AT Kearney
WA
R05020

Inchcape Testing Services
Environmental Laboratories

CUSTOMER: AT KEARNEY, Inc.
PROJECT: G200-R05-020 QA-BA
Re: BASF North Works
MID 064 197 742
REPORT NUMBER: D96-9653
SAMPLES RECEIVED: 22-August-1996

US EPA RECORDS CENTER REGION 5
1004378

Pages 1 – 1312

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SDG NARRATIVE

DATE RECEIVED: 22-AUG-1996

REPORT NUMBER: D96-9653
REPORT DATE: 17-SEP-1996

SAMPLE SUBMITTED BY :	AT Kearney, Inc.
ADDRESS :	Third Floor, One Wall Street Court New York, NY 10005
ATTENTION :	Ms. Julie Shanahan
PROJECT :	G200-R05-020 QA-BA
DATE SAMPLED :	20-August-1996
SAMPLE NUMBERS :	SS001SWMUG-5, SS001SWMUG-105, SG002AOC2-5
SDG NUMBER:	D96-9653
CONTRACT NUMBER:	N/A

SDG NARRATIVE

This is a Level IV data package, containing CLP forms for the analysis of volatile organics, semivolatile organics, pesticides, herbicides, metals and general chemistry parameters.

EPA Method 8240 Volatile Organics Analysis

Calibration

In the continuing calibration, the following response factors were outside of the QC warning limit of ≤20.0%:

ITS1 9/04/96	acrolein (38.4%)
	Iodomethane (24.0%)
	carbon disulfide (28.4%)
	acrylonitrile (45.7%)
	vinyl acetate (63.1%)
	2-butanone (63.1%)
	4-methyl-2-pentanone (44.2%)
	2-hexanone (59.7%)
	1,4-dichloro-2-butene (29.4%)

Since all calibration check compounds (CCCs) were within the control limits of ≤30%, the calibrations were accepted.

Internal Standard Areas

In the unspiked analysis of matrix spike sample D96-9653-4, the area of the internal standard bromochloromethane was outside of QC limits. Since this is a QC sample, and all internal standard areas were within QC limits for the environmental samples, the results were accepted.

Method Blank Analysis

In the method blank analysis for this project, methylene chloride was detected above the reporting limit. Since this analyte is a common laboratory contaminant, the results were accepted.

EPA Method 8270 Semivolatile Organics Analysis

Calibration

In the continuing calibration, the following response factors were outside of the QC warning limit of ≤20.0%:

ITS3 9/07/96	benzoic acid (106%)
	benzidine (30.0%)
	di-n-octylphthalate (23.2%)
ITS9 9/05/96	benzoic acid (161%)
	2,4-dinitrophenol (34.2%)
	2,4,6-tribromophenol *surrogate* (36.4%)
ITS9 9/07/96	benzoic acid (115%)
	2,4-dinitrophenol (26.0%)
	4-nitroaniline (26.8%)
	2,4,6-tribromophenol *surrogate* (29.9%)

Since all calibration check compounds (CCCs) were within the control limits of ≤30%, the calibrations were accepted.

Sample Dilutions

Samples D96-9653-1 and -2 were analyzed undiluted and at a 1:10 dilution, to ensure that all target analytes would be within calibration range. The results of both analyses are included in this data package.

Surrogate Recoveries

Due to apparent double spiking of surrogate solution, the recoveries of a;; surrogates in the blank spike duplicate analysis were outside of QC limits. Since the recoveries of all spiking compounds were within QC limits, the results were accepted.

Control Charts

Due to the presence of a number of laboratory control spikes which were fortified for acid extractable compounds only, the base/neutral control charts exhibit several zero data points which are not significant.

EPA Method 8080 Pesticides Analysis

Calibration

In the continuing calibration of the DB1701 confirmation column, the following response factors were outside of the QC warning limit of 85-115%:

CH24 9/11/96	endrin aldehyde (77.6%)

Since all compounds were within QC limits on the DB608 primary column, the calibrations were accepted.

Second Column Confirmation

For the following samples, the values obtained on the two analytical columns do not agree to within ±35%:

		Column	
Sample	Analyte	DB608	DB1701
D96-9653-1	beta-BHC	15.8 µg/Kg	4.65 µg/Kg
	heptachlor	8.30 µg/Kg	5.04 µg/Kg
D96-9653-2	heptachlor	7.62 µg/Kg	4.48 µg/Kg

Therefore, in each case, the lower result was reported and should be considered unconfirmed.

EPA Method 8150 Herbicides Analysis

Second Column Confirmation

For the following samples, the values obtained on the two analytical columns do not agree to within ±50%:

		Column	
Sample	Analyte	DBXLB	DB1701
D96-9653-1	2,4-D	33.7 µg/Kg	23.3 µg/Kg
D96-9653-2	2,4-D	669 µg/Kg	30.6 µg/Kg

Therefore, in each case, the lower result was reported and should be considered unconfirmed.

Metals Analysis

Matrix Spike Analysis

In the matrix spike analysis of sample D96-9751-1, the recovery for thallium was outside of the QC limits of 75-125%. In the matrix spike duplicate analysis of this sample, the recoveries for cadmium and thallium were outside of QC limits. Therefore, these elements were flagged with an "N" on the forms V and I. Since the recoveries for these elements were within control limits in the laboratory control spike analysis, the results were accepted. The results for lead were not flagged, because the contamination level of this analyte in the unspiked sample was greater than four times the spiking level of 2.00 mg/Kg.

Sample Duplicate Analysis

In the sample duplicate analysis of sample D96-9532-11, the percent difference was not considered for tin, because the contamination level for this analyte was less than five times the contract required detection limit (5xCRDL.)

In the sample duplicate analysis of sample D96-9751-1, the percent differences were not considered for arsenic, cadmium and lead, because the contamination levels for these analytes in the unspiked sample were less than five times the contract required detection limit (5xCRDL.)

Sample Dilutions

Sample D96-9653-1 required dilutions for the analysis of cadmium and selenium, due to matrix interference. Sample D96-9653-2 required a dilution for the analysis of cadmium, due to matrix interference.

GFAA Post Digestion Spike Analysis

In the GFAA post digestion spike analysis of soil sample D96-9653-1, the recoveries for cadmium and thallium were outside of the QC limits of 85-115%. In the post digestion spike analysis of soil sample D96-9653-2, the recoveries for selenium and thallium were outside of the QC limits of 85-115%. In the post digestion spike analysis of soil sample D96-9653-3, the recoveries for antimony and selenium were outside of the QC limits of 85-115%. Therefore, these elements were flagged with a "W" on the form 1 for the appropriate samples.

Method of Standard Addition Analysis

In the GFAA post digestion spike analysis of soil sample D96-9653-3, the recovery for lead was outside of the QC limits of 85-115%. A dilution was made, resulting in a positive result with the post digestion spike recovery still outside of QC limits. Therefore, this value was determined by the method of standard additions.

ICP Serial Dilution Analysis

Since the matrix spike/matrix spike duplicate analyses were within QC limits for all ICP analyses, the ICP Serial dilution analysis was not performed

General Chemistry Parameters

Holding Times

The analysis of all samples for reactive sulfide were conducted outside of the seven day analytical holding time.

No further issues were encountered during the sample analysis for this task.

If there are any questions, feel free to contact Ms. Janice McKittrick, at (214) 238-5591.

"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 in diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

Alan Humason
QA Coordinator

10/1/96
Date

VOLATILES DATA

QUALITY CONTROL SUMMARY

FORM 2
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Level: (low/med) LOW

	CLIENT SAMPLE NO.	SMC1 #	SMC2 #	SMC3 #	OTHER	TOT OUT
01	BLK	105	101	109		0
02	BLK LCS	104	96	102		0
03	BLK LCSD	105	98	105		0
04	9654-4 MS	108	99	104		0
05	9654-4 MSD	87	98	108		0
06	9653-1	103	111	90		0
07	9653-2	96	89	90		0
08	9653-3	97	99	101		0
09	9654-4	84	94	104		0
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		QC LIMITS
SMC1	= 1,2-Dichloroethane-d4	(76-126)
SMC2	= Toluene-d8 (SS)	(88-118)
SMC3	= Bromofluorobenzene (SS	(86-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM 3
SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix Spike - Sample No.: 9654-4 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50.0	0.00	49.0	98	70-130
Benzene	50.0	0.00	51.7	103	70-130
Trichloroethene	50.0	0.00	47.5	95	70-130
Toluene	50.0	0.00	46.8	94	70-130
Chlorobenzene	50.0	0.00	47.0	94	70-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.0	55.7	111	12	30	70-130
Benzene	50.0	53.3	107	4	30	70-130
Trichloroethene	50.0	49.9	100	5	30	70-130
Toluene	50.0	47.4	95	1	30	70-130
Chlorobenzene	50.0	47.2	94	0	30	70-130

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: _____

FORM 3
SOIL VOLATILE BLANK SPIKE RECOVERY

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

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

COMPOUND	SPIKE ADDED (ug/L)	BLANK CONCENTRATION (ug/L)	BS CONCENTRATION (ug/L)	BS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50.0	0.00	42.3	85	70-130
Benzene	50.0	0.00	44.2	88	70-130
Trichloroethene	50.0	0.00	41.7	83	70-130
Toluene	50.0	0.00	38.4	77	70-130
Chlorobenzene	50.0	0.00	39.3	79	70-130

COMPOUND	SPIKE ADDED (ug/L)	BSD CONCENTRATION (ug/L)	BSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.0	50.3	101	17	30	70-130
Benzene	50.0	50.6	101	14	30	70-130
Trichloroethene	50.0	47.4	95	13	30	70-130
Toluene	50.0	45.2	90	16	30	70-130
Chlorobenzene	50.0	45.6	91	14	30	70-130

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: _____

FORM 4
VOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

BLK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Lab File ID: EE1310601006 Lab Sample ID: BLK

Date Analyzed: 09/04/96 Time Analyzed: 1007

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

Instrument ID: ITS1

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	BLK LCS	BLK LCS	EE1310701007	1026
02	BLK LCSD	BLK LCSD	EE1310801008	1046
03	9654-4 MS	9654-5 MS	EE1311201012	1204
04	9654-4 MSD	9654-6 MSD	EE1311301013	1223
05	9653-1	9653-1	EE1311401014	1243
06	9653-2	9653-2	EE1311501015	1303
07	9653-3	9653-3	EE1311601016	1323
08	9654-4	9654-4	EE1312001020	1443
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COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: V9653

Lab File ID: EE0891001010 BFB Injection Date: 07/11/96

Instrument ID: ITS1 BFB Injection Time: 1700

GC Column: ID: 2.00 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	22.3
75	30.0 - 60.0% of mass 95	55.3
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.6
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	73.0
175	5.0 - 9.0% of mass 174	5.8 (8.0)1
176	95.0 - 101.0% of mass 174	69.8 (95.7)1
177	5.0 - 9.0% of mass 176	4.9 (7.0)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	VSTD300	EE0891201012	07/11/96	1804
02	VSTD200	VSTD200	EE0891301013	07/11/96	1852
03	VSTD100	VSTD100	EE0891401014	07/11/96	1912
04	VSTD050	VSTD050	EE0891501015	07/11/96	1933
05	VSTD020	VSTD020	EE0891601016	07/11/96	1954
06	VSTD010	VSTD010	EE0891701017	07/11/96	2015
07	VBLKB	7390-3B	EE0891801018	07/11/96	2036
08	VBLKBLCS	VLCSB	EE0891901019	07/11/96	2142
09	VBLKBLCSD	VLCSB DUP	EE0892001020	07/11/96	2202
10	7417-1	7417-1	EE0892101021	07/11/96	2223
11	7417-1MS	7417-1 MS	EE0892201022	07/11/96	2244
12	7417-1MSD	7417-1 MSD	EE0892301023	07/11/96	2305
13	DE-02-E	7390-2	EE0893001030	07/12/96	0132
14					
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FORM 5
BFB ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Lab File ID: EE1310101001 BFB Injection Date: 09/04/96

Instrument ID: ITS1 BFB Injection Time: 0801

GC Column: ID: 2.00 (mm) Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	21.4
75	30.0 - 60.0% of mass 95	46.0
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	0.6 (1.0)1
174	Greater than 50.0% of mass 95	61.5
175	5.0 - 9.0% of mass 174	4.3 (6.9)1
176	95.0 - 101.0% of mass 174	61.2 (99.5)1
177	5.0 - 9.0% of mass 176	4.1 (6.7)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	ALS=1	8240 DAILY CAL	EE1310401004	09/04/96	0918
02	BLK	BLK	EE1310601006	09/04/96	1007
03	BLK LCS	BLK LCS	EE1310701007	09/04/96	1026
04	BLK LCSD	BLK LCSD	EE1310801008	09/04/96	1046
05	9654-4 MS	9654-5 MS	EE1311201012	09/04/96	1204
06	9654-4 MSD	9654-6 MSD	EE1311301013	09/04/96	1223
07	9653-1	9653-1	EE1311401014	09/04/96	1243
08	9653-2	9653-2	EE1311501015	09/04/96	1303
09	9653-3	9653-3	EE1311601016	09/04/96	1323
10	9654-4	9654-4	EE1312001020	09/04/96	1443
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FORM 8
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Lab File ID (Standard): EE1310401004 Date Analyzed: 09/04/96

Instrument ID: ITS1 Time Analyzed: 0918

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

		IS1 (BCM) AREA #	RT #	IS2 (DFB) AREA #	RT #	IS3 (CBZ) AREA #	RT #
	12 HOUR STD	204679	5.03	914412	5.98	749378	8.70
	UPPER LIMIT	409358	5.53	1828824	6.48	1498756	9.20
	LOWER LIMIT	102340	4.53	457206	5.48	374689	8.20
	CLIENT SAMPLE NO.						
01	BLK	228233	5.03	1011499	5.98	810931	8.70
02	BLK LCS	252151	5.03	1177657	5.97	992479	8.70
03	BLK LCSD	218923	5.04	1020684	5.98	829736	8.70
04	9654-4 MS	164705	5.03	755268	5.97	602008	8.70
05	9654-4 MSD	102550	5.03	615218	5.97	471876	8.70
06	9653-1	172537	5.02	801251	5.97	526074	8.70
07	9653-2	103605	5.02	469145	5.97	381998	8.70
08	9653-3	251635	5.02	1217954	5.96	937846	8.70
09	9654-4	66421*	5.02	470805	5.96	386465	8.70
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22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

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

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

SAMPLE DATA

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: ITS-DALLAS Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: D96-9653-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1311401014

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
107-02-8	Acrolein	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	100	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	12.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U
75-05-8	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
108-05-4	Vinyl acetate	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	50.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
110-75-8	2-Chloroethylvinyl ether	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	50.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	50.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-1

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: ITS-DALLAS Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: D96-9653-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1311401014

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
124-48-1	Chlorodibromomethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
----------	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
764-41-0	1,4-Dichloro-2-butene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

9653-1

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1311401014

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Inchcape Testing Services - Environmental Laboratories

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/09-04-96.b/EE1311401014.d
Lab Smp Id: D96-9653-1 Client Smp ID: ALS=10
Inj Date : 04-SEP-96 12:43 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : IL_8240_S;;ITS1-851;1
Misc Info : IL_8240_S;;ITS1-851;1
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty Quant Type: ISTD
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 14
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/kg)	CONCENTRATIONS FINAL (ug/L)
	11 Methylene chloride	84.00	3.527	3.527	(0.702)	98809	12.0	12.0
*	18 Bromochloromethane	128.00	5.024	5.021	(1.000)	172537	50.0	
$	22 1,2-Dichloroethane-d4 (SS)	65.00	5.561	5.561	(0.932)	367915	51.4	51.4
*	25 1,4-Difluorobenzene	114.00	5.968	5.962	(1.000)	801251	50.0	
$	32 Toluene-d8 (SS)	98.00	7.326	7.327	(0.842)	772394	55.4	55.4
*	39 Chlorobenzene-d5	117.00	8.701	8.692	(1.000)	526074	50.0	
$	47 Bromofluorobenzene (SS)	95.00	9.848	9.838	(1.132)	298227	45.2	45.2

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem1/its1.i/09-04-96.b/EE1311401014.d
Lab Smp Id: D96-9653-1 Client Smp ID: ALS=10
Inj Date : 04-SEP-96 12:43 Autotune Date: 07-Feb-96 17:31:1
Operator : SAP Inst ID: its1.i
Smp Info : IL_8240_S;;ITS1-851;1
Misc Info : IL_8240_S;;ITS1-851;1
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 14
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: its1.i
Lab File ID: EE1311401014.d
Lab Smp Id: D96-9653-1
Analysis Type: VOA
Quant Type: ISTD
Operator: SAP
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: IL_8240_S;;ITS1-851;1

Calibration Date: 09/04/96
Calibration Time: 0918
Client Smp ID: ALS=10
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	204679	102340	409358	172537	-15.70
25 1,4-Difluorobenzene	914412	457206	1828824	801251	-12.38
39 Chlorobenzene-d5	749378	374689	1498756	526074	-29.80

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	5.03	4.53	5.53	5.02	-0.12
25 1,4-Difluorobenzene	5.98	5.48	6.48	5.97	-0.13
39 Chlorobenzene-d5	8.70	8.20	9.20	8.70	0.02

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name: Client SDG: 09-04-96.b
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: D96-9653-1 Client Smp ID: ALS=10
Level: LOW Operator: SAP
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: spike.spk Quant Type: ISTD
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: IL_8240_S;;ITS1-851;1

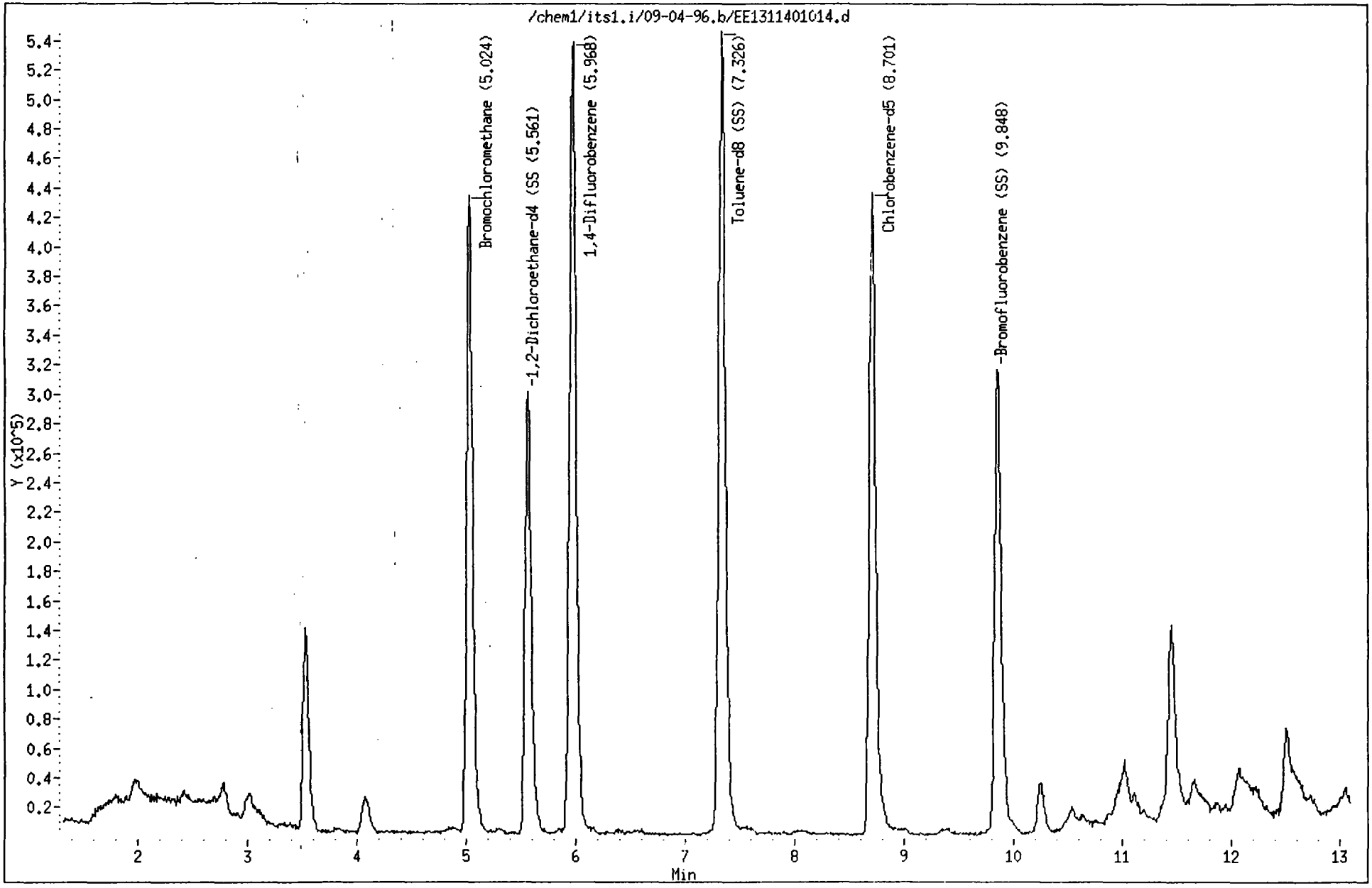
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 22 1,2-Dichloroethane	50.0	51.4	102.88	76-126
$ 32 Toluene-d8 (SS)	50.0	55.4	110.89	88-118
$ 47 Bromofluorobenzene	50.0	45.2	90.46	86-121

Data File: /chem1/its1.i/09-04-96.b/EE1311401014.d
Date : 04-SEP-96 12:43
Client ID: ALS=10
Sample Info: IL_8240_S;;ITS1-851;1

Column phase: J&W DB-624

Instrument: its1.i

Operator: SAP
Column diameter: 0.53



Data File: /chem1/its1.i/09-04-96.b/EE1311401014.d

Date : 04-SEP-96 12:43

Client ID: ALS=10

Instrument: its1.i

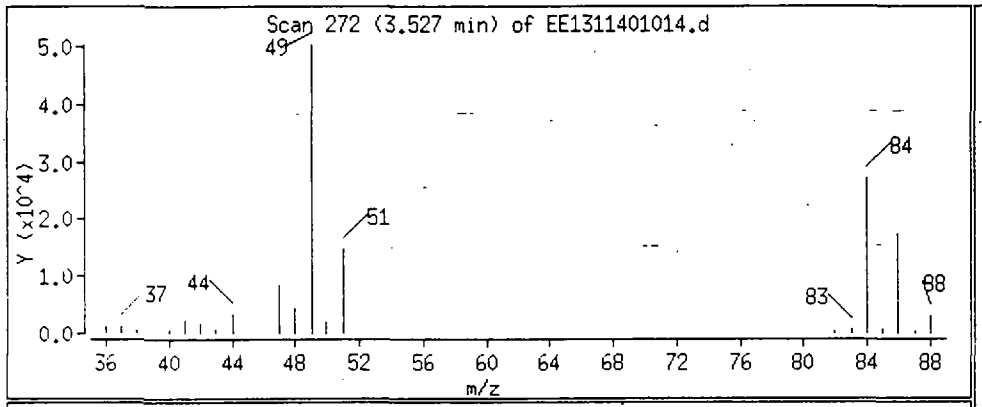
Sample Info: IL_8240_S;;ITS1-851;1

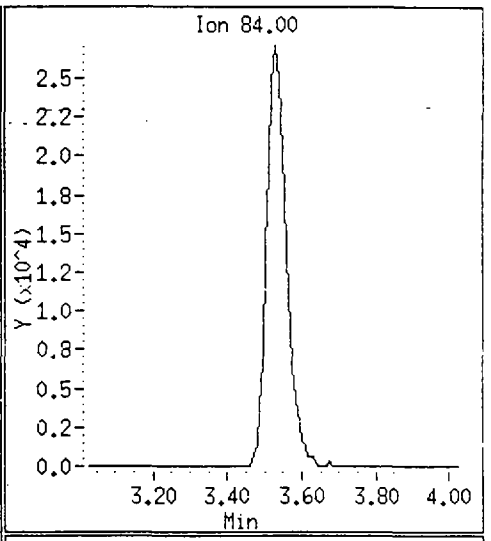
Operator: SAP

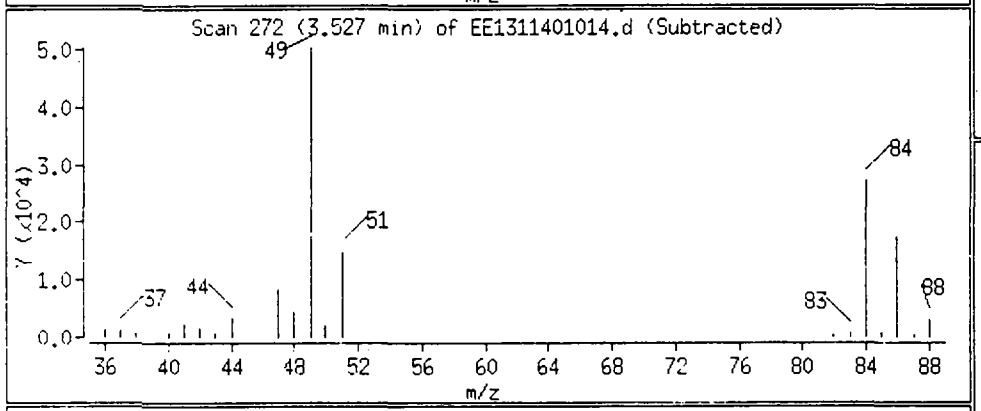
Column phase: J&W DB-624

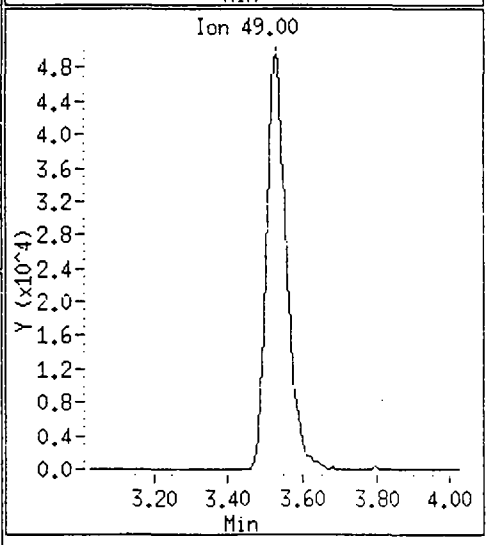
Column diameter: 0.53

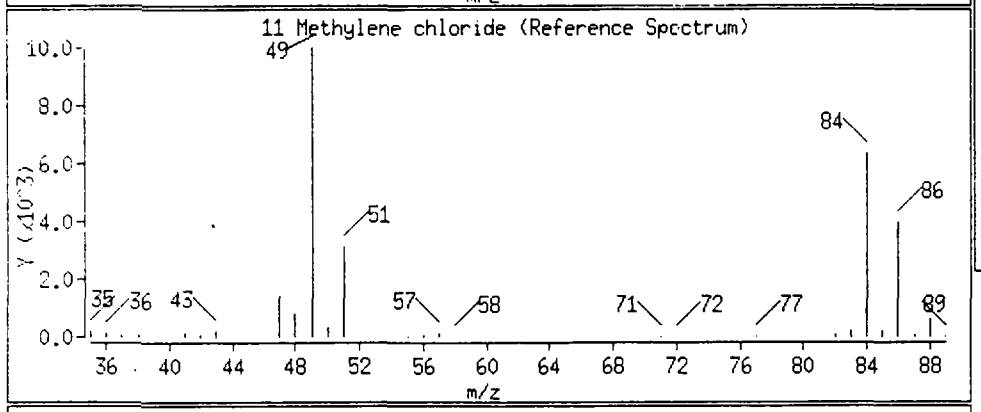
11 Methylene chloride

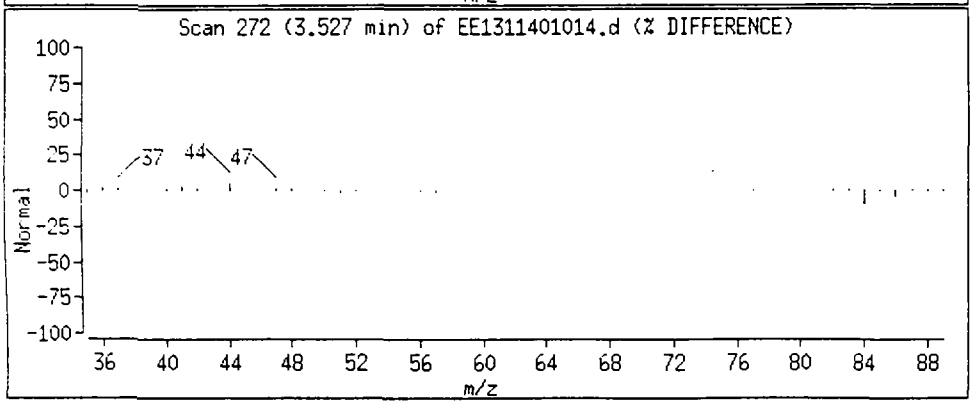












FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-2

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: ITS-DALLAS Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: D96-9653-2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1311501015

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
107-02-8	Acrolein	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	100	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	8.6	
156-60-5	trans-1,2-Dichloroethene	5.0	U
75-05-8	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
108-05-4	Vinyl acetate	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	50.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
110-75-8	2-Chloroethylvinyl ether	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	50.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	50.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-2

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: ITS-DALLAS Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: D96-9653-2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1311501015

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
124-48-1	Chlorodibromomethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
----------	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
764-41-0	1,4-Dichloro-2-butene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

9653-2

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1311501015

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Inchcape Testing Services - Environmental Laboratories

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/09-04-96.b/EE1311501015.d
Lab Smp Id: D96-9653-2 Client Smp ID: ALS=11
Inj Date : 04-SEP-96 13:03 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : IL_8240_S;;ITS1-851;1
Misc Info : IL_8240_S;;ITS1-851;1
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty Quant Type: ISTD
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 15
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/kg)	FINAL (ug/L)
11 Methylene chloride	84.00	3.527	3.527	(0.702)	42702	8.6	8.6
* 18 Bromochloromethane	128.00	5.023	5.021	(1.000)	103605	50.0	
$ 22 1,2-Dichloroethane-d4 (SS)	65.00	5.560	5.561	(0.932)	201514	48.1	48.1
* 25 1,4-Difluorobenzene	114.00	5.967	5.962	(1.000)	469145	50.0	
$ 32 Toluene-d8 (SS)	98.00	7.333	7.327	(0.843)	451944	44.7	44.7
* 39 Chlorobenzene-d5	117.00	8.699	8.692	(1.000)	381998	50.0	
$ 47 Bromofluorobenzene (SS)	95.00	9.854	9.838	(1.133)	216808	45.3	45.3(M)

QC Flag Legend

M - Compound response manually integrated.

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem1/its1.i/09-04-96.b/EE1311501015.d
Lab Smp Id: D96-9653-2 Client Smp ID: ALS=11
Inj Date : 04-SEP-96 13:03 Autotune Date: 07-Feb-96 17:31:1
Operator : SAP Inst ID: its1.i
Smp Info : IL_8240_S;;ITS1-851;1
Misc Info : IL_8240_S;;ITS1-851;1
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 15
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: its1.i
Lab File ID: EE1311501015.d
Lab Smp Id: D96-9653-2
Analysis Type: VOA
Quant Type: ISTD
Operator: SAP
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: IL_8240_S;;ITS1-851;1

Calibration Date: 09/04/96
Calibration Time: 0918
Client Smp ID: ALS=11
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	204679	102340	409358	103605	-49.38
25 1,4-Difluorobenzene	914412	457206	1828824	469145	-48.69
39 Chlorobenzene-d5	749378	374689	1498756	381998	-49.02

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	5.03	4.53	5.53	5.02	-0.13
25 1,4-Difluorobenzene	5.98	5.48	6.48	5.97	-0.15
39 Chlorobenzene-d5	8.70	8.20	9.20	8.70	0.00

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name:
Client SDG: 09-04-96.b
Sample Matrix: SOLID
Fraction: VOA
Lab Smp Id: D96-9653-2
Client Smp ID: ALS=11
Level: LOW
Operator: SAP
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: spike.spk
Quant Type: ISTD
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: IL_8240_S;;ITS1-851;1

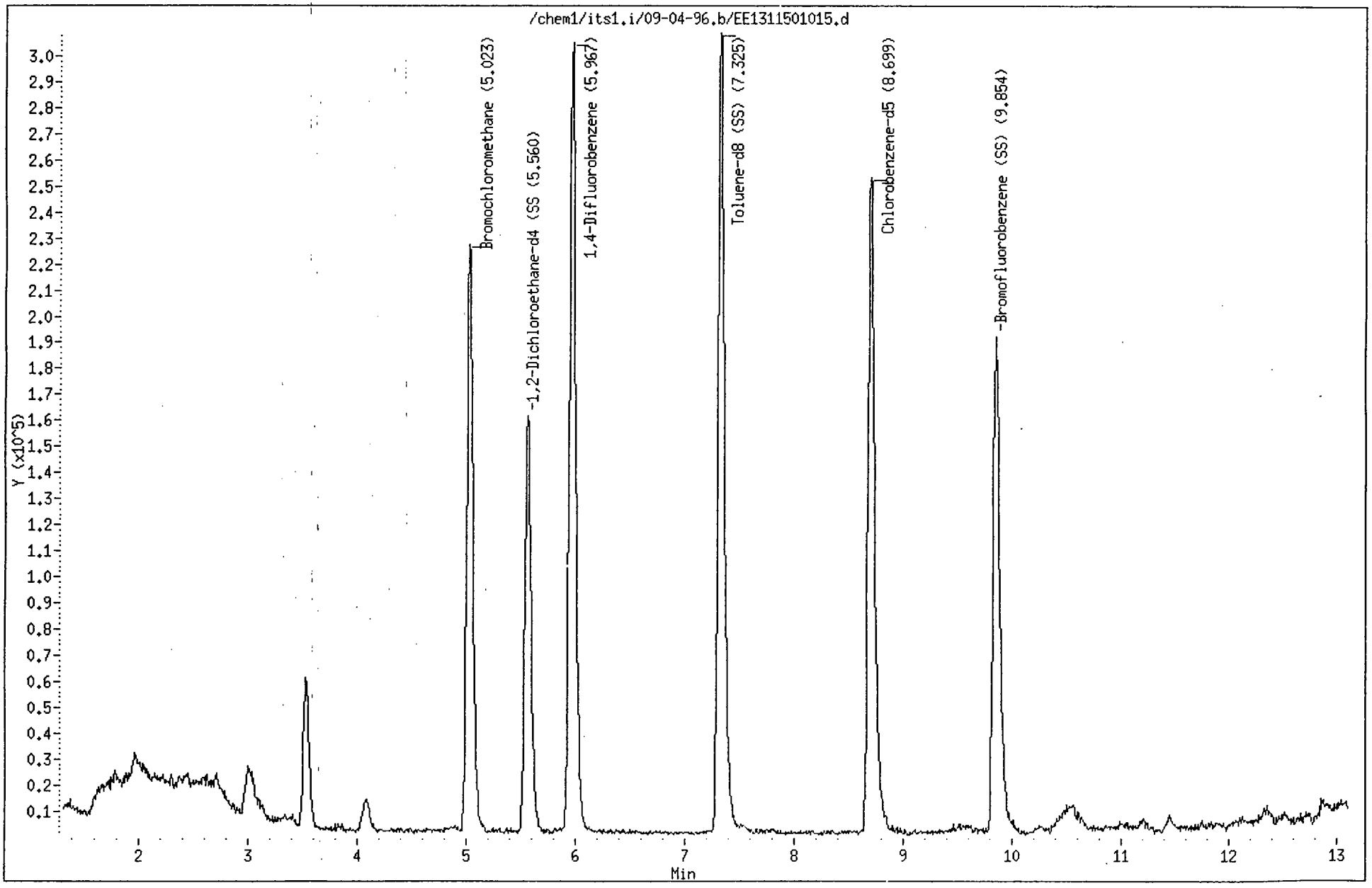
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 22 1,2-Dichloroethane	50.0	48.1	96.24	76-126
$ 32 Toluene-d8 (SS)	50.0	44.7	89.36	88-118
$ 47 Bromofluorobenzene	50.0	45.3	90.56	86-121

Data File: /chem1/its1.i/09-04-96.b/EE1311501015.d
Date : 04-SEP-96 13:03
Client ID: ALS=11
Sample Info: IL_8240_S;;ITS1-851;1

Instrument: its1.i

Operator: SAP
Column diameter: 0.53

Column phase: J&W DB-624



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Date : 04-SEP-96 13:03

Client ID: ALS=11

Instrument: its1.i

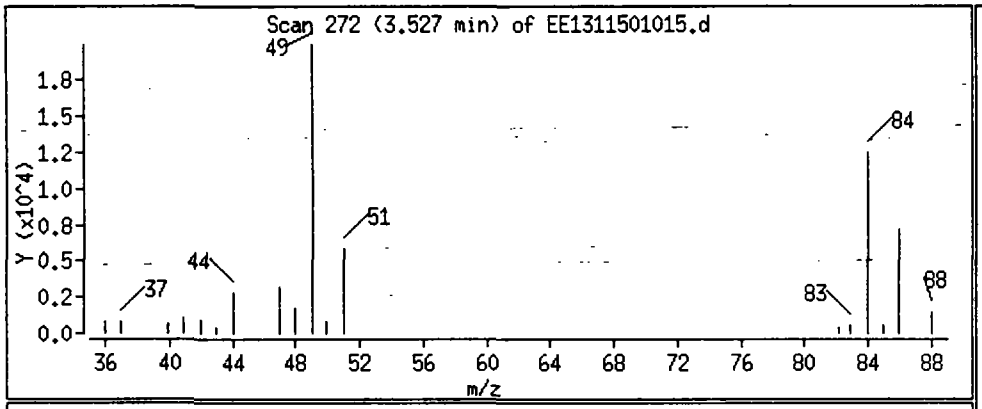
Sample Info: IL_8240_S;;ITS1-851;1

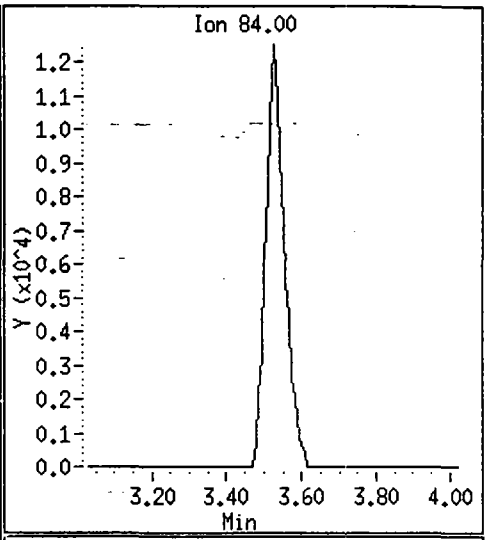
Operator: SAP

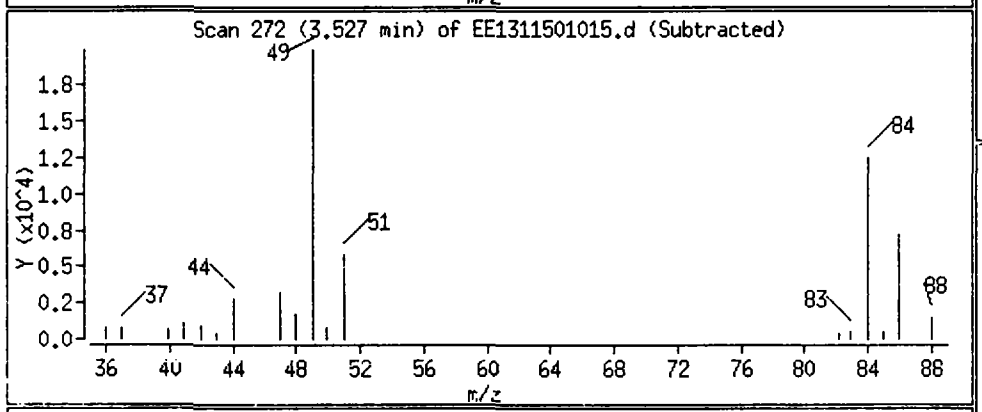
Column phase: J&W DB-624

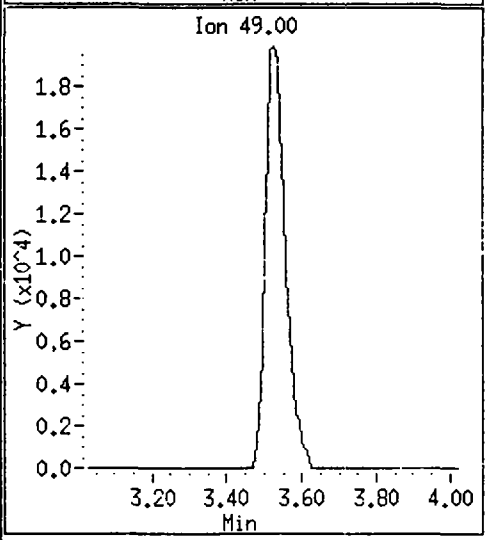
Column diameter: 0.53

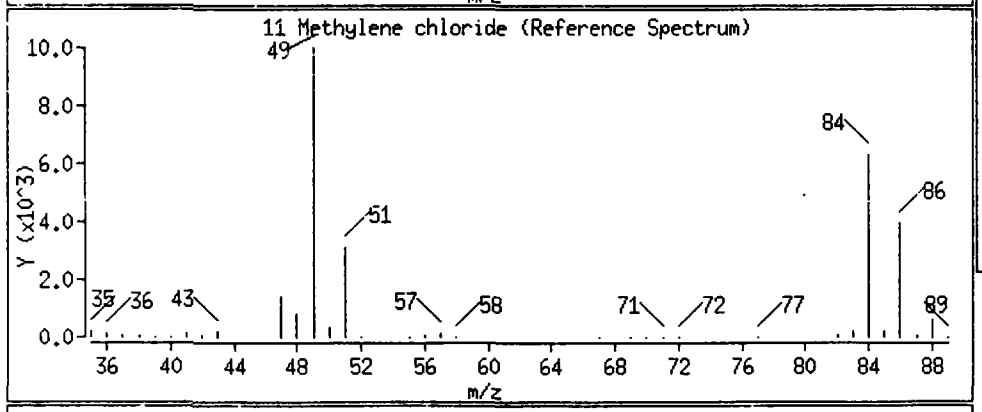
11 Methylene chloride

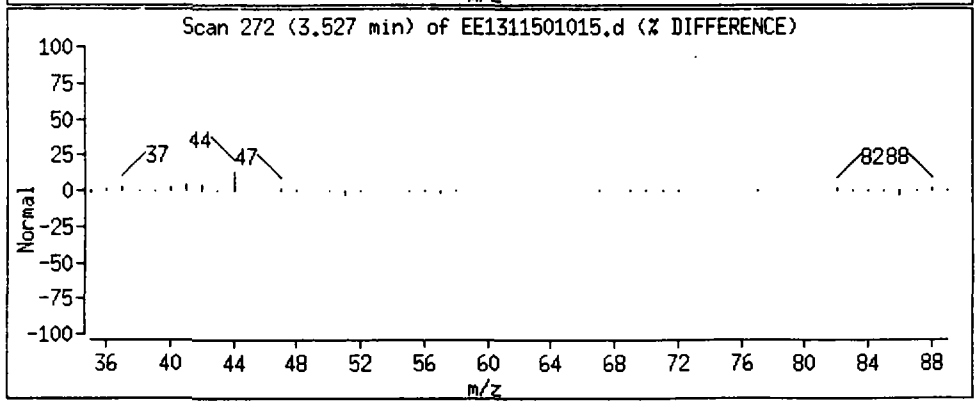












FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-3

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: ITS-DALLAS Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: D96-9653-3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1311601016

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
107-02-8	Acrolein	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	100	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	11.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U
75-05-8	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
108-05-4	Vinyl acetate	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	50.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
110-75-8	2-Chloroethylvinyl ether	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	50.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	50.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-3

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: ITS-DALLAS Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: D96-9653-3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1311601016

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
124-48-1	Chlorodibromomethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
----------	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
764-41-0	1,4-Dichloro-2-butene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

9653-3

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-3

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1311601016

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Inchcape Testing Services - Environmental Laboratories

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/09-04-96.b/EE1311601016.d
Lab Smp Id: D96-9653-3 Client Smp ID: ALS=12
Inj Date : 04-SEP-96 13:23 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : IL_8240_S;;ITS1-851;1
Misc Info : IL_8240_S;;ITS1-851;1
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty Quant Type: ISTD
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 16
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/kg)	CONCENTRATIONS FINAL (ug/L)
	11 Methylene chloride	84.00	3.519	3.527	(0.701)	132546	11.0	11.0
*	18 Bromochloromethane	128.00	5.024	5.021	(1.000)	251635	50.0	
$	22 1,2-Dichloroethane-d4 (SS)	65.00	5.553	5.561	(0.932)	529737	48.7	48.7
*	25 1,4-Difluorobenzene	114.00	5.960	5.962	(1.000)	1217954	50.0	
$	32 Toluene-d8 (SS)	98.00	7.326	7.327	(0.842)	1231158	49.6	49.6
*	39 Chlorobenzene-d5	117.00	8.701	8.692	(1.000)	937846	50.0	
$	47 Bromofluorobenzene (SS)	95.00	9.848	9.838	(1.132)	593207	50.5	50.5

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem1/its1.i/09-04-96.b/EE1311601016.d
Lab Smp Id: D96-9653-3 Client Smp ID: ALS=12
Inj Date : 04-SEP-96 13:23 Autotune Date: 07-Feb-96 17:31:1
Operator : SAP Inst ID: its1.i
Smp Info : IL_8240_S;;ITS1-851;1
Misc Info : IL_8240_S;;ITS1-851;1
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 16
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: its1.i
Lab File ID: EE1311601016.d
Lab Smp Id: D96-9653-3
Analysis Type: VOA
Quant Type: ISTD
Operator: SAP
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: IL_8240_S;;ITS1-851;1

Calibration Date: 09/04/96
Calibration Time: 0918
Client Smp ID: ALS=12
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	204679	102340	409358	251635	22.94
25 1,4-Difluorobenzene	914412	457206	1828824	1217954	33.20
39 Chlorobenzene-d5	749378	374689	1498756	937846	25.15

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	5.03	4.53	5.53	5.02	-0.12
25 1,4-Difluorobenzene	5.98	5.48	6.48	5.96	-0.27
39 Chlorobenzene-d5	8.70	8.20	9.20	8.70	0.02

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name: Client SDG: 09-04-96.b
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: D96-9653-3 Client Smp ID: ALS=12
Level: LOW Operator: SAP
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: spike.spk Quant Type: ISTD
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: IL_8240_S;;ITS1-851;1

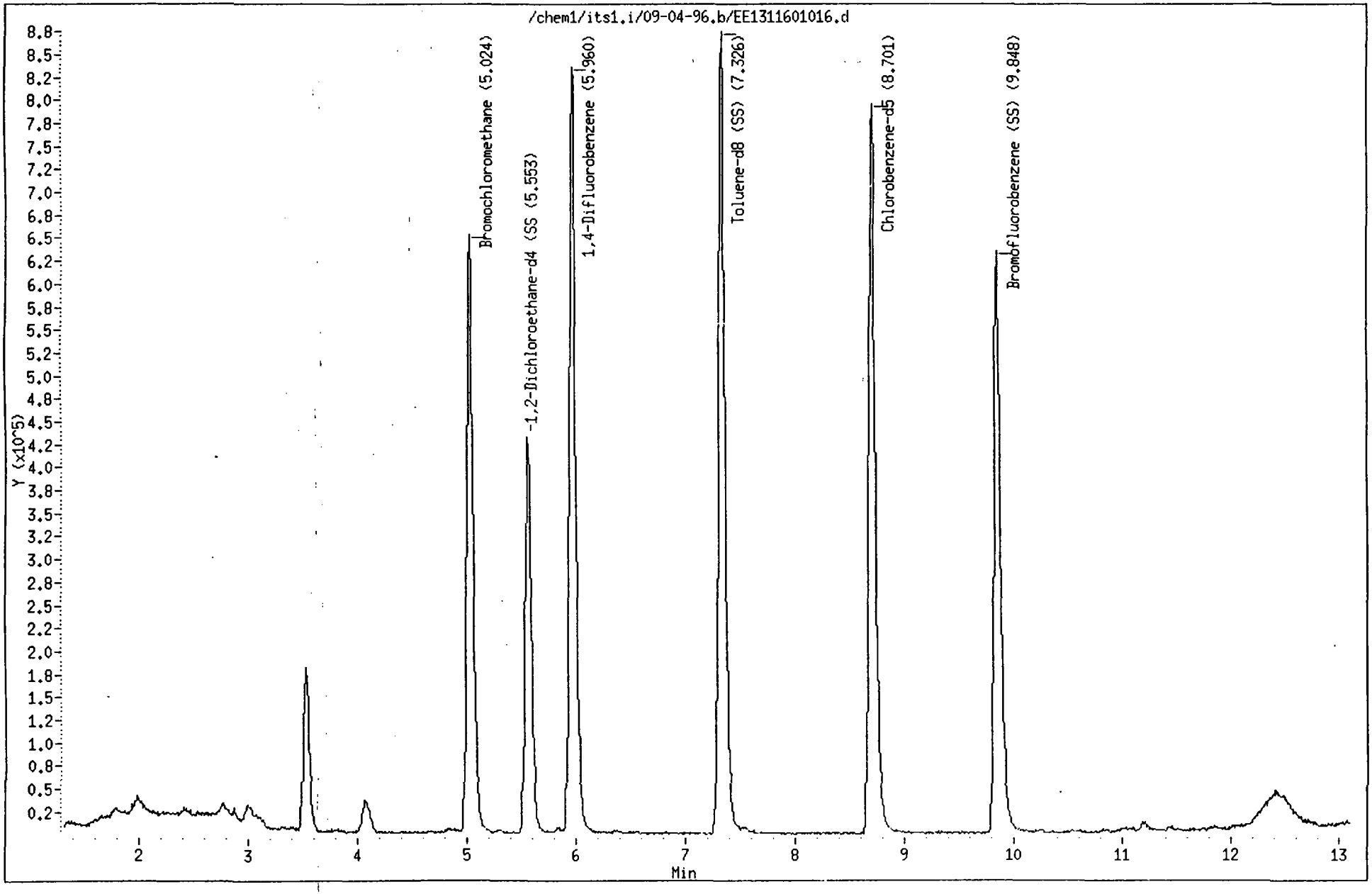
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 22 1,2-Dichloroethane	50.0	48.7	97.45	76-126
$ 32 Toluene-d8 (SS)	50.0	49.6	99.15	88-118
$ 47 Bromofluorobenzene	50.0	50.5	100.93	86-121

Data File: [redacted]em1/its1.i/09-04-96.b/EE1311601016.d
Date : 04-SEP-96 13:23
Client ID: ALS=12
Sample Info: IL_8240_S;;ITS1-851;1

Column phase: J&W DB-624

Instrument: its1.i

Operator: SAP
Column diameter: 0.53



Data File: /chem1/its1.i/09-04-96.b/EE1311601016.d

Date : 04-SEP-96 13:23

Client ID: ALS=12

Instrument: its1.i

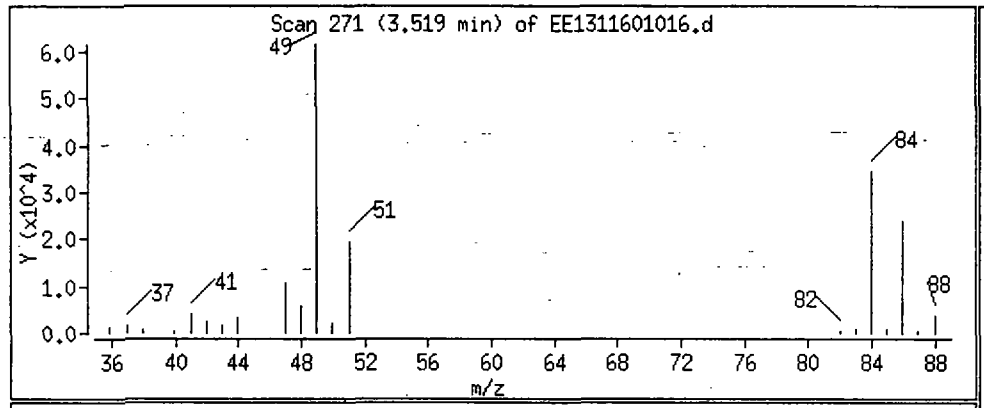
Sample Info: IL_8240_S;;ITS1-851;1

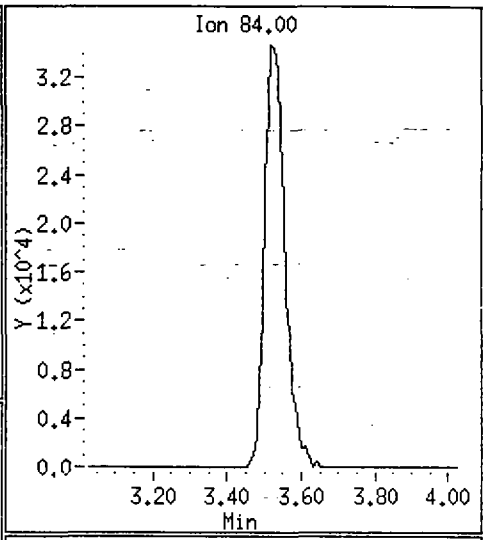
Operator: SAP

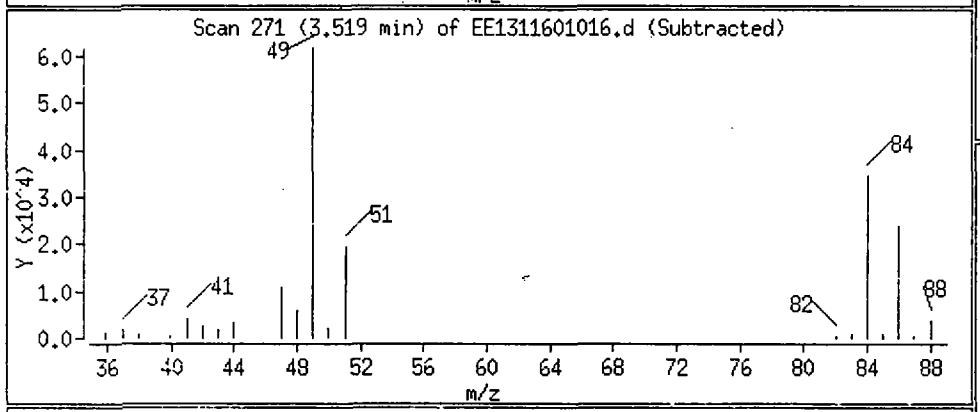
Column phase: J&W DB-624

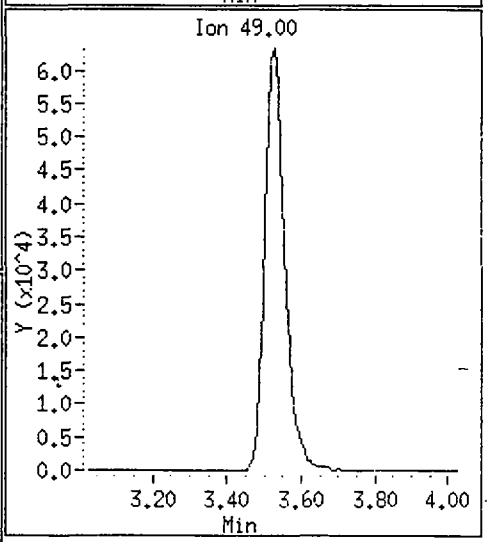
Column diameter: 0.53

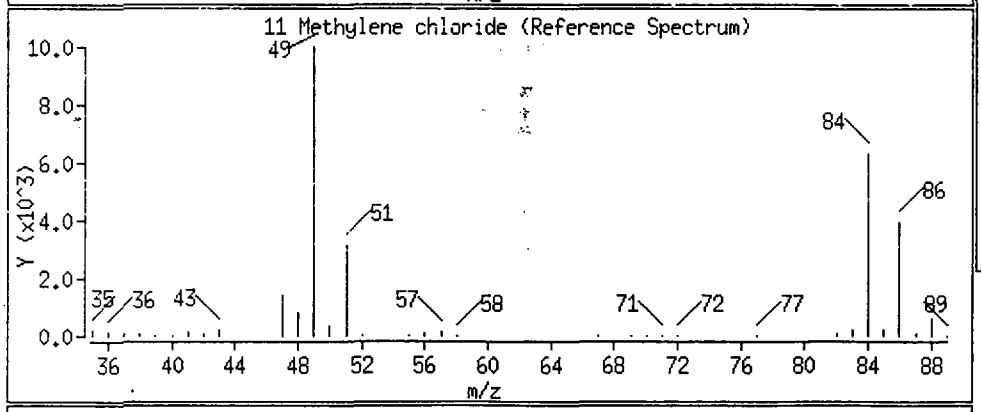
11 Methylene chloride

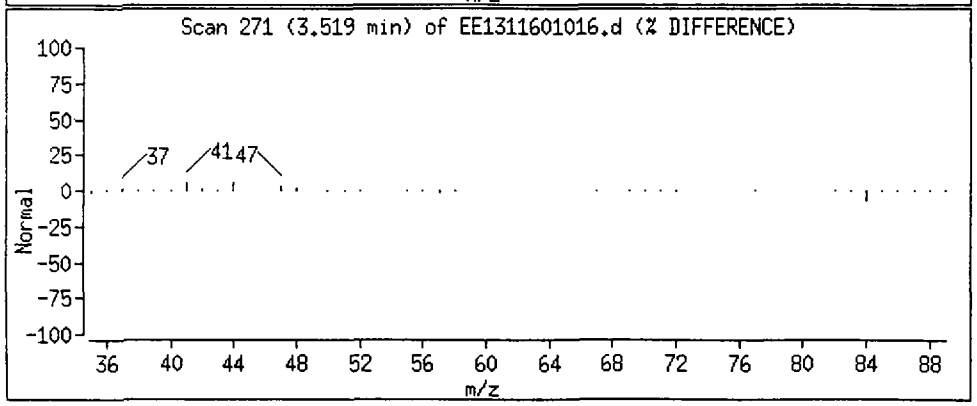












STANDARDS DATA

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: V9653

Instrument ID: ITS1 Calibration Date(s): 07/11/96 07/11/96

Column: J&W DB-624 ID: 0.53 (mm) Calibration Time(s): 1215 1804

LAB FILE ID: RF10: EE0891701017RF20: EE0891601016RF50: EE0891501015
RF100: EE089140101RF200: EE089130101

COMPOUND	RF10	RF20	RF50	RF100	RF200
Chloromethane	2.513	2.296	2.145	2.476	2.237
Chloroethane	1.991	1.719	1.636	1.827	1.408
Vinyl chloride	3.546	3.059	2.880	3.282	2.808
Bromomethane	2.487	2.159	2.016	2.312	2.000
Acrolein	0.373	0.259	0.305	0.286	0.262
Trichlorofluoromethane	4.155	3.308	3.188	3.885	3.497
1,1-Dichloroethene	2.192	1.760	1.674	2.007	1.800
Acetone	1.548	1.514	1.113	1.078	0.925
Iodomethane	3.702	2.616	2.643	3.106	2.876
Carbon disulfide	7.282	5.919	5.749	6.879	6.159
Methylene chloride	2.650	2.289	2.425	2.601	2.244
trans-1,2-Dichloroethene	2.548	1.888	1.816	2.185	1.921
Acrylonitrile	1.397	1.057	1.025	1.140	1.002
1,1-Dichloroethane	5.602	4.526	4.256	5.060	4.583
Vinyl acetate	9.310	6.486	6.806	7.180	6.692
cis-1,2-Dichloroethene	1.643	1.732	1.579	1.813	1.750
2-Butanone	0.635	0.472	0.448	0.445	0.386
Chloroform	0.976	0.878	0.878	1.022	0.819
1,1,1-Trichloroethane	0.711	0.600	0.581	0.681	0.597
Carbon tetrachloride	0.543	0.440	0.438	0.526	0.477
Benzene	1.482	1.189	1.112	1.289	1.194
1,2-Dichloroethane	0.596	0.516	0.485	0.558	0.493
Trichloroethene	0.484	0.377	0.358	0.422	0.396
1,2-Dichloropropane	0.631	0.514	0.496	0.561	0.521
Bromodichloromethane	0.774	0.639	0.611	0.734	0.665
2-Chloroethylvinyl ether	0.395	0.338	0.260	0.396	0.349
cis-1,3-Dichloropropene	0.701	0.570	0.551	0.645	0.623
4-Methyl-2-pentanone	0.867	0.753	0.753	0.774	0.685
Toluene	1.140	0.927	0.892	0.986	0.897
trans-1,3-Dichloropropene	0.772	0.629	0.612	0.692	0.658
1,1,2-Trichloroethane	0.686	0.524	0.504	0.561	0.522
Tetrachloroethene	0.459	0.365	0.358	0.424	0.375
2-Hexanone	0.983	0.785	0.722	0.796	0.670
Chlorodibromomethane	0.722	0.568	0.560	0.612	0.594
Chlorobenzene	1.205	0.981	0.944	1.058	0.958
Ethylbenzene	0.576	0.470	0.464	0.528	0.476
m,p-Xylene	0.715	0.577	0.566	0.677	0.614

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: V9653

Instrument ID: ITS1 Calibration Date(s): 07/11/96 07/11/96

Column: J&W DB-624 ID: 0.53 (mm) Calibration Time(s): 1215 1804

LAB FILE ID: RF10: EE0891701017RF20: EE0891601016RF50: EE0891501015
RF100: EE089140101RF200: EE089130101

COMPOUND	RF10	RF20	RF50	RF100	RF200
o-Xylene	0.658	0.543	0.543	0.627	0.562
Styrene	1.115	0.916	0.912	1.083	0.983
Bromoform	0.477	0.389	0.403	0.444	0.417
1,4-Dichloro-2-butene	0.123	0.107	0.108	0.120	0.110
1,1,2,2-Tetrachloroethane	1.181	0.909	0.911	0.989	0.922
1,3-Dichlorobenzene	0.730	0.633	0.586	0.656	0.609
1,4-Dichlorobenzene	0.915	0.764	0.767	0.822	0.767
1,2-Dichlorobenzene	0.721	0.621	0.598	0.680	0.610
1,2-Dichloroethane-d4 (SS)	0.549	0.438	0.435	0.429	0.437
Toluene-d8 (SS)	1.604	1.246	1.338	1.242	1.311
Bromofluorobenzene (SS)	0.706	0.598	0.623	0.597	0.635

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: V9653

Instrument ID: ITS1 Calibration Date(s): 07/11/96 07/11/96

Column: J&W DB-624 ID: 0.53 (mm) Calibration Time(s): 1215 1804

RF300: EE089120101

COMPOUND	RF300
Chloromethane	2.252
Chloroethane	1.429
Vinyl chloride	2.931
Bromomethane	1.888
Acrolein	0.190
Trichlorofluoromethane	3.626
1,1-Dichloroethene	1.829
Acetone	0.886
Iodomethane	3.089
Carbon disulfide	6.144
Methylene chloride	2.167
trans-1,2-Dichloroethene	2.007
Acrylonitrile	0.963
1,1-Dichloroethane	4.234
Vinyl acetate	6.637
cis-1,2-Dichloroethene	1.846
2-Butanone	0.316
Chloroform	0.750
1,1,1-Trichloroethane	0.598
Carbon tetrachloride	0.488
Benzene	1.217
1,2-Dichloroethane	0.483
Trichloroethene	0.403
1,2-Dichloropropane	0.549
Bromodichloromethane	0.696
2-Chloroethylvinyl ether	0.324
cis-1,3-Dichloropropene	0.646
4-Methyl-2-pentanone	0.609
Toluene	0.913
trans-1,3-Dichloropropene	0.654
1,1,2-Trichloroethane	0.482
Tetrachloroethene	0.374
2-Hexanone	0.572
Chlorodibromomethane	0.573
Chlorobenzene	0.951
Ethylbenzene	0.487
m,p-Xylene	0.607

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: V9653

Instrument ID: ITS1 Calibration Date(s): 07/11/96 07/11/96

Column: J&W DB-624 ID: 0.53 (mm) Calibration Time(s): 1215 1804

RF300: EE089120101

COMPOUND	RF300
o-Xylene	0.548
Styrene	0.955
Bromoform	0.361
1,4-Dichloro-2-butene	0.084
1,1,2,2-Tetrachloroethane	1.009
1,3-Dichlorobenzene	0.593
1,4-Dichlorobenzene	0.757
1,2-Dichlorobenzene	0.594
1,2-Dichloroethane-d4 (SS)	0.390
Toluene-d8 (SS)	1.201
Bromofluorobenzene (SS)	0.601

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: V9653

Instrument ID: ITS1 Calibration Date(s): 07/11/96 07/11/96

Column: J&W DB-624 ID: 0.53 (mm) Calibration Time(s): 1215 1804

COMPOUND	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2
Chloromethane	AVRG		2.31978092		6.2
Chloroethane	AVRG		1.66834074		13.6
Vinyl chloride	AVRG		3.08423638		9.1
Bromomethane	AVRG		2.14364960		10.4
Acrolein	2ORDR	0.22936183	1.17819800	2.95300792	0.966
Trichlorofluoromethane	AVRG		3.60972061		10.0
1,1-Dichloroethene	AVRG		1.87707863		10.1
Acetone	2ORDR	-0.1416809	0.94949762	0.03961773	0.999
Iodomethane	AVRG		3.00521456		13.3
Carbon disulfide	AVRG		6.35537757		9.4
Methylene chloride	AVRG		2.39616044		8.2
trans-1,2-Dichloroethene	AVRG		2.06068120		13.1
Acrylonitrile	AVRG		1.09744539		14.4
1,1-Dichloroethane	AVRG		4.71036641		11.2
Vinyl acetate	AVRG		7.18510256		14.8
cis-1,2-Dichloroethene	AVRG		1.72704635		5.8
2-Butanone	2ORDR	0.15979911	1.08292225	1.01766030	0.995
Chloroform	AVRG		0.88709405		11.2
1,1,1-Trichloroethane	AVRG		0.62826534		8.6
Carbon tetrachloride	AVRG		0.48546759		8.9
Benzene	AVRG		1.24713315		10.3
1,2-Dichloroethane	AVRG		0.52191057		8.8
Trichloroethene	AVRG		0.40654649		10.8
1,2-Dichloropropane	AVRG		0.54540808		8.9
Bromodichloromethane	AVRG		0.68653577		8.9
2-Chloroethylvinyl ether	AVRG		0.34385238		14.7
cis-1,3-Dichloropropene	AVRG		0.62277475		8.8
4-Methyl-2-pentanone	2ORDR	0.08606930	0.96792832	0.17562644	0.999
Toluene	AVRG		0.95903849		9.9
trans-1,3-Dichloropropene	AVRG		0.66944557		8.5
1,1,2-Trichloroethane	AVRG		0.54656257		13.4
Tetrachloroethene	AVRG		0.39260073		10.2
2-Hexanone	2ORDR	0.15183489	0.72729723	0.27920891	0.998
Chlorodibromomethane	AVRG		0.60489154		10.0
Chlorobenzene	AVRG		1.01626143		10.0
Ethylbenzene	AVRG		0.50012871		8.7
m,p-Xylene	AVRG		0.62611311		9.3

FORM 6
VOLATILE INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract:

Lab Code: DALLAS Case No.: SAS No.: SDG No.: V9653

Instrument ID: ITS1 Calibration Date(s): 07/11/96 07/11/96

Column: J&W DB-624 ID: 0.53 (mm) Calibration Time(s): 1215 1804

COMPOUND	CURVE	COEFFICENTS A0	A1	A2	%RSD OR R^2
o-Xylene	AVRG		0.58029294		8.6
Styrene	AVRG		0.99408465		8.6
Bromoform	AVRG		0.41526001		9.9
1,4-Dichloro-2-butene	AVRG		0.10870756		12.4
1,1,2,2-Tetrachloroethane	AVRG		0.98703332		10.5
1,3-Dichlorobenzene	AVRG		0.63446857		8.4
1,4-Dichlorobenzene	AVRG		0.79875430		7.7
1,2-Dichlorobenzene	AVRG		0.63746747		8.1
1,2-Dichloroethane-d4 (SS)	AVRG		0.44630000		12.0
Toluene-d8 (SS)	AVRG		1.32400000		11.0
Bromofluorobenzene (SS)	AVRG		0.62670000		6.6

Report Date : 11-Jul-1996 23:17

Inchcape Testing Services - Dallas

INITIAL CALIBRATION DATA

Start Cal Date : 11-JUL-1996 12:15
End Cal Date : 11-JUL-1996 18:04
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem1/its1.i/07-11-96.b/8240_voa1.m
Cal Date : 11-Jul-1996 23:16 mll

Calibration File Names:
Level 1: /chem1/its1.i/07-11-96.b/EE0891701017.d
Level 2: /chem1/its1.i/07-11-96.b/EE0891601016.d
Level 3: /chem1/its1.i/07-11-96.b/EE0891501015.d
Level 4: /chem1/its1.i/07-11-96.b/EE0891401014.d
Level 5: /chem1/its1.i/07-11-96.b/EE0891301013.d
Level 6: /chem1/its1.i/07-11-96.b/EE0891201012.d

Compound	10 Level 1	20 Level 2	50 Level 3	100 Level 4	200 Level 5	300 Level 6	Curve	Coefficients a0	a1	a2	%RSD or R^2
1 Chloromethane	2.51317	2.29550	2.14472	2.47647	2.23702	2.25180	AVRG		2.31978		6.23666
2 Chloroethane	1.99089	1.71894	1.63611	1.82691	1.40843	1.42876	AVRG		1.66834		13.60866
3 Vinyl chloride	3.54590	3.05891	2.88052	3.28169	2.80764	2.93076	AVRG		3.08424		9.10535
4 Bromomethane	2.48734	2.15887	2.01556	2.31204	2.00055	1.88753	AVRG		2.14365		10.41425
5 Acrolein	20439	26942	78764	133380	261169	254706	QUAD	0.22936	1.17820	2.95301	0.96568
6 Trichlorofluoromethane	4.15484	3.30788	3.18769	3.88485	3.49685	3.62621	AVRG		3.60972		10.02740
7 1,1-Dichloroethene	2.19221	1.76019	1.67378	2.00722	1.80039	1.82868	AVRG		1.87708		10.09305
8 Acetone	84874	157705	287455	503646	920078	1185483	QUAD	-0.14168	0.94950	0.03962	0.99918
9 Iodomethane	3.70190	2.61556	2.64270	3.10592	2.87607	3.08914	AVRG		3.00521		13.33090

Inchcape Testing Services - Dallas

INITIAL CALIBRATION DATA

Start Cal Date : 11-JUL-1996 12:15
End Cal Date : 11-JUL-1996 18:04
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem1/its1.i/07-11-96.b/8240_voa1.m
Cal Date : 11-Jul-1996 23:16 mll

Compound	10 Level 1	20 Level 2	50 Level 3	100 Level 4	200 Level 5	300 Level 6	Curve	Coefficients a0	a1	a2	%RSD or R^2
10 Carbon disulfide	7.28175	5.91930	5.74914	6.87882	6.15899	6.14427	AVRG		6.35538		9.36971
11 Methylene chloride	2.65025	2.28936	2.42493	2.60067	2.24438	2.16736	AVRG		2.39616		8.22071
12 trans-1,2-Dichloroethene	2.54799	1.88792	1.81561	2.18513	1.92079	2.00666	AVRG		2.06068		13.11771
13 Acrylonitrile	1.39726	1.05712	1.02516	1.13992	1.00187	0.96334	AVRG		1.09745		14.44563
14 1,1-Dichloroethane	5.60235	4.52642	4.25623	5.05950	4.58345	4.23425	AVRG		4.71037		11.23532
15 Vinyl acetate	9.31003	6.48556	6.80651	7.17981	6.69190	6.63681	AVRG		7.18510		14.84949
16 cis-1,2-Dichloroethene	1.64280	1.73215	1.57892	1.81269	1.74970	1.84602	AVRG		1.72705		5.85174
17 2-Butanone	34821	49188	115641	207847	383451	422056	QUAD	0.15980	1.08292	1.01766	0.99531
19 Chloroform	0.97562	0.87764	0.87780	1.02190	0.81913	0.75048	AVRG		0.88709		11.21234
20 1,1,1-Trichloroethane	0.71100	0.60048	0.58144	0.68098	0.59741	0.59828	AVRG		0.62827		8.55379
21 Carbon tetrachloride	0.54288	0.44055	0.43776	0.52656	0.47710	0.48796	AVRG		0.48547		8.90983
23 Benzene	1.48172	1.18916	1.11153	1.28871	1.19452	1.21716	AVRG		1.24713		10.27931
24 1,2-Dichloroethane	0.59653	0.51620	0.48466	0.55819	0.49264	0.48325	AVRG		0.52191		8.84526
26 Trichloroethene	0.48398	0.37689	0.35792	0.42185	0.39564	0.40300	AVRG		0.40655		10.78159
27 1,2-Dichloropropane	0.63130	0.51389	0.49579	0.56101	0.52117	0.54928	AVRG		0.54541		8.86142
28 Bromodichloromethane	0.77452	0.63865	0.61107	0.73395	0.66544	0.69557	AVRG		0.68654		8.86074
29 2-Chloroethylvinyl ether	0.39478	0.33835	0.26031	0.39629	0.34897	0.32441	AVRG		0.34385		14.69008

Inchcape Testing Services - Dallas

INITIAL CALIBRATION DATA

Start Cal Date : 11-JUL-1996 12:15
End Cal Date : 11-JUL-1996 18:04
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem1/its1.i/07-11-96.b/8240_voa1.m
Cal Date : 11-Jul-1996 23:16 mll

Compound	10 Level 1	20 Level 2	50 Level 3	100 Level 4	200 Level 5	300 Level 6	Curve	Coefficients a0	a1	a2	%RSD or R^2
30 cis-1,3-Dichloropropene	0.70094	0.57027	0.55091	0.64481	0.62342	0.64630	AVRG		0.62277		8.81505
31 4-Methyl-2-pentanone	187054	287592	746407	1440568	2869631	3842914	QUAD	0.08607	0.96793	0.17563	0.99944
33 Toluene	1.13976	0.92683	0.89162	0.98576	0.89740	0.91286	AVRG		0.95904		9.87992
34 trans-1,3-Dichloropropene	0.77156	0.62947	0.61152	0.69178	0.65857	0.65377	AVRG		0.66945		8.51401
35 1,1,2-Trichloroethane	0.68655	0.52383	0.50403	0.56091	0.52222	0.48183	AVRG		0.54656		13.42272
36 Tetrachloroethene	0.45884	0.36516	0.35835	0.42407	0.37549	0.37370	AVRG		0.39260		10.15855
37 2-Hexanone	146033	215720	508917	1098336	2109318	2765568	QUAD	0.15183	0.72730	0.27921	0.99777
38 Chlorodibromomethane	0.72191	0.56829	0.56045	0.61178	0.59378	0.57314	AVRG		0.60489		9.97043
40 Chlorobenzene	1.20535	0.98075	0.94426	1.05826	0.95791	0.95104	AVRG		1.01626		9.99821
41 Ethylbenzene	0.57588	0.47035	0.46398	0.52785	0.47577	0.48694	AVRG		0.50013		8.70100
42 m,p-Xylene	0.71481	0.57723	0.56587	0.67702	0.61431	0.60744	AVRG		0.62611		9.30365
43 o-Xylene	0.65854	0.54329	0.54263	0.62708	0.56167	0.54856	AVRG		0.58029		8.60017
44 Styrene	1.11468	0.91622	0.91247	1.08317	0.98264	0.95534	AVRG		0.99408		8.63433
45 Bromoform	0.47740	0.38914	0.40289	0.44418	0.41663	0.36133	AVRG		0.41526		9.89580
46 1,4-Dichloro-2-butene	0.12266	0.10739	0.10761	0.11985	0.11033	0.08441	AVRG		0.10871		12.44136
48 1,1,2,2-Tetrachloroethane	1.18091	0.90928	0.91146	0.98891	0.92231	1.00933	AVRG		0.98703		10.53224
49 1,3-Dichlorobenzene	0.73006	0.63288	0.58578	0.65608	0.60901	0.59300	AVRG		0.63447		8.44260

Inchcape Testing Services - Dallas

INITIAL CALIBRATION DATA

Start Cal Date : 11-JUL-1996 12:15
End Cal Date : 11-JUL-1996 18:04
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem1/its1.i/07-11-96.b/8240_vca1.m
Cal Date : 11-Jul-1996 23:16 m11

Compound	10 Level 1	20 Level 2	50 Level 3	100 Level 4	200 Level 5	300 Level 6	Curve	Coefficients a0	a1	a2	%RSD or R^2
50 1,4-Dichlorobenzene	0.91506	0.76452	0.76687	0.82246	0.76661	0.75702	AVRG		0.79875		7.72821
51 1,2-Dichlorobenzene	0.72122	0.62131	0.59843	0.68005	0.60994	0.59386	AVRG		0.63747		8.08237
$ 22 1,2-Dichloroethane-d4 (SS)	0.54911	0.43805	0.43543	0.42912	0.43672	0.38965	AVRG		0.44630		12.00380
$ 32 Toluene-d8 (SS)	1.60418	1.24610	1.33836	1.24221	1.31081	1.20076	AVRG		1.32400		11.04198
$ 47 Bromofluorobenzene (SS)	0.70574	0.59806	0.62281	0.59738	0.63514	0.60088	AVRG		0.62670		6.64873

Curve	Formula	Units
Averaged	y = (1/a1) * x	RRF
Quad	y = a0 + (a1 * x) + (a2 * (x^2))	Response

Inchcape Testing Services - Dallas

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/07-11-96.b/EE0891701017.d
Lab Smp Id: 8240 cal Client Smp ID: 10 ug
Inj Date : 11-JUL-1996 20:15 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : 8240 cal
Misc Info : 10 ug
Comment :
Method : /chem1/its1.i/07-11-96.b/8240_voa1.m
Meth Date : 11-Jul-1996 21:39 vdl Quant Type: ISTD
Cal Date : 11-JUL-1996 20:15 Cal File: EE0891701017.d
Als bottle: 17 Calibration Sample, Level: 1
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	AMOUNTS ON-COL (ug/kg)
	1 Chloromethane	50.00	1.549	1.549	(0.307)	137790	10.0	10.8
	2 Chloroethane	64.00	2.136	2.136	(0.423)	109155	10.0	11.9
	3 Vinyl chloride	62.00	1.663	1.663	(0.329)	194412	10.0	11.5
	4 Bromomethane	94.00	2.022	2.022	(0.401)	136374	10.0	11.6
	5 Acrolein	55.00	2.935	2.935	(0.581)	20439	10.0	13.4
	6 Trichlorofluoromethane	101.00	2.437	2.437	(0.483)	227798	10.0	11.5
	7 1,1-Dichloroethene	96.00	3.008	3.008	(0.596)	120193	10.0	11.7
	8 Acetone	43.00	3.115	3.115	(0.617)	84874	10.0	13.8(aM)
	9 Iodomethane	142.00	3.155	3.155	(0.625)	202965	10.0	12.3
	10 Carbon disulfide	76.00	3.213	3.213	(0.636)	399238	10.0	11.4
	11 Methylene chloride	84.00	3.539	3.539	(0.701)	145306	10.0	10.4
	12 trans-1,2-Dichloroethene	96.00	3.816	3.816	(0.756)	139699	10.0	12.4
	13 Acrylonitrile	53.00	3.832	3.832	(0.759)	76608	10.0	13.3
	14 1,1-Dichloroethane	63.00	4.257	4.257	(0.843)	307161	10.0	11.9
	15 Vinyl acetate	43.00	4.330	4.330	(0.858)	510443	10.0	13.4
	16 cis-1,2-Dichloroethene	96.00	4.819	4.819	(0.955)	90070	10.0	9.5
	17 2-Butanone	72.00	4.868	4.868	(0.964)	34821	10.0	14.6(a)
*	18 Bromochloromethane	128.00	5.048	5.048	(1.000)	274136	50.0	
	19 Chloroform	83.00	5.121	5.121	(0.857)	210570	10.0	11.0
	20 1,1,1-Trichloroethane	97.00	5.268	5.268	(0.881)	153457	10.0	11.3
	21 Carbon tetrachloride	117.00	5.431	5.431	(0.909)	117172	10.0	11.2
$	22 1,2-Dichloroethane-d4 (SS)	65.00	5.578	5.578	(0.933)	118517	5.0	6.2
	23 Benzene	78.00	5.618	5.618	(0.940)	319803	10.0	11.9
	24 1,2-Dichloroethane	62.00	5.643	5.643	(0.944)	128750	10.0	11.4
*	25 1,4-Difluorobenzene	114.00	5.977	5.977	(1.000)	1079164	50.0	
	26 Trichloroethene	130.00	6.221	6.221	(1.041)	104459	10.0	11.9
	27 1,2-Dichloropropane	63.00	6.425	6.425	(1.075)	136256	10.0	11.6
	28 Bromodichloromethane	83.00	6.686	6.686	(1.119)	167166	10.0	11.3
	29 2-Chloroethylvinyl ether	63.00	6.954	6.954	(1.164)	85207	10.0	11.5

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	ON-COL (ug/kg)
	30 cis-1,3-Dichloropropene	75.00	7.093	7.093	(1.187)	151285	10.0	11.2
	31 4-Methyl-2-pentanone	43.00	7.231	7.231	(1.210)	187054	10.0	12.2(aM)
$	32 Toluene-d8 (SS)	98.00	7.337	7.337	(0.842)	238213	5.0	6.0
	33 Toluene	92.00	7.403	7.403	(0.850)	169250	10.0	11.9
	34 trans-1,3-Dichloropropene	75.00	7.615	7.615	(0.874)	114573	10.0	11.5
	35 1,1,2-Trichloroethane	97.00	7.786	7.786	(0.893)	101950	10.0	12.6
	36 Tetrachloroethene	164.00	7.916	7.916	(0.908)	68135	10.0	11.7
	37 2-Hexanone	43.00	8.014	8.014	(0.920)	146033	10.0	13.7(a)
	38 Chlorodibromomethane	129.00	8.169	8.169	(0.937)	107200	10.0	11.9
*	39 Chlorobenzene-d5	117.00	8.714	8.714	(1.000)	742478	50.0	
	40 Chlorobenzene	112.00	8.730	8.730	(1.002)	178989	10.0	11.9
	41 Ethylbenzene	106.00	8.828	8.828	(1.013)	85516	10.0	11.5
	42 m,p-Xylene	106.00	8.943	8.943	(1.026)	212292	20.0	22.8
	43 o-Xylene	106.00	9.333	9.333	(1.071)	97790	10.0	11.3
	44 Styrene	104.00	9.350	9.350	(1.073)	165525	10.0	11.2
	45 Bromoform	173.00	9.545	9.545	(1.095)	70892	10.0	11.5
	46 1,4-Dichloro-2-butene	53.00	9.765	9.765	(1.121)	18214	10.0	11.3
$	47 Bromofluorobenzene (SS)	95.00	9.855	9.855	(1.131)	104799	5.0	5.6
	48 1,1,2,2-Tetrachloroethane	83.00	9.994	9.994	(1.147)	175360	10.0	12.7
	49 1,3-Dichlorobenzene	146.00	10.945	10.945	(1.256)	108411	10.0	11.5
	50 1,4-Dichlorobenzene	146.00	11.043	11.043	(1.267)	135882	10.0	11.4
	51 1,2-Dichlorobenzene	146.00	11.426	11.426	(1.311)	107098	10.0	11.3

QC Flag Legend

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

Inchcape Testing Services - Dallas

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/07-11-96.b/EE0891601016.d
Lab Smp Id: 8240 cal Client Smp ID: 20 ug
Inj Date : 11-JUL-1996 19:54 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : 8240 cal
Misc Info : 20 ug
Comment :
Method : /chem1/its1.i/07-11-96.b/8240_voa1.m
Meth Date : 11-Jul-1996 21:39 vdl Quant Type: ISTD
Cal Date : 11-JUL-1996 19:54 Cal File: EE0891601016.d
Als bottle: 16 Calibration Sample, Level: 2
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	AMOUNTS ON-COL (ug/kg)
	1 Chloromethane	50.00	1.549	1.549	(0.307)	239075	20.0	19.8
	2 Chloroethane	64.00	2.144	2.144	(0.425)	179026	20.0	20.6
	3 Vinyl chloride	62.00	1.663	1.663	(0.330)	318583	20.0	19.8
	4 Bromomethane	94.00	2.022	2.022	(0.401)	224845	20.0	20.1
	5 Acrolein	55.00	2.943	2.943	(0.584)	26942	20.0	18.5
	6 Trichlorofluoromethane	101.00	2.438	2.438	(0.484)	344513	20.0	18.3
	7 1,1-Dichloroethene	96.00	3.025	3.025	(0.600)	183322	20.0	18.8
	8 Acetone	43.00	3.132	3.132	(0.621)	157705	20.0	26.9(a)
	9 Iodomethane	142.00	3.156	3.156	(0.626)	272408	20.0	17.4
	10 Carbon disulfide	76.00	3.213	3.213	(0.637)	616490	20.0	18.6
	11 Methylene chloride	84.00	3.540	3.540	(0.702)	238435	20.0	19.1
	12 trans-1,2-Dichloroethene	96.00	3.817	3.817	(0.757)	196625	20.0	18.3
	13 Acrylonitrile	53.00	3.825	3.825	(0.759)	110098	20.0	20.1
	14 1,1-Dichloroethane	63.00	4.242	4.242	(0.841)	471423	20.0	19.2
	15 Vinyl acetate	43.00	4.323	4.323	(0.858)	675466	20.0	18.6
	16 cis-1,2-Dichloroethene	96.00	4.821	4.821	(0.956)	180402	20.0	20.0
	17 2-Butanone	72.00	4.853	4.853	(0.963)	49188	20.0	21.8(a)
*	18 Bromochloromethane	128.00	5.041	5.041	(1.000)	260373	50.0	
	19 Chloroform	83.00	5.123	5.123	(0.854)	334989	20.0	19.8
	20 1,1,1-Trichloroethane	97.00	5.278	5.278	(0.880)	229201	20.0	19.1
	21 Carbon tetrachloride	117.00	5.416	5.416	(0.903)	168154	20.0	18.1
$	22 1,2-Dichloroethane-d4 (SS)	65.00	5.571	5.571	(0.929)	167201	10.0	9.8
	23 Benzene	78.00	5.620	5.620	(0.937)	453897	20.0	19.1
	24 1,2-Dichloroethane	62.00	5.653	5.653	(0.943)	197030	20.0	19.8
*	25 1,4-Difluorobenzene	114.00	5.995	5.995	(1.000)	954237	50.0	
	26 Trichloroethene	130.00	6.215	6.215	(1.037)	143856	20.0	18.5
	27 1,2-Dichloropropane	63.00	6.427	6.427	(1.072)	196151	20.0	18.8
	28 Bromodichloromethane	83.00	6.688	6.688	(1.116)	243771	20.0	18.6
	29 2-Chloroethylvinyl ether	63.00	6.973	6.973	(1.163)	129145	20.0	19.7

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	AMOUNTS ON-COL (ug/kg)
	30 cis-1,3-Dichloropropene	75.00	7.095	7.095	(1.183)	217670	20.0	18.3
	31 4-Methyl-2-pentanone	43.00	7.242	7.242	(1.208)	287592	20.0	21.3(a)
$	32 Toluene-d8 (SS)	98.00	7.348	7.348	(0.843)	342417	10.0	9.4
	33 Toluene	92.00	7.413	7.413	(0.850)	254685	20.0	19.3
	34 trans-1,3-Dichloropropene	75.00	7.617	7.617	(0.874)	172972	20.0	18.8
	35 1,1,2-Trichloroethane	97.00	7.788	7.788	(0.893)	143943	20.0	19.2
	36 Tetrachloroethene	164.00	7.919	7.919	(0.908)	100344	20.0	18.6
	37 2-Hexanone	43.00	8.017	8.017	(0.920)	215720	20.0	21.9(a)
	38 Chlorodibromomethane	129.00	8.171	8.171	(0.937)	156161	20.0	18.8
*	39 Chlorobenzene-d5	117.00	8.717	8.717	(1.000)	686978	50.0	
	40 Chlorobenzene	112.00	8.749	8.749	(1.004)	269501	20.0	19.3
	41 Ethylbenzene	106.00	8.840	8.840	(1.014)	129247	20.0	18.8
	42 m,p-Xylene	106.00	8.954	8.954	(1.027)	317234	40.0	36.9
	43 o-Xylene	106.00	9.337	9.337	(1.071)	149290	20.0	18.7
	44 Styrene	104.00	9.361	9.361	(1.074)	251768	20.0	18.4
	45 Bromoform	173.00	9.557	9.557	(1.096)	106931	20.0	18.7
	46 1,4-Dichloro-2-butene	53.00	9.760	9.760	(1.120)	29511	20.0	19.8
$	47 Bromofluorobenzene (SS)	95.00	9.867	9.867	(1.132)	164341	10.0	9.5
	48 1,1,2,2-Tetrachloroethane	83.00	10.005	10.005	(1.148)	249862	20.0	19.6
	49 1,3-Dichlorobenzene	146.00	10.958	10.958	(1.257)	173911	20.0	20.0
	50 1,4-Dichlorobenzene	146.00	11.047	11.047	(1.267)	210082	20.0	19.1
	51 1,2-Dichlorobenzene	146.00	11.430	11.430	(1.311)	170730	20.0	19.5

QC Flag Legend

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

Inchcape Testing Services - Dallas

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/07-11-96.b/EE0891501015.d
Lab Smp Id: 8240 cal Client Smp ID: 50 ug
Inj Date : 11-JUL-1996 19:33 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : 8240 cal
Misc Info : 50 ug
Comment :
Method : /chem1/its1.i/07-11-96.b/8240_voa1.m
Meth Date : 11-Jul-1996 21:10 rodney Quant Type: ISTD
Cal Date : 11-JUL-1996 19:33 Cal File: EE0891501015.d
Als bottle: 15 Calibration Sample, Level: 3
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	AMOUNTS ON-COL (ug/kg)
1	Chloromethane	50.00	1.549	1.549	(0.308)	554038	50.0	38.5
2	Chloroethane	64.00	2.128	2.128	(0.423)	422652	50.0	40.6
3	Vinyl chloride	62.00	1.655	1.655	(0.329)	744116	50.0	39.3
4	Bromomethane	94.00	2.014	2.014	(0.400)	520674	50.0	39.6
5	Acrolein	55.00	2.936	2.936	(0.583)	78764	50.0	45.3
6	Trichlorofluoromethane	101.00	2.430	2.430	(0.483)	823466	50.0	37.4
7	1,1-Dichloroethene	96.00	3.002	3.002	(0.596)	432382	50.0	37.8
8	Acetone	43.00	3.116	3.116	(0.619)	287455	50.0	42.9(a)
9	Iodomethane	142.00	3.157	3.157	(0.627)	682680	50.0	37.7
10	Carbon disulfide	76.00	3.206	3.206	(0.637)	1485158	50.0	38.1
11	Methylene chloride	84.00	3.541	3.541	(0.703)	626425	50.0	43.4
12	trans-1,2-Dichloroethene	96.00	3.810	3.810	(0.757)	469022	50.0	37.8
13	Acrylonitrile	53.00	3.810	3.810	(0.757)	264827	50.0	43.1
14	1,1-Dichloroethane	63.00	4.243	4.243	(0.843)	1099500	50.0	40.8
15	Vinyl acetate	43.00	4.317	4.317	(0.857)	1758305	50.0	45.1
16	cis-1,2-Dichloroethene	96.00	4.806	4.806	(0.955)	407878	50.0	40.0
17	2-Butanone	72.00	4.863	4.863	(0.966)	115641	50.0	50.0
* 18	Bromochloromethane	128.00	5.035	5.035	(1.000)	258327	50.0	
19	Chloroform	83.00	5.117	5.117	(0.854)	869750	50.0	43.8
20	1,1,1-Trichloroethane	97.00	5.264	5.264	(0.879)	576107	50.0	39.5
21	Carbon tetrachloride	117.00	5.419	5.419	(0.905)	433749	50.0	38.4
$ 22	1,2-Dichloroethane-d4 (SS)	65.00	5.574	5.574	(0.931)	431437	50.0	20.8
23	Benzene	78.00	5.623	5.623	(0.939)	1101340	50.0	37.8
24	1,2-Dichloroethane	62.00	5.647	5.647	(0.943)	480212	50.0	39.5
* 25	1,4-Difluorobenzene	114.00	5.990	5.990	(1.000)	990828	50.0	
26	Trichloroethene	130.00	6.210	6.210	(1.037)	354634	50.0	37.1
27	1,2-Dichloropropane	63.00	6.422	6.422	(1.072)	491242	50.0	37.7
28	Bromodichloromethane	83.00	6.683	6.683	(1.116)	605469	50.0	37.4
29	2-Chloroethylvinyl ether	63.00	6.952	6.952	(1.161)	257924	50.0	32.2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	AMOUNTS ON-COL (ug/kg)
30	cis-1,3-Dichloropropene	75.00	7.091	7.091	(1.184)	545862	50.0	36.5
31	4-Methyl-2-pentanone	43.00	7.246	7.246	(1.210)	746407	50.0	43.0(a)
$ 32	Toluene-d8 (SS)	98.00	7.352	7.352	(0.844)	943863	50.0	21.2
33	Toluene	92.00	7.401	7.401	(0.849)	628806	50.0	40.0
34	trans-1,3-Dichloropropene	75.00	7.605	7.605	(0.873)	431270	50.0	38.9
35	1,1,2-Trichloroethane	97.00	7.785	7.785	(0.893)	355464	50.0	40.5
36	Tetrachloroethene	164.00	7.915	7.915	(0.908)	252723	50.0	39.9
37	2-Hexanone	43.00	8.005	8.005	(0.919)	508917	50.0	51.3
38	Chlorodibromomethane	129.00	8.169	8.169	(0.937)	395247	50.0	40.9
* 39	Chlorobenzene-d5	117.00	8.714	8.714	(1.000)	705237	50.0	
40	Chlorobenzene	112.00	8.739	8.739	(1.003)	665927	50.0	39.9
41	Ethylbenzene	106.00	8.837	8.837	(1.014)	327216	50.0	40.1
42	m,p-Xylene	106.00	8.952	8.952	(1.027)	798144	100	77.7
43	o-Xylene	106.00	9.343	9.343	(1.072)	382681	50.0	40.0
44	Styrene	104.00	9.351	9.351	(1.073)	643507	50.0	39.7
45	Bromoform	173.00	9.547	9.547	(1.096)	284130	50.0	43.7
46	1,4-Dichloro-2-butene	53.00	9.767	9.767	(1.121)	75889	50.0	43.0
$ 47	Bromofluorobenzene (SS)	95.00	9.857	9.857	(1.131)	439232	50.0	20.4
48	1,1,2,2-Tetrachloroethane	83.00	9.996	9.996	(1.147)	642796	50.0	42.5
49	1,3-Dichlorobenzene	146.00	10.965	10.965	(1.258)	413111	50.0	39.8
50	1,4-Dichlorobenzene	146.00	11.046	11.046	(1.268)	540825	50.0	40.5
51	1,2-Dichlorobenzene	146.00	11.430	11.430	(1.312)	422035	50.0	39.4

QC Flag Legend

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

Inchcape Testing Services - Dallas

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/07-11-96.b/EE0891401014.d
Lab Smp Id: 8240 cal Client Smp ID: 100 ug
Inj Date : 11-JUL-1996 19:12 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : 8240 cal
Misc Info : 100 ug
Comment :
Method : /chem1/its1.i/07-11-96.b/8240_voa1.m
Meth Date : 11-Jul-1996 21:10 rodney Quant Type: ISTD
Cal Date : 11-JUL-1996 19:12 Cal File: EE0891401014.d
Als bottle: 14 Calibration Sample, Level: 4
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	AMOUNTS ON-COL (ug/kg)
	1 Chloromethane	50.00	1.541	1.541	(0.306)	1156868	100	87.6
	2 Chloroethane	64.00	2.120	2.120	(0.422)	853430	100	88.6
	3 Vinyl chloride	62.00	1.655	1.655	(0.329)	1533021	100	88.1
	4 Bromomethane	94.00	2.006	2.006	(0.399)	1080055	100	90.5
	5 Acrolein	55.00	2.929	2.929	(0.582)	133380	100	86.8
	6 Trichlorofluoromethane	101.00	2.423	2.423	(0.482)	1814786	100	89.1
	7 1,1-Dichloroethene	96.00	3.002	3.002	(0.597)	937660	100	88.5
	8 Acetone	43.00	3.117	3.117	(0.620)	503646	100	85.0(a)
	9 Iodomethane	142.00	3.150	3.150	(0.626)	1450911	100	86.1
	10 Carbon disulfide	76.00	3.199	3.199	(0.636)	3213399	100	88.8
	11 Methylene chloride	84.00	3.526	3.526	(0.701)	1214889	100	93.2
	12 trans-1,2-Dichloroethene	96.00	3.804	3.804	(0.756)	1020769	100	88.6
	13 Acrylonitrile	53.00	3.804	3.804	(0.756)	532505	100	96.9
	14 1,1-Dichloroethane	63.00	4.229	4.229	(0.841)	2363516	100	96.8
	15 Vinyl acetate	43.00	4.310	4.310	(0.857)	3354003	100	98.2
	16 cis-1,2-Dichloroethene	96.00	4.800	4.800	(0.954)	846785	100	90.4
	17 2-Butanone	72.00	4.857	4.857	(0.966)	207847	100	105
*	18 Bromochloromethane	128.00	5.029	5.029	(1.000)	233572	50.0	
	19 Chloroform	83.00	5.111	5.111	(0.854)	1901872	100	103
	20 1,1,1-Trichloroethane	97.00	5.258	5.258	(0.879)	1267394	100	91.5
	21 Carbon tetrachloride	117.00	5.413	5.413	(0.904)	979985	100	90.5
$	22 1,2-Dichloroethane-d4 (SS)	65.00	5.560	5.560	(0.929)	798636	50.0	41.1
	23 Benzene	78.00	5.609	5.609	(0.937)	2398439	100	85.8
	24 1,2-Dichloroethane	62.00	5.634	5.634	(0.941)	1038861	100	90.1
*	25 1,4-Difluorobenzene	114.00	5.985	5.985	(1.000)	930560	50.0	
	26 Trichloroethene	130.00	6.213	6.213	(1.038)	785115	100	85.1
	27 1,2-Dichloropropane	63.00	6.418	6.418	(1.072)	1044115	100	83.2
	28 Bromodichloromethane	83.00	6.679	6.679	(1.116)	1365978	100	87.7
	29 2-Chloroethylvinyl ether	63.00	6.956	6.956	(1.162)	737550	100	94.3

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	AMOUNTS ON-COL (ug/kg)
	30 cis-1,3-Dichloropropene	75.00	7.087	7.087	(1.184)	1200077	100	83.1
	31 4-Methyl-2-pentanone	43.00	7.234	7.234	(1.209)	1440568	100	91.1
$	32 Toluene-d8 (SS)	98.00	7.340	7.340	(0.843)	1712813	50.0	39.3
	33 Toluene	92.00	7.397	7.397	(0.850)	1359206	100	87.8
	34 trans-1,3-Dichloropropene	75.00	7.602	7.602	(0.873)	953863	100	86.4
	35 1,1,2-Trichloroethane	97.00	7.781	7.781	(0.894)	773406	100	89.1
	36 Tetrachloroethene	164.00	7.912	7.912	(0.909)	584724	100	93.4
	37 2-Hexanone	43.00	8.011	8.011	(0.920)	1098336	100	118
	38 Chlorodibromomethane	129.00	8.158	8.158	(0.937)	843555	100	88.4
*	39 Chlorobenzene-d5	117.00	8.704	8.704	(1.000)	689423	50.0	
	40 Chlorobenzene	112.00	8.736	8.736	(1.004)	1459171	100	88.6
	41 Ethylbenzene	106.00	8.826	8.826	(1.014)	727829	100	90.0
	42 m,p-Xylene	106.00	8.949	8.949	(1.028)	1867026	200	184
	43 o-Xylene	106.00	9.341	9.341	(1.073)	864642	100	91.9
	44 Styrene	104.00	9.349	9.349	(1.074)	1493523	100	93.5
	45 Bromoform	173.00	9.545	9.545	(1.097)	612453	100	96.9
	46 1,4-Dichloro-2-butene	53.00	9.757	9.757	(1.121)	165252	100	96.4
$	47 Bromofluorobenzene (SS)	95.00	9.855	9.855	(1.132)	823693	50.0	39.1
	48 1,1,2,2-Tetrachloroethane	83.00	9.994	9.994	(1.148)	1363554	100	93.6
	49 1,3-Dichlorobenzene	146.00	10.947	10.947	(1.258)	904633	100	88.3
	50 1,4-Dichlorobenzene	146.00	11.037	11.037	(1.268)	1134043	100	86.3
	51 1,2-Dichlorobenzene	146.00	11.421	11.421	(1.312)	937688	100	89.0

QC Flag Legend

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

Inchcape Testing Services - Dallas

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/07-11-96.b/EE0891301013.d
Lab Smp Id: 8240 cal Client Smp ID: 200 ug
Inj Date : 11-JUL-1996 18:52 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : 8240 cal
Misc Info : 200 ug
Comment :
Method : /chem1/its1.i/07-11-96.b/8240_voa1.m
Meth Date : 11-Jul-1996 21:10 rodney Quant Type: ISTD
Cal Date : 11-JUL-1996 18:52 Cal File: EE0891301013.d
Als bottle: 13 Calibration Sample, Level: 5
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	ON-COL (ug/kg)
	1 Chloromethane	50.00	1.541	1.541	(0.306)	2224891	200	161
	2 Chloroethane	64.00	2.121	2.121	(0.421)	1400789	200	138
	3 Vinyl chloride	62.00	1.655	1.655	(0.329)	2792407	200	153
	4 Bromomethane	94.00	2.006	2.006	(0.399)	1989699	200	160
	5 Acrolein	55.00	2.938	2.938	(0.584)	261169	200	165
	6 Trichlorofluoromethane	101.00	2.415	2.415	(0.480)	3477886	200	162
	7 1,1-Dichloroethene	96.00	2.995	2.995	(0.595)	1790629	200	160
	8 Acetone	43.00	3.135	3.135	(0.623)	920078	200	151
	9 Iodomethane	142.00	3.143	3.143	(0.625)	2860475	200	159
	10 Carbon disulfide	76.00	3.192	3.192	(0.634)	6125580	200	160
	11 Methylene chloride	84.00	3.535	3.535	(0.703)	2232211	200	164
	12 trans-1,2-Dichloroethene	96.00	3.805	3.805	(0.756)	1910367	200	157
	13 Acrylonitrile	53.00	3.821	3.821	(0.760)	996436	200	175
	14 1,1-Dichloroethane	63.00	4.230	4.230	(0.841)	4558585	200	181
	15 Vinyl acetate	43.00	4.312	4.312	(0.857)	6655599	200	192
	16 cis-1,2-Dichloroethene	96.00	4.802	4.802	(0.954)	1740209	200	178
	17 2-Butanone	72.00	4.859	4.859	(0.966)	383451	200	194
*	18 Bromochloromethane	128.00	5.031	5.031	(1.000)	248644	50.0	
	19 Chloroform	83.00	5.113	5.113	(0.856)	3432375	200	172
	20 1,1,1-Trichloroethane	97.00	5.252	5.252	(0.880)	2503280	200	163
	21 Carbon tetrachloride	117.00	5.407	5.407	(0.906)	1999165	200	165
$	22 1,2-Dichloroethane-d4 (SS)	65.00	5.563	5.563	(0.932)	1829972	50.0	89.3
	23 Benzene	78.00	5.604	5.604	(0.938)	5005336	200	160
	24 1,2-Dichloroethane	62.00	5.636	5.636	(0.944)	2064305	200	162
*	25 1,4-Difluorobenzene	114.00	5.971	5.971	(1.000)	1047563	50.0	
	26 Trichloroethene	130.00	6.200	6.200	(1.038)	1657846	200	160
	27 1,2-Dichloropropane	63.00	6.413	6.413	(1.074)	2183815	200	154
	28 Bromodichloromethane	83.00	6.674	6.674	(1.118)	2788379	200	160
	29 2-Chloroethylvinyl ether	63.00	6.952	6.952	(1.164)	1462263	200	168

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	AMOUNTS ON-COL (ug/kg)
	30 cis-1,3-Dichloropropene	75.00	7.083	7.083	(1.186)	2612268	200	160
	31 4-Methyl-2-pentanone	43.00	7.230	7.230	(1.211)	2869631	200	167
$	32 Toluene-d8 (SS)	98.00	7.328	7.328	(0.842)	4125812	50.0	88.3
	33 Toluene	92.00	7.394	7.394	(0.850)	2824584	200	161
	34 trans-1,3-Dichloropropene	75.00	7.598	7.598	(0.873)	2072876	200	164
	35 1,1,2-Trichloroethane	97.00	7.778	7.778	(0.894)	1643706	200	167
	36 Tetrachloroethene	164.00	7.901	7.901	(0.908)	1181864	200	168
	37 2-Hexanone	43.00	7.999	7.999	(0.919)	2109318	200	210
	38 Chlorodibromomethane	129.00	8.155	8.155	(0.937)	1868938	200	172
*	39 Chlorobenzene-d5	117.00	8.701	8.701	(1.000)	786881	50.0	
	40 Chlorobenzene	112.00	8.726	8.726	(1.003)	3015049	200	162
	41 Ethylbenzene	106.00	8.824	8.824	(1.014)	1497498	200	164
	42 m,p-Xylene	106.00	8.939	8.939	(1.027)	3867080	400	339
	43 o-Xylene	106.00	9.331	9.331	(1.072)	1767884	200	167
	44 Styrene	104.00	9.339	9.339	(1.073)	3092871	200	173
	45 Bromoform	173.00	9.543	9.543	(1.097)	1311339	200	184
	46 1,4-Dichloro-2-butene	53.00	9.755	9.755	(1.121)	347259	200	181
$	47 Bromofluorobenzene (SS)	95.00	9.846	9.846	(1.132)	1999132	50.0	88.9
	48 1,1,2,2-Tetrachloroethane	83.00	9.985	9.985	(1.148)	2902991	200	179
	49 1,3-Dichlorobenzene	146.00	10.947	10.947	(1.258)	1916868	200	165
	50 1,4-Dichlorobenzene	146.00	11.037	11.037	(1.268)	2412920	200	163
	51 1,2-Dichlorobenzene	146.00	11.413	11.413	(1.312)	1919789	200	162

Inchcape Testing Services - Dallas

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/07-11-96.b/EE0891201012.d
Lab Smp Id: 8240 cal Client Smp ID: 300 ug
Inj Date : 11-JUL-1996 18:04 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : 8240 cal
Misc Info : 300 ug
Comment :
Method : /chem1/its1.i/07-11-96.b/8240_voa1.m
Meth Date : 11-Jul-1996 21:46 vdl Quant Type: ISTD
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 12 Calibration Sample, Level: 6
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	ON-COL (ug/kg)
	1 Chloromethane	50.00	1.533	1.533	(0.305)	3011965	300	291
	2 Chloroethane	64.00	2.112	2.112	(0.421)	1911087	300	257
	3 Vinyl chloride	62.00	1.647	1.647	(0.328)	3920127	300	285
	4 Bromomethane	94.00	1.998	1.998	(0.398)	2524724	300	264
	5 Acrolein	55.00	2.929	2.929	(0.583)	254706	300	272
	6 Trichlorofluoromethane	101.00	2.406	2.406	(0.479)	4850351	300	301
	7 1,1-Dichloroethene	96.00	2.995	2.995	(0.596)	2446006	300	292
	8 Acetone	43.00	3.126	3.126	(0.623)	1185483	300	301(M)
	9 Iodomethane	142.00	3.142	3.142	(0.626)	4131970	300	308
	10 Carbon disulfide	76.00	3.192	3.192	(0.636)	8218457	300	290
	11 Methylene chloride	84.00	3.527	3.527	(0.702)	2899018	300	271
	12 trans-1,2-Dichloroethene	96.00	3.805	3.805	(0.758)	2684065	300	292
	13 Acrylonitrile	53.00	3.813	3.813	(0.759)	1288548	300	263(M)
	14 1,1-Dichloroethane	63.00	4.230	4.230	(0.842)	5663649	300	270
	15 Vinyl acetate	43.00	4.312	4.312	(0.859)	8877267	300	277(M)
	16 cis-1,2-Dichloroethene	96.00	4.801	4.801	(0.956)	2469206	300	321
	17 2-Butanone	72.00	4.841	4.841	(0.964)	422056	300	293(M)
*	18 Bromochloromethane	128.00	5.021	5.021	(1.000)	222930	50.0	
	19 Chloroform	83.00	5.111	5.111	(0.857)	4733602	300	254
	20 1,1,1-Trichloroethane	97.00	5.258	5.258	(0.882)	3773605	300	286
	21 Carbon tetrachloride	117.00	5.406	5.406	(0.907)	3077750	300	302
$	22 1,2-Dichloroethane-d4 (SS)	65.00	5.561	5.561	(0.933)	2457690	150	131
	23 Benzene	78.00	5.602	5.602	(0.940)	7677135	300	293
	24 1,2-Dichloroethane	62.00	5.626	5.626	(0.944)	3048036	300	278
*	25 1,4-Difluorobenzene	114.00	5.962	5.962	(1.000)	1051237	50.0	
	26 Trichloroethene	130.00	6.198	6.198	(1.040)	2541886	300	297
	27 1,2-Dichloropropane	63.00	6.411	6.411	(1.075)	3464546	300	302
	28 Bromodichloromethane	83.00	6.672	6.672	(1.119)	4387262	300	304
	29 2-Chloroethylvinyl ether	63.00	6.942	6.942	(1.164)	2046207	300	283

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	AMOUNTS ON-COL (ug/kg)
	30 cis-1,3-Dichloropropene	75.00	7.081	7.081	(1.188)	4076456	300	311
	31 4-Methyl-2-pentanone	43.00	7.220	7.220	(1.211)	3842914	300	298(M)
$	32 Toluene-d8 (SS)	98.00	7.327	7.327	(0.843)	5804947	150	136
	33 Toluene	92.00	7.384	7.384	(0.849)	4413092	300	286
	34 trans-1,3-Dichloropropene	75.00	7.589	7.589	(0.873)	3160550	300	293
	35 1,1,2-Trichloroethane	97.00	7.769	7.769	(0.894)	2329353	300	264
	36 Tetrachloroethene	164.00	7.900	7.900	(0.909)	1806582	300	286
	37 2-Hexanone	43.00	7.990	7.990	(0.919)	2765568	300	297(M)
	38 Chlorodibromomethane	129.00	8.154	8.154	(0.938)	2770789	300	284
*	39 Chlorobenzene-d5	117.00	8.692	8.692	(1.000)	805729	50.0	
	40 Chlorobenzene	112.00	8.717	8.717	(1.003)	4597707	300	281
	41 Ethylbenzene	106.00	8.815	8.815	(1.014)	2354048	300	292
	42 m,p-Xylene	106.00	8.930	8.930	(1.027)	5873213	600	582
	43 o-Xylene	106.00	9.314	9.314	(1.071)	2651924	300	284
	44 Styrene	104.00	9.339	9.339	(1.074)	4618464	300	288
	45 Bromoform	173.00	9.535	9.535	(1.097)	1746823	300	261
	46 1,4-Dichloro-2-butene	53.00	9.747	9.747	(1.121)	408073	300	233
$	47 Bromofluorobenzene (SS)	95.00	9.838	9.838	(1.132)	2904890	150	144
	48 1,1,2,2-Tetrachloroethane	83.00	9.985	9.985	(1.149)	4879479	300	307
	49 1,3-Dichlorobenzene	146.00	10.939	10.939	(1.258)	2866789	300	280
	50 1,4-Dichlorobenzene	146.00	11.021	11.021	(1.268)	3659701	300	284
	51 1,2-Dichlorobenzene	146.00	11.405	11.405	(1.312)	2870930	300	279

QC Flag Legend

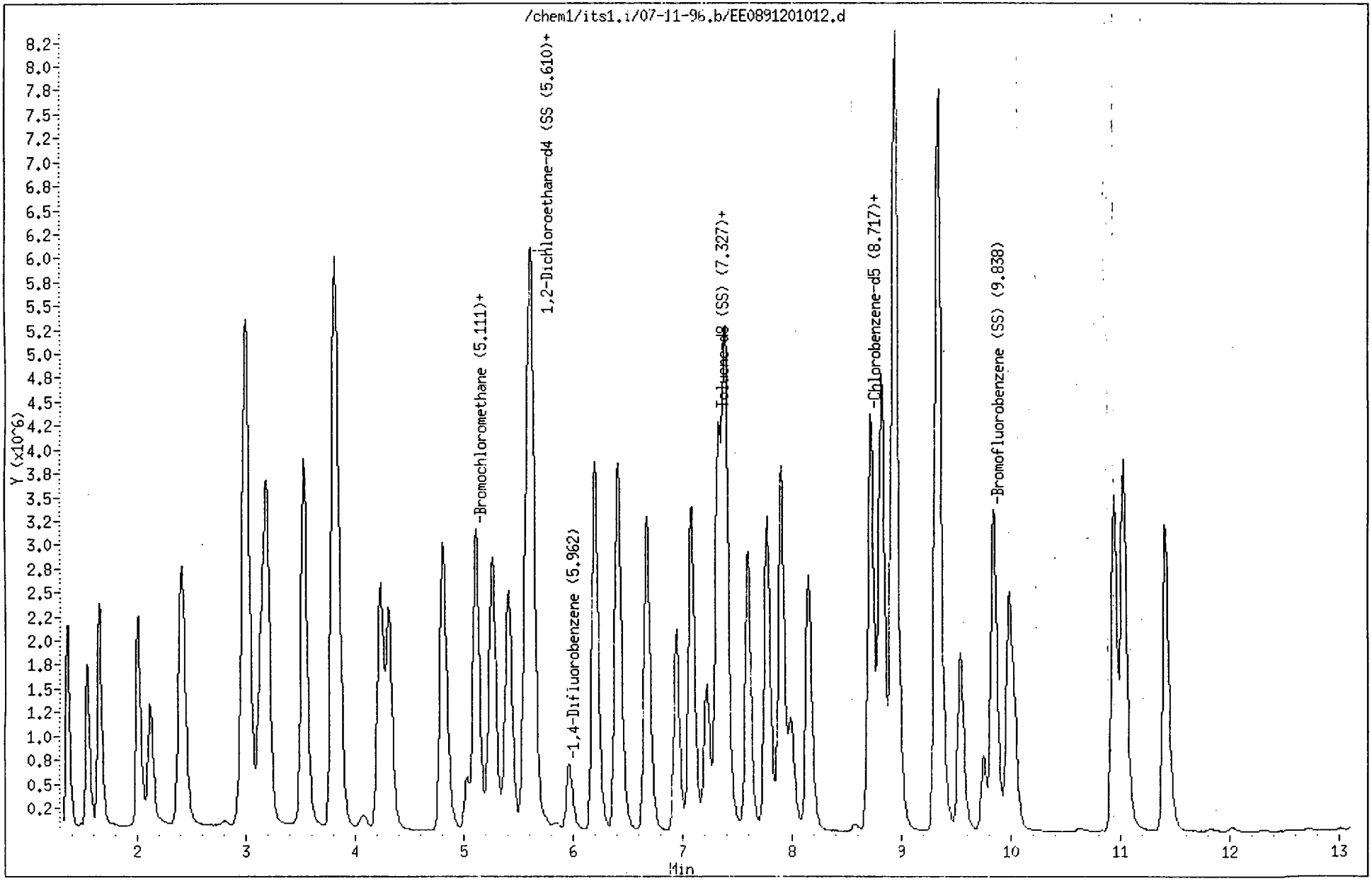
M - Compound response manually integrated.

Data File: /chem1/its1.i/07-11-96.b/EE0891201012.d
Date : 11-JUL-1996 18:04
Client ID: 300 ug
Sample Info: 8240 cal

Column phase: J&W DB-624

Instrument: its1.i

Operator: SAP
Column diameter: 0.53



Data File: [redacted]m1/its1.i/07-11-96.b/EE0891301013.d
Date : 11-JUL-1996 18:52
Client ID: 200 ug
Sample Info: 8240 cal

Column phase: J&W DB-624

Instrument: its1.i

Operator: SAP
Column diameter: 0.53

Page [redacted]

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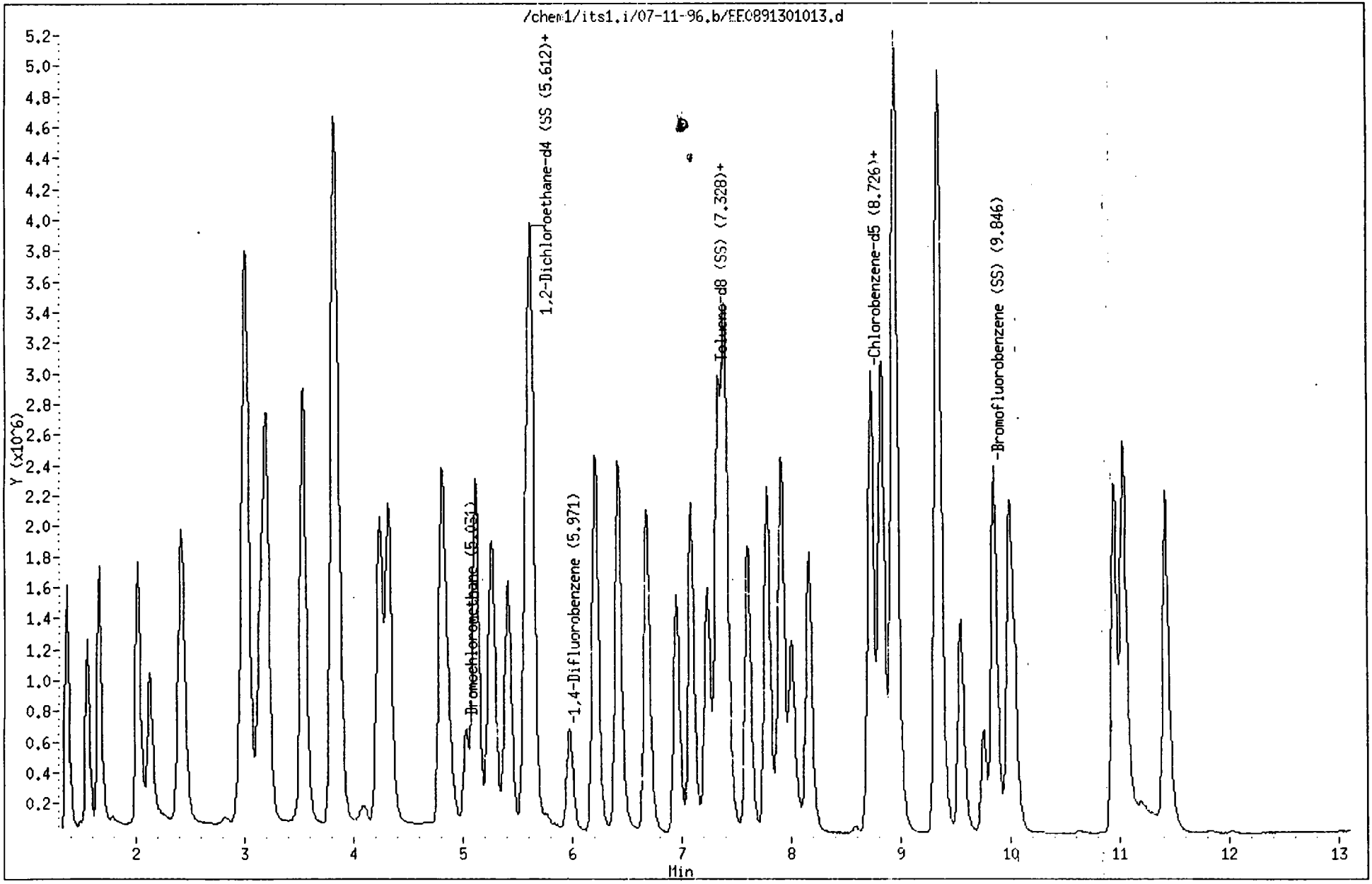
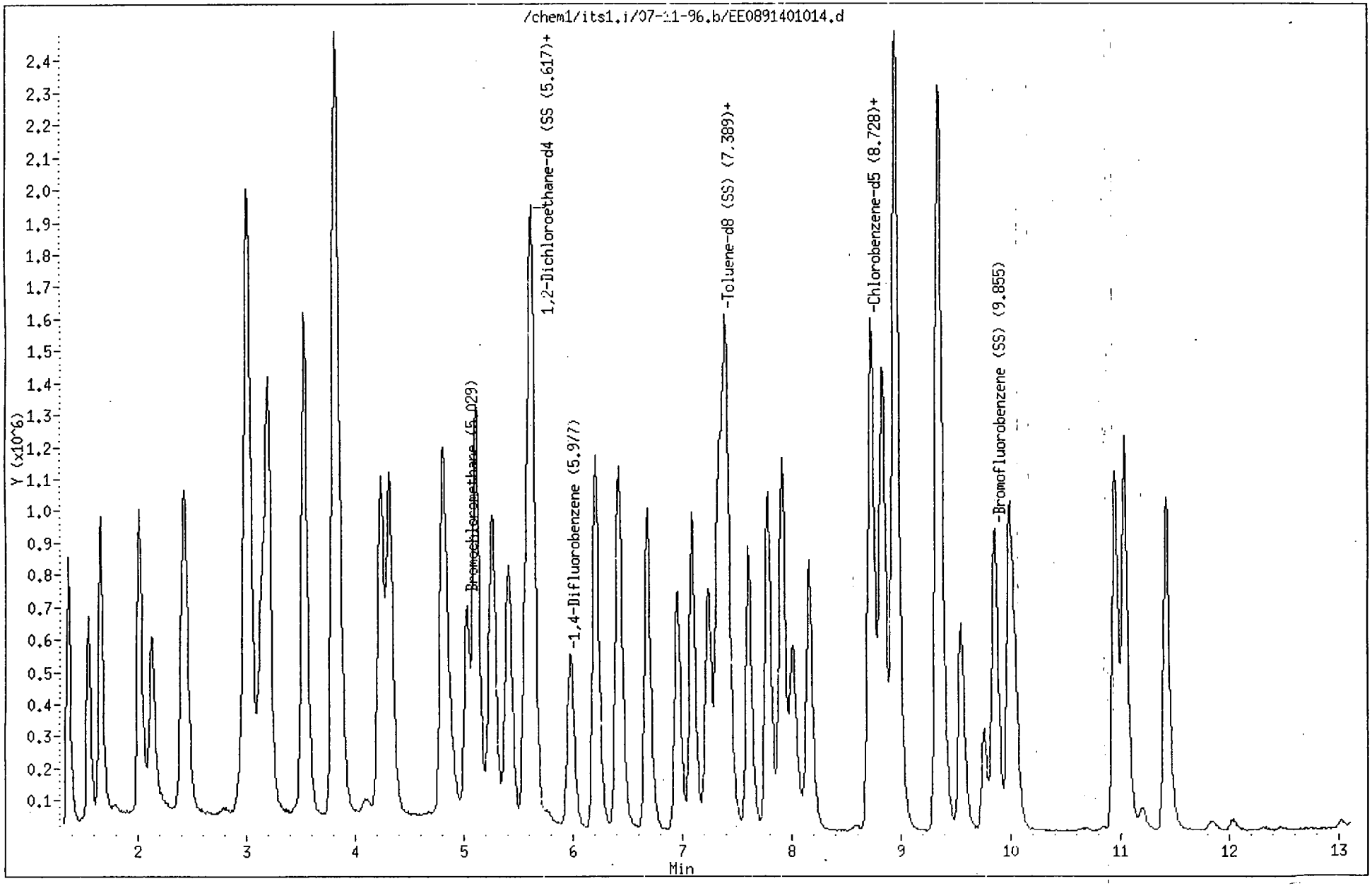


Data File: /chem1/its1.i/07-11-96.b/EE0891401014.d
Date : 11-JUL-1996 19:12
Client ID: 100 ug
Sample Info: 8240 cal

Instrument: its1.i

Operator: SAP
Column diameter: 0.53

Column phase: J&W DB-624

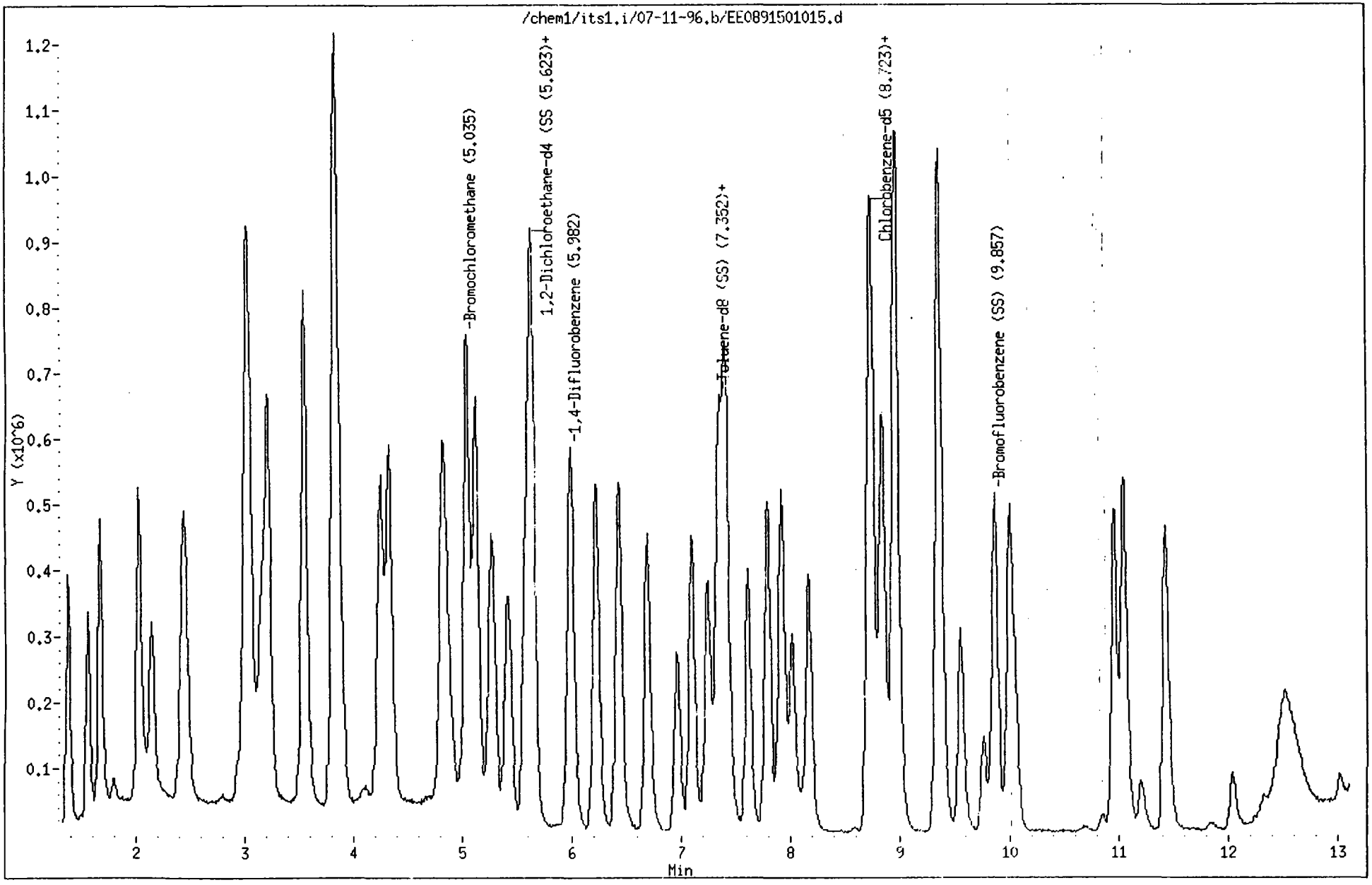


Data File: /chem1/its1.i/07-11-96.b/EE0891501015.d
Date : 11-JUL-1996 19:33
Client ID: 50 ug
Sample Info: 8240 cal

Column phase: J&W DB-624

Instrument: its1.i

Operator: SHP
Column diameter: 0.53



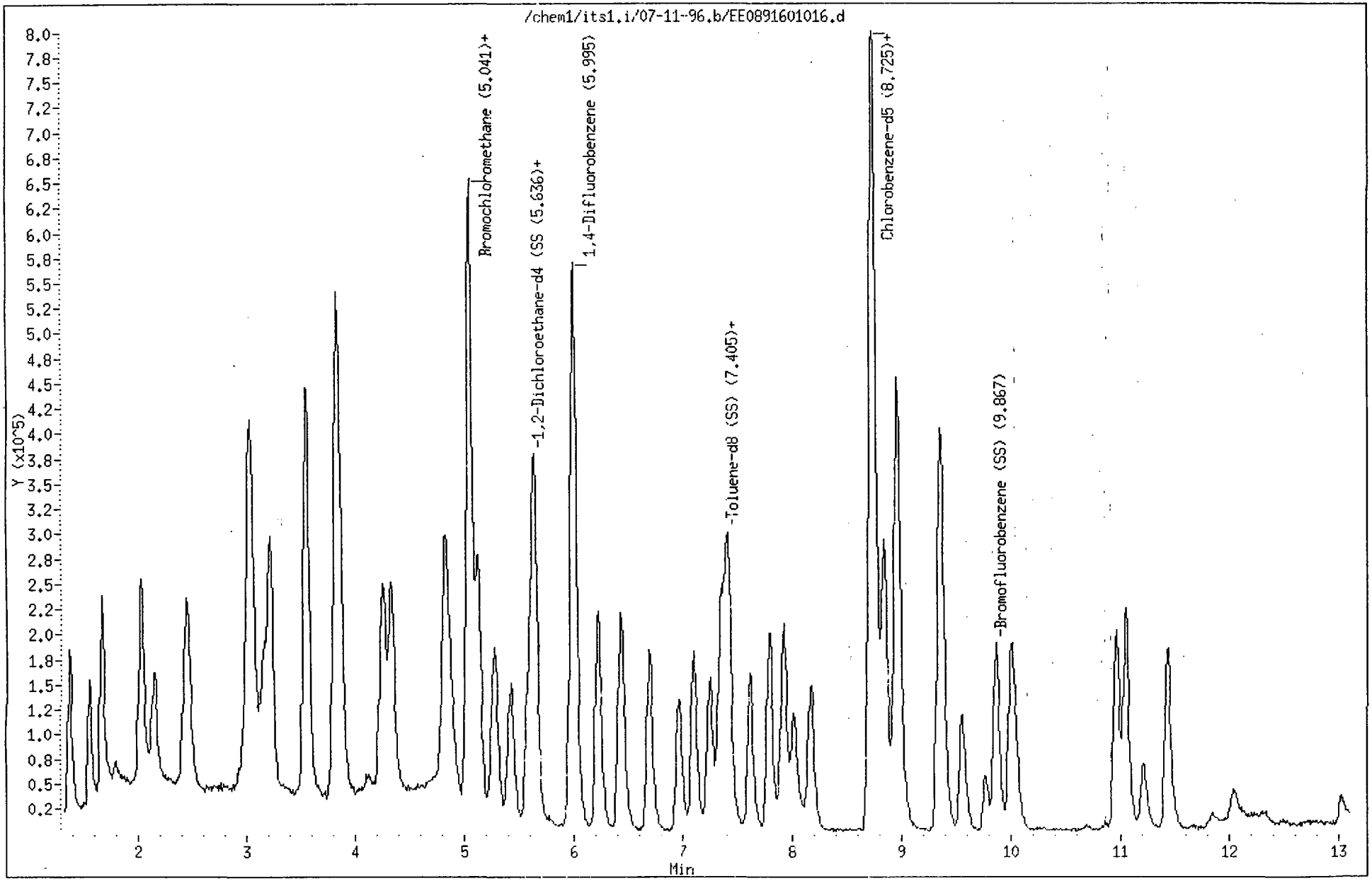
70

Data File: /chem1/its1.i/07-11-96.b/EE0891601016.d
Date : 11-JUL-1996 19:54
Client ID: 20 ug
Sample Info: 8240 cal

Instrument: its1.i

Operator: SAP
Column diameter: 0.53

Column phase: J&W DB-624

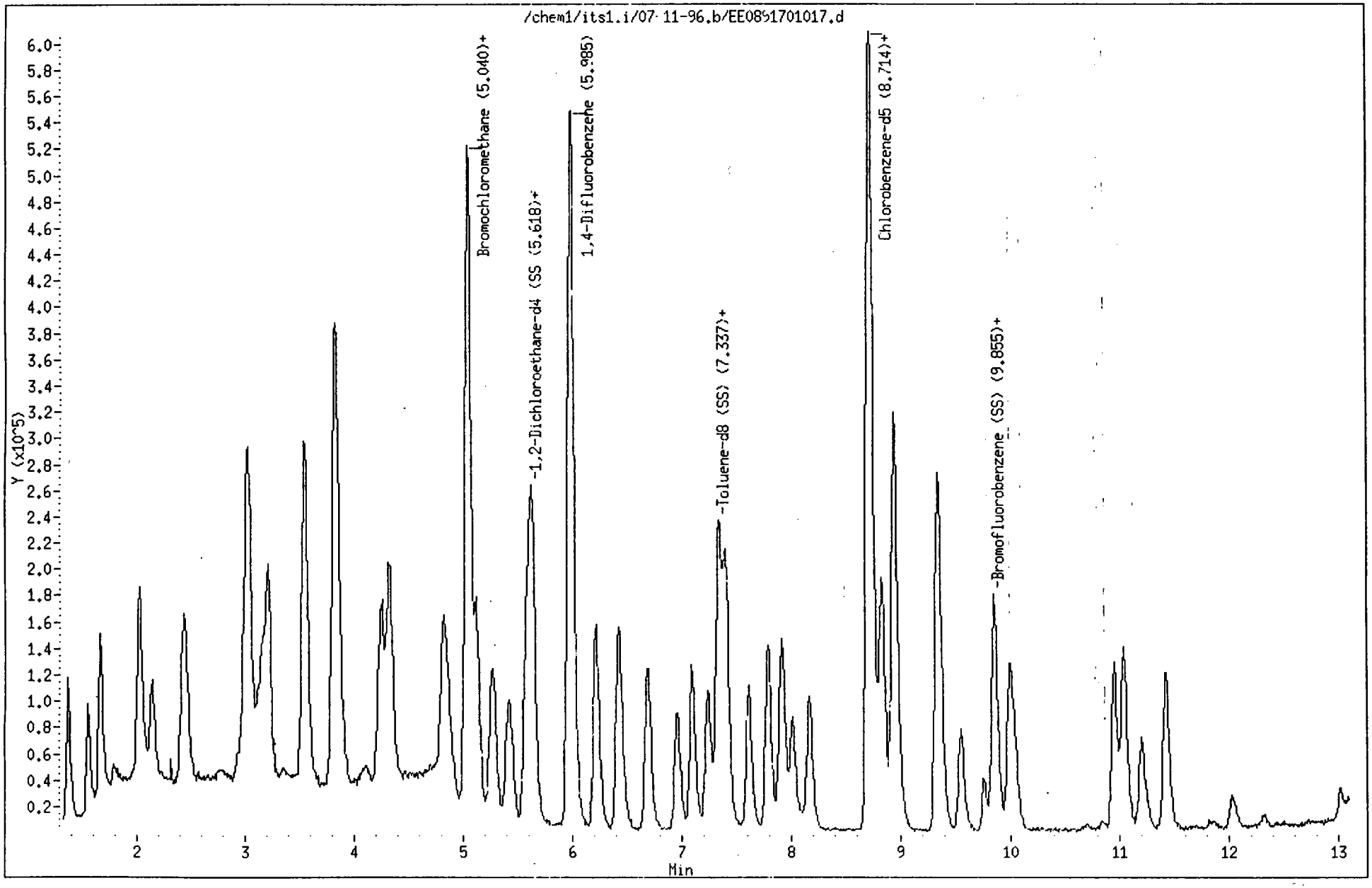


Data File: [redacted]em1/its1.i/07-11-96.b/EE0891701017.d
Date : 11-JUL-1996 20:15
Client ID: 10 ug
Sample Info: 8240 cal

Column phase: J&W DB-624

Instrument: its1.i

Operator: SAP
Column diameter: 0.53



FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Instrument ID: ITS1 Calibration Date: 09/04/96 Time: 0918

Lab File ID: EE1310401004 Init. Calib. Date(s): 07/11/96 07/11/96

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1804

GC Column: J&W DB-624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
Chloromethane	2.320	2.337	0.300	0.7	20.0	
Chloroethane	1.668	1.566		6.1		
Vinyl chloride	3.084	2.893		6.2		
Bromomethane	2.144	1.857		13.4		
Acrolein	0.279	0.172		38.4		<-
Trichlorofluoromethane	3.610	3.149		12.8		
1,1-Dichloroethene	1.877	1.582		15.7		
Acetone	1.177	1.067		9.3		
Iodomethane	3.005	2.284		24.0		<-
Carbon disulfide	6.355	4.551		28.4		<-
Methylene chloride	2.396	2.042		14.8		
trans-1,2-Dichloroethene	2.061	1.702		17.4		
Acrylonitrile	1.097	0.596		45.7		<-
1,1-Dichloroethane	4.710	4.294	0.300	8.8	20.0	
Vinyl acetate	7.185	4.677		34.9		<-
cis-1,2-Dichloroethene	1.727	1.636		5.3		
2-Butanone	0.450	0.166		63.1		<-
Chloroform	0.887	0.788		11.2		
1,1,1-Trichloroethane	0.628	0.569		9.4		
Carbon tetrachloride	0.485	0.415		14.4		
Benzene	1.247	1.139		8.7		
1,2-Dichloroethane	0.522	0.500		4.2		
Trichloroethene	0.407	0.328		19.4		
1,2-Dichloropropane	0.545	0.562		3.1		
Bromodichloromethane	0.686	0.680		0.9		
2-Chloroethylvinyl ether	0.344	0.292		15.1		
cis-1,3-Dichloropropene	0.623	0.637		2.2		
4-Methyl-2-pentanone	0.740	0.413		44.2		<-
Toluene	0.959	0.776		19.1		
trans-1,3-Dichloropropene	0.670	0.601		10.3		
1,1,2-Trichloroethane	0.546	0.456		16.5		
Tetrachloroethene	0.392	0.322		17.8		
2-Hexanone	0.755	0.304		59.7		<-
Chlorodibromomethane	0.605	0.507		16.2		
Chlorobenzene	1.016	0.840		17.3		
Ethylbenzene	0.500	0.443	0.300	11.4	20.0	
m,p-Xylene	0.626	0.558		10.9		

All other compounds must meet a minimum RRF of 0.010.

FORM 7
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Instrument ID: ITS1 Calibration Date: 09/04/96 Time: 0918

Lab File ID: EE1310401004 Init. Calib. Date(s): 07/11/96 07/11/96

Heated Purge: (Y/N) N Init. Calib. Times: 1215 1804

GC Column: J&W DB-624 ID: 0.53 (mm)

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
o-Xylene	0.580	0.509		12.2		
Styrene	0.994	0.818		17.7		
Bromoform	0.415	0.362	0.250	12.8	20.0	
1,4-Dichloro-2-butene	0.109	0.077		29.4		<-
1,1,2,2-Tetrachloroethane	0.987	0.867	0.300	12.2	20.0	
1,3-Dichlorobenzene	0.634	0.570		10.1		
1,4-Dichlorobenzene	0.799	0.710		11.1		
1,2-Dichlorobenzene	0.637	0.561		11.9		
1,2-Dichloroethane-d4 (SS)	0.446	0.500		12.1		
Toluene-d8 (SS)	1.324	1.306		1.4		
Bromofluorobenzene (SS)	0.627	0.683		8.9		

All other compounds must meet a minimum RRF of 0.010.

