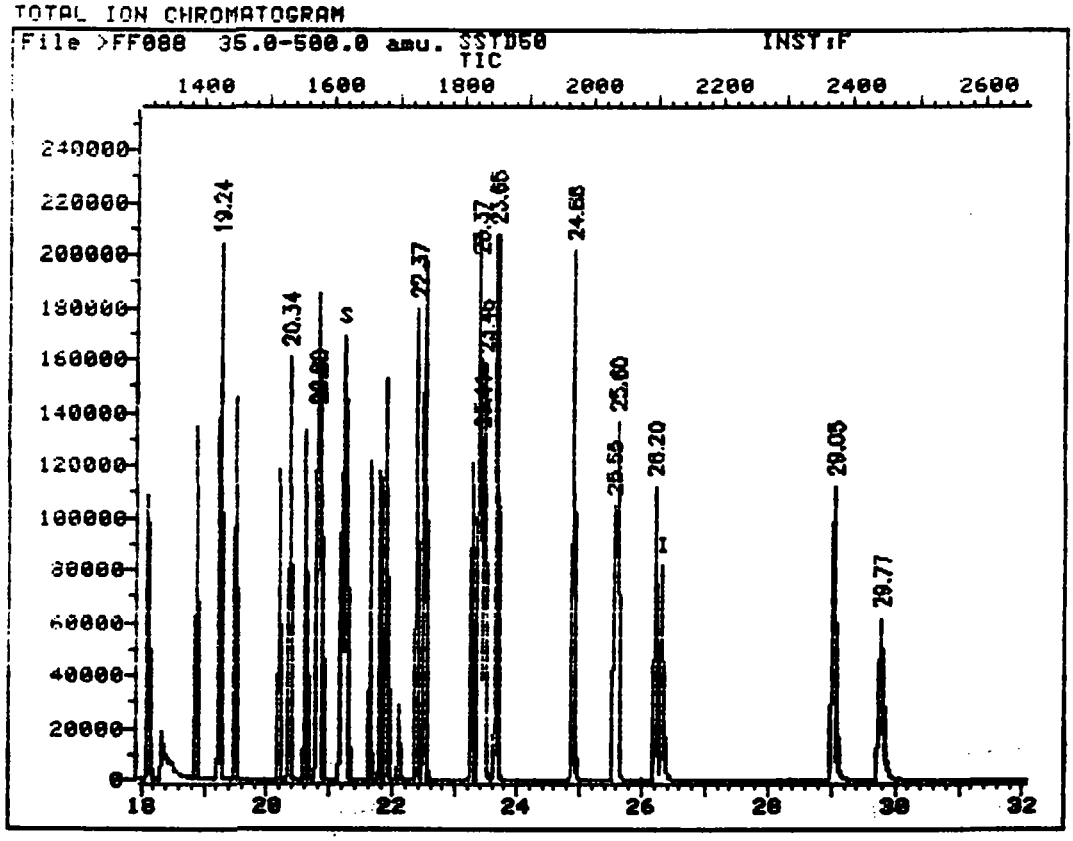
Data File: >FF088::D6 Quant Output File: ^FF088::L1
Name: SSTD50
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 18:04

Operator ID: LINDA
Quant Time: 910813 15:56
Injected at: 910813 15:21

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >FF088::D6 Quant Output File: ^FF088::L1
Name: SSTD50
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 18:04

Operator ID: LINDA
Quant Time: 910813 15:56
Injected at: 910813 15:21

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA Quant Rev: 6 Quant Time: 910813 15:56
Output File: ^FF088::L1 Injected at: 910813 15:21
Data File: >FF088::D6 Dilution Factor: 1.00000
Name: SSTD50
Misc: INST:F BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910812 18:04

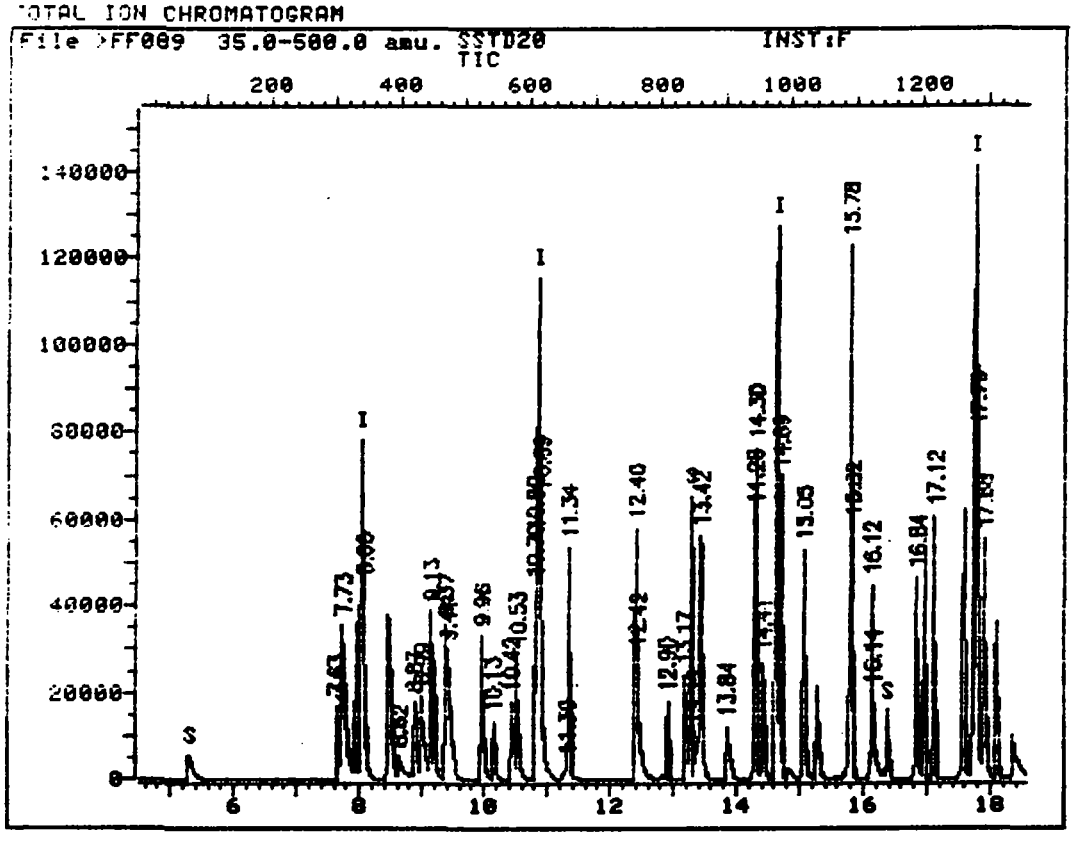
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	8.45	152.0	33090	40.00	NG/UL	96
3)	C315 PHENOL	7.70	94.0	51320M	43.03	NG/UL	
4)	C325 BIS(2-CHLOROETHYL)ETHER	7.64	93.0	48747	43.72	NG/UL	95
5)	C330 2-CHLOROPHENOL	7.71	128.0	43174	46.83	NG/UL	98
6)	C335 1,3-DICHLOROBENZENE	7.94	146.0	50477	49.06	NG/UL	98
7)	C340 1,4-DICHLOROBENZENE	8.08	146.0	52710	47.32	NG/UL	95
8)	C345 BENZYL ALCOHOL	8.58	108.0	24998M	37.19	NG/UL	82
9)	C350 1,2-DICHLOROBENZENE	8.48	146.0	48938	48.28	NG/UL	97
10)	C355 2-METHYLPHENOL	8.98	108.0	41763M	43.14	NG/UL	88
11)	C360 BIS(2-CHLOROISOPROPYL)ETH	8.88	45.0	57959M	20.11	NG/UL	100
12)	C365 4-METHYLPHENOL	9.33	108.0	41126	41.85	NG/UL	99
13)	C370 N-NITROSO-DI-N-PROPYLAMIN	9.23	70.0	35834M	40.35	NG/UL	91
14)	C375 HEXACHLOROETHANE	9.13	117.0	22339	44.22	NG/UL	99
15)	CS50 2-FLUOROPHENOL	5.24	112.0	35573	48.26	NG/UL	97
16)	CS45 PHENOL-D5	7.68	99.0	50654	42.69	NG/UL	87
17)	*CI40 NAPHTHALENE-D8	10.86	136.0	103503	40.00	NG/UL	95
18)	C410 NITROBENZENE	9.43	77.0	56719	42.63	NG/UL	86
19)	C415 ISOPHORONE	9.98	82.0	99958	41.43	NG/UL	98
20)	C420 2-NITROPHENOL	10.13	139.0	25828	46.58	NG/UL	93
21)	C425 2,4-DIMETHYLPHENOL	10.42	107.0	41074	46.10	NG/UL	92
22)	C430 BENZOIC ACID	11.04	122.0	18233	43.28	NG/UL	93
23)	C435 BIS(2-CHLOROETHOXY)METHAN	10.53	93.0	56679	42.12	NG/UL	95
24)	C440 2,4-DICHLOROPHENOL	10.74	162.0	38687	48.80	NG/UL	94
25)	C445 1,2,4-TRICHLOROBENZENE	10.80	180.0	45235	52.57	NG/UL	97
26)	C450 NAPHTHALENE	10.91	128.0	124678	48.32	NG/UL	99
27)	C455 4-CHLOROANILINE	11.28	127.0	29143M	135.67	NG/UL	
28)	C460 HEXACHLOROBUTADIENE	11.34	225.0	27783	54.08	NG/UL	99
29)	C465 4-CHLORO-3-METHYLPHENOL	12.39	107.0	40089	41.03	NG/UL	96
30)	C470 2-METHYLNAPHTHALENE	12.41	142.0	110548	47.83	NG/UL	91
31)	CS20 NITROBENZENE-D5	9.38	82.0	48224	42.82	NG/UL	93
32)	*CI50 ACENAPHTHENE-D10	14.65	164.0	56688	40.00	NG/UL	95
33)	C510 HEXACHLOROCYCLOPENTADIENE	12.90	237.0	18102	54.17	NG/UL	96
34)	C515 2,4,6-TRICHLOROPHENOL	13.17	196.0	28143	39.93	NG/UL	97
35)	C520 2,4,5-TRICHLOROPHENOL	13.31	196.0	30358	40.09	NG/UL	97
36)	C525 2-CHLORONAPHTHALENE	13.44	162.0	82822	41.51	NG/UL	93
37)	C530 2-NITROANILINE	13.84	65.0	29910	27.94	NG/UL	94
38)	C535 DIMETHYLPHTHALATE	14.30	163.0	90097	46.05	NG/UL	96
39)	C540 ACENAPHTHYLENE	14.32	152.0	123345	51.00	NG/UL	99
40)	C543 2,6-DINITROTOLUENE	14.43	165.0	23243	40.73	NG/UL	89
41)	C545 3-NITROANILINE	14.81	138.0	6307M	34.37	NG/UL	
42)	C550 ACENAPHTHENE	14.71	153.0	72327	42.68	NG/UL	98
43)	C555 2,4-DINITROPHENOL	15.01	184.0	12760M	45.30	NG/UL	
44)	C560 4-NITROPHENOL	15.44	109.0	5991M	35.29	NG/UL	

		Compound	R.T.	Q ion	Area	Conc	Units	q
45)	C565	DIBENZOFURAN	15.06	168.0	117222	48.18	NG/UL	81
46)	C570	2,4-DINITROTOLUENE	15.27	165.0	36276M	39.85	NG/UL	
47)	C580	DIETHYLPHTHALATE	15.80	149.0	95045	43.38	NG/UL	96
48)	C585	4-CHLOROPHENYL-PHENYLETHE	15.84	204.0	43593	49.37	NG/UL	98
49)	C590	FLUORENE	15.79	166.0	74596	46.01	NG/UL	99
50)	C595	4-NITROANILINE	16.24	138.0	11327M	30.51	NG/UL	
51)	CS25	2-FLUOROBIPHENYL	13.28	172.0	94215	42.52	NG/UL	98
52)	CS55	2,4,6-TRIBROMOPHENOL	16.36	329.8	12437	52.38	NG/UL	95
53)	*CI60	PHENANTHRENE-D10	17.76	188.0	97321	40.00	NG/UL	95
54)	C610	4,6-DINITRO-2-METHYLPHENO	16.14	198.0	18994	53.23	NG/UL	100
55)	C615	N-NITROSODIPHENYLAMINE	16.13	169.0	49185	52.82	NG/UL	95
56)	C625	4-BROMOPHENYLPHENYLETHER	16.85	248.0	24922	59.36	NG/UL	98
57)	C630	HEXACHLOROBENZENE	17.13	284.0	33468	66.34	NG/UL	90
58)	C635	PENTACHLOROPHENOL	17.59	266.0	9419	61.57	NG/UL	97
59)	C640	PHENANTHRENE	17.81	178.0	126523	47.11	NG/UL	97
60)	C645	ANTHRACENE	17.90	178.0	124552	47.95	NG/UL	95
61)	C650	DI-N-BUTYLPHTHALATE	19.24	149.0	183065	43.42	NG/UL	86
62)	C655	FLUORANTHENE	20.34	202.0	139113	49.54	NG/UL	91
63)	*CI70	CHRYSENE-D12	23.40	240.0	87152	40.00	NG/UL	93
64)	C715	PYRENE	20.80	202.0	138349	45.15	NG/UL	87
65)	C720	BUTYLBENZYLPHTHALATE	22.37	149.0	84739	37.62	NG/UL	97
66)	C725	3,3'-DICHLOROBENZIDINE	23.41	252.0	12706	59.75	NG/UL	98
67)	C730	BENZO(A)ANTHRACENE	23.37	228.0	121972	46.10	NG/UL	90
68)	C740	CHRYSENE	23.46	228.0	117134	51.40	NG/UL	95
69)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	23.65	149.0	117199	37.86	NG/UL	84
70)	CS30	TERPHENYL-D14	21.22	244.0	86548	49.19	NG/UL	94
71)	*CI75	PERYLENE-D12	26.31	264.0	88321	40.00	NG/UL	99
72)	C760	DI-N-OCTYLPHTHALATE	24.88	149.0	195427	33.13	NG/UL	100
73)	C765	BENZO(B)FLUORANTHENE	25.55	252.0	122174	38.04	NG/UL	94
74)	C770	BENZO(K)FLUORANTHENE	25.60	252.0	121324	62.88	NG/UL	91
75)	C775	BENZO(A)PYRENE	26.20	252.0	116223	48.49	NG/UL	97
76)	C780	INDENO(1,2,3-CD)PYRENE	29.05	276.0	128506	55.43	NG/UL	93
77)	C785	DIBENZ(A,H)ANTHRACENE	29.05	278.0	100512	54.43	NG/UL	98
78)	C790	BENZO(G,H,I)PERYLENE	29.77	276.0	114713	56.51	NG/UL	95

* Compound is ISTD

File: FF088
SSTD50
Inst: F
8/13/91 15:21

TOTAL ION CHROMATOGRAM



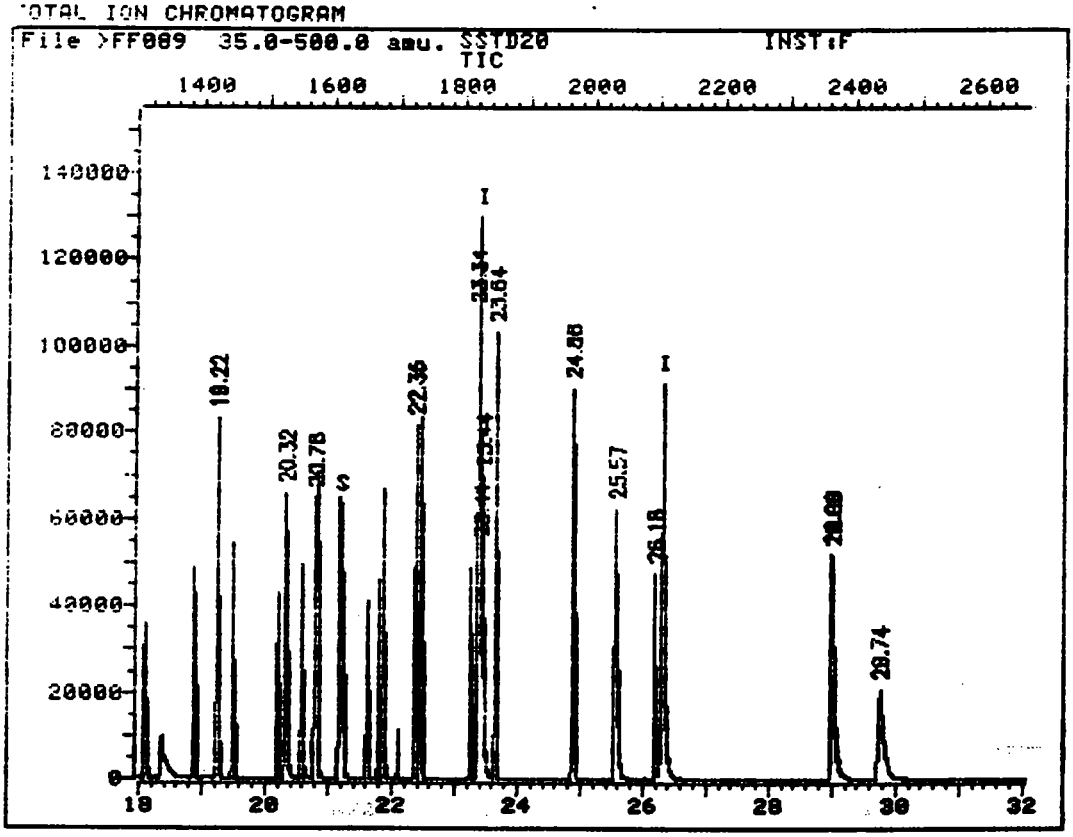
Data File: >FF089::D6 Quant Output File: ^FF089::D7
Name: SSTD20
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 16:50
Injected at: 910813 16:15

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >FF089::D6 Quant Output File: ^FF089::D7
Name: SSTD20
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 16:50
Injected at: 910813 16:15

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA Quant Rev: 6 Quant Time: 910813 16:50
Output File: ^FF089::D7 Injected at: 910813 16:15
Data File: >FF089::D6 Dilution Factor: 1.00000
Name: SSTD20
Misc: INST:F BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

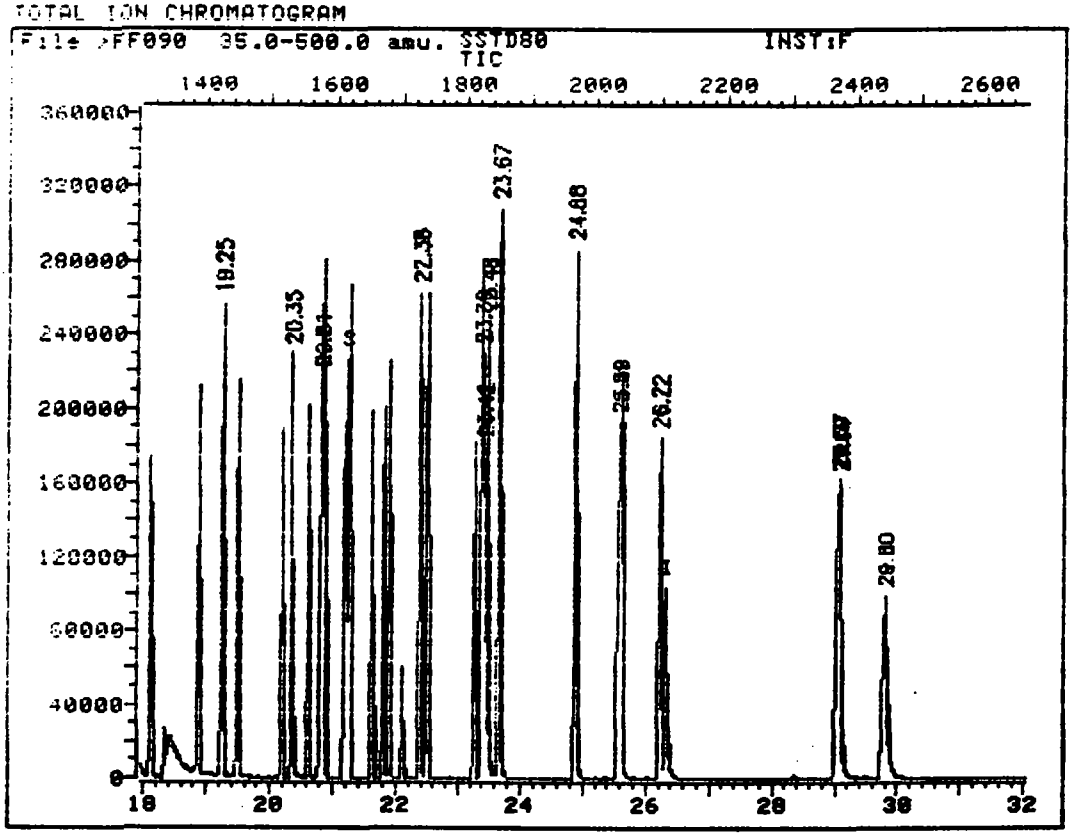
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	8.03	152.0	28577	40.00	NG/UL	93
3)	C315 PHENOL	7.73	94.0	19821M	22.36	NG/UL	
4)	C325 BIS(2-CHLOROETHYL)ETHER	7.63	93.0	17851	21.20	NG/UL	93
5)	C330 2-CHLOROPHENOL	7.73	128.0	17493	23.46	NG/UL	96
6)	C335 1,3-DICHLOROBENZENE	7.93	146.0	21340M	24.48	NG/UL	
7)	C340 1,4-DICHLOROBENZENE	8.06	146.0	23069M	25.34	NG/UL	
8)	C345 BENZYL ALCOHOL	8.62	108.0	8316M	19.26	NG/UL	90
9)	C350 1,2-DICHLOROBENZENE	8.47	146.0	21833M	25.83	NG/UL	99
10)	C355 2-METHYLPHENOL	8.99	108.0	15257	21.15	NG/UL	94
11)	C360 BIS(2-CHLOROISOPROPYL)ETH	8.87	45.0	17232	17.21	NG/UL	100
12)	C365 4-METHYLPHENOL	9.37	108.0	15968	22.48	NG/UL	99
13)	C370 N-NITROSO-DI-N-PROPYLAMIN	9.19	70.0	13918M	22.49	NG/UL	
14)	C375 HEXACHLOROETHANE	9.13	117.0	9056	23.47	NG/UL	83
15)	CS50 2-FLUOROPHENOL	5.27	112.0	10458	17.02	NG/UL	96
16)	CS45 PHENOL-D5	7.71	99.0	19819	22.65	NG/UL	89
17)	*CI40 NAPHTHALENE-D8	10.85	136.0	104800	40.00	NG/UL	96
18)	C410 NITROBENZENE	9.41	77.0	24191	21.06	NG/UL	92
19)	C415 ISOPHORONE	9.96	82.0	38393	18.97	NG/UL	97
20)	C420 2-NITROPHENOL	10.13	139.0	10014	19.15	NG/UL	93
21)	C425 2,4-DIMETHYLPHENOL	10.42	107.0	15851	19.06	NG/UL	98
23)	C435 BIS(2-CHLOROETHOXY)METHAN	10.53	93.0	21939	19.11	NG/UL	94
24)	C440 2,4-DICHLOROPHENOL	10.79	162.0	15329M	19.57	NG/UL	96
25)	C445 1,2,4-TRICHLOROBENZENE	10.80	180.0	20342	22.21	NG/UL	98
26)	C450 NAPHTHALENE	10.89	128.0	52276	20.70	NG/UL	99
27)	C455 4-CHLOROANILINE	11.30	127.0	12664M	21.46	NG/UL	81
28)	C460 HEXACHLOROBUTADIENE	11.34	225.0	13291	23.62	NG/UL	98
29)	C465 4-CHLORO-3-METHYLPHENOL	12.42	107.0	15964	19.66	NG/UL	95
30)	C470 2-METHYLNAPHTHALENE	12.40	142.0	49012	21.89	NG/UL	97
31)	CS20 NITROBENZENE-D5	9.37	82.0	18018	18.45	NG/UL	91
32)	*CI50 ACENAPHTHENE-D10	14.64	164.0	62621	40.00	NG/UL	98
33)	C510 HEXACHLOROCYCLOPENTADIENE	12.90	237.0	5319	13.30	NG/UL	96
34)	C515 2,4,6-TRICHLOROPHENOL	13.17	196.0	12359	19.88	NG/UL	99
36)	C525 2-CHLORONAPHTHALENE	13.42	162.0	37707	20.61	NG/UL	96
38)	C535 DIMETHYLPHTHALATE	14.28	163.0	46097	23.16	NG/UL	98
39)	C540 ACENAPHTHYLENE	14.30	152.0	59329	21.77	NG/UL	98
41)	C543 2,6-DINITROTOLUENE	14.41	165.0	10379	20.21	NG/UL	95
43)	C550 ACENAPHTHENE	14.69	153.0	38037	23.80	NG/UL	98
45)	C565 DIBENZOFURAN	15.05	168.0	54557	21.07	NG/UL	87
46)	C570 2,4-DINITROTOLUENE	15.27	165.0	14761M	18.42	NG/UL	
47)	C580 DIETHYLPHTHALATE	15.78	149.0	41889	19.95	NG/UL	96
48)	C585 4-CHLOROPHENYL-PHENYLETHE	15.82	204.0	21291	22.11	NG/UL	87
49)	C590 FLUORENE	15.78	166.0	39974	24.26	NG/UL	99
51)	CS25 2-FLUOROBIPHENYL	13.26	172.0	44362	21.31	NG/UL	98

		Compound	R.T.	Q ion	Area	Conc	Units	q
52)	CS55	2,4,6-TRIBROMOPHENOL	16.36	329.8	5705	20.76	NG/UL	99
53)	*CI60	PHENANTHRENE-D10	17.75	188.0	104262	40.00	NG/UL	96
55)	C615	N-NITROSODIPHENYLAMINE	16.12	169.0	28144	26.71	NG/UL	98
56)	C625	4-BROMOPHENYLPHENYLETHER	16.84	248.0	12913	24.18	NG/UL	97
57)	C630	HEXACHLOROBENZENE	17.12	284.0	17713	24.70	NG/UL	90
59)	C640	PHENANTHRENE	17.79	178.0	59552	21.97	NG/UL	97
60)	C645	ANTHRACENE	17.88	178.0	59306	22.22	NG/UL	95
61)	C650	DI-N-BUTYLPHTHALATE	19.22	149.0	79262	20.21	NG/UL	87
62)	C655	FLUORANTHENE	20.32	202.0	63927	21.45	NG/UL	86
63)	*CI70	CHRYSENE-D12	23.38	240.0	106532	40.00	NG/UL	92
64)	C715	PYRENE	20.78	202.0	63835	18.87	NG/UL	86
65)	C720	BUTYLBENZYLPHTHALATE	22.35	149.0	36135	17.44	NG/UL	90
66)	C725	3,3'-DICHLOROBENZIDINE	23.41	252.0	7034	22.64	NG/UL	96
67)	C730	BENZO(A)ANTHRACENE	23.34	228.0	60440	20.27	NG/UL	89
68)	C740	CHRYSENE	23.44	228.0	55423	19.35	NG/UL	96
69)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	23.64	149.0	49901	17.42	NG/UL	86
70)	CS30	TERPHENYL-D14	21.20	244.0	44628	21.09	NG/UL	90
71)	*CI75	PERYLENE-D12	26.31	264.0	108163	40.00	NG/UL	97
72)	C760	DI-N-OCTYLPHTHALATE	24.86	149.0	82570	17.25	NG/UL	100
73)	C765	BENZO(B)FLUORANTHENE	25.53	252.0	55179M	18.44	NG/UL	94
74)	C770	BENZO(K)FLUORANTHENE	25.57	252.0	60033	20.20	NG/UL	87
75)	C775	BENZO(A)PYRENE	26.18	252.0	52621	18.49	NG/UL	97
76)	C780	INDENO(1,2,3-CD)PYRENE	28.99	276.0	60955	19.37	NG/UL	98
77)	C785	DIBENZ(A,H)ANTHRACENE	29.00	278.0	47489	19.29	NG/UL	97
78)	C790	BENZO(G,H,I)PERYLENE	29.74	276.0	51692	18.40	NG/UL	94

* Compound is ISTD

File: FF089
SSTD20
Inst: F
8/13/91 16:

TOTAL ION CHROMATOGRAM



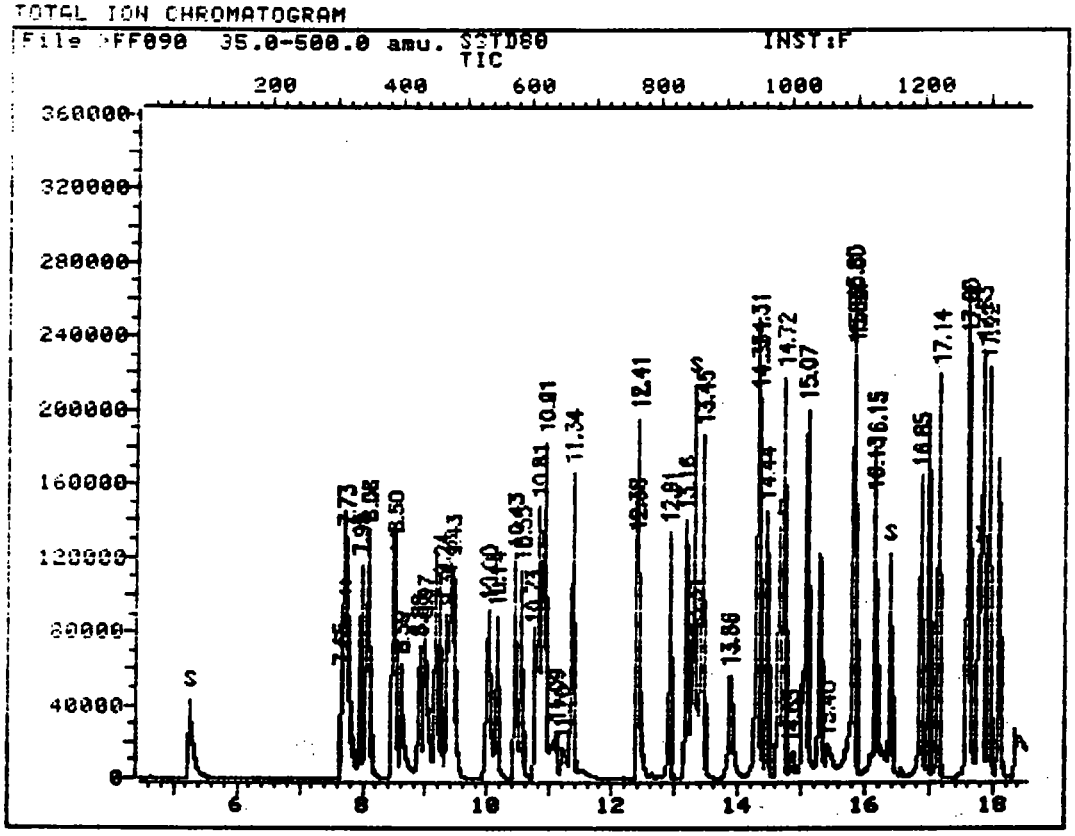
Data File: >FF090::D6 Quant Output File: ^FF090::D7
Name: SSTD80
Misc: INST:F BTL# 2

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 17:30
Injected at: 910813 16:55

TIC page 2 of 2

TOTAL ION CHROMATOGRAM



Data File: >FF090::D6 Quant Output File: ^FF090::D7
Name: SSTD80
Misc: INST:F BTL# 2

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 17:30
Injected at: 910813 16:55

TIC page 1 of 2

QUANT REPORT

Operator ID: LINDA
Output File: ^FF090::07
Data File: >FF090::D6
Name: SSTD80
Misc: INST:F

Quant Rev: 6
Quant Time: 910813 17:30
Injected at: 910813 16:55
Dilution Factor: 1.00000

BTL# 2

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	8.04	152.0	26371M	40.00	NG/UL	96
3)	C315 PHENOL	7.71	94.0	73841M	90.27	NG/UL	
4)	C325 BIS(2-CHLOROETHYL)ETHER	7.65	93.0	70918	91.27	NG/UL	95
5)	C330 2-CHLOROPHENOL	7.73	128.0	60614	88.08	NG/UL	93
6)	C335 1,3-DICHLOROBENZENE	7.95	146.0	74895	93.09	NG/UL	98
7)	C340 1,4-DICHLOROBENZENE	8.08	146.0	76333	90.86	NG/UL	95
8)	C345 BENZYL ALCOHOL	8.59	108.0	41495	104.14	NG/UL	84
9)	C350 1,2-DICHLOROBENZENE	8.50	146.0	69845	89.54	NG/UL	96
10)	C355 2-METHYLPHENOL	8.97	108.0	65211M	97.96	NG/UL	91
11)	C360 BIS(2-CHLOROISOPROPYL)ETH	8.88	45.0	87355	94.56	NG/UL	100
12)	C365 4-METHYLPHENOL	9.34	108.0	63761	97.27	NG/UL	99
13)	C370 N-NITROSO-DI-N-PROPYLAMIN	9.24	70.0	50518	88.45	NG/UL	91
14)	C375 HEXACHLOROETHANE	9.14	117.0	32382M	90.95	NG/UL	
15)	CS50 2-FLUOROPHENOL	5.24	112.0	54478	96.08	NG/UL	92
16)	CS45 PHENOL-D5	7.69	99.0	72856	90.24	NG/UL	87
17)	*CI40 NAPHTHALENE-D8	10.86	136.0	97934	40.00	NG/UL	96
18)	C410 NITROBENZENE	9.43	77.0	86910	80.97	NG/UL	92
19)	C415 ISOPHORONE	10.00	82.0	163511	86.44	NG/UL	99
20)	C420 2-NITROPHENOL	10.14	139.0	46254	94.63	NG/UL	93
21)	C425 2,4-DIMETHYLPHENOL	10.43	107.0	62234	80.07	NG/UL	94
22)	C430 BENZOIC ACID	11.09	122.0	36397	105.49	NG/UL	91
23)	C435 BIS(2-CHLOROETHOXY)METHAN	10.55	93.0	76575	71.39	NG/UL	96
24)	C440 2,4-DICHLOROPHENOL	10.73	162.0	65457	89.41	NG/UL	96
25)	C445 1,2,4-TRICHLOROBENZENE	10.81	180.0	77089	90.05	NG/UL	98
26)	C450 NAPHTHALENE	10.91	128.0	182794	77.48	NG/UL	99
27)	C455 4-CHLOROANILINE	11.20	127.0	63430M	115.01	NG/UL	98
28)	C460 HEXACHLOROBUTADIENE	11.34	225.0	50635	96.31	NG/UL	99
29)	C465 4-CHLORO-3-METHYLPHENOL	12.38	107.0	66217	87.28	NG/UL	96
30)	C470 2-METHYLNAPHTHALENE	12.41	142.0	171814	82.13	NG/UL	93
31)	CS20 NITROBENZENE-D5	9.40	82.0	75680	82.93	NG/UL	88
32)	*CI50 ACENAPHTHENE-D10	14.65	164.0	54784	40.00	NG/UL	99
33)	C510 HEXACHLOROCYCLOPENTADIENE	12.91	237.0	45005	128.63	NG/UL	98
34)	C515 2,4,6-TRICHLOROPHENOL	13.16	196.0	56887	104.58	NG/UL	98
35)	C520 2,4,5-TRICHLOROPHENOL	13.31	196.0	64037	109.14	NG/UL	99
36)	C525 2-CHLORONAPHTHALENE	13.45	162.0	139132	86.91	NG/UL	93
[illegible]	C530 2-NITROANILINE	13.86	65.0	55147	95.39	NG/UL	95
[illegible]	C535 DIMETHYLPHTHALATE	14.31	163.0	135663	77.90	NG/UL	93
39)	C540 ACENAPHTHYLENE	14.33	152.0	148546	62.31	NG/UL	98
40)	C543 2,6-DINITROTOLUENE	14.44	165.0	42346	94.26	NG/UL	94
41)	C545 3-NITROANILINE	14.85	138.0	15337	125.81	NG/UL	97
42)	C550 ACENAPHTHENE	14.72	153.0	114681	82.03	NG/UL	98
43)	C555 2,4-DINITROPHENOL	15.00	184.0	33981M	137.78	NG/UL	
44)	C560 4-NITROPHENOL	15.40	109.0	14020M	121.08	NG/UL	86

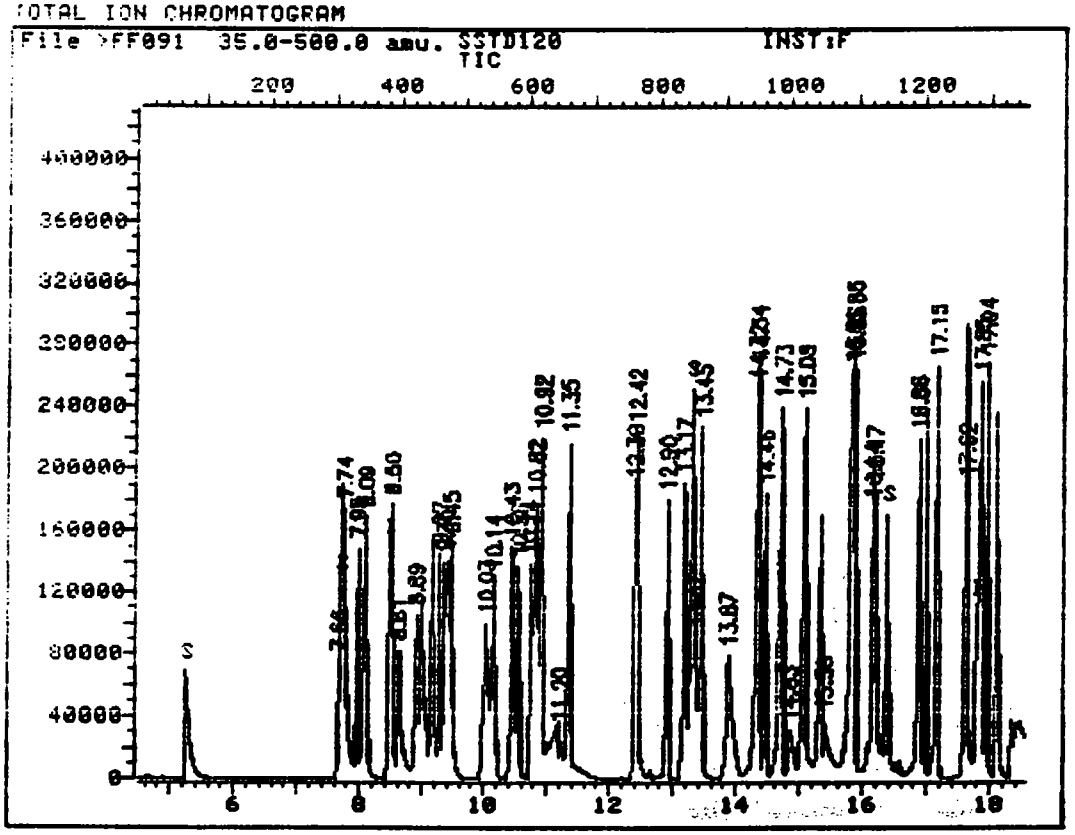
0593

		Compound	R.T.	Q ion	Area	Conc	Units	q
45)	C565	DIBENZOFURAN	15.07	168.0	160438	70.81	NG/UL	87
46)	C570	2,4-DINITROTOLUENE	15.28	165.0	73344M	104.61	NG/UL	
47)	C580	DIETHYLPHTHALATE	15.83	149.0	141157	76.84	NG/UL	98
48)	C585	4-CHLOROPHENYL-PHENYLETHE	15.84	204.0	70274	83.40	NG/UL	84
49)	C590	FLUORENE	15.80	166.0	115541	80.14	NG/UL	99
50)	C595	4-NITROANILINE	16.28	138.0	30826M	140.80	NG/UL	
51)	CS25	2-FLUOROBIPHENYL	13.29	172.0	157444M	86.46	NG/UL	97
52)	CS55	2,4,6-TRIBROMOPHENOL	16.37	329.8	34485	143.46	NG/UL	95
53)	*CI60	PHENANTHRENE-D10	17.76	188.0	114632	40.00	NG/UL	94
54)	C610	4,6-DINITRO-2-METHYLPHENO	16.15	198.0	43334	96.85	NG/UL	100
55)	C615	N-NITROSODIPHENYLAMINE	16.13	169.0	89200	76.98	NG/UL	98
56)	C625	4-BROMOPHENYLPHENYLETHER	16.85	248.0	52843	90.01	NG/UL	92
57)	C630	HEXACHLOROBENZENE	17.14	284.0	69132	87.68	NG/UL	91
58)	C635	PENTACHLOROPHENOL	17.60	266.0	22233	100.20	NG/UL	97
59)	C640	PHENANTHRENE	17.83	178.0	210551	70.64	NG/UL	96
60)	C645	ANTHRACENE	17.92	178.0	206292	70.31	NG/UL	94
61)	C650	DI-N-BUTYLPHTHALATE	19.25	149.0	311341	72.19	NG/UL	87
62)	C655	FLUORANTHENE	20.35	202.0	256971	78.41	NG/UL	87
63)	*CI70	CHRYSENE-D12	23.42	240.0	104885	40.00	NG/UL	95
64)	C715	PYRENE	20.81	202.0	225000	67.57	NG/UL	84
65)	C720	BUTYLBENZYLPHTHALATE	22.38	149.0	144051	70.63	NG/UL	92
66)	C725	3,3'-DICHLOROBENZIDINE	23.42	252.0	26069	85.24	NG/UL	98
67)	C730	BENZO(A)ANTHRACENE	23.39	228.0	220365	75.06	NG/UL	93
68)	C740	CHRYSENE	23.48	228.0	221462	78.55	NG/UL	96
69)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	23.67	149.0	190846	67.65	NG/UL	90
70)	CS30	TERPHENYL-D14	21.23	244.0	158152	75.92	NG/UL	86
71)	*CI75	PERYLENE-D12	26.32	264.0	112357	40.00	NG/UL	97
72)	C760	DI-N-OCTYLPHTHALATE	24.88	149.0	334018	67.18	NG/UL	100
73)	C765	BENZO(B)FLUORANTHENE	25.59	252.0	298119	95.91	NG/UL	92
74)	C770	BENZO(K)FLUORANTHENE	25.62	252.0	183968M	59.60	NG/UL	85
75)	C775	BENZO(A)PYRENE	26.22	252.0	234854	79.42	NG/UL	95
76)	C780	INDENO(1,2,3-CD)PYRENE	29.09	276.0	244653	74.83	NG/UL	98
77)	C785	DIBENZ(A,H)ANTHRACENE	29.07	278.0	193883	75.82	NG/UL	95
78)	C790	BENZO(G,H,I)PERYLENE	29.80	276.0	210924	72.27	NG/UL	92

* Compound is ISTD

File: FF090
SSTD80
Inst: F
8/13/91 16:

TOTAL ION CHROMATOGRAM



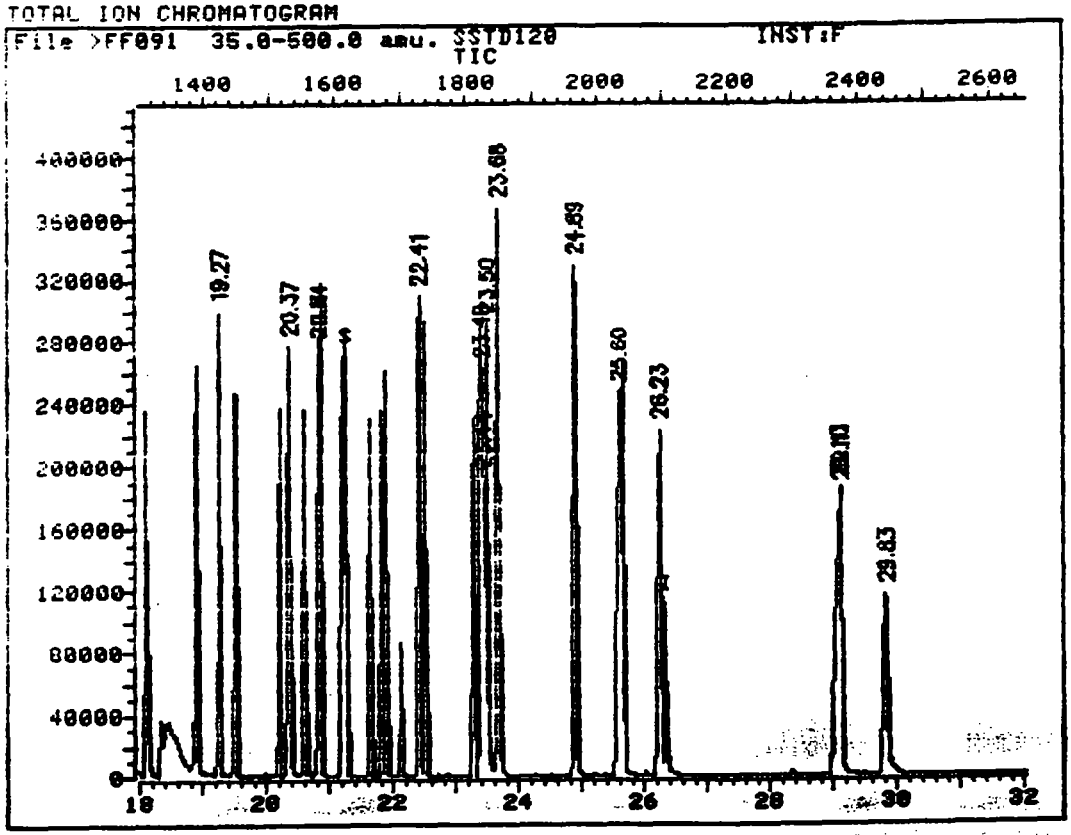
Data File: >FF091::D6 Quant Output File: ^FF091::D7
Name: SSTD120
Misc: INST:F BTL# 3

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 18:10
Injected at: 910813 17:35

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >FF091::D6 Quant Output File: ^FF091::D7
Name: SSTD120
Misc: INST:F BTL# 3

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 18:10
Injected at: 910813 17:35

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA Quant Rev: 6 Quant Time: 910813 18:10
Output File: ^FF091::D7 Injected at: 910813 17:35
Data File: >FF091::D6 Dilution Factor: 1.00000
Name: SSTD120
Misc: INST:F BTL# 3

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30	1,4-DICHLOROBENZENE-D4	8.05	152.0	25600M	40.00	NG/UL	96
3)	C315	PHENOL	7.73	94.0	100076M	126.03	NG/UL	
4)	C325	BIS(2-CHLOROETHYL)ETHER	7.66	93.0	98067	130.02	NG/UL	95
5)	C330	2-CHLOROPHENOL	7.74	128.0	75621	113.20	NG/UL	92
6)	C335	1,3-DICHLOROBENZENE	7.95	146.0	100685	128.91	NG/UL	98
7)	C340	1,4-DICHLOROBENZENE	8.09	146.0	104576	128.22	NG/UL	94
8)	C345	BENZYL ALCOHOL	8.61	108.0	63525	164.24	NG/UL	81
9)	C350	1,2-DICHLOROBENZENE	8.50	146.0	86985	114.87	NG/UL	96
10)	C355	2-METHYLPHENOL	8.98	108.0	91982M	142.34	NG/UL	
11)	C360	BIS(2-CHLOROISOPROPYL)ETH	8.89	45.0	171280	190.99	NG/UL	100
12)	C365	4-METHYLPHENOL	9.35	108.0	88610	139.25	NG/UL	97
13)	C370	N-NITROSO-DI-N-PROPYLAMIN	9.27	70.0	71075	128.19	NG/UL	95
14)	C375	HEXACHLOROETHANE	9.15	117.0	43578M	126.08	NG/UL	
15)	CS50	2-FLUOROPHENOL	5.24	112.0	78369	142.38	NG/UL	91
16)	CS45	PHENOL-D5	7.70	99.0	96892	123.62	NG/UL	88
17)	*CI40	NAPHTHALENE-D8	10.87	136.0	93563	40.00	NG/UL	97
18)	C410	NITROBENZENE	9.45	77.0	119948	116.97	NG/UL	93
19)	C415	ISOPHORONE	10.03	82.0	239731	132.66	NG/UL	98
20)	C420	2-NITROPHENOL	10.14	139.0	65551	140.38	NG/UL	92
21)	C425	2,4-DIMETHYLPHENOL	10.43	107.0	90687M	122.12	NG/UL	94
22)	C430	BENZOIC ACID	11.16	122.0	62484M	189.55	NG/UL	
23)	C435	BIS(2-CHLOROETHOXY)METHAN	10.56	93.0	105124	102.59	NG/UL	96
24)	C440	2,4-DICHLOROPHENOL	10.74	162.0	91941	131.45	NG/UL	97
25)	C445	1,2,4-TRICHLOROBENZENE	10.82	180.0	103893	127.04	NG/UL	97
26)	C450	NAPHTHALENE	10.92	128.0	241789	107.27	NG/UL	99
27)	C455	4-CHLOROANILINE	11.20	127.0	93792M	178.01	NG/UL	95
28)	C460	HEXACHLOROBUTADIENE	11.35	225.0	68045	135.47	NG/UL	98
29)	C465	4-CHLORO-3-METHYLPHENOL	12.39	107.0	88715M	122.40	NG/UL	92
30)	C470	2-METHYLNAPHTHALENE	12.42	142.0	221868	111.01	NG/UL	94
31)	CS20	NITROBENZENE-D5	9.41	82.0	106655	122.33	NG/UL	87
32)	*CI50	ACENAPHTHENE-D10	14.65	164.0	56109	40.00	NG/UL	98
33)	C510	HEXACHLOROCYCLOPENTADIENE	12.90	237.0	71730	200.17	NG/UL	98
34)	C515	2,4,6-TRICHLOROPHENOL	13.17	196.0	71477	128.30	NG/UL	99
35)	C520	2,4,5-TRICHLOROPHENOL	13.32	196.0	86327M	143.65	NG/UL	98
36)	C525	2-CHLORONAPHTHALENE	13.45	162.0	162627	99.19	NG/UL	93
	C530	2-NITROANILINE	13.87	65.0	78514	132.60	NG/UL	92
38)	C535	DIMETHYLPHTHALATE	14.32	163.0	183441	102.85	NG/UL	99
39)	C540	ACENAPHTHYLENE	14.34	152.0	230743M	94.50	NG/UL	98
40)	C543	2,6-DINITROTOLUENE	14.46	165.0	63546	138.11	NG/UL	93
41)	C545	3-NITROANILINE	14.83	138.0	26857	215.11	NG/UL	98
42)	C550	ACENAPHTHENE	14.73	153.0	156339	109.19	NG/UL	98
43)	C555	2,4-DINITROPHENOL	15.00	184.0	55959M	221.54	NG/UL	
44)	C560	4-NITROPHENOL	15.39	109.0	22877	192.90	NG/UL	90