Inchcape Testing Services - Environmental Laboratories

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: its1.i Injection Date: 04-SEP-1996 09:18
Lab File ID: EE1310401004.d Init. Calibration Date(s): 07/11/96 07/11/96
Analysis Type: SOIL Init. Calibration Times: 12:15 18:04
Lab Sample ID: 8240 DAILY CAL Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Quant Type: ISTD

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D	
	1 Chloromethane	2.320	2.337	0.300	0.7	20.0	
	2 Chloroethane	1.668	1.566	0.010	6.1	20.0	
	3 Vinyl chloride	3.084	2.893	0.010	6.2	20.0	
	4 Bromomethane	2.144	1.857	0.010	13.4	20.0	
	5 Acrolein	1.178	0.172	0.010	N/A	N/A	
	6 Trichlorofluoromethane	3.610	3.149	0.010	12.8	20.0	
	7 1,1-Dichloroethene	1.877	1.582	0.010	15.7	20.0	
	8 Acetone	0.949	1.067	0.010	N/A	N/A	
	9 Iodomethane	3.005	2.285	0.010	24.0	20.0	<-
	10 Carbon disulfide	6.355	4.551	0.010	28.4	20.0	<-
	11 Methylene chloride	2.396	2.042	0.010	14.8	20.0	
	12 trans-1,2-Dichloroethene	2.061	1.702	0.010	17.4	20.0	
	13 Acrylonitrile	1.097	0.596	0.010	45.6	20.0	<-
	14 1,1-Dichloroethane	4.710	4.294	0.300	8.8	20.0	
	15 Vinyl acetate	7.185	4.677	0.010	34.9	20.0	<-
	16 cis-1,2-Dichloroethene	1.727	1.636	0.010	5.3	20.0	
	17 2-Butanone	1.083	0.166	0.010	N/A	N/A	
	19 Chloroform	0.887	0.788	0.010	11.1	20.0	
	20 1,1,1-Trichloroethane	0.628	0.569	0.010	9.4	20.0	
	21 Carbon tetrachloride	0.485	0.415	0.010	14.6	20.0	
$	22 1,2-Dichloroethane-d4 (SS)	0.446	0.500	0.010	12.0	20.0	
	23 Benzene	1.247	1.139	0.010	8.7	20.0	
	24 1,2-Dichloroethane	0.522	0.500	0.010	4.2	20.0	
	26 Trichloroethene	0.407	0.328	0.010	19.2	20.0	
	27 1,2-Dichloropropane	0.545	0.562	0.010	3.0	20.0	
	28 Bromodichloromethane	0.687	0.680	0.010	0.9	20.0	
	29 2-Chloroethylvinyl ether	0.344	0.292	0.010	15.2	20.0	
	30 cis-1,3-Dichloropropene	0.623	0.637	0.010	2.3	20.0	
	31 4-Methyl-2-pentanone	0.968	0.413	0.010	N/A	N/A	
$	32 Toluene-d8 (SS)	1.324	1.307	0.010	1.3	20.0	
	33 Toluene	0.959	0.777	0.010	19.0	20.0	
	34 trans-1,3-Dichloropropene	0.669	0.601	0.010	10.3	20.0	
	35 1,1,2-Trichloroethane	0.547	0.456	0.010	16.6	20.0	
	36 Tetrachloroethene	0.393	0.322	0.010	17.9	20.0	
	37 2-Hexanone	0.727	0.304	0.010	N/A	N/A	
	38 Chlorodibromomethane	0.605	0.507	0.010	16.2	20.0	
	40 Chlorobenzene	1.016	0.841	0.010	17.3	20.0	
	41 Ethylbenzene	0.500	0.443	0.300	11.4	20.0	
	42 m,p-Xylene	0.626	0.558	0.010	10.8	20.0	
	43 o-Xylene	0.580	0.509	0.010	12.3	20.0	

Inchcape Testing Services - Environmental Laboratories

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: its1.i Injection Date: 04-SEP-1996 09:18
Lab File ID: EE1310401004.d Init. Calibration Date(s): 07/11/96 07/11/96
Analysis Type: SOIL Init. Calibration Times: 12:15 18:04
Lab Sample ID: 8240 DAILY CAL Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Quant Type: ISTD

	COMPOUND	$\overline{RRF}$	RF50	MIN RRF	%D	MAX %D	
	44 Styrene	0.994	0.818	0.010	17.7	20.0	
	45 Bromoform	0.415	0.362	0.250	12.9	20.0	
	46 1,4-Dichloro-2-butene	0.109	0.077	0.010	29.1	20.0	<-
$	47 Bromofluorobenzene (SS)	0.627	0.683	0.010	9.0	20.0	
	48 1,1,2,2-Tetrachloroethane	0.987	0.867	0.300	12.1	20.0	
	49 1,3-Dichlorobenzene	0.634	0.570	0.010	10.1	20.0	
	50 1,4-Dichlorobenzene	0.799	0.710	0.010	11.1	20.0	
	51 1,2-Dichlorobenzene	0.637	0.561	0.010	12.0	20.0	

Inchcape Testing Services - Environmental Laboratories

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/09-04-96.b/EE1310401004.d
Lab Smp Id: 8240 DAILY CAL Client Smp ID: ALS=1
Inj Date : 04-SEP-1996 09:18 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : 8240 DAILY CAL
Misc Info : 50 UG/KG
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty Quant Type: ISTD
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 4 Continuing Calibration Sample
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	AMOUNTS ON-COL (ug/kg)
	1 Chloromethane	50.00	1.541	1.533	(0.306)	478261	50.0	50.4
	2 Chloroethane	64.00	2.136	2.112	(0.425)	320506	50.0	46.9
	3 Vinyl chloride	62.00	1.655	1.647	(0.329)	592178	50.0	46.9
	4 Bromomethane	94.00	2.014	1.998	(0.400)	380037	50.0	43.3
	5 Acrolein	55.00	2.919	2.929	(0.580)	35302	50.0	26.0
	6 Trichlorofluoromethane	101.00	2.430	2.406	(0.483)	644569	50.0	43.6
	7 1,1-Dichloroethene	96.00	3.008	2.995	(0.598)	323877	50.0	42.1
	8 Acetone	43.00	3.107	3.126	(0.618)	218383	50.0	45.8(aM)
	9 Iodomethane	142.00	3.156	3.142	(0.627)	467591	50.0	38.0
	10 Carbon disulfide	76.00	3.205	3.192	(0.637)	931558	50.0	35.8
	11 Methylene chloride	84.00	3.539	3.527	(0.704)	417993	50.0	42.6
	12 trans-1,2-Dichloroethene	96.00	3.808	3.805	(0.757)	348444	50.0	41.3
	13 Acrylonitrile	53.00	3.808	3.813	(0.757)	122089	50.0	27.2
	14 1,1-Dichloroethane	63.00	4.232	4.230	(0.841)	878819	50.0	45.6
	15 Vinyl acetate	43.00	4.313	4.312	(0.858)	957316	50.0	32.5
	16 cis-1,2-Dichloroethene	96.00	3.808	4.801	(0.757)	334783	50.0	47.4(TMH)
	17 2-Butanone	72.00	4.834	4.841	(0.961)	33939	50.0	18.4(a)
*	18 Bromochloromethane	128.00	5.030	5.021	(1.000)	204679	50.0	
	19 Chloroform	83.00	5.119	5.111	(0.857)	720961	50.0	44.4
	20 1,1,1-Trichloroethane	97.00	5.266	5.258	(0.881)	520658	50.0	45.3
	21 Carbon tetrachloride	117.00	5.413	5.406	(0.906)	379321	50.0	42.7
$	22 1,2-Dichloroethane-d4 (SS)	65.00	5.568	5.561	(0.932)	456978	50.0	56.0
	23 Benzene	78.00	5.617	5.602	(0.940)	1041264	50.0	45.6
	24 1,2-Dichloroethane	62.00	5.633	5.626	(0.943)	457323	50.0	47.9
*	25 1,4-Difluorobenzene	114.00	5.976	5.962	(1.000)	914412	50.0	
	26 Trichloroethene	130.00	6.204	6.198	(1.038)	300355	50.0	40.4
	27 1,2-Dichloropropane	63.00	6.424	6.411	(1.075)	513588	50.0	51.5
	28 Bromodichloromethane	83.00	6.677	6.672	(1.117)	621925	50.0	49.5
	29 2-Chloroethylvinyl ether	63.00	6.946	6.942	(1.162)	266783	50.0	42.4(M)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/kg)	AMOUNTS ON-COL (ug/kg)
	30 cis-1,3-Dichloropropene	75.00	7.084	7.081	(1.186)	582786	50.0	51.2
	31 4-Methyl-2-pentanone	43.00	7.223	7.220	(1.209)	378044	50.0	25.8(a)
$	32 Toluene-d8 (SS)	98.00	7.337	7.327	(0.843)	979070	50.0	49.3
	33 Toluene	92.00	7.395	7.384	(0.850)	581949	50.0	40.5
	34 trans-1,3-Dichloropropene	75.00	7.599	7.589	(0.873)	450239	50.0	44.9
	35 1,1,2-Trichloroethane	97.00	7.770	7.769	(0.893)	341748	50.0	41.7(M)
	36 Tetrachloroethene	164.00	7.901	7.900	(0.908)	241538	50.0	41.0(M)
	37 2-Hexanone	43.00	7.999	7.990	(0.919)	227504	50.0	19.9(a)
	38 Chlorodibromomethane	129.00	8.154	8.154	(0.937)	379881	50.0	41.9
*	39 Chlorobenzene-d5	117.00	8.699	8.692	(1.000)	749378	50.0	
	40 Chlorobenzene	112.00	8.732	8.717	(1.004)	629858	50.0	41.4
	41 Ethylbenzene	106.00	8.830	8.815	(1.015)	331855	50.0	44.3
	42 m,p-Xylene	106.00	8.937	8.930	(1.027)	837014	100	89.2
	43 o-Xylene	106.00	9.328	9.314	(1.072)	381434	50.0	43.8
	44 Styrene	104.00	9.336	9.339	(1.073)	612846	50.0	41.1
	45 Bromoform	173.00	9.540	9.535	(1.097)	270951	50.0	43.5(M)
	46 1,4-Dichloro-2-butene	53.00	9.752	9.747	(1.121)	57743	50.0	35.4
$	47 Bromofluorobenzene (SS)	95.00	9.850	9.838	(1.132)	511797	50.0	54.5
	48 1,1,2,2-Tetrachloroethane	83.00	9.989	9.985	(1.148)	649947	50.0	43.9(M)
	49 1,3-Dichlorobenzene	146.00	10.941	10.939	(1.258)	427502	50.0	45.0
	50 1,4-Dichlorobenzene	146.00	11.031	11.021	(1.268)	532075	50.0	44.4
	51 1,2-Dichlorobenzene	146.00	11.414	11.405	(1.312)	420475	50.0	44.0

QC Flag Legend

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

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: its1.i
Lab File ID: EE1310401004.d
Lab Smp Id: 8240 DAILY CAL
Analysis Type: VOA
Quant Type: ISTD
Operator: SAP
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: 50 UG/KG

Calibration Date: 09/04/96
Calibration Time: 0918
Client Smp ID: ALS=1
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	204679	102340	409358	204679	0.00
25 1,4-Difluorobenzene	914412	457206	1828824	914412	0.00
39 Chlorobenzene-d5	749378	374689	1498756	749378	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	5.03	4.53	5.53	5.03	0.00
25 1,4-Difluorobenzene	5.98	5.48	6.48	5.98	0.00
39 Chlorobenzene-d5	8.70	8.20	9.20	8.70	0.00

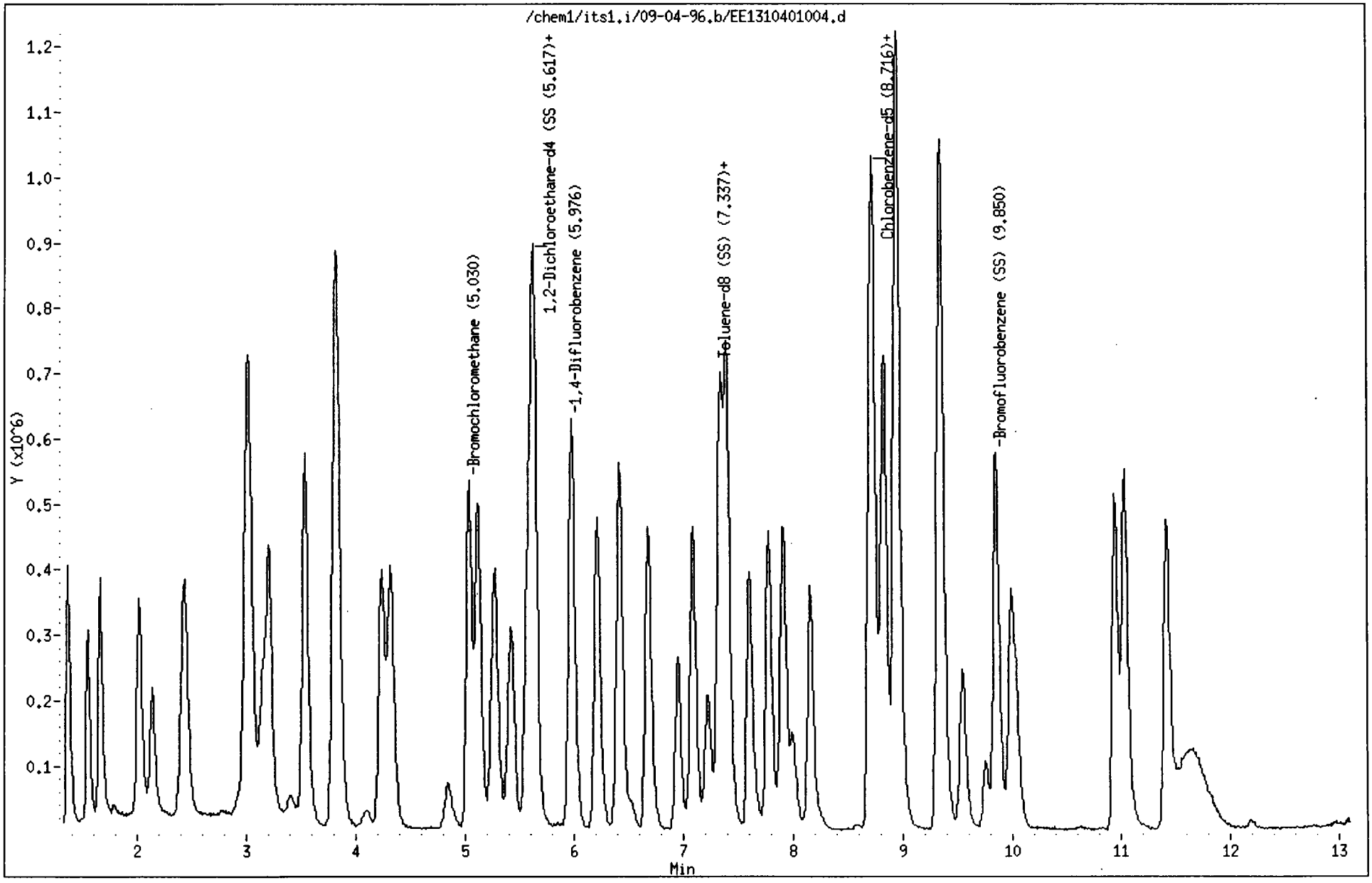
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem1/its1.i/09-04-96.b/EE1310401004.d
Date : 04-SEP-1996 09:18
Client ID: ALS=1
Sample Info: 8240 DAILY CAL

Column phase: J&W DB-624

Instrument: its1.i

Operator: SAP
Column diameter: 0.53



RAW QUALITY CONTROL DATA

Data File: /chem1/its1.i/07-11-96.b/EE0891001010.d

Date : 11-JUL-96 17:00

Client ID: 50 ng

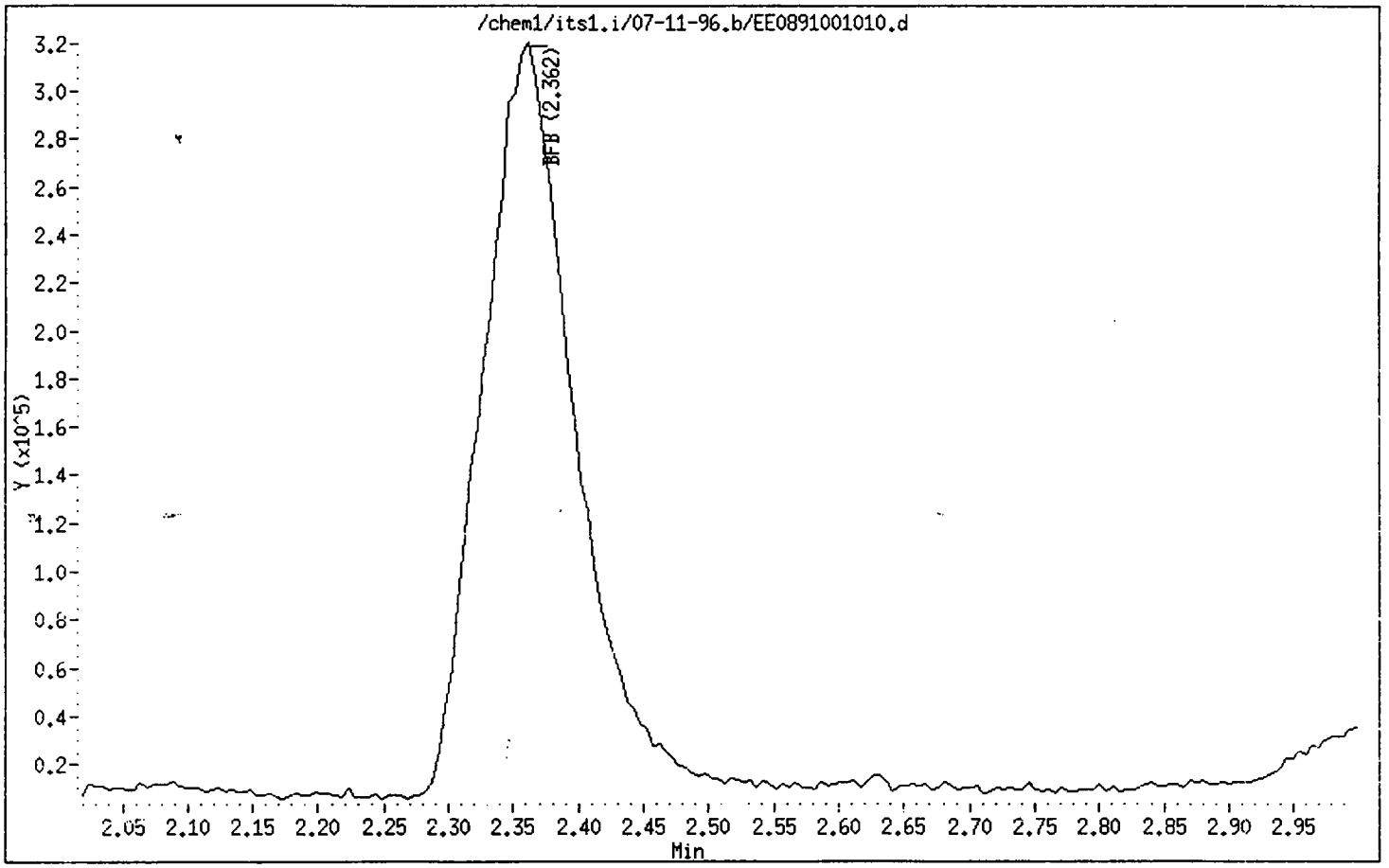
Instrument: its1.i

Sample Info:

Operator: RLROLAND

Column phase:

Column diameter: 2.00



Data File: /chem1/its1.i/07-11-96.b/EE0891001010.d

Date : 11-JUL-96 17:00

Client ID: 50 ng

Instrument: its1.i

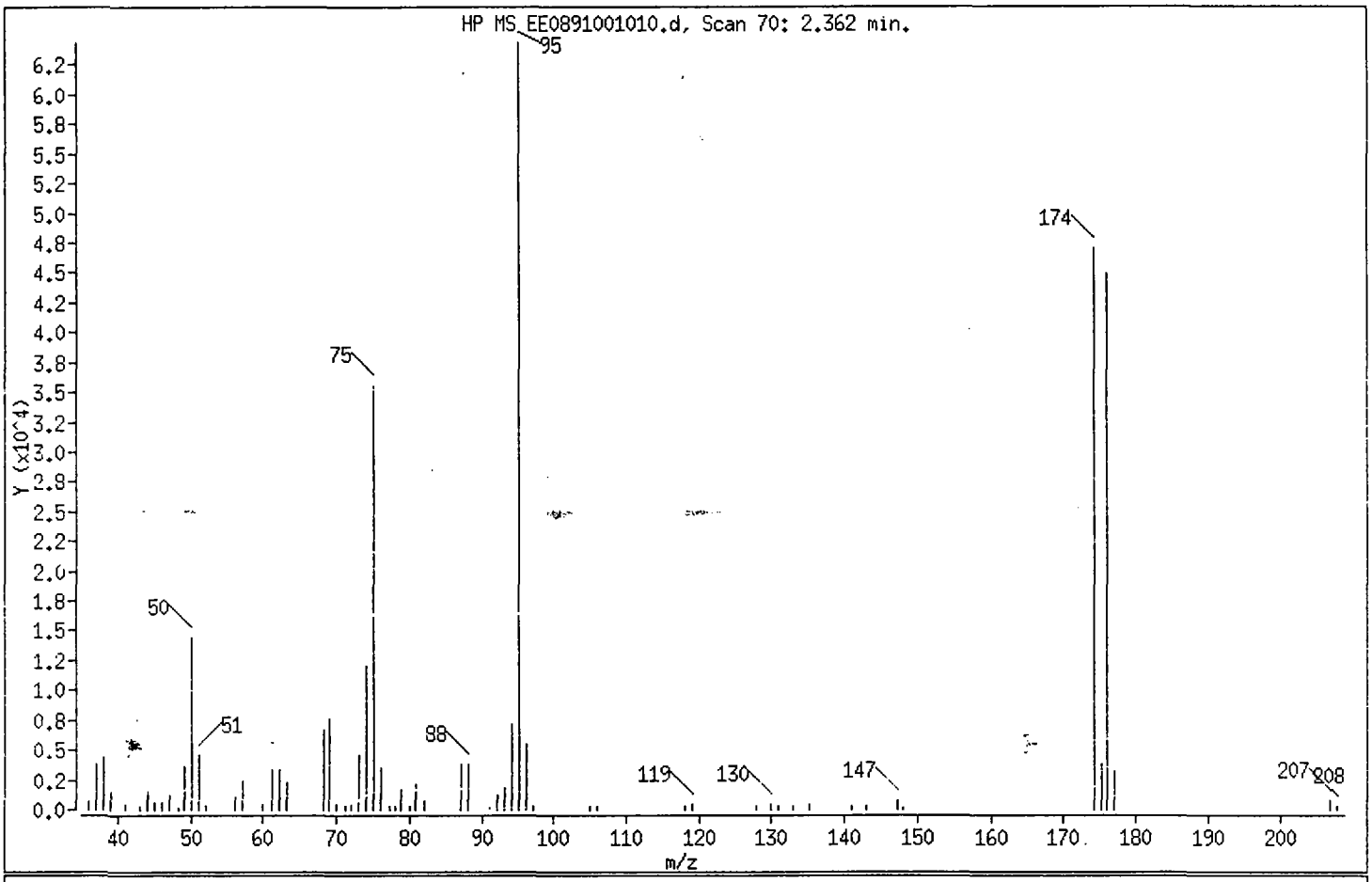
Sample Info:

Operator: RLROLAND

Column phase:

Column diameter: 2.00

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.35
75	30.00 - 60.00% of mass 95	55.26
96	5.00 - 9.00% of mass 95	8.59
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	72.95
175	5.00 - 9.00% of mass 174	5.82 (7.98)
176	95.00 - 101.00% of mass 174	69.85 (95.74)
177	5.00 - 9.00% of mass 176	4.87 (6.97)

Data File: /chem1/its1.i/07-11-96.b/EE0891001010.d

Date : 11-JUL-96 17:00

Client ID: 50 ng

Instrument: its1.i

Sample Info:

Operator: RLROLAND

Column phase:

Column diameter: 2.00

Data File: EE0891001010.d
Spectrum : HP MS EE0891001010.d, Scan 70: 2.362 min.
Largest m/z: 95.10
Number of peaks: 64

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	718	60.00	420	80.90	2068	131.00	286
37.00	3770	61.10	3350	82.00	731	133.00	287
38.10	4411	62.10	3340	87.00	3857	135.10	463
39.00	1567	63.10	2275	88.00	3868	140.90	335
41.10	406	68.10	6678	91.10	223	143.00	236
43.00	265	69.10	7573	92.10	1164	147.20	710
44.10	1491	70.10	532	93.10	1799	147.90	206
45.00	654	71.20	344	94.10	7142	174.05	46976
46.00	583	72.00	415	95.10	64392	175.05	3748
47.00	1175	73.00	4526	96.10	5533	176.05	44976
48.30	204	74.10	11998	97.10	234	176.95	3134
49.00	3642	75.10	35584	105.00	370	207.05	718
50.00	14390	76.10	3498	105.90	280	208.15	365
51.00	4603	77.20	317	118.00	247		
52.00	314	78.10	283	119.10	482		
56.10	1112	78.90	1651	127.90	370		
57.10	2472	80.10	304	130.00	486		

Data File: /chem1/its1.i/09-04-96.b/EE1310101001.d

Date : 04-SEP-96 08:01

Client ID: 50 NG BFB

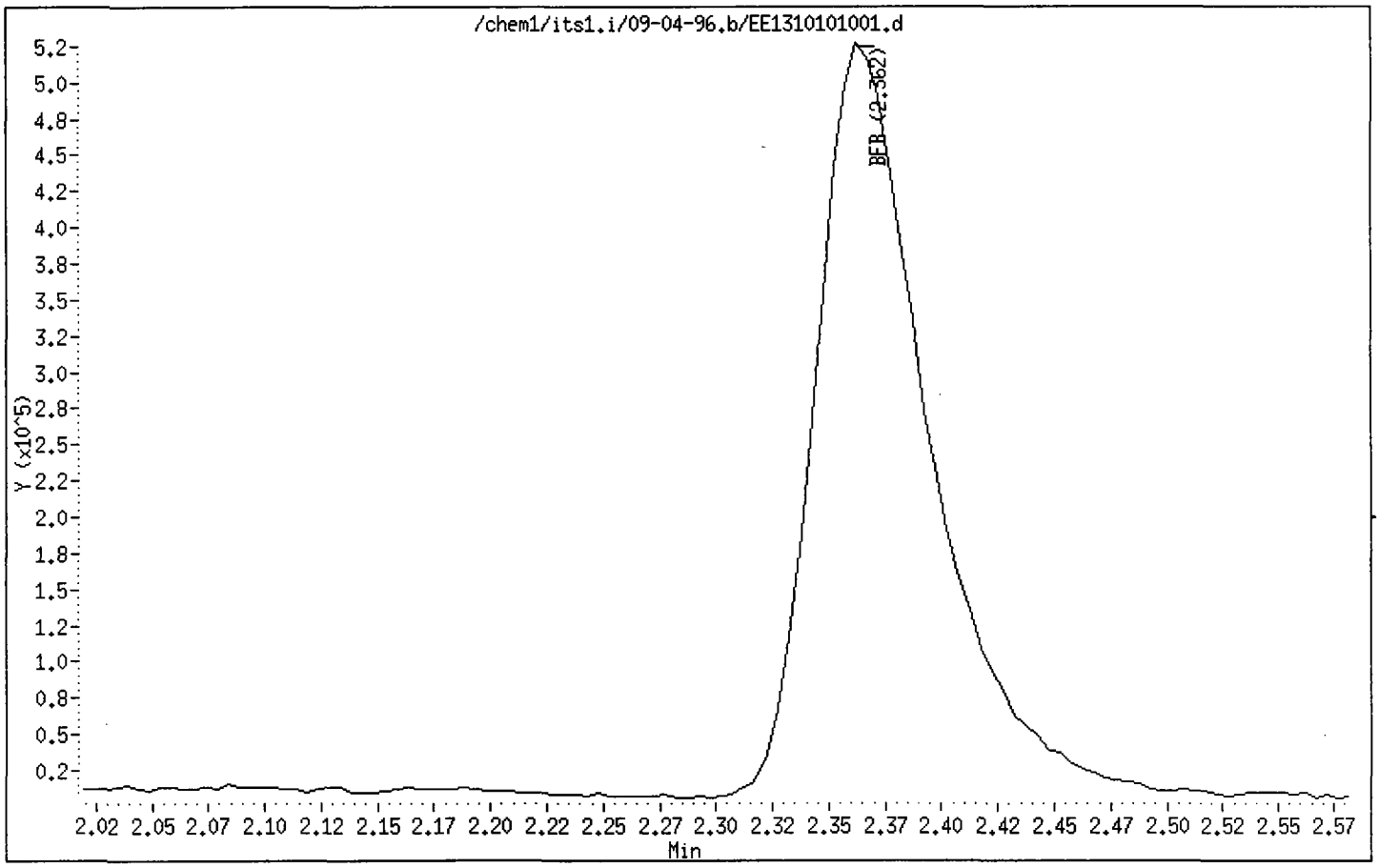
Instrument: its1.i

Sample Info: 8240 TUNE

Operator: MICHELLE

Column phase:

Column diameter: 2.00



Data File: /chem1/its1.i/09-04-96.b/EE1310101001.d

Date : 04-SEP-96 08:01

Client ID: 50 NG BFB

Instrument: its1.i

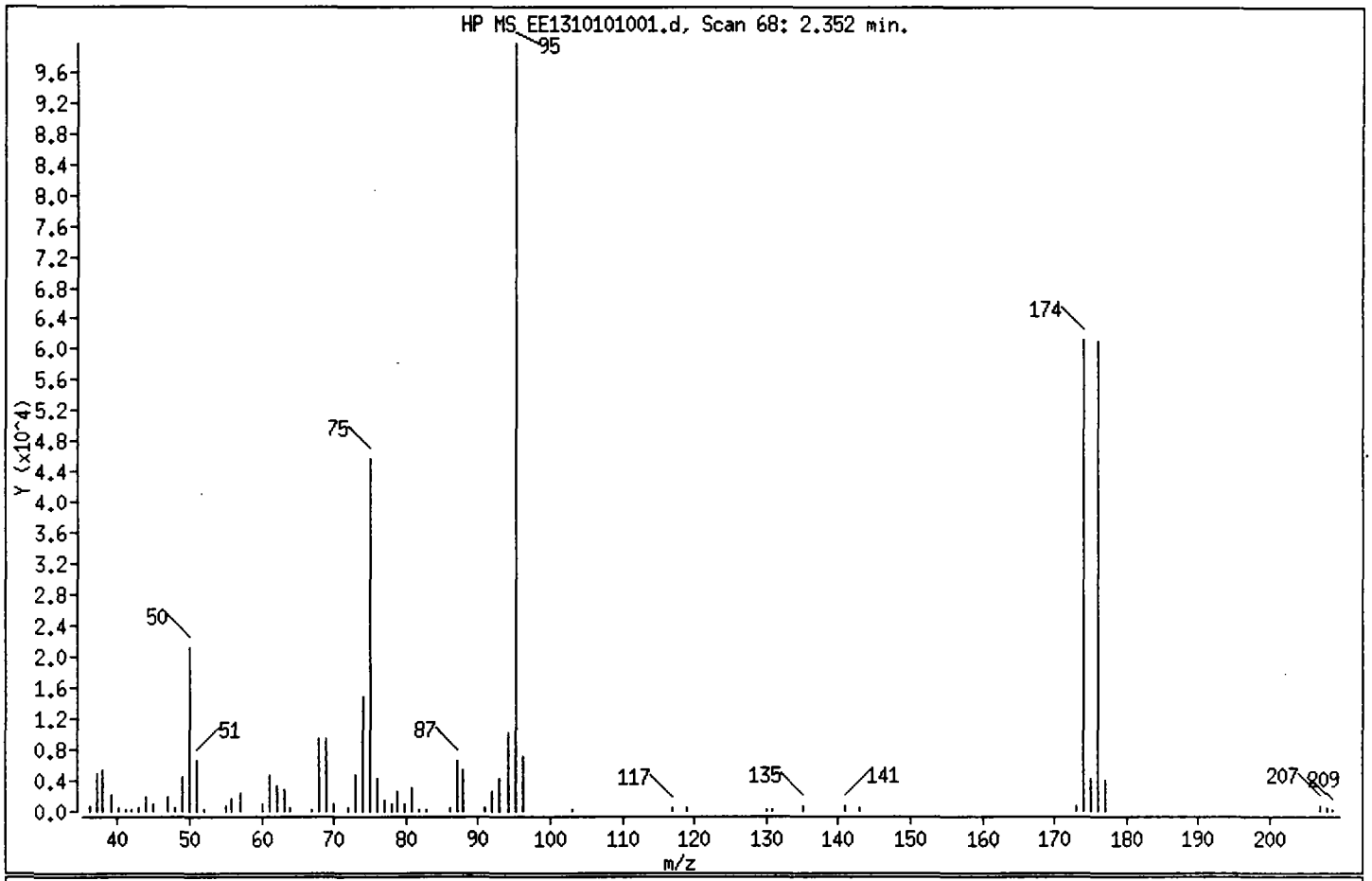
Sample Info: 8240 TUNE

Operator: MICHELLE

Column phase:

Column diameter: 2.00

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.37
75	30.00 - 60.00% of mass 95	45.97
96	5.00 - 9.00% of mass 95	7.17
173	Less than 2.00% of mass 174	0.60 (0.98)
174	Greater than 50.00% of mass 95	61.51
175	5.00 - 9.00% of mass 174	4.26 (6.92)
176	95.00 - 101.00% of mass 174	61.17 (99.45)
177	5.00 - 9.00% of mass 176	4.10 (6.70)

Data File: /chem1/its1.i/09-04-96.b/EE1310101001.d

Date : 04-SEP-96 08:01

Client ID: 50 NG BFB

Instrument: its1.i

Sample Info: 8240 TUNE

Operator: MICHELLE

Column phase:

Column diameter: 2.00

Data File: EE1310101001.d

Spectrum : HP MS EE1310101001.d, Scan 68: 2.352 min.

Largest m/z: 95.10

Number of peaks: 65

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.10	813	55.90	1571	78.00	885	119.00	380
37.00	4890	57.00	2433	78.90	2619	130.10	290
38.00	5383	60.00	1046	79.90	832	130.80	206
39.10	2097	61.00	4767	80.90	3048	135.10	694
40.10	429	62.00	3211	81.80	326	140.90	653
41.10	335	63.10	2867	82.90	203	142.90	456
42.00	215	64.00	498	86.00	369	172.95	598
43.00	366	67.00	310	87.00	6608	173.95	61328
44.00	1859	68.00	9542	88.00	5475	174.95	4243
45.00	888	69.00	9542	91.00	359	175.95	60992
47.00	1792	70.00	906	92.00	2588	176.95	4088
48.10	548	72.00	397	93.00	4147	206.95	696
49.00	4403	73.10	4767	94.10	10057	208.05	403
50.00	21304	74.10	14918	95.10	99712	208.85	218
51.00	6552	75.00	45840	96.10	7146		
51.90	217	76.00	4279	103.00	237		
55.00	740	77.00	1431	117.00	578		

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

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

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1310601006

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
107-02-8	Acrolein	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	100	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	24.1	
156-60-5	trans-1,2-Dichloroethene	5.0	U
75-05-8	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
108-05-4	Vinyl acetate	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	50.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
110-75-8	2-Chloroethylvinyl ether	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	50.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	50.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

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

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1310601006

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
124-48-1	Chlorodibromomethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
----------	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
764-41-0	1,4-Dichloro-2-butene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

BLK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

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

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1310601006

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	110-54-3	HEXANE	4.11	5.4	NJ
2.	18294-04-7	COLUMN BLEED	12.69	13.6	NJ
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Inchcape Testing Services - Environmental Laboratories

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/09-04-96.b/EE1310601006.d
Lab Smp Id: D96-9654-7 Client Smp ID: ALS=2
Inj Date : 04-SEP-1996 10:07 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : 8240_FL1_S;;ITS1-850;1
Misc Info : METHOD BLANK
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty Quant Type: ISTD
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 6
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/kg)	FINAL (ug/L)
	11 Methylene chloride	84.00	3.536	3.527	(0.703)	263521	24.1	24.1
*	18 Bromochloromethane	128.00	5.033	5.021	(1.000)	228233	50.0	
$	22 1,2-Dichloroethane-d4 (SS)	65.00	5.570	5.561	(0.932)	473898	52.5	52.5
*	25 1,4-Difluorobenzene	114.00	5.978	5.962	(1.000)	1011499	50.0	
$	32 Toluene-d8 (SS)	98.00	7.336	7.327	(0.843)	1082884	50.4	50.4
*	39 Chlorobenzene-d5	117.00	8.703	8.692	(1.000)	810931	50.0	
$	47 Bromofluorobenzene (SS)	95.00	9.850	9.838	(1.132)	556002	54.7	54.7

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem1/its1.i/09-04-96.b/EE1310601006.d
Lab Smp Id: D96-9654-7 Client Smp ID: ALS=2
Inj Date : 04-SEP-1996 10:07 Autotune Date: 07-Feb-96 17:31:1
Operator : SAP Inst ID: its1.i
Smp Info : 8240_FL1_S;;ITS1-850;1
Misc Info : METHOD BLANK
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 6
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 18 Bromochloromethane	5.033	2244238	50.000
* 39 Chlorobenzene-d5	8.703	2821137	50.000

	CONCENTRATIONS			QUANT			
RT	AREA	ON-COL(ug/kg)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Hexane				CAS #: 110-54-3			
4.106	241002	5.4	5.4	83	NBS75K.l	736	18
COLUMN BLEED				CAS #: 18294-04-7			
12.688	769447	13.6	13.6	50	NBS75K.l	71005	39(L)

QC Flag Legend

L - Operator selected an alternate library search match.

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: its1.i
Lab File ID: EE1310601006.d
Lab Smp Id: D96-9654-7
Analysis Type: VOA
Quant Type: ISTD
Operator: SAP
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: METHOD BLANK

Calibration Date: 09/04/96
Calibration Time: 0918
Client Smp ID: ALS=2
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	204679	102340	409358	228233	11.51
25 1,4-Difluorobenzene	914412	457206	1828824	1011499	10.62
39 Chlorobenzene-d5	749378	374689	1498756	810931	8.21

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	5.03	4.53	5.53	5.03	0.07
25 1,4-Difluorobenzene	5.98	5.48	6.48	5.98	0.03
39 Chlorobenzene-d5	8.70	8.20	9.20	8.70	0.04

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name: Client SDG: 09-04-96.b
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: D96-9654-7 Client Smp ID: ALS=2
Level: LOW Operator: SAP
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: spike.spk Quant Type: ISTD
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: METHOD BLANK

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 22 1,2-Dichloroethane	50.0	52.5	104.98	76-126
$ 32 Toluene-d8 (SS)	50.0	50.4	100.86	88-118
$ 47 Bromofluorobenzene	50.0	54.7	109.40	86-121

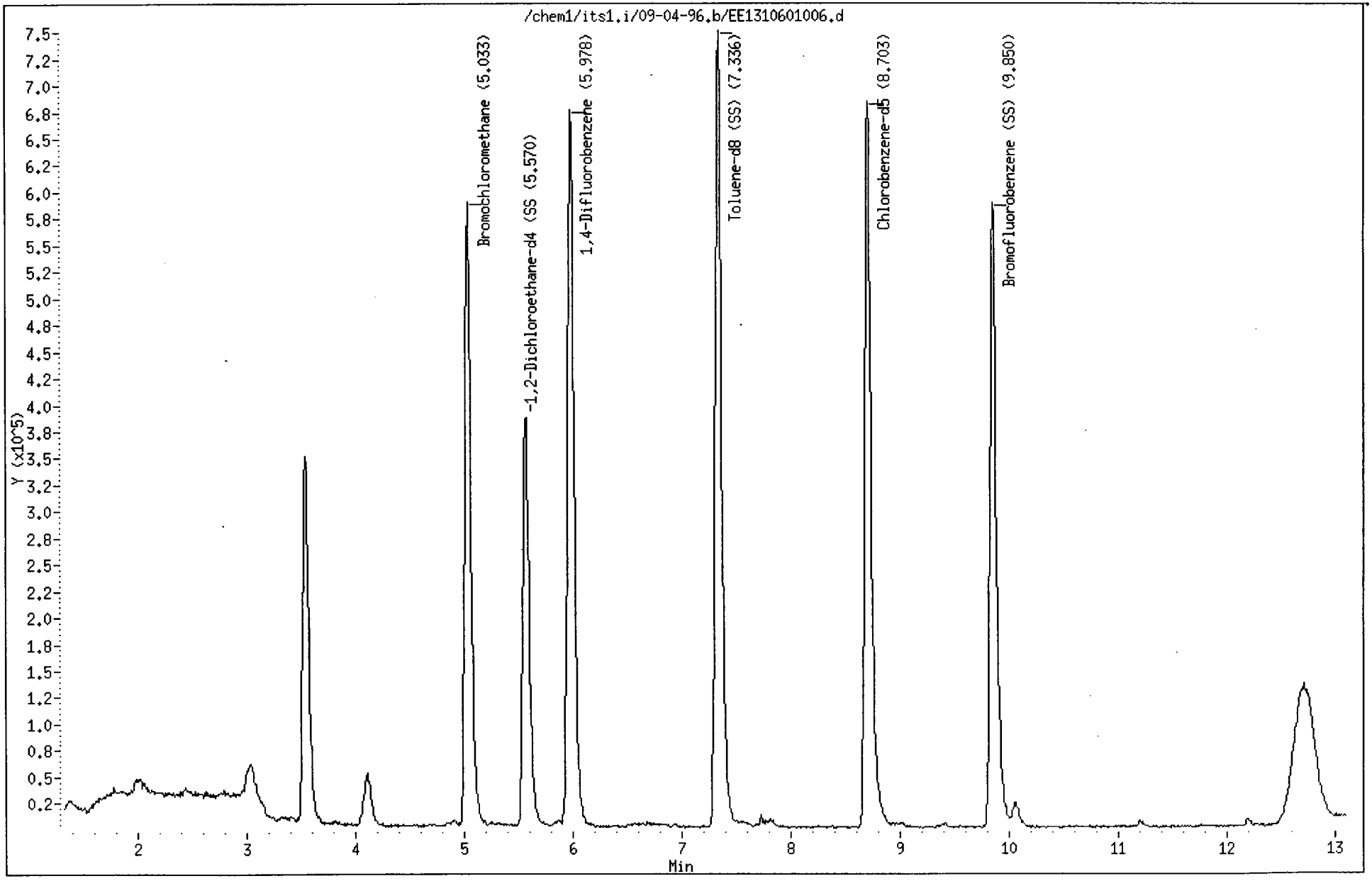
94

Data File: /chem1/its1.i/09-04-96.b/EE1310601006.d
Date : 04-SEP-1996 10:07
Client ID: ALS=2
Sample Info: 8240_FL1_S;;ITS1-850;1

Instrument: its1.i

Operator: SAP
Column diameter: 0.53

Column phase: J&W DB-624



FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9654-4 MS

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: 9654-5 MS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1311201012

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	50.2	
75-00-3	Chloroethane	51.2	
75-01-4	Vinyl chloride	50.3	
74-83-9	Bromomethane	44.5	
107-02-8	Acrolein	29.8	
75-69-4	Trichlorofluoromethane	52.1	
75-35-4	1,1-Dichloroethene	49.0	
67-64-1	Acetone	27.7	J
74-88-4	Iodomethane	49.0	
75-15-0	Carbon disulfide	39.0	
75-09-2	Methylene chloride	61.1	
156-60-5	trans-1,2-Dichloroethene	47.1	
75-05-8	Acrylonitrile	33.6	
75-34-3	1,1-Dichloroethane	50.4	
108-05-4	Vinyl acetate	41.3	
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	23.5	J
67-66-3	Chloroform	49.0	
71-55-6	1,1,1-Trichloroethane	52.3	
56-23-5	Carbon tetrachloride	52.8	
71-43-2	Benzene	51.7	
107-06-2	1,2-Dichloroethane	52.6	
79-01-6	Trichloroethene	47.5	
78-87-5	1,2-Dichloropropane	58.4	
75-27-4	Bromodichloromethane	55.5	
110-75-8	2-Chloroethylvinyl ether	54.3	
10061-01-5	cis-1,3-Dichloropropene	56.1	
108-10-1	4-Methyl-2-pentanone	32.1	J
108-88-3	Toluene	46.8	
10061-02-6	trans-1,3-Dichloropropene	52.1	
79-00-5	1,1,2-Trichloroethane	48.5	
127-18-4	Tetrachloroethene	45.0	
591-78-6	2-Hexanone	25.0	J

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9654-4 MS

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: 9654-5 MS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1311201012

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
124-48-1	Chlorodibromomethane	50.1	
108-90-7	Chlorobenzene	47.0	
100-41-4	Ethylbenzene	47.4	
----------	m,p-Xylene	91.3	
95-47-6	o-Xylene	46.0	
100-42-5	Styrene	44.9	
75-25-2	Bromoform	46.3	
764-41-0	1,4-Dichloro-2-butene	43.8	
79-34-5	1,1,2,2-Tetrachloroethane	43.0	
541-73-1	1,3-Dichlorobenzene	45.2	
106-46-7	1,4-Dichlorobenzene	44.5	
95-50-1	1,2-Dichlorobenzene	47.4	

Inchcape Testing Services - Environmental Laboratories

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/09-04-96.b/EE1311201012.d
Lab Smp Id: D96-9654-5 Client Smp ID: ALS=8
Inj Date : 04-SEP-1996 12:04 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : 8240_BM_S;;ITS1-851;1
Misc Info : 8240_BM_S;;ITS1-851;1
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty Quant Type: ISTD
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 12 QC Sample: MS
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/kg)	CONCENTRATIONS FINAL (ug/L)
	1 Chloromethane	50.00	1.533	1.533	(0.305)	383376	50.2	50.2
	2 Chloroethane	64.00	2.128	2.112	(0.423)	281523	51.2	51.2
	3 Vinyl chloride	62.00	1.655	1.647	(0.329)	511042	50.3	50.3
	4 Bromomethane	94.00	2.013	1.998	(0.400)	314328	44.5	44.5
	5 Acrolein	55.00	2.918	2.929	(0.580)	33769	29.8	29.8
	6 Trichlorofluoromethane	101.00	2.429	2.406	(0.483)	619501	52.1	52.1
	7 1,1-Dichloroethene	96.00	2.992	2.995	(0.595)	303026	49.0	49.0
	8 Acetone	43.00	3.106	3.126	(0.618)	117270	27.7	27.7(a)
	9 Iodomethane	142.00	3.147	3.142	(0.626)	484912	49.0	49.0
	10 Carbon disulfide	76.00	3.204	3.192	(0.637)	816417	39.0	39.0
	11 Methylene chloride	84.00	3.530	3.527	(0.702)	482215	61.1	61.1
	12 trans-1,2-Dichloroethene	96.00	3.807	3.805	(0.757)	319827	47.1	47.1
	13 Acrylonitrile	53.00	3.807	3.813	(0.757)	121331	33.6	33.6
	14 1,1-Dichloroethane	63.00	4.239	4.230	(0.843)	781642	50.4	50.4
	15 Vinyl acetate	43.00	4.304	4.312	(0.856)	978563	41.3	41.3
	17 2-Butanone	72.00	4.841	4.841	(0.963)	38576	23.5	23.5(a)
*	18 Bromochloromethane	128.00	5.028	5.021	(1.000)	164705	50.0	
	19 Chloroform	83.00	5.110	5.111	(0.855)	657202	49.0	49.0
	20 1,1,1-Trichloroethane	97.00	5.256	5.258	(0.880)	496427	52.3	52.3
	21 Carbon tetrachloride	117.00	5.412	5.406	(0.906)	386932	52.8	52.8
$	22 1,2-Dichloroethane-d4 (SS)	65.00	5.558	5.561	(0.930)	363745	54.0	54.0
	23 Benzene	78.00	5.607	5.602	(0.939)	974599	51.7	51.7
	24 1,2-Dichloroethane	62.00	5.632	5.626	(0.943)	414946	52.6	52.6
*	25 1,4-Difluorobenzene	114.00	5.974	5.962	(1.000)	755268	50.0	
	26 Trichloroethene	130.00	6.211	6.198	(1.040)	291948	47.5	47.5
	27 1,2-Dichloropropane	63.00	6.414	6.411	(1.074)	480779	58.4	58.4
	28 Bromodichloromethane	83.00	6.683	6.672	(1.119)	575235	55.5	55.5
	29 2-Chloroethylvinyl ether	63.00	6.952	6.942	(1.164)	282118	54.3	54.3
	30 cis-1,3-Dichloropropene	75.00	7.082	7.081	(1.186)	527775	56.1	56.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/kg)	CONCENTRATIONS FINAL (ug/L)
	31 4-Methyl-2-pentanone	43.00	7.221	7.220	(1.209)	396675	32.1	32.1(a)
$	32 Toluene-d8 (SS)	98.00	7.327	7.327	(0.843)	792320	49.7	49.7
	33 Toluene	92.00	7.393	7.384	(0.850)	541024	46.8	46.8
	34 trans-1,3-Dichloropropene	75.00	7.605	7.589	(0.874)	420317	52.1	52.1
	35 1,1,2-Trichloroethane	97.00	7.768	7.769	(0.893)	318964	48.5	48.5
	36 Tetrachloroethene	164.00	7.907	7.900	(0.909)	212906	45.0	45.0
	37 2-Hexanone	43.00	7.997	7.990	(0.919)	248541	25.0	25.0(a)
	38 Chlorodibromomethane	129.00	8.160	8.154	(0.938)	364637	50.1	50.1
*	39 Chlorobenzene-d5	117.00	8.697	8.692	(1.000)	602008	50.0	
	40 Chlorobenzene	112.00	8.730	8.717	(1.004)	574842	47.0	47.0
	41 Ethylbenzene	106.00	8.820	8.815	(1.014)	285580	47.4	47.4
	42 m,p-Xylene	106.00	8.934	8.930	(1.027)	688063	91.3	91.3
	43 o-Xylene	106.00	9.325	9.314	(1.072)	321778	46.0	46.0
	44 Styrene	104.00	9.333	9.339	(1.073)	536945	44.9	44.9
	45 Bromoform	173.00	9.545	9.535	(1.098)	231488	46.3	46.3
	46 1,4-Dichloro-2-butene	53.00	9.749	9.747	(1.121)	57373	43.8	43.8
$	47 Bromofluorobenzene (SS)	95.00	9.847	9.838	(1.132)	390647	51.8	51.8
	48 1,1,2,2-Tetrachloroethane	83.00	9.986	9.985	(1.148)	511353	43.0	43.0
	49 1,3-Dichlorobenzene	146.00	10.955	10.939	(1.260)	345044	45.2	45.2
	50 1,4-Dichlorobenzene	146.00	11.028	11.021	(1.268)	427708	44.5	44.5
	51 1,2-Dichlorobenzene	146.00	11.427	11.405	(1.314)	363630	47.4	47.4

QC Flag Legend

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

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem1/its1.i/09-04-96.b/EE1311201012.d
Lab Smp Id: D96-9654-5 Client Smp ID: ALS=8
Inj Date : 04-SEP-1996 12:04 Autotune Date: 07-Feb-96 17:31:1
Operator : SAP Inst ID: its1.i
Smp Info : 8240_BM_S;;ITS1-851;1
Misc Info : 8240_BM_S;;ITS1-851;1
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 12 QC Sample: MS
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 18 Bromochloromethane	5.028	1484001	50.000

	CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/kg)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Dichlorodifluoromethane				CAS #: 75-71-8			
1.354	796003	26.8	26.8	83	NBS75K.l	3658	18

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: its1.i
Lab File ID: EE1311201012.d
Lab Smp Id: D96-9654-5
Analysis Type: VOA
Quant Type: ISTD
Operator: SAP
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: 8240_BM_S;;ITS1-851;1

Calibration Date: 09/04/96
Calibration Time: 0918
Client Smp ID: ALS=8
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	204679	102340	409358	164705	-19.53
25 1,4-Difluorobenzene	914412	457206	1828824	755268	-17.40
39 Chlorobenzene-d5	749378	374689	1498756	602008	-19.67

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	5.03	4.53	5.53	5.03	-0.03
25 1,4-Difluorobenzene	5.98	5.48	6.48	5.97	-0.03
39 Chlorobenzene-d5	8.70	8.20	9.20	8.70	-0.03

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name: Client SDG: 09-04-96.b
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: D96-9654-5 Client Smp ID: ALS=8
Level: LOW Operator: SAP
Data Type: MS DATA SampleType: MS
SpikeList File: 8240.spk Quant Type: ISTD
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: 8240_BM_S;;ITS1-851;1

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 1,1-Dichloroethene	50.0	49.0	98.01	70-130
23 Benzene	50.0	51.7	103.47	70-130
26 Trichloroethene	50.0	47.5	95.08	70-130
33 Toluene	50.0	46.8	93.71	70-130
40 Chlorobenzene	50.0	47.0	93.96	70-130

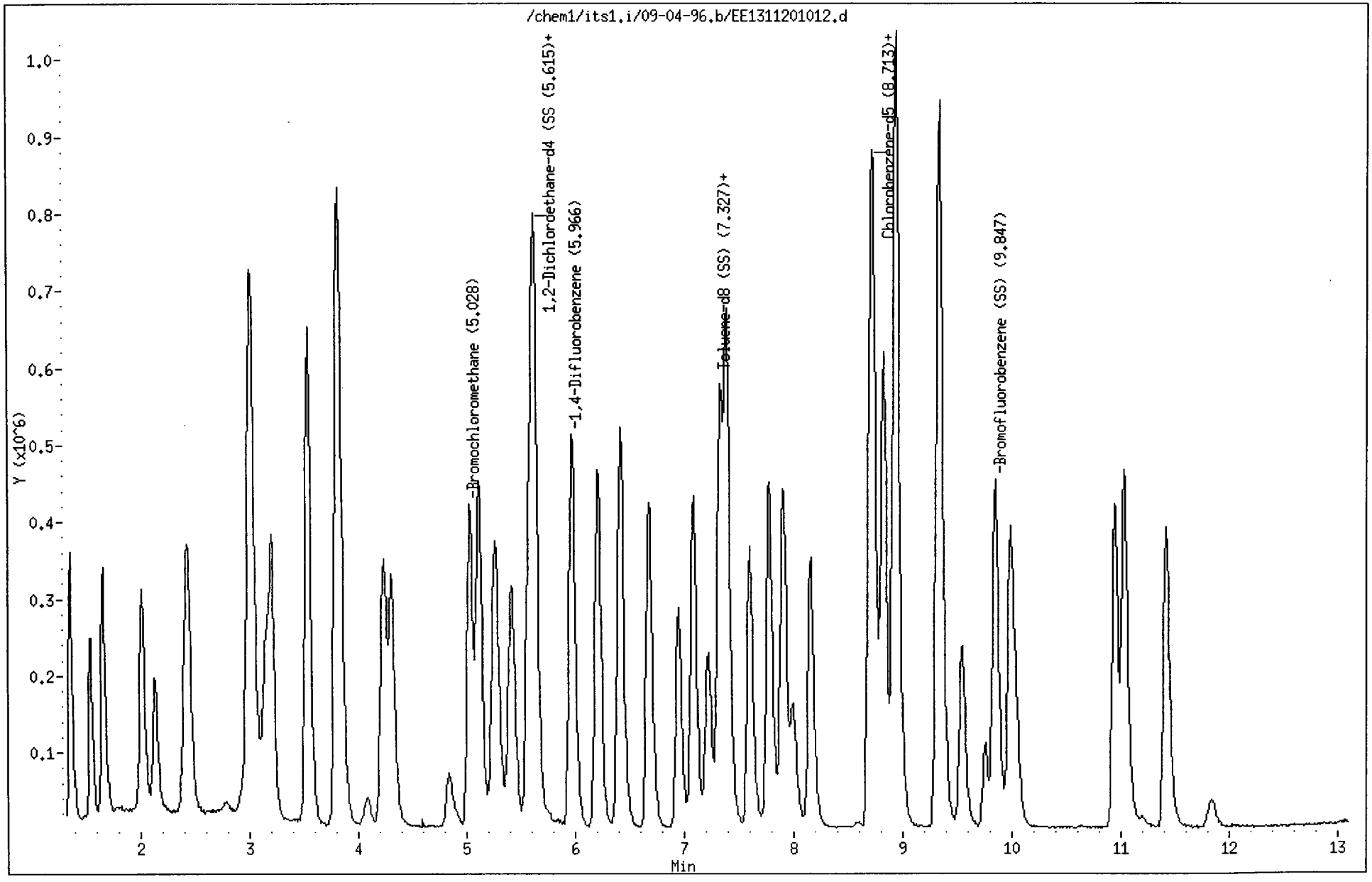
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 22 1,2-Dichloroethane	50.0	54.0	107.91	76-126
$ 32 Toluene-d8 (SS)	50.0	49.7	99.41	88-118
$ 47 Bromofluorobenzene	50.0	51.8	103.54	86-121

Data File: /chem1/its1.i/09-04-96.b/EE1311201012.d
Date : 04-SEP-1996 12:04
Client ID: ALS=8
Sample Info: 8240_BM_S;;ITS1-851;1

Instrument: its1.i

Operator: SAP
Column diameter: 0.53

Column phase: J&W DB-624



FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9654-4 MSD

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: 9654-6 MSD

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1311301013

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	68.3	
75-00-3	Chloroethane	52.9	
75-01-4	Vinyl chloride	53.8	
74-83-9	Bromomethane	51.9	
107-02-8	Acrolein	25.4	
75-69-4	Trichlorofluoromethane	59.8	
75-35-4	1,1-Dichloroethene	55.7	
67-64-1	Acetone	20.7	J
74-88-4	Iodomethane	52.5	
75-15-0	Carbon disulfide	40.7	
75-09-2	Methylene chloride	57.7	
156-60-5	trans-1,2-Dichloroethene	47.9	
75-05-8	Acrylonitrile	28.8	
75-34-3	1,1-Dichloroethane	57.3	
108-05-4	Vinyl acetate	48.2	
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	23.6	J
67-66-3	Chloroform	40.9	
71-55-6	1,1,1-Trichloroethane	50.2	
56-23-5	Carbon tetrachloride	52.6	
71-43-2	Benzene	53.3	
107-06-2	1,2-Dichloroethane	44.2	
79-01-6	Trichloroethene	49.9	
78-87-5	1,2-Dichloropropane	60.0	
75-27-4	Bromodichloromethane	53.2	
110-75-8	2-Chloroethylvinyl ether	50.4	
10061-01-5	cis-1,3-Dichloropropene	56.4	
108-10-1	4-Methyl-2-pentanone	30.6	J
108-88-3	Toluene	47.4	
10061-02-6	trans-1,3-Dichloropropene	53.3	
79-00-5	1,1,2-Trichloroethane	48.8	
127-18-4	Tetrachloroethene	44.1	
591-78-6	2-Hexanone	25.5	J

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9654-4 MSD

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: 9654-6 MSD

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1311301013

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
124-48-1	Chlorodibromomethane	50.9	
108-90-7	Chlorobenzene	47.2	
100-41-4	Ethylbenzene	47.6	
----------	m,p-Xylene	93.6	
95-47-6	o-Xylene	48.6	
100-42-5	Styrene	46.9	
75-25-2	Bromoform	46.0	
764-41-0	1,4-Dichloro-2-butene	19.7	
79-34-5	1,1,2,2-Tetrachloroethane	43.0	
541-73-1	1,3-Dichlorobenzene	50.1	
106-46-7	1,4-Dichlorobenzene	50.6	
95-50-1	1,2-Dichlorobenzene	50.0	

Inchcape Testing Services - Environmental Laboratories

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/09-04-96.b/EE1311301013.d
Lab Smp Id: D96-9654-6 Client Smp ID: ALS=9
Inj Date : 04-SEP-1996 12:23 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : 8240_BM_S;;ITS1-851;1
Misc Info : 8240_BM_S;;ITS1-851;1
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty Quant Type: ISTD
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 13 QC Sample: MSD
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/kg)	CONCENTRATIONS FINAL (ug/L)
1	Chloromethane	50.00	1.533	1.533	(0.305)	324994	68.3	68.3
2	Chloroethane	64.00	2.136	2.112	(0.425)	181159	52.9	52.9
3	Vinyl chloride	62.00	1.655	1.647	(0.329)	340510	53.8	53.8
4	Bromomethane	94.00	2.013	1.998	(0.400)	228139	51.9	51.9
5	Acrolein	55.00	2.918	2.929	(0.580)	17132	25.4	25.4
6	Trichlorofluoromethane	101.00	2.421	2.406	(0.482)	442524	59.8	59.8
7	1,1-Dichloroethene	96.00	3.000	2.995	(0.597)	214503	55.7	55.7
8	Acetone	43.00	3.106	3.126	(0.618)	58609	20.7	20.7(a)
9	Iodomethane	142.00	3.147	3.142	(0.626)	323879	52.5	52.5
10	Carbon disulfide	76.00	3.204	3.192	(0.637)	530278	40.7	40.7
11	Methylene chloride	84.00	3.529	3.527	(0.702)	283425	57.7	57.7
12	trans-1,2-Dichloroethene	96.00	3.798	3.805	(0.755)	202296	47.9	47.9
13	Acrylonitrile	53.00	3.806	3.813	(0.757)	64872	28.8	28.8
14	1,1-Dichloroethane	63.00	4.230	4.230	(0.841)	553372	57.3	57.3
15	Vinyl acetate	43.00	4.303	4.312	(0.856)	710233	48.2	48.2
17	2-Butanone	72.00	4.840	4.841	(0.963)	24243	23.6	23.6(a)
* 18	Bromochloromethane	128.00	5.027	5.021	(1.000)	102550	50.0	
19	Chloroform	83.00	5.109	5.111	(0.855)	446759	40.9	40.9
20	1,1,1-Trichloroethane	97.00	5.256	5.258	(0.880)	388030	50.2	50.2
21	Carbon tetrachloride	117.00	5.411	5.406	(0.906)	314552	52.6	52.6
$ 22	1,2-Dichloroethane-d4 (SS)	65.00	5.557	5.561	(0.930)	238113	43.4	43.4
23	Benzene	78.00	5.606	5.602	(0.939)	818161	53.3	53.3
24	1,2-Dichloroethane	62.00	5.631	5.626	(0.943)	283941	44.2	44.2
* 25	1,4-Difluorobenzene	114.00	5.973	5.962	(1.000)	615218	50.0	
26	Trichloroethene	130.00	6.201	6.198	(1.038)	249588	49.9	49.9
27	1,2-Dichloropropane	63.00	6.413	6.411	(1.074)	402758	60.0	60.0
28	Bromodichloromethane	83.00	6.674	6.672	(1.117)	449560	53.2	53.2
29	2-Chloroethylvinyl ether	63.00	6.951	6.942	(1.164)	213100	50.4	50.4
30	cis-1,3-Dichloropropene	75.00	7.081	7.081	(1.186)	432546	56.4	56.4

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/kg)	CONCENTRATIONS FINAL (ug/L)
31	4-Methyl-2-pentanone	43.00	7.220	7.220	(1.209)	306169	30.6	30.6(a)
$ 32	Toluene-d8 (SS)	98.00	7.326	7.327	(0.842)	609636	48.8	48.8
33	Toluene	92.00	7.383	7.384	(0.848)	428710	47.4	47.4
34	trans-1,3-Dichloropropene	75.00	7.595	7.589	(0.873)	336585	53.3	53.3
35	1,1,2-Trichloroethane	97.00	7.775	7.769	(0.893)	251730	48.8	48.8
36	Tetrachloroethene	164.00	7.913	7.900	(0.909)	163464	44.1	44.1
37	2-Hexanone	43.00	7.987	7.990	(0.918)	199784	25.5	25.5(a)
38	Chlorodibromomethane	129.00	8.158	8.154	(0.937)	290834	50.9	50.9
* 39	Chlorobenzene-d5	117.00	8.704	8.692	(1.000)	471876	50.0	
40	Chlorobenzene	112.00	8.728	8.717	(1.003)	452620	47.2	47.2
41	Ethylbenzene	106.00	8.826	8.815	(1.014)	224458	47.6	47.6
42	m,p-Xylene	106.00	8.933	8.930	(1.026)	552898	93.6	93.6
43	o-Xylene	106.00	9.324	9.314	(1.071)	266416	48.6	48.6
44	Styrene	104.00	9.340	9.339	(1.073)	440137	46.9	46.9
45	Bromoform	173.00	9.544	9.535	(1.097)	180134	46.0	46.0
46	1,4-Dichloro-2-butene	53.00	9.747	9.747	(1.120)	20258	19.7	19.7
$ 47	Bromofluorobenzene (SS)	95.00	9.845	9.838	(1.131)	321099	54.3	54.3
48	1,1,2,2-Tetrachloroethane	83.00	9.984	9.985	(1.147)	400786	43.0	43.0
49	1,3-Dichlorobenzene	146.00	10.944	10.939	(1.257)	300006	50.1	50.1
50	1,4-Dichlorobenzene	146.00	11.034	11.021	(1.268)	381530	50.6	50.6
51	1,2-Dichlorobenzene	146.00	11.417	11.405	(1.312)	301035	50.0	50.0

QC Flag Legend

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

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem1/its1.i/09-04-96.b/EE1311301013.d
Lab Smp Id: D96-9654-6 Client Smp ID: ALS=9
Inj Date : 04-SEP-1996 12:23 Autotune Date: 07-Feb-96 17:31:1
Operator : SAP Inst ID: its1.i
Smp Info : 8240_BM_S;;ITS1-851;1
Misc Info : 8240_BM_S;;ITS1-851;1
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 13 QC Sample: MSD
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 18 Bromochloromethane	5.027	904378	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/kg)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Dichlorodifluoromethane				CAS #: 75-71-8			
1.354	514441	28.4	28.4	78	NBS75K.l	64510	18

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: its1.i
Lab File ID: EE1311301013.d
Lab Smp Id: D96-9654-6
Analysis Type: VOA
Quant Type: ISTD
Operator: SAP
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: 8240_BM_S;;ITS1-851;1

Calibration Date: 09/04/96
Calibration Time: 0918
Client Smp ID: ALS=9
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	204679	102340	409358	102550	-49.90
25 1,4-Difluorobenzene	914412	457206	1828824	615218	-32.72
39 Chlorobenzene-d5	749378	374689	1498756	471876	-37.03

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	5.03	4.53	5.53	5.03	-0.04
25 1,4-Difluorobenzene	5.98	5.48	6.48	5.97	-0.04
39 Chlorobenzene-d5	8.70	8.20	9.20	8.70	0.05

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: D96-9654-6
Level: LOW
Data Type: MS DATA
SpikeList File: 8240.spk
Client SDG: 09-04-96.b
Fraction: VOA
Client Smp ID: ALS=9
Operator: SAP
SampleType: MSD
Quant Type: ISTD
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: 8240_BM_S;;ITS1-851;1

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 1,1-Dichloroethene	50.0	55.7	111.43	70-130
23 Benzene	50.0	53.3	106.63	70-130
26 Trichloroethene	50.0	49.9	99.79	70-130
33 Toluene	50.0	47.4	94.73	70-130
40 Chlorobenzene	50.0	47.2	94.38	70-130

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 22 1,2-Dichloroethane	50.0	43.4	86.72	76-126
$ 32 Toluene-d8 (SS)	50.0	48.8	97.58	88-118
$ 47 Bromofluorobenzene	50.0	54.3	108.58	86-121

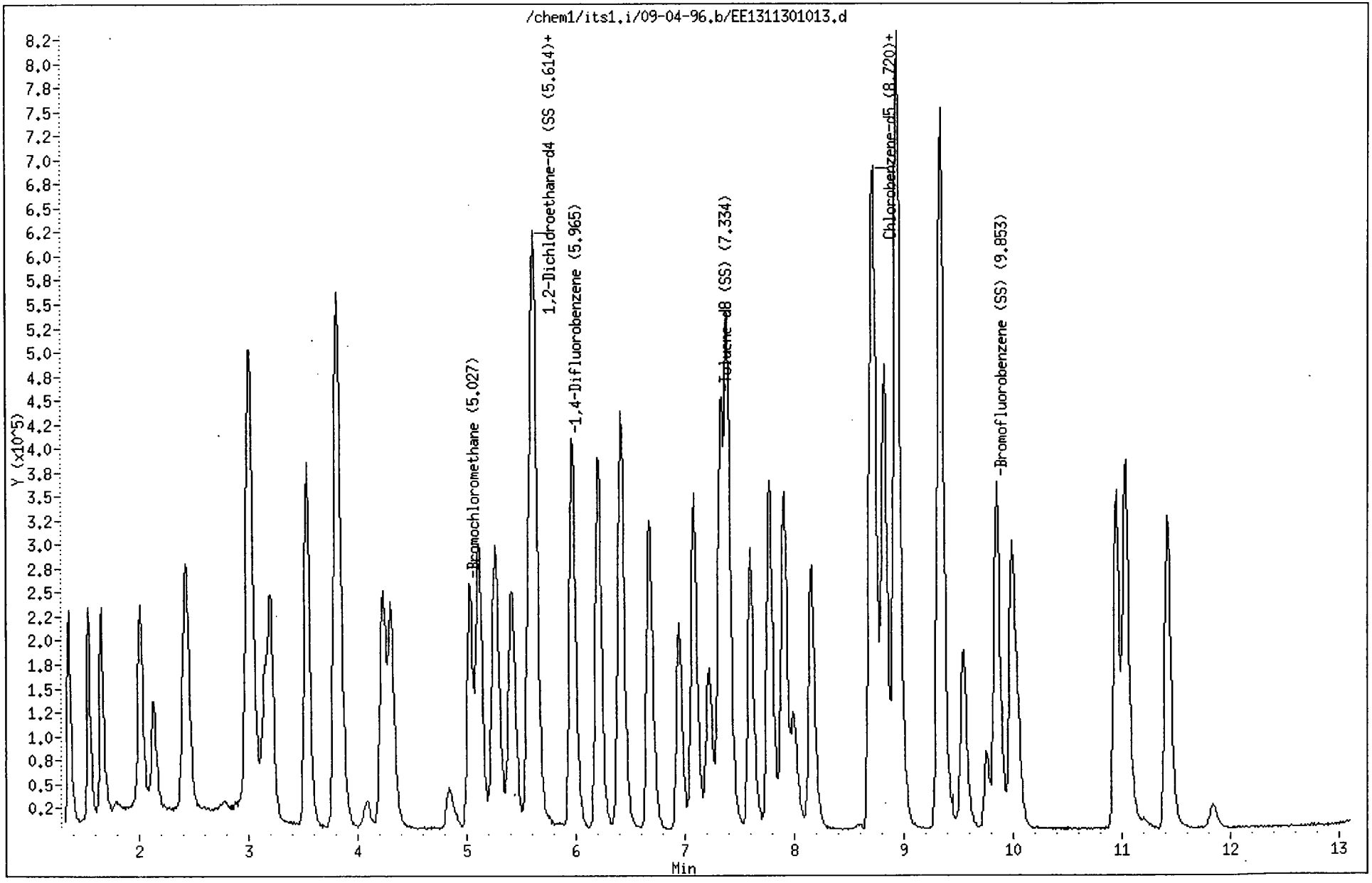
110

Data File: /chem1/its1.i/09-04-96.b/EE1311301013.d
Date : 04-SEP-1996 12:23
Client ID: ALS=9
Sample Info: 8240_BM_S;;ITS1-851;1

Instrument: its1.i

Operator: SAP
Column diameter: 0.53

Column phase: J&W DB-624



FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9654-4

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: 9654-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1312001020

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5.0	U
75-00-3	Chloroethane	5.0	U
75-01-4	Vinyl chloride	5.0	U
74-83-9	Bromomethane	5.0	U
107-02-8	Acrolein	5.0	U
75-69-4	Trichlorofluoromethane	5.0	U
75-35-4	1,1-Dichloroethene	5.0	U
67-64-1	Acetone	100	U
74-88-4	Iodomethane	5.0	U
75-15-0	Carbon disulfide	5.0	U
75-09-2	Methylene chloride	12.2	
156-60-5	trans-1,2-Dichloroethene	5.0	U
75-05-8	Acrylonitrile	5.0	U
75-34-3	1,1-Dichloroethane	5.0	U
108-05-4	Vinyl acetate	5.0	U
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	50.0	U
67-66-3	Chloroform	5.0	U
71-55-6	1,1,1-Trichloroethane	5.0	U
56-23-5	Carbon tetrachloride	5.0	U
71-43-2	Benzene	5.0	U
107-06-2	1,2-Dichloroethane	5.0	U
79-01-6	Trichloroethene	5.0	U
78-87-5	1,2-Dichloropropane	5.0	U
75-27-4	Bromodichloromethane	5.0	U
110-75-8	2-Chloroethylvinyl ether	5.0	U
10061-01-5	cis-1,3-Dichloropropene	5.0	U
108-10-1	4-Methyl-2-pentanone	50.0	U
108-88-3	Toluene	5.0	U
10061-02-6	trans-1,3-Dichloropropene	5.0	U
79-00-5	1,1,2-Trichloroethane	5.0	U
127-18-4	Tetrachloroethene	5.0	U
591-78-6	2-Hexanone	50.0	U

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9654-4

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: 9654-4

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1312001020

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
124-48-1	Chlorodibromomethane	5.0	U
108-90-7	Chlorobenzene	5.0	U
100-41-4	Ethylbenzene	5.0	U
----------	m,p-Xylene	5.0	U
95-47-6	o-Xylene	5.0	U
100-42-5	Styrene	5.0	U
75-25-2	Bromoform	5.0	U
764-41-0	1,4-Dichloro-2-butene	5.0	U
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U
541-73-1	1,3-Dichlorobenzene	5.0	U
106-46-7	1,4-Dichlorobenzene	5.0	U
95-50-1	1,2-Dichlorobenzene	5.0	U

Inchcape Testing Services - Environmental Laboratories

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/09-04-96.b/EE1312001020.d
Lab Smp Id: D96-9654-4 Client Smp ID: ALS=15
Inj Date : 04-SEP-1996 14:43 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : 8240_BM_S;;ITS1-851;1
Misc Info : 8240_BM_S;;ITS1-851;1
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty Quant Type: ISTD
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 20
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/kg)	FINAL (ug/L)
	11 Methylene chloride	84.00	3.526	3.527	(0.702)	38851	12.2	12.2
*	18 Bromochloromethane	128.00	5.023	5.021	(1.000)	66421	50.0	
$	22 1,2-Dichloroethane-d4 (SS)	65.00	5.551	5.561	(0.932)	175735	41.8	41.8(M)
*	25 1,4-Difluorobenzene	114.00	5.958	5.962	(1.000)	470805	50.0	
$	32 Toluene-d8 (SS)	98.00	7.325	7.327	(0.842)	482700	47.2	47.2
*	39 Chlorobenzene-d5	117.00	8.699	8.692	(1.000)	386465	50.0	
$	47 Bromofluorobenzene (SS)	95.00	9.846	9.838	(1.132)	251021	51.8	51.8

QC Flag Legend

M - Compound response manually integrated.

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem1/its1.i/09-04-96.b/EE1312001020.d
Lab Smp Id: D96-9654-4 Client Smp ID: ALS=15
Inj Date : 04-SEP-1996 14:43 Autotune Date: 07-Feb-96 17:31:1
Operator : SAP Inst ID: its1.i
Smp Info : 8240_BM_S;;ITS1-851;1
Misc Info : 8240_BM_S;;ITS1-851;1
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 20
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: its1.i
Lab File ID: EE1312001020.d
Lab Smp Id: D96-9654-4
Analysis Type: VOA
Quant Type: ISTD
Operator: SAP
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: 8240_BM_S;;ITS1-851;1

Calibration Date: 09/04/96
Calibration Time: 0918
Client Smp ID: ALS=15
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF	
18 Bromochloromethane	204679	102340	409358	66421	-67.55	<-
25 1,4-Difluorobenzene	914412	457206	1828824	470805	-48.51	
39 Chlorobenzene-d5	749378	374689	1498756	386465	-48.43	

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	5.03	4.53	5.53	5.02	-0.14
25 1,4-Difluorobenzene	5.98	5.48	6.48	5.96	-0.29
39 Chlorobenzene-d5	8.70	8.20	9.20	8.70	0.00

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name: Client SDG: 09-04-96.b
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: D96-9654-4 Client Smp ID: ALS=15
Level: LOW Operator: SAP
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: spike.spk Quant Type: ISTD
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: 8240_BM_S;;ITS1-851;1

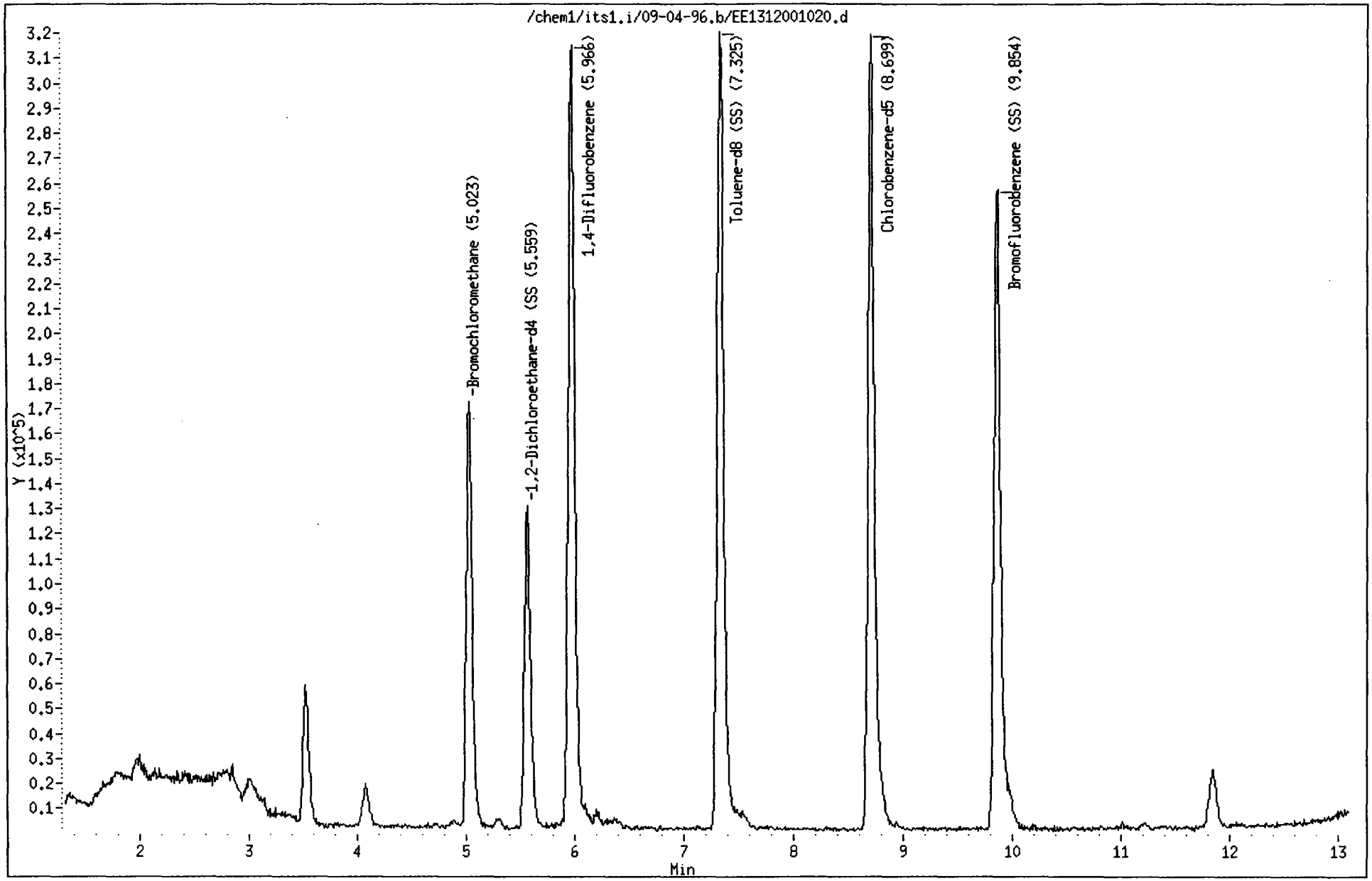
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 22 1,2-Dichloroethane	50.0	41.8	83.64	76-126
$ 32 Toluene-d8 (SS)	50.0	47.2	94.34	88-118
$ 47 Bromofluorobenzene	50.0	51.8	103.64	86-121

Data File: /chem1/its1.i/09-04-96.b/EE1312001020.d
Date : 04-SEP-1996 14:43
Client ID: ALS=15
Sample Info: 8240_BM_S;;ITS1-851;1

Instrument: its1.i

Operator: SAP
Column diameter: 0.53

Column phase: J&W DB-624



FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK LCS

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: BLK LCS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1310701007

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	45.7	
75-00-3	Chloroethane	44.8	
75-01-4	Vinyl chloride	44.8	
74-83-9	Bromomethane	39.5	
107-02-8	Acrolein	25.1	
75-69-4	Trichlorofluoromethane	44.2	
75-35-4	1,1-Dichloroethene	42.3	
67-64-1	Acetone	22.2	J
74-88-4	Iodomethane	42.2	
75-15-0	Carbon disulfide	34.0	
75-09-2	Methylene chloride	59.6	
156-60-5	trans-1,2-Dichloroethene	41.0	
75-05-8	Acrylonitrile	25.1	
75-34-3	1,1-Dichloroethane	44.0	
108-05-4	Vinyl acetate	32.6	
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	18.8	J
67-66-3	Chloroform	41.9	
71-55-6	1,1,1-Trichloroethane	43.4	
56-23-5	Carbon tetrachloride	43.4	
71-43-2	Benzene	44.2	
107-06-2	1,2-Dichloroethane	43.8	
79-01-6	Trichloroethene	41.7	
78-87-5	1,2-Dichloropropane	49.2	
75-27-4	Bromodichloromethane	47.4	
110-75-8	2-Chloroethylvinyl ether	36.7	
10061-01-5	cis-1,3-Dichloropropene	48.7	
108-10-1	4-Methyl-2-pentanone	23.9	J
108-88-3	Toluene	38.4	
10061-02-6	trans-1,3-Dichloropropene	41.4	
79-00-5	1,1,2-Trichloroethane	36.5	
127-18-4	Tetrachloroethene	36.4	
591-78-6	2-Hexanone	19.0	J

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK LCS

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: BLK LCS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1310701OC7

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
124-48-1	Chlorodibromomethane	39.0	
108-90-7	Chlorobenzene	39.3	
100-41-4	Ethylbenzene	46.9	
----------	m,p-Xylene	95.9	
95-47-6	o-Xylene	41.6	
100-42-5	Styrene	37.0	
75-25-2	Bromoform	34.1	
764-41-0	1,4-Dichloro-2-butene	33.0	
79-34-5	1,1,2,2-Tetrachloroethane	30.6	
541-73-1	1,3-Dichlorobenzene	39.7	
106-46-7	1,4-Dichlorobenzene	38.7	
95-50-1	1,2-Dichlorobenzene	40.3	

Inchcape Testing Services - Environmental Laboratories

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/09-04-96.b/EE1310701007.d
Lab Smp Id: 8240 LCS;ITS1-850 Client Smp ID: ALS=3
Inj Date : 04-SEP-1996 10:26 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : 8240 LCS;ITS1-850
Misc Info : 8240 LCS;ITS1-850
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty Quant Type: ISTD
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 7 QC Sample: BS
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/kg)	CONCENTRATIONS FINAL (ug/L)
	1 Chloromethane	50.00	1.541	1.533	(0.306)	534304	45.7	45.7
	2 Chloroethane	64.00	2.127	2.112	(0.423)	376718	44.8	44.8
	3 Vinyl chloride	62.00	1.655	1.647	(0.329)	696975	44.8	44.8
	4 Bromomethane	94.00	2.006	1.998	(0.399)	426758	39.5	39.5
	5 Acrolein	55.00	2.926	2.929	(0.582)	41413	25.1	25.1
	6 Trichlorofluoromethane	101.00	2.429	2.406	(0.483)	804227	44.2	44.2
	7 1,1-Dichloroethene	96.00	3.008	2.995	(0.598)	400417	42.3	42.3
	8 Acetone	43.00	3.106	3.126	(0.618)	152013	22.2	22.2(a)
	9 Iodomethane	142.00	3.155	3.142	(0.627)	639448	42.2	42.2
	10 Carbon disulfide	76.00	3.204	3.192	(0.637)	1090029	34.0	34.0
	11 Methylene chloride	84.00	3.539	3.527	(0.704)	720251	59.6	59.6
	12 trans-1,2-Dichloroethene	96.00	3.807	3.805	(0.757)	425889	41.0	41.0
	13 Acrylonitrile	53.00	3.807	3.813	(0.757)	138827	25.1	25.1
	14 1,1-Dichloroethane	63.00	4.231	4.230	(0.841)	1044993	44.0	44.0
	15 Vinyl acetate	43.00	4.313	4.312	(0.858)	1180745	32.6	32.6
	17 2-Butanone	72.00	4.834	4.841	(0.961)	43168	18.8	18.8(a)
*	18 Bromochloromethane	128.00	5.030	5.021	(1.000)	252151	50.0	
	19 Chloroform	83.00	5.111	5.111	(0.856)	875621	41.9	41.9
	20 1,1,1-Trichloroethane	97.00	5.258	5.258	(0.881)	642335	43.4	43.4
	21 Carbon tetrachloride	117.00	5.413	5.406	(0.907)	496625	43.4	43.4
$	22 1,2-Dichloroethane-d4 (SS)	65.00	5.560	5.561	(0.932)	545333	51.9	51.9
	23 Benzene	78.00	5.609	5.602	(0.940)	1298159	44.2	44.2
	24 1,2-Dichloroethane	62.00	5.634	5.626	(0.944)	539021	43.8	43.8
*	25 1,4-Difluorobenzene	114.00	5.968	5.962	(1.000)	1177657	50.0	
	26 Trichloroethene	130.00	6.205	6.198	(1.040)	399468	41.7	41.7
	27 1,2-Dichloropropane	63.00	6.408	6.411	(1.074)	632300	49.2	49.2
	28 Bromodichloromethane	83.00	6.678	6.672	(1.119)	767092	47.4	47.4
	29 2-Chloroethylvinyl ether	63.00	6.947	6.942	(1.164)	297308	36.7	36.7
	30 cis-1,3-Dichloropropene	75.00	7.085	7.081	(1.187)	714220	48.7	48.7

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/kg)	FINAL (ug/L)
	31 4-Methyl-2-pentanone	43.00	7.224	7.220	(1.210)	445504	23.9	23.9(a)
$	32 Toluene-d8 (SS)	98.00	7.330	7.327	(0.842)	1257995	47.9	47.9
	33 Toluene	92.00	7.388	7.384	(0.849)	731756	38.4	38.4
	34 trans-1,3-Dichloropropene	75.00	7.600	7.589	(0.873)	550861	41.4	41.4
	35 1,1,2-Trichloroethane	97.00	7.779	7.769	(0.894)	395670	36.5	36.5
	36 Tetrachloroethene	164.00	7.902	7.900	(0.908)	283529	36.4	36.4
	37 2-Hexanone	43.00	8.000	7.990	(0.919)	280069	19.0	19.0(a)
	38 Chlorodibromomethane	129.00	8.147	8.154	(0.936)	468455	39.0	39.0
*	39 Chlorobenzene-d5	117.00	8.701	8.692	(1.000)	992479	50.0	
	40 Chlorobenzene	112.00	8.725	8.717	(1.003)	793561	39.3	39.3
	41 Ethylbenzene	106.00	8.824	8.815	(1.014)	465423	46.9	46.9
	42 m,p-Xylene	106.00	8.930	8.930	(1.026)	1191636	95.9	95.9
	43 o-Xylene	106.00	9.330	9.314	(1.072)	478966	41.6	41.6
	44 Styrene	104.00	9.338	9.339	(1.073)	731113	37.0	37.0
	45 Bromoform	173.00	9.542	9.535	(1.097)	281445	34.1	34.1
	46 1,4-Dichloro-2-butene	53.00	9.762	9.747	(1.122)	71185	33.0	33.0
$	47 Bromofluorobenzene (SS)	95.00	9.843	9.838	(1.131)	635983	51.1	51.1
	48 1,1,2,2-Tetrachloroethane	83.00	9.991	9.985	(1.148)	598948	30.6	30.6
	49 1,3-Dichlorobenzene	146.00	10.951	10.939	(1.259)	499600	39.7	39.7
	50 1,4-Dichlorobenzene	146.00	11.033	11.021	(1.268)	614285	38.7	38.7
	51 1,2-Dichlorobenzene	146.00	11.424	11.405	(1.313)	509953	40.3	40.3

QC Flag Legend

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

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem1/its1.i/09-04-96.b/EE1310701007.d
Lab Smp Id: 8240 LCS;ITS1-850 Client Smp ID: ALS=3
Inj Date : 04-SEP-1996 10:26 Autotune Date: 07-Feb-96 17:31:1
Operator : SAP Inst ID: its1.i
Smp Info : 8240 LCS;ITS1-850
Misc Info : 8240 LCS;ITS1-850
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 7 QC Sample: BS
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 18 Bromochloromethane	5.030	2408726	50.000
* 25 1,4-Difluorobenzene	5.968	3290472	50.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ug/kg)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Dichlorodifluoromethane				CAS #: 75-71-8			
1.354	1160290	24.1	24.1	91	NBS75K.l	64510	18
Methane, dibromo-				CAS #: 74-95-3			
6.523	465035	7.1	7.1	94	NBS75K.l	68297	25

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: its1.i
Lab File ID: EE1310701007.d
Lab Smp Id: 8240 LCS;ITS1-850
Analysis Type: VOA
Quant Type: ISTD
Operator: SAP
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: 8240 LCS;ITS1-850

Calibration Date: 09/04/96
Calibration Time: 0918
Client Smp ID: ALS=3
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	204679	102340	409358	252151	23.19
25 1,4-Difluorobenzene	914412	457206	1828824	1177657	28.79
39 Chlorobenzene-d5	749378	374689	1498756	992479	32.44

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	5.03	4.53	5.53	5.03	0.00
25 1,4-Difluorobenzene	5.98	5.48	6.48	5.97	-0.13
39 Chlorobenzene-d5	8.70	8.20	9.20	8.70	0.02

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name:
Client SDG: 09-04-96.b
Sample Matrix: SOLID
Fraction: VOA
Lab Smp Id: 8240 LCS;ITS1-850
Client Smp ID: ALS=3
Level: LOW
Operator: SAP
Data Type: MS DATA
SampleType: BS
SpikeList File: 8240.spk
Quant Type: ISTD
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: 8240 LCS;ITS1-850

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 1,1-Dichloroethene	50.0	42.3	84.60	70-130
23 Benzene	50.0	44.2	88.39	70-130
26 Trichloroethene	50.0	41.7	83.44	70-130
33 Toluene	50.0	38.4	76.88	70-130
40 Chlorobenzene	50.0	39.3	78.68	70-130

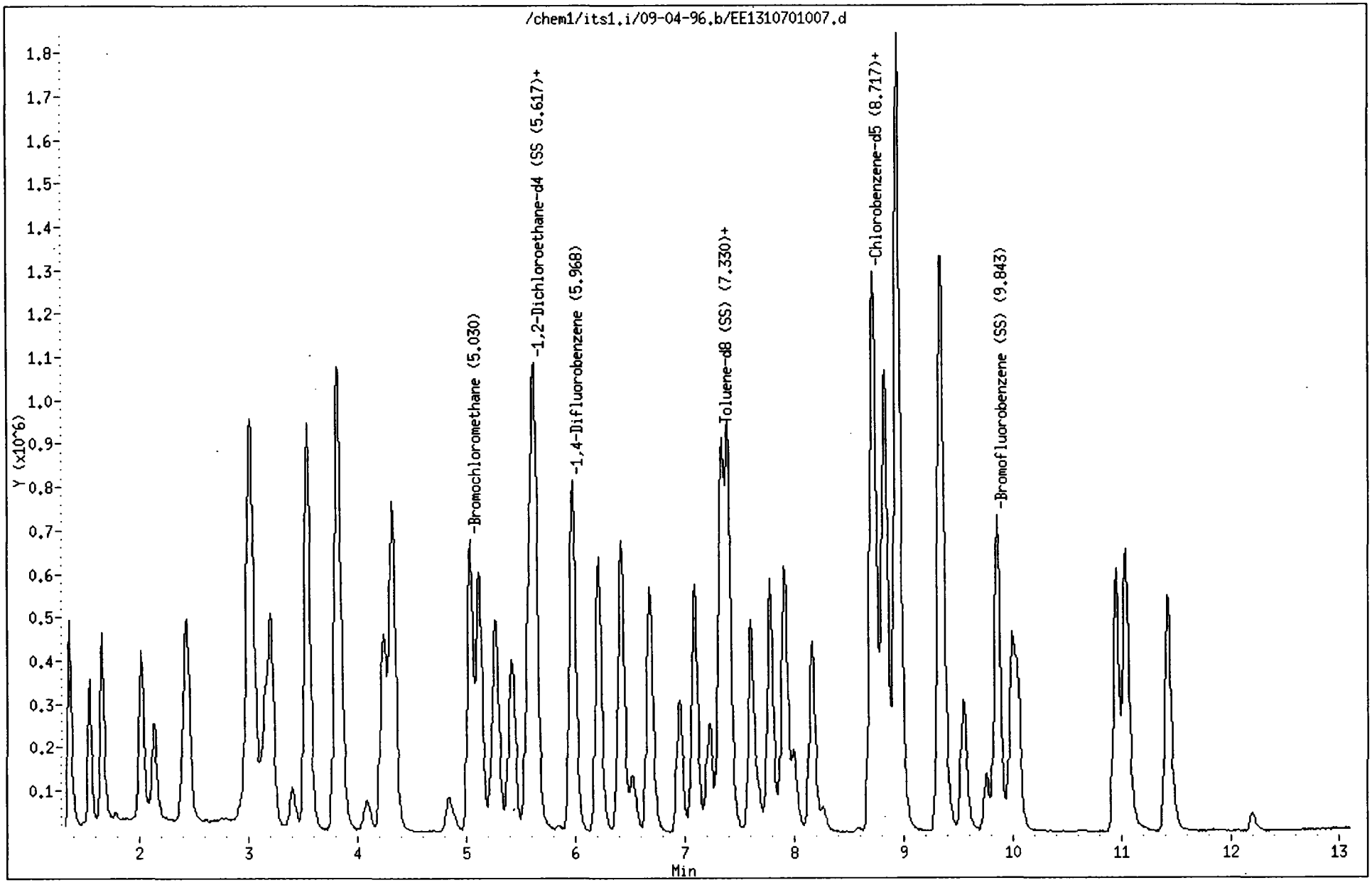
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 22 1,2-Dichloroethane	50.0	51.9	103.76	76-126
$ 32 Toluene-d8 (SS)	50.0	47.9	95.73	88-118
$ 47 Bromofluorobenzene	50.0	51.1	102.25	86-121

Data Fi /chem1/its1.i/09-04-96.b/EE1310701007.d
Date : 04-SEP-1996 10:26
Client ID: ALS=3
Sample Info: 8240 LCS;ITS1-850

Column phase: J&W DB-624

Instrument: its1.i

Operator: SAP
Column diameter: 0.53



FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK LCSD

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: BLK LCSD

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1310801008

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	54.8	
75-00-3	Chloroethane	52.4	
75-01-4	Vinyl chloride	52.6	
74-83-9	Bromomethane	46.1	
107-02-8	Acrolein	26.7	
75-69-4	Trichlorofluoromethane	50.3	
75-35-4	1,1-Dichloroethene	50.3	
67-64-1	Acetone	24.0	J
74-88-4	Iodomethane	44.1	
75-15-0	Carbon disulfide	41.4	
75-09-2	Methylene chloride	51.1	
156-60-5	trans-1,2-Dichloroethene	48.0	
75-05-8	Acrylonitrile	29.4	
75-34-3	1,1-Dichloroethane	50.9	
108-05-4	Vinyl acetate	33.6	
156-59-2	cis-1,2-Dichloroethene	5.0	U
78-93-3	2-Butanone	20.6	J
67-66-3	Chloroform	48.1	
71-55-6	1,1,1-Trichloroethane	49.5	
56-23-5	Carbon tetrachloride	48.3	
71-43-2	Benzene	50.6	
107-06-2	1,2-Dichloroethane	50.5	
79-01-6	Trichloroethene	47.4	
78-87-5	1,2-Dichloropropane	56.2	
75-27-4	Bromodichloromethane	53.0	
110-75-8	2-Chloroethylvinyl ether	47.0	
10061-01-5	cis-1,3-Dichloropropene	52.9	
108-10-1	4-Methyl-2-pentanone	28.0	J
108-88-3	Toluene	45.2	
10061-02-6	trans-1,3-Dichloropropene	47.0	
79-00-5	1,1,2-Trichloroethane	43.3	
127-18-4	Tetrachloroethene	41.4	
591-78-6	2-Hexanone	21.5	J

FORM 1
VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK LCSD

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: V9653

Matrix: (soil/water) SOIL Lab Sample ID: BLK LCSD

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EE1310801008

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

% Moisture: not dec. _____ Date Analyzed: 09/04/96

GC Column: J&W DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:_____(mL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
124-48-1	Chlorodibromomethane	46.2	
108-90-7	Chlorobenzene	45.6	
100-41-4	Ethylbenzene	48.5	
----------	m,p-Xylene	96.8	
95-47-6	o-Xylene	48.9	
100-42-5	Styrene	46.0	
75-25-2	Bromoform	41.5	
764-41-0	1,4-Dichloro-2-butene	35.5	
79-34-5	1,1,2,2-Tetrachloroethane	35.9	
541-73-1	1,3-Dichlorobenzene	48.4	
106-46-7	1,4-Dichlorobenzene	47.8	
95-50-1	1,2-Dichlorobenzene	49.2	

Inchcape Testing Services - Environmental Laboratories

VOLATILE REPORT SW-846 Method 8240

Data file : /chem1/its1.i/09-04-96.b/EE1310801008.d
Lab Smp Id: 8240 LCSD;ITS1-850 Client Smp ID: ALS=4
Inj Date : 04-SEP-1996 10:46 Autotune Date: 07-Feb-96 17:31
Operator : SAP Inst ID: its1.i
Smp Info : 8240 LCSD;ITS1-850
Misc Info : 8240 LCSD;ITS1-850
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty Quant Type: ISTD
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 8 QC Sample: BSD
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/kg)	CONCENTRATIONS FINAL (ug/L)
	1 Chloromethane	50.00	1.541	1.533	(0.306)	556534	54.8	54.8
	2 Chloroethane	64.00	2.136	2.112	(0.424)	382484	52.4	52.4
	3 Vinyl chloride	62.00	1.655	1.647	(0.328)	709803	52.6	52.6
	4 Bromomethane	94.00	2.014	1.998	(0.400)	433065	46.1	46.1
	5 Acrolein	55.00	2.935	2.929	(0.583)	39125	26.7	26.7
	6 Trichlorofluoromethane	101.00	2.438	2.406	(0.484)	794567	50.3	50.3
	7 1,1-Dichloroethene	96.00	3.009	2.995	(0.597)	413602	50.3	50.3
	8 Acetone	43.00	3.107	3.126	(0.617)	139589	24.0	24.0(a)
	9 Iodomethane	142.00	3.156	3.142	(0.626)	580281	44.1	44.1
	10 Carbon disulfide	76.00	3.205	3.192	(0.636)	1151936	41.4	41.4
	11 Methylene chloride	84.00	3.539	3.527	(0.702)	536460	51.1	51.1
	12 trans-1,2-Dichloroethene	96.00	3.808	3.805	(0.756)	433217	48.0	48.0
	13 Acrylonitrile	53.00	3.817	3.813	(0.757)	141436	29.4	29.4
	14 1,1-Dichloroethane	63.00	4.232	4.230	(0.840)	1049871	50.9	50.9
	15 Vinyl acetate	43.00	4.314	4.312	(0.856)	1056553	33.6	33.6
	17 2-Butanone	72.00	4.843	4.841	(0.961)	43184	20.6	20.6(a)
*	18 Bromochloromethane	128.00	5.039	5.021	(1.000)	218923	50.0	
	19 Chloroform	83.00	5.120	5.111	(0.857)	870820	48.1	48.1
	20 1,1,1-Trichloroethane	97.00	5.267	5.258	(0.881)	635379	49.5	49.5
	21 Carbon tetrachloride	117.00	5.414	5.406	(0.906)	478528	48.3	48.3
$	22 1,2-Dichloroethane-d4 (SS)	65.00	5.569	5.561	(0.932)	477080	52.4	52.4
	23 Benzene	78.00	5.618	5.602	(0.940)	1288042	50.6	50.6
	24 1,2-Dichloroethane	62.00	5.634	5.626	(0.943)	538308	50.5	50.5
*	25 1,4-Difluorobenzene	114.00	5.977	5.962	(1.000)	1020684	50.0	
	26 Trichloroethene	130.00	6.213	6.198	(1.040)	393636	47.4	47.4
	27 1,2-Dichloropropane	63.00	6.417	6.411	(1.074)	625202	56.2	56.2
	28 Bromodichloromethane	83.00	6.678	6.672	(1.117)	743422	53.0	53.0
	29 2-Chloroethylvinyl ether	63.00	6.955	6.942	(1.164)	329643	47.0	47.0
	30 cis-1,3-Dichloropropene	75.00	7.086	7.081	(1.186)	672956	52.9	52.9

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/kg)	CONCENTRATIONS FINAL (ug/L)
	31 4-Methyl-2-pentanone	43.00	7.225	7.220	(1.209)	461185	28.0	28.0(a)
$	32 Toluene-d8 (SS)	98.00	7.331	7.327	(0.842)	1073202	48.8	48.8
	33 Toluene	92.00	7.396	7.384	(0.850)	719768	45.2	45.2
	34 trans-1,3-Dichloropropene	75.00	7.600	7.589	(0.873)	522467	47.0	47.0
	35 1,1,2-Trichloroethane	97.00	7.772	7.769	(0.893)	392382	43.3	43.3
	36 Tetrachloroethene	164.00	7.902	7.900	(0.908)	269710	41.4	41.4
	37 2-Hexanone	43.00	8.001	7.990	(0.919)	280785	21.5	21.5(a)
	38 Chlorodibromomethane	129.00	8.156	8.154	(0.937)	464330	46.2	46.2
*	39 Chlorobenzene-d5	117.00	8.701	8.692	(1.000)	829736	50.0	
	40 Chlorobenzene	112.00	8.734	8.717	(1.004)	770025	45.6	45.6
	41 Ethylbenzene	106.00	8.824	8.815	(1.014)	402792	48.5	48.5
	42 m,p-Xylene	106.00	8.939	8.930	(1.027)	1005884	96.8	96.8
	43 o-Xylene	106.00	9.330	9.314	(1.072)	471078	48.9	48.9
	44 Styrene	104.00	9.346	9.339	(1.074)	758468	46.0	46.0
	45 Bromoform	173.00	9.550	9.535	(1.098)	286131	41.5	41.5
	46 1,4-Dichloro-2-butene	53.00	9.754	9.747	(1.121)	63980	35.5	35.5
$	47 Bromofluorobenzene (SS)	95.00	9.852	9.838	(1.132)	544817	52.4	52.4
	48 1,1,2,2-Tetrachloroethane	83.00	9.991	9.985	(1.148)	587766	35.9	35.9
	49 1,3-Dichlorobenzene	146.00	10.951	10.939	(1.259)	509406	48.4	48.4
	50 1,4-Dichlorobenzene	146.00	11.033	11.021	(1.268)	633624	47.8	47.8
	51 1,2-Dichlorobenzene	146.00	11.425	11.405	(1.313)	520106	49.2	49.2

QC Flag Legend

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

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem1/its1.i/09-04-96.b/EE1310801008.d
Lab Smp Id: 8240 LCSD;ITS1-850 Client Smp ID: ALS=4
Inj Date : 04-SEP-1996 10:46 Autotune Date: 07-Feb-96 17:31:1
Operator : SAP Inst ID: its1.i
Smp Info : 8240 LCSD;ITS1-850
Misc Info : 8240 LCSD;ITS1-850
Comment :
Method : /chem1/its1.i/09-04-96.b/8240_voa1.m
Meth Date : 04-Sep-1996 18:26 sapetty
Cal Date : 11-JUL-1996 18:04 Cal File: EE0891201012.d
Als bottle: 8 QC Sample: BSD
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 18 Bromochloromethane	5.039	1983305	50.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ug/kg)	FINAL(ug/L)	QUAL	LIBRARY	LIB ENTRY	CPND #
Dichlorodifluoromethane				CAS #: 75-71-8			
1.362	938346	23.6	23.6	91	NBS75K.l	64510	18

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: its1.i
Lab File ID: EE1310801008.d
Lab Smp Id: 8240 LCSD;ITS1-850
Analysis Type: VOA
Quant Type: ISTD
Operator: SAP
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: 8240 LCSD;ITS1-850

Calibration Date: 09/04/96
Calibration Time: 0918
Client Smp ID: ALS=4
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	204679	102340	409358	218923	6.96
25 1,4-Difluorobenzene	914412	457206	1828824	1020684	11.62
39 Chlorobenzene-d5	749378	374689	1498756	829736	10.72

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
18 Bromochloromethane	5.03	4.53	5.53	5.04	0.18
25 1,4-Difluorobenzene	5.98	5.48	6.48	5.98	0.02
39 Chlorobenzene-d5	8.70	8.20	9.20	8.70	0.02

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name: Client SDG: 09-04-96.b
Sample Matrix: SOLID Fraction: VOA
Lab Smp Id: 8240 LCSD;ITS1-850 Client Smp ID: ALS=4
Level: LOW Operator: SAP
Data Type: MS DATA SampleType: BSD
SpikeList File: 8240.spk Quant Type: ISTD
Method File: /chem1/its1.i/09-04-96.b/8240_voa1.m
Misc Info: 8240 LCSD;ITS1-850

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 1,1-Dichloroethene	50.0	50.3	100.65	70-130
23 Benzene	50.0	50.6	101.19	70-130
26 Trichloroethene	50.0	47.4	94.86	70-130
33 Toluene	50.0	45.2	90.45	70-130
40 Chlorobenzene	50.0	45.6	91.32	70-130

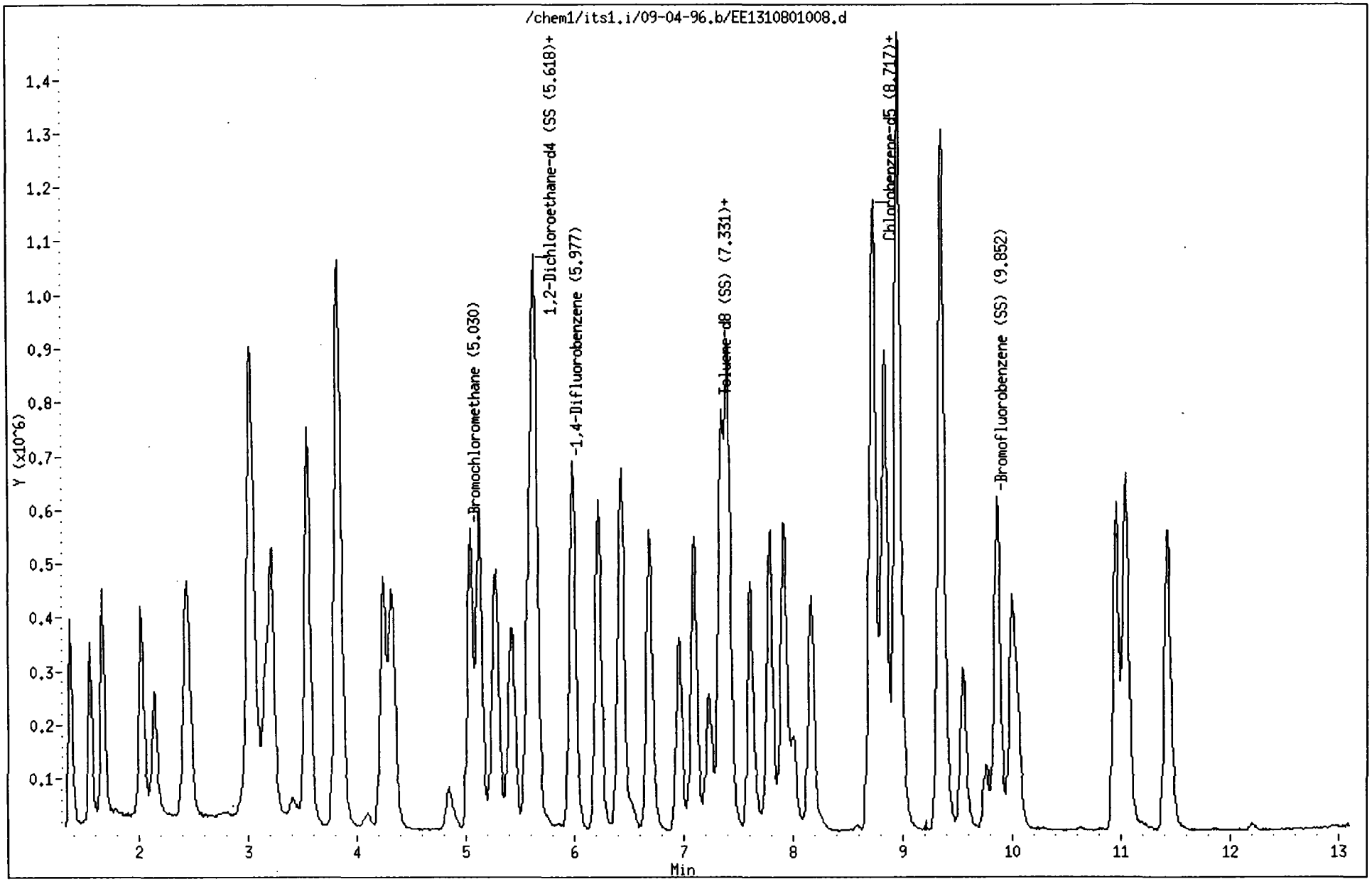
SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
$ 22 1,2-Dichloroethane	50.0	52.4	104.73	76-126
$ 32 Toluene-d8 (SS)	50.0	48.8	97.69	88-118
$ 47 Bromofluorobenzene	50.0	52.4	104.77	86-121

Data Fi /chem1/its1.i/09-04-96.b/EE1310801008.d
Date : 04-SEP-1996 10:46
Client ID: ALS=4
Sample Info: 8240 LCSD;ITS1-850

Column phase: J&W DB-624

Instrument: its1.i

Operator: SAP
Column diameter: 0.53



ANALYSIS LOGS

SAMPLE INFORMATION SUMMARY

BATCH: /chem1/its1.i/09-04-96.b

Data File	Injection Date	Sample Type	Dil Factor	Inst ID	Method	Method Batch
EE1310101001.d	04-SEP-96 08:01	BFB	1.00	its1	bfb.m	09-04-96.b
EE1310401004.d	04-SEP-1996 09:18	Continuing Cal	1.00	its1	8240_voa1.m	09-04-96.b
EE1310501005.d	04-SEP-1996 09:38	Continuing Cal	1.00	its1	APIX_voa1.m	09-04-96.b
EE1310601006.d	04-SEP-1996 10:07	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1310701007.d	04-SEP-1996 10:26	BS	1.00	its1	8240_voa1.m	09-04-96.b
EE1310801008.d	04-SEP-1996 10:46	BSD	1.00	its1	8240_voa1.m	09-04-96.b
EE1310901009.d	04-SEP-1996 11:05	MS	1.00	its1	8240_voa1.m	09-04-96.b
EE1311001010.d	04-SEP-1996 11:25	MSD	1.00	its1	8240_voa1.m	09-04-96.b
EE1311101011.d	04-SEP-1996 11:44	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1311201012.d	04-SEP-1996 12:04	MS	1.00	its1	8240_voa1.m	09-04-96.b
EE1311301013.d	04-SEP-1996 12:23	MSD	1.00	its1	8240_voa1.m	09-04-96.b
EE1311401014.d	04-SEP-96 12:43	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1311501015.d	04-SEP-96 13:03	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1311601016.d	04-SEP-96 13:23	Unknown	1.00	its1	8240_voa1.m	09-04-96.b

Data File	Matrix	Fraction	Lab Sample ID	Lab Prep Batch	Client Sample ID	Client Sample Group
EE1310101001.d	LIQUID	bfb	8240 TUNE	09-04-96.b	50 NG BFB	09-04-96.b
EE1310401004.d	SOLID	VOA	8240 DAILY CAL	09-04-96.b	ALS=1	09-04-96.b
EE1310501005.d	SOLID	VOA	APP IX STD	09-04-96.b	ALS=1	09-04-96.b
EE1310601006.d	SOLID	VOA	D96-9654-7 BLK	09-04-96.b	ALS=2	09-04-96.b
EE1310701007.d	SOLID	VOA	8240 LCS;ITS1-850	09-04-96.b	ALS=3	09-04-96.b
EE1310801008.d	SOLID	VOA	8240 LCSD;ITS1-850	09-04-96.b	ALS=4	09-04-96.b
EE1310901009.d	SOLID	VOA	9511-1MS;ITS1-850	09-04-96.b	ALS=5	09-04-96.b
EE1311001010.d	SOLID	VOA	9511-1MSD	09-04-96.b	ALS=6	09-04-96.b
EE1311101011.d	LIQUID	VOA	D96-9511-1	09-04-96.b	ALS=7	09-04-96.b
EE1311201012.d	SOLID	VOA	D96-9654-5 MS	09-04-96.b	ALS=8	09-04-96.b
EE1311301013.d	SOLID	VOA	D96-9654-6 MSD	09-04-96.b	ALS=9	09-04-96.b
EE1311401014.d	SOLID	VOA	D96-9653-1	09-04-96.b	ALS=10	09-04-96.b
EE1311501015.d	SOLID	VOA	D96-9653-2	09-04-96.b	ALS=11	09-04-96.b
EE1311601016.d	SOLID	VOA	D96-9653-3	09-04-96.b	ALS=12	09-04-96.b

Data File	Compound Sublist	Spike List File	Sample Ref #	QC Group Ref #	Init Cal Ref #	Batch Ref #
EE1310101001.d	all.sub		585	1056034	314	21002600
EE1310401004.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1310501005.d	all.sub	spike.spk	366176	1056034	1043714	1056117
EE1310601006.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1310701007.d	all.sub	8240.spk	366176	1056034	1046670	21002601
EE1310801008.d	all.sub	8240.spk	366176	1056034	1046670	21002601
EE1310901009.d	all.sub	8240.spk	366176	1056034	1046670	21002601
EE1311001010.d	all.sub	8240.spk	366176	1056034	1046670	21002601
EE1311101011.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1311201012.d	all.sub	8240.spk	366176	1056034	1046670	21002601
EE1311301013.d	all.sub	8240.spk	366176	1056034	1046670	21002601
EE1311401014.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1311501015.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1311601016.d	all.sub	spike.spk	366176	1056034	1046670	21002601

SAMPLE INFORMATION SUMMARY

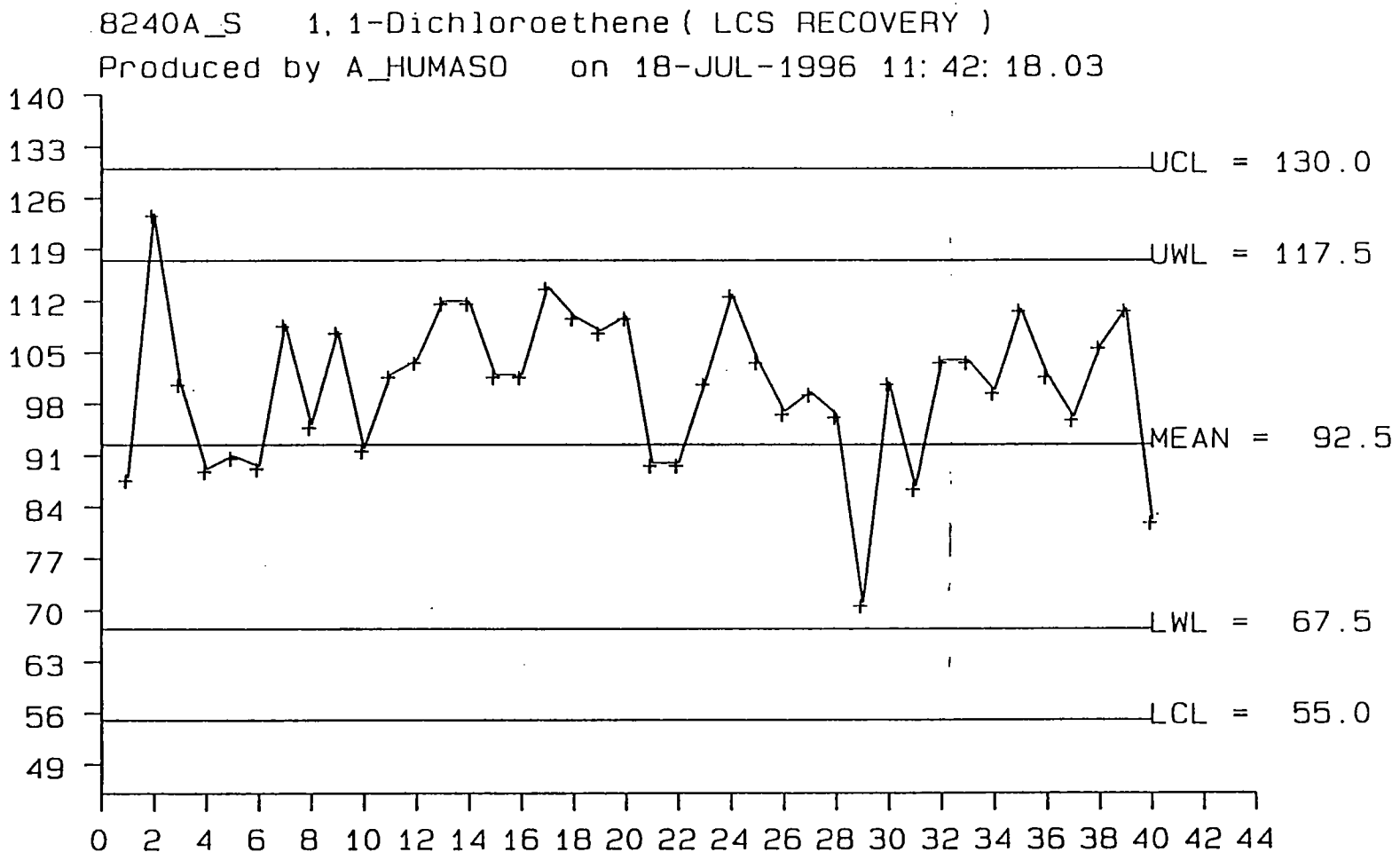
BATCH: /chem1/its1.i/09-04-96.b

Data File	Injection Date	Sample Type	Dil Factor	Inst ID	Method	Method Batch
EE1311701017.d	04-SEP-96 13:43	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1311801018.d	04-SEP-96 14:03	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1311901019.d	04-SEP-96 14:23	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1312001020.d	04-SEP-96 14:43	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1312101021.d	04-SEP-96 15:03	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1312201022.d	04-SEP-96 16:12	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1312301023.d	04-SEP-96 16:32	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1312401024.d	04-SEP-1996 16:52	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1312501025.d	04-SEP-96 17:18	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1312601026.d	04-SEP-96 17:39	Unknown	1.00	its1	8240_voa1.m	09-04-96.b
EE1312701027.d	04-SEP-96 17:59	Unknown	1.00	its1	8240_voa1.m	09-04-96.b

Data File	Matrix	Fraction	Lab Sample ID	Lab Prep Batch	Client Sample ID	Client Sample Group
EE1311701017.d	SOLID	VOA	D96-9654-1	09-04-96.b	ALS=13	09-04-96.b
EE1311801018.d	SOLID	VOA	D96-9654-2	09-04-96.b	ALS=14	09-04-96.b
EE1311901019.d	SOLID	VOA	D96-9654-3	09-04-96.b	ALS=14	09-04-96.b
EE1312001020.d	SOLID	VOA	D96-9654-4	09-04-96.b	ALS=15	09-04-96.b
EE1312101021.d	SOLID	VOA	D96-9654-7	09-04-96.b	ALS=17	09-04-96.b
EE1312201022.d	SOLID	VOA	D96-9654-10	09-04-96.b	ALS=18	09-04-96.b
EE1312301023.d	SOLID	VOA	D96-9654-13	09-04-96.b	ALS=19	09-04-96.b
EE1312401024.d	SOLID	VOA	D96-9711-1	09-04-96.b	ALS=20	09-04-96.b
EE1312501025.d	SOLID	VOA	D96-9711-2	09-04-96.b	ALS=21	09-04-96.b
EE1312601026.d	SOLID	VOA	D96-9711-3	09-04-96.b	ALS=22	09-04-96.b
EE1312701027.d	SOLID	VOA	D96-	09-04-96.b	ALS=	09-04-96.b

Data File	Compound Sublist	Spike List File	Sample Ref #	QC Group Ref #	Init Cal Ref #	Batch Ref #
EE1311701017.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1311801018.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1311901019.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1312001020.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1312101021.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1312201022.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1312301023.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1312401024.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1312501025.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1312601026.d	all.sub	spike.spk	366176	1056034	1046670	21002601
EE1312701027.d	all.sub	spike.spk	366176	1056034	1046670	21002601

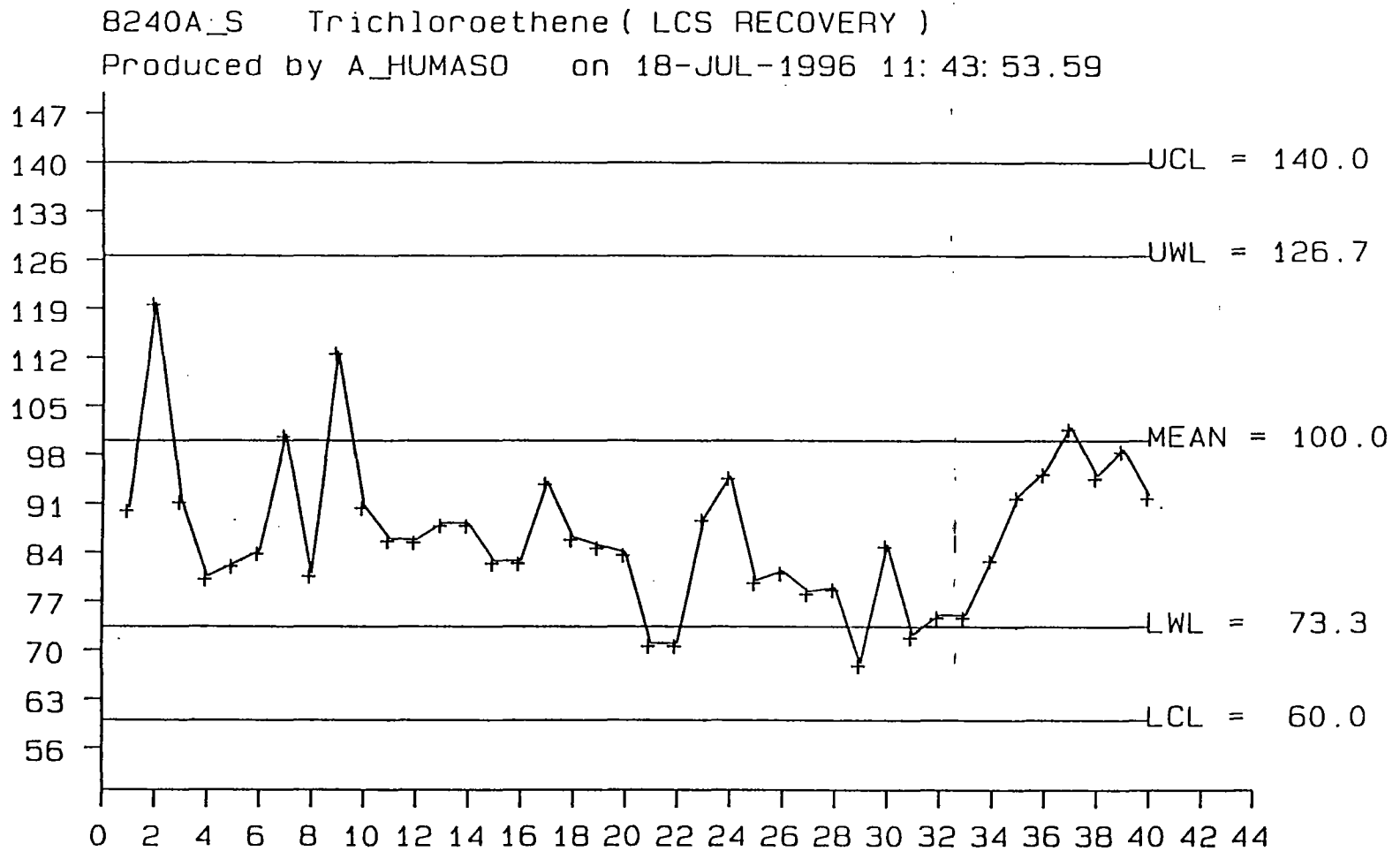
CONTROL CHARTS


8240A_S 1, 1-Dichloroethene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 11: 42: 18.03
140
133
126
119
112
105
98
91
84
77
70
63
56
49
UCL = 130.0
UWL = 117.5
MEAN = 92.5
LWL = 67.5
LCL = 55.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8240A_S 1,1-Dichloroethene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 11:42

Current Control Limits
(55.0 - 130.0)

Point	Batch Number	Date Analyzed	Value (%)
1	ITS6-683	2-MAR-1996 0	88.0
2	ITS2-719	3-MAR-1996 0	124
3	ITS6-684	3-MAR-1996 0	101
4	ITS6-686	5-MAR-1996 0	89.2
5	ITS6-688	6-MAR-1996 0	91.0
6	ITS6-689	7-MAR-1996 0	89.6
7	ITS6-690	8-MAR-1996 0	109
8	ITS6-692	11-MAR-1996 0	95.2
9	ITS6-695	16-MAR-1996 0	108
10	ITS6-699	20-MAR-1996 0	92.0
11	ITS6-702	25-MAR-1996 0	102
12	ITS6-704	26-MAR-1996 0	104
13	ITS6-709	1-APR-1996 0	112
14	ITS6-708	1-APR-1996 0	112
15	ITS6-711	4-APR-1996 0	102
16	ITS6-712	4-APR-1996 0	102
17	ITS6-715	8-APR-1996 0	114
18	ITS6-716	9-APR-1996 0	110
19	ITS6-718	10-APR-1996 0	108
20	ITS6-724	13-APR-1996 0	110
21	ITS6-726	14-APR-1996 0	90.0
22	ITS6-727	14-APR-1996 0	90.0
23	ITS6-731	16-APR-1996 0	101
24	ITS6-730	16-APR-1996 0	113
25	ITS6-734	18-APR-1996 0	104
26	ITS6-736	19-APR-1996 0	97.0
27	ITS6-741	23-APR-1996 0	99.6
28	ITS6-747	29-APR-1996 0	96.6
29	ITS6-748	29-APR-1996 0	71.0
30	ITS6-749	30-APR-1996 0	101
31	ITS6-750	1-MAY-1996 0	86.8
32	ITS6-753W	3-MAY-1996 0	104
33	ITS6-753	3-MAY-1996 0	104
34	ITS6-754	5-MAY-1996 0	99.8
35	ITS6-758	7-MAY-1996 0	111
36	ITS1-738	10-MAY-1996 0	102
37	ITS1-739	13-MAY-1996 0	96.2
38	ITS6-767	20-MAY-1996 0	106
39	ITS6-776	27-MAY-1996 0	111
40	ITS1-788	10-JUL-1996 0	82.2


8240A_S Trichloroethene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 11:43:53.59
147
140
133
126
119
112
105
98
91
84
77
70
63
56
UCL = 140.0
UWL = 126.7
MEAN = 100.0
LWL = 73.3
LCL = 60.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

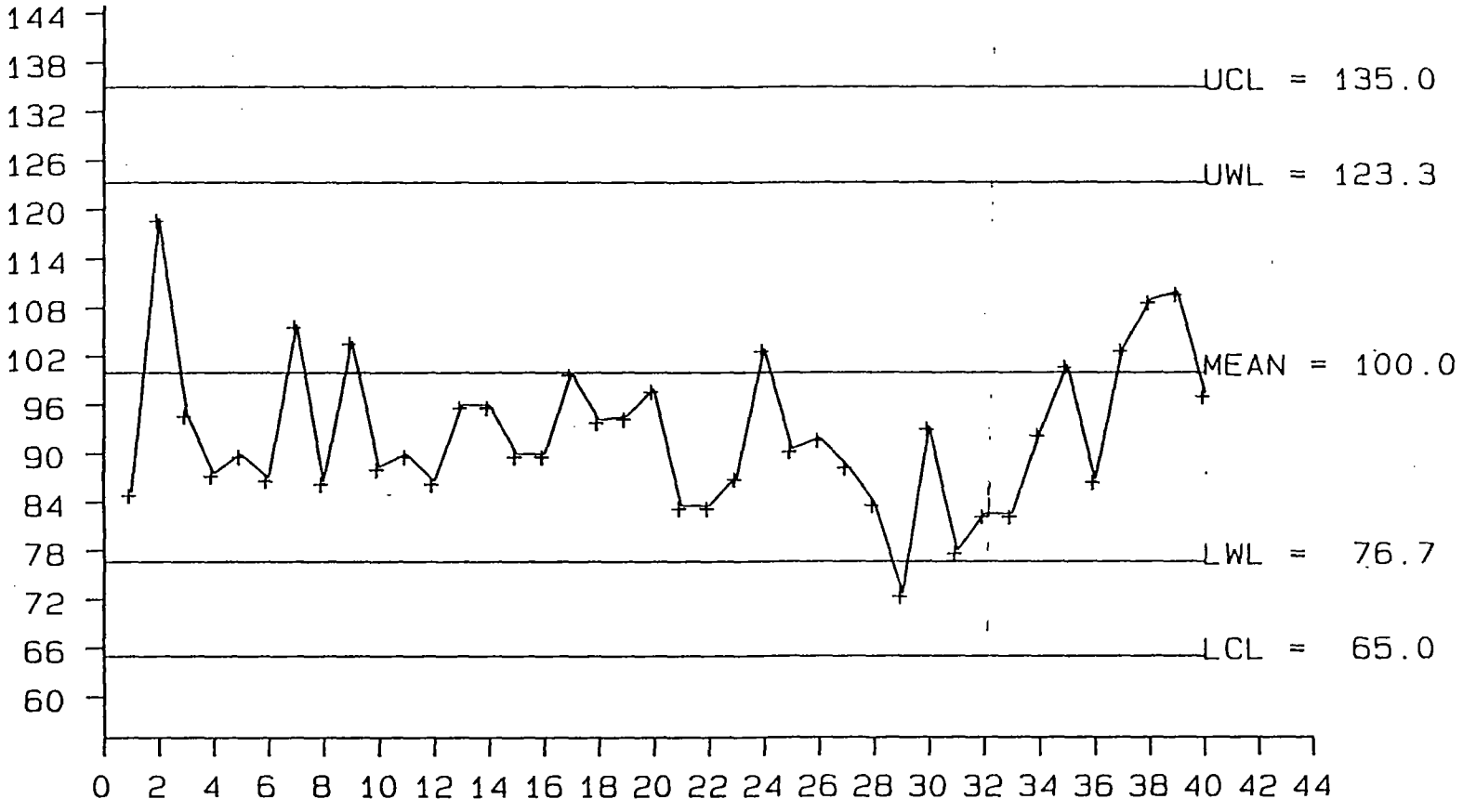
Data Points for: 8240A_S Trichloroethene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 11:43

Current Control Limits
(60.0 - 140.0)

Point	Batch Number	Date Analyzed	Value (%)
1	ITS6-683	2-MAR-1996 0	90.4
2	ITS2-719	3-MAR-1996 0	120
3	ITS6-684	3-MAR-1996 0	91.6
4	ITS6-686	5-MAR-1996 0	80.6
5	ITS6-688	6-MAR-1996 0	82.4
6	ITS6-689	7-MAR-1996 0	84.2
7	ITS6-690	8-MAR-1996 0	101
8	ITS6-692	11-MAR-1996 0	81.0
9	ITS6-695	16-MAR-1996 0	113
10	ITS6-699	20-MAR-1996 0	90.8
11	ITS6-702	25-MAR-1996 0	86.0
12	ITS6-704	26-MAR-1996 0	85.8
13	ITS6-709	1-APR-1996 0	88.2
14	ITS6-708	1-APR-1996 0	88.2
15	ITS6-711	4-APR-1996 0	82.8
16	ITS6-712	4-APR-1996 0	82.8
17	ITS6-715	8-APR-1996 0	94.2
18	ITS6-716	9-APR-1996 0	86.2
19	ITS6-718	10-APR-1996 0	85.0
20	ITS6-724	13-APR-1996 0	84.0
21	ITS6-726	14-APR-1996 0	71.0
22	ITS6-727	14-APR-1996 0	71.0
23	ITS6-731	16-APR-1996 0	89.0
24	ITS6-730	16-APR-1996 0	95.0
25	ITS6-734	18-APR-1996 0	80.0
26	ITS6-736	19-APR-1996 0	81.4
27	ITS6-741	23-APR-1996 0	78.4
28	ITS6-747	29-APR-1996 0	79.0
29	ITS6-748	29-APR-1996 0	68.2
30	ITS6-749	30-APR-1996 0	85.2
31	ITS6-750	1-MAY-1996 0	72.2
32	ITS6-753W	3-MAY-1996 0	75.0
33	ITS6-753	3-MAY-1996 0	75.0
34	ITS6-754	5-MAY-1996 0	83.2
35	ITS6-758	7-MAY-1996 0	92.2
36	ITS1-738	10-MAY-1996 0	95.6
37	ITS1-739	13-MAY-1996 0	102
38	ITS6-767	20-MAY-1996 0	95.0
39	ITS6-776	27-MAY-1996 0	98.8
40	ITS1-788	10-JUL-1996 0	92.2

8240A_S Benzene (LCS RECOVERY)

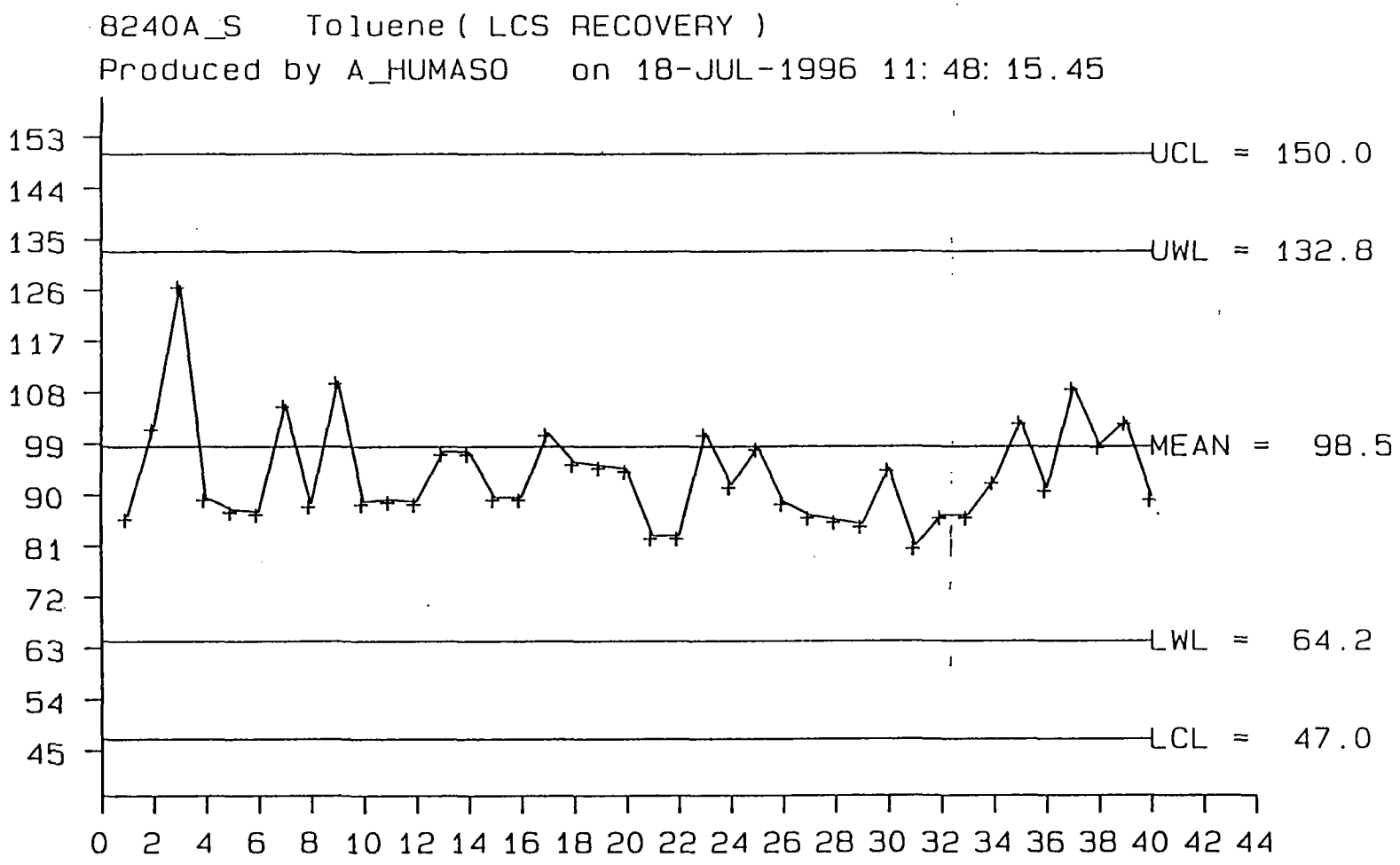
Produced by A_HUMASO on 18-JUL-1996 11:45:29.50



Data Points for: 8240A_S Benzene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 11:45

Current Control Limits
(65.0 - 135.0)

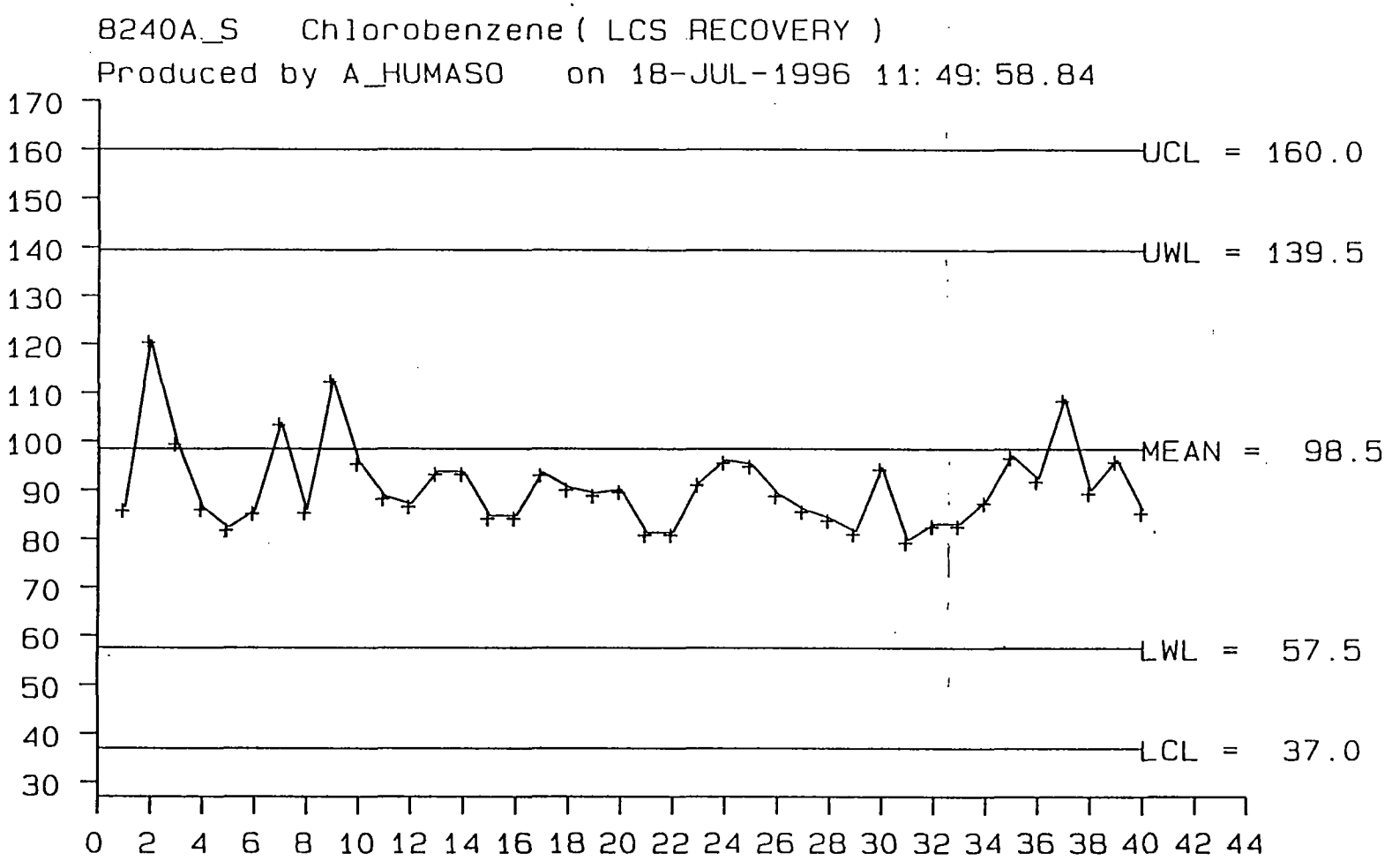
Point	Batch Number	Date Analyzed	Value (%)
1	ITS6-683	2-MAR-1996 0	85.2
2	ITS2-719	3-MAR-1996 0	119
3	ITS6-684	3-MAR-1996 0	95.0
4	ITS6-686	5-MAR-1996 0	87.6
5	ITS6-688	6-MAR-1996 0	90.0
6	ITS6-689	7-MAR-1996 0	87.0
7	ITS6-690	8-MAR-1996 0	106
8	ITS6-692	11-MAR-1996 0	86.6
9	ITS6-695	16-MAR-1996 0	104
10	ITS6-699	20-MAR-1996 0	88.4
11	ITS6-702	25-MAR-1996 0	90.0
12	ITS6-704	26-MAR-1996 0	86.6
13	ITS6-709	1-APR-1996 0	96.0
14	ITS6-708	1-APR-1996 0	96.0
15	ITS6-711	4-APR-1996 0	90.0
16	ITS6-712	4-APR-1996 0	90.0
17	ITS6-715	8-APR-1996 0	100
18	ITS6-716	9-APR-1996 0	94.2
19	ITS6-718	10-APR-1996 0	94.6
20	ITS6-724	13-APR-1996 0	98.0
21	ITS6-726	14-APR-1996 0	83.6
22	ITS6-727	14-APR-1996 0	83.6
23	ITS6-731	16-APR-1996 0	87.2
24	ITS6-730	16-APR-1996 0	103
25	ITS6-734	18-APR-1996 0	90.6
26	ITS6-736	19-APR-1996 0	92.0
27	ITS6-741	23-APR-1996 0	88.6
28	ITS6-747	29-APR-1996 0	84.0
29	ITS6-748	29-APR-1996 0	72.8
30	ITS6-749	30-APR-1996 0	93.4
31	ITS6-750	1-MAY-1996 0	78.0
32	ITS6-753W	3-MAY-1996 0	82.6
33	ITS6-753	3-MAY-1996 0	82.6
34	ITS6-754	5-MAY-1996 0	92.6
35	ITS6-758	7-MAY-1996 0	101
36	ITS1-738	10-MAY-1996 0	86.8
37	ITS1-739	13-MAY-1996 0	103
38	ITS6-767	20-MAY-1996 0	109
39	ITS6-776	27-MAY-1996 0	110
40	ITS1-788	10-JUL-1996 0	97.4