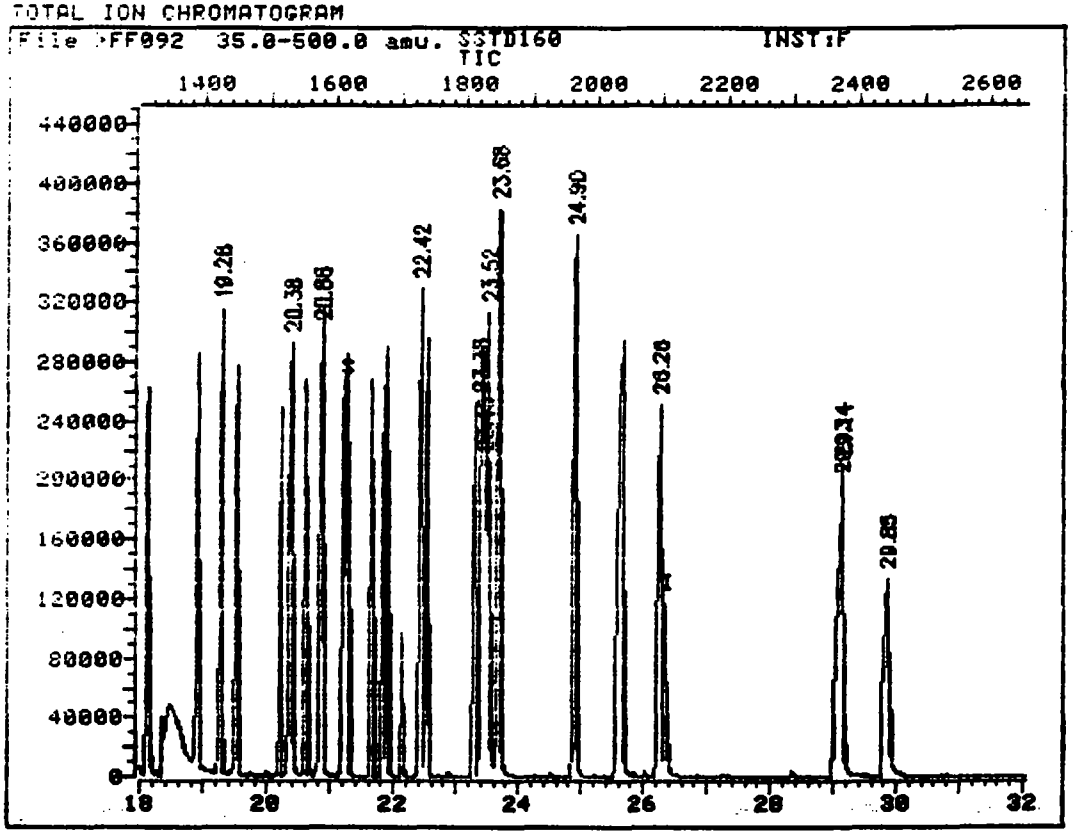
0597

		Compound	R.T.	Q ion	Area	Conc	Units	q
45)	C565	DIBENZOFURAN	15.08	168.0	272284	117.34	NG/UL	85
46)	C570	2,4-DINITROTOLUENE	15.30	165.0	109330M	152.25	NG/UL	
47)	C580	DIETHYLPHTHALATE	15.86	149.0	188608M	100.24	NG/UL	97
48)	C585	4-CHLOROPHENYL-PHENYLETHE	15.85	204.0	82033	95.06	NG/UL	86
49)	C590	FLUORENE	15.81	166.0	152954	103.58	NG/UL	99
50)	C595	4-NITROANILINE	16.30	138.0	58396M	260.43	NG/UL	
51)	CS25	2-FLUOROBIPHENYL	13.30	172.0	204450M	109.62	NG/UL	96
52)	CS55	2,4,6-TRIBROMOPHENOL	16.38	329.8	53019	215.35	NG/UL	95
53)	*CI60	PHENANTHRENE-D10	17.77	188.0	121100	40.00	NG/UL	94
54)	C610	4,6-DINITRO-2-METHYLPHENO	16.17	198.0	67116	141.98	NG/UL	100
55)	C615	N-NITROSODIPHENYLAMINE	16.14	169.0	139872M	114.27	NG/UL	97
56)	C625	4-BROMOPHENYLPHENYLETHER	16.86	248.0	81485	131.38	NG/UL	91
57)	C630	HEXACHLOROBENZENE	17.15	284.0	103139	123.83	NG/UL	89
58)	C635	PENTACHLOROPHENOL	17.62	266.0	38665	164.95	NG/UL	99
59)	C640	PHENANTHRENE	17.85	178.0	335527	106.56	NG/UL	97
60)	C645	ANTHRACENE	17.94	178.0	309502	99.85	NG/UL	94
61)	C650	DI-N-BUTYLPHTHALATE	19.27	149.0	425702	93.44	NG/UL	86
62)	C655	FLUORANTHENE	20.37	202.0	362380	104.67	NG/UL	87
63)	*CI70	CHRYSENE-D12	23.43	240.0	106043	40.00	NG/UL	94
64)	C715	PYRENE	20.84	202.0	281327	83.56	NG/UL	84
65)	C720	BUTYLBENZYLPHTHALATE	22.41	149.0	191862	93.04	NG/UL	94
66)	C725	3,3'-DICHLOROBENZIDINE	23.44	252.0	35088	113.48	NG/UL	97
67)	C730	BENZO(A)ANTHRACENE	23.40	228.0	296774M	99.98	NG/UL	96
68)	C740	CHRYSENE	23.50	228.0	314366	110.29	NG/UL	95
69)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	23.68	149.0	256375	89.89	NG/UL	94
70)	CS30	TERPHENYL-D14	21.24	244.0	200193	95.05	NG/UL	87
71)	*CI75	PERYLENE-D12	26.33	264.0	114035	40.00	NG/UL	97
72)	C760	DI-N-OCTYLPHTHALATE	24.89	149.0	458081	90.77	NG/UL	100
73)	C765	BENZO(B)FLUORANTHENE	25.60	252.0	464186	147.13	NG/UL	91
74)	C770	BENZO(K)FLUORANTHENE	25.64	252.0	211926M	67.64	NG/UL	84
75)	C775	BENZO(A)PYRENE	26.23	252.0	330470	110.11	NG/UL	95
76)	C780	INDENO(1,2,3-CD)PYRENE	29.11	276.0	313418	94.45	NG/UL	95
77)	C785	DIBENZ(A,H)ANTHRACENE	29.10	278.0	251324	96.83	NG/UL	95
78)	C790	BENZO(G,H,I)PERYLENE	29.83	276.0	277855	93.80	NG/UL	92

* Compound is ISTD

File: FF091
SSTD120
Inst: F
8/13/91 17:

TOTAL ION CHROMATOGRAM



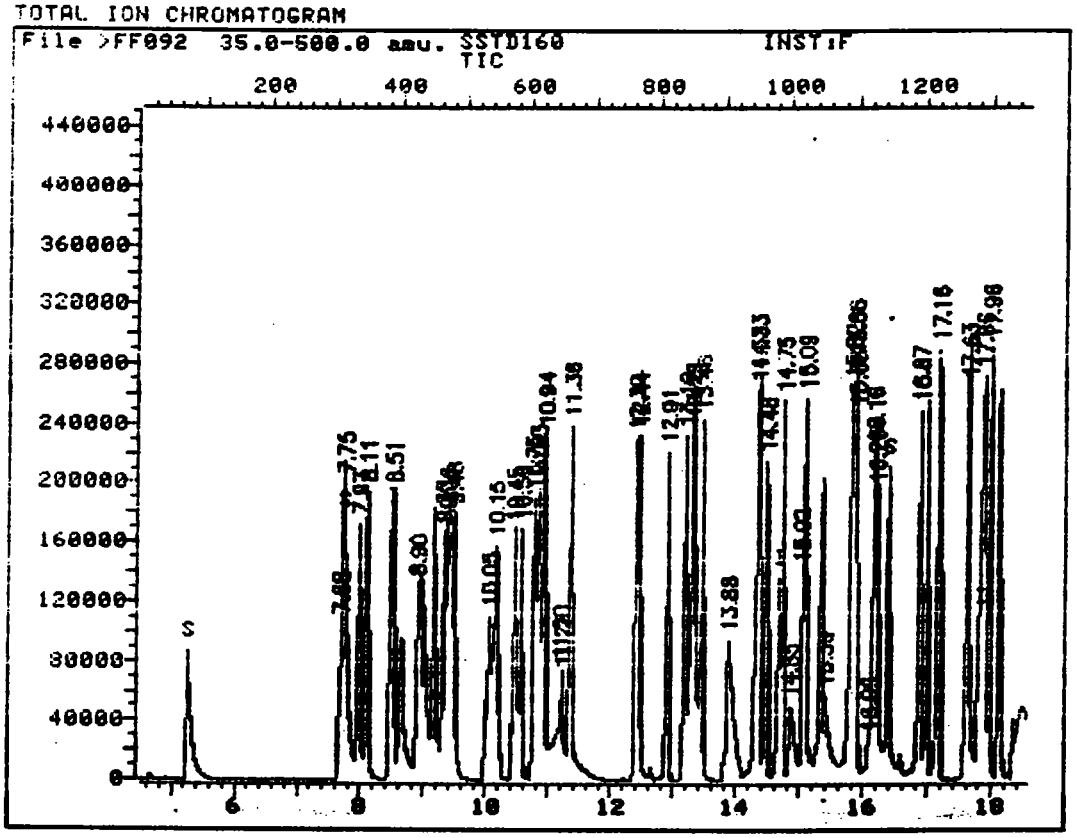
Data File: >FF092::D6 Quant Output File: ^FF092::D7
Name: SSTD160
Misc: INST:F BTL# 4

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 18:50
Injected at: 910813 18:15

TIC page 2 of 2

TOTAL ION CHROMATOGRAM



Data File: >FF092::D6 Quant Output File: ^FF092::D7
Name: SSTD160
Misc: INST:F BTL# 4

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 18:50
Injected at: 910813 18:15

TIC page 1 of 2

QUANT REPORT

Operator ID: LINDA Quant Rev: 6 Quant Time: 910813 18:50
Output File: ^FF092::D7 Injected at: 910813 18:15
Data File: >FF092::D6 Dilution Factor: 1.00000
Name: SSTD160
Misc: INST:F BTL# 4

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30	1,4-DICHLOROBENZENE-D4	8.06	152.0	26152M	40.00	NG/UL	96
3)	C315	PHENOL	7.74	94.0	121677M	150.00	NG/UL	
4)	C325	BIS(2-CHLOROETHYL)ETHER	7.68	93.0	123676	160.51	NG/UL	95
5)	C330	2-CHLOROPHENOL	7.75	128.0	89651	131.37	NG/UL	90
6)	C335	1,3-DICHLOROBENZENE	7.97	146.0	125308	157.05	NG/UL	98
7)	C340	1,4-DICHLOROBENZENE	8.11	146.0	120355	144.46	NG/UL	94
8)	C345	BENZYL ALCOHOL	8.63	108.0	86605M	219.18	NG/UL	
9)	C350	1,2-DICHLOROBENZENE	8.51	146.0	105477	136.36	NG/UL	96
10)	C355	2-METHYLPHENOL	9.00	108.0	119187M	180.55	NG/UL	
11)	C360	BIS(2-CHLORDISOPROPYL)ETH	8.90	45.0	176792	192.98	NG/UL	100
12)	C365	4-METHYLPHENOL	9.36	108.0	96983	149.19	NG/UL	98
13)	C370	N-NITROSO-DI-N-PROPYLAMIN	9.30	70.0	70097	123.76	NG/UL	90
14)	C375	HEXACHLOROETHANE	9.16	117.0	53315M	150.99	NG/UL	
15)	CS50	2-FLUOROPHENOL	5.26	112.0	102964	183.12	NG/UL	91
16)	CS45	PHENOL-D5	7.71	99.0	114763	143.33	NG/UL	90
17)	*CI40	NAPHTHALENE-D8	10.89	136.0	91156	40.00	NG/UL	98
18)	C410	NITROBENZENE	9.48	77.0	144810	144.95	NG/UL	89
19)	C415	ISOPHORONE	10.05	82.0	244349	138.78	NG/UL	99
20)	C420	2-NITROPHENOL	10.15	139.0	80926	177.88	NG/UL	93
21)	C425	2,4-DIMETHYLPHENOL	10.45	107.0	113516M	156.90	NG/UL	93
22)	C430	BENZOIC ACID	11.22	122.0	77130	240.16	NG/UL	84
23)	C435	BIS(2-CHLOROETHOXY)METHAN	10.58	93.0	133067	133.29	NG/UL	97
24)	C440	2,4-DICHLOROPHENOL	10.75	162.0	111629	163.81	NG/UL	98
25)	C445	1,2,4-TRICHLOROBENZENE	10.83	180.0	130713	164.05	NG/UL	98
26)	C450	NAPHTHALENE	10.94	128.0	298949	136.13	NG/UL	99
27)	C455	4-CHLOROANILINE	11.20	127.0	119938M	233.65	NG/UL	97
28)	C460	HEXACHLOROBUTADIENE	11.36	225.0	83132	169.87	NG/UL	98
29)	C465	4-CHLORO-3-METHYLPHENOL	12.39	107.0	105456M	149.34	NG/UL	93
30)	C470	2-METHYLNAPHTHALENE	12.44	142.0	257607	132.30	NG/UL	97
31)	CS20	NITROBENZENE-D5	9.43	82.0	132110	155.53	NG/UL	85
32)	*CI50	ACENAPHTHENE-D10	14.66	164.0	68008	40.00	NG/UL	98
33)	C510	HEXACHLOROCYCLOPENTADIENE	12.91	237.0	96237	221.57	NG/UL	98
34)	C515	2,4,6-TRICHLOROPHENOL	13.19	196.0	81273	120.36	NG/UL	99
35)	C520	2,4,5-TRICHLOROPHENOL	13.29	196.0	100734M	138.29	NG/UL	99
36)	C525	2-CHLORONAPHTHALENE	13.46	162.0	244714	123.14	NG/UL	94
37)	C530	2-NITROANILINE	13.88	65.0	110783	154.37	NG/UL	93
38)	C535	DIMETHYLPHTHALATE	14.36	163.0	270200M	124.99	NG/UL	89
39)	C540	ACENAPHTHYLENE	14.33	152.0	270491M	91.40	NG/UL	97
40)	C543	2,6-DINITROTOLUENE	14.48	165.0	84593	151.69	NG/UL	95
41)	C545	3-NITROANILINE	14.85	138.0	29684	196.16	NG/UL	92
42)	C550	ACENAPHTHENE	14.75	153.0	223840	128.98	NG/UL	97
43)	C555	2,4-DINITROPHENOL	15.02	184.0	52224	170.58	NG/UL	83
44)	C560	4-NITROPHENOL	15.39	109.0	34091	237.16	NG/UL	93

0601

		Compound	R.T.	Q ion	Area	Conc	Units	q
45)	C565	DIBENZOFURAN	15.09	168.0	341741	121.50	NG/UL	86
46)	C570	2,4-DINITROTOLUENE	15.33	165.0	142761M	164.02	NG/UL	
47)	C580	DIETHYLPHTHALATE	15.88	149.0	229986M	100.85	NG/UL	98
48)	C585	4-CHLOROPHENYL-PHENYLETHE	15.86	204.0	103323	98.78	NG/UL	89
49)	C590	FLUORENE	15.82	166.0	213056	119.04	NG/UL	98
50)	C595	4-NITROANILINE	16.34	138.0	78090M	287.33	NG/UL	89
51)	CS25	2-FLUOROBIPHENYL	13.32	172.0	245625M	108.66	NG/UL	96
52)	CS55	2,4,6-TRIBROMOPHENOL	16.39	329.8	72973	244.54	NG/UL	92
53)	*CI60	PHENANTHRENE-D10	17.79	188.0	123308	40.00	NG/UL	95
54)	C610	4,6-DINITRO-2-METHYLPHENO	16.20	198.0	90379	187.77	NG/UL	100
55)	C615	N-NITROSODIPHENYLAMINE	16.16	169.0	172373M	138.30	NG/UL	98
56)	C625	4-BROMOPHENYLPHENYLETHER	16.87	248.0	103603	164.05	NG/UL	91
57)	C630	HEXACHLOROBENZENE	17.16	284.0	135909	160.25	NG/UL	89
58)	C635	PENTACHLOROPHENOL	17.63	266.0	52142	218.46	NG/UL	98
59)	C640	PHENANTHRENE	17.86	178.0	443078	138.20	NG/UL	97
60)	C645	ANTHRACENE	17.96	178.0	382355	121.14	NG/UL	94
61)	C650	DI-N-BUTYLPHTHALATE	19.28	149.0	531687	114.61	NG/UL	86
62)	C655	FLUORANTHENE	20.38	202.0	466380	132.30	NG/UL	87
63)	*CI70	CHRYSENE-D12	23.45	240.0	106272	40.00	NG/UL	95
64)	C715	PYRENE	20.86	202.0	320150M	94.89	NG/UL	82
65)	C720	BUTYLBENZYLPHTHALATE	22.42	149.0	238172	115.25	NG/UL	93
66)	C725	3,3'-DICHLOROBENZIDINE	23.45	252.0	31115	100.41	NG/UL	98
67)	C730	BENZO(A)ANTHRACENE	23.42	228.0	364737M	122.62	NG/UL	91
68)	C740	CHRYSENE	23.52	228.0	397877	139.28	NG/UL	96
69)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	23.68	149.0	310495	108.63	NG/UL	95
70)	CS30	TERPHENYL-D14	21.25	244.0	228612	108.31	NG/UL	84
71)	*CI75	PERYLENE-D12	26.34	264.0	118401	40.00	NG/UL	97
72)	C760	DI-N-OCTYLPHTHALATE	24.90	149.0	534919	102.09	NG/UL	100
73)	C765	BENZO(B)FLUORANTHENE	25.64	252.0	615025M	187.76	NG/UL	
74)	C770	BENZO(K)FLUORANTHENE	25.67	252.0	238326M	73.27	NG/UL	
75)	C775	BENZO(A)PYRENE	26.26	252.0	426169	136.76	NG/UL	94
76)	C780	INDENO(1,2,3-CD)PYRENE	29.14	276.0	390097	113.22	NG/UL	93
77)	C785	DIBENZ(A,H)ANTHRACENE	29.13	278.0	320329	118.87	NG/UL	96
78)	C790	BENZO(G,H,I)PERYLENE	29.85	276.0	342271	111.28	NG/UL	92

* Compound is ISTD

File: FF092
SSTD160
Inst: F
8/13/91 18:15

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Instrument ID: F Calibration Date(s): 08/14/91 08/14/91

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

LAB FILE ID: RRF20 = FF108 RRF50 = FF106
RRF80 = FF109 RRF120= FF110 RRF160= FF111

COMPOUND		RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol	*	1.751	1.575	1.852	1.843	1.854	1.775	6.7*
bis(2-Chloroethyl)Ether		1.546	1.464	1.766	1.740	1.733	1.650	8.2
2-Chlorophenol		1.342	1.179	1.380	1.296	1.251	1.290	6.1
1,3-Dichlorobenzene		1.454	1.257	1.485	1.429	1.371	1.399	6.4
1,4-Dichlorobenzene	*	1.623	1.301	1.610	1.519	1.403	1.491	9.3*
Benzyl Alcohol		0.849	0.825	1.004	1.025	1.075	0.956	11.7
1,2-Dichlorobenzene		1.540	1.201	1.422	1.319	1.244	1.345	10.2
2-Methylphenol		1.177	1.162	1.472	1.438	1.464	1.343	11.8
bis(2-Chloroisopropyl)ether		1.893	1.234	1.751	2.212	2.258	1.870	22.2
4-Methylphenol		1.390	1.221	1.479	1.420	1.351	1.372	7.0
N-Nitroso-Di-n-Propylamine	#	1.028	0.831	0.944	0.981	0.976	0.952	7.8#
Hexachloroethane		0.673	0.604	0.709	0.683	0.674	0.669	5.8
Nitrobenzene		0.529	0.484	0.612	0.610	0.603	0.568	10.2
Isophorone		0.730	0.851	0.949	0.962	0.978	0.894	11.7
2-Nitrophenol	*	0.179	0.202	0.224	0.232	0.232	0.214	10.8*
2,4-Dimethylphenol		0.333	0.354	0.311	0.367	0.346	0.342	6.2
Benzoic Acid			0.098	0.079	0.103	0.130	0.102	20.6
bis(2-Chloroethoxy)Methane		0.489	0.530	0.419	0.568	0.562	0.514	12.0
2,4-Dichlorophenol	*	0.252	0.286	0.288	0.290	0.279	0.279	5.6*
1,2,4-Trichlorobenzene		0.301	0.300	0.312	0.297	0.281	0.298	3.7
Naphthalene		1.006	0.992	1.051	0.984	0.916	0.990	4.9
4-Chloroaniline		0.372	0.305	0.254	0.385	0.322	0.328	16.2
Hexachlorobutadiene	*	0.149	0.160	0.163	0.151	0.141	0.153	5.8*
4-Chloro-3-Methylphenol	*	0.332	0.360	0.373	0.353	0.284	0.340	10.2*
2-Methylnaphthalene		0.938	0.921	0.908	0.826	0.753	0.869	9.0
Hexachlorocyclopentadiene	#	0.053	0.176	0.226	0.196	0.264	0.183	43.6#
2,4,6-Trichlorophenol	*	0.360	0.447	0.434	0.391	0.379	0.402	9.2*
2,4,5-Trichlorophenol			0.608	0.562	0.400	0.519	0.522	17.1
2-Chloronaphthalene		1.214	1.293	1.148	1.126	0.988	1.154	9.8
2-Nitroaniline			0.517	0.564	0.435	0.616	0.533	14.4
Dimethyl Phthalate		1.203	1.393	1.318	1.237	1.196	1.269	6.6
Acenaphthylene		2.030	1.917	1.666	1.610	1.831	1.811	9.6
2,6-Dinitrotoluene		0.283	0.383	0.403	0.298	0.392	0.352	16.1
3-Nitroaniline			0.226	0.233	0.159	0.253	0.218	18.7
Acenaphthene	*	1.250	1.155	1.128	1.117	1.031	1.136	6.9*
2,4-Dinitrophenol	#		0.189	0.252	0.213	0.174	0.207	16.4#
4-Nitrophenol	#		0.106	0.133	0.111	0.166	0.129	21.2#

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

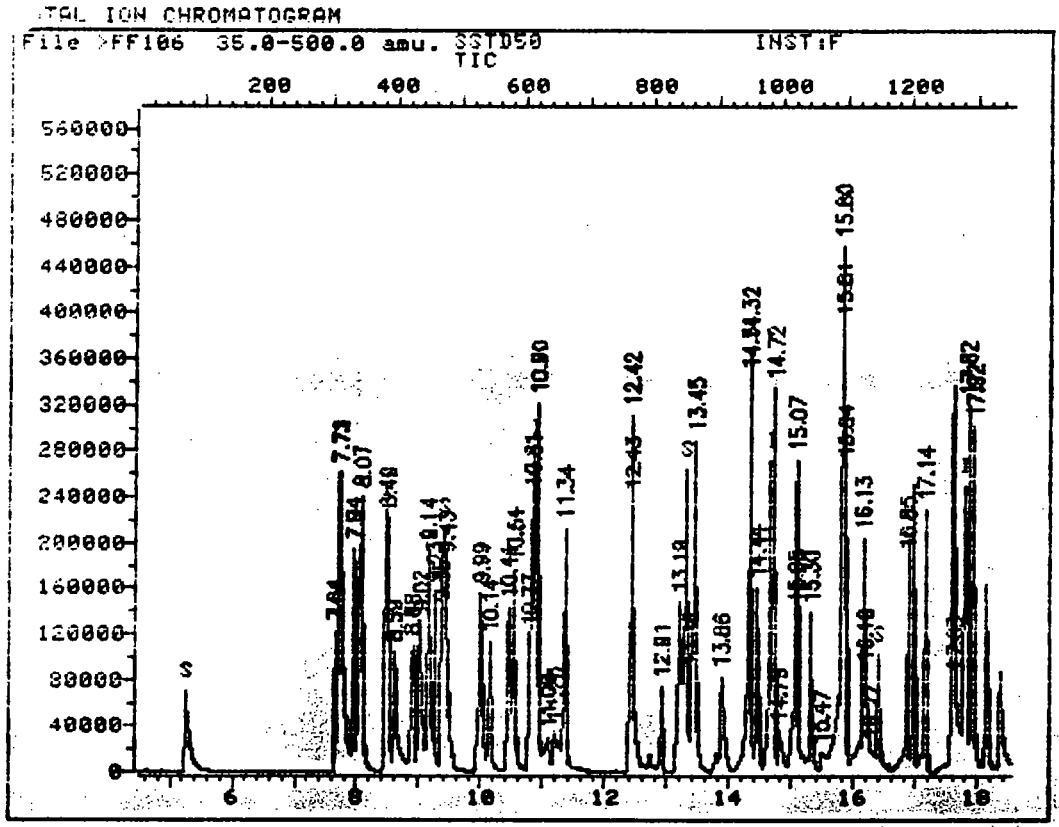
Instrument ID: F Calibration Date(s): 08/14/91 08/14/91

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

LAB FILE ID: RRF20 = FF108 RRF50 = FF106
RRF80 = FF109 RRF120= FF110 RRF160= FF111

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Dibenzofuran	1.685	1.741	1.571	1.138	1.431	1.513	15.9
2,4-Dinitrotoluene	0.388	0.657	0.580	0.451	0.610	0.537	21.1
Diethylphthalate	1.223	1.400	1.582	1.122	1.553	1.376	14.6
4-Chlorophenyl-phenylether	0.523	0.641	0.728	0.478	0.560	0.586	17.0
Fluorene	1.152	1.190	1.118	1.036	0.931	1.085	9.5
4-Nitroaniline		0.444	0.463	0.317	0.435	0.415	16.0
4,6-Dinitro-2-Methylphenol		0.150	0.190	0.203	0.190	0.183	12.6
N-Nitrosodiphenylamine (1) *	0.550	0.472	0.467	0.530	0.432	0.490	9.9*
4-Bromophenyl-phenylether	0.184	0.201	0.220	0.195	0.195	0.199	6.7
Hexachlorobenzene	0.242	0.260	0.233	0.269	0.210	0.243	9.6
Pentachlorophenol *		0.075	0.065	0.084	0.092	0.079	14.7*
Phenanthrene	1.105	1.187	1.208	1.126	1.063	1.138	5.2
Anthracene	1.249	1.233	1.192	1.042	0.945	1.132	11.7
Di-n-Butylphthalate	1.539	1.700	1.771	1.551	1.384	1.589	9.5
Fluoranthene *	1.178	1.279	1.272	1.123	1.017	1.174	9.3*
Pyrene	1.356	1.322	1.283	1.146	1.014	1.224	11.6
Butylbenzylphthalate	0.863	0.888	0.938	0.919	0.927	0.907	3.4
3,3'-Dichlorobenzidine	0.248	0.224	0.227	0.169	0.180	0.210	16.0
Benzo(a)Anthracene	1.133	1.196	1.150	1.125	1.068	1.134	4.1
Chrysene	1.162	1.137	0.970	1.070	1.034	1.075	7.2
bis(2-Ethylhexyl)Phthalate	1.141	1.204	1.271	1.256	1.247	1.224	4.3
Di-n-Octyl Phthalate *	[illegible]	2.639	2.897	2.687	2.378	2.633	7.2*
Benzo(b)Fluoranthene	1.102	1.175	1.268	1.382	1.504	1.286	12.5
Benzo(k)Fluoranthene	1.280	1.266	1.324	0.998	0.722	1.118	22.9
Benzo(a)Pyrene *	1.060	1.092	1.171	1.086	1.008	1.083	5.5*
Indeno(1,2,3-cd)Pyrene	0.637	0.758	0.728	0.708	0.704	0.707	6.3
Dibenz(a,h)Anthracene	0.553	0.631	0.621	0.604	0.599	0.602	5.0
Benzo(g,h,i)Perylene	0.562	0.536	0.541	0.519	0.526	0.537	3.1
Nitrobenzene-d5	0.373	0.393	0.458	0.455	0.446	0.425	9.2
2-Fluorobiphenyl	1.346	1.368	1.206	1.183	1.463	1.313	8.9
Terphenyl-d14	0.874	0.876	0.794	0.715	0.653	0.782	12.6
Phenol-d5	1.691	1.552	1.822	1.752	1.756	1.715	5.9
2-Fluorophenol	1.009	1.032	1.342	1.314	1.326	1.205	14.0
2,4,6-Tribromophenol	0.130	0.209	0.205	0.145	0.208	0.179	21.6

(1) Cannot be separated from Diphenylamine

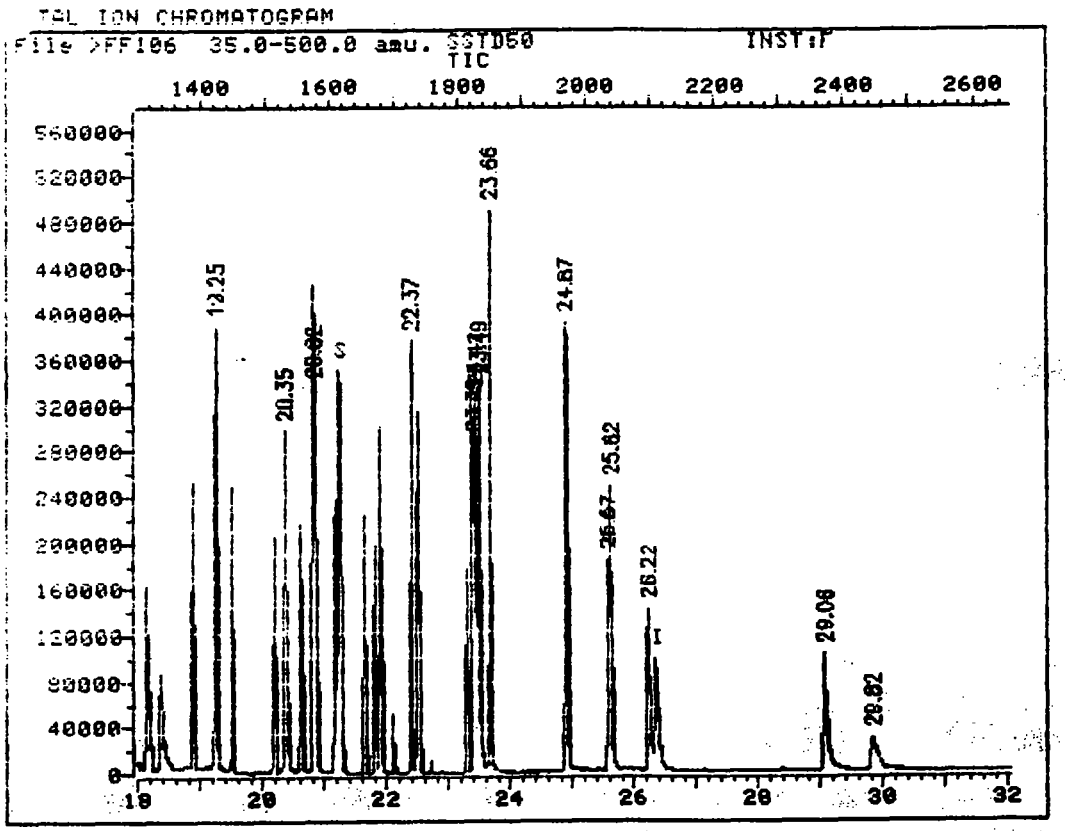


Data File: >FF106::D6 Quant Output File: ^FF106::L1
Name: SSTD50
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910814 15:41
Injected at: 910814 15:07

TIC page 1 of 2



Data File: >FF106::D6 Quant Output File: ^FF106::L1
Name: SSTD50
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910814 15:41
Injected at: 910814 15:07

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA Quant Rev: 6 Quant Time: 910814 15:41
Ourout File: ^FF106::L1 Injected at: 910814 15:07
Data File: >FF106::D6 Dilution Factor: 1.00000
Name: SSTD50
Misc: INST:F BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

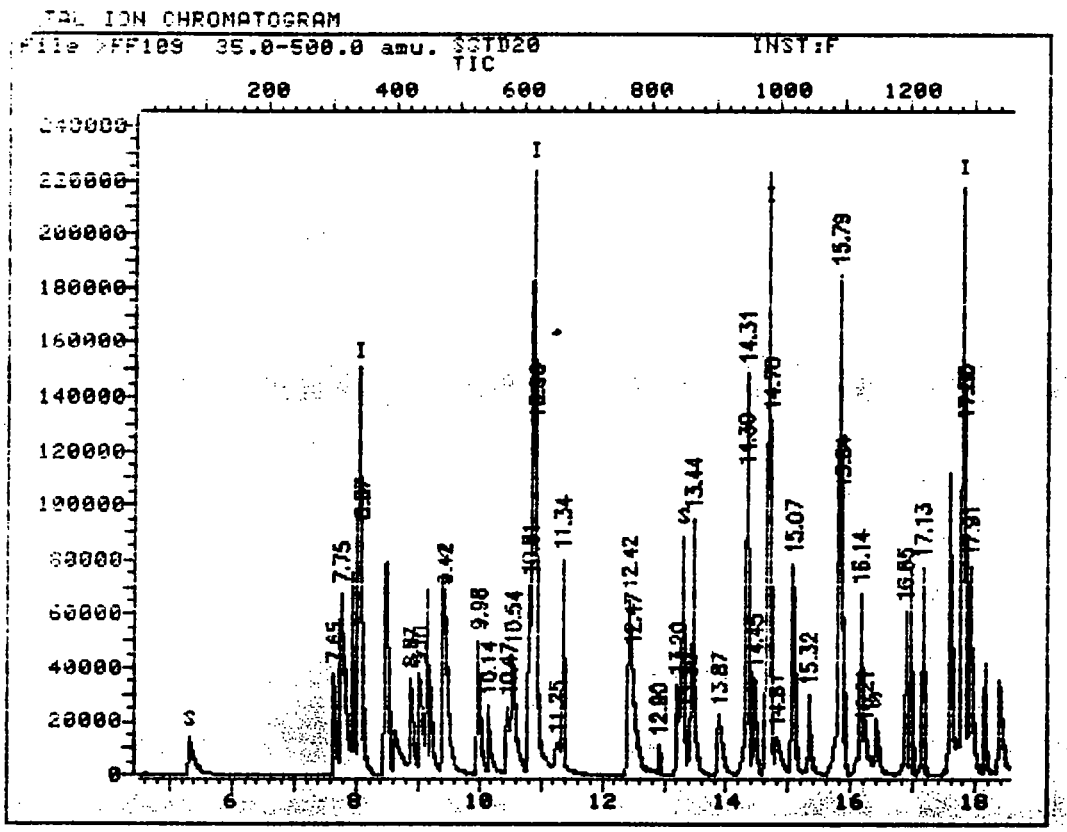
		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30	1,4-DICHLOROBENZENE-D4	8.46	152.0	74604	40.00	NG/UL	97
3)	C315	PHENOL	7.73	94.0	146907M	63.48	NG/UL	
4)	C325	BIS(2-CHLOROETHYL)ETHER	7.64	93.0	136468	62.09	NG/UL	96
5)	C330	2-CHLOROPHENOL	7.72	128.0	109952	56.48	NG/UL	98
6)	C335	1,3-DICHLOROBENZENE	7.94	146.0	117192	51.49	NG/UL	99
7)	C340	1,4-DICHLOROBENZENE	8.07	146.0	121330	51.05	NG/UL	93
8)	C345	BENZYL ALCOHOL	8.59	108.0	76908	68.23	NG/UL	76
9)	C350	1,2-DICHLOROBENZENE	8.49	146.0	111999	50.75	NG/UL	95
10)	C355	2-METHYLPHENOL	9.02	108.0	108320	57.52	NG/UL	89
11)	C360	BIS(2-CHLOROISOPROPYL)ETH	8.88	45.0	115029	44.01	NG/UL	100
12)	C365	4-METHYLPHENOL	9.35	108.0	113865	61.40	NG/UL	98
13)	C370	N-NITROSO-DI-N-PROPYLAMIN	9.23	70.0	77535	47.99	NG/UL	78
14)	C375	HEXACHLOROETHANE	9.14	117.0	56345M	55.94	NG/UL	
15)	CS50	2-FLUOROPHENOL	5.25	112.0	96194	59.97	NG/UL	94
16)	CS45	PHENOL-D5	7.70	99.0	144690M	63.35	NG/UL	
17)	*CI40	NAPHTHALENE-D8	10.86	136.0	248962	40.00	NG/UL	98
18)	C410	NITROBENZENE	9.43	77.0	150684	55.22	NG/UL	89
19)	C415	ISOPHORONE	9.99	82.0	264908	55.09	NG/UL	95
20)	C420	2-NITROPHENOL	10.14	139.0	62988	50.69	NG/UL	95
21)	C425	2,4-DIMETHYLPHENOL	10.44	107.0	110080	55.71	NG/UL	95
22)	C430	BENZOIC ACID	11.08	122.0	30491	34.76	NG/UL	89
23)	C435	BIS(2-CHLOROETHOXY)METHAN	10.54	93.0	164942	60.49	NG/UL	97
24)	C440	2,4-DICHLOROPHENOL	10.77	162.0	89115	47.88	NG/UL	92
25)	C445	1,2,4-TRICHLOROBENZENE	10.81	180.0	93495	42.96	NG/UL	96
26)	C450	NAPHTHALENE	10.90	128.0	308656	51.46	NG/UL	99
27)	C455	4-CHLOROANILINE	11.20	127.0	95063M	67.81	NG/UL	98
28)	C460	HEXACHLOROBUTADIENE	11.34	225.0	49643	37.14	NG/UL	98
29)	C465	4-CHLORO-3-METHYLPHENOL	12.43	107.0	112087	58.12	NG/UL	93
30)	C470	2-METHYLNAPHTHALENE	12.42	142.0	286566	53.88	NG/UL	84
31)	CS20	NITROBENZENE-D5	9.39	82.0	122335	52.73	NG/UL	91
32)	*CI50	ACENAPHTHENE-D10	14.65	164.0	100045	40.00	NG/UL	99
33)	C510	HEXACHLOROCYCLOPENTADIENE	12.91	237.0	22045	34.50	NG/UL	97
34)	C515	2,4,6-TRICHLOROPHENOL	13.19	196.0	55814	56.19	NG/UL	99
35)	C520	2,4,5-TRICHLOROPHENOL	13.36	196.0	75939M	70.87	NG/UL	93
36)	C525	2-CHLORONAPHTHALENE	13.45	162.0	161616	55.28	NG/UL	93
37)	C530	2-NITROANILINE	13.86	65.0	64672	61.26	NG/UL	94
38)	C535	DIMETHYLPHTHALATE	14.31	163.0	174083	54.74	NG/UL	86
39)	C540	ACENAPHTHYLENE	14.32	152.0	239608	55.04	NG/UL	99
40)	C543	2,6-DINITROTOLUENE	14.44	165.0	47927	58.42	NG/UL	92
41)	C545	3-NITROANILINE	14.79	138.0	28234	126.83	NG/UL	88
42)	C550	ACENAPHTHENE	14.72	153.0	144384	56.56	NG/UL	97
43)	C555	2,4-DINITROPHENOL	15.05	184.0	23640M	52.49	NG/UL	
44)	C560	4-NITROPHENOL	15.47	109.0	13302	62.90	NG/UL	83

0607

		Compound	R.T.	Q ion	Area	Conc	Units	q
45)	C565	DIBENZOFURAN	15.07	168.0	217660	52.61	NG/UL	84
46)	C570	2,4-DINITROTOLUENE	15.30	165.0	82138M	64.15	NG/UL	
47)	C580	DIETHYLPHTHALATE	15.81	149.0	175013	52.17	NG/UL	96
48)	C585	4-CHLOROPHENYL-PHENYLETHE	15.84	204.0	80099	52.06	NG/UL	89
49)	C590	FLUORENE	15.80	166.0	148804	56.52	NG/UL	98
50)	C595	4-NITROANILINE	16.27	138.0	55467M	138.73	NG/UL	
51)	CS25	2-FLUOROBIPHENYL	13.28	172.0	171068	51.44	NG/UL	98
52)	CS55	2,4,6-TRIBROMOPHENOL	16.38	329.8	26084	59.42	NG/UL	95
53)	*CI60	PHENANTHRENE-D10	17.77	188.0	179938	40.00	NG/UL	93
54)	C610	4,6-DINITRO-2-METHYLPHENO	16.18	198.0	33730	48.02	NG/UL	100
55)	C615	N-NITROSODIPHENYLAMINE	16.13	169.0	106143	58.36	NG/UL	98
56)	C625	4-BROMOPHENYLPHENYLETHER	16.85	248.0	45264	49.12	NG/UL	97
57)	C630	HEXACHLOROBENZENE	17.14	284.0	58579	47.33	NG/UL	85
58)	C635	PENTACHLOROPHENOL	17.63	266.0	16890M	48.49	NG/UL	95
59)	C640	PHENANTHRENE	17.82	178.0	266977	57.06	NG/UL	97
60)	C645	ANTHRACENE	17.92	178.0	277505	60.25	NG/UL	94
61)	C650	DI-N-BUTYLPHTHALATE	19.25	149.0	382556	56.51	NG/UL	86
62)	C655	FLUORANTHENE	20.35	202.0	287858	55.96	NG/UL	95
63)	*CI70	CHRYSENE-D12	23.42	240.0	167034	40.00	NG/UL	95
64)	C715	PYRENE	20.82	202.0	276019	52.05	NG/UL	96
65)	C720	BUTYLBENZYLPHTHALATE	22.37	149.0	185291	57.04	NG/UL	92
66)	C725	3,3'-DICHLOROBENZIDINE	23.42	252.0	46716	95.92	NG/UL	99
67)	C730	BENZO(A)ANTHRACENE	23.39	228.0	249652	53.40	NG/UL	93
68)	C740	CHRYSENE	23.49	228.0	237268	52.84	NG/UL	96
69)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	23.66	149.0	251402	55.96	NG/UL	85
70)	CS30	TERPHENYL-D14	21.23	244.0	182931	55.14	NG/UL	93
71)	*CI75	PERYLENE-D12	26.34	264.0	120461	40.00	NG/UL	96
72)	C760	DI-N-OCTYLPHTHALATE	24.87	149.0	395917	74.27	NG/UL	100
73)	C765	BENZO(B)FLUORANTHENE	25.57	252.0	176258	52.89	NG/UL	94
74)	C770	BENZO(K)FLUORANTHENE	25.62	252.0	189848	57.36	NG/UL	87
75)	C775	BENZO(A)PYRENE	26.22	252.0	163811	51.67	NG/UL	90
76)	C780	INDENO(1,2,3-CD)PYRENE	29.06	276.0	113762M	32.45	NG/UL	
77)	C785	DIBENZ(A,H)ANTHRACENE	29.06	278.0	94671	34.53	NG/UL	87
78)	C790	BENZO(G,H,I)PERYLENE	29.82	276.0	80391	25.69	NG/UL	86

* Compound is ISTD

File: FF106
SSTD50
Inst: F
8/14/91 15:0

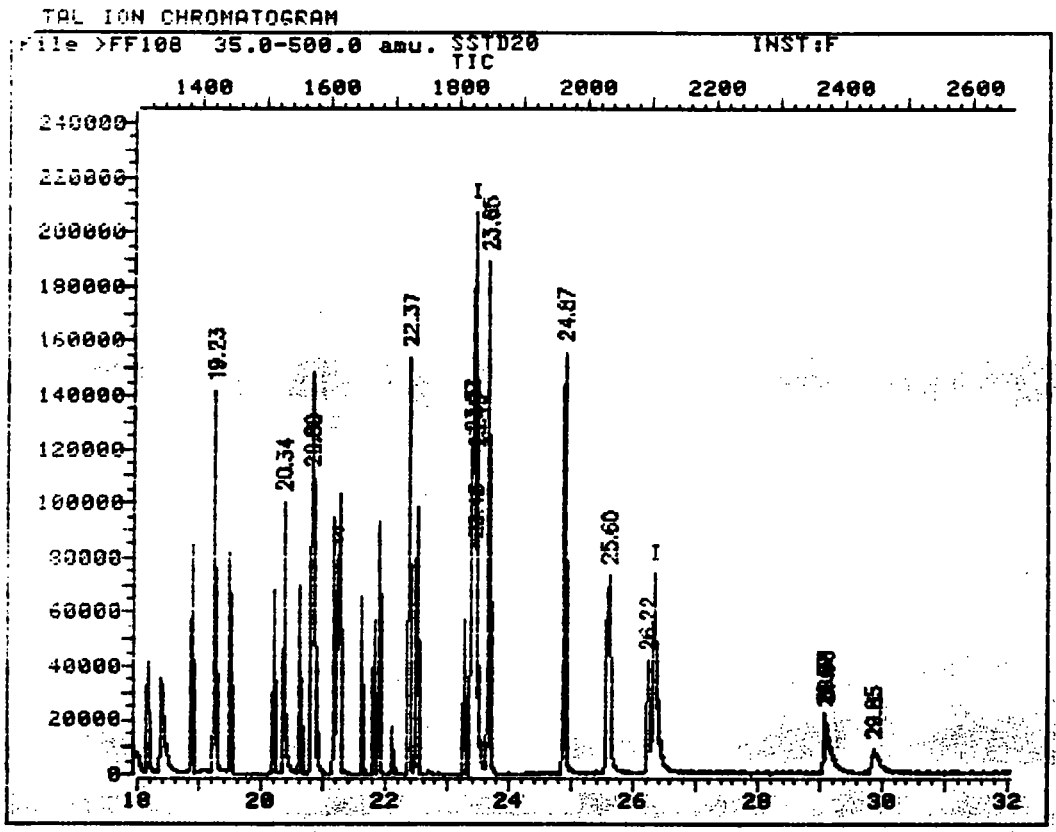


Data File: >FF108::D6 Quant Output File: ^FF108::L1
Name: SSTD20
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

Operator ID: LINDA
Quant Time: 910814 16:25
Injected at: 910814 15:50

TIC page 1 of 2



Data File: >FF108::D6 Quant Output File: ^FF108::L1
Name: SSTD20
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

Operator ID: LINDA
Quant Time: 910814 16:25
Injected at: 910814 15:50

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA Quant Rev: 6 Quant Time: 910814 16:25
Output File: ^FF108::L1 Injected at: 910814 15:50
Data File: >FF108::D6 Dilution Factor: 1.00000
Name: SSTD20
Misc: INST:F BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