8240A_S Toluene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 11:48:15.45
153
144
135
126
117
108
99
90
81
72
63
54
45
UCL = 150.0
UWL = 132.8
MEAN = 98.5
LWL = 64.2
LCL = 47.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8240A_S Toluene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 11:48

Current Control Limits
(47.0 - 150.0)

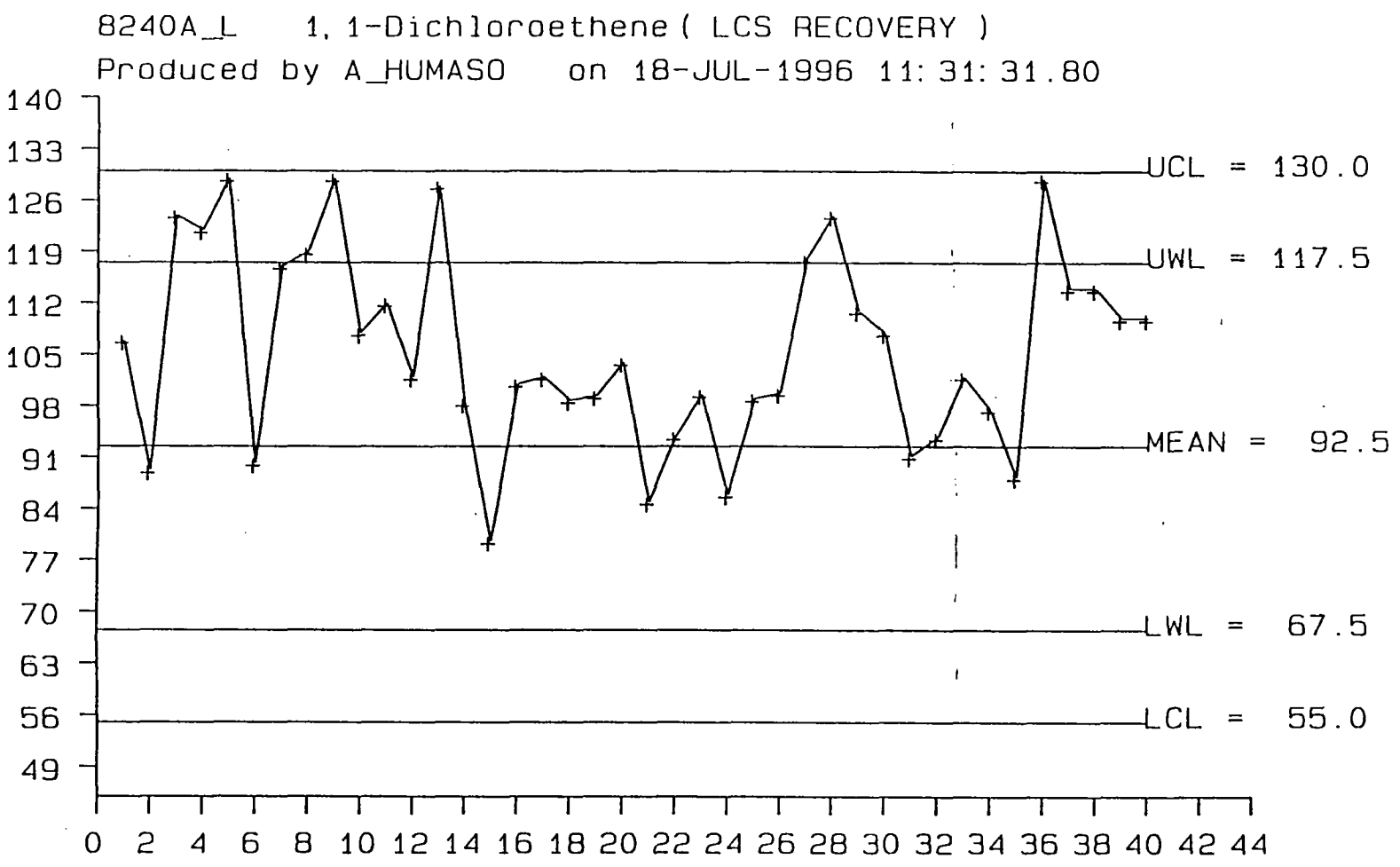
Point	Batch Number	Date Analyzed	Value (%)
1	ITS6-683	2-MAR-1996 0	86.2
2	ITS6-684	3-MAR-1996 0	102
3	ITS2-719	3-MAR-1996 0	127
4	ITS6-686	5-MAR-1996 0	89.6
5	ITS6-688	6-MAR-1996 0	87.4
6	ITS6-689	7-MAR-1996 0	87.0
7	ITS6-690	8-MAR-1996 0	106
8	ITS6-692	11-MAR-1996 0	88.4
9	ITS6-695	16-MAR-1996 0	110
10	ITS6-699	20-MAR-1996 0	88.8
11	ITS6-702	25-MAR-1996 0	89.2
12	ITS6-704	26-MAR-1996 0	88.8
13	ITS6-709	1-APR-1996 0	97.6
14	ITS6-708	1-APR-1996 0	97.6
15	ITS6-711	4-APR-1996 0	89.6
16	ITS6-712	4-APR-1996 0	89.6
17	ITS6-715	8-APR-1996 0	101
18	ITS6-716	9-APR-1996 0	95.8
19	ITS6-718	10-APR-1996 0	95.2
20	ITS6-724	13-APR-1996 0	94.6
21	ITS6-726	14-APR-1996 0	82.8
22	ITS6-727	14-APR-1996 0	82.8
23	ITS6-730	16-APR-1996 0	101
24	ITS6-731	16-APR-1996 0	91.8
25	ITS6-734	18-APR-1996 0	98.4
26	ITS6-736	19-APR-1996 0	88.8
27	ITS6-741	23-APR-1996 0	86.4
28	ITS6-747	29-APR-1996 0	85.6
29	ITS6-748	29-APR-1996 0	84.8
30	ITS6-749	30-APR-1996 0	94.8
31	ITS6-750	1-MAY-1996 0	81.0
32	ITS6-753W	3-MAY-1996 0	86.4
33	ITS6-753	3-MAY-1996 0	86.4
34	ITS6-754	5-MAY-1996 0	92.6
35	ITS6-758	7-MAY-1996 0	103
36	ITS1-738	10-MAY-1996 0	91.2
37	ITS1-739	13-MAY-1996 0	109
38	ITS6-767	20-MAY-1996 0	98.8
39	ITS6-776	27-MAY-1996 0	103
40	ITS1-788	10-JUL-1996 0	89.6


8240A_S Chlorobenzene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 11:49:58.84
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
UCL = 160.0
UWL = 139.5
MEAN = 98.5
LWL = 57.5
LCL = 37.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8240A_S Chlorobenzene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 11:50

Current Control Limits
(37.0 - 160.0)

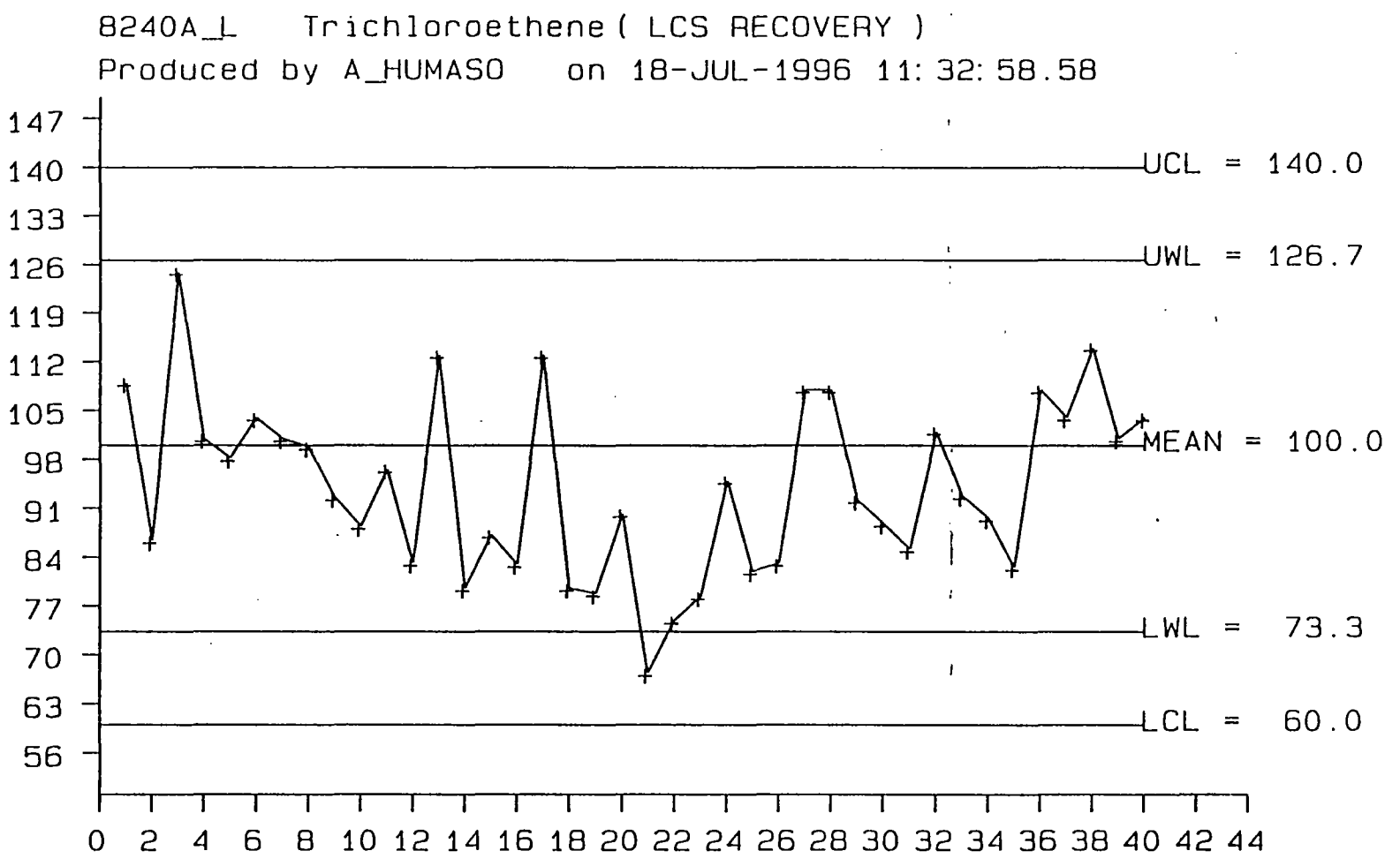
Point	Batch Number	Date Analyzed	Value (%)
1	ITS6-683	2-MAR-1996 0	86.4
2	ITS2-719	3-MAR-1996 0	121
3	ITS6-684	3-MAR-1996 0	100
4	ITS6-686	5-MAR-1996 0	86.6
5	ITS6-688	6-MAR-1996 0	82.4
6	ITS6-689	7-MAR-1996 0	85.8
7	ITS6-690	8-MAR-1996 0	104
8	ITS6-692	11-MAR-1996 0	86.0
9	ITS6-695	16-MAR-1996 0	113
10	ITS6-699	20-MAR-1996 0	96.0
11	ITS6-702	25-MAR-1996 0	88.8
12	ITS6-704	26-MAR-1996 0	87.2
13	ITS6-709	1-APR-1996 0	93.8
14	ITS6-708	1-APR-1996 0	93.8
15	ITS6-711	4-APR-1996 0	84.8
16	ITS6-712	4-APR-1996 0	84.8
17	ITS6-715	8-APR-1996 0	93.6
18	ITS6-716	9-APR-1996 0	90.6
19	ITS6-718	10-APR-1996 0	89.4
20	ITS6-724	13-APR-1996 0	90.2
21	ITS6-726	14-APR-1996 0	81.4
22	ITS6-727	14-APR-1996 0	81.4
23	ITS6-731	16-APR-1996 0	91.6
24	ITS6-730	16-APR-1996 0	96.2
25	ITS6-734	18-APR-1996 0	95.4
26	ITS6-736	19-APR-1996 0	89.4
27	ITS6-741	23-APR-1996 0	86.2
28	ITS6-747	29-APR-1996 0	84.4
29	ITS6-748	29-APR-1996 0	81.6
30	ITS6-749	30-APR-1996 0	94.8
31	ITS6-750	1-MAY-1996 0	79.8
32	ITS6-753W	3-MAY-1996 0	83.2
33	ITS6-753	3-MAY-1996 0	83.2
34	ITS6-754	5-MAY-1996 0	88.0
35	ITS6-758	7-MAY-1996 0	97.2
36	ITS1-738	10-MAY-1996 0	92.4
37	ITS1-739	13-MAY-1996 0	109
38	ITS6-767	20-MAY-1996 0	90.0
39	ITS6-776	27-MAY-1996 0	96.4
40	ITS1-788	10-JUL-1996 0	86.0


8240A_L 1,1-Dichloroethene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 11:31:31.80
140
133
126
119
112
105
98
91
84
77
70
63
56
49
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44
UCL = 130.0
UWL = 117.5
MEAN = 92.5
LWL = 67.5
LCL = 55.0

Data Points for: 8240A_L 1,1-Dichloroethene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 11:31

Current Control Limits
(55.0 - 130.0)

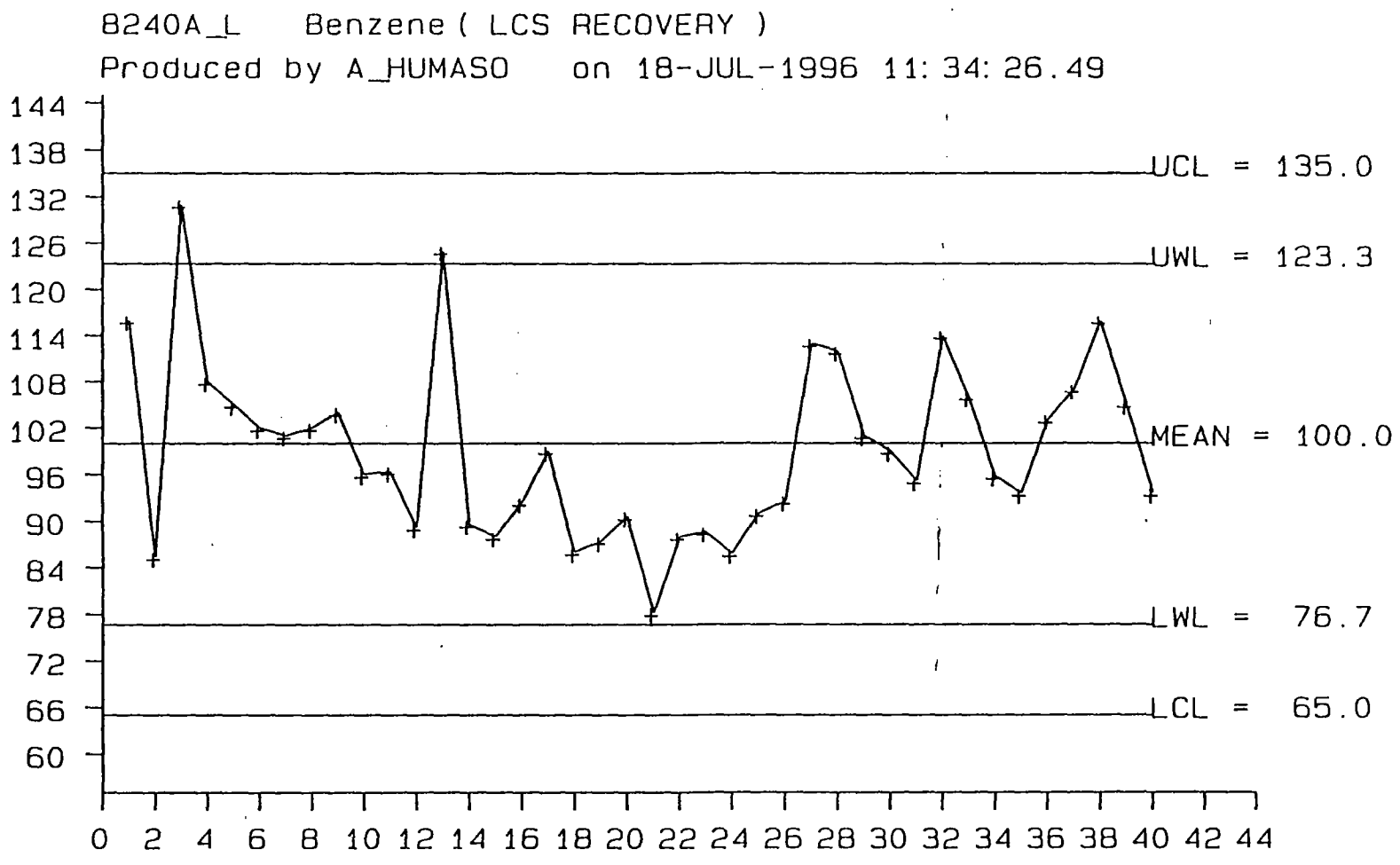
Point	Batch Number	Date Analyzed	Value (%)
1	ITS7-983	5-MAR-1996 0	107
2	ITS6-687	6-MAR-1996 0	89.2
3	ITS7-989	11-MAR-1996 0	124
4	ITS7-991	15-MAR-1996 0	122
5	ITS7-997	21-MAR-1996 0	129
6	ITS6-701	22-MAR-1996 0	90.2
7	ITS7-1000	25-MAR-1996 0	117
8	ITS7-1001	26-MAR-1996 0	119
9	ITS7-1008	1-APR-1996 0	129
10	ITS6-714	5-APR-1996 0	108
11	ITS6-720	11-APR-1996 0	112
12	ITS6-719	11-APR-1996 0	102
13	ITS7-1022	12-APR-1996 0	128
14	ITS6-721	12-APR-1996 0	98.4
15	ITS6-722	12-APR-1996 0	79.6
16	ITS6-728	15-APR-1996 0	101
17	ITS6-729	15-APR-1996 0	102
18	ITS6-732	17-APR-1996 0	98.8
19	ITS6-733	17-APR-1996 0	99.4
20	ITS6-735	18-APR-1996 0	104
21	ITS6-737	19-APR-1996 0	85.0
22	ITS6-739	22-APR-1996 0	93.8
23	ITS6-740	23-APR-1996 0	99.6
24	ITS6-742	24-APR-1996 0	86.0
25	ITS6-745	25-APR-1996 0	99.0
26	ITS6-755	5-MAY-1996 0	99.8
27	ITS7-1048	6-MAY-1996 0	118
28	ITS7-1049	6-MAY-1996 0	124
29	ITS6-757	7-MAY-1996 0	111
30	ITS6-762	10-MAY-1996 0	108
31	ITS6-768	21-MAY-1996 0	91.2
32	ITS6-769	21-MAY-1996 0	93.8
33	ITS6-771	22-MAY-1996 0	102
34	ITS6-772	23-MAY-1996 0	97.6
35	ITS6-773	23-MAY-1996 0	88.4
36	ITS7-1063	24-MAY-1996 0	129
37	ITS7-1065	29-MAY-1996 0	114
38	ITS6-780	30-MAY-1996 0	114
39	ITS6-786	17-JUN-1996 0	110
40	ITS7-1103	10-JUL-1996 0	110


8240A_L Trichloroethene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 11:32:58.58
147
140
133
126
119
112
105
98
91
84
77
70
63
56
UCL = 140.0
UWL = 126.7
MEAN = 100.0
LWL = 73.3
LCL = 60.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8240A_L Trichloroethene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 11:33

Current Control Limits
(60.0 - 140.0)

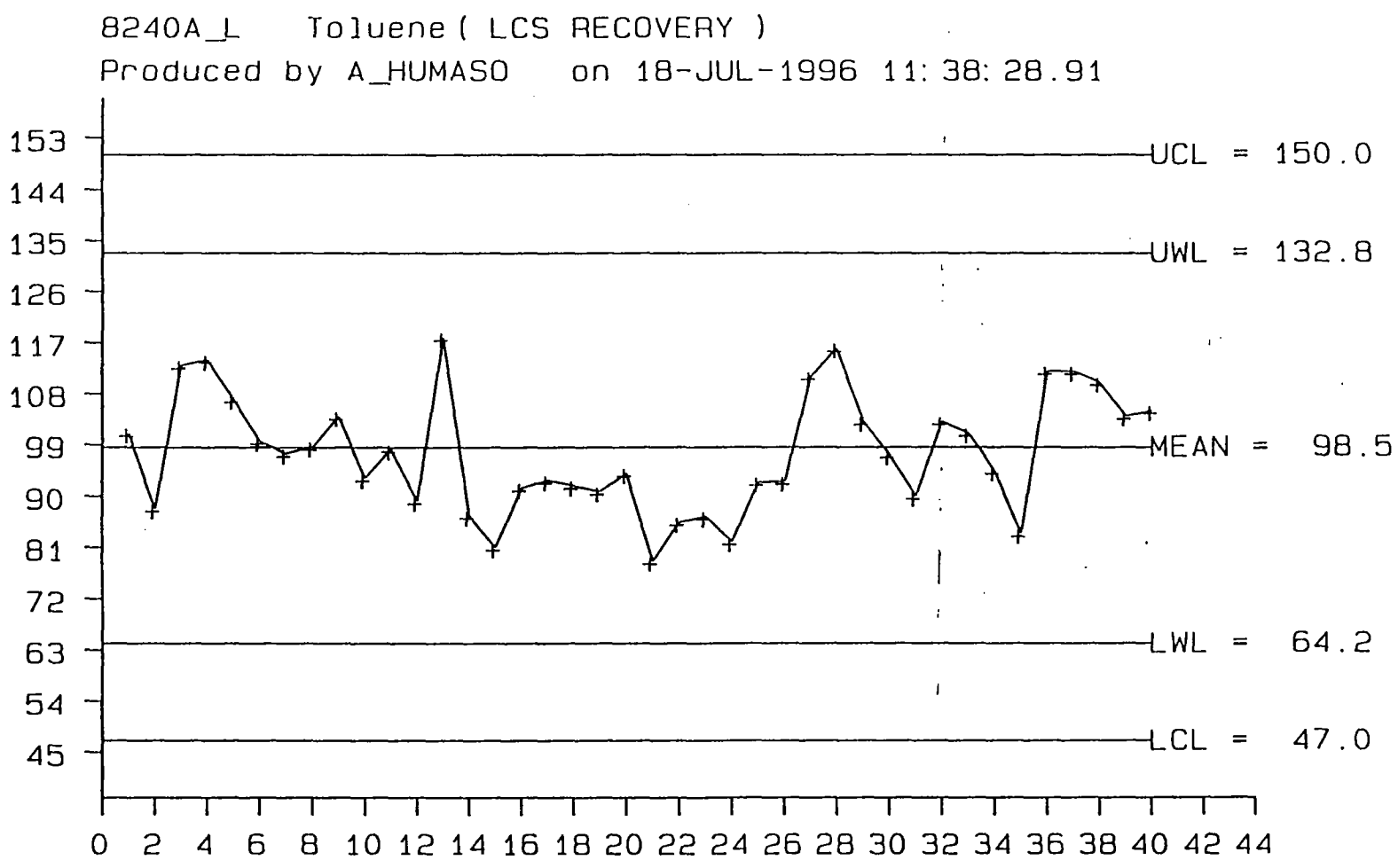
Point	Batch Number	Date Analyzed	Value (%)
1	ITS7-983	5-MAR-1996 0	109
2	ITS6-687	6-MAR-1996 0	86.4
3	ITS7-989	11-MAR-1996 0	125
4	ITS7-991	15-MAR-1996 0	101
5	ITS7-997	21-MAR-1996 0	98.2
6	ITS6-701	22-MAR-1996 0	104
7	ITS7-1000	25-MAR-1996 0	101
8	ITS7-1001	26-MAR-1996 0	99.8
9	ITS7-1008	1-APR-1996 0	92.6
10	ITS6-714	5-APR-1996 0	88.4
11	ITS6-720	11-APR-1996 0	96.6
12	ITS6-719	11-APR-1996 0	83.2
13	ITS7-1022	12-APR-1996 0	113
14	ITS6-721	12-APR-1996 0	79.6
15	ITS6-722	12-APR-1996 0	87.2
16	ITS6-728	15-APR-1996 0	83.0
17	ITS6-729	15-APR-1996 0	113
18	ITS6-732	17-APR-1996 0	79.6
19	ITS6-733	17-APR-1996 0	78.8
20	ITS6-735	18-APR-1996 0	90.2
21	ITS6-737	19-APR-1996 0	67.4
22	ITS6-739	22-APR-1996 0	74.9
23	ITS6-740	23-APR-1996 0	78.4
24	ITS6-742	24-APR-1996 0	95.0
25	ITS6-745	25-APR-1996 0	82.0
26	ITS6-755	5-MAY-1996 0	83.2
27	ITS7-1048	6-MAY-1996 0	108
28	ITS7-1049	6-MAY-1996 0	108
29	ITS6-757	7-MAY-1996 0	92.2
30	ITS6-762	10-MAY-1996 0	88.8
31	ITS6-768	21-MAY-1996 0	85.2
32	ITS6-769	21-MAY-1996 0	102
33	ITS6-771	22-MAY-1996 0	92.8
34	ITS6-772	23-MAY-1996 0	89.6
35	ITS6-773	23-MAY-1996 0	82.6
36	ITS7-1063	24-MAY-1996 0	108
37	ITS7-1065	29-MAY-1996 0	104
38	ITS6-780	30-MAY-1996 0	114
39	ITS6-786	17-JUN-1996 0	101
40	ITS7-1103	10-JUL-1996 0	104


8240A_L Benzene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 11:34:26.49
144
138
132
126
120
114
108
102
96
90
84
78
72
66
60
UCL = 135.0
UWL = 123.3
MEAN = 100.0
LWL = 76.7
LCL = 65.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8240A_L Benzene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 11:34

Current Control Limits
(65.0 - 135.0)

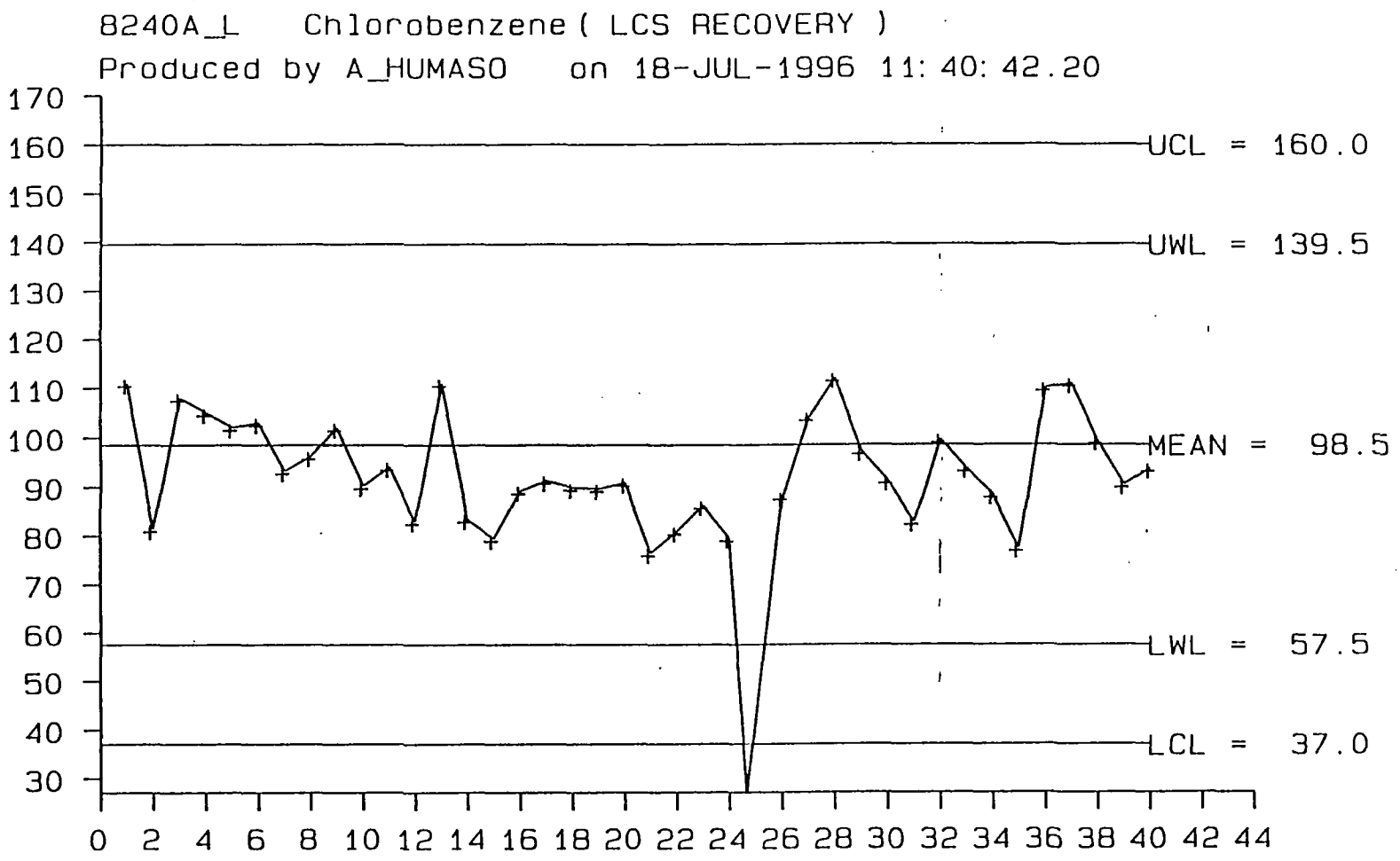
Point	Batch Number	Date Analyzed	Value (%)
1	ITS7-983	5-MAR-1996 0	116
2	ITS6-687	6-MAR-1996 0	85.4
3	ITS7-989	11-MAR-1996 0	131
4	ITS7-991	15-MAR-1996 0	108
5	ITS7-997	21-MAR-1996 0	105
6	ITS6-701	22-MAR-1996 0	102
7	ITS7-1000	25-MAR-1996 0	101
8	ITS7-1001	26-MAR-1996 0	102
9	ITS7-1008	1-APR-1996 0	104
10	ITS6-714	5-APR-1996 0	96.0
11	ITS6-720	11-APR-1996 0	96.4
12	ITS6-719	11-APR-1996 0	89.2
13	ITS7-1022	12-APR-1996 0	125
14	ITS6-721	12-APR-1996 0	89.6
15	ITS6-722	12-APR-1996 0	88.0
16	ITS6-728	15-APR-1996 0	92.4
17	ITS6-729	15-APR-1996 0	99.0
18	ITS6-732	17-APR-1996 0	86.0
19	ITS6-733	17-APR-1996 0	87.4
20	ITS6-735	18-APR-1996 0	90.6
21	ITS6-737	19-APR-1996 0	78.2
22	ITS6-739	22-APR-1996 0	88.0
23	ITS6-740	23-APR-1996 0	88.6
24	ITS6-742	24-APR-1996 0	85.8
25	ITS6-745	25-APR-1996 0	91.0
26	ITS6-755	5-MAY-1996 0	92.6
27	ITS7-1048	6-MAY-1996 0	113
28	ITS7-1049	6-MAY-1996 0	112
29	ITS6-757	7-MAY-1996 0	101
30	ITS6-762	10-MAY-1996 0	99.0
31	ITS6-768	21-MAY-1996 0	95.2
32	ITS6-769	21-MAY-1996 0	114
33	ITS6-771	22-MAY-1996 0	106
34	ITS6-772	23-MAY-1996 0	95.8
35	ITS6-773	23-MAY-1996 0	93.6
36	ITS7-1063	24-MAY-1996 0	103
37	ITS7-1065	29-MAY-1996 0	107
38	ITS6-780	30-MAY-1996 0	116
39	ITS6-786	17-JUN-1996 0	105
40	ITS7-1103	10-JUL-1996 0	93.6


8240A_L Toluene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 11:38:28.91
153
144
135
126
117
108
99
90
81
72
63
54
45
UCL = 150.0
UWL = 132.8
MEAN = 98.5
LWL = 64.2
LCL = 47.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8240A_L Toluene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 11:38

Current Control Limits
(47.0 - 150.0)

Point	Batch Number	Date Analyzed	Value (%)
1	ITS7-983	5-MAR-1996 0	101
2	ITS6-687	6-MAR-1996 0	87.8
3	ITS7-989	11-MAR-1996 0	113
4	ITS7-991	15-MAR-1996 0	114
5	ITS7-997	21-MAR-1996 0	107
6	ITS6-701	22-MAR-1996 0	99.6
7	ITS7-1000	25-MAR-1996 0	97.4
8	ITS7-1001	26-MAR-1996 0	98.6
9	ITS7-1008	1-APR-1996 0	104
10	ITS6-714	5-APR-1996 0	93.2
11	ITS6-720	11-APR-1996 0	98.2
12	ITS6-719	11-APR-1996 0	89.2
13	ITS7-1022	12-APR-1996 0	118
14	ITS6-721	12-APR-1996 0	86.6
15	ITS6-722	12-APR-1996 0	81.0
16	ITS6-728	15-APR-1996 0	91.4
17	ITS6-729	15-APR-1996 0	92.8
18	ITS6-732	17-APR-1996 0	91.8
19	ITS6-733	17-APR-1996 0	90.8
20	ITS6-735	18-APR-1996 0	94.0
21	ITS6-737	19-APR-1996 0	78.6
22	ITS6-739	22-APR-1996 0	85.4
23	ITS6-740	23-APR-1996 0	86.4
24	ITS6-742	24-APR-1996 0	82.0
25	ITS6-745	25-APR-1996 0	92.4
26	ITS6-755	5-MAY-1996 0	92.6
27	ITS7-1048	6-MAY-1996 0	111
28	ITS7-1049	6-MAY-1996 0	116
29	ITS6-757	7-MAY-1996 0	103
30	ITS6-762	10-MAY-1996 0	97.2
31	ITS6-768	21-MAY-1996 0	90.0
32	ITS6-769	21-MAY-1996 0	103
33	ITS6-771	22-MAY-1996 0	101
34	ITS6-772	23-MAY-1996 0	94.4
35	ITS6-773	23-MAY-1996 0	83.4
36	ITS7-1063	24-MAY-1996 0	112
37	ITS7-1065	29-MAY-1996 0	112
38	ITS6-780	30-MAY-1996 0	110
39	ITS6-786	17-JUN-1996 0	104
40	ITS7-1103	10-JUL-1996 0	105


8240A_L Chlorobenzene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 11: 40: 42.20
UCL = 160.0
UWL = 139.5
MEAN = 98.5
LWL = 57.5
LCL = 37.0
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8240A_L Chlorobenzene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 11:40

Current Control Limits
(37.0 - 160.0)

Point	Batch Number	Date Analyzed	Value (%)
1	ITS7-983	5-MAR-1996 0	111
2	ITS6-687	6-MAR-1996 0	81.4
3	ITS7-989	11-MAR-1996 0	108
4	ITS7-991	15-MAR-1996 0	105
5	ITS7-997	21-MAR-1996 0	102
6	ITS6-701	22-MAR-1996 0	103
7	ITS7-1000	25-MAR-1996 0	93.2
8	ITS7-1001	26-MAR-1996 0	96.2
9	ITS7-1008	1-APR-1996 0	102
10	ITS6-714	5-APR-1996 0	90.2
11	ITS6-720	11-APR-1996 0	94.0
12	ITS6-719	11-APR-1996 0	83.0
13	ITS7-1022	12-APR-1996 0	111
14	ITS6-721	12-APR-1996 0	83.4
15	ITS6-722	12-APR-1996 0	79.4
16	ITS6-728	15-APR-1996 0	89.2
17	ITS6-729	15-APR-1996 0	91.2
18	ITS6-732	17-APR-1996 0	89.8
19	ITS6-733	17-APR-1996 0	89.6
20	ITS6-735	18-APR-1996 0	90.8
21	ITS6-737	19-APR-1996 0	76.4
22	ITS6-739	22-APR-1996 0	80.8
23	ITS6-740	23-APR-1996 0	86.2
24	ITS6-742	24-APR-1996 0	79.4
25	ITS6-745	25-APR-1996 0	0.0
26	ITS6-755	5-MAY-1996 0	88.0
27	ITS7-1048	6-MAY-1996 0	104
28	ITS7-1049	6-MAY-1996 0	112
29	ITS6-757	7-MAY-1996 0	97.2
30	ITS6-762	10-MAY-1996 0	91.2
31	ITS6-768	21-MAY-1996 0	82.8
32	ITS6-769	21-MAY-1996 0	99.6
33	ITS6-771	22-MAY-1996 0	93.6
34	ITS6-772	23-MAY-1996 0	88.4
35	ITS6-773	23-MAY-1996 0	77.4
36	ITS7-1063	24-MAY-1996 0	110
37	ITS7-1065	29-MAY-1996 0	111
38	ITS6-780	30-MAY-1996 0	99.4
39	ITS6-786	17-JUN-1996 0	90.4
40	ITS7-1103	10-JUL-1996 0	93.6

SEMIVOLATILES DATA

QUALITY CONTROL SUMMARY

FORM 2
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Level: (low/med) LOW

	AT Kearney, SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	SS001SWMUG-5	42	84	81	52	34	22			0
02	SS001SWMUG-5	81	79	86	58	34	26			0
03	BLK	63	70	69	61	56	53			0
04	BLK BS	159*	138*	167*	133*	133*	161*			6
05	BLK BSD	83	84	90	73	74	83			0
06	SS001SWMUG-1	57	65	71	39	30	17D			0
07	9653-2	70	72	75	51	38	30			0
08	SG002AOC2-5	77	80	84	66	50	42			0
09	9653-2MS	88	82	101	76	69	70			0
10	9653-2MSD	87	85	96	73	67	64			0
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

		QC LIMITS
S1	= Nitrobenzene-d5 (SS)	(23-120)
S2	= 2-Fluorobiphenyl (SS)	(30-115)
S3	= Terphenyl-d14 (SS)	(18-137)
S4	= Phenol-d6 (SS)	(24-113)
S5	= 2-Fluorophenol (SS)	(25-121)
S6	= 2,4,6-Tribromophenol (	(19-122)

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

FORM 3
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix Spike - Sample No.: 9653-2 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	3.33	0.000	2.66	80	5-112
2-Chlorophenol	3.33	0.000	2.60	78	23-134
1,4-Dichlorobenzene	3.33	0.000	2.50	75	20-124
N-Nitrosodi-n-propylami	3.33	0.000	2.56	77	10-230
1,2,4-Trichlorobenzene	3.33	0.000	2.87	86	44-142
4-Chloro-3-methylphenol	3.33	0.000	2.55	76	22-147
Acenaphthene	3.33	0.000	2.25	68	47-145
4-Nitrophenol	3.33	0.000	2.68	80	10-132
2,4-Dinitrotoluene	3.33	0.000	2.81	84	39-139
Pentachlorophenol	3.33	0.000	1.80	54	14-176
Pyrene	3.33	0.747	3.14	72	52-115

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	3.33	2.40	72	10	23	5-112
2-Chlorophenol	3.33	2.60	78	0	29	23-134
1,4-Dichlorobenzene	3.33	2.52	76	1	32	20-124
N-Nitrosodi-n-propylami	3.33	2.61	78	1	55	10-230
1,2,4-Trichlorobenzene	3.33	2.82	85	1	28	44-142
4-Chloro-3-methylphenol	3.33	2.56	77	1	37	22-147
Acenaphthene	3.33	2.25	68	0	28	47-145
4-Nitrophenol	3.33	2.38	71	12	47	10-132
2,4-Dinitrotoluene	3.33	2.67	80	5	22	39-139
Pentachlorophenol	3.33	1.86	56	4	49	14-176
Pyrene	3.33	3.19	73	1	25	52-115

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: _____

FORM 3
SOIL SEMIVOLATILE BLANK SPIKE RECOVERY

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

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

COMPOUND	SPIKE ADDED (mg/Kg)	BLANK CONCENTRATION (mg/Kg)	BS CONCENTRATION (mg/Kg)	BS % REC #	QC. LIMITS REC.
Phenol	3.33	0.000	2.45	74	5-112
2-Chlorophenol	3.33	0.000	2.60	78	23-134
1,4-Dichlorobenzene	3.33	0.000	2.40	72	20-124
N-Nitrosodi-n-propylami	3.33	0.000	2.23	67	10-230
1,2,4-Trichlorobenzene	3.33	0.000	2.71	81	44-142
4-Chloro-3-methylphenol	3.33	0.000	2.61	78	22-147
Acenaphthene	3.33	0.000	2.24	67	47-145
4-Nitrophenol	3.33	0.000	3.09	93	10-132
2,4-Dinitrotoluene	3.33	0.000	2.85	86	39-139
Pentachlorophenol	3.33	0.000	2.68	80	14-176
Pyrene	3.33	0.000	2.48	74	52-115

COMPOUND	SPIKE ADDED (mg/Kg)	BSD CONCENTRATION (mg/Kg)	BSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	3.33	2.62	79	6	23	5-112
2-Chlorophenol	3.33	2.69	81	4	29	23-134
1,4-Dichlorobenzene	3.33	2.50	75	4	32	20-124
N-Nitrosodi-n-propylami	3.33	2.37	71	6	55	10-230
1,2,4-Trichlorobenzene	3.33	2.63	79	2	28	44-142
4-Chloro-3-methylphenol	3.33	2.67	80	2	37	22-147
Acenaphthene	3.33	2.37	71	6	28	47-145
4-Nitrophenol	3.33	2.98	89	4	47	10-132
2,4-Dinitrotoluene	3.33	2.97	89	3	22	39-139
Pentachlorophenol	3.33	2.83	85	6	49	14-176
Pyrene	3.33	2.43	73	1	25	52-115

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: _____

FORM 4
SEMIVOLATILE METHOD BLANK SUMMARY

CLIENT SAMPLE NO.

BLK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Lab File ID: HB625 Lab Sample ID: BLK

Instrument ID: ITS8 Date Extracted: 09/03/96

Matrix: (soil/water) SOIL Date Analyzed: 09/07/96

Level: (low/med) LOW Time Analyzed: 1947

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

	SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SS001SWMUG-5	9653-1DIL	HB598	09/06/96
02	SS001SWMUG-5	9653-1	HB600	09/06/96
03	BLK BS	BLK BS	HB626	09/07/96
04	BLK BSD	BLK BSD	HB627	09/07/96
05	SS001SWMUG-1	9653-2DIL	HB636	09/08/96
06	9653-2	9653-2	HB637	09/08/96
07	SG002AOC2-5	9653-3	FD273	09/08/96
08	9653-2MS	9653-2MS	HB638	09/08/96
09	9653-2MSD	9653-2MSD	HB639	09/08/96
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COMMENTS:

FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Lab File ID: FD050 DFTPP Injection Date: 08/28/96

Instrument ID: ITS3 DFTPP Injection Time: 0943

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	38.1
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	51.4
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	56.1
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	20.0
365	Greater than 1.0% of mass 198	2.57
441	Present, but less than mass 443	10.1
442	40.0 - 110.0% of mass 198	62.9
443	17.0 - 23.0% of mass 442	12.1 (19.2)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD160	SSTD160	FD054	08/28/96	1144
02	SSTD120	SSTD120	FD055	08/28/96	1219
03	SSTD100	SSTD100	FD056	08/28/96	1254
04	SSTD080	SSTD080	FD057	08/28/96	1328
05	SSTD050	SSTD050	FD058	08/28/96	1403
06	SSTD020	SSTD020	FD059	08/28/96	1438
07	SSTD010	SSTD010	FD060	08/28/96	1513
08	ANLN160	ANLN160	FD061	08/28/96	1548
09	ANLN120	ANLN120	FD062	08/28/96	1622
10	ANLN100	ANLN100	FD063	08/28/96	1657
11	ANLN080	ANLN080	FD064	08/28/96	1732
12	ANLN050	ANLN050	FD065	08/28/96	1807
13	ANLN020	ANLN020	FD066	08/28/96	1841
14	ANLN010	ANLN010	FD067	08/28/96	1916
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FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Lab File ID: FD254 DFTPP Injection Date: 09/07/96

Instrument ID: ITS3 DFTPP Injection Time: 1626

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	35.5
68	Less than 2.0% of mass 69	0.2 (0.4)1
69	Mass 69 relative abundance	48.9
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	54.2
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	6.6
275	10.0 - 30.0% of mass 198	20.0
365	Greater than 1.0% of mass 198	2.18
441	Present, but less than mass 443	9.1
442	40.0 - 110.0% of mass 198	55.8
443	17.0 - 23.0% of mass 442	10.5 (18.8)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	FD255	09/07/96	1642
02	ANLN050	ANLN050	FD257	09/07/96	1756
03	SG002AOC2-5	9653-3	FD273	09/08/96	0311
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FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Lab File ID: HB504 DFTPP Injection Date: 08/31/96

Instrument ID: ITS8 DFTPP Injection Time: 1626

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	49.2
68	Less than 2.0% of mass 69	0.9 (1.8)1
69	Mass 69 relative abundance	48.0
70	Less than 2.0% of mass 69	0.0 (0.0)1
127	40.0 - 60.0% of mass 198	44.4
197	Less than 1.0% of mass 198	0.4
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.0
275	10.0 - 30.0% of mass 198	21.4
365	Greater than 1.0% of mass 198	2.03
441	Present, but less than mass 443	7.5
442	40.0 - 110.0% of mass 198	55.8
443	17.0 - 23.0% of mass 442	9.9 (17.7)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD160	SSTD160	HB505	08/31/96	1647
02	SSTD120	SSTD120	HB506	08/31/96	1723
03	SSTD080	SSTD080	HB507	08/31/96	1800
04	SSTD050	SSTD050	HB508	08/31/96	1837
05	SSTD020	SSTD020	HB509	08/31/96	1913
06	ANLN160	ANLN160	HB510	08/31/96	1950
07	ANLN120	ANLN120	HB511	08/31/96	2027
08	ANLN080	ANLN080	HB512	08/31/96	2103
09	ANLN050	ANLN050	HB513	08/31/96	2140
10	ANLN020	ANLN020	HB514	08/31/96	2217
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FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Lab File ID: HB581 DFTPP Injection Date: 09/05/96

Instrument ID: ITS8 DFTPP Injection Time: 2214

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	44.6
68	Less than 2.0% of mass 69	0.5 (1.1)1
69	Mass 69 relative abundance	46.4
70	Less than 2.0% of mass 69	0.1 (0.2)1
127	40.0 - 60.0% of mass 198	42.5
197	Less than 1.0% of mass 198	0.3
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.4
275	10.0 - 30.0% of mass 198	19.2
365	Greater than 1.0% of mass 198	1.58
441	Present, but less than mass 443	8.1
442	40.0 - 110.0% of mass 198	54.7
443	17.0 - 23.0% of mass 442	9.4 (17.1)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	HB582	09/05/96	2234
02	ANLN050	ANLN050	HB583	09/05/96	2310
03	SS001SWMUG-5DL	9653-1DIL	HB598	09/06/96	0820
04	SS001SWMUG-5	9653-1	HB600	09/06/96	0934
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06		AS 9/13/96			
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FORM 5
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Lab File ID: HB622 DFTPP Injection Date: 09/07/96

Instrument ID: ITS8 DFTPP Injection Time: 1741

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	44.3
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	48.0
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	43.7
197	Less than 1.0% of mass 198	0.2
198	Base Peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	7.4
275	10.0 - 30.0% of mass 198	20.9
365	Greater than 1.0% of mass 198	1.72
441	Present, but less than mass 443	8.2
442	40.0 - 110.0% of mass 198	56.0
443	17.0 - 23.0% of mass 442	10.9 (19.4)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	HB623	09/07/96	1834
02	ANLN050	ANLN050	HB624	09/07/96	1911
03	BLK	BLK	HB625	09/07/96	1947
04	BLK BS	BLK BS	HB626	09/07/96	2024
05	BLK BSD	BLK BSD	HB627	09/07/96	2101
06	SS001SWMUG-1	9653-2DIL	HB636	09/08/96	0230
07	9653-2	9653-2	HB637	09/08/96	0307
08	9653-2MS	9653-2MS	HB638	09/08/96	0344
09	9653-2MSD	9653-2MSD	HB639	09/08/96	0420
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FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Lab File ID (Standard): HB582 Date Analyzed: 09/05/96

Instrument ID: ITS8 Time Analyzed: 2234

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	67985	5.43	248236	7.72	149694	11.20
	UPPER LIMIT	135970	5.93	496472	8.22	299388	11.70
	LOWER LIMIT	33992	4.93	124118	7.22	74847	10.70
	CLIENT SAMPLE NO.						
01	SS001SWMUG-5DL	50424	5.42	187259	7.72	115227	11.19
02	SS001SWMUG-5 AH 9/30/96	68664	5.43	260888	7.72	170637	11.20
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

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

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Lab File ID (Standard): HB582 Date Analyzed: 09/05/96

Instrument ID: ITS8 Time Analyzed: 2234

		IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
	12 HOUR STD	281449	14.89	205446	21.45	219635	24.25
	UPPER LIMIT	562898	15.39	410892	21.95	439270	24.75
	LOWER LIMIT	140724	14.39	102723	20.95	109818	23.75
	CLIENT SAMPLE NO.						
01	SS001SWMUG-5	209484	14.87	173123	21.44	172039	24.24
02	SS001SWMUG-5	299222	14.90	205359	21.46	169794	24.27
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

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

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Lab File ID (Standard): HB623 Date Analyzed: 09/07/96

Instrument ID: ITS8 Time Analyzed: 1834

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	88252	5.41	339046	7.70	191883	11.18
	UPPER LIMIT	176504	5.91	678092	8.20	383766	11.68
	LOWER LIMIT	44126	4.91	169523	7.20	95942	10.68
	CLIENT SAMPLE NO.						
01	BLK	81143	5.41	305141	7.69	189924	11.17
02	BLK BS	78798	5.42	299241	7.71	178544	11.18
03	BLK BSD	77241	5.42	303787	7.71	177764	11.18
04	SS001SWMUG-1	56368	5.41	215862	7.69	137443	11.17
05	9653-2	75789	5.41	265477	7.69	162473	11.17
06	9653-2MS	80164	5.41	303260	7.71	190746	11.19
07	9653-2MSD	80199	5.42	302939	7.71	189209	11.19
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

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

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Lab File ID (Standard): HB623 Date Analyzed: 09/07/96

Instrument ID: ITS8 Time Analyzed: 1834

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	349685	14.86	255574	21.43	273737	24.23
	UPPER LIMIT	699370	15.36	511148	21.93	547474	24.73
	LOWER LIMIT	174842	14.36	127787	20.93	136868	23.73
	CLIENT SAMPLE NO.						
01	BLK	344462	14.84	268412	21.41	252988	24.21
02	BLK BS	332569	14.87	219059	21.44	237118	24.22
03	BLK BSD	344084	14.86	226101	21.43	230194	24.22
04	SS001SWMUG-1	236284	14.84	167665	21.41	153013	24.21
05	9653-2	272281	14.85	190282	21.43	180368	24.22
06	9653-2MS	335316	14.87	202036	21.44	170868	24.24
07	9653-2MSD	324653	14.87	196996	21.45	158995	24.24
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IS4 (PHN) = Phenanthrene-d10
IS5 (CRY) = Chrysene-d12
IS6 (PRY) = Perylene-d12

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

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

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Lab File ID (Standard): FD255 Date Analyzed: 09/07/96

Instrument ID: ITS3 Time Analyzed: 1642

		IS1 (DCB) AREA #	RT #	IS2 (NPT) AREA #	RT #	IS3 (ANT) AREA #	RT #
	12 HOUR STD	685386	5.52	2369832	7.81	1145807	11.32
	UPPER LIMIT	1370772	6.02	4739664	8.31	2291614	11.82
	LOWER LIMIT	342693	5.02	1184916	7.31	572904	10.82
	CLIENT SAMPLE NO.						
01	SG002AOC2-5	572596	5.51	2061431	7.79	990589	11.31
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IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

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

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

FORM 8
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Lab File ID (Standard): FD255 Date Analyzed: 09/07/96

Instrument ID: ITS3 Time Analyzed: 1642

		IS4(PHN) AREA #	RT #	IS5(CRY) AREA #	RT #	IS6(PRY) AREA #	RT #
	12 HOUR STD	1808888	14.31	1245113	19.74	1134608	22.48
	UPPER LIMIT	3617776	14.81	2490226	20.24	2269216	22.98
	LOWER LIMIT	904444	13.81	622556	19.24	567304	21.98
	CLIENT SAMPLE NO.						
01	SG002AOC2-5	1491866	14.30	818820	19.72	730807	22.47
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22							

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

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

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

SAMPLE DATA

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS001SWMUG-5

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-1

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB600

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/06/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
62-75-9	N-Nitrosodimethylamine	0.330	U
62-53-3	Aniline	0.330	U
108-95-2	Phenol	0.330	U
111-44-4	Bis(2-chloroethyl)ether	0.330	U
95-57-8	2-Chlorophenol	0.330	U
541-73-1	1,3-Dichlorobenzene	0.330	U
106-46-7	1,4-Dichlorobenzene	0.330	U
100-51-6	Benzyl alcohol	0.650	U
95-50-1	1,2-Dichlorobenzene	0.330	U
95-48-7	2-Methylphenol	0.330	U
39638-32-9	Bis(2-chloroisopropyl)ether	0.330	U
106-44-5	4-Methylphenol	0.330	U
621-64-7	N-Nitrosodi-n-propylamine	0.330	U
67-72-1	Hexachloroethane	0.330	U
98-95-3	Nitrobenzene	0.330	U
78-59-1	Isophorone	0.330	U
88-75-5	2-Nitrophenol	0.330	U
105-67-9	2,4-Dimethylphenol	0.330	U
111-91-1	Bis(2-chloroethoxy)methane	0.330	U
65-85-0	Benzoic acid	0.800	U
120-83-2	2,4-Dichlorophenol	0.330	U
120-82-1	1,2,4-Trichlorobenzene	0.330	U
91-20-3	Naphthalene	0.656	
106-47-8	4-Chloroaniline	0.330	U
87-68-3	Hexachlorobutadiene	0.330	U
59-50-7	4-Chloro-3-methylphenol	0.650	U
91-57-6	2-Methylnaphthalene	0.995	
77-47-4	Hexachlorocyclopentadiene	0.330	U
88-06-2	2,4,6-Trichlorophenol	0.330	U
95-95-4	2,4,5-Trichlorophenol	1.65	U
91-58-7	2-Chloronaphthalene	0.330	U
88-74-4	2-Nitroaniline	1.65	U
131-11-3	Dimethylphthalate	0.330	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS001SWMUG-5

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-1

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB600

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/06/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
208-96-8	Acenaphthylene	0.330	U
606-20-2	2,6-Dinitrotoluene	0.330	U
99-09-2	3-Nitroaniline	1.65	U
83-32-9	Acenaphthene	0.330	U
51-28-5	2,4-Dinitrophenol	0.330	U
132-64-9	Dibenzofuran	0.272	J
100-02-7	4-Nitrophenol	0.800	U
121-14-2	2,4-Dinitrotoluene	0.330	U
84-66-2	Diethylphthalate	0.330	U
86-73-7	Fluorene	0.330	U
7005-72-3	4-Chlorophenyl phenyl ether	0.330	U
100-01-6	4-Nitroaniline	1.65	U
534-52-1	4,6-Dinitro-2-methylphenol	1.65	U
86-30-6	N-Nitrosodiphenylamine (1)	0.330	U
103-33-3	1,2-Diphenylhydrazine	0.330	U
101-55-3	4-Bromophenyl phenyl ether	0.330	U
118-74-1	Hexachlorobenzene	0.330	U
87-86-5	Pentachlorophenol	1.65	U
92875	Benzidine	1.67	U
85-01-8	Phenanthrene	0.770	
120-12-7	Anthracene	0.330	U
86-74-8	Carbazole	0.330	U
84-74-2	Di-n-butylphthalate	0.330	U
206-44-0	Fluoranthene	0.648	
129-00-0	Pyrene	0.691	
85-68-7	Butyl benzyl phthalate	0.330	U
56-55-3	Benzo(a)anthracene	0.492	
91-94-1	3,3'-Dichlorobenzidine	1.30	U
218-01-9	Chrysene	0.628	
117-81-7	Bis(2-ethylhexyl)phthalate	0.330	U
117-84-0	Di-n-octylphthalate	0.330	U
205-99-2	Benzo(b)fluoranthene	0.947	
207-08-9	Benzo(k)fluoranthene	0.355	E

AH 10/11/96

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS001SWMUG-5

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-1

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB600

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/06/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
50-32-8	Benzo(a)pyrene	0.558	
193-39-5	Indeno(1,2,3-cd)pyrene	0.396	
53-70-3	Dibenz(a,h)anthracene	0.330	U
191-24-2	Benzo(g,h,i)perylene	0.404	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SS001SWMUG-5

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-1

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB600

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

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

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/06/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

Number TICs found: 22

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	79-39-0	METHACRYLAMIDE	2.24	1.64	NJ
2.	108-88-3	TOLUENE	2.32	1.20	NJ
3.	4461-48-7	PENTENE, METHYL-	2.94	1.72	NJ
4.	112-40-3	DODECANE	7.84	0.454	NJ
5.	90-12-0	NAPHTHALENE, 1-METHYL-	9.31	0.793	NJ
6.	629-59-4	TETRADECANE	10.21	0.575	NJ
7.	581-40-8	DIMETHYL NAPHTHALENE (ISOMER	10.55	0.704	NJ
8.	573-98-8	DIMETHYL NAPHTHALENE (ISOMER	10.78	0.550	NJ
9.	18344-37-1	HEPTADECANE, 2,6,10,14-TETRA	10.86	0.563	NJ
10.	112-53-8	1-DODECANOL	11.03	1.22	NJ
11.	629-62-9	PENTADECANE	11.29	0.676	NJ
12.	2245-38-7	NAPHTHALENE, TRIMETHYL-	12.07	0.552	NJ
13.	544-76-3	HEXADECANE	12.33	1.05	NJ
14.	1921-70-6	PENTADECANE, 2,6,10,14-TETRA	13.58	2.36	NJ
15.	7391-61-9	UNKNOWN STEROID	14.20	0.651	NJ
16.	629-92-5	NONADECANE	16.24	0.766	NJ
17.	112-95-8	EICOSANE	17.34	0.692	NJ
18.	629-94-7	HENEICOSANE	18.32	0.848	NJ
19.	112-95-8	EICOSANE	20.03	0.566	NJ
20.	646-31-1	TETRACOSANE	20.80	0.531	NJ
21.	7225-64-1	HEPTADECANE, 9-OCTYL-	24.04	1.36	NJ
22.	646-31-1	TETRACOSANE	25.23	0.914	NJ
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/090596B.b/HB600.d
Lab Smp Id: D96-9653-1 Client Smp ID: SS001SWMUG-5
Inj Date : 06-SEP-1996 09:34
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : EX: 09-03-96 30/1 3550A BTL#20 *
Comment : A.T. KEARNEY
Method : /chem3/ITS8.i/090596B.b/abn8.m
Meth Date : 06-Sep-1996 15:38 vdl Quant Type: ISTD
Cal Date : 05-SEP-1996 22:34 Cal File: HB582.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/Kg)
$	3 2-Fluorophenol (SS)	112.00	3.532	3.520	(0.650)	79271	34.5	1.15
$	4 Phenol-d6 (SS)	99.00	4.911	4.914	(0.904)	160488	58.5	1.95
*	10 1,4-Dichlorobenzene-d4	152.00	5.434	5.425	(1.000)	68664	40.0	
$	19 Nitrobenzene-d5 (SS)	82.00	6.418	6.417	(0.832)	101617	40.4	1.35
*	29 Naphthalene-d8	136.00	7.718	7.722	(1.000)	260888	40.0	
	30 Naphthalene	128.00	7.760	7.764	(1.005)	132656	19.7	0.656
	34 2-Methylnaphthalene	142.00	9.125	9.131	(1.182)	137013	29.8	0.995
$	38 2-Fluorobiphenyl (SS)	172.00	9.903	9.905	(0.884)	231273	39.5	1.32
*	45 Acenaphthene-d10	164.00	11.199	11.199	(1.000)	170637	40.0	
	49 Dibenzofuran	168.00	11.621	11.628	(1.038)	60362	8.17	0.272(a)
$	58 2,4,6-Tribromophenol (SS)	330.00	12.908	12.893	(1.153)	23305	26.0	0.867
*	62 Phenanthrene-d10	188.00	14.896	14.888	(1.000)	299222	40.0	
	63 Phenanthrene	178.00	14.959	14.962	(1.004)	175906	23.1	0.770
	67 Fluoranthene	202.00	18.163	18.152	(1.219)	162146	19.4	0.648
	69 Pyrene	202.00	18.684	18.674	(0.871)	166765	20.7	0.691
$	70 Terphenyl-d14 (SS)	244.00	19.207	19.196	(0.895)	240129	42.9	1.43
	73 Benzo(a)anthracene	228.00	21.441	21.429	(0.999)	101751	14.8	0.492
*	74 Chrysene-d12	240.00	21.462	21.450	(1.000)	205359	40.0	
	75 Chrysene	228.00	21.516	21.503	(1.002)	125871	18.8	0.628
	78 Benzo(b)fluoranthene	252.00	23.589	23.565	(0.972)	150953	28.4	0.947
	79 Benzo(k)fluoranthene	252.00	23.632	23.617	(0.974)	54545	10.6	0.355(M)
	80 Benzo(a)pyrene	252.00	24.171	24.152	(0.996)	76182	16.7	0.558
*	81 Perylene-d12	264.00	24.268	24.247	(1.000)	169794	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	26.135	26.113	(1.077)	63680	11.9	0.396
	84 Benzo(g,h,i)perylene	276.00	26.579	26.556	(1.095)	55703	12.1	0.404

QC Flag Legend

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

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem3/ITS8.i/090596B.b/HB600.d
Lab Smp Id: D96-9653-1 Client Smp ID: SS001SWMUG-5
Inj Date : 06-SEP-1996 09:34
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : EX: 09-03-96 30/1 3550A BTL#20 *
Comment : A.T. KEARNEY
Method : /chem3/ITS8.i/090596B.b/abn8.m
Meth Date : 06-Sep-1996 15:38 vdl
Cal Date : 05-SEP-1996 22:34 Cal File: HB582.d
Als bottle: 1
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	5.434	408757	40.000
* 29 Naphthalene-d8	7.718	887861	40.000
* 45 Acenaphthene-d10	11.199	768341	40.000
* 62 Phenanthrene-d10	14.896	751674	40.000
* 74 Chrysene-d12	21.462	840135	40.000
* 81 Perylene-d12	24.268	493949	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(mg/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Methacrylamide				CAS #: 79-39-0			
2.237	504040	49.3	1.64	9	NBS75K.l	618	10
Toluene				CAS #: 108-88-3			
2.321	369395	36.1	1.20	95	NBS75K.l	63031	10
Pentene, Methyl-				CAS #: 4461-48-7			
2.937	525826	51.4	1.72	59	NBS75K.l	62770	10

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(mg/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Dodecane					CAS #: 112-40-3		
7.844	302593	13.6	0.454	97	NBS75K.l	68254	29
Naphthalene, 1-methyl-					CAS #: 90-12-0		
9.314	527879	23.8	0.793	94	NBS75K.l	66233	29
Tetradecane					CAS #: 629-59-4		
10.208	331463	17.2	0.575	96	NBS75K.l	69660	45
Dimethyl Naphthalene (isomer)					CAS #: 581-40-8		
10.545	405827	21.1	0.704	97	NBS75K.l	11622	45
Dimethyl Naphthalene (isomer)					CAS #: 573-98-8		
10.777	316965	16.5	0.550	98	NBS75K.l	11623	45
Heptadecane, 2,6,10,14-tetramethyl-					CAS #: 18344-37-1		
10.862	324678	16.9	0.563	86	NBS75K.l	42200	45
1-Dodecanol					CAS #: 112-53-8		
11.030	706398	36.8	1.22	91	NBS75K.l	69118	45(L)
Pentadecane					CAS #: 629-62-9		
11.294	389416	20.3	0.676	95	NBS75K.l	26001	45
Naphthalene, Trimethyl-					CAS #: 2245-38-7		
12.074	317973	16.6	0.552	97	NBS75K.l	68264	45
Hexadecane					CAS #: 544-76-3		
12.328	606935	31.6	1.05	90	NBS75K.l	70789	45
Pentadecane, 2,6,10,14-tetramethyl-					CAS #: 1921-70-6		
13.585	1333712	71.0	2.36	98	NBS75K.l	71951	62
Unknown steroid					CAS #: 7391-61-9		
14.198	366780	19.5	0.651	49	NBS75K.l	18735	62
Nonadecane					CAS #: 629-92-5		
16.241	431800	23.0	0.766	93	NBS75K.l	71950	62
Eicosane					CAS #: 112-95-8		
17.345	390314	20.8	0.692	98	NBS75K.l	72326	62
Heneicosane					CAS #: 629-94-7		
18.322	534108	25.4	0.848	99	NBS75K.l	42201	74
Eicosane					CAS #: 112-95-8		
20.029	356900	17.0	0.566	97	NBS75K.l	72325	74

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(mg/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Tetracosane					CAS #: 646-31-1		
20.798	334456	15.9	0.531	99	NBS75K.l	73543	74
Heptadecane, 9-octyl-					CAS #: 7225-64-1		
24.042	502292	40.7	1.36	93	NBS75K.l	49558	81
Tetracosane					CAS #: 646-31-1		
25.228	338739	27.4	0.914	96	NBS75K.l	73543	81

QC Flag Legend

L - Operator selected an alternate library search match.

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: ITS8.i
Lab File ID: HB600.d
Lab Smp Id: D96-9653-1
Analysis Type: SV
Quant Type: ISTD
Operator: VDLITTLE
Method File: /chem3/ITS8.i/090596B.b/abn8.m
Misc Info: EX: 09-03-96 30/1 3550A BTL#20 *

Calibration Date: 09/05/96
Calibration Time: 2234
Client Smp ID: SS001SWMUG-5
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	67985	33992	135970	68664	1.00
29 Naphthalene-d8	248236	124118	496472	260888	5.10
45 Acenaphthene-d10	149694	74847	299388	170637	13.99
62 Phenanthrene-d10	281449	140724	562898	299222	6.31
74 Chrysene-d12	205446	102723	410892	205359	-0.04
81 Perylene-d12	219635	109818	439270	169794	-22.69

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	5.43	4.93	5.93	5.43	0.16
29 Naphthalene-d8	7.72	7.22	8.22	7.72	-0.05
45 Acenaphthene-d10	11.20	10.70	11.70	11.20	0.00
62 Phenanthrene-d10	14.89	14.39	15.39	14.90	0.05
74 Chrysene-d12	21.45	20.95	21.95	21.46	0.06
81 Perylene-d12	24.25	23.75	24.75	24.27	0.09

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: D96-9653-1
Level: LOW
Data Type: MS DATA
SpikeList File: 8270_100.spk
Method File: /chem3/ITS8.i/090596B.b/abn8.m
Misc Info: EX: 09-03-96 30/1 3550A BTL#20 *

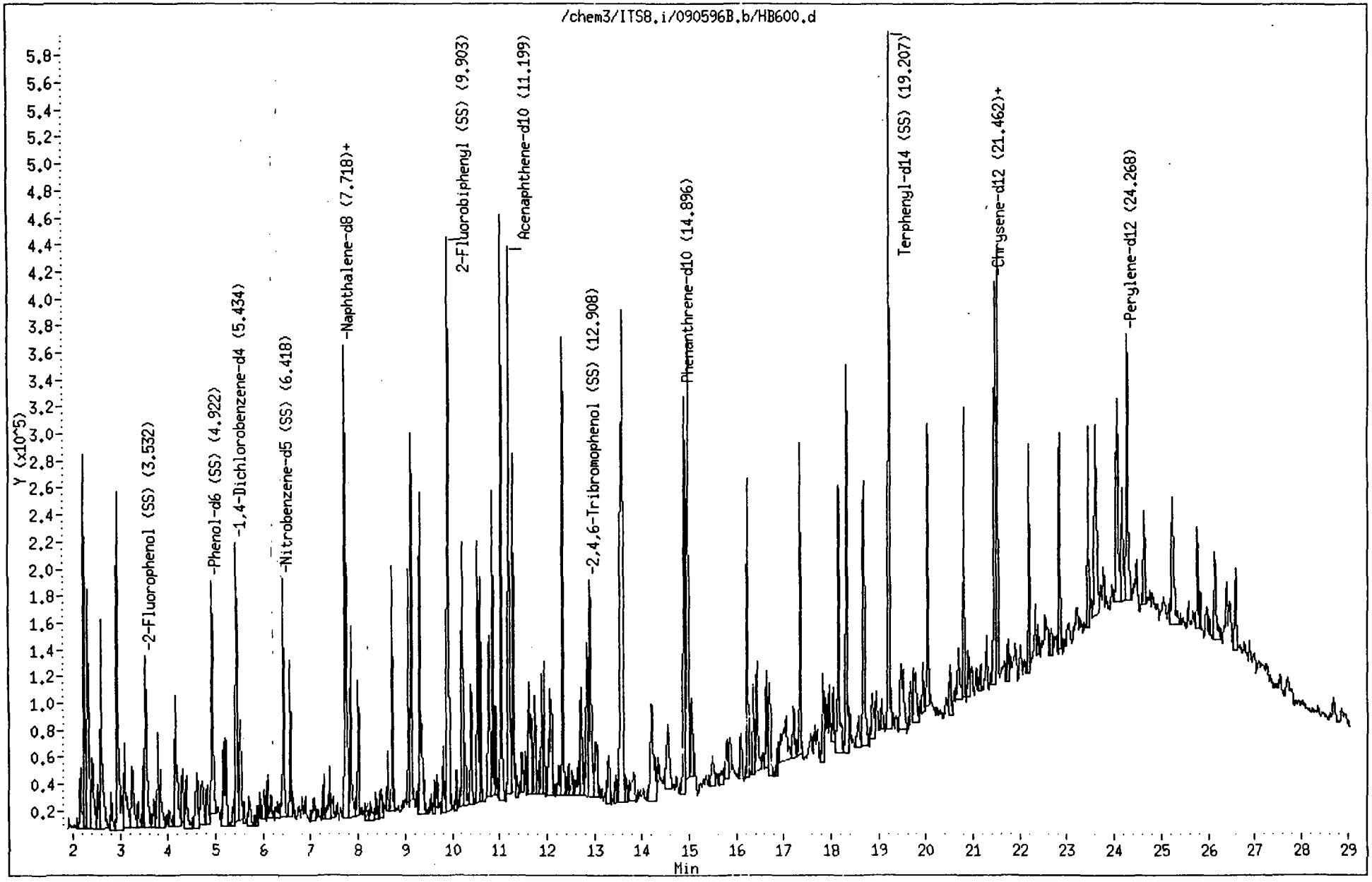
Client SDG: 090696
Fraction: SV
Client Smp ID: SS001SWMUG-5
Operator: VDLITTLE
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
$ 3 2-Fluorophenol (SS	3.33	1.15	34.48	25-121
$ 4 Phenol-d6 (SS)	3.33	1.95	58.51	24-113
$ 19 Nitrobenzene-d5 (S	1.67	1.35	80.79	23-120
$ 38 2-Fluorobiphenyl (	1.67	1.32	79.00	30-115
$ 58 2,4,6-Tribromophen	3.33	0.867	26.02	19-122
$ 70 Terphenyl-d14 (SS)	1.67	1.43	85.77	18-137

Data File: /chem3/ITS8.i/090596B.b/HB600.d
Date : 06-SEP-1996 09:34
Client ID: SS001SWMUG-5
Sample Info: 8270_ABN_S;;AB848-83;1
Volume Injected (uL): 1.0
Column phase: DB-5

Instrument: ITS8.i

Operator: VDLITTLE
Column diameter: 0.25



Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

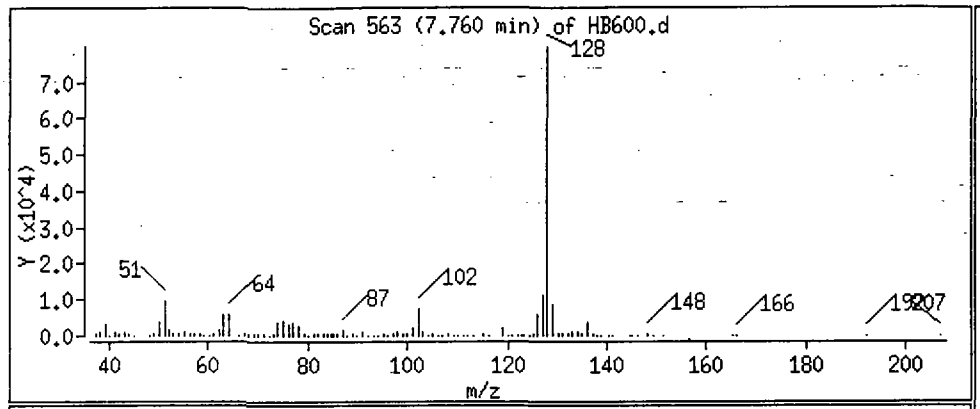
Volume Injected (uL): 1.0

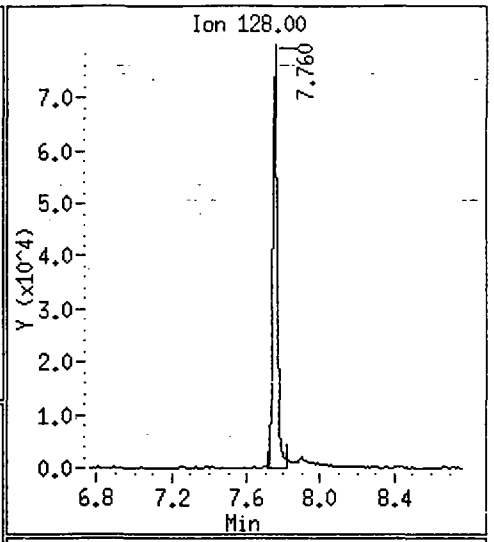
Operator: VDLITTLE

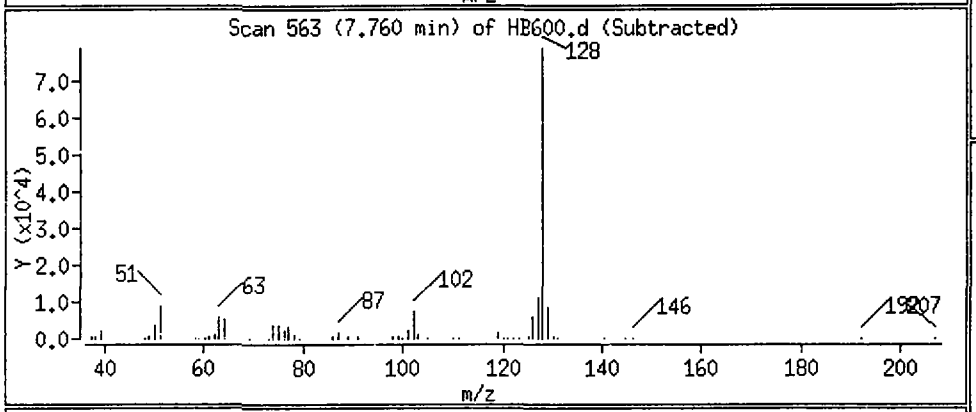
Column phase: DB-5

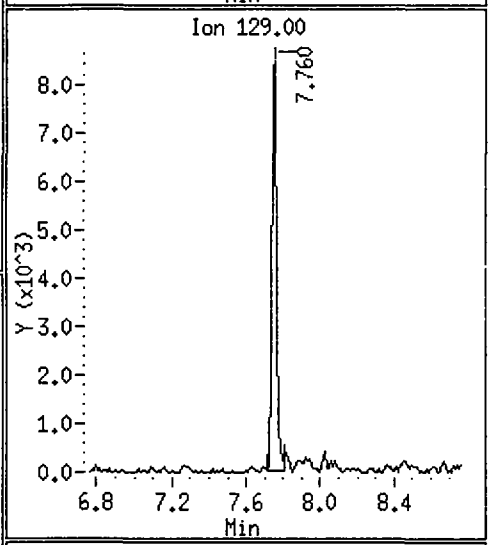
Column diameter: 0.25

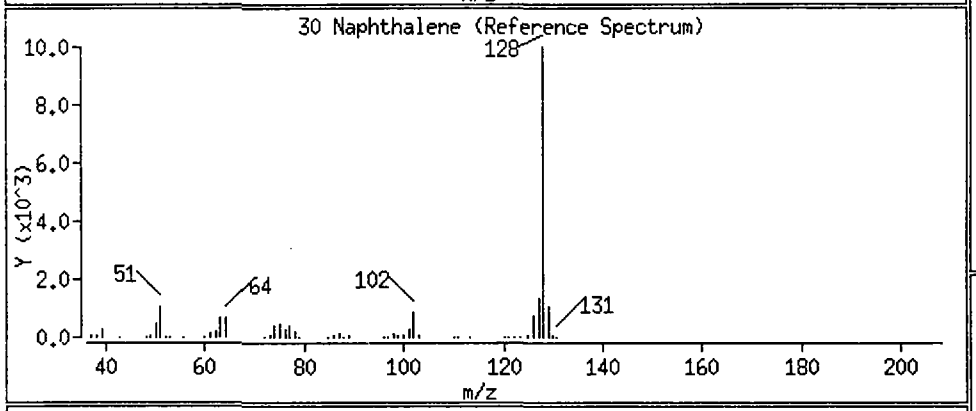
30 Naphthalene

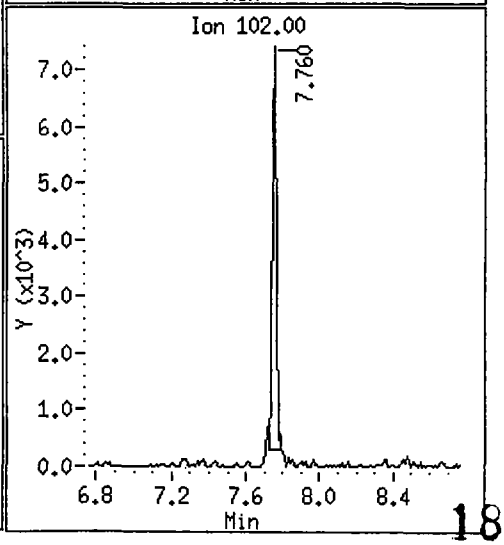


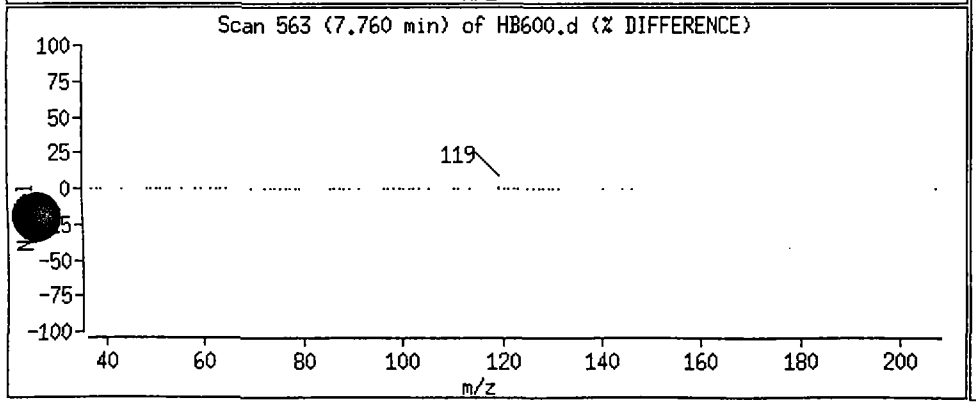












Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

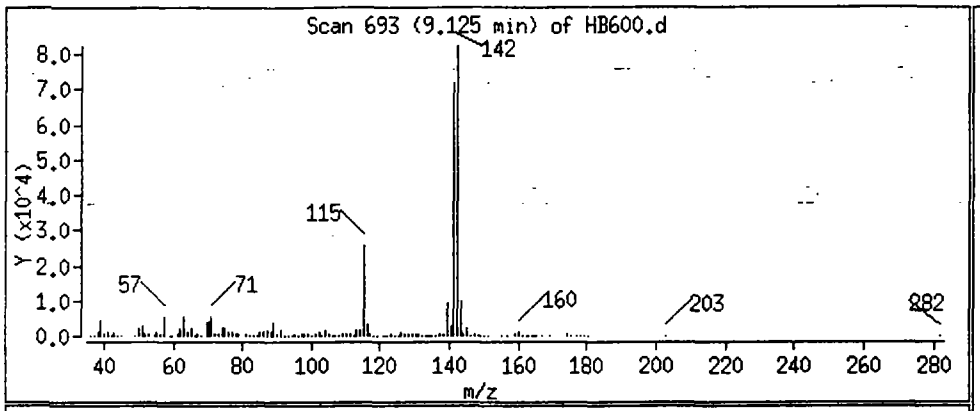
Volume Injected (uL): 1.0

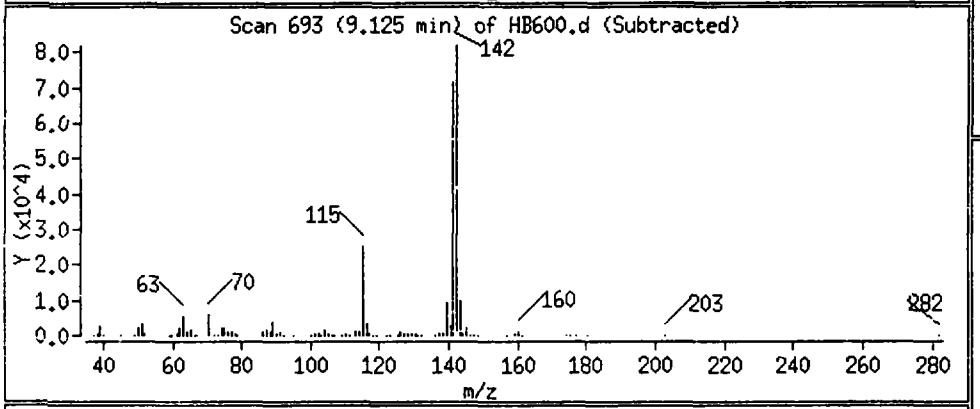
Operator: VDLITTLE

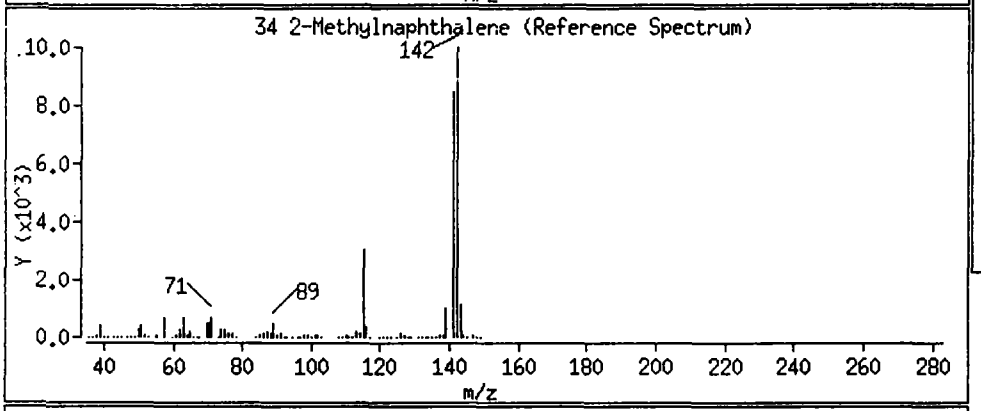
Column phase: DB-5

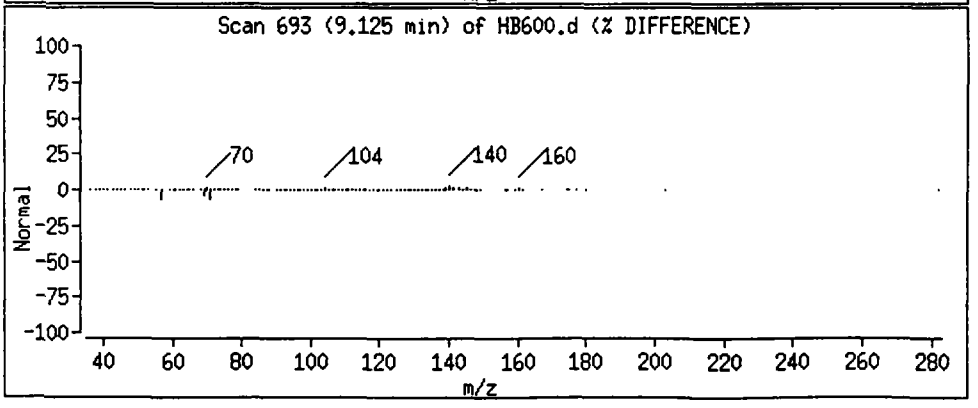
Column diameter: 0.25

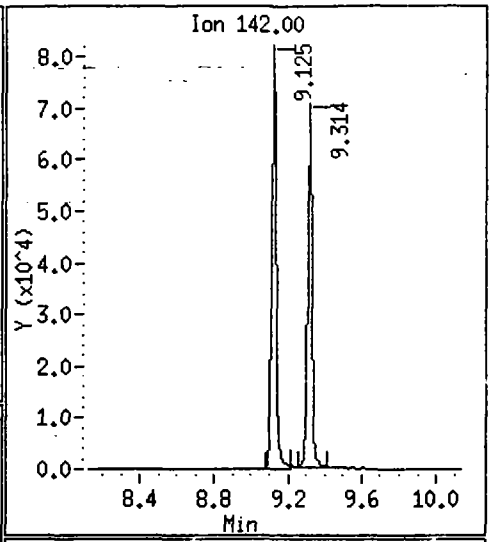
34 2-Methylnaphthalene

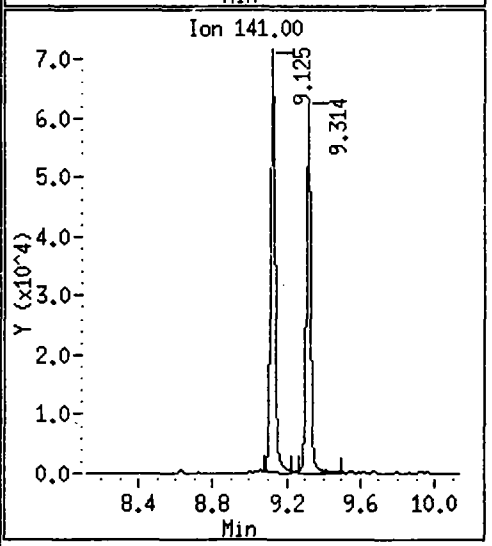












Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

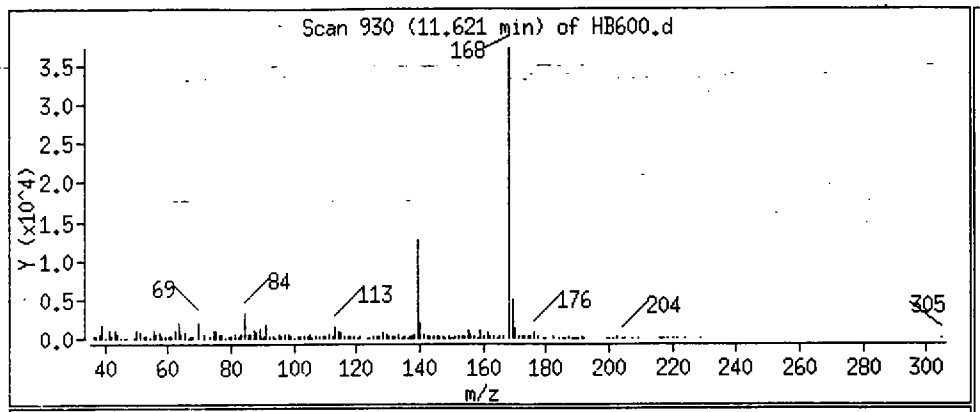
Client ID: SS001SWMUG-5 Instrument: ITS8.i

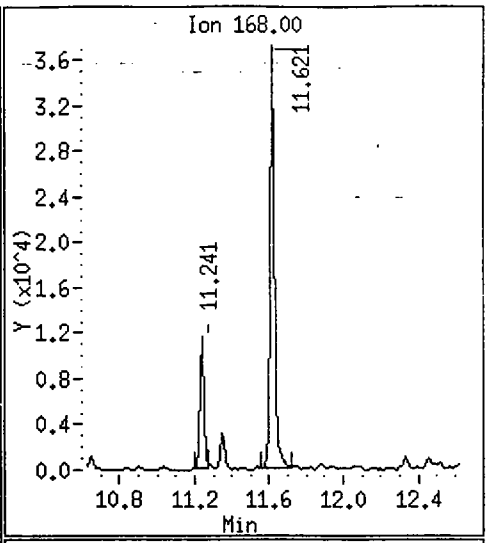
Sample Info: 8270_ABN_S;;AB848-83;1

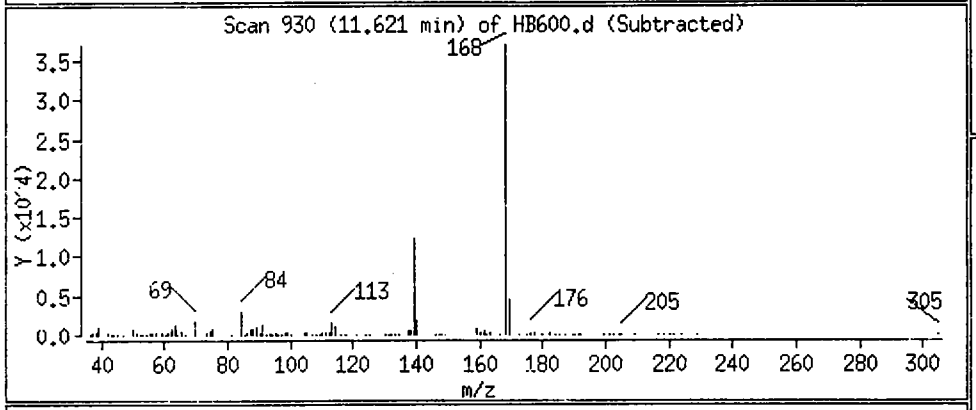
Volume Injected (uL): 1.0 Operator: VDLITTLE

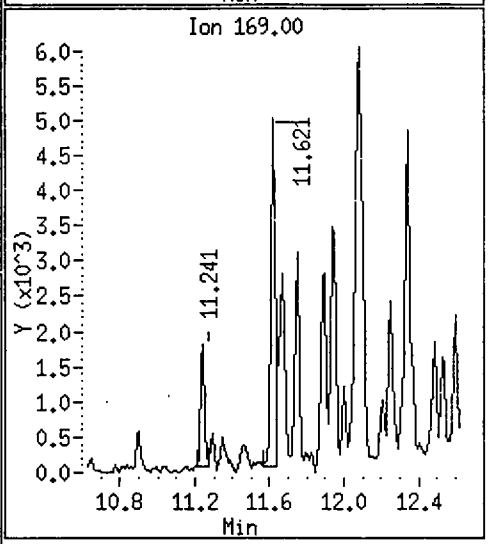
Column phase: DB-5 Column diameter: 0.25

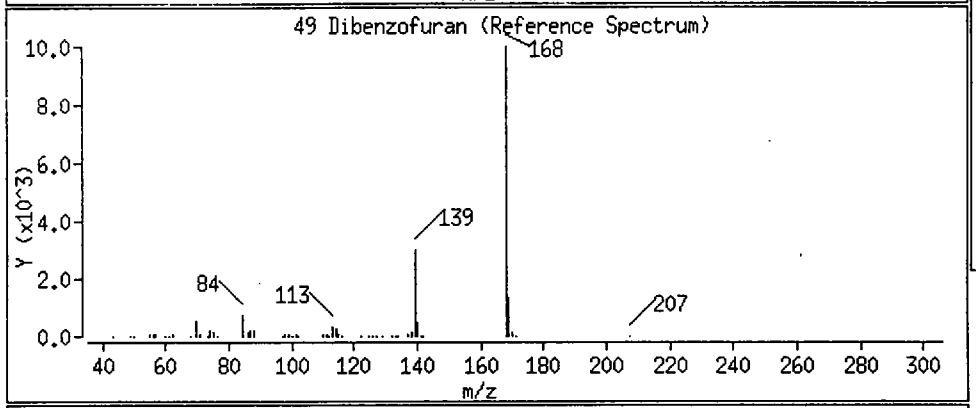
49 Dibenzofuran

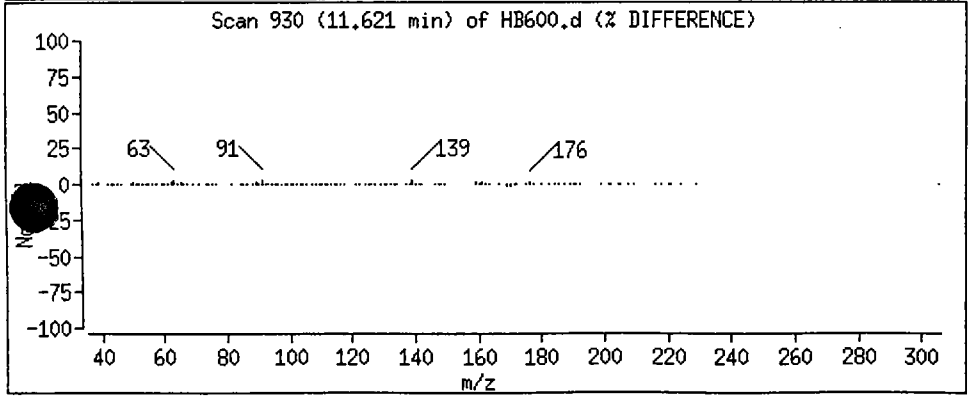






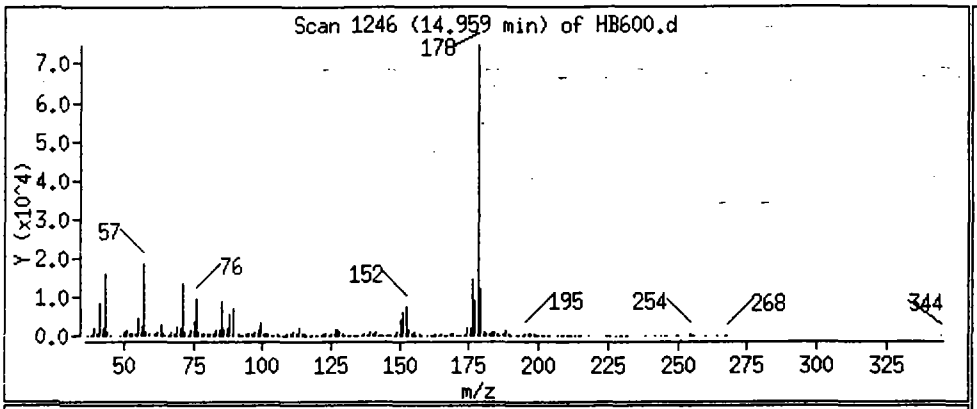


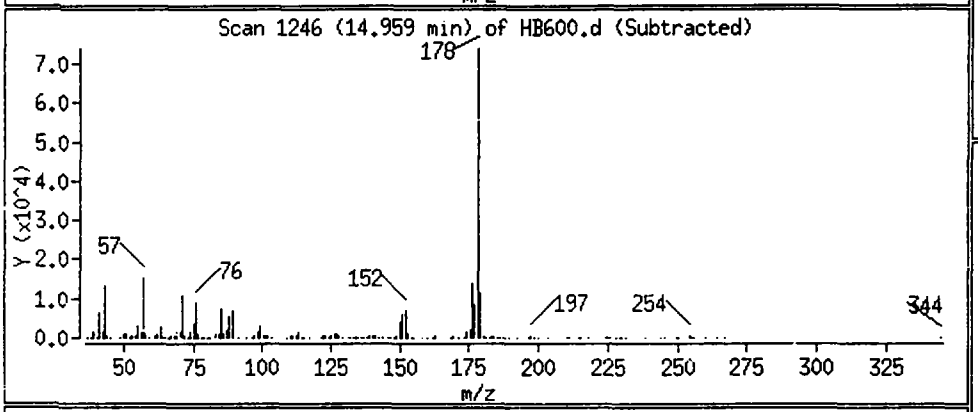


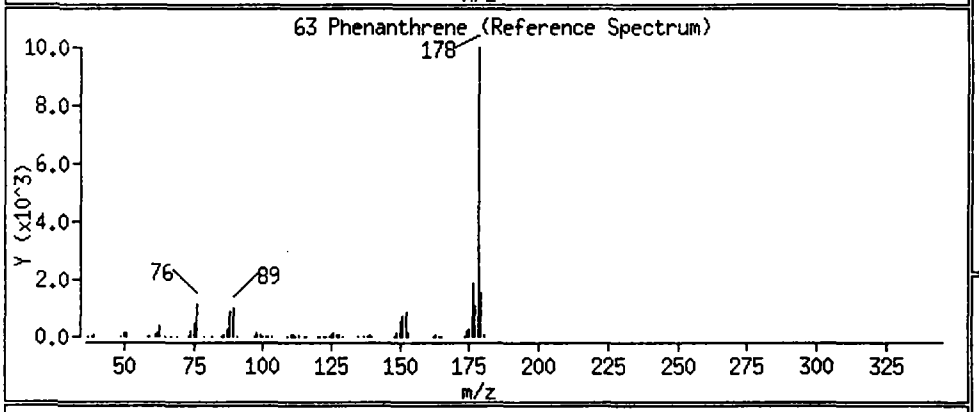


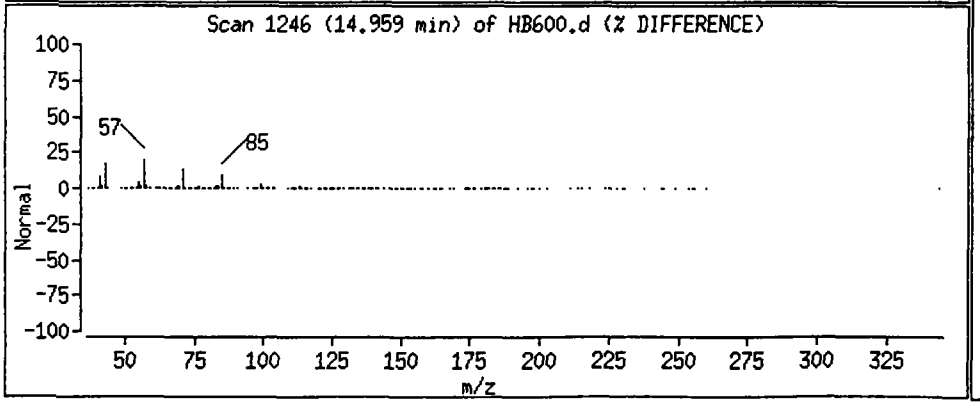
Data File: /chem3/ITS8.i/090596B.b/HB600.d
Date : 06-SEP-1996 09:34
Client ID: SS001SWMUG-5
Instrument: ITS8.i
Sample Info: 8270_ABN_S;;AB848-83;1
Volume Injected (uL): 1.0
Operator: VDLITTLE
Column phase: DB-5
Column diameter: 0.25

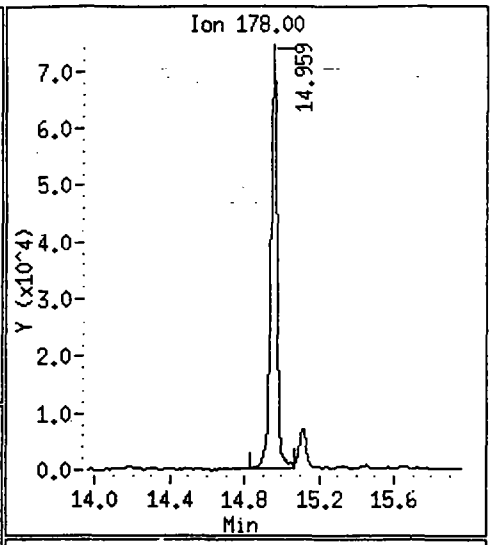
63 Phenanthrene

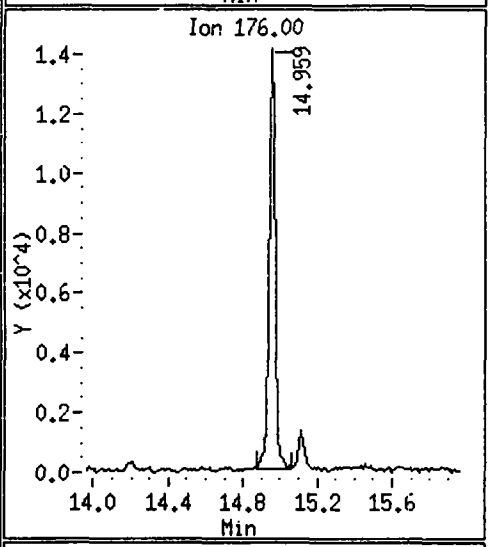


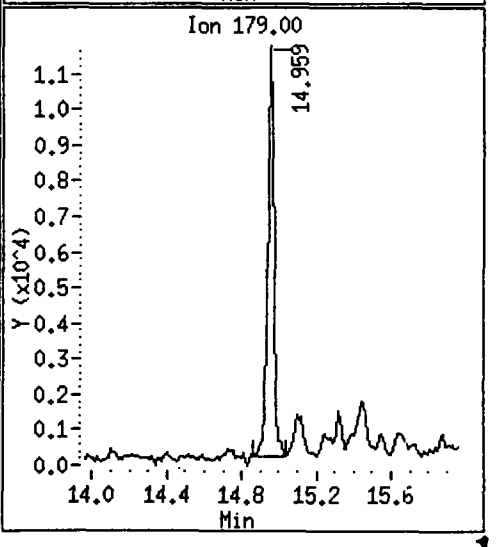












Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

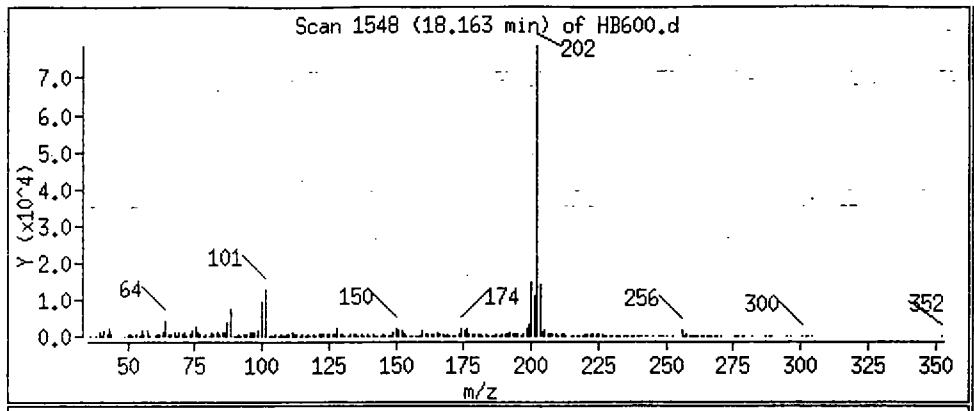
Volume Injected (uL): 1.0

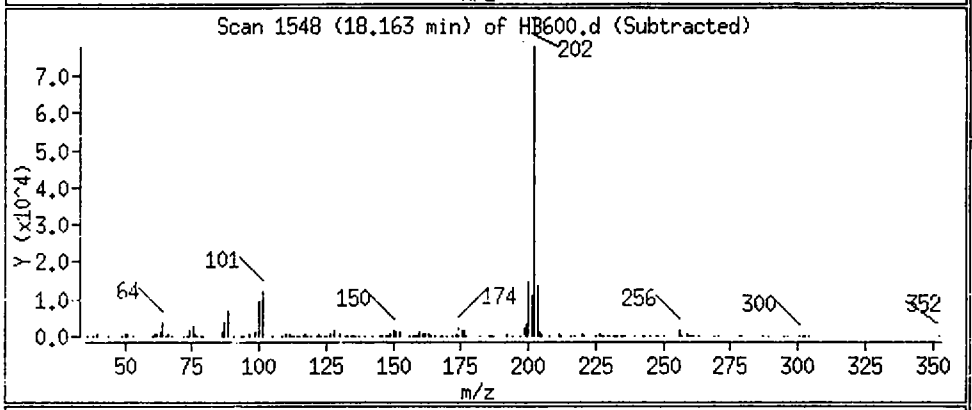
Operator: VDLITTLE

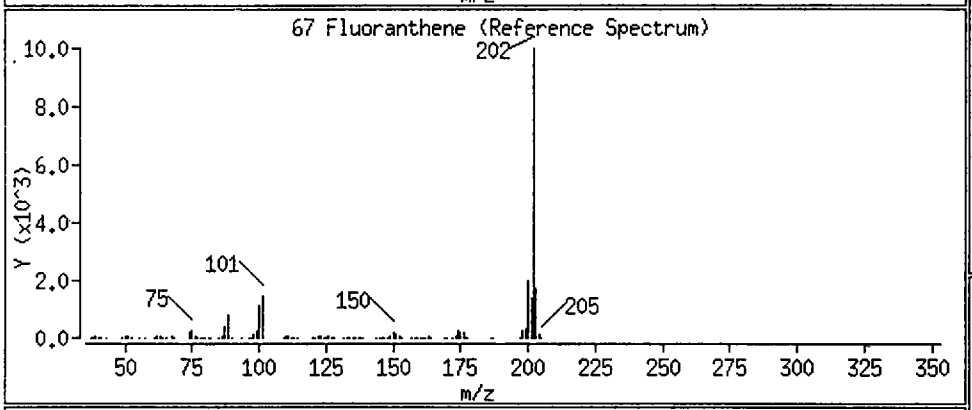
Column phase: DB-5

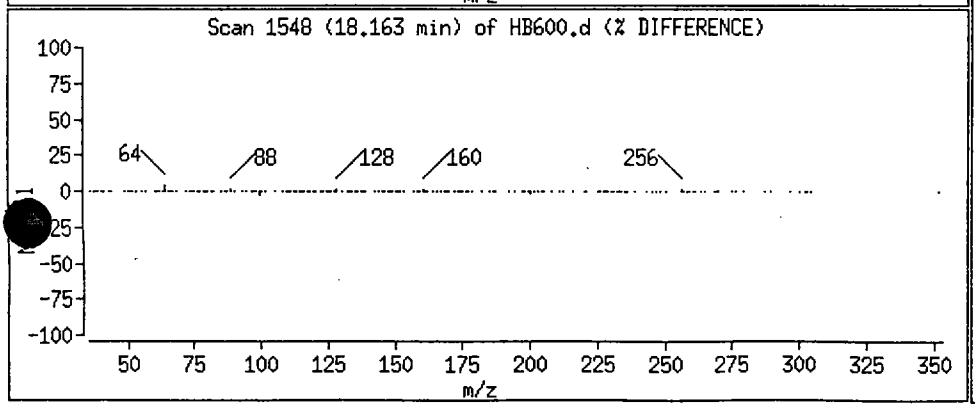
Column diameter: 0.25

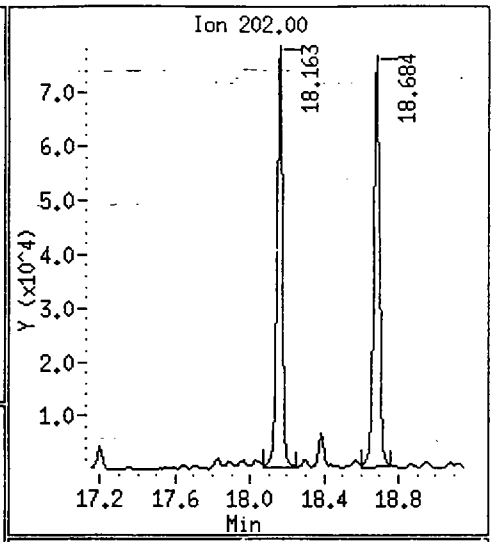
67 Fluoranthene

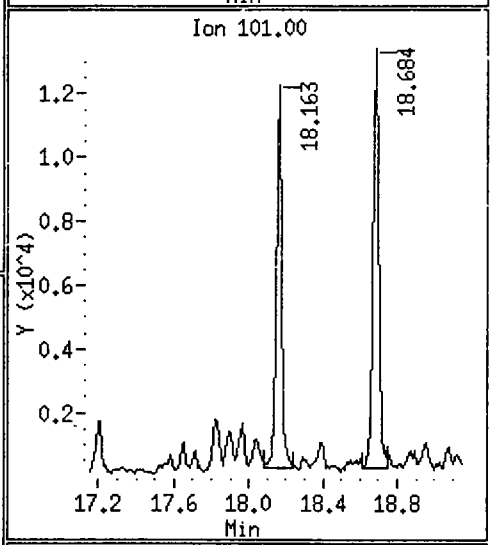


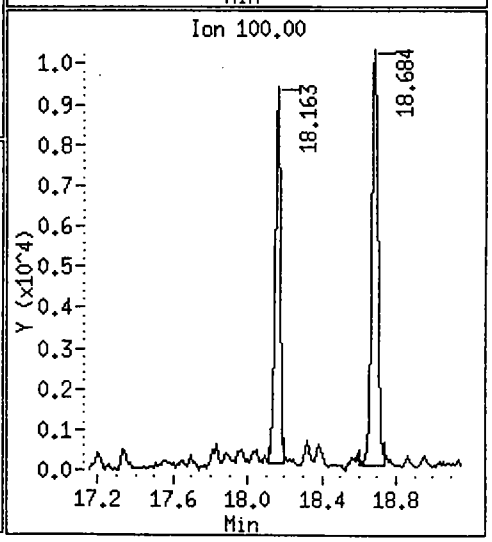












Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

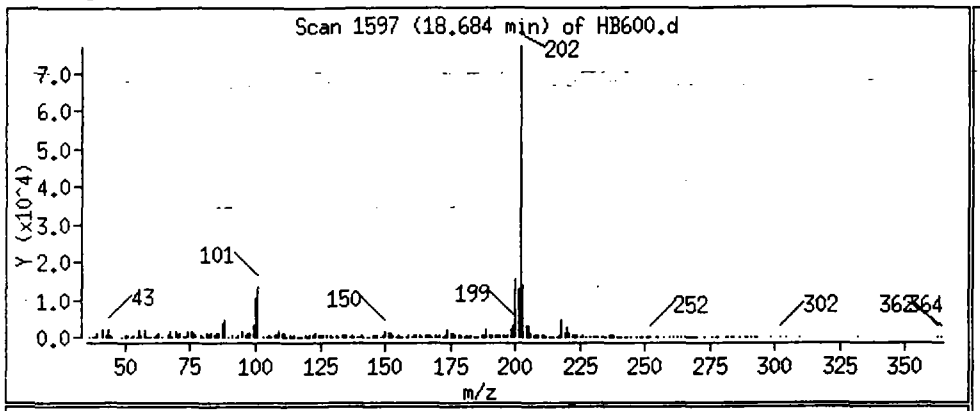
Volume Injected (uL): 1.0

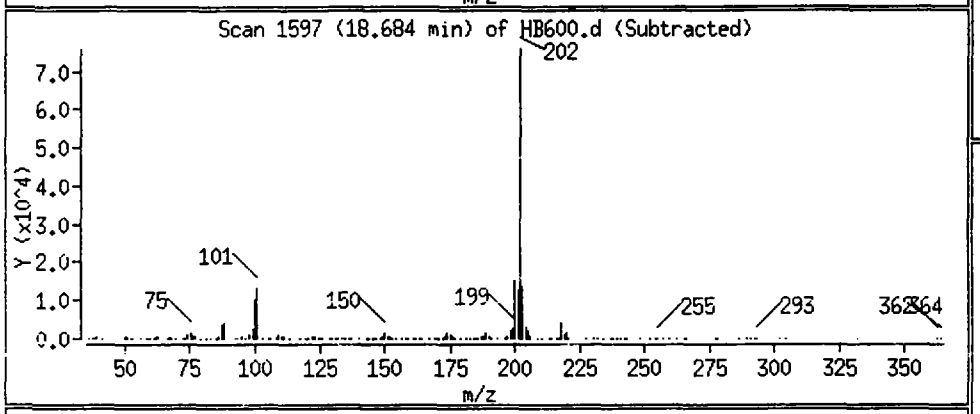
Operator: VDLITTLE

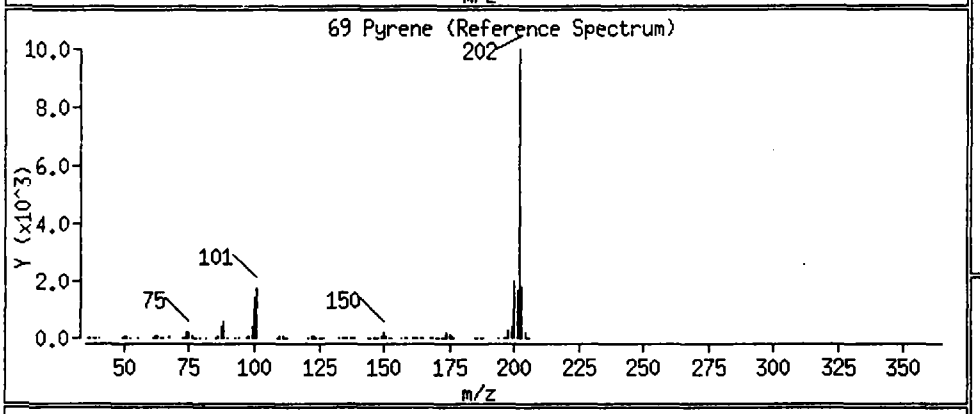
Column phase: DB-5

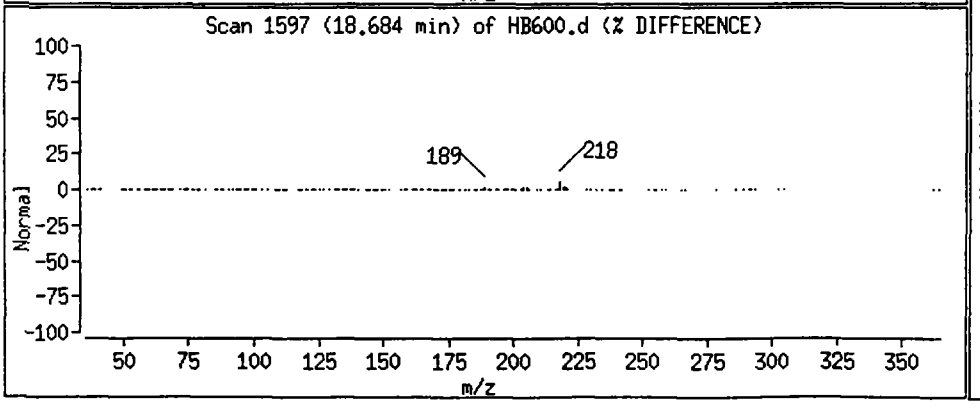
Column diameter: 0.25

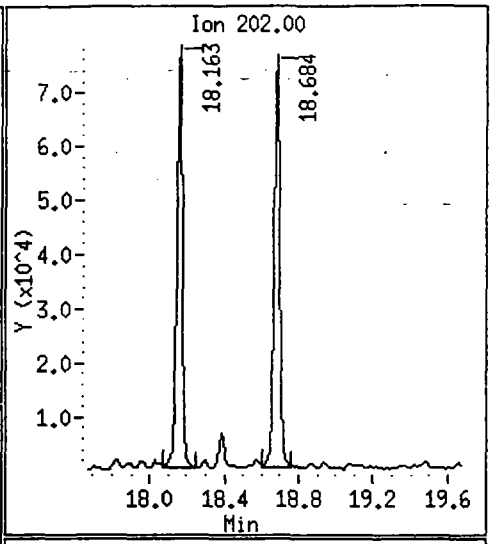
69 Pyrene

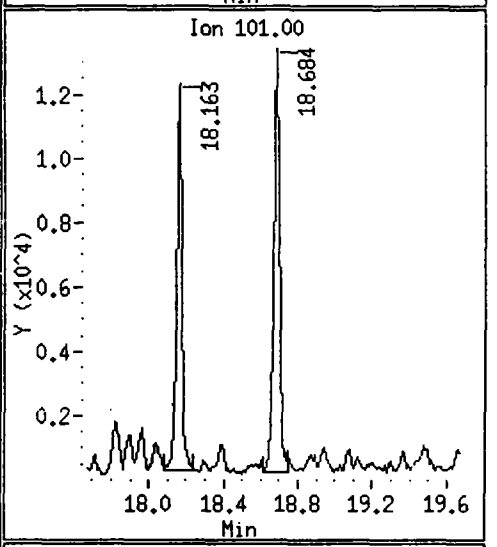


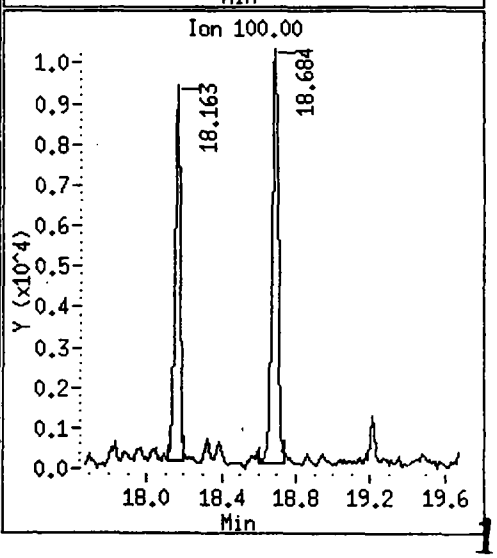












Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

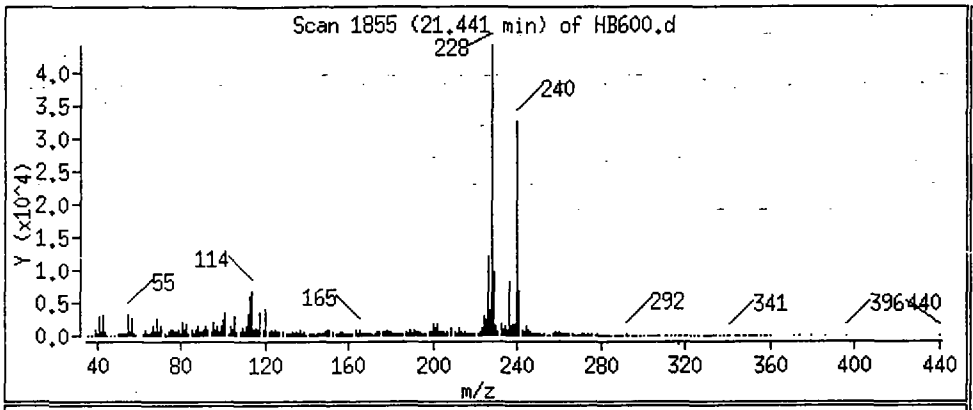
Volume Injected (uL): 1.0

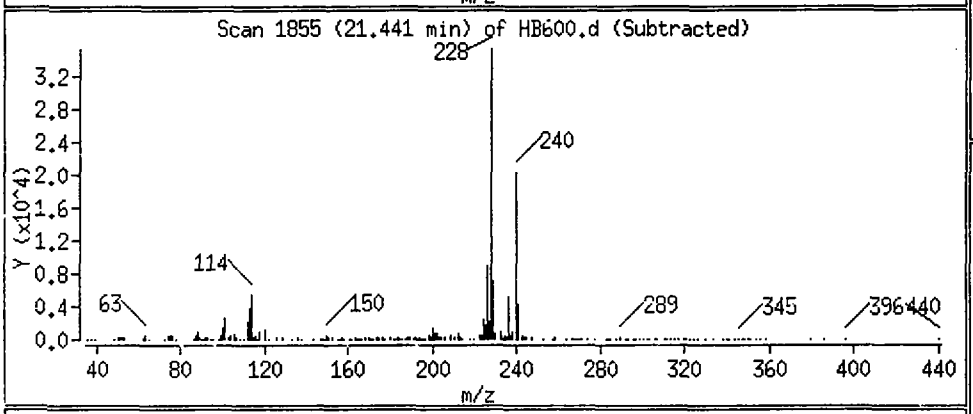
Operator: VDLITTLE

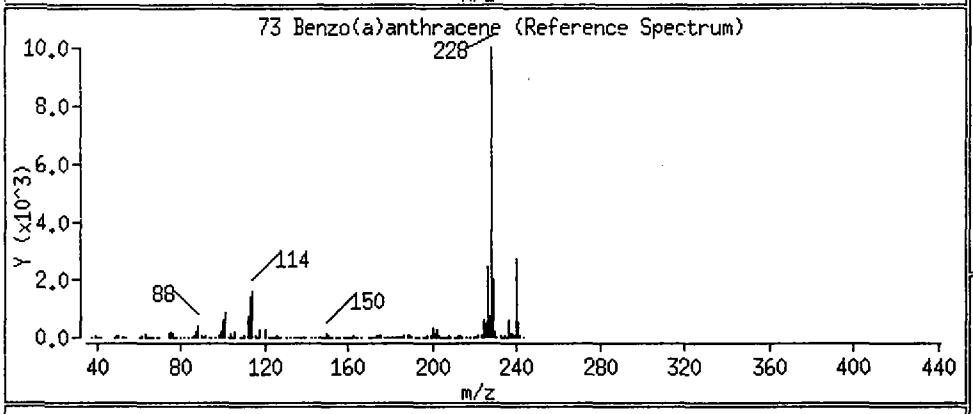
Column phase: DB-5

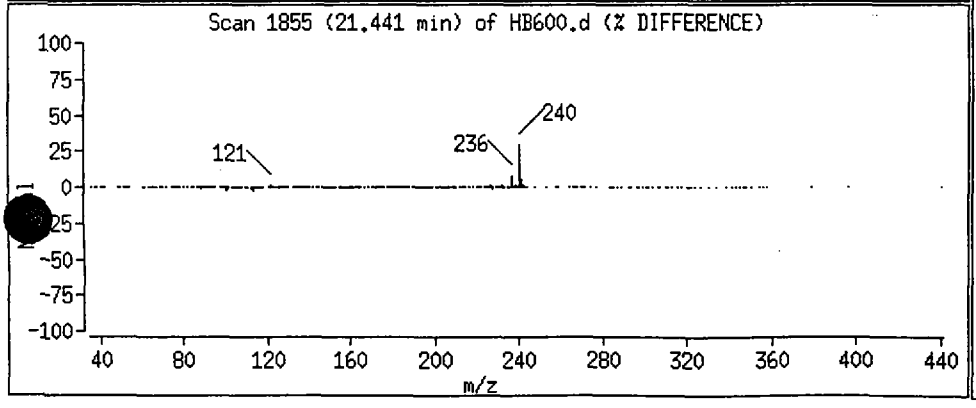
Column diameter: 0.25

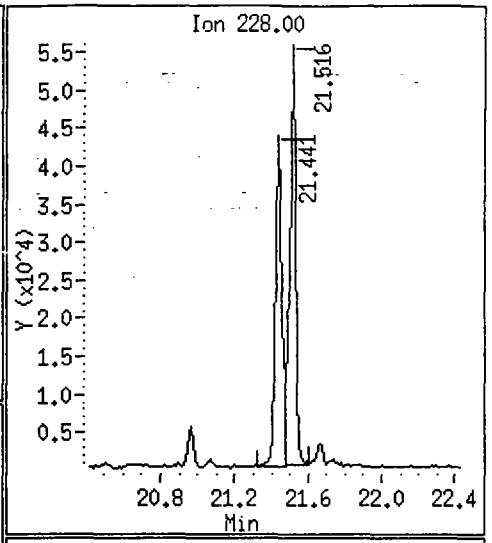
73 Benzo(a)anthracene

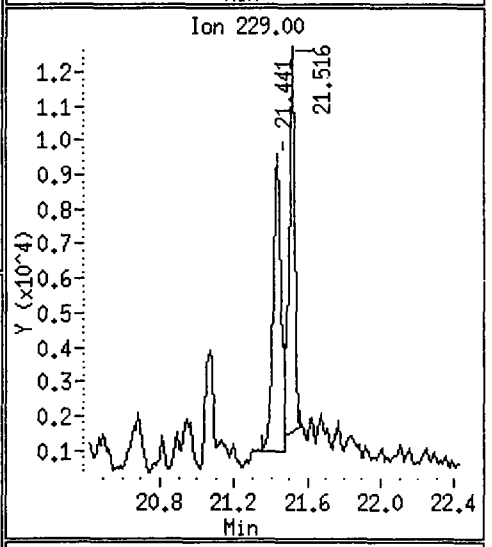


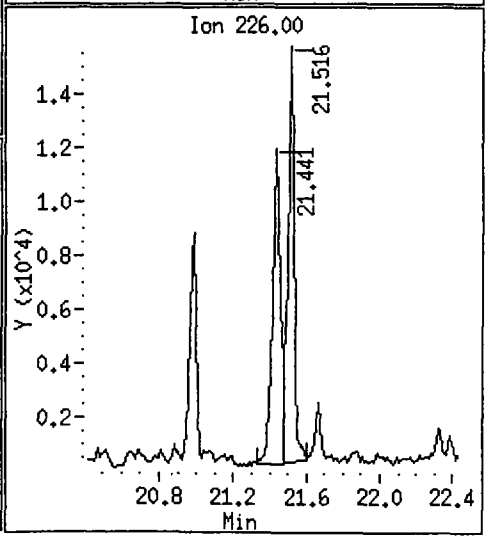












Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

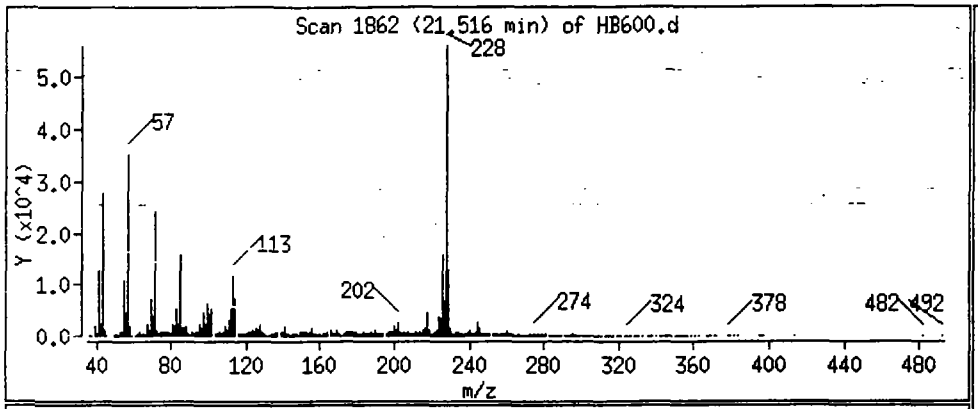
Volume Injected (uL): 1.0

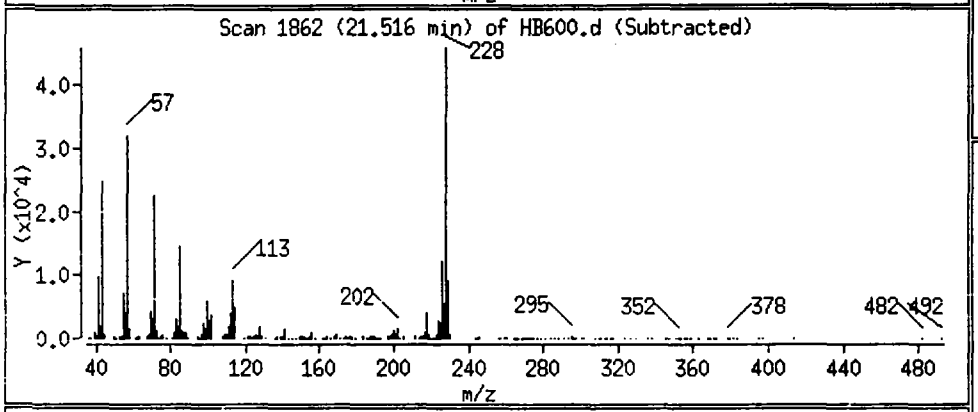
Operator: VDLITTLE

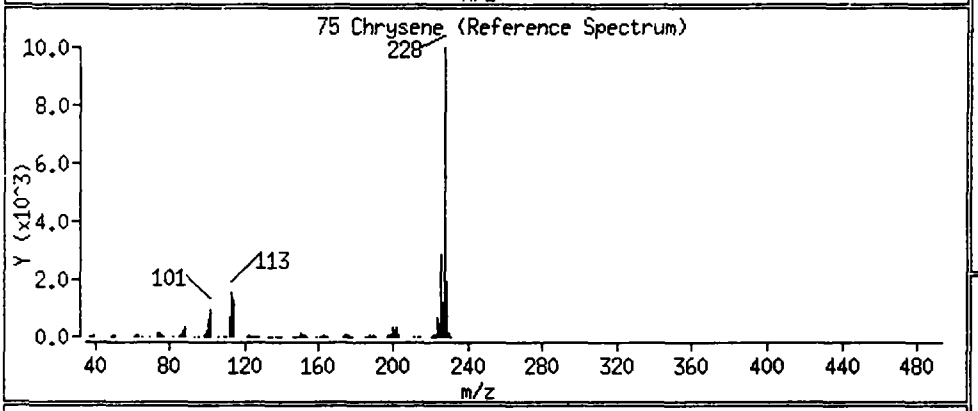
Column phase: DB-5

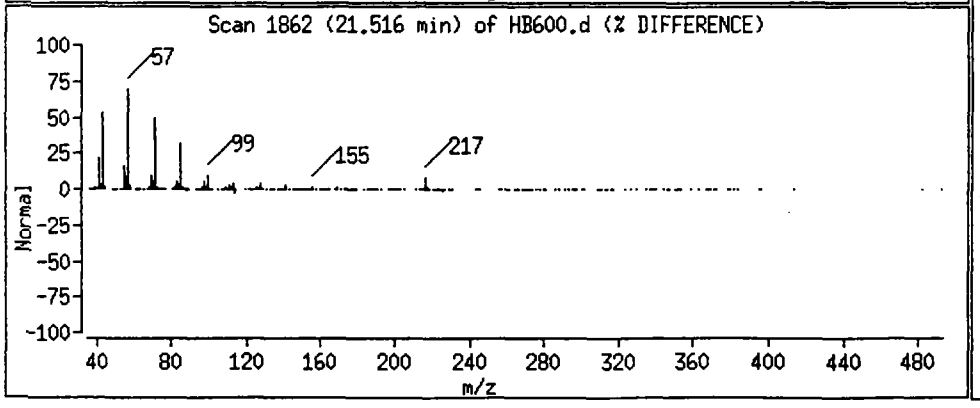
Column diameter: 0.25

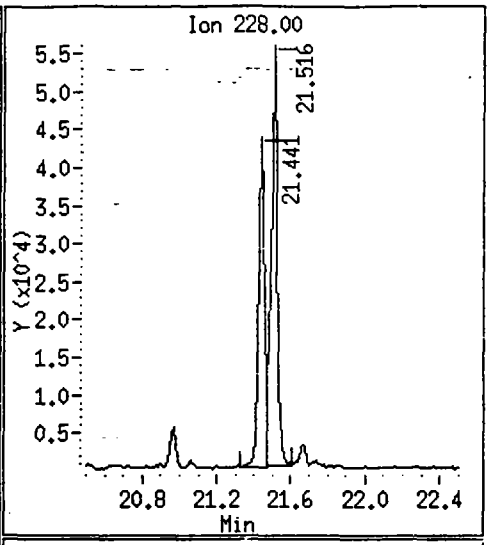
75 Chrysene

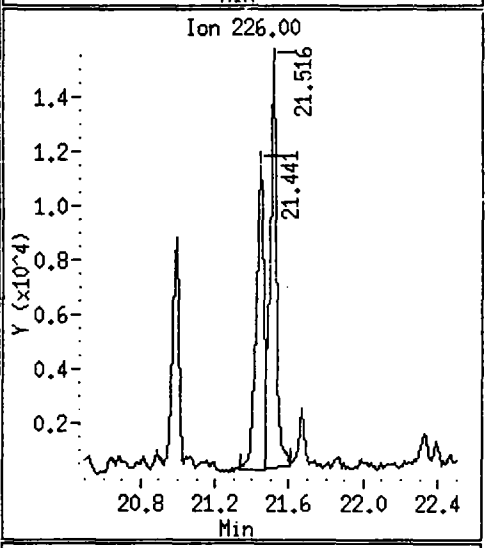


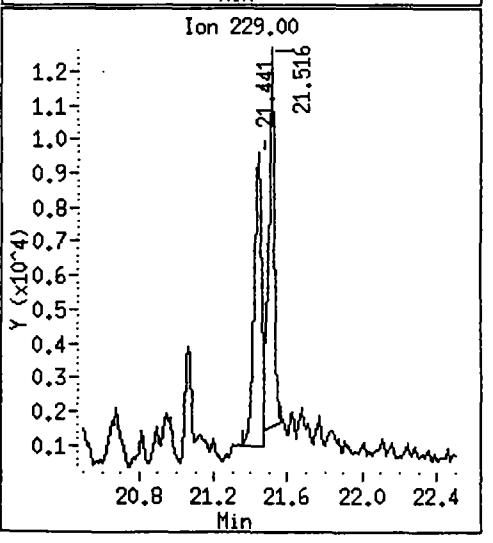












Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

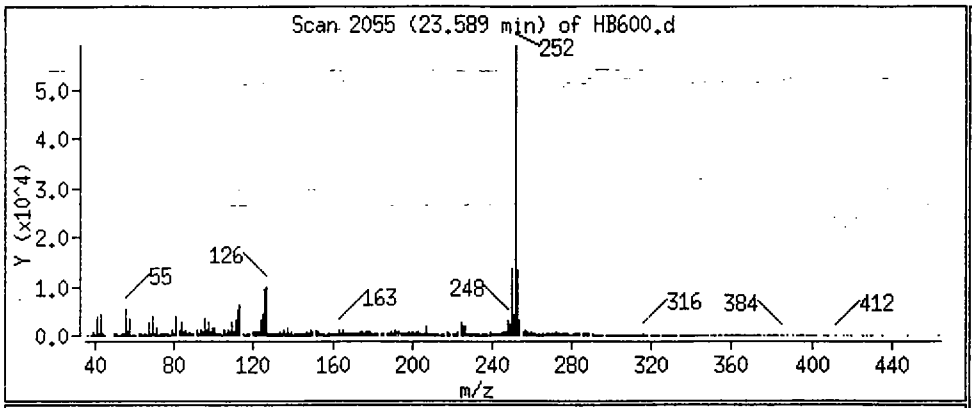
Volume Injected (uL): 1.0

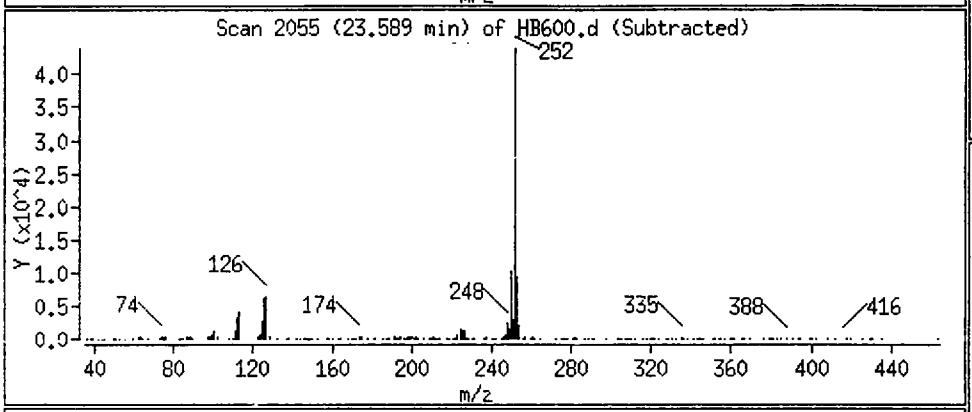
Operator: VDLITTLE

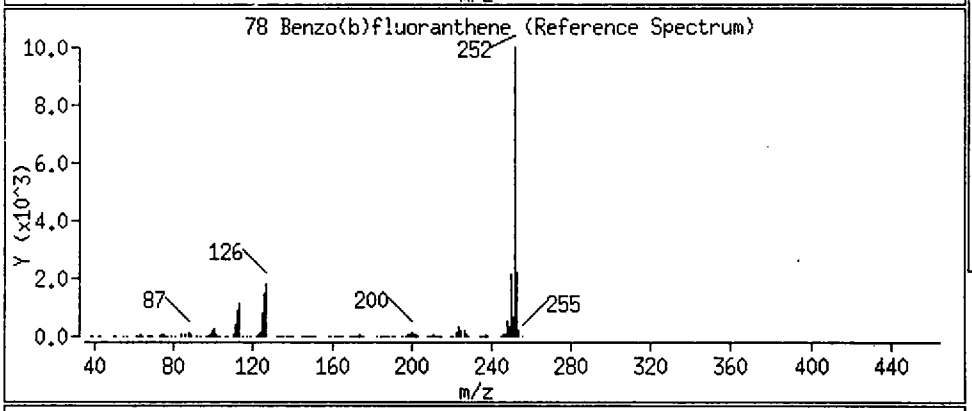
Column phase: DB-5

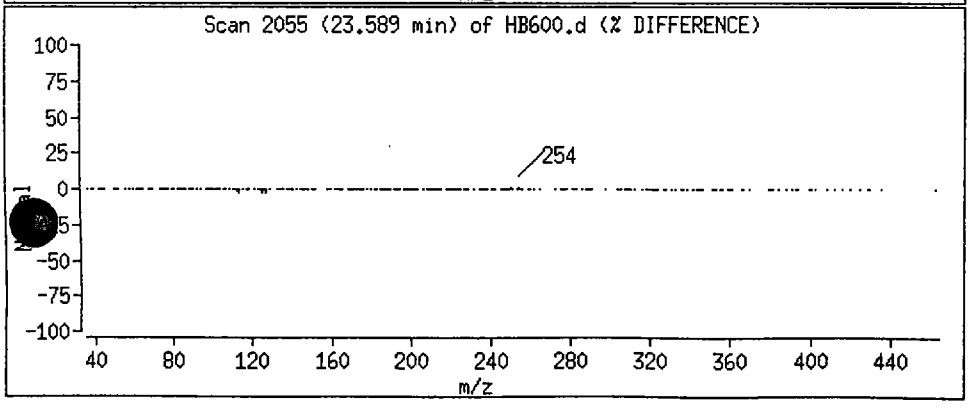
Column diameter: 0.25

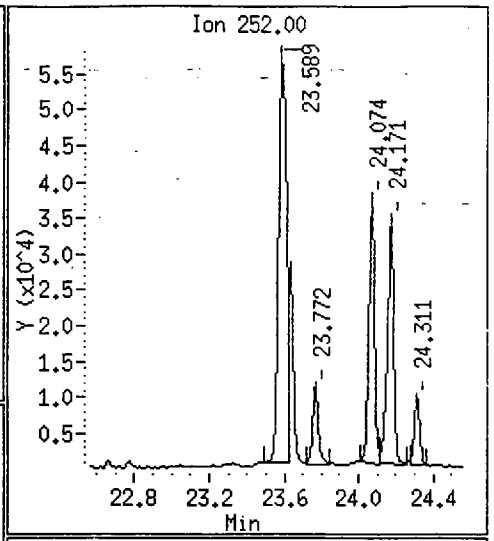
78 Benzo(b)fluoranthene

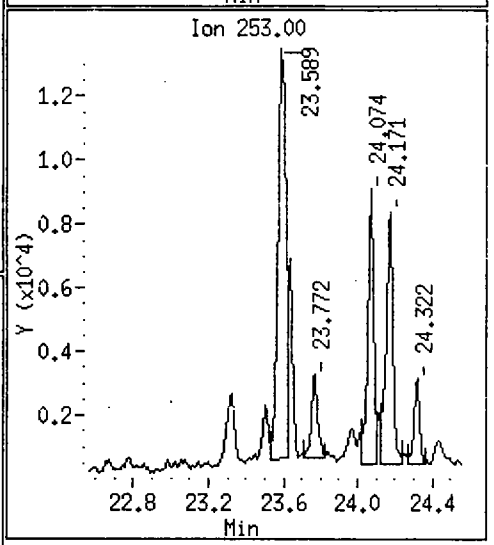












Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

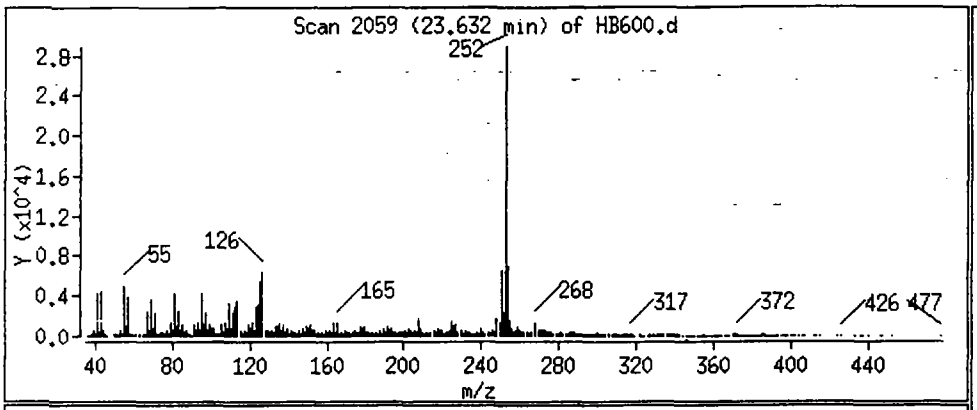
Volume Injected (uL): 1.0

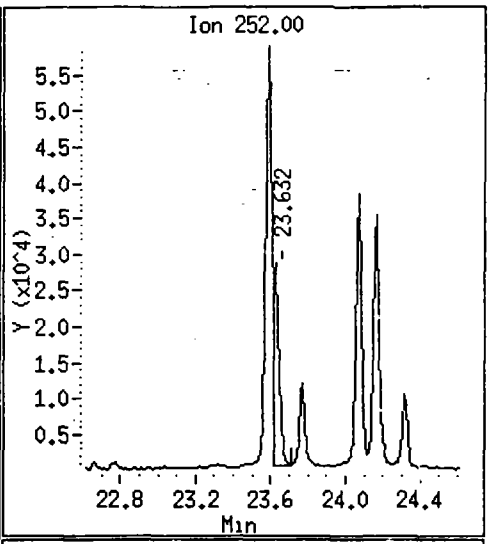
Operator: VDLITTLE

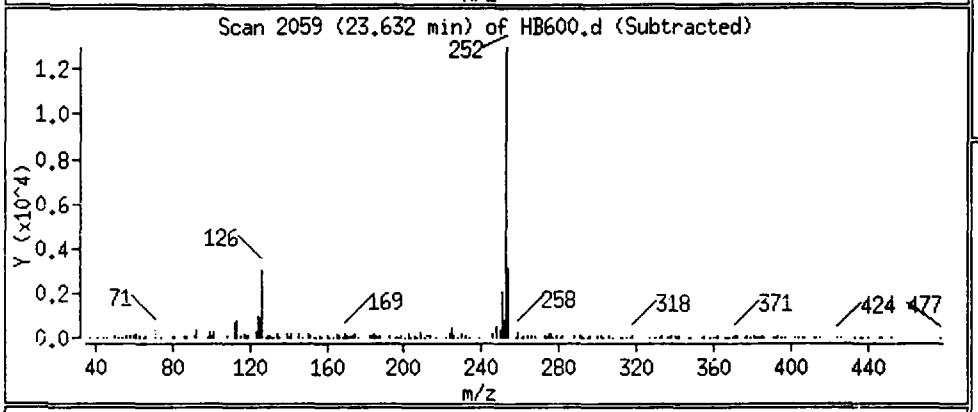
Column phase: DB-5

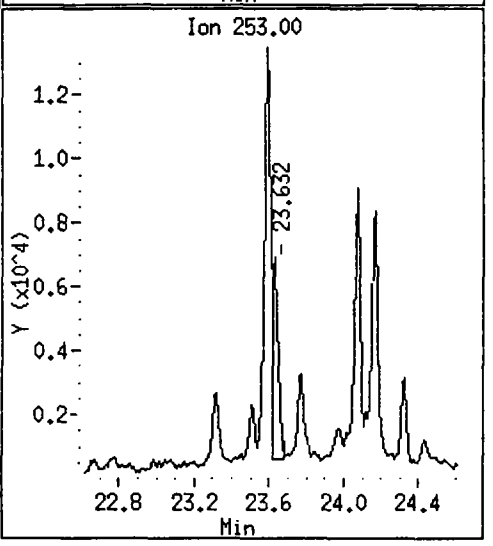
Column diameter: 0.25

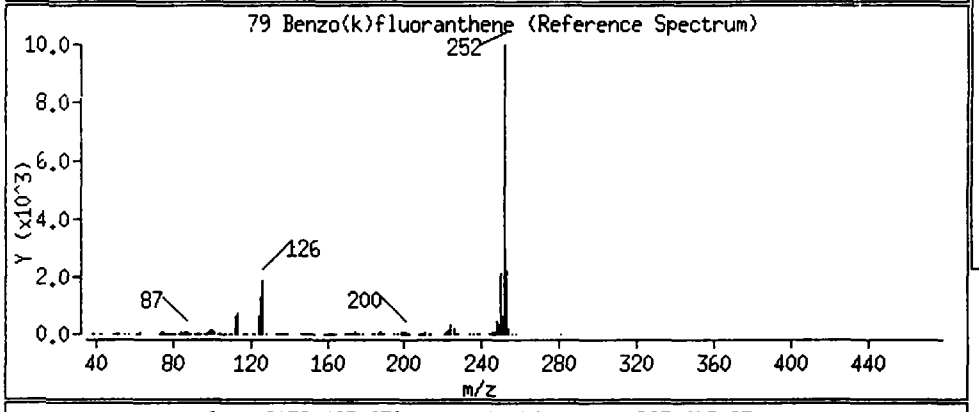
79 Benzo(k)fluoranthene

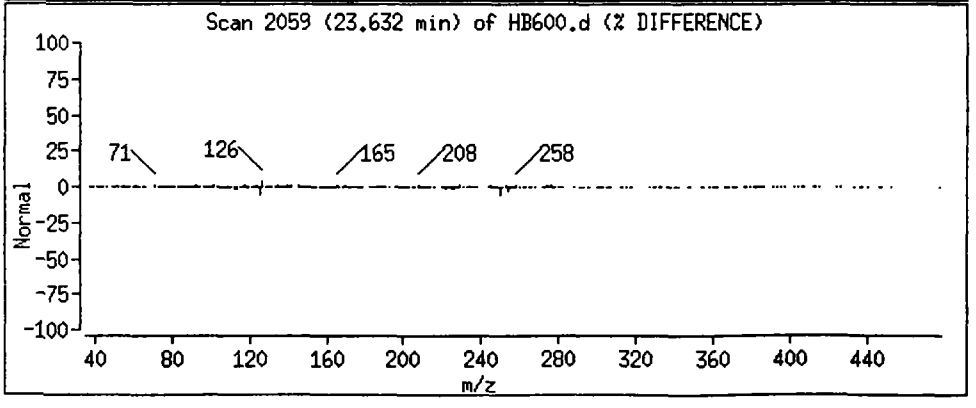












Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

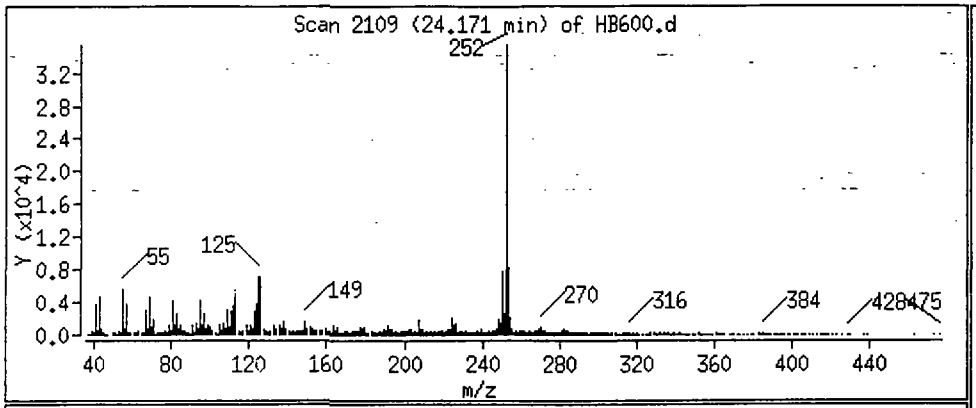
Client ID: SS001SWMUG-5 Instrument: ITS8.i

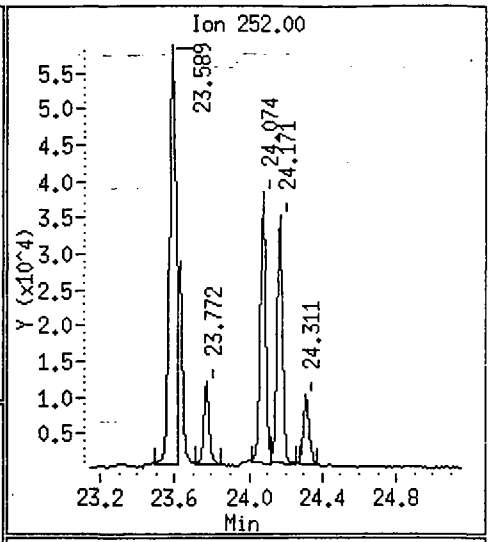
Sample Info: 8270_ABN_S;;AB848-83;1

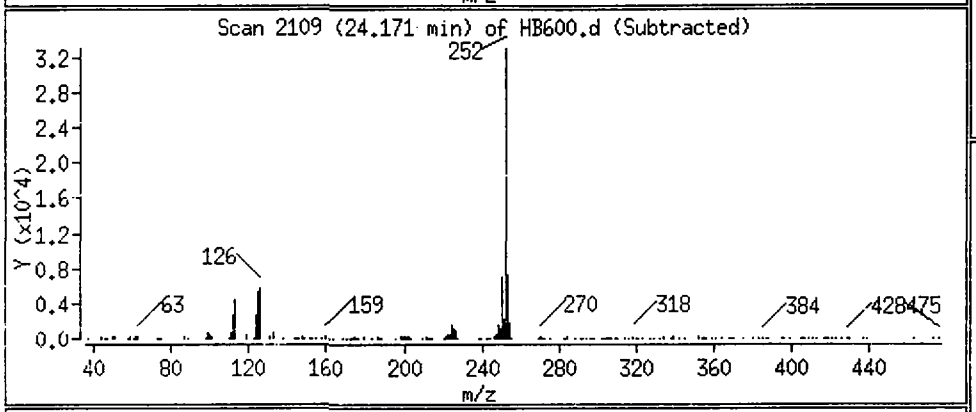
Volume Injected (uL): 1.0 Operator: VDLITTLE

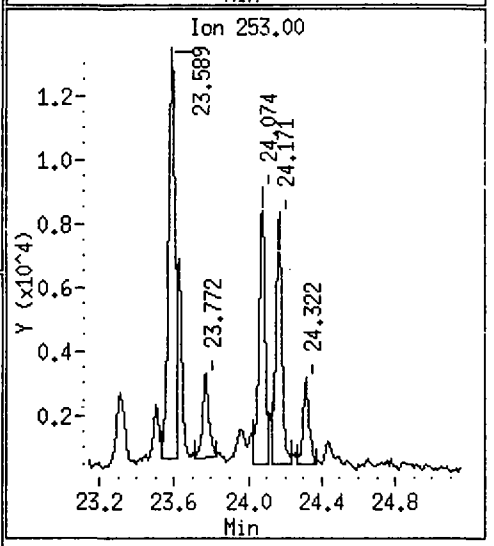
Column phase: DB-5 Column diameter: 0.25

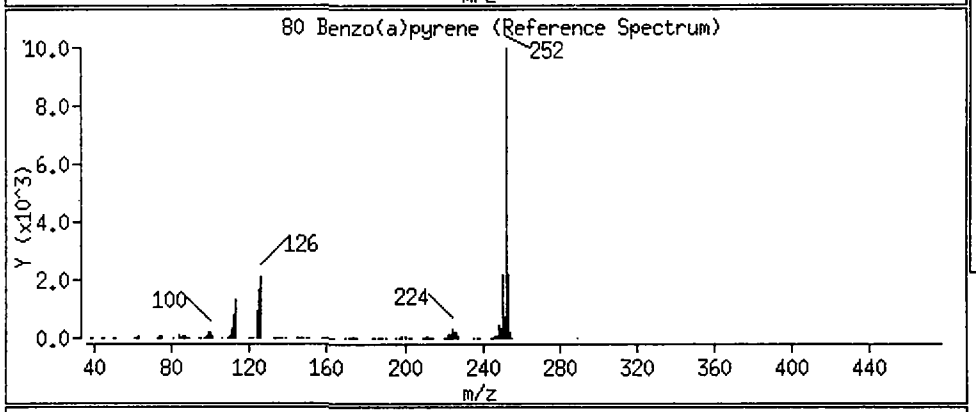
80 Benzo(a)pyrene

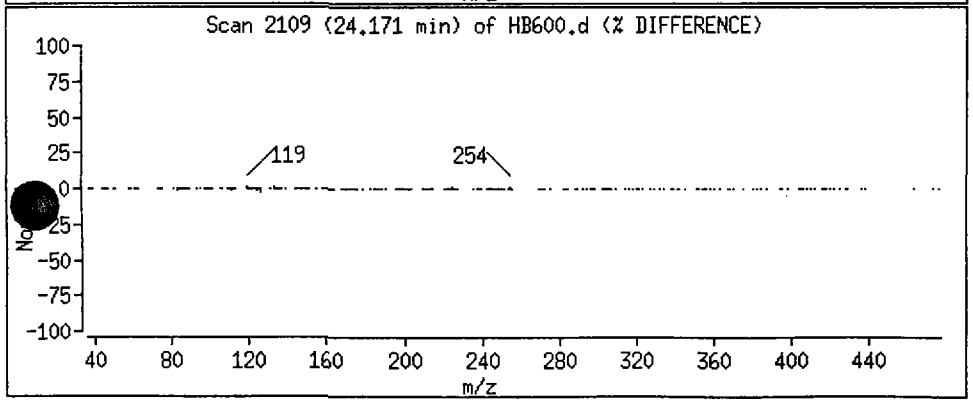












Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

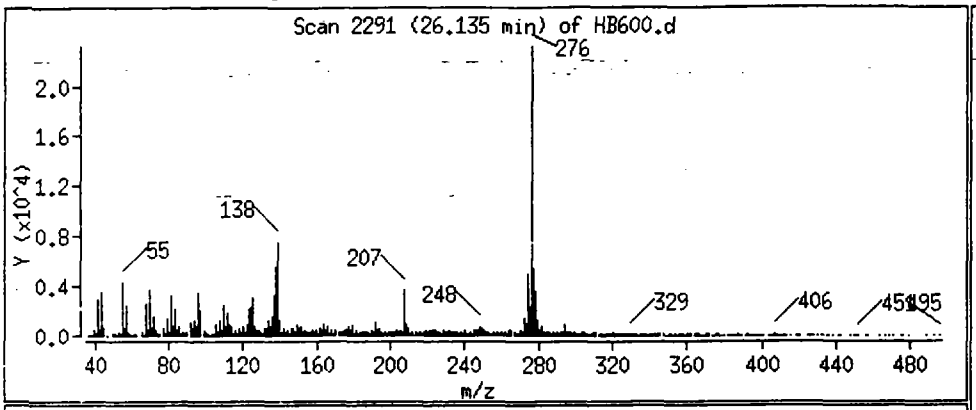
Volume Injected (uL): 1.0

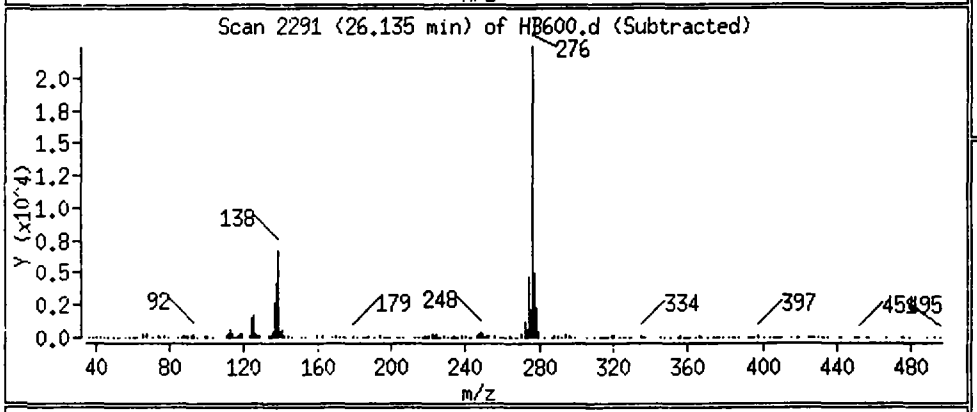
Operator: VDLITTLE

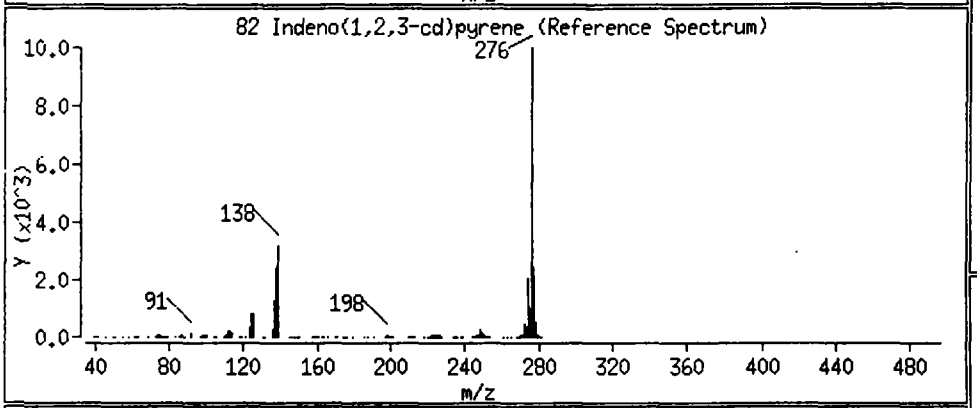
Column phase: DB-5

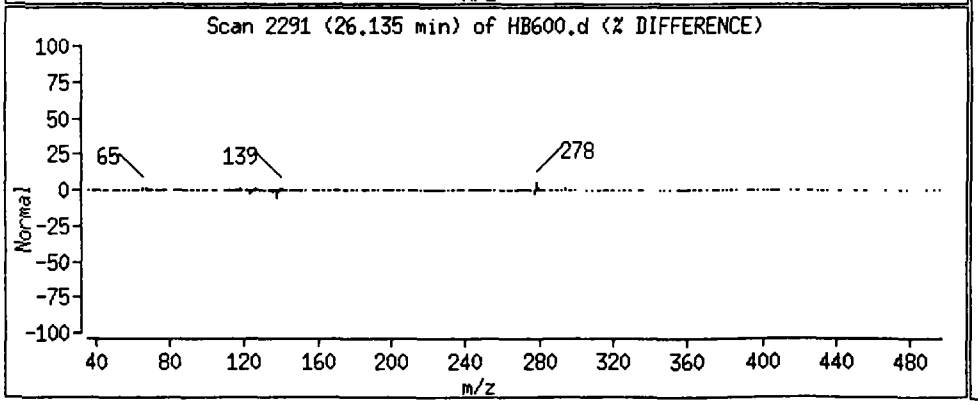
Column diameter: 0.25

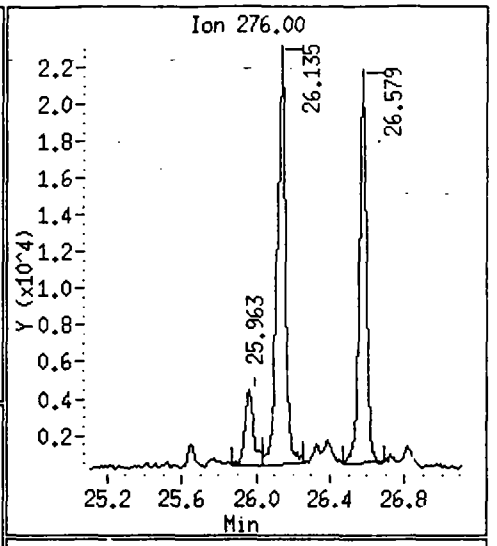
82 Indeno(1,2,3-cd)pyrene

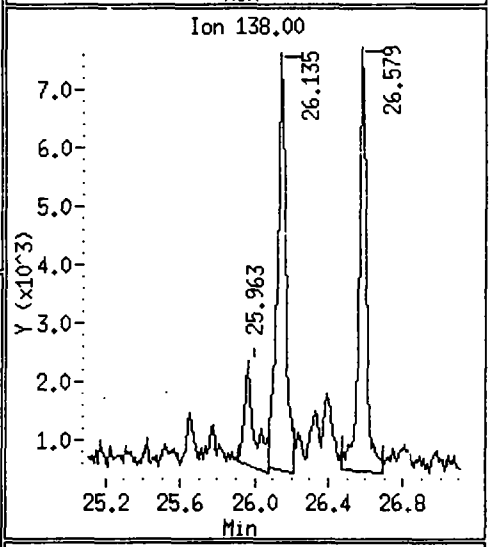


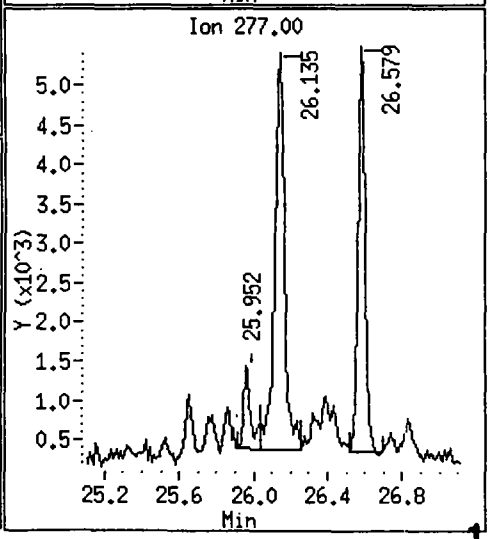












Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

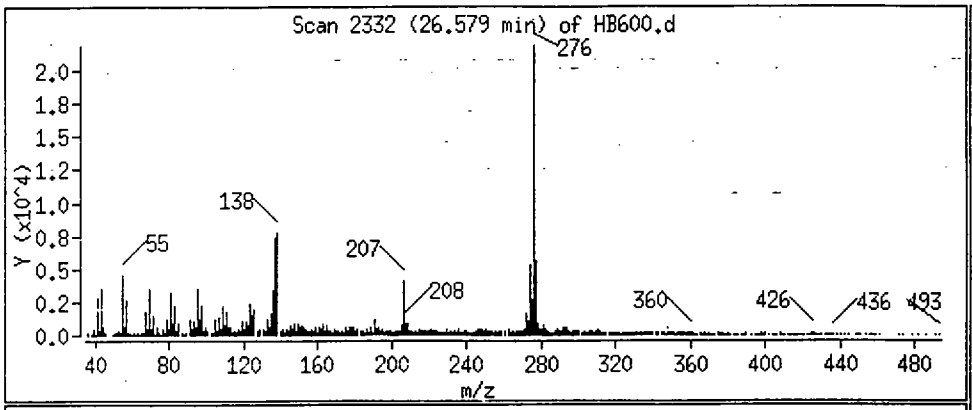
Volume Injected (uL): 1.0

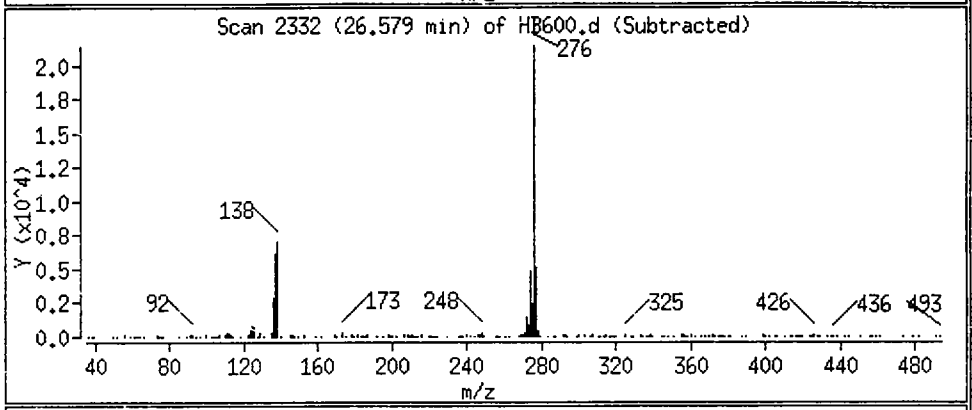
Operator: VDLITTLE

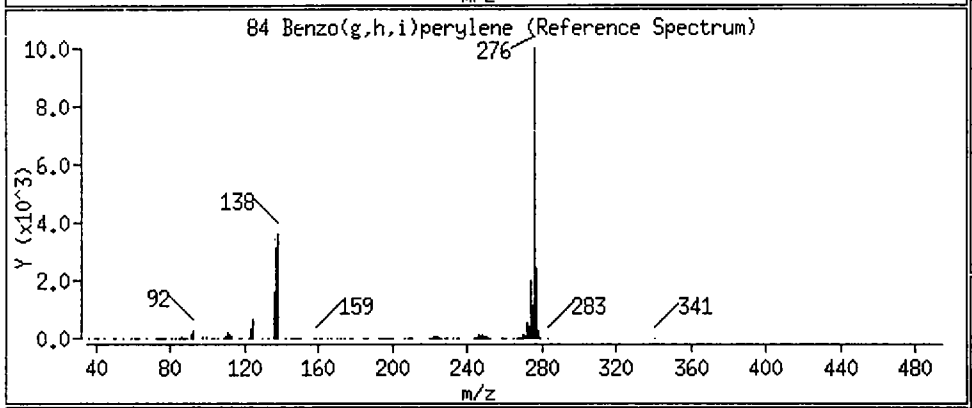
Column phase: DB-5

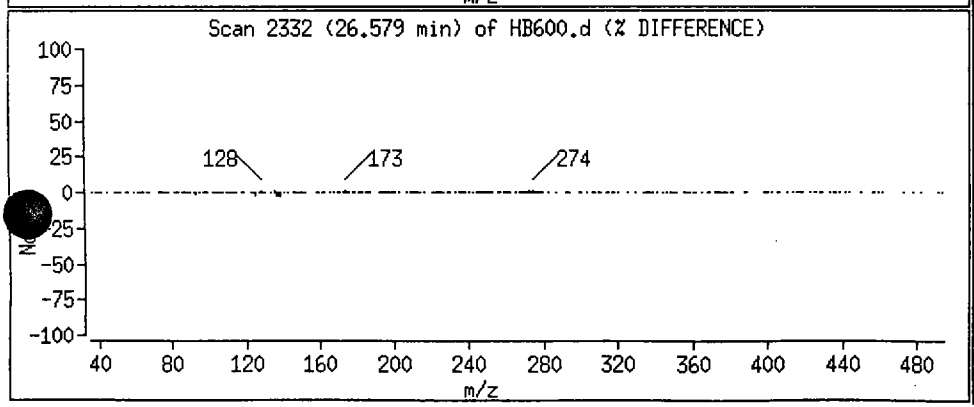
Column diameter: 0.25

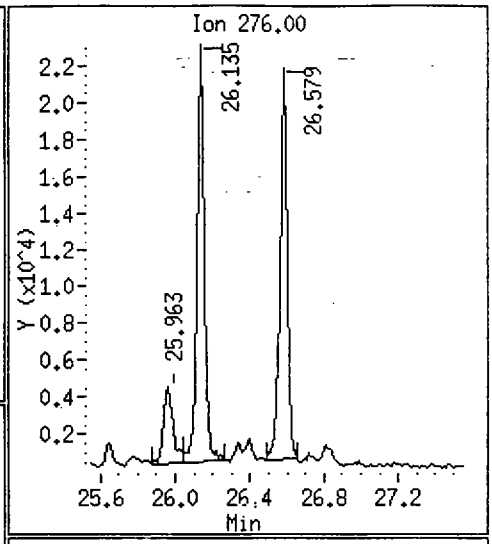
84 Benzo(g,h,i)perylene

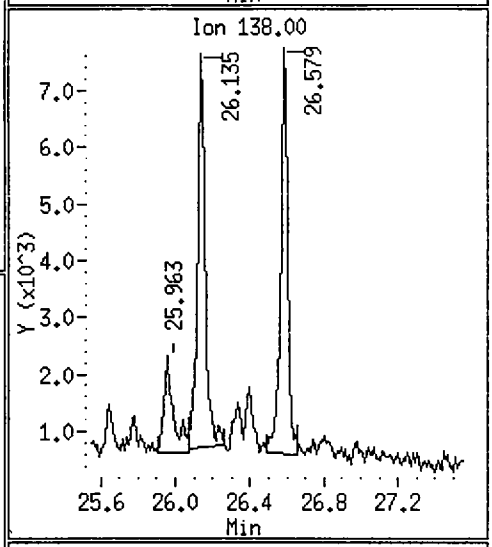


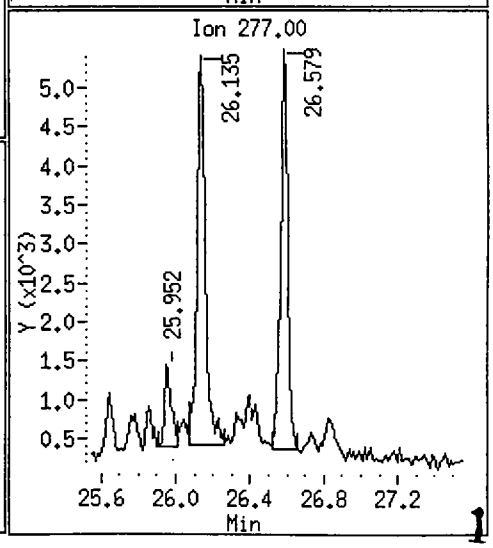












Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

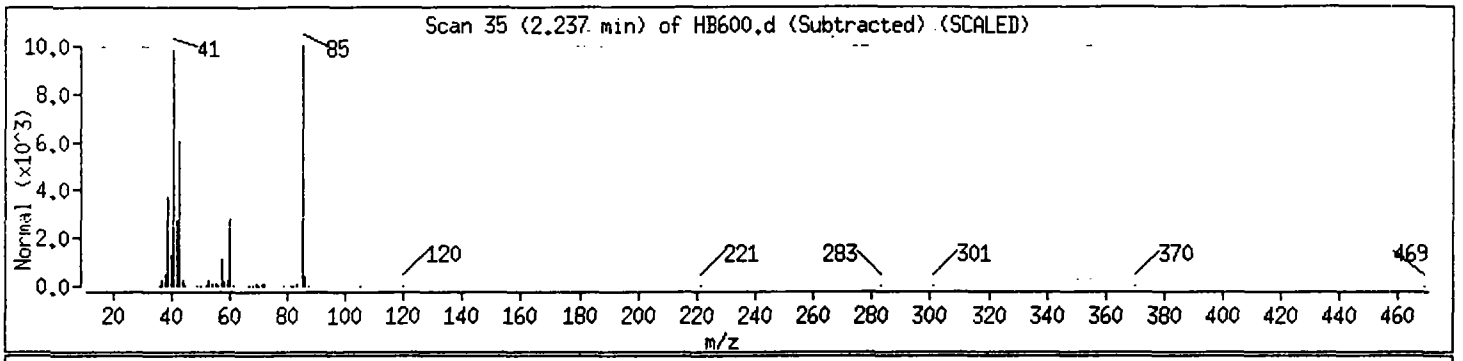
Volume Injected (uL): 1.0

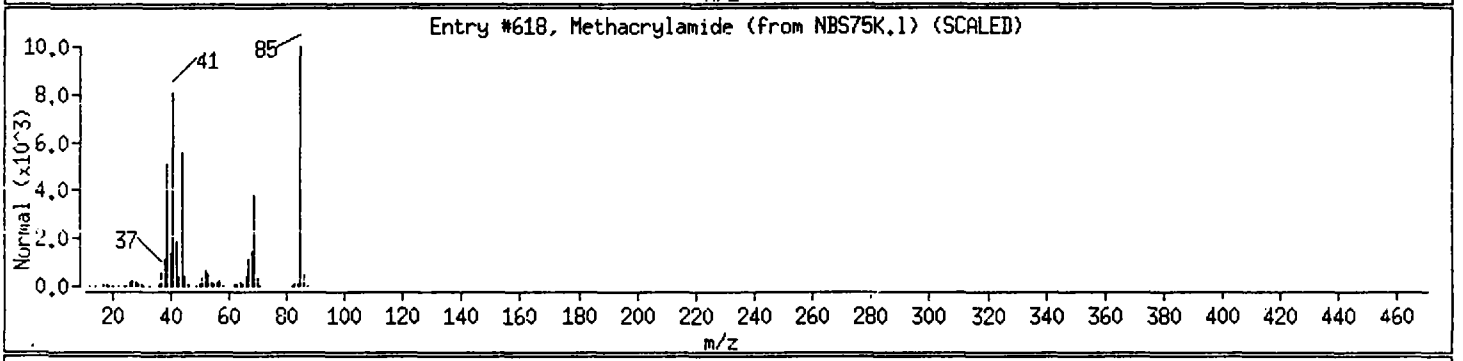
Operator: VDLITTLE

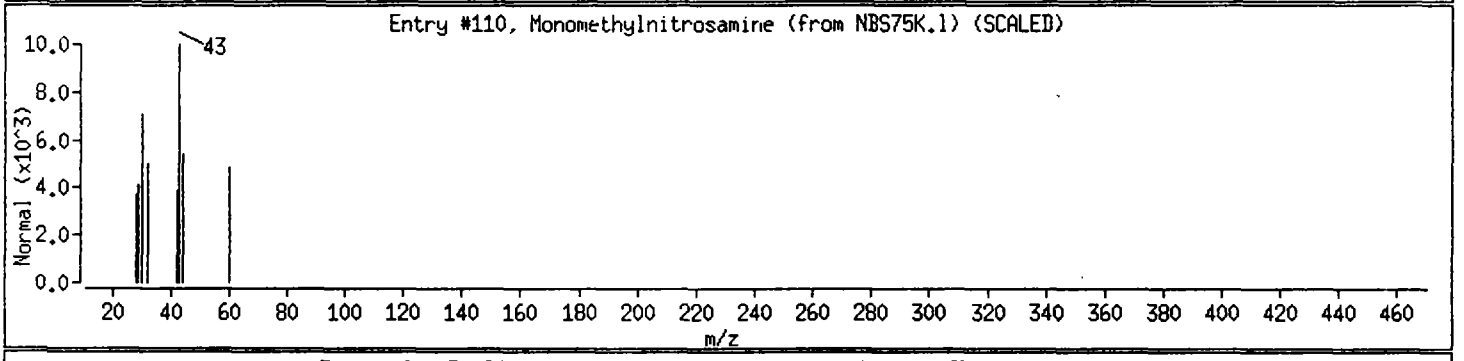
Column phase: DB-5

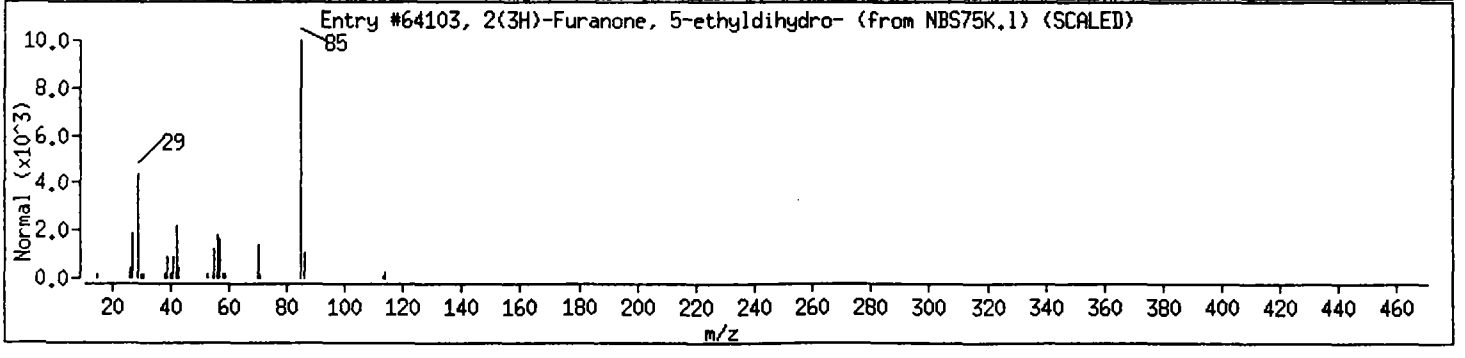
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Methacrylamide	79-39-0	NBS75K.l	618	9	C4H7NO	85
Monomethylnitrosamine	0-00-0	NBS75K.l	110	9	CH4N2O	60
2(3H)-Furanone, 5-ethyldihydro-	695-06-7	NBS75K.l	64103	9	C6H10O2	114









Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

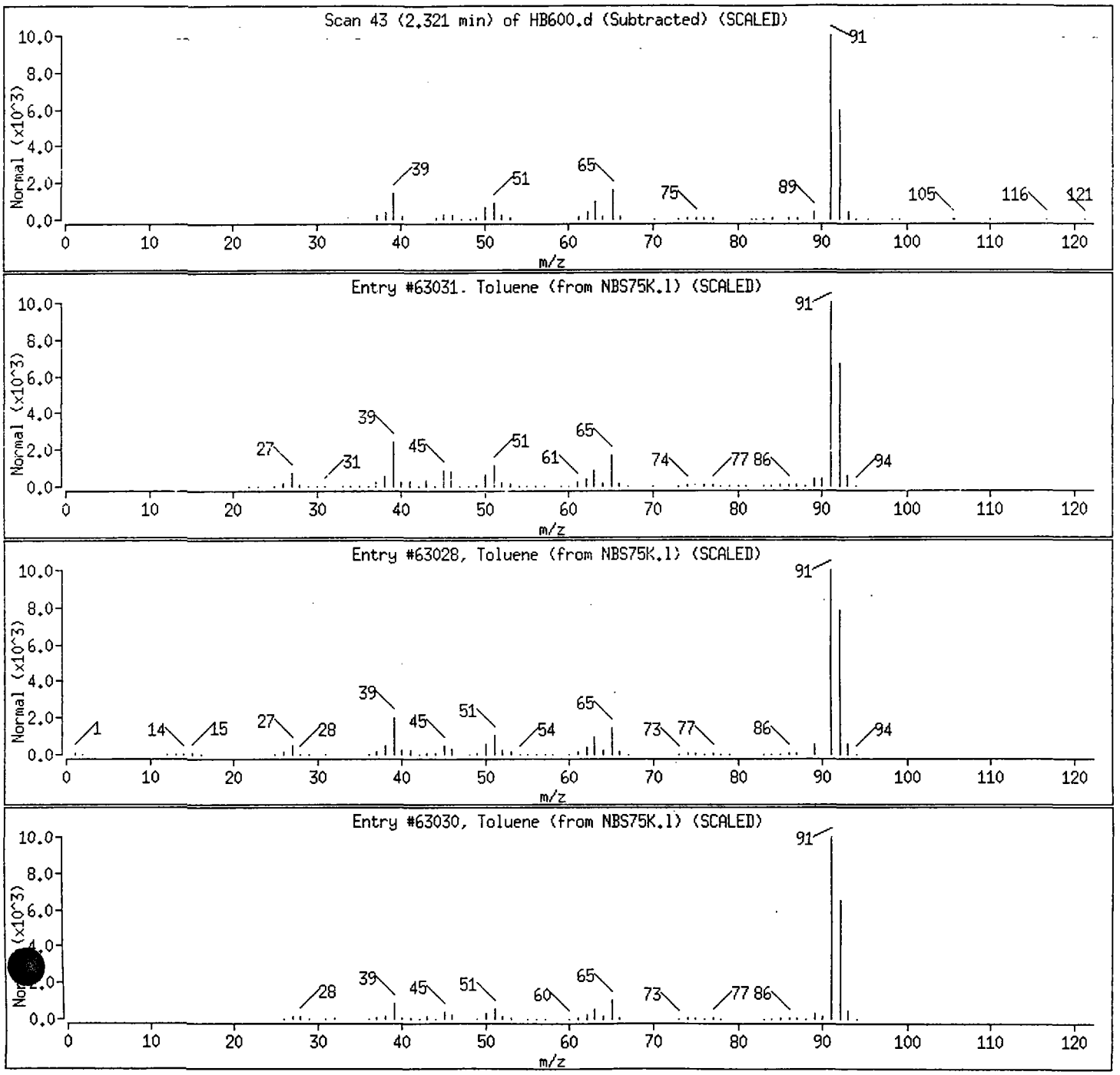
Client ID: SS001SWMUG-5 Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: VDLITTLE

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Toluene	108-88-3	NBS75K.l	63031	95	C7H8	92
Toluene	108-88-3	NBS75K.l	63028	93	C7H8	92
Toluene	108-88-3	NBS75K.l	63030	91	C7H8	92



Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

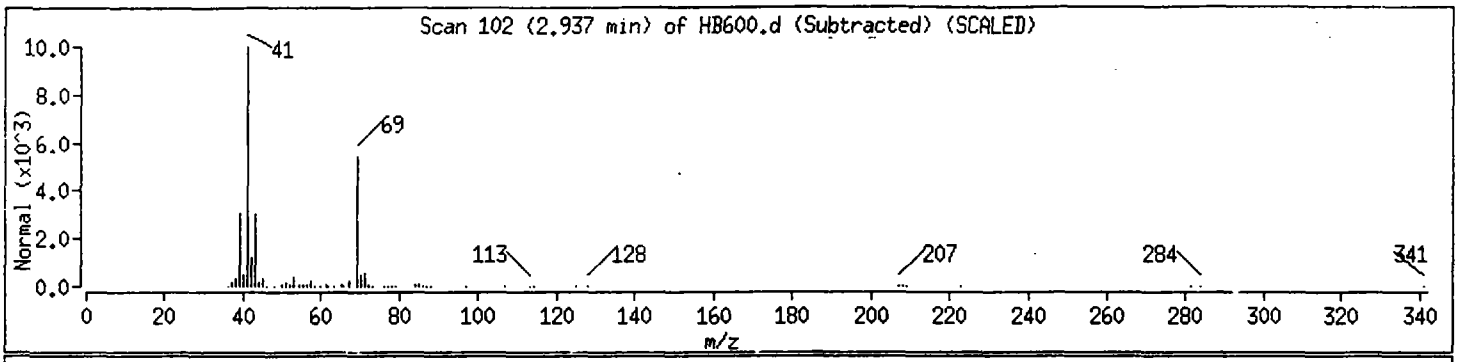
Volume Injected (uL): 1.0

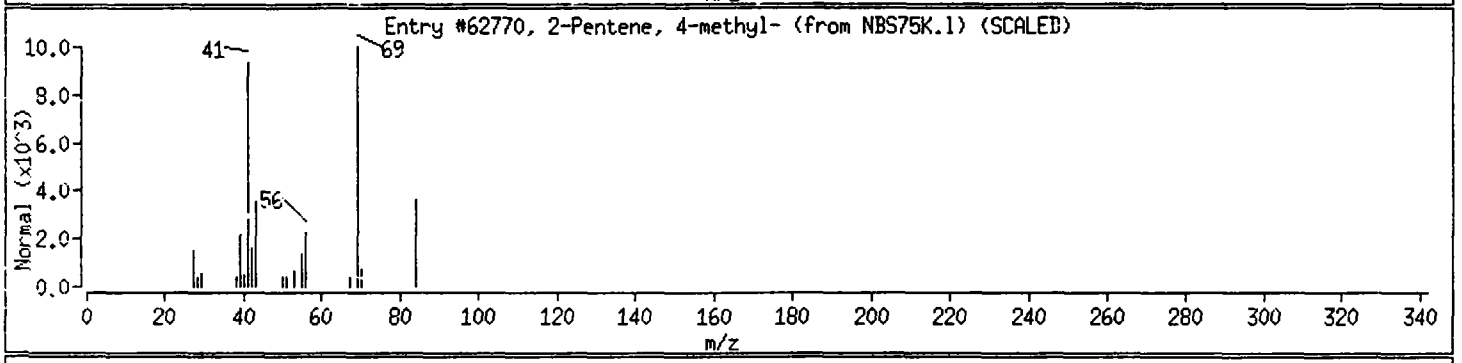
Operator: VDLITTLE

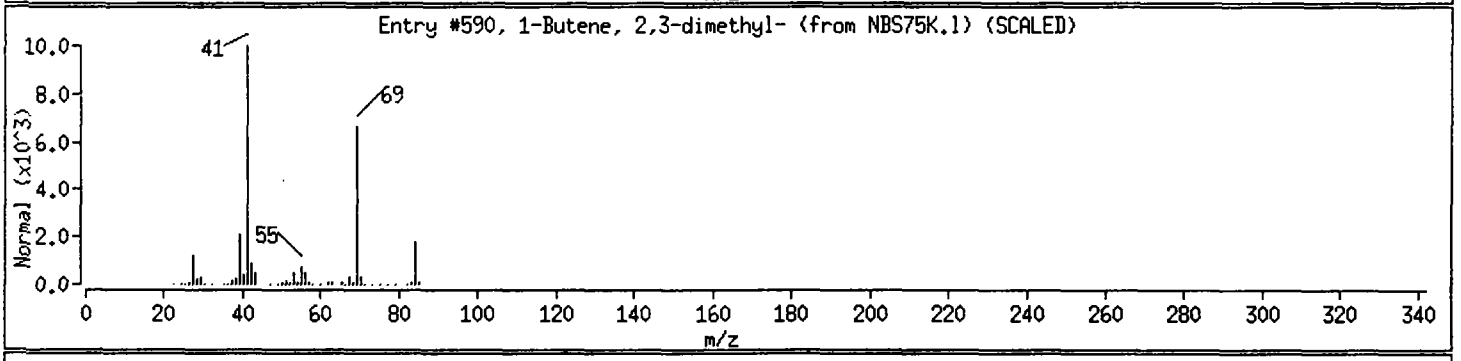
Column phase: DB-5

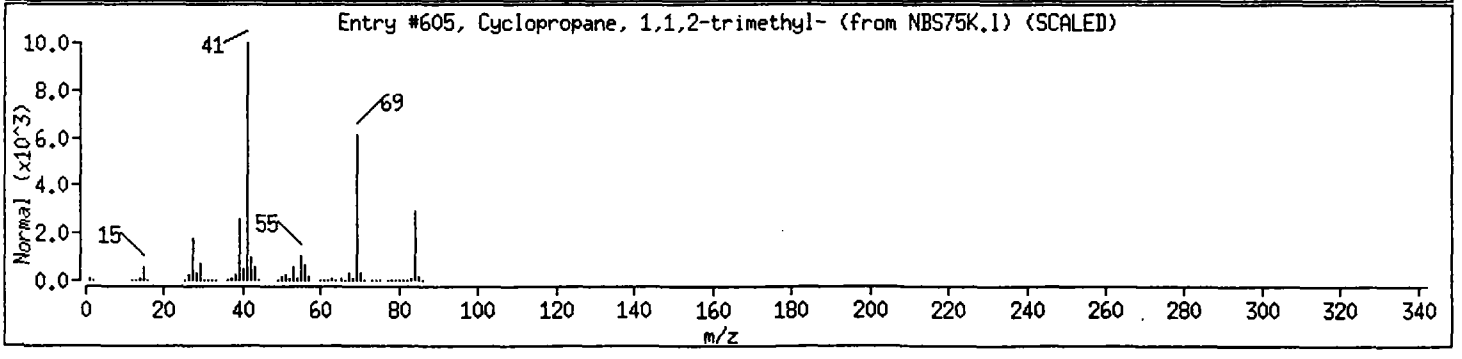
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
2-Pentene, Methyl-	4461-48-7	NBS75K.l	62770	59	C6H12	84
1-Butene, 2,3-dimethyl-	563-78-0	NBS75K.l	590	50	C6H12	84
Cyclopropane, 1,1,2-trimethyl-	4127-45-1	NBS75K.l	605	42	C6H12	84









Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

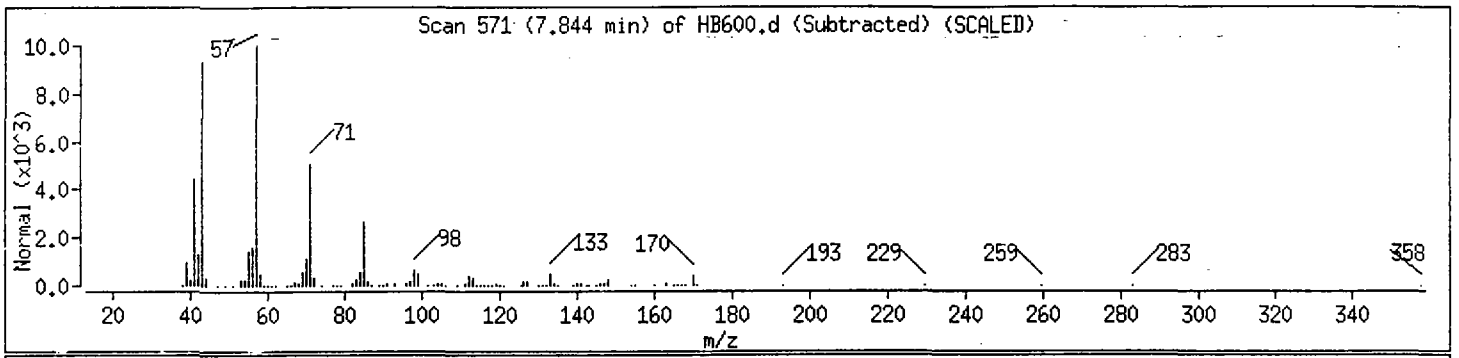
Client ID: SS001SWMUG-5 Instrument: ITS8.i

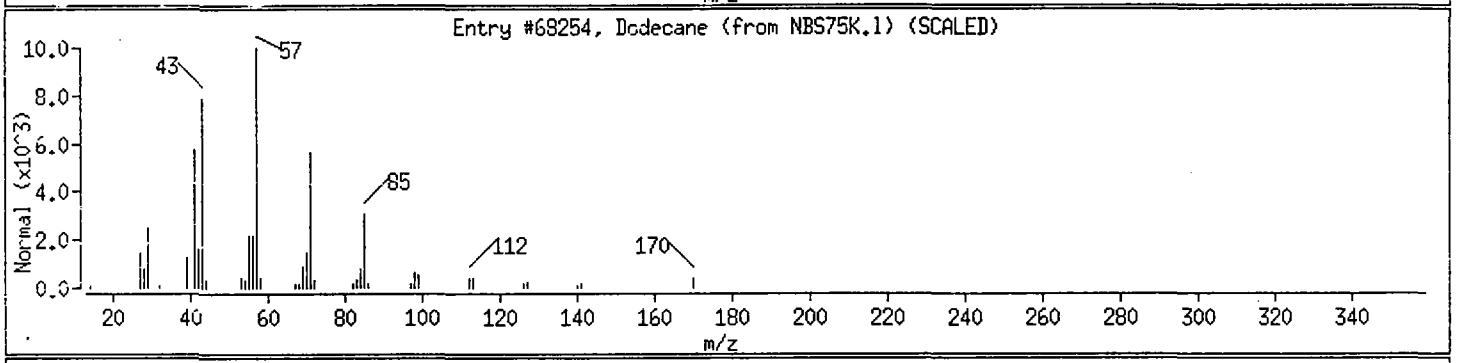
Sample Info: 8270_ABN_S;;AB848-83;1

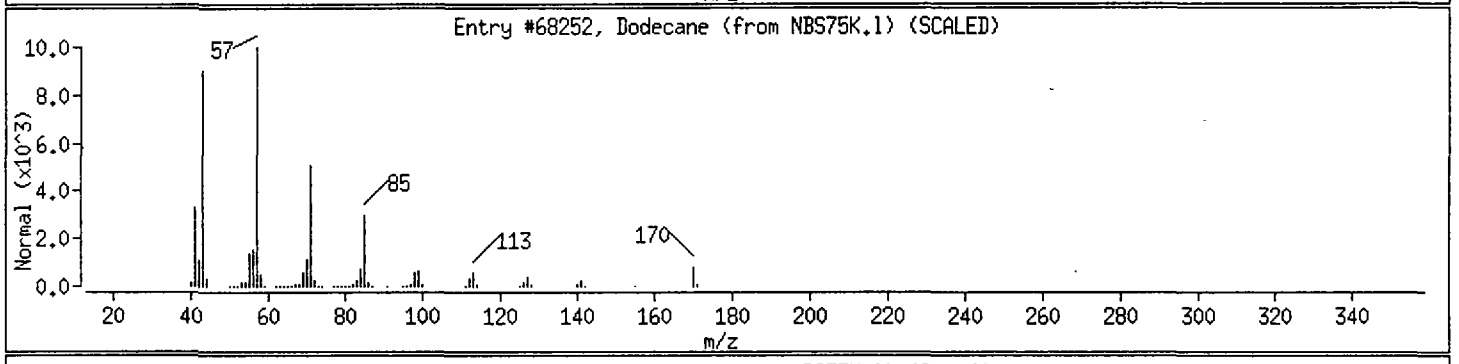
Volume Injected (uL): 1.0 Operator: VDLITTLE

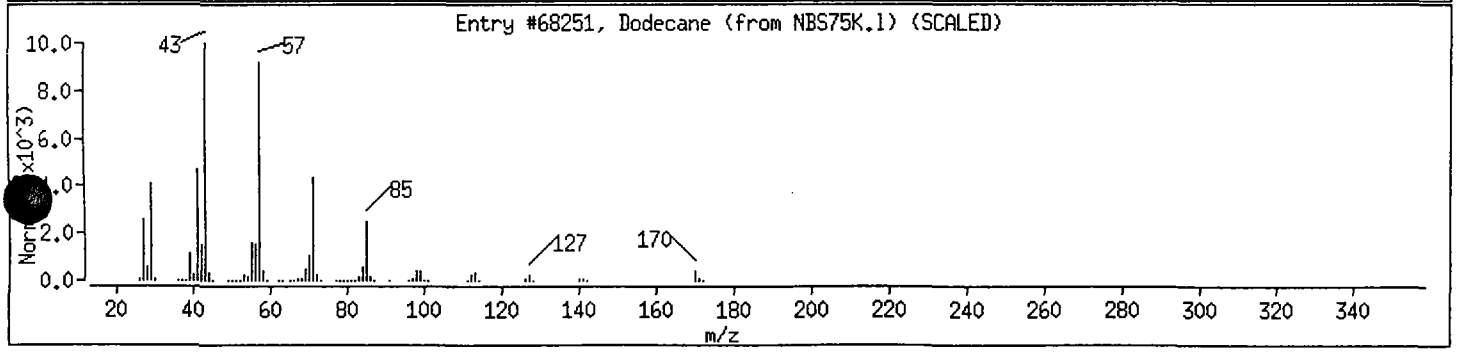
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dodecane	112-40-3	NBS75K.1	68254	97	C12H26	170
Dodecane	112-40-3	NBS75K.1	68252	94	C12H26	170
Dodecane	112-40-3	NBS75K.1	68251	93	C12H26	170









Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

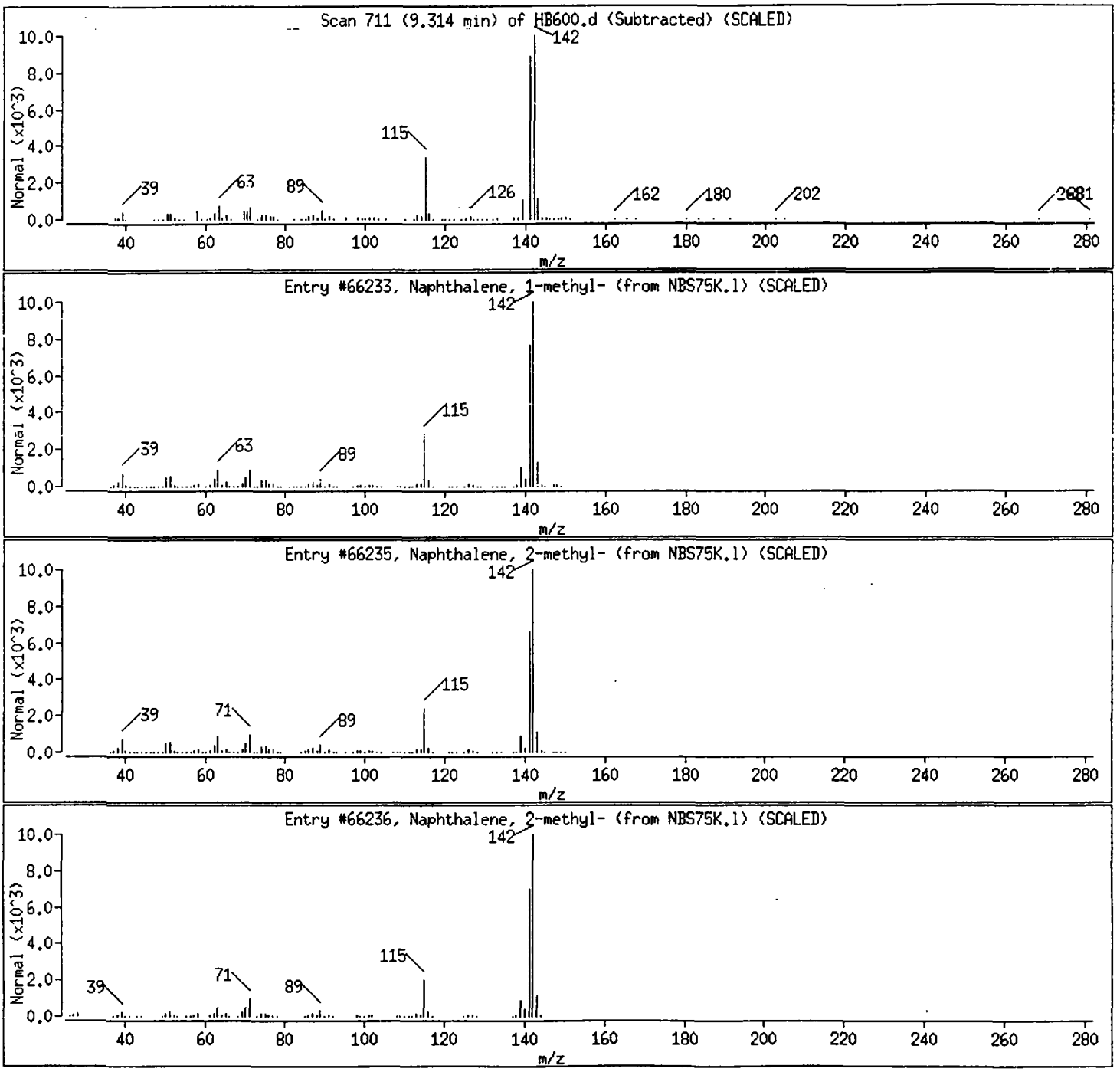
Client ID: SS001SWMUG-5 Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: VDLITTLE

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene,-1-methyl-	90-12-0	NBS75K.l	66233	94	C11H10	142
Naphthalene, 2-methyl-	91-57-6	NBS75K.l	66235	94	C11H10	142
Naphthalene, 2-methyl-	91-57-6	NBS75K.l	66236	91	C11H10	142



Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

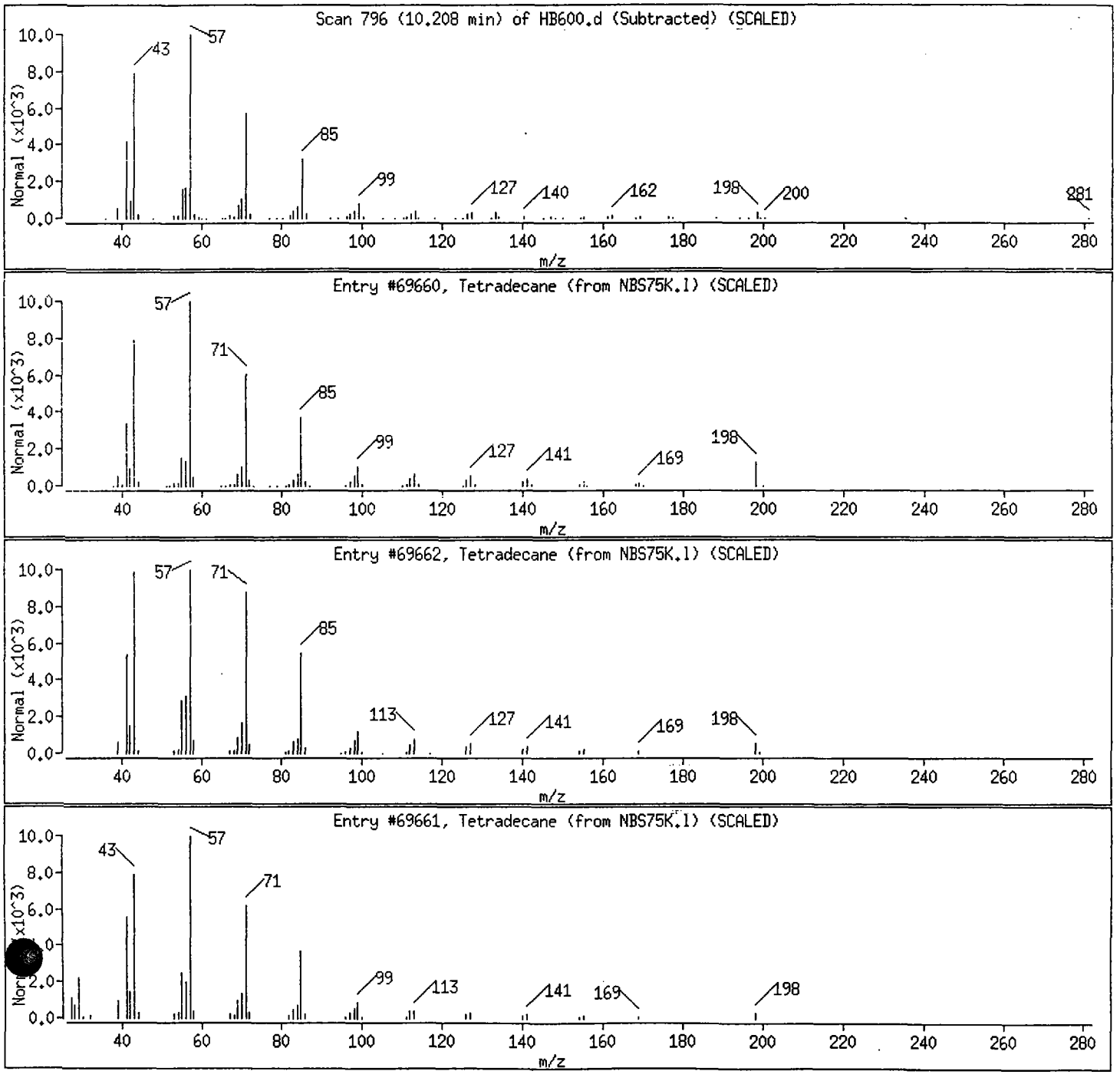
Client ID: SS001SWMUG-5 Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: VDLITTLE

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetradecane	629-59-4	NBS75K.l	69660	96	C14H30	198
Tetradecane	629-59-4	NBS75K.l	69662	94	C14H30	198
Tetradecane	629-59-4	NBS75K.l	69661	93	C14H30	198



Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

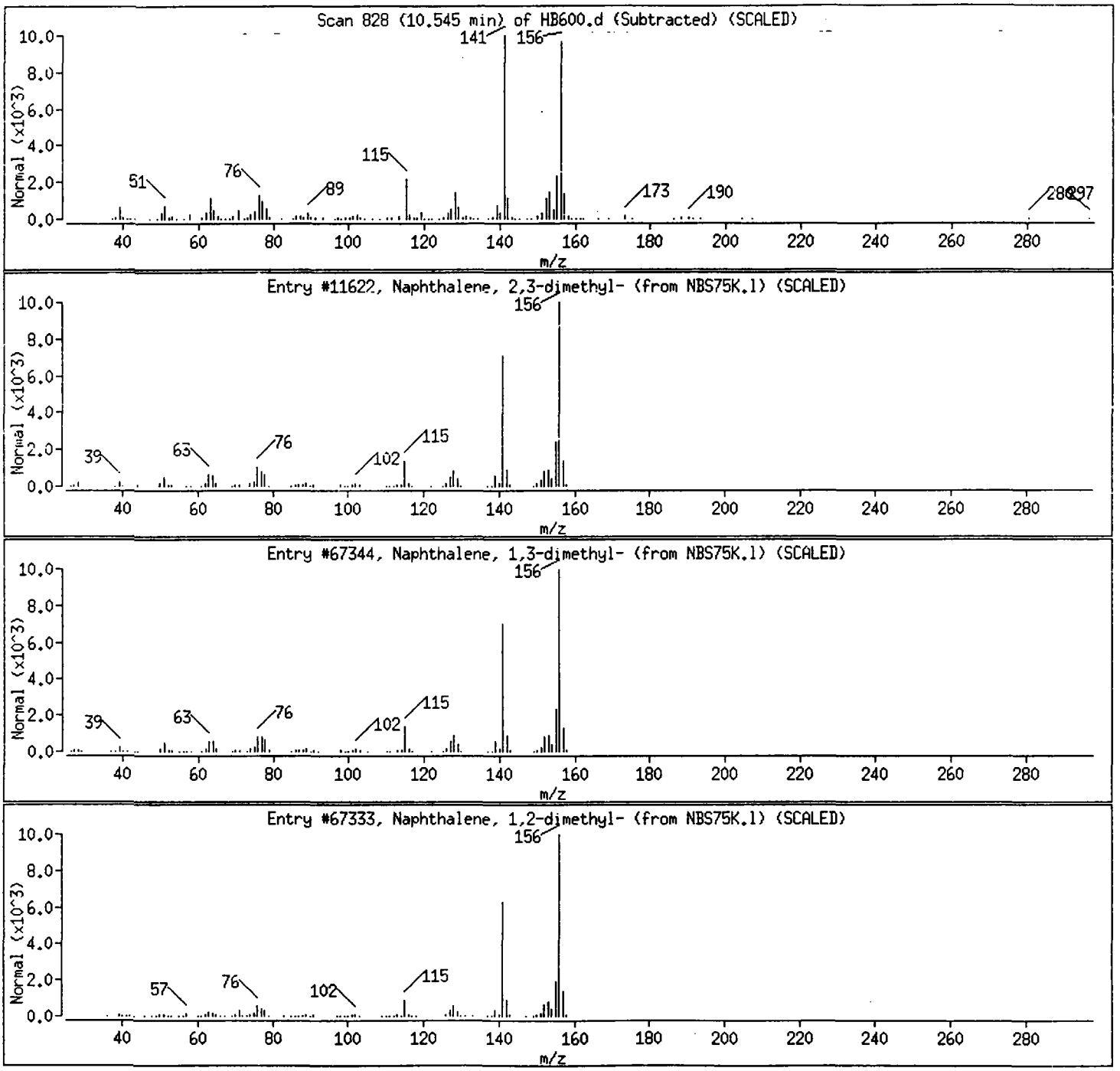
Client ID: SS001SWMUG-5 Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: VDLITTLE

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dimethyl Naphthalene (isomer)	581-40-8	NBS75K.l	11622	97	C12H12	156
Naphthalene, 1,3-dimethyl-	575-41-7	NBS75K.l	67344	97	C12H12	156
Naphthalene, 1,2-dimethyl-	573-98-8	NBS75K.l	67333	97	C12H12	156



Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

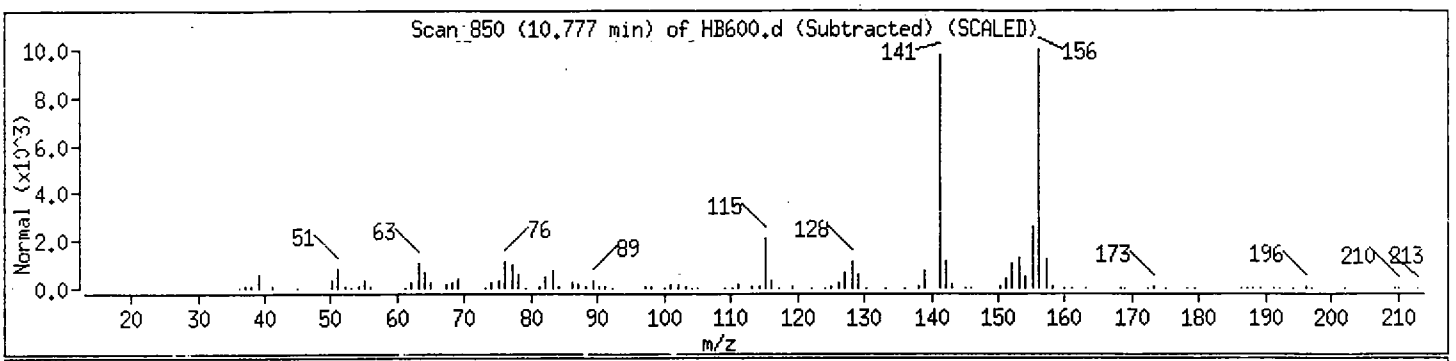
Client ID: SS001SWMUG-5 Instrument: ITS8.i

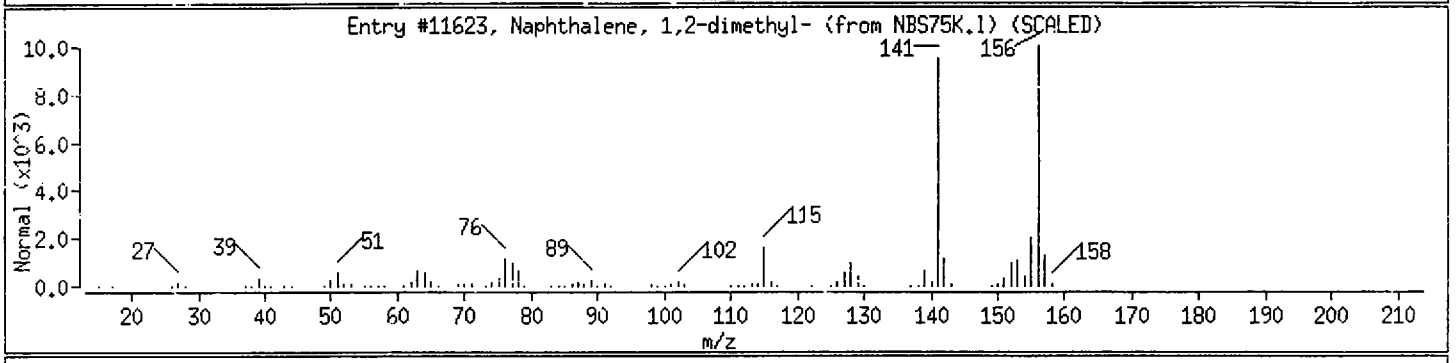
Sample Info: 8270_ABN_S;;AB848-83;1

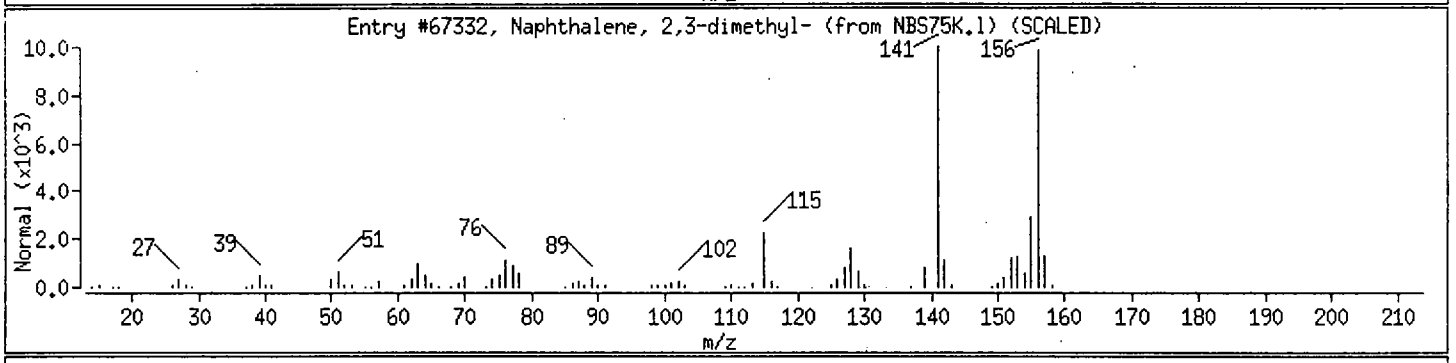
Volume Injected (uL): 1.0 Operator: VDLITTLE

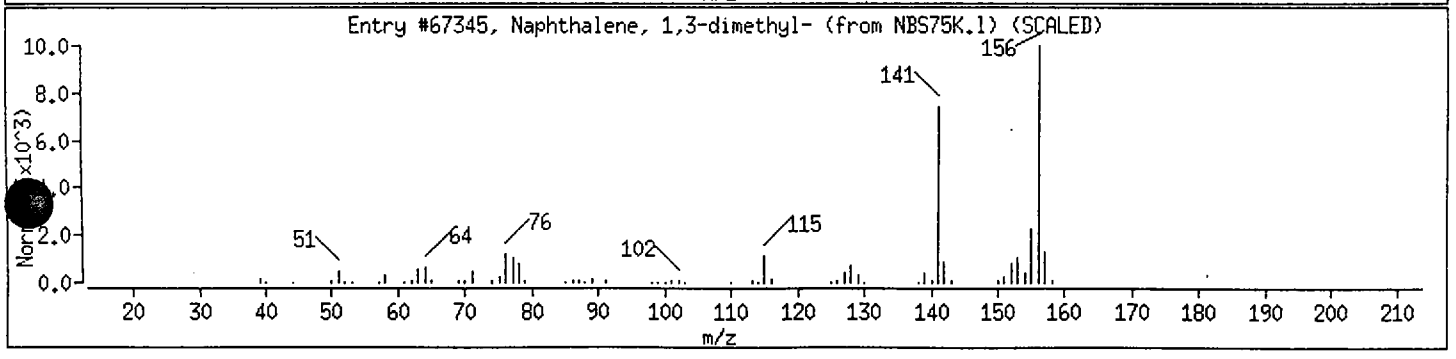
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dimethyl Naphthalene (isomer)	573-98-8	NBS75K.l	11623	98	C12H12	156
Naphthalene, 2,3-dimethyl-	581-40-8	NBS75K.l	67332	98	C12H12	156
Naphthalene, 1,3-dimethyl-	575-41-7	NBS75K.l	67345	97	C12H12	156









Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

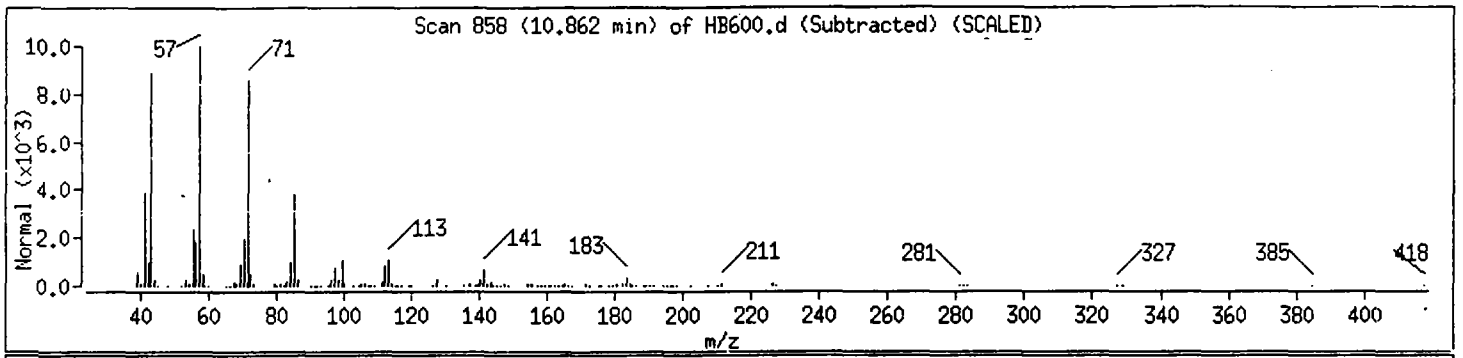
Client ID: SS001SWMUG-5 Instrument: ITS8.i

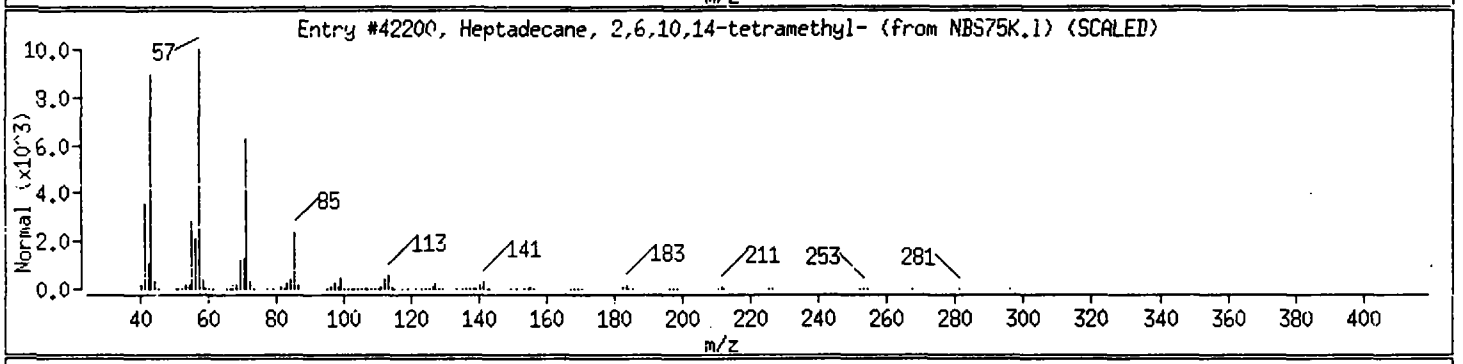
Sample Info: 8270_ABN_S;;AB848-83;1

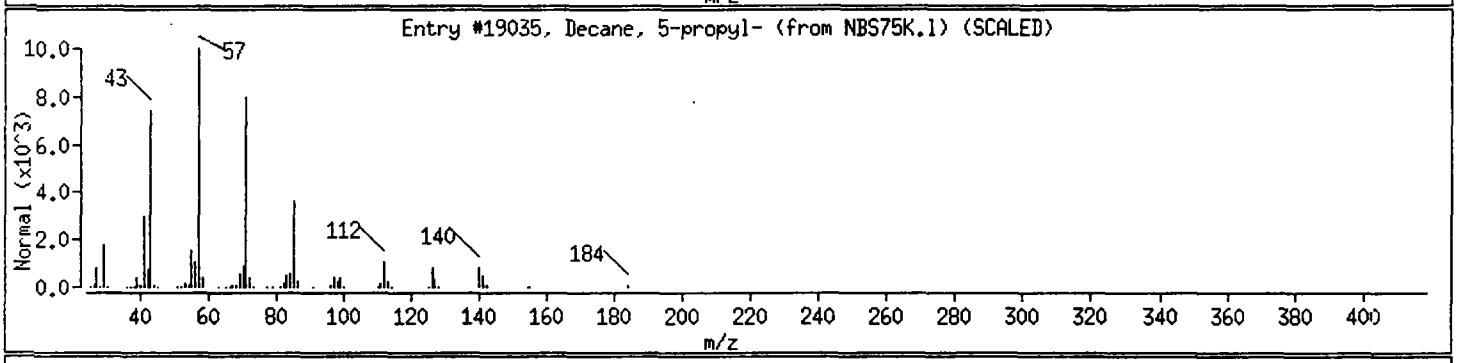
Volume Injected (uL): 1.0 Operator: VDLITTLE

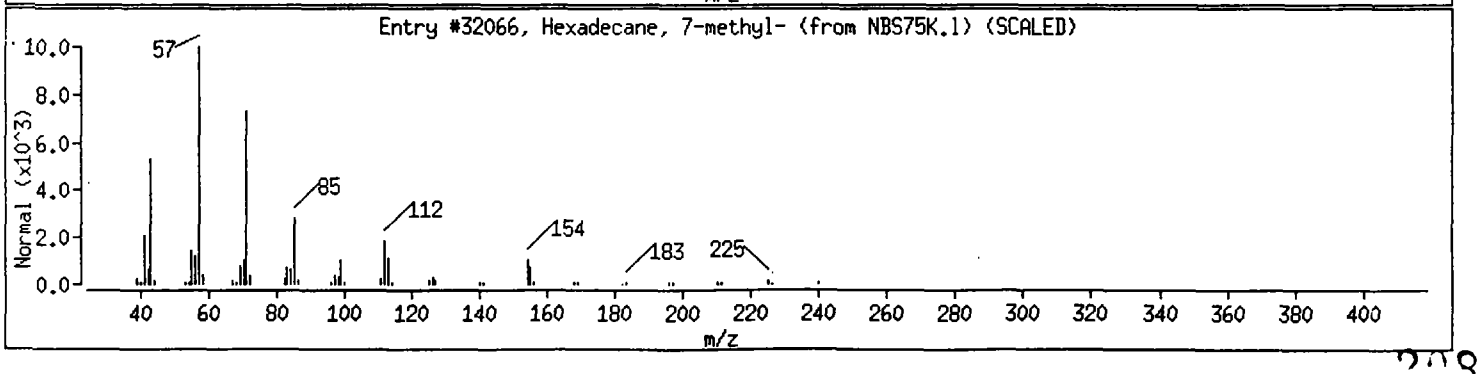
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptadecane, 2,6,10,14-tetramethyl-	18344-37-1	NBS75K.l	42200	86	C21H44	296
Decane, 5-propyl-	17312-62-8	NBS75K.l	19035	83	C13H28	184
Hexadecane, 7-methyl-	26730-20-1	NBS75K.l	32066	78	C17H36	240









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Date : 06-SEP-1996 09:34

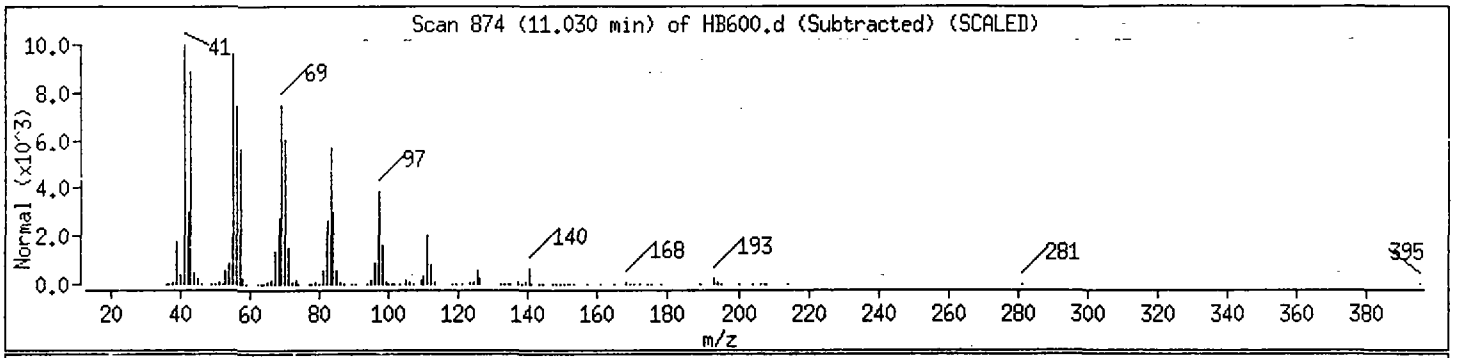
Client ID: SS001SWMUG-5 Instrument: ITS8.i

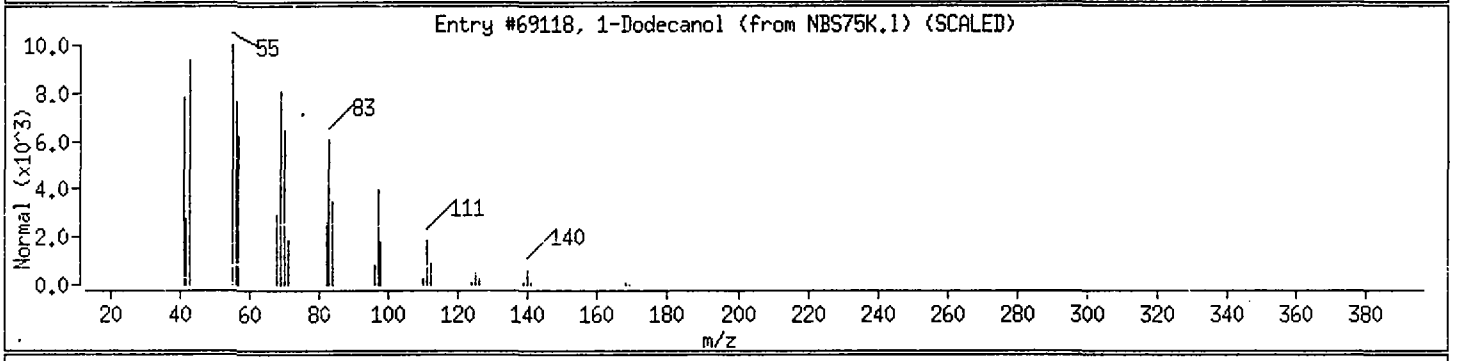
Sample Info: 8270_ABN_S;;AB848-83;1

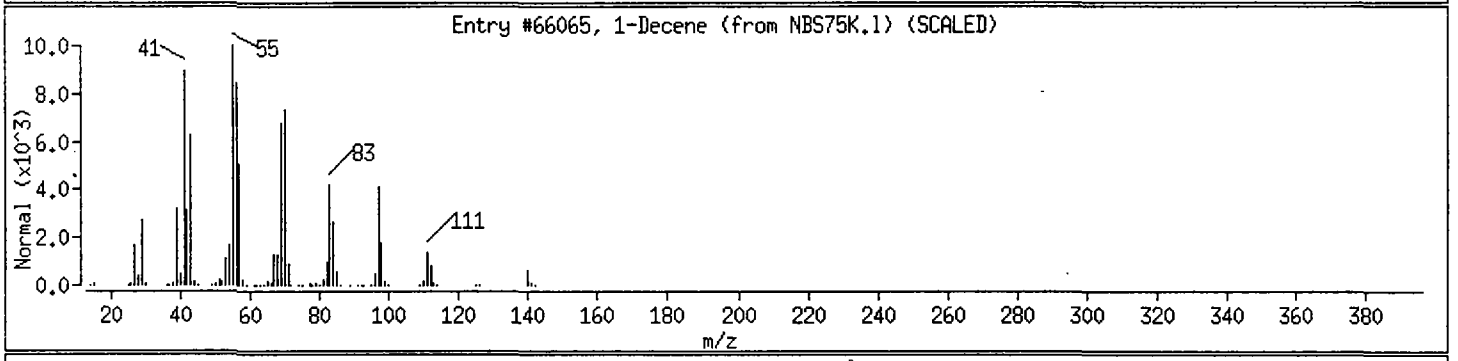
Volume Injected (uL): 1.0 Operator: VDLITTLE

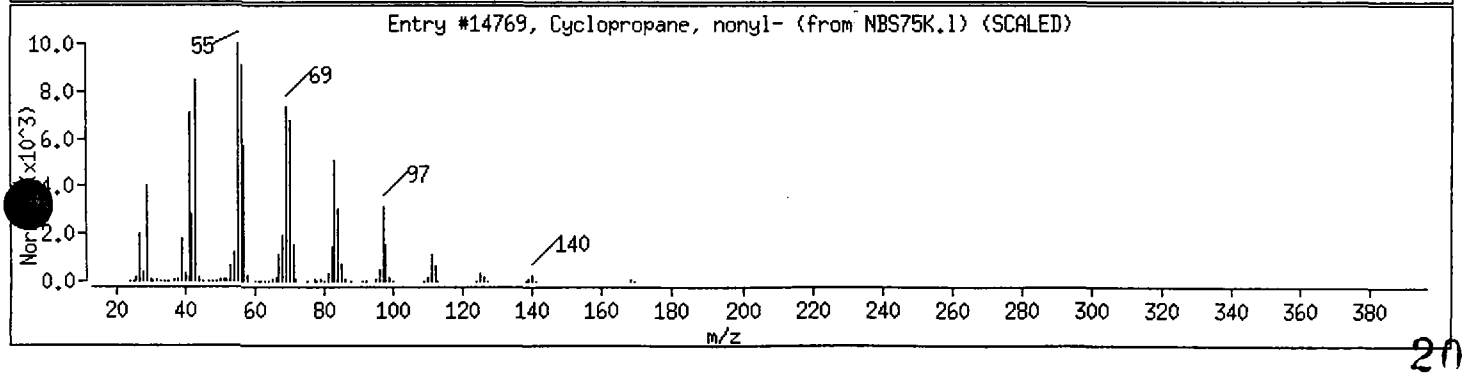
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Dodecanol	112-53-8	NBS75K.l	69118	91	C12H260	186
1-Decene	872-05-9	NBS75K.l	66065	95	C10H20	140
Cyclopropane, nonyl-	74663-85-7	NBS75K.l	14769	94	C12H24	168









Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

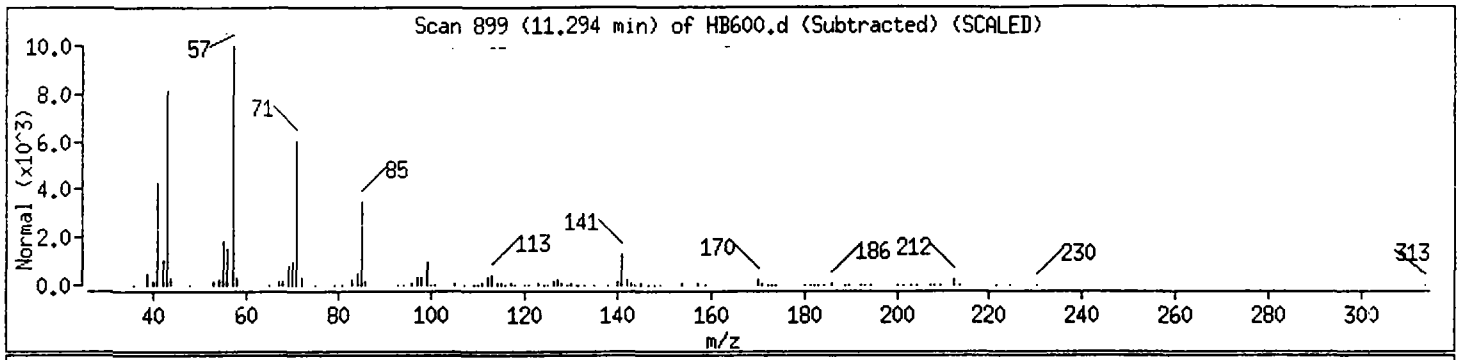
Client ID: SS001SWMUG-5 Instrument: ITS8.i

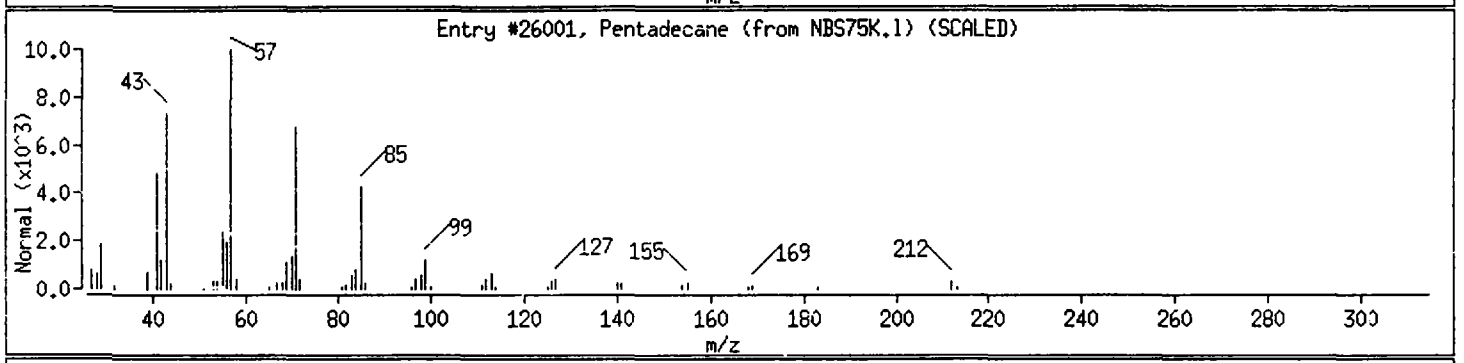
Sample Info: 8270_ABN_S;;AB848-83;1

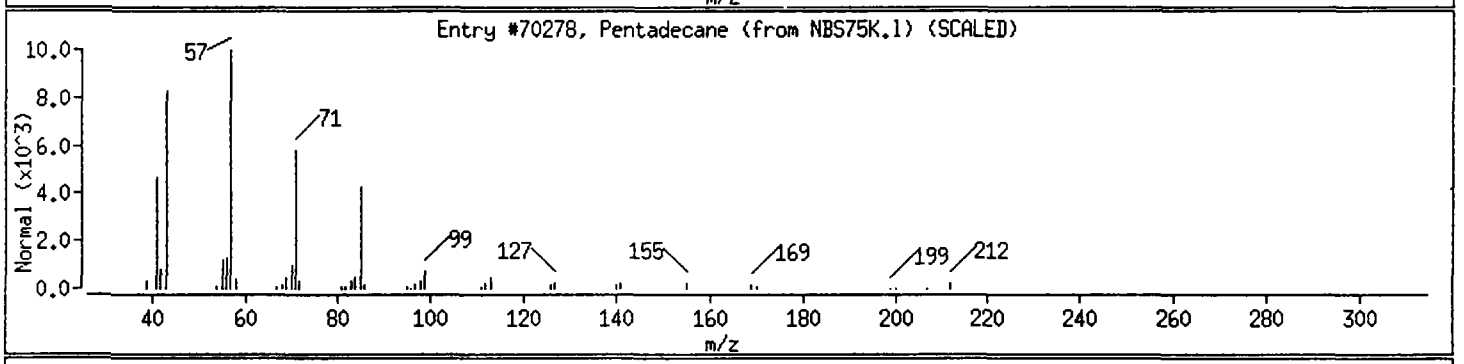
Volume Injected (uL): 1.0 Operator: VDLITTLE

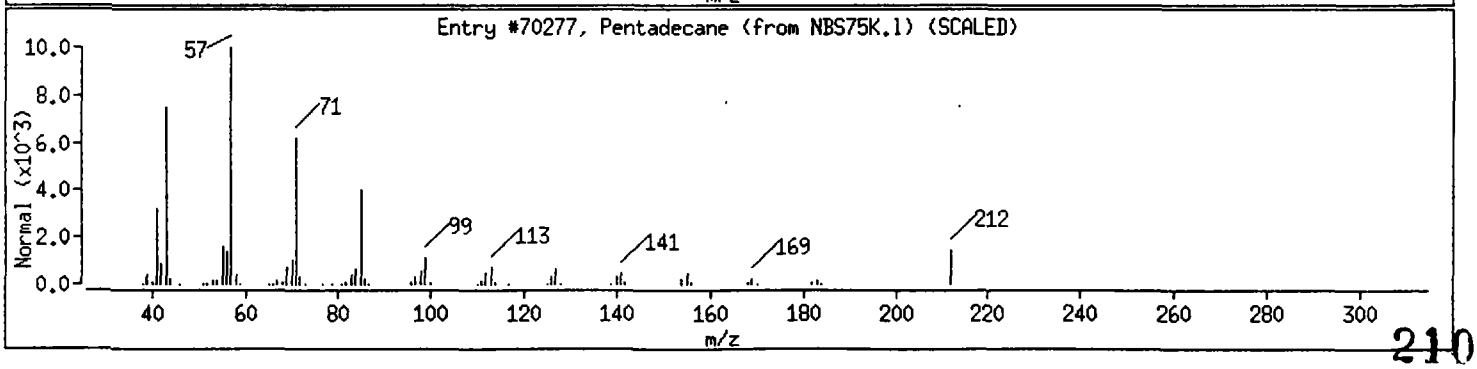
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pentadecane	629-62-9	NBS75K.l	26001	95	C15H32	212
Pentadecane	629-62-9	NBS75K.l	70278	93	C15H32	212
Pentadecane	629-62-9	NBS75K.l	70277	87	C15H32	212









Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

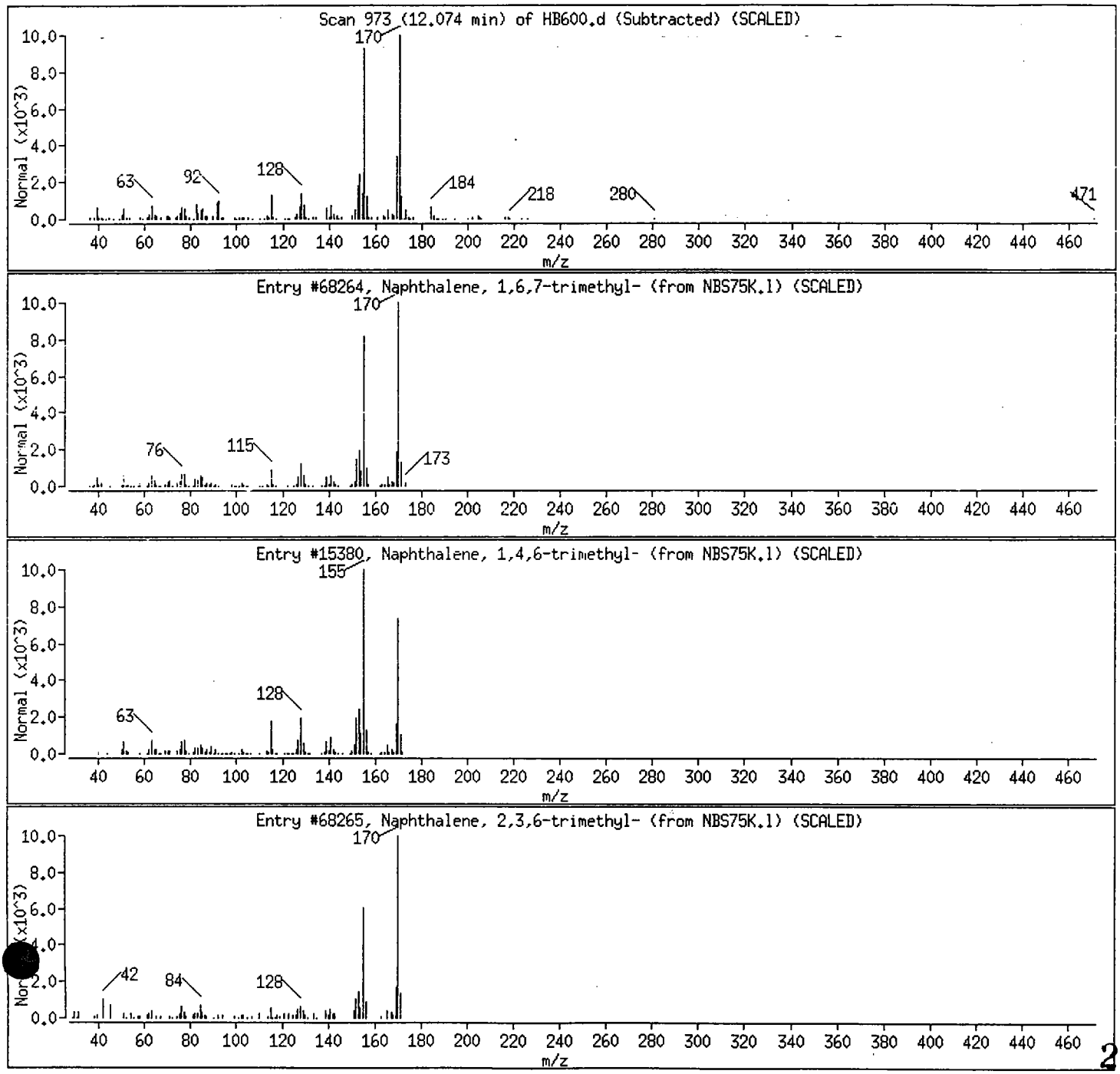
Client ID: SS001SWMUG-5 Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: VDLITTLE

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, Trimethyl-	2245-38-7	NBS75K.l	68264	97	C13H14	170
Naphthalene, 1,4,6-trimethyl-	2131-42-2	NBS75K.l	15380	96	C13H14	170
Naphthalene, 2,3,6-trimethyl-	829-26-5	NBS75K.l	68265	96	C13H14	170



Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

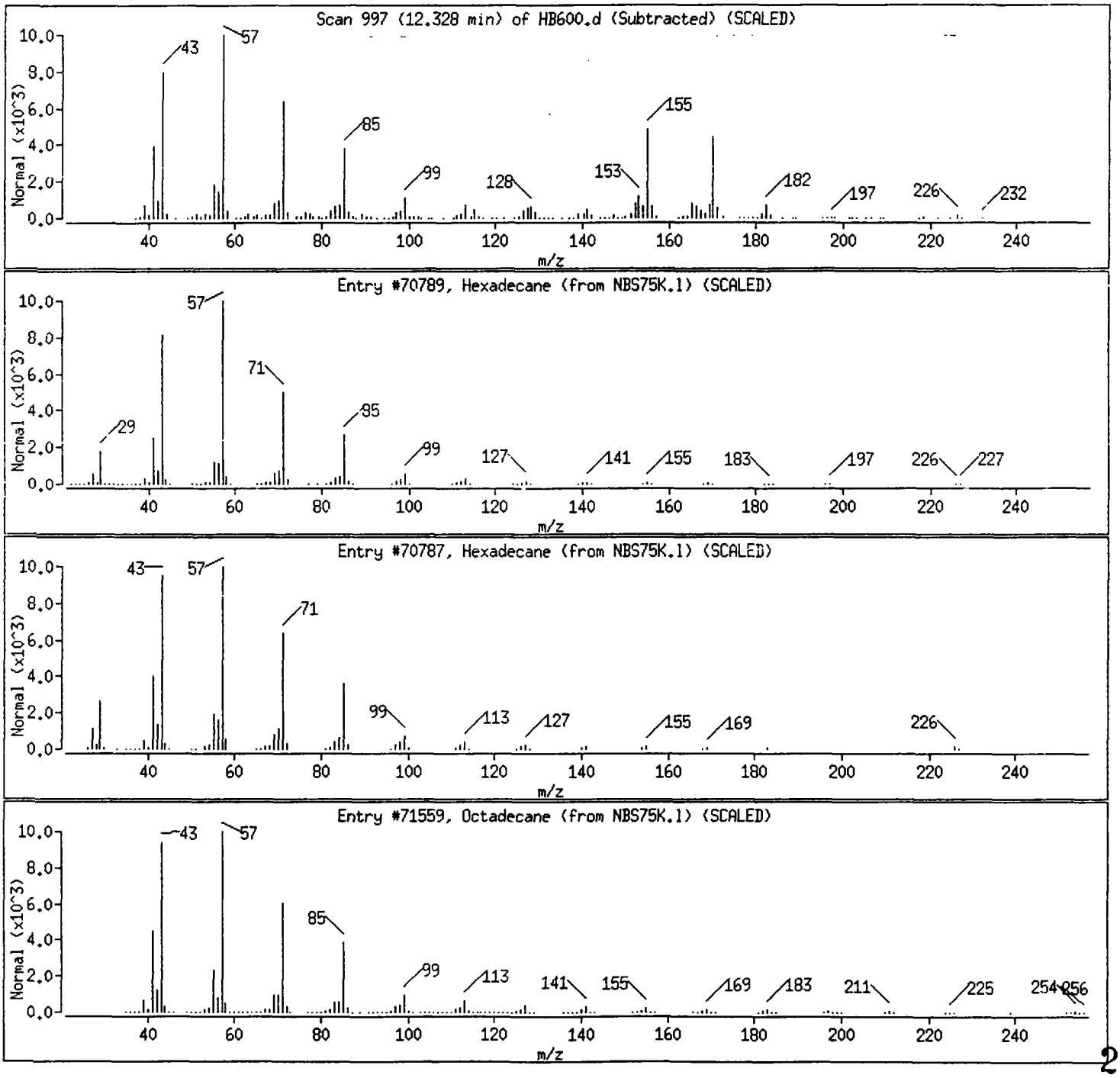
Client ID: SS001SWMUG-5 Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: VDLITTLE

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecane	544-76-3	NBS75K.l	70789	90	C16H34	226
Hexadecane	544-76-3	NBS75K.I	70787	50	C16H34	226
Octadecane	593-45-3	NBS75K.l	71559	45	C18H38	254



Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

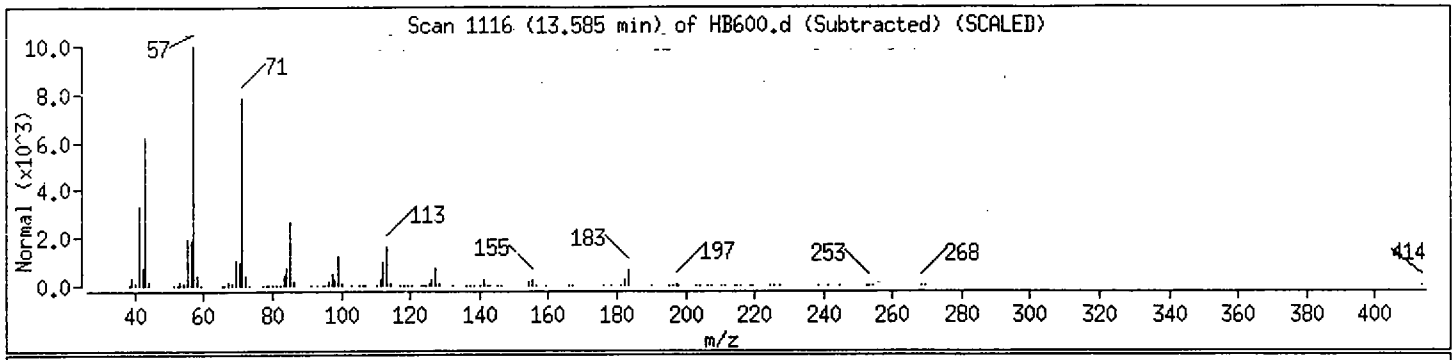
Client ID: SS001SWMUG-5 Instrument: ITS8.i

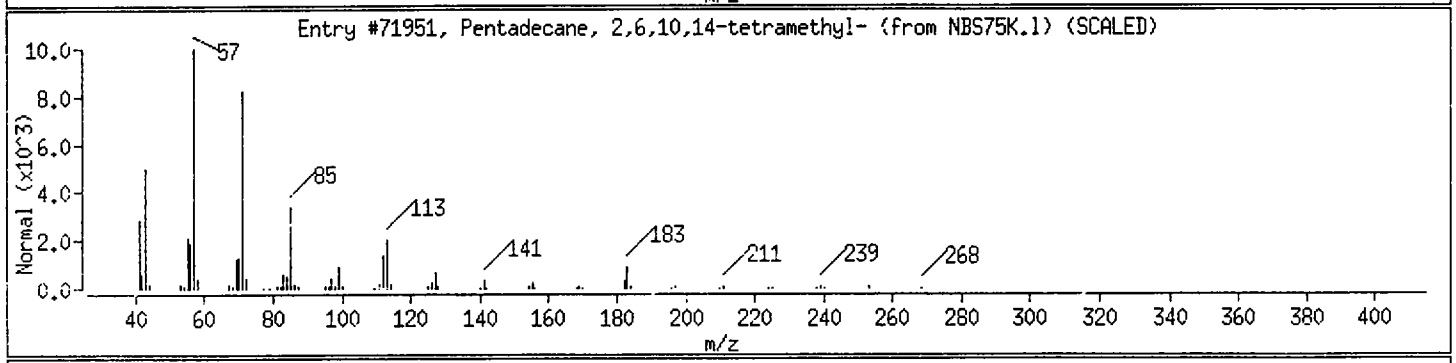
Sample Info: 8270_ABN_S;;AB848-83;1

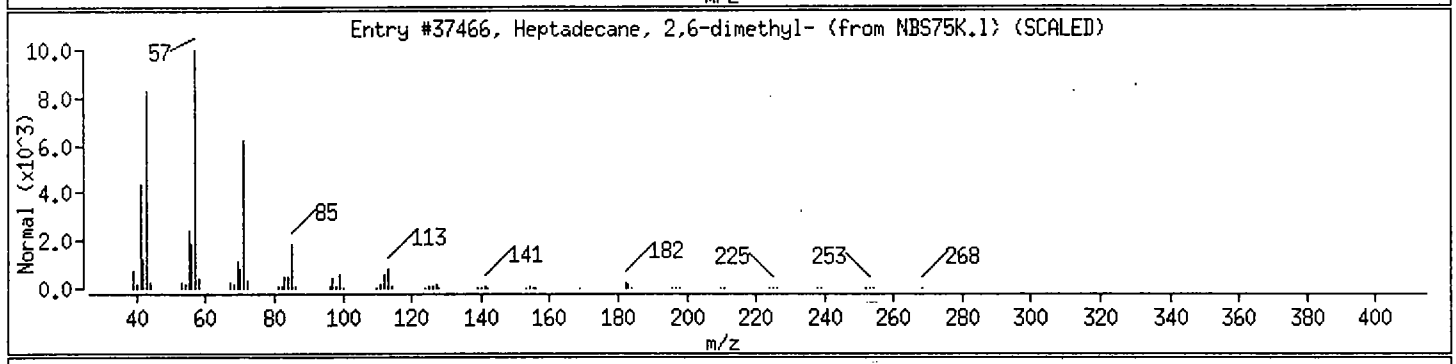
Volume Injected (uL): 1.0 Operator: VDLITTLE

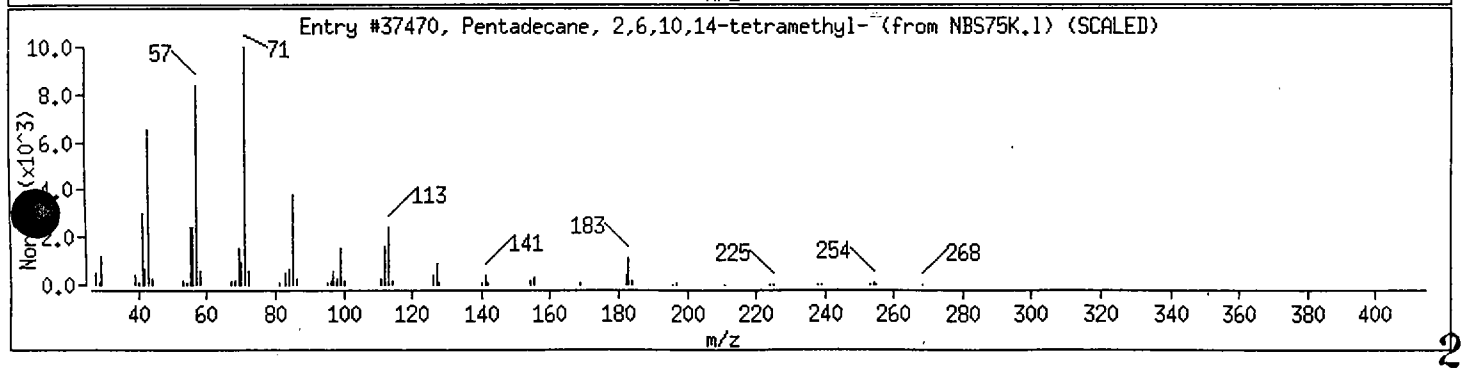
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pentadecane, 2,6,10,14-tetramethyl-	1921-70-6	NBS75K.l	71951	98	C19H40	268
Heptadecane, 2,6-dimethyl-	54105-67-8	NBS75K.l	37466	94	C19H40	268
Pentadecane, 2,6,10,14-tetramethyl-	1921-70-6	NBS75K.l	37470	93	C19H40	268









Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

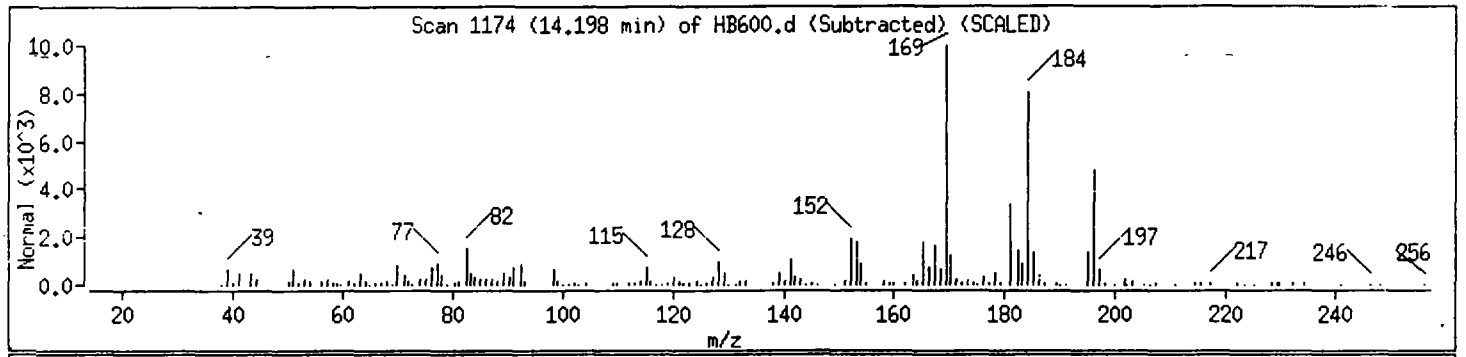
Volume Injected (uL): 1.0

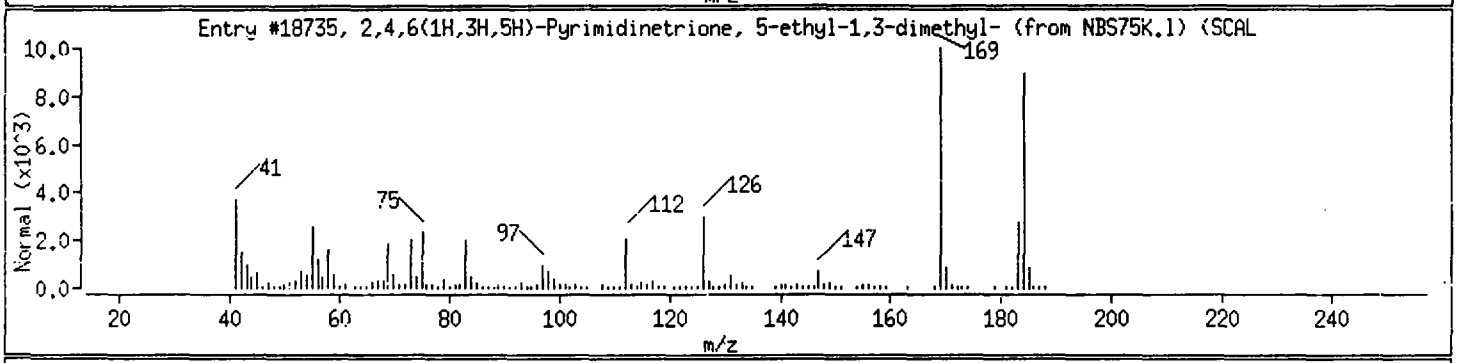
Operator: VDLITTLE

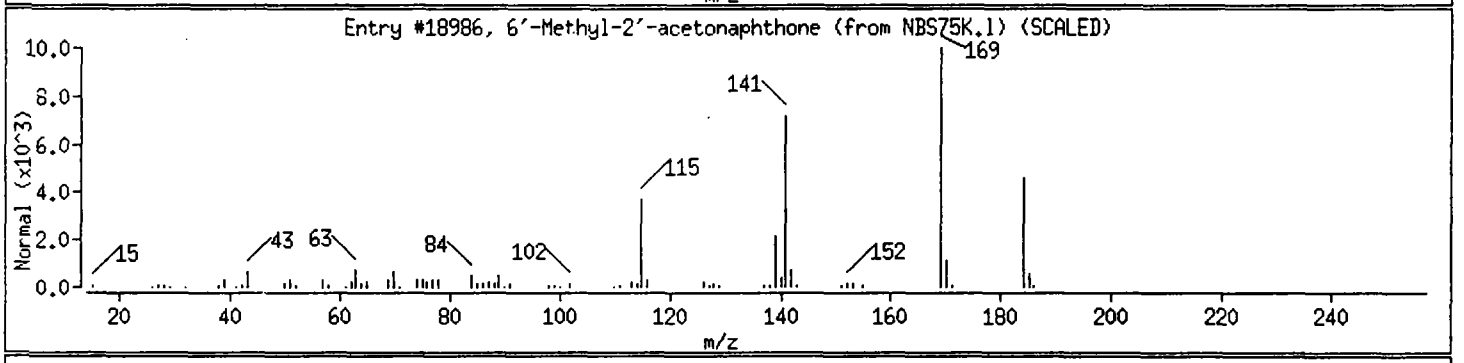
Column phase: DB-5

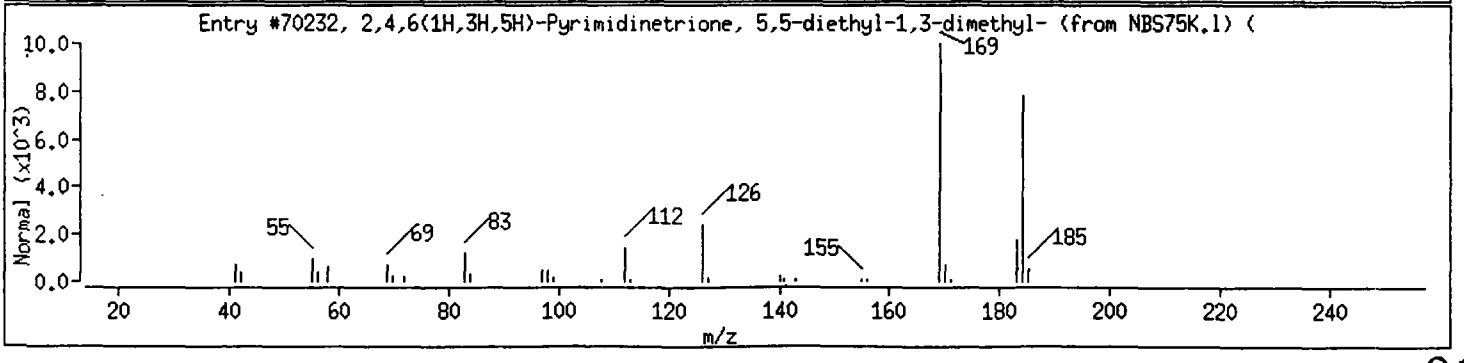
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Unknown steroid	7391-61-9	NBS75K.l	18735	49	C8H12N2O3	184
6'-Methyl-2'-acetonaphthone	24875-94-3	NBS75K.l	18986	49	C13H12O	184
2,4,6(1H,3H,5H)-Pyrimidinetrione, 5,5-di	714-59-0	NBS75K.l	70232	47	C10H16N2O3	212









Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

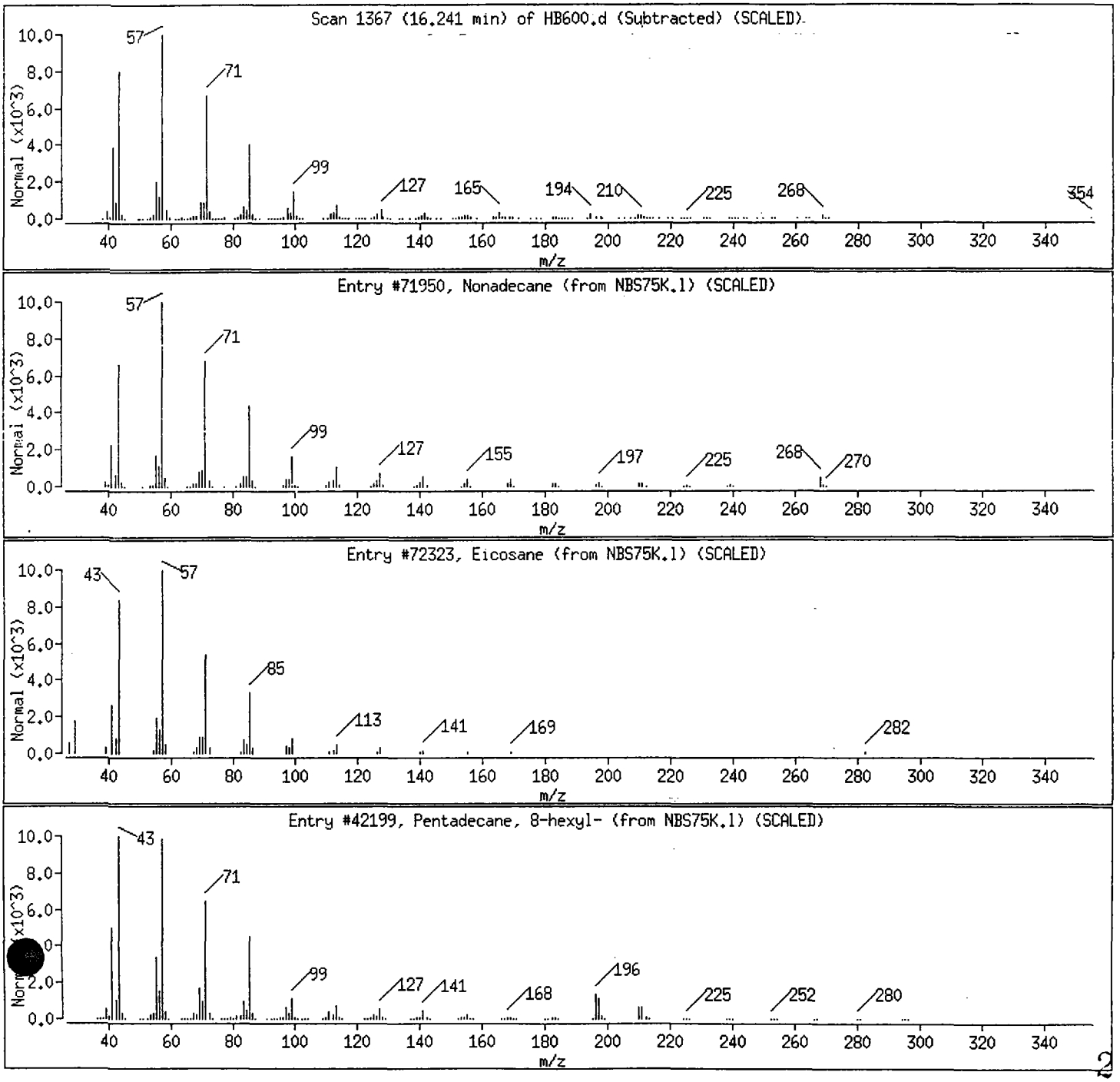
Client ID: SS001SWMUG-5 Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: VDLITTLE

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonadecane	629-92-5	NBS75K.l	71950	93	C19H40	268
Eicosane	112-95-8	NBS75K.l	72323	90	C20H42	282
Pentadecane, 8-hexyl-	13475-75-7	NBS75K.l	42199	86	C21H44	296



Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

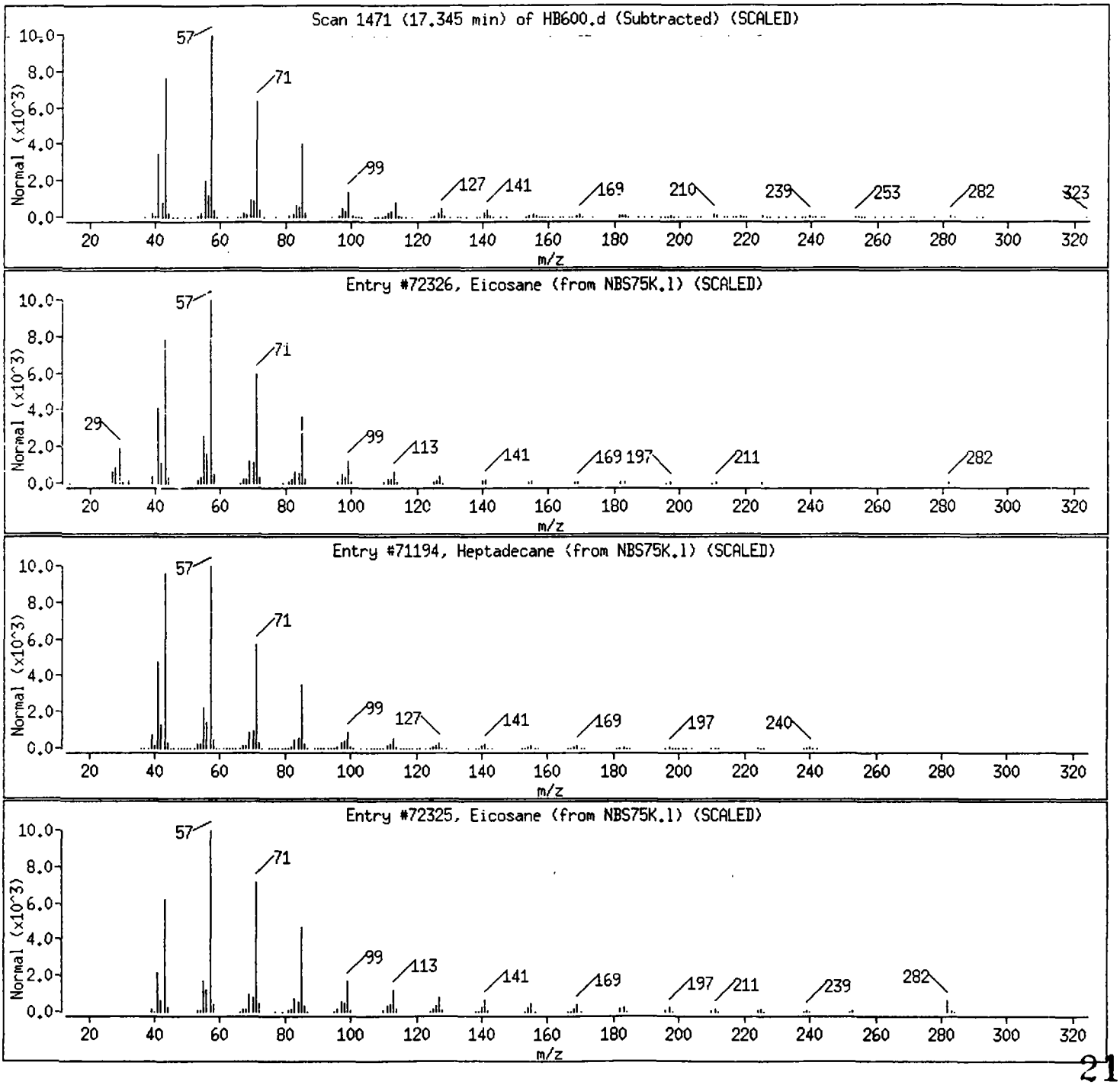
Client ID: SS001SWMUG-5 Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: VDLITTLE

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NBS75K.l	72326	98	C20H42	282
Heptadecane	629-78-7	NBS75K.l	71194	97	C17H36	240
Eicosane	112-95-8	NBS75K.l	72325	96	C20H42	282



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Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

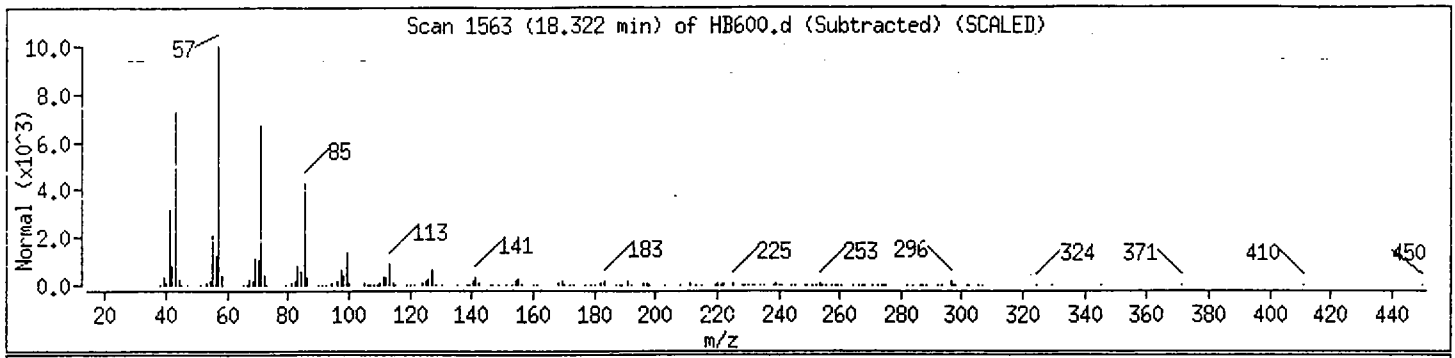
Volume Injected (uL): 1.0

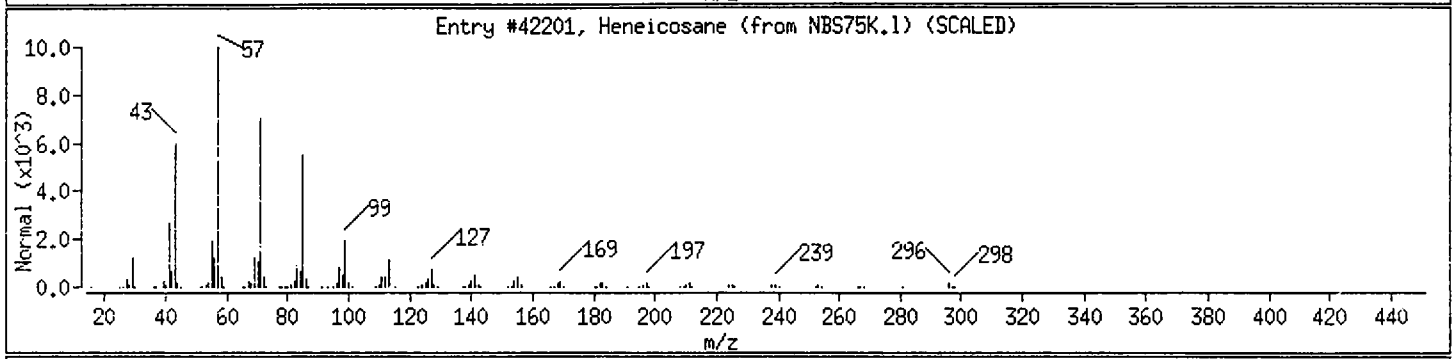
Operator: VDLITTLE

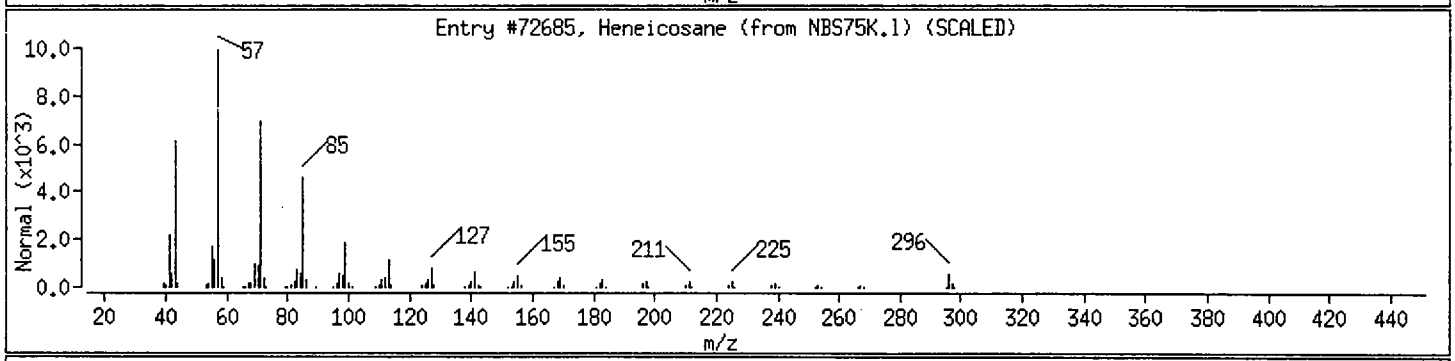
Column phase: DB-5

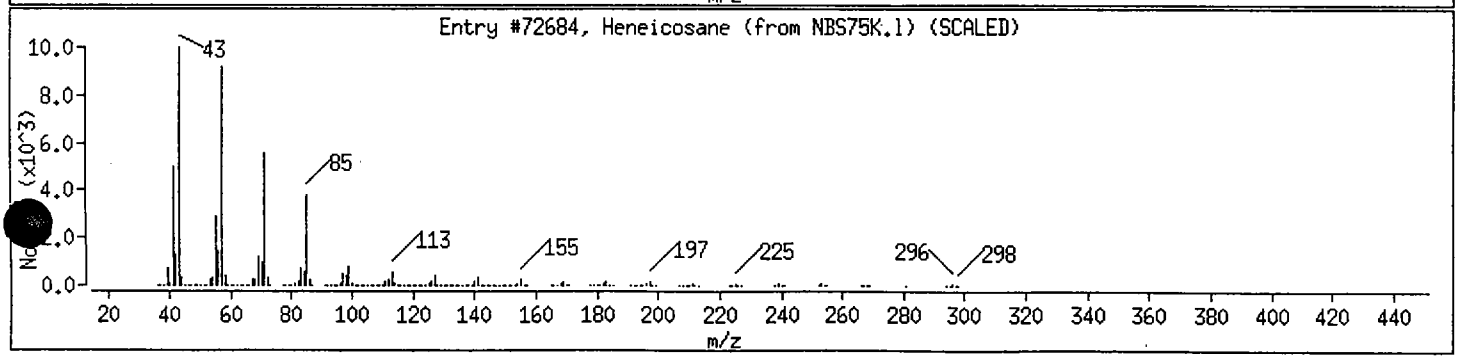
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heneicosane	629-94-7	NBS75K.l	42201	99	C21H44	296
Heneicosane	629-94-7	NBS75K.l	72685	97	C21H44	296
Heneicosane	629-94-7	NBS75K.l	72684	93	C21H44	296









Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

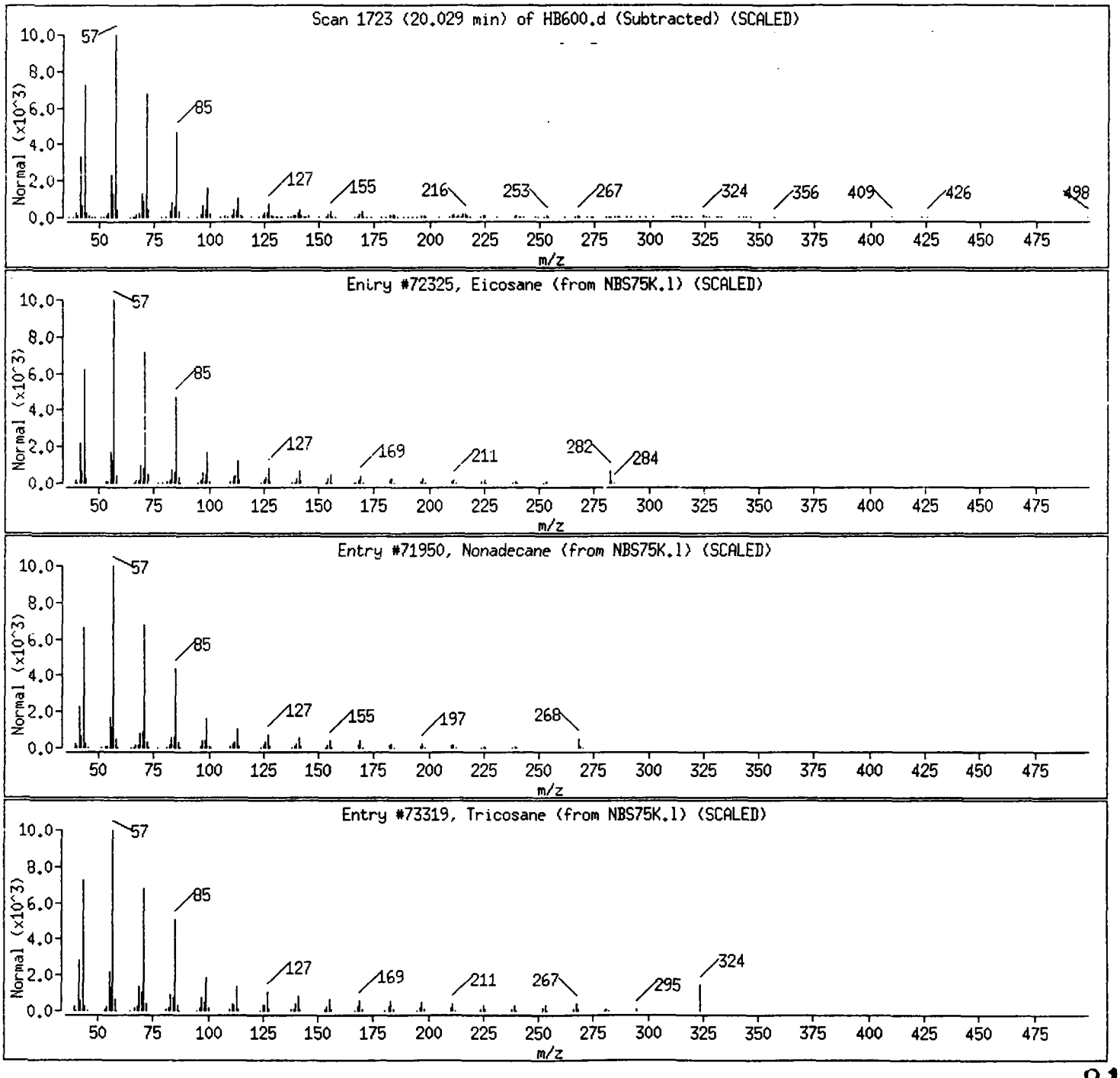
Client ID: SS001SWMUG-5 Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: VDLITTLE

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NBS75K.l	72325	97	C20H42	282
Nonadecane	629-92-5	NBS75K.l	71950	96	C19H40	268
Tricosane	638-67-5	NBS75K.l	73319	93	C23H48	324



Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

Client ID: SS001SWMUG-5

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

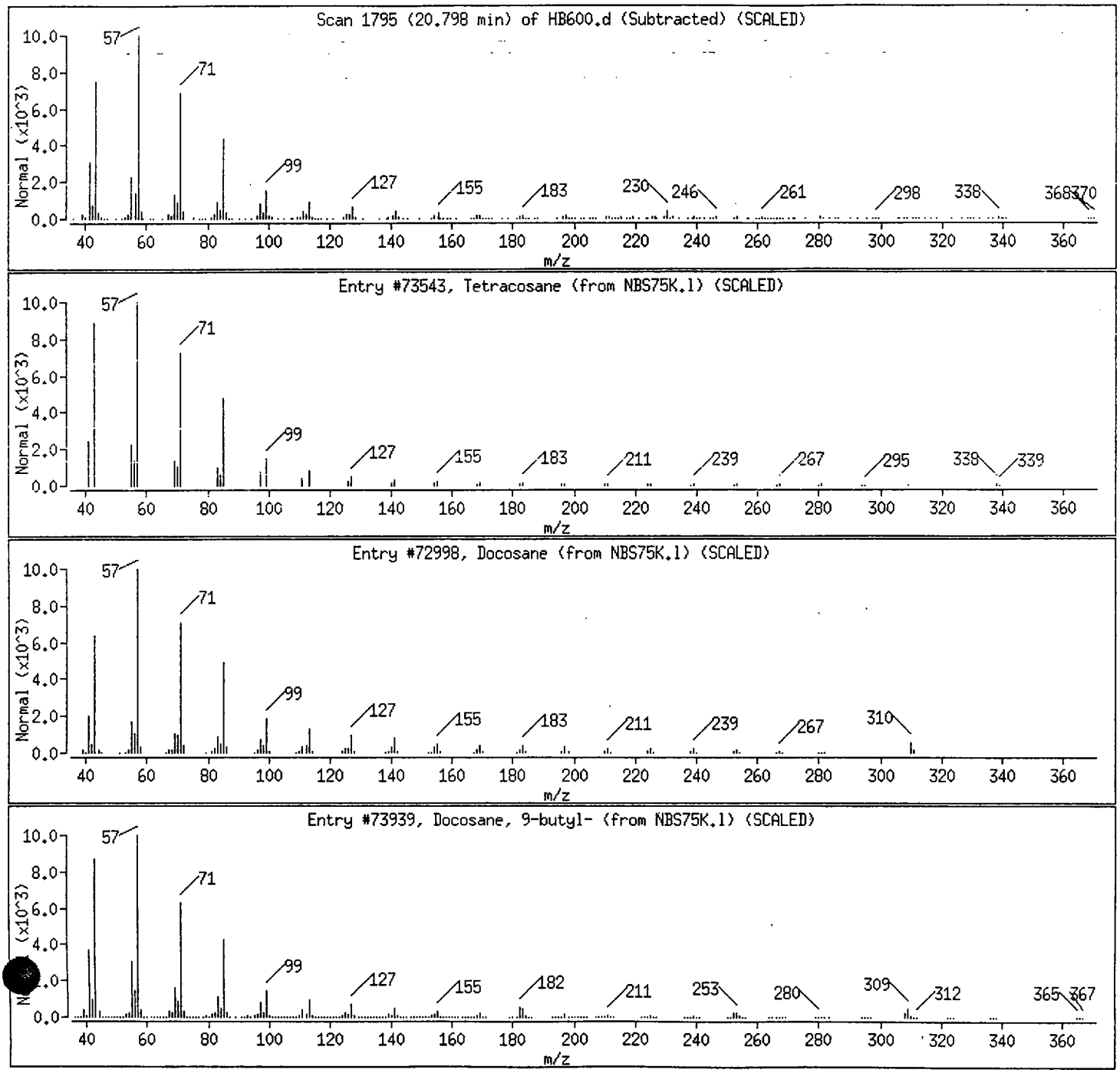
Volume Injected (uL): 1.0

Operator: VDLITTLE

Column phase: DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetracosane	646-31-1	NBS75K.l	73543	99	C24H50	338
Docosane	629-97-0	NBS75K.l	72998	96	C22H46	310
Docosane, 9-butyl-	55282-14-9	NBS75K.l	73939	91	C26H54	366



Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

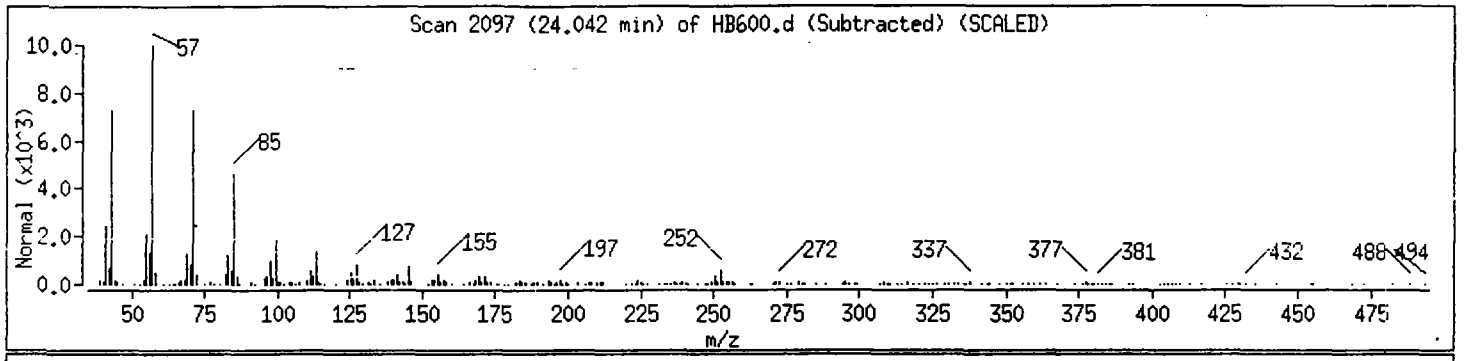
Client ID: SS001SWMUG-5 Instrument: ITS8.i

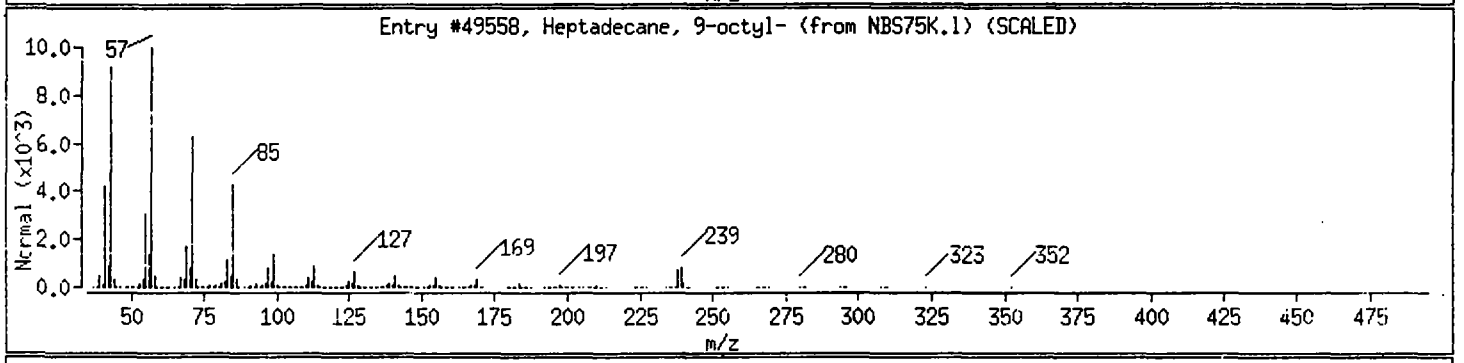
Sample Info: 8270_ABN_S;;AB848-83;1

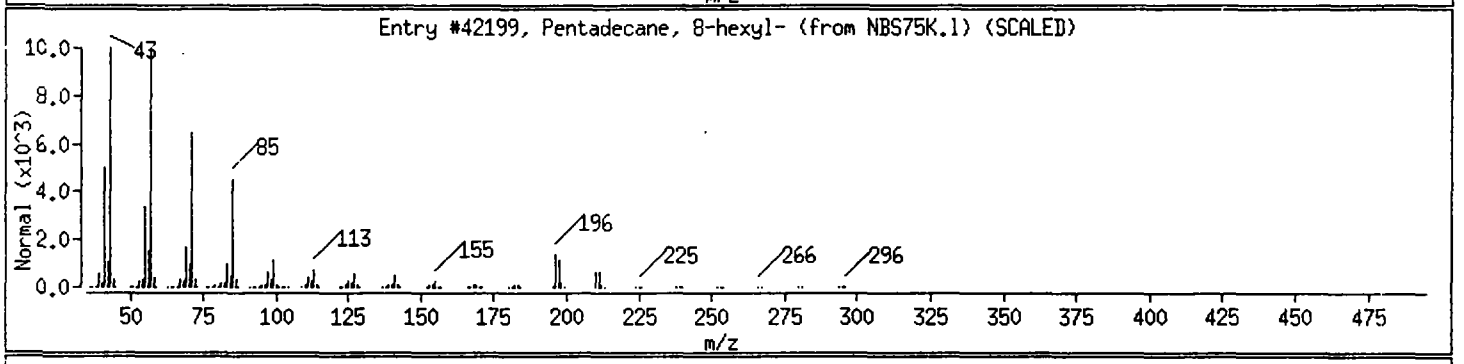
Volume Injected (uL): 1.0 Operator: VDLITTLE

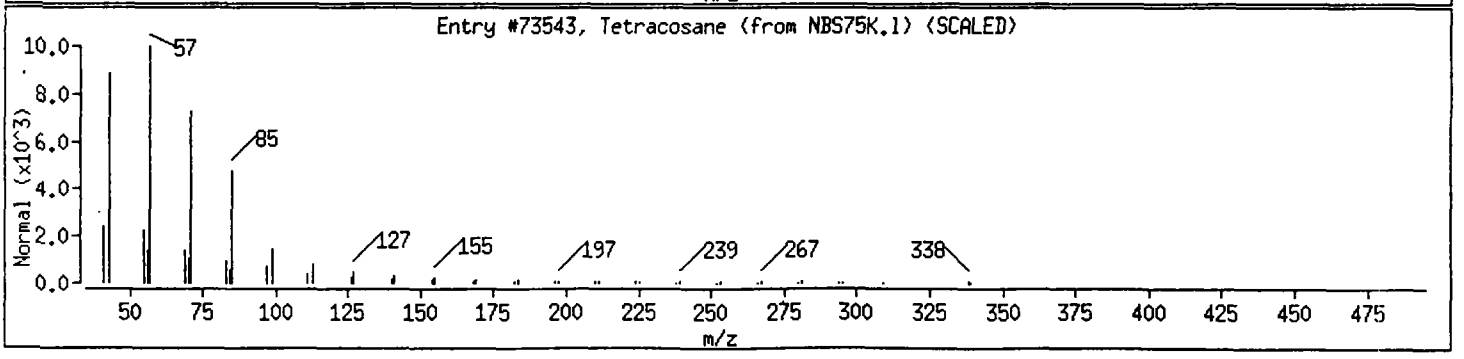
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heptadecane, 9-octyl-	7225-64-1	NBS75K.l	49558	93	C25H52	352
Pentadecane, 8-hexyl-	13475-75-7	NBS75K.l	42199	90	C21H44	296
Tetracosane	646-31-1	NBS75K.l	73543	87	C24H50	338









Data File: /chem3/ITS8.i/090596B.b/HB600.d

Date : 06-SEP-1996 09:34

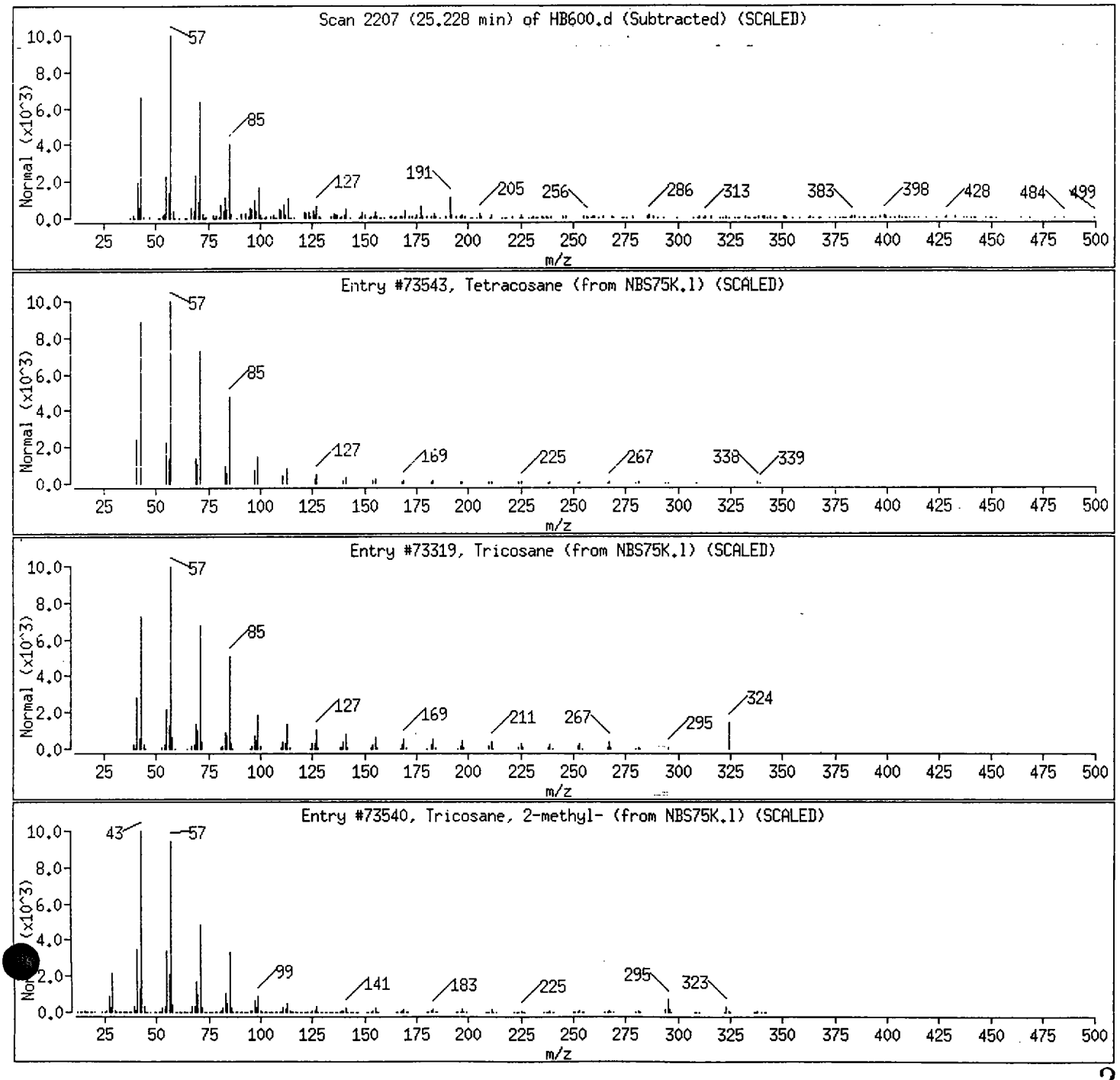
Client ID: SS001SWMUG-5 Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: VDLITTLE

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetracosane	646-31-1	NBS75K.l	73543	96	C24H50	338
Tricosane	638-67-5	NBS75K.l	73319	93	C23H48	324
Tricosane, 2-methyl-	1928-30-9	NBS75K.l	73540	93	C24H50	338



FORM 1 AT Kearney, Inc. SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SS001SWMUG-5

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-1DIL

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB598

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 0 decanted: (Y/N) N Date Extracted:09/03/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/06/96

Injection Volume: 1.0(uL) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
62-75-9	N-Nitrosodimethylamine	3.30	U
62-53-3	Aniline	3.30	U
108-95-2	Phenol	3.30	U
111-44-4	Bis(2-chloroethyl)ether	3.30	U
95-57-8	2-Chlorophenol	3.30	U
541-73-1	1,3-Dichlorobenzene	3.30	U
106-46-7	1,4-Dichlorobenzene	3.30	U
100-51-6	Benzyl alcohol	6.50	U
95-50-1	1,2-Dichlorobenzene	3.30	U
95-48-7	2-Methylphenol	3.30	U
39638-32-9	Bis(2-chloroisopropyl)ether	3.30	U
106-44-5	4-Methylphenol	3.30	U
621-64-7	N-Nitrosodi-n-propylamine	3.30	U
67-72-1	Hexachloroethane	3.30	U
98-95-3	Nitrobenzene	3.30	U
78-59-1	Isophorone	3.30	U
88-75-5	2-Nitrophenol	3.30	U
105-67-9	2,4-Dimethylphenol	3.30	U
111-91-1	Bis(2-chloroethoxy)methane	3.30	U
65-85-0	Benzoic acid	8.00	U
120-83-2	2,4-Dichlorophenol	3.30	U
120-82-1	1,2,4-Trichlorobenzene	3.30	U
91-20-3	Naphthalene	3.30	U
106-47-8	4-Chloroaniline	3.30	U
87-68-3	Hexachlorobutadiene	3.30	U
59-50-7	4-Chloro-3-methylphenol	6.50	U
91-57-6	2-Methylnaphthalene	3.30	U
77-47-4	Hexachlorocyclopentadiene	3.30	U
88-06-2	2,4,6-Trichlorophenol	3.30	U
95-95-4	2,4,5-Trichlorophenol	16.5	U
91-58-7	2-Chloronaphthalene	3.30	U
88-74-4	2-Nitroaniline	16.5	U
131-11-3	Dimethylphthalate	3.30	U

FORM 1 AT Kearney, Inc. SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SS001SWMUG-5

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-1DIL

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB598

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/03/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/06/96

Injection Volume: 1.0(uL) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
208-96-8	Acenaphthylene	3.30	U
606-20-2	2,6-Dinitrotoluene	3.30	U
99-09-2	3-Nitroaniline	16.5	U
83-32-9	Acenaphthene	3.30	U
51-28-5	2,4-Dinitrophenol	3.30	U
132-64-9	Dibenzofuran	3.30	U
100-02-7	4-Nitrophenol	8.00	U
121-14-2	2,4-Dinitrotoluene	3.30	U
84-66-2	Diethylphthalate	3.30	U
86-73-7	Fluorene	3.30	U
7005-72-3	4-Chlorophenyl phenyl ether	3.30	U
100-01-6	4-Nitroaniline	16.5	U
534-52-1	4,6-Dinitro-2-methylphenol	16.5	U
86-30-6	N-Nitrosodiphenylamine (1)	3.30	U
103-33-3	1,2-Diphenylhydrazine	3.30	U
101-55-3	4-Bromophenyl phenyl ether	3.30	U
118-74-1	Hexachlorobenzene	3.30	U
87-86-5	Pentachlorophenol	16.5	U
92875	Benzidine	16.7	U
85-01-8	Phenanthrene	3.30	U
120-12-7	Anthracene	3.30	U
86-74-8	Carbazole	3.30	U
84-74-2	Di-n-butylphthalate	3.30	U
206-44-0	Fluoranthene	3.30	U
129-00-0	Pyrene	3.30	U
85-68-7	Butyl benzyl phthalate	3.30	U
56-55-3	Benzo(a)anthracene	3.30	U
91-94-1	3,3'-Dichlorobenzidine	13.0	U
218-01-9	Chrysene	3.30	U
117-81-7	Bis(2-ethylhexyl)phthalate	3.30	U
117-84-0	Di-n-octylphthalate	3.30	U
205-99-2	Benzo(b)fluoranthene	3.30	U
207-08-9	Benzo(k)fluoranthene	3.30	U

(1) - Cannot be separated from Diphenylamine

FORM 1 AT Kearney, Inc. SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SS001SWMUG-5

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-1DIL

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB598

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 0 decanted: (Y/N) N Date Extracted:09/03/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/06/96

Injection Volume: 1.0(uL) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
50-32-8	Benzo(a)pyrene	3.30	U
193-39-5	Indeno(1,2,3-cd)pyrene	3.30	U
53-70-3	Dibenz(a,h)anthracene	3.30	U
191-24-2	Benzo(g,h,i)perylene	3.30	U

FORM 1 AT Kearney, Inc. SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SS001SWMUG-5

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-1DIL

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB598

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:09/03/96

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/06/96

Injection Volume: 1.0(uL) Dilution Factor: 10.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
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28.					
29.					
30.					

Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/090596B.b/HB598.d
Lab Smp Id: D96-9653-1 Client Smp ID: SS001SWMUG-5
Inj Date : 06-SEP-1996 08:20
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : IL_8270_S;;AB848-83;1
Misc Info : EX: 09-03-96 30/10 3550A BTL#18 *
Comment : A.T. KEARNEY
Method : /chem3/ITS8.i/090596B.b/abn8.m
Meth Date : 06-Sep-1996 15:38 vdl Quant Type: ISTD
Cal Date : 05-SEP-1996 22:34 Cal File: HB582.d
Als bottle: 1
Dil Factor: 10.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/Kg)
$	3 2-Fluorophenol (SS)	112.00	3.529	3.520	(0.651)	5821	3.45	1.15(aM)
$	4 Phenol-d6 (SS)	99.00	4.925	4.914	(0.908)	10475	5.20	1.73(aM)
*	10 1,4-Dichlorobenzene-d4	152.00	5.425	5.425	(1.000)	50424	40.0	
$	19 Nitrobenzene-d5 (SS)	82.00	6.435	6.417	(0.834)	3809	2.11	0.703(a)
*	29 Naphthalene-d8	136.00	7.717	7.722	(1.000)	187259	40.0	
$	38 2-Fluorobiphenyl (SS)	172.00	9.905	9.905	(0.885)	16547	4.18	1.39(a)
*	45 Acenaphthene-d10	164.00	11.189	11.199	(1.000)	115227	40.0	
$	58 2,4,6-Tribromophenol (SS)	330.00	12.911	12.893	(1.154)	1308	2.16	0.721(aQM)
*	62 Phenanthrene-d10	188.00	14.872	14.888	(1.000)	209484	40.0	
$	70 Terphenyl-d14 (SS)	244.00	19.191	19.196	(0.895)	19046	4.04	1.34(a)
*	74 Chrysene-d12	240.00	21.440	21.450	(1.000)	173123	40.0	
*	81 Perylene-d12	264.00	24.239	24.247	(1.000)	172039	40.0	

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem3/ITS8.i/090596B.b/HB598.d
Lab Smp Id: D96-9653-1 Client Smp ID: SS001SWMUG-5
Inj Date : 06-SEP-1996 08:20
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : IL_8270_S;;AB848-83;1
Misc Info : EX: 09-03-96 30/10 3550A BTL#I8 *
Comment : A.T. KEARNEY
Method : /chem3/ITS8.i/090596B.b/abn8.m
Meth Date : 06-Sep-1996 15:38 vdl
Cal Date : 05-SEP-1996 22:34 Cal File: HB582.d
Als bottle: 1
Dil Factor: 10.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: ITS8.i
Lab File ID: HB598.d
Lab Smp Id: D96-9653-1
Analysis Type: SV
Quant Type: ISTD
Operator: VDLITTLE
Method File: /chem3/ITS8.i/090596B.b/abn8.m
Misc Info: EX: 09-03-96 30/10 3550A BTL#18 *

Calibration Date: 09/05/96
Calibration Time: 2234
Client Smp ID: SS001SWMUG-5
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	67985	33992	135970	50424	-25.83
29 Naphthalene-d8	248236	124118	496472	187259	-24.56
45 Acenaphthene-d10	149694	74847	299388	115227	-23.02
62 Phenanthrene-d10	281449	140724	562898	209484	-25.57
74 Chrysene-d12	205446	102723	410892	173123	-15.73
81 Perylene-d12	219635	109818	439270	172039	-21.67

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	5.43	4.93	5.93	5.42	-0.01
29 Naphthalene-d8	7.72	7.22	8.22	7.72	-0.07
45 Acenaphthene-d10	11.20	10.70	11.70	11.19	-0.09
62 Phenanthrene-d10	14.89	14.39	15.39	14.87	-0.11
74 Chrysene-d12	21.45	20.95	21.95	21.44	-0.05
81 Perylene-d12	24.25	23.75	24.75	24.24	-0.03

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name: AT Kearney, Inc.
Sample Matrix: SOLID
Lab Smp Id: D96-9653-1
Level: LOW
Data Type: MS DATA
SpikeList File: 8270_100.spk
Method File: /chem3/ITS8.i/090596B.b/abn8.m
Misc Info: EX: 09-03-96 30/10 3550A BTL#18 *

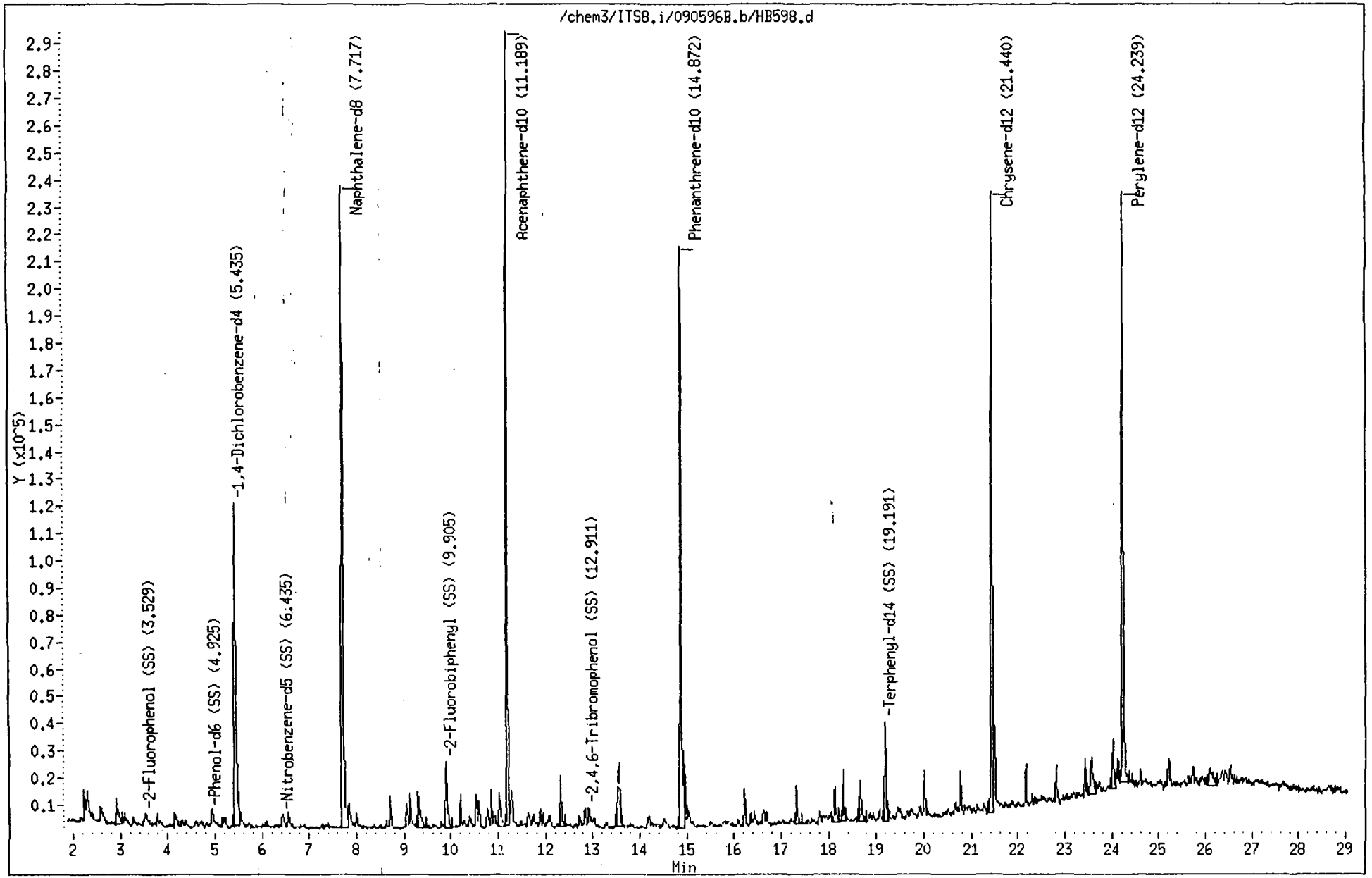
Client SDG: SVD96-9653
Fraction: SV
Client Smp ID: SS001SWMUG-5
Operator: VDLITTLE
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
$ 3 2-Fluorophenol (SS	3.33	1.15	34.48	25-121
$ 4 Phenol-d6 (SS)	3.33	1.73	52.01	24-113
$ 19 Nitrobenzene-d5 (S	1.67	0.703	42.19	23-120
$ 38 2-Fluorobiphenyl (	1.67	1.39	83.70	30-115
$ 58 2,4,6-Tribromophen	3.33	0.721	21.63	19-122
$ 70 Terphenyl-d14 (SS)	1.67	1.34	80.70	18-137

Data File: /chem3/ITS8.i/090596B.b/HB598.d
Date : 06-SEP-1996 08:20
Client ID: SS001SWMUG-5
Sample Info: IL_8270_S;;AB848-83;1
Volume Injected (uL): 1.0
Column phase: DB-5

Instrument: ITS8.i

Operator: VDLITTLE
Column diameter: 0.25



FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-2

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB637

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
62-75-9	N-Nitrosodimethylamine	0.330	U
62-53-3	Aniline	0.330	U
108-95-2	Phenol	0.330	U
111-44-4	Bis(2-chloroethyl)ether	0.330	U
95-57-8	2-Chlorophenol	0.330	U
541-73-1	1,3-Dichlorobenzene	0.330	U
106-46-7	1,4-Dichlorobenzene	0.330	U
100-51-6	Benzyl alcohol	0.650	U
95-50-1	1,2-Dichlorobenzene	0.330	U
95-48-7	2-Methylphenol	0.330	U
39638-32-9	Bis(2-chloroisopropyl)ether	0.330	U
106-44-5	4-Methylphenol	0.330	U
621-64-7	N-Nitrosodi-n-propylamine	0.330	U
67-72-1	Hexachloroethane	0.330	U
98-95-3	Nitrobenzene	0.330	U
78-59-1	Isophorone	0.330	U
88-75-5	2-Nitrophenol	0.330	U
105-67-9	2,4-Dimethylphenol	0.330	U
111-91-1	Bis(2-chloroethoxy)methane	0.330	U
65-85-0	Benzoic acid	0.800	U
120-83-2	2,4-Dichlorophenol	0.330	U
120-82-1	1,2,4-Trichlorobenzene	0.330	U
91-20-3	Naphthalene	0.425	
106-47-8	4-Chloroaniline	0.330	U
87-68-3	Hexachlorobutadiene	0.330	U
59-50-7	4-Chloro-3-methylphenol	0.650	U
91-57-6	2-Methylnaphthalene	0.667	
77-47-4	Hexachlorocyclopentadiene	0.330	U
88-06-2	2,4,6-Trichlorophenol	0.330	U
95-95-4	2,4,5-Trichlorophenol	1.65	U
91-58-7	2-Chloronaphthalene	0.330	U
88-74-4	2-Nitroaniline	1.65	U
131-11-3	Dimethylphthalate	0.330	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-2

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB637

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
208-96-8	Acenaphthylene	0.120	J
606-20-2	2,6-Dinitrotoluene	0.330	U
99-09-2	3-Nitroaniline	1.65	U
83-32-9	Acenaphthene	0.330	U
51-28-5	2,4-Dinitrophenol	0.330	U
132-64-9	Dibenzofuran	0.330	U
100-02-7	4-Nitrophenol	0.800	U
121-14-2	2,4-Dinitrotoluene	0.330	U
84-66-2	Diethylphthalate	0.330	U
86-73-7	Fluorene	0.330	U
7005-72-3	4-Chlorophenyl phenyl ether	0.330	U
100-01-6	4-Nitroaniline	1.65	U
534-52-1	4,6-Dinitro-2-methylphenol	1.65	U
86-30-6	N-Nitrosodiphenylamine (1)	0.330	U
103-33-3	1,2-Diphenylhydrazine	0.330	U
101-55-3	4-Bromophenyl phenyl ether	0.330	U
118-74-1	Hexachlorobenzene	0.330	U
87-86-5	Pentachlorophenol	1.65	U
92875	Benzidine	1.67	U
85-01-8	Phenanthrene	0.622	
120-12-7	Anthracene	0.0814	J
86-74-8	Carbazole	0.330	U
84-74-2	Di-n-butylphthalate	0.0434	J
206-44-0	Fluoranthene	0.734	
129-00-0	Pyrene	0.747	
85-68-7	Butyl benzyl phthalate	0.330	U
56-55-3	Benzo(a)anthracene	0.647	
91-94-1	3,3'-Dichlorobenzidine	1.30	U
218-01-9	Chrysene	0.734	
117-81-7	Bis(2-ethylhexyl)phthalate	0.108	J
117-84-0	Di-n-octylphthalate	0.330	U
205-99-2	Benzo(b)fluoranthene	0.997	
207-08-9	Benzo(k)fluoranthene	0.371	~~E~~

AH 10/1/96

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-2

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB637

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
50-32-8	Benzo(a)pyrene	0.586	
193-39-5	Indeno(1,2,3-cd)pyrene	0.409	
53-70-3	Dibenz(a,h)anthracene	0.149	J
191-24-2	Benzo(g,h,i)perylene	0.463	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

9653-2

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB637

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

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

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

Number TICs found: 18

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	112-40-3	DODECANE	7.83	0.343	NJ
2.	90-12-0	NAPHTHALENE, 1-METHYL-	9.29	0.415	NJ
3.	629-59-4	TETRADECANE	10.19	0.406	NJ
4.	581-40-8	NAPHTHALENE, 2,3-DIMETHYL-	10.52	0.488	NJ
5.	573-98-8	NAPHTHALENE, 1,2-DIMETHYL-	10.75	0.373	NJ
6.	544-76-3	HEXADECANE	10.83	0.393	NJ
7.	294-62-2	CYCLODODECANE	11.00	0.926	NJ
8.	629-62-9	PENTADECANE	11.27	0.441	NJ
9.	544-76-3	HEXADECANE	12.30	0.669	NJ
10.	1921-70-6	TETRAMETHYL-PENTADECANE	13.54	1.52	NJ
11.	629-92-5	NONADECANE	16.21	0.546	NJ
12.	112-95-8	EICOSANE	17.31	0.464	NJ
13.	629-94-7	HENEICOSANE	18.29	0.508	NJ
14.	243-17-4	BENZO[B]FLUORENE	19.47	0.360	NJ
15.	7225-66-3	HEXYL-TRIDECANE	20.01	0.326	NJ
16.	112-95-8	EICOSANE	22.15	0.307	NJ
17.	646-31-1	TETRACOSANE	22.79	0.299	NJ
18.	192-97-2	BENZO[E]PYRENE	24.02	0.963	NJ
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/090796.b/HB637.d
Lab Smp Id: D96-9653-2 Client Smp ID: D96-9653-2
Inj Date : 08-SEP-1996 03:07
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : IL 8270 S;;AB848-83;1
Misc Info : 30/1 EX 09-03-96
Comment : A.T. KEARNEY
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll Quant Type: ISTD
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/Kg)
$	3 2-Fluorophenol (SS)	112.00	3.511	3.509	(0.649)	94225	38.2	1.27
$	4 Phenol-d6 (SS)	99.00	4.890	4.893	(0.903)	152721	51.4	1.71
*	10 1,4-Dichlorobenzene-d4	152.00	5.413	5.415	(1.000)	75789	40.0	
$	19 Nitrobenzene-d5 (SS)	82.00	6.396	6.407	(0.831)	88356	34.8	1.16
*	29 Naphthalene-d8	136.00	7.695	7.701	(1.000)	265477	40.0	
	30 Naphthalene	128.00	7.737	7.743	(1.005)	78715	12.8	0.425
	34 2-Methylnaphthalene	142.00	9.100	9.110	(1.183)	86274	20.0	0.667
$	38 2-Fluorobiphenyl (SS)	172.00	9.878	9.884	(0.884)	204949	36.1	1.20
	43 Acenaphthylene	152.00	10.877	10.887	(0.974)	24976	3.59	0.120(a)
*	45 Acenaphthene-d10	164.00	11.172	11.179	(1.000)	162473	40.0	
$	58 2,4,6-Tribromophenol (SS)	330.00	12.859	12.873	(1.151)	24143	29.7	0.989
*	62 Phenanthrene-d10	188.00	14.853	14.857	(1.000)	272281	40.0	
	63 Phenanthrene	178.00	14.916	14.931	(1.004)	129211	18.7	0.622
	64 Anthracene	178.00	15.064	15.077	(1.014)	17126	2.44	0.0814(a)
	66 Di-n-butylphthalate	149.00	16.831	16.839	(1.133)	10826	1.30	0.0434(a)
	67 Fluoranthene	202.00	18.114	18.120	(1.220)	163182	22.0	0.734
	69 Pyrene	202.00	18.634	18.653	(0.870)	162749	22.4	0.747
$	70 Terphenyl-d14 (SS)	244.00	19.166	19.175	(0.895)	191163	37.5	1.25
	73 Benzo(a)anthracene	228.00	21.404	21.407	(0.999)	118571	19.4	0.647
*	74 Chrysene-d12	240.00	21.426	21.429	(1.000)	190282	40.0	
	75 Chrysene	228.00	21.469	21.482	(1.002)	133271	22.0	0.734
	76 Bis(2-ethylhexyl)phthalate	149.00	21.704	21.713	(1.013)	16772	3.24	0.108(a)
	78 Benzo(b)fluoranthene	252.00	23.545	23.544	(0.972)	155919	29.9	0.997
	79 Benzo(k)fluoranthene	252.00	23.588	23.596	(0.974)	64838	11.1	0.371(M)
	80 Benzo(a)pyrene	252.00	24.125	24.120	(0.996)	84689	17.6	0.586
*	81 Perylene-d12	264.00	24.221	24.226	(1.000)	180368	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	26.081	26.080	(1.077)	63831	12.3	0.409
	83 Dibenz(a,h)anthracene	278.00	26.102	26.112	(1.078)	19023	4.48	0.149(a)
	84 Benzo(g,h,i)perylene	276.00	26.522	26.522	(1.095)	59203	13.9	0.463

QC Flag Legend

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

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem3/ITS8.i/090796.b/HB637.d
Lab Smp Id: D96-9653-2 Client Smp ID: D96-9653-2
Inj Date : 08-SEP-1996 03:07
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : IL_8270_S;;AB848-83;1
Misc Info : 30/1 EX 09-03-96
Comment : A.T. KEARNEY
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 10 1,4-Dichlorobenzene-d4	5.413	438408	40.000
* 29 Naphthalene-d8	7.695	762528	40.000
* 45 Acenaphthene-d10	11.172	745540	40.000
* 62 Phenanthrene-d10	14.853	683114	40.000
* 74 Chrysene-d12	21.426	876543	40.000
* 81 Perylene-d12	24.221	520870	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(mg/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Dodecane				CAS #: 112-40-3			
7.831	196305	10.3	0.343	95	NBS75K.l	68249	29
Naphthalene, 1-methyl-				CAS #: 90-12-0			
9.289	237122	12.4	0.415	94	NBS75K.l	66233	29
Tetradecane				CAS #: 629-59-4			
10.193	226851	12.2	0.406	94	NBS75K.l	69660	45

RT	AREA	CONCENTRATIONS ON-COL(ng)	FINAL(mg/Kg)	QUAL	QUANT LIBRARY	LIB ENTRY	CPND #
Naphthalene, 2,3-dimethyl-					CAS #: 581-40-8		
10.519	272867	14.6	0.488	98	NBS75K.l	67332	45
Naphthalene, 1,2-dimethyl-					CAS #: 573-98-8		
10.751	208837	11.2	0.373	98	NBS75K.l	11623	45
Hexadecane					CAS #: 544-76-3		
10.835	219588	11.8	0.393	94	NBS75K.l	29267	45
Cyclododecane					CAS #: 294-62-2		
11.003	517949	27.8	0.926	97	NBS75K.l	68126	45
Pentadecane					CAS #: 629-62-9		
11.267	246640	13.2	0.441	96	NBS75K.l	26001	45
Hexadecane					CAS #: 544-76-3		
12.299	374010	20.1	0.669	94	NBS75K.l	70789	45
Tetramethyl-pentadecane					CAS #: 1921-70-6		
13.544	780039	45.7	1.52	98	NBS75K.l	37470	62
Nonadecane					CAS #: 629-92-5		
16.206	279965	16.4	0.546	94	NBS75K.l	71950	62
Eicosane					CAS #: 112-95-8		
17.307	237530	13.9	0.464	97	NBS75K.l	72325	62
Heneicosane					CAS #: 629-94-7		
18.294	333986	15.2	0.508	94	NBS75K.l	72685	74
Benzo[b]fluorene					CAS #: 243-17-4		
19.475	236747	10.8	0.360	90	NBS75K.l	26848	74
Hexyl-tridecane					CAS #: 7225-66-3		
20.007	214071	9.77	0.326	97	NBS75K.l	37464	74
Eicosane					CAS #: 112-95-8		
22.153	201634	9.20	0.307	98	NBS75K.l	72325	74
Tetracosane					CAS #: 646-31-1		
22.795	196853	8.98	0.299	95	NBS75K.l	73543	74
Benzo[e]pyrene					CAS #: 192-97-2		
24.017	376125	28.9	0.963	97	NBS75K.l	34433	81

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: ITS8.i
Lab File ID: HB637.d
Lab Smp Id: D96-9653-2
Analysis Type: SV
Quant Type: ISTD
Operator: VDLITTLE
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/1 EX 09-03-96

Calibration Date: 09/07/96
Calibration Time: 1834
Client Smp ID: D96-9653-2
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	88252	44126	176504	75789	-14.12
29 Naphthalene-d8	339046	169523	678092	265477	-21.70
45 Acenaphthene-d10	191883	95942	383766	162473	-15.33
62 Phenanthrene-d10	349685	174842	699370	272281	-22.14
74 Chrysene-d12	255574	127787	511148	190282	-25.55
81 Perylene-d12	273737	136868	547474	180368	-34.11

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	5.41	4.91	5.91	5.41	-0.03
29 Naphthalene-d8	7.70	7.20	8.20	7.69	-0.08
45 Acenaphthene-d10	11.18	10.68	11.68	11.17	-0.06
62 Phenanthrene-d10	14.86	14.36	15.36	14.85	-0.03
74 Chrysene-d12	21.43	20.93	21.93	21.43	-0.01
81 Perylene-d12	24.23	23.73	24.73	24.22	-0.02

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: D96-9653-2
Level: LOW
Data Type: MS DATA
SpikeList File: 8270_100.spk
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/1 EX 09-03-96

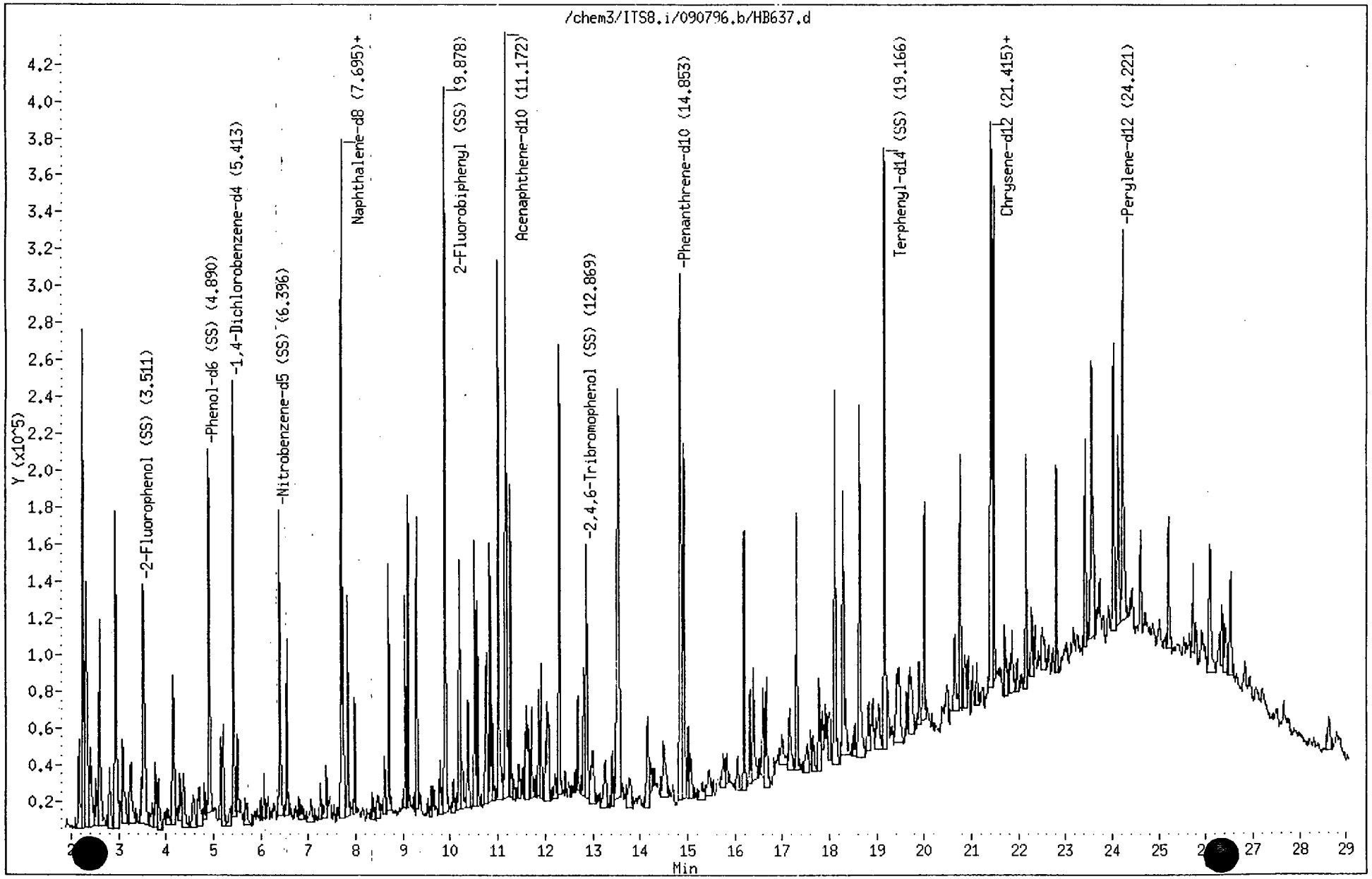
Client SDG: 090896
Fraction: SV
Client Smp ID: D96-9653-2
Operator: VDLITTLE
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
$ 3 2-Fluorophenol (SS	3.33	1.27	38.18	25-121
$ 4 Phenol-d6 (SS)	3.33	1.71	51.41	24-113
$ 19 Nitrobenzene-d5 (S	1.67	1.16	69.53	23-120
$ 38 2-Fluorobiphenyl (	1.67	1.20	72.29	30-115
$ 58 2,4,6-Tribromophen	3.33	0.989	29.67	19-122
$ 70 Terphenyl-d14 (SS)	1.67	1.25	75.04	18-137

Data File: /chem3/ITS8.i/090796.b/HB637.d
Date : 08-SEP-1996 03:07
Client ID: D96-9653-2
Sample Info: IL_8270_S;;AB848-83;1
Volume Injected (uL): 1.0
Column phase: DB-5

Instrument: ITS8.i

Operator: VDLITTLE
Column diameter: 0.25



Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

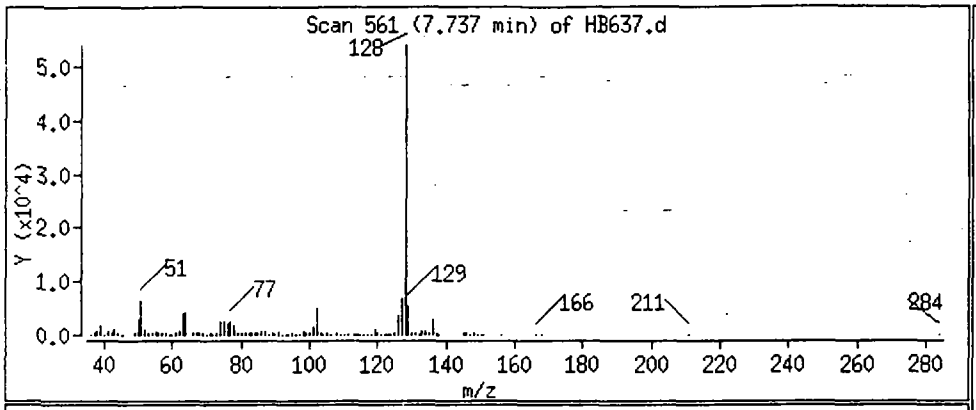
Volume Injected (uL): 1.0

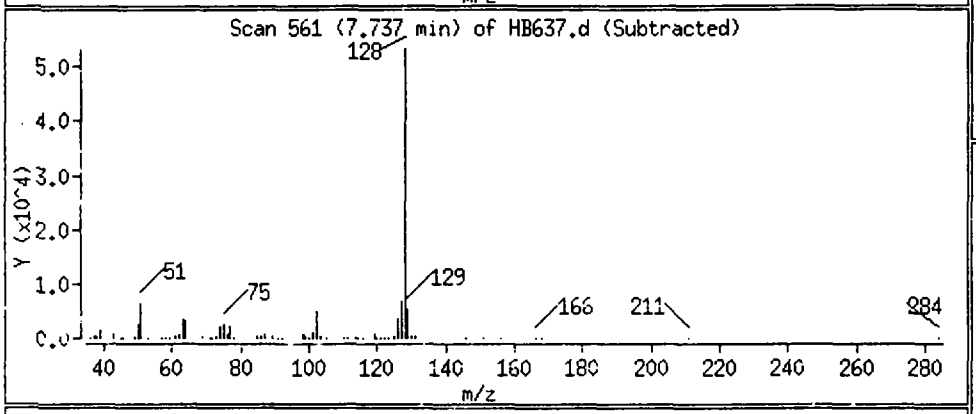
Operator: VDLITTLE

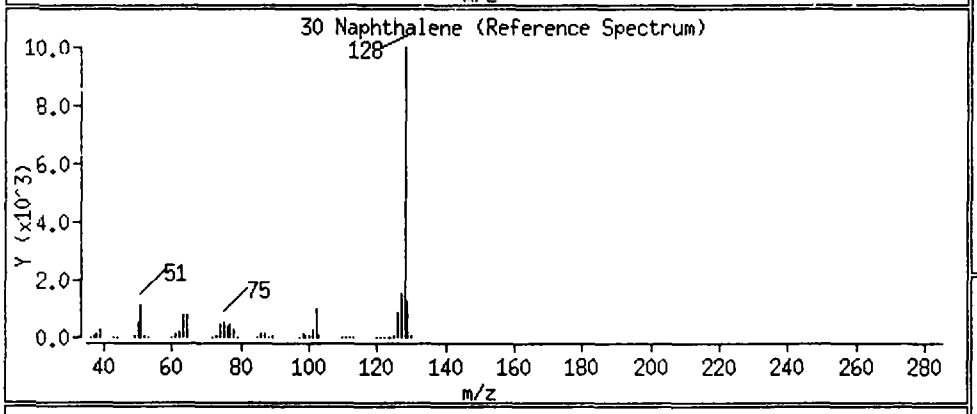
Column phase: DB-5

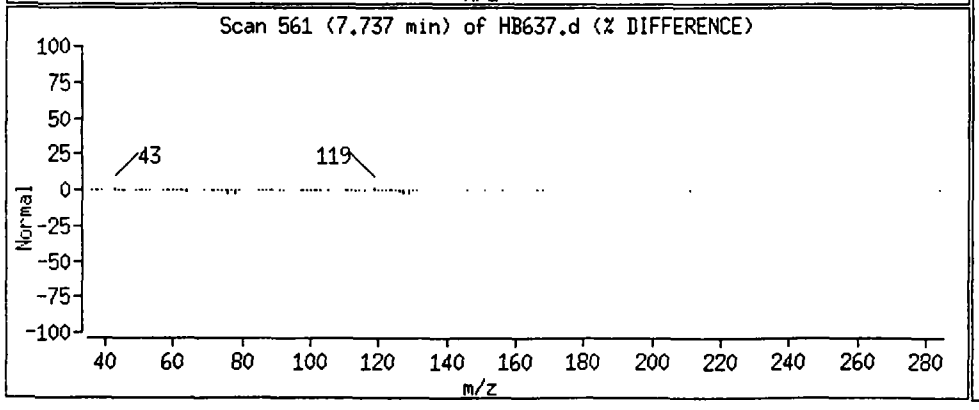
Column diameter: 0.25

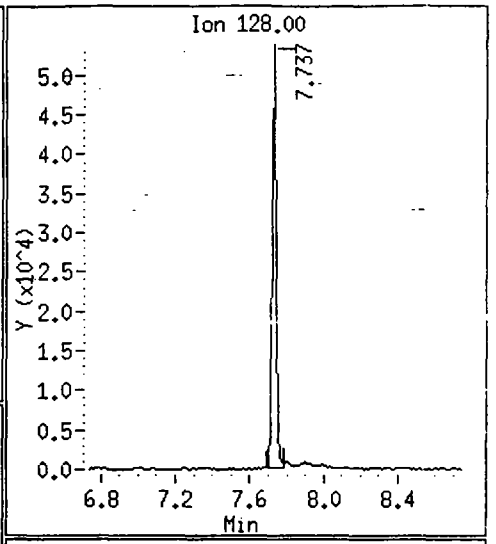
30 Naphthalene

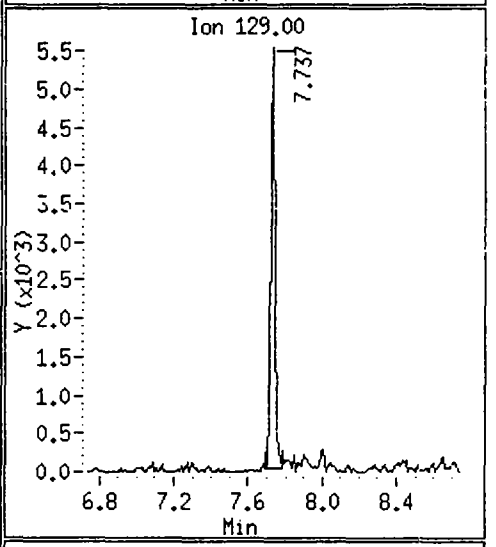


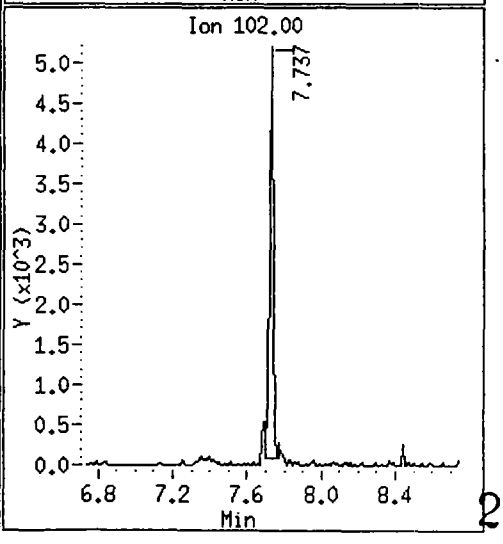












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

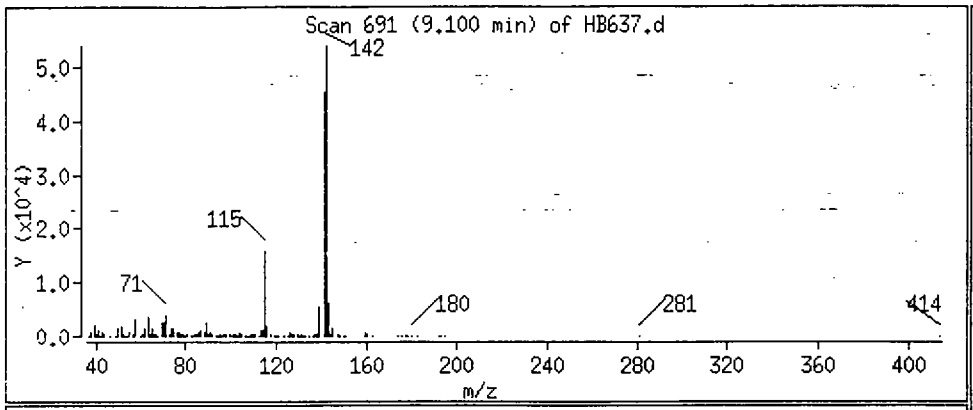
Volume Injected (uL): 1.0

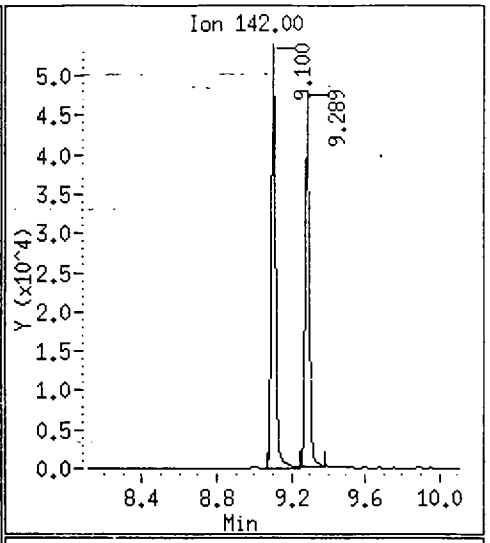
Operator: VDLITTLE

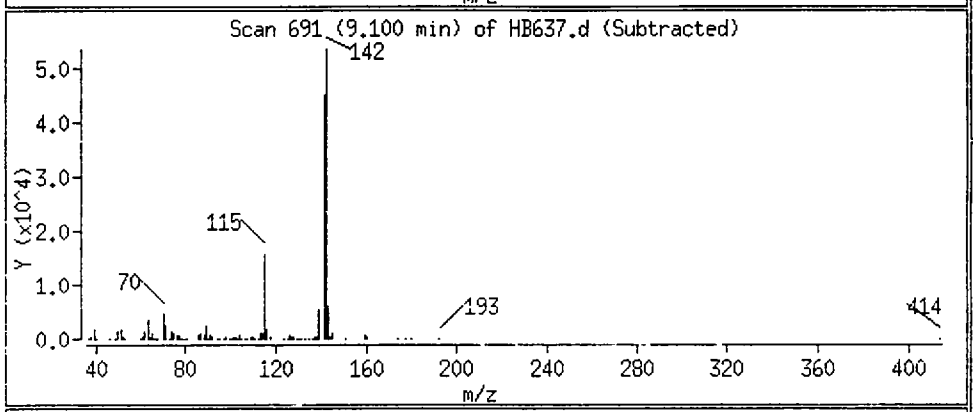
Column phase: DB-5

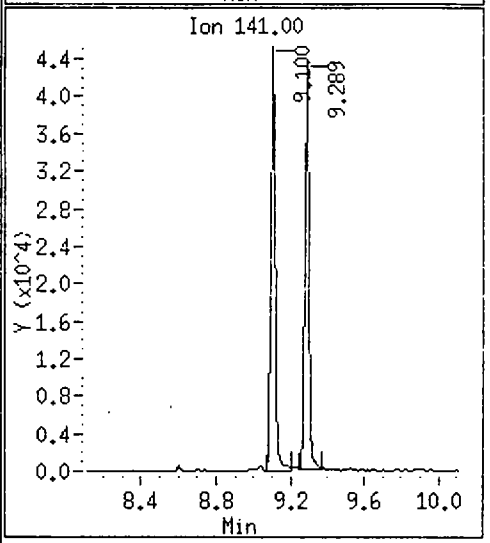
Column diameter: 0.25

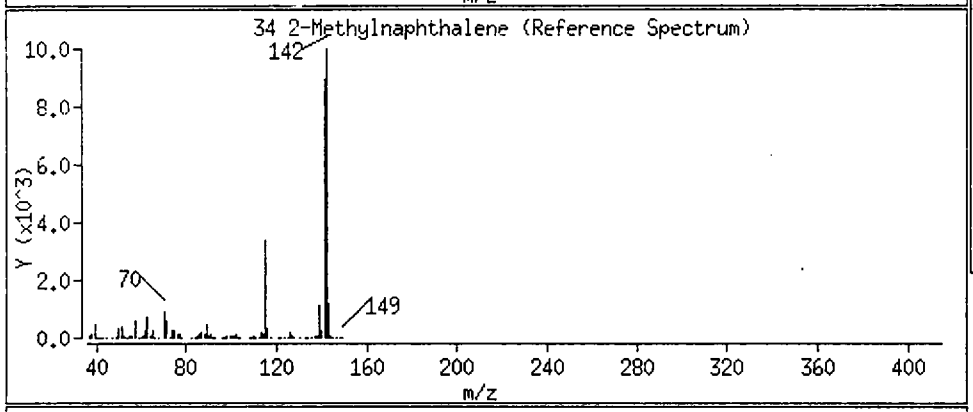
34 2-Methylnaphthalene

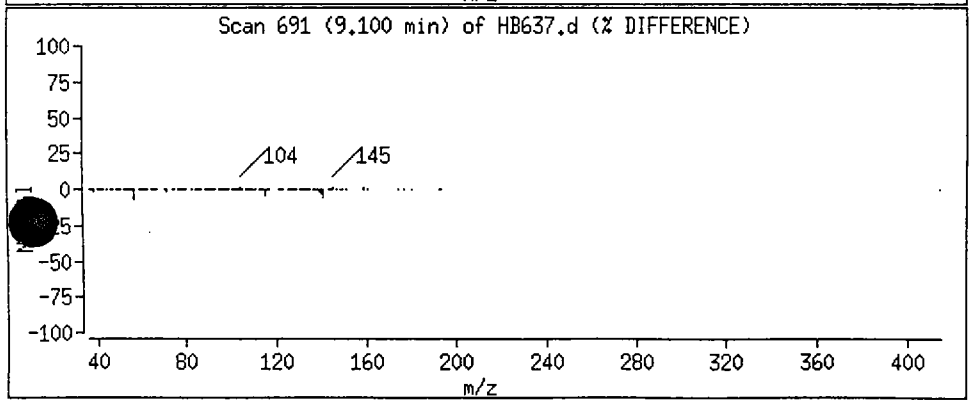












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

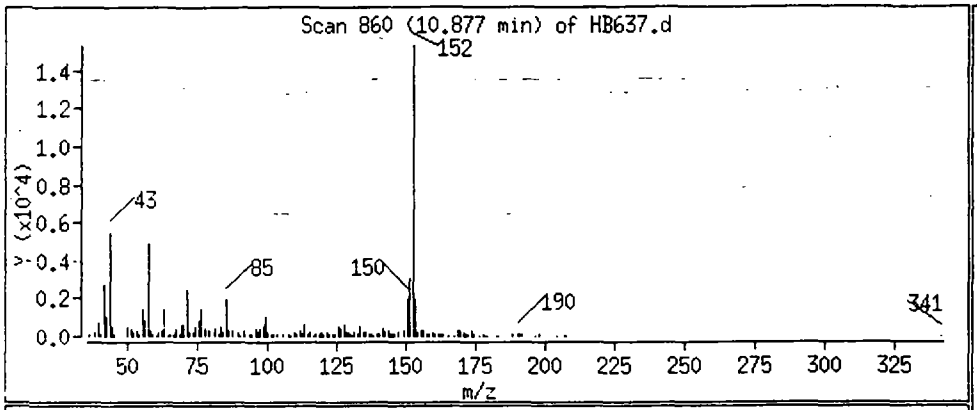
Volume Injected (uL): 1.0

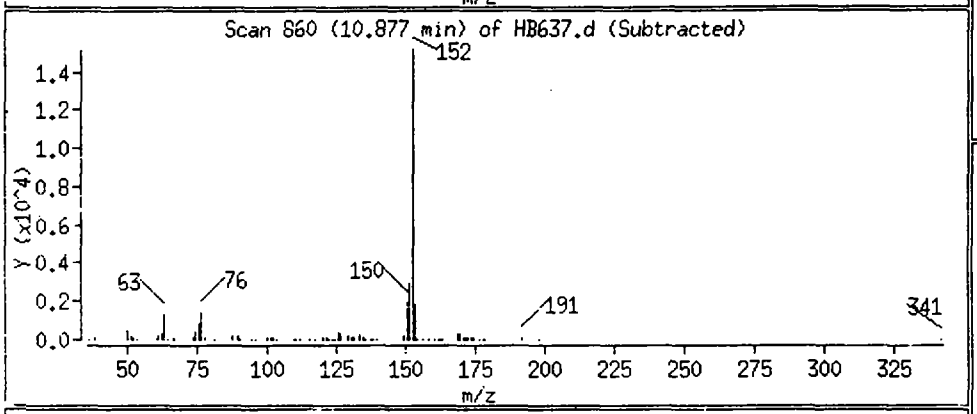
Operator: VDLITTLE

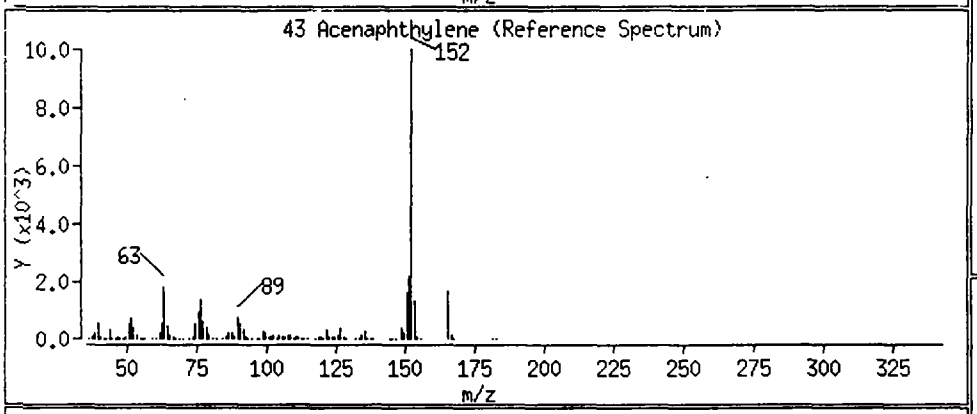
Column phase: DB-5

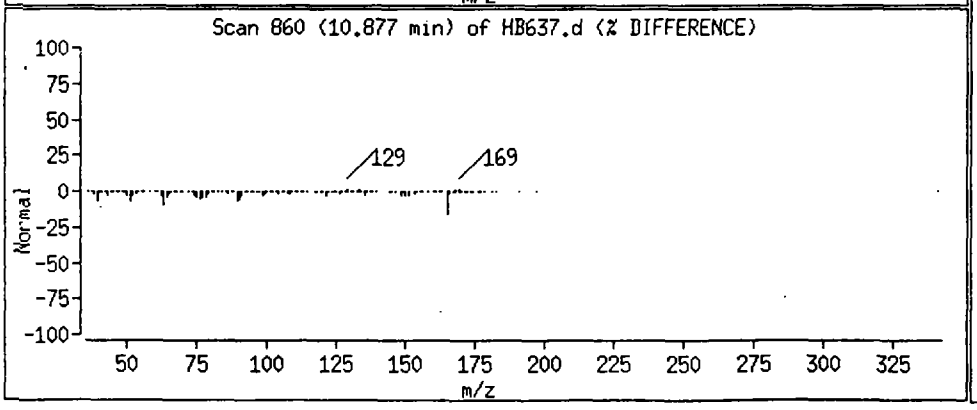
Column diameter: 0.25

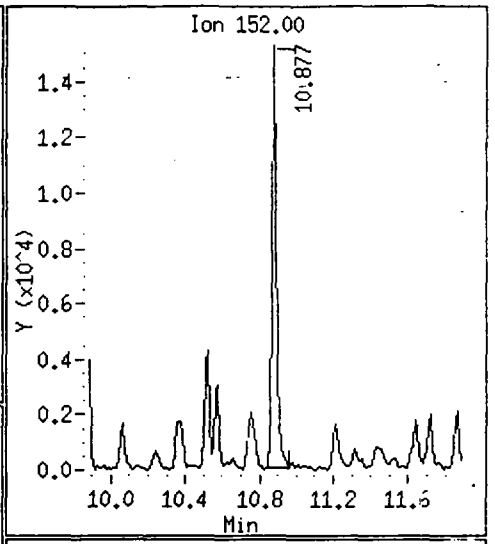
43 Acenaphthylene

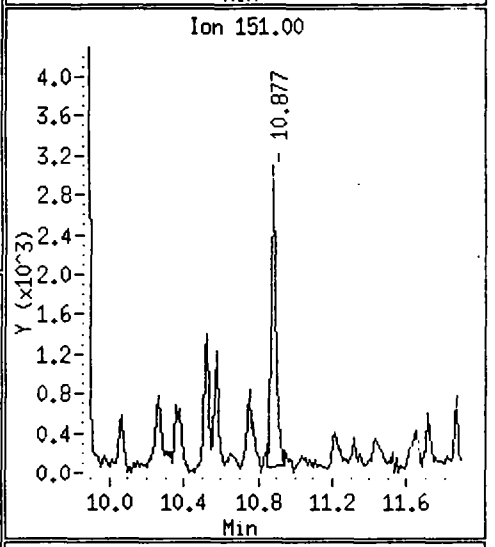


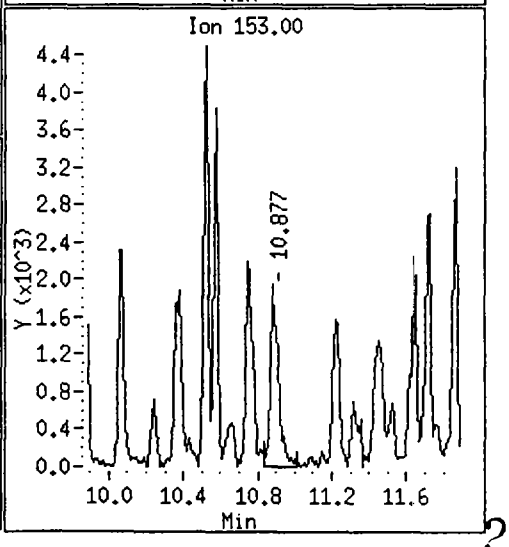












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

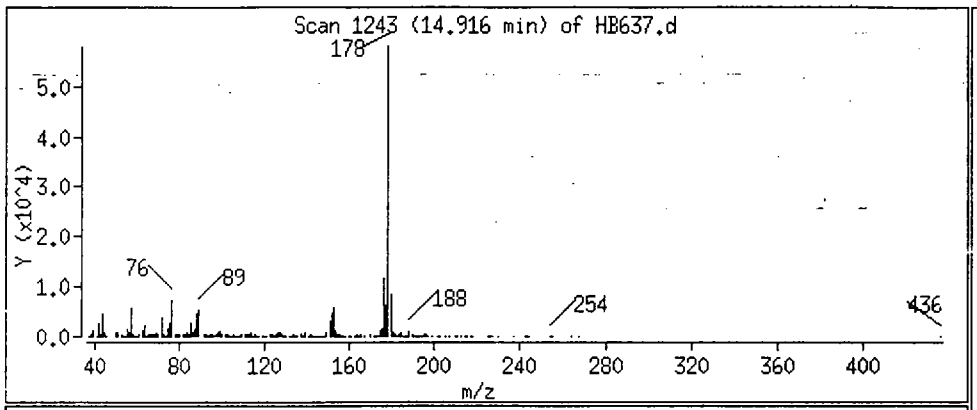
Volume Injected (uL): 1.0

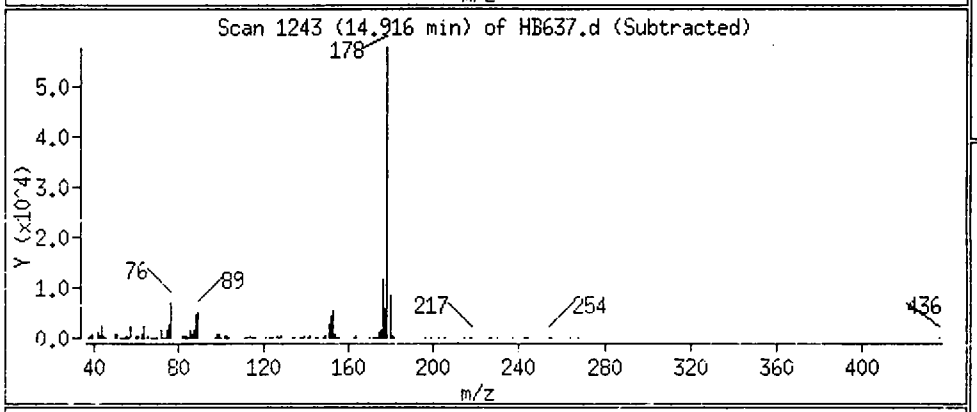
Operator: VDLITTLE

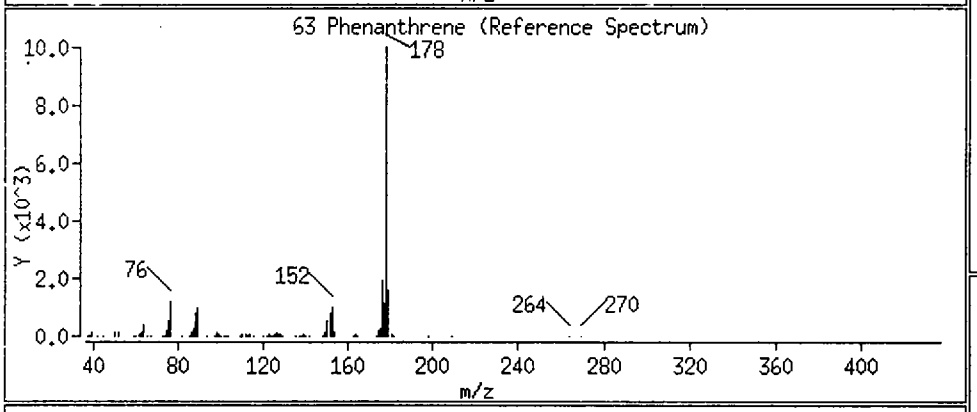
Column phase: DB-5

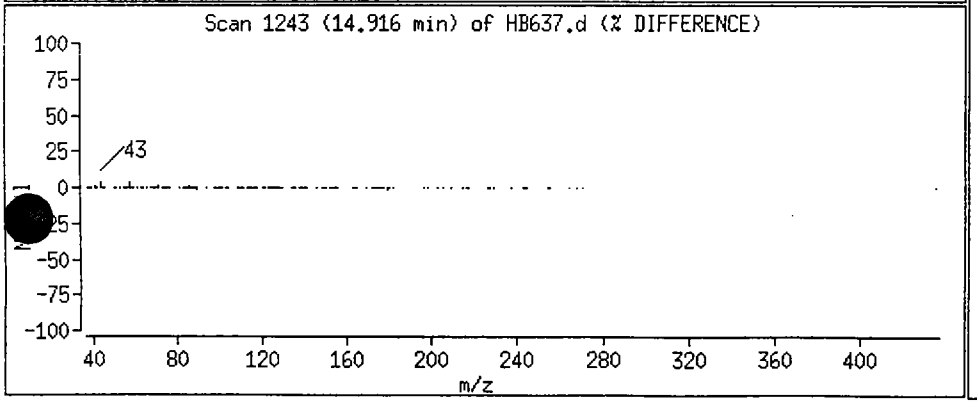
Column diameter: 0.25

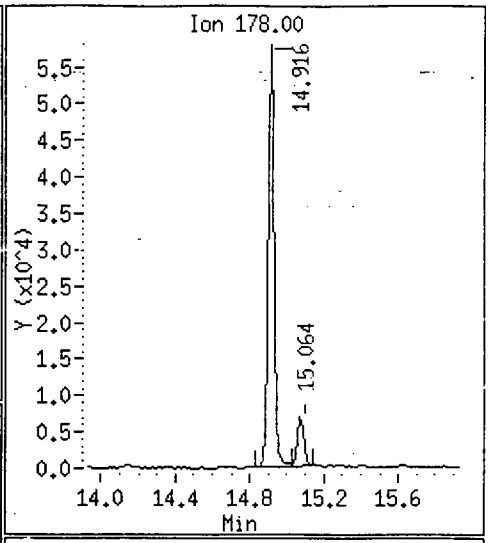
63 Phenanthrene

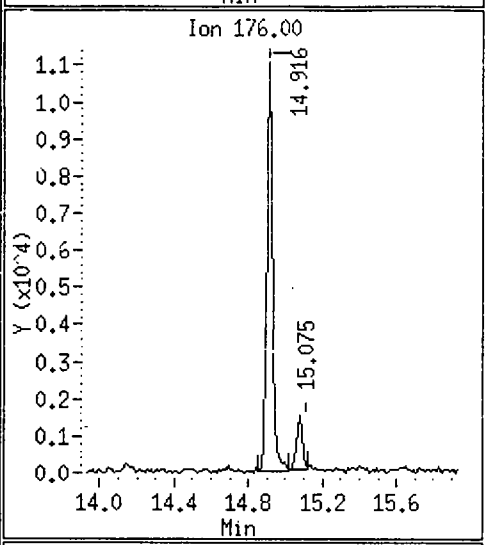


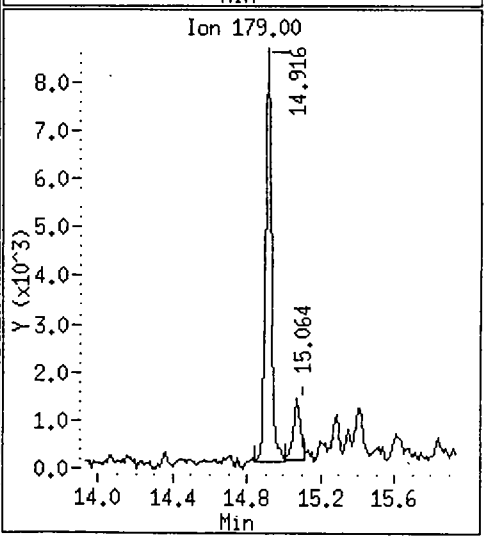












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

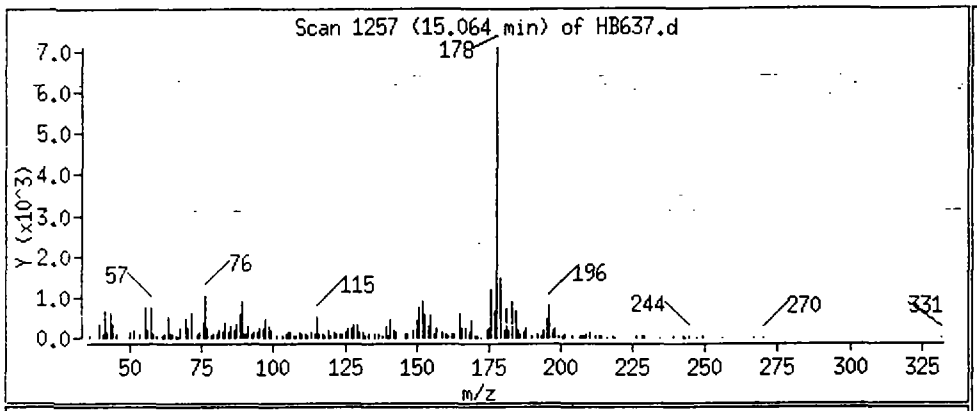
Volume Injected (uL): 1.0

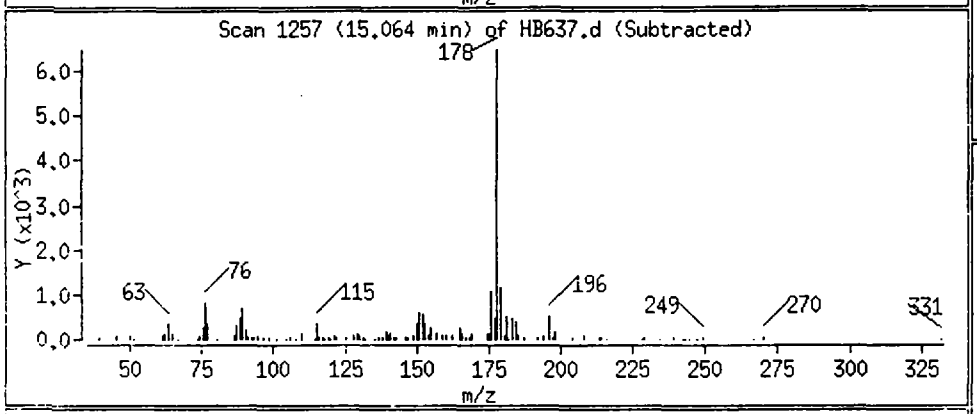
Operator: VDLITTLE

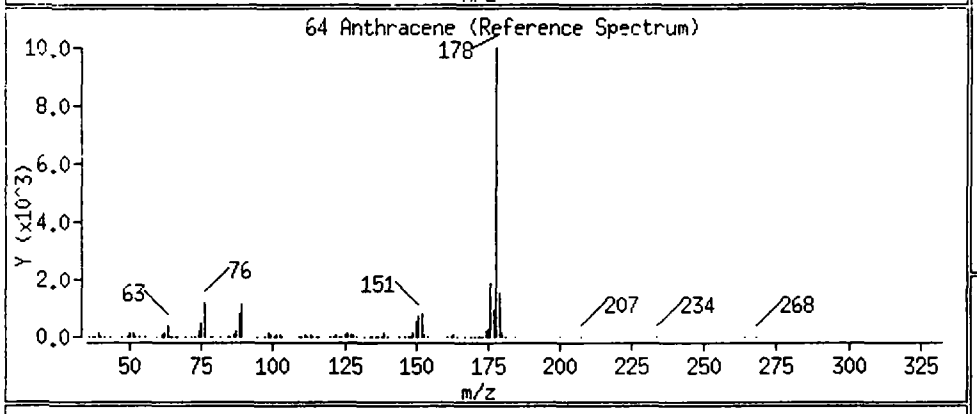
Column phase: DB-5

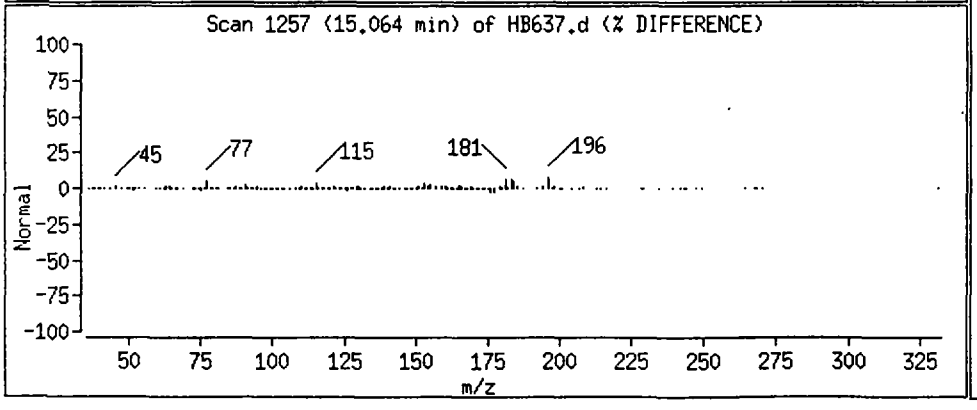
Column diameter: 0.25

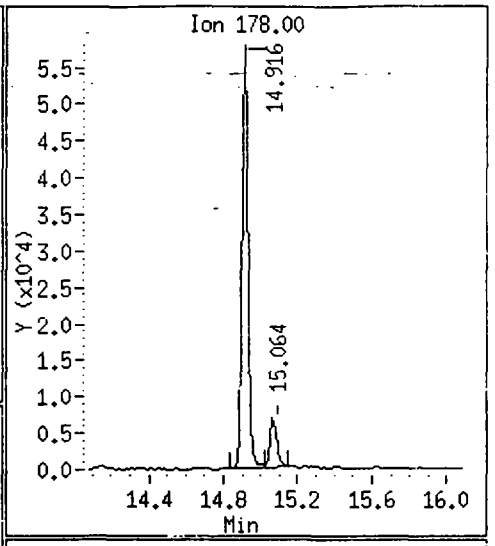
64 Anthracene

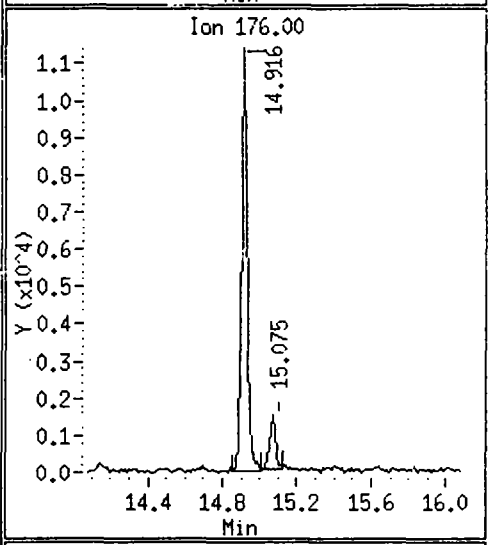


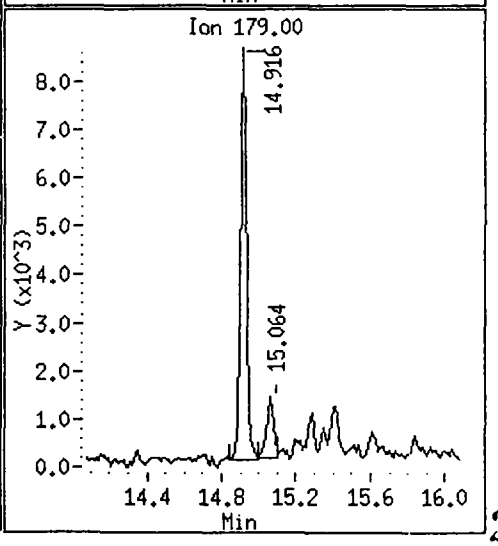












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

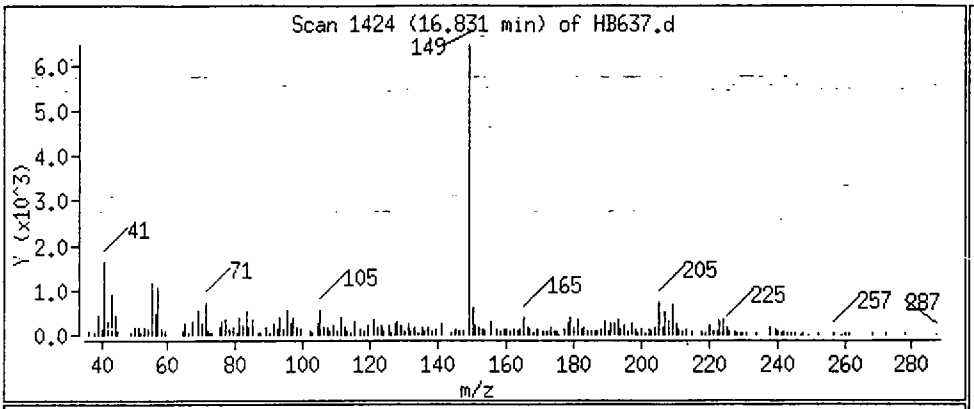
Client ID: D96-9653-2 Instrument: ITS8.i

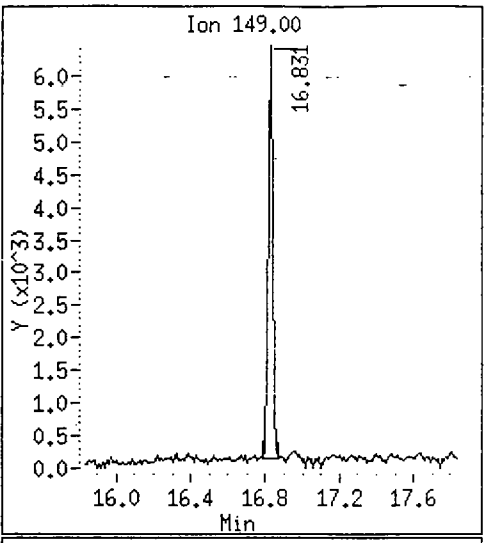
Sample Info: IL_8270_S;;AB848-83;1

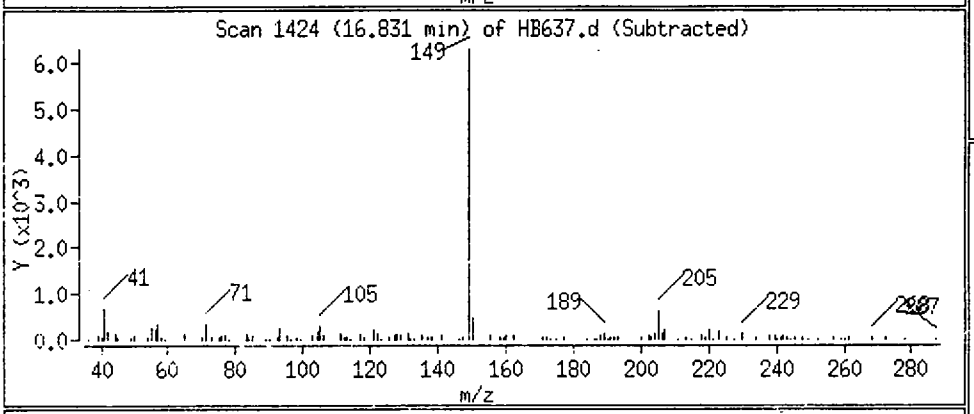
Volume Injected (uL): 1.0 Operator: VDLITTLE

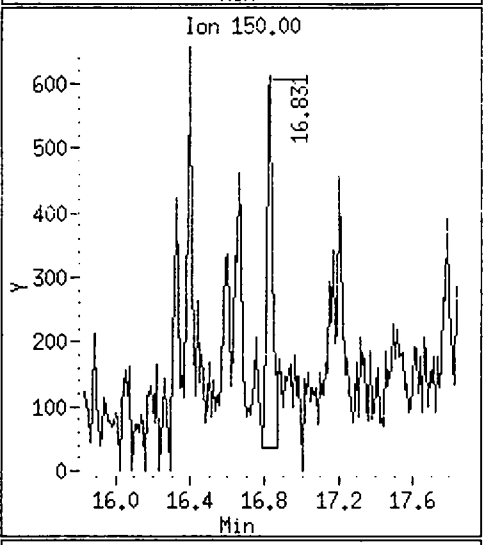
Column phase: DB-5 Column diameter: 0.25