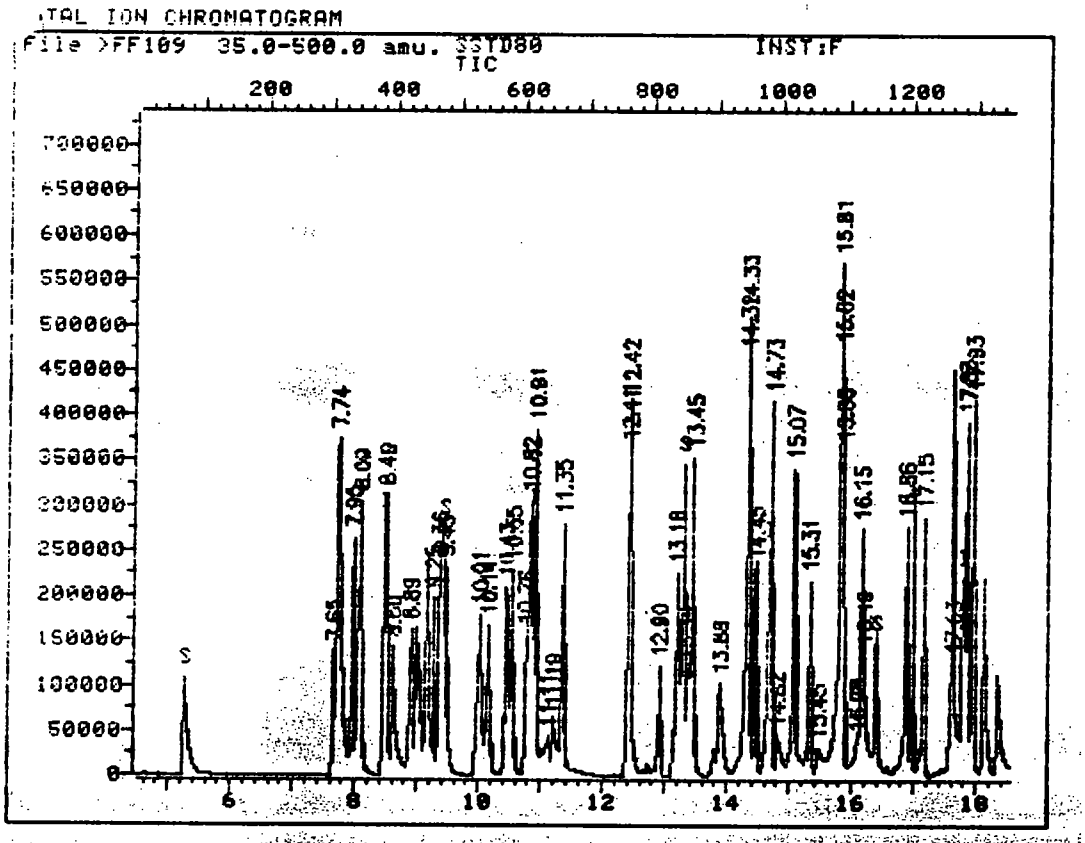
		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30	1,4-DICHLOROBENZENE-D4	8.03	152.0	58183	40.00	NG/UL	95
3)	C315	PHENOL	7.77	94.0	50953M	22.24	NG/UL	
4)	C325	BIS(2-CHLOROETHYL)ETHER	7.65	93.0	44995	21.14	NG/UL	95
5)	C330	2-CHLOROPHENOL	7.75	128.0	39046	22.77	NG/UL	95
6)	C335	1,3-DICHLOROBENZENE	7.94	146.0	42311M	23.15	NG/UL	
7)	C340	1,4-DICHLOROBENZENE	8.07	146.0	47233M	24.96	NG/UL	
8)	C345	BENZYL ALCOHOL	8.63	108.0	24720M	20.61	NG/UL	
9)	C350	1,2-DICHLOROBENZENE	8.07	146.0	44823	25.66	NG/UL	96
10)	C355	2-METHYLPHENOL	9.01	108.0	34248	20.27	NG/UL	90
11)	C360	BIS(2-CHLOROISOPROPYL)ETH	8.87	45.0	55094	30.71	NG/UL	100
12)	C365	4-METHYLPHENOL	9.40	108.0	40434M	22.77	NG/UL	
13)	C370	N-NITROSO-DI-N-PROPYLAMIN	9.20	70.0	29907M	24.73	NG/UL	
14)	C375	HEXACHLOROETHANE	9.14	117.0	19579M	22.28	NG/UL	
15)	CS50	2-FLUOROPHENOL	5.31	112.0	29372	19.58	NG/UL	94
16)	CS45	PHENOL-D5	7.74	99.0	49197M	21.80	NG/UL	
17)	*CI40	NAPHTHALENE-D8	10.86	136.0	223220	40.00	NG/UL	99
18)	C410	NITROBENZENE	9.42	77.0	58972	21.82	NG/UL	80
19)	C415	ISOPHORONE	9.98	82.0	81411	17.14	NG/UL	95
20)	C420	2-NITROPHENOL	10.14	139.0	19980	17.69	NG/UL	95
21)	C425	2,4-DIMETHYLPHENOL	10.47	107.0	37127	18.81	NG/UL	97
23)	C435	BIS(2-CHLOROETHOXY)METHAN	10.54	93.0	54502	18.43	NG/UL	97
24)	C440	2,4-DICHLOROPHENOL	10.88	162.0	28090M	17.58	NG/UL	
25)	C445	1,2,4-TRICHLOROBENZENE	10.81	180.0	33546	20.01	NG/UL	95
26)	C450	NAPHTHALENE	10.90	128.0	112200	20.27	NG/UL	99
27)	C455	4-CHLOROANILINE	11.25	127.0	41507M	24.35	NG/UL	93
28)	C460	HEXACHLOROBUTADIENE	11.34	225.0	16631	18.68	NG/UL	99
29)	C465	4-CHLORO-3-METHYLPHENOL	12.47	107.0	37017	18.42	NG/UL	94
30)	C470	2-METHYLNAPHTHALENE	12.42	142.0	104558	20.35	NG/UL	97
31)	CS20	NITROBENZENE-D5	9.39	82.0	41593	18.96	NG/UL	93
32)	*CI50	ACENAPHTHENE-D10	14.64	164.0	116232	40.00	NG/UL	98
33)	C510	HEXACHLOROCYCLOPENTADIENE	12.90	237.0	3085	6.02	NG/UL	97
34)	C515	2,4,6-TRICHLOROPHENOL	13.20	196.0	20901	16.12	NG/UL	98
36)	C525	2-CHLORONAPHTHALENE	13.44	162.0	70401	18.75	NG/UL	93
38)	C535	DIMETHYLPHTHALATE	14.30	163.0	69781	17.25	NG/UL	89
39)	C540	ACENAPHTHYLENE	14.31	152.0	117747	21.15	NG/UL	98
41)	C543	2,6-DINITROTOLUENE	14.45	165.0	16419	14.74	NG/UL	83
42)	C550	ACENAPHTHENE	14.70	153.0	72510	21.61	NG/UL	98
43)	C565	DIBENZOFURAN	15.07	168.0	97742	19.33	NG/UL	89
45)	C570	2,4-DINITROTOLUENE	15.32	165.0	22484	11.78	NG/UL	75
47)	C580	DIETHYLPHTHALATE	15.79	149.0	70934	17.44	NG/UL	95
48)	C585	4-CHLOROPHENYL-PHENYLETHE	15.84	204.0	30310	16.29	NG/UL	93
49)	C590	FLUORENE	15.79	166.0	66816	19.32	NG/UL	97
51)	CS35	2-FLUOROBIPHENYL	13.27	172.0	78052	19.64	NG/UL	98

0611

		Compound	R.T.	Q ion	Area	Conc	Units	q
52)	CS55	2,4,6-TRIBROMOPHENOL	16.39	329.8	7540	12.44	NG/UL	93
53)	*CI60	PHENANTHRENE-D10	17.76	188.0	174521	40.00	NG/UL	87
55)	C615	N-NITROSODIPHENYLAMINE	16.14	169.0	48153	23.39	NG/UL	99
56)	C625	4-BROMOPHENYLPHENYLETHER	16.85	248.0	16124	18.36	NG/UL	98
57)	C630	HEXACHLOROBENZENE	17.13	284.0	21165	18.63	NG/UL	83
59)	C640	PHENANTHRENE	17.80	178.0	96704	18.67	NG/UL	97
60)	C645	ANTHRACENE	17.91	178.0	109311	20.31	NG/UL	94
61)	C650	DI-N-BUTYLPHTHALATE	19.23	149.0	134640	18.14	NG/UL	87
62)	C655	FLUORANTHENE	20.34	202.0	103045	18.45	NG/UL	92
63)	*CI70	CHRYSENE-D12	23.41	240.0	151700	40.00	NG/UL	93
64)	C715	PYRENE	20.80	202.0	103051	20.55	NG/UL	97
65)	C720	BUTYLBENZYLPHTHALATE	22.37	149.0	65620	19.50	NG/UL	88
66)	C725	3,3'-DICHLOROBENZIDINE	23.43	252.0	18814	22.17	NG/UL	98
67)	C730	BENZO(A)ANTHRACENE	23.37	228.0	86120	18.99	NG/UL	93
68)	C740	CHRYSENE	23.45	228.0	88273	20.48	NG/UL	95
69)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	23.65	149.0	86701	18.99	NG/UL	83
70)	CS30	TERPHENYL-D14	21.21	244.0	66457	20.00	NG/UL	91
71)	*CI75	PERYLENE-D12	26.33	264.0	107952	40.00	NG/UL	97
72)	C760	DI-N-OCTYLPHTHALATE	24.87	149.0	138487	19.52	NG/UL	100
73)	C765	BENZO(B)FLUORANTHENE	25.56	252.0	59508M	18.84	NG/UL	88
74)	C770	BENZO(K)FLUORANTHENE	25.60	252.0	69137	20.32	NG/UL	88
75)	C775	BENZO(A)PYRENE	26.22	252.0	57215	19.49	NG/UL	89
76)	C780	INDENO(1,2,3-CD)PYRENE	29.07	276.0	34390	16.87	NG/UL	78
77)	C785	DIBENZ(A,H)ANTHRACENE	29.08	278.0	29888	17.61	NG/UL	83
78)	C790	BENZO(G,H,I)PERYLENE	29.85	276.0	30353	21.07	NG/UL	83

* Compound is ISTD

File: FF108
SSTD20
Inst: F
8/14/91 15:50

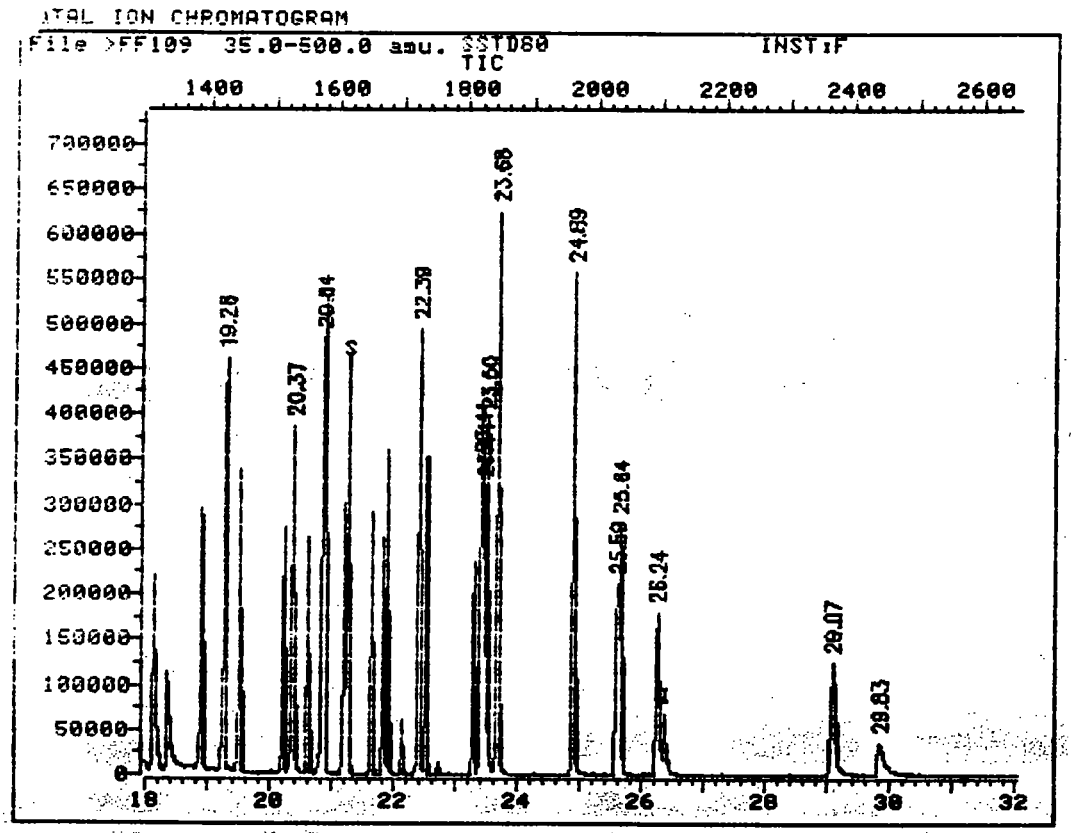


Data File: >FF109::D6 Quant Output File: ^FF109::D7
Name: SSTD80
Misc: INST:F BTL# 2

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

Operator ID: LINDA
Quant Time: 910814 17:06
Injected at: 910814 16:30

TIC page 1 of 2



Data File: >FF109::D6 Quant Output File: ^FF109::D7
Name: SSTD80
Misc: INST:F BTL# 2

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

Operator ID: LINDA
Quant Time: 910814 17:06
Injected at: 910814 16:30

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA Quant Rev: 6 Quant Time: 910814 17:06
Output File: ^FF109::D7 Injected at: 910814 16:30
Data File: >FF109::06 Dilution Factor: 1.00000
Name: SSTD80
Misc: INST:F BTL# 2

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

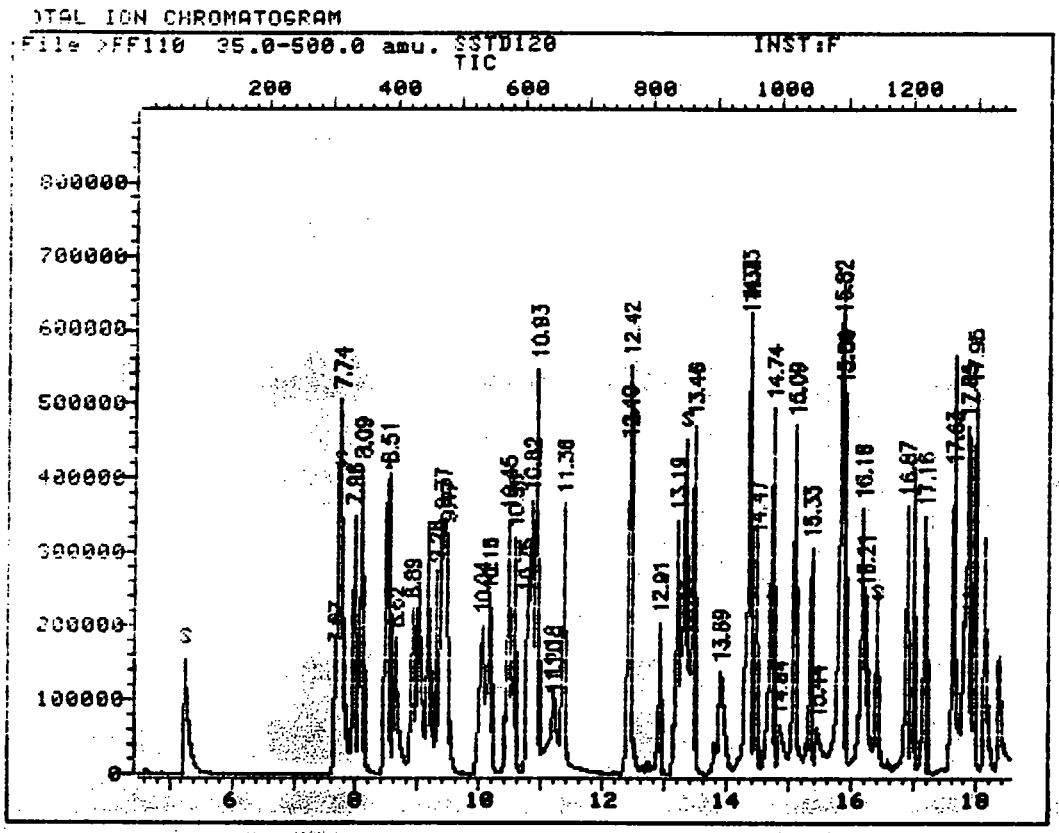
		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30	1,4-DICHLOROBENZENE-D4	8.05	152.0	54810M	40.00	NG/UL	99
3)	C315	PHENOL	7.74	94.0	202964M	94.03	NG/UL	
4)	C325	BIS(2-CHLOROETHYL)ETHER	7.65	93.0	193592	96.54	NG/UL	97
5)	C330	2-CHLOROPHENOL	7.74	128.0	151246	93.62	NG/UL	94
6)	C335	1,3-DICHLOROBENZENE	7.95	146.0	162800	94.54	NG/UL	98
7)	C340	1,4-DICHLOROBENZENE	8.09	146.0	176498	99.00	NG/UL	92
8)	C345	BENZYL ALCOHOL	8.60	108.0	110071	97.40	NG/UL	78
9)	C350	1,2-DICHLOROBENZENE	8.49	146.0	155838	94.70	NG/UL	94
10)	C355	2-METHYLPHENOL	8.99	108.0	161289M	101.34	NG/UL	
11)	C360	BIS(2-CHLOROISOPROPYL)ETH	8.89	45.0	191864	113.52	NG/UL	100
12)	C365	4-METHYLPHENOL	9.36	108.0	162131	96.91	NG/UL	99
13)	C370	N-NITROSO-DI-N-PROPYLAMIN	9.25	70.0	103434	90.79	NG/UL	79
14)	C375	HEXACHLOROETHANE	9.15	117.0	77710M	93.86	NG/UL	
15)	CS50	2-FLUOROPHENOL	5.25	112.0	147111	104.08	NG/UL	93
16)	CS45	PHENOL-D5	7.70	99.0	199631M	93.90	NG/UL	
17)	*CI40	NAPHTHALENE-D8	10.87	136.0	206772	40.00	NG/UL	98
18)	C410	NITROBENZENE	9.45	77.0	253468	101.27	NG/UL	79
19)	C415	ISOPHORONE	10.01	82.0	393000	89.31	NG/UL	96
20)	C420	2-NITROPHENOL	10.14	139.0	92679	88.58	NG/UL	96
21)	C425	2,4-DIMETHYLPHENOL	10.43	107.0	128557	70.31	NG/UL	99
22)	C430	BENZOIC ACID	11.11	122.0	49134	97.01	NG/UL	87
23)	C435	BIS(2-CHLOROETHOXY)METHAN	10.55	93.0	173357	63.27	NG/UL	98
24)	C440	2,4-DICHLOROPHENOL	10.76	162.0	119141	80.49	NG/UL	95
25)	C445	1,2,4-TRICHLOROBENZENE	10.82	180.0	129327	83.27	NG/UL	97
26)	C450	NAPHTHALENE	10.91	128.0	435289	84.90	NG/UL	98
27)	C455	4-CHLOROANILINE	11.19	127.0	105286	66.68	NG/UL	96
28)	C460	HEXACHLOROBUTADIENE	11.35	225.0	67626	82.01	NG/UL	98
29)	C465	4-CHLORO-3-METHYLPHENOL	12.41	107.0	154518	82.99	NG/UL	92
30)	C470	2-METHYLNAPHTHALENE	12.42	142.0	375709	78.93	NG/UL	83
31)	CS20	NITROBENZENE-D5	9.41	82.0	189637	93.32	NG/UL	94
32)	*CI50	ACENAPHTHENE-D10	14.66	164.0	84575	40.00	NG/UL	98
33)	C510	HEXACHLOROCYCLOPENTADIENE	12.90	237.0	38291	102.73	NG/UL	97
34)	C515	2,4,6-TRICHLOROPHENOL	13.18	196.0	73451	77.84	NG/UL	97
35)	C520	2,4,5-TRICHLOROPHENOL	13.34	196.0	95065	74.04	NG/UL	99
36)	C525	2-CHLORONAPHTHALENE	13.45	162.0	194159	71.06	NG/UL	91
37)	C530	2-NITROANILINE	13.88	65.0	95355	87.21	NG/UL	99
38)	C535	DIMETHYLPHTHALATE	14.32	163.0	222926	75.74	NG/UL	85
39)	C540	ACENAPHTHYLENE	14.33	152.0	281956	69.60	NG/UL	98
40)	C543	2,6-DINITROTOLUENE	14.45	165.0	68264	84.24	NG/UL	90
41)	C545	3-NITROANILINE	14.82	138.0	39414	82.57	NG/UL	89
42)	C550	ACENAPHTHENE	14.73	153.0	190916	78.21	NG/UL	99
43)	C555	2,4-DINITROPHENOL	15.04	184.0	42716M	106.87	NG/UL	
44)	C560	4-NITROPHENOL	15.45	109.0	22461	99.87	NG/UL	93

0615

		Compound	R.T.	Q ion	Area	Conc	Units	q
45)	C565	DIBENZOFURAN	15.07	168.0	265751	72.21	NG/UL	86
46)	C570	2,4-DINITROTOLUENE	15.31	165.0	98083	70.63	NG/UL	77
47)	C580	DIETHYLPHTHALATE	15.82	149.0	267734	90.48	NG/UL	95
48)	C585	4-CHLOROPHENYL-PHENYLETHE	15.85	204.0	123148	90.93	NG/UL	95
49)	C590	FLUORENE	15.81	166.0	189233	75.22	NG/UL	99
50)	C595	4-NITROANILINE	16.31	138.0	78355M	83.55	NG/UL	95
51)	CS25	2-FLUOROBIPHENYL	13.29	172.0	203965	70.52	NG/UL	98
52)	CS55	2,4,6-TRIBROMOPHENOL	16.38	329.8	34712	78.71	NG/UL	95
53)	*C160	PHENANTHRENE-D10	17.78	188.0	151799	40.00	NG/UL	90
54)	C610	4,6-DINITRO-2-METHYLPHENO	16.19	198.0	57792	101.55	NG/UL	100
55)	C615	N-NITROSODIPHENYLAMINE	16.15	169.0	141924	79.25	NG/UL	98
56)	C625	4-BROMOPHENYLPHENYLETHER	16.86	248.0	66979	87.70	NG/UL	95
57)	C630	HEXACHLOROBENZENE	17.15	284.0	70897	71.73	NG/UL	77
58)	C635	PENTACHLOROPHENOL	17.63	266.0	19810	69.52	NG/UL	98
59)	C640	PHENANTHRENE	17.83	178.0	367178	81.51	NG/UL	96
60)	C645	ANTHRACENE	17.93	178.0	362341	77.39	NG/UL	93
61)	C650	DI-N-BUTYLPHTHALATE	19.26	149.0	538409	83.41	NG/UL	87
62)	C655	FLUORANTHENE	20.37	202.0	386526	79.58	NG/UL	90
63)	*C170	CHRYSENE-D12	23.44	240.0	134913	40.00	NG/UL	94
64)	C715	PYRENE	20.84	202.0	346405	77.69	NG/UL	92
65)	C720	BUTYLBENZYLPHTHALATE	22.39	149.0	253185	84.59	NG/UL	89
66)	C725	3,3'-DICHLOROBENZIDINE	23.44	252.0	61171	81.06	NG/UL	99
67)	C730	BENZO(A)ANTHRACENE	23.41	228.0	310506	76.99	NG/UL	93
68)	C740	CHRYSENE	23.50	228.0	261839	68.32	NG/UL	95
69)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	23.68	149.0	343205	84.51	NG/UL	82
70)	CS30	TERPHENYL-D14	21.25	244.0	214339	72.53	NG/UL	92
71)	*C175	PERYLENE-D12	26.34	264.0	88873	40.00	NG/UL	97
72)	C760	DI-N-OCTYLPHTHALATE	24.89	149.0	515022	88.16	NG/UL	100
73)	C765	BENZO(B)FLUORANTHENE	25.59	252.0	225528	86.72	NG/UL	91
74)	C770	BENZO(K)FLUORANTHENE	25.64	252.0	235455	84.05	NG/UL	88
75)	C775	BENZO(A)PYRENE	26.24	252.0	208213	86.14	NG/UL	89
76)	C780	INDENO(1,2,3-CD)PYRENE	29.07	276.0	129480M	77.14	NG/UL	
77)	C785	DIBENZ(A,H)ANTHRACENE	29.07	278.0	110445	79.06	NG/UL	87
78)	C790	BENZO(G,H,I)PERYLENE	29.83	276.0	96206	81.10	NG/UL	86

* Compound is ISTD

File: FF109
SSTD80
Inst: F
8/14/91 16:30

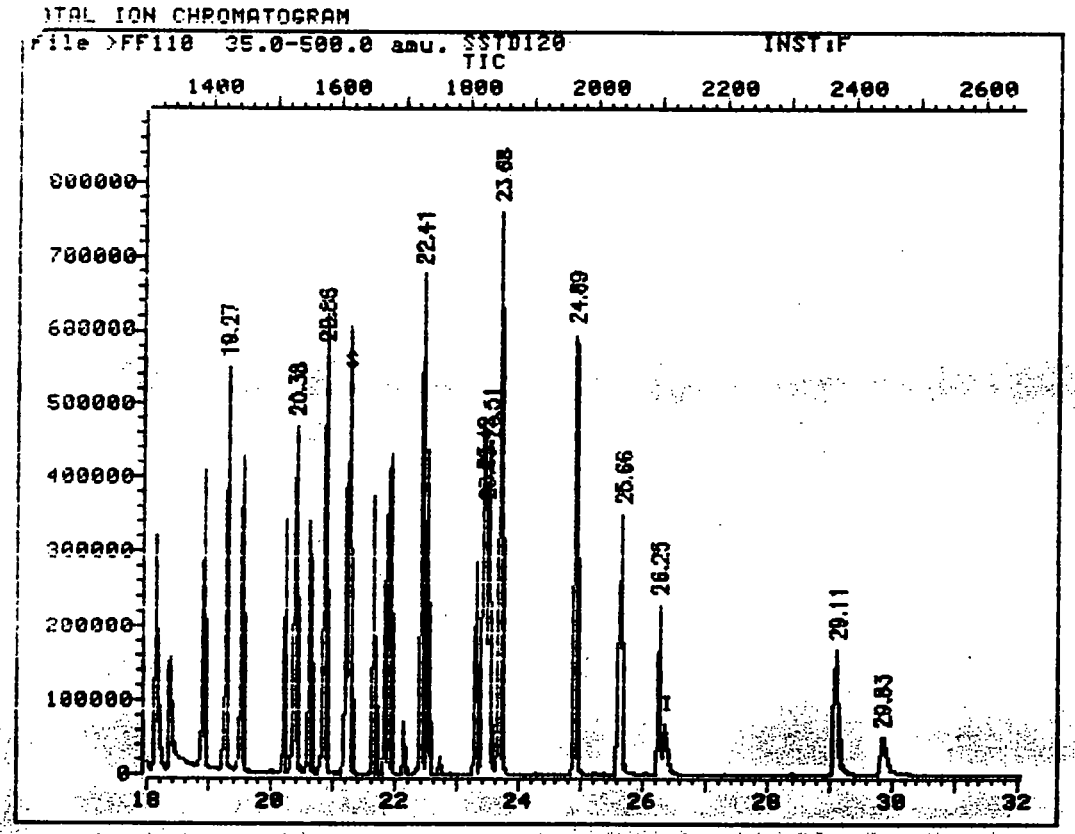


Data File: >FF110::D6 Quant Output File: ^FF110::D7
Name: SSTD120
Misc: INST:F BTL# 3

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

Operator ID: LINDA
Quant Time: 910814 17:46
Injected at: 910814 17:11

TIC page 1 of 2



Data File: >FF110::D6 Quant Output File: ^FF110::D7
Name: SSTD120
Misc: INST:F BTL# 3

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

Operator ID: LINDA
Quant Time: 910814 17:46
Injected at: 910814 17:11

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA
Output File: ^FF110::07
Data File: >FF110::06
Name: SSTD120
Misc: INST:F

Quant Rev: 6 Quant Time: 910814 17:46
Injected at: 910814 17:11
Dilution Factor: 1.00000

BTL# 3

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

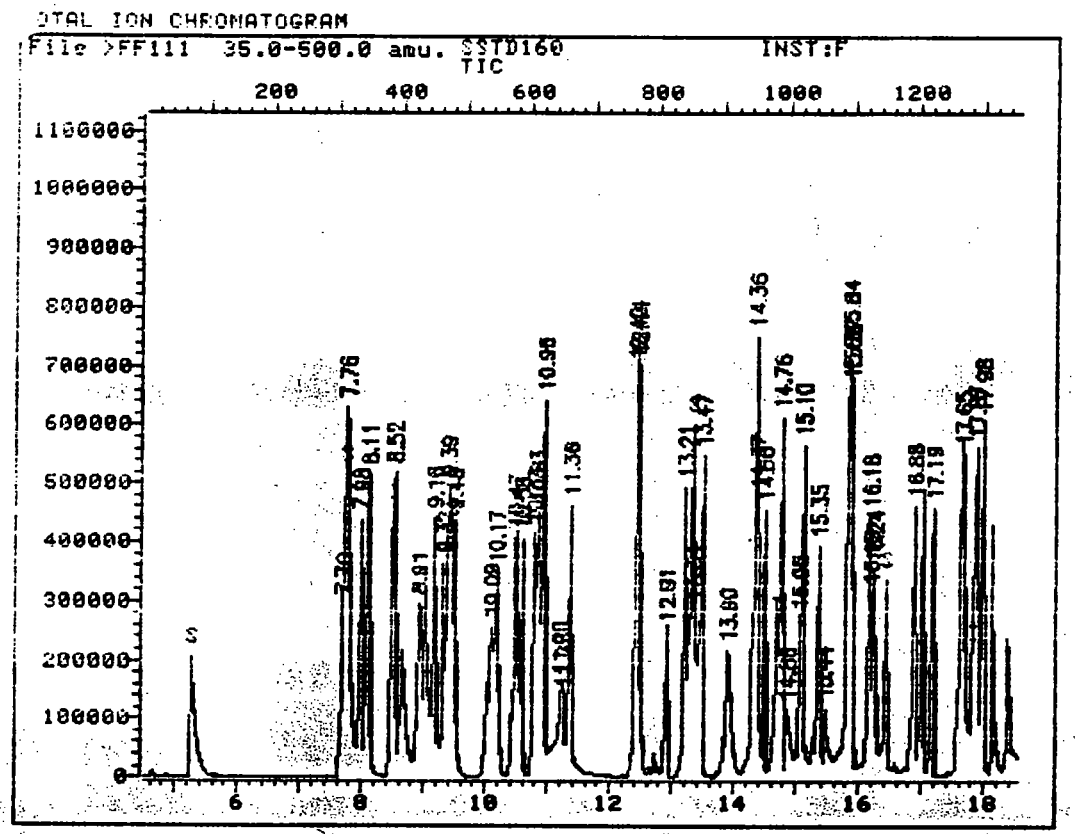
		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30	1,4-DICHLOROBENZENE-D4	8.05	152.0	51689M	40.00	NG/UL	96
3)	C315	PHENOL	7.74	94.0	285903M	140.45	NG/UL	
4)	C325	BIS(2-CHLOROETHYL)ETHER	7.67	93.0	269880	142.72	NG/UL	97
5)	C330	2-CHLOROPHENOL	7.74	128.0	200952	131.89	NG/UL	93
6)	C335	1,3-DICHLOROBENZENE	7.96	146.0	221632	136.48	NG/UL	97
7)	C340	1,4-DICHLOROBENZENE	8.09	146.0	235555	140.11	NG/UL	90
8)	C345	BENZYL ALCOHOL	8.62	108.0	158959	149.16	NG/UL	77
9)	C350	1,2-DICHLOROBENZENE	8.51	146.0	204525	131.79	NG/UL	92
10)	C355	2-METHYLPHENOL	9.01	108.0	222968M	148.55	NG/UL	
11)	C360	BIS(2-CHLOROISOPROPYL)ETH	8.89	45.0	343002	215.19	NG/UL	100
12)	C365	4-METHYLPHENOL	9.37	108.0	220248	139.59	NG/UL	98
13)	C370	N-NITROSO-DI-N-PROPYLAMIN	9.28	70.0	152206	141.67	NG/UL	81
14)	C375	HEXACHLOROETHANE	9.15	117.0	105993M	135.75	NG/UL	
15)	CS50	2-FLUOROPHENOL	5.25	112.0	203828	152.91	NG/UL	94
16)	CS45	PHENOL-D5	7.72	99.0	271689	135.51	NG/UL	81
17)	*CI40	NAPHTHALENE-D8	10.88	136.0	196669	40.00	NG/UL	98
18)	C410	NITROBENZENE	9.47	77.0	360716	151.52	NG/UL	81
19)	C415	ISOPHORONE	10.04	82.0	568310	135.79	NG/UL	95
20)	C420	2-NITROPHENOL	10.15	139.0	137232	137.90	NG/UL	91
21)	C425	2,4-DIMETHYLPHENOL	10.45	107.0	216660M	124.58	NG/UL	94
22)	C430	BENZOIC ACID	11.18	122.0	81079	168.31	NG/UL	90
23)	C435	BIS(2-CHLOROETHOXY)METHAN	10.56	93.0	335887M	128.89	NG/UL	98
24)	C440	2,4-DICHLOROPHENOL	10.75	162.0	171183	121.58	NG/UL	92
25)	C445	1,2,4-TRICHLOROBENZENE	10.82	180.0	175364	118.72	NG/UL	95
26)	C450	NAPHTHALENE	10.93	128.0	581644	119.28	NG/UL	99
27)	C455	4-CHLOROANILINE	11.20	127.0	227713M	151.62	NG/UL	94
28)	C460	HEXACHLOROBUTADIENE	11.36	225.0	88977	113.45	NG/UL	99
29)	C465	4-CHLORO-3-METHYLPHENOL	12.40	107.0	208625	117.81	NG/UL	91
30)	C470	2-METHYLNAPHTHALENE	12.42	142.0	487938	107.77	NG/UL	86
31)	CS20	NITROBENZENE-D5	9.42	82.0	268963	139.16	NG/UL	95
32)	*CI50	ACENAPHTHENE-D10	14.66	164.0	110047	40.00	NG/UL	99
33)	C510	HEXACHLOROCYCLOPENTADIENE	12.91	237.0	64573	133.15	NG/UL	97
34)	C515	2,4,6-TRICHLOROPHENOL	13.19	196.0	129180M	105.21	NG/UL	98
35)	C520	2,4,5-TRICHLOROPHENOL	13.33	196.0	132040	79.04	NG/UL	99
36)	C525	2-CHLORONAPHTHALENE	13.46	162.0	371519M	104.49	NG/UL	90
37)	C530	2-NITROANILINE	13.89	65.0	143651	100.97	NG/UL	99
38)	C535	DIMETHYLPHTHALATE	14.33	163.0	408175M	106.58	NG/UL	78
39)	C540	ACENAPHTHYLENE	14.34	152.0	531244M	100.78	NG/UL	98
40)	C543	2,6-DINITROTOLUENE	14.47	165.0	98363	93.29	NG/UL	92
41)	C545	3-NITROANILINE	14.84	138.0	52439	84.42	NG/UL	84
42)	C550	ACENAPHTHENE	14.74	153.0	368680	116.07	NG/UL	98
43)	C555	2,4-DINITROPHENOL	15.04	184.0	70270M	135.12	NG/UL	
44)	C560	4-NITROPHENOL	15.44	109.0	36500	124.73	NG/UL	97

0619

		Compound	R.T.	Q ion	Area	Conc	Units	q
45)	C565	DIBENZOFURAN	15.09	168.0	375476	78.41	NG/UL	83
46)	C570	2,4-DINITROTOLUENE	15.33	165.0	148828	82.36	NG/UL	78
47)	C580	DIETHYLPHTHALATE	15.84	149.0	370278	96.17	NG/UL	95
48)	C585	4-CHLOROPHENYL-PHENYLETHE	15.86	204.0	157750	89.52	NG/UL	96
49)	C590	FLUORENE	15.82	166.0	341714M	104.38	NG/UL	99
50)	C595	4-NITROANILINE	16.33	138.0	104735M	85.83	NG/UL	
51)	CS25	2-FLUOROBIPHENYL	13.31	172.0	390507	103.76	NG/UL	98
52)	CS55	2,4,6-TRIBROMOPHENOL	16.39	329.8	47945	83.55	NG/UL	95
53)	*CI60	PHENANTHRENE-D10	17.79	188.0	151863	40.00	NG/UL	87
54)	C610	4,6-DINITRO-2-METHYLPHENO	16.21	198.0	92639	162.71	NG/UL	100
55)	C615	N-NITROSODIPHENYLAMINE	16.16	169.0	241532M	134.81	NG/UL	98
56)	C625	4-BROMOPHENYLPHENYLETHER	16.87	248.0	89095	116.61	NG/UL	95
57)	C630	HEXACHLOROBENZENE	17.16	284.0	122703	124.09	NG/UL	80
58)	C635	PENTACHLOROPHENOL	17.63	266.0	38126	133.73	NG/UL	99
59)	C640	PHENANTHRENE	17.85	178.0	513288	113.90	NG/UL	96
60)	C645	ANTHRACENE	17.95	178.0	475022	101.41	NG/UL	95
61)	C650	DI-N-BUTYLPHTHALATE	19.27	149.0	707108	109.50	NG/UL	92
62)	C655	FLUORANTHENE	20.38	202.0	511911	105.36	NG/UL	91
63)	*CI70	CHRYSENE-D12	23.45	240.0	121720	40.00	NG/UL	95
64)	C715	PYRENE	20.86	202.0	419402	104.26	NG/UL	89
65)	C720	BUTYLBENZYLPHTHALATE	22.41	149.0	336204	124.50	NG/UL	83
66)	C725	3,3'-DICHLOROBENZIDINE	23.45	252.0	61880	90.89	NG/UL	99
67)	C730	BENZO(A)ANTHRACENE	23.42	228.0	411689	113.15	NG/UL	93
68)	C740	CHRYSENE	23.51	228.0	391750	113.29	NG/UL	95
69)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	23.68	149.0	459833	125.50	NG/UL	85
70)	CS30	TERPHENYL-D14	21.26	244.0	261681	98.15	NG/UL	86
71)	*CI75	PERYLENE-D12	26.35	264.0	82958	40.00	NG/UL	96
72)	C760	DI-N-OCTYLPHTHALATE	24.89	149.0	669162	122.71	NG/UL	100
73)	C765	BENZO(B)FLUORANTHENE	25.62	252.0	344124M	141.75	NG/UL	
74)	C770	BENZO(K)FLUORANTHENE	25.66	252.0	248505M	95.04	NG/UL	85
75)	C775	BENZO(A)PYRENE	26.25	252.0	270399	119.85	NG/UL	87
76)	C780	INDENO(1,2,3-CD)PYRENE	29.11	276.0	176291M	112.51	NG/UL	
77)	C785	DIBENZ(A,H)ANTHRACENE	29.11	278.0	150351	115.30	NG/UL	87
78)	C790	BENZO(G,H,I)PERYLENE	29.83	276.0	129210	116.69	NG/UL	85

* Compound is ISTD

File: FF110
SSTD120
Inst: F
8/14/91 17:11

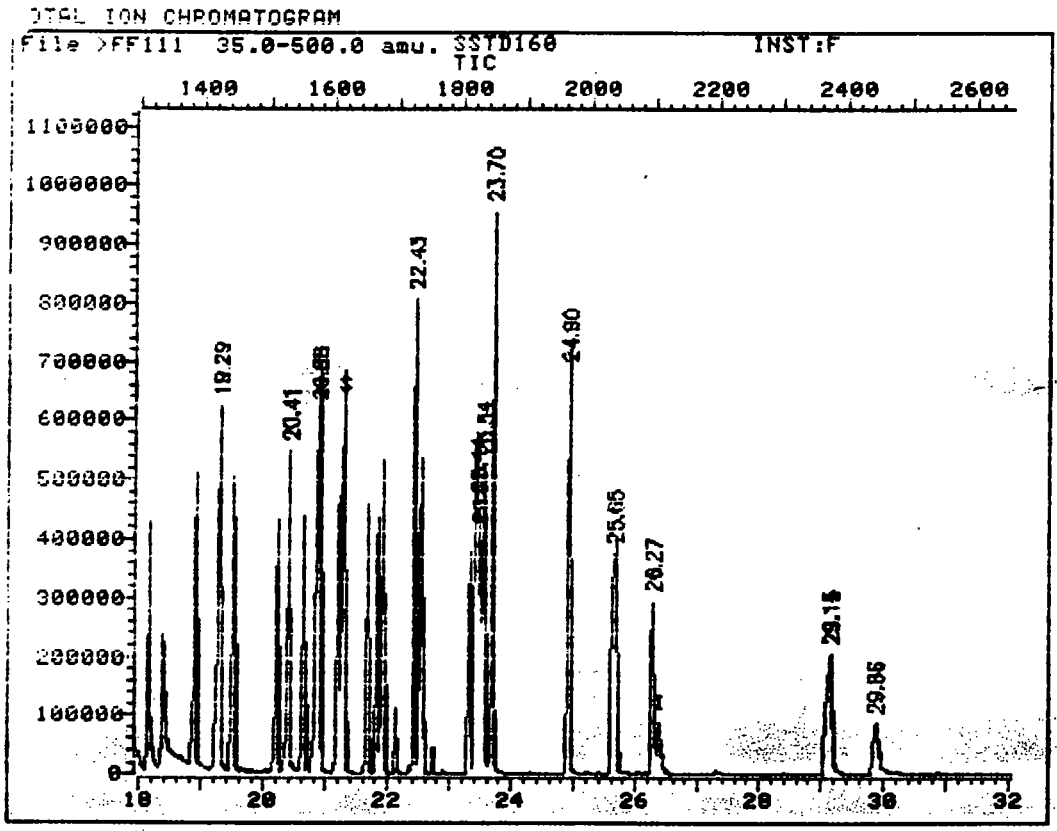


Data File: >FF111::D6 Quant Output File: ^FF111::D7
Name: SSTD160
Misc: INST:F BTL# 4

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

Operator ID: LINDA
Quant Time: 910814 18:26
Injected at: 910814 17:52

TIC page 1 of 2



Data File: >FF111::D6 Quant Output File: ^FF111::D7
Name: SSTD160
Misc: INST:F BTL# 4

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

Operator ID: LINDA
Quant Time: 910814 18:26
Injected at: 910814 17:52

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA
Output File: ^FF111::07
Data File: >FF111::D6
Name: SSTD160
Misc: INST:F

Quant Rev: 6 Quant Time: 910814 18:26
Injected at: 910814 17:52
Dilution Factor: 1.00000

BTL# 4

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30	1,4-DICHLOROBENZENE-D4	8.06	152.0	54380M	40.00	NG/UL	97
3)	C315	PHENOL	7.77	94.0	403445M	188.38	NG/UL	
4)	C325	BIS(2-CHLOROETHYL)ETHER	7.70	93.0	377173	189.58	NG/UL	95
5)	C330	2-CHLOROPHENOL	7.76	128.0	272271	169.86	NG/UL	91
6)	C335	1,3-DICHLOROBENZENE	7.98	146.0	298311	174.61	NG/UL	95
7)	C340	1,4-DICHLOROBENZENE	8.11	146.0	305357	172.64	NG/UL	89
8)	C345	BENZYL ALCOHOL	8.65	108.0	233918M	208.63	NG/UL	
9)	C350	1,2-DICHLOROBENZENE	8.52	146.0	270629	165.75	NG/UL	92
10)	C355	2-METHYLPHENOL	9.03	108.0	318512M	201.70	NG/UL	
11)	C360	BIS(2-CHLOROISOPROPYL)ETH	8.91	45.0	491232	292.94	NG/UL	100
12)	C365	4-METHYLPHENOL	9.39	108.0	294055	177.15	NG/UL	97
13)	C370	N-NITROSO-DI-N-PROPYLAMIN	9.32	70.0	212291	187.81	NG/UL	86
14)	C375	HEXACHLOROETHANE	9.16	117.0	146602	178.48	NG/UL	78
15)	CS50	2-FLUOROPHENOL	5.26	112.0	288464	205.70	NG/UL	96
16)	CS45	PHENOL-D5	7.74	99.0	382002	181.10	NG/UL	83
17)	*CI40	NAPHTHALENE-D8	10.90	136.0	212785	40.00	NG/UL	96
18)	C410	NITROBENZENE	9.48	77.0	513543M	199.38	NG/UL	85
19)	C415	ISOPHORONE	10.09	82.0	832980M	183.95	NG/UL	93
20)	C420	2-NITROPHENOL	10.17	139.0	197666	183.58	NG/UL	95
21)	C425	2,4-DIMETHYLPHENOL	10.47	107.0	294755M	156.64	NG/UL	96
22)	C430	BENZOIC ACID	11.25	122.0	111187	213.33	NG/UL	89
23)	C435	BIS(2-CHLOROETHOXY)METHAN	10.58	93.0	478810M	169.82	NG/UL	98
24)	C440	2,4-DICHLOROPHENOL	10.77	162.0	237944	156.20	NG/UL	93
25)	C445	1,2,4-TRICHLOROBENZENE	10.83	180.0	239336	149.76	NG/UL	95
26)	C450	NAPHTHALENE	10.95	128.0	780099	147.86	NG/UL	96
27)	C455	4-CHLOROANILINE	11.20	127.0	274308M	168.81	NG/UL	95
28)	C460	HEXACHLOROBUTADIENE	11.36	225.0	120390	141.87	NG/UL	99
29)	C465	4-CHLORO-3-METHYLPHENOL	12.42	107.0	241874	126.24	NG/UL	88
30)	C470	2-METHYLNAPHTHALENE	12.44	142.0	641307	130.92	NG/UL	89
31)	CS20	NITROBENZENE-D5	9.44	82.0	379869	181.65	NG/UL	95
32)	*CI50	ACENAPHTHENE-D10	14.67	164.0	90408	40.00	NG/UL	99
33)	C510	HEXACHLOROCYCLOPENTADIENE	12.91	237.0	95347	239.31	NG/UL	96
34)	C515	2,4,6-TRICHLOROPHENOL	13.21	196.0	137117	135.93	NG/UL	98
35)	C520	2,4,5-TRICHLOROPHENOL	13.34	196.0	187635	136.71	NG/UL	99
36)	C525	2-CHLORONAPHTHALENE	13.47	162.0	357385	122.35	NG/UL	89
37	C530	2-NITROANILINE	13.90	65.0	222841	190.65	NG/UL	98
38)	C535	DIMETHYLPHTHALATE	14.37	163.0	432511	137.47	NG/UL	93
39)	C540	ACENAPHTHYLENE	14.36	152.0	662099M	152.89	NG/UL	98
40)	C543	2,6-DINITROTOLUENE	14.50	165.0	141757	163.65	NG/UL	85
41)	C545	3-NITROANILINE	14.86	138.0	91662	179.63	NG/UL	93
42)	C550	ACENAPHTHENE	14.76	153.0	372830	142.87	NG/UL	98
43)	C555	2,4-DINITROPHENOL	15.05	184.0	62807	147.00	NG/UL	81
44)	C560	4-NITROPHENOL	15.44	109.0	60079	249.90	NG/UL	97