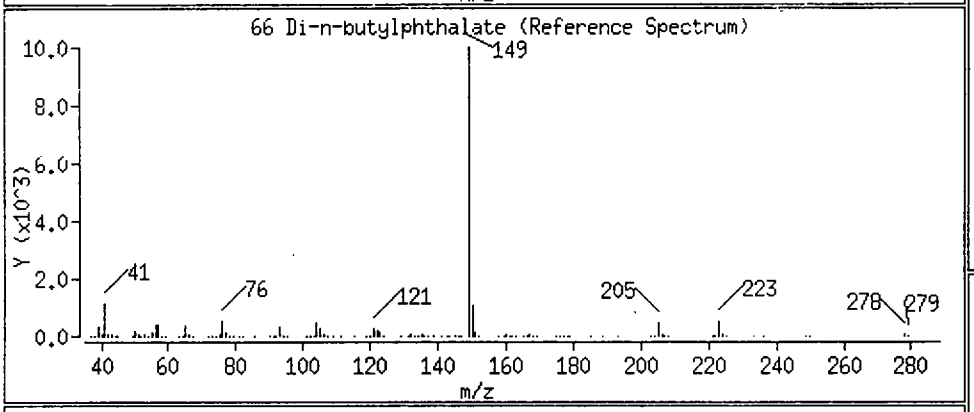
66 Di-n-butylphthalate

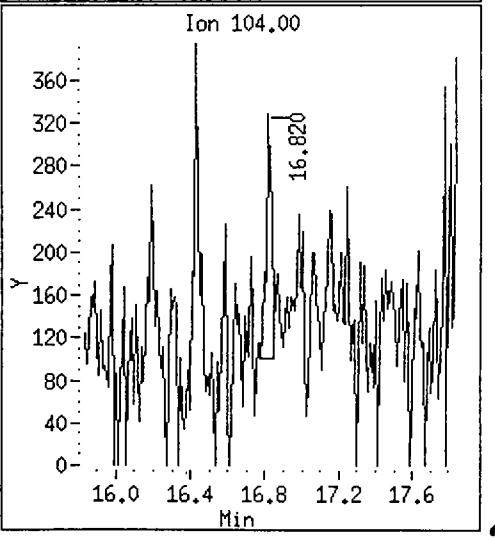


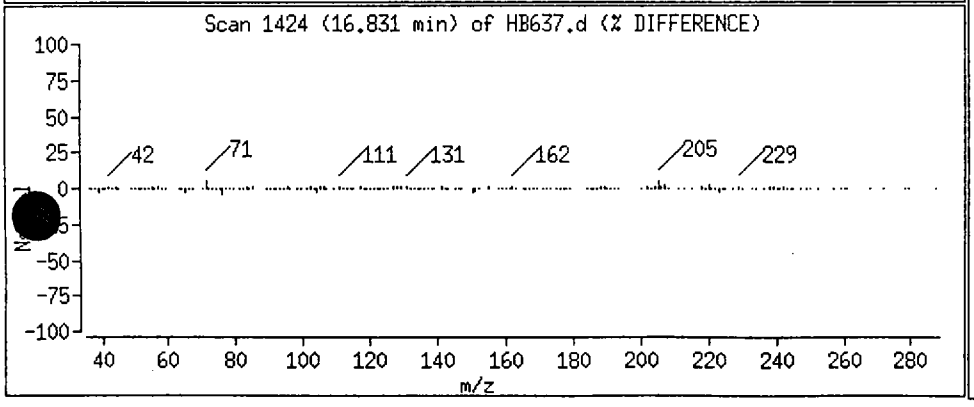












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

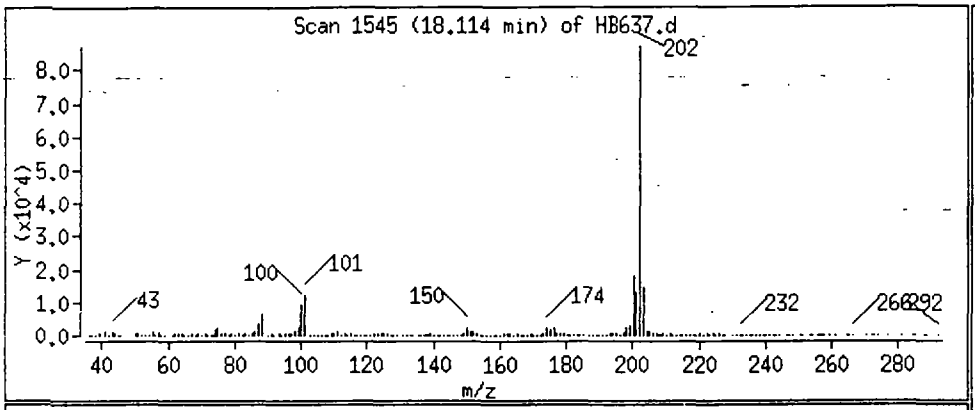
Volume Injected (uL): 1.0

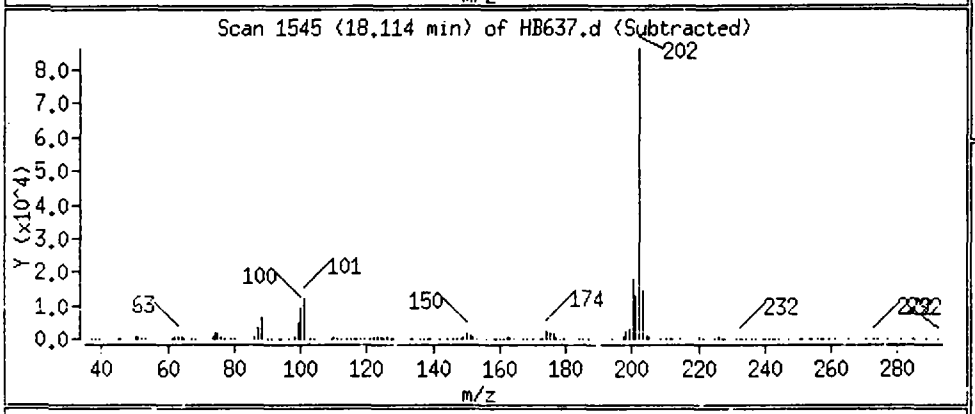
Operator: VDLITTLE

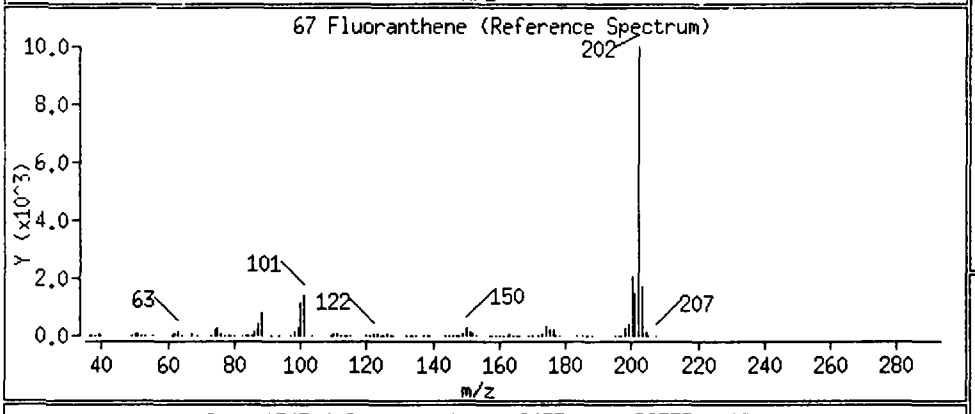
Column phase: DB-5

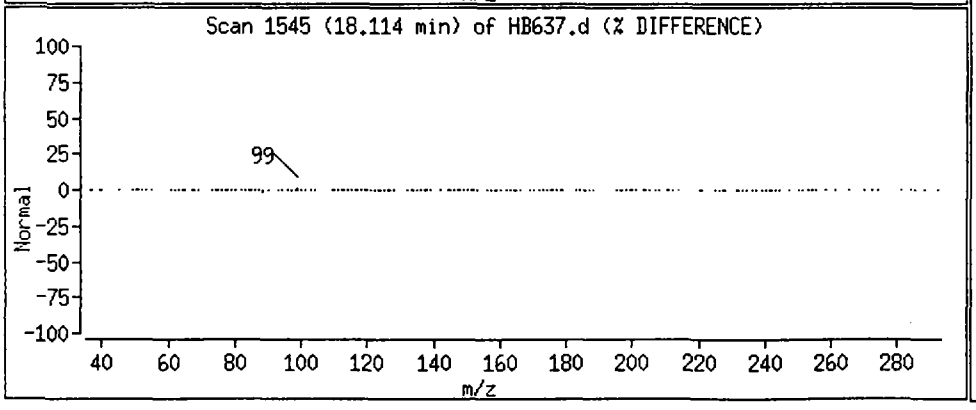
Column diameter: 0.25

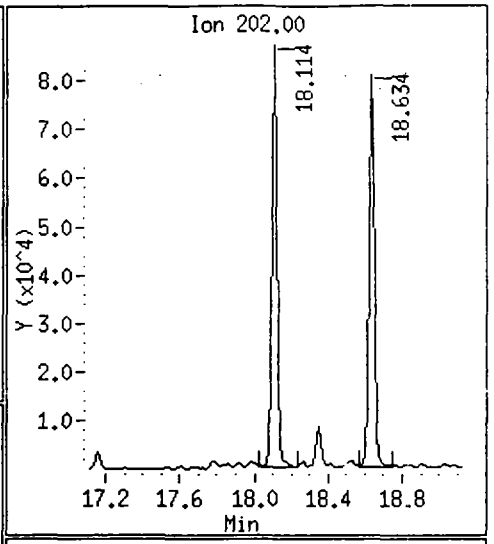
67 Fluoranthene

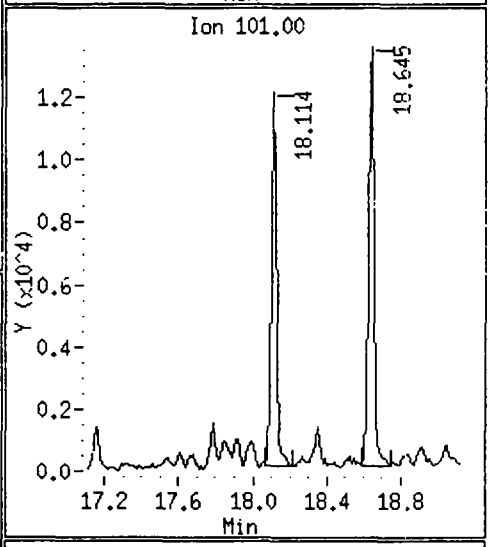


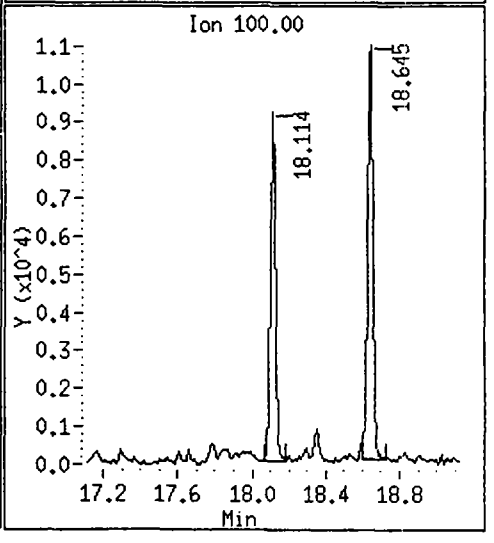












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

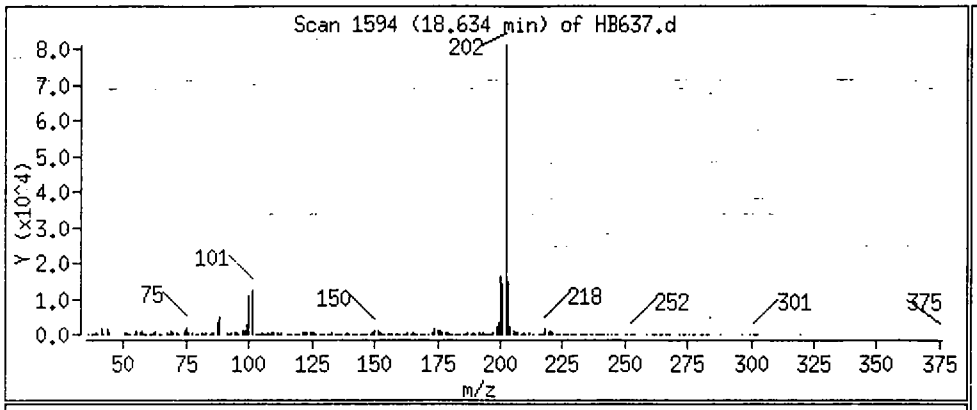
Volume Injected (uL): 1.0

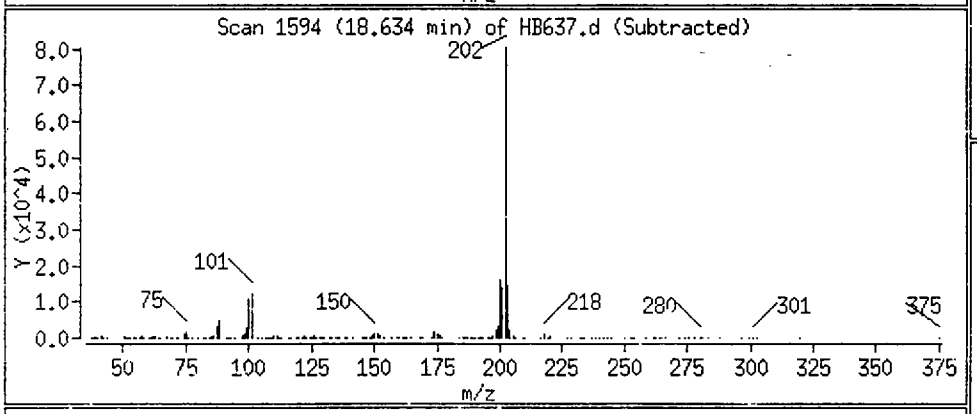
Operator: VDLITTLE

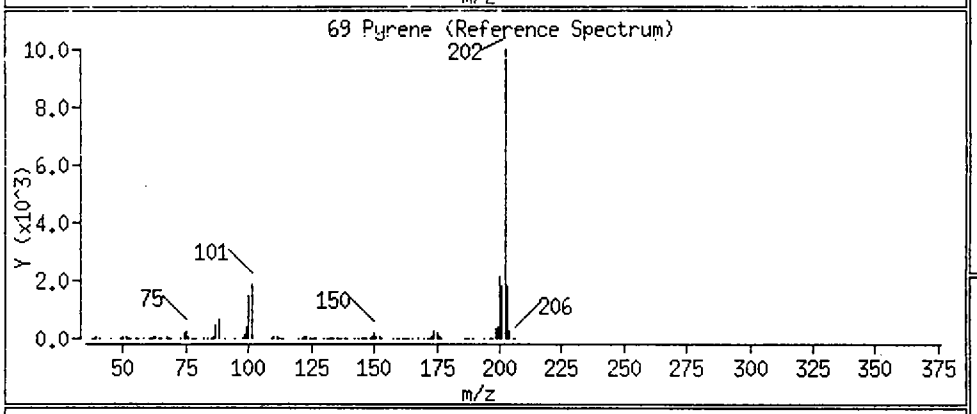
Column phase: DB-5

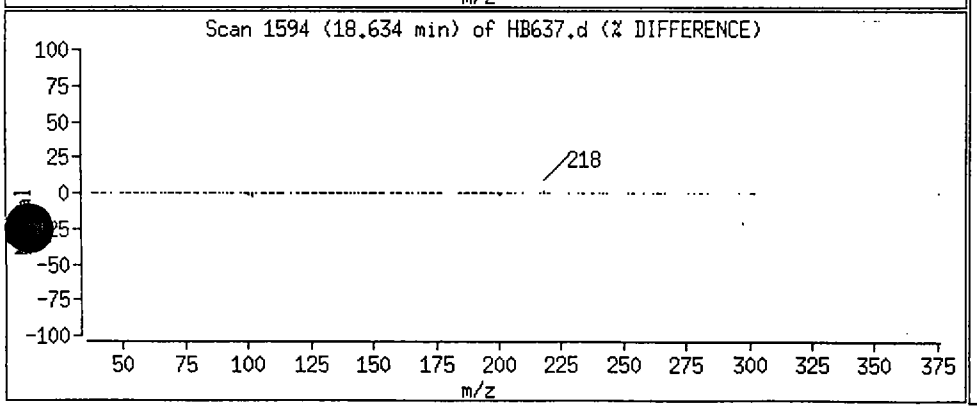
Column diameter: 0.25

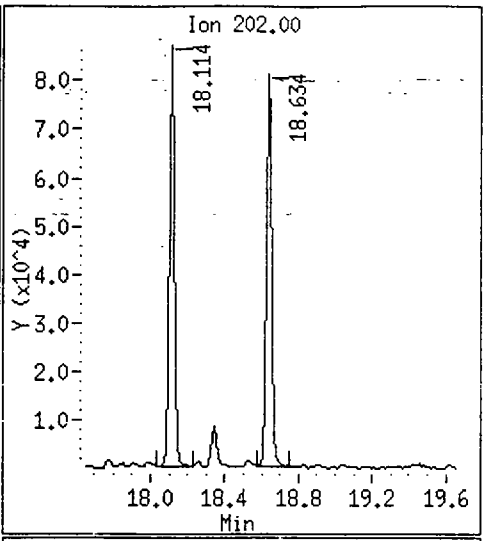
69 Pyrene

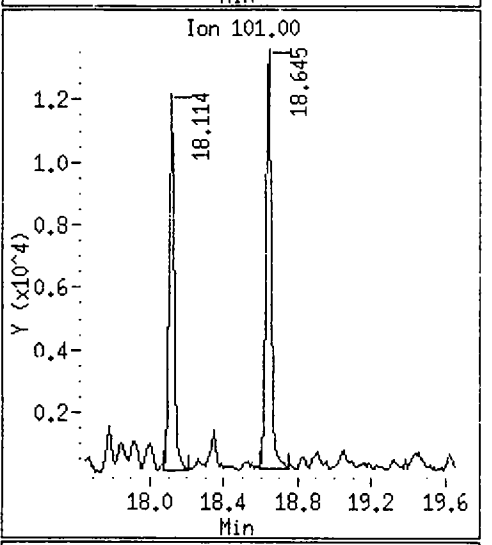


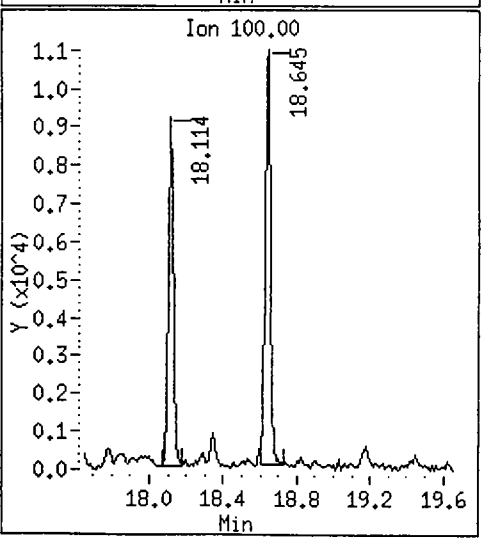












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

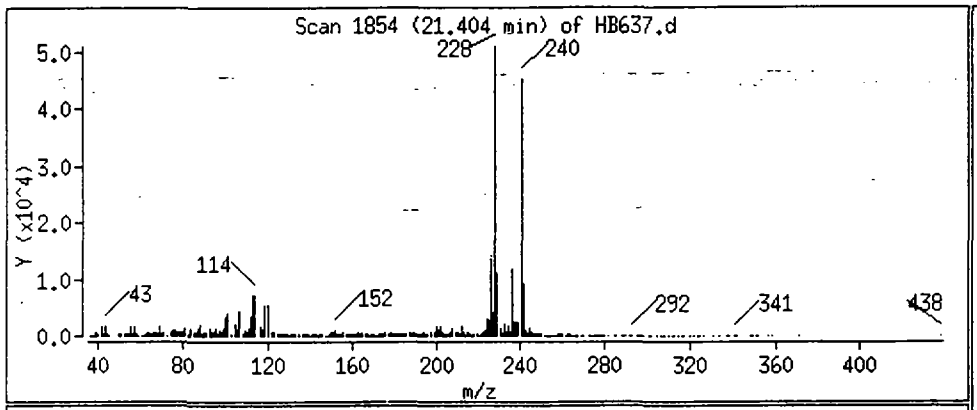
Volume Injected (uL): 1.0

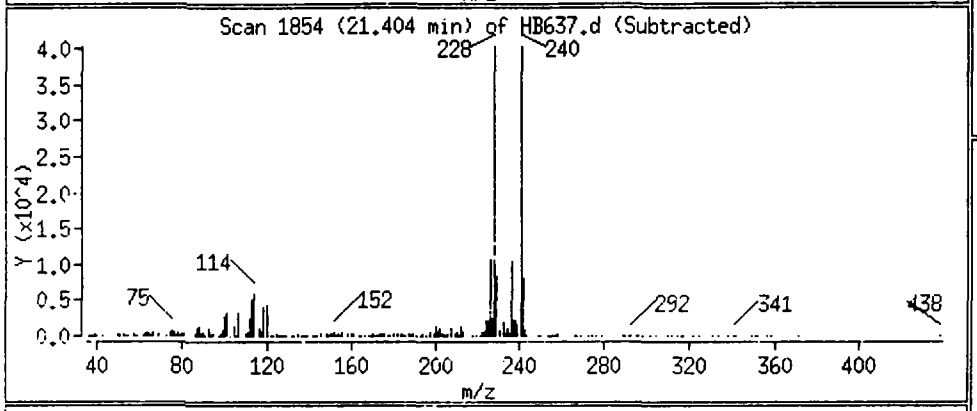
Operator: VDLITTLE

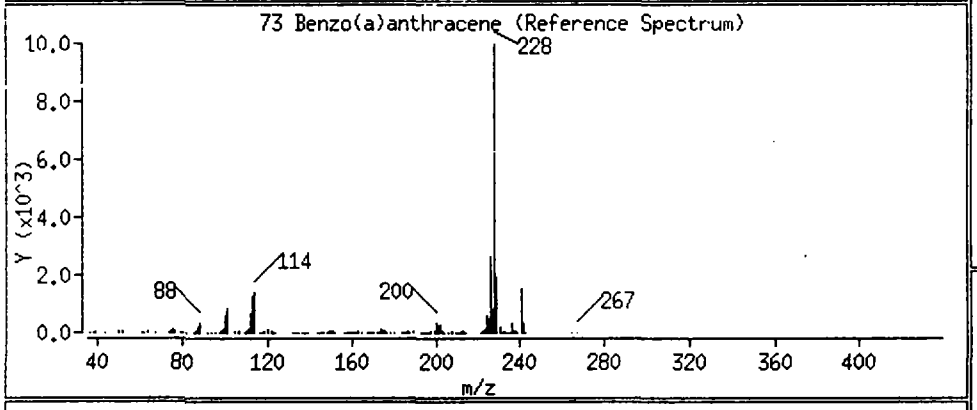
Column phase: DB-5

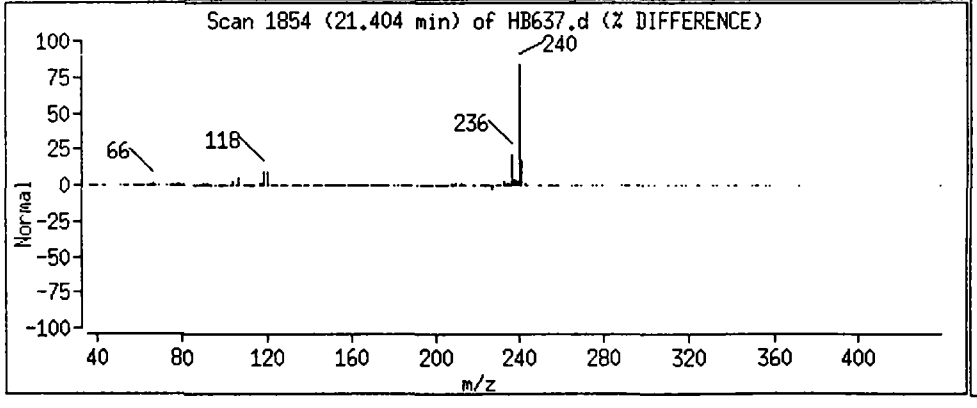
Column diameter: 0.25

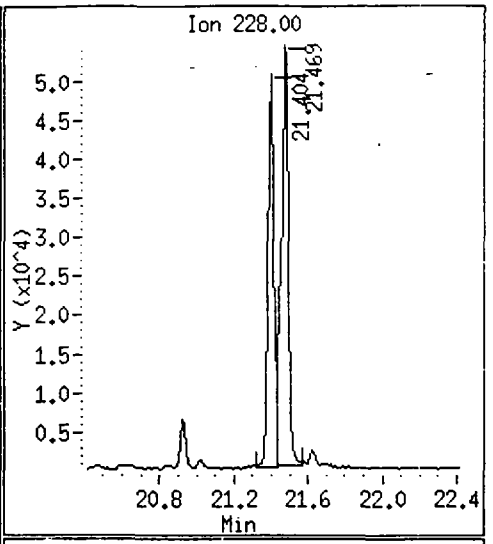
73 Benzo(a)anthracene

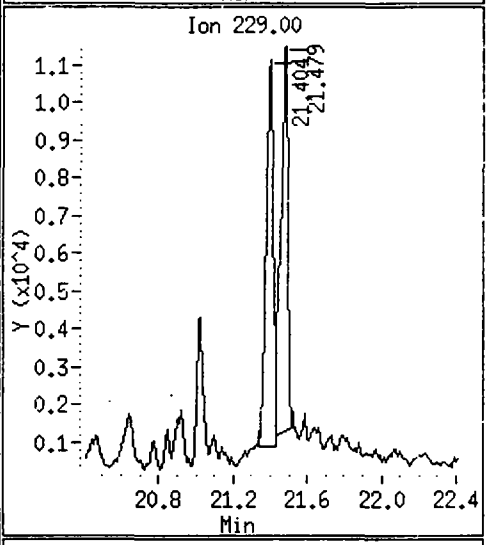


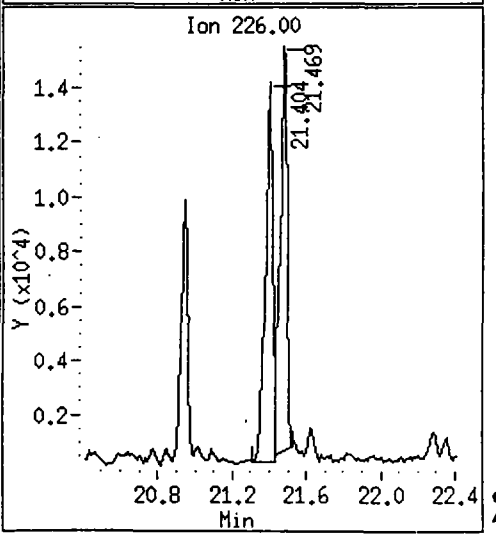












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

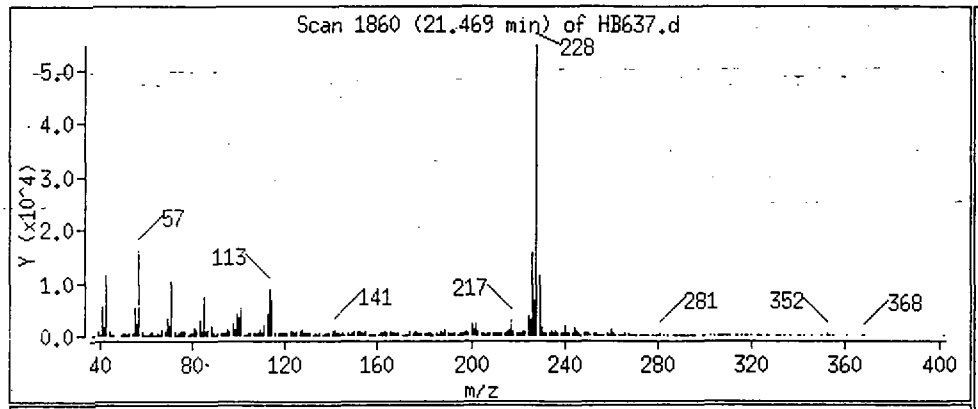
Volume Injected (uL): 1.0

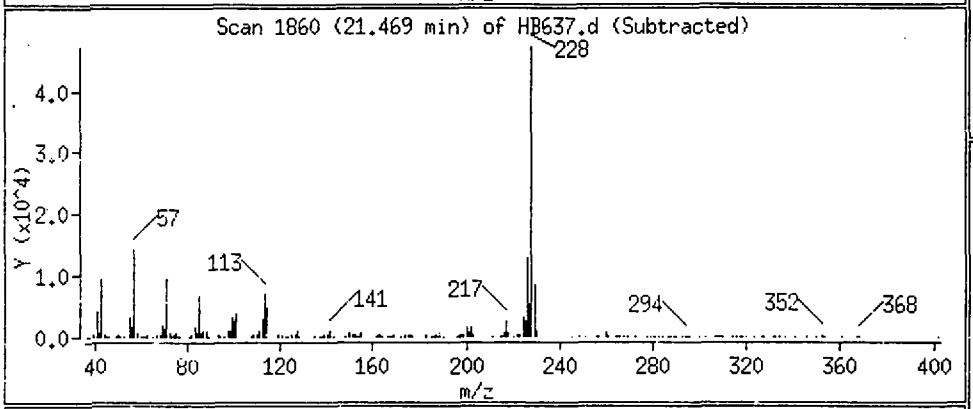
Operator: VDLITTLE

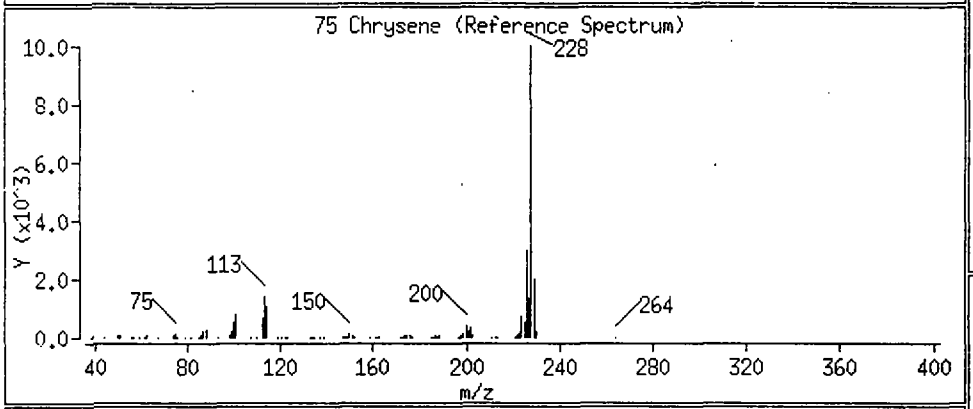
Column phase: DB-5

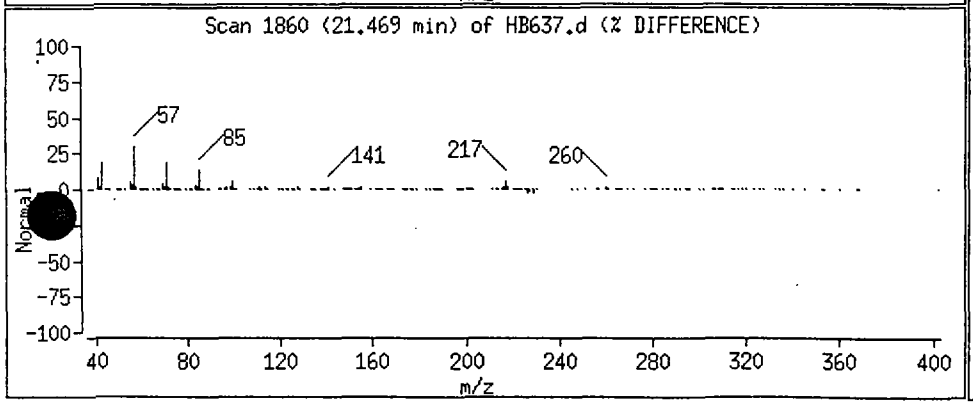
Column diameter: 0.25

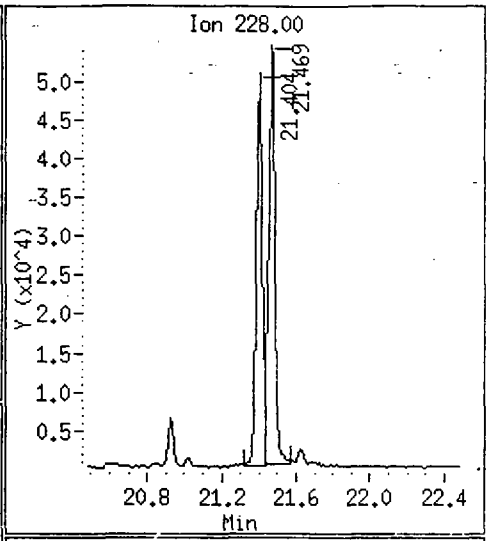
75 Chrysene

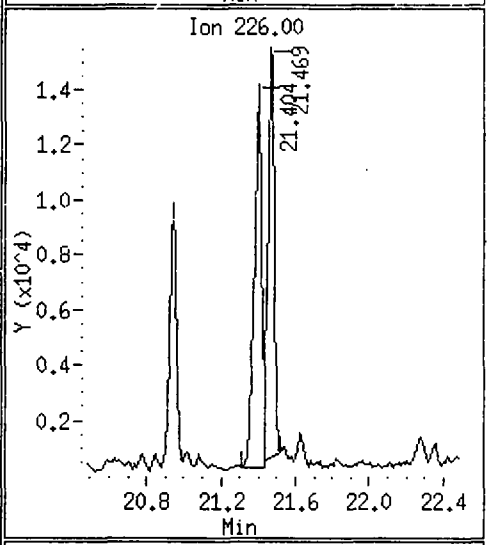


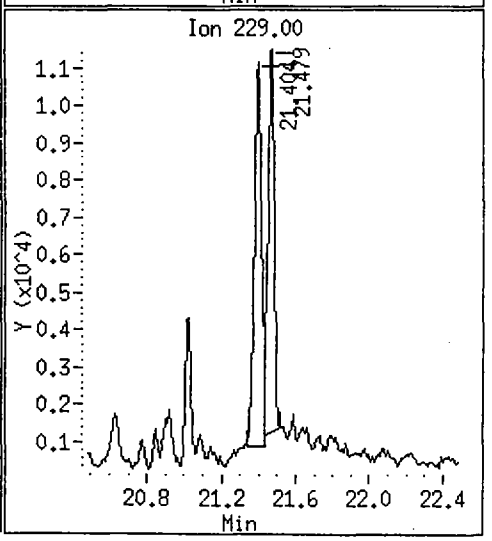












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

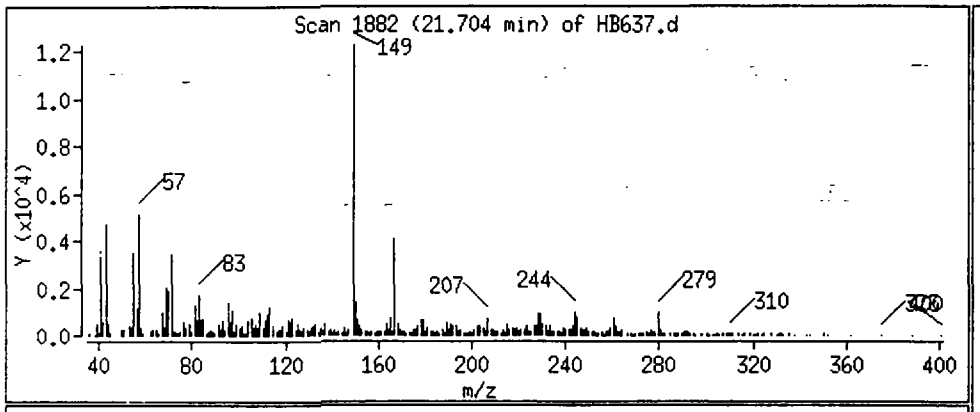
Volume Injected (uL): 1.0

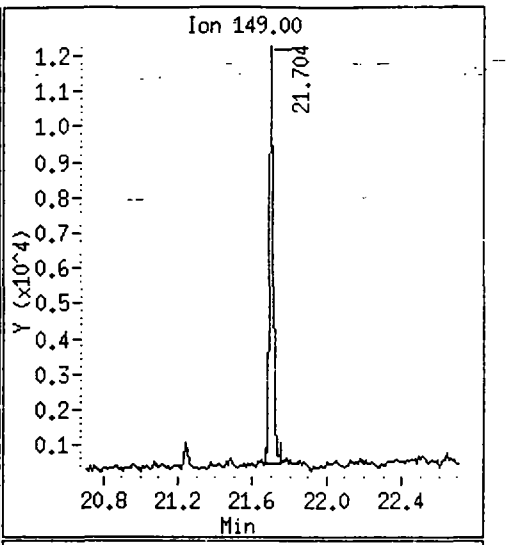
Operator: VDLITTLE

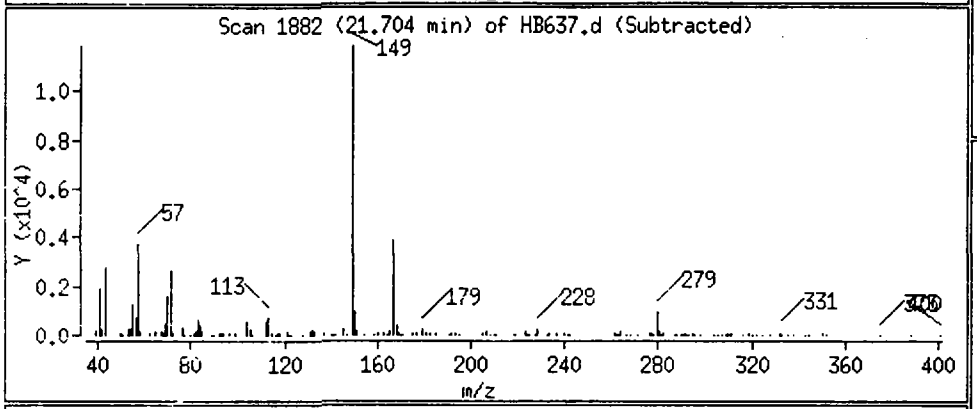
Column phase: DB-5

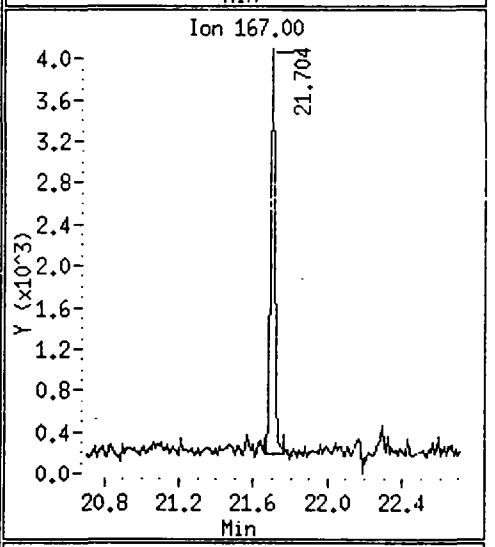
Column diameter: 0.25

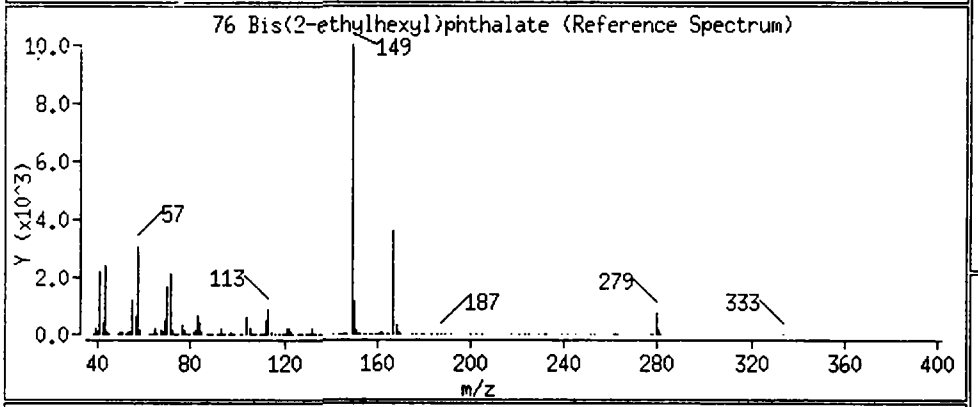
76 Bis(2-ethylhexyl)phthalate

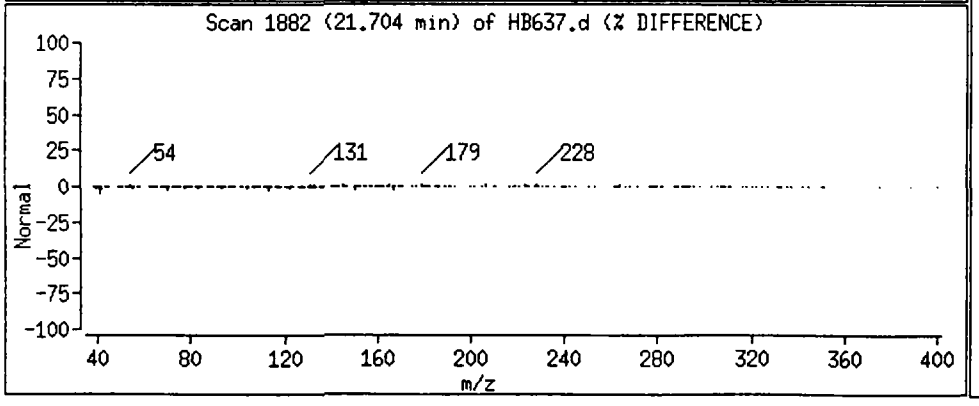


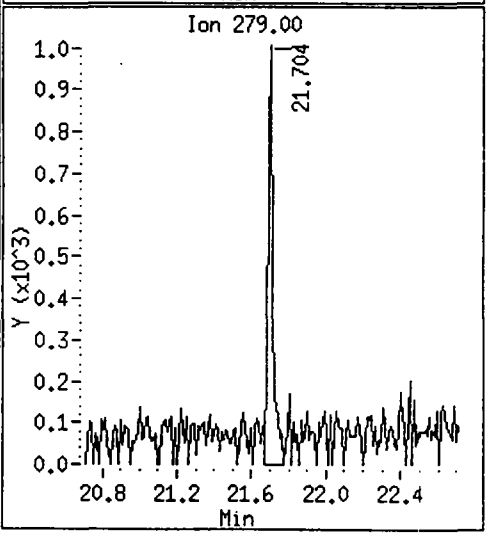












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

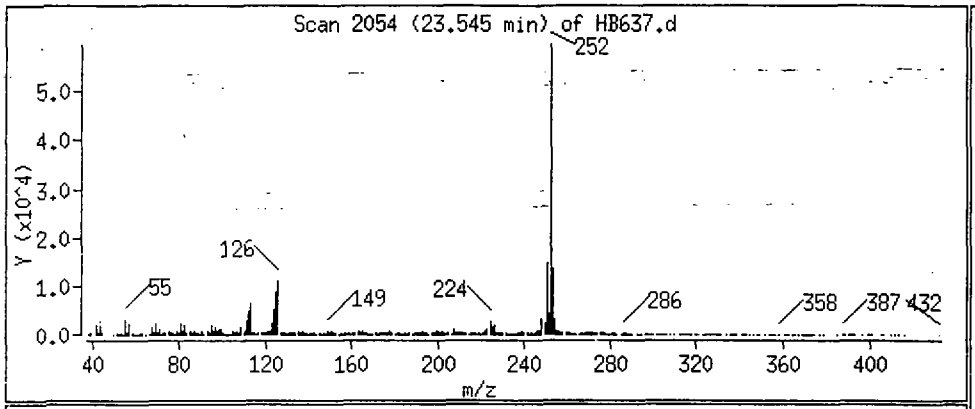
Volume Injected (uL): 1.0

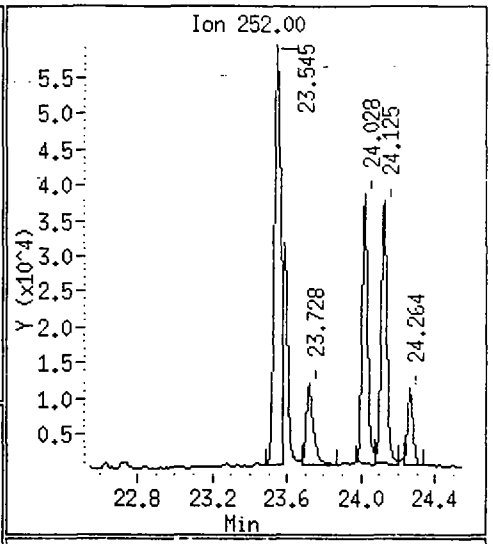
Operator: VDLITTLE

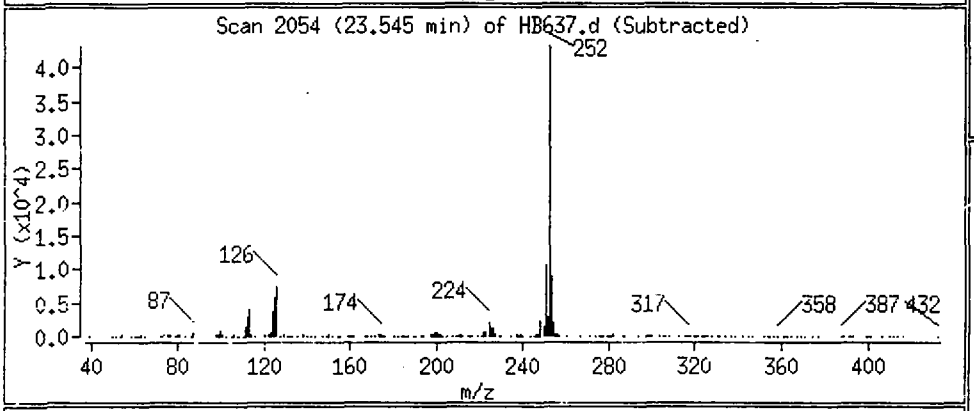
Column phase: DB-5

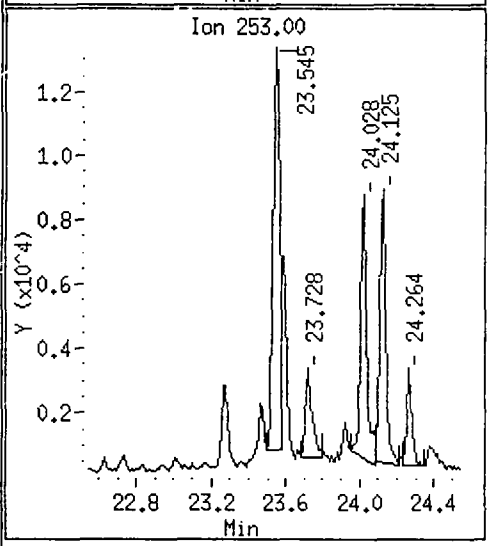
Column diameter: 0.25

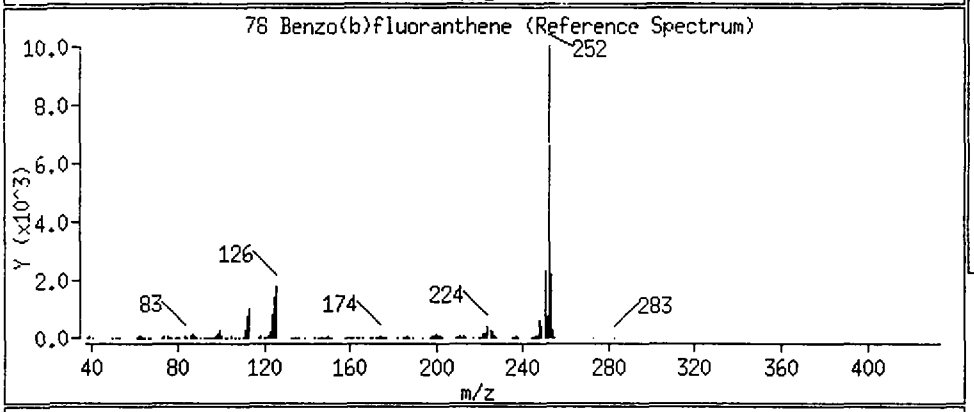
78 Benzo(b)fluoranthene

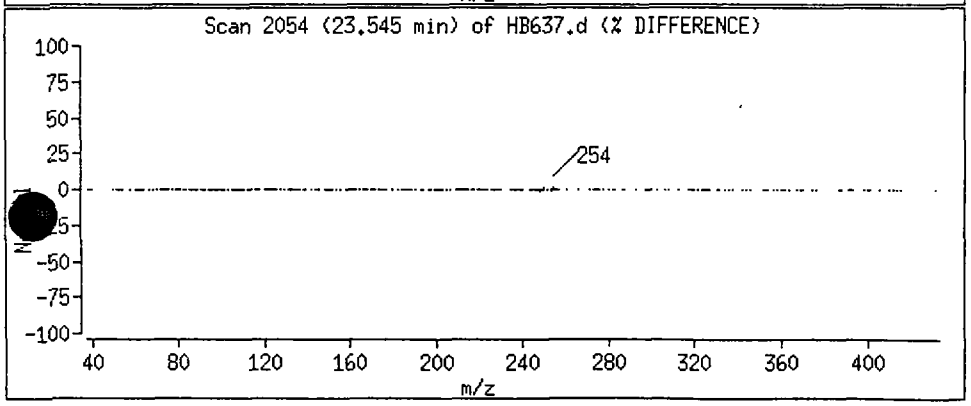












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

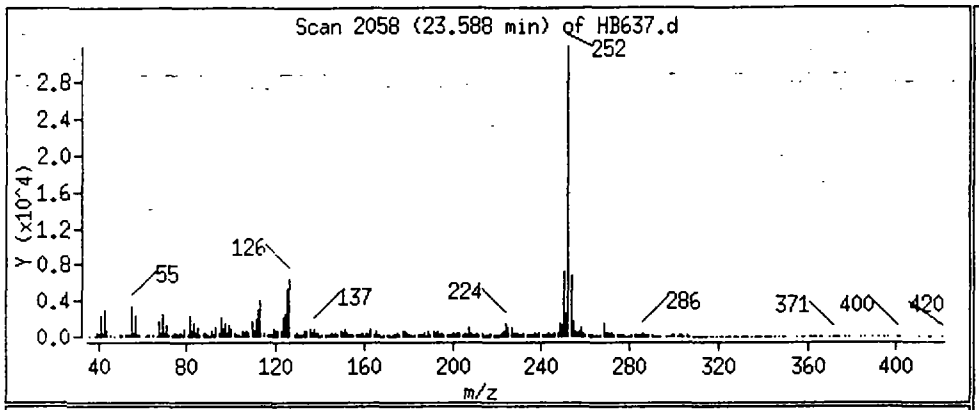
Volume Injected (uL): 1.0

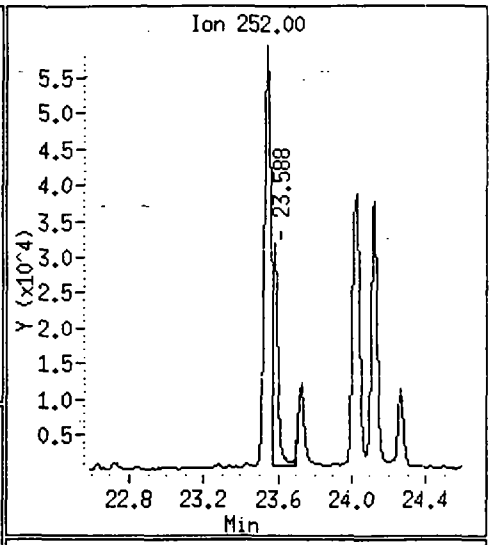
Operator: VDLITTLE

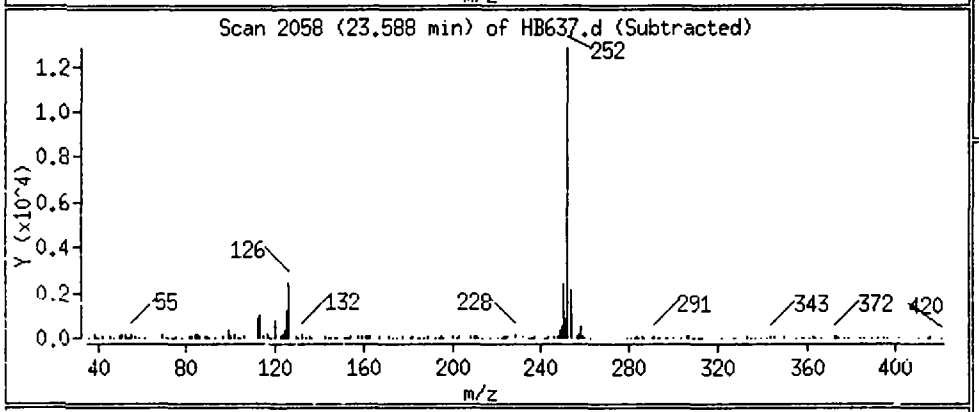
Column phase: DB-5

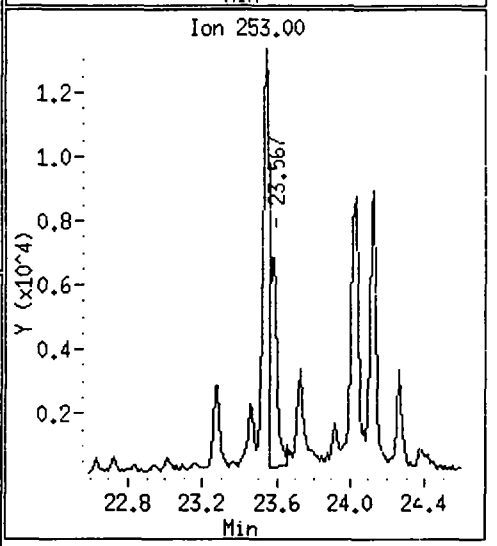
Column diameter: 0.25

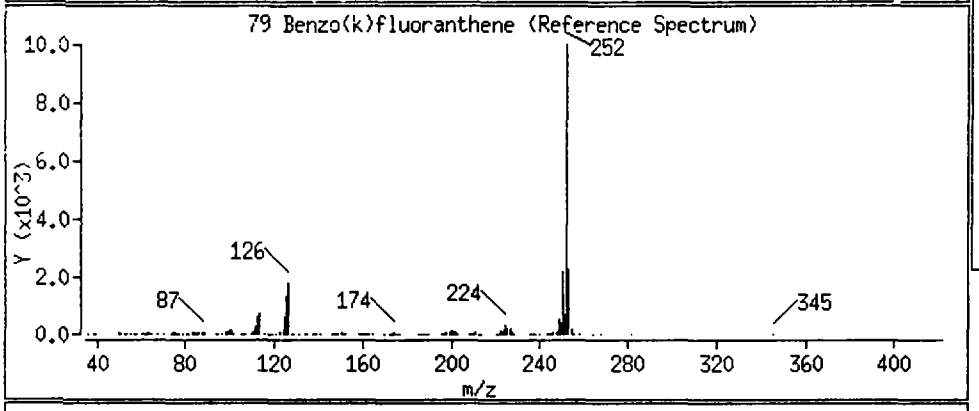
79 Benzo(k)fluoranthene

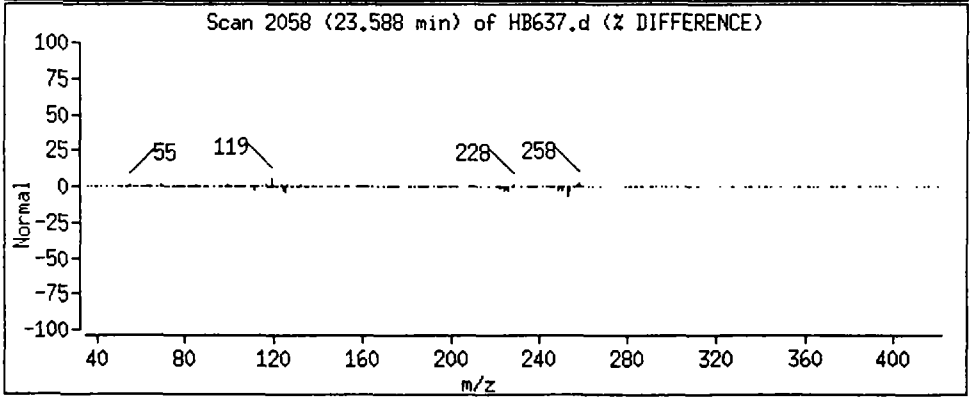












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

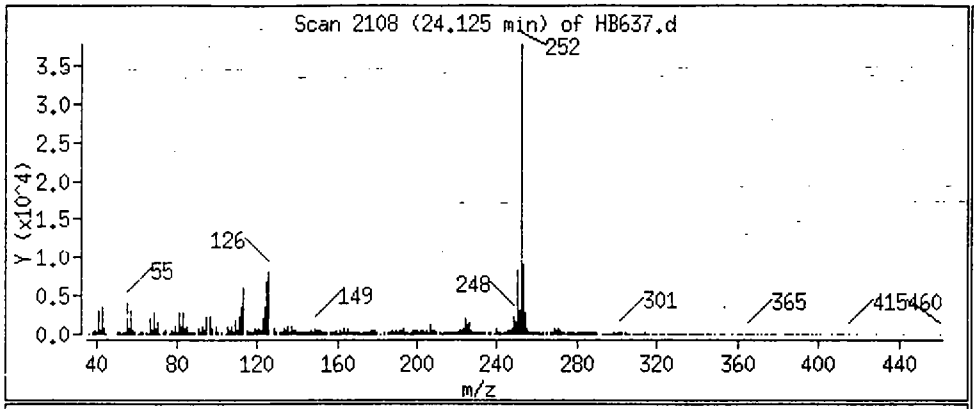
Volume Injected (uL): 1.0

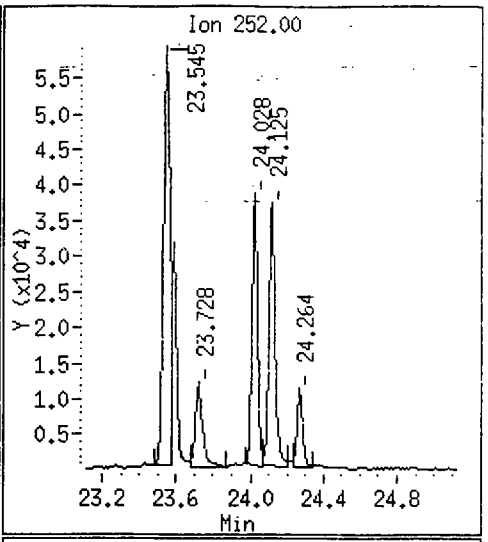
Operator: VDLITTLE

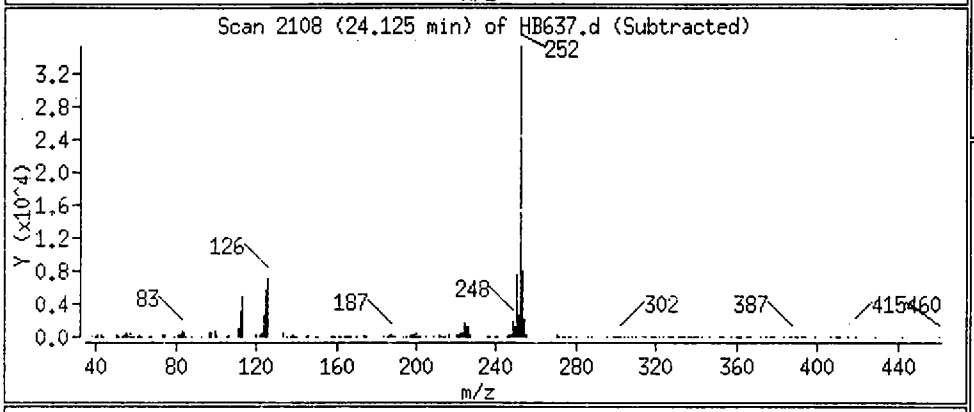
Column phase: DB-5

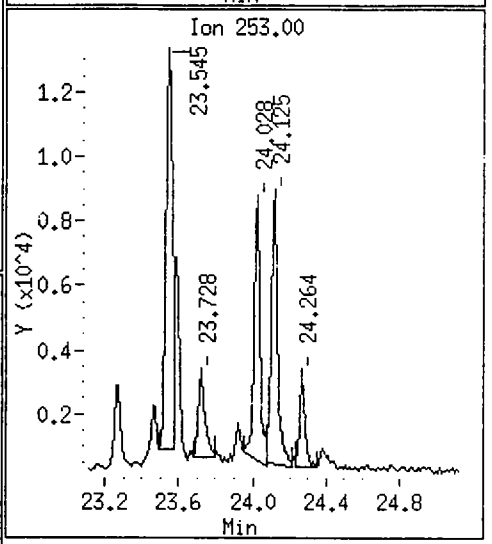
Column diameter: 0.25

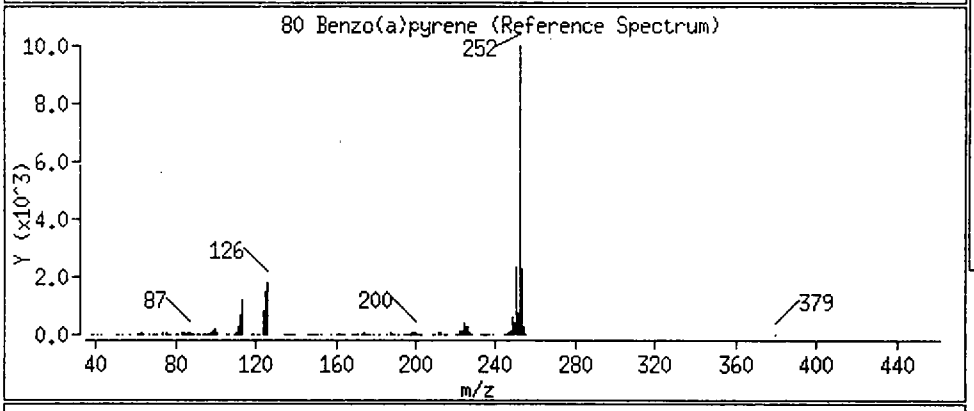
80 Benzo(a)pyrene

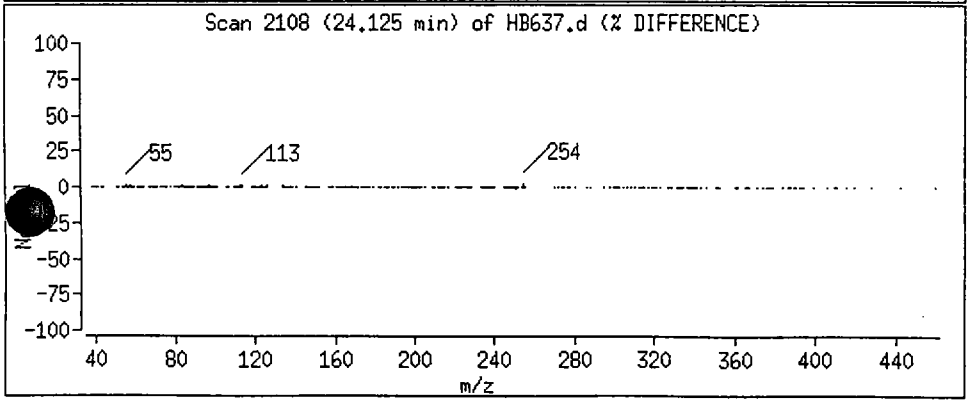












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

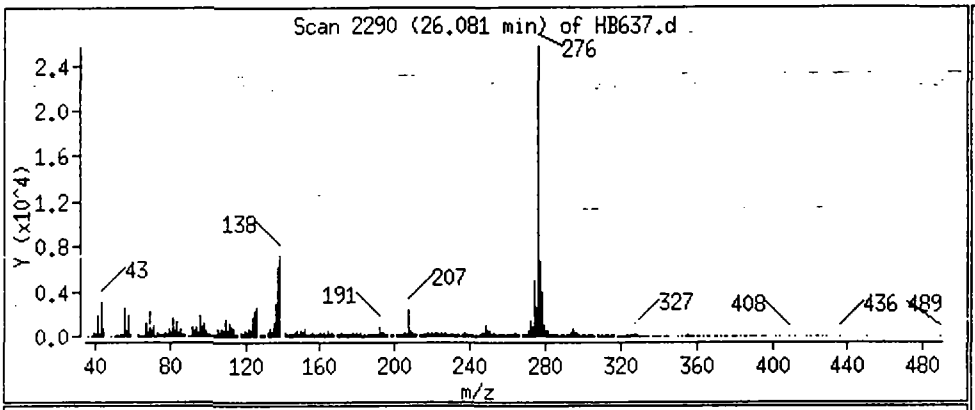
Volume Injected (uL): 1.0

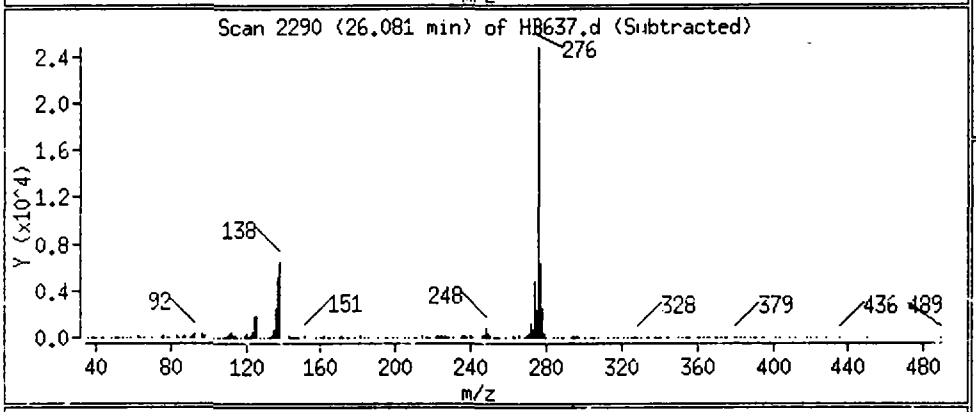
Operator: VDLITTLE

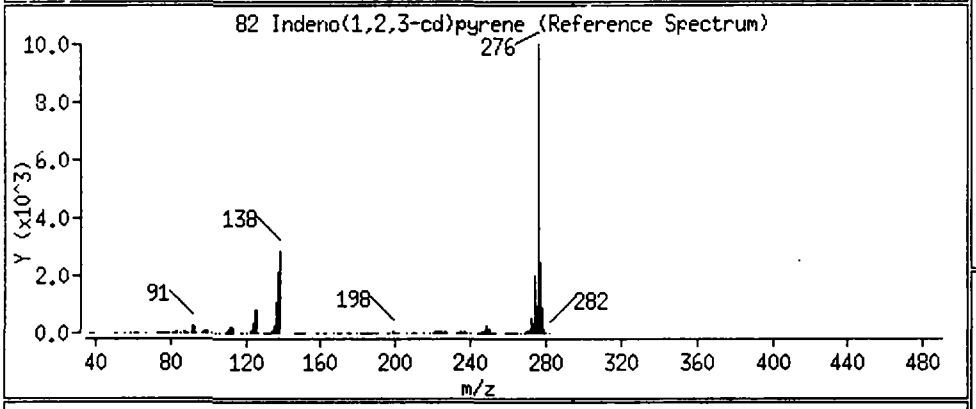
Column phase: DB-5

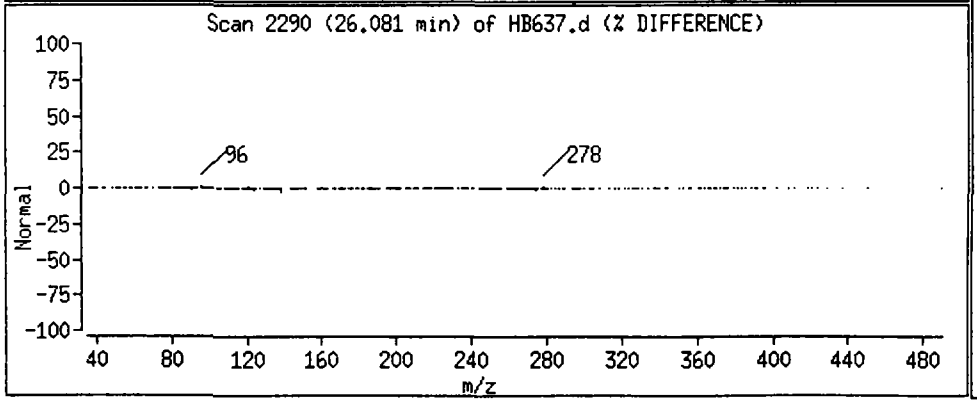
Column diameter: 0.25

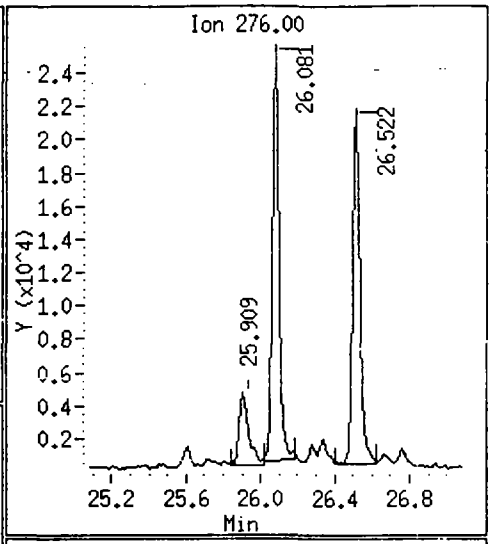
82 Indeno(1,2,3-cd)pyrene

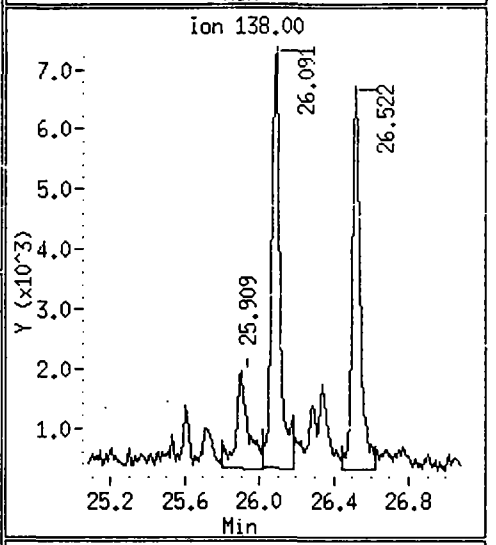


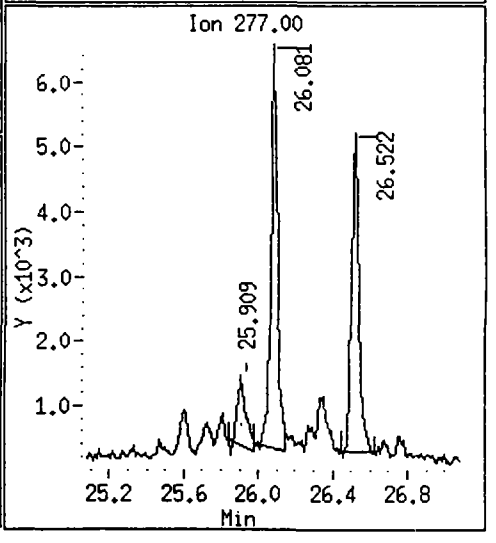












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

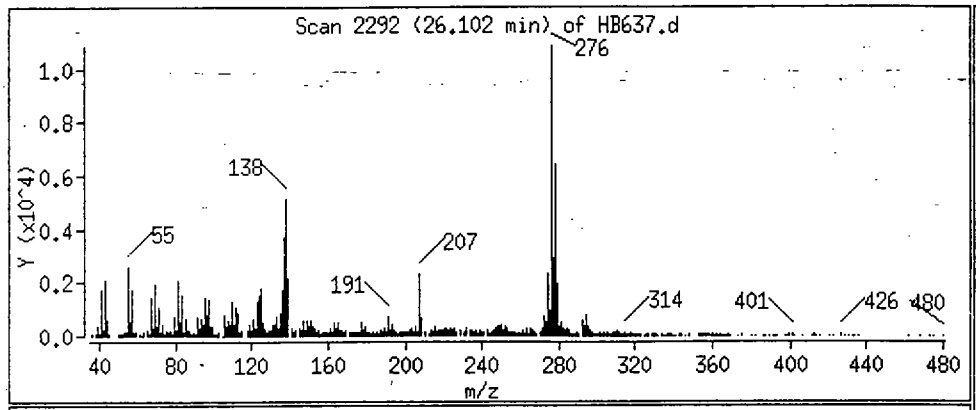
Volume Injected (uL): 1.0

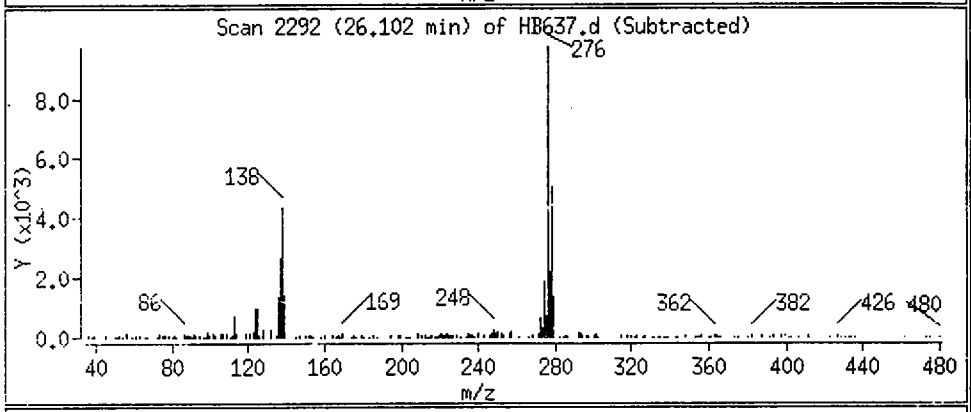
Operator: VDLITTLE

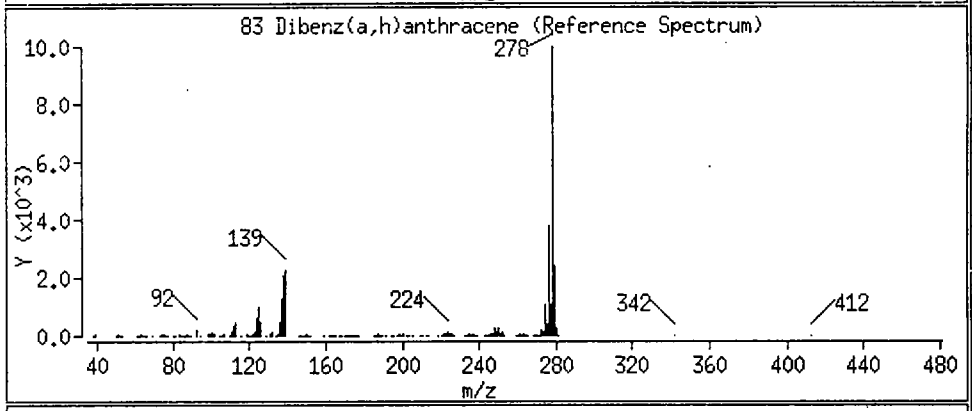
Column phase: DB-5

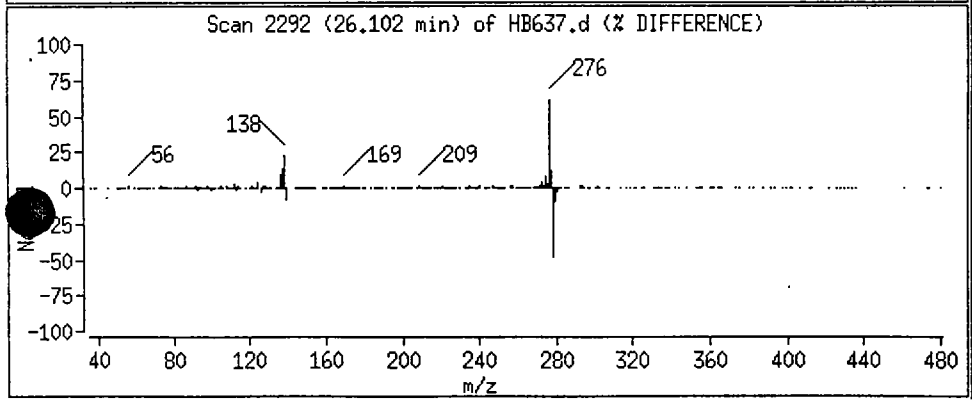
Column diameter: 0.25

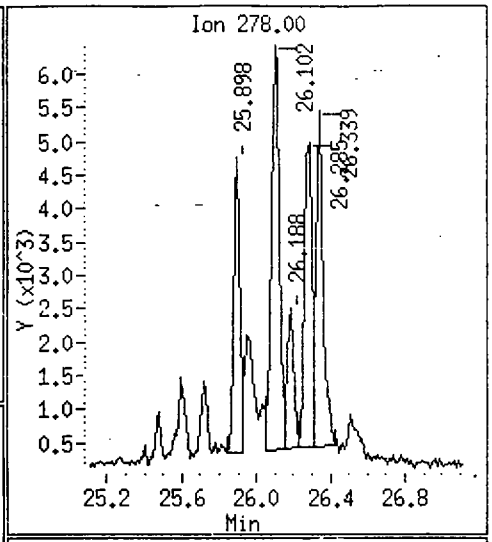
83 Dibenz(a,h)anthracene

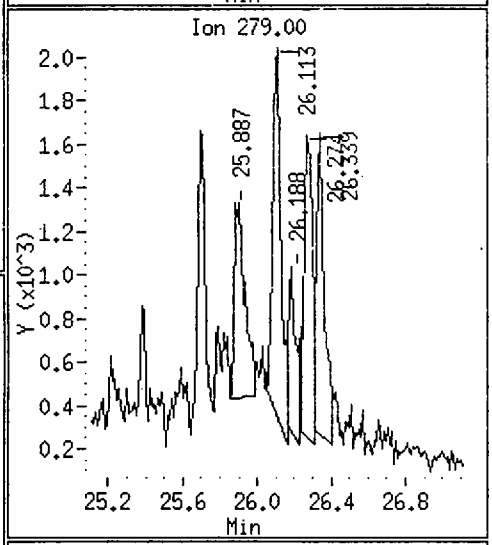


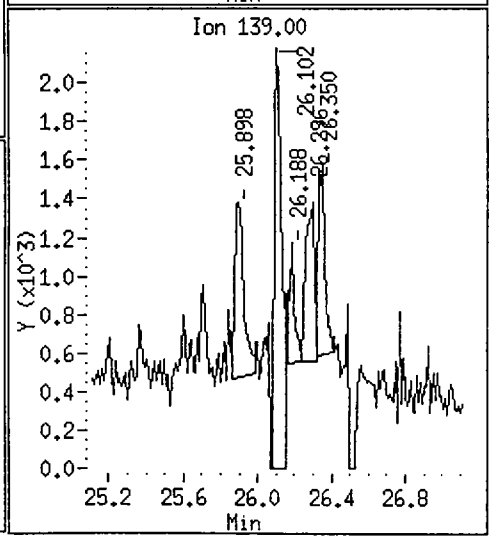












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

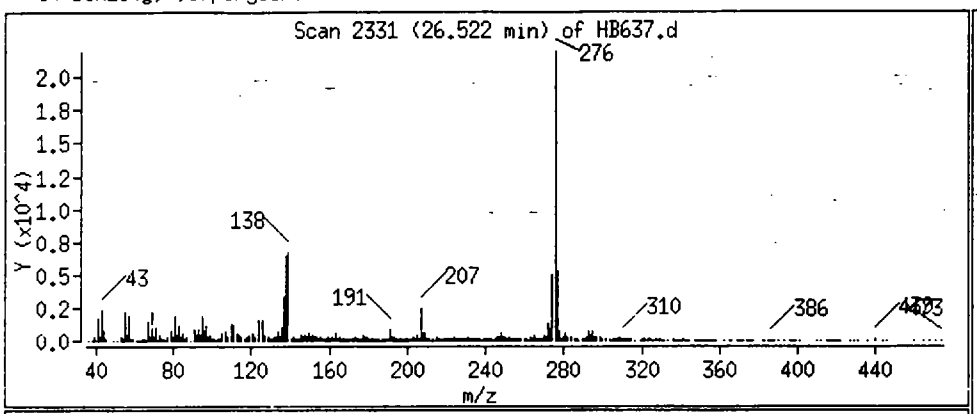
Volume Injected (uL): 1.0

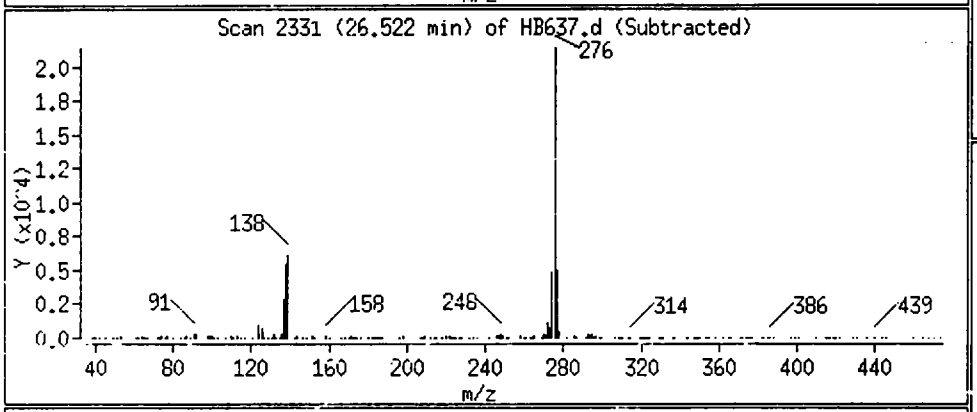
Operator: VDLITTLE

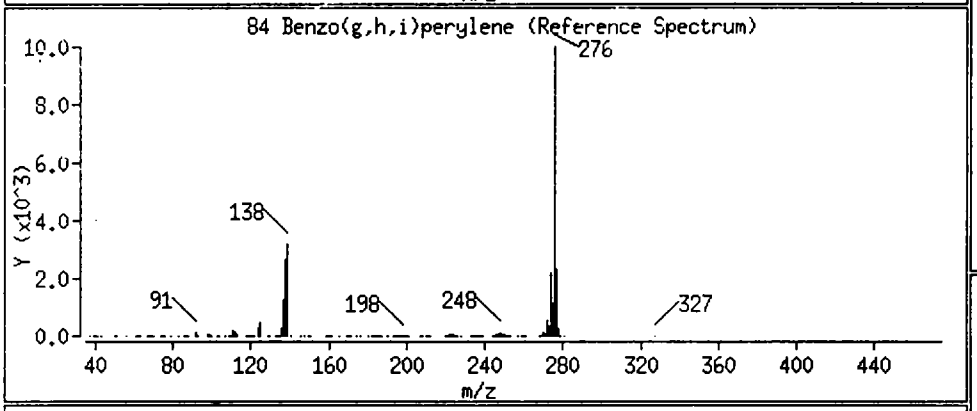
Column phase: DB-5

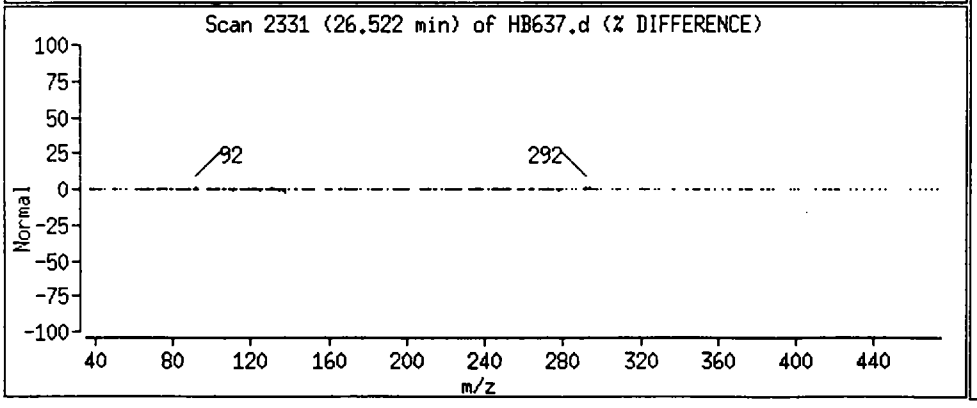
Column diameter: 0.25

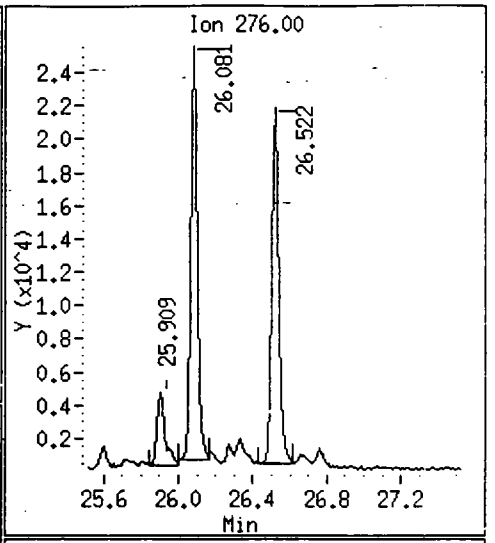
84 Benzo(g,h,i)perylene

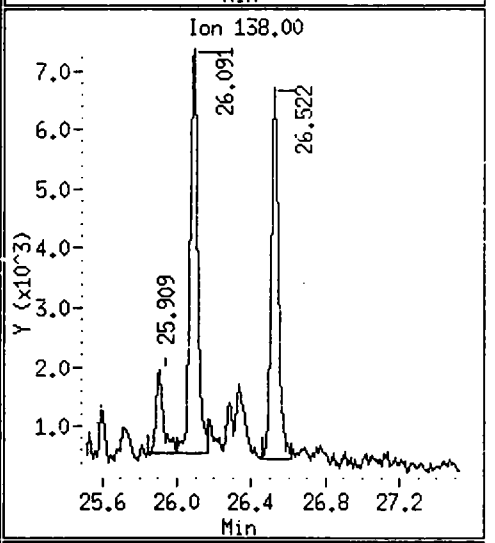


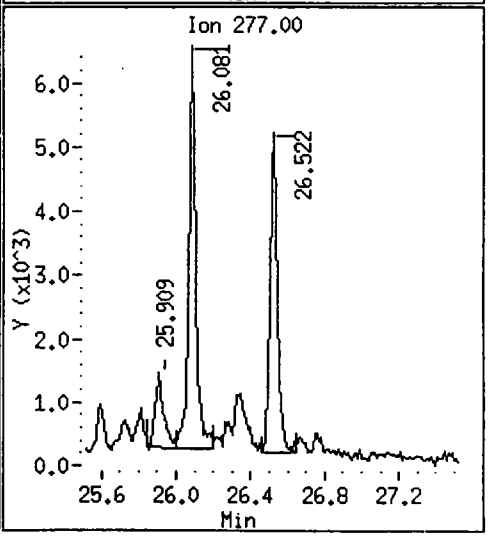












Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

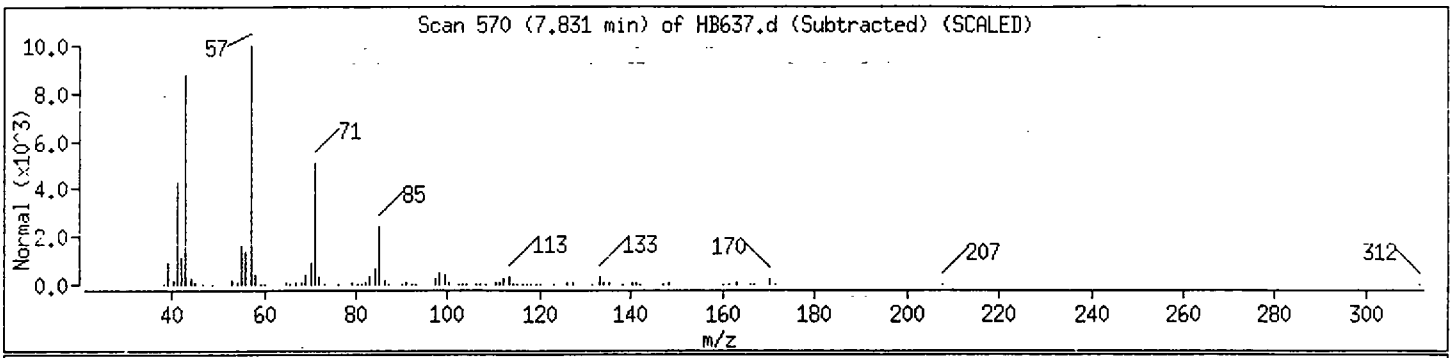
Client ID: D96-9653-2 Instrument: ITS8.i

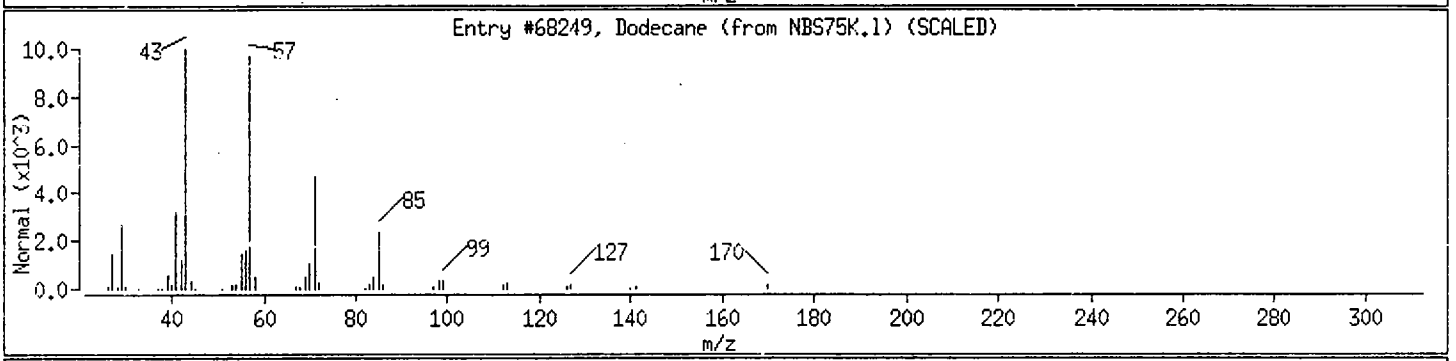
Sample Info: IL_8270_S;;AB848-83;1

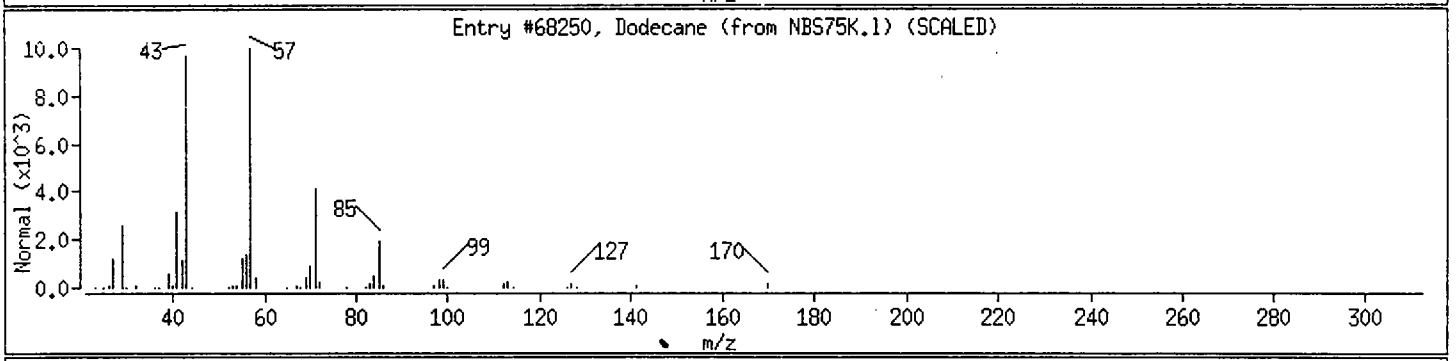
Volume Injected (uL): 1.0 Operator: VDLITTLE

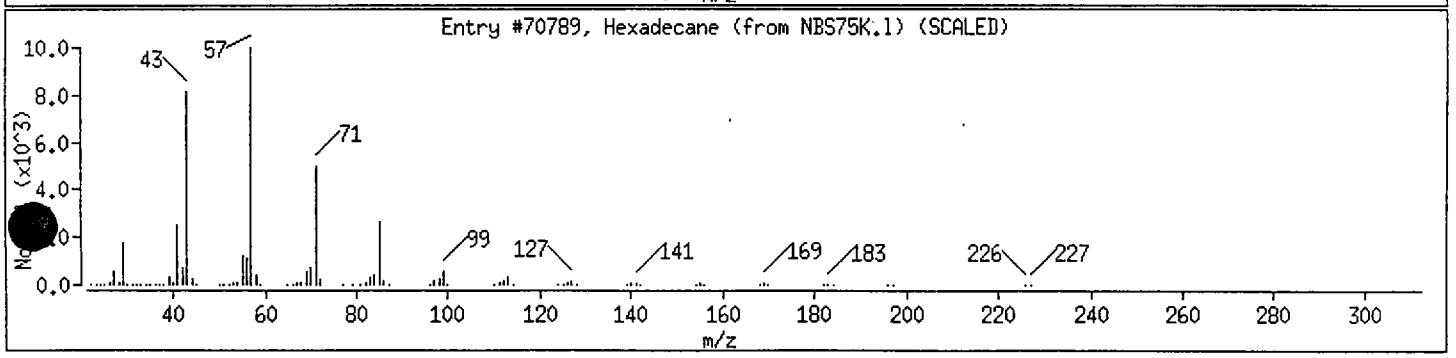
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Dodecane	112-40-3	NBS75K.l	68249	95	C12H26	170
Dodecane	112-40-3	NBS75K.l	68250	91	C12H26	170
Hexadecane	544-76-3	NBS75K.l	70789	90	C16H34	226









Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

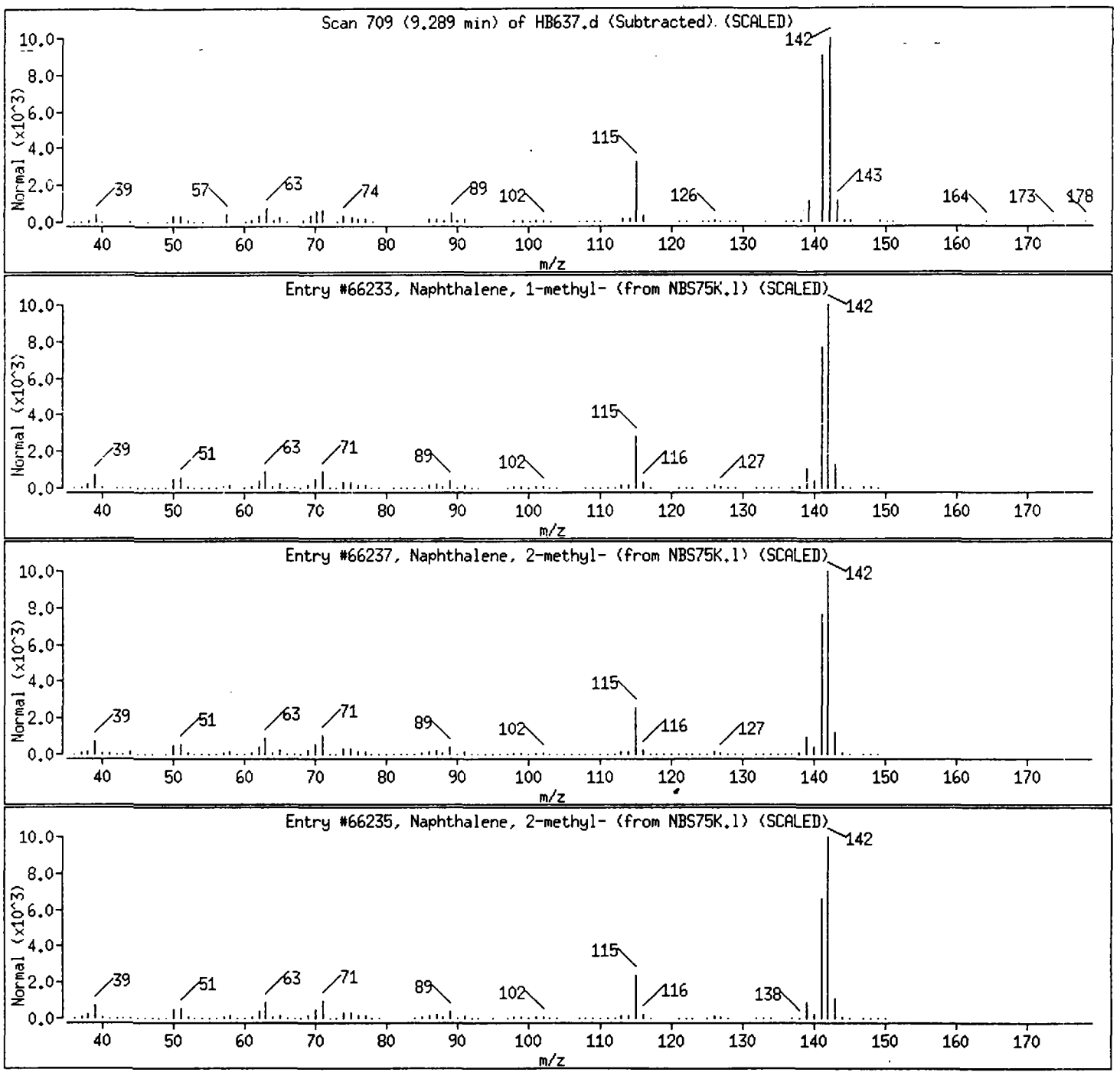
Volume Injected (uL): 1.0

Operator: VDLITTLE

Column phase: DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1-methyl-	90-12-0	NBS75K.l	66233	94	C11H10	142
Naphthalene, 2-methyl-	91-57-6	NBS75K.l	66237	91	C11H10	142
Naphthalene, 2-methyl-	91-57-6	NBS75K.l	66235	91	C11H10	142



Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

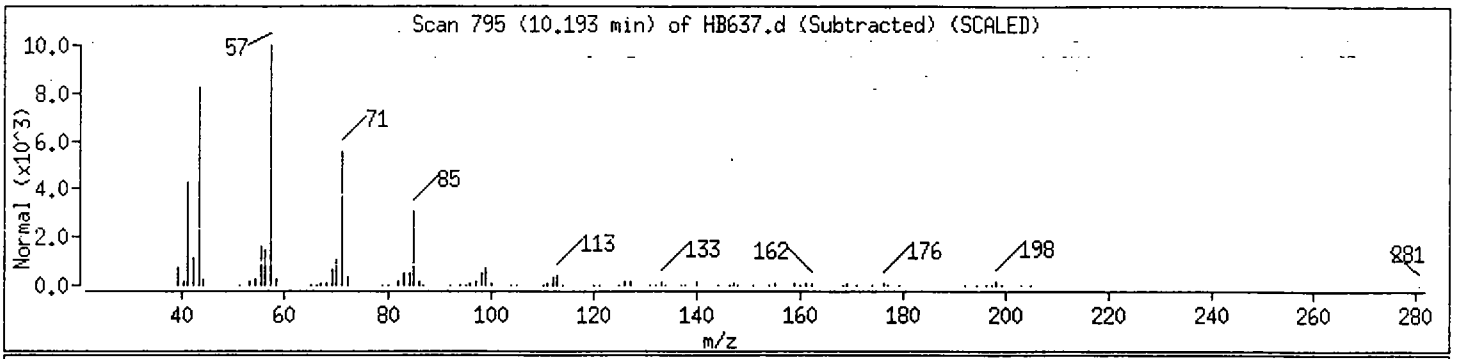
[redacted]ient ID: D96-9653-2 Instrument: ITS8.i

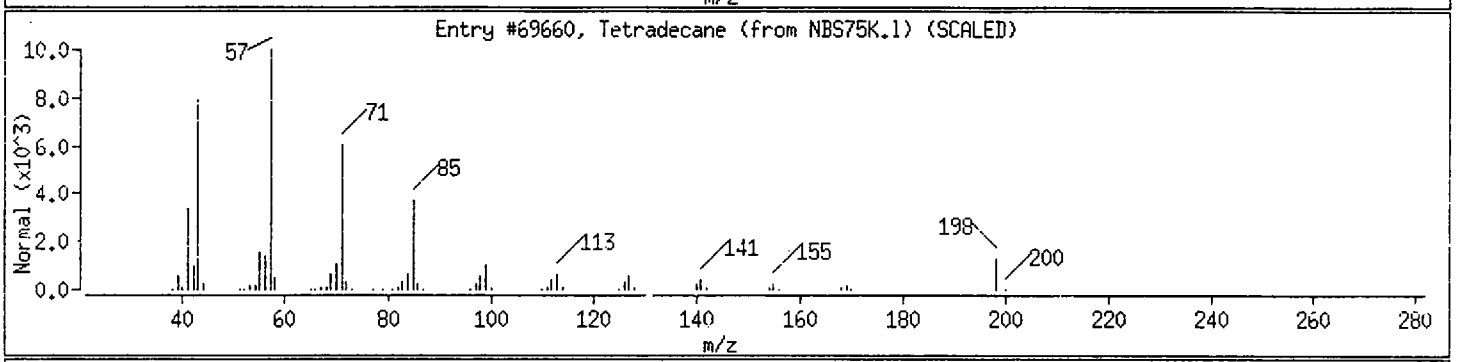
Sample Info: IL_8270_S;;AB848-83;1

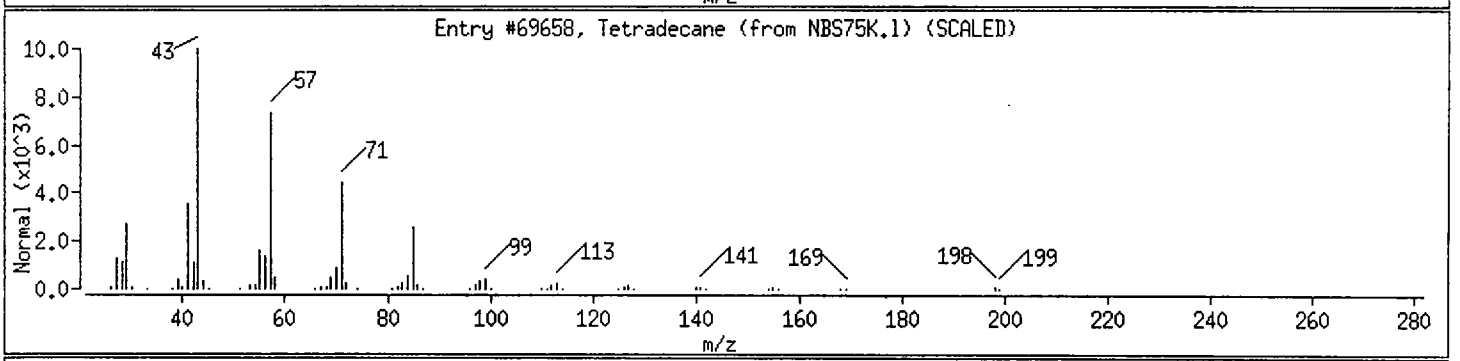
Volume Injected (uL): 1.0 Operator: VDLITTLE

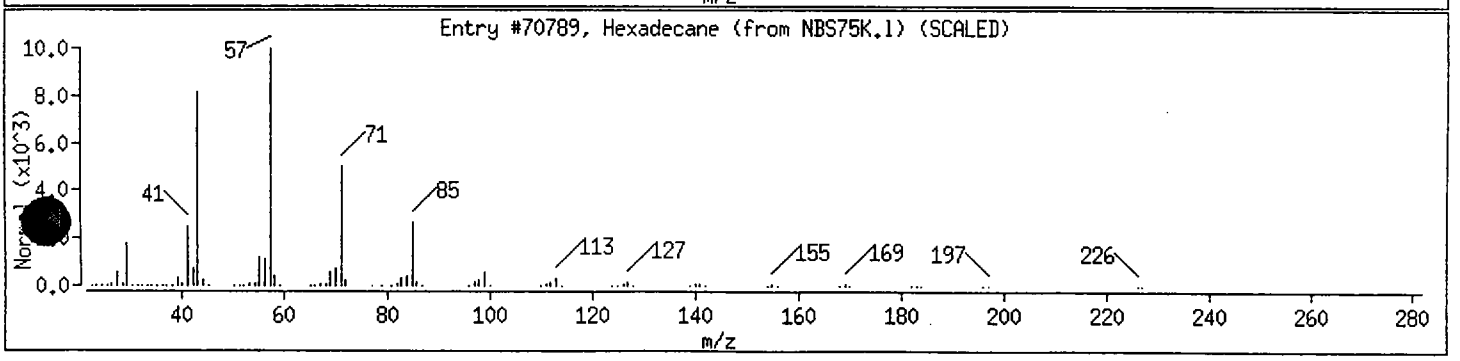
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetradecane	629-59-4	NBS75K.l	69660	94	C14H30	198
Tetradecane	629-59-4	NBS75K.l	69658	91	C14H30	198
Hexadecane	544-76-3	NBS75K.l	70789	91	C16H34	226









Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

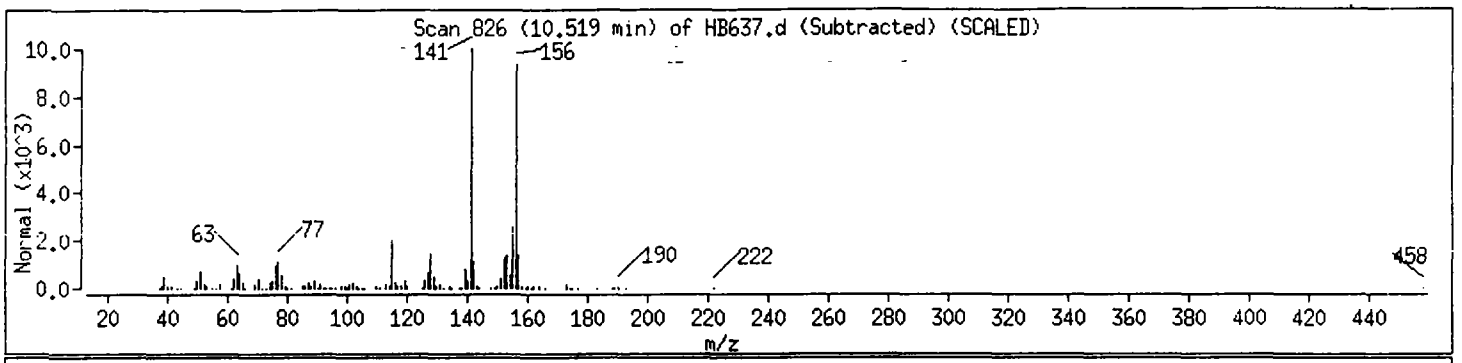
Volume Injected (uL): 1.0

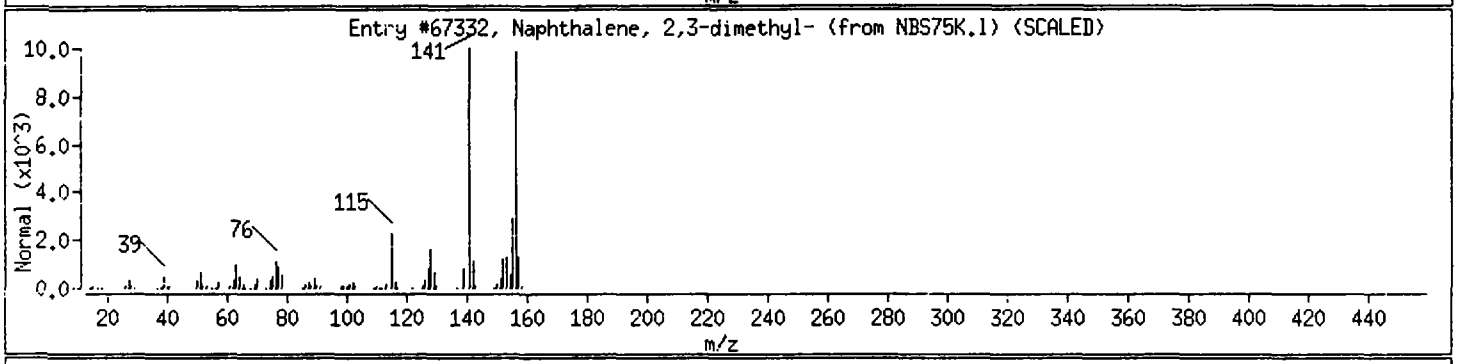
Operator: VDLITTLE

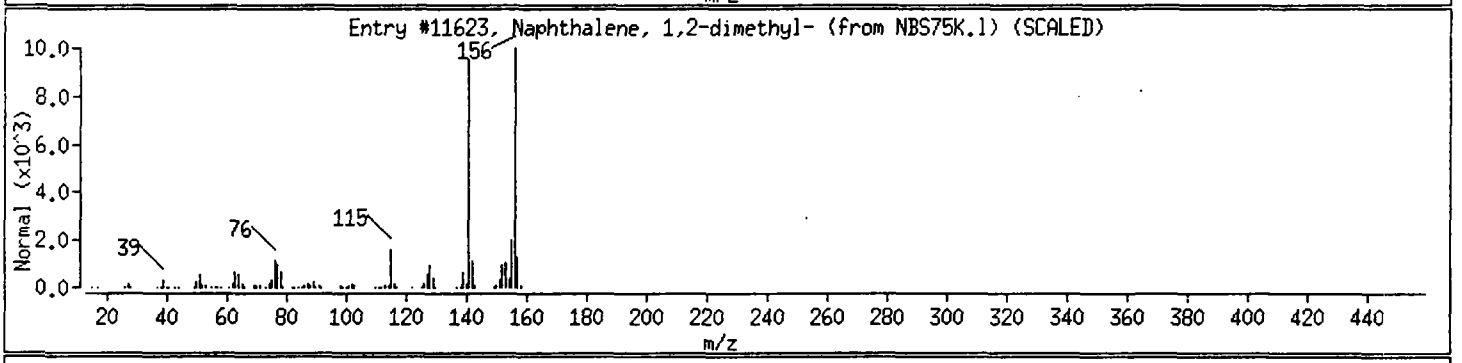
Column phase: DB-5

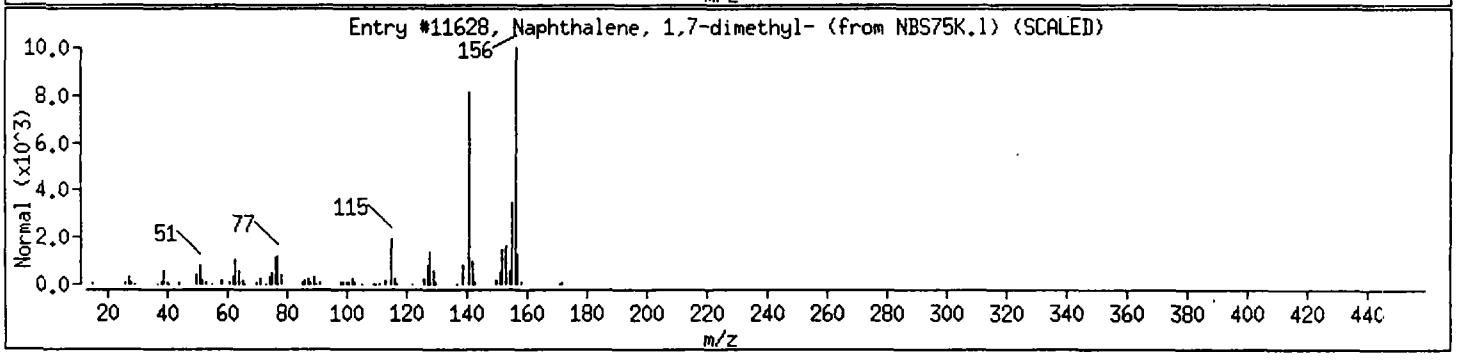
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 2,3-dimethyl-	581-40-8	NBS75K.l	67332	98	C12H12	156
Naphthalene, 1,2-dimethyl-	573-98-8	NBS75K.l	11623	98	C12H12	156
Naphthalene, 1,7-dimethyl-	575-37-1	NBS75K.l	11628	96	C12H12	156









Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

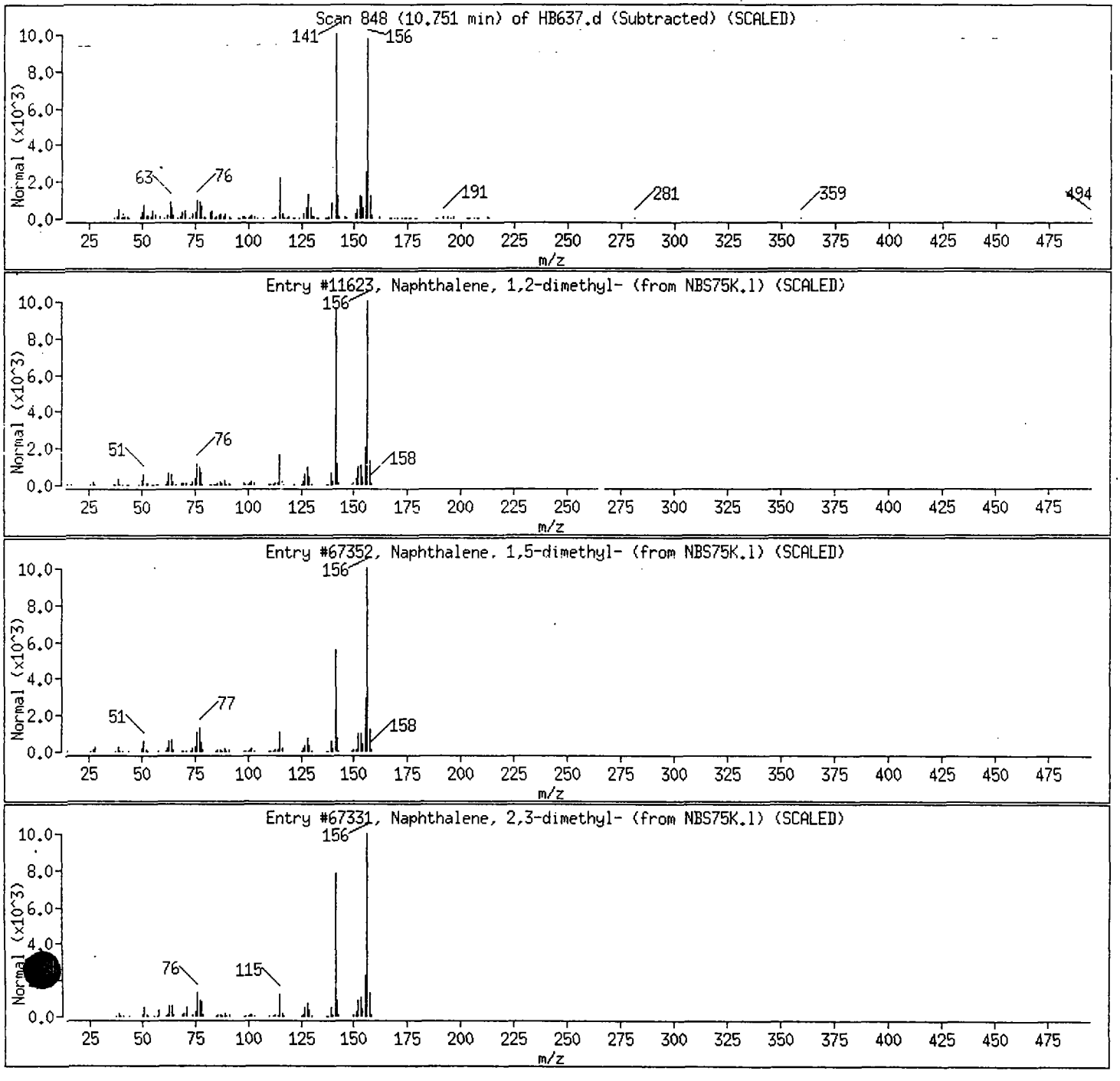
[redacted]ient ID: D96-9653-2 Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: VDLITTLE

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Naphthalene, 1,2-dimethyl-	573-98-8	NBS75K.l	11623	98	C12H12	156
Naphthalene, 1,5-dimethyl-	571-61-9	NBS75K.l	67352	97	C12H12	156
Naphthalene, 2,3-dimethyl-	581-40-8	NBS75K.l	67331	97	C12H12	156



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Date : 08-SEP-1996 03:07

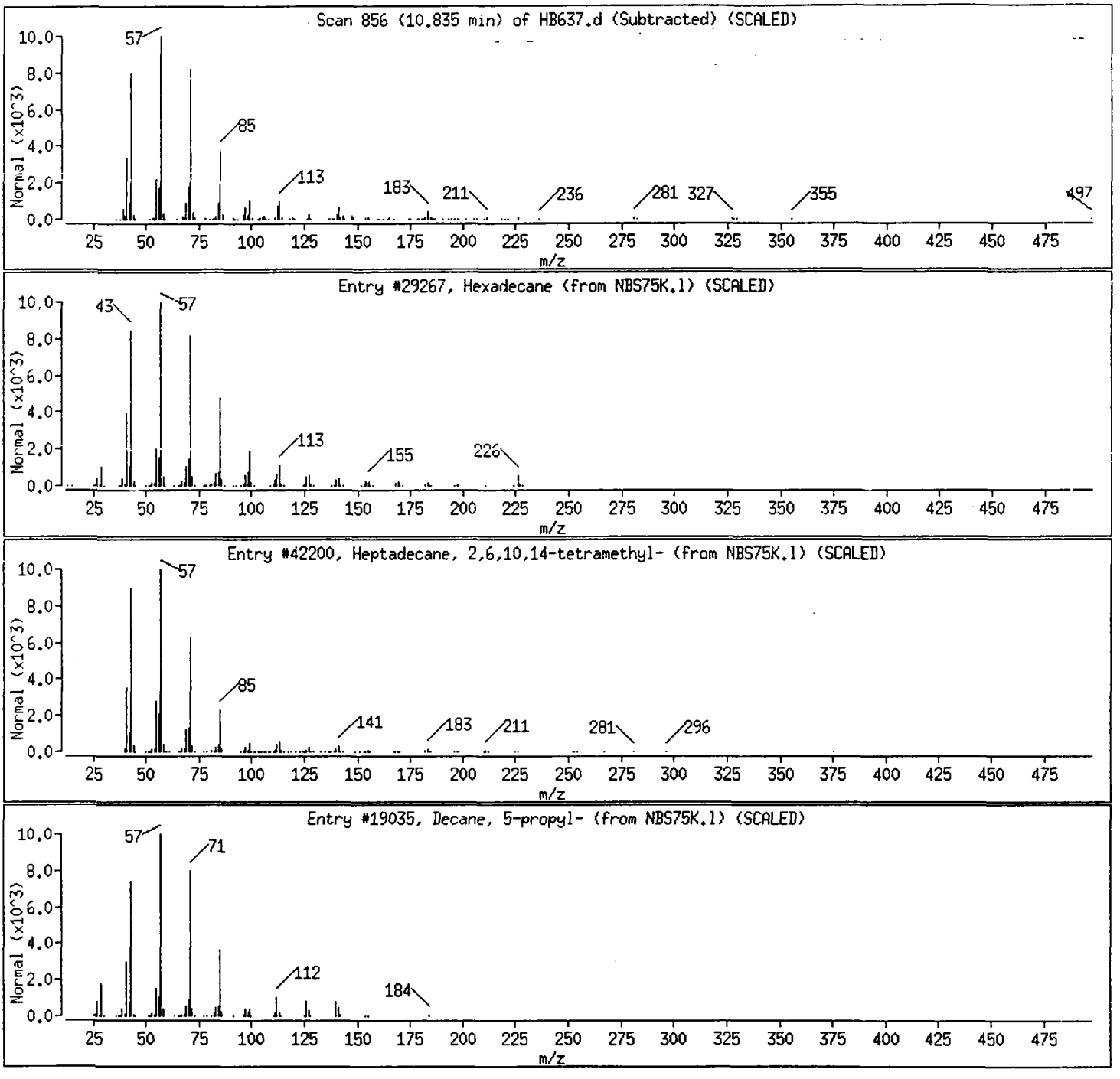
Client ID: D96-9653-2 Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: VDLITTLE

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecane	544-76-3	NBS75K.l	29267	94	C16H34	226
Heptadecane, 2,6,10,14-tetramethyl-	18344-37-1	NBS75K.l	42200	86	C21H44	296
Decane, 5-propyl-	17312-62-8	NBS75K.l	19035	83	C13H28	184



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Date : 08-SEP-1996 03:07

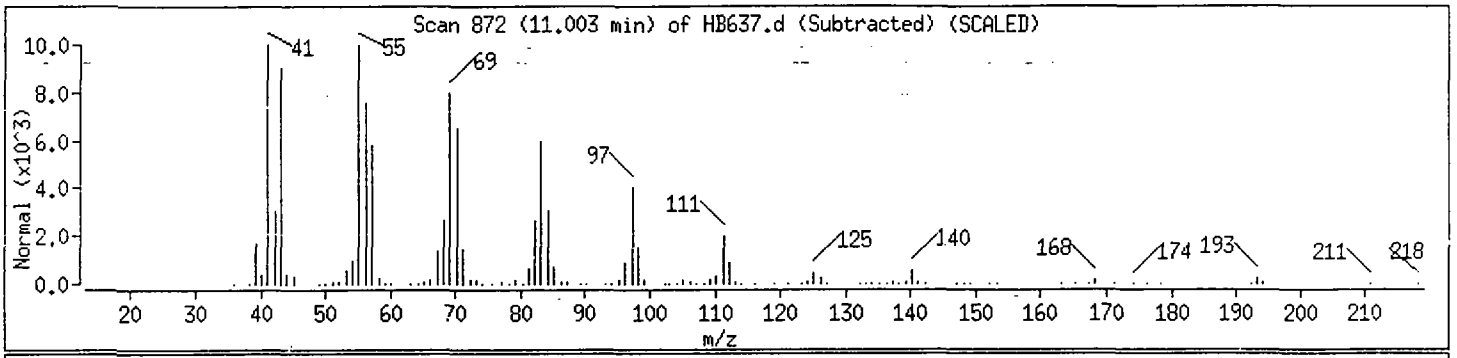
Client ID: D96-9653-2 Instrument: ITS8.i

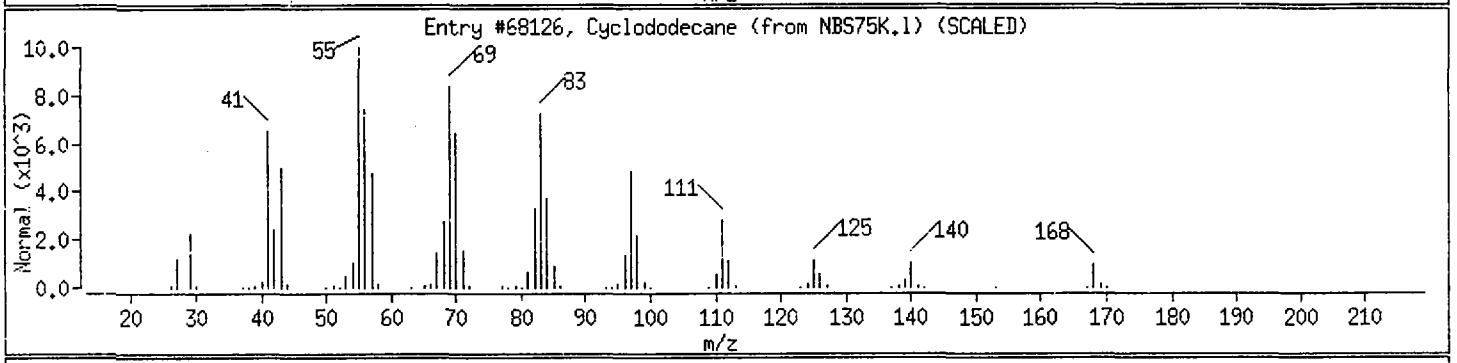
Sample Info: IL_8270_S;;AB848-83;1

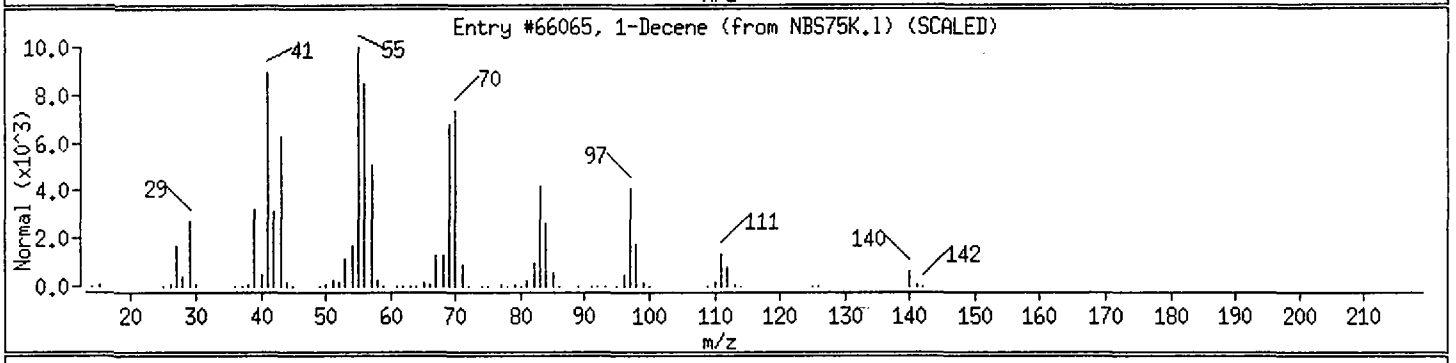
Volume Injected (uL): 1.0 Operator: VDLITTLE

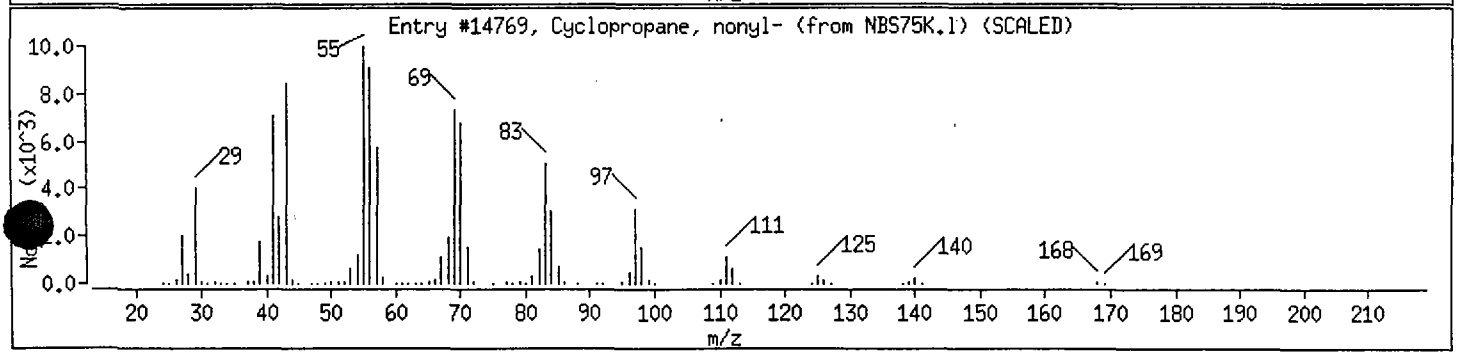
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Cyclododecane	294-62-2	NBS75K.1	68126	97	C12H24	168
1-Decene	872-05-9	NBS75K.1	66065	95	C10H20	140
Cyclopropane, nonyl-	74663-85-7	NBS75K.1	14769	94	C12H24	168









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Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

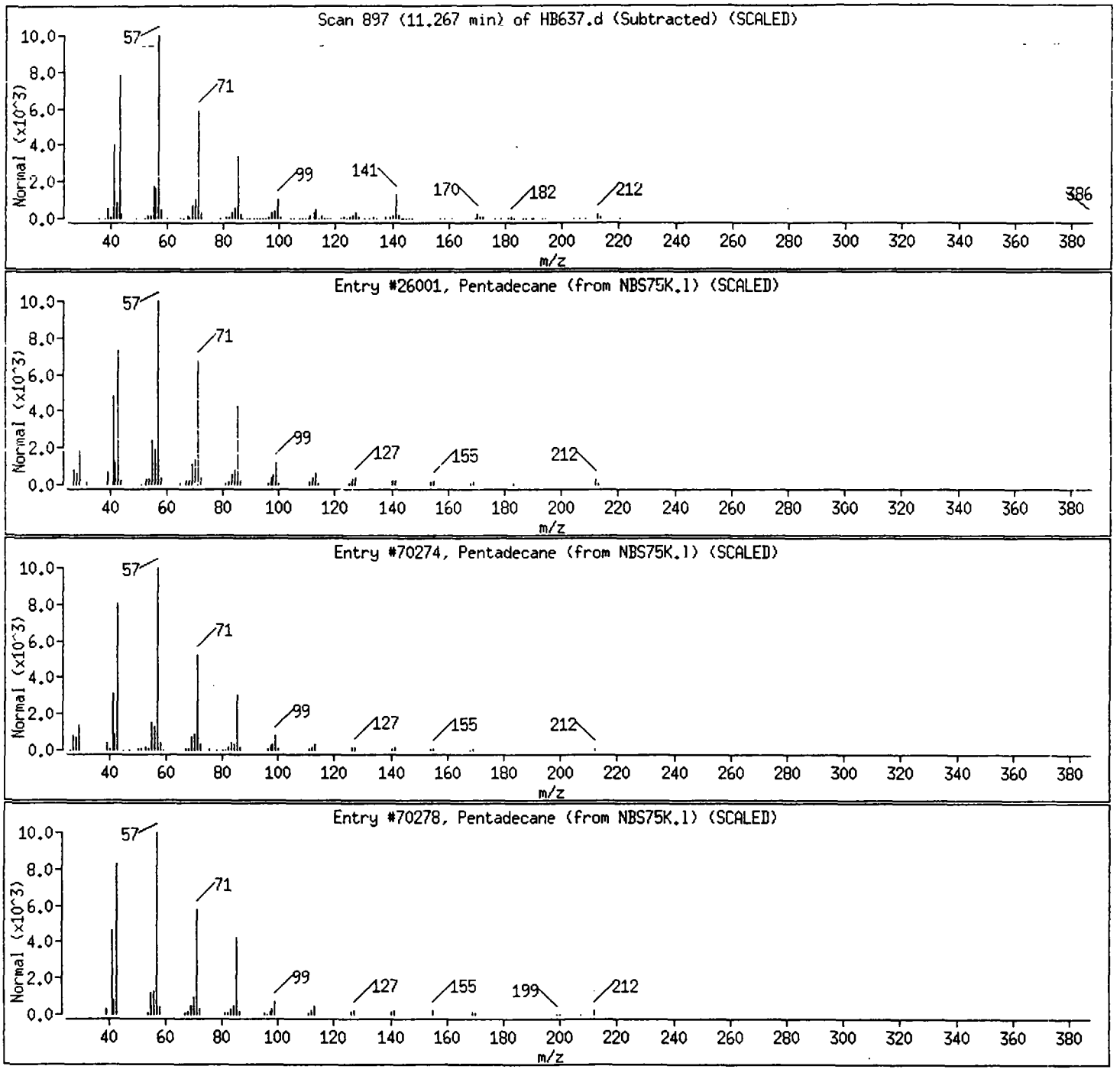
Volume Injected (uL): 1.0

Operator: VDLITTLE

Column phase: DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Pentadecane	629-62-9	NBS75K.l	26001	96	C15H32	212
Pentadecane	629-62-9	NBS75K.l	70274	93	C15H32	212
Pentadecane	629-62-9	NBS75K.l	70278	93	C15H32	212



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Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

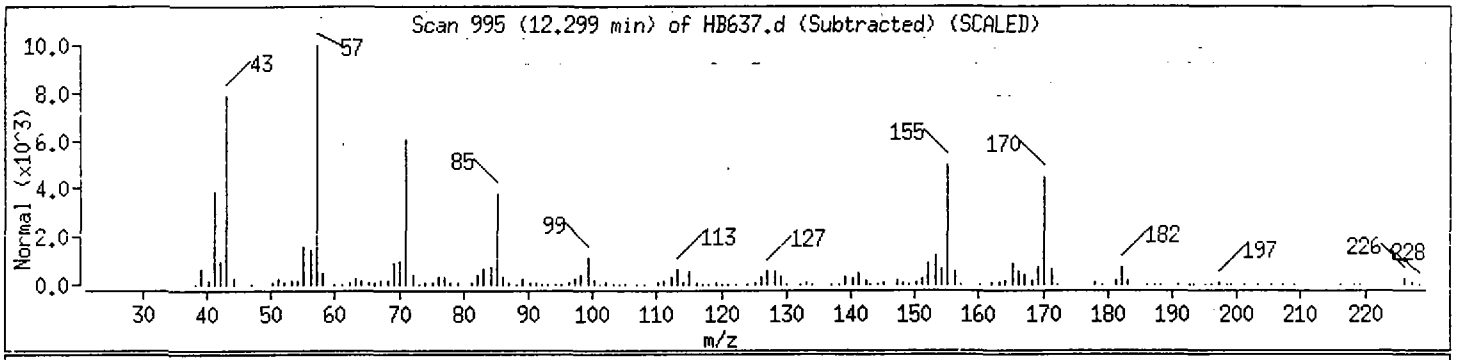
Volume Injected (uL): 1.0

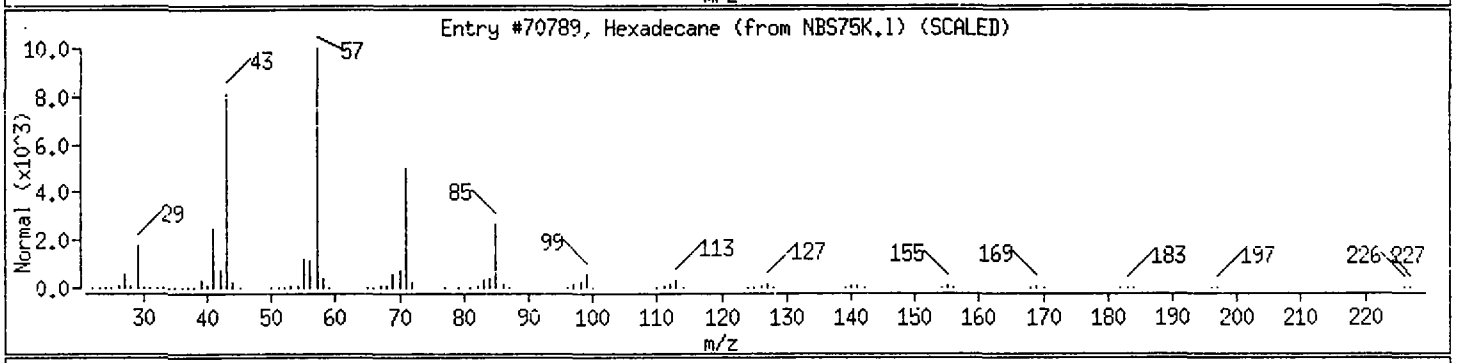
Operator: VDLITTLE

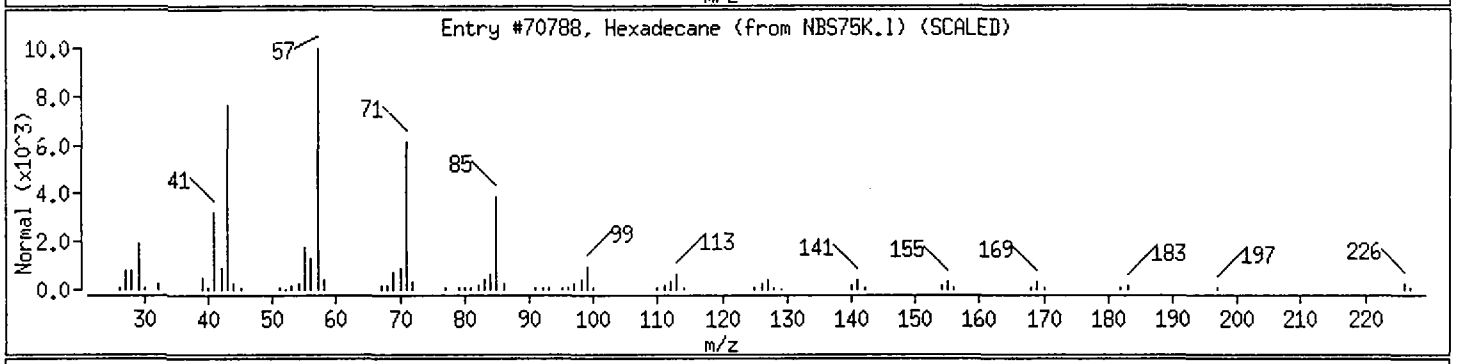
Column phase: DB-5

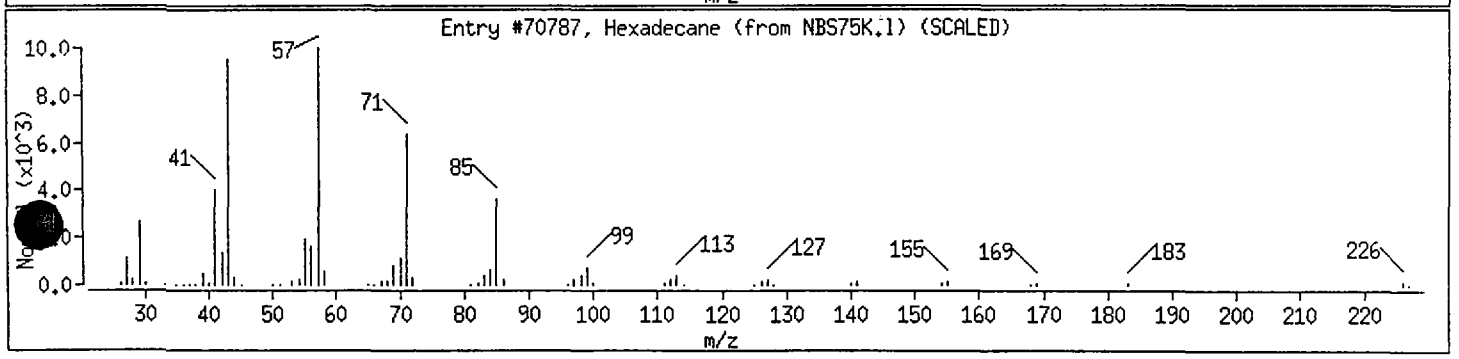
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexadecane	544-76-3	NBS75K.1	70789	94	C16H34	226
Hexadecane	544-76-3	NBS75K.1	70788	94	C16H34	226
Hexadecane	544-76-3	NBS75K.1	70787	60	C16H34	226









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Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

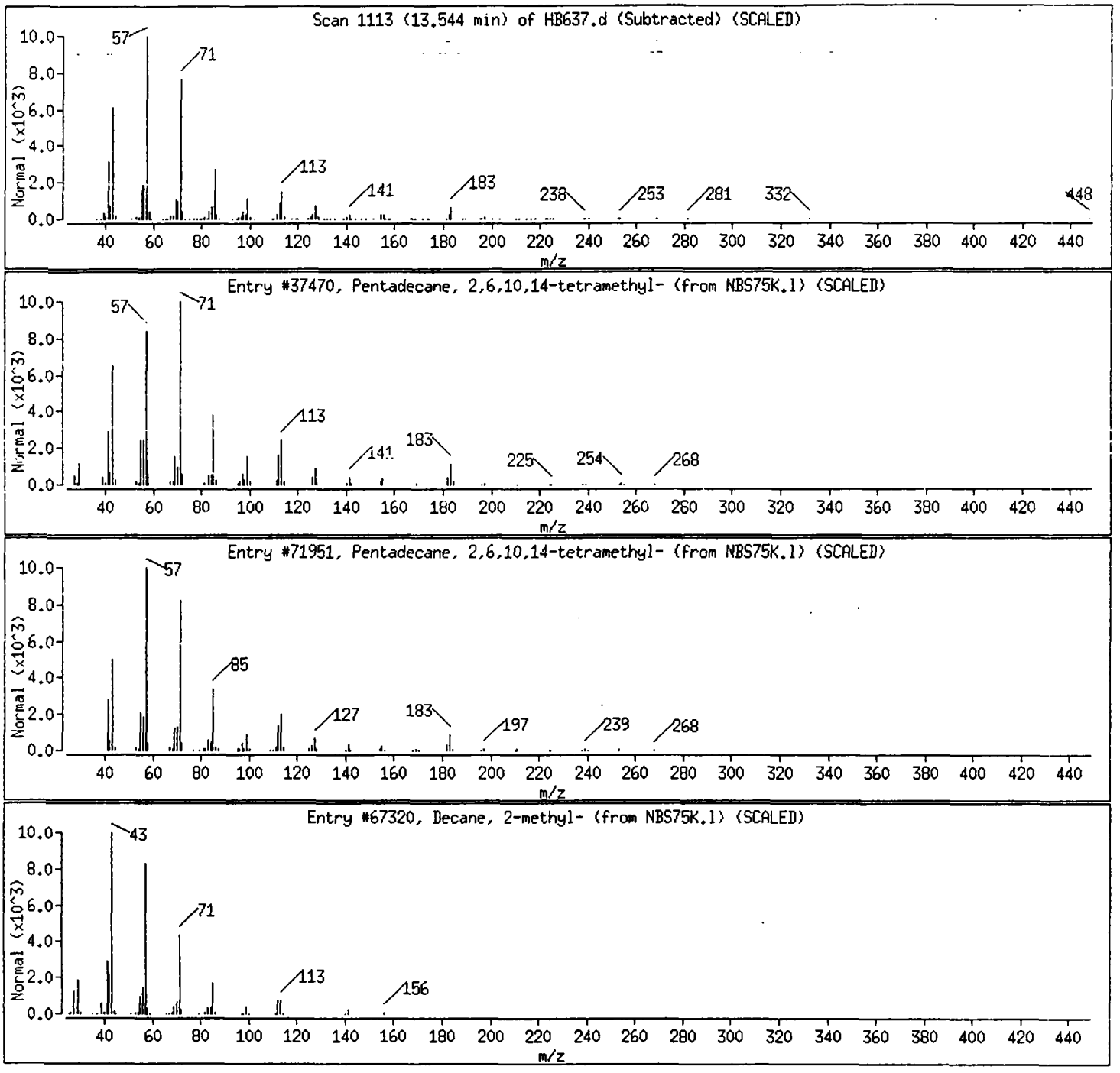
Volume Injected (uL): 1.0

Operator: VDLITTLE

Column phase: DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetramethyl-pentadecane	1921-70-6	NBS75K.l	37470	98	C19H40	268
Pentadecane, 2,6,10,14-tetramethyl-	1921=70-6	NBS75K.l	71951	97	C19H40	268
Decane, 2-methyl-	6975-98-0	NBS75K.l	67320	87	C11H24	156



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Date : 08-SEP-1996 03:07

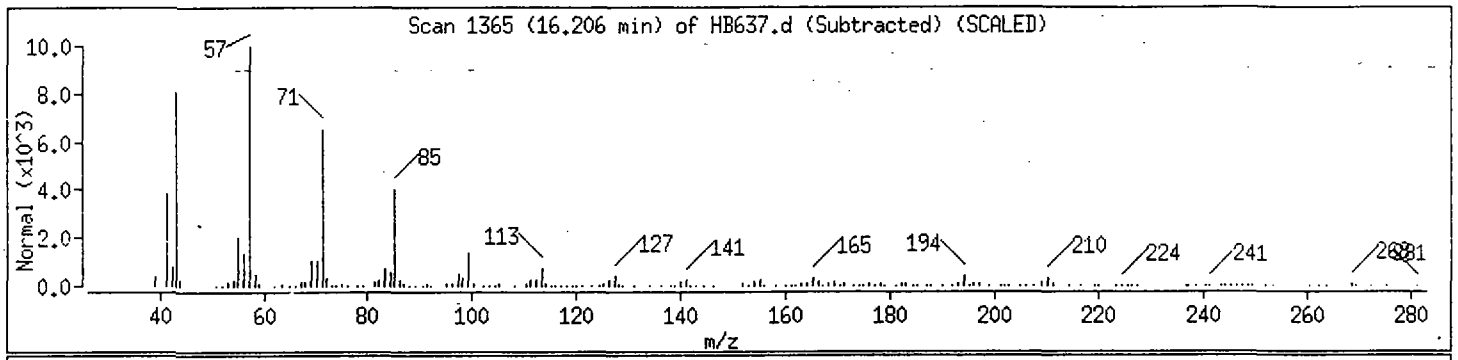
Client ID: D96-9653-2 Instrument: ITS8.i

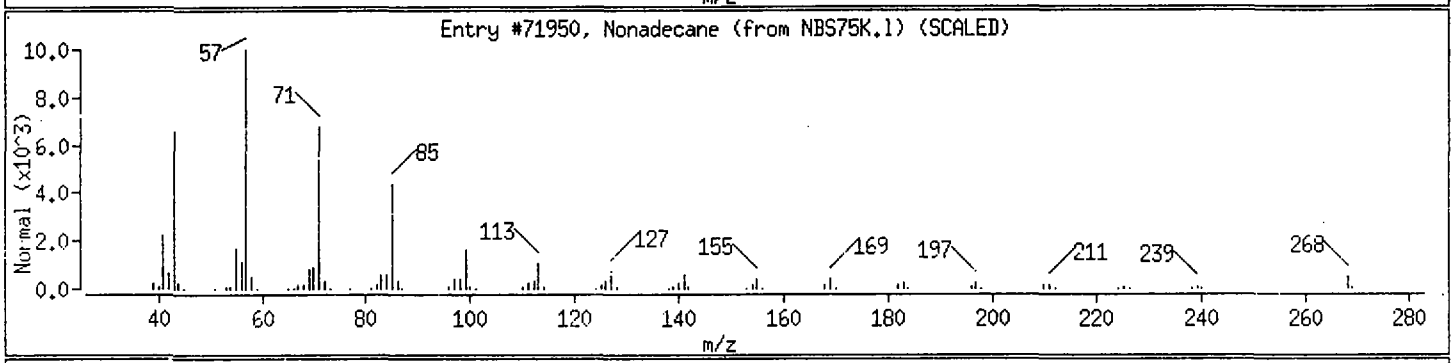
Sample Info: IL_8270_S;;AB848-83;1

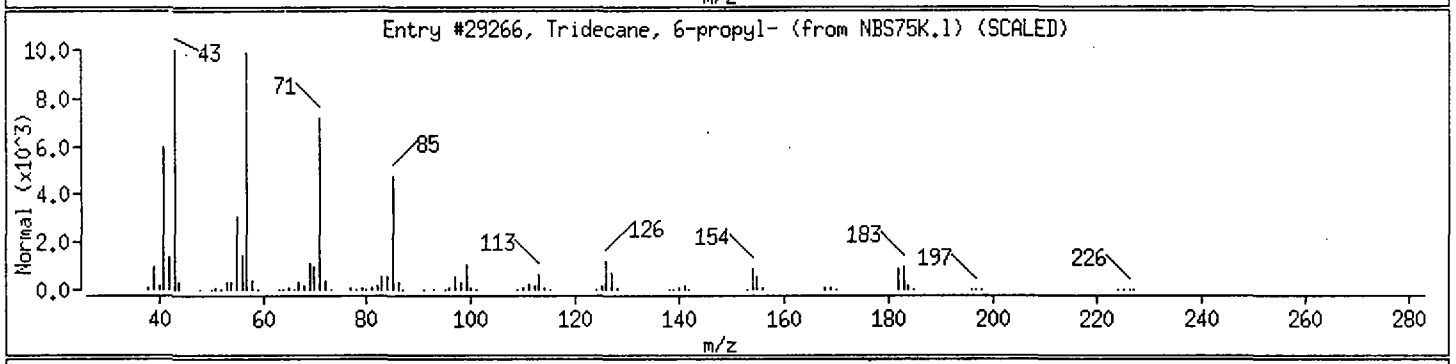
Volume Injected (uL): 1.0 Operator: VDLITTLE

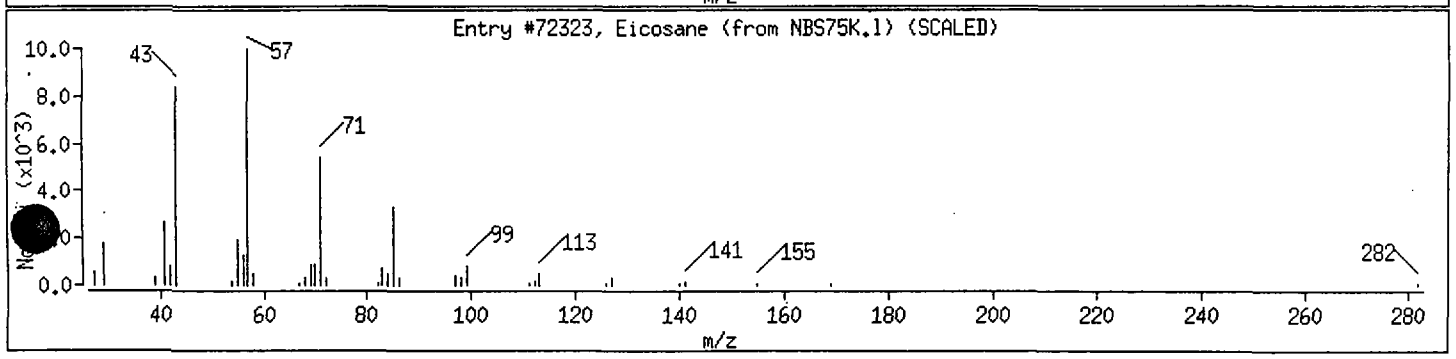
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Nonadecane	629-92-5	NBS75K.l	71950	94	C19H40	268
Tridecane, 6-propyl-	55045-10-8	NBS75K.l	29266	91	C16H34	226
Eicosane	112-95-8	NBS75K.l	72323	90	C20H42	282









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Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

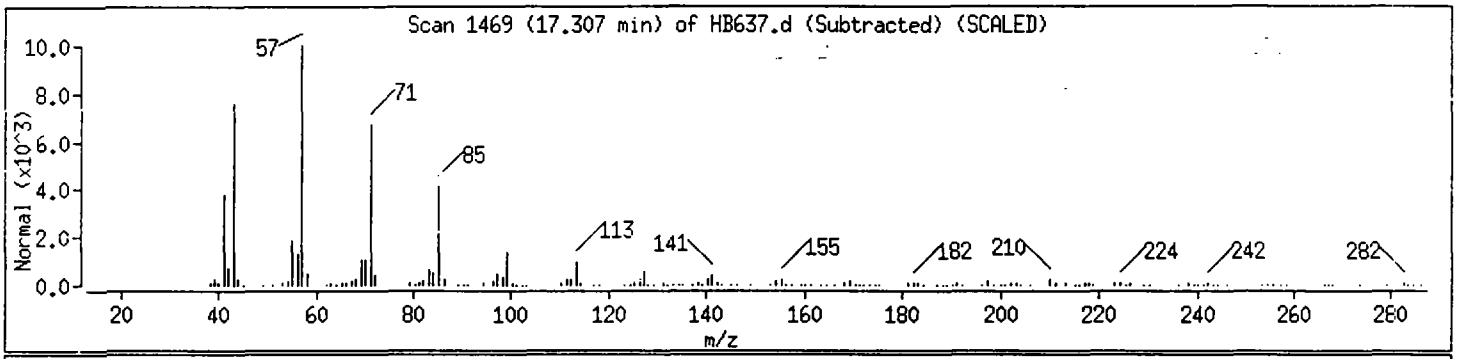
Volume Injected (uL): 1.0

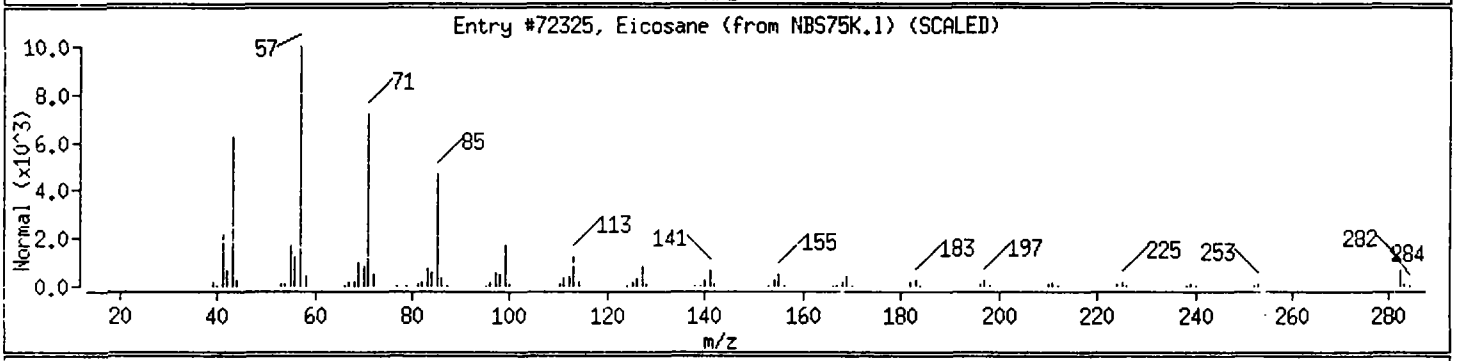
Operator: VDLITTLE

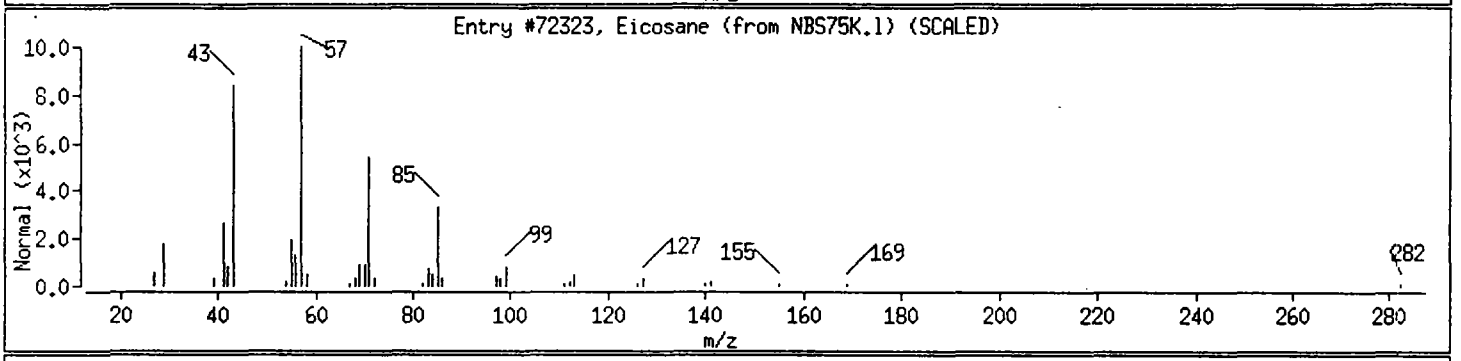
Column phase: DB-5

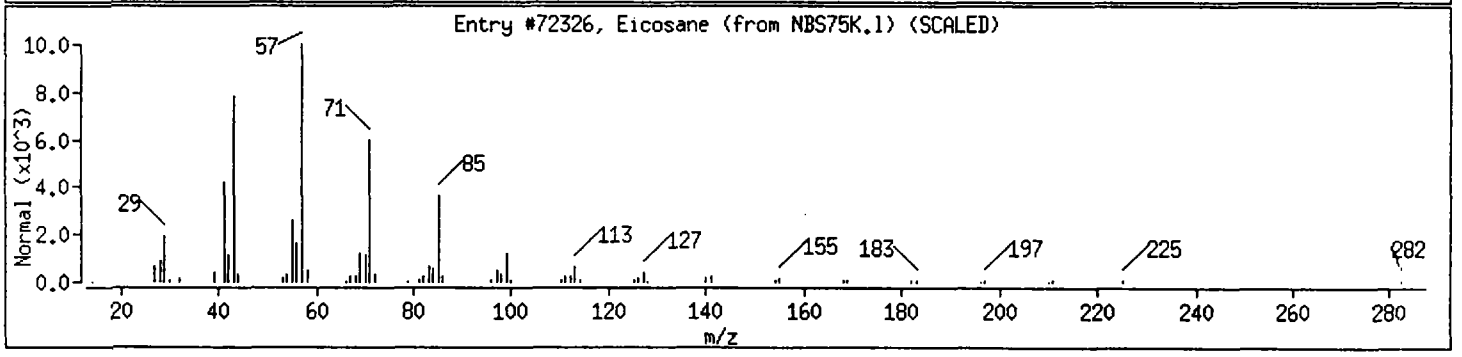
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NBS75K.l	72325	97	C20H42	282
Eicosane	112-95-8	NBS75K.l	72323	96	C20H42	282
Eicosane	112-95-8	NBS75K.l	72326	96	C20H42	282









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Date : 08-SEP-1996 03:07

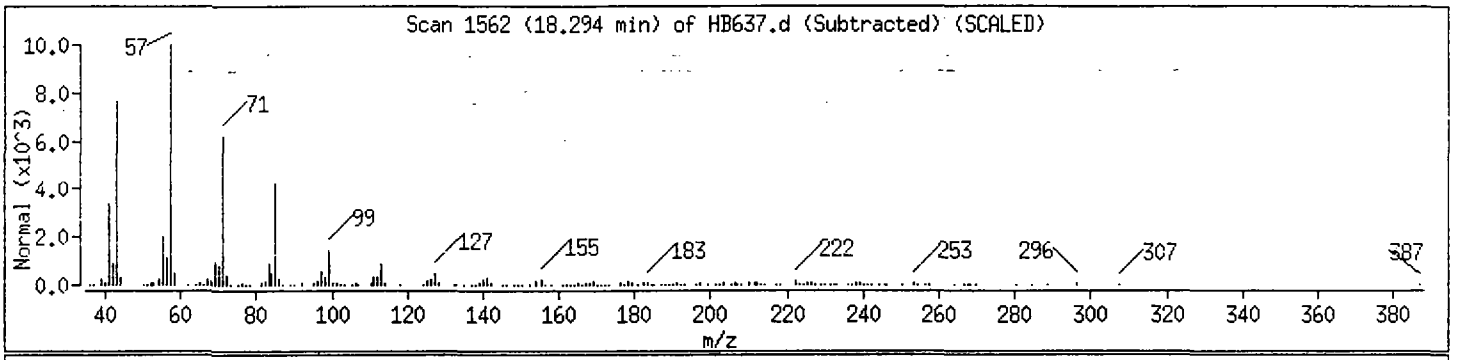
Client ID: D96-9653-2 Instrument: ITS8.i

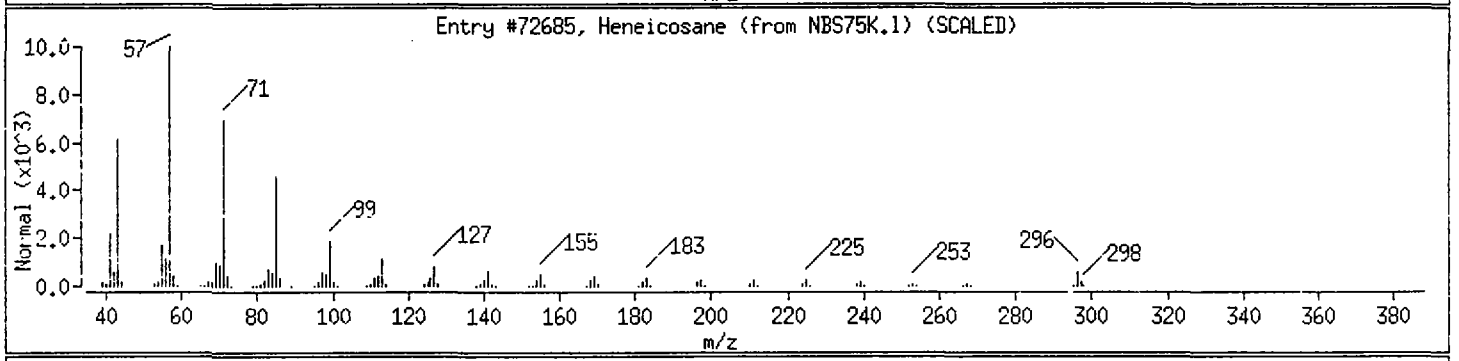
Sample Info: IL_8270_S;;AB848-83;1

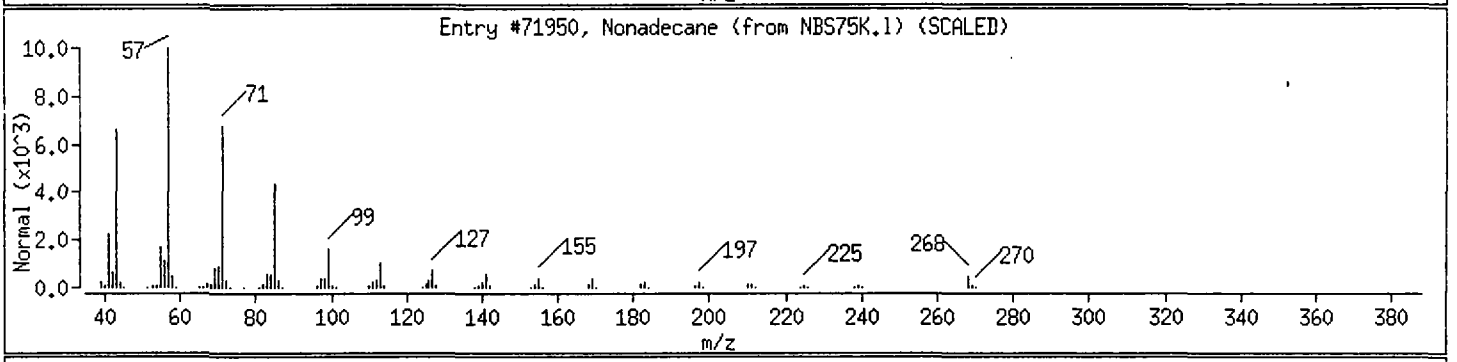
Volume Injected (uL): 1.0 Operator: VDLITTLE

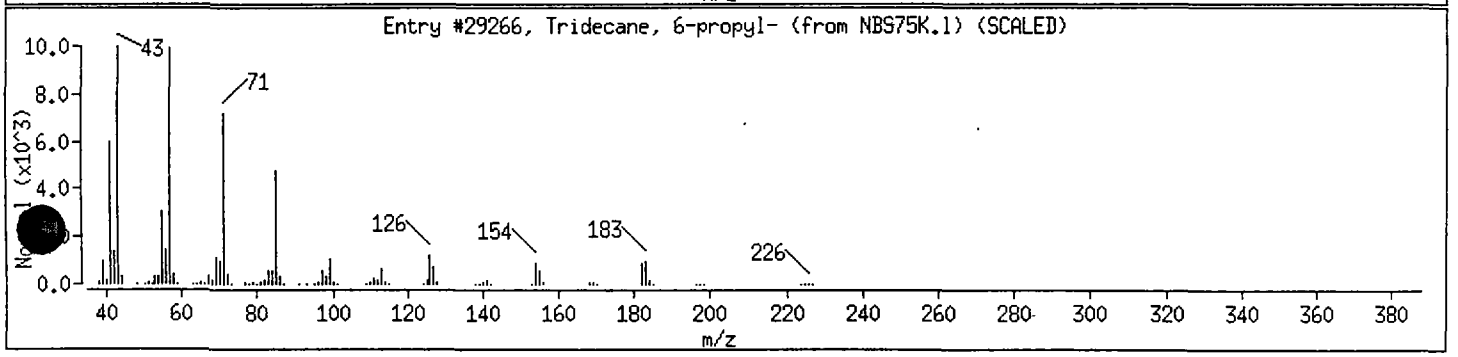
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Heneicosane	629-94-7	NBS75K.l	72685	94	C21H44	296
Nonadecane	629-92-5	NBS75K.l	71950	94	C19H40	268
Tridecane, 6-propyl-	55045-10-8	NBS75K.l	29266	93	C16H34	226









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Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

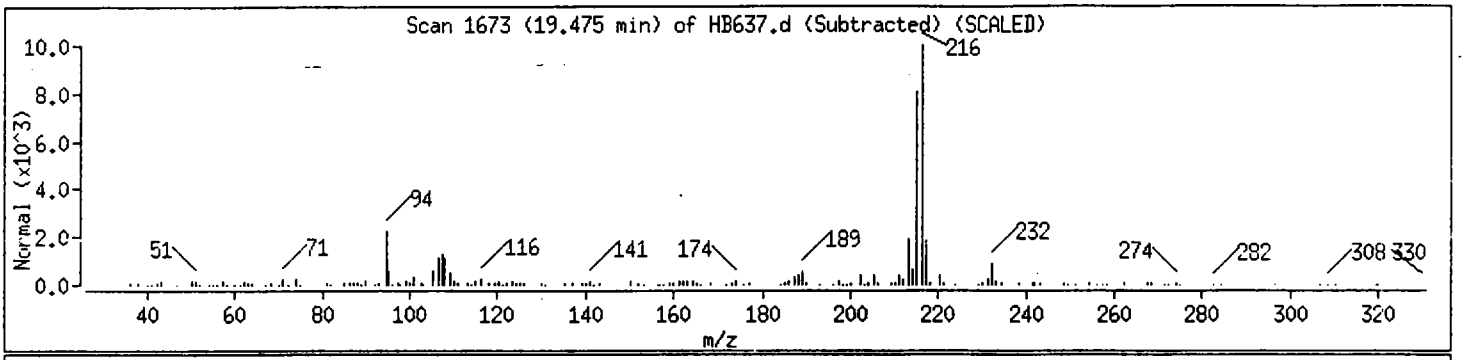
Volume Injected (uL): 1.0

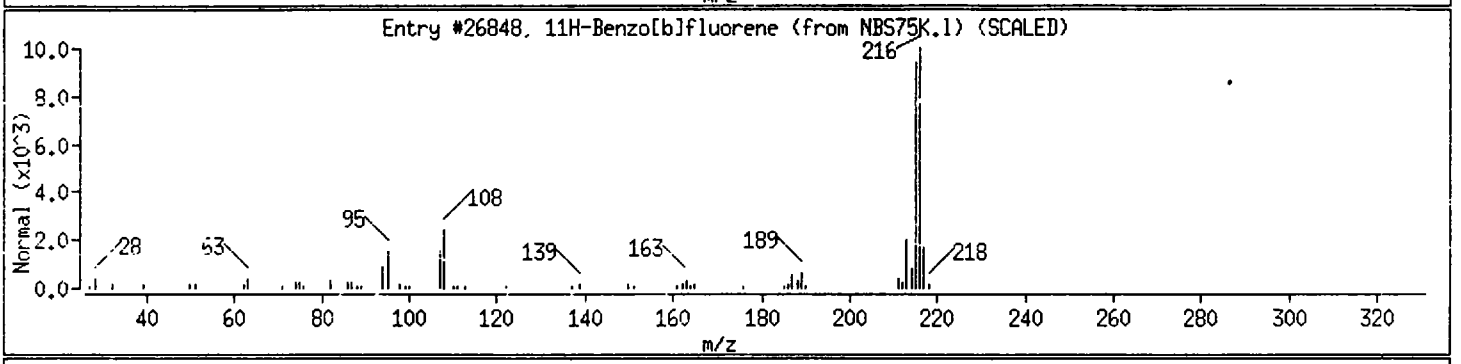
Operator: VDLITTLE

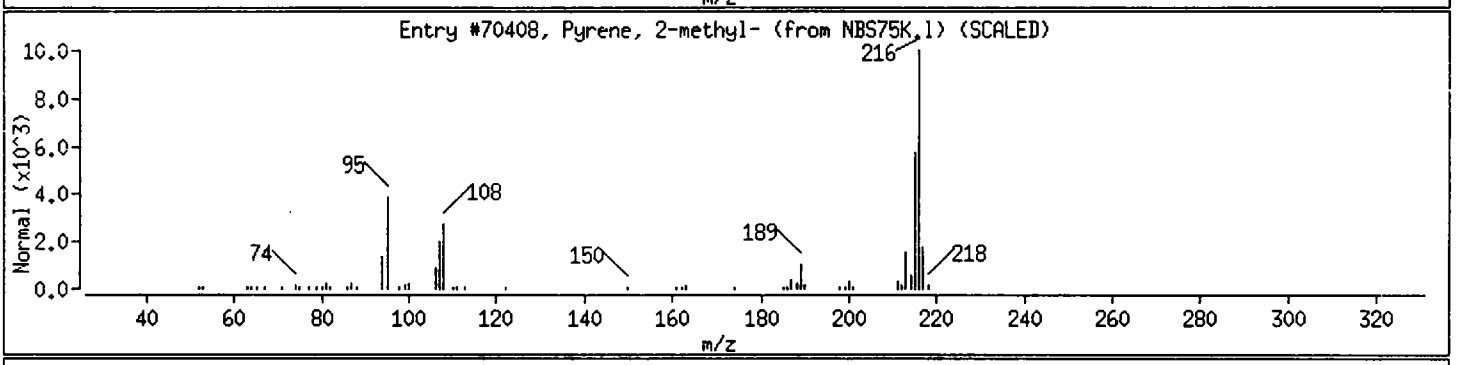
Column phase: DB-5

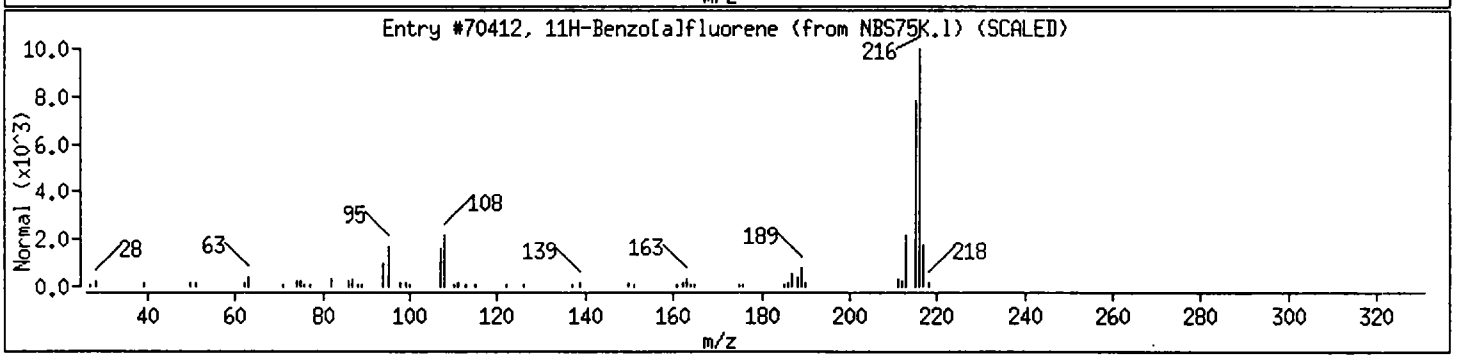
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[b]fluorene	243-17-4	NBS75K.l	26848	90	C17H12	216
Pyrene, 2-methyl-	3442-78-2	NBS75K.l	70408	87	C17H12	216
11H-Benzo[a]fluorene	238-84-6	NBS75K.l	70412	76	C17H12	216









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Date : 08-SEP-1996 03:07

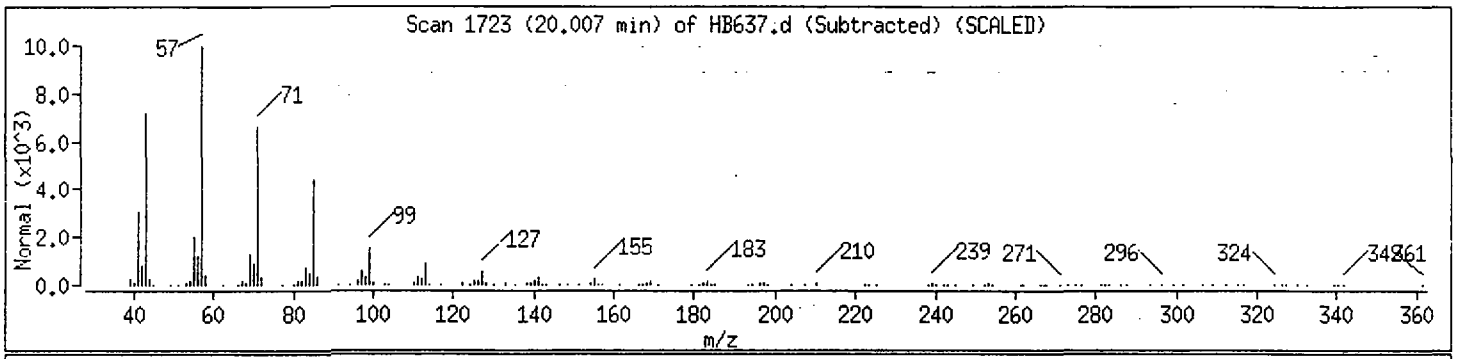
Client ID: D96-9653-2 Instrument: ITS8.i

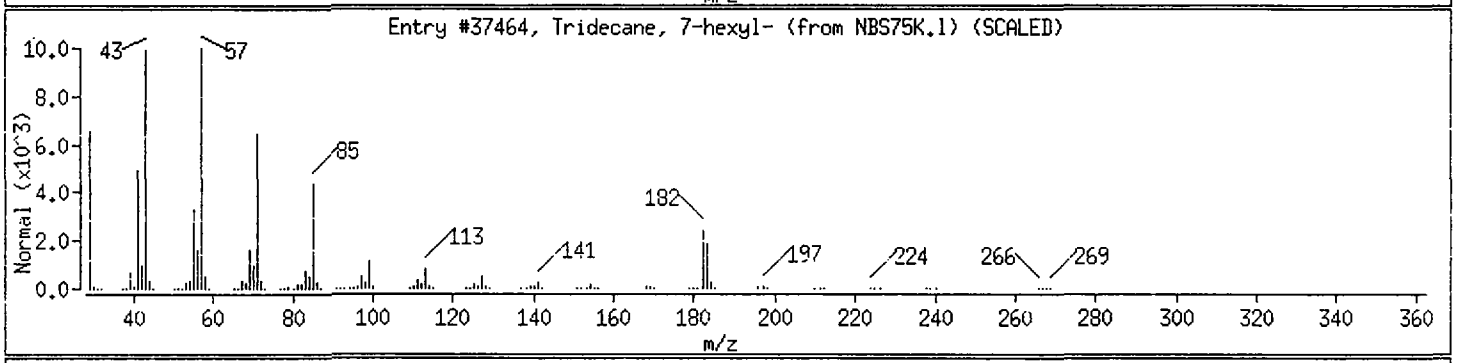
Sample Info: IL_8270_S;;AB848-83;1

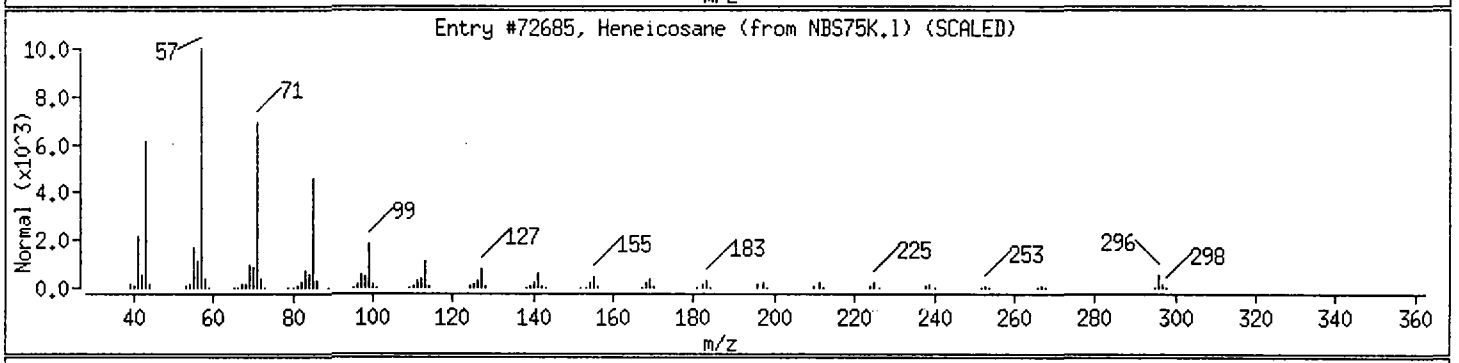
Volume Injected (uL): 1.0 Operator: VDLITTLE

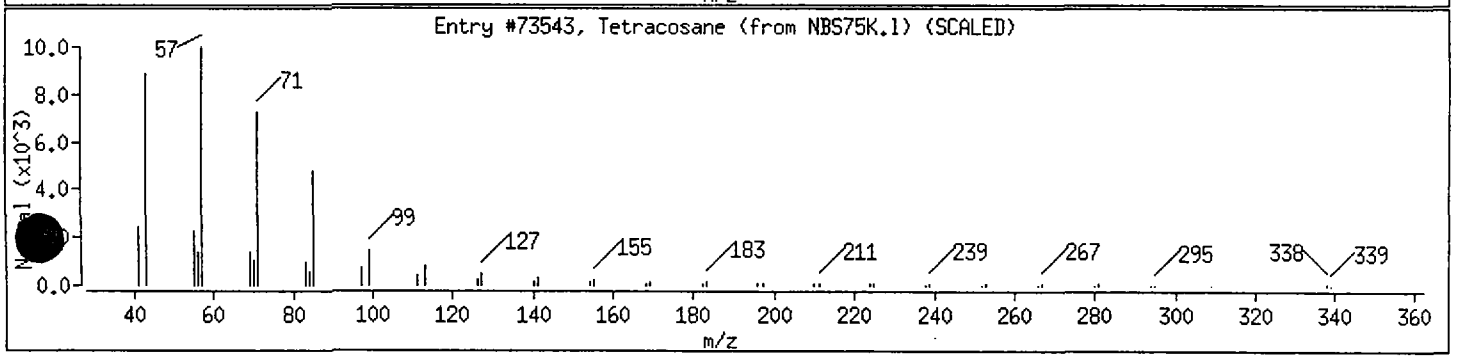
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Hexyl-tridecane	7225-66-3	NBS75K.l	37464	97	C19H40	268
Heneicosane	629-94-7	NBS75K.l	72685	96	C21H44	296
Tetracosane	646-31-1	NBS75K.l	73543	91	C24H50	338









Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

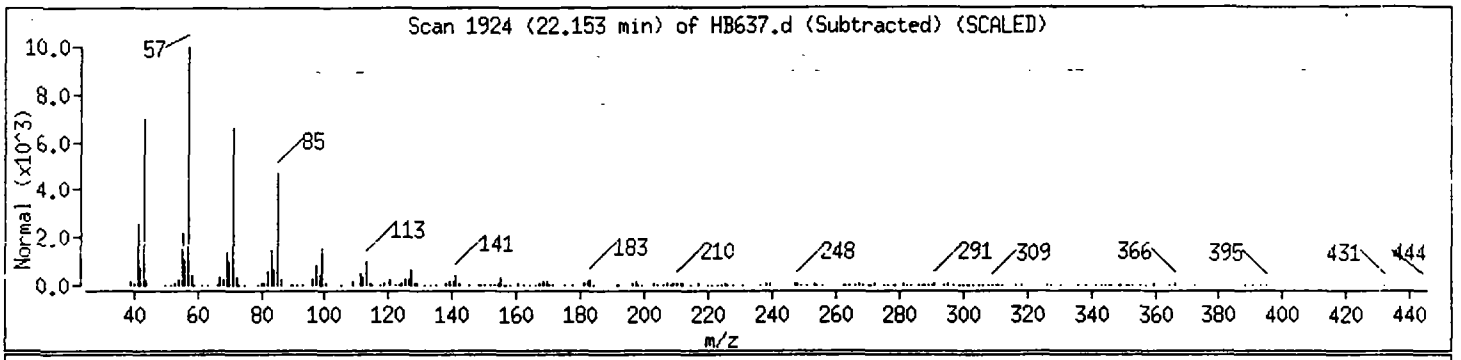
Client ID: D96-9653-2 Instrument: ITS8.i

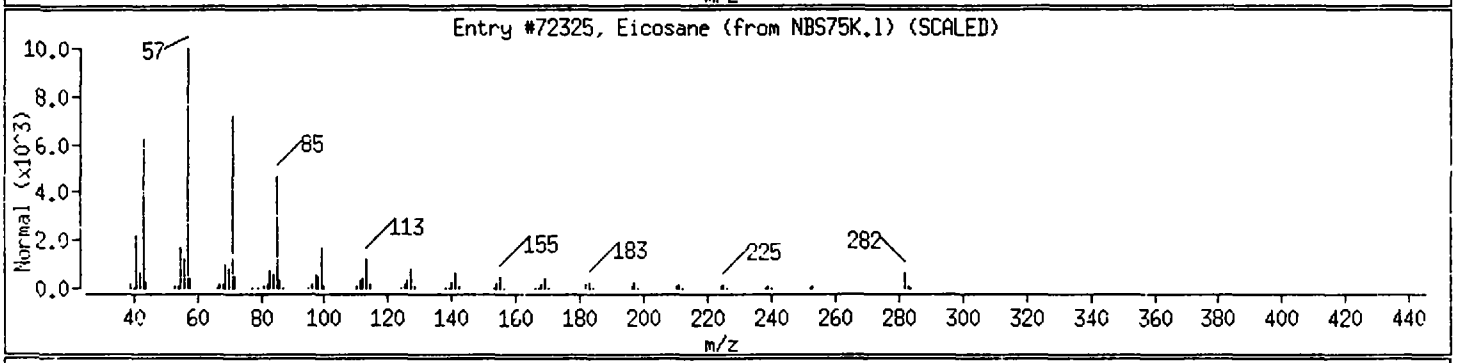
Sample Info: IL_8270_S;;AB848-83;1

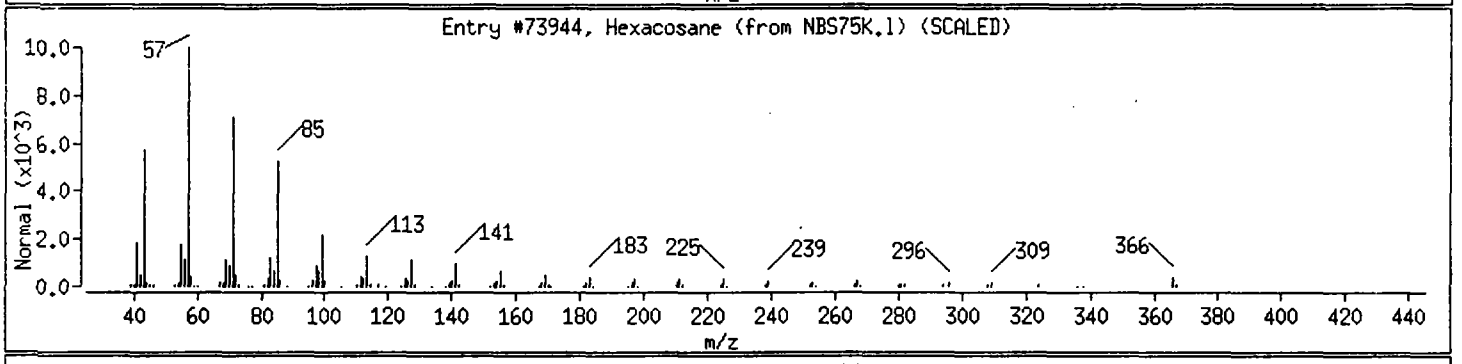
Volume Injected (uL): 1.0 Operator: VDLITTLE

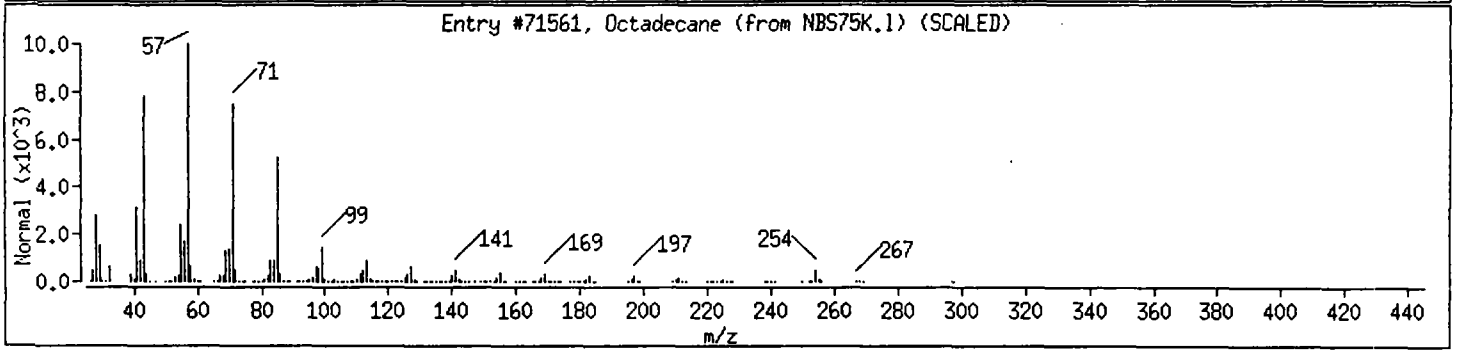
Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Eicosane	112-95-8	NBS75K.l	72325	98	C20H42	282
Hexacosane	630-01-3	NBS75K.l	73944	95	C26H54	366
Octadecane	593-45-3	NBS75K.l	71561	95	C18H38	254









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Date : 08-SEP-1996 03:07

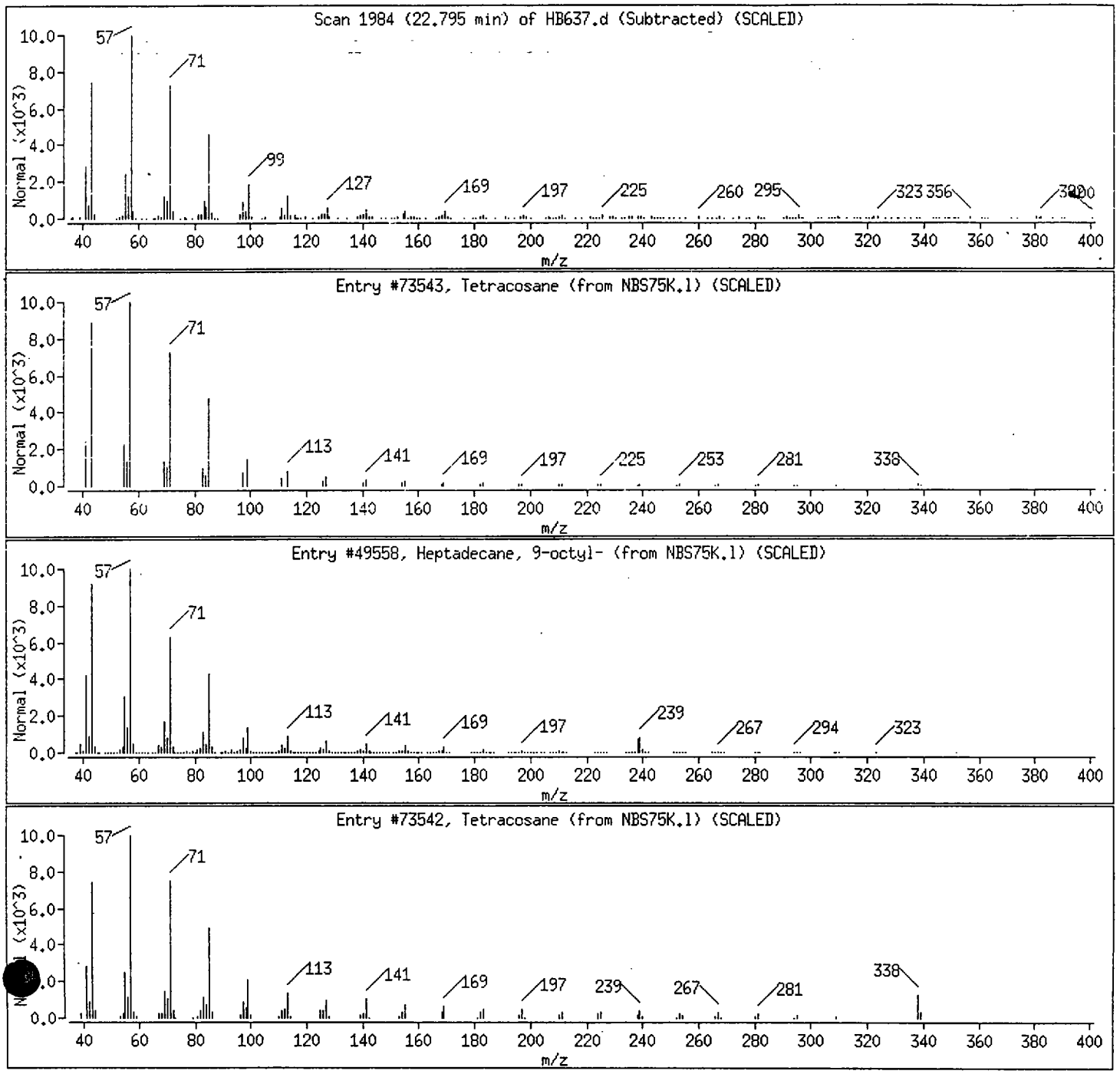
Client ID: D96-9653-2 Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: VDLITTLE

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Tetracosane	646-31-1	NBS75K.l	73543	95	C24H50	338
Heptadecane, 9-octyl-	7225-64-1	NBS75K.l	49558	93	C25H52	352
Tetracosane	646-31-1	NBS75K.l	73542	90	C24H50	338



Data File: /chem3/ITS8.i/090796.b/HB637.d

Date : 08-SEP-1996 03:07

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: IL_8270_S;;AB848-83;1

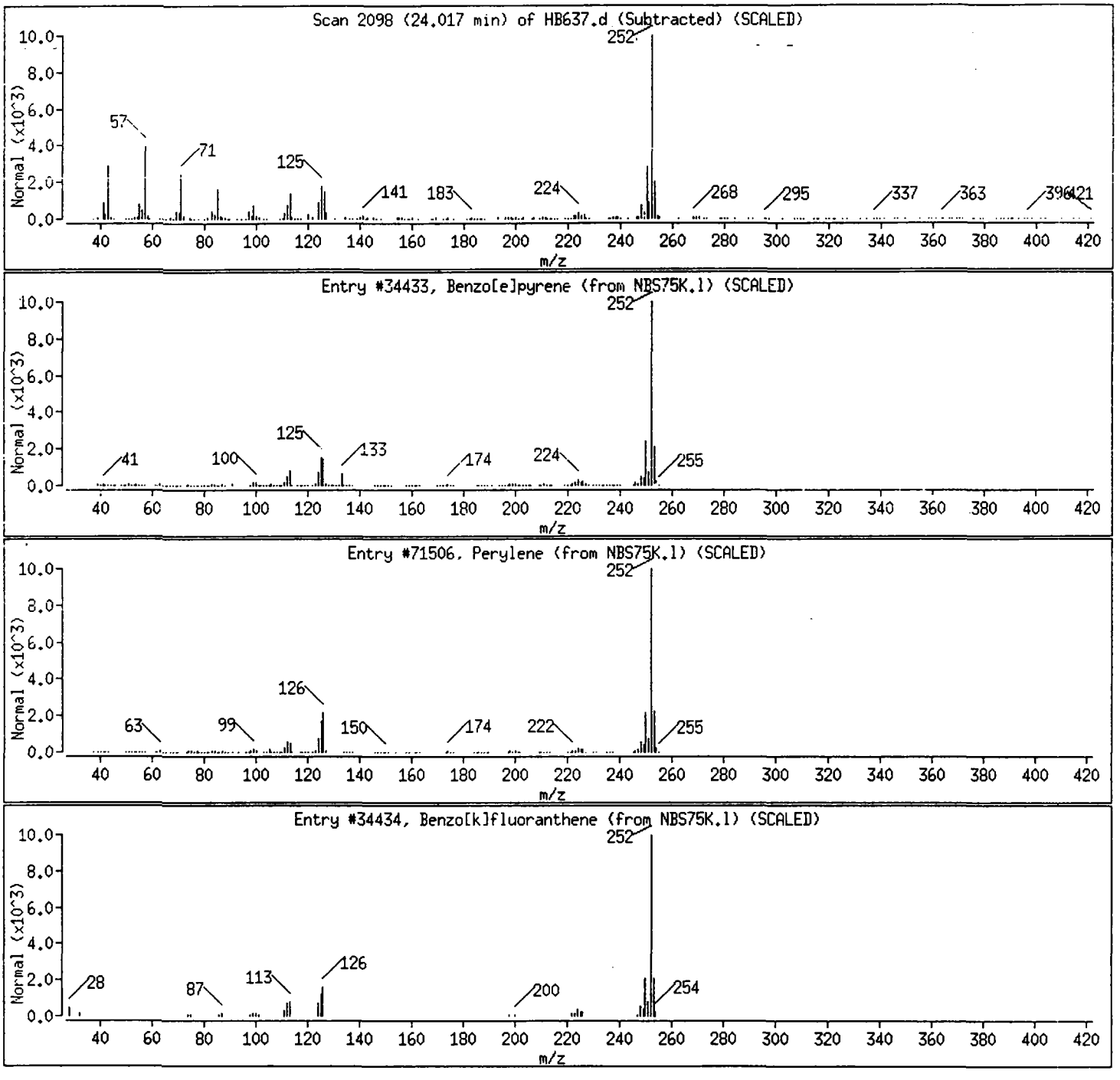
Volume Injected (uL): 1.0

Operator: VDLITTLE

Column phase: DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Benzo[e]pyrene	192-97-2	NBS75K.l	34433	97	C20H12	252
Perylene	198-55-0	NBS75K.l	71506	96	C20H12	252
Benzo[k]fluoranthene	207-08-9	NBS75K.l	34434	95	C20H12	252



FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS001SWMUG-105

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2DIL

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB636

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
62-75-9	N-Nitrosodimethylamine	3.30	U
62-53-3	Aniline	3.30	U
108-95-2	Phenol	3.30	U
111-44-4	Bis(2-chloroethyl)ether	3.30	U
95-57-8	2-Chlorophenol	3.30	U
541-73-1	1,3-Dichlorobenzene	3.30	U
106-46-7	1,4-Dichlorobenzene	3.30	U
100-51-6	Benzyl alcohol	6.50	U
95-50-1	1,2-Dichlorobenzene	3.30	U
95-48-7	2-Methylphenol	3.30	U
39638-32-9	Bis(2-chloroisopropyl)ether	3.30	U
106-44-5	4-Methylphenol	3.30	U
621-64-7	N-Nitrosodi-n-propylamine	3.30	U
67-72-1	Hexachloroethane	3.30	U
98-95-3	Nitrobenzene	3.30	U
78-59-1	Isophorone	3.30	U
88-75-5	2-Nitrophenol	3.30	U
105-67-9	2,4-Dimethylphenol	3.30	U
111-91-1	Bis(2-chloroethoxy)methane	3.30	U
65-85-0	Benzoic acid	8.00	U
120-83-2	2,4-Dichlorophenol	3.30	U
120-82-1	1,2,4-Trichlorobenzene	3.30	U
91-20-3	Naphthalene	0.393	J
106-47-8	4-Chloroaniline	3.30	U
87-68-3	Hexachlorobutadiene	3.30	U
59-50-7	4-Chloro-3-methylphenol	6.50	U
91-57-6	2-Methylnaphthalene	0.468	J
77-47-4	Hexachlorocyclopentadiene	3.30	U
88-06-2	2,4,6-Trichlorophenol	3.30	U
95-95-4	2,4,5-Trichlorophenol	16.5	U
91-58-7	2-Chloronaphthalene	3.30	U
88-74-4	2-Nitroaniline	16.5	U
131-11-3	Dimethylphthalate	3.30	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.
SS001SWMUG-105

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2DIL

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB636

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
208-96-8	Acenaphthylene	3.30	U
606-20-2	2,6-Dinitrotoluene	3.30	U
99-09-2	3-Nitroaniline	16.5	U
83-32-9	Acenaphthene	3.30	U
51-28-5	2,4-Dinitrophenol	3.30	U
132-64-9	Dibenzofuran	3.30	U
100-02-7	4-Nitrophenol	8.00	U
121-14-2	2,4-Dinitrotoluene	3.30	U
84-66-2	Diethylphthalate	3.30	U
86-73-7	Fluorene	3.30	U
7005-72-3	4-Chlorophenyl phenyl ether	3.30	U
100-01-6	4-Nitroaniline	16.5	U
534-52-1	4,6-Dinitro-2-methylphenol	16.5	U
86-30-6	N-Nitrosodiphenylamine (1)	3.30	U
103-33-3	1,2-Diphenylhydrazine	3.30	U
101-55-3	4-Bromophenyl phenyl ether	3.30	U
118-74-1	Hexachlorobenzene	3.30	U
87-86-5	Pentachlorophenol	16.5	U
92875	Benzidine	16.7	U
85-01-8	Phenanthrene	0.562	J
120-12-7	Anthracene	3.30	U
86-74-8	Carbazole	3.30	U
84-74-2	Di-n-butylphthalate	3.30	U
206-44-0	Fluoranthene	0.669	J
129-00-0	Pyrene	0.683	J
85-68-7	Butyl benzyl phthalate	3.30	U
56-55-3	Benzo(a)anthracene	0.563	J
91-94-1	3,3'-Dichlorobenzidine	13.0	U
218-01-9	Chrysene	0.750	J
117-81-7	Bis(2-ethylhexyl)phthalate	3.30	U
117-84-0	Di-n-octylphthalate	3.30	U
205-99-2	Benzo(b)fluoranthene	0.864	J
207-08-9	Benzo(k)fluoranthene	0.402	J

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

SS001SWMUG-105

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2DIL

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB636

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 10.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
50-32-8	Benzo(a)pyrene	0.571	J
193-39-5	Indeno(1,2,3-cd)pyrene	0.462	J
53-70-3	Dibenz(a,h)anthracene	3.30	U
191-24-2	Benzo(g,h,i)perylene	0.476	J

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

SS001SWMUG-105

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2DIL

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB636

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

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

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 10.0

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

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	111-01-3	SQUALANE	13.54	1.54	NJ
2.					
3.					
4.					
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Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/090796.b/HB636.d
Lab Smp Id: D96-9653-2 Client Smp ID: D96-9653-2
Inj Date : 08-SEP-1996 02:30
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : 30/10 EX 09-03-96
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll Quant Type: ISTD
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1
Dil Factor: 10.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/Kg)
$	3 2-Fluorophenol (SS)	112.00	3.517	3.509	(0.650)	5484	2.99	0.996(a)
$	4 Phenol-d6 (SS)	99.00	4.922	4.893	(0.910)	8571	3.88	1.29(a)
*	10 1,4-Dichlorobenzene-d4	152.00	5.412	5.415	(1.000)	56368	40.0	
$	19 Nitrobenzene-d5 (SS)	82.00	6.442	6.407	(0.838)	5852	2.83	0.944(aQM)
*	29 Naphthalene-d8	136.00	7.691	7.701	(1.000)	215862	40.0	
	30 Naphthalene	128.00	7.733	7.743	(1.005)	5923	1.18	0.393(a)
	34 2-Methylnaphthalene	142.00	9.118	9.110	(1.186)	4921	1.40	0.468(a)
$	38 2-Fluorobiphenyl (SS)	172.00	9.889	9.884	(0.885)	15704	3.27	1.09(a)
*	45 Acenaphthene-d10	164.00	11.172	11.179	(1.000)	137443	40.0	
$	58 2,4,6-Tribromophenol (SS)	330.00	12.893	12.873	(1.154)	1187	1.72	0.575(aQRM)
*	62 Phenanthrene-d10	188.00	14.843	14.857	(1.000)	236284	40.0	
	63 Phenanthrene	178.00	14.906	14.931	(1.004)	10134	1.69	0.562(a)
	67 Fluoranthene	202.00	18.112	18.120	(1.220)	12920	2.01	0.669(a)
	69 Pyrene	202.00	18.635	18.653	(0.870)	13105	2.05	0.683(a)
$	70 Terphenyl-d14 (SS)	244.00	19.158	19.175	(0.895)	15999	3.56	1.19(a)
	73 Benzo(a)anthracene	228.00	21.391	21.407	(0.999)	9093	1.69	0.563(a)
*	74 Chrysene-d12	240.00	21.413	21.429	(1.000)	167665	40.0	
	75 Chrysene	228.00	21.465	21.482	(1.002)	12008	2.25	0.750(a)
	78 Benzo(b)fluoranthene	252.00	23.538	23.544	(0.972)	11471	2.59	0.864(a)
	79 Benzo(k)fluoranthene	252.00	23.591	23.596	(0.974)	5965	1.21	0.402(a)
	80 Benzo(a)pyrene	252.00	24.107	24.120	(0.996)	6998	1.71	0.571(a)
*	81 Perylene-d12	264.00	24.213	24.226	(1.000)	153013	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	26.079	26.080	(1.077)	6122	1.39	0.462(a)
	84 Benzo(g,h,i)perylene	276.00	26.511	26.522	(1.095)	5163	1.43	0.476(a)

QC Flag Legend

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

QC Flag Legend

Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem3/ITS8.i/090796.b/HB636.d
Lab Smp Id: D96-9653-2 Client Smp ID: D96-9653-2
Inj Date : 08-SEP-1996 02:30
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : 30/10 EX 09-03-96
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1
Dil Factor: 10.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD	RT	AREA	AMOUNT
* 62 Phenanthrene-d10	14.843	557946	40.000

		CONCENTRATIONS			QUANT		
RT	AREA	ON-COL(ng)	FINAL(mg/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Squalane				CAS #: 111-01-3			
13.540	64534	4.63	1.54	91	NBS75K.l	74379	62

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: ITS8.i
Lab File ID: HB636.d
Lab Smp Id: D96-9653-2
Analysis Type: SV
Quant Type: ISTD
Operator: VDLITTLE
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/10 EX 09-03-96

Calibration Date: 09/07/96
Calibration Time: 1834
Client Smp ID: D96-9653-2
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	88252	44126	176504	56368	-36.13
29 Naphthalene-d8	339046	169523	678092	215862	-36.33
45 Acenaphthene-d10	191883	95942	383766	137443	-28.37
62 Phenanthrene-d10	349685	174842	699370	236284	-32.43
74 Chrysene-d12	255574	127787	511148	167665	-34.40
81 Perylene-d12	273737	136868	547474	153013	-44.10

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	5.41	4.91	5.91	5.41	-0.06
29 Naphthalene-d8	7.70	7.20	8.20	7.69	-0.13
45 Acenaphthene-d10	11.18	10.68	11.68	11.17	-0.06
62 Phenanthrene-d10	14.86	14.36	15.36	14.84	-0.10
74 Chrysene-d12	21.43	20.93	21.93	21.41	-0.08
81 Perylene-d12	24.23	23.73	24.73	24.21	-0.05

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

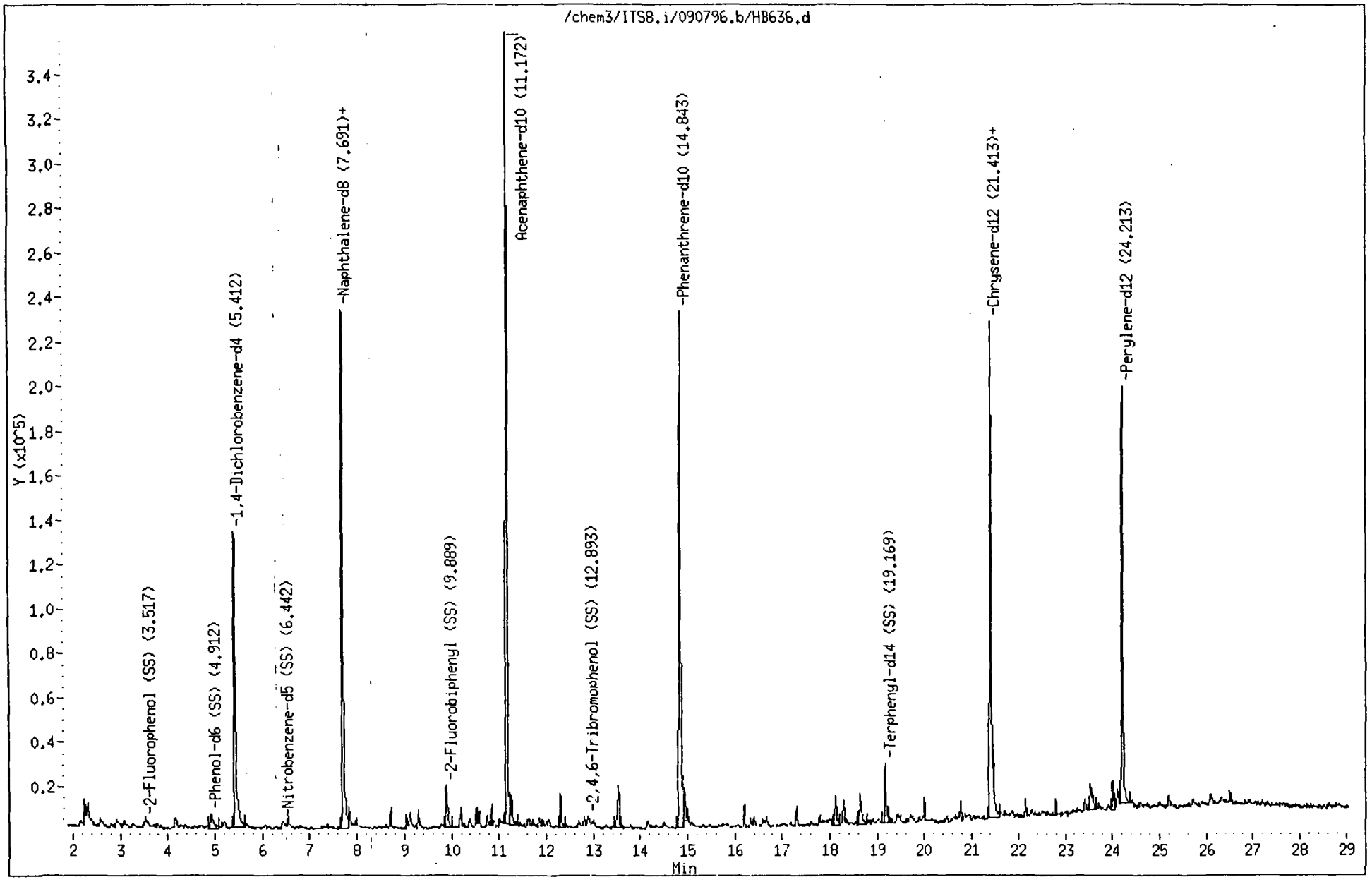
Client Name:
Client SDG: 090896
Sample Matrix: SOLID
Fraction: SV
Lab Smp Id: D96-9653-2
Client Smp ID: D96-9653-2
Level: LOW
Operator: VDLITTLE
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: 8270_100.spk
Quant Type: ISTD
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/10 EX 09-03-96

SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
$ 3 2-Fluorophenol (SS	3.33	0.996	29.88	25-121
$ 4 Phenol-d6 (SS)	3.33	1.29	38.79	24-113
$ 19 Nitrobenzene-d5 (S	1.67	0.944	56.63	23-120
$ 38 2-Fluorobiphenyl (	1.67	1.09	65.48	30-115
$ 58 2,4,6-Tribromophen	3.33	0.575	17.24*	19-122
$ 70 Terphenyl-d14 (SS)	1.67	1.19	71.28	18-137

Data File: /chem3/ITS8.i/090796.b/HB636.d
Date : 08-SEP-1996 02:30
Client ID: D96-9653-2
Sample Info: 8270_ABN_S;;AB848-83;1
Volume Injected (uL): 1.0
Column phase: DB-5

Instrument: ITS8.i

Operator: VDLITTLE
Column diameter: 0.25



Data File: /chem3/ITS8.i/090796.b/HB636.d

Date : 08-SEP-1996 02:30

[redacted]ient ID: D96-9653-2

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

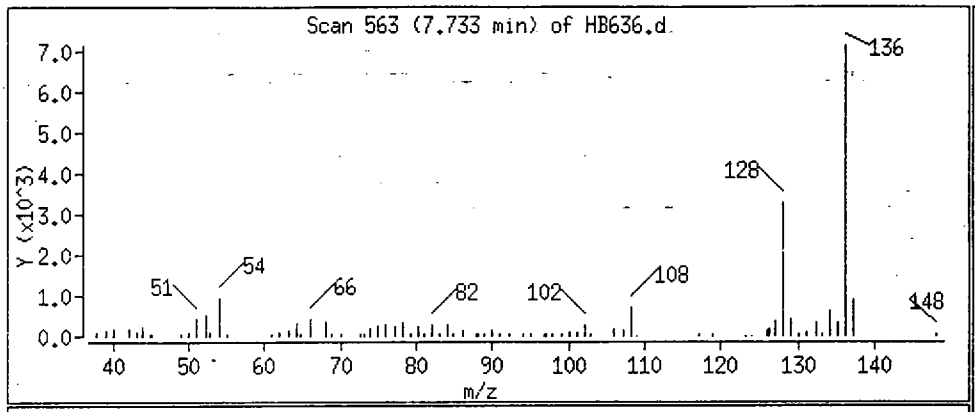
Volume Injected (uL): 1.0

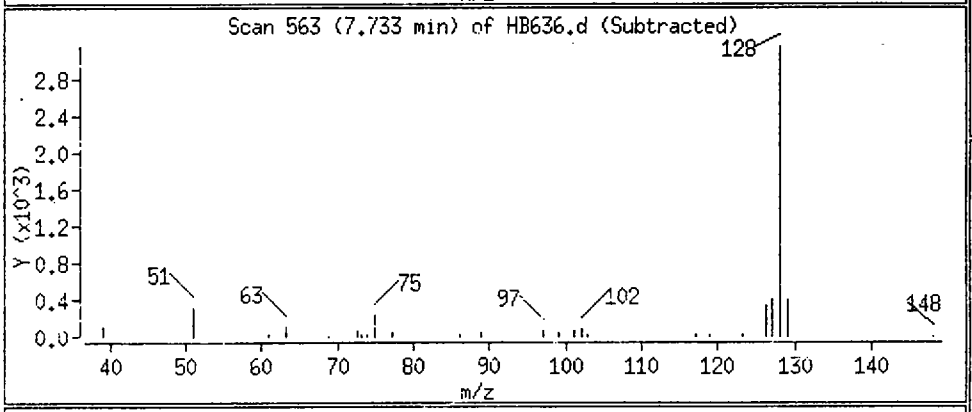
Operator: VDLITTLE

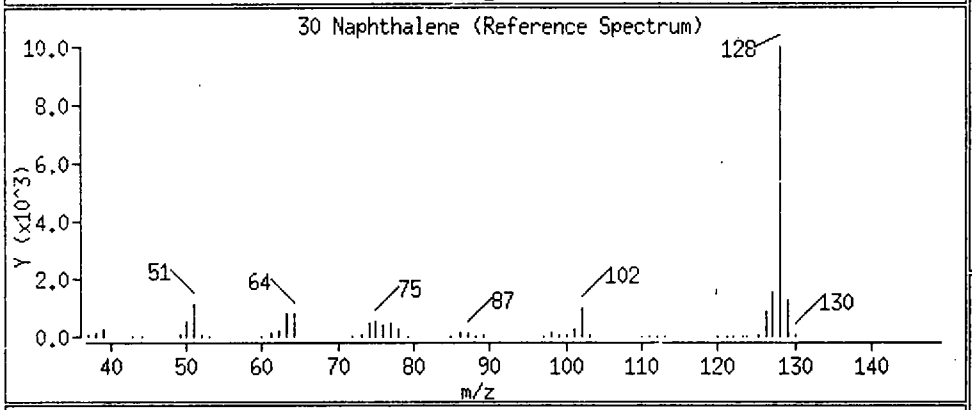
Column phase: DB-5

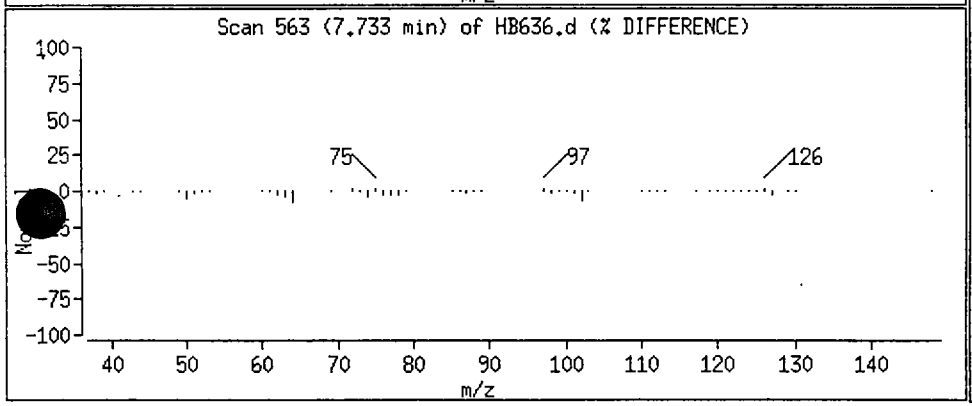
Column diameter: 0.25

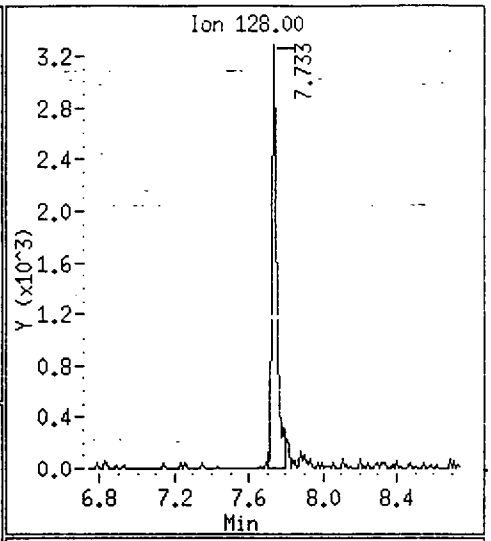
30 Naphthalene

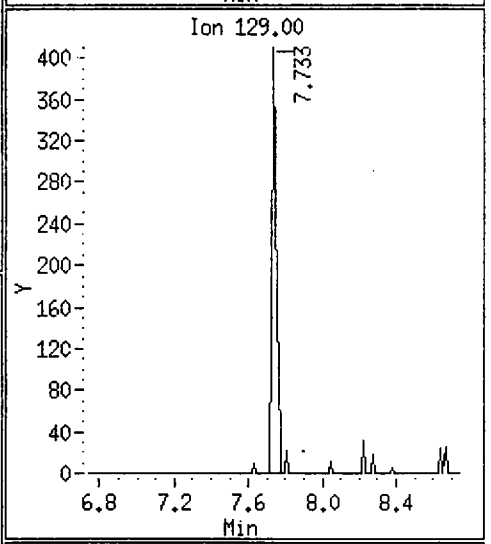


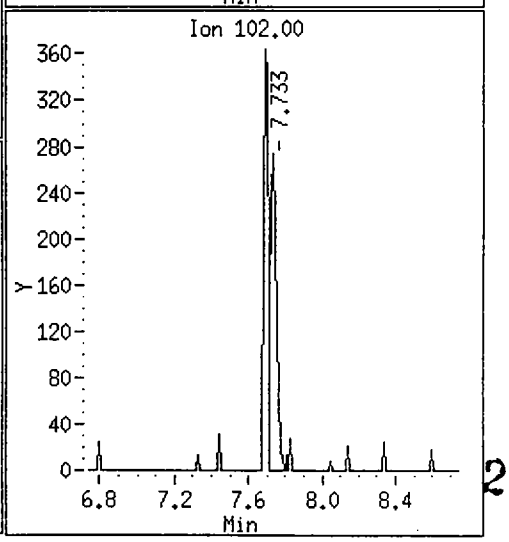












Data File: /chem3/ITS8.i/090796.b/HB636.d

Date : 08-SEP-1996 02:30

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

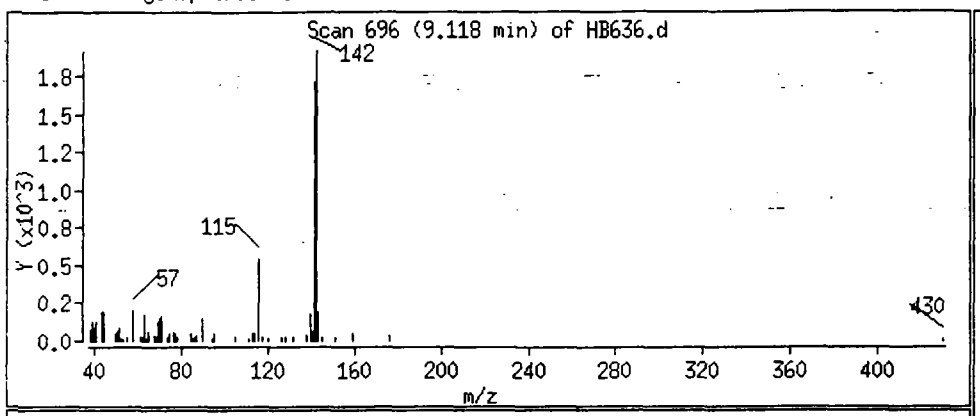
Volume Injected (uL): 1.0

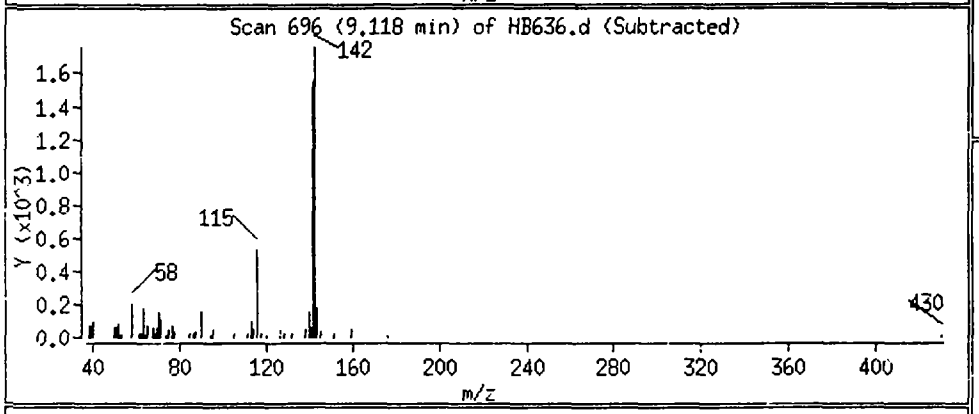
Operator: VDLITTLE

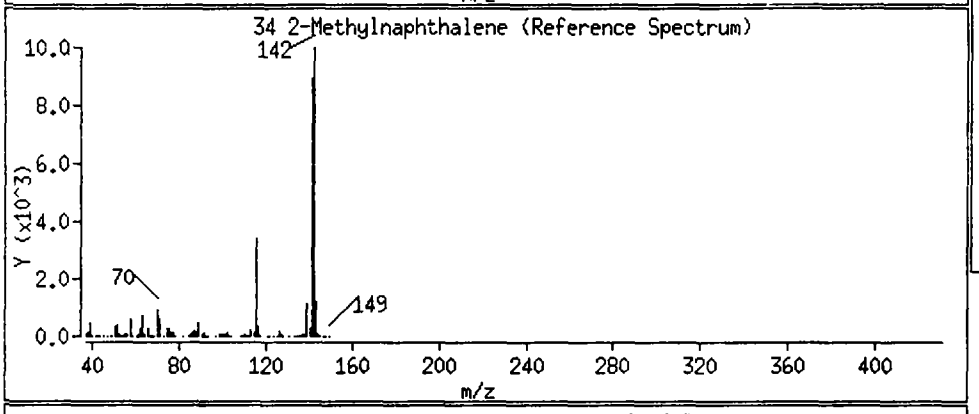
Column phase: DB-5

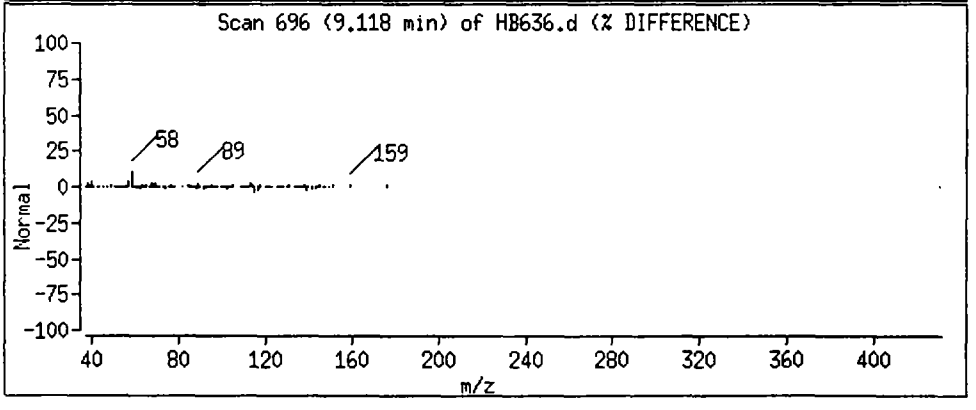
Column diameter: 0.25

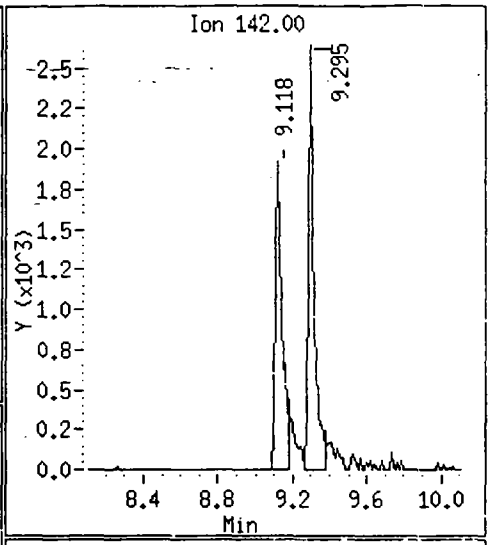
34 2-Methylnaphthalene

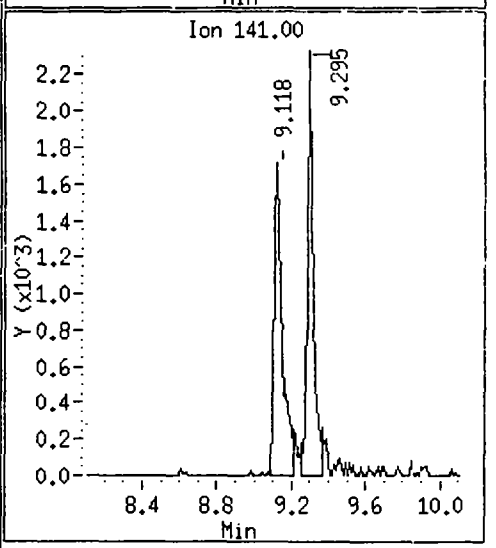












Data File: /chem3/ITS8.i/090796.b/HB636.d

Date : 08-SEP-1996 02:30

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

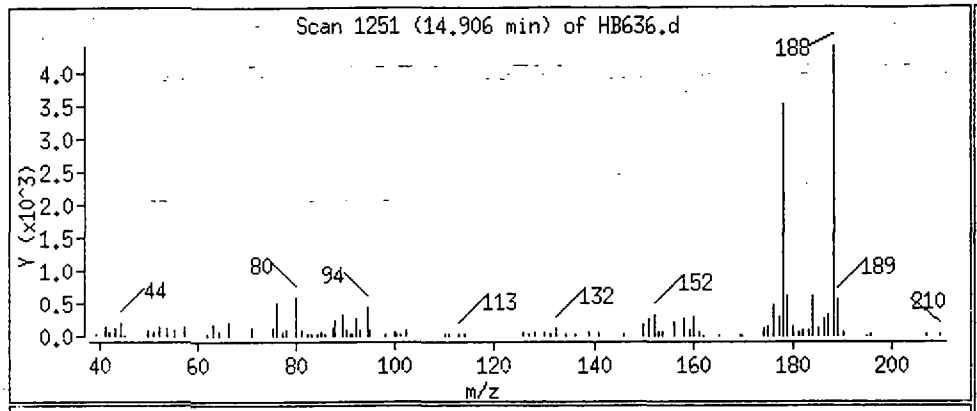
Volume Injected (uL): 1.0

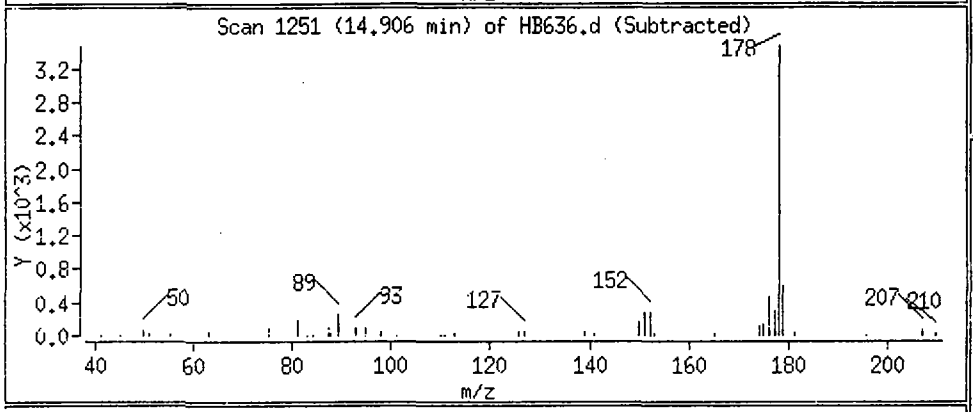
Operator: VDLITTLE

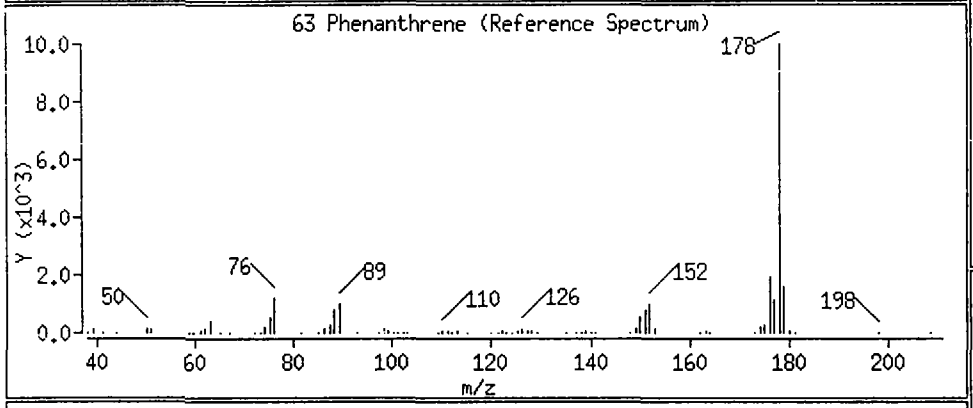
Column phase: DB-5

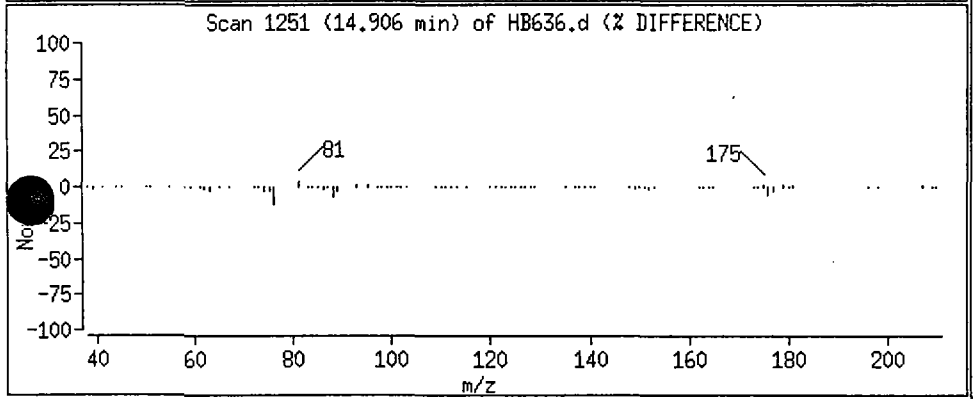
Column diameter: 0.25

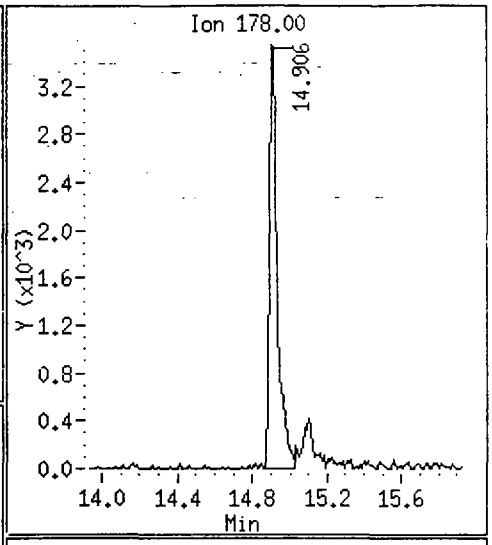
63 Phenanthrene

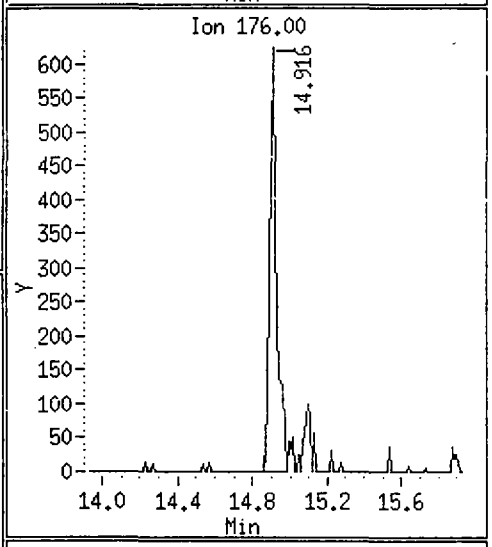


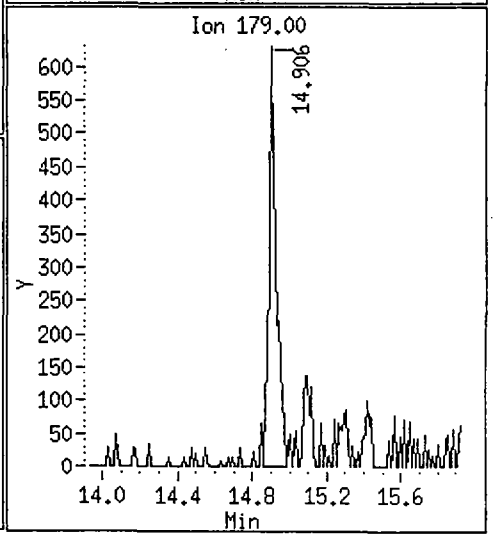












Data File: /chem3/ITS8.i/090796.b/HB636.d

Date : 08-SEP-1996 02:30

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

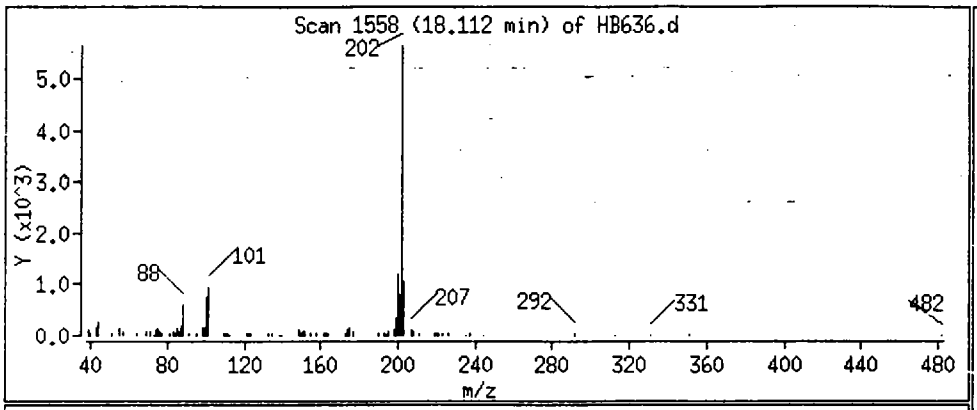
Volume Injected (uL): 1.0

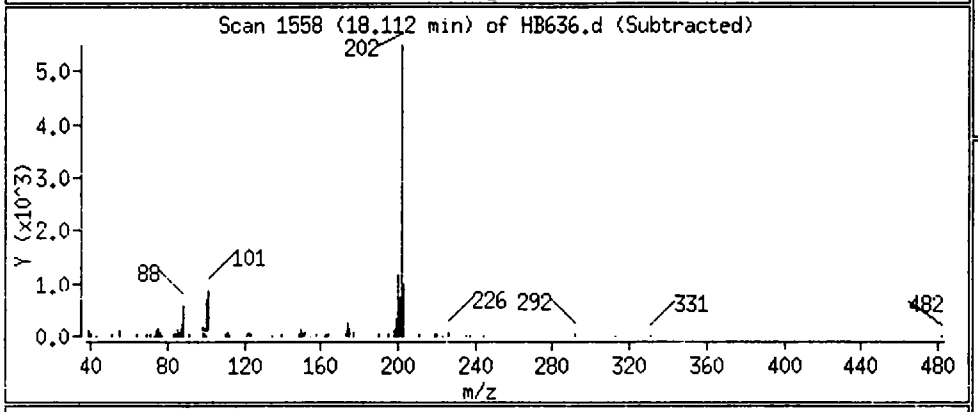
Operator: VDLITTLE

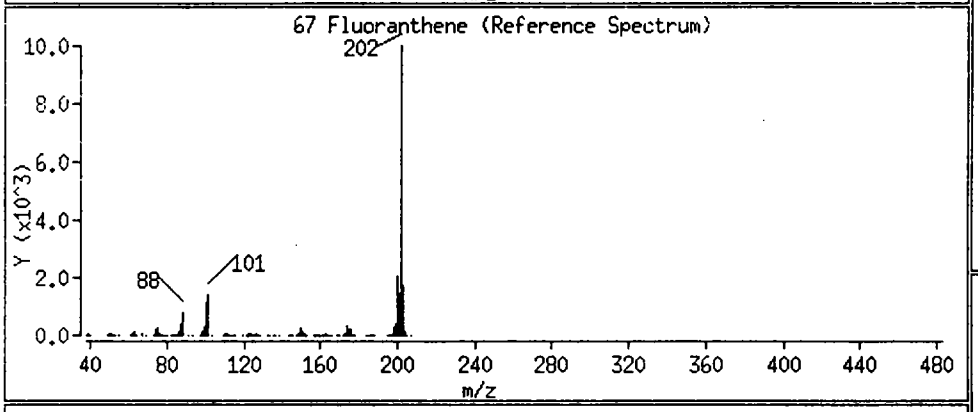
Column phase: DB-5

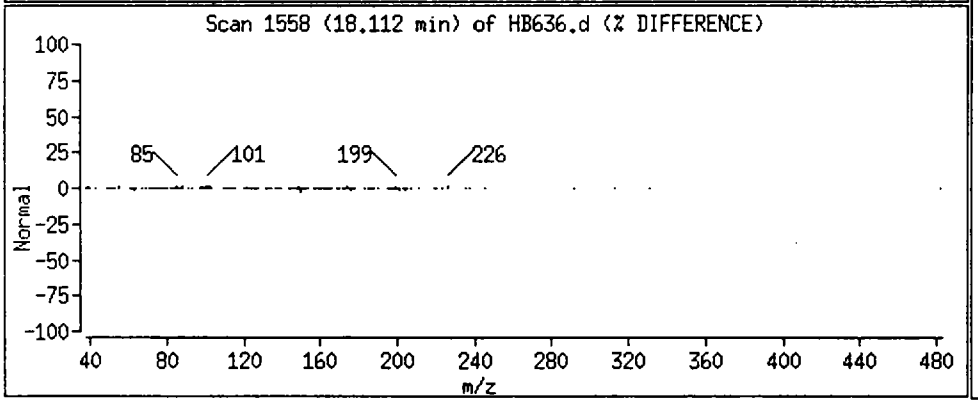
Column diameter: 0.25

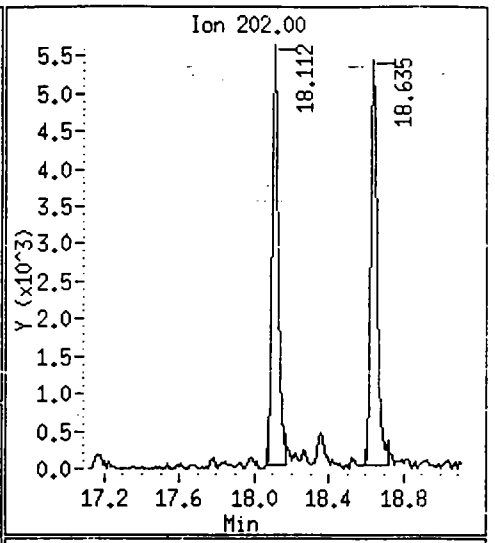
67 Fluoranthene

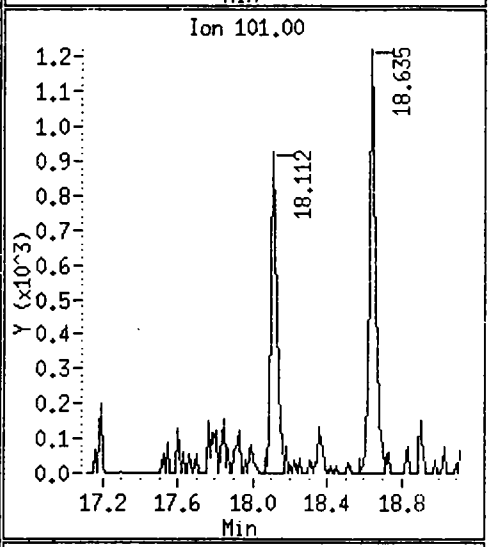


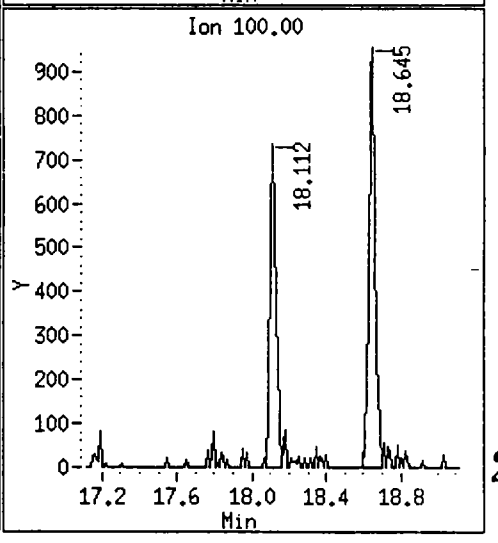












Data File: /chem3/ITS8.i/090796.b/HB636.d

Date : 08-SEP-1996 02:30

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

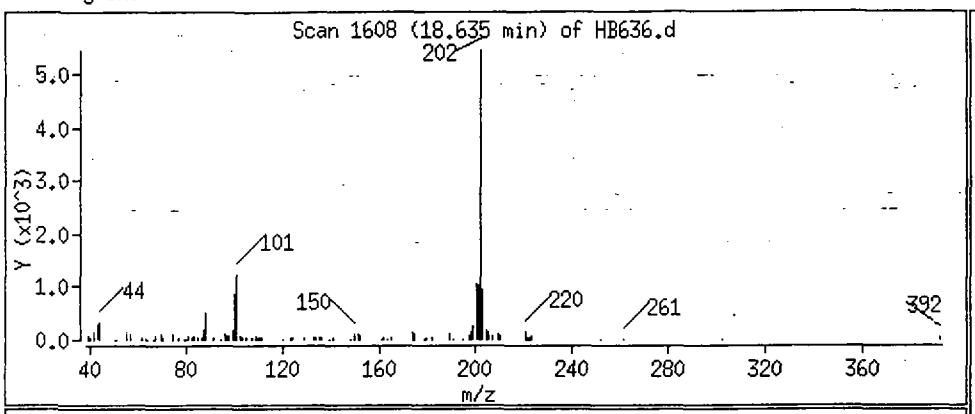
Volume Injected (uL): 1.0

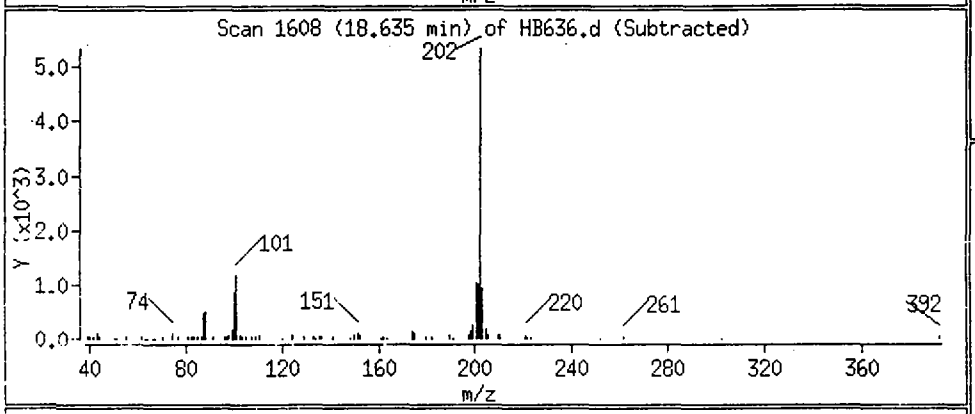
Operator: VDLITTLE

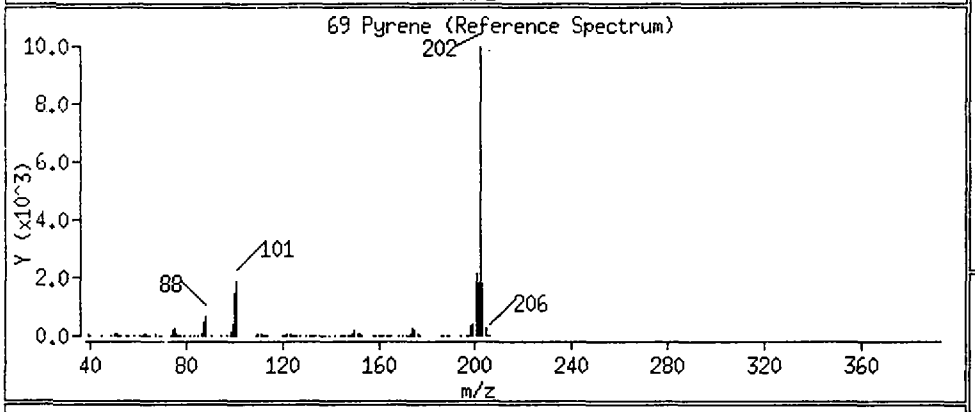
Column phase: DB-5

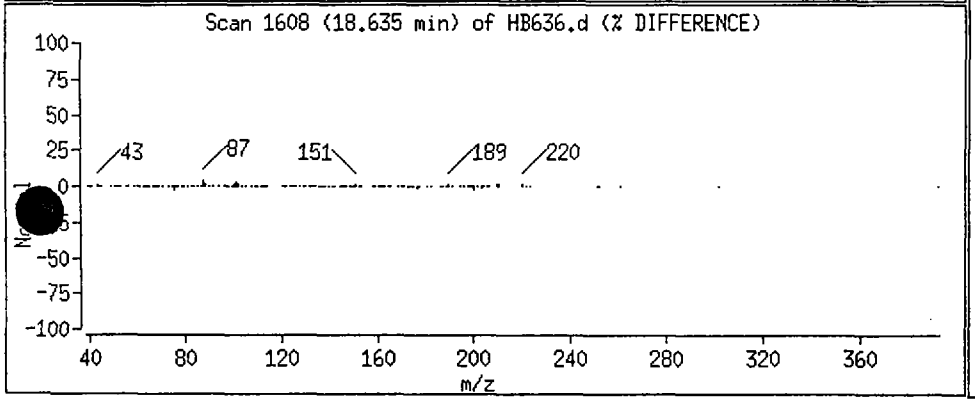
Column diameter: 0.25

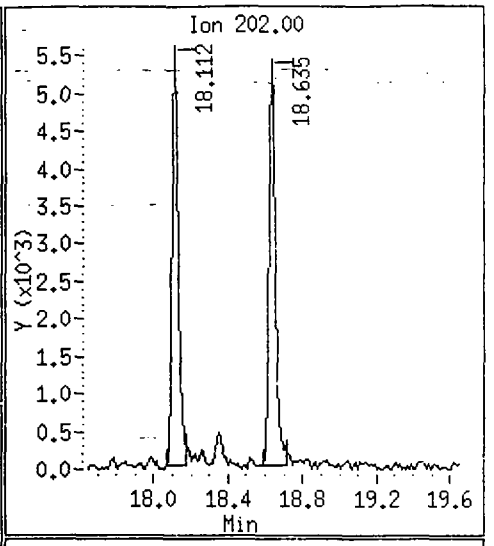
69 Pyrene

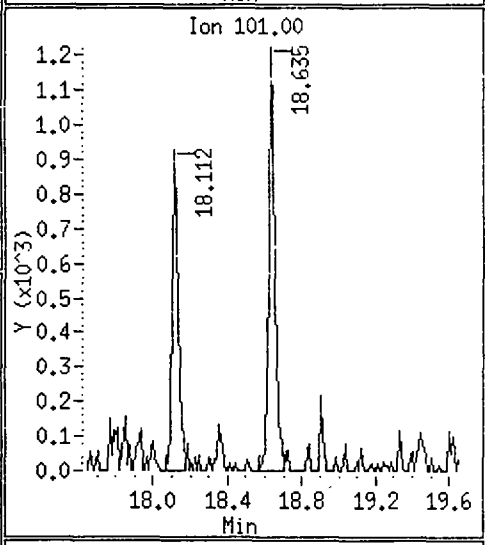


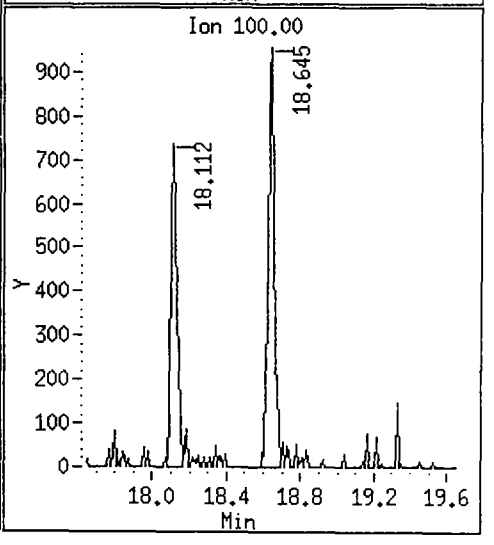












Data File: /chem3/ITS8.i/090796.b/HB636.d

Date : 08-SEP-1996 02:30

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

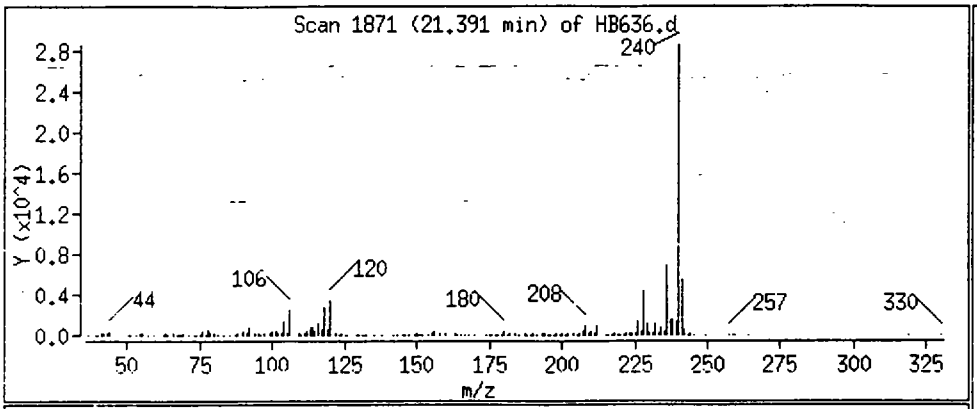
Volume Injected (uL): 1.0

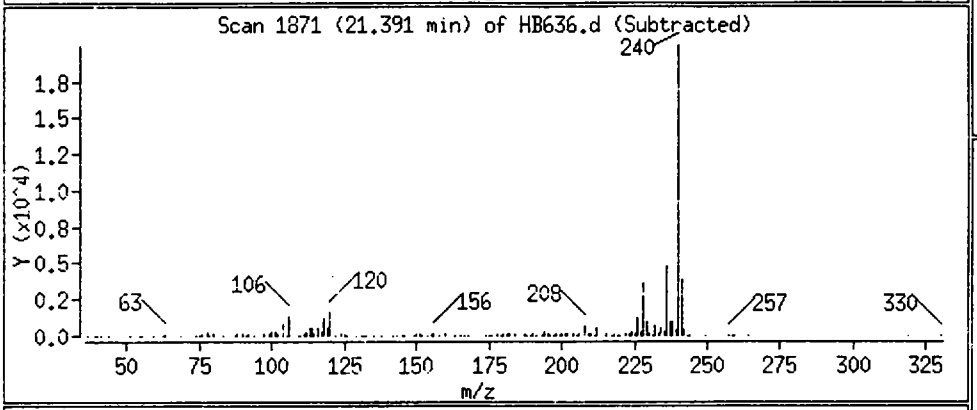
Operator: VDLITTLE

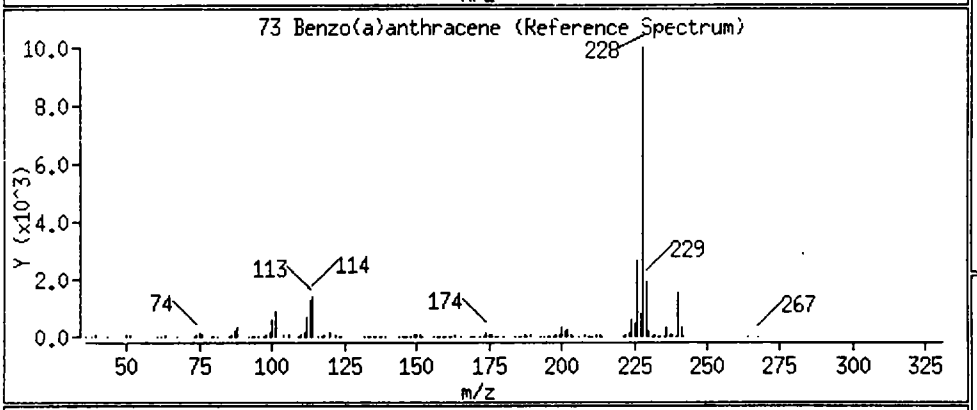
Column phase: DB-5

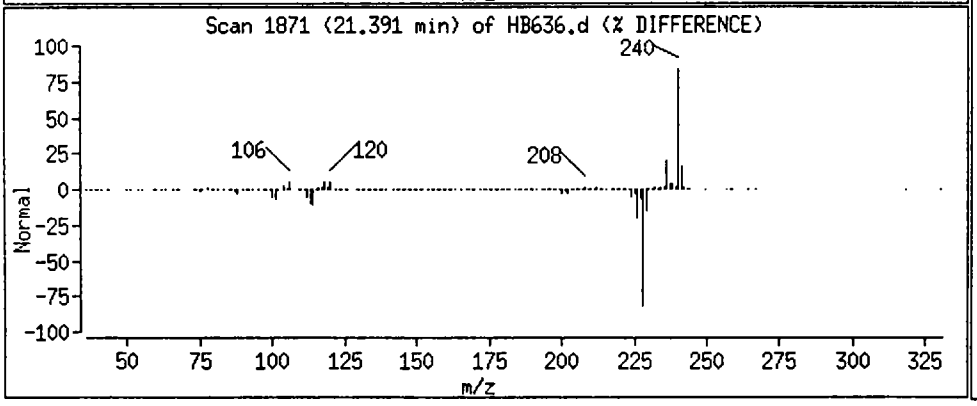
Column diameter: 0.25

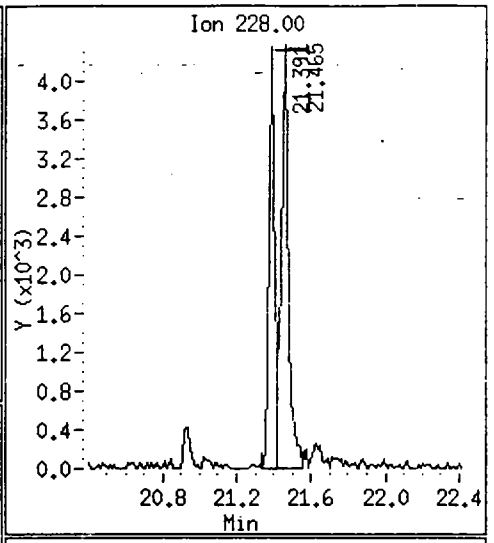
73 Benzo(a)anthracene

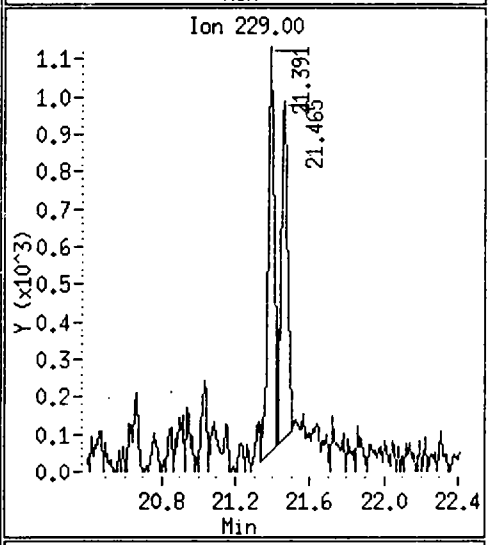


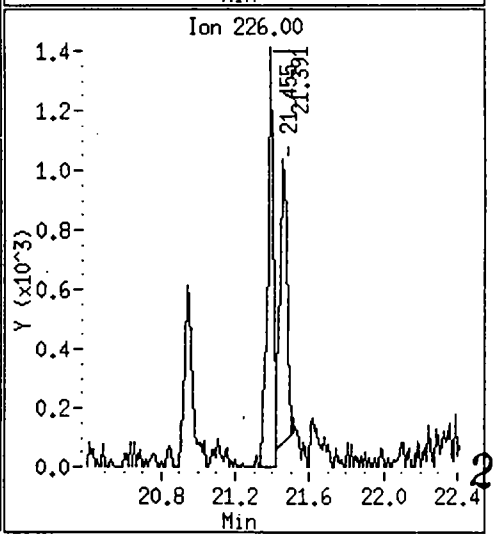












Data File: /chem3/ITS8.i/090796.b/HB636.d

Date : 08-SEP-1996 02:30

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

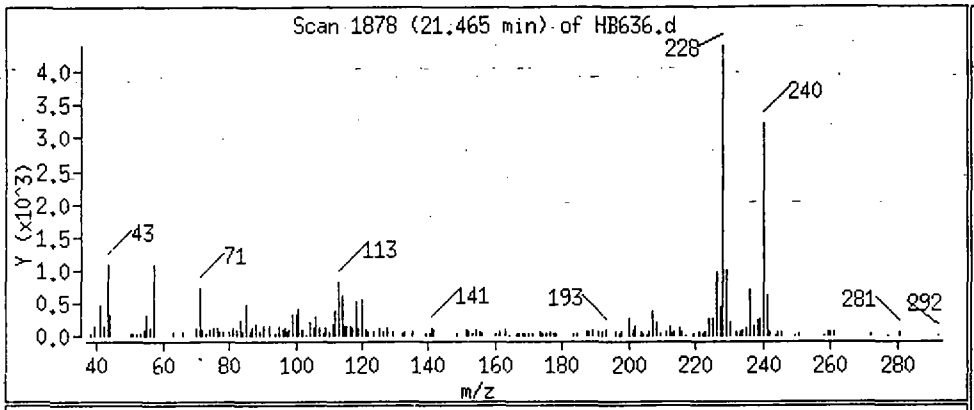
Volume Injected (uL): 1.0

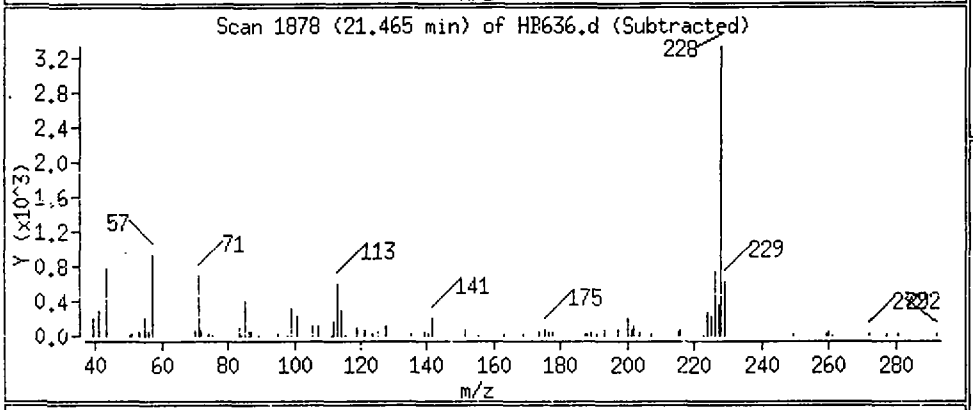
Operator: VDLITTLE

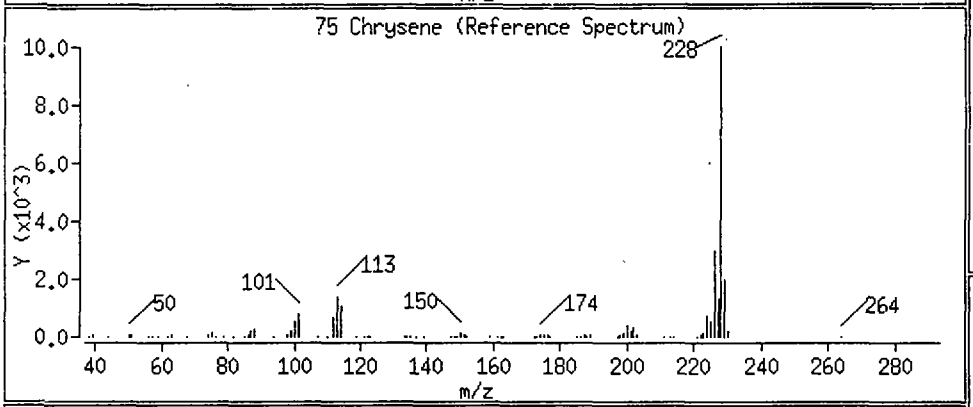
Column phase: DB-5

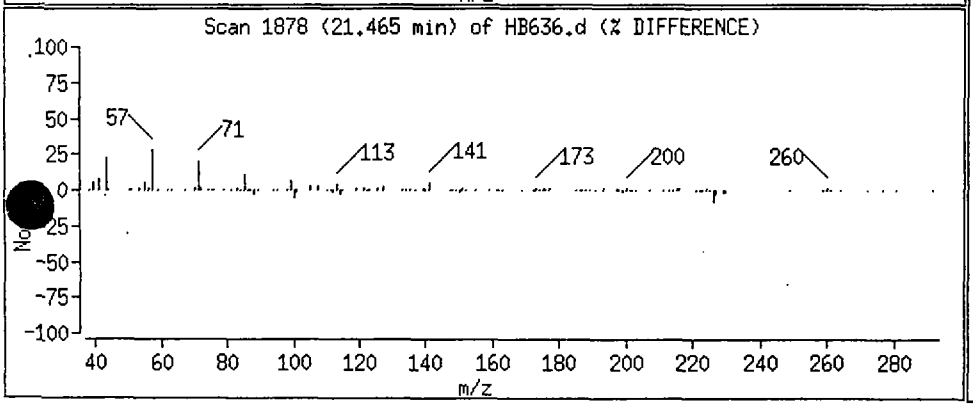
Column diameter: 0.25

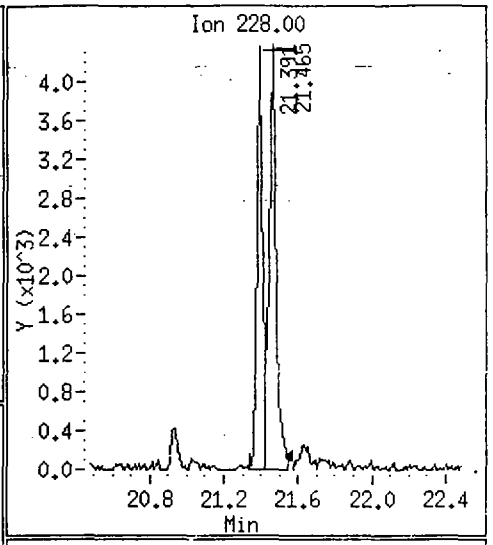
75 Chrysene

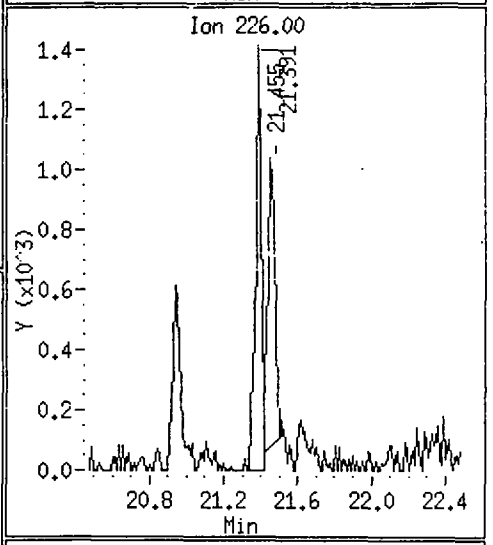


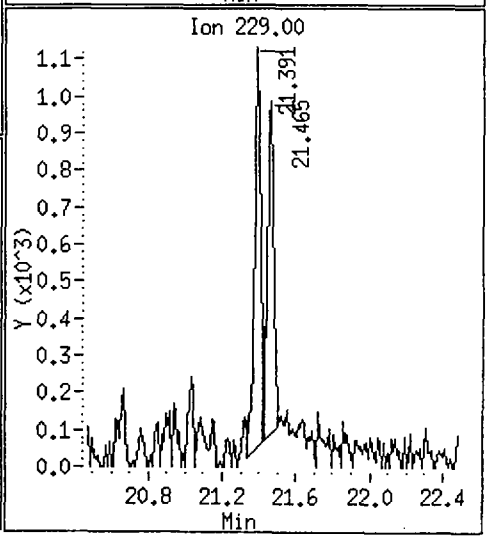












Data File: /chem3/ITS8.i/090796.b/HB636.d

Date : 08-SEP-1996 02:30

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

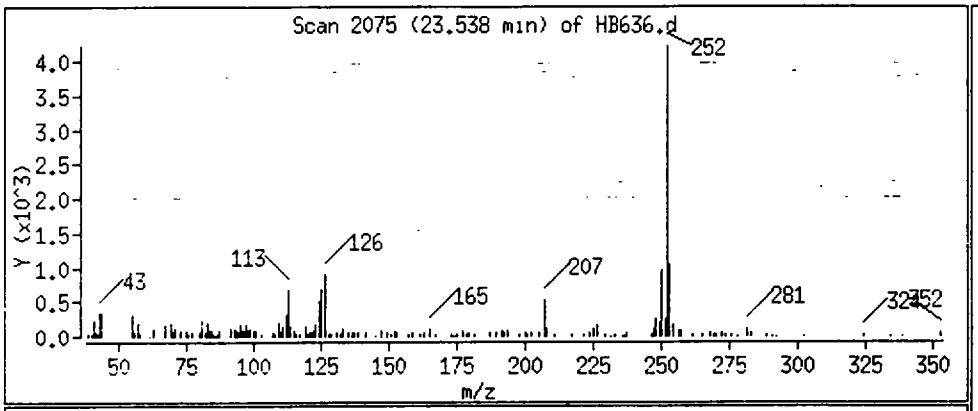
Volume Injected (uL): 1.0

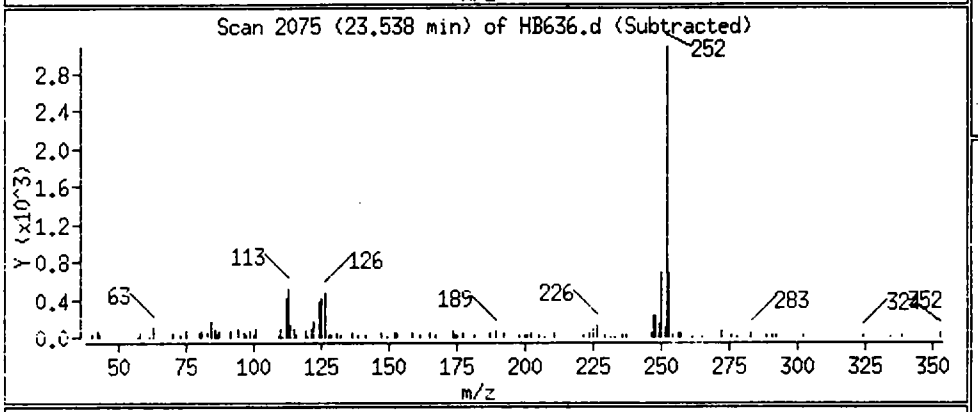
Operator: VDLITTLE

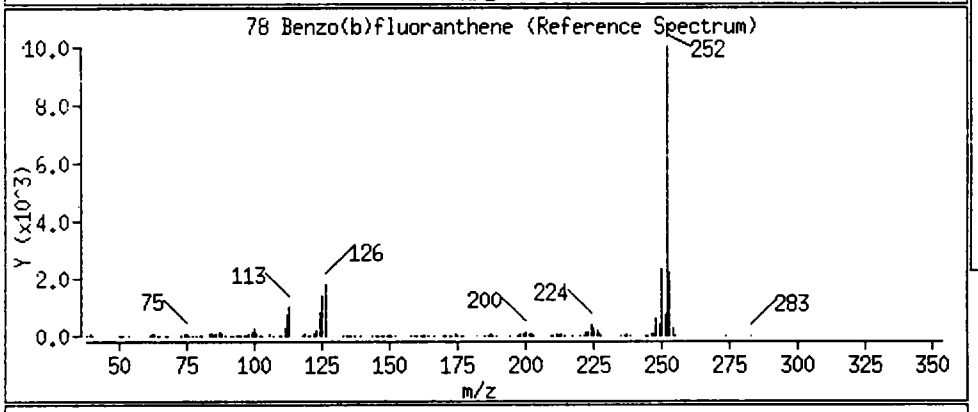
Column phase: DB-5

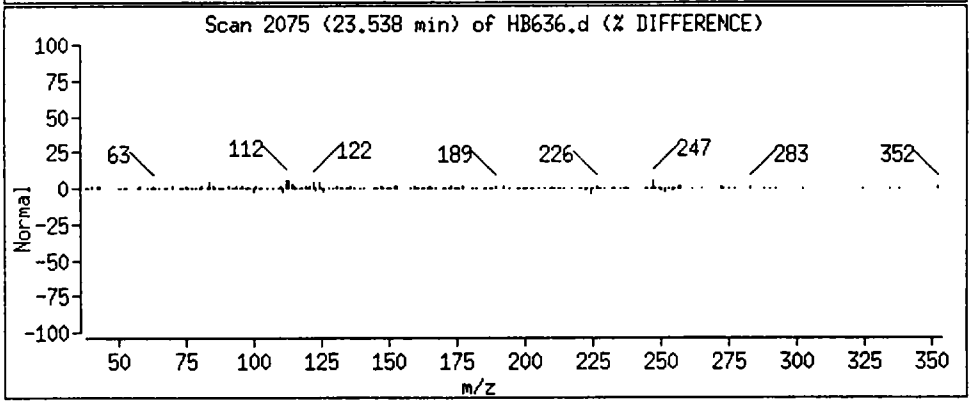
Column diameter: 0.25

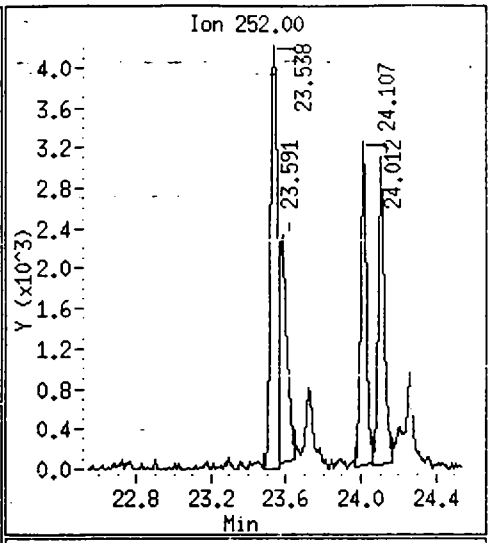
78 Benzo(b)fluoranthene

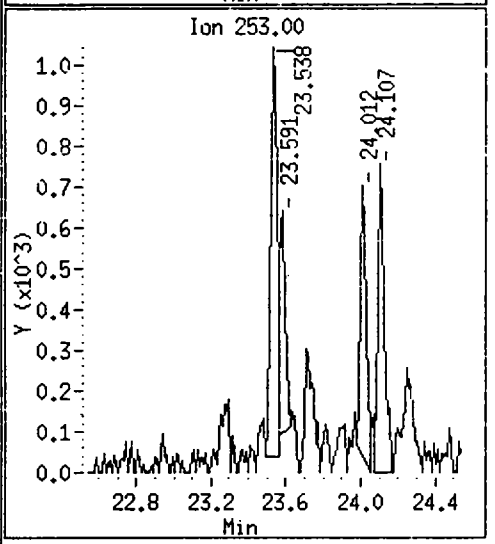












Data File: /chem3/ITS8.i/090796.b/HB636.d

Date : 08-SEP-1996 02:30

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

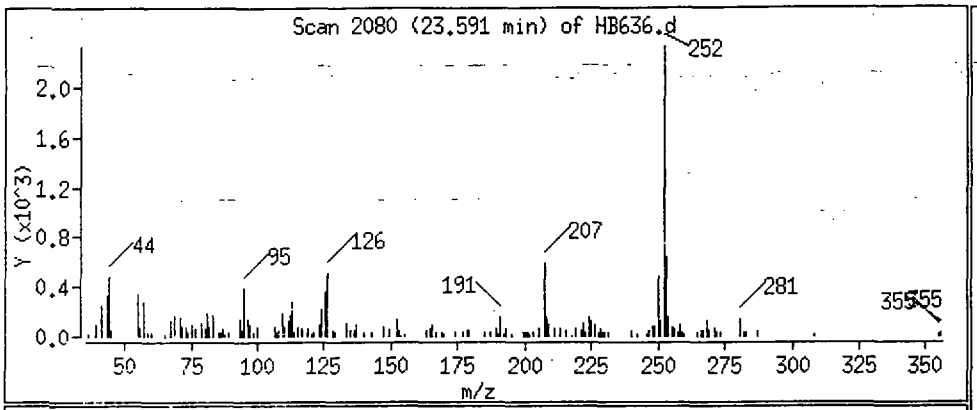
Volume Injected (uL): 1.0

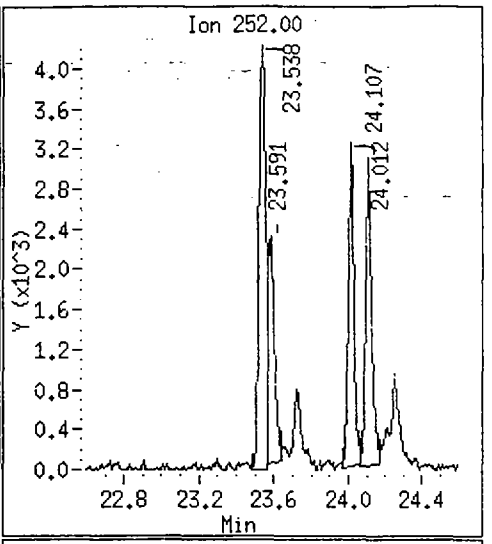
Operator: VDLITTLE

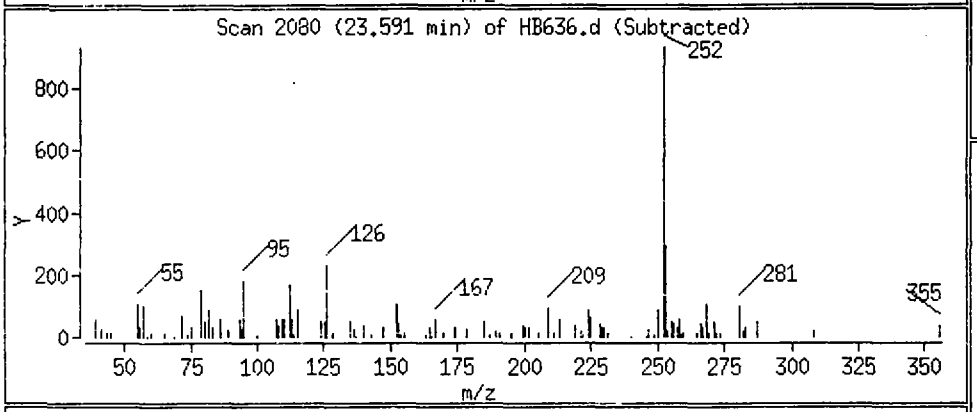
Column phase: DB-5

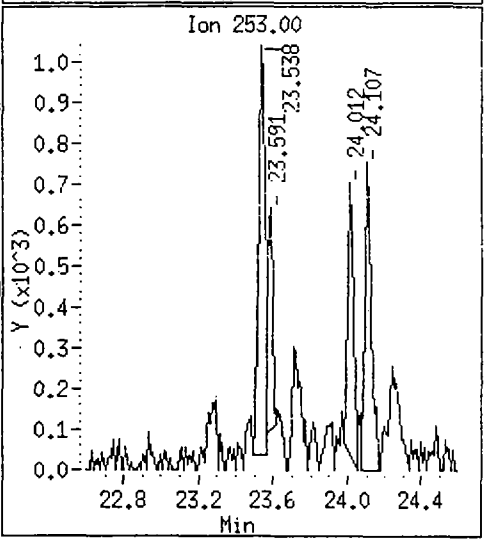
Column diameter: 0.25

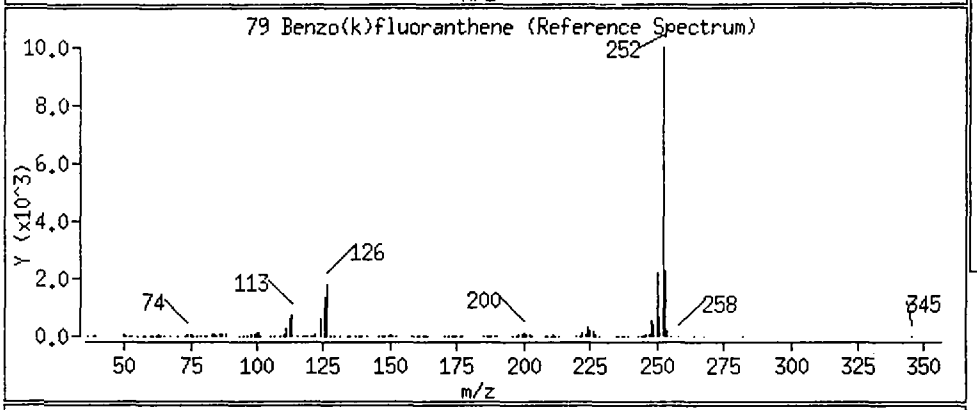
79 Benzo(k)fluoranthene

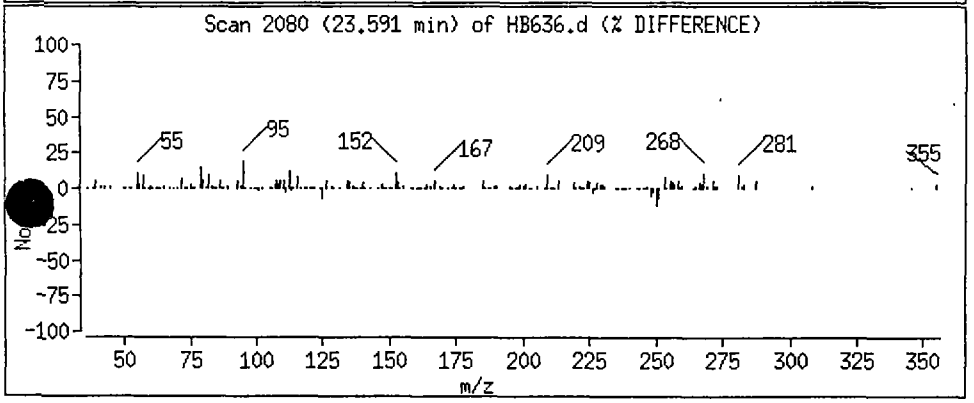












Data File: /chem3/ITS8.i/090796.b/HB636.d

Date : 08-SEP-1996 02:30

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

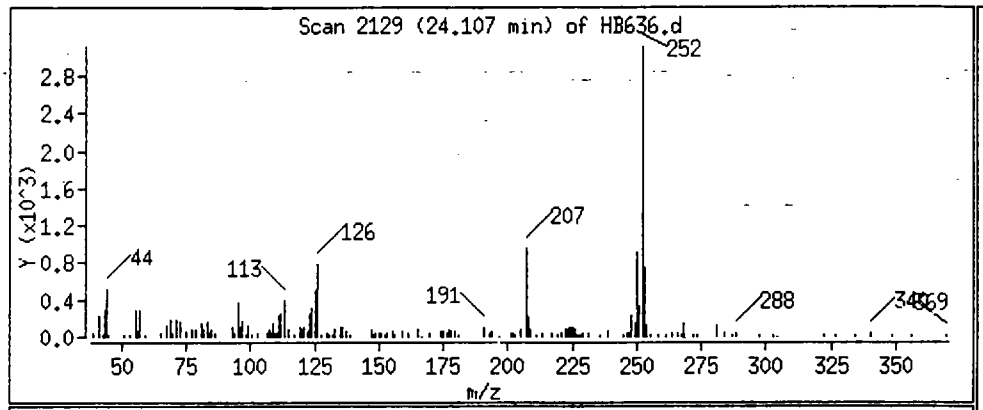
Volume Injected (uL): 1.0

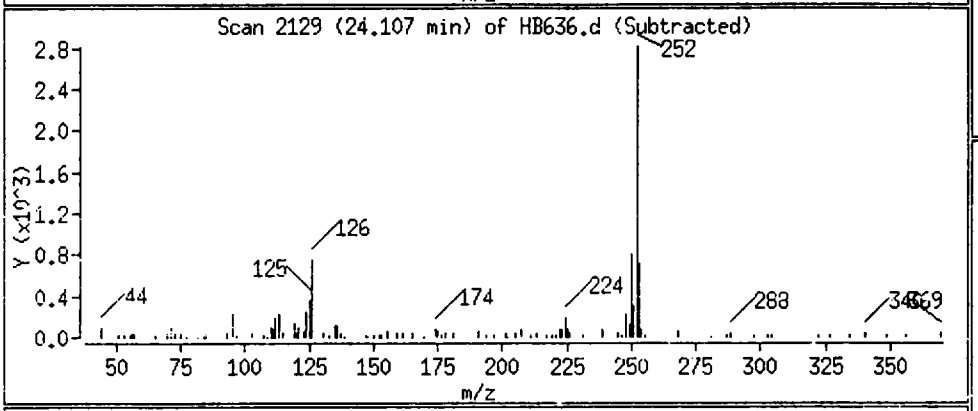
Operator: VDLITTLE

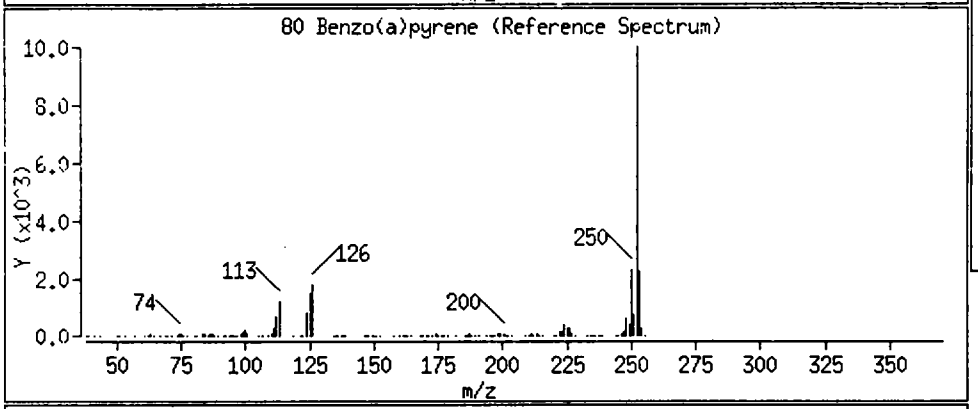
Column phase: DB-5

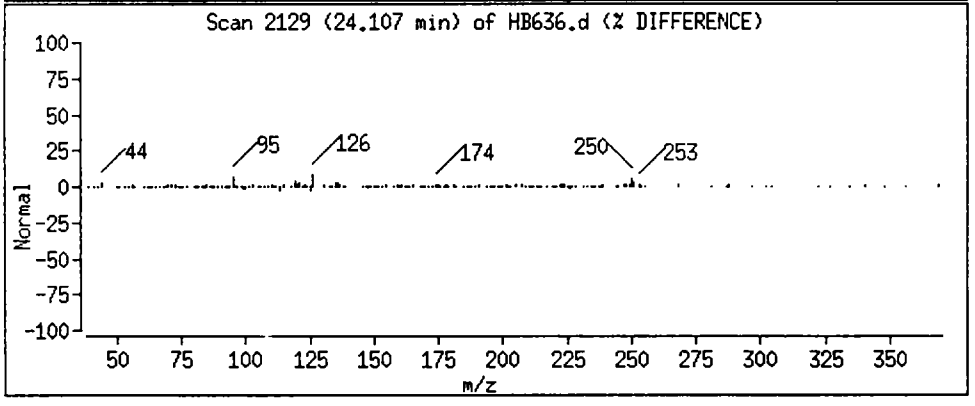
Column diameter: 0.25

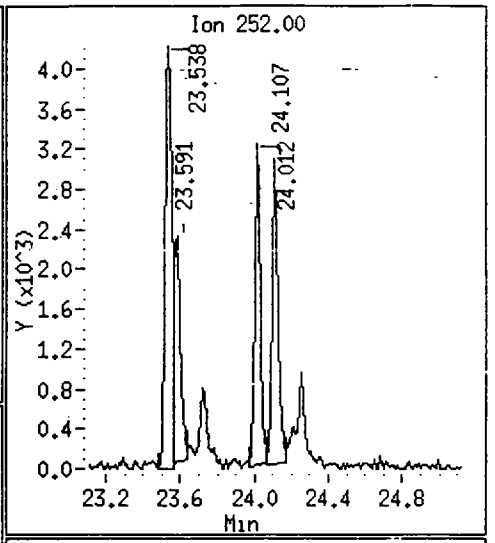
80 Benzo(a)pyrene

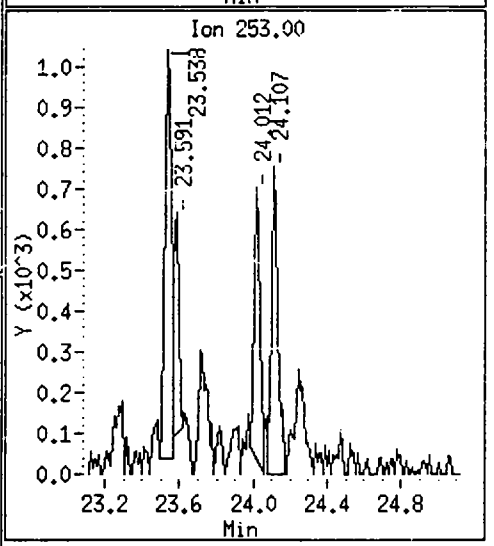












Data File: /chem3/ITS8.i/090796.b/HB636.d

Date : 08-SEP-1996 02:30

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

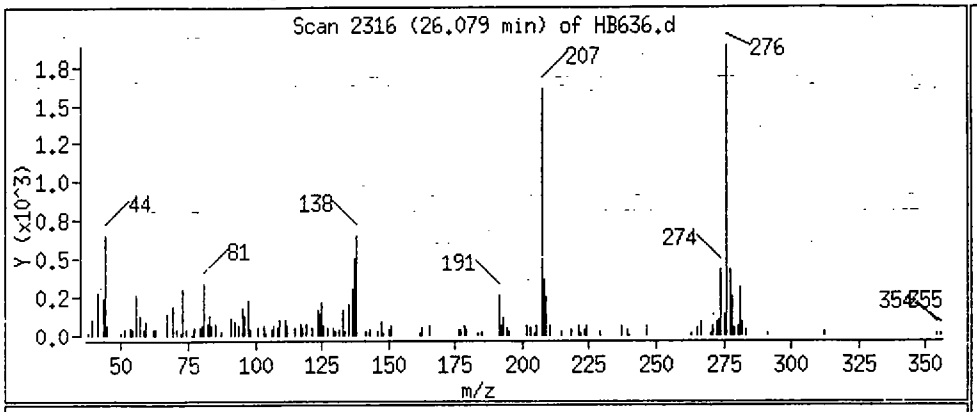
Volume Injected (uL): 1.0

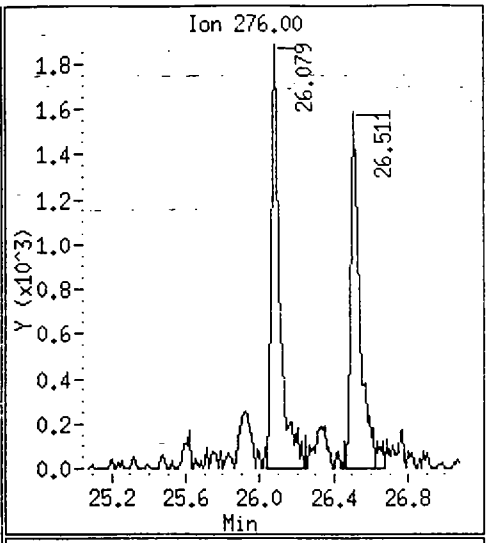
Operator: VDLITTLE

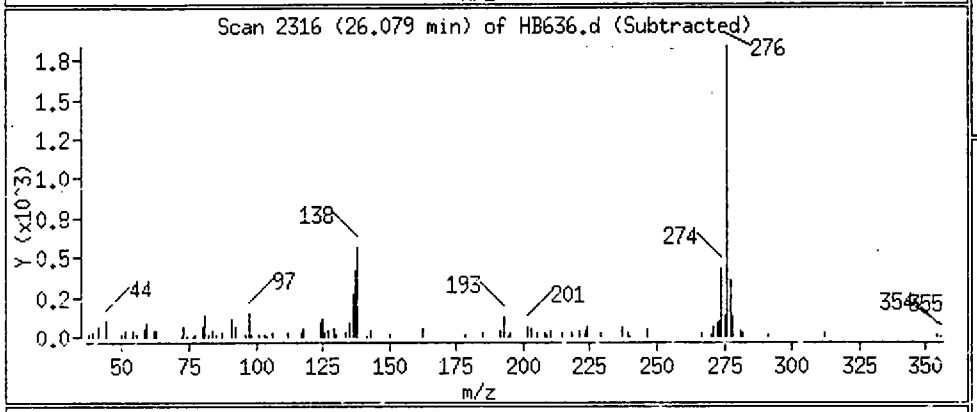
Column phase: DB-5

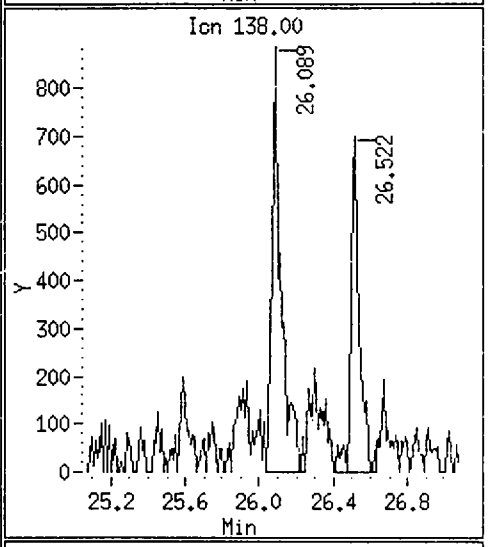
Column diameter: 0.25

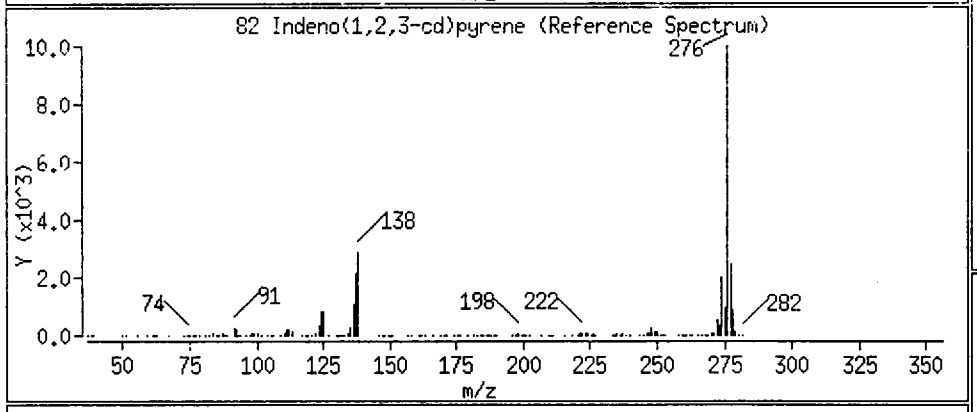
82 Indeno(1,2,3-cd)pyrene

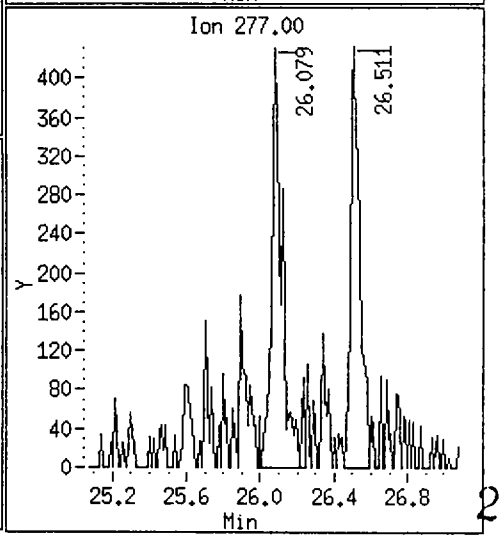


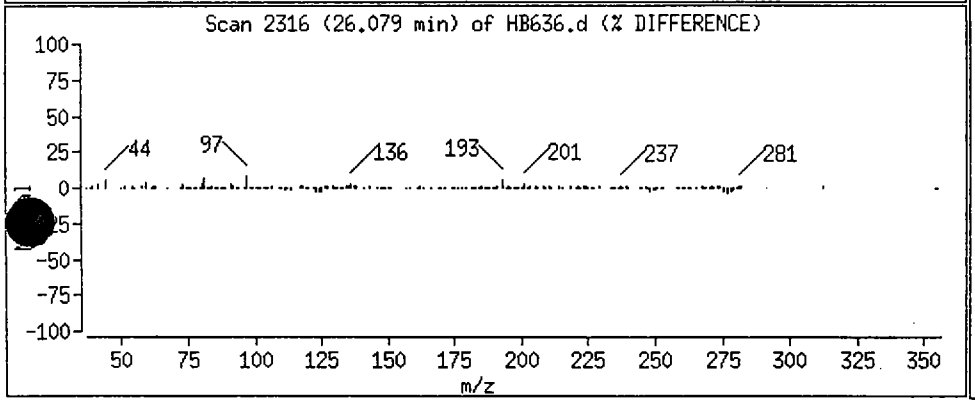












Data File: /chem3/ITS8.i/090796.b/HB636.d

Date : 08-SEP-1996 02:30

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

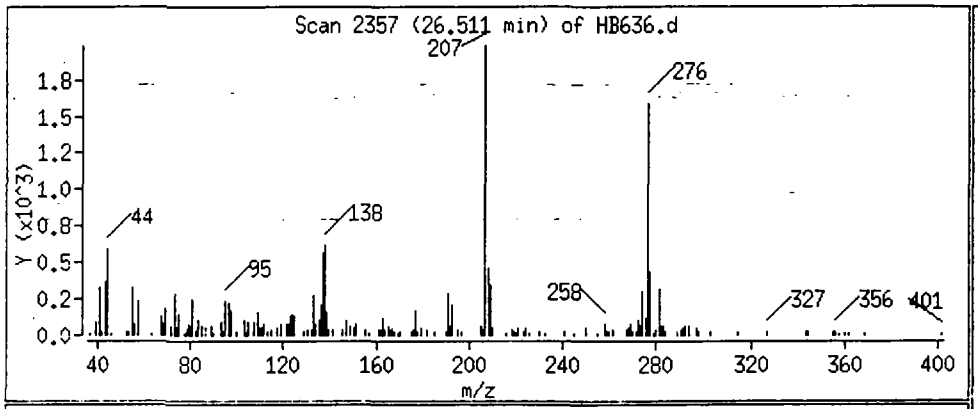
Volume Injected (uL): 1.0

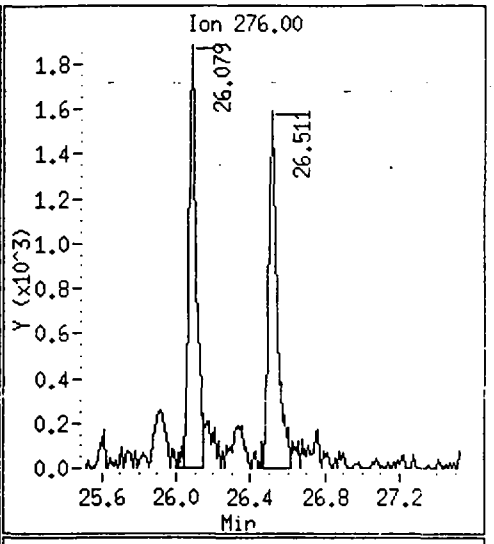
Operator: VDLITTLE

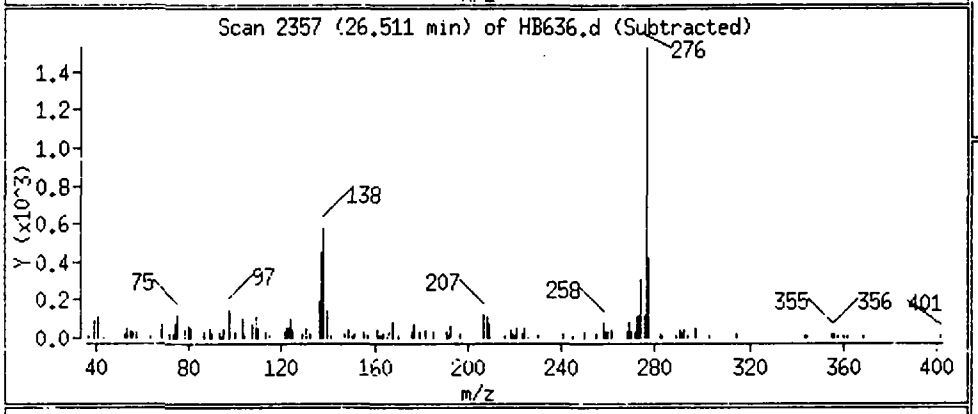
Column phase: DB-5

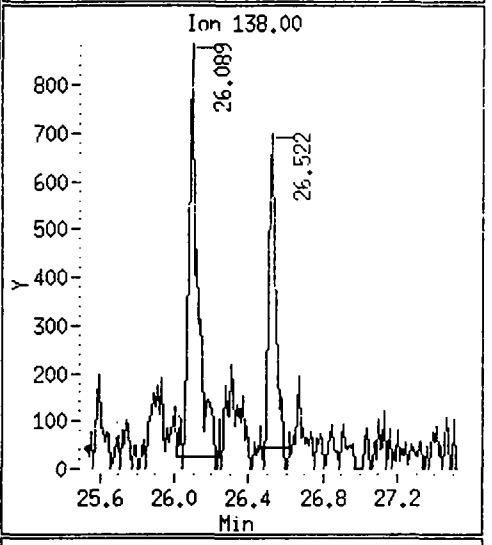
Column diameter: 0.25

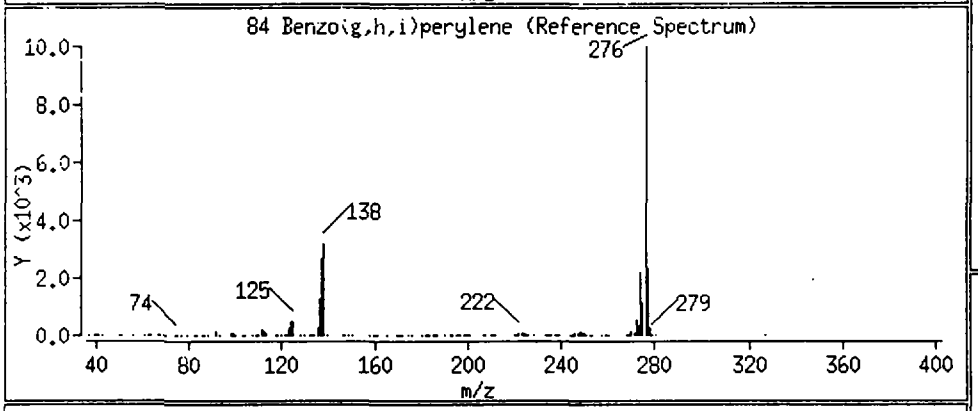
84 Benzo(g,h,i)perylene

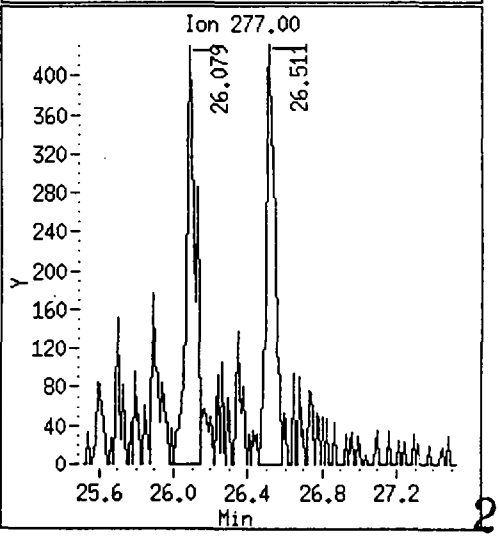


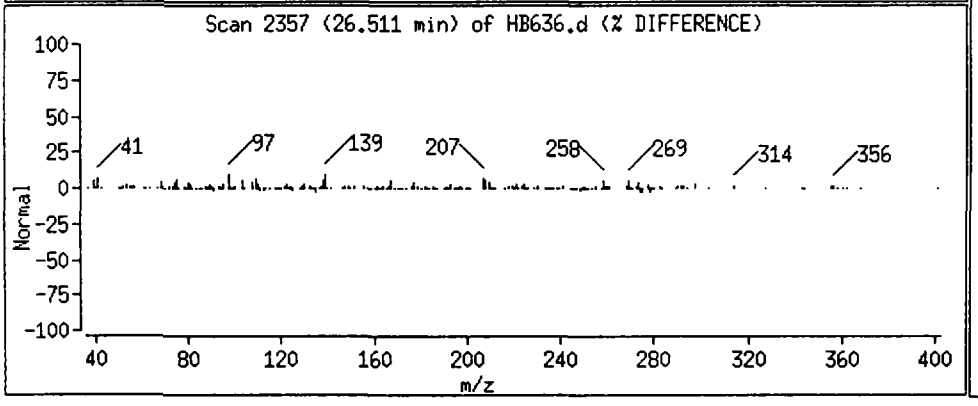












Data File: /chem3/ITS8.i/090796.b/HB636.d

Date : 08-SEP-1996 02:30

Client ID: D96-9653-2

Instrument: ITS8.i

Sample Info: 8270_ABN_S;;AB848-83;1

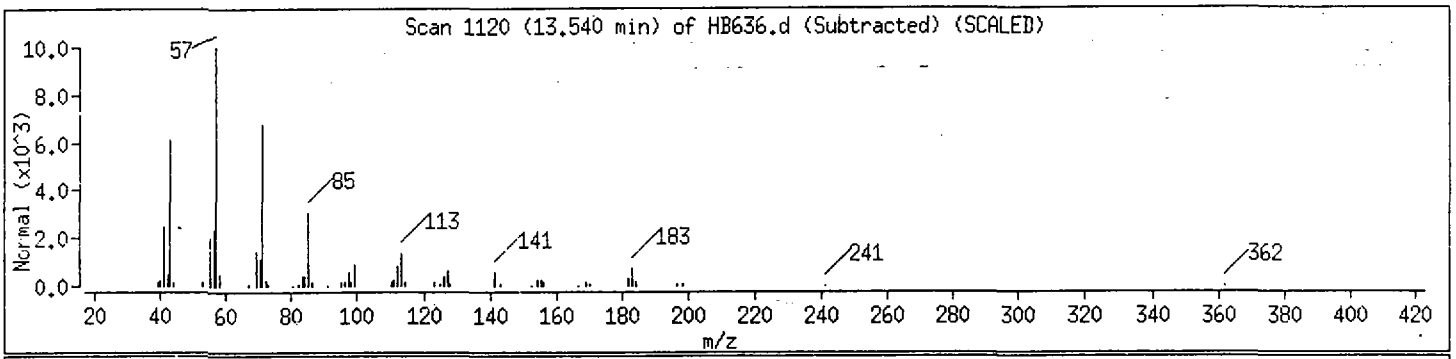
Volume Injected (uL): 1.0

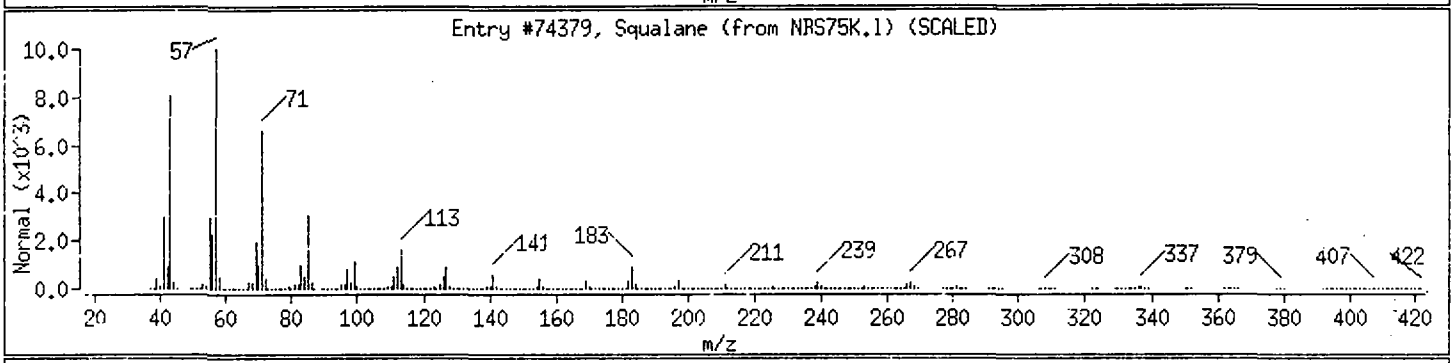
Operator: VDLITTLE

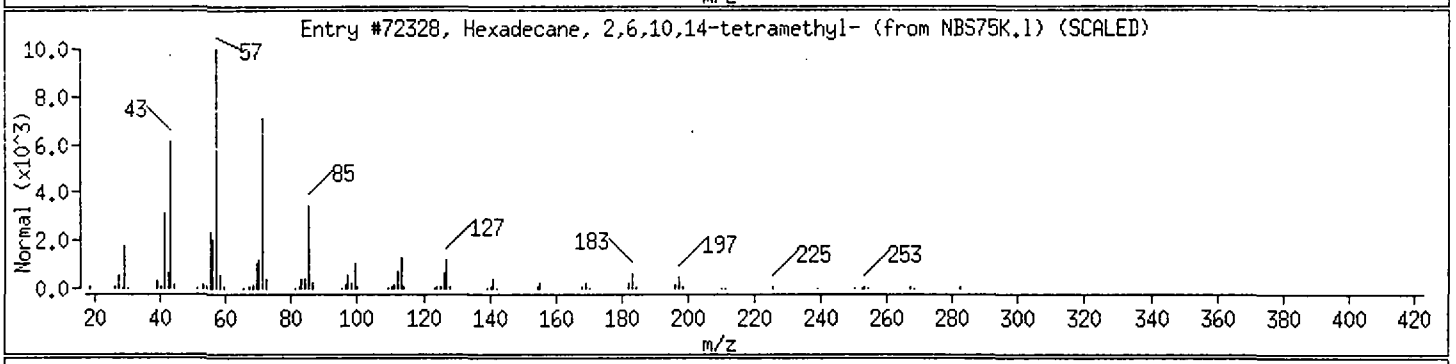
Column phase: DB-5

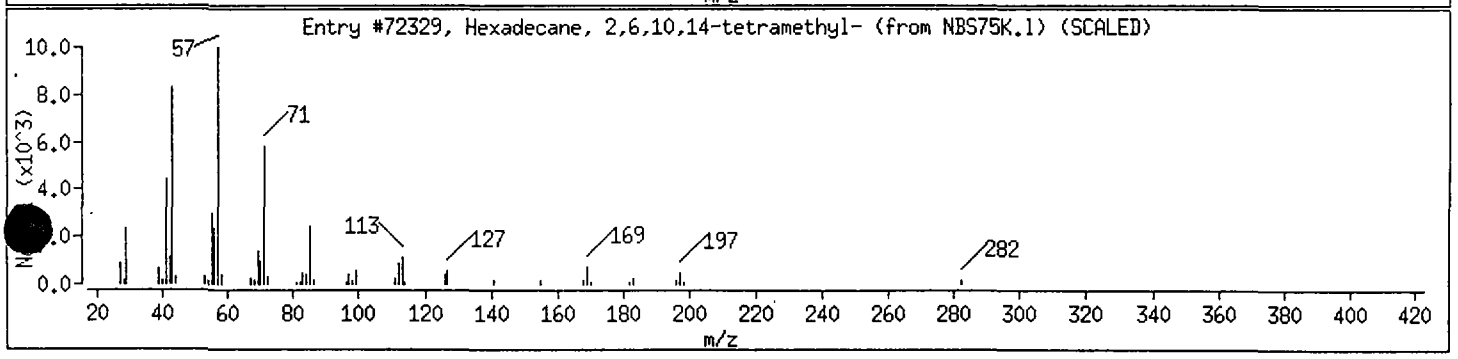
Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Squalane	111-01-3	NBS75K.l	74379	91	C30H62	422
Hexadecane, 2,6,10,14-tetramethyl-	638-36-8	NBS75K.l	72328	90	C20H42	282
Hexadecane, 2,6,10,14-tetramethyl-	638-36-8	NBS75K.l	72329	80	C20H42	282









FORM 1 AT Kearney, Inc. SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SG002AOC2-5

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-3

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: FD273

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 19 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
62-75-9	N-Nitrosodimethylamine	0.411	U
62-53-3	Aniline	0.411	U
108-95-2	Phenol	0.370	U
111-44-4	Bis(2-chloroethyl)ether	0.863	U
95-57-8	2-Chlorophenol	0.370	U
541-73-1	1,3-Dichlorobenzene	0.863	U
106-46-7	1,4-Dichlorobenzene	0.863	U
100-51-6	Benzyl alcohol	1.60	U
95-50-1	1,2-Dichlorobenzene	0.863	U
95-48-7	2-Methylphenol	0.370	U
39638-32-9	Bis(2-chloroisopropyl)ether	0.863	U
106-44-5	4-Methylphenol	0.370	U
621-64-7	N-Nitrosodi-n-propylamine	0.863	U
67-72-1	Hexachloroethane	0.863	U
98-95-3	Nitrobenzene	0.863	U
78-59-1	Isophorone	0.863	U
88-75-5	2-Nitrophenol	0.370	U
105-67-9	2,4-Dimethylphenol	0.370	U
111-91-1	Bis(2-chloroethoxy)methane	0.863	U
65-85-0	Benzoic acid	1.97	U
120-83-2	2,4-Dichlorophenol	0.370	U
120-82-1	1,2,4-Trichlorobenzene	0.863	U
91-20-3	Naphthalene	0.863	U
106-47-8	4-Chloroaniline	1.60	U
87-68-3	Hexachlorobutadiene	0.863	U
59-50-7	4-Chloro-3-methylphenol	1.60	U
91-57-6	2-Methylnaphthalene	0.863	U
77-47-4	Hexachlorocyclopentadiene	0.863	U
88-06-2	2,4,6-Trichlorophenol	0.863	U
95-95-4	2,4,5-Trichlorophenol	4.07	U
91-58-7	2-Chloronaphthalene	0.863	U
88-74-4	2-Nitroaniline	4.07	U
131-11-3	Dimethyl phthalate	0.863	U

FORM 1 AT Kearney, Inc. SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SG002AOC2-5

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-3

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: FD273

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 19 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
208-96-8	Acenaphthylene	0.863	U
606-20-2	2,6-Dinitrotoluene	0.863	U
99-09-2	3-Nitroaniline	4.07	U
83-32-9	Acenaphthene	0.863	U
51-28-5	2,4-Dinitrophenol	4.07	U
132-64-9	Dibenzofuran	0.863	U
100-02-7	4-Nitrophenol	1.97	U
121-14-2	2,4-Dinitrotoluene	0.863	U
84-66-2	Diethyl phthalate	0.863	U
86-73-7	Fluorene	0.863	U
7005-72-3	4-Chlorophenyl phenyl ether	0.863	U
100-01-6	4-Nitroaniline	4.07	U
534-52-1	4,6-Dinitro-2-methylphenol	4.07	U
86-30-6	N-Nitrosodiphenylamine (1)	0.863	U
103-33-3	1,2-Diphenylhydrazine	0.411	U
101-55-3	4-Bromophenyl phenyl ether	0.863	U
118-74-1	Hexachlorobenzene	0.863	U
87-86-5	Pentachlorophenol	4.07	U
92875	Benzidine	2.06	U
85-01-8	Phenanthrene	0.863	U
120-12-7	Anthracene	0.863	U
86-74-8	Carbazole	0.411	U
84-74-2	Di-n-butylphthalate	0.863	U
206-44-0	Fluoranthene	0.863	U
129-00-0	Pyrene	0.863	U
85-68-7	Butyl benzyl phthalate	0.863	U
56-55-3	Benzo(a)anthracene	0.863	U
91-94-1	3,3'-Dichlorobenzidine	1.60	U
218-01-9	Chrysene	0.863	U
117-81-7	Bis(2-ethylhexyl)phthalate	0.863	U
117-84-0	Di-n-octylphthalate	0.863	U
205-99-2	Benzo(b)fluoranthene	0.863	U
50-32-8	Benzo(a)pyrene	0.863	U

(1) - Cannot be separated from Diphenylamine

FORM 1 AT Kearney, Inc. SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SG002AOC2-5

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-3

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: FD273

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 19 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
193-39-5	Indeno(1,2,3-cd)pyrene	0.863	U
53-70-3	Dibenz(a,h)anthracene	0.863	U
191-24-2	Benzo(g,h,i)perylene	0.863	U
207-08-9	Benzo(k)fluoranthene	0.407	U

FORM 1 AT Kearney, Inc. SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SG002AOC2-5

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-3

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: FD273

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 19 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

Number TICs found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	108-88-3	TOLUENE	2.60	1.43	NJ
2.	79-34-5	ETHANE, 1,1,2,2-TETRACHLORO-	4.22	0.462	NJ
3.	112-53-8	1-DODECANOL	11.03	1.35	NJ
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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26.					
27.					
28.					
29.					
30.					

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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/07Sep1996.b/fd273.d
Lab Smp Id: D96-9653-3 Client Smp ID: SG002AOC2-5
Inj Date : 08-SEP-1996 03:11
Operator : WSW Inst ID: ITS3.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : EX: 09-03-96 30/1 3550A BTL#20 *
Comment :
Method : /chem2/ITS3.i/07Sep1996.b/abn3_AFCEE_Soil.m
Meth Date : 09-Sep-1996 16:29 vdl Quant Type: ISTD
Cal Date : 07-SEP-1996 16:42 Cal File: fd255.d
Als bottle: 20
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/Kg)
$ 3 2-Fluorophenol (SS)	112.00	3.749	3.748	(0.680)	1082171	50.4	2.07
$ 4 Phenol-d6 (SS)	99.00	5.062	5.072	(0.919)	1604717	66.1	2.72
* 10 1,4-Dichlorobenzene-d4	152.00	5.511	5.522	(1.000)	572596	40.0	
$ 19 Nitrobenzene-d5 (SS)	82.00	6.529	6.553	(0.838)	761148	38.4	1.58
* 29 Naphthalene-d8	136.00	7.787	7.815	(1.000)	2061431	40.0	
$ 38 2-Fluorobiphenyl (SS)	172.00	9.985	10.007	(0.883)	1440067	40.1	1.65
* 45 Acenaphthene-d10	164.00	11.310	11.323	(1.000)	990589	40.0	
$ 58 2,4,6-Tribromophenol (SS)	329.90	12.942	12.959	(1.144)	249045	42.3	1.74
* 62 Phenanthrene-d10	188.00	14.299	14.308	(1.000)	1491866	40.0	
$ 70 Terphenyl-d14 (SS)	244.00	17.617	17.628	(0.893)	977403	42.1	1.73
* 74 Chrysene-d12	240.00	19.720	19.740	(1.000)	818820	40.0	
* 81 Perylene-d12	264.00	22.469	22.480	(1.000)	730807	40.0	

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Unknown Compounds Quantitation Report

Data file : /chem2/ITS3.i/07Sep1996.b/fd273.d
Lab Smp Id: D96-9653-3 Client Smp ID: SG002AOC2-5
Inj Date : 08-SEP-1996 03:11
Operator : WSW Inst ID: ITS3.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : EX: 09-03-96 30/1 3550A BTL#20 *
Comment :
Method : /chem2/ITS3.i/07Sep1996.b/abn3_AFCEE_Soil.m
Meth Date : 09-Sep-1996 16:29 vdl
Cal Date : 07-SEP-1996 16:42 Cal File: fd255.d
Als bottle: 20
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

ISTD		RT	AREA	AMOUNT
* 10	1,4-Dichlorobenzene-d4	5.511	3290420	40.000
* 45	Acenaphthene-d10	11.310	3994799	40.000

	CONCENTRATIONS				QUANT		
RT	AREA	ON-COL(ng)	FINAL(mg/Kg)	QUAL	LIBRARY	LIB ENTRY	CPND #
Toluene				CAS #: 108-88-3			
2.600	2867447	34.8	1.43	90	NBS75K.l	63031	10
Ethane, 1,1,2,2-tetrachloro-				CAS #: 79-34-5			
4.220	925069	11.2	0.462	95	NBS75K.l	13774	10
1-Dodecanol				CAS #: 112-53-8			
11.030	3274084	32.8	1.35	95	NBS75K.l	69116	45

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: ITS3.i
Lab File ID: fd273.d
Lab Smp Id: D96-9653-3
Analysis Type: SV
Quant Type: ISTD
Operator: WSW
Method File: /chem2/ITS3.i/07Sep1996.b/abn3_AFCEE_Soil.m
Misc Info: EX: 09-03-96 30/1 3550A BTL#20 *

Calibration Date: 09/07/96
Calibration Time: 1642
Client Smp ID: SG002AOC2-5
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	685386	342693	1370772	572596	-16.46
29 Naphthalene-d8	2369832	1184916	4739664	2061431	-13.01
45 Acenaphthene-d10	1145807	572904	2291614	990589	-13.55
62 Phenanthrene-d10	1808888	904444	3617776	1491866	-17.53
74 Chrysene-d12	1245113	622556	2490226	818820	-34.24
81 Perylene-d12	1134608	567304	2269216	730807	-35.59

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	5.52	5.02	6.02	5.51	-0.19
29 Naphthalene-d8	7.81	7.31	8.31	7.79	-0.36
45 Acenaphthene-d10	11.32	10.82	11.82	11.31	-0.11
62 Phenanthrene-d10	14.31	13.81	14.81	14.30	-0.06
74 Chrysene-d12	19.74	19.24	20.24	19.72	-0.11
81 Perylene-d12	22.48	21.98	22.98	22.47	-0.05

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

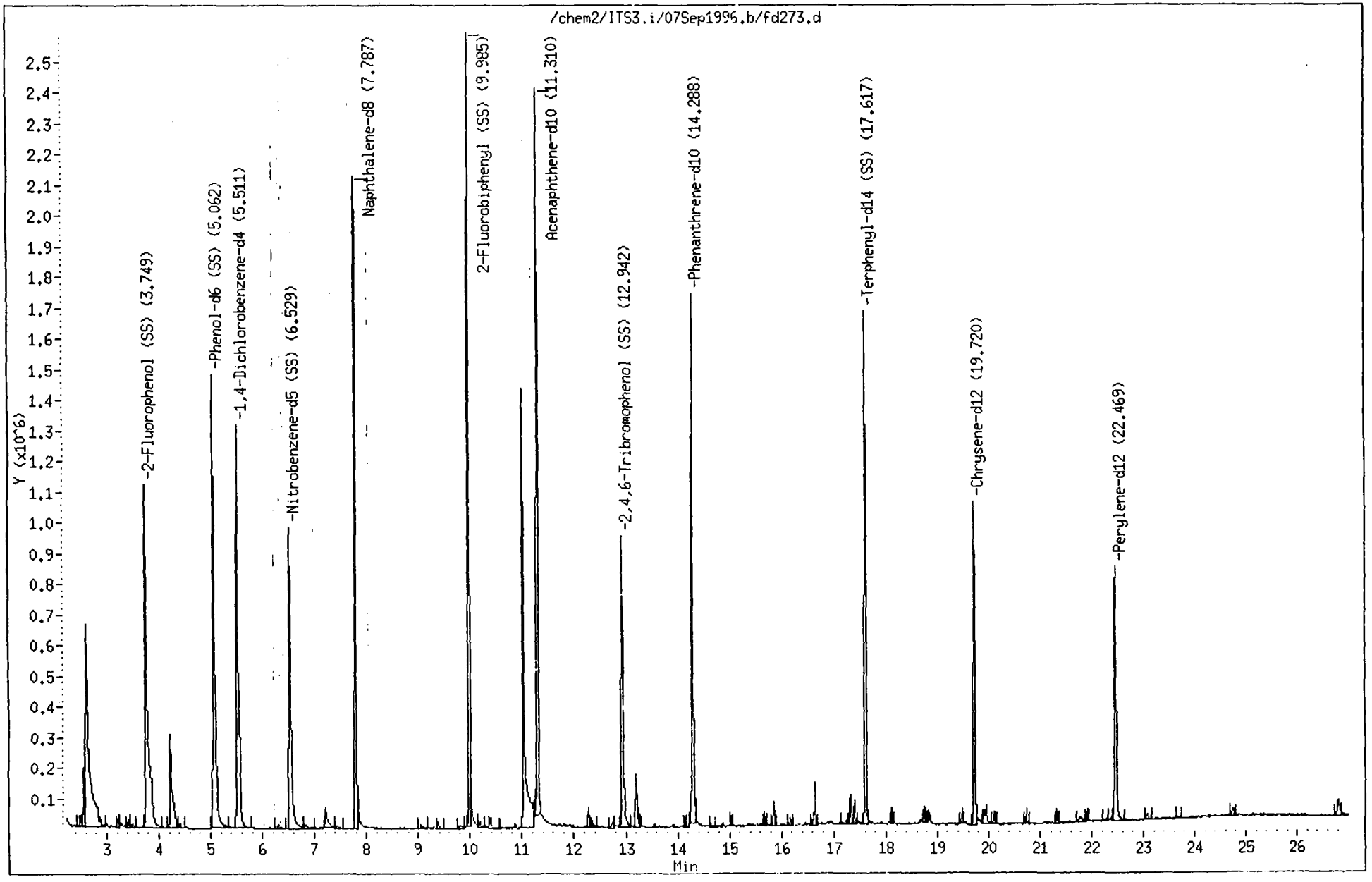
Client Name: AT Kearney, Inc. Client SDG: SVD96-9653
Sample Matrix: SOLID Fraction: SV
Lab Smp Id: D96-9653-3 Client Smp ID: SG002AOC2-5
Level: LOW Operator: WSW
Data Type: MS DATA SampleType: SAMPLE
SpikeList File: AFCEE_Soil.spk Quant Type: ISTD
Method File: /chem2/ITS3.i/07Sep1996.b/abn3_AFCEE_Soil.m
Misc Info: EX: 09-03-96 30/1 3550A BTL#20 *

SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
$ 3 2-Fluorophenol (SS	4.11	2.07	50.44	25-121
$ 4 Phenol-d6 (SS)	4.11	2.72	66.13	24-113
$ 19 Nitrobenzene-d5 (S	2.06	1.58	76.82	23-120
$ 38 2-Fluorobiphenyl (	2.06	1.65	80.14	30-115
$ 58 2,4,6-Tribromophen	4.11	1.74	42.28	19-122
$ 70 Terphenyl-d14 (SS)	2.06	1.73	84.20	18-137

Data File: /chem2/ITS3.i/07Sep1996.b/fd273.d
Date : 08-SEP-1996 03:11
Client ID: SG002A0C2-5
Sample Info: 8270_ABN_S;;AB848-83;1
Volume Injected (uL): 1.0
Column phase: DB-5

Instrument: ITS3.i

Operator: WSW
Column diameter: 0.25



Data File: /chem2/ITS3.i/07Sep1996.b/fd273.d

Date : 08-SEP-1996 03:11

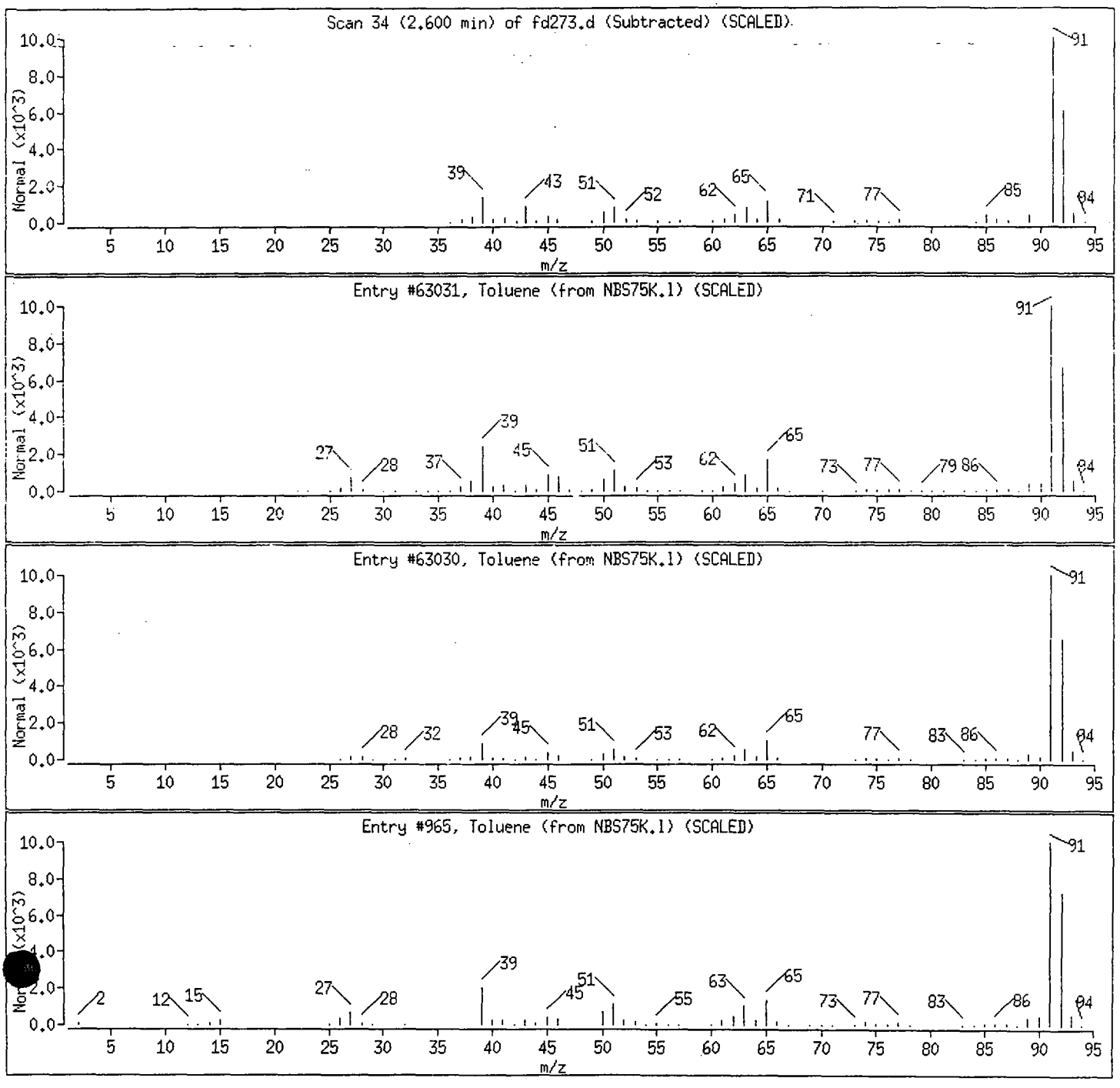
Client ID: SG002AOC2-5 Instrument: ITS3.i

Sample Info: 8270_ABN_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: WSW

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Toluene	108-88-3	NBS75K.l	63031	90	C7H8	92
Toluene	108-88-3	NBS75K.l	63030	90	C7H8	92
Toluene	108-88-3	NBS75K.l	965	87	C7H8	92



Data File: /chem2/ITS3.i/07Sep1996.b/fd273.d

Date : 08-SEP-1996 03:11

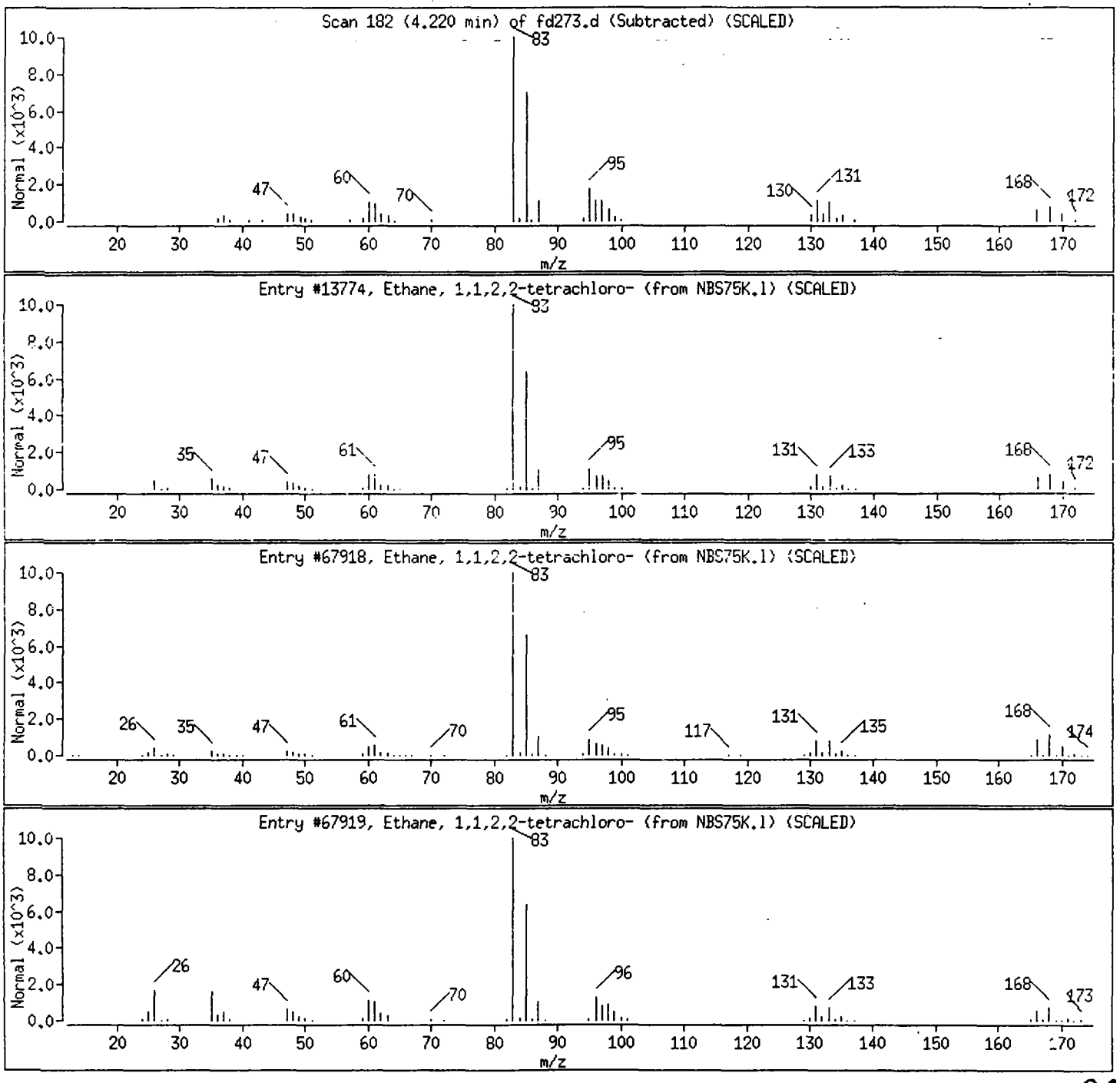
Client ID: SG002A0C2-5 Instrument: ITS3.i

Sample Info: 8270_ABN_S;;AB848-83;1

Volume Injected (uL): 1.0 Operator: WSW

Column phase: DB-5 Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
Ethane, 1,1,2,2-tetrachloro-	79-34-5	NBS75K.l	13774	95	C2H2Cl4	166
Ethane, 1,1,2,2-tetrachloro-	79-34-5	NBS75K.l	67918	93	C2H2Cl4	166
Ethane, 1,1,2,2-tetrachloro-	79-34-5	NBS75K.l	67919	91	C2H2Cl4	166



Data File: /chem2/ITS3.i/07Sep1996.b/fd273.d

Date : 08-SEP-1996 03:11

Client ID: SG002A0C2-5

Instrument: ITS3.i

Sample Info: 8270_ABN_S;;AB848-83;1

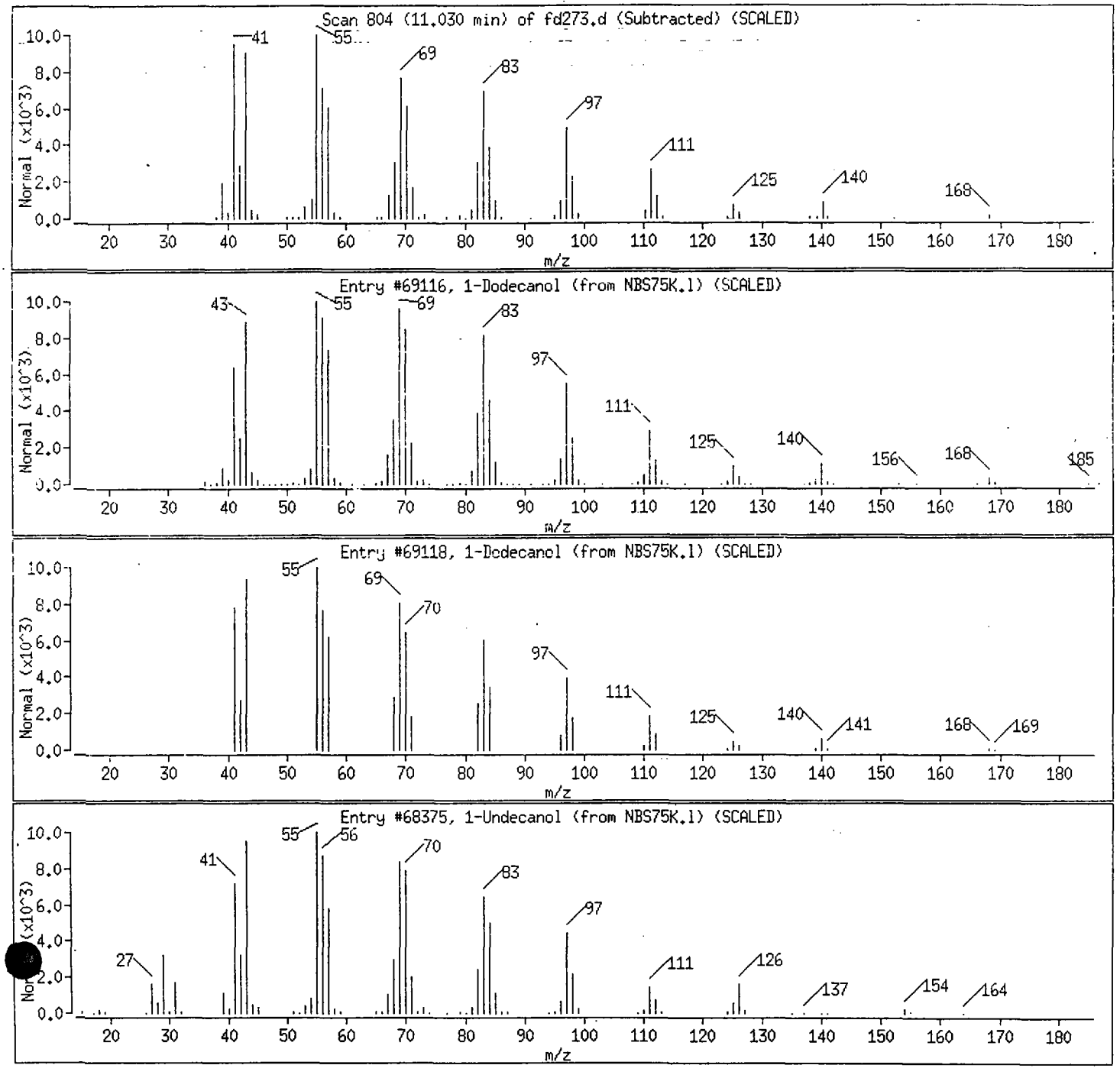
Volume Injected (uL): 1.0

Operator: WSW

Column phase: DB-5

Column diameter: 0.25

Library Search Compound Match	CAS Number	Library	Entry	Quality	Formula	Weight
1-Dodecanol	112-53-8	NBS75K.l	69116	95	C12H26O	186
1-Dodecanol	112-53-8	NBS75K.l	69118	91	C12H26O	186
1-Undecanol	112-42-5	NBS75K.l	68375	91	C11H24O	172



STANDARDS DATA

FORM 6
8270B ORGANICS INITIAL CALIBRATION DATA

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS3 Calibration Date(s): 08/28/96 08/28/96

Calibration Time(s): 1144 1916

LAB FILE ID: RRF10 =FD067 RRF20 =FD066
RRF50 =FD065 RRF80 =FD064 RRF100=FD063

COMPOUND		RRF10	RRF20	RRF50	RRF80	RRF100	$\overline{RRF}$	% RSD	
1,2,4-Trichlorobenzene	*	0.331	0.328	0.324	0.322	0.316			*
1,2-Dichlorobenzene	*	1.576	1.560	1.517	1.503	1.489			*
1,3-Dichlorobenzene	*	1.642	1.641	1.610	1.602	1.564			*
1,4-Dichlorobenzene	*	1.750	1.700	1.676	1.673	1.636			*
2,4,5-Trichlorophenol	*	0.398	0.450	0.435	0.440	0.447			*
2,4,6-Trichlorophenol	*	0.390	0.402	0.415	0.420	0.418			*
2,4-Dichlorophenol	*	0.272	0.285	0.302	0.300	0.303			*
2,4-Dimethylphenol	*	0.325	0.322	0.331	0.312	0.294			*
2,4-Dinitrophenol	*		0.115	0.183	0.201	0.226			*
2,4-Dinitrotoluene	*	0.380	0.426	0.445	0.453	0.468			*
2,6-Dinitrotoluene	*	0.296	0.312	0.344	0.351	0.359			*
2-Chloronaphthalene	*	1.285	1.330	1.265	1.259	1.253			*
2-Chlorophenol	*	1.442	1.447	1.418	1.416	1.392			*
2-Methylnaphthalene	*	0.600	0.574	0.633	0.619	0.611			*
2-Methylphenol	*	1.244	1.215	1.258	1.192	1.201			*
2-Nitroaniline	*	0.317	0.298	0.304	0.309	0.258			*
2-Nitrophenol	*	0.207	0.216	0.226	0.228	0.227			*
3,3'-Dichlorobenzidine	*	0.454	0.410	0.378	0.389	0.334			*
3-Nitroaniline	*	0.339	0.374	0.342	0.362	0.305			*
4,6-Dinitro-2-methylphenol	*		0.150	0.194	0.212	0.226			*
4-Bromophenyl phenyl ether	*	0.235	0.224	0.237	0.234	0.235			*
4-Chloro-3-methylphenol	*	0.281	0.267	0.300	0.289	0.289			*
4-Chloroaniline	*	0.485	0.428	0.419	0.432	0.391			*
4-Chlorophenyl phenyl ether	*	0.592	0.581	0.607	0.600	0.616			*
4-Methylphenol	*	1.294	1.176	1.265	1.162	1.203			*
4-Nitroaniline	*		0.299	0.312	0.310	0.293			*
4-Nitrophenol	*	0.099	0.155	0.149	0.154	0.167			*
Acenaphthene	*	1.182	1.173	1.182	1.163	1.158			*
Acenaphthylene	*	2.029	2.086	2.036	1.989	1.987			*
Anthracene	*	1.268	1.349	1.282	1.276	1.303			*
Benzo(a)anthracene	*	1.237	1.266	1.296	1.314	1.339			*
Benzo(a)pyrene	*	1.018	1.048	1.073	1.095	1.123			*
Benzo(b)fluoranthene	*	1.270	1.236	1.376	1.363	1.366			*
Benzo(k)fluoranthene	*	1.400	1.291	1.249	1.301	1.346			*
Benzo(g,h,i)perylene	*	0.886	0.971	0.934	0.986	1.009			*
Benzoic acid	*		0.102	0.157	0.187	0.208			*
Benzyl alcohol	*	0.843	0.827	0.915	0.871	0.875			*

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

FORM 6
8270B ORGANICS INITIAL CALIBRATION DATA

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS3 Calibration Date(s): 08/28/96 08/28/96

Calibration Time(s): 1144 1916

LAB FILE ID: RRF10 =FD067 RRF20 =FD066
RRF50 =FD065 RRF80 =FD064 RRF100=FD063

COMPOUND	RRF10	RRF20	RRF50	RRF80	RRF100	$\overline{RRF}$	% RSD
Bis(2-chloroethoxy)methane *	0.499	0.471	0.485	0.473	0.465		*
Bis(2-chloroethyl)ether *	1.524	1.502	1.526	1.483	1.439		*
Bis(2-chloroisopropyl)ether *	1.638	1.548	1.529	1.421	1.386		*
Bis(2-ethylhexyl)phthalate *	1.417	1.068	1.310	1.344	1.369		*
Butyl benzyl phthalate *	1.082	0.860	1.044	1.041	1.045		*
Chrysene *	1.214	1.226	1.209	1.223	1.213		*
Di-n-butylphthalate *	1.728	1.683	1.706	1.785	1.810		*
Di-n-octylphthalate *	2.430	1.789	2.333	2.481	2.618		*
Dibenz(a,h)anthracene *	0.761	0.902	0.906	0.975	1.009		*
Dibenzofuran *	1.682	1.702	1.704	1.664	1.689		*
Diethyl phthalate *	1.389	1.332	1.418	1.398	1.425		*
Dimethyl phthalate *	1.381	1.366	1.418	1.405	1.390		*
Fluoranthene *	1.126	1.351	1.174	1.236	1.300		*
Fluorene *	1.329	1.311	1.329	1.321	1.346		*
Hexachlorobenzene *	0.335	0.319	0.317	0.320	0.318		*
Hexachlorobutadiene *	0.182	0.190	0.181	0.183	0.180		*
Hexachlorocyclopentadiene *	0.296	0.378	0.389	0.398	0.410		*
Hexachloroethane *	0.789	0.764	0.736	0.729	0.699		*
Indeno(1,2,3-cd)pyrene *	0.979	1.107	1.100	1.164	1.178		*
Isophorone *	0.674	0.612	0.680	0.646	0.651		*
N-Nitrosodi-n-propylamine *	0.685	0.608	0.683	0.613	0.596		*
N-Nitrosodiphenylamine (1) *	0.606	0.599	0.556	0.552	0.552		*
Naphthalene *	1.059	1.070	1.060	1.056	1.054		*
Nitrobenzene *	0.352	0.342	0.336	0.335	0.321		*
Pentachlorophenol *	0.108	0.161	0.195	0.209	0.220		*
Phenanthrene *	1.263	1.266	1.238	1.287	1.292		*
Phenol *	1.711	1.712	1.697	1.633	1.564		*
Pyrene *	2.039	1.603	1.955	1.888	1.826		*
Nitrobenzene-d5 (SS) *	0.392	0.412	0.407	0.398	0.387		*
2-Fluorobiphenyl (SS) *	1.554	1.572	1.546	1.539	1.549		*
Terphenyl-d14 (SS) *	1.302	1.053	1.340	1.286	1.278		*
Phenol-d6 (SS) *	1.766	1.764	1.792	1.755	1.683		*
2-Fluorophenol (SS) *	1.594	1.666	1.611	1.629	1.568		*
2,4,6-Tribromophenol (SS) *	0.199	0.208	0.214	0.217	0.224		*

(1) Cannot be seperated from Diphenylamine
* Compounds with required minimum RRF and maximim %RSD values.
All other compounds must meet a minimim RRF of 0.010.