0623

		Compound	R.T.	Q ion	Area	Conc	Units	q
45)	C565	DIBENZOFURAN	15.10	168.0	517443	131.54	NG/UL	79
46)	C570	2,4-DINITROTOLUENE	15.35	165.0	220457	148.50	NG/UL	75
47)	C580	DIETHYLPHTHALATE	15.86	149.0	561424M	177.49	NG/UL	96
48)	C585	4-CHLOROPHENYL-PHENYLETHE	15.87	204.0	202397	139.81	NG/UL	95
49)	C590	FLUORENE	15.84	166.0	336495	125.12	NG/UL	99
50)	C595	4-NITROANILINE	16.19	138.0	157321M	156.93	NG/UL	89
51)	CS25	2-FLUOROBIPHENYL	13.32	172.0	528876	171.06	NG/UL	98
52)	CS55	2,4,6-TRIBROMOPHENOL	16.42	329.8	75320	159.77	NG/UL	92
53)	*CI60	PHENANTHRENE-D10	17.80	188.0	171225	40.00	NG/UL	87
54)	C610	4,6-DINITRO-2-METHYLPHENO	16.24	198.0	129737	202.10	NG/UL	100
55)	C615	N-NITROSODIPHENYLAMINE	16.18	169.0	295535M	146.30	NG/UL	97
56)	C625	4-BROMOPHENYLPHENYLETHER	16.88	248.0	133625	155.12	NG/UL	94
57)	C630	HEXACHLOROBENZENE	17.19	284.0	143448	128.67	NG/UL	77
58)	C635	PENTACHLOROPHENOL	17.65	266.0	62694	195.04	NG/UL	99
59)	C640	PHENANTHRENE	17.87	178.0	726868	143.06	NG/UL	98
60)	C645	ANTHRACENE	17.98	178.0	646553	122.42	NG/UL	96
61)	C650	DI-N-BUTYLPHTHALATE	19.29	149.0	946283	129.97	NG/UL	97
62)	C655	FLUORANTHENE	20.41	202.0	695459	126.95	NG/UL	89
63)	*CI70	CHRYSENE-D12	23.47	240.0	125536	40.00	NG/UL	94
64)	C715	PYRENE	20.88	202.0	510888	123.14	NG/UL	91
65)	C720	BUTYLBENZYLPHTHALATE	22.43	149.0	467066	167.70	NG/UL	83
66)	C725	3,3'-DICHLOROBENZIDINE	23.47	252.0	90868M	129.41	NG/UL	98
67)	C730	BENZO(A)ANTHRACENE	23.44	228.0	538538	143.51	NG/UL	93
68)	C740	CHRYSENE	23.54	228.0	521098	146.11	NG/UL	97
69)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	23.70	149.0	628594	166.34	NG/UL	84
70)	CS30	TERPHENYL-D14	21.28	244.0	329092	119.68	NG/UL	93
71)	*CI75	PERYLENE-D12	26.36	264.0	90405	40.00	NG/UL	96
72)	C760	DI-N-OCTYLPHTHALATE	24.90	149.0	859736	144.67	NG/UL	100
73)	C765	BENZO(B)FLUORANTHENE	25.65	252.0	543717M	205.52	NG/UL	
74)	C770	BENZO(K)FLUORANTHENE	25.68	252.0	260946M	91.57	NG/UL	88
75)	C775	BENZO(A)PYRENE	26.27	252.0	364542	148.26	NG/UL	88
76)	C780	INDENO(1,2,3-CD)PYRENE	29.15	276.0	254566	149.08	NG/UL	78
77)	C785	DIBENZ(A,H)ANTHRACENE	29.14	278.0	216766	152.55	NG/UL	86
78)	C790	BENZO(G,H,I)PERYLENE	29.86	276.0	190281	157.69	NG/UL	84

* Compound is ISTD

File: FF111
SSTD160
Inst: F
8/14/91 17:5

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 65686 SDG No.: -001

Instrument ID: A Calibration Date(s): 08/14/91 08/14/91

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

LAB FILE ID: RRF20 = A6894 RRF50 = A6893
RRF80 = A6906 RRF120= A6891 RRF160= A6890

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Phenol *	1.416	1.307	1.237	1.279	1.308	1.309	5.1*
bis(2-Chloroethyl)Ether	1.045	1.007	1.105	0.994	0.935	1.017	6.2
2-Chlorophenol	1.199	1.190	1.230	1.138	1.086	1.169	4.9
1,3-Dichlorobenzene	1.461	1.396	1.418	1.333	1.308	1.383	4.5
1,4-Dichlorobenzene *	1.416	1.547	1.629	1.478	1.514	1.517	5.2*
Benzyl Alcohol	0.766	0.807	0.873	0.815	0.810	0.814	4.7
1,2-Dichlorobenzene	1.416	1.349	1.391	1.242	1.150	1.310	8.5
2-Methylphenol	1.187	1.134	1.178	1.133	1.087	1.144	3.5
bis(2-Chloroisopropyl)ether	2.500	2.498	2.648	2.495	2.393	2.507	3.6
4-Methylphenol	1.171	1.228	1.185	1.241	1.036	1.172	7.0
N-Nitroso-Di-n-Propylamine #	1.048	1.135	1.249	0.938	0.920	1.058	13.0#
Hexachloroethane	0.726	0.750	0.764	0.736	0.656	0.726	5.8
Nitrobenzene	0.329	0.385	0.379	0.322	0.323	0.348	9.1
Isophorone	0.657	0.729	0.780	0.760	0.584	0.702	11.5
2-Nitrophenol *	0.167	0.186	0.198	0.205	0.213	0.194	9.3*
2,4-Dimethylphenol	0.261	0.310	0.314	0.326	0.219	0.286	15.7
Benzoic Acid		0.181	0.104	0.105	0.173	0.141	29.8
bis(2-Chloroethoxy)Methane	0.448	0.508	0.538	0.317	0.385	0.439	20.5
2,4-Dichlorophenol *	0.288	0.311	0.307	0.346	0.252	0.301	11.4*
1,2,4-Trichlorobenzene	0.356	0.371	0.398	0.380	0.367	0.374	4.2
Naphthalene	0.858	0.942	0.966	0.885	0.889	0.908	4.9
4-Chloroaniline	0.283	0.221	0.280	0.319	0.296	0.280	13.0
Hexachlorobutadiene *	0.249	0.249	0.254	0.252	0.231	0.247	3.7*
4-Chloro-3-Methylphenol *	0.325	0.347	0.354	0.356	0.291	0.335	8.1*
2-Methylnaphthalene	0.645	0.485	0.436	0.434	0.494	0.499	17.3
Hexachlorocyclopentadiene #	0.244	0.293	0.364	0.374	0.338	0.323	16.7#
2,4,6-Trichlorophenol *	0.430	0.470	0.501	0.563	0.513	0.495	10.0*
2,4,5-Trichlorophenol		0.470	0.501	0.563	0.513	0.512	7.6
2-Chloronaphthalene	1.028	1.219	1.283	1.018	1.135	1.137	10.2
2-Nitroaniline		0.385	0.421	0.353	0.345	0.376	9.2
Dimethyl Phthalate	1.240	1.238	1.256	1.308	1.182	1.245	3.6
Acenaphthylene	1.768	1.872	1.979	1.610	1.634	1.773	8.8
2,6-Dinitrotoluene	0.247	0.298	0.288	0.245	0.304	0.276	10.3
3-Nitroaniline		0.138	0.109	0.087	0.101	0.109	19.7
Acenaphthene *	1.185	1.354	1.375	1.276	1.131	1.264	8.3*
2,4-Dinitrophenol #		0.145	0.164	0.163	0.166	0.160	6.1#
4-Nitrophenol #		0.112	0.147	0.133	0.141	0.133	11.5#

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Instrument ID: A Calibration Date(s): 08/14/91 08/14/91

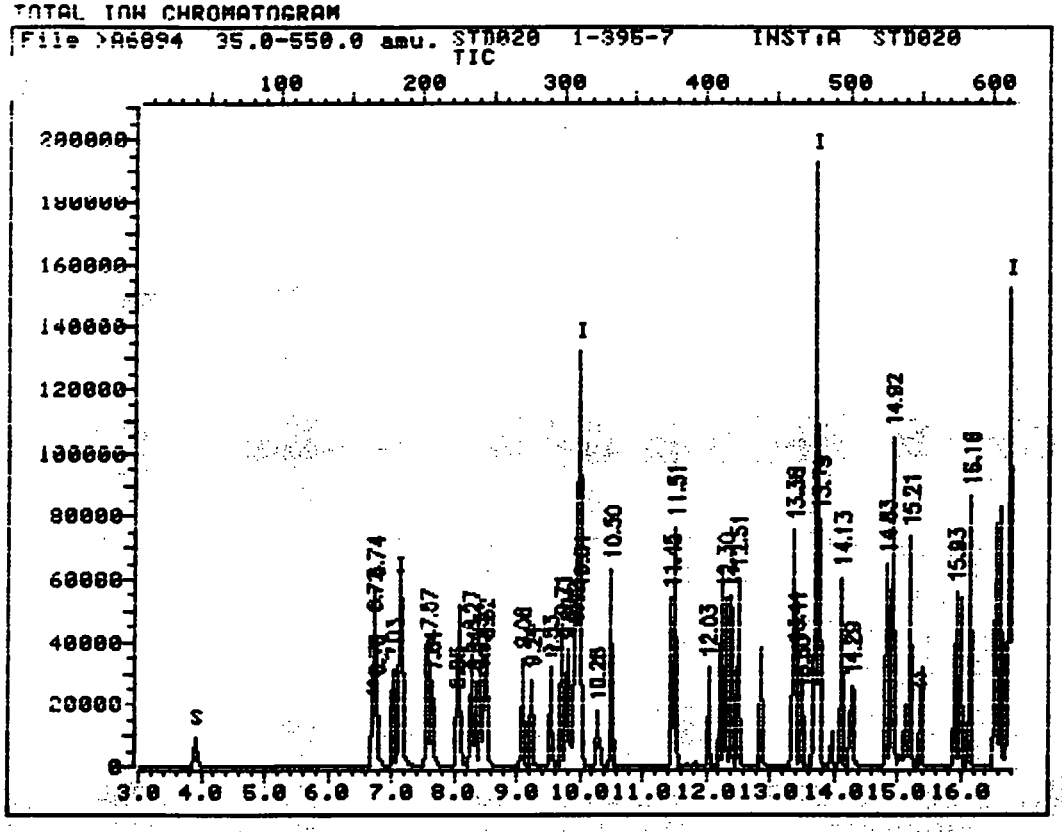
Min $\overline{RRF}$ for SPCC(#) = 0.050 Max %RSD for CCC(*) = 30.0%

LAB FILE ID: RRF20 = A6894 RRF50 = A6893
RRF80 = A6906 RRF120= A6891 RRF160= A6890

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
Dibenzofuran	1.443	1.724	1.729	1.493	1.279	1.534	12.6
2,4-Dinitrotoluene	0.324	0.412	0.405	0.353	0.447	0.388	12.7
Diethylphthalate	1.442	1.510	1.598	1.497	1.216	1.453	9.9
4-Chlorophenyl-phenylether	0.570	0.567	0.513	0.633	0.533	0.563	8.1
Fluorene	1.020	1.054	1.009	0.814	1.006	0.981	9.7
4-Nitroaniline		0.112	0.118	0.102	0.096	0.107	9.2
4,6-Dinitro-2-Methylphenol		0.135	0.167	0.166	0.186	0.164	12.9
N-Nitrosodiphenylamine (1) *	0.537	0.491	0.460	0.456	0.369	0.463	13.3*
4-Bromophenyl-phenylether	0.246	0.261	0.252	0.273	0.240	0.254	5.1
Hexachlorobenzene	0.414	0.458	0.435	0.317	0.339	0.393	15.6
Pentachlorophenol *		0.221	0.245	0.216	0.199	0.220	8.6*
Phenanthrene	0.923	1.174	1.173	0.924	0.837	1.006	15.6
Anthracene	0.822	0.874	1.056	0.772	0.753	0.855	14.2
Di-n-Butylphthalate	1.937	2.218	2.339	1.956	1.568	2.004	14.9
Fluoranthene *	0.826	0.867	0.888	0.817	0.965	0.873	6.8*
Pyrene	1.491	1.733	1.745	1.672	1.236	1.575	13.7
Butylbenzylphthalate	0.966	1.239	1.167	1.142	1.146	1.132	8.9
3,3'-Dichlorobenzidine	0.077	0.091	0.095	0.075	0.069	0.081	13.7
Benzo(a)Anthracene	0.977	1.090	1.165	1.163	0.993	1.078	8.3
Chrysene	0.977	1.140	1.193	0.936	0.995	1.048	10.7
bis(2-Ethylhexyl)Phthalate	1.340	1.778	1.765	1.574	1.509	1.593	11.5
Di-n-Octyl Phthalate *	2.594	2.846	2.447	2.667	1.998	2.510	12.8*
Benzo(b)Fluoranthene	1.123	1.418	1.491	1.275	1.133	1.288	12.8
Benzo(k)Fluoranthene	1.162	1.114	1.044	0.903	0.754	0.995	16.7
Benzo(a)Pyrene *	0.992	1.155	1.163	1.013	0.898	1.044	10.9*
Indeno(1,2,3-cd)Pyrene	0.871	0.919	1.010	1.154	0.827	0.956	13.6
Dibenz(a,h)Anthracene	0.863	0.910	0.884	0.886	0.746	0.858	7.5
Benzo(g,h,i)Perylene	0.905	0.939	1.029	0.950	0.800	0.925	9.0
Nitrobenzene-d5	0.318	0.360	0.380	0.362	0.353	0.355	6.4
2-Fluorobiphenyl	1.217	1.410	1.451	1.128	1.288	1.299	10.3
Terphenyl-d14	0.921	1.028	0.965	0.887	0.716	0.903	13.0
Phenol-d5	1.438	1.438	1.388	1.248	1.212	1.345	8.0
2-Fluorophenol	0.802	0.833	0.887	0.852	0.833	0.841	3.7
2,4,6-Tribromophenol	0.257	0.282	0.277	0.314	0.288	0.284	7.3

(1) Cannot be separated from Diphenylamine

TOTAL ION CHROMATOGRAM



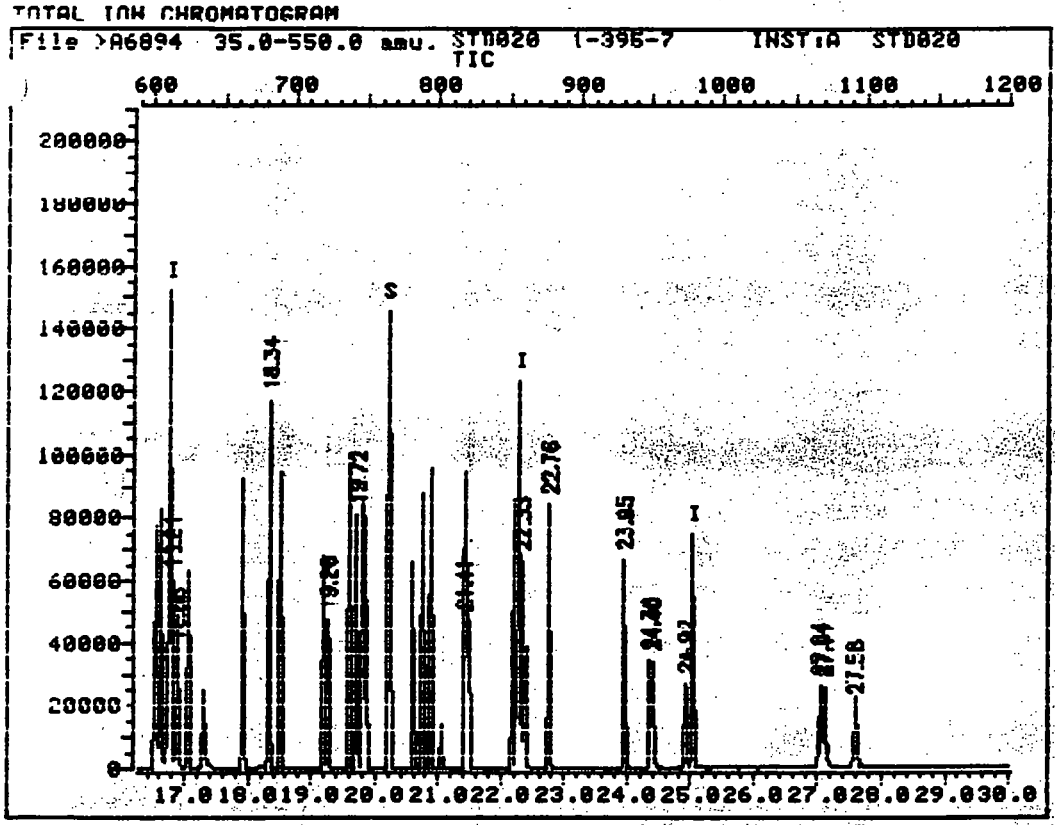
Data File: >A6894::D9 Quant Output File: ^A6894::L1
Name: STD020 1-395-7
Misc: INST:A STD020 BTL#10

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: MANAGER
Quant Time: 910814 16:13
Injected at: 910814 15:41

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A6894::D9 Quant Output File: ^A6894::L1
Name: STD020 1-395-7
Misc: INST:A STD020 BTL#10

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: MANAGER
Quant Time: 910814 16:13
Injected at: 910814 15:41

TIC page 2 of 2

QUANT REPORT

erator ID: MANAGER Quant Rev: 6 Quant Time: 910814 16:13
Output File: ^A6894::L1 Injected at: 910814 15:41
Data File: >A6894::09 Dilution Factor: 1.00000
Name: STD020 1-395-7
Misc: INST:A STD020 BTL#10

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*C130	1,4-DICHLOROBENZENE-D4	7.12	152.0	27710	40.00	NG/UL	96
2)	C315	PHENOL	6.72	94.0	19607	23.56	NG/UL	86
3)	C325	BIS(2-CHLOROETHYL)ETHER	6.76	93.0	14468	20.85	NG/UL	90
4)	C330	2-CHLOROPHENOL	6.74	128.0	16600	21.02	NG/UL	87
5)	C335	1,3-DICHLOROBENZENE	7.03	146.0	20241	21.33	NG/UL	98
6)	C340	1,4-DICHLOROBENZENE	7.57	146.0	19615	19.64	NG/UL	95
7)	C345	BENZYL ALCOHOL	7.64	108.0	10616	20.11	NG/UL	79
8)	C350	1,2-DICHLOROBENZENE	7.57	146.0	19615	19.64	NG/UL	99
10)	C360	BIS(2-CHLOROISOPROPYL)ETH	8.05	45.0	34629	22.08	NG/UL	100
11)	C365	4-METHYLPHENOL	8.43	108.0	16213	19.48	NG/UL	99
12)	C370	N-NITROSO-DI-N-PROPYLAMIN	8.34	70.0	14511	20.02	NG/UL	70
13)	C375	HEXACHLOROETHANE	8.27	117.0	10050M	21.91	NG/UL	
14)	CS50	2-FLUOROPHENOL	3.90	112.0	11112	20.08	NG/UL	100
15)	CS45	PHENOL-D5	6.69	99.0	19923	21.38	NG/UL	79
16)	*C140	NAPHTHALENE-D8	9.98	136.0	123583	40.00	NG/UL	95
17)	C410	NITROBENZENE	8.52	77.0	20393	21.50	NG/UL	84
18)	C415	ISOPHORONE	9.08	82.0	40732	19.48	NG/UL	92
19)	C420	2-NITROPHENOL	9.24	139.0	10375	16.54	NG/UL	55
20)	C425	2,4-DIMETHYLPHENOL	9.53	107.0	16178	16.46	NG/UL	91
22)	C435	BIS(2-CHLOROETHOXY)METHAN	9.71	93.0	27801	22.04	NG/UL	94
23)	C440	2,4-DICHLOROPHENOL	9.80	162.0	17832	18.43	NG/UL	88
24)	C445	1,2,4-TRICHLOROBENZENE	9.92	180.0	22096	18.86	NG/UL	98
25)	C450	NAPHTHALENE	10.01	128.0	53190	17.63	NG/UL	99
26)	C455	4-CHLOROANILINE	10.28	127.0	17529	25.14	NG/UL	98
27)	C460	HEXACHLOROBUTADIENE	10.50	225.0	15414	20.85	NG/UL	98
28)	C465	4-CHLORO-3-METHYLPHENOL	11.45	107.0	20150	17.51	NG/UL	94
29)	C470	2-METHYLNAPHTHALENE	11.51	142.0	39999	21.83	NG/UL	94
30)	CS20	NITROBENZENE-D5	8.47	82.0	19722	17.62	NG/UL	88
31)	*C150	ACENAPHTHENE-D10	13.72	164.0	79041	40.00	NG/UL	95
32)	C510	HEXACHLOROCYCLOPENTADIENE	12.03	237.0	9655	20.32	NG/UL	97
33)	C515	2,4,6-TRICHLOROPHENOL	12.30	196.0	17001	17.43	NG/UL	99
35)	C525	2-CHLORONAPHTHALENE	12.51	162.0	40599	19.54	NG/UL	98
37)	C535	DIMETHYLPHTHALATE	13.41	163.0	48982	20.07	NG/UL	83
38)	C540	ACENAPHTHYLENE	13.38	152.0	69856	19.39	NG/UL	91
39)	C543	2,6-DINITROTOLUENE	13.50	165.0	9742	82.47	NG/UL	71
41)	C550	ACENAPHTHENE	13.79	153.0	46794	20.06	NG/UL	100
44)	C565	DIBENZOFURAN	14.13	168.0	56995	17.57	NG/UL	100
45)	C570	2,4-DINITROTOLUENE	14.29	165.0	12797	15.70	NG/UL	99
4	C580	DIETHYLPHTHALATE	14.92	149.0	56973	22.40	NG/UL	95
47)	C585	4-CHLOROPHENYL-PHENYLETHE	14.92	204.0	22527	17.38	NG/UL	70
48)	C590	FLUORENE	14.83	166.0	40303	19.33	NG/UL	99
50)	CS25	2-FLUOROBIPHENYL	12.39	172.0	48071	20.09	NG/UL	100
51)	CS55	2,4,6-TRIBROMOPHENOL	15.37	330.0	10141M	16.77	NG/UL	

0629

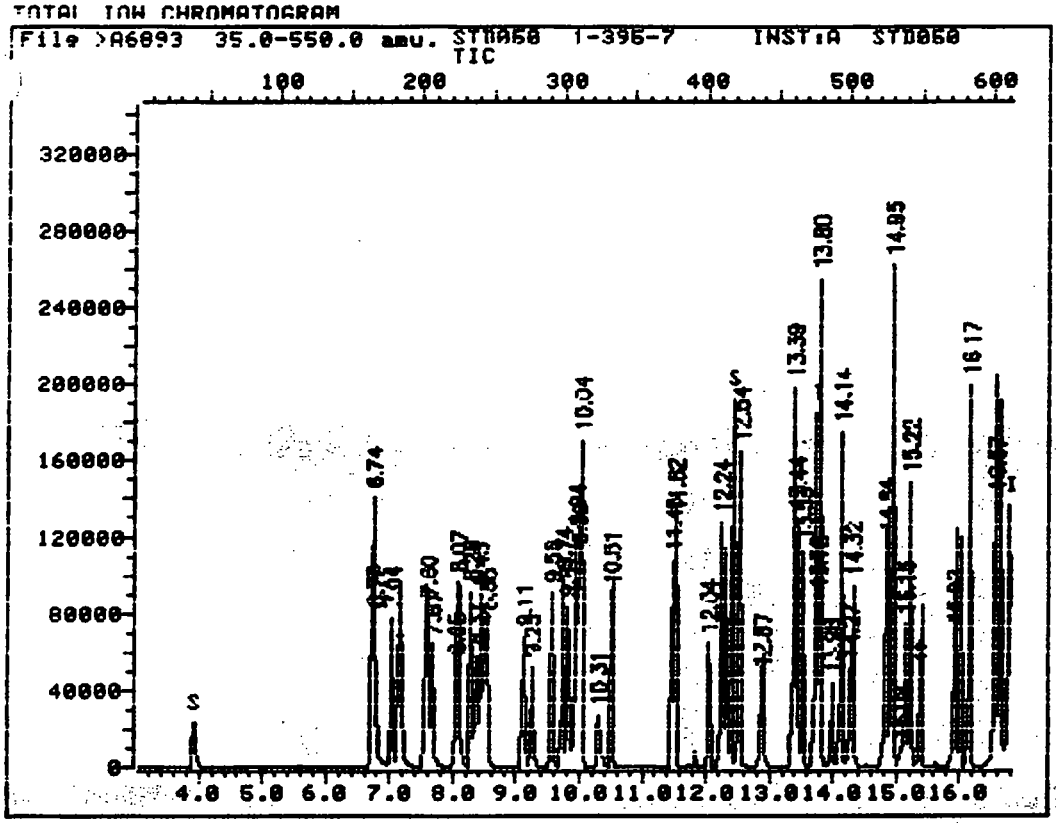
#9 2-methyl phenol 8.07 108 16435 21.19

		Compound	R.T.	Q ion	Area	Conc	Units	q
53)	*C160	PHENANTHRENE-D10	16.26	188.0	118185	40.00	NG/UL	88
54)	C615	N-NITROSODIPHENYLAMINE	15.21	169.0	31701	25.79	NG/UL	90
55)	C625	4-BROMOPHENYLPHENYLETHER	15.93	248.0	14520	21.64	NG/UL	99
56)	C630	HEXACHLOROBENZENE	16.16	284.0	24448	30.24	NG/UL	81
58)	C640	PHENANTHRENE	16.81	178.0	54444	15.30	NG/UL	100
59)	C645	ANTHRACENE	16.88	178.0	48523	15.93	NG/UL	100
60)	C650	DI-N-BUTYLPHTHALATE	18.34	149.0	114303	24.74	NG/UL	87
61)	C655	FLUORANTHENE	19.26	202.0	48719	12.64	NG/UL	100
62)	*C170	CHRYSENE-D12	22.29	240.0	75701	40.00	NG/UL	98
63)	C715	PYRENE	19.72	202.0	56430	24.55	NG/UL	100
64)	C720	BUTYLBENZYLPHTHALATE	21.41	149.0	36578	20.70	NG/UL	87
65)	C725	3,3'-DICHLOROBENZIDINE	22.33	252.0	2917	10.23	NG/UL	99
66)	C730	BENZO(A)ANTHRACENE	22.33	228.0	36982	17.93	NG/UL	97
67)	C740	CHRYSENE	22.33	228.0	36982	17.93	NG/UL	96
68)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	22.26	149.0	50704	22.43	NG/UL	71
69)	CS30	TERPHENYL-D14	20.21	244.0	34859	22.88	NG/UL	83
70)	*C175	PERYLENE-D12	25.03	264.0	54437	40.00	NG/UL	97
71)	C760	DI-N-OCTYLPHTHALATE	23.95	149.0	70567	24.10	NG/UL	100
72)	C765	BENZO(B)FLUORANTHENE	24.36	252.0	30550	13.69	NG/UL	87
73)	C770	BENZO(K)FLUORANTHENE	24.40	252.0	31610M	30.88	NG/UL	
74)	C775	BENZO(A)PYRENE	24.92	252.0	26995	21.40	NG/UL	95
75)	C780	INDENO(1,2,3-CD)PYRENE	27.04	276.0	23684	24.90	NG/UL	98
76)	C785	DIBENZ(A,H)ANTHRACENE	27.11	278.0	23469	20.50	NG/UL	96
77)	C790	BENZO(G,H,I)PERYLENE	27.58	276.0	24615	25.88	NG/UL	97

* Compound is ISTD

AUG94
SSTD30
8-14-91
15:41

TOTAL ION CHROMATOGRAM



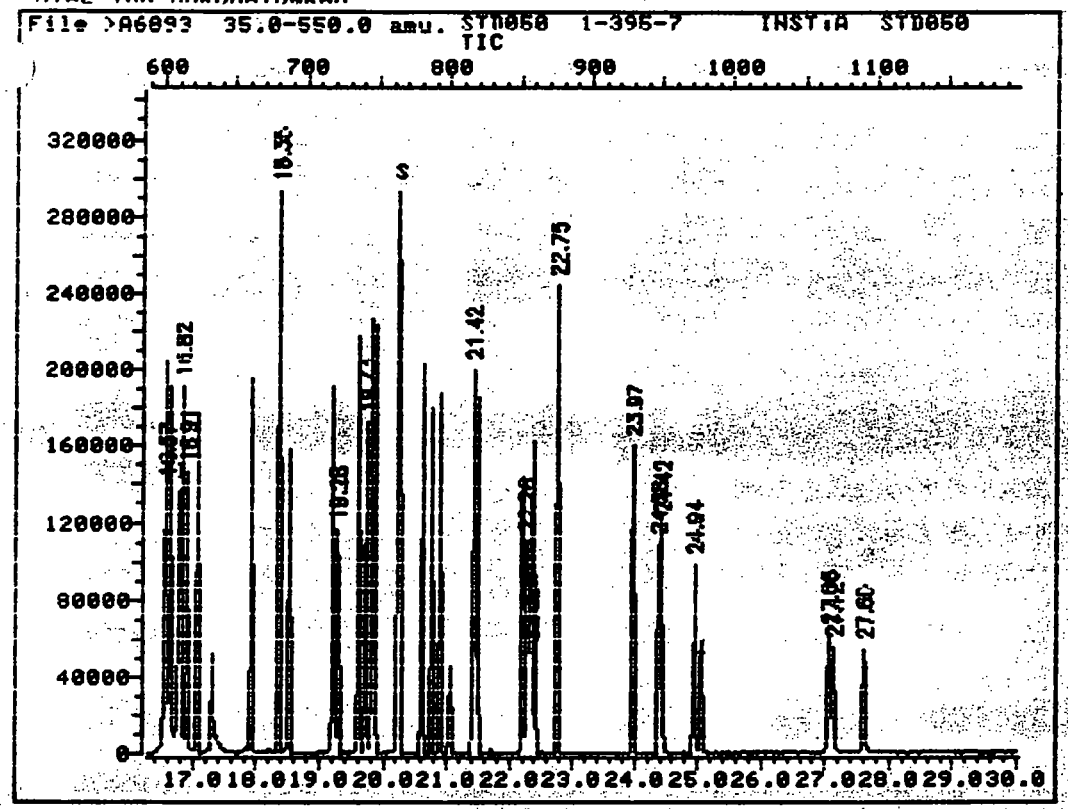
Data File: >A6893::D9 Quant Output File: ^A6893::L1
Name: STD050 1-395-7
Misc: INST:A STD050 BTL# 9

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: MANAGER
Quant Time: 910814 15:35
Injected at: 910814 15:02

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A6893::D9 Quant Output File: ^A6893::L1
Name: STD050 1-395-7
Misc: INST:A STD050 BTL# 9

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: MANAGER
Quant Time: 910814 15:35
Injected at: 910814 15:02

TIC page 2 of 2

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 910814 15:35
Output File: ^A6893::L1 Injected at: 910814 15:02
Data File: >A6893::D9 Dilution Factor: 1.00000
Name: STD050 1-395-7
c: INST:A STD050 BTL# 9

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

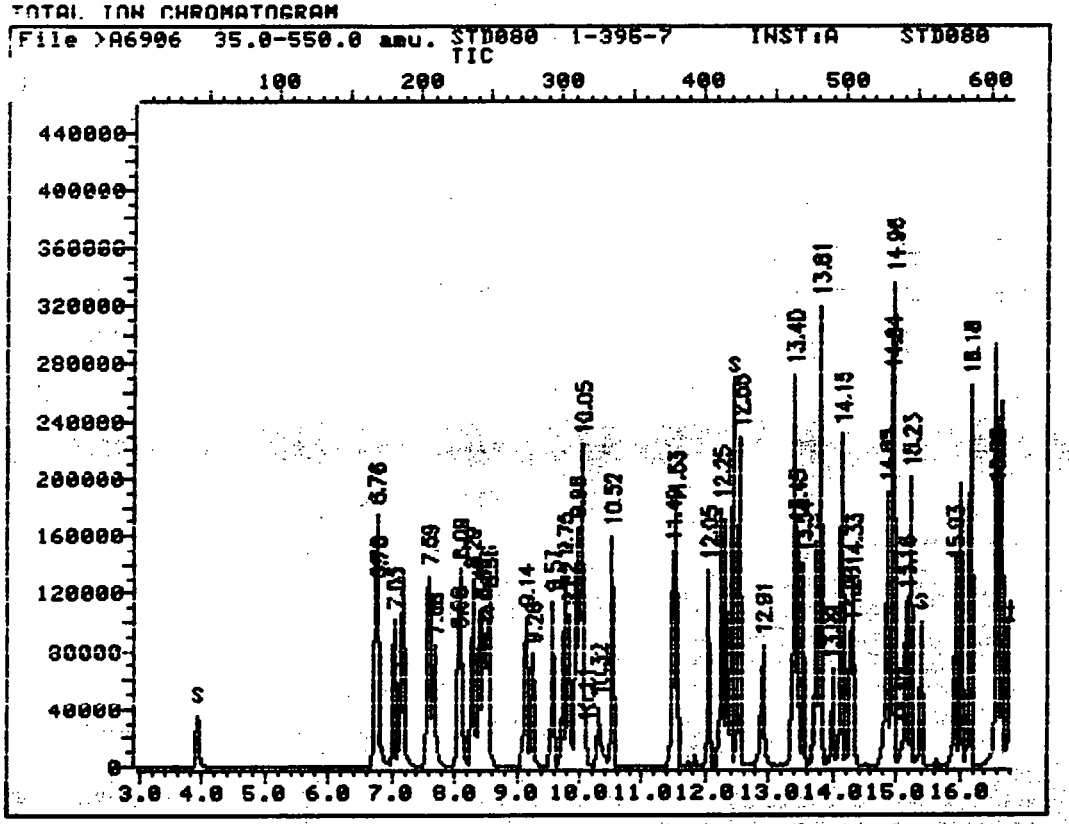
	Compound		R.T.	Q ion	Area	Conc	Units	q
1)	*CI30	1,4-DICHLOROBENZENE-D4	7.13	152.0	26644	40.00	NG/UL	95
2)	C315	PHENOL	6.74	94.0	43444	54.29	NG/UL	77
3)	C325	BIS(2-CHLOROETHYL)ETHER	6.77	93.0	33482	50.19	NG/UL	87
4)	C330	2-CHLOROPHENOL	6.74	128.0	39571	52.11	NG/UL	87
5)	C335	1,3-DICHLOROBENZENE	7.04	146.0	46430	50.89	NG/UL	99
6)	C340	1,4-DICHLOROBENZENE	7.17	146.0	51434M	53.57	NG/UL	91
7)	C345	BENZYL ALCOHOL	7.67	108.0	26823	52.85	NG/UL	77
8)	C350	1,2-DICHLOROBENZENE	7.60	146.0	44846	46.71	NG/UL	94
9)	C355	2-METHYLPHENOL	8.07	108.0	37688	50.54	NG/UL	93
10)	C360	BIS(2-CHLOROISOPROPYL)ETH	8.05	45.0	83059	55.08	NG/UL	100
11)	C365	4-METHYLPHENOL	8.43	108.0	40845	51.05	NG/UL	97
12)	C370	N-NITROSO-DI-N-PROPYLAMIN	8.37	70.0	37726	54.12	NG/UL	73
13)	C375	HEXACHLOROETHANE	8.28	117.0	24936M	56.53	NG/UL	
14)	CS50	2-FLUOROPHENOL	3.91	112.0	27696	52.05	NG/UL	100
15)	CS45	PHENOL-D5	6.72	99.0	47814	53.37	NG/UL	78
16)	*CI40	NAPHTHALENE-D8	9.99	136.0	112611	40.00	NG/UL	99
17)	C410	NITROBENZENE	8.55	77.0	54404	62.95	NG/UL	72
18)	C415	ISOPHORONE	9.11	82.0	102913	54.01	NG/UL	91
19)	C420	2-NITROPHENOL	9.25	139.0	26274	45.98	NG/UL	69
20)	C425	2,4-DIMETHYLPHENOL	9.56	107.0	43844	48.94	NG/UL	94
21)	C430	BENZOIC ACID	9.99	122.0	25587^	34.85	NG/UL	93
22)	C435	BIS(2-CHLOROETHOXY)METHAN	9.74	93.0	71781	62.44	NG/UL	94
23)	C440	2,4-DICHLOROPHENOL	9.81	162.0	43870	49.75	NG/UL	96
24)	C445	1,2,4-TRICHLOROBENZENE	9.94	180.0	52403	49.08	NG/UL	93
25)	C450	NAPHTHALENE	10.04	128.0	133111	48.42	NG/UL	99
26)	C455	4-CHLOROANILINE	10.31	127.0	31215	49.12	NG/UL	99
27)	C460	HEXACHLOROBUTADIENE	10.51	225.0	35182	52.23	NG/UL	97
28)	C465	4-CHLORO-3-METHYLPHENOL	11.48	107.0	49081	46.81	NG/UL	86
29)	C470	2-METHYLNAPHTHALENE	11.52	142.0	68477	41.02	NG/UL	90
30)	CS20	NITROBENZENE-D5	8.50	82.0	50837	49.84	NG/UL	78
31)	*CI50	ACENAPHTHENE-D10	13.73	164.0	72067	40.00	NG/UL	85
32)	C510	HEXACHLOROCYCLOPENTADIENE	12.04	237.0	26406	60.95	NG/UL	97
33)	C515	2,4,6-TRICHLOROPHENOL	12.24	196.0	42393	47.66	NG/UL	99
34)	C520	2,4,5-TRICHLOROPHENOL	12.24	196.0	42393	47.66	NG/UL	99
35)	C525	2-CHLORONAPHTHALENE	12.54	162.0	109873	58.01	NG/UL	93
36)	C530	2-NITROANILINE	12.87	138.0	34664	43.98	NG/UL	69
37)	C535	DIMETHYLPHTHALATE	13.44	163.0	111529	50.12	NG/UL	84
38)	C540	ACENAPHTHYLENE	13.39	152.0	168711	51.37	NG/UL	91
39)	C543	2,6-DINITROTOLUENE	13.53	165.0	26858	249.35	NG/UL	88
40)	C545	3-NITROANILINE	13.78	138.0	12398	34.85	NG/UL	94
41)	C550	ACENAPHTHENE	13.80	153.0	121998	57.35	NG/UL	100
42)	C555	2,4-DINITROPHENOL	13.98	184.0	13075	44.28	NG/UL	99
43)	C560	4-NITROPHENOL	14.27	109.0	10134	35.00	NG/UL	95

		Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C565	DIBENZOFURAN	14.14	168.0	155353	52.53	NG/UL	100
45)	C570	2,4-DINITROTOLUENE	14.32	165.0	37095	49.90	NG/UL	83
46)	C580	DIETHYLPHTHALATE	14.95	149.0	136071	58.68	NG/UL	91
47)	C585	4-CHLOROPHENYL-PHENYLETHE	14.95	204.0	51118	43.25	NG/UL	85
)	C590	FLUORENE	14.84	166.0	95035	49.99	NG/UL	98
)	C595	4-NITROANILINE	15.08	138.0	10110	28.95	NG/UL	100
50)	CS25	2-FLUOROBIPHENYL	12.42	172.0	127034	58.24	NG/UL	100
51)	CS55	2,4,6-TRIBROMOPHENOL	15.38	330.0	25441M	46.13	NG/UL	91
52)	*CI60	PHENANTHRENE-D10	16.78	188.0	105568	40.00	NG/UL	88
53)	C610	4,6-DINITRO-2-METHYLPHENO	15.15	198.0	17838	48.93	NG/UL	90
54)	C615	N-NITROSODIPHENYLAMINE	15.22	169.0	65004	59.21	NG/UL	92
55)	C625	4-BROMOPHENYLPHENYLETHER	15.92	248.0	34622	57.77	NG/UL	96
56)	C630	HEXACHLOROBENZENE	16.17	284.0	60742	84.10	NG/UL	65
57)	C635	PENTACHLOROPHENOL	16.57	266.0	29304	57.23	NG/UL	98
58)	C640	PHENANTHRENE	16.82	178.0	155594	48.96	NG/UL	100
59)	C645	ANTHRACENE	16.91	178.0	115767	42.55	NG/UL	100
60)	C650	DI-N-BUTYLPHTHALATE	18.35	149.0	293933	71.23	NG/UL	86
61)	C655	FLUORANTHENE	19.28	202.0	114878	33.36	NG/UL	100
62)	*CI70	CHRYSENE-D12	22.28	240.0	59140	40.00	NG/UL	92
63)	C715	PYRENE	19.73	202.0	128031	71.29	NG/UL	100
64)	C720	BUTYLBENZYLPHTHALATE	21.42	149.0	91501	66.29	NG/UL	91
65)	C725	3,3'-DICHLOROBENZIDINE	22.32	252.0	6751	30.31	NG/UL	99
66)	C730	BENZO(A)ANTHRACENE	22.26	228.0	80547	49.98	NG/UL	96
67)	C740	CHRYSENE	22.35	228.0	84182M	52.23	NG/UL	93
68)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	22.75	149.0	131313	74.36	NG/UL	75
69)	CS30	TERPHENYL-D14	20.23	244.0	75955	63.82	NG/UL	79
70)	*CI75	PERYLENE-D12	25.03	264.0	48432	40.00	NG/UL	96
71)	C760	DI-N-OCTYLPHTHALATE	23.97	149.0	172214	66.12	NG/UL	100
72)	C765	BENZO(B)FLUORANTHENE	24.38	252.0	85763	43.21	NG/UL	95
73)	C770	BENZO(K)FLUORANTHENE	24.42	252.0	67382	74.00	NG/UL	92
74)	C775	BENZO(A)PYRENE	24.94	252.0	69874M	62.25	NG/UL	94
75)	C780	INDENO(1,2,3-CD)PYRENE	27.06	276.0	55603	65.71	NG/UL	98
76)	C785	DIBENZ(A,H)ANTHRACENE	27.12	278.0	55085	54.07	NG/UL	90
77)	C790	BENZO(G,H,I)PERYLENE	27.60	276.0	56821	67.14	NG/UL	99

* Compound is ISTD

A6893
SSIEO
8-14-91
15:02
Inst. A

TOTAL ION CHROMATOGRAM



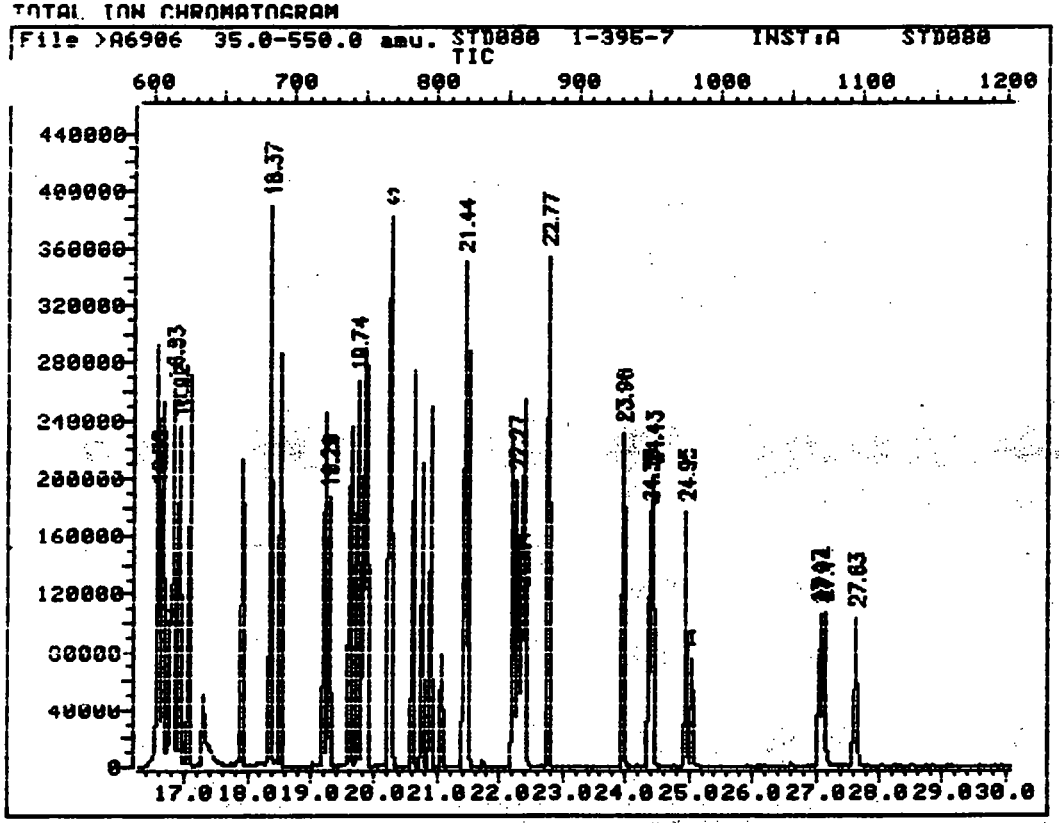
Data File: >A6906::D9 Quant Output File: ^A6906::L1
Name: STD080 1-395-7
Misc: INST:A STD080 BTL# 8

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: AATS
Quant Time: 910814 17:09
Injected at: 910814 16:37

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A6906::D9 Quant Output File: ^A6906::L1
Name: STD080 1-395-7
Misc: INST:A STD080 BTL# 8

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: AATS
Quant Time: 910814 17:09
Injected at: 910814 16:37

TIC page 2 of 2

QUANT REPORT

Operator ID: AATS Quant Rev: 6 Quant Time: 910814 17:09
Output File: ^A6906::L1 Injected at: 910814 16:37
Data File: >A6906::D9 Dilution Factor: 1.00000
Name: STD080 1-395-7
Misc: INST:A STD080 BTL# 8

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

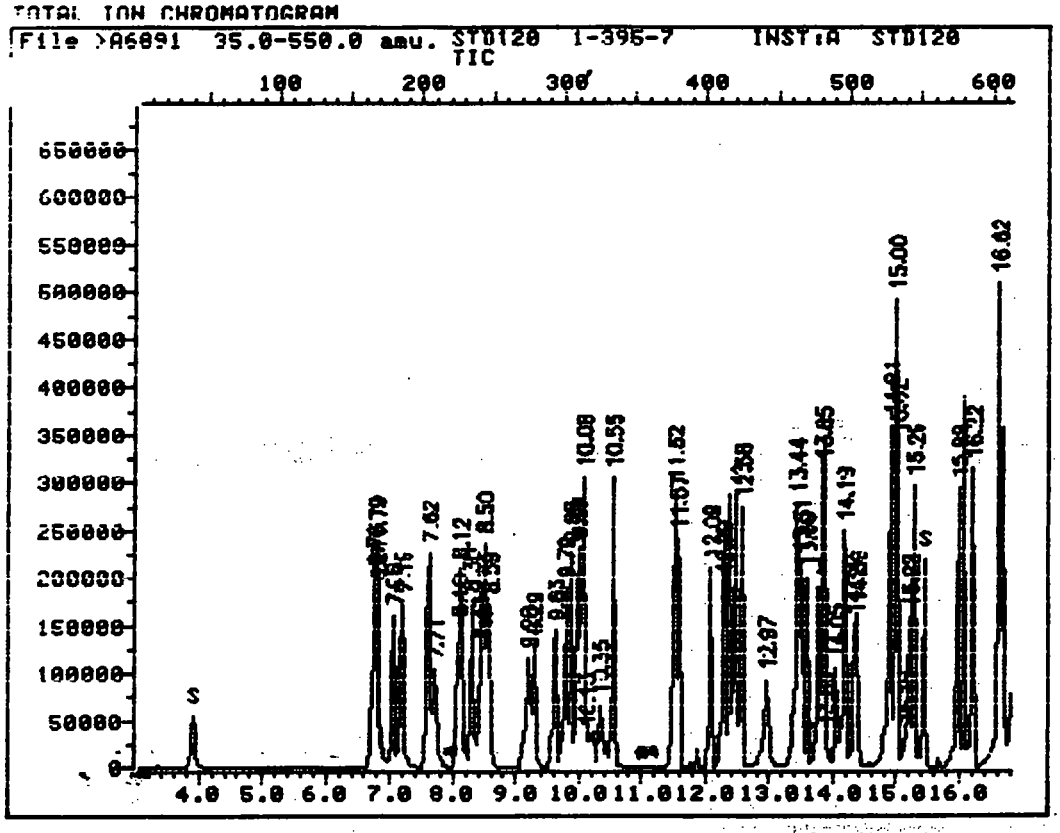
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.14	152.0	23223	40.00	NG/UL	92
2)	C315 PHENOL	6.76	94.0	57385	82.27	NG/UL	73
3)	C325 BIS(2-CHLOROETHYL)ETHER	6.78	93.0	51284	88.21	NG/UL	84
4)	C330 2-CHLOROPHENOL	6.76	128.0	57085	86.24	NG/UL	84
5)	C335 1,3-DICHLOROBENZENE	7.05	146.0	65795	82.74	NG/UL	91
6)	C340 1,4-DICHLOROBENZENE	7.18	146.0	75567M	90.30	NG/UL	97
7)	C345 BENZYL ALCOHOL	7.68	108.0	40513	91.58	NG/UL	77
8)	C350 1,2-DICHLOROBENZENE	7.59	146.0	64523	77.10	NG/UL	99
9)	C355 2-METHYLPHENOL	8.09	108.0	54634	84.06	NG/UL	96
10)	C360 BIS(2-CHLOROISOPROPYL)ETH	8.06	45.0	122867	93.49	NG/UL	100
11)	C365 4-METHYLPHENOL	8.45	108.0	54978	78.83	NG/UL	97
12)	C370 N-NITROSO-DI-N-PROPYLAMIN	8.40	70.0	57965	95.41	NG/UL	67
13)	C375 HEXACHLOROETHANE	8.29	117.0	35445M	92.20	NG/UL	
14)	CS50 2-FLUOROPHENOL	3.92	112.0	41148	88.73	NG/UL	100
15)	CS45 PHENOL-D5	6.73	99.0	64398	82.46	NG/UL	77
16)	*CI40 NAPHTHALENE-D8	10.00	136.0	98483	40.00	NG/UL	96
17)	C410 NITROBENZENE	8.56	77.0	74728	98.86	NG/UL	83
18)	C415 ISOPHORONE	9.14	82.0	153614	92.19	NG/UL	87
19)	C420 2-NITROPHENOL	9.26	139.0	38936	77.91	NG/UL	71
20)	C425 2,4-DIMETHYLPHENOL	9.57	107.0	61900	79.01	NG/UL	92
21)	C430 BENZOIC ACID	10.11	122.0	20528	31.97	NG/UL	79
22)	C435 BIS(2-CHLOROETHOXY)METHAN	9.75	93.0	105906	105.34	NG/UL	94
23)	C440 2,4-DICHLOROPHENOL	9.82	162.0	60415	78.34	NG/UL	99
24)	C445 1,2,4-TRICHLOROBENZENE	9.96	180.0	78465	84.03	NG/UL	96
25)	C450 NAPHTHALENE	10.05	128.0	190285	79.15	NG/UL	99
26)	C455 4-CHLOROANILINE	10.32	127.0	55144	99.23	NG/UL	96
27)	C460 HEXACHLOROBUTADIENE	10.52	225.0	49983	84.85	NG/UL	97
28)	C465 4-CHLORO-3-METHYLPHENOL	11.49	107.0	69834	76.15	NG/UL	83
29)	C470 2-METHYLNAPHTHALENE	11.53	142.0	85953	58.88	NG/UL	92
30)	CS20 NITROBENZENE-D5	8.51	82.0	74875	83.94	NG/UL	82
31)	*CI50 ACENAPHTHENE-D10	13.74	164.0	64167	40.00	NG/UL	91
32)	C510 HEXACHLOROCYCLOPENTADIENE	12.05	237.0	46766	121.23	NG/UL	98
33)	C515 2,4,6-TRICHLOROPHENOL	12.25	196.0	64307	81.20	NG/UL	92
34)	C520 2,4,5-TRICHLOROPHENOL	12.25	196.0	64307	81.20	NG/UL	93
35)	C525 2-CHLORONAPHTHALENE	12.55	162.0	164783	97.71	NG/UL	93
36)	C530 2-NITROANILINE	12.91	138.0	54018	76.98	NG/UL	35
37)	C535 DIMETHYLPHTHALATE	13.45	163.0	161272	81.39	NG/UL	84
38)	C540 ACENAPHTHYLENE	13.40	152.0	254083	86.89	NG/UL	91
39)	C543 2,6-DINITROTOLUENE	13.54	165.0	36949	385.27	NG/UL	95
40)	C545 3-NITROANILINE	13.81	138.0	13948	44.04	NG/UL	94
41)	C550 ACENAPHTHENE	13.81	153.0	176502	93.19	NG/UL	100
42)	C555 2,4-DINITROPHENOL	13.99	184.0	21080	80.18	NG/UL	95
43)	C560 4-NITROPHENOL	14.28	109.0	18899	73.30	NG/UL	94

		Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C565	DIBENZOFURAN	14.15	168.0	222012	84.32	NG/UL	100
45)	C570	2,4-DINITROTOLUENE	14.33	165.0	52029	78.61	NG/UL	79
46)	C580	DIETHYLPHTHALATE	14.96	149.0	205219	99.40	NG/UL	91
47)	C585	4-CHLOROPHENYL-PHENYLETHE	14.94	204.0	65836	62.56	NG/UL	77
	C590	FLUORENE	14.85	166.0	129608	76.56	NG/UL	99
49)	C595	4-NITROANILINE	15.12	138.0	15175	48.81	NG/UL	100
50)	CS25	2-FLUOROBIPHENYL	12.44	172.0	186274	95.92	NG/UL	100
51)	CS55	2,4,6-TRIBROMOPHENOL	15.39	330.0	35566M	72.43	NG/UL	
52)	*CI60	PHENANTHRENE-D10	16.76	188.0	95377	40.00	NG/UL	95
53)	C610	4,6-DINITRO-2-METHYLPHENO	15.16	198.0	31923	96.92	NG/UL	81
54)	C615	N-NITROSODIPHENYLAMINE	15.23	169.0	87783	88.50	NG/UL	92
55)	C625	4-BROMOPHENYLPHENYLETHER	15.93	248.0	48119	88.87	NG/UL	99
56)	C630	HEXACHLOROBENZENE	16.18	284.0	82949	127.12	NG/UL	71
57)	C635	PENTACHLOROPHENOL	16.58	266.0	46722	101.00	NG/UL	96
58)	C640	PHENANTHRENE	16.83	178.0	223796	77.95	NG/UL	100
59)	C645	ANTHRACENE	16.92	178.0	201502	81.98	NG/UL	100
60)	C650	DI-N-BUTYLPHTHALATE	18.37	149.0	446339	119.71	NG/UL	86
61)	C655	FLUORANTHENE	19.29	202.0	169354	54.43	NG/UL	100
62)	*CI70	CHRYSENE-D12	22.29	240.0	60399	40.00	NG/UL	95
63)	C715	PYRENE	19.74	202.0	210768	114.91	NG/UL	100
64)	C720	BUTYLBENZYLPHTHALATE	21.44	149.0	141003	100.02	NG/UL	94
65)	C725	3,3'-DICHLOROBENZIDINE	22.34	252.0	11526	50.67	NG/UL	95
66)	C730	BENZO(A)ANTHRACENE	22.27	228.0	140781	85.53	NG/UL	94
67)	C740	CHRYSENE	22.36	228.0	144148M	87.58	NG/UL	92
68)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	22.77	149.0	213253	118.25	NG/UL	73
69)	CS30	TERPHENYL-D14	20.24	244.0	116607	95.93	NG/UL	87
70)	*CI75	PERYLENE-D12	25.04	264.0	54054	40.00	NG/UL	98
71)	C760	DI-N-OCTYLPHTHALATE	23.96	149.0	264776	91.08	NG/UL	100
72)	C765	BENZO(B)FLUORANTHENE	24.39	252.0	161355	72.84	NG/UL	96
73)	C770	BENZO(K)FLUORANTHENE	24.43	252.0	112990	111.18	NG/UL	92
74)	C775	BENZO(A)PYRENE	24.95	252.0	125799	100.42	NG/UL	94
75)	C780	INDENO(1,2,3-CD)PYRENE	27.07	276.0	109313	115.75	NG/UL	99
76)	C785	DIBENZ(A,H)ANTHRACENE	27.14	278.0	95691	84.16	NG/UL	89
77)	C790	BENZO(G,H,I)PERYLENE	27.63	276.0	111311	117.84	NG/UL	92

* Compound is ISTD

AGADE
STD80
8-14-91
16:37
INST-A

TOTAL ION CHROMATOGRAM



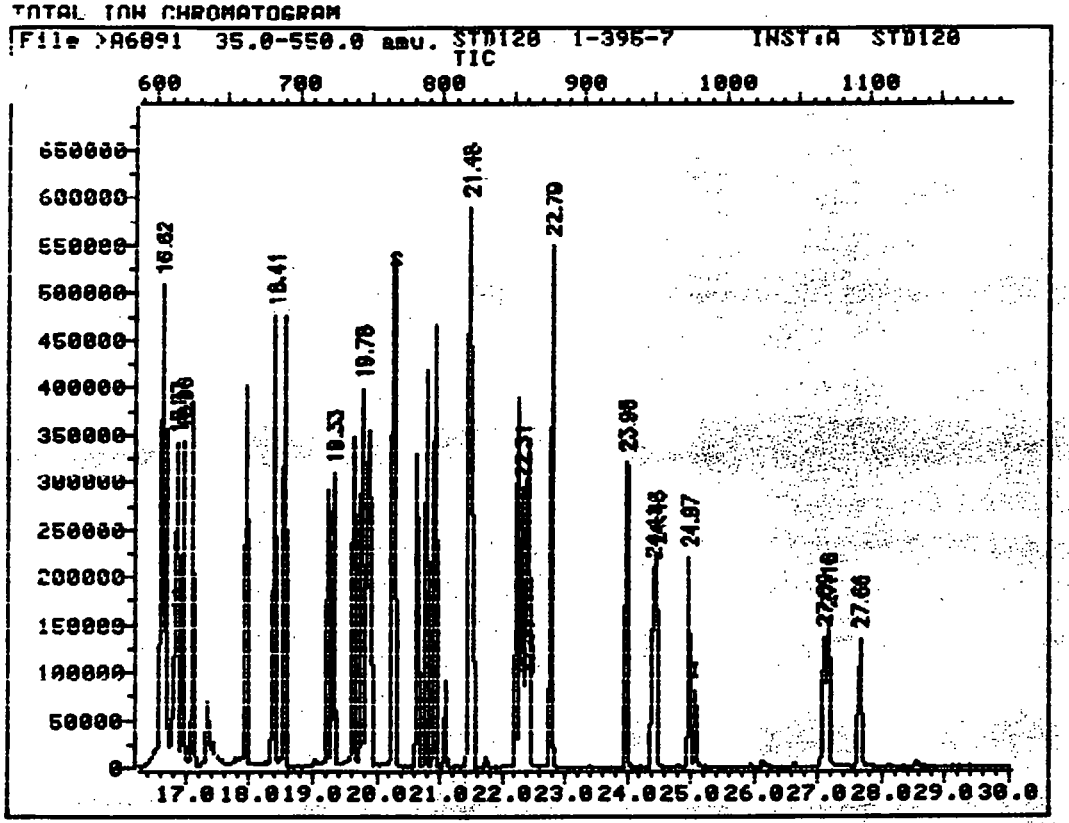
Data File: >A6891::D9 Quant Output File: ^A6891::L1
Name: STD120 1-395-7
Misc: INST:A STD120 BTL# 7

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: MANAGER
Quant Time: 910814 14:18
Injected at: 910814 13:45

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A6891::D9 Quant Output File: ^A6891::L1
Name: STD120 1-395-7
Misc: INST:A STD120 BTL# 7

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: MANAGER
Quant Time: 910814 14:18
Injected at: 910814 13:45

TIC page 2 of 2

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 910814 14:18
Output File: ^A6891::L1 Injected at: 910814 13:45
Data File: >A6891::D9 Dilution Factor: 1.00000
Name: STD120 1-395-7
Misc: INST:A STD120 BTL# 7

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

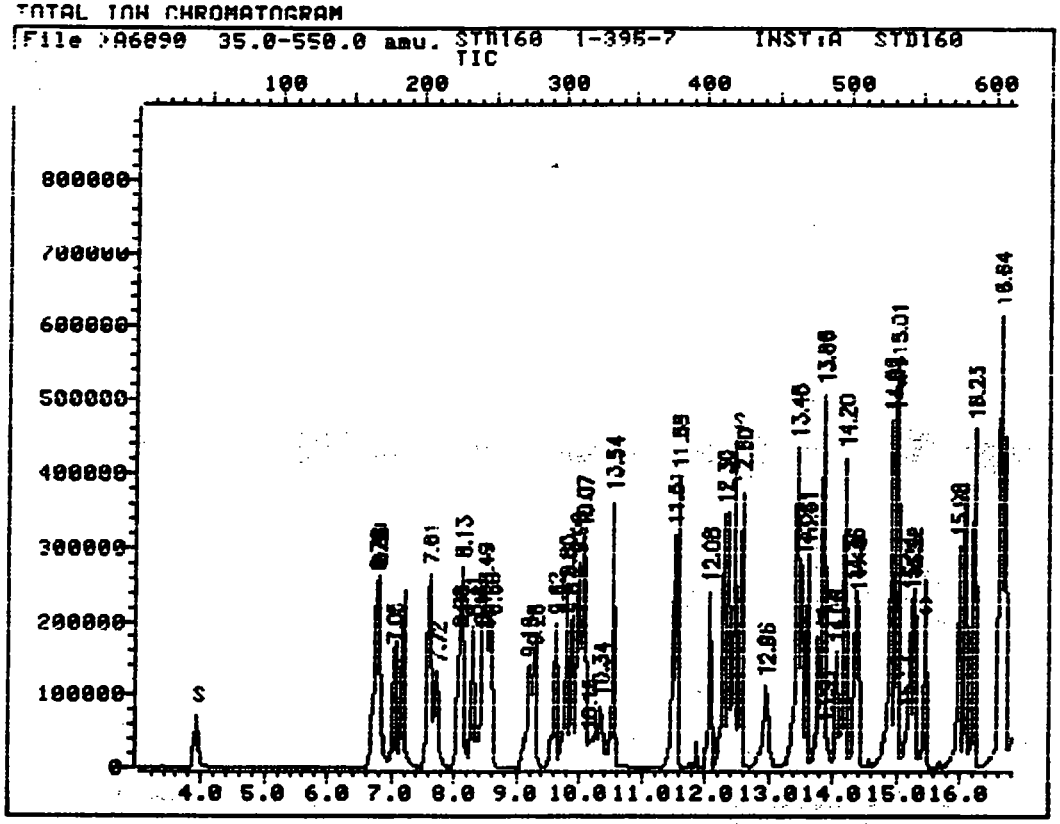
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.15	152.0	28430	40.00	NG/UL	88
2)	C315 PHENOL	6.81	94.0	109005	127.66	NG/UL	72
3)	C325 BIS(2-CHLOROETHYL)ETHER	6.79	93.0	84650	118.93	NG/UL	83
4)	C330 2-CHLOROPHENOL	6.76	128.0	96995	119.70	NG/UL	88
5)	C335 1,3-DICHLOROBENZENE	7.06	146.0	113587	116.68	NG/UL	98
6)	C340 1,4-DICHLOROBENZENE	7.19	146.0	125944M	122.93	NG/UL	95
7)	C345 BENZYL ALCOHOL	7.71	108.0	69408	128.17	NG/UL	74
8)	C350 1,2-DICHLOROBENZENE	7.62	146.0	105825	103.30	NG/UL	98
9)	C355 2-METHYLPHENOL	8.12	108.0	96559	121.36	NG/UL	94
10)	C360 BIS(2-CHLOROISOPROPYL)ETH	8.10	45.0	212568	132.12	NG/UL	100
11)	C365 4-METHYLPHENOL	8.50	108.0	105728	123.83	NG/UL	97
12)	C370 N-NITROSO-DI-N-PROPYLAMIN	8.43	70.0	79929	107.47	NG/UL	70
13)	C375 HEXACHLOROETHANE	8.30	117.0	62746M	133.32	NG/UL	
14)	CS50 2-FLUOROPHENOL	3.90	112.0	72627	127.92	NG/UL	100
15)	CS45 PHENOL-D5	6.76	99.0	106307	111.20	NG/UL	78
16)	*CI40 NAPHTHALENE-D8	10.04	136.0	117060	40.00	NG/UL	96
17)	C410 NITROBENZENE	8.59	77.0	113189	125.98	NG/UL	82
18)	C415 ISOPHORONE	9.20	82.0	266770	134.69	NG/UL	87
19)	C420 2-NITROPHENOL	9.29	139.0	72004	121.21	NG/UL	67
20)	C425 2,4-DIMETHYLPHENOL	9.63	107.0	114252	122.68	NG/UL	87
21)	C430 BENZOIC ACID	10.13	122.0	36825	48.25	NG/UL	81
22)	C435 BIS(2-CHLOROETHOXY)METHAN	9.79	93.0	111385	93.20	NG/UL	95
23)	C440 2,4-DICHLOROPHENOL	9.88	162.0	121407	132.45	NG/UL	96
24)	C445 1,2,4-TRICHLOROBENZENE	9.99	180.0	133503	120.29	NG/UL	97
25)	C450 NAPHTHALENE	10.08	128.0	310807	108.76	NG/UL	98
26)	C455 4-CHLOROANILINE	10.35	127.0	111951	169.48	NG/UL	96
27)	C460 HEXACHLOROBUTADIENE	10.55	225.0	88468	126.34	NG/UL	97
28)	C465 4-CHLORO-3-METHYLPHENOL	11.52	107.0	125130	114.80	NG/UL	93
29)	C470 2-METHYLNAPHTHALENE	11.57	142.0	152343	87.79	NG/UL	86
30)	CS20 NITROBENZENE-D5	8.55	82.0	127087	119.87	NG/UL	85
31)	*CI50 ACENAPHTHENE-D10	13.78	164.0	75215	40.00	NG/UL	87
32)	C510 HEXACHLOROCYCLOPENTADIENE	12.09	237.0	84476	186.83	NG/UL	97
33)	C515 2,4,6-TRICHLOROPHENOL	12.29	196.0	126977	136.78	NG/UL	97
34)	C520 2,4,5-TRICHLOROPHENOL	12.29	196.0	126977	136.78	NG/UL	96
35)	C525 2-CHLORONAPHTHALENE	12.58	162.0	229721	116.21	NG/UL	96
36)	C530 2-NITROANILINE	12.97	138.0	79540	96.70	NG/UL	42
37)	C535 DIMETHYLPHTHALATE	13.51	163.0	295140	127.07	NG/UL	85
38)	C540 ACENAPHTHYLENE	13.44	152.0	363281	105.98	NG/UL	90
39)	C543 2,6-DINITROTOLUENE	13.60	165.0	55196	491.00	NG/UL	87
40)	C545 3-NITROANILINE	13.89	138.0	19515	52.56	NG/UL	85
41)	C550 ACENAPHTHENE	13.85	153.0	287920	129.69	NG/UL	100
42)	C555 2,4-DINITROPHENOL	14.05	184.0	36736	119.20	NG/UL	98
43)	C560 4-NITROPHENOL	14.34	109.0	29952	99.10	NG/UL	98

		Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C565	DIBENZOFURAN	14.19	168.0	336808	109.12	NG/UL	100
45)	C570	2,4-DINITROTOLUENE	14.39	165.0	79733	102.77	NG/UL	89
46)	C580	DIETHYLPHTHALATE	15.02	149.0	337783	139.58	NG/UL	91
47)	C585	4-CHLOROPHENYL-PHENYLETHE	15.00	204.0	142724	115.70	NG/UL	86
[illegible]	C590	FLUORENE	14.91	166.0	183727	92.59	NG/UL	94
[illegible]	C595	4-NITROANILINE	15.16	138.0	23097	63.38	NG/UL	100
50)	CS25	2-FLUOROBIPHENYL	12.47	172.0	254356	111.74	NG/UL	100
51)	CS55	2,4,6-TRIBROMOPHENOL	15.45	330.0	70734M	122.89	NG/UL	
52)	*CI60	PHENANTHRENE-D10	16.83	188.0	109670	40.00	NG/UL	94
53)	C610	4,6-DINITRO-2-METHYLPHENO	15.22	198.0	54884	144.91	NG/UL	72
54)	C615	N-NITROSODIPHENYLAMINE	15.29	169.0	150376	131.85	NG/UL	92
55)	C625	4-BROMOPHENYLPHENYLETHER	15.99	248.0	90214	144.90	NG/UL	99
56)	C630	HEXACHLOROBENZENE	16.22	284.0	104697	139.54	NG/UL	54
57)	C635	PENTACHLOROPHENOL	16.62	266.0	71212	133.87	NG/UL	97
58)	C640	PHENANTHRENE	16.87	178.0	305043	92.40	NG/UL	100
59)	C645	ANTHRACENE	16.96	178.0	254782	90.15	NG/UL	100
60)	C650	DI-N-BUTYLPHTHALATE	18.41	149.0	645565	150.58	NG/UL	91
61)	C655	FLUORANTHENE	19.33	202.0	269598	75.35	NG/UL	100
62)	*CI70	CHRYSENE-D12	22.34	240.0	70273	40.00	NG/UL	95
63)	C715	PYRENE	19.78	202.0	352550	165.20	NG/UL	100
64)	C720	BUTYLBENZYLPHTHALATE	21.48	149.0	240910	146.88	NG/UL	69
65)	C725	3,3'-DICHLOROBENZIDINE	22.36	252.0	15723	59.41	NG/UL	99
66)	C730	BENZO(A)ANTHRACENE	22.31	228.0	245257	128.07	NG/UL	93
67)	C740	CHRYSENE	22.38	228.0	197448M	103.10	NG/UL	92
68)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	22.79	149.0	331851	158.15	NG/UL	75
69)	CS30	TERPHENYL-D14	20.28	244.0	187035	132.25	NG/UL	94
70)	*CI75	PERYLENE-D12	25.06	264.0	57405	40.00	NG/UL	97
71)	C760	DI-N-OCTYLPHTHALATE	23.98	149.0	459242	148.76	NG/UL	100
72)	C765	BENZO(B)FLUORANTHENE	24.41	252.0	219563M	93.33	NG/UL	
73)	C770	BENZO(K)FLUORANTHENE	24.46	252.0	155494M	144.07	NG/UL	90
74)	C775	BENZO(A)PYRENE	24.97	252.0	174420M	131.10	NG/UL	97
75)	C780	INDENO(1,2,3-CD)PYRENE	27.09	276.0	198626	198.05	NG/UL	97
76)	C785	DIBENZ(A,H)ANTHRACENE	27.16	278.0	152640	126.41	NG/UL	95
77)	C790	BENZO(G,H,I)PERYLENE	27.66	276.0	163540	163.03	NG/UL	97

* Compound is ISTD

AL8891
SSTD120
8-14-91
13:45
Inst. A

TOTAL ION CHROMATOGRAM



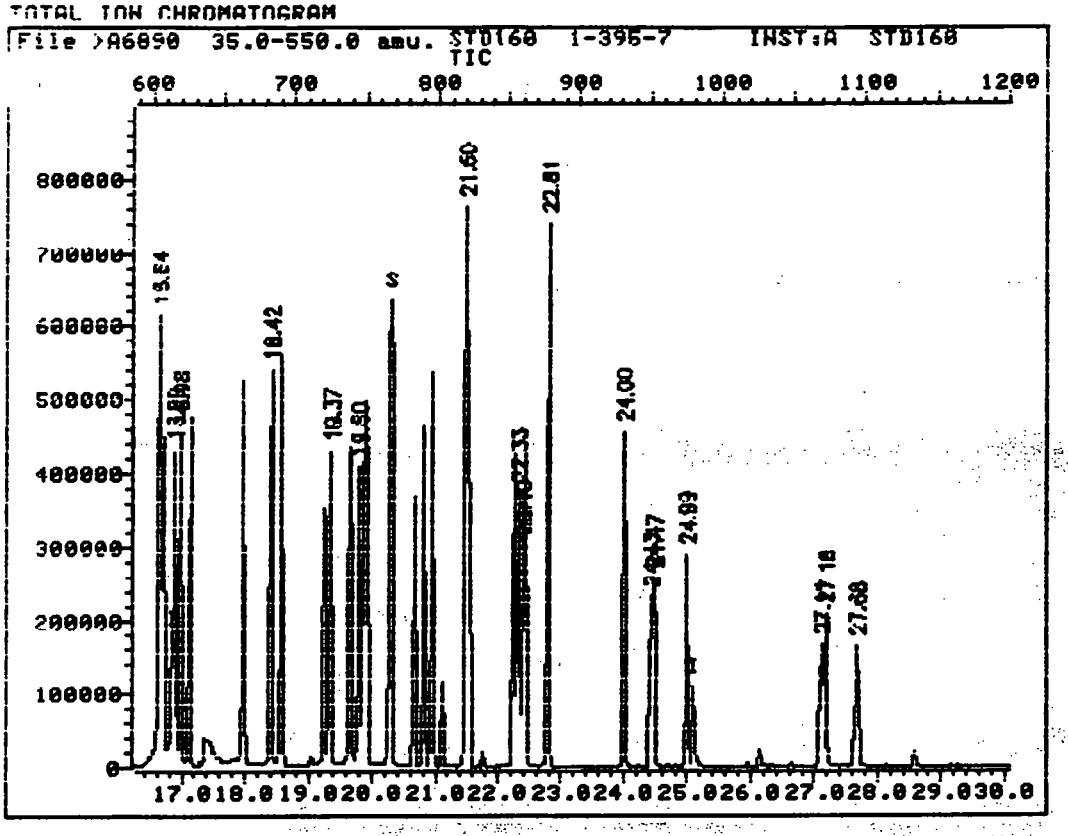
Data File: >A6890::D9 Quant Output File: ^A6890::L1
Name: STD160 1-395-7
Misc: INST:A STD160 BTL# 6

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: MANAGER
Quant Time: 910814 13:40
Injected at: 910814 13:07

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A6890::D9 Quant Output File: ^A6890::L1
Name: STD160 1-395-7
Misc: INST:A STD160 BTL# 6

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: MANAGER
Quant Time: 910814 13:40
Injected at: 910814 13:07

TIC page 2 of 2

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 910814 13:40
Output File: ^A6890::L1 Injected at: 910814 13:07
Data File: >A6890::D9 Dilution Factor: 1.00000
Name: STD160 1-395-7
M >: INST:A STD160 BTL# 6

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.16	152.0	28987	40.00	NG/UL	86
2)	C315 PHENOL	6.80	94.0	151686M	174.23	NG/UL	75
3)	C325 BIS(2-CHLOROETHYL)ETHER	6.80	93.0	108515	149.53	NG/UL	80
4)	C330 2-CHLOROPHENOL	6.78	128.0	126009	152.51	NG/UL	86
5)	C335 1,3-DICHLOROBENZENE	7.05	146.0	151691	152.82	NG/UL	97
6)	C340 1,4-DICHLOROBENZENE	7.21	146.0	175632M	168.14	NG/UL	95
7)	C345 BENZYL ALCOHOL	7.72	108.0	94004	170.25	NG/UL	75
8)	C350 1,2-DICHLOROBENZENE	7.61	146.0	133387	127.70	NG/UL	96
9)	C355 2-METHYLPHENOL	8.13	108.0	126099	155.44	NG/UL	90
10)	C360 BIS(2-CHLOROISOPROPYL)ETH	8.08	45.0	277592	169.22	NG/UL	100
11)	C365 4-METHYLPHENOL	8.49	108.0	120115	137.98	NG/UL	98
12)	C370 N-NITROSO-DI-N-PROPYLAMIN	8.45	70.0	106703	140.71	NG/UL	71
13)	C375 HEXACHLOROETHANE	8.31	117.0	76064	158.51	NG/UL	69
14)	CS50 2-FLUOROPHENOL	3.94	112.0	96596	166.87	NG/UL	100
15)	CS45 PHENOL-D5	6.78	99.0	140627	144.27	NG/UL	73
16)	*CI40 NAPHTHALENE-D8	10.03	136.0	118876	40.00	NG/UL	96
17)	C410 NITROBENZENE	8.60	77.0	153890	168.67	NG/UL	72
18)	C415 ISOPHORONE	9.19	82.0	278002	138.22	NG/UL	90
19)	C420 2-NITROPHENOL	9.28	139.0	101174	167.72	NG/UL	70
20)	C425 2,4-DIMETHYLPHENOL	9.62	107.0	104244	110.23	NG/UL	91
21)	C430 BENZOIC ACID	10.16	122.0	82562	106.53	NG/UL	96
22)	C435 BIS(2-CHLOROETHOXY)METHAN	9.80	93.0	183138	150.90	NG/UL	95
23)	C440 2,4-DICHLOROPHENOL	9.87	162.0	120070	128.99	NG/UL	96
24)	C445 1,2,4-TRICHLOROBENZENE	9.98	180.0	174924	155.20	NG/UL	98
25)	C450 NAPHTHALENE	10.07	128.0	423336	145.88	NG/UL	99
26)	C455 4-CHLOROANILINE	10.34	127.0	140994	210.19	NG/UL	97
27)	C460 HEXACHLOROBUTADIENE	10.54	225.0	109738	154.32	NG/UL	97
28)	C465 4-CHLORO-3-METHYLPHENOL	11.51	107.0	138309	124.95	NG/UL	95
29)	C470 2-METHYLNAPHTHALENE	11.58	142.0	234998	133.35	NG/UL	89
30)	CS20 NITROBENZENE-D5	8.56	82.0	168184	156.20	NG/UL	83
31)	*CI50 ACENAPHTHENE-D10	13.77	164.0	79602	40.00	NG/UL	93
32)	C510 HEXACHLOROCYCLOPENTADIENE	12.08	237.0	107607	224.87	NG/UL	97
33)	C515 2,4,6-TRICHLOROPHENOL	12.30	196.0	163425	166.34	NG/UL	98
34)	C520 2,4,5-TRICHLOROPHENOL	12.30	196.0	163425	166.34	NG/UL	97
35)	C525 2-CHLORONAPHTHALENE	12.60	162.0	361527	172.80	NG/UL	91
36)	C530 2-NITROANILINE	12.96	138.0	109904	126.25	NG/UL	59
37)	C535 DIMETHYLPHTHALATE	13.52	163.0	376328	153.10	NG/UL	86
38)	C540 ACENAPHTHYLENE	13.45	152.0	520271	143.42	NG/UL	88
39)	C543 2,6-DINITROTOLUENE	13.61	165.0	96713	812.90	NG/UL	86
40)	C545 3-NITROANILINE	13.91	138.0	32253M	82.09	NG/UL	91
41)	C550 ACENAPHTHENE	13.86	153.0	360122	153.28	NG/UL	100
42)	C555 2,4-DINITROPHENOL	14.06	184.0	52733	161.68	NG/UL	99
43)	C560 4-NITROPHENOL	14.36	109.0	44957	140.56	NG/UL	93

		Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C565	DIBENZOFURAN	14.20	168.0	407156	124.65	NG/UL	100
45)	C570	2,4-DINITROTOLUENE	14.40	165.0	142373	173.40	NG/UL	97
46)	C580	DIETHYLPHTHALATE	15.01	149.0	387216	151.18	NG/UL	96
47)	C585	4-CHLOROPHENYL-PHENYLETHE	14.99	204.0	169810	130.07	NG/UL	79
4	C590	FLUORENE	14.92	166.0	320343	152.55	NG/UL	97
49)	C595	4-NITROANILINE	15.17	138.0	30702	79.61	NG/UL	100
50)	CS25	2-FLUOROBIPHENYL	12.48	172.0	410200	170.27	NG/UL	100
51)	CS55	2,4,6-TRIBROMOPHENOL	15.44	330.0	91684M	150.51	NG/UL	
52)	*CI60	PHENANTHRENE-D10	16.84	188.0	121429	40.00	NG/UL	93
53)	C610	4,6-DINITRO-2-METHYLPHENO	15.24	198.0	90122	214.90	NG/UL	74
54)	C615	N-NITROSODIPHENYLAMINE	15.28	169.0	178608M	141.44	NG/UL	92
55)	C625	4-BROMOPHENYLPHENYLETHER	15.98	248.0	116325	168.75	NG/UL	92
56)	C630	HEXACHLOROBENZENE	16.23	284.0	164308	197.78	NG/UL	59
57)	C635	PENTACHLOROPHENOL	16.64	266.0	96433	163.73	NG/UL	98
58)	C640	PHENANTHRENE	16.89	178.0	405152	110.84	NG/UL	100
59)	C645	ANTHRACENE	16.98	178.0	364652	116.53	NG/UL	100
60)	C650	DI-N-BUTYLPHTHALATE	18.42	149.0	758888	159.87	NG/UL	98
61)	C655	FLUORANTHENE	19.37	202.0	467023	117.89	NG/UL	100
62)	*CI70	CHRYSENE-D12	22.35	240.0	75557	40.00	NG/UL	99
63)	C715	PYRENE	19.80	202.0	373712	162.87	NG/UL	100
64)	C720	BUTYLBENZYLPHTHALATE	21.50	149.0	346519	196.49	NG/UL	89
65)	C725	3,3'-DICHLOROBENZIDINE	22.40	252.0	20949	73.62	NG/UL	98
66)	C730	BENZO(A)ANTHRACENE	22.33	228.0	300303	145.85	NG/UL	96
67)	C740	CHRYSENE	22.40	228.0	300888M	146.13	NG/UL	94
68)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	22.81	149.0	456222	202.22	NG/UL	75
69)	CS30	TERPHENYL-D14	20.30	244.0	216625	142.46	NG/UL	99
70)	*CI75	PERYLENE-D12	25.08	264.0	63187	40.00	NG/UL	97
71)	C760	DI-N-OCTYLPHTHALATE	24.00	149.0	504963	148.60	NG/UL	100
72)	C765	BENZO(B)FLUORANTHENE	24.43	252.0	286348M	110.58	NG/UL	
73)	C770	BENZO(K)FLUORANTHENE	24.47	252.0	190659M	160.48	NG/UL	92
74)	C775	BENZO(A)PYRENE	24.99	252.0	227107M	155.09	NG/UL	98
75)	C780	INDENO(1,2,3-CD)PYRENE	27.11	276.0	209053	189.37	NG/UL	97
76)	C785	DIBENZ(A,H)ANTHRACENE	27.18	278.0	188565	141.87	NG/UL	93
77)	C790	BENZO(G,H,I)PERYLENE	27.68	276.0	202203	183.13	NG/UL	96

* Compound is ISTD

A6890
SSTD160
8-14-91
13:07
INST. A

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Instrument ID: A Calibration date: 08/14/91 Time: 0011

Lab File ID: A6888 Init. Calib. Date(s): 08/13/91 08/13/91

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

COMPOUND		RRF	RRF50	%D	
Phenol	*	1.318	1.202	8.8	*
bis(2-Chloroethyl)Ether		0.992	1.002	-1.0	
2-Chlorophenol		1.119	1.141	-2.0	
1,3-Dichlorobenzene		1.353	1.370	-1.3	
1,4-Dichlorobenzene	*	1.495	1.470	1.7	*
Benzyl Alcohol		0.765	0.762	0.4	
1,2-Dichlorobenzene		1.295	1.442	-11.4	
2-Methylphenol		1.110	1.120	-0.9	
bis(2-Chloroisopropyl)ether		2.392	2.265	5.3	
4-Methylphenol		1.155	1.202	-4.1	
N-Nitroso-Di-n-Propylamine	#	0.952	1.047	-10.0	#
Hexachloroethane		0.679	0.662	2.5	
Nitrobenzene		0.329	0.306	7.0	
Isophorone		0.631	0.675	-7.0	
2-Nitrophenol	*	0.202	0.202	0.0	*
2,4-Dimethylphenol		0.298	0.317	-6.4	
Benzoic Acid		0.225	0.260	-15.6	
bis(2-Chloroethoxy)Methane		0.417	0.407	2.4	
2,4-Dichlorophenol	*	0.305	0.312	-2.3	*
1,2,4-Trichlorobenzene		0.372	0.378	-1.6	
Naphthalene		0.928	0.973	-4.8	
4-Chloroaniline		0.274	0.225	17.9	
Hexachlorobutadiene	*	0.245	0.239	2.4	*
4-Chloro-3-Methylphenol	*	0.328	0.371	-13.1	*
2-Methylnaphthalene		0.549	0.591	-7.6	
Hexachlorocyclopentadiene	#	0.439	0.240	45.3	#
2,4,6-Trichlorophenol	*	0.583	0.494	15.3	*
2,4,5-Trichlorophenol		0.438	0.473	-8.0	
2-Chloronaphthalene		1.251	1.051	16.0	
2-Nitroaniline		0.534	0.437	18.2	
Dimethyl Phthalate		1.469	1.235	15.9	
Acenaphthylene		1.934	1.822	5.8	
2,6-Dinitrotoluene		0.353	0.060	83.0	
3-Nitroaniline		0.214	0.233	-8.9	
Acenaphthene	*	1.280	1.180	7.8	*
2,4-Dinitrophenol	#	0.224	0.164	26.8	#
4-Nitrophenol	#	0.206	0.161	21.8	#

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Instrument ID: A Calibration date: 08/14/91 Time: 0011

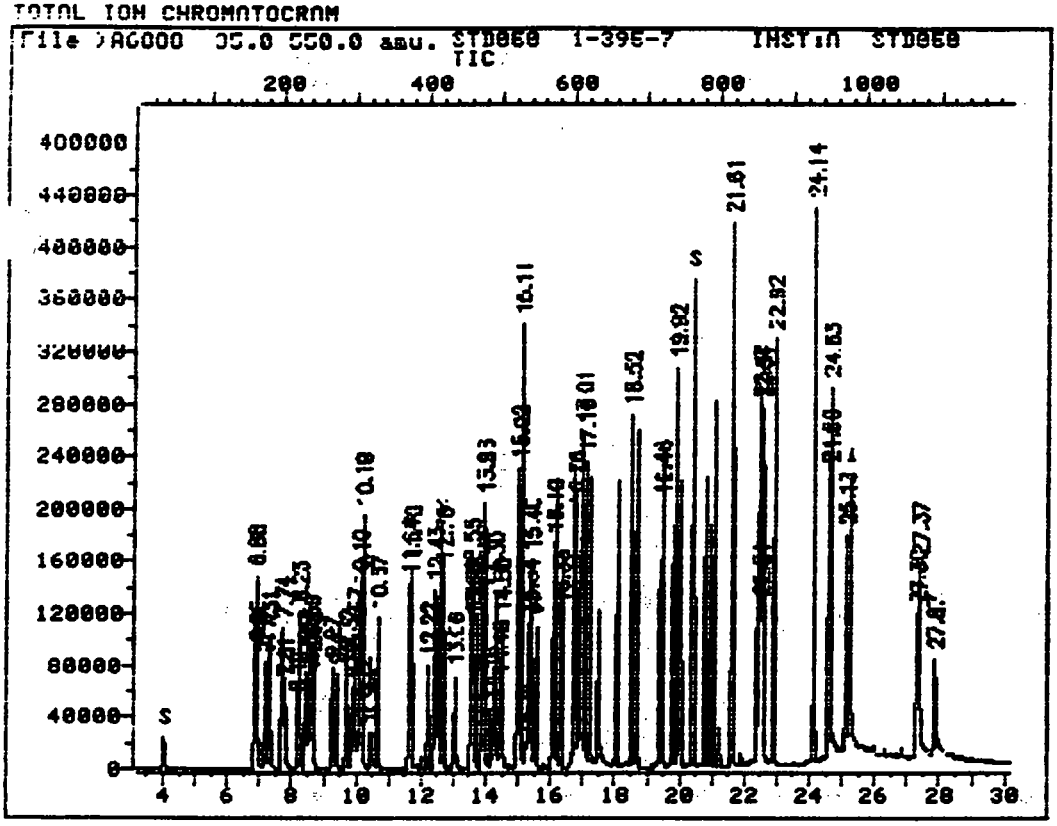
Lab File ID: A6888 Init. Calib. Date(s): 08/13/91 08/13/91

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

COMPOUND		RRF	RRF50	%D	
Dibenzofuran		1.749	1.641	6.2	
2,4-Dinitrotoluene		0.499	0.412	17.4	
Diethylphthalate		1.508	1.287	14.7	
4-Chlorophenyl-phenylether		0.732	0.656	10.4	
Fluorene		1.268	1.055	16.8	
4-Nitroaniline		0.172	0.194	-12.8	
4,6-Dinitro-2-Methylphenol		0.149	0.138	7.4	
N-Nitrosodiphenylamine (1)	*	0.397	0.415	-4.5	*
4-Bromophenyl-phenylether		0.222	0.226	-1.8	
Hexachlorobenzene		0.318	0.273	14.2	
Pentachlorophenol	*	0.194	0.193	0.5	*
Phenanthrene		1.060	1.201	-13.3	
Anthracene		1.036	1.028	0.8	
Di-n-Butylphthalate		1.444	1.560	-8.0	
Fluoranthene	*	1.128	1.301	-15.3	*
Pyrene		1.314	1.213	7.7	
Butylbenzylphthalate		0.817	0.933	-14.2	
3,3'-Dichlorobenzidine		0.151	0.150	0.7	
Benzo(a)Anthracene		1.186	1.089	8.2	
Chrysene		1.064	1.011	5.0	
bis(2-Ethylhexyl)Phthalate		1.299	1.193	8.2	
Di-n-Octyl Phthalate	*	1.726	2.156	-24.9	*
Benzo(b)Fluoranthene		1.158	1.643	-41.9	
Benzo(k)Fluoranthene		0.927	0.754	18.7	
Benzo(a)Pyrene	*	0.901	0.929	-3.1	*
Indeno(1,2,3-cd)Pyrene		0.938	0.700	25.4	
Dibenz(a,h)Anthracene		0.804	0.843	-4.9	
Benzo(g,h,i)Perylene		0.899	0.700	22.1	
Nitrobenzene-d5		0.358	0.361	-0.8	
2-Fluorobiphenyl		1.389	1.210	12.9	
Terphenyl-d14		0.811	0.804	0.9	
Phenol-d5		1.321	1.346	-1.9	
2-Fluorophenol		0.815	0.799	2.0	
2,4,6-Tribromophenol		0.403	0.306	24.1	

(1) Cannot be separated from Diphenylamine

TOTAL ION CHROMATOGRAM



Data File: >A6888::D9 Quant Output File: ^A6888::L1
Name: STD050 1-395-7
Misc: INST:A STD050 BTL# 5

Id File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 23:36

Operator ID: MANAGER
Quant Time: 910814 00:43
Injected at: 910814 00:11

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 910814 00:43
Output File: ^A6888::L1 Injected at: 910814 00:11
Data File: >A6888::D9 Dilution Factor: 1.00000
me: STD050 1-395-7
s INST:A STD050 BTL# 5

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 23:36

		Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30	1,4-DICHLOROBENZENE-D4	7.29	152.0	31015	40.00	NG/UL	94
2)	C315	PHENOL	6.88	94.0	46576	47.24	NG/UL	73
3)	C325	BIS(2-CHLOROETHYL)ETHER	6.90	93.0	38825	49.93	NG/UL	89
4)	C330	2-CHLOROPHENOL	6.88	128.0	44201	51.90	NG/UL	87
5)	C335	1,3-DICHLOROBENZENE	7.17	146.0	53102	53.00	NG/UL	95
6)	C340	1,4-DICHLOROBENZENE	7.31	146.0	56942M	55.97	NG/UL	94
7)	C345	BENZYL ALCOHOL	7.81	108.0	29539	49.38	NG/UL	80
8)	C350	1,2-DICHLOROBENZENE	7.74	146.0	55882	54.92	NG/UL	97
9)	C355	2-METHYLPHENOL	8.23	108.0	43401	52.85	NG/UL	94
10)	C360	BIS(2-CHLOROISOPROPYL)ETH	8.19	45.0	87761	48.77	NG/UL	100
11)	C365	4-METHYLPHENOL	8.59	108.0	46571	51.00	NG/UL	98
12)	C370	N-NITROSO-DI-N-PROPYLAMIN	8.53	70.0	40569	51.00	NG/UL	68
13)	C375	HEXACHLOROETHANE	8.44	117.0	25672	49.46	NG/UL	66
14)	CS50	2-FLUOROPHENOL	4.02	112.0	30968	51.62	NG/UL	100
15)	CS45	PHENOL-D5	6.86	99.0	52147	50.06	NG/UL	74
16)	*CI40	NAPHTHALENE-D8	10.15	136.0	127590	40.00	NG/UL	99
17)	C410	NITROBENZENE	8.68	77.0	48963	42.90	NG/UL	85
18)	C415	ISOPHORONE	9.27	82.0	107939	50.80	NG/UL	87
19)	C420	2-NITROPHENOL	9.41	139.0	32373	57.00	NG/UL	71
20)	C425	2,4-DIMETHYLPHENOL	9.72	107.0	50752	50.81	NG/UL	89
21)	C430	BENZOIC ACID	10.22	122.0	41590	61.41	NG/UL	95
22)	C435	BIS(2-CHLOROETHOXY)METHAN	9.88	93.0	65128	43.02	NG/UL	95
23)	C440	2,4-DICHLOROPHENOL	9.97	162.0	49955	53.74	NG/UL	97
24)	C445	1,2,4-TRICHLOROBENZENE	10.10	180.0	60485	52.33	NG/UL	98
25)	C450	NAPHTHALENE	10.19	128.0	155737	57.98	NG/UL	99
26)	C455	4-CHLOROANILINE	10.44	127.0	35998	42.86	NG/UL	98
27)	C460	HEXACHLOROBUTADIENE	10.67	225.0	38161	50.93	NG/UL	99
28)	C465	4-CHLORO-3-METHYLPHENOL	11.64	107.0	59403	50.17	NG/UL	92
29)	C470	2-METHYLNAPHTHALENE	11.70	142.0	94569	47.77	NG/UL	85
30)	CS20	NITROBENZENE-D5	8.64	82.0	57781	52.40	NG/UL	85
31)	*CI50	ACENAPHTHENE-D10	13.89	164.0	87274	40.00	NG/UL	92
32)	C510	HEXACHLOROCYCLOPENTADIENE	12.22	237.0	26233	34.46	NG/UL	96
33)	C515	2,4,6-TRICHLOROPHENOL	12.43	196.0	53859	49.13	NG/UL	94
34)	C520	2,4,5-TRICHLOROPHENOL	12.49	196.0	51623M	47.09	NG/UL	94
35)	C525	2-CHLORONAPHTHALENE	12.70	162.0	114689	49.81	NG/UL	97
36)	C530	2-NITROANILINE	13.06	138.0	47722	53.43	NG/UL	61
37)	C535	DIMETHYLPHTHALATE	13.60	163.0	134749	51.55	NG/UL	84
38)	C540	ACENAPHTHYLENE	13.55	152.0	198861	49.56	NG/UL	91
39)	C543	2,6-DINITROTOLUENE	13.62	165.0	6522	9.54	NG/UL	81
40)	C545	3-NITROANILINE	13.96	138.0	25478M	65.60	NG/UL	88
41)	C550	ACENAPHTHENE	13.96	153.0	128796	45.62	NG/UL	100
42)	C555	2,4-DINITROPHENOL	14.16	184.0	17880	46.47	NG/UL	98
43)	C560	4-NITROPHENOL	14.46	109.0	17534	49.04	NG/UL	97

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C565 DIBENZOFURAN	14.30	168.0	179066	45.30	NG/UL	100
45)	C570 2,4-DINITROTOLUENE	14.50	165.0	45010	48.48	NG/UL	82
46)	C580 DIETHYLPHTHALATE	15.11	149.0	140403	51.01	NG/UL	94
	C585 4-CHLOROPHENYL-PHENYLETHE	15.11	204.0	71566	54.36	NG/UL	83
48)	590 FLUORENE	15.02	166.0	115119	47.41	NG/UL	99
49)	C595 4-NITROANILINE	15.24	138.0	21142	64.61	NG/UL	100
50)	CS25 2-FLUOROBIPHENYL	12.58	172.0	132069	54.08	NG/UL	100
51)	CS55 2,4,6-TRIBROMOPHENOL	15.56	330.0	33393	47.40	NG/UL	89
52)	*CI60 PHENANTHRENE-D10	16.94	188.0	157578	40.00	NG/UL	98
53)	C610 4,6-DINITRO-2-METHYLPHENO	15.34	198.0	27210	51.14	NG/UL	82
54)	C615 N-NITROSODIPHENYLAMINE	15.40	169.0	81938	51.01	NG/UL	97
55)	C625 4-BROMOPHENYLPHENYLETHER	16.10	248.0	44728	59.42	NG/UL	97
56)	C630 HEXACHLOROBENZENE	16.33	284.0	53903	39.02	NG/UL	48
57)	C635 PENTACHLOROPHENOL	16.76	266.0	38215	50.65	NG/UL	97
58)	C640 PHENANTHRENE	17.01	178.0	237171	50.63	NG/UL	100
59)	C645 ANTHRACENE	17.10	178.0	203044	45.70	NG/UL	100
60)	C650 DI-N-BUTYLPHTHALATE	18.52	149.0	307997	50.97	NG/UL	87
61)	C655 FLUORANTHENE	19.46	202.0	257032	61.71	NG/UL	100
62)	*CI70 CHRYSENE-D12	22.49	240.0	166811	40.00	NG/UL	97
63)	C715 PYRENE	19.92	202.0	253290	43.56	NG/UL	100
64)	C720 BUTYLBENZYLPHTHALATE	21.61	149.0	194672	54.04	NG/UL	86
65)	C725 3,3'-DICHLOROBENZIDINE	22.51	252.0	31410	45.10	NG/UL	98
66)	C730 BENZO(A)ANTHRACENE	22.47	228.0	227293	46.09	NG/UL	95
67)	C740 CHRYSENE	22.54	228.0	211080M	42.80	NG/UL	94
68)	C745 BIS(2-ETHYLHEXYL)PHTHALAT	22.92	149.0	249040	52.42	NG/UL	73
69)	CS30 TERPHENYL-D14	20.41	244.0	167852	48.41	NG/UL	96
70)	*CI75 PERYLENE-D12	25.25	264.0	149314M	40.00	NG/UL	97
71)	C760 DI-N-OCTYLPHTHALATE	24.14	149.0	401490	56.38	NG/UL	100
	C765 BENZO(B)FLUORANTHENE	24.59	252.0	305965	74.99	NG/UL	86
	C770 BENZO(K)FLUORANTHENE	24.63	252.0	140368M	50.18	NG/UL	85
74)	C775 BENZO(A)PYRENE	25.13	252.0	173022	53.23	NG/UL	97
75)	C780 INDENO(1,2,3-CD)PYRENE	27.30	276.0	130431	40.38	NG/UL	98
76)	C785 DIBENZ(A,H)ANTHRACENE	27.37	278.0	157043	53.89	NG/UL	95
77)	C790 BENZO(G,H,I)PERYLENE	27.87	276.0	130459	38.94	NG/UL	96

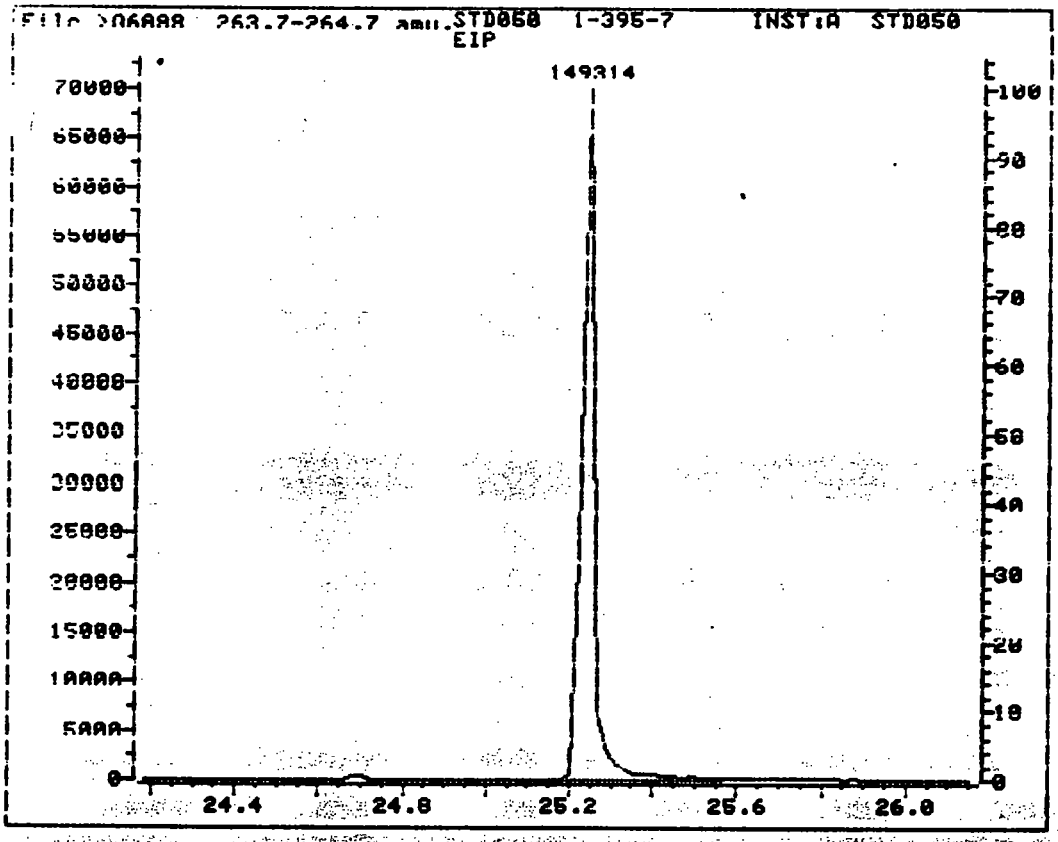
* Compound is ISTD

SSTD50

A6888

8/14/91 00.11

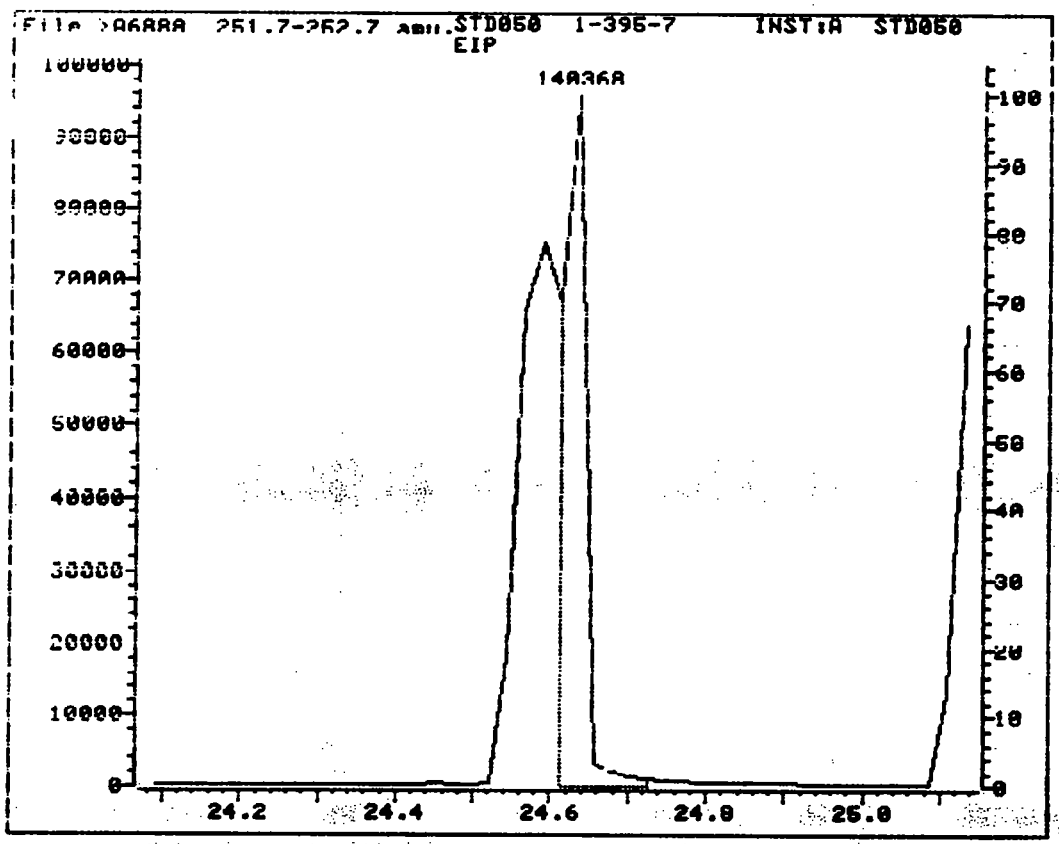
INST: A



Data File: >A6888::D9 Quant Output File: ^A6888::L1
Name: STD050 1-395-7
Misc: INST:A STD050 BTL# 5
Quant Time: 910814 00:43 Quant ID File: ID BN2::EX
Injected at: 910814 00:11 Last Calibration: 910813 23:36

Compound No: 70 (ISTD)
Compound Name: C175 PERYLENE-D12
Scan Number: 978
Retention Time: 25.25 min.
Quant Ion: 264.0
Area: 149314M
Concentration: 40.00 NG/UL
q-value: 97

This report was produced by QAREA on: 910814 09:22



Data File: >A6888::D9 Quant Output File: ^A6888::L1
Name: STD050 1-395-7
Misc: INST:A STD050 BTL# 5
Quant Time: 910814 00:43 Quant ID File: ID BN2::EX
Injected at: 910814 00:11 Last Calibration: 910813 23:36

Compound No: 73
Compound Name: C770 BENZO(K)FLUORANTHENE
Scan Number: 951
Retention Time: 24.63 min.
Quant Ion: 252.0
Area: 140368M
Concentration: 50.18 NG/UL
q-value: 85

This report was produced by QAREA on: 910814 10:14

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Instrument ID: A Calibration date: 08/15/91 Time: 0515

Lab File ID: A6912 Init. Calib. Date(s): 08/14/91 08/14/91

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

COMPOUND		RRF	RRF50	%D	
Phenol	*	1.309	1.436	-9.7	*
bis(2-Chloroethyl)Ether		1.017	1.075	-5.7	
2-Chlorophenol		1.169	1.170	-0.1	
1,3-Dichlorobenzene		1.383	1.395	-0.9	
1,4-Dichlorobenzene	*	1.517	1.649	-8.7	*
Benzyl Alcohol		0.814	0.829	-1.8	
1,2-Dichlorobenzene		1.310	1.338	-2.1	
2-Methylphenol		1.144	1.206	-5.4	
bis(2-Chloroisopropyl)ether		2.507	2.405	4.1	
4-Methylphenol		1.172	1.213	-3.5	
N-Nitroso-Di-n-Propylamine	#	1.058	1.100	-4.0	#
Hexachloroethane		0.726	0.755	-4.0	
Nitrobenzene		0.348	0.329	5.5	
Isophorone		0.702	0.694	1.1	
2-Nitrophenol	*	0.194	0.181	6.7	*
2,4-Dimethylphenol		0.286	0.322	-12.6	
Benzoic Acid		0.141	0.226	-60.3	
bis(2-Chloroethoxy)Methane		0.439	0.487	-10.9	
2,4-Dichlorophenol	*	0.301	0.303	-0.7	*
1,2,4-Trichlorobenzene		0.374	0.363	2.9	
Naphthalene		0.908	0.853	6.1	
4-Chloroaniline		0.280	0.197	29.6	
Hexachlorobutadiene	*	0.247	0.238	3.6	*
4-Chloro-3-Methylphenol	*	0.335	0.346	-3.3	*
2-Methylnaphthalene		0.499	0.640	-28.3	
Hexachlorocyclopentadiene	#	0.323	0.299	7.4	#
2,4,6-Trichlorophenol	*	0.495	0.480	3.0	*
2,4,5-Trichlorophenol		0.512	0.454	11.3	
2-Chloronaphthalene		1.137	1.002	11.9	
2-Nitroaniline		0.376	0.381	-1.3	
Dimethyl Phthalate		1.245	1.236	0.7	
Acenaphthylene		1.773	1.820	-2.7	
2,6-Dinitrotoluene		0.276	0.316	-14.5	
3-Nitroaniline		0.109	0.113	-3.7	
Acenaphthene	*	1.264	1.332	-5.4	*
2,4-Dinitrophenol	#	0.160	0.145	9.4	#
4-Nitrophenol	#	0.133	0.122	8.3	#

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 65686 SDG No.: -001

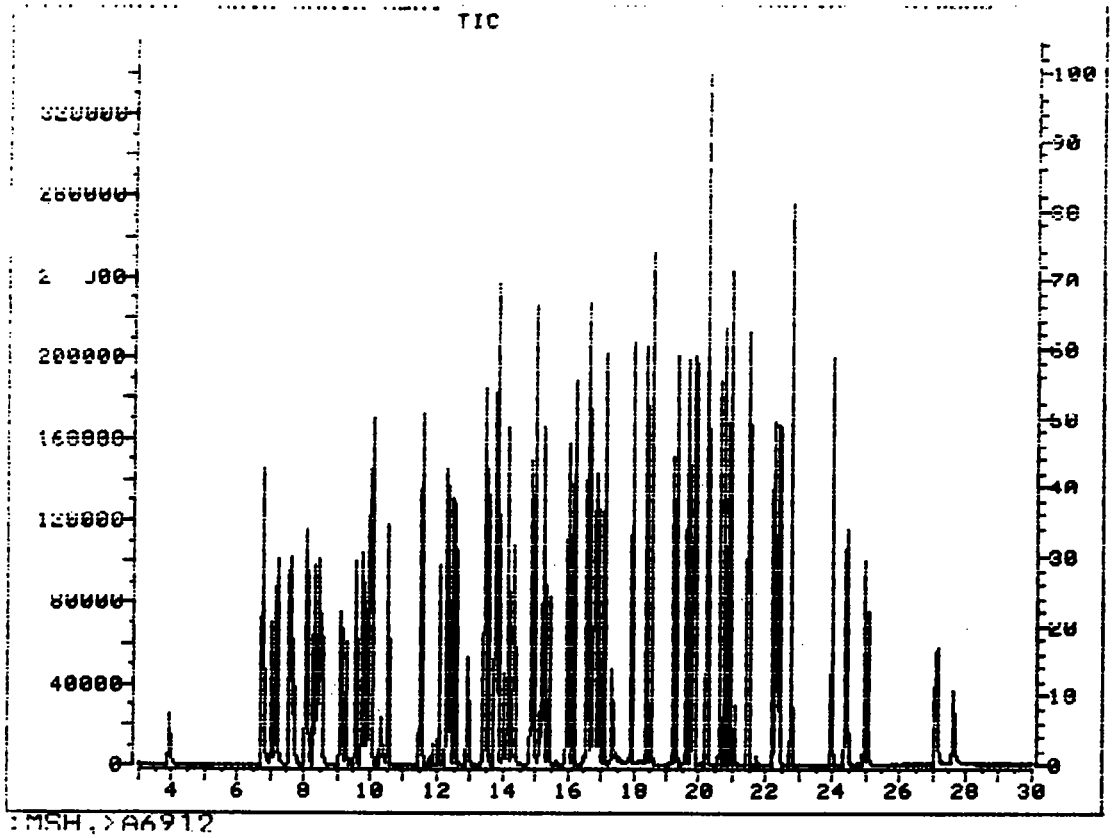
Instrument ID: A Calibration date: 08/15/91 Time: 0515

Lab File ID: A6912 Init. Calib. Date(s): 08/14/91 08/14/91

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

COMPOUND		RRF	RRF50	%D	
Dibenzofuran		1.534	1.579	-2.9	
2,4-Dinitrotoluene		0.388	0.402	-3.6	
Diethylphthalate		1.453	1.388	4.5	
4-Chlorophenyl-phenylether		0.563	0.496	11.9	
Fluorene		0.981	0.979	0.2	
4-Nitroaniline		0.107	0.108	-0.9	
4,6-Dinitro-2-Methylphenol		0.164	0.140	14.6	
N-Nitrosodiphenylamine (1)	*	0.463	0.491	-6.0	*
4-Bromophenyl-phenylether		0.254	0.244	3.9	
Hexachlorobenzene		0.393	0.412	-4.8	
Pentachlorophenol	*	0.220	0.207	5.9	*
Phenanthrene		1.006	1.048	-4.2	
Anthracene		0.855	0.873	-2.1	
Di-n-Butylphthalate		2.004	1.984	1.0	
Fluoranthene	*	0.873	1.055	-20.8	*
Pyrene		1.575	1.551	1.5	
Butylbenzylphthalate		1.132	1.151	-1.7	
3,3'-Dichlorobenzidine		0.081	0.073	9.9	
Benzo(a)Anthracene		1.078	1.132	-5.0	
Chrysene		1.048	1.154	-10.1	
bis(2-Ethylhexyl)Phthalate		1.593	1.857	-16.6	
Di-n-Octyl Phthalate	*	2.510	3.114	-24.1	*
Benzo(b)Fluoranthene		1.288	1.208	6.2	
Benzo(k)Fluoranthene		0.995	1.092	-9.7	
Benzo(a)Pyrene	*	1.044	1.063	-1.8	*
Indeno(1,2,3-cd)Pyrene		0.956	0.801	16.2	
Dibenz(a,h)Anthracene		0.858	0.795	7.3	
Benzo(g,h,i)Perylene		0.925	0.855	7.6	
Nitrobenzene-d5		0.355	0.353	0.6	
2-Fluorobiphenyl		1.299	1.194	8.1	
Terphenyl-d14		0.903	0.875	3.1	
Phenol-d5		1.345	1.403	-4.3	
2-Fluorophenol		0.841	0.825	1.9	
2,4,6-Tribromophenol		0.284	0.268	5.6	

(1) Cannot be separated from Diphenylamine



:MSH,>A6912

MS data file header from : >A6912

Sample: STD050 1-395-7 Operator: MAT MS 8/15/91 5:15
Misc : INST:A STD050 BTL# 2
Sys. #: 2 MS model: 70 SW/HW rev.: IA ALS # : 0
Method file: #STD02 Tuning file: #ATUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 280 Transfer line temp. : 0

Chromatographic temperatures :	45.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	12.0	0.0	0.0	0.0	0.0

QUANT REPORT

Operator ID: MAT Quant Rev: 6 Quant Time: 910815 05:47
Output File: ^A6912::L1 Injected at: 910815 05:15
Data File: >A6912::D9 Dilution Factor: 1.00000
Name: STD050 1-395-7
( ): INST:A STD050 BTL# 2

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910815 05:43

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.14	152.0	28206	40.00	NG/UL	90
2)	C315 PHENOL	6.75	94.0	50629	55.04	NG/UL	80
3)	C325 BIS(2-CHLOROETHYL)ETHER	6.78	93.0	37905	53.47	NG/UL	95
4)	C330 2-CHLOROPHENOL	6.75	128.0	41254	49.24	NG/UL	85
5)	C335 1,3-DICHLOROBENZENE	7.05	146.0	49158	50.01	NG/UL	99
6)	C340 1,4-DICHLOROBENZENE	7.18	146.0	58137	53.39	NG/UL	94
7)	C345 BENZYL ALCOHOL	7.68	108.0	29225	51.46	NG/UL	77
8)	C350 1,2-DICHLOROBENZENE	7.59	146.0	47157	49.67	NG/UL	98
9)	C355 2-METHYLPHENOL	8.08	108.0	42494	53.25	NG/UL	97
10)	C360 BIS(2-CHLOROISOPROPYL)ETH	8.06	45.0	84761	48.20	NG/UL	100
11)	C365 4-METHYLPHENOL	8.44	108.0	42768	49.45	NG/UL	97
12)	C370 N-NITROSO-DI-N-PROPYLAMIN	8.38	70.0	38780	48.55	NG/UL	74
13)	C375 HEXACHLOROETHANE	8.29	117.0	26602	50.39	NG/UL	53
14)	CS50 2-FLUOROPHENOL	3.92	112.0	29075	49.58	NG/UL	100
15)	CS45 PHENOL-D5	6.73	99.0	49471	48.87	NG/UL	78
16)	*CI40 NAPHTHALENE-D8	10.00	136.0	125097	40.00	NG/UL	99
17)	C410 NITROBENZENE	8.56	77.0	51395	42.52	NG/UL	67
18)	C415 ISOPHORONE	9.12	82.0	108368	47.40	NG/UL	89
19)	C420 2-NITROPHENOL	9.26	139.0	28304	48.49	NG/UL	65
20)	C425 2,4-DIMETHYLPHENOL	9.57	107.0	50271	51.61	NG/UL	92
21)	C430 BENZOIC ACID	10.07	122.0	35314	62.12	NG/UL	96
22)	C435 BIS(2-CHLOROETHOXY)METHAN	9.75	93.0	76057	47.69	NG/UL	94
23)	C440 2,4-DICHLOROPHENOL	9.82	162.0	47405	48.64	NG/UL	97
24)	C445 1,2,4-TRICHLOROBENZENE	9.96	180.0	56698	48.70	NG/UL	95
25)	C450 NAPHTHALENE	10.05	128.0	133322	45.08	NG/UL	98
26)	C455 4-CHLOROANILINE	10.32	127.0	30764	44.36	NG/UL	99
27)	C460 HEXACHLOROBUTADIENE	10.54	225.0	37181	47.57	NG/UL	98
28)	C465 4-CHLORO-3-METHYLPHENOL	11.49	107.0	54072	49.59	NG/UL	90
29)	C470 2-METHYLNAPHTHALENE	11.55	142.0	99940	65.69	NG/UL	92
30)	CS20 NITROBENZENE-D5	8.51	82.0	55122	48.80	NG/UL	82
31)	*CI50 ACENAPHTHENE-D10	13.76	164.0	80460	40.00	NG/UL	89
32)	C510 HEXACHLOROCYCLOPENTADIENE	12.07	237.0	30133	51.11	NG/UL	95
33)	C515 2,4,6-TRICHLOROPHENOL	12.28	196.0	48281	51.00	NG/UL	97
34)	C520 2,4,5-TRICHLOROPHENOL	12.34	196.0	45728M	48.31	NG/UL	96
35)	C525 2-CHLORONAPHTHALENE	12.55	162.0	100841	41.10	NG/UL	97
36)	C530 2-NITROANILINE	12.91	138.0	38335	49.53	NG/UL	67
37)	C535 DIMETHYLPHTHALATE	13.47	163.0	124356	49.94	NG/UL	84
38)	C540 ACENAPHTHYLENE	13.43	152.0	183098	48.60	NG/UL	90
39)	C543 2,6-DINITROTOLUENE	13.56	165.0	31834	53.08	NG/UL	82
40)	C545 3-NITROANILINE	13.81	138.0	11327	40.92	NG/UL	95
41)	C550 ACENAPHTHENE	13.83	153.0	133995	49.19	NG/UL	100
42)	C555 2,4-DINITROPHENOL	14.01	184.0	14553	49.85	NG/UL	99
43)	C560 4-NITROPHENOL	14.31	109.0	12234	54.06	NG/UL	91

0657

		Compound	R.T.	Q ion	Area	Conc	Units	q
44)	C565	DIBENZOFURAN	14.17	168.0	158857	45.79	NG/UL	100
45)	C570	2,4-DINITROTOLUENE	14.35	165.0	40423	48.80	NG/UL	80
46)	C580	DIETHYLPHTHALATE	14.96	149.0	139658	45.96	NG/UL	94
47)	C585	4-CHLOROPHENYL-PHENYLETHE	14.96	204.0	49893	43.71	NG/UL	79
48)	C590	FLUORENE	14.87	166.0	98522	46.43	NG/UL	99
49)	C595	4-NITROANILINE	15.16	138.0	10869	48.15	NG/UL	100
50)	CS25	2-FLUOROBIPHENYL	12.43	172.0	120161	42.36	NG/UL	100
51)	CS55	2,4,6-TRIBROMOPHENOL	15.41	330.0	26961M	47.46	NG/UL	
52)	*CI60	PHENANTHRENE-D10	16.79	188.0	114601	40.00	NG/UL	96
53)	C610	4,6-DINITRO-2-METHYLPHENO	15.18	198.0	20116	51.94	NG/UL	86
54)	C615	N-NITROSODIPHENYLAMINE	15.25	169.0	70563	50.00	NG/UL	90
55)	C625	4-BROMOPHENYLPHENYLETHER	15.95	248.0	35025	46.60	NG/UL	96
56)	C630	HEXACHLOROBENZENE	16.20	284.0	59177	44.87	NG/UL	82
57)	C635	PENTACHLOROPHENOL	16.61	266.0	29700	46.68	NG/UL	96
58)	C640	PHENANTHRENE	16.83	178.0	150662	44.60	NG/UL	100
59)	C645	ANTHRACENE	16.92	178.0	125444	49.91	NG/UL	100
60)	C650	DI-N-BUTYLPHTHALATE	18.36	149.0	285226	44.69	NG/UL	87
61)	C655	FLUORANTHENE	19.31	202.0	151668	60.81	NG/UL	100
62)	*CI70	CHRYSENE-D12	22.31	240.0	67987	40.00	NG/UL	91
63)	C715	PYRENE	19.74	202.0	131826	44.78	NG/UL	100
64)	C720	BUTYLBENZYLPHTHALATE	21.43	149.0	97842	46.51	NG/UL	93
65)	C725	3,3'-DICHLOROBENZIDINE	22.36	252.0	6191	39.89	NG/UL	95
66)	C730	BENZO(A)ANTHRACENE	22.27	228.0	96217M	51.96	NG/UL	96
67)	C740	CHRYSENE	22.36	228.0	98127	50.70	NG/UL	97
68)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	22.76	149.0	157879	52.29	NG/UL	74
69)	CS30	TERPHENYL-D14	20.24	244.0	74377	42.59	NG/UL	77
70)	*CI75	PERYLENE-D12	25.06	264.0	56289	40.00	NG/UL	99
71)	C760	DI-N-OCTYLPHTHALATE	23.98	149.0	219149	54.75	NG/UL	100
72)	C765	BENZO(B)FLUORANTHENE	24.38	252.0	85011	42.64	NG/UL	96
73)	C770	BENZO(K)FLUORANTHENE	24.43	252.0	76817	49.04	NG/UL	88
74)	C775	BENZO(A)PYRENE	24.95	252.0	74783	46.04	NG/UL	97
75)	C780	INDENO(1,2,3-CD)PYRENE	27.07	276.0	56356	43.60	NG/UL	98
76)	C785	DIBENZ(A,H)ANTHRACENE	27.13	278.0	55916	43.67	NG/UL	89
77)	C790	BENZO(G,H,I)PERYLENE	27.61	276.0	60169	45.56	NG/UL	98

* Compound is ISTD

A6912
SSTD50
8-15-91
05:15
INST. A

7B

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Instrument ID: F Calibration date: 08/15/91 Time: 0853

Lab File ID: FF128 Init. Calib. Date(s): 08/14/91 08/14/91

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

COMPOUND		RRF	RRF50	%D	
Phenol	*	1.775	1.538	13.4	*
bis(2-Chloroethyl)Ether		1.650	1.245	24.6	
2-Chlorophenol		1.290	1.184	8.2	
1,3-Dichlorobenzene		1.399	1.270	9.2	
1,4-Dichlorobenzene	*	1.491	1.385	7.1	*
Benzyl Alcohol		0.956	0.785	17.9	
1,2-Dichlorobenzene		1.345	1.209	10.1	
2-Methylphenol		1.343	1.104	17.8	
bis(2-Chloroisopropyl)ether		1.870	1.669	10.8	
4-Methylphenol		1.372	1.115	18.7	
N-Nitroso-Di-n-Propylamine	#	0.952	0.759	20.3	#
Hexachloroethane		0.669	0.586	12.4	
Nitrobenzene		0.568	0.564	0.7	
Isophorone		0.894	0.889	0.6	
2-Nitrophenol	*	0.214	0.217	-1.4	*
2,4-Dimethylphenol		0.342	0.344	-0.6	
Benzoic Acid		0.102	0.115	-12.8	
bis(2-Chloroethoxy)Methane		0.514	0.486	5.4	
2,4-Dichlorophenol	*	0.279	0.263	5.7	*
1,2,4-Trichlorobenzene		0.298	0.305	-2.3	
Naphthalene		0.990	0.995	-0.5	
4-Chloroaniline		0.328	0.271	17.4	
Hexachlorobutadiene	*	0.153	0.160	-4.6	*
4-Chloro-3-Methylphenol	*	0.340	0.368	-8.2	*
2-Methylnaphthalene		0.869	0.919	-5.8	
Hexachlorocyclopentadiene	#	0.183	0.166	9.3	#
2,4,6-Trichlorophenol	*	0.402	0.398	1.0	*
2,4,5-Trichlorophenol		0.522	0.597	-14.4	
2-Chloronaphthalene		1.154	1.262	-9.4	
2-Nitroaniline		0.533	0.516	3.2	
Dimethyl Phthalate		1.269	1.323	-4.3	
Acenaphthylene		1.811	1.874	-3.5	
2,6-Dinitrotoluene		0.352	0.381	-8.2	
3-Nitroaniline		0.218	0.246	-12.8	
Acenaphthene	*	1.136	1.196	-5.3	*
2,4-Dinitrophenol	#	0.207	0.227	-9.7	#
4-Nitrophenol	#	0.129	0.122	5.4	#

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

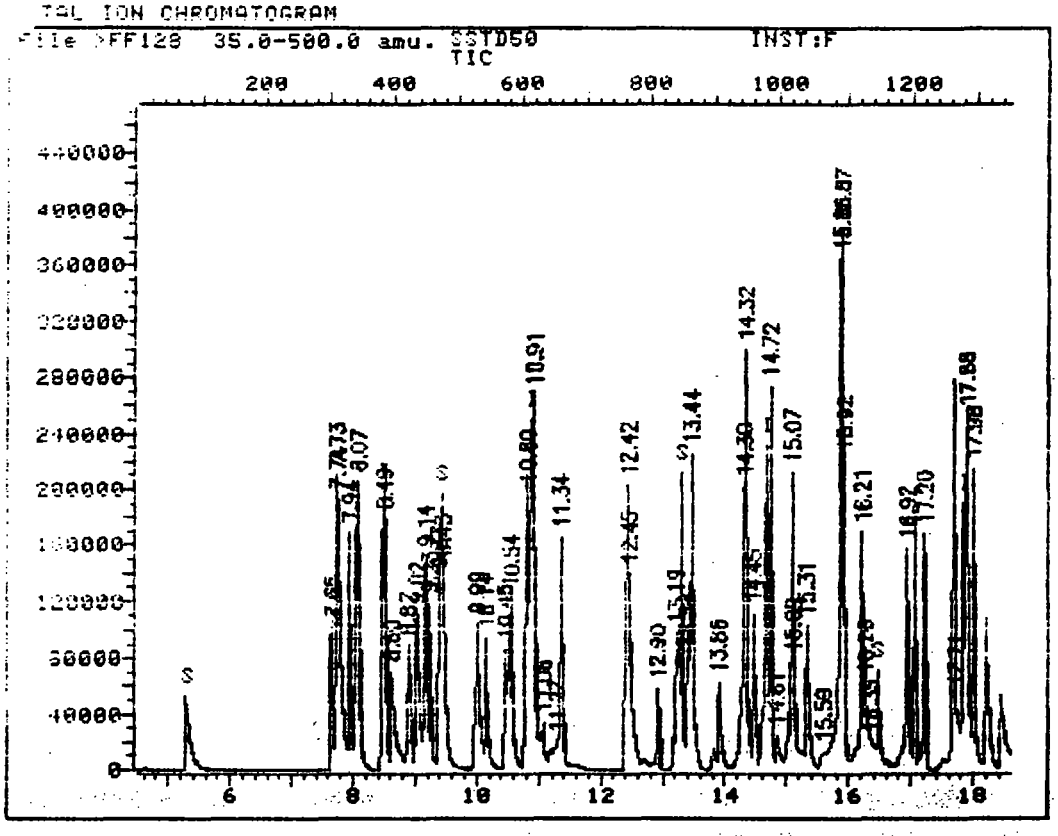
Instrument ID: F Calibration date: 08/15/91 Time: 0853

Lab File ID: FF128 Init. Calib. Date(s): 08/14/91 08/14/91

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

COMPOUND		RRF	RRF50	%D	
Dibenzofuran		1.513	1.689	-11.6	
2,4-Dinitrotoluene		0.537	0.548	-2.0	
Diethylphthalate		1.376	1.387	-0.8	
4-Chlorophenyl-phenylether		0.586	0.608	-3.8	
Fluorene		1.085	1.191	-9.8	
4-Nitroaniline		0.415	0.486	-17.1	
4,6-Dinitro-2-Methylphenol		0.183	0.141	23.0	
N-Nitrosodiphenylamine (1)	*	0.490	0.483	1.4	*
4-Bromophenyl-phenylether		0.199	0.188	5.5	
Hexachlorobenzene		0.243	0.242	0.4	
Pentachlorophenol	*	0.079	0.061	22.8	*
Phenanthrene		1.138	1.111	2.4	
Anthracene		1.132	1.178	-4.1	
Di-n-Butylphthalate		1.589	1.604	-0.9	
Fluoranthene	*	1.174	1.172	0.2	*
Pyrene		1.224	1.338	-9.3	
Butylbenzylphthalate		0.907	0.874	3.6	
3,3'-Dichlorobenzidine		0.210	0.168	20.0	
Benzo(a)Anthracene		1.134	1.121	1.1	
Chrysene		1.075	1.081	-0.6	
bis(2-Ethylhexyl)Phthalate		1.224	1.196	2.3	
Di-n-Octyl Phthalate	*	2.633	2.919	-10.9	*
Benzo(b)Fluoranthene		1.286	1.223	4.9	
Benzo(k)Fluoranthene		1.118	1.313	-17.4	
Benzo(a)Pyrene	*	1.083	1.012	6.6	*
Indeno(1,2,3-cd)Pyrene		0.707	0.657	7.1	
Dibenz(a,h)Anthracene		0.602	0.599	0.5	
Benzo(g,h,i)Perylene		0.537	0.536	0.2	
Nitrobenzene-d5		0.425	0.426	-0.2	
2-Fluorobiphenyl		1.313	1.301	0.9	
Terphenyl-d14		0.782	0.886	-13.3	
Phenol-d5		1.715	1.502	12.4	
2-Fluorophenol		1.205	1.039	13.8	
2,4,6-Tribromophenol		0.179	0.194	-8.4	

(1) Cannot be separated from Diphenylamine

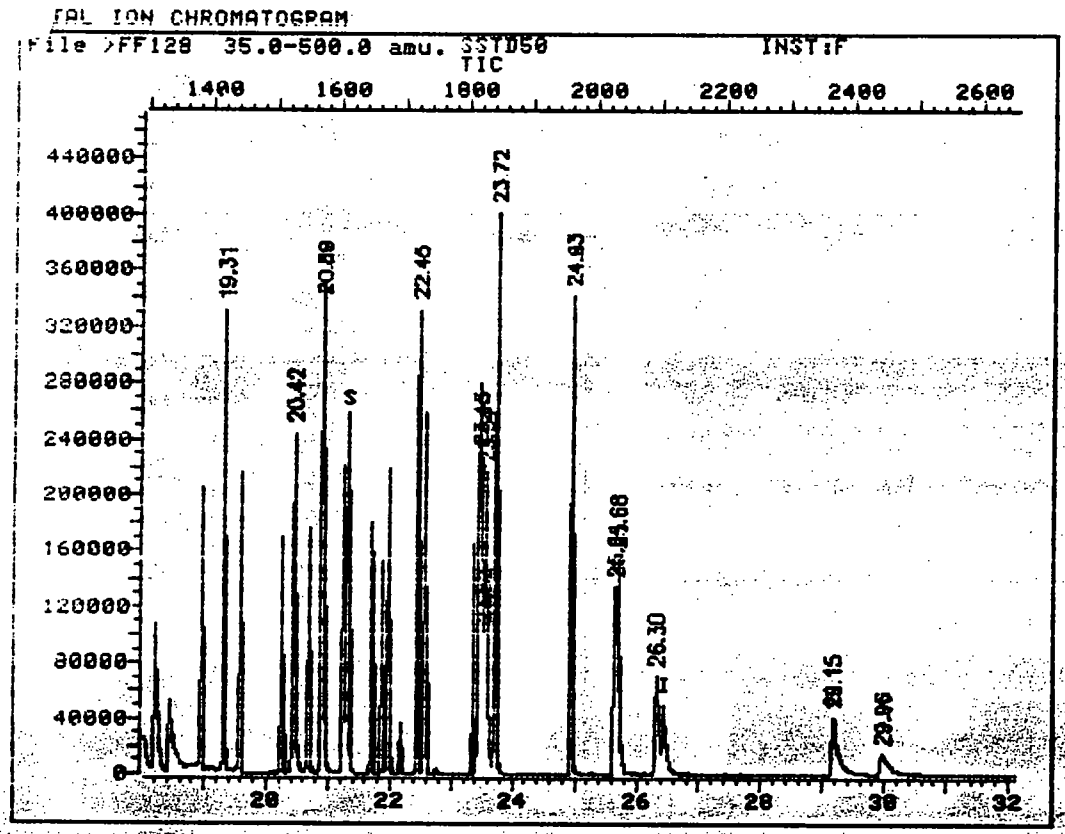


Data File: >FF128::D6 Quant Output File: ^FF128::D7
Name: SSTD50
Misc: INST:F .. BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

Operator ID: LINDA
Quant Time: 910815 09:27
Injected at: 910815 08:53

TIC page 1 of 2



Data File: >FF128::D6 Quant Output File: ^FF128::D7
Name: SSTD50
Misc: INST:F BTL# 1

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

Operator ID: LINDA
Quant Time: 910815 09:27
Injected at: 910815 08:53

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA
Output File: ^FF128::D7
Data File: >FF128::D6
Name: SSTD50
Misc: INST:F

Quant Rev: 6 Quant Time: 910815 09:27
Injected at: 910815 08:53
Dilution Factor: 1.00000

BTL# 1

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 15:58

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	8.46	152.0	63419	40.00	NG/UL	97
3)	C315 PHENOL	7.74	94.0	121903M	48.81	NG/UL	
4)	C325 BIS(2-CHLOROETHYL)ETHER	7.65	93.0	98665	42.53	NG/UL	97
5)	C330 2-CHLOROPHENOL	7.73	128.0	93865	50.21	NG/UL	97
6)	C335 1,3-DICHLOROBENZENE	7.94	146.0	100670	50.53	NG/UL	98
7)	C340 1,4-DICHLOROBENZENE	8.07	146.0	109726	53.19	NG/UL	93
8)	C345 BENZYL ALCOHOL	8.60	108.0	62186M	47.56	NG/UL	
9)	C350 1,2-DICHLOROBENZENE	8.49	146.0	95791	50.31	NG/UL	95
10)	C355 2-METHYLPHENOL	9.02	108.0	87455	47.49	NG/UL	89
11)	C360 BIS(2-CHLOROISOPROPYL)ETH	8.87	45.0	132287	67.64	NG/UL	100
12)	C365 4-METHYLPHENOL	9.37	108.0	88383	45.66	NG/UL	99
13)	C370 N-NITROSO-DI-N-PROPYLAMIN	9.23	70.0	60161	45.64	NG/UL	80
14)	C375 HEXACHLOROETHANE	9.14	117.0	46454	48.49	NG/UL	81
15)	CS50 2-FLUOROPHENOL	5.28	112.0	82376	50.37	NG/UL	95
16)	CS45 PHENOL-D5	7.71	99.0	119034M	48.39	NG/UL	
17)	*CI40 NAPHTHALENE-D8	10.86	136.0	205237	40.00	NG/UL	99
18)	C410 NITROBENZENE	9.43	77.0	144528	58.17	NG/UL	81
19)	C415 ISOPHORONE	9.99	82.0	227919M	52.18	NG/UL	97
20)	C420 2-NITROPHENOL	10.14	139.0	55727	53.66	NG/UL	95
21)	C425 2,4-DIMETHYLPHENOL	10.45	107.0	88180	48.59	NG/UL	96
22)	C430 BENZOIC ACID	11.06	122.0	29438	58.56	NG/UL	90
23)	C435 BIS(2-CHLOROETHOXY)METHAN	10.54	93.0	124456	45.76	NG/UL	97
24)	C440 2,4-DICHLOROPHENOL	10.80	162.0	67333	45.83	NG/UL	92
25)	C445 1,2,4-TRICHLOROBENZENE	10.80	180.0	78102	50.67	NG/UL	97
26)	C450 NAPHTHALENE	10.91	128.0	254893	50.09	NG/UL	98
27)	C455 4-CHLOROANILINE	11.27	127.0	69512M	44.35	NG/UL	75
28)	C460 HEXACHLOROBUTADIENE	11.34	225.0	40933	50.01	NG/UL	98
29)	C465 4-CHLORO-3-METHYLPHENOL	12.45	107.0	94423	51.09	NG/UL	92
30)	C470 2-METHYLNAPHTHALENE	12.42	142.0	235527	49.85	NG/UL	87
31)	CS20 NITROBENZENE-D5	9.39	82.0	109138	54.11	NG/UL	91
32)	*CI50 ACENAPHTHENE-D10	14.66	164.0	81856	40.00	NG/UL	99
33)	C510 HEXACHLOROCYCLOPENTADIENE	12.90	237.0	17009	47.15	NG/UL	97
34)	C515 2,4,6-TRICHLOROPHENOL	13.19	196.0	40744	44.61	NG/UL	98
35)	C520 2,4,5-TRICHLOROPHENOL	13.38	196.0	61163M	49.22	NG/UL	99
36)	C525 2-CHLORONAPHTHALENE	13.44	162.0	129236	48.87	NG/UL	94
37)	C530 2-NITROANILINE	13.88	65.0	52799	49.89	NG/UL	94
38)	C535 DIMETHYLPHTHALATE	14.30	163.0	135450	47.55	NG/UL	90
39)	C540 ACENAPHTHYLENE	14.32	152.0	191870	48.94	NG/UL	99
40)	C543 2,6-DINITROTOLUENE	14.45	165.0	39053	49.80	NG/UL	90
41)	C545 3-NITROANILINE	14.81	138.0	25217	54.58	NG/UL	93
42)	C550 ACENAPHTHENE	14.72	153.0	122493	51.85	NG/UL	99
43)	C555 2,4-DINITROPHENOL	15.09	184.0	23282M	60.18	NG/UL	
44)	C560 4-NITROPHENOL	15.59	109.0	12525M	57.54	NG/UL	

0663

		Compound	R.T.	Q ion	Area	Conc	Units	q
45)	C565	DIBENZOFURAN	15.07	168.0	172894	48.54	NG/UL	87
46)	C570	2,4-DINITROTOLUENE	15.31	165.0	56054	41.70	NG/UL	77
47)	C580	DIETHYLPHTHALATE	15.86	149.0	142022	49.59	NG/UL	96
48)	C585	4-CHLOROPHENYL-PHENYLETHE	15.92	204.0	62226	47.47	NG/UL	91
49)	C590	FLUORENE	15.87	166.0	121958	50.09	NG/UL	99
50)	C595	4-NITROANILINE	16.35	138.0	49787M	54.85	NG/UL	79
51)	CS25	2-FLUOROBIPHENYL	13.29	172.0	133175	47.57	NG/UL	99
52)	CS55	2,4,6-TRIBROMOPHENOL	16.47	329.8	19887	46.59	NG/UL	94
53)	*CI60	PHENANTHRENE-D10	17.83	188.0	151669	40.00	NG/UL	96
54)	C610	4,6-DINITRO-2-METHYLPHENO	16.26	198.0	26755	47.05	NG/UL	100
55)	C615	N-NITROSODIPHENYLAMINE	16.21	169.0	91692	51.24	NG/UL	98
56)	C625	4-BROMOPHENYLPHENYLETHER	16.92	248.0	35795	46.91	NG/UL	96
57)	C630	HEXACHLOROBENZENE	17.20	284.0	45951	46.53	NG/UL	85
58)	C635	PENTACHLOROPHENOL	17.71	266.0	11573M	40.65	NG/UL	85
59)	C640	PHENANTHRENE	17.88	178.0	211031	46.89	NG/UL	96
60)	C645	ANTHRACENE	17.98	178.0	223737	47.83	NG/UL	94
61)	C650	DI-N-BUTYLPHTHALATE	19.31	149.0	304656	47.24	NG/UL	86
62)	C655	FLUORANTHENE	20.42	202.0	222746	45.90	NG/UL	96
63)	*CI70	CHRYSENE-D12	23.48	240.0	130861	40.00	NG/UL	96
64)	C715	PYRENE	20.89	202.0	219184	50.68	NG/UL	97
65)	C720	BUTYLBENZYLPHTHALATE	22.45	149.0	143182	49.32	NG/UL	86
66)	C725	3,3'-DICHLOROBENZIDINE	23.52	252.0	27481	37.54	NG/UL	99
67)	C730	BENZO(A)ANTHRACENE	23.45	228.0	183571	46.93	NG/UL	93
68)	C740	CHRYSENE	23.54	228.0	177035	47.62	NG/UL	96
69)	C745	BIS(2-ETHYLHEXYL)PHTHALAT	23.72	149.0	195832	49.71	NG/UL	85
70)	CS30	TERPHENYL-D14	21.29	244.0	145129	50.63	NG/UL	94
71)	*CI75	PERYLENE-D12	26.43	264.0	82709	40.00	NG/UL	97
72)	C760	DI-N-OCTYLPHTHALATE	24.93	149.0	301761	55.50	NG/UL	100
73)	C765	BENZO(B)FLUORANTHENE	25.64	252.0	126428M	52.23	NG/UL	88
74)	C770	BENZO(K)FLUORANTHENE	25.68	252.0	135710	52.06	NG/UL	87
75)	C775	BENZO(A)PYRENE	26.30	252.0	104657	46.53	NG/UL	91
76)	C780	INDENO(1,2,3-CD)PYRENE	29.15	276.0	67912	43.47	NG/UL	80
77)	C785	DIBENZ(A,H)ANTHRACENE	29.15	278.0	61957	47.66	NG/UL	88
78)	C790	BENZO(G,H,I)PERYLENE	29.96	276.0	55452	50.23	NG/UL	88

* Compound is ISTD

File: FF128
SSTD50
Inst: F
8/15/91 08:53

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID (Standard): FF088 Date Analyzed: 08/13/91

Instrument ID: F Time Analyzed: 1521

		IS1(DCB) AREA	#	RT	IS2(NPT) AREA	#	RT	IS3(ANT) AREA	#	RT
	12 HOUR STD	33100		8.45	104000		10.87	56700		14.65
	UPPER LIMIT	66200			208000			113400		
	LOWER LIMIT	16550			52000			28350		
	EPA SAMPLE NO.									
01	6568G-017	28100		8.03	111000		10.85	75900		14.64
02	6568G-018	27900		8.03	105000		10.87	75000		14.64
03	6568G-019	29500		8.03	117000		10.85	64800		14.67
04	6568G-020	29600		8.03	121000		10.85	60600		14.65
05	6568G-021	29100		8.03	114000		10.85	82200		14.64
06	SBLK1	27900		8.03	108000		10.85	75000		14.64

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

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID (Standard): FF088 Date Analyzed: 08/13/91

Instrument ID: F Time Analyzed: 1521

		IS4(PHN) AREA	#	RT	IS5(CRY) AREA	#	RT	IS6(PRY) AREA	#	RT
	12 HOUR STD	97300		17.77	87200		23.40	88300		26.32
	UPPER LIMIT	194600			174400			176600		
	LOWER LIMIT	48650			43600			44150		
	EPA SAMPLE NO.									
01	6568G-017	156000		17.75	170000		23.39	158000		26.32
02	6568G-018	159000		17.75	167000		23.40	158000		26.32
03	6568G-019	135000		17.77	102000		23.47	65000		26.39
04	6568G-020	152000		17.77	118000		23.45	71400		26.39
05	6568G-021	172000		17.75	174000		23.42	132000		26.34
06	SBLK1	156000		17.75	158000		23.39	126000		26.31

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

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID (Standard): A6888 Date Analyzed: 08/14/91

Instrument ID: A Time Analyzed: 0011

		IS1(DCB) AREA	#	RT	IS2(NPT) AREA	#	RT	IS3(ANT) AREA	#	RT
	12 HOUR STD	31000		7.28	128000		10.15	87300		13.89
	UPPER LIMIT	62000			256000			174600		
	LOWER LIMIT	15500			64000			43650		
	EPA SAMPLE NO.									
01	6568G-022	34700		7.23	149000		10.07	103000		13.80
02	6568G-023	34500		7.23	148000		10.09	109000		13.82
03	6568G-024	35900		7.23	140000		10.07	96200		13.82
04	6568G-026MSD	35300		7.25	154000		10.09	100000		13.84
05	SBLK2	35200		7.23	133000		10.09	84900		13.82

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

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID (Standard): A6888 Date Analyzed: 08/14/91

Instrument ID: A Time Analyzed: 0011

		IS4(PHN) AREA	#	RT	IS5(CRY) AREA	#	RT	IS6(PRY) AREA	#	RT
	12 HOUR STD	158000		16.94	167000		22.49	149000		25.26
	UPPER LIMIT	316000			334000			298000		
	LOWER LIMIT	79000			83500			74500		
	EPA SAMPLE NO.									
01	6568G-022	191000		16.85	195000		22.40	175000		25.17
02	6568G-023	191000		16.87	187000		22.42	192000		25.19
03	6568G-024	181000		16.87	200000		22.40	158000		25.17
04	6568G-026MSD	170000		16.87	176000		22.39	173000		25.17
05	SBLK2	185000		16.87	186000		22.40	170000		25.17

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

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID (Standard): A6893 Date Analyzed: 08/14/91

Instrument ID: A Time Analyzed: 1502

	IS1(DCB) AREA	#	RT	IS2(NPT) AREA	#	RT	IS3(ANT) AREA	#	RT
12 HOUR STD	26600		7.13	113000		9.99	72100		13.74
UPPER LIMIT	53200			226000			144200		
LOWER LIMIT	13300			56500			36050		
	EPA SAMPLE NO.								
01	6568G-026MS		7.13	125000		9.99	81000		13.74

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

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID (Standard): A6893 Date Analyzed: 08/14/91

Instrument ID: A Time Analyzed: 1502

	IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS6(PRY) AREA #	RT
12 HOUR STD	106000	16.79	59100	22.29	48400	25.04
UPPER LIMIT	212000		118200		96800	
LOWER LIMIT	53000		29550		24200	
EPA SAMPLE NO.						
01 6568G-026MS	102000	16.75	63100	22.27	58600	25.04

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

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID (Standard): A6912 Date Analyzed: 08/15/91

Instrument ID: A Time Analyzed: 0515

	IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
12 HOUR STD	28200	7.13	125000	10.00	80500	13.77
UPPER LIMIT	56400		250000		161000	
LOWER LIMIT	14100		62500		40250	
EPA SAMPLE NO.						
01 6568G-026	25500	7.13	114000	10.00	71300	13.74

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

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID (Standard): A6912 Date Analyzed: 08/15/91

Instrument ID: A Time Analyzed: 0515

		IS4(PHN) AREA	#	RT	IS5(CRY) AREA	#	RT	IS6(PRY) AREA	#	RT
	12 HOUR STD	115000		16.79	68000		22.32	56300		25.07
	UPPER LIMIT	230000			136000			112600		
	LOWER LIMIT	57500			34000			28150		
	EPA SAMPLE NO.									
01	6568G-026	120000		16.79	73700		22.30	70400		25.06

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

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lab File ID (Standard): FF128 Date Analyzed: 08/15/91

Instrument ID: F Time Analyzed: 0853

		IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
	12 HOUR STD	63400	8.47	205000	10.87	81900	14.67
	UPPER LIMIT	126800		410000		163800	
	LOWER LIMIT	31700		102500		40950	
	EPA SAMPLE NO.						
01	6568G-025	46000	8.03	165000	10.87	98600	14.65

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

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Lao File ID (Standard): FF128 Date Analyzed: 08/15/91

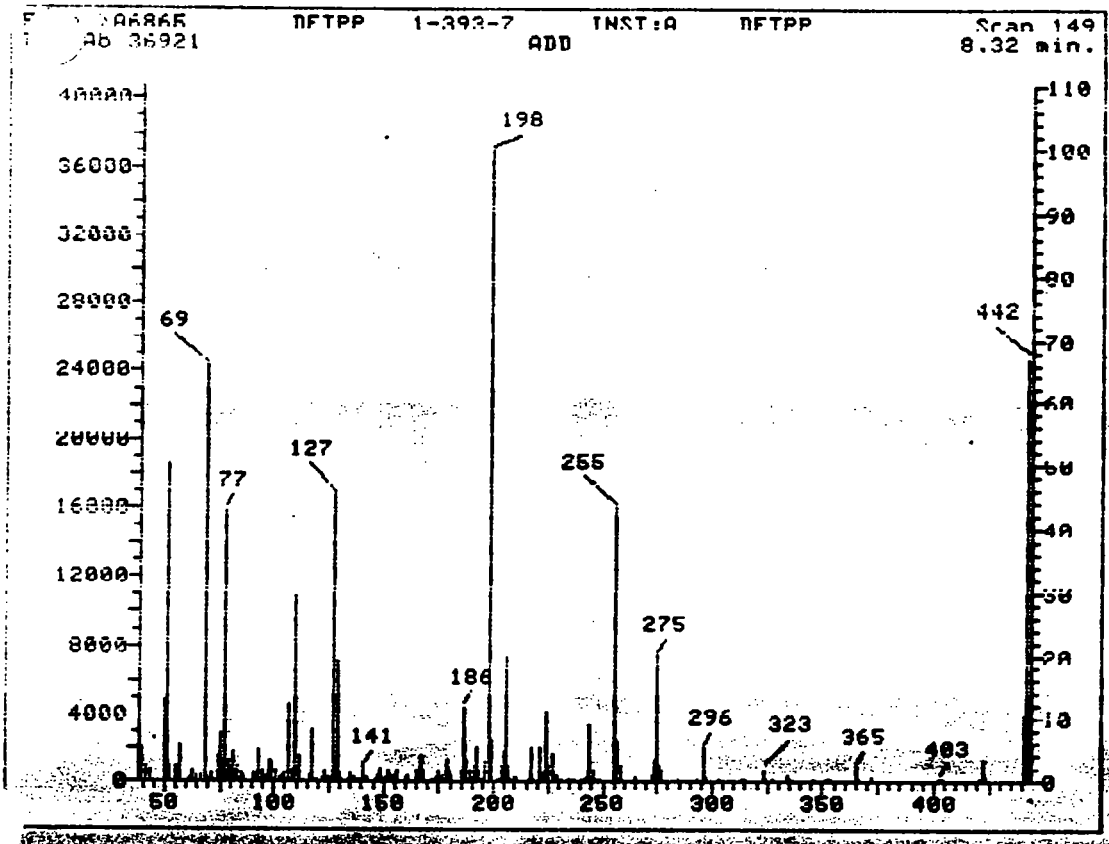
Instrument ID: F Time Analyzed: 0853

	IS4(PHN) AREA	#	RT	IS5(CRY) AREA	#	RT	IS6(PRY) AREA	#	RT
12 HOUR STD	152000		17.84	131000		23.49	82700		26.44
UPPER LIMIT	304000			262000			165400		
LOWER LIMIT	76000			65500			41350		
EPA SAMPLE NO.									
01 6568G-025	146000		17.77	117000		23.42	83300		26.37

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



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	50.36	50.36	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	65.82	65.82	Ok
70	Less than 2% of mass 69	.76	1.15	Ok
127	40-60% of mass 198	45.29	45.29	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	6.65	6.65	Ok
275	10-30% of mass 198	20.07	20.07	Ok
365	Greater than 1% of mass 198	2.24	2.24	Ok
441	0-100% of mass 443	10.56	83.65	Ok
442	Greater than 40% of mass 198	67.22	67.22	Ok
443	17-23% of mass 442	12.62	18.78	Ok

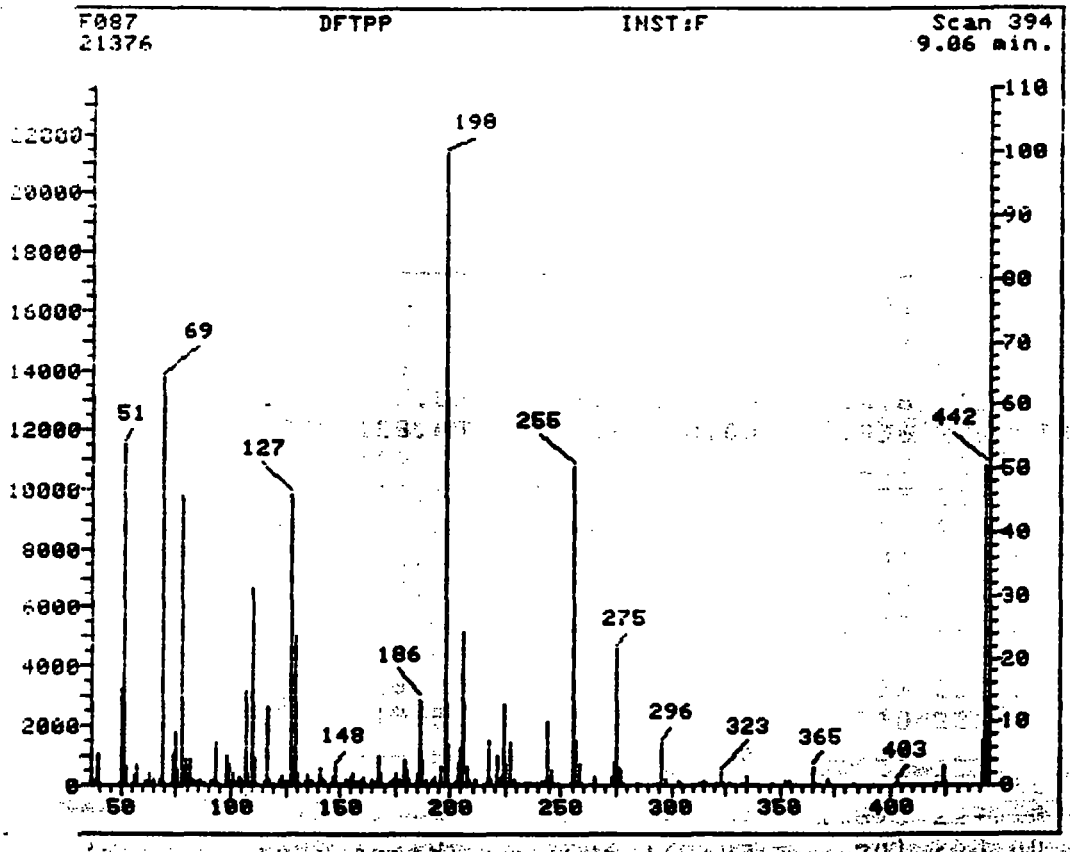
Injection Date: 08/13/91
Injection Time: 14:50
Data File: >A6865

65 DFTPP 1-393-7 INST:A DFTPP
149 ADD NRM

8-13-91
14:50

File: >A6865 Scan #: 149 Retn. time: 8.32

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.05	.785	96.05	.647	146.95	1.129	195.10	.493	258.00	2.367
39.05	5.344	97.05	1.186	147.95	2.183	196.00	3.074	265.00	.756
39.95	.222	97.95	3.526	148.95	.588	197.90	100.000	272.95	1.116
41.05	2.530	98.95	3.131	151.05	.672	198.90	6.655	273.95	3.510
42.05	.190	99.95	.228	151.95	1.698	201.40	.393	274.95	20.073
43.05	2.197	100.95	1.809	153.05	1.043	203.00	.376	275.95	2.673
50.00	13.044	102.95	.650	153.95	.341	204.00	2.814	276.95	1.557
51.00	50.356	103.95	1.027	154.95	1.208	205.00	4.818	277.95	.200
52.00	2.527	105.05	1.311	155.95	1.568	205.95	19.850	284.95	.257
55.00	2.722	106.05	.309	159.95	.685	206.95	2.505	292.95	.268
56.00	2.359	106.95	12.302	160.95	1.045	207.95	.425	295.95	5.309
57.00	5.644	108.05	1.901	161.85	.176	210.05	.558	296.95	.593
60.90	.225	109.95	29.709	163.05	.192	210.95	.815	303.00	.482
62.00	.753	111.00	4.158	164.15	.160	215.95	.311	314.00	.211
63.00	2.107	111.90	.336	165.05	1.644	216.95	5.463	315.00	.488
65.00	.970	112.90	.366	166.05	.910	217.95	.528	323.00	1.866
67.00	.975	116.10	.888	166.95	4.006	220.95	5.398	324.00	.311
69.00	65.824	116.90	8.394	167.95	1.777	222.95	1.276	326.90	.287
70.00	.756	118.00	.287	171.95	.225	223.95	11.072	333.95	1.035
71.10	1.295	119.00	.520	173.05	.303	224.95	2.817	334.95	.284
73.00	.206	122.00	.772	174.00	.574	226.95	4.277	345.95	.355
74.00	4.160	123.00	1.617	175.00	1.612	227.95	.718	351.95	.441
75.00	7.765	124.00	.707	175.90	.707	228.95	1.024	352.95	.311
76.00	2.224	125.00	.807	176.90	.878	230.95	.274	353.95	.431
77.00	42.818	127.00	45.286	178.00	.485	233.95	.230	364.90	2.237
78.00	2.925	128.00	3.702	178.90	3.499	234.95	.228	365.90	.339
79.00	3.545	129.00	19.089	179.90	2.086	236.90	.268	372.00	.837
79.95	2.489	129.90	1.541	180.90	1.165	240.90	.211	401.95	.366
80.95	4.789	131.00	.214	185.00	1.663	242.00	.409	402.95	.474
81.95	1.633	134.00	.317	186.00	11.923	243.00	.683	403.95	.260
82.95	2.267	135.00	1.484	187.00	3.318	244.00	9.073	420.95	.504
83.95	.228	136.00	.558	188.00	.525	245.00	.834	421.95	.401
84.95	1.216	137.10	1.829	189.00	1.956	245.90	1.598	422.95	3.480
85.95	.886	139.00	.225	190.00	.783	246.90	.236	423.95	.604
90.95	1.262	141.00	2.356	191.00	2.852	248.90	.360	441.00	10.560
91.95	.907	142.00	.799	192.00	5.338	254.90	43.300	442.00	67.225
92.95	5.152	142.95	.623	193.00	1.628	256.00	6.579	443.00	12.624
94.05	.301	145.95	.222	194.00	.238	257.00	.428	444.00	1.100
95.05	1.658								



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	53.63	53.63	Ok
68	Less than 2% of mass 69	1.02	1.57	Ok
69	(reference only)	64.49	64.49	Ok
70	Less than 2% of mass 69	.32	.49	Ok
127	40-60% of mass 198	45.95	45.95	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	6.38	6.38	Ok
275	10-30% of mass 198	21.49	21.49	Ok
365	Greater than 1% of mass 198	2.85	2.85	Ok
441	0-100% of mass 443	7.16	77.90	Ok
442	Greater than 40% of mass 198	50.53	50.53	Ok
443	17-23% of mass 442	9.19	18.18	Ok

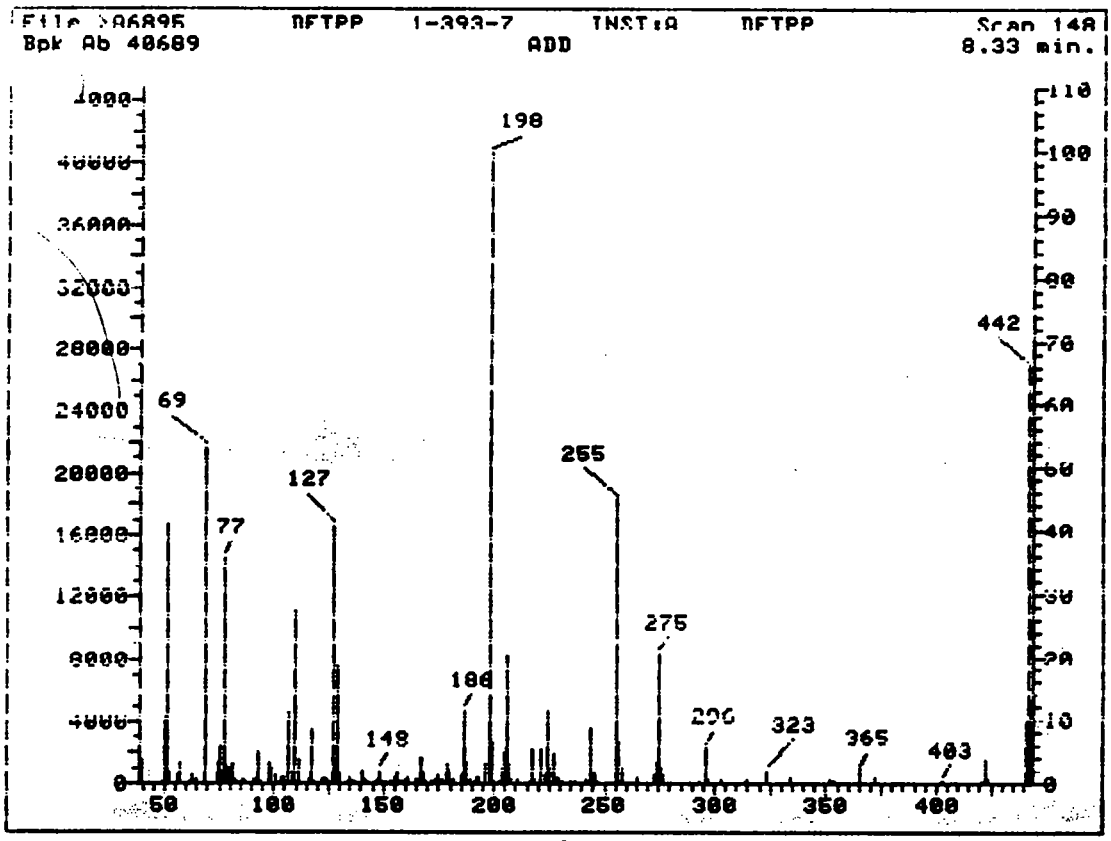
Injection Date: 08/13/91
Injection Time: 14:54
Data File: >FF087
Scan: 394

>A6887 DFTPP 1-393-7 INST:A DFTPP
147 ADD NRM

8-13-91
23:50

File: >A6887 Scan #: 147 Retn. time: 8.33

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.95	.198	98.95	2.998	151.05	.212	198.90	6.770	259.00	.265
38.05	.501	100.95	1.636	152.95	.425	201.50	.495	265.00	.940
39.05	4.674	102.95	.626	153.95	.553	203.00	.751	272.95	1.563
39.95	.268	103.95	.978	154.95	1.062	204.00	2.721	273.95	3.725
50.00	11.694	105.05	.946	155.95	1.563	205.00	5.058	274.95	20.612
51.00	43.951	107.05	11.482	157.05	.236	205.95	21.302	275.95	2.634
52.00	2.247	108.05	1.717	157.85	.247	206.95	2.727	276.95	1.706
56.00	1.397	110.05	28.450	158.95	.192	207.95	.652	295.95	5.469
57.00	3.283	110.90	3.743	159.95	.600	210.35	.244	296.95	.538
61.00	.393	116.10	.527	160.95	.949	210.95	.797	303.00	.728
62.00	.425	116.90	8.586	164.95	.431	215.95	.265	314.90	.573
63.00	1.167	118.00	.445	165.95	.742	216.95	5.830	316.00	.250
63.90	.183	122.00	.562	167.05	4.019	217.95	.300	323.00	1.880
65.00	.477	122.90	1.289	168.05	1.895	220.95	5.003	333.95	1.231
69.00	57.490	123.90	.451	174.00	.466	222.95	1.339	340.95	.160
74.00	3.804	125.00	.600	175.00	1.429	224.05	11.263	352.05	.361
75.00	6.450	127.00	43.977	175.90	.541	225.05	2.983	352.95	.323
76.10	2.075	128.00	3.443	176.90	.763	225.95	.367	354.05	.405
77.00	38.744	129.00	19.372	178.90	3.298	226.95	4.988	364.90	2.471
78.00	2.520	130.00	1.723	180.00	1.970	227.95	.588	372.00	.972
79.00	2.989	134.00	.504	181.00	1.051	228.95	1.042	401.95	.335
79.95	2.366	135.00	1.420	185.00	1.429	230.95	.224	402.95	.460
80.95	3.184	136.00	.387	186.00	11.674	242.00	.297	420.95	.463
81.95	.483	137.00	.728	187.00	3.300	243.00	.617	422.05	.373
82.95	.442	141.00	2.299	188.00	.230	244.00	9.235	423.05	3.469
84.95	.431	142.00	.716	188.90	.783	245.00	1.266	424.05	.637
85.95	.518	142.95	.311	191.00	.221	246.00	1.752	441.00	10.574
90.95	.387	145.95	.242	192.00	1.045	255.00	47.848	442.00	67.252
91.95	.736	146.95	1.051	193.00	.966	256.00	6.429	443.00	12.006
92.95	5.216	147.95	2.247	196.00	3.079	256.90	.469	444.00	.972
97.95	3.295	148.95	.317	197.90	100.000	258.00	2.547		



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	40.86	40.86	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	53.12	53.12	Ok
70	Less than 2% of mass 69	.20	.38	Ok
127	40-60% of mass 198	40.80	40.80	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	6.53	6.53	Ok
275	10-30% of mass 198	20.55	20.55	Ok
365	Greater than 1% of mass 198	2.26	2.26	Ok
1	0-100% of mass 443	10.16	79.06	Ok
2	Greater than 40% of mass 198	65.76	65.76	Ok
443	17-23% of mass 442	12.85	19.54	Ok

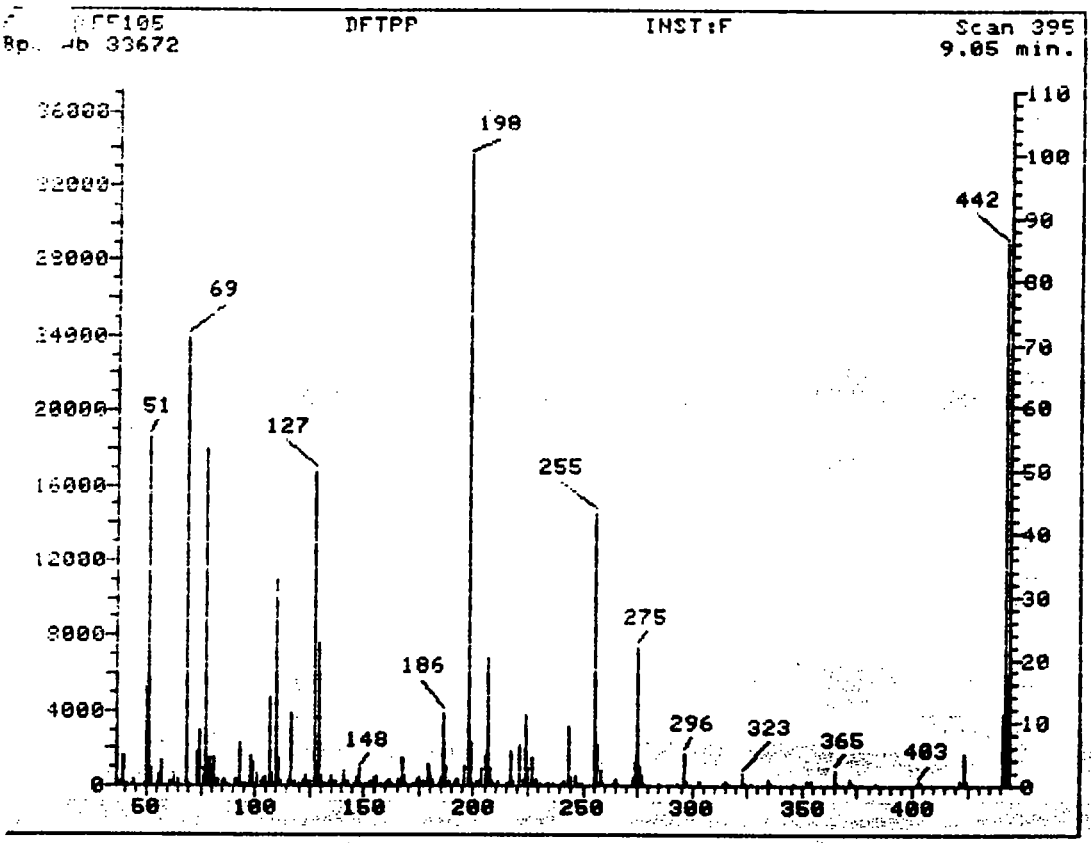
Injection Date: 08/14/91
Injection Time: 09:30
Data File: >A6895

>A6895 DFTPP 1-393-7 INST:A DFTPP
148 ADD NRM

8-14-91
09:30

File: >A6895 Scan #: 148 Retn. time: 8.33

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.05	.487	97.95	3.443	153.95	.359	200.00	.305	257.90	2.620
39.05	3.792	98.95	2.664	154.95	1.182	201.50	.499	258.90	.189
49.00	.307	100.95	1.541	155.95	1.622	203.00	.383	265.00	1.000
50.00	10.730	103.05	.482	157.05	.283	204.00	2.858	272.95	1.450
51.00	40.859	103.95	1.108	157.95	.280	205.00	4.913	273.95	3.419
52.00	2.146	104.95	.877	158.95	.219	205.95	20.330	274.95	20.546
54.90	.150	106.95	11.229	159.95	.723	206.95	2.917	275.95	2.706
55.90	1.359	108.05	1.627	160.95	1.020	207.95	.575	276.95	1.543
57.00	3.335	109.95	27.174	164.95	.845	210.45	.194	292.95	.413
62.00	.433	111.00	3.608	166.05	.482	210.95	.848	295.95	5.717
63.00	1.293	116.00	.629	166.95	4.097	216.05	.519	296.95	.673
64.00	.162	116.90	8.405	167.95	1.880	216.95	5.326	303.00	.661
65.00	.607	117.90	.479	168.95	.209	217.95	.676	313.90	.300
69.00	53.115	122.00	.558	171.95	.253	220.95	5.449	314.90	.582
70.00	.202	123.00	.912	172.95	.305	222.95	1.376	323.00	1.902
73.00	.177	123.90	.565	174.00	.868	223.95	11.357	333.95	1.133
74.00	3.559	125.00	.433	175.00	1.516	224.95	2.789	334.95	.174
75.00	6.078	127.00	40.800	176.00	.383	226.05	.135	351.95	.555
76.00	1.895	128.00	3.416	176.90	.826	226.95	4.881	352.95	.415
77.00	35.634	129.00	18.963	177.90	.177	227.95	.617	353.95	.319
78.00	2.566	130.00	1.595	178.90	3.104	228.95	1.047	364.90	2.256
79.00	2.883	133.90	.371	179.90	1.922	230.95	.226	365.90	.204
79.95	2.264	135.00	.978	181.00	.683	234.95	.216	371.90	1.052
80.95	2.937	136.00	.386	185.00	1.499	236.90	.211	382.90	.157
81.95	.654	137.00	.482	186.00	11.490	240.90	.165	401.95	.261
82.95	.484	141.00	2.138	187.00	3.382	241.90	.637	402.95	.435
84.95	.391	142.00	.575	188.00	.202	243.10	.391	420.95	.356
85.95	.646	142.95	.533	188.90	.541	244.00	8.887	421.95	.501
86.95	.243	145.95	.251	191.00	.238	245.00	1.155	422.95	3.593
90.95	.619	146.95	.725	192.00	.956	245.90	1.656	423.95	.720
91.95	.629	147.95	2.182	193.00	.946	246.90	.253	441.00	10.158
92.95	4.903	148.85	.275	196.00	3.170	255.00	44.973	442.00	65.757
93.95	.261	151.05	.211	197.90	100.000	255.90	6.668	443.00	12.849
95.95	.133	152.95	.428	198.90	6.525	257.00	.501	444.00	1.251



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	55.22	55.22	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	71.04	71.04	Ok
70	Less than 2% of mass 69	.29	.41	Ok
127	40-60% of mass 198	49.73	49.73	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	6.65	6.65	Ok
275	10-30% of mass 198	21.91	21.91	Ok
365	Greater than 1% of mass 198	2.49	2.49	Ok
441	0-100% of mass 443	11.37	70.40	Ok
442	Greater than 40% of mass 198	85.84	85.84	Ok
443	17-23% of mass 442	16.16	18.82	Ok

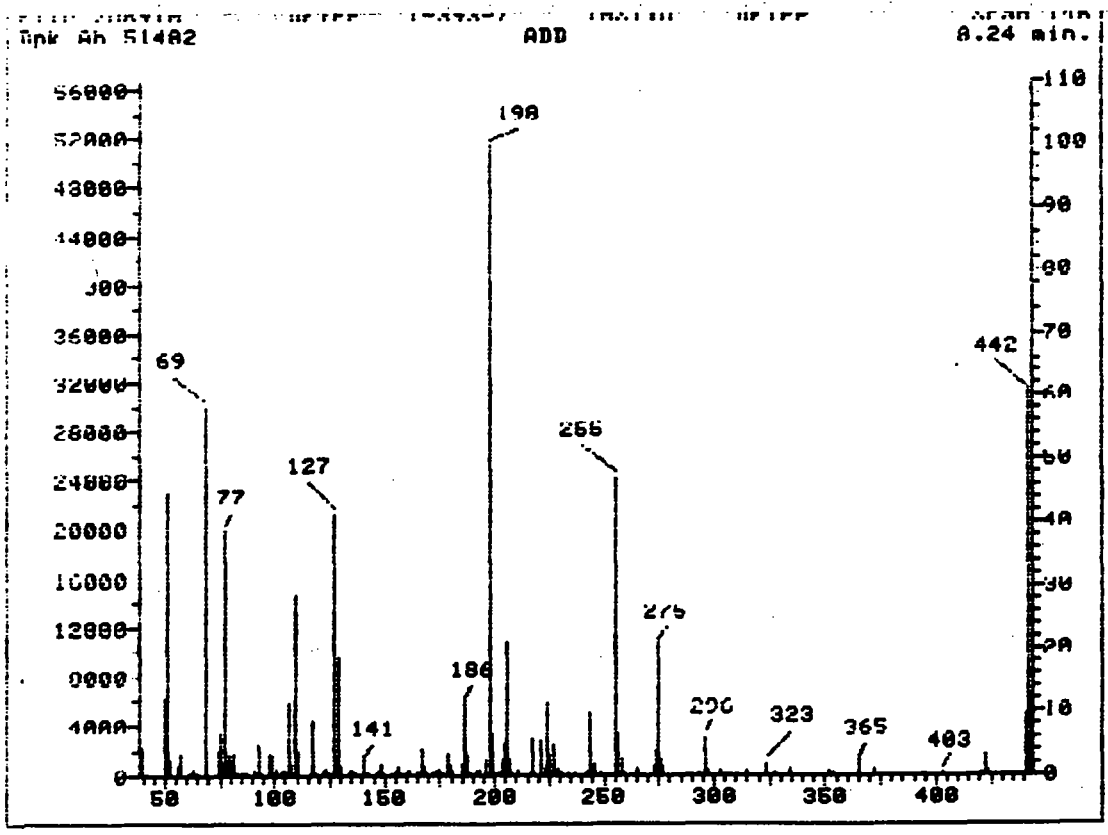
Injection Date: 08/14/91
Injection Time: 14:42
Data File: >FF105
Scan: 395

105 DFTPP INST:F 8/14/91
395 NRM 14:42

File: >FF105 Scan #: 395 Retn. time: 9.05

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
35.90	.101	97.15	.181	151.10	.291	204.00	2.845	276.05	2.940
37.05	.282	97.95	4.841	151.80	.211	205.00	4.698	277.05	1.657
38.05	.817	98.95	3.626	153.00	.820	206.10	20.124	278.05	.214
39.05	4.710	99.95	.386	154.05	.612	207.00	2.750	282.95	.193
39.95	.371	100.95	2.183	155.05	1.277	208.00	.713	285.10	.279
41.05	.321	101.95	.128	156.05	1.818	209.00	.217	293.00	.416
43.05	.232	103.05	.728	157.15	.401	211.00	.858	294.00	.080
43.95	1.025	103.95	1.277	157.95	.443	215.05	.229	296.00	5.173
48.95	.481	104.95	1.330	159.05	.386	216.05	.469	297.00	.707
49.95	15.428	106.05	.481	160.05	.772	217.05	5.524	303.05	.579
50.95	55.215	106.95	14.157	161.05	1.137	218.05	.674	314.10	.232
52.00	2.747	108.05	2.106	162.05	.312	221.05	6.251	315.10	.603
55.00	.490	109.05	.499	164.05	.148	223.05	1.158	316.10	.309
56.00	1.815	110.00	32.472	164.95	.924	224.05	11.241	321.10	.193
57.00	4.072	111.00	4.487	165.95	.615	225.05	2.875	323.10	1.927
58.00	.187	112.00	.606	167.05	4.556	226.10	.321	324.10	.404
60.00	.134	113.00	.193	168.00	1.734	227.00	4.443	327.00	.386
61.00	.719	114.90	.083	169.00	.383	228.00	.644	328.15	.181
62.00	.840	116.00	.826	170.10	.190	229.00	.965	332.05	.125
63.00	2.141	117.00	11.582	171.00	.184	229.90	.181	333.15	.184
64.00	.315	118.00	.852	172.00	.401	231.00	.422	334.05	1.134
65.00	1.045	120.00	.211	173.00	.535	234.00	.324	335.05	.353
67.05	.134	122.00	1.051	174.00	.924	235.00	.306	341.05	.196
68.95	71.038	123.00	1.550	175.00	1.503	236.00	.178	346.10	.419
69.95	.288	124.00	.686	176.10	.487	237.00	.327	352.10	.639
71.05	.140	125.05	.671	177.00	.867	240.00	.181	353.10	.457
73.05	.425	127.05	49.727	178.00	.294	241.05	.297	354.10	.621
73.95	5.560	128.05	3.816	179.00	3.430	242.05	.591	355.10	.143
74.95	8.865	128.95	22.529	180.00	2.204	243.15	.600	365.05	2.486
76.05	2.789	130.05	1.821	181.00	1.060	244.05	9.373	366.05	.318
77.05	53.338	130.95	.350	182.00	.196	245.05	1.295	371.05	.151
78.05	3.680	131.95	.244	182.95	.089	246.05	1.598	372.10	1.028
78.95	4.315	133.95	.585	184.05	.261	247.05	.336	373.10	.288
79.95	3.017	134.95	1.619	185.05	1.458	249.05	.344	383.10	.312
81.00	4.262	135.95	.627	186.05	11.526	253.05	.160	384.00	.107
82.00	1.087	137.05	.739	187.05	3.121	254.95	43.057	390.15	.178
83.00	.971	137.65	.163	188.05	.443	256.10	6.311	402.10	.445
84.00	.134	137.95	.175	189.05	.757	257.10	.523	403.10	.689
85.00	.692	140.10	.258	191.05	.321	258.10	2.498	404.10	.246
86.00	1.167	141.00	2.548	192.05	.986	259.10	.416	421.15	.549
87.00	.487	142.00	.840	193.05	.915	263.90	.235	422.15	.484
88.00	.101	143.00	.612	194.05	.196	265.00	.968	423.15	5.010
.00	.962	144.90	.184	195.95	3.207	265.90	.410	424.15	.861
1.90	1.022	146.00	.457	198.00	100.000	267.80	.184	441.10	11.374
93.00	6.777	147.00	1.280	199.00	6.649	270.05	.122	442.10	85.840
94.00	.466	148.00	2.557	200.00	.517	273.05	1.470	443.10	16.156
95.00	.273	149.00	.514	201.60	.609	274.05	3.602	444.10	1.648
96.05	.276	150.00	.137	203.00	.576	275.05	21.908		

0684



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	44.84	44.84	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	58.21	58.21	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	41.47	41.47	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	6.40	6.40	Ok
275	10-30% of mass 198	20.70	20.70	Ok
365	Greater than 1% of mass 198	2.25	2.25	Ok
441	0-100% of mass 443	9.36	80.97	Ok
442	Greater than 40% of mass 198	60.35	60.35	Ok
443	17-23% of mass 442	11.56	19.15	Ok

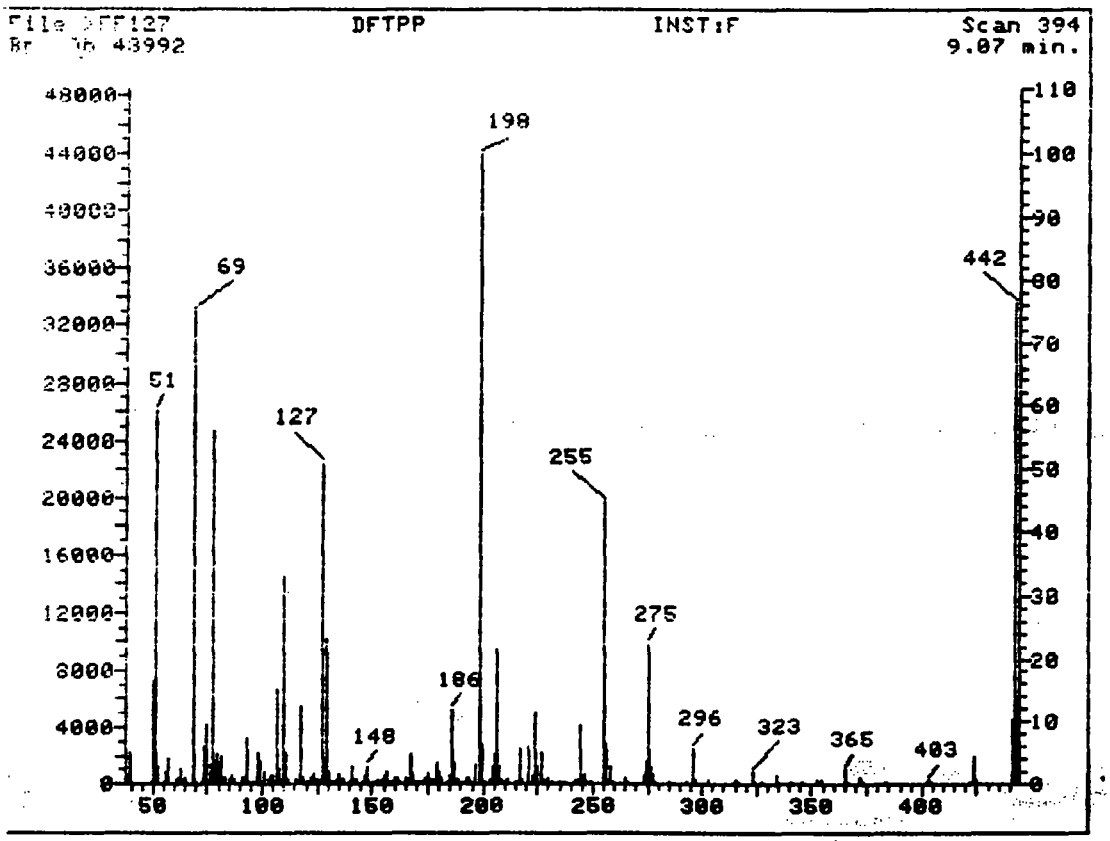
Injection Date: 08/15/91
Injection Time: 03:03
Data File: >A6910
Scan: 145

>A6910 DFTPP 1-393-7 INST:A DFTPP
145 ADD NRM

8-15-91
03:03

File: >A6910 Scan #: 145 Retn. time: 8.24

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	.616	104.95	.581	157.95	.293	204.00	2.875	264.90	.911
39.05	4.398	106.95	11.565	158.95	.163	205.00	5.202	272.95	1.484
50.00	11.967	107.95	1.719	159.95	.493	205.95	20.755	273.95	3.689
51.00	44.841	109.95	28.470	160.95	.785	206.95	2.684	274.95	20.704
52.00	2.220	110.90	3.696	164.95	.470	207.95	.396	275.95	2.552
55.00	.186	116.00	.532	165.95	.408	210.25	.103	276.95	1.474
56.00	1.412	116.90	8.512	166.95	4.219	210.95	.732	277.95	.181
57.00	3.376	117.90	.385	167.95	1.379	215.95	.373	292.95	.249
61.00	.324	121.90	.563	168.95	.221	216.95	5.614	295.95	5.851
62.00	.365	122.90	.895	171.95	.221	217.95	.460	296.95	.723
63.00	.934	124.00	.402	172.95	.293	220.95	5.303	302.90	.602
65.00	.422	125.00	.344	173.90	.812	222.95	1.191	313.90	.134
69.00	58.207	127.00	41.473	174.90	.967	223.95	11.404	314.90	.556
74.00	3.879	128.00	3.133	175.90	.406	224.95	2.941	315.90	.202
75.00	6.680	128.90	18.692	176.90	.509	225.95	.229	323.00	1.771
76.00	1.975	130.00	1.309	178.90	3.337	226.95	4.893	323.90	.186
77.00	38.827	130.90	.181	179.90	1.773	227.95	.565	326.90	.221
78.00	2.506	134.00	.350	180.90	.862	228.95	.876	333.95	1.047
79.00	3.112	135.00	.812	183.90	.169	230.95	.315	334.95	.185
79.95	2.232	135.90	.340	185.00	1.573	233.95	.208	351.95	.554
80.95	3.353	137.00	.455	186.00	11.637	234.95	.185	352.95	.354
81.95	.462	141.00	2.286	187.00	3.158	236.90	.218	353.95	.480
82.95	.491	142.00	.499	188.00	.214	240.90	.196	364.90	2.251
84.95	.295	142.85	.330	188.90	.468	241.90	.390	371.90	.882
85.95	.530	145.95	.223	191.00	.264	243.00	.670	401.85	.153
86.95	.233	146.95	.692	191.90	.674	244.00	9.864	402.85	.482
90.85	.684	147.95	1.818	193.00	.662	245.00	1.076	420.95	.402
91.95	.521	148.95	.289	193.90	.109	245.90	1.575	422.05	.443
92.95	5.093	151.05	.188	195.00	.132	246.90	.200	422.95	2.925
93.95	.225	151.55	.181	196.00	2.702	248.90	.212	423.95	.604
97.95	3.467	152.95	.476	197.90	100.000	255.00	47.191	441.00	9.359
98.95	2.918	153.95	.342	198.90	6.396	256.00	6.725	441.90	60.351
100.95	.942	154.95	.860	200.00	.291	257.00	.340	442.90	11.557
102.95	.404	155.95	1.303	201.50	.488	257.90	2.611	444.00	1.016
103.95	.682	157.05	.243	203.00	.363	259.00	.282		



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	59.16	59.16	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	74.78	74.78	Ok
70	Less than 2% of mass 69	.31	.41	Ok
127	40-60% of mass 198	50.83	50.83	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	6.34	6.34	Ok
275	10-30% of mass 198	22.28	22.28	Ok
365	Greater than 1% of mass 198	2.39	2.39	Ok
441	0-100% of mass 443	10.37	73.28	Ok
442	Greater than 40% of mass 198	76.12	76.12	Ok
443	17-23% of mass 442	14.15	18.58	Ok

Injection Date: 08/15/91
Injection Time: 08:21
Data File: >FF127
Scan: 394

127 DFTPP INST:F 08/15/91
394 NRM 08:21

File: FF127 Scan #: 394 Retn. time: 9.07

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.05	.339	100.95	2.084	159.05	.332	215.05	.252	292.10	.093
38.05	.946	102.05	.123	160.05	.877	216.05	.466	293.10	.382
39.05	5.090	102.95	.721	161.05	1.107	217.05	5.758	296.10	5.617
39.95	.216	104.05	1.475	162.05	.284	218.05	.718	297.10	.807
41.05	.184	104.95	1.373	164.05	.143	221.05	5.917	302.15	.120
43.95	.200	106.05	.486	164.95	.991	223.05	1.209	303.15	.661
44.95	.123	107.05	15.287	166.05	.752	224.05	11.604	304.15	.177
49.05	.500	108.05	2.278	167.05	4.610	225.05	2.791	308.05	.093
49.95	16.473	110.00	32.874	168.10	1.805	226.20	.286	310.05	.095
50.95	59.156	111.00	4.908	169.10	.375	227.10	4.976	313.05	.075
52.00	2.889	112.00	.566	170.10	.159	228.10	.702	314.20	.245
53.00	.132	113.10	.173	171.10	.207	229.10	.934	315.10	.614
55.00	.323	116.00	.866	172.00	.423	230.10	.157	316.20	.357
56.00	1.921	117.00	12.491	173.10	.523	231.10	.436	321.10	.193
57.00	4.212	118.00	.948	174.10	.896	234.00	.343	322.10	.109
58.00	.193	120.00	.214	175.10	1.748	235.00	.339	323.20	1.905
61.00	.768	122.00	1.043	176.00	.557	236.10	.205	324.20	.334
62.00	.884	123.00	1.700	177.00	.827	237.00	.346	327.10	.343
63.00	2.291	124.00	.746	178.00	.291	239.10	.198	328.15	.186
64.10	.277	125.05	.661	179.00	3.507	240.00	.145	332.05	.145
65.00	1.066	127.05	50.827	180.00	2.125	241.15	.248	333.05	.205
66.05	.089	128.05	3.864	181.10	1.018	242.05	.564	334.15	1.239
67.05	.095	129.05	23.202	182.00	.175	243.15	.564	335.15	.302
68.95	74.777	130.05	1.982	183.05	.114	244.15	9.399	341.15	.230
69.95	.309	130.95	.346	184.05	.284	245.15	1.234	346.10	.373
73.05	.473	132.15	.232	185.15	1.487	246.05	1.809	352.10	.616
74.05	5.912	133.05	.116	186.05	11.829	247.05	.327	353.10	.411
74.95	9.486	133.95	.652	187.05	3.432	249.05	.386	354.20	.675
76.05	2.953	135.05	1.862	188.15	.591	251.05	.077	355.20	.132
77.05	56.119	136.05	.736	189.05	.798	252.95	.155	365.15	2.389
78.05	3.587	137.05	.727	190.05	.114	255.05	44.572	366.15	.366
78.95	4.594	138.05	.198	191.05	.405	256.10	6.263	371.15	.184
79.95	3.423	139.10	.130	192.05	1.071	257.10	.457	372.20	1.059
81.00	4.530	140.00	.227	193.05	.966	258.10	2.653	373.20	.220
82.00	1.077	141.00	2.710	194.05	.209	259.10	.386	383.20	.293
83.00	.948	142.00	.852	195.15	.152	261.10	.084	384.10	.091
84.00	.127	143.00	.609	196.05	3.021	264.00	.193	390.15	.157
85.00	.800	144.00	.134	198.00	100.000	265.10	1.039	391.25	.125
86.00	1.225	145.00	.161	199.00	6.344	266.00	.355	392.25	.107
87.00	.655	146.00	.464	200.10	.491	267.90	.134	402.20	.439
88.00	.200	147.00	1.239	201.60	.486	272.05	.125	403.20	.609
91.00	1.041	148.00	2.755	203.10	.632	273.15	1.450	404.20	.211
.00	1.143	149.00	.536	204.10	2.828	274.15	3.676	421.25	.500
1.00	7.254	151.10	.286	205.10	4.896	275.15	22.279	422.25	.514
94.00	.525	151.90	.232	206.10	21.545	276.15	2.803	423.25	4.346
95.00	.161	153.00	.832	207.10	2.696	277.15	1.798	424.25	.787
96.05	.325	154.05	.648	208.10	.721	278.05	.280	441.20	10.366
97.05	.157	155.05	1.312	209.00	.211	283.15	.191	442.20	76.123
98.05	5.099	156.05	1.896	210.30	.380	284.15	.136	443.20	14.648
98.95	3.776	157.15	.398	211.10	.809	285.20	.298	444.20	1.180

0688

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: SBLK1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF097

Level: (low/med) LOW Date Received:

% Moisture: not dec. dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/13/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)Ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
100-51-6	Benzyl Alcohol	660	U
95-50-1	1,2-Dichlorobenzene	660	U
95-48-7	2-Methylphenol	660	U
108-60-1	bis(2-Chloroisopropyl)ether	660	U
106-44-5	4-Methylphenol	660	U
621-64-7	N-Nitroso-Di-n-Propylamine	660	U
67-72-1	Hexachloroethane	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
65-85-0	Benzoic Acid	3200	U
111-91-1	bis(2-Chloroethoxy)Methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-20-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-Methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3200	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3200	U
131-11-3	Dimethyl Phthalate	660	U
208-96-8	Acenaphthylene	660	U
606-20-2	2,6-Dinitrotoluene	660	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: SBLK1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF097

Level: (low/med) LOW Date Received:

% Moisture: not dec. dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/13/91

GPC Cleanup: (Y/N) Y 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	3200	U
83-32-9	Acenaphthene	660	U
51-28-5	2,4-Dinitrophenol	3200	U
100-02-7	4-Nitrophenol	3200	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
86-73-7	Fluorene	660	U
100-01-6	4-Nitroaniline	3200	U
534-52-1	4,6-Dinitro-2-Methylphenol	3200	U
86-30-6	N-Nitrosodiphenylamine (1)	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3200	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
84-74-2	Di-n-Butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)Anthracene	660	U
218-01-9	Chrysene	660	U
117-81-7	bis(2-Ethylhexyl)Phthalate	660	U
117-84-0	Di-n-Octyl Phthalate	660	U
205-99-2	Benzo(b)Fluoranthene	660	U
207-08-9	Benzo(k)Fluoranthene	660	U
50-32-8	Benzo(a)Pyrene	660	U
193-39-5	Indeno(1,2,3-cd)Pyrene	660	U
53-70-3	Dibenz(a,h)Anthracene	660	U
191-24-2	Benzo(g,h,i)Perylene	660	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK1

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: SBLK1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: FF097

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

% Moisture: not dec. _____ dec. _____ Date Extracted: 08/02/91

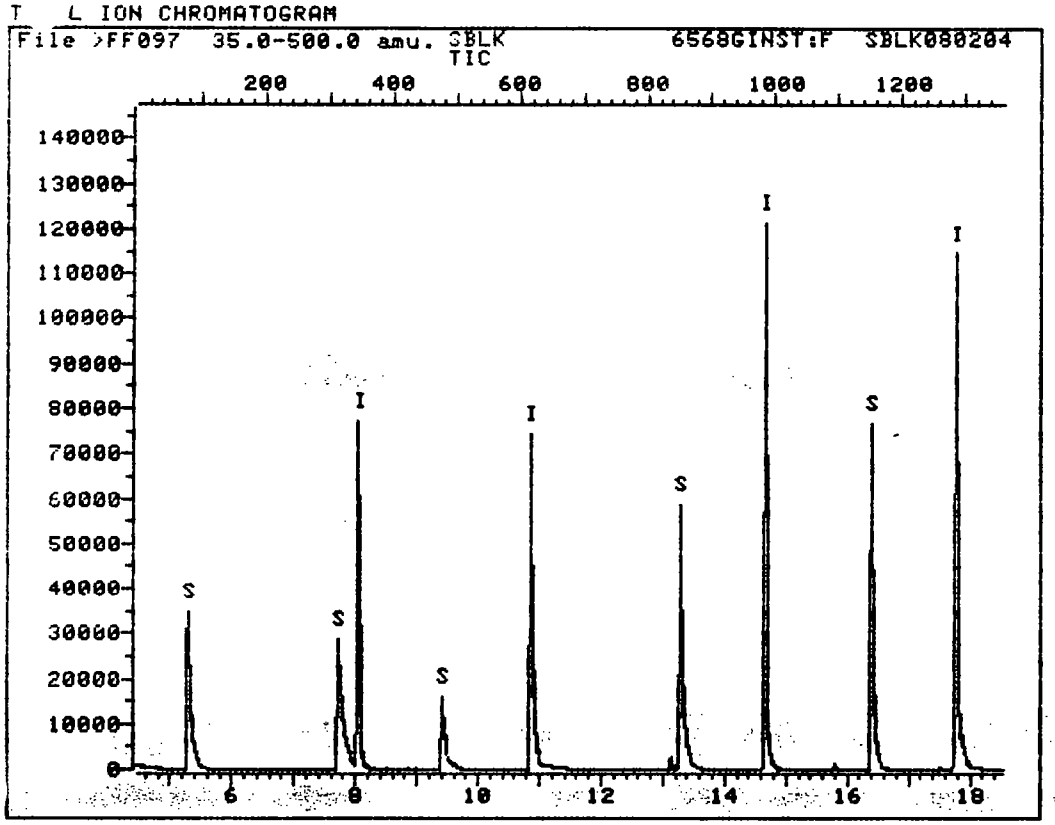
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/13/91

GPC Cleanup: (Y/N) Y pH: 7.0 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

T L ION CHROMATOGRAM



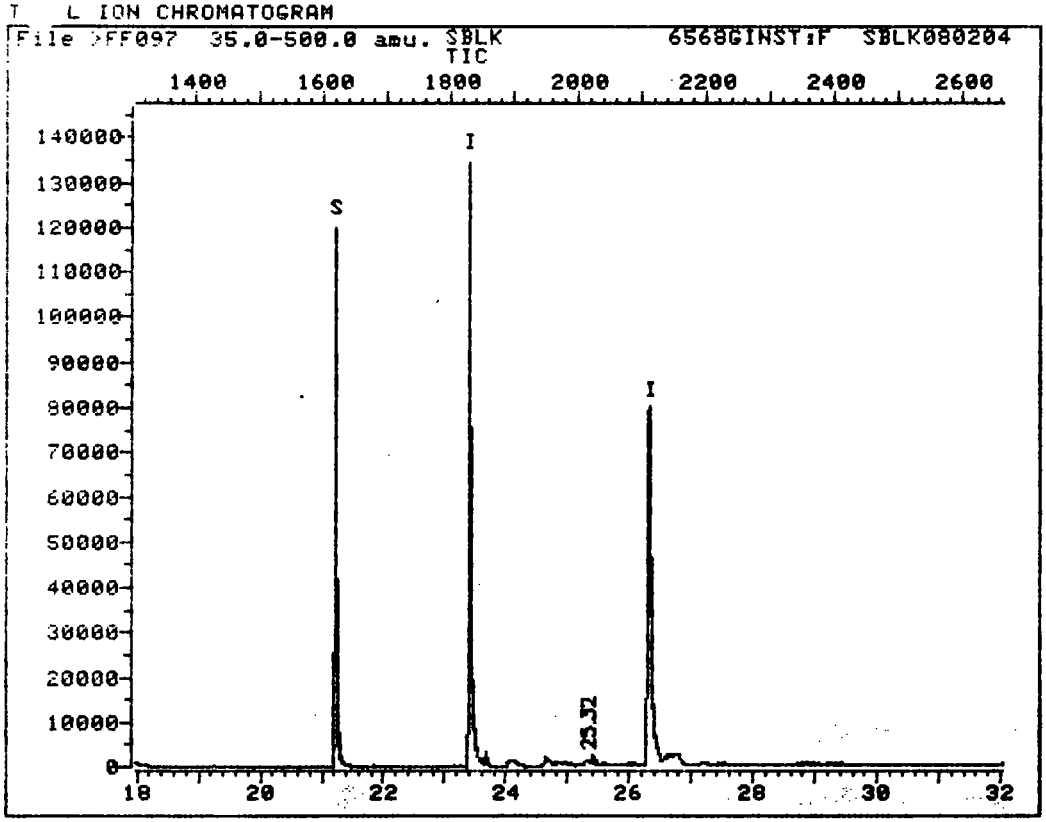
Data File: >FF097::D6 Quant Output File: ^FF097::D7
Name: SBLK 6568G
Misc: INST:F SBLK080204 30G/1ML/1UL BTL# 9

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 22:11
Injected at: 910813 21:36

TIC page 1 of 2

T L ION CHROMATOGRAM



Data File: >FF097::D6 Quant Output File: ^FF097::D7
Name: SBLK 6568G
Misc: INST:F SBLK080204 30G/1ML/1UL BTL# 9

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

Operator ID: LINDA
Quant Time: 910813 22:11
Injected at: 910813 21:36

TIC page 2 of 2

QUANT REPORT

Operator ID: LINDA Quant Rev: 6 Quant Time: 910813 22:11
Output File: ^FF097::D7 Injected at: 910813 21:36
Data File: >FF097::D6 Dilution Factor: 1.00000
Name: SBLK 6568G
Misc: INST:F SBLK080204 30G/1ML/1UL BTL# 9

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910813 16:27

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	8.03	152.0	27852	40.00	NG/UL	94
15)	CS50 2-FLUOROPHENOL	5.28	112.0	37728	63.00	NG/UL	90
16)	CS45 PHENOL-D5	7.71	99.0	55957	65.62	NG/UL	89
17)	*CI40 NAPHTHALENE-D8	10.85	136.0	108394	40.00	NG/UL	98
31)	CS20 NITROBENZENE-D5	9.39	82.0	25282	25.03	NG/UL	87
32)	*CI50 ACENAPHTHENE-D10	14.64	164.0	74997	40.00	NG/UL	97
51)	CS25 2-FLUOROBIPHENYL	13.27	172.0	73573	29.51	NG/UL	98
52)	CS55 2,4,6-TRIBROMOPHENOL	16.37	329.8	39615	120.38	NG/UL	92
53)	*CI60 PHENANTHRENE-D10	17.75	188.0	155556	40.00	NG/UL	94
7)	*CI70 CHRYSENE-D12	23.39	240.0	157899	40.00	NG/UL	93
,)	CS30 TERPHENYL-D14	21.21	244.0	120845	38.53	NG/UL	90
/1)	*CI75 PERYLENE-D12	26.30	264.0	126461	40.00	NG/UL FP	97
~~72)~~	~~C760 DI-N-OCTYLPHTHALATE~~	~~25.32~~	~~149.0~~	~~356~~	~~.06~~	~~NG/UL~~	~~100~~

* Compound is ISTD

FP = FALSE POSITIVE

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: SBLK2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6879

Level: (low/med) LOW Date Received:

% Moisture: not dec. dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)Ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
100-51-6	Benzyl Alcohol	660	U
95-50-1	1,2-Dichlorobenzene	660	U
95-48-7	2-Methylphenol	660	U
108-60-1	bis(2-Chloroisopropyl)ether	660	U
106-44-5	4-Methylphenol	660	U
621-64-7	N-Nitroso-Di-n-Propylamine	660	U
67-72-1	Hexachloroethane	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
65-85-0	Benzoic Acid	3200	U
111-91-1	bis(2-Chloroethoxy)Methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-20-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-Methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3200	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3200	U
131-11-3	Dimethyl Phthalate	660	U
208-96-8	Acenaphthylene	660	U
606-20-2	2,6-Dinitrotoluene	660	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK2

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: SBLK2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6879

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

% Moisture: not dec. _____ dec. _____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y 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	3200	U
83-32-9	Acenaphthene	660	U
51-28-5	2,4-Dinitrophenol	3200	U
100-02-7	4-Nitrophenol	3200	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
86-73-7	Fluorene	660	U
100-01-6	4-Nitroaniline	3200	U
534-52-1	4,6-Dinitro-2-Methylphenol	3200	U
86-30-6	N-Nitrosodiphenylamine (1)	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3200	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
84-74-2	Di-n-Butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)Anthracene	660	U
218-01-9	Chrysene	660	U
117-81-7	bis(2-Ethylhexyl)Phthalate	660	U
117-84-0	Di-n-Octyl Phthalate	660	U
205-99-2	Benzo(b)Fluoranthene	660	U
207-08-9	Benzo(k)Fluoranthene	660	U
50-32-8	Benzo(a)Pyrene	660	U
193-39-5	Indeno(1,2,3-cd)Pyrene	660	U
53-70-3	Dibenz(a,h)Anthracene	660	U
191-24-2	Benzo(g,h,i)Perylene	660	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: SBLK2

Lab Name: SWL-TULSA Contract: _____

Lab Code: AATS Case No.: _____ SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: SBLK2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6879

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

% Moisture: not dec. _____ dec. _____ Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

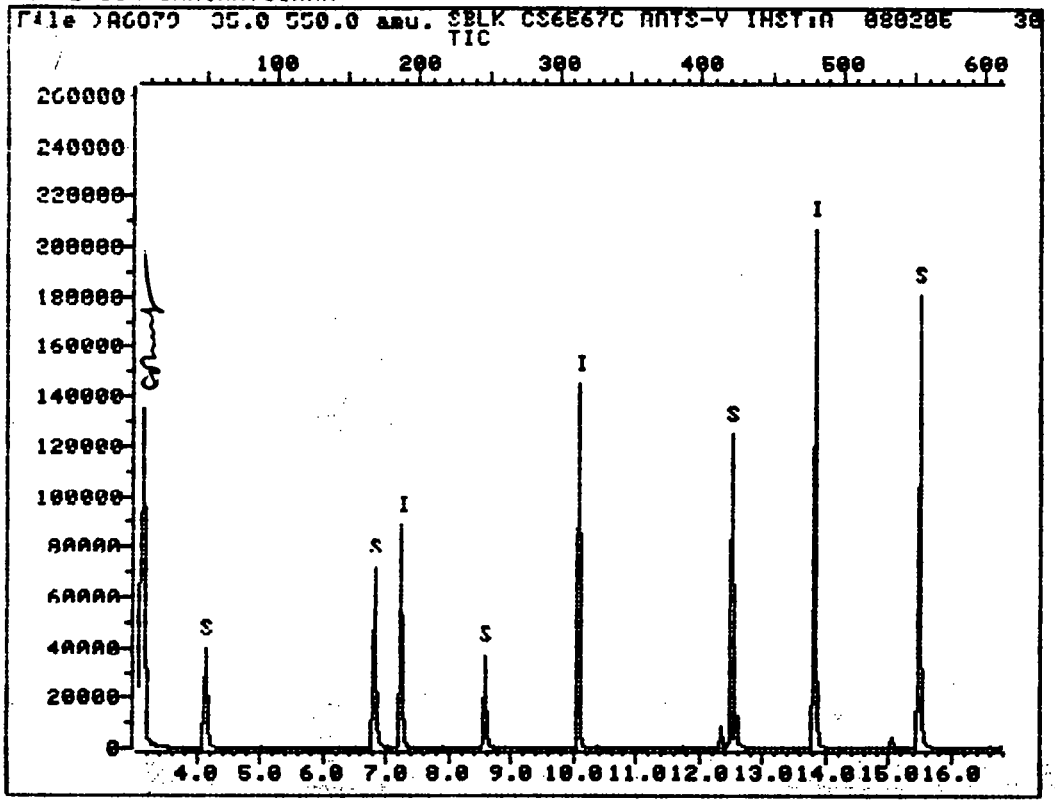
GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN COMPOUND	12.60	200	J

TOTAL ION CHROMATOGRAM



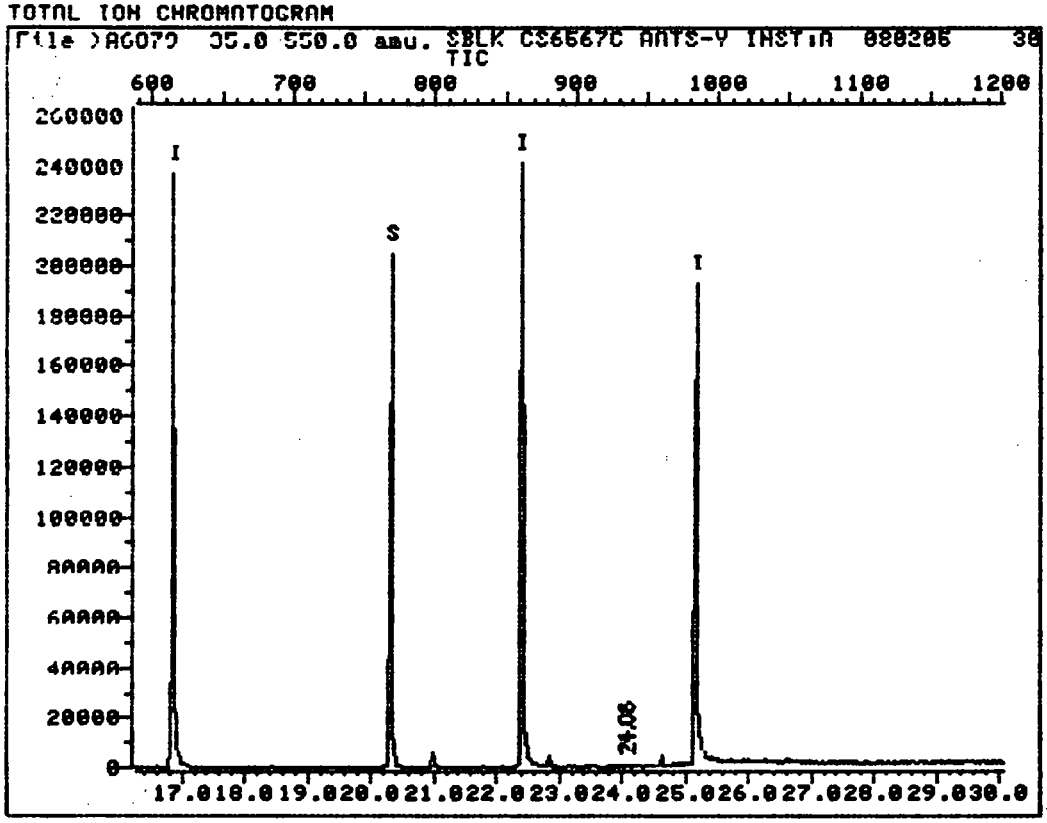
Data File: >A6879::D9 Quant Output File: ^A6879::L1
Name: SBLK2/CS6567G AATS-V
Misc: INST:A 080205 30GM/1ML/1UL BTL#18

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: AATS
Quant Time: 910814 02:14
Injected at: 910814 01:42

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File:)A6879::D9 Quant Output File: ^A6879::L1
Name: SBLK/CS6567G AATS-V
Misc: INST:A 080205 30GM/1ML/1UL BTL#18

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: AATS
Quant Time: 910814 02:14
Injected at: 910814 01:42

TIC page 2 of 2

QUANT REPORT

Operator ID: AATS Quant Rev: 6 Quant Time: 910814 02:14
Output File: ^A6879::L1 Injected at: 910814 01:42
Data File: >A6879::D9 Dilution Factor: 1.00000
Name: SBLK/CS6567G AATS-V
Misc: INST:A 080205 30GM/1ML/1UL BTL#18

ID File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.24	152.0	35155	40.00	NG/UL	92
14)	CS50 2-FLUOROPHENOL	4.13	112.0	39629	56.45	NG/UL	100
15)	CS45 PHENOL-D5	6.81	99.0	66101	55.92	NG/UL	78
16)	*CI40 NAPHTHALENE-D8	10.08	136.0	133075	40.00	NG/UL	96
30)	CS20 NITROBENZENE-D5	8.57	82.0	31854	26.43	NG/UL	89
31)	*CI50 ACENAPHTHENE-D10	13.82	164.0	84859	40.00	NG/UL	93
50)	CS25 2-FLUOROBIPHENYL	12.51	172.0	80638	31.40	NG/UL	100
51)	CS55 2,4,6-TRIBROMOPHENOL	15.48	330.0	55200	85.00	NG/UL	91
52)	*CI60 PHENANTHRENE-D10	16.86	188.0	185467	40.00	NG/UL	98
62)	*CI70 CHRYSENE-D12	22.40	240.0	185857	40.00	NG/UL	96
69)	CS30 TERPHENYL-D14	20.33	244.0	146487	39.16	NG/UL	93
70)	*CI75 PERYLENE-D12	25.17	264.0	170105	40.00	NG/UL	97
~~1)~~	~~C260 DI-N-OCTYLPHTHALATE~~	~~24.06~~	~~149.0~~	~~974~~	~~.06~~	~~NG/UL~~ FP	~~100~~

* Compound is ISTD

FP = FALSE POSITIVE

0700

data file header from : >A6879

Sample: SBLK2CS6567G AATS-V Operator: AATS MS 8/14/91 1:42
Misc : INST:A 080205 30GM/1ML/1UL BIL#18
Sys. #: 2 MS model: 70 SW/HW rev.: 1A ALS # : 0
Method file: #STD02 Tuning file: #ATUNE No. of extra records: 2
Source temp.: 0 Analyzer temp.: 280 Transfer line temp. : 0

Chromatographic temperatures :	45.	300.	0.	0.	0.
Chromatographic times, min. :	4.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	12.0	0.0	0.0	0.0	0.0

>A6879 SBLK CS6567G AATS-V INST:A 080205 30GM/1ML/1UL
35.01 550.0 CLP ADC TIC
Upslope: .20 Area Reject: 21800. Max Peaks: 5 Bunching: 1
Dnslope: 0.00 Results File 1A6879 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~~	~~3.14~~	~~5~~	~~6~~	~~9~~	~~130685~~	~~529140~~	~~494035~~	~~100.00~~	~~76.177~~
2	12.60	424	426	428	12721	35734	35734	7.23	5.510
~~3~~	~~16.92~~	~~617~~	~~618~~	~~629~~	~~7448~~	~~36744~~	~~36744~~	~~2.44~~	~~5.666~~
4	22.46	863	864	~~879~~	~~9428~~	~~53921~~	~~39799~~	8.06	6.137
5	25.24	986	987	994	8226	60802	42222	8.55	6.510

Sum of corrected areas: 648534.

Summary of Unknowns PBM Library Search and Quantitation

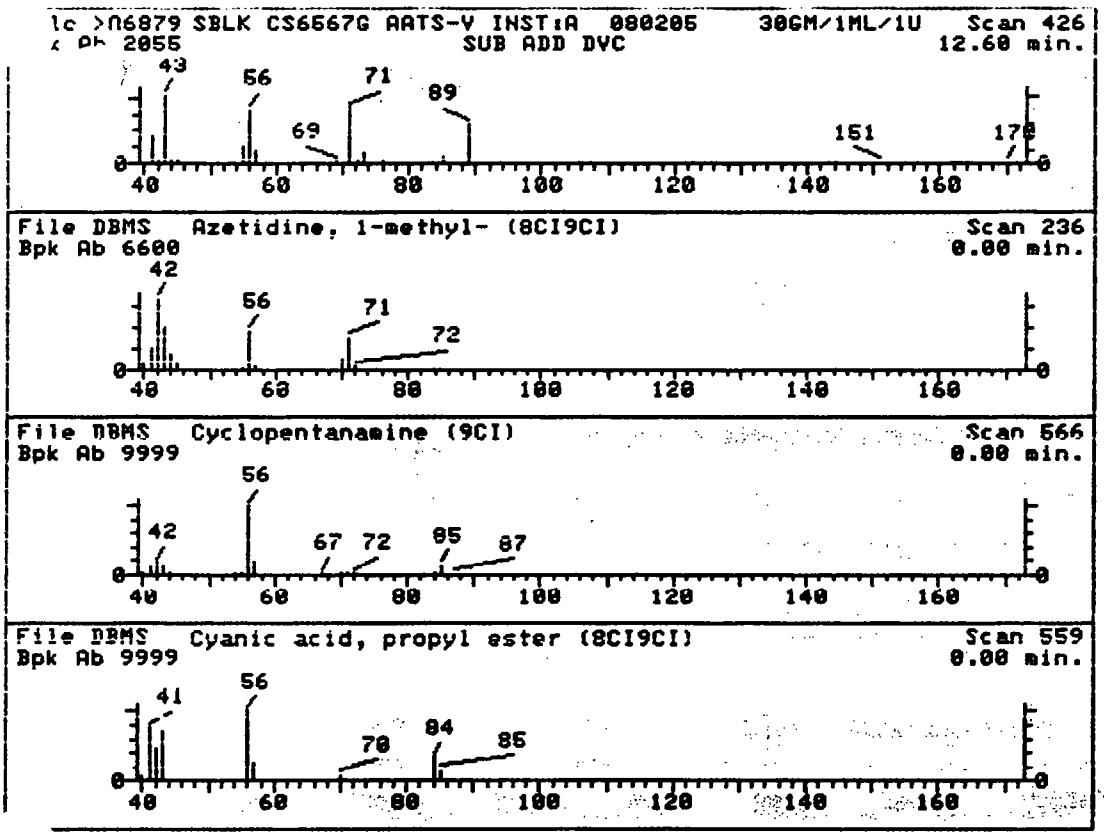
Standard	Concentration	Area	Retention Time	Unknown Window
1	40.0	218002.	7.24	3.03 - 8.66
2	40.0	282097.	10.08	8.66 - 11.95
3	40.0	411392.	13.82	11.95 - 15.34
4	40.0	467619.	16.86	15.34 - 19.63
5	40.0	554570.	22.40	19.63 - 23.78
6	40.0	478937.	25.17	23.78 - 30.06

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

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

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

6:29 AM THU., 15 AUG., 1991



UNKNOWN

Sample: SBLK2/CS6567G AATS-V Operator: AATS MS 8/14/91 1:42

Unknown #,2
Area = 35734.00 Tentative Concentration is 3.00

1.	Azetidine, 1-methyl- (8CI9CI)	71 C4H9N
2.	Cyclopentanamine (9CI)	85 C5H11N
3.	Cyanic acid, propyl ester (8CI9CI)	85 C4H7NO
4.	Aziridine, 1-propyl- (8CI9CI)	85 C5H11N

Sample file: >A6879 Spectrum #: 426
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.	31*	4923799	3676	DBMS	32	69	2	0	164	31	12	14
2.	15*	1003038	910	DBMS	22	59	2	0	80	60	3	13
3.	11*	1768361	909	DBMS	32	73	2	0	57	62	2	14
4.	11*	5536981	911	DBMS	22	65	3	0	80	64	2	12

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-026MS

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684326MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6907

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 9 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	730	U
111-44-4	bis(2-Chloroethyl)Ether	730	U
95-57-8	2-Chlorophenol	730	U
541-73-1	1,3-Dichlorobenzene	730	U
106-46-7	1,4-Dichlorobenzene	730	U
100-51-6	Benzyl Alcohol	730	U
95-50-1	1,2-Dichlorobenzene	730	U
95-48-7	2-Methylphenol	730	U
108-60-1	bis(2-Chloroisopropyl)ether	730	U
106-44-5	4-Methylphenol	730	U
621-64-7	N-Nitroso-Di-n-Propylamine	730	U
67-72-1	Hexachloroethane	730	U
98-95-3	Nitrobenzene	730	U
78-59-1	Isophorone	730	U
88-75-5	2-Nitrophenol	730	U
105-67-9	2,4-Dimethylphenol	730	U
65-85-0	Benzoic Acid	3500	U
111-91-1	bis(2-Chloroethoxy)Methane	730	U
120-83-2	2,4-Dichlorophenol	730	U
120-82-1	1,2,4-Trichlorobenzene	730	U
91-20-3	Naphthalene	41	J
106-47-8	4-Chloroaniline	730	U
87-68-3	Hexachlorobutadiene	730	U
59-50-7	4-Chloro-3-Methylphenol	730	U
91-57-6	2-Methylnaphthalene	60	J
77-47-4	Hexachlorocyclopentadiene	730	U
88-06-2	2,4,6-Trichlorophenol	730	U
95-95-4	2,4,5-Trichlorophenol	3500	U
91-58-7	2-Chloronaphthalene	730	U
88-74-4	2-Nitroaniline	3500	U
131-11-3	Dimethyl Phthalate	730	U
208-96-8	Acenaphthylene	51	J
606-20-2	2,6-Dinitrotoluene	730	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-026MS

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684326MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6907

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 9 dec. Date Extracted: 08/02/91

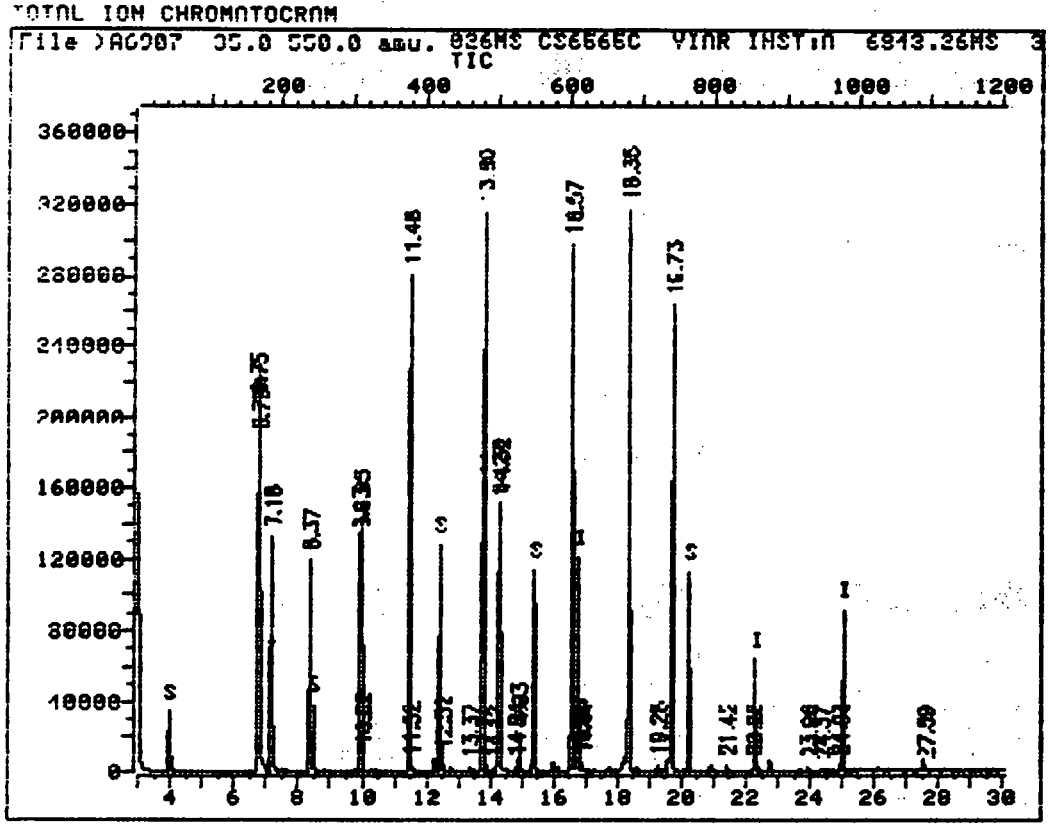
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3500	U
83-32-9	Acenaphthene	730	U
51-28-5	2,4-Dinitrophenol	3500	U
100-02-7	4-Nitrophenol	3500	U
132-64-9	Dibenzofuran	41	J
121-14-2	2,4-Dinitrotoluene	730	U
84-66-2	Diethylphthalate	730	U
7005-72-3	4-Chlorophenyl-phenylether	730	U
86-73-7	Fluorene	730	U
100-01-6	4-Nitroaniline	3500	U
534-52-1	4,6-Dinitro-2-Methylphenol	3500	U
86-30-6	N-Nitrosodiphenylamine (1)	730	U
101-55-3	4-Bromophenyl-phenylether	730	U
118-74-1	Hexachlorobenzene	730	U
87-86-5	Pentachlorophenol	3500	U
85-01-8	Phenanthrene	76	J
120-12-7	Anthracene	65	J
84-74-2	Di-n-Butylphthalate	5500	
206-44-0	Fluoranthene	99	J
129-00-0	Pyrene	730	U
85-68-7	Butylbenzylphthalate	88	J
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)Anthracene	70	J
218-01-9	Chrysene	730	U
117-81-7	bis(2-Ethylhexyl)Phthalate	730	U
117-84-0	Di-n-Octyl Phthalate	47	J
205-99-2	Benzo(b)Fluoranthene	86	J
207-08-9	Benzo(k)Fluoranthene	730	U
50-32-8	Benzo(a)Pyrene	49	J
193-39-5	Indeno(1,2,3-cd)Pyrene	730	U
53-70-3	Dibenz(a,h)Anthracene	730	U
191-24-2	Benzo(g,h,i)Perylene	49	J

(1) - Cannot be separated from Diphenylamine

TOTAL ION CHROMATOGRAM



Data File: >A6907::D9 Quant Output File: ^A6907::L1
Name: 026MS CS6565G VIAR
Misc: INST:A 6843.26MS 30GM/1ML/1UL BTL# 5

Id File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910815 00:24

Operator ID: AATS
Quant Time: 910815 01:01
Injected at: 910814 17:22

QUANT REPORT

Operator ID: AATS Quant Rev: 6 Quant Time: 910815 01:01
Output File: ^A6907::L1 Injected at: 910814 17:22
Data File: >A6907::D9 Dilution Factor: 1.00000
Name: 026MS CS6565G VIAR
Misc: INST:A 6843.26MS 30GM/1ML/1UL BTL# 5

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910815 00:24

	Compound	R.T.	Q ion	Area	Conc	Units	Q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.13	152.0	28930	40.00	NG/UL	98
2)	C315 PHENOL	6.79	94.0	131390	139.27	NG/UL	93
4)	C330 2-CHLOROPHENOL	6.75	128.0	104946	122.13	NG/UL	94
6)	C340 1.4-DICHLOROBENZENE	7.18	146.0	70383M	72.27	NG/UL	
12)	C370 N-NITROSO-DI-N-PROPYLAMIN	8.37	70.0	64769	79.06	NG/UL	68
14)	CS50 2-FLUOROPHENOL	3.95	112.0	39646	65.92	NG/UL	100
15)	CS45 PHENOL-D5	6.75	99.0	65866	63.43	NG/UL	78
16)	*CI40 NAPHTHALENE-D8	9.99	136.0	125187	40.00	NG/UL	88
20)	C425 2,4-DIMETHYLPHENOL	9.95	107.0	1245	1.28	NG/UL	68
24)	C445 1,2,4-TRICHLOROBENZENE	9.93	180.0	81261	69.75	NG/UL	99
25)	C450 NAPHTHALENE	10.02	128.0	1638	.55	NG/UL	95
28)	C465 4-CHLORO-3-METHYLPHENOL	11.48	107.0	143480	131.48	NG/UL	89
29)	C470 2-METHYLNAPHTHALENE	11.52	142.0	1244	.82	NG/UL	56
30)	CS20 NITROBENZENE-D5	8.48	82.0	33115	29.30	NG/UL	88
31)	*CI50 ACENAPHTHENE-D10	13.73	164.0	81012	40.00	NG/UL	91
35)	C525 2-CHLORONAPHTHALENE	12.52	162.0	1074	.43	NG/UL	91
38)	C540 ACENAPHTHYLENE	13.37	152.0	2656	.70	NG/UL	88
)	C550 ACENAPHTHENE	13.80	153.0	193750	70.64	NG/UL	100
)	C560 4-NITROPHENOL	14.27	109.0	34680	152.21	NG/UL	98
4)	C565 DIBENZOFURAN	14.12	168.0	1934	.55	NG/UL	100
45)	C570 2,4-DINITROTOLUENE	14.32	165.0	72042	86.38	NG/UL	86
46)	C580 DIETHYLPHTHALATE	14.93	149.0	7784	2.54	NG/UL	90
48)	C590 FLUORENE	14.84	166.0	1382	.65	NG/UL	98
50)	CS25 2-FLUOROBIPHENYL	12.40	172.0	81671	28.60	NG/UL	100
51)	CS55 2,4,6-TRIBROMOPHENOL	15.38	330.0	40154M	70.20	NG/UL	
52)	*CI60 PHENANTHRENE-D10	16.75	188.0	102244	40.00	NG/UL	96
57)	C635 PENTACHLOROPHENOL	16.57	266.0	90383	159.23	NG/UL	99
58)	C640 PHENANTHRENE	16.80	178.0	3127	1.04	NG/UL	100
59)	C645 ANTHRACENE	16.89	178.0	1998	.89	NG/UL	100
60)	C650 DI-N-BUTYLPHTHALATE	18.35	149.0	424153	74.50	NG/UL	87
61)	C655 FLUORANTHENE	19.28	202.0	2994	1.35	NG/UL	100
62)	*CI70 CHRYSENE-D12	22.27	240.0	63147	40.00	NG/UL	95
63)	C715 PYRENE	19.73	202.0	203198	74.32	NG/UL	100
64)	C720 BUTYLBENZYLPHTHALATE	21.42	149.0	2349	1.20	NG/UL	86
66)	C730 BENZO(A)ANTHRACENE	22.25	228.0	1643	.96	NG/UL	98
69)	CS30 TERPHENYL-D14	20.22	244.0	64852	39.98	NG/UL	86
70)	*CI75 PERYLENE-D12	25.04	264.0	58590	40.00	NG/UL	98
71)	C760 DI-N-OCTYLPHTHALATE	23.96	149.0	2672	.64	NG/UL	100
72)	C765 BENZO(B)FLUORANTHENE	24.37	252.0	2420	1.17	NG/UL	93
74)	C775 BENZO(A)PYRENE	24.93	252.0	1120	.66	NG/UL	91
77)	C790 BENZO(G,H,I)PERYLENE	27.59	276.0	920	.67	NG/UL	82

* Compound is ISTD

0706

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-026MSD

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684326MSD

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6886

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 9 dec. Date Extracted: 08/02/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	730	U
111-44-4	bis(2-Chloroethyl)Ether	730	U
95-57-8	2-Chlorophenol	730	U
541-73-1	1,3-Dichlorobenzene	730	U
106-46-7	1,4-Dichlorobenzene	730	U
100-51-6	Benzyl Alcohol	730	U
95-50-1	1,2-Dichlorobenzene	730	U
95-48-7	2-Methylphenol	730	U
108-60-1	bis(2-Chloroisopropyl)ether	730	U
106-44-5	4-Methylphenol	730	U
621-64-7	N-Nitroso-Di-n-Propylamine	730	U
67-72-1	Hexachloroethane	730	U
98-95-3	Nitrobenzene	730	U
78-59-1	Isophorone	730	U
88-75-5	2-Nitrophenol	730	U
105-67-9	2,4-Dimethylphenol	730	U
65-85-0	Benzoic Acid	3500	U
111-91-1	bis(2-Chloroethoxy)Methane	730	U
120-83-2	2,4-Dichlorophenol	730	U
120-82-1	1,2,4-Trichlorobenzene	730	U
91-20-3	Naphthalene	730	U
106-47-8	4-Chloroaniline	730	U
87-68-3	Hexachlorobutadiene	730	U
59-50-7	4-Chloro-3-Methylphenol	730	U
91-57-6	2-Methylnaphthalene	730	U
77-47-4	Hexachlorocyclopentadiene	730	U
88-06-2	2,4,6-Trichlorophenol	730	U
95-95-4	2,4,5-Trichlorophenol	3500	U
91-58-7	2-Chloronaphthalene	730	U
88-74-4	2-Nitroaniline	3500	U
131-11-3	Dimethyl Phthalate	730	U
208-96-8	Acenaphthylene	730	U
606-20-2	2,6-Dinitrotoluene	730	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

6568G-026MSD

Lab Name: SWL-TULSA Contract:

Lab Code: AATS Case No.: SAS No.: 6568G SDG No.: -001

Matrix: (soil/water) SOIL Lab Sample ID: 684326MSD

Sample wt/vol: 30.0 (g/mL) G Lab File ID: A6886

Level: (low/med) LOW Date Received: 08/01/91

% Moisture: not dec. 9 dec. Date Extracted: 08/02/91

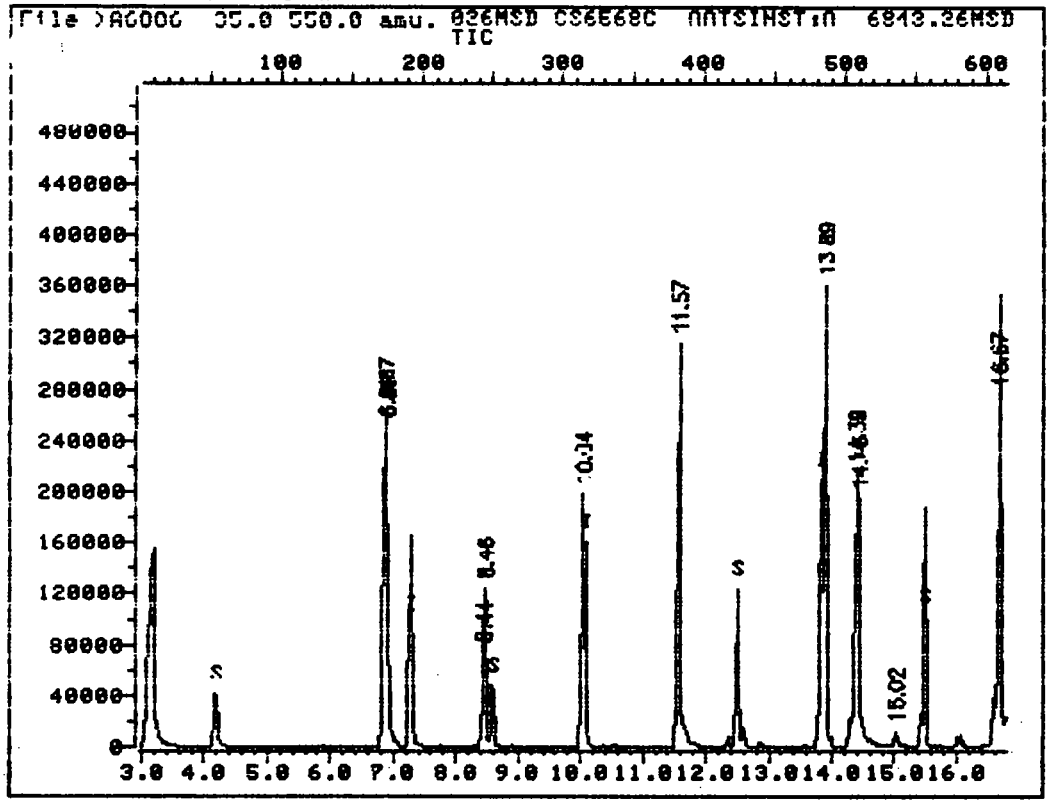
Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 08/14/91

GPC Cleanup: (Y/N) Y pH: 7.1 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3500	U
83-32-9	Acenaphthene	730	U
51-28-5	2,4-Dinitrophenol	3500	U
100-02-7	4-Nitrophenol	3500	U
132-64-9	Dibenzofuran	730	U
121-14-2	2,4-Dinitrotoluene	730	U
84-66-2	Diethylphthalate	730	U
7005-72-3	4-Chlorophenyl-phenylether	730	U
86-73-7	Fluorene	730	U
100-01-6	4-Nitroaniline	3500	U
534-52-1	4,6-Dinitro-2-Methylphenol	3500	U
86-30-6	N-Nitrosodiphenylamine (1)	730	U
101-55-3	4-Bromophenyl-phenylether	730	U
118-74-1	Hexachlorobenzene	730	U
87-86-5	Pentachlorophenol	3500	U
85-01-8	Phenanthrene	17	J
120-12-7	Anthracene	730	U
84-74-2	Di-n-Butylphthalate	5900	
206-44-0	Fluoranthene	32	J
129-00-0	Pyrene	730	U
85-68-7	Butylbenzylphthalate	730	U
91-94-1	3,3'-Dichlorobenzidine	1500	U
56-55-3	Benzo(a)Anthracene	730	U
218-01-9	Chrysene	730	U
117-81-7	bis(2-Ethylhexyl)Phthalate	88	J
117-84-0	Di-n-Octyl Phthalate	730	U
205-99-2	Benzo(b)Fluoranthene	730	U
207-08-9	Benzo(k)Fluoranthene	730	U
50-32-8	Benzo(a)Pyrene	730	U
193-39-5	Indeno(1,2,3-cd)Pyrene	730	U
53-70-3	Dibenz(a,h)Anthracene	730	U
191-24-2	Benzo(g,h,i)Perylene	730	U

(1) - Cannot be separated from Diphenylamine

TOTAL ION CHROMATOGRAM



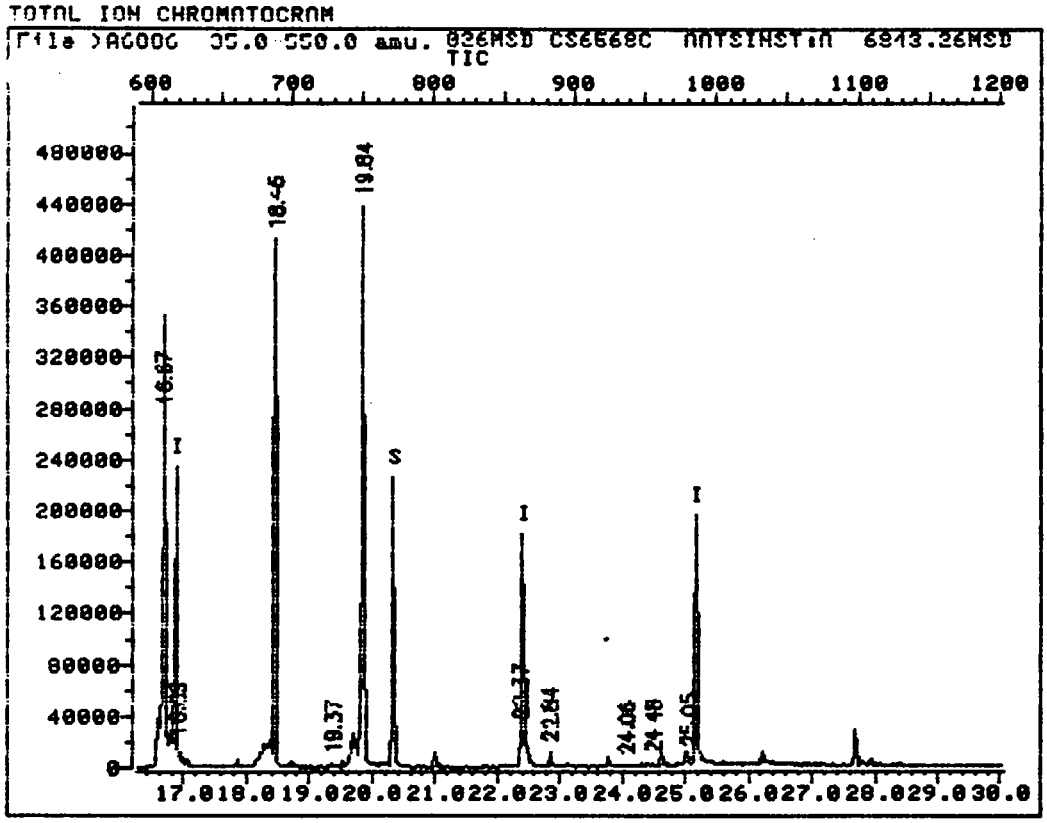
Data File: >A6886::D9 Quant Output File: ^A6886::L1
Name: 026MSD CS6568G AATS
Misc: INST:A 6843.26MSD 30GM/1ML/1UL BTL#25

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: AATS
Quant Time: 910814 06:41
Injected at: 910814 06:09

TIC page 1 of 2

TOTAL ION CHROMATOGRAM



Data File: >A6886::D9 Quant Output File: ^A6886::L1
Name: 026MSD CS6568G AATS
Misc: INST:A 6843.26MSD 30GM/1ML/1UL BTL#25

Id File: ID_BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

Operator ID: AATS
Quant Time: 910814 06:41
Injected at: 910814 06:09

TIC page 2 of 2

QUANT REPORT

Operator ID: AATS Quant Rev: 6 Quant Time: 910814 06:41
Output File: ^A6886::L1 Injected at: 910814 06:09
Data File: >A6886::D9 Dilution Factor: 1.00000
me: 026MSD CS6568G AATS
INST:A 6843.26MSD 30GM/1ML/1UL BTL#25

ID File: ID BN2::EX
Title: SEMI-VOLATILE ORGANIC ANALYSIS (EPA 625)
Last Calibration: 910814 01:01

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*CI30 1,4-DICHLOROBENZENE-D4	7.25	152.0	35275	40.00	NG/UL	96
2)	C315 PHENOL	6.89	94.0	139767	131.92	NG/UL	85
4)	C330 2-CHLOROPHENOL	6.87	128.0	134166	133.44	NG/UL	92
6)	C340 1,4-DICHLOROBENZENE	7.29	146.0	98947M	77.84	NG/UL	
~~10)~~	~~C360 BIS(2-CHLOROISOPROPYL)ETH~~	~~8.44~~	~~45.0~~	~~326~~	~~.16~~	~~NG/UL~~	~~100~~
12)	C370 N-NITROSO-DI-N-PROPYLAMIN	8.46	70.0	73819	79.99	NG/UL	63
14)	CS50 2-FLUOROPHENOL	4.16	112.0	52068	73.91	NG/UL	100
15)	CS45 PHENOL-D5	6.87	99.0	83098	70.05	NG/UL	75
16)	*CI40 NAPHTHALENE-D8	10.09	136.0	154283	40.00	NG/UL	95
~~20)~~	~~C425 2,4-DIMETHYLPHENOL~~	~~10.04~~	~~107.0~~	~~1443~~	~~1.18~~	~~NG/UL~~	~~70~~
24)	C445 1,2,4-TRICHLOROBENZENE	10.04	180.0	103321	70.63	NG/UL	93
28)	C465 4-CHLORO-3-METHYLPHENOL	11.57	107.0	174036	121.14	NG/UL	95
30)	CS20 NITROBENZENE-D5	8.58	82.0	46449	33.24	NG/UL	90
31)	*CI50 ACENAPHTHENE-D10	13.83	164.0	100289	40.00	NG/UL	88
41)	C550 ACENAPHTHENE	13.89	153.0	232588	78.58	NG/UL	100
43)	C560 4-NITROPHENOL	14.39	109.0	58369	144.84	NG/UL	98
5)	C570 2,4-DINITROTOLUENE	14.43	165.0	89288	86.31	NG/UL	63
)	~~C580 DIETHYLPHTHALATE~~	~~15.02~~	~~149.0~~	~~2511~~	~~.78~~	~~NG/UL~~	~~92~~
0)	CS25 2-FLUOROBIPHENYL	12.50	172.0	103854	34.22	NG/UL	100
51)	CS55 2,4,6-TRIBROMOPHENOL	15.47	330.0	48309	62.95	NG/UL	97
52)	*CI60 PHENANTHRENE-D10	16.87	188.0	170304	40.00	NG/UL	91
57)	C635 PENTACHLOROPHENOL	16.67	266.0	120069	145.36	NG/UL	99
58)	C640 PHENANTHRENE	16.89	178.0	1207	.24	NG/UL	100
60)	C650 DI-N-BUTYLPHTHALATE	18.45	149.0	533313	80.11	NG/UL	89
61)	C655 FLUORANTHENE	19.37	202.0	2407	.43	NG/UL	100
62)	*CI70 CHRYSENE-D12	22.39	240.0	175842	40.00	NG/UL	97
63)	C715 PYRENE	19.84	202.0	433826	81.24	NG/UL	100
~~66)~~	~~C730 BENZO(A)ANTHRACENE~~	~~22.37~~	~~228.0~~	~~1609~~	~~.34~~	~~NG/UL~~	~~86~~
68)	C745 BIS(2-ETHYLHEXYL)PHTHALAT	22.84	149.0	6281	1.20	NG/UL	78
69)	CS30 TERPHENYL-D14	20.32	244.0	146563	41.42	NG/UL	98
70)	*CI75 PERYLENE-D12	25.16	264.0	172619	40.00	NG/UL	98
~~71)~~	~~C760 DI-N-OCTYLPHTHALATE~~	~~24.06~~	~~149.0~~	~~429~~	~~.09~~	~~NG/UL~~	~~100~~
~~72)~~	~~C765 BENZO(B)FLUORANTHENE~~	~~24.48~~	~~252.0~~	~~2240~~	~~.32~~	~~NG/UL~~	~~83~~
~~74)~~	~~C775 BENZO(A)PYRENE~~	~~25.05~~	~~252.0~~	~~956~~	~~.24~~	~~NG/UL~~	~~71~~

* Compound is ISTD

0711