FORM 6
8270B ORGANICS INITIAL CALIBRATION DATA

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS3 Calibration Date(s): 08/28/96 08/28/96

Calibration Time(s): 1144 1916

LAB FILE ID: RRF120=FD062 RRF160=FD061

COMPOUND	RRF120	RRF160				$\overline{RRF}$	% RSD
1,2,4-Trichlorobenzene *	0.314	0.320				0.322	1.9*
1,2-Dichlorobenzene *	1.509	1.506				1.523	2.1*
1,3-Dichlorobenzene *	1.581	1.591				1.604	1.8*
1,4-Dichlorobenzene *	1.650	1.660				1.678	2.3*
2,4,5-Trichlorophenol *	0.462	0.426				0.437	4.7*
2,4,6-Trichlorophenol *	0.433	0.424				0.414	3.5*
2,4-Dichlorophenol *	0.285	0.296				0.292	3.9*
2,4-Dimethylphenol *	0.299	0.314				0.314	4.3*
2,4-Dinitrophenol *	0.226	0.249				0.200	23.7*
2,4-Dinitrotoluene *	0.452	0.476				0.443	7.2*
2,6-Dinitrotoluene *	0.343	0.368				0.339	7.7*
2-Chloronaphthalene *	1.291	1.268				1.279	2.0*
2-Chlorophenol *	1.412	1.438				1.424	1.4*
2-Methylnaphthalene *	0.588	0.627				0.607	3.5*
2-Methylphenol *	1.206	1.205				1.217	2.0*
2-Nitroaniline *	0.317	0.308				0.302	6.8*
2-Nitrophenol *	0.223	0.230				0.222	3.6*
3,3'-Dichlorobenzidine *	0.421	0.429				0.402	9.7*
3-Nitroaniline *	0.373	0.386				0.354	7.8*
4,6-Dinitro-2-methylphenol *	0.224	0.241				0.208	15.7*
4-Bromophenyl phenyl ether *	0.223	0.237				0.232	2.5*
4-Chloro-3-methylphenol *	0.270	0.285				0.283	4.1*
4-Chloroaniline *	0.425	0.416				0.428	6.6*
4-Chlorophenyl phenyl ether *	0.585	0.615				0.599	2.4*
4-Methylphenol *	1.211	1.142				1.208	4.5*
4-Nitroaniline *	0.336	0.362				0.319	8.1*
4-Nitrophenol *	0.168	0.175				0.152	16.5*
Acenaphthene *	1.157	1.167				1.169	0.9*
Acenaphthylene *	2.010	2.004				2.020	1.7*
Anthracene *	1.285	1.325				1.298	2.2*
Benzo(a)anthracene *	1.297	1.324				1.296	2.7*
Benzo(a)pyrene *	1.082	1.107				1.078	3.3*
Benzo(b)fluoranthene *	1.251	1.461				1.332	6.2*
Benzo(k)fluoranthene *	1.374	1.229				1.313	4.8*
Benzo(g,h,i)perylene *	0.873	1.025				0.955	6.2*
Benzoic acid *	0.214	0.227				0.182	25.4*
Benzyl alcohol *	0.881	0.871				0.869	3.2*

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

FORM 6
8270B ORGANICS INITIAL CALIBRATION DATA

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS3 Calibration Date(s): 08/28/96 08/28/96

Calibration Time(s): 1144 1916

LAB FILE ID: RRF120=FD062 RRF160=FD061

COMPOUND	RRF120	RRF160				$\overline{RRF}$	% RSD
Bis(2-chloroethoxy)methane *	0.460	0.459				0.473	3.0*
Bis(2-chloroethyl)ether *	1.435	1.438				1.478	2.8*
Bis(2-chloroisopropyl)ether *	1.347	1.295				1.452	8.5*
Bis(2-ethylhexyl)phthalate *	1.138	1.301				1.278	10.0*
Butyl benzyl phthalate *	0.900	1.027				1.000	8.5*
Chrysene *	1.192	1.225				1.214	1.0*
Di-n-butylphthalate *	1.693	1.719				1.732	2.8*
Di-n-octylphthalate *	2.103	2.426				2.311	12.1*
Dibenz(a,h)anthracene *	0.922	1.027				0.929	9.6*
Dibenzofuran *	1.672	1.698				1.687	0.9*
Diethyl phthalate *	1.303	1.383				1.378	3.3*
Dimethyl phthalate *	1.341	1.404				1.386	1.9*
Fluoranthene *	1.302	1.221				1.244	6.3*
Fluorene *	1.291	1.324				1.322	1.3*
Hexachlorobenzene *	0.311	0.317				0.320	2.4*
Hexachlorobutadiene *	0.177	0.176				0.181	2.6*
Hexachlorocyclopentadiene *	0.451	0.414				0.391	12.3*
Hexachloroethane *	0.701	0.695				0.730	4.9*
Indeno(1,2,3-cd)pyrene *	1.068	1.208				1.115	7.0*
Isophorone *	0.622	0.656				0.649	3.8*
N-Nitrosodi-n-propylamine *	0.609	0.615				0.630	6.0*
N-Nitrosodiphenylamine (1) *	0.515	0.546				0.561	5.6*
Naphthalene *	1.017	1.033				1.050	1.7*
Nitrobenzene *	0.314	0.317				0.331	4.3*
Pentachlorophenol *	0.219	0.231				0.192	22.7*
Phenanthrene *	1.277	1.309				1.276	1.8*
Phenol *	1.557	1.554				1.632	4.6*
Pyrene *	1.640	1.944				1.842	8.9*
Nitrobenzene-d5 (SS) *	0.381	0.382				0.394	3.0*
2-Fluorobiphenyl (SS) *	1.618	1.535				1.559	1.8*
Terphenyl-d14 (SS) *	1.132	1.319				1.244	8.7*
Phenol-d6 (SS) *	1.700	1.679				1.734	2.6*
2-Fluorophenol (SS) *	1.553	1.555				1.596	2.6*
2,4,6-Tribromophenol (SS) *	0.214	0.222				0.214	3.9*

(1) Cannot be seperated from Diphenylamine

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

Inchcape Testing Services - Environmental Laboratories

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-1996 11:44
End Cal Date : 28-AUG-1996 19:16
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Cal Date : 29-Aug-1996 09:45 wsw
Curve Type : Average

Calibration File Names:
Level 1: /chem2/ITS3.i/28Aug1996A.b/fd067.d
Level 2: /chem2/ITS3.i/28Aug1996A.b/fd066.d
Level 3: /chem2/ITS3.i/28Aug1996A.b/fd065.d
Level 4: /chem2/ITS3.i/28Aug1996A.b/fd064.d
Level 5: /chem2/ITS3.i/28Aug1996A.b/fd063.d
Level 6: /chem2/ITS3.i/28Aug1996A.b/fd062.d
Level 7: /chem2/ITS3.i/28Aug1996A.b/fd061.d

Compound	10 Level 1 / 160 Level 7	20 Level 2	50 Level 3	80 Level 4	100 Level 5	120 Level 6	RRF	% RSD
1 N-Nitrosodimethylamine	0.76798 / 0.55850	0.81279	0.83582	0.83228	0.79405	0.76138	0.76611	12.534
2 Pyridine	+++++ / +++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++ <-
5 Aniline	2.26799 / 1.96629	2.12284	2.03452	2.00164	1.82474	2.02600	2.03486	6.718
6 Phenol	1.71142 / 1.55416	1.71207	1.69746	1.63345	1.56384	1.55668	1.63272	4.568
7 Bis(2-chloroethyl)ether	1.52445 / 1.43801	1.50204	1.52601	1.48302	1.43941	1.43530	1.47832	2.758
8 2-Chlorophenol	1.44178 / 1.43778	1.44719	1.41796	1.41593	1.39179	1.41202	1.42349	1.383
9 1,3-Dichlorobenzene	1.64255 / 1.59123	1.64073	1.61057	1.60169	1.56451	1.58105	1.60462	1.822
11 1,4-Dichlorobenzene	1.74992 / 1.66056	1.70004	1.67570	1.67284	1.63565	1.65026	1.67785	2.251

W. S. Wingert Aug. 29, 1996
ANALYST Date

Inchcape Testing Services - Environmental Laboratories

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-1996 11:44
End Cal Date : 28-AUG-1996 19:16
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Cal Date : 29-Aug-1996 09:45 wsw
Curve Type : Average

Compound	10 Level 1	20 Level 2	50 Level 3	80 Level 4	100 Level 5	120 Level 6	160 Level 7	$\overline{RRF}$	% RSD
12 Benzyl alcohol	0.84297	0.82678	0.91490	0.87116	0.87543	0.88072	0.87145	0.86906	3.240
13 1,2-Dichlorobenzene	1.57633	1.56006	1.51732	1.50343	1.48933	1.50925	1.50575	1.52307	2.120
14 2-Methylphenol	1.24362	1.21510	1.25846	1.19152	1.20138	1.20560	1.20476	1.21721	2.013
15 Bis(2-chloroisopropyl)ether	1.63753	1.54852	1.52931	1.42103	1.38581	1.34662	1.29525	1.45201	8.469
16 N-Nitrosodi-n-propylamine	0.68514	0.60818	0.68314	0.61294	0.59632	0.60862	0.61507	0.62992	5.956
17 4-Methylphenol	1.29374	1.17608	1.26487	1.16188	1.20336	1.21144	1.14259	1.20771	4.541
18 Hexachloroethane	0.78884	0.76447	0.73559	0.72904	0.69946	0.70127	0.69469	0.73048	4.899
20 Nitrobenzene	0.35256	0.34150	0.33651	0.33481	0.32078	0.31389	0.31672	0.33097	4.310
21 Isophorone	0.67363	0.61234	0.68011	0.64644	0.65089	0.62163	0.65593	0.64871	3.841
22 2-Nitrophenol	0.20705	0.21611	0.22604	0.22767	0.22665	0.22298	0.22985	0.22233	3.626
23 2,4-Dimethylphenol	0.32541	0.32231	0.33087	0.31169	0.29393	0.29912	0.31350	0.31383	4.340

Inchcape Testing Services - Environmental Laboratories

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-1996 11:44
End Cal Date : 28-AUG-1996 19:16
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Cal Date : 29-Aug-1996 09:45 wsw
Curve Type : Average

Compound	10 Level 1	20 Level 2	50 Level 3	80 Level 4	100 Level 5	120 Level 6	160 Level 7	RRF	% RSD	
24 m,p-Cresol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
25 Bis(2-chloroethoxy)methane	0.49926	0.47146	0.48480	0.47332	0.46545	0.46023	0.45899	0.47336	3.045	
26 Benzoic acid	+++++	0.10251	0.15704	0.18664	0.20835	0.21433	0.22691	0.18263	25.350	
27 2,4-Dichlorophenol	0.27173	0.28487	0.30170	0.29987	0.30271	0.28549	0.29625	0.29180	3.939	
28 1,2,4-Trichlorobenzene	0.33101	0.32820	0.32440	0.32175	0.31603	0.31417	0.31952	0.32216	1.915	
30 Naphthalene	1.05882	1.07018	1.06044	1.05554	1.05369	1.01739	1.03307	1.04988	1.734	
31 4-Chloroaniline	0.48494	0.42856	0.41880	0.43157	0.39139	0.42549	0.41561	0.42805	6.635	
32 Hexachlorobutadiene	0.18178	0.19005	0.18119	0.18315	0.17951	0.17680	0.17616	0.18123	2.570	
33 4-Chloro-3-methylphenol	0.28136	0.26708	0.30034	0.28933	0.28888	0.26969	0.28545	0.28316	4.115	
34 2-Methylnaphthalene	0.59953	0.57394	0.63288	0.61905	0.61068	0.58796	0.62669	0.60725	3.511	
35 Hexachlorocyclopentadiene	0.29584	0.37812	0.38869	0.39829	0.40996	0.45141	0.41428	0.39094	12.281	

Inchcape Testing Services - Environmental Laboratories

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-1996 11:44
End Cal Date : 28-AUG-1996 19:16
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Cal Date : 29-Aug-1996 09:45 wsw
Curve Type : Average

Compound	10 Level 1	20 Level 2	50 Level 3	80 Level 4	100 Level 5	120 Level 6	RRF	% RSD
	160 Level 7							
36 2,4,6-Trichlorophenol	0.39021	0.40169	0.41540	0.42048	0.41851	0.43278		
	0.42446						0.41479	3.465
37 2,4,5-Trichlorophenol	0.39803	0.45003	0.43503	0.44049	0.44748	0.46154		
	0.42635						0.43700	4.699
39 2-Chloronaphthalene	1.28521	1.32964	1.26464	1.25908	1.25312	1.29076		
	1.26856						1.27871	2.050
40 2-Nitroaniline	0.31741	0.29822	0.30423	0.30942	0.25781	0.31677		
	0.30791						0.30168	6.788
41 Dimethyl phthalate	1.38118	1.36617	1.41813	1.40517	1.38994	1.34092		
	1.40387						1.38648	1.904
42 2,6-Dinitrotoluene	0.29590	0.31152	0.34372	0.35081	0.35886	0.34347		
	0.36846						0.33896	7.671
43 Acenaphthylene	2.02946	2.08585	2.03574	1.98860	1.98670	2.01015		
	2.00406						2.02008	1.705
44 3-Nitroaniline	0.33937	0.37435	0.34208	0.36181	0.30517	0.37338		
	0.38603						0.35460	7.821
46 Acenaphthene	1.18157	1.17334	1.18167	1.16314	1.15800	1.15698		
	1.16660						1.16876	0.885
47 2,4-Dinitrophenol	+++++	0.11530	0.18327	0.20131	0.22600	0.22592		
	0.24896						0.20013	23.651
48 4-Nitrophenol	+++++	0.15490	0.14872	0.15361	0.16719	0.16755		
	0.17497						0.16116	6.322

Inchcape Testing Services - Environmental Laboratories

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-1996 11:44
End Cal Date : 28-AUG-1996 19:16
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Cal Date : 29-Aug-1996 09:45 wsw
Curve Type : Average

Compound	10 Level 1	20 Level 2	50 Level 3	80 Level 4	100 Level 5	120 Level 6	160 Level 7	RRF	% RSD
49 Dibenzofuran	1.68239	1.70159	1.70460	1.66388	1.68893	1.67241	1.69854	1.68748	0.914
50 2,4-Dinitrotoluene	0.37964	0.42622	0.44514	0.45293	0.46780	0.45151	0.47597	0.44274	7.245
51 Diethyl phthalate	1.38897	1.33198	1.41824	1.39809	1.42468	1.30263	1.38307	1.37824	3.264
52 Fluorene	1.32901	1.31128	1.32936	1.32068	1.34604	1.29137	1.32404	1.32168	1.288
53 4-Chlorophenyl phenyl ether	0.59231	0.58134	0.60742	0.60009	0.61646	0.58472	0.61530	0.59966	2.358
54 4-Nitroaniline	0.23385	0.29887	0.31237	0.30996	0.29269	0.33570	0.36176	0.30646	12.970
55 4,6-Dinitro-2-methylphenol	+++++	0.14972	0.19445	0.21169	0.22660	0.22446	0.24098	0.20798	15.651
56 N-Nitrosodiphenylamine	0.60586	0.59930	0.55551	0.55201	0.55230	0.51538	0.54567	0.56086	5.630
57 1,2-Diphenylhydrazine	1.21140	1.05318	0.98534	0.96653	0.81776	0.93543	0.87123	0.97727	13.157
59 4-Bromophenyl phenyl ether	0.23485	0.22431	0.23692	0.23368	0.23492	0.22340	0.23736	0.23220	2.519
60 Hexachlorobenzene	0.33548	0.31879	0.31689	0.31964	0.31829	0.31132	0.31668	0.31959	2.352

Inchcape Testing Services - Environmental Laboratories

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-1996 11:44
End Cal Date : 28-AUG-1996 19:16
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Cal Date : 29-Aug-1996 09:45 wsw
Curve Type : Average

Compound	10 Level 1	20 Level 2	50 Level 3	80 Level 4	100 Level 5	120 Level 6	RRF	% RSD
	160 Level 7							
61 Pentachlorophenol	0.10757	0.16089	0.19511	0.20938	0.22010	0.21896		
	0.23066						0.19181	22.743
63 Phenanthrene	1.26281	1.26600	1.23792	1.28699	1.29214	1.27663		
	1.30876						1.27589	1.804
64 Anthracene	1.26847	1.34864	1.28220	1.27634	1.30272	1.28471		
	1.32528						1.29834	2.245
65 Carbazole	1.12425	1.16522	1.10939	1.07587	0.93091	1.10444		
	1.11820						1.08976	6.879
66 Di-n-butylphthalate	1.72833	1.68320	1.70629	1.78529	1.81037	1.69312		
	1.71890						1.73221	2.761
67 Fluoranthene	1.12634	1.35066	1.17410	1.23591	1.30021	1.30226		
	1.22149						1.24442	6.330
68 Benzidine	0.75422	0.78760	0.73644	0.76362	0.75033	0.80176		
	0.80023						0.77060	3.365
69 Pyrene	2.03900	1.60348	1.95488	1.88830	1.82613	1.64022		
	1.94414						1.84231	8.919
71 Butyl benzyl phthalate	1.08248	0.85965	1.04442	1.04078	1.04490	0.89969		
	1.02742						0.99991	8.463
72 3,3'-Dichlorobenzidine	0.45367	0.41032	0.37851	0.38887	0.33421	0.42149		
	0.42865						0.40225	9.707
73 Benzo(a)anthracene	1.23731	1.26600	1.29566	1.31359	1.33864	1.29731		
	1.32430						1.29612	2.687

Inchcape Testing Services - Environmental Laboratories

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-1996 11:44
End Cal Date : 28-AUG-1996 19:16
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Cal Date : 29-Aug-1996 09:45 wsw
Curve Type : Average

Compound	10 Level 1	20 Level 2	50 Level 3	80 Level 4	100 Level 5	120 Level 6	160 Level 7	RRF	% RSD
75 Chrysene	1.21452	1.22622	1.20886	1.22302	1.21346	1.19169	1.22501	1.21468	0.993
76 Bis(2-ethylhexyl)phthalate	1.41743	1.06856	1.31017	1.34416	1.36890	1.13813	1.30105	1.27834	9.950
77 Di-n-octylphthalate	2.42972	1.78899	2.33282	2.48143	2.61801	2.10263	2.42612	2.31139	12.071
78 Benzo(b)fluoranthene	1.27030	1.23649	1.37618	1.36333	1.36591	1.25065	1.46131	1.33202	6.156
79 Benzo(k)fluoranthene	1.40038	1.29093	1.24895	1.30129	1.34557	1.37370	1.22897	1.31283	4.834
80 Benzo(a)pyrene	1.01804	1.04807	1.07347	1.09479	1.12349	1.08170	1.10723	1.07811	3.330
82 Indeno(1,2,3-cd)pyrene	0.97862	1.10738	1.10034	1.16425	1.17773	1.06772	1.20858	1.11495	6.969
83 Dibenz(a,h)anthracene	0.76077	0.90167	0.90605	0.97471	1.00940	0.92218	1.02674	0.92879	9.603
84 Benzo(g,h,i)perylene	0.88627	0.97064	0.93437	0.98643	1.00925	0.87274	1.02521	0.95499	6.198
$ 3 2-Fluorophenol (SS)	1.59354	1.66609	1.61105	1.62875	1.56760	1.55310	1.55490	1.59643	2.627
$ 4 Phenol-d6 (SS)	1.76557	1.76398	1.79157	1.75530	1.68272	1.70015	1.67879	1.73401	2.631

Inchcape Testing Services - Environmental Laboratories

INITIAL CALIBRATION DATA

Start Cal Date : 28-AUG-1996 11:44
End Cal Date : 28-AUG-1996 19:16
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Cal Date : 29-Aug-1996 09:45 wsw
Curve Type : Average

Compound	10 Level 1	20 Level 2	50 Level 3	80 Level 4	100 Level 5	120 Level 6	RRF	% RSD
	160 Level 7							
$ 19 Nitrobenzene-d5 (SS)	0.39171	0.41206	0.40664	0.39850	0.38689	0.38095		
	0.38254						0.39418	3.043
$ 38 2-Fluorobiphenyl (SS)	1.55432	1.57181	1.54584	1.53888	1.54927	1.61779		
	1.53476						1.55895	1.834
$ 58 2,4,6-Tribromophenol (SS)	0.19923	0.20835	0.21459	0.21673	0.22379	0.21376		
	0.22259						0.21415	3.941
$ 70 Terphenyl-d14 (SS)	1.30205	1.05330	1.33985	1.28572	1.27806	1.13243		
	1.31860						1.24429	8.671

Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/28Aug1996A.b/fd054.d
Lab Smp Id: SSTD160 AB396-55-2 Client Smp ID: SSTD160 AB396-55-2
Inj Date : 28-AUG-1996 11:44
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Calibration Standard (exp 9/96)
Misc Info : 160ug/mL 03-12-96 AB396-55-2 BTL# 5
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 18:07 Cal File: fd065.d
Als bottle: 5 Calibration Sample, Level: 7
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	1 N-Nitrosodimethylamine	74.00	2.654	2.643	(0.462)	1265384	160	117
$	3 2-Fluorophenol (SS)	112.00	3.935	3.923	(0.685)	3522900	160	156
$	4 Phenol-d6 (SS)	99.00	5.292	5.246	(0.922)	3803604	160	155
	Phenol	94.00	5.314	5.257	(0.925)	3521215	160	152
	7 Bis(2-chloroethyl)ether	93.00	5.412	5.388	(0.943)	3258067	160	156
	8 2-Chlorophenol	128.00	5.456	5.443	(0.950)	3257554	160	162(A)
	9 1,3-Dichlorobenzene	146.00	5.676	5.662	(0.988)	3605215	160	159
*	10 1,4-Dichlorobenzene-d4	152.00	5.742	5.726	(1.000)	566419	40.0	
	11 1,4-Dichlorobenzene	146.00	5.764	5.750	(1.004)	3762299	160	158
	12 Benzyl alcohol	108.00	6.060	6.024	(1.055)	1974428	160	160(A)
	13 1,2-Dichlorobenzene	146.00	6.082	6.067	(1.059)	3411536	160	158
	14 2-Methylphenol	108.00	6.280	6.243	(1.094)	2729594	160	158
	15 Bis(2-chloroisopropyl)ether	45.00	6.324	6.287	(1.101)	2934613	160	143(M)
	16 N-Nitrosodi-n-propylamine	70.00	6.631	6.539	(1.155)	1393554	160	156
	17 4-Methylphenol	108.00	6.576	6.506	(1.145)	2588729	160	151
	18 Hexachloroethane	117.00	6.598	6.582	(1.149)	1573943	160	152
$	19 Nitrobenzene-d5 (SS)	82.00	6.785	6.747	(0.843)	2977281	160	155
	20 Nitrobenzene	77.00	6.829	6.780	(0.849)	2465061	160	153
	21 Isophorone	82.00	7.245	7.195	(0.900)	5105111	160	162(A)
	22 2-Nitrophenol	139.00	7.388	7.370	(0.918)	1788917	160	165(A)
	23 2,4-Dimethylphenol	107.00	7.520	7.469	(0.934)	2439989	160	160
	25 Bis(2-chloroethoxy)methane	93.00	7.695	7.655	(0.956)	3572317	160	155
	26 Benzoic acid	122.00	7.893	7.655	(0.981)	883016	80.0	99.4
	27 2,4-Dichlorophenol	162.00	7.849	7.808	(0.975)	2305741	160	162(A)
	28 1,2,4-Trichlorobenzene	180.00	7.970	7.962	(0.990)	2486831	160	159
*	29 Naphthalene-d8	136.00	8.048	8.022	(1.000)	1945746	40.0	
	30 Naphthalene	128.00	8.092	8.061	(1.005)	8040360	160	157
	32 Hexachlorobutadiene	225.00	8.443	8.433	(1.049)	1371067	160	156
	33 4-Chloro-3-methylphenol	107.00	9.264	9.242	(1.151)	2221668	160	161(A)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
34	2-Methylnaphthalene	142.00	9.440	9.417	(1.173)	4877484	160	165(A)
35	Hexachlorocyclopentadiene	237.00	9.901	9.888	(0.856)	1543858	160	170(A)
36	2,4,6-Trichlorophenol	196.00	10.098	10.074	(0.873)	1581772	160	164(A)
37	2,4,5-Trichlorophenol	196.00	10.165	10.139	(0.878)	1588844	160	156
$ 38	2-Fluorobiphenyl (SS)	172.00	10.253	10.216	(0.886)	5719395	160	158
39	2-Chloronaphthalene	162.00	10.418	10.392	(0.900)	4727385	160	159
41	Dimethyl phthalate	163.00	11.196	11.157	(0.968)	5231612	160	162(A)
42	2,6-Dinitrotoluene	165.00	11.351	11.300	(0.981)	1373076	160	174(A)
43	Acenaphthylene	152.00	11.262	11.234	(0.973)	7468293	160	159
* 45	Acenaphthene-d10	164.00	11.570	11.555	(1.000)	931644	40.0	
46	Acenaphthene	153.00	11.658	11.617	(1.008)	4347436	160	160
47	2,4-Dinitrophenol	184.00	11.823	11.792	(1.022)	927765	160	199(A)
48	4-Nitrophenol	109.00	12.021	11.968	(1.039)	652055	160	174(AQM)
49	Dibenzofuran	168.00	11.977	11.946	(1.035)	6329734	160	161(A)
50	2,6-Dinitrotoluene	165.00	12.131	12.088	(1.048)	1773727	160	172(A)
51	Diethyl phthalate	149.00	12.658	12.602	(1.094)	5154118	160	160(A)
52	Fluorene	166.00	12.680	12.646	(1.096)	4934133	160	160(A)
53	4-Chlorophenyl phenyl ether	204.00	12.713	12.679	(1.099)	2292957	160	164(A)
55	4,6-Dinitro-2-methylphenol	198.00	12.966	12.909	(0.890)	1204738	160	185(A)
56	N-Nitrosodiphenylamine	169.00	12.988	12.942	(0.891)	2727961	160	156
$ 58	2,4,6-Tribromophenol (SS)	329.90	13.219	13.194	(1.143)	829488	160	166(A)
59	4-Bromophenyl phenyl ether	248.00	13.691	13.664	(0.940)	1186614	160	164(A)
60	Hexachlorobenzene	284.00	13.976	13.949	(0.959)	1583190	160	158
61	Pentachlorophenol	266.00	14.360	14.331	(0.986)	1153133	160	192(A)
*	Phenanthrene-d10	188.00	14.569	14.551	(1.000)	1249816	40.0	
63	Phenanthrene	178.00	14.636	14.594	(1.005)	6542852	160	164(A)
64	Anthracene	178.00	14.735	14.682	(1.011)	6625447	160	163(A)
66	Di-n-butylphthalate	149.00	15.951	15.929	(1.095)	8593218	160	159
67	Fluoranthene	202.00	17.078	17.044	(1.172)	6106554	160	157
69	Pyrene	202.00	17.528	17.492	(0.876)	6142941	160	169(A)
$ 70	Terphenyl-d14 (SS)	244.00	17.901	17.875	(0.894)	4166404	160	170(A)
71	Butyl benzyl phthalate	149.00	18.985	18.958	(0.949)	3246365	160	164(A)
73	Benzo(a)anthracene	228.00	19.981	19.953	(0.998)	4184423	160	163(A)
* 74	Chrysene-d12	240.00	20.015	19.986	(1.000)	789929	40.0	
75	Chrysene	228.00	20.081	20.041	(1.003)	3870693	160	161(A)
76	Bis(2-ethylhexyl)phthalate	149.00	20.180	20.162	(1.008)	4110964	160	163(A)
77	Di-n-octylphthalate	149.00	21.352	21.332	(0.938)	6633436	160	168(A)
78	Benzo(b)fluoranthene	252.00	22.076	22.044	(0.970)	3995479	160	176(A)
79	Benzo(k)fluoranthene	252.00	22.131	22.088	(0.972)	3360231	160	150
80	Benzo(a)pyrene	252.00	22.680	22.646	(0.996)	3027375	160	164(A)
* 81	Perylene-d12	264.00	22.768	22.755	(1.000)	683545	40.0	
82	Indeno(1,2,3-cd)pyrene	276.00	24.767	24.708	(1.088)	3304483	160	173(A)
83	Dibenz(a,h)anthracene	278.00	24.779	24.730	(1.088)	2807284	160	177(A)
84	Benzo(g,h,i)perylene	276.00	25.285	25.225	(1.111)	2803120	160	172(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Q Flag Legend

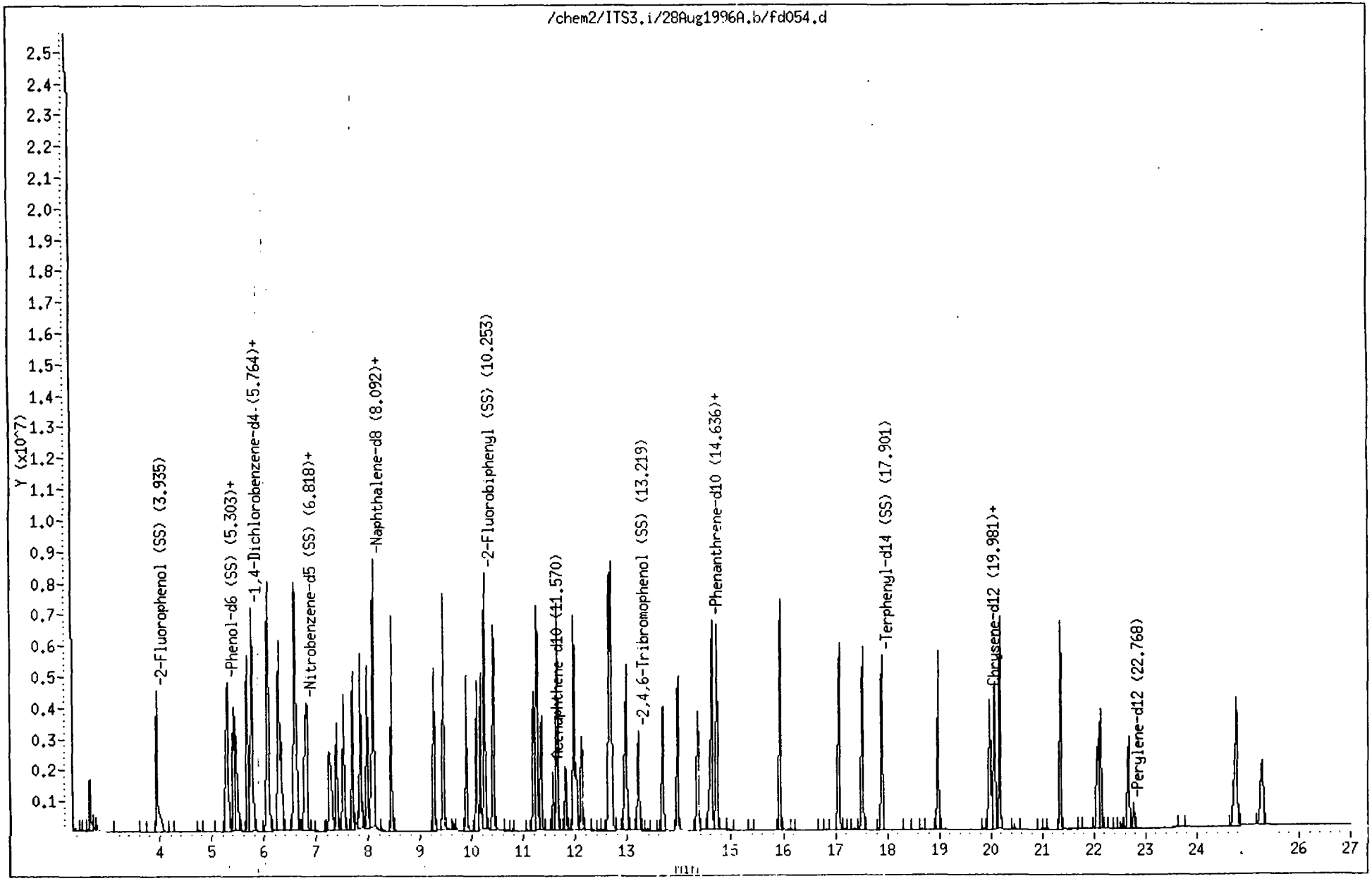
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: /chem2/ITS3.i/28Aug1996A.b/fd054.d
Date : 28-AUG-1996 11:44
Client ID: SSTD160 AB396-55-2
Sample Info: ITS3 Calibration Standard (exp 9/96)

Instrument: ITS3.i

Operator: WSW
Column diameter: 0.25

Column phase: DB-5



Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/28Aug1996A.b/fd055.d
Lab Smp Id: SSTD120 AB396-55-2 Client Smp ID: SSTD120 AB396-55-2
Inj Date : 28-AUG-1996 12:19
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Calibration Standard (exp 9/96)
Misc Info : 120ug/mL 03-12-96 AB396-55-2 BTL# 6
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 18:07 Cal File: fd065.d
Als bottle: 6 Calibration Sample, Level: 6
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	1 N-Nitrosodimethylamine	74.00	2.643	2.643	(0.461)	1493994	120	119
$	3 2-Fluorophenol (SS)	112.00	3.923	3.923	(0.685)	3047509	120	117
$	' Phenol-d6 (SS)	99.00	5.280	5.246	(0.921)	3336064	120	118
	Phenol	94.00	5.302	5.257	(0.925)	3054541	120	114
	7 Bis(2-chloroethyl)ether	93.00	5.412	5.388	(0.944)	2816362	120	116
	8 2-Chlorophenol	128.00	5.456	5.443	(0.952)	2770691	120	119
	9 1,3-Dichlorobenzene	146.00	5.675	5.662	(0.990)	3102370	120	118
*	10 1,4-Dichlorobenzene-d4	152.00	5.730	5.726	(1.000)	654072	40.0	
	11 1,4-Dichlorobenzene	146.00	5.763	5.750	(1.006)	3238162	120	118
	12 Benzyl alcohol	108.00	6.060	6.024	(1.057)	1728159	120	122
	13 1,2-Dichlorobenzene	146.00	6.071	6.067	(1.059)	2961484	120	119
	14 2-Methylphenol	108.00	6.268	6.243	(1.094)	2365650	120	119
	15 Bis(2-chloroisopropyl)ether	45.00	6.323	6.287	(1.103)	2642361	120	111(M)
	16 N-Nitrosodi-n-propylamine	70.00	6.620	6.539	(1.155)	1194242	120	116
	17 4-Methylphenol	108.00	6.564	6.506	(1.146)	2377107	120	120
	18 Hexachloroethane	117.00	6.586	6.582	(1.149)	1376042	120	115
$	19 Nitrobenzene-d5 (SS)	82.00	6.773	6.747	(0.842)	2560400	120	116
	20 Nitrobenzene	77.00	6.817	6.780	(0.847)	2109678	120	114
	21 Isophorone	82.00	7.245	7.195	(0.900)	4178087	120	115
	22 2-Nitrophenol	139.00	7.387	7.370	(0.918)	1498674	120	120
	23 2,4-Dimethylphenol	107.00	7.519	7.469	(0.934)	2010456	120	114
	25 Bis(2-chloroethoxy)methane	93.00	7.684	7.655	(0.955)	3093319	120	117
	26 Benzoic acid	122.00	7.871	7.655	(0.978)	720273	60.0	70.4
	27 2,4-Dichlorophenol	162.00	7.838	7.808	(0.974)	1918819	120	117
	28 1,2,4-Trichlorobenzene	180.00	7.970	7.962	(0.990)	2111615	120	117
*	29 Naphthalene-d8	136.00	8.047	8.022	(1.000)	2240392	40.0	
	30 Naphthalene	128.00	8.091	8.061	(1.005)	6838058	120	116
	32 Hexachlorobutadiene	225.00	8.442	8.433	(1.049)	1188276	120	117
	33 4-Chloro-3-methylphenol	107.00	9.263	9.242	(1.151)	1812606	120	114

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	34 2-Methylnaphthalene	142.00	9.438	9.417	(1.173)	3951781	120	116
	35 Hexachlorocyclopentadiene	237.00	9.888	9.888	(0.855)	1291119	120	138
	36 2,4,6-Trichlorophenol	196.00	10.086	10.074	(0.872)	1237837	120	125
	37 2,4,5-Trichlorophenol	196.00	10.163	10.139	(0.879)	1320107	120	127
$	38 2-Fluorobiphenyl (SS)	172.00	10.251	10.216	(0.886)	4627203	120	124
	39 2-Chloronaphthalene	162.00	10.416	10.392	(0.900)	3691813	120	121
	41 Dimethyl phthalate	163.00	11.194	11.157	(0.968)	3835282	120	116
	42 2,6-Dinitrotoluene	165.00	11.337	11.300	(0.980)	982395	120	122
	43 Acenaphthylene	152.00	11.260	11.234	(0.973)	5749414	120	119
*	45 Acenaphthene-d10	164.00	11.568	11.555	(1.000)	953398	40.0	
	46 Acenaphthene	153.00	11.645	11.617	(1.007)	3309180	120	119
	47 2,4-Dinitrophenol	184.00	11.809	11.792	(1.021)	646168	120	135
	48 4-Nitrophenol	109.00	12.007	11.968	(1.038)	479226	120	125(QM)
	49 Dibenzofuran	168.00	11.974	11.946	(1.035)	4783418	120	119
	50 2,4-Dinitrotoluene	165.00	12.117	12.088	(1.048)	1291417	120	122
	51 Diethyl phthalate	149.00	12.644	12.602	(1.093)	3725775	120	113
	52 Fluorene	166.00	12.677	12.646	(1.096)	3693579	120	117
	53 4-Chlorophenyl phenyl ether	204.00	12.699	12.679	(1.098)	1672421	120	117
	55 4,6-Dinitro-2-methylphenol	198.00	12.951	12.909	(0.889)	854858	120	130
	56 N-Nitrosodiphenylamine	169.00	12.974	12.942	(0.891)	1962769	120	110
$	58 2,4,6-Tribromophenol (SS)	329.90	13.215	13.194	(1.142)	611393	120	120
	59 4-Bromophenyl phenyl ether	248.00	13.676	13.664	(0.939)	850796	120	115
	60 Hexachlorobenzene	284.00	13.972	13.949	(0.959)	1185641	120	117
	61 Pentachlorophenol	266.00	14.356	14.331	(0.986)	833882	120	137
*	Phenanthrene-d10	188.00	14.565	14.551	(1.000)	1269476	40.0	
	63 Phenanthrene	178.00	14.631	14.594	(1.005)	4861950	120	120
	64 Anthracene	178.00	14.719	14.682	(1.011)	4892743	120	119
	66 Di-n-butylphthalate	149.00	15.945	15.929	(1.095)	6448123	120	117
	67 Fluoranthene	202.00	17.072	17.044	(1.172)	4959561	120	126
	69 Pyrene	202.00	17.521	17.492	(0.875)	5079278	120	107
$	70 Terphenyl-d14 (SS)	244.00	17.894	17.875	(0.894)	3506803	120	109
	71 Butyl benzyl phthalate	149.00	18.978	18.958	(0.948)	2786086	120	108
	73 Benzo(a)anthracene	228.00	19.985	19.953	(0.998)	4017379	120	120
*	74 Chrysene-d12	240.00	20.018	19.986	(1.000)	1032235	40.0	
	75 Chrysene	228.00	20.084	20.041	(1.003)	3690323	120	118
	76 Bis(2-ethylhexyl)phthalate	149.00	20.183	20.162	(1.008)	3524444	120	107
	77 Di-n-octylphthalate	149.00	21.355	21.332	(0.937)	6187859	120	109
	78 Benzo(b)fluoranthene	252.00	22.078	22.044	(0.969)	3680568	120	113
	79 Benzo(k)fluoranthene	252.00	22.133	22.088	(0.972)	4042701	120	126
	80 Benzo(a)pyrene	252.00	22.682	22.646	(0.996)	3183358	120	120
*	81 Perylene-d12	264.00	22.781	22.755	(1.000)	980973	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	24.758	24.708	(1.087)	3142213	120	115
	83 Dibenz(a,h)anthracene	278.00	24.780	24.730	(1.088)	2713897	120	119
	84 Benzo(g,h,i)perylene	276.00	25.286	25.225	(1.110)	2568404	120	110

QC Flag Legend

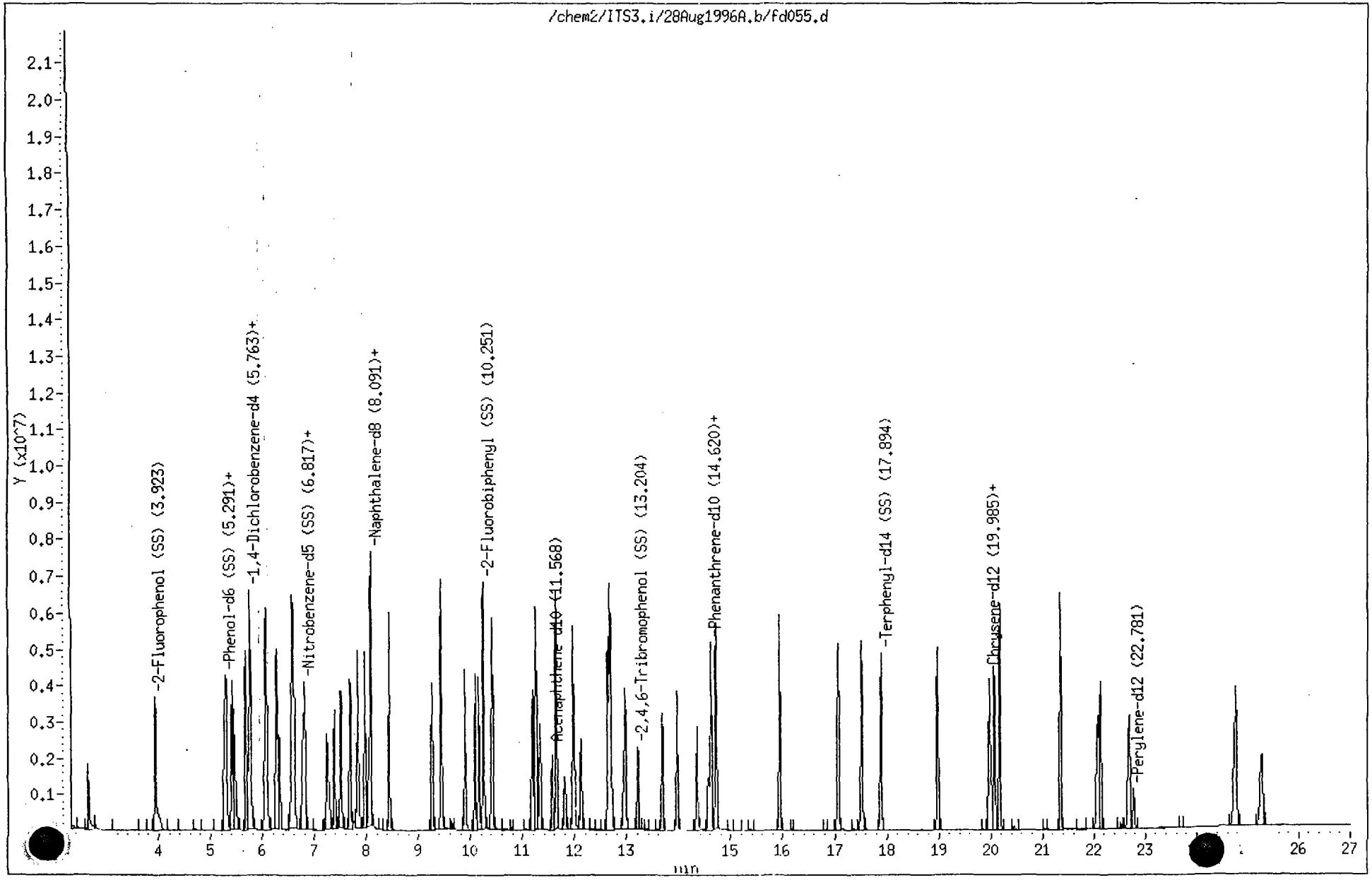
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: /chem2/ITS3.i/28Aug1996A.b/fd055.d
Date : 28-AUG-1996 12:19
Client ID: SSTD120 AB396-55-2
Sample Info: ITS3 Calibration Standard (exp 9/96)

Instrument: ITS3.i

Operator: WSW
Column diameter: 0.25

Column phase: DB-5



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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/28Aug1996A.b/fd056.d
Lab Smp Id: SSTD100 AB396-58-3 Client Smp ID: SSTD100 AB396-58-3
Inj Date : 28-AUG-1996 12:54
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Calibration Standard (exp 9/96)
Misc Info : 100ug/mL 08-01-96 AB396-58-3 BTL# 7
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 18:07 Cal File: fd065.d
Als bottle: 7 Calibration Sample, Level: 5
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	1 N-Nitrosodimethylamine	74.00	2.643	2.643	(0.461)	1304032	100	104
$	3 2-Fluorophenol (SS)	112.00	3.923	3.923	(0.685)	2574393	100	98.2
$	' Phenol-d6 (SS)	99.00	5.269	5.246	(0.920)	2763458	100	97.0
	Phenol	94.00	5.291	5.257	(0.923)	2568219	100	95.8
	7 Bis(2-chloroethyl)ether	93.00	5.401	5.388	(0.943)	2363874	100	97.4
	8 2-Chlorophenol	128.00	5.456	5.443	(0.952)	2285681	100	97.8
	9 1,3-Dichlorobenzene	146.00	5.675	5.662	(0.990)	2569317	100	97.5
*	10 1,4-Dichlorobenzene-d4	152.00	5.730	5.726	(1.000)	656902	40.0	
	11 1,4-Dichlorobenzene	146.00	5.763	5.750	(1.006)	2686153	100	97.5
	12 Benzyl alcohol	108.00	6.048	6.024	(1.056)	1437674	100	101
	13 1,2-Dichlorobenzene	146.00	6.070	6.067	(1.059)	2445855	100	97.8
	14 2-Methylphenol	108.00	6.268	6.243	(1.094)	1972977	100	98.7
	15 Bis(2-chloroisopropyl)ether	45.00	6.312	6.287	(1.101)	2275859	100	95.4(M)
	16 N-Nitrosodi-n-propylamine	70.00	6.608	6.539	(1.153)	979316	100	94.7
	17 4-Methylphenol	108.00	6.553	6.506	(1.144)	1976225	100	99.6
	18 Hexachloroethane	117.00	6.586	6.582	(1.149)	1148698	100	95.8
$	19 Nitrobenzene-d5 (SS)	82.00	6.773	6.747	(0.842)	2128218	100	98.2
	20 Nitrobenzene	77.00	6.806	6.780	(0.846)	1764529	100	96.9
	21 Isophorone	82.00	7.233	7.195	(0.899)	3580412	100	100
	22 2-Nitrophenol	139.00	7.387	7.370	(0.918)	1246760	100	102
	23 2,4-Dimethylphenol	107.00	7.508	7.469	(0.933)	1616868	100	93.6
	25 Bis(2-chloroethoxy)methane	93.00	7.683	7.655	(0.955)	2560367	100	98.3
	26 Benzoic acid	122.00	7.837	7.655	(0.974)	573032	50.0	57.0
	27 2,4-Dichlorophenol	162.00	7.826	7.808	(0.973)	1665134	100	104
	28 1,2,4-Trichlorobenzene	180.00	7.969	7.962	(0.990)	1738440	100	98.1
*	29 Naphthalene-d8	136.00	8.046	8.022	(1.000)	2200319	40.0	
	30 Naphthalene	128.00	8.079	8.061	(1.004)	5796128	100	100
	32 Hexachlorobutadiene	225.00	8.441	8.433	(1.049)	987434	100	99.0
	33 4-Chloro-3-methylphenol	107.00	9.251	9.242	(1.150)	1589063	100	102

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
34	2-Methylnaphthalene	142.00	9.438	9.417	(1.173)	3359241	100	100
35	Hexachlorocyclopentadiene	237.00	9.887	9.888	(0.855)	1059181	100	105
36	2,4,6-Trichlorophenol	196.00	10.085	10.074	(0.872)	1081258	100	101
37	2,4,5-Trichlorophenol	196.00	10.162	10.139	(0.879)	1156120	100	102
$ 38	2-Fluorobiphenyl (SS)	172.00	10.250	10.216	(0.886)	4002695	100	99.4
39	2-Chloronaphthalene	162.00	10.415	10.392	(0.900)	3237559	100	98.0
41	Dimethyl phthalate	163.00	11.193	11.157	(0.968)	3591052	100	100
42	2,6-Dinitrotoluene	165.00	11.336	11.300	(0.980)	927158	100	106
43	Acenaphthylene	152.00	11.259	11.234	(0.973)	5132843	100	98.3
* 45	Acenaphthene-d10	164.00	11.566	11.555	(1.000)	1033442	40.0	
46	Acenaphthene	153.00	11.643	11.617	(1.007)	2991822	100	99.1
47	2,4-Dinitrophenol	184.00	11.808	11.792	(1.021)	583889	100	113
48	4-Nitrophenol	109.00	12.006	11.968	(1.038)	431943	100	104(QM)
49	Dibenzofuran	168.00	11.973	11.946	(1.035)	4363520	100	100
50	2,4-Dinitrotoluene	165.00	12.116	12.088	(1.048)	1208612	100	106
51	Diethyl phthalate	149.00	12.642	12.602	(1.093)	3680811	100	103
52	Fluorene	166.00	12.675	12.646	(1.096)	3477637	100	102
53	4-Chlorophenyl phenyl ether	204.00	12.697	12.679	(1.098)	1592681	100	103
55	4,6-Dinitro-2-methylphenol	198.00	12.939	12.909	(0.888)	790351	100	109
56	N-Nitrosodiphenylamine	169.00	12.972	12.942	(0.891)	1926381	100	98.5
$ 58	2,4,6-Tribromophenol (SS)	329.90	13.214	13.194	(1.142)	578180	100	104
59	4-Bromophenyl phenyl ether	248.00	13.685	13.664	(0.940)	819378	100	101
60	Hexachlorobenzene	284.00	13.970	13.949	(0.959)	1110181	100	99.6
	Pentachlorophenol	266.00	14.354	14.331	(0.986)	767691	100	115
*	Phenanthrene-d10	188.00	14.563	14.551	(1.000)	1395176	40.0	
63	Phenanthrene	178.00	14.629	14.594	(1.005)	4506913	100	101
64	Anthracene	178.00	14.717	14.682	(1.011)	4543820	100	100
66	Di-n-butylphthalate	149.00	15.943	15.929	(1.095)	6314475	100	104
67	Fluoranthene	202.00	17.070	17.044	(1.172)	4535060	100	104
69	Pyrene	202.00	17.519	17.492	(0.875)	4608635	100	99.1
$ 70	Terphenyl-d14 (SS)	244.00	17.892	17.875	(0.894)	3225467	100	103
71	Butyl benzyl phthalate	149.00	18.975	18.958	(0.948)	2637031	100	104
73	Benzo(a)anthracene	228.00	19.982	19.953	(0.998)	3378350	100	103
* 74	Chrysene-d12	240.00	20.015	19.986	(1.000)	1009487	40.0	
75	Chrysene	228.00	20.071	20.041	(1.003)	3062428	100	99.9
76	Bis(2-ethylhexyl)phthalate	149.00	20.181	20.162	(1.008)	3454723	100	107
77	Di-n-octylphthalate	149.00	21.352	21.332	(0.937)	5635146	100	113
78	Benzo(b)fluoranthene	252.00	22.075	22.044	(0.969)	2940044	100	102
79	Benzo(k)fluoranthene	252.00	22.131	22.088	(0.972)	2896277	100	102
80	Benzo(a)pyrene	252.00	22.679	22.646	(0.996)	2418265	100	104
* 81	Perylene-d12	264.00	22.778	22.755	(1.000)	860980	40.0	
82	Indeno(1,2,3-cd)pyrene	276.00	24.754	24.708	(1.087)	2535008	100	106
83	Dibenz(a,h)anthracene	278.00	24.765	24.730	(1.087)	2172685	100	109
84	Benzo(g,h,i)perylene	276.00	25.271	25.225	(1.109)	2172358	100	106

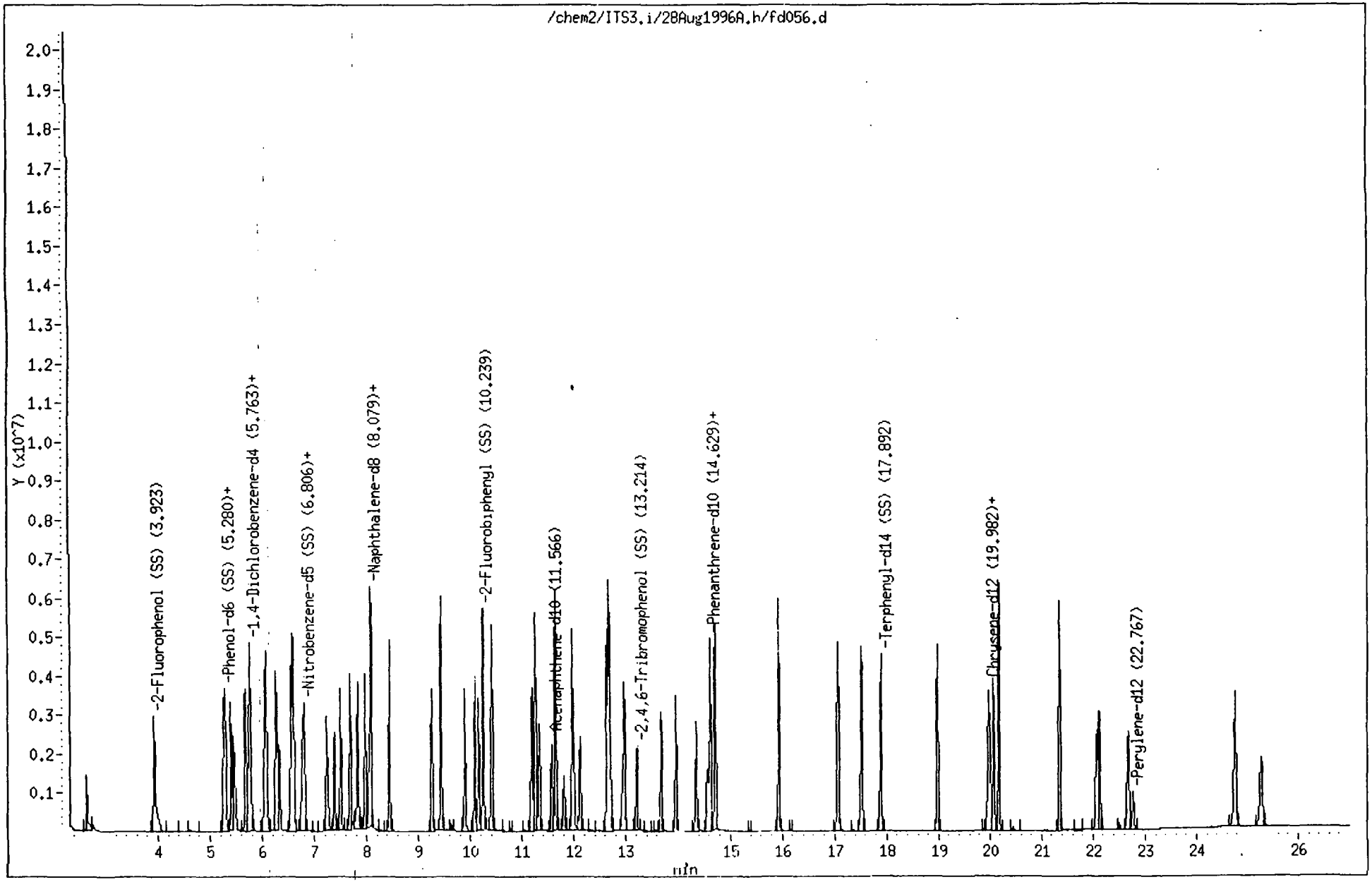
QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: /chem2/ITS3.i/28Aug1996A.b/fd056.d
Date : 28-AUG-1996 12:54
Client ID: SSTD100 AB396-58-3
Sample Info: ITS3 Calibration Standard (exp 9/96)

Instrument: ITS3.i
Operator: WSW
Column diameter: 0.25

Column phase: DB-5



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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/28Aug1996A.b/fd057.d
Lab Smp Id: SSTD080 AB396-55-2 Client Smp ID: SSTD080 AB396-55-2
Inj Date : 28-AUG-1996 13:28
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Calibration Standard (exp 9/96)
Misc Info : 80ug/mL 03-12-96 AB396-55-2 BTL# 8
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 18:07 Cal File: fd065.d
Als bottle: 8 Calibration Sample, Level: 4
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	1 N-Nitrosodimethylamine	74.00	2.643	2.643	(0.461)	973129	80.0	86.9
$	3 2-Fluorophenol (SS)	112.00	3.923	3.923	(0.685)	1904384	80.0	81.6
$	4 Phenol-d6 (SS)	99.00	5.258	5.246	(0.918)	2052348	80.0	81.0
	Phenol	94.00	5.280	5.257	(0.921)	1909870	80.0	80.0
	7 Bis(2-chloroethyl)ether	93.00	5.401	5.388	(0.943)	1733994	80.0	80.2
	8 2-Chlorophenol	128.00	5.445	5.443	(0.950)	1655540	80.0	79.6
	9 1,3-Dichlorobenzene	146.00	5.675	5.662	(0.990)	1872744	80.0	79.8
*	10 1,4-Dichlorobenzene-d4	152.00	5.730	5.726	(1.000)	584614	40.0	
	11 1,4-Dichlorobenzene	146.00	5.763	5.750	(1.006)	1955933	80.0	79.8
	12 Benzyl alcohol	108.00	6.037	6.024	(1.054)	1018581	80.0	80.2
	13 1,2-Dichlorobenzene	146.00	6.070	6.067	(1.059)	1757850	80.0	79.0
	14 2-Methylphenol	108.00	6.256	6.243	(1.092)	1393156	80.0	78.3
	15 Bis(2-chloroisopropyl)ether	45.00	6.289	6.287	(1.098)	1661513	80.0	78.3(M)
	16 N-Nitrosodi-n-propylamine	70.00	6.563	6.539	(1.145)	716669	80.0	77.8
	17 4-Methylphenol	108.00	6.541	6.506	(1.142)	1358506	80.0	77.0
	18 Hexachloroethane	117.00	6.585	6.582	(1.149)	852414	80.0	79.8
$	19 Nitrobenzene-d5 (SS)	82.00	6.761	6.747	(0.842)	1508148	80.0	80.9
	20 Nitrobenzene	77.00	6.805	6.780	(0.847)	1267097	80.0	80.9
	21 Isophorone	82.00	7.221	7.195	(0.899)	2446497	80.0	79.7
	22 2-Nitrophenol	139.00	7.375	7.370	(0.918)	861614	80.0	81.9
	23 2,4-Dimethylphenol	107.00	7.495	7.469	(0.933)	1179619	80.0	79.4
	25 Bis(2-chloroethoxy)methane	93.00	7.671	7.655	(0.955)	1791309	80.0	80.0
	26 Benzoic acid	122.00	7.803	7.655	(0.971)	353167	40.0	40.9
	27 2,4-Dichlorophenol	162.00	7.825	7.808	(0.974)	1134887	80.0	82.2
	28 1,2,4-Trichlorobenzene	180.00	7.967	7.962	(0.992)	1217685	80.0	79.9
*	29 Naphthalene-d8	136.00	8.033	8.022	(1.000)	1892275	40.0	
	30 Naphthalene	128.00	8.078	8.061	(1.005)	3994759	80.0	80.4
	32 Hexachlorobutadiene	225.00	8.439	8.433	(1.051)	693155	80.0	80.8
	33 4-Chloro-3-methylphenol	107.00	9.249	9.242	(1.151)	1094988	80.0	81.7

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	34 2-Methylnaphthalene	142.00	9.424	9.417	(1.173)	2342808	80.0	81.6
	35 Hexachlorocyclopentadiene	237.00	9.885	9.888	(0.855)	699946	80.0	81.5
	36 2,4,6-Trichlorophenol	196.00	10.082	10.074	(0.872)	738934	80.0	81.1
	37 2,4,5-Trichlorophenol	196.00	10.148	10.139	(0.878)	774103	80.0	80.6
$	38 2-Fluorobiphenyl (SS)	172.00	10.236	10.216	(0.885)	2704391	80.0	79.0
	39 2-Chloronaphthalene	162.00	10.401	10.392	(0.900)	2212674	80.0	78.8
	41 Dimethyl phthalate	163.00	11.179	11.157	(0.967)	2469415	80.0	81.1
	42 2,6-Dinitrotoluene	165.00	11.321	11.300	(0.979)	616508	80.0	82.8
	43 Acenaphthylene	152.00	11.255	11.234	(0.973)	3494726	80.0	78.8
*	45 Acenaphthene-d10	164.00	11.563	11.555	(1.000)	878689	40.0	
	46 Acenaphthene	153.00	11.640	11.617	(1.007)	2044082	80.0	79.6
	47 2,4-Dinitrophenol	184.00	11.793	11.792	(1.020)	353781	80.0	80.5
	48 4-Nitrophenol	109.00	11.980	11.968	(1.036)	269952	80.0	76.2(QM)
	49 Dibenzofuran	168.00	11.958	11.946	(1.034)	2924067	80.0	78.9
	50 2,4-Dinitrotoluene	165.00	12.112	12.088	(1.047)	795972	80.0	81.8
	51 Diethyl phthalate	149.00	12.627	12.602	(1.092)	2456972	80.0	81.2
	52 Fluorene	166.00	12.660	12.646	(1.095)	2320926	80.0	79.9
	53 4-Chlorophenyl phenyl ether	204.00	12.693	12.679	(1.098)	1054585	80.0	80.0
	55 4,6-Dinitro-2-methylphenol	198.00	12.923	12.909	(0.887)	494620	80.0	81.4
	56 N-Nitrosodiphenylamine	169.00	12.967	12.942	(0.890)	1289769	80.0	78.7
$	58 2,4,6-Tribromophenol (SS)	329.90	13.209	13.194	(1.142)	380875	80.0	81.0
	59 4-Bromophenyl phenyl ether	248.00	13.680	13.664	(0.939)	545985	80.0	80.5
	60 Hexachlorobenzene	284.00	13.965	13.949	(0.959)	746838	80.0	80.0
	61 Pentachlorophenol	266.00	14.348	14.331	(0.985)	489213	80.0	87.3
*	Phenanthrene-d10	188.00	14.568	14.551	(1.000)	1168242	40.0	
	63 Phenanthrene	178.00	14.612	14.594	(1.003)	3007029	80.0	80.7
	64 Anthracene	178.00	14.711	14.682	(1.010)	2982150	80.0	78.6
	66 Di-n-butylphthalate	149.00	15.936	15.929	(1.094)	4171311	80.0	82.4
	67 Fluoranthene	202.00	17.063	17.044	(1.171)	2897681	80.0	79.4
	69 Pyrene	202.00	17.512	17.492	(0.875)	2912994	80.0	82.0
$	70 Terphenyl-d14 (SS)	244.00	17.884	17.875	(0.894)	1983421	80.0	82.7
	71 Butyl benzyl phthalate	149.00	18.978	18.958	(0.949)	1605557	80.0	83.3
	73 Benzo(a)anthracene	228.00	19.974	19.953	(0.998)	2026413	80.0	81.1
*	74 Chrysene-d12	240.00	20.007	19.986	(1.000)	771327	40.0	
	75 Chrysene	228.00	20.062	20.041	(1.003)	1886701	80.0	80.5
	76 Bis(2-ethylhexyl)phthalate	149.00	20.172	20.162	(1.008)	2073576	80.0	84.1
	77 Di-n-octylphthalate	149.00	21.343	21.332	(0.937)	3389362	80.0	85.9
	78 Benzo(b)fluoranthene	252.00	22.066	22.044	(0.969)	1862154	80.0	81.9
	79 Benzo(k)fluoranthene	252.00	22.110	22.088	(0.971)	1777414	80.0	79.3
	80 Benzo(a)pyrene	252.00	22.669	22.646	(0.996)	1495365	80.0	81.2
*	81 Perylene-d12	264.00	22.768	22.755	(1.000)	682945	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	24.744	24.708	(1.087)	1590233	80.0	83.5
	83 Dibenz(a,h)anthracene	278.00	24.755	24.730	(1.087)	1331341	80.0	84.0
	84 Benzo(g,h,i)perylene	276.00	25.250	25.225	(1.109)	1347358	80.0	82.6

QC Flag Legend

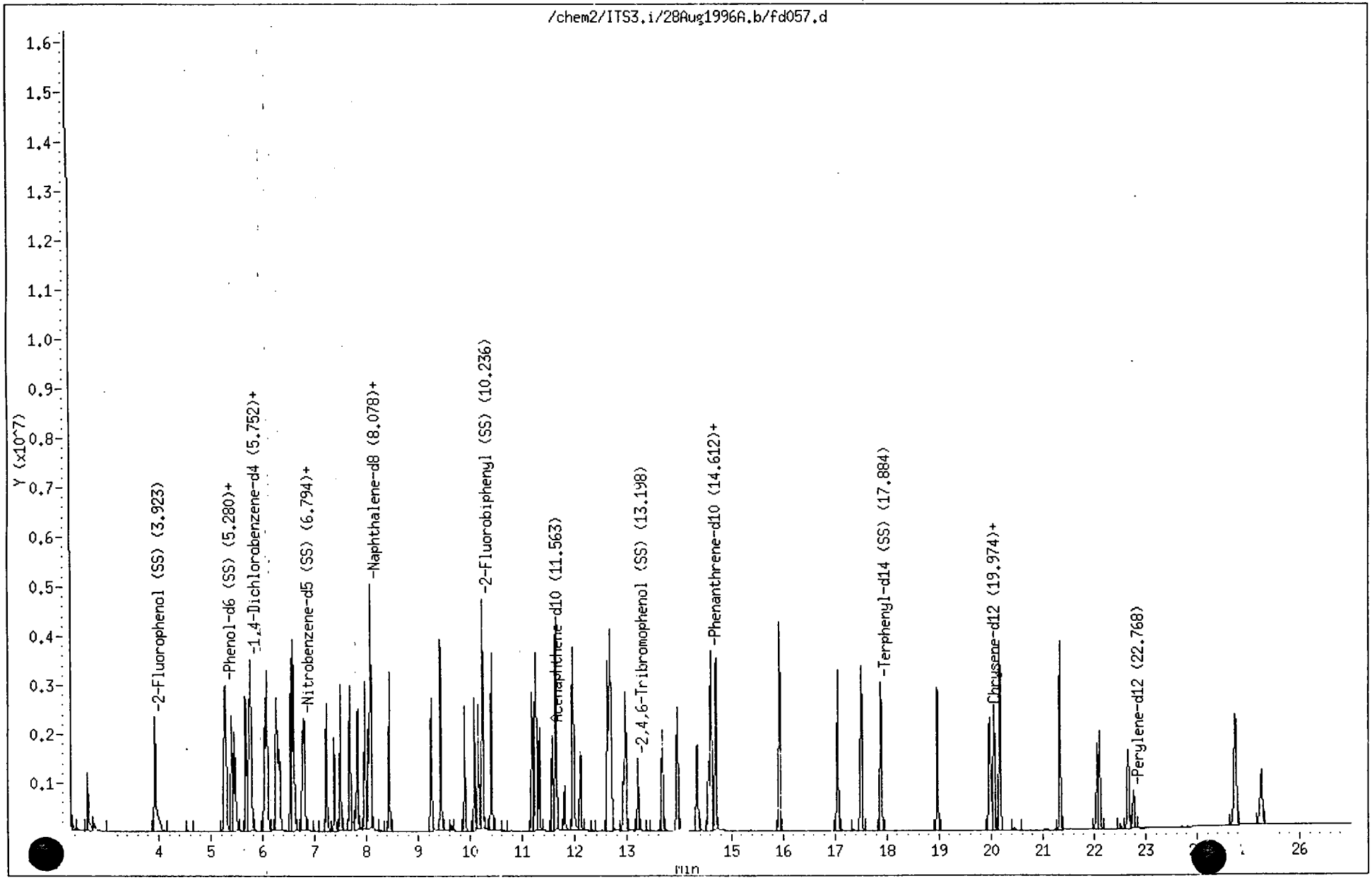
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: /chem2/ITS3.i/28Aug1996A.b/fd057.d
Date : 28-AUG-1996 13:28
Client ID: SSTD080 AB396-55-2
Sample Info: ITS3 Calibration Standard (exp 9/96)

Column phase: DB-5

Instrument: ITS3.i

Operator: WSW
Column diameter: 0.25



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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/28Aug1996A.b/fd058.d
Lab Smp Id: SSTD050 AB396-55-2 Client Smp ID: SSTD050 AB396-55-2
Inj Date : 28-AUG-1996 14:03 Autotune Date: 03-Jun-92 08:58
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Calibration Standard (exp 9/96)
Misc Info : 50ug/mL 03-12-96 AB396-55-2 BTL# 9
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 14:03 Cal File: fd058.d
Als bottle: 9 Calibration Sample, Level: 3
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	1 N-Nitrosodimethylamine	74.00	2.643	2.643	(0.461)	646563	50.0	54.5
$	3 2-Fluorophenol (SS)	112.00	3.923	3.923	(0.685)	1246260	50.0	50.4
$	4 Phenol-d6 (SS)	99.00	5.258	5.246	(0.918)	1385908	50.0	51.6
	Phenol	94.00	5.269	5.257	(0.920)	1313102	50.0	52.0
	7 Bis(2-chloroethyl)ether	93.00	5.389	5.388	(0.941)	1180476	50.0	51.6
	8 2-Chlorophenol	128.00	5.444	5.443	(0.950)	1096889	50.0	49.8
	9 1,3-Dichlorobenzene	146.00	5.663	5.662	(0.988)	1245887	50.0	50.2
*	10 1,4-Dichlorobenzene-d4	152.00	5.729	5.726	(1.000)	618856	40.0	
	11 1,4-Dichlorobenzene	146.00	5.751	5.750	(1.004)	1296274	50.0	49.9
	12 Benzyl alcohol	108.00	6.025	6.024	(1.052)	707741	50.0	52.6
	13 1,2-Dichlorobenzene	146.00	6.069	6.067	(1.059)	1173753	50.0	49.8
	14 2-Methylphenol	108.00	6.256	6.243	(1.092)	973505	50.0	51.7
	15 Bis(2-chloroisopropyl)ether	45.00	6.289	6.287	(1.098)	1183030	50.0	52.7(M)
	16 N-Nitrosodi-n-propylamine	70.00	6.563	6.539	(1.145)	528453	50.0	54.2
	17 4-Methylphenol	108.00	6.530	6.506	(1.140)	978462	50.0	52.4
	18 Hexachloroethane	117.00	6.585	6.582	(1.149)	569032	50.0	50.3
$	19 Nitrobenzene-d5 (SS)	82.00	6.760	6.747	(0.842)	1074833	50.0	51.6
	20 Nitrobenzene	77.00	6.793	6.780	(0.846)	889464	50.0	50.8
	21 Isophorone	82.00	7.220	7.195	(0.899)	1797670	50.0	52.4
	22 2-Nitrophenol	139.00	7.373	7.370	(0.918)	597458	50.0	50.8
	23 2,4-Dimethylphenol	107.00	7.483	7.469	(0.932)	874557	50.0	52.7
	25 Bis(2-chloroethoxy)methane	93.00	7.670	7.655	(0.955)	1281408	50.0	51.2
	26 Benzoic acid	122.00	7.768	7.655	(0.967)	207537	25.0	21.5
	27 2,4-Dichlorophenol	162.00	7.812	7.808	(0.973)	797446	50.0	51.7
	28 1,2,4-Trichlorobenzene	180.00	7.966	7.962	(0.992)	857451	50.0	50.3
*	29 Naphthalene-d8	136.00	8.032	8.022	(1.000)	2114550	40.0	
	30 Naphthalene	128.00	8.076	8.061	(1.005)	2802952	50.0	50.5
	32 Hexachlorobutadiene	225.00	8.438	8.433	(1.050)	478907	50.0	50.0
	33 4-Chloro-3-methylphenol	107.00	9.247	9.242	(1.151)	793865	50.0	53.0

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	34 2-Methylnaphthalene	142.00	9.423	9.417	(1.173)	1672830	50.0	52.1
	35 Hexachlorocyclopentadiene	237.00	9.883	9.888	(0.855)	493205	50.0	49.7
	36 2,4,6-Trichlorophenol	196.00	10.080	10.074	(0.872)	527090	50.0	50.1
	37 2,4,5-Trichlorophenol	196.00	10.146	10.139	(0.878)	552006	50.0	49.8
$	38 2-Fluorobiphenyl (SS)	172.00	10.234	10.216	(0.885)	1961497	50.0	49.6
	39 2-Chloronaphthalene	162.00	10.399	10.392	(0.900)	1604675	50.0	49.4
	41 Dimethyl phthalate	163.00	11.176	11.157	(0.967)	1799448	50.0	51.1
	42 2,6-Dinitrotoluene	165.00	11.319	11.300	(0.979)	436142	50.0	50.7
	43 Acenaphthylene	152.00	11.242	11.234	(0.972)	2583119	50.0	50.4
*	45 Acenaphthene-d10	164.00	11.560	11.555	(1.000)	1015107	40.0	
	46 Acenaphthene	153.00	11.637	11.617	(1.007)	1499405	50.0	50.6
	47 2,4-Dinitrophenol	184.00	11.790	11.792	(1.020)	232549	50.0	45.8
	48 4-Nitrophenol	109.00	11.977	11.968	(1.036)	188704	50.0	46.1
	49 Dibenzofuran	168.00	11.955	11.946	(1.034)	2162939	50.0	50.5
	50 2,4-Dinitrotoluene	165.00	12.098	12.088	(1.047)	564825	50.0	50.3
	51 Diethyl phthalate	149.00	12.623	12.602	(1.092)	1799576	50.0	51.4
	52 Fluorene	166.00	12.656	12.646	(1.095)	1686801	50.0	50.3
	53 4-Chlorophenyl phenyl ether	204.00	12.690	12.679	(1.098)	770749	50.0	50.6
	55 4,6-Dinitro-2-methylphenol	198.00	12.920	12.909	(0.887)	331922	50.0	46.7
	56 N-Nitrosodiphenylamine	169.00	12.964	12.942	(0.890)	948253	50.0	49.5
$	58 2,4,6-Tribromophenol (SS)	329.90	13.205	13.194	(1.142)	272287	50.0	50.1
	59 4-Bromophenyl phenyl ether	248.00	13.676	13.664	(0.939)	404421	50.0	51.0
	60 Hexachlorobenzene	284.00	13.950	13.949	(0.958)	540938	50.0	49.6
	61 Pentachlorophenol	266.00	14.344	14.331	(0.985)	333054	50.0	50.9
*	Phenanthrene-d10	188.00	14.564	14.551	(1.000)	1365596	40.0	
	63 Phenanthrene	178.00	14.608	14.594	(1.003)	2113128	50.0	48.5
	64 Anthracene	178.00	14.707	14.682	(1.010)	2188706	50.0	49.4
	66 Di-n-butylphthalate	149.00	15.932	15.929	(1.094)	2912636	50.0	49.2
	67 Fluoranthene	202.00	17.058	17.044	(1.171)	2004181	50.0	47.2
	69 Pyrene	202.00	17.507	17.492	(0.875)	2002808	50.0	53.0
$	70 Terphenyl-d14 (SS)	244.00	17.879	17.875	(0.894)	1372704	50.0	53.8
	71 Butyl benzyl phthalate	149.00	18.962	18.958	(0.948)	1070024	50.0	52.2
	73 Benzo(a)anthracene	228.00	19.969	19.953	(0.998)	1327425	50.0	50.0
*	74 Chrysene-d12	240.00	20.002	19.986	(1.000)	819615	40.0	
	75 Chrysene	228.00	20.057	20.041	(1.003)	1238496	50.0	49.8
	76 Bis(2-ethylhexyl)phthalate	149.00	20.167	20.162	(1.008)	1342297	50.0	51.2
	77 Di-n-octylphthalate	149.00	21.338	21.332	(0.937)	2124847	50.0	50.5
	78 Benzo(b)fluoranthene	252.00	22.060	22.044	(0.969)	1253491	50.0	51.6
	79 Benzo(k)fluoranthene	252.00	22.105	22.088	(0.971)	1137606	50.0	47.6
	80 Benzo(a)pyrene	252.00	22.664	22.646	(0.996)	977772	50.0	49.8
*	81 Perylene-d12	264.00	22.762	22.755	(1.000)	728678	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	24.726	24.708	(1.086)	1002246	50.0	49.3
	83 Dibenz(a,h)anthracene	278.00	24.737	24.730	(1.087)	825269	50.0	48.8
	84 Benzo(g,h,i)perylene	276.00	25.243	25.225	(1.109)	851073	50.0	48.9

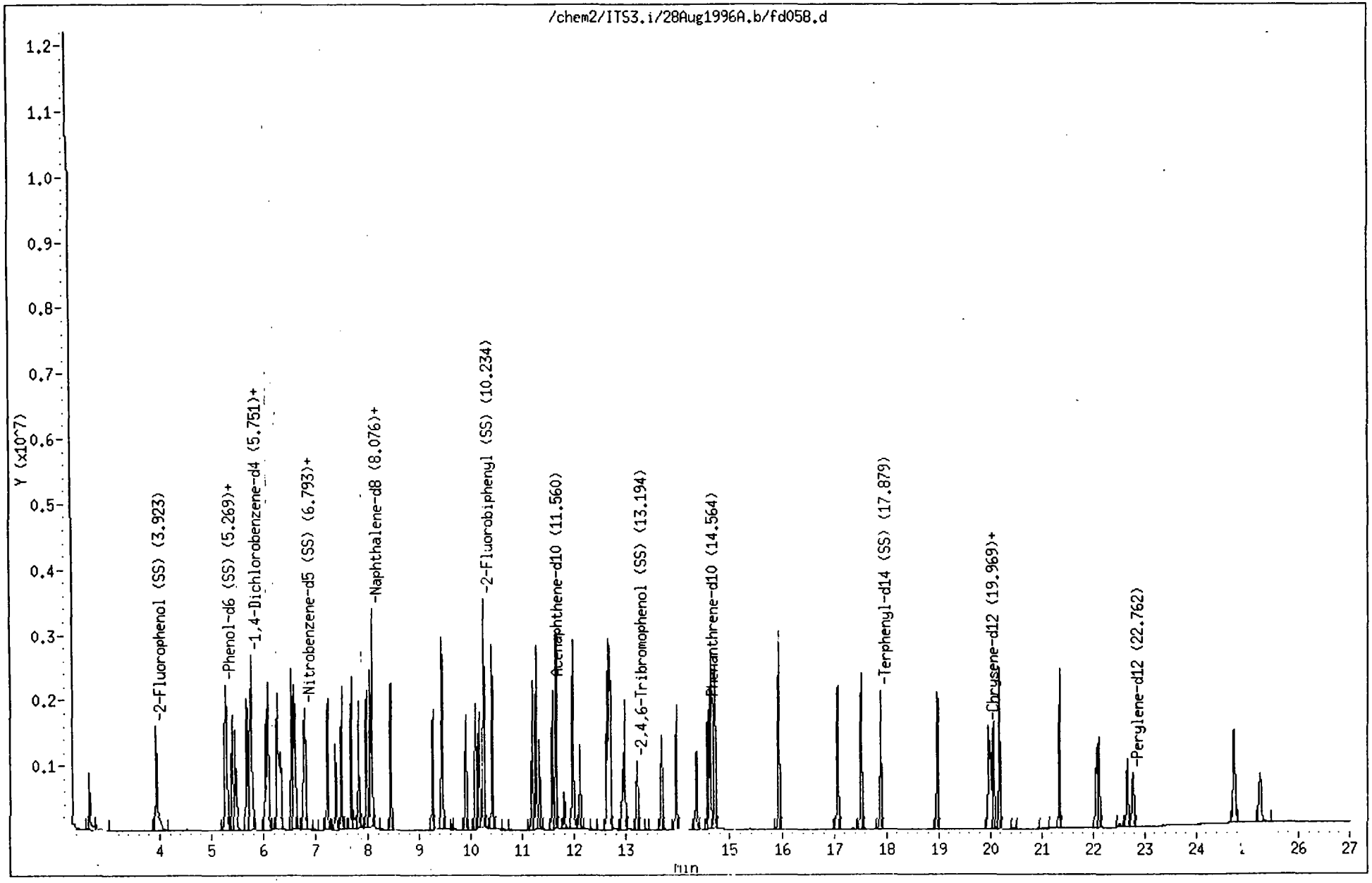
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem2/ITS3.i/28Aug1996A.b/fd058.d
Date : 28-AUG-1996 14:03
Client ID: SSTD050 AB396-55-2
Sample Info: ITS3 Calibration Standard (exp 9/96)

Instrument: ITS3.i
Operator: WSW
Column diameter: 0.25

Column phase: DB-5



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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/28Aug1996A.b/fd059.d
Lab Smp Id: SSTD020 AB396-55-2 Client Smp ID: SSTD020 AB396-55-2
Inj Date : 28-AUG-1996 14:38
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Calibration Standard (exp 9/96)
Misc Info : 20ug/mL 03-12-96 AB396-55-2 BTL#10
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 14:03 Cal File: fd058.d
Als bottle: 10 Calibration Sample, Level: 2
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 N-Nitrosodimethylamine	74.00	2.643	2.643	(0.461)	256532	20.0	21.2
$	3 2-Fluorophenol (SS)	112.00	3.923	3.923	(0.685)	525849	20.0	20.9
$	' Phenol-d6 (SS)	99.00	5.246	5.246	(0.916)	556743	20.0	20.3
	Phenol	94.00	5.257	5.257	(0.918)	540360	20.0	21.0
	7 Bis(2-chloroethyl)ether	93.00	5.378	5.388	(0.939)	474070	20.0	20.3
	8 2-Chlorophenol	128.00	5.443	5.443	(0.950)	456759	20.0	20.3
	9 1,3-Dichlorobenzene	146.00	5.662	5.662	(0.988)	517843	20.0	20.4
*	10 1,4-Dichlorobenzene-d4	152.00	5.728	5.726	(1.000)	631236	40.0	
	11 1,4-Dichlorobenzene	146.00	5.750	5.750	(1.004)	536562	20.0	20.3
	12 Benzyl alcohol	108.00	6.024	6.024	(1.052)	260948	20.0	19.0
	13 1,2-Dichlorobenzene	146.00	6.068	6.067	(1.059)	492382	20.0	20.5
	14 2-Methylphenol	108.00	6.243	6.243	(1.090)	383506	20.0	20.0
	15 Bis(2-chloroisopropyl)ether	45.00	6.287	6.287	(1.098)	488742	20.0	21.3(M)
	16 N-Nitrosodi-n-propylamine	70.00	6.539	6.539	(1.142)	191951	20.0	19.3
	17 4-Methylphenol	108.00	6.506	6.506	(1.136)	371191	20.0	19.5
	18 Hexachloroethane	117.00	6.583	6.582	(1.149)	241281	20.0	20.9
$	19 Nitrobenzene-d5 (SS)	82.00	6.747	6.747	(0.840)	402751	20.0	20.9
	20 Nitrobenzene	77.00	6.780	6.780	(0.844)	333786	20.0	20.6
	21 Isophorone	82.00	7.207	7.195	(0.898)	598507	20.0	18.9
	22 2-Nitrophenol	139.00	7.371	7.370	(0.918)	211229	20.0	19.4
	23 2,4-Dimethylphenol	107.00	7.470	7.469	(0.930)	315031	20.0	20.5
	25 Bis(2-chloroethoxy)methane	93.00	7.656	7.655	(0.954)	460813	20.0	19.9
	26 Benzoic acid	122.00	7.678	7.655	(0.956)	50098	10.0	5.61(QM)
	27 2,4-Dichlorophenol	162.00	7.799	7.808	(0.971)	278432	20.0	19.5
	28 1,2,4-Trichlorobenzene	180.00	7.952	7.962	(0.990)	320791	20.0	20.4
*	29 Naphthalene-d8	136.00	8.029	8.022	(1.000)	1954822	40.0	
	30 Naphthalene	128.00	8.062	8.061	(1.004)	1046007	20.0	20.4
	32 Hexachlorobutadiene	225.00	8.434	8.433	(1.050)	185761	20.0	21.0
	33 4-Chloro-3-methylphenol	107.00	9.233	9.242	(1.150)	261049	20.0	18.9

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	34 2-Methylnaphthalene	142.00	9.419	9.417	(1.173)	560972	20.0	18.9
	35 Hexachlorocyclopentadiene	237.00	9.890	9.888	(0.856)	150894	20.0	19.3
	36 2,4,6-Trichlorophenol	196.00	10.065	10.074	(0.871)	160300	20.0	19.4
	37 2,4,5-Trichlorophenol	196.00	10.142	10.139	(0.878)	179592	20.0	20.6
$	38 2-Fluorobiphenyl (SS)	172.00	10.218	10.216	(0.884)	627252	20.0	20.2
	39 2-Chloronaphthalene	162.00	10.394	10.392	(0.900)	530609	20.0	20.8
	41 Dimethyl phthalate	163.00	11.159	11.157	(0.966)	545189	20.0	19.7
	42 2,6-Dinitrotoluene	165.00	11.302	11.300	(0.978)	124316	20.0	18.4
	43 Acenaphthylene	152.00	11.236	11.234	(0.973)	832387	20.0	20.6
*	45 Acenaphthene-d10	164.00	11.554	11.555	(1.000)	798126	40.0	
	46 Acenaphthene	153.00	11.620	11.617	(1.006)	468238	20.0	20.1
	47 2,4-Dinitrophenol	184.00	11.784	11.792	(1.020)	46010	20.0	11.5(M)
	48 4-Nitrophenol	109.00	11.970	11.968	(1.036)	61816	20.0	19.2(QM)
	49 Dibenzofuran	168.00	11.948	11.946	(1.034)	679040	20.0	20.2
	50 2,4-Dinitrotoluene	165.00	12.091	12.088	(1.046)	170087	20.0	19.2
	51 Diethyl phthalate	149.00	12.605	12.602	(1.091)	531545	20.0	19.3
	52 Fluorene	166.00	12.649	12.646	(1.095)	523283	20.0	19.8
	53 4-Chlorophenyl phenyl ether	204.00	12.682	12.679	(1.098)	231993	20.0	19.4
	55 4,6-Dinitro-2-methylphenol	198.00	12.912	12.909	(0.887)	81103	20.0	14.4
	56 N-Nitrosodiphenylamine	169.00	12.945	12.942	(0.889)	324635	20.0	21.4
$	58 2,4,6-Tribromophenol (SS)	329.90	13.197	13.194	(1.142)	83146	20.0	19.4
	59 4-Bromophenyl phenyl ether	248.00	13.667	13.664	(0.939)	121504	20.0	19.3
	60 Hexachlorobenzene	284.00	13.941	13.949	(0.958)	172683	20.0	19.9
	Pentachlorophenol	266.00	14.335	14.331	(0.985)	87150	20.0	16.8
*	Phenanthrene-d10	188.00	14.554	14.551	(1.000)	1083378	40.0	
	63 Phenanthrene	178.00	14.598	14.594	(1.003)	685777	20.0	19.8
	64 Anthracene	178.00	14.686	14.682	(1.009)	730541	20.0	20.8
	66 Di-n-butylphthalate	149.00	15.921	15.929	(1.094)	911769	20.0	19.4
	67 Fluoranthene	202.00	17.048	17.044	(1.171)	731637	20.0	21.7
	69 Pyrene	202.00	17.496	17.492	(0.875)	757255	20.0	17.4
$	70 Terphenyl-d14 (SS)	244.00	17.879	17.875	(0.894)	497429	20.0	16.9
	71 Butyl benzyl phthalate	149.00	18.962	18.958	(0.948)	405976	20.0	17.2
	73 Benzo(a)anthracene	228.00	19.957	19.953	(0.998)	597881	20.0	19.5
*	74 Chrysene-d12	240.00	20.002	19.986	(1.000)	944517	40.0	
	75 Chrysene	228.00	20.046	20.041	(1.002)	579093	20.0	20.2
	76 Bis(2-ethylhexyl)phthalate	149.00	20.166	20.162	(1.008)	504636	20.0	16.7
	77 Di-n-octylphthalate	149.00	21.337	21.332	(0.937)	895031	20.0	15.5
	78 Benzo(b)fluoranthene	252.00	22.049	22.044	(0.969)	618616	20.0	18.6
	79 Benzo(k)fluoranthene	252.00	22.093	22.088	(0.971)	645850	20.0	19.7
	80 Benzo(a)pyrene	252.00	22.652	22.646	(0.995)	524351	20.0	19.4
*	81 Perylene-d12	264.00	22.761	22.755	(1.000)	1000600	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	24.714	24.708	(1.086)	554020	20.0	19.9
	83 Dibenz(a,h)anthracene	278.00	24.736	24.730	(1.087)	451105	20.0	19.4
	84 Benzo(g,h,i)perylene	276.00	25.231	25.225	(1.108)	485610	20.0	20.3

QC Flag Legend

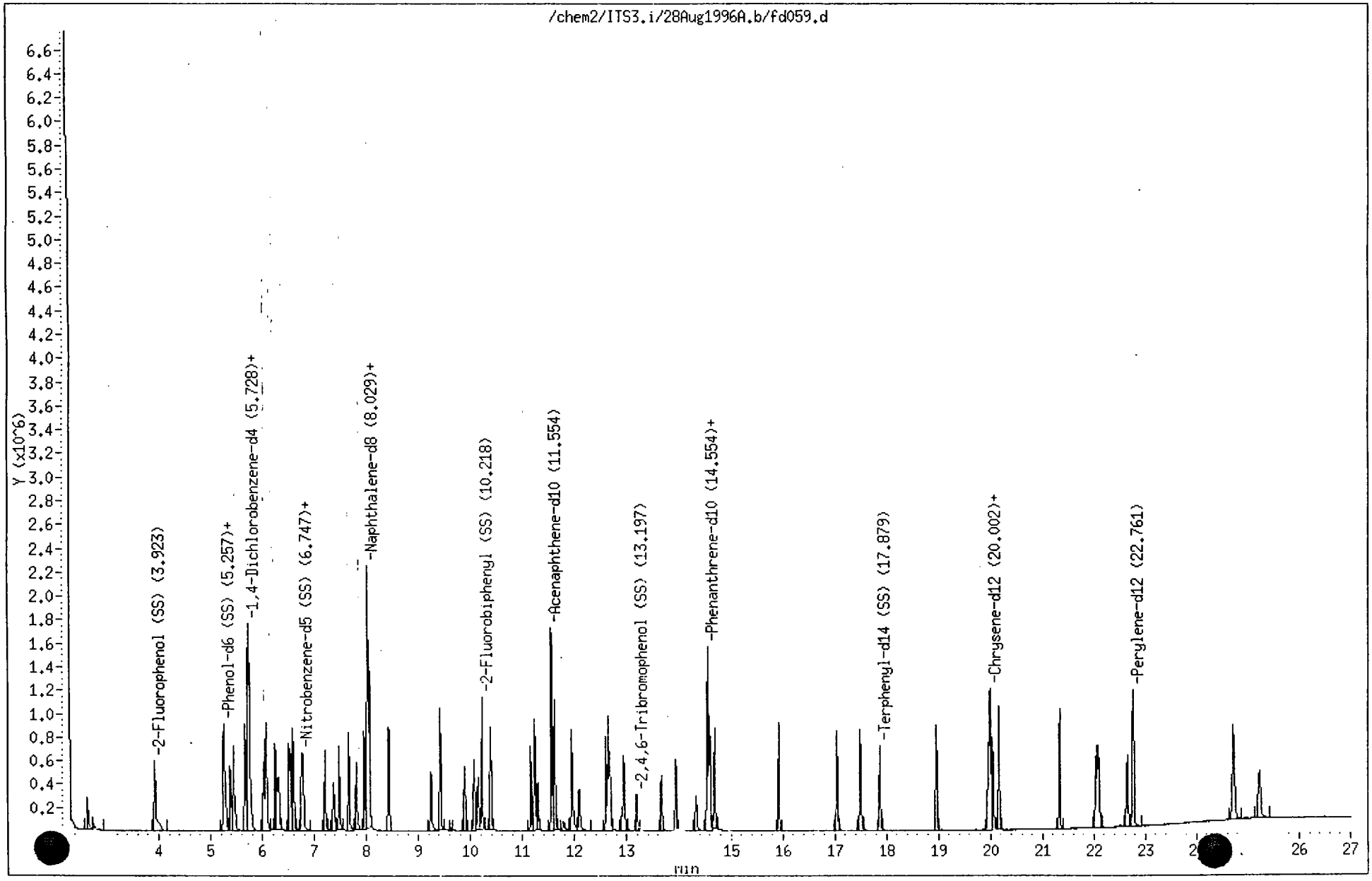
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: /chem2/ITS3.i/28Aug1996A.b/fd059.d
Date : 28-AUG-1996 14:38
Client ID: SSTD020 AB396-55-2
Sample Info: ITS3 Calibration Standard (exp 9/96)

Column phase: DB-5

Instrument: ITS3.i

Operator: WSW
Column diameter: 0.25



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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/28Aug1996A.b/fd060.d
Lab Smp Id: SSTD010 AB396-55-2 Client Smp ID: SSTD010 AB396-55-2
Inj Date : 28-AUG-1996 15:13
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Calibration Standard (exp 9/96)
Misc Info : 10ug/mL 03-12-96 AB396-55-2 BTL#11
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 14:03 Cal File: fd058.d
Als bottle: 11 Calibration Sample, Level: 1
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	1 N-Nitrosodimethylamine	74.00	2.643	2.643	(0.461)	113079	10.0	10.0
$	3 2-Fluorophenol (SS)	112.00	3.923	3.923	(0.685)	234636	10.0	9.98
$	4 Phenol-d6 (SS)	99.00	5.246	5.246	(0.916)	259966	10.0	10.2
	Phenol	94.00	5.257	5.257	(0.918)	251993	10.0	10.5
	7 Bis(2-chloroethyl)ether	93.00	5.388	5.388	(0.941)	224464	10.0	10.3
	8 2-Chlorophenol	128.00	5.443	5.443	(0.950)	212291	10.0	10.1
	9 1,3-Dichlorobenzene	146.00	5.662	5.662	(0.989)	241853	10.0	10.2
*	10 1,4-Dichlorobenzene-d4	152.00	5.728	5.726	(1.000)	588969	40.0	
	11 1,4-Dichlorobenzene	146.00	5.750	5.750	(1.004)	257662	10.0	10.4
	12 Benzyl alcohol	108.00	6.024	6.024	(1.052)	124121	10.0	9.70
	13 1,2-Dichlorobenzene	146.00	6.067	6.067	(1.059)	232103	10.0	10.3
	14 2-Methylphenol	108.00	6.243	6.243	(1.090)	183114	10.0	10.2
	15 Bis(2-chloroisopropyl)ether	45.00	6.287	6.287	(1.098)	241114	10.0	11.3(M)
	16 N-Nitrosodi-n-propylamine	70.00	6.539	6.539	(1.142)	100882	10.0	10.9
	17 4-Methylphenol	108.00	6.506	6.506	(1.136)	190493	10.0	10.7
	18 Hexachloroethane	117.00	6.582	6.582	(1.149)	116150	10.0	10.8
$	19 Nitrobenzene-d5 (SS)	82.00	6.747	6.747	(0.840)	194044	10.0	9.94
	20 Nitrobenzene	77.00	6.780	6.780	(0.845)	174648	10.0	10.6
	21 Isophorone	82.00	7.195	7.195	(0.896)	333696	10.0	10.4
	22 2-Nitrophenol	139.00	7.370	7.370	(0.918)	102566	10.0	9.31
	23 2,4-Dimethylphenol	107.00	7.469	7.469	(0.930)	161197	10.0	10.4
	25 Bis(2-chloroethoxy)methane	93.00	7.655	7.655	(0.954)	247321	10.0	10.5
	26 Benzoic acid	122.00	7.655	7.655	(0.954)	11905	5.00	1.32(QM)
	27 2,4-Dichlorophenol	162.00	7.808	7.808	(0.973)	134609	10.0	9.31
	28 1,2,4-Trichlorobenzene	180.00	7.962	7.962	(0.992)	163975	10.0	10.3
*	29 Naphthalene-d8	136.00	8.028	8.022	(1.000)	1981488	40.0	
	30 Naphthalene	128.00	8.061	8.061	(1.004)	524510	10.0	10.1
	32 Hexachlorobutadiene	225.00	8.433	8.433	(1.050)	90050	10.0	10.0
	33 4-Chloro-3-methylphenol	107.00	9.242	9.242	(1.151)	139377	10.0	9.94

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
34	2-Methylnaphthalene	142.00	9.417	9.417	(1.173)	296989	10.0	9.87
35	Hexachlorocyclopentadiene	237.00	9.888	9.888	(0.855)	69345	10.0	7.57
36	2,4,6-Trichlorophenol	196.00	10.074	10.074	(0.871)	91467	10.0	9.41
37	2,4,5-Trichlorophenol	196.00	10.139	10.139	(0.877)	93299	10.0	9.11
$ 38	2-Fluorobiphenyl (SS)	172.00	10.216	10.216	(0.884)	364335	10.0	9.97
39	2-Chloronaphthalene	162.00	10.392	10.392	(0.899)	301255	10.0	10.0
41	Dimethyl phthalate	163.00	11.157	11.157	(0.965)	323751	10.0	9.96(M)
42	2,6-Dinitrotoluene	165.00	11.300	11.300	(0.977)	69360	10.0	8.73
43	Acenaphthylene	152.00	11.234	11.234	(0.972)	475710	10.0	10.0
* 45	Acenaphthene-d10	164.00	11.562	11.555	(1.000)	937607	40.0	
46	Acenaphthene	153.00	11.617	11.617	(1.005)	276961	10.0	10.1
47	2,4-Dinitrophenol	184.00	11.792	11.792	(1.020)	9089	10.0	1.94(M)
48	4-Nitrophenol	109.00	11.968	11.968	(1.035)	23261	10.0	6.16(QM)
49	Dibenzofuran	168.00	11.946	11.946	(1.033)	394356	10.0	9.97
50	2,4-Dinitrotoluene	165.00	12.088	12.088	(1.045)	88988	10.0	8.57
51	Diethyl phthalate	149.00	12.602	12.602	(1.090)	325578	10.0	10.1
52	Fluorene	166.00	12.646	12.646	(1.094)	311522	10.0	10.0
53	4-Chlorophenyl phenyl ether	204.00	12.679	12.679	(1.097)	138838	10.0	9.88
55	4,6-Dinitro-2-methylphenol	198.00	12.909	12.909	(0.887)	25234	10.0	3.98
56	N-Nitrosodiphenylamine	169.00	12.942	12.942	(0.889)	184561	10.0	10.8
$ 58	2,4,6-Tribromophenol (SS)	329.90	13.194	13.194	(1.141)	46699	10.0	9.30
59	4-Bromophenyl phenyl ether	248.00	13.664	13.664	(0.939)	71542	10.0	10.1
60	Hexachlorobenzene	284.00	13.949	13.949	(0.959)	102196	10.0	10.5
61	Pentachlorophenol	266.00	14.331	14.331	(0.985)	32770	10.0	5.61
*	Phenanthrene-d10	188.00	14.550	14.551	(1.000)	1218507	40.0	
63	Phenanthrene	178.00	14.594	14.594	(1.003)	384685	10.0	9.90
64	Anthracene	178.00	14.682	14.682	(1.009)	386411	10.0	9.77
66	Di-n-butylphthalate	149.00	15.929	15.929	(1.095)	526495	10.0	9.98
67	Fluoranthene	202.00	17.044	17.044	(1.171)	343113	10.0	9.05
69	Pyrene	202.00	17.492	17.492	(0.875)	347817	10.0	11.1
$ 70	Terphenyl-d14 (SS)	244.00	17.875	17.875	(0.894)	222106	10.0	10.5
71	Butyl benzyl phthalate	149.00	18.958	18.958	(0.948)	184652	10.0	10.8
73	Benzo(a)anthracene	228.00	19.953	19.953	(0.998)	211063	10.0	9.55
* 74	Chrysene-d12	240.00	19.997	19.986	(1.000)	682329	40.0	
75	Chrysene	228.00	20.041	20.041	(1.002)	207176	10.0	10.0
76	Bis(2-ethylhexyl)phthalate	149.00	20.162	20.162	(1.008)	241788	10.0	11.1
77	Di-n-octylphthalate	149.00	21.332	21.332	(0.937)	361698	10.0	10.5
78	Benzo(b)fluoranthene	252.00	22.044	22.044	(0.969)	189102	10.0	9.54
79	Benzo(k)fluoranthene	252.00	22.088	22.088	(0.971)	208466	10.0	10.7
80	Benzo(a)pyrene	252.00	22.646	22.646	(0.995)	151549	10.0	9.44
* 81	Perylene-d12	264.00	22.756	22.755	(1.000)	595456	40.0	
82	Indeno(1,2,3-cd)pyrene	276.00	24.708	24.708	(1.086)	145682	10.0	8.78
83	Dibenz(a,h)anthracene	278.00	24.730	24.730	(1.087)	113251	10.0	8.19
84	Benzo(g,h,i)perylene	276.00	25.225	25.225	(1.108)	131933	10.0	9.28

QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

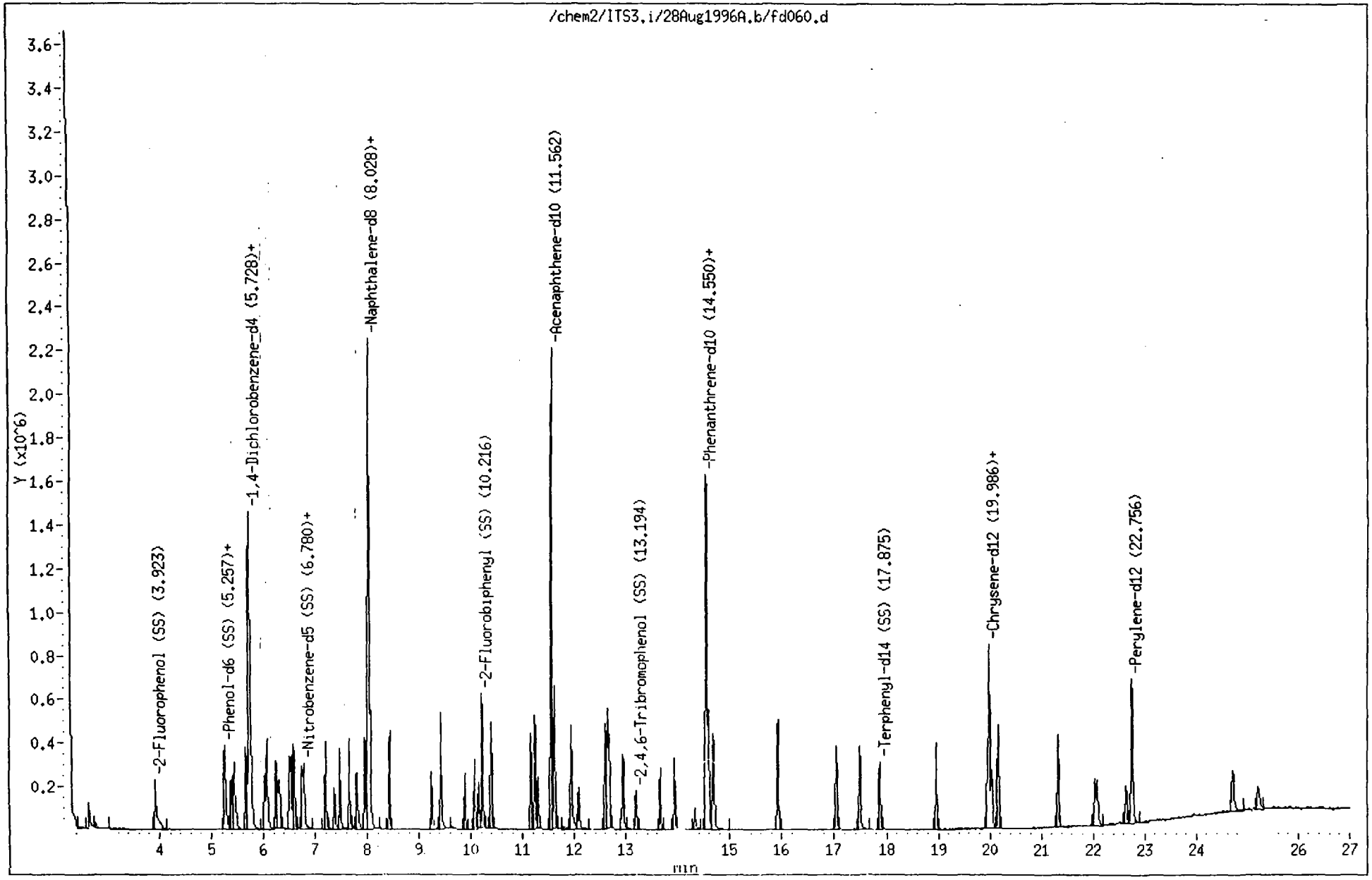
Data File: /chem2/ITS3.i/28Aug1996A.b/fd060.d
Date : 28-AUG-1996 15:13
Client ID: SSTD010 AB396-55-2
Sample Info: ITS3 Calibration Standard (exp 9/96)

Instrument: ITS3.i

Operator: WSW

Column phase: DB-5

Column diameter: 0.25



Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/28Aug1996A.b/fd061.d
Lab Smp Id: ANLN160 AB396-56-2 Client Smp ID: ANLN160 AB396-56-2
Inj Date : 28-AUG-1996 15:48
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Aniline Calibration Std (exp 5/97)
Misc Info : 160ug/mL 03-12-96 AB396-56-2 BTL#12
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 14:03 Cal File: fd058.d
Als bottle: 12 Calibration Sample, Level: 7
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
5	Aniline	93.00	5.299	5.288	(0.925)	5450414	160	155
31	4-Chloroaniline	127.00	8.264	8.242	(1.030)	3970592	160	155
	2-Nitroaniline	65.00	10.747	10.713	(0.929)	1409112	160	163(A)
	3-Nitroaniline	138.00	11.612	11.566	(1.004)	1766591	160	174(A)
54	4-Nitroaniline	138.00	12.892	12.835	(1.114)	1655549	160	189(A)
* 10	1,4-Dichlorobenzene-d4	152.00	5.726	5.726	(1.000)	692981	40.0	
* 29	Naphthalene-d8	136.00	8.023	8.022	(1.000)	2388439	40.0	
* 45	Acenaphthene-d10	164.00	11.567	11.555	(1.000)	1144089	40.0	
* 62	Phenanthrene-d10	188.00	14.555	14.551	(1.000)	1576518	40.0	
* 74	Chrysene-d12	240.00	19.993	19.986	(1.000)	1007885	40.0	
* 81	Perylene-d12	264.00	22.763	22.755	(1.000)	784172	40.0	
68	Benzidine	184.00	17.400	17.384	(0.870)	3226147	160	166(A)
72	3,3'-Dichlorobenzidine	252.00	19.993	19.975	(1.000)	1728110	160	170(A)
65	Carbazole	167.00	15.103	15.066	(1.038)	7051449	160	164(A)
57	1,2-Diphenylhydrazine	77.00	13.023	12.988	(0.895)	5494058	160	143

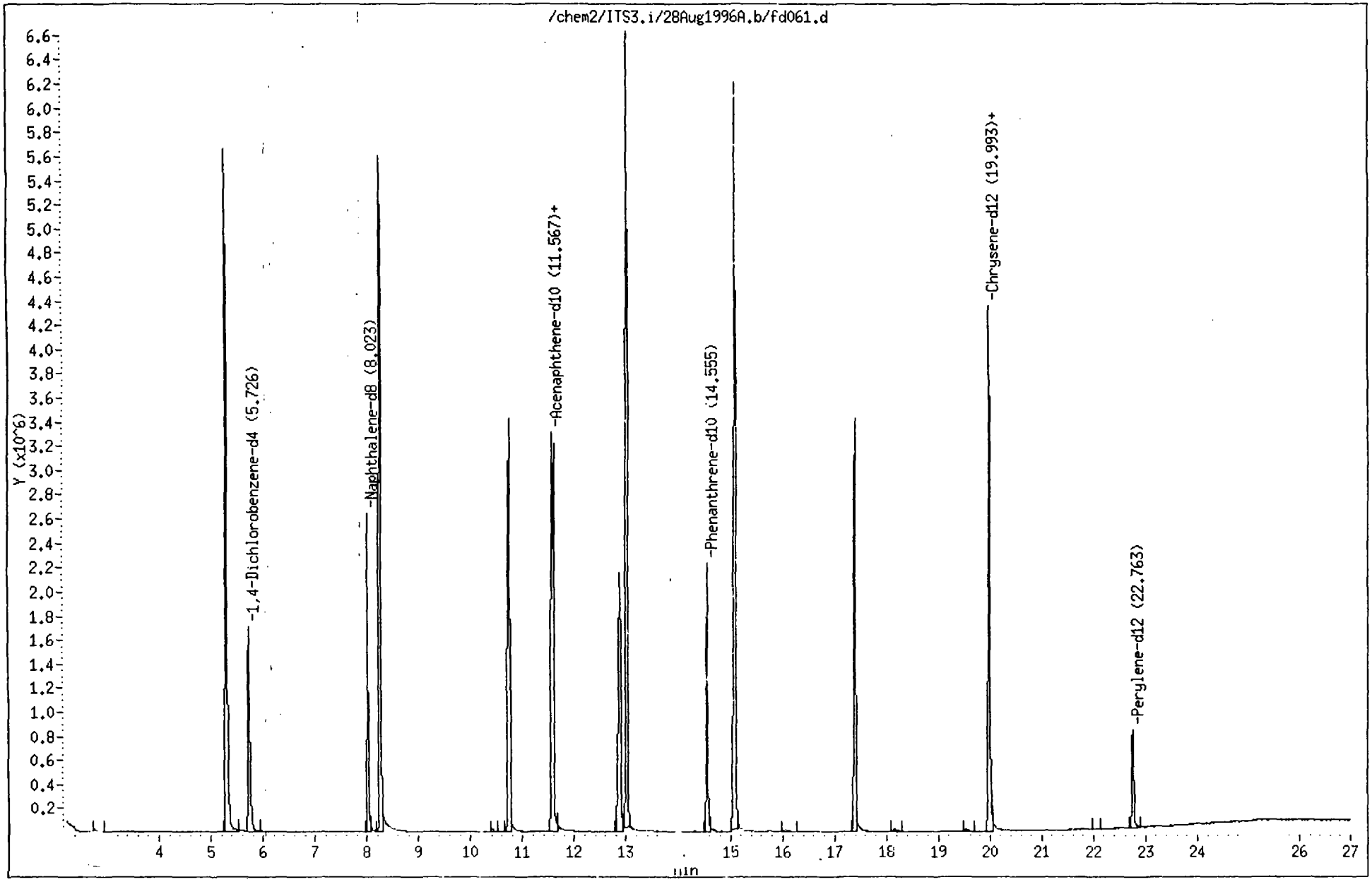
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem2/ITS3.i/28Aug1996A.b/fd061.d
Date : 28-AUG-1996 15:48
Client ID: ANLN160 AB396-56-2
Sample Info: ITS3 Aniline Calibration Std (exp 5/97)

Instrument: ITS3.i
Operator: WSW
Column diameter: 0.25

Column phase: DB-5



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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/28Aug1996A.b/fd062.d
Lab Smp Id: ANLN120 AB396-56-2 Client Smp ID: ANLN120 AB396-56-2
Inj Date : 28-AUG-1996 16:22
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Aniline Calibration Std (exp 5/97)
Misc Info : 120ug/mL 03-12-96 AB396-56-2 BTL#12
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 14:03 Cal File: fd058.d
Als bottle: 13 Calibration Sample, Level: 6
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

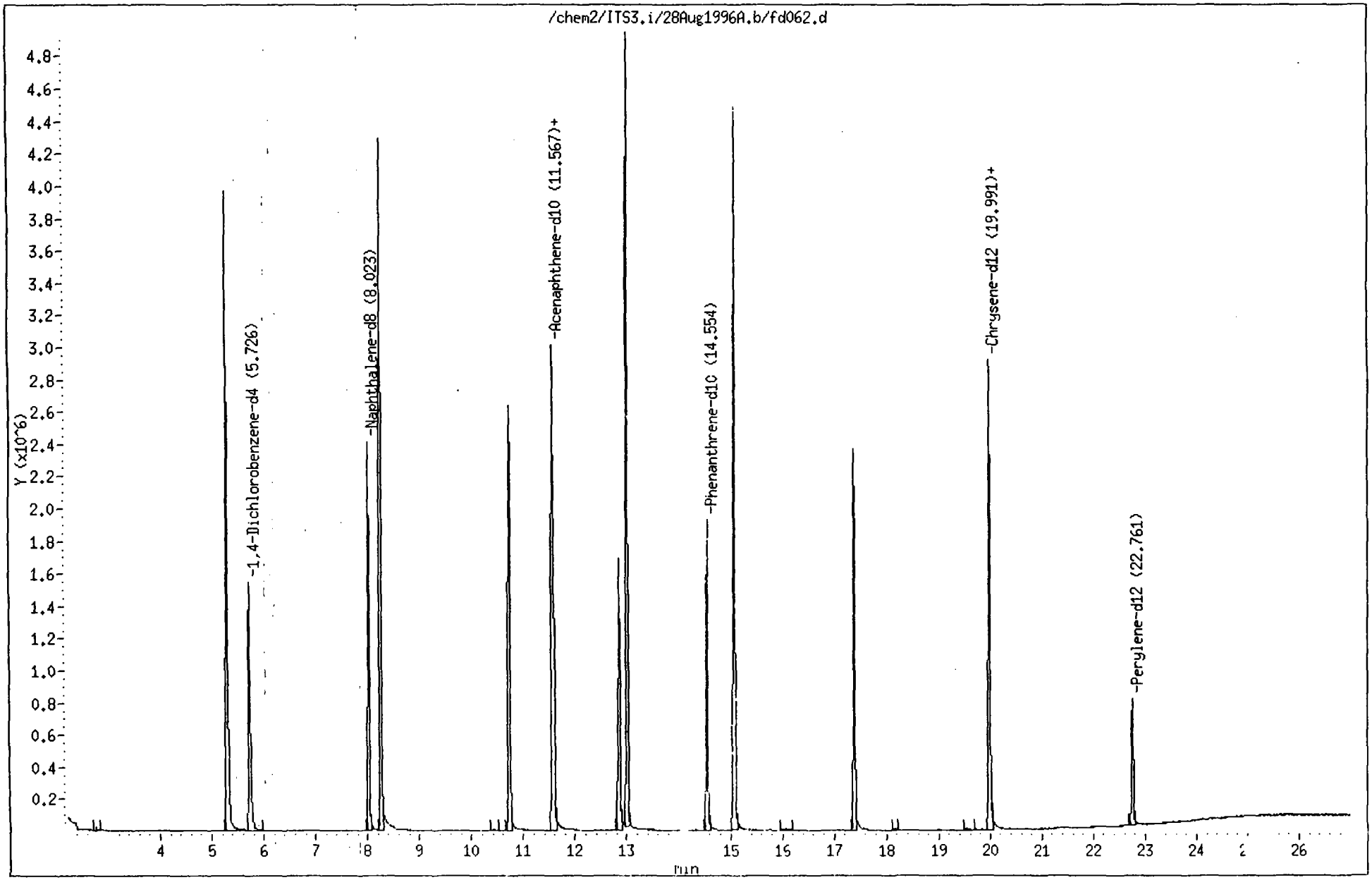
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	5 Aniline	93.00	5.300	5.288	(0.925)	3732105	120	119
	31 4-Chloroaniline	127.00	8.264	8.242	(1.030)	2726545	120	119
	2-Nitroaniline	65.00	10.736	10.713	(0.929)	984976	120	126
	3-Nitroaniline	138.00	11.600	11.566	(1.004)	1160984	120	126
	54 4-Nitroaniline	138.00	12.869	12.835	(1.114)	1043831	120	131
*	10 1,4-Dichlorobenzene-d4	152.00	5.726	5.726	(1.000)	614034	40.0	
*	29 Naphthalene-d8	136.00	8.023	8.022	(1.000)	2135992	40.0	
*	45 Acenaphthene-d10	164.00	11.556	11.555	(1.000)	1036467	40.0	
*	62 Phenanthrene-d10	188.00	14.554	14.551	(1.000)	1375733	40.0	
*	74 Chrysene-d12	240.00	19.991	19.986	(1.000)	903105	40.0	
*	81 Perylene-d12	264.00	22.761	22.755	(1.000)	716993	40.0	
	68 Benzidine	184.00	17.387	17.384	(0.870)	2172230	120	125
	72 3,3'-Dichlorobenzidine	252.00	19.980	19.975	(0.999)	1141941	120	126
	65 Carbazole	167.00	15.091	15.066	(1.037)	4558260	120	122
	57 1,2-Diphenylhydrazine	77.00	13.012	12.988	(0.894)	3860717	120	115

Data File: /chem2/ITS3.i/28Aug1996A.b/fd062.d
Date : 28-AUG-1996 16:22
Client ID: ANLN120 AB396-56-2
Sample Info: ITS3 Aniline Calibration Std (exp 5/97)

Column phase: DB-5

Instrument: ITS3.i

Operator: WSW
Column diameter: 0.25



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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/28Aug1996A.b/fd063.d
Lab Smp Id: ANLN100 AB396-69-1 Client Smp ID: ANLN100 AB396-69-1
Inj Date : 28-AUG-1996 16:57
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Aniline Calibration Std (exp 5/97)
Misc Info : 100ug/mL 08-01-96 AB396-69-1 BTL#14
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 14:03 Cal File: fd058.d
Als bottle: 14 Calibration Sample, Level: 5
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

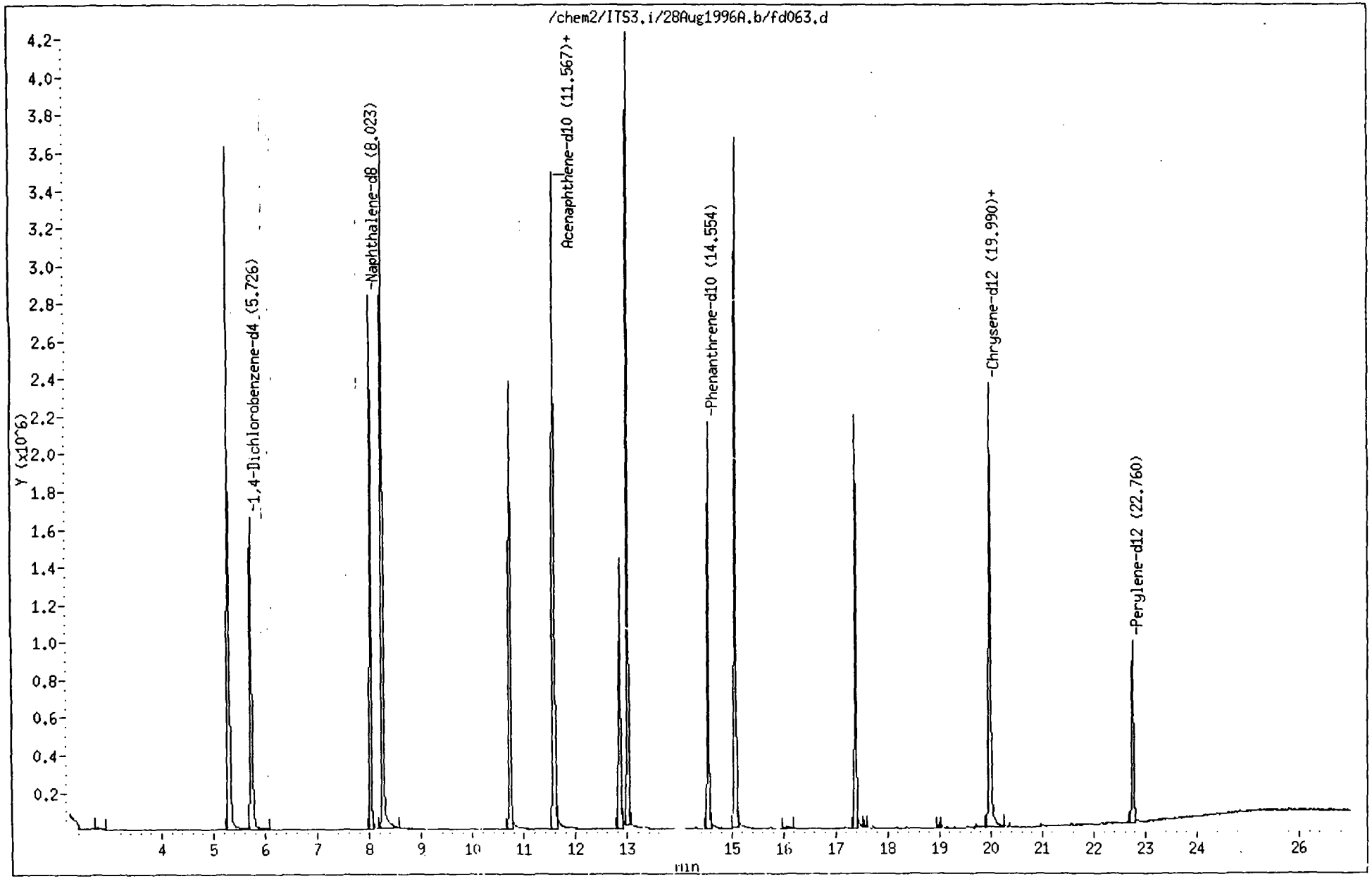
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
5	Aniline	93.00	5.288	5.288	(0.924)	3172401	100	89.7
31	4-Chloroaniline	127.00	8.253	8.242	(1.029)	2461559	100	91.4
	2-Nitroaniline	65.00	10.735	10.713	(0.928)	781555	100	85.4
	3-Nitroaniline	138.00	11.589	11.566	(1.002)	925098	100	86.0
54	4-Nitroaniline	138.00	12.858	12.835	(1.112)	887281	100	95.5
* 10	1,4-Dichlorobenzene-d4	152.00	5.726	5.726	(1.000)	695418	40.0	
* 29	Naphthalene-d8	136.00	8.023	8.022	(1.000)	2515691	40.0	
* 45	Acenaphthene-d10	164.00	11.567	11.555	(1.000)	1212583	40.0	
* 62	Phenanthrene-d10	188.00	14.554	14.551	(1.000)	1556764	40.0	
* 74	Chrysene-d12	240.00	19.990	19.986	(1.000)	1005622	40.0	
* 81	Perylene-d12	264.00	22.760	22.755	(1.000)	847648	40.0	
68	Benzidine	184.00	17.387	17.384	(0.870)	1886364	100	97.4
72	3,3'-Dichlorobenzidine	252.00	19.979	19.975	(0.999)	840228	100	83.1
65	Carbazole	167.00	15.079	15.066	(1.036)	3623031	100	85.4
57	1,2-Diphenylhydrazine	77.00	13.011	12.988	(0.894)	3182632	100	83.7

Data File: /chem2/ITS3.i/28Aug1996A.b/fd063.d
Date : 28 AUG-1996 16:57
Client ID: ANLN100 AB396-69-1
Sample Info: ITS3 Aniline Calibration Std (exp 5/97)

Instrument: ITS3.i

Operator: WSW
Column diameter: 0.25

Column phase: DB-5



Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/28Aug1996A.b/fd064.d
Lab Smp Id: ANLN080 AB396-56-2 Client Smp ID: ANLN080 AB396-56-2
Inj Date : 28-AUG-1996 17:32
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Aniline Calibration Std (exp 5/97)
Misc Info : 80ug/mL 03-12-96 AB396-56-2 BTL#12
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 14:03 Cal File: fd058.d
Als bottle: 15 Calibration Sample, Level: 4
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

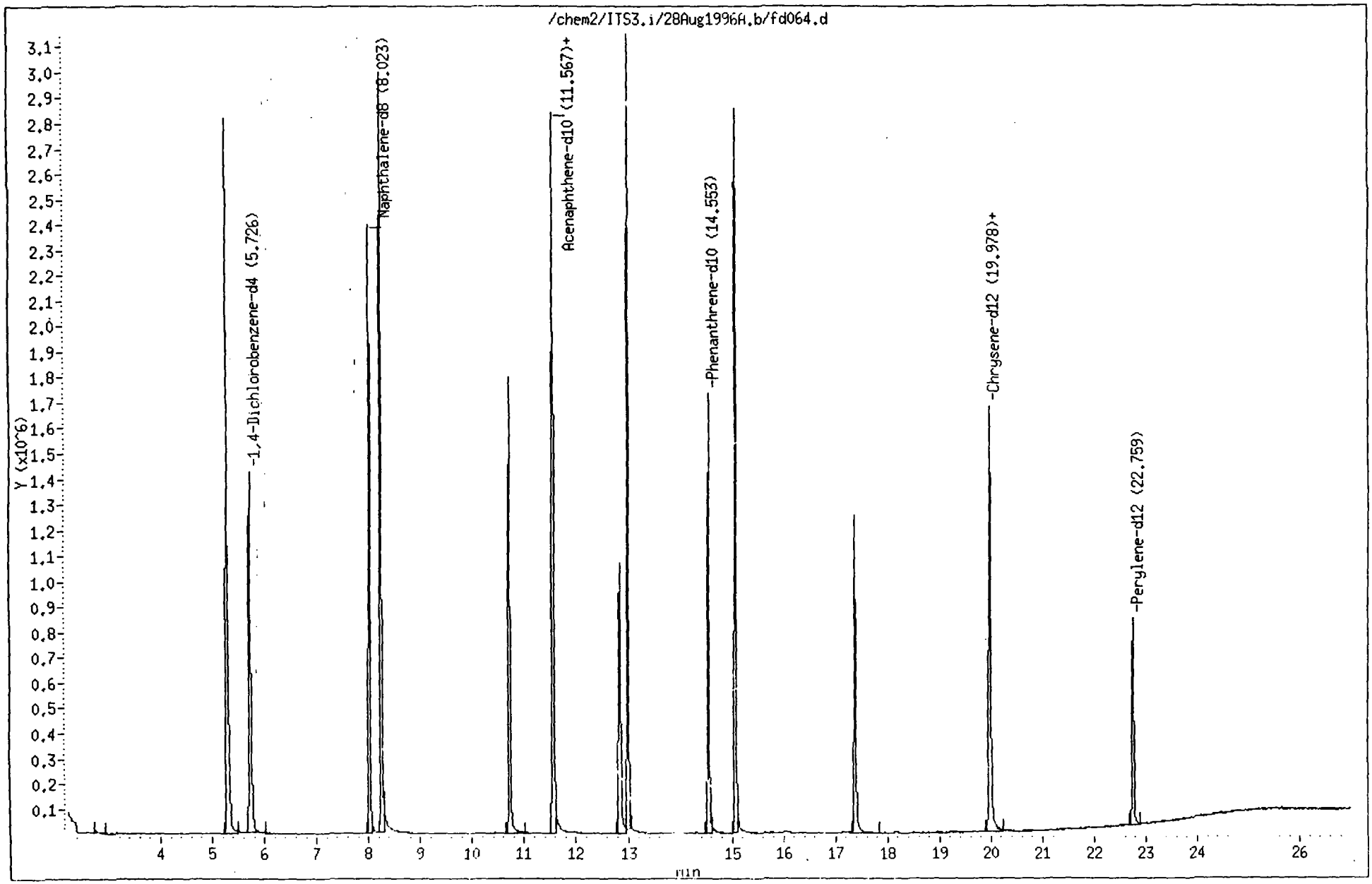
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
5	Aniline	93.00	5.289	5.288	(0.924)	2378247	80.0	78.7
31	4-Chloroaniline	127.00	8.253	8.242	(1.029)	1807669	80.0	80.6
	2-Nitroaniline	65.00	10.724	10.713	(0.928)	600308	80.0	82.0
	3-Nitroaniline	138.00	11.578	11.566	(1.002)	701954	80.0	81.6
54	4-Nitroaniline	138.00	12.847	12.835	(1.112)	601346	80.0	80.9
* 10	1,4-Dichlorobenzene-d4	152.00	5.726	5.726	(1.000)	594075	40.0	
* 29	Naphthalene-d8	136.00	8.023	8.022	(1.000)	2094275	40.0	
* 45	Acenaphthene-d10	164.00	11.556	11.555	(1.000)	970046	40.0	
* 62	Phenanthrene-d10	188.00	14.553	14.551	(1.000)	1243056	40.0	
* 74	Chrysene-d12	240.00	19.989	19.986	(1.000)	776329	40.0	
* 81	Perylene-d12	264.00	22.759	22.755	(1.000)	707961	40.0	
68	Benzidine	184.00	17.386	17.384	(0.870)	1185644	80.0	79.3
72	3,3'-Dichlorobenzidine	252.00	19.978	19.975	(0.999)	603788	80.0	77.3
65	Carbazole	167.00	15.078	15.066	(1.036)	2674736	80.0	79.0
57	1,2-Diphenylhydrazine	77.00	13.000	12.988	(0.893)	2402912	80.0	79.1

Data File: /chem2/ITS3.i/28Aug1996A.b/fd064.d
Date : 28-AUG-1996 17:32
Client ID: ANLN080 AB396-56-2
Sample Info: ITS3 Aniline Calibration Std (exp 5/97)

Instrument: ITS3.i

Operator: WSW
Column diameter: 0.25

Column phase: DB-5



Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/28Aug1996A.b/fd065.d
Lab Smp Id: ANLN050 AB396-56-2 Client Smp ID: ANLN050 AB396-56-2
Inj Date : 28-AUG-1996 18:07
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Aniline Calibration Std (exp 5/97)
Misc Info : 50ug/mL 03-12-96 AB396-56-2 BTL#12
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 18:07 Cal File: fd065.d
Als bottle: 16 Calibration Sample, Level: 3
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

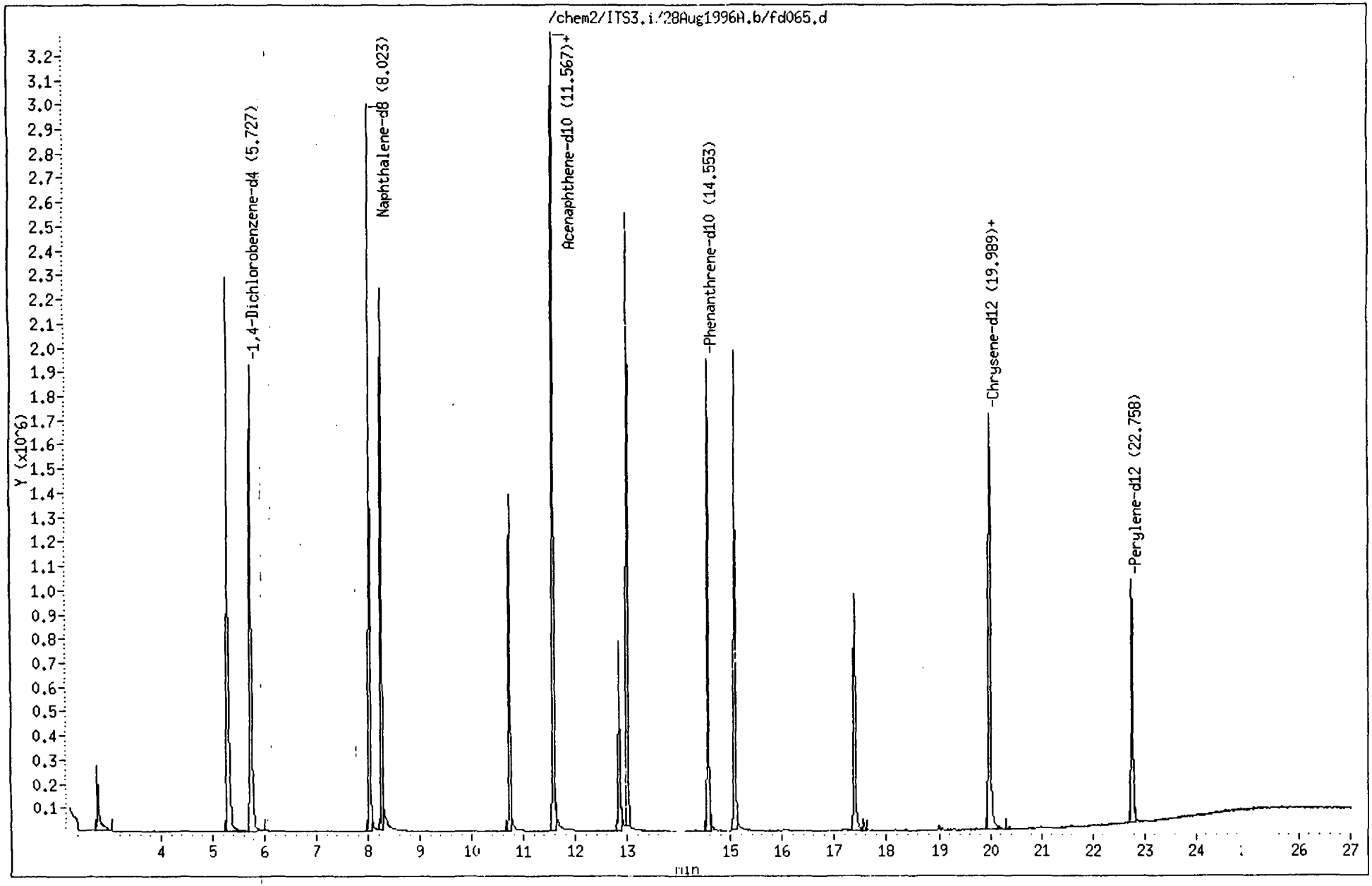
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
5	Aniline	93.00	5.289	5.288	(0.924)	1966389	50.0	50.0
31	4-Chloroaniline	127.00	8.253	8.242	(1.029)	1397849	50.0	48.9
[illegible]	2-Nitroaniline	65.00	10.724	10.713	(0.927)	436713	50.0	50.4
	3-Nitroaniline	138.00	11.578	11.566	(1.001)	491050	50.0	48.2
54	4-Nitroaniline	138.00	12.836	12.835	(1.110)	448397	50.0	51.0
* 10	1,4-Dichlorobenzene-d4	152.00	5.727	5.726	(1.000)	773209	40.0	
* 29	Naphthalene-d8	136.00	8.023	8.022	(1.000)	2670202	40.0	
* 45	Acenaphthene-d10	164.00	11.567	11.555	(1.000)	1148374	40.0	
* 62	Phenanthrene-d10	188.00	14.553	14.551	(1.000)	1421548	40.0	
* 74	Chrysene-d12	240.00	20.000	19.986	(1.000)	1001312	40.0	
* 81	Perylene-d12	264.00	22.758	22.755	(1.000)	888075	40.0	
68	Benzidine	184.00	17.375	17.384	(0.869)	921752	50.0	47.8
72	3,3'-Dichlorobenzidine	252.00	19.978	19.975	(0.999)	473760	50.0	47.0
65	Carbazole	167.00	15.067	15.066	(1.035)	1971315	50.0	50.9
57	1,2-Diphenylhydrazine	77.00	13.000	12.988	(0.893)	1750892	50.0	50.4

Data File: /chem2/ITS3.i/28Aug1996A.b/fd065.d
Date : 28-AUG-1996 18:07
Client ID: ANLN050 AB396-56-2
Sample Info: ITS3 Aniline Calibration Std (exp 5/97)

Instrument: ITS3.i

Operator: WSW
Column diameter: 0.25

Column phase: DB-5



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SEMIVOLATILE QUANTITATION REPORT

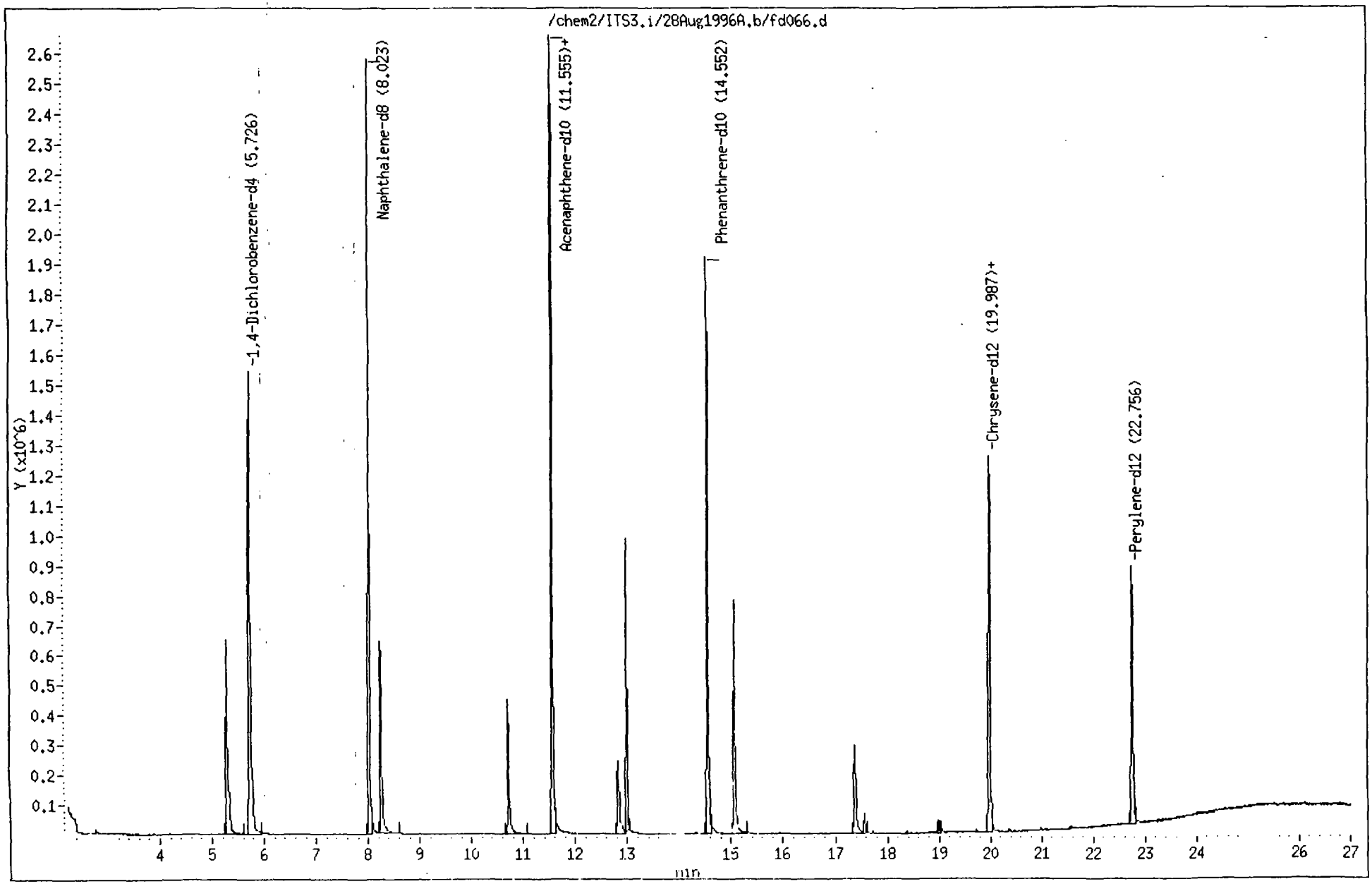
Data file : /chem2/ITS3.i/28Aug1996A.b/fd066.d
Lab Smp Id: ANLN020 AB396-56-2 Client Smp ID: ANLN020 AB396-56-2
Inj Date : 28-AUG-1996 18:41
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Aniline Calibration Std (exp 5/97)
Misc Info : 20ug/mL 03-12-96 AB396-56-2 BTL#12
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 18:07 Cal File: fd065.d
Als bottle: 17 Calibration Sample, Level: 2
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	5 Aniline	93.00	5.289	5.288	(0.924)	691233	20.0	20.9
	31 4-Chloroaniline	127.00	8.242	8.242	(1.027)	488526	20.0	20.0
	40 2-Nitroaniline	65.00	10.713	10.713	(0.927)	153040	20.0	19.8
	3-Nitroaniline	138.00	11.566	11.566	(1.001)	192107	20.0	21.1
	54 4-Nitroaniline	138.00	12.824	12.835	(1.110)	153373	20.0	19.5
*	10 1,4-Dichlorobenzene-d4	152.00	5.726	5.726	(1.000)	651235	40.0	
*	29 Naphthalene-d8	136.00	8.023	8.022	(1.000)	2279868	40.0	
*	45 Acenaphthene-d10	164.00	11.555	11.555	(1.000)	1026346	40.0	
*	62 Phenanthrene-d10	188.00	14.552	14.551	(1.000)	1358597	40.0	
*	74 Chrysene-d12	240.00	19.998	19.986	(1.000)	879961	40.0	
*	81 Perylene-d12	264.00	22.756	22.755	(1.000)	773502	40.0	
	68 Benzidine	184.00	17.373	17.384	(0.869)	346529	20.0	20.4
	72 3,3'-Dichlorobenzidine	252.00	19.976	19.975	(0.999)	180531	20.0	20.4
	65 Carbazole	167.00	15.066	15.066	(1.035)	791534	20.0	21.4
	57 1,2-Diphenylhydrazine	77.00	12.988	12.988	(0.893)	715424	20.0	21.6

Data File: /chem2/ITS3.i/28Aug1996A.b/fd066.d
Date : 28-AUG-1996 18:41
Client ID: ANLN020 AB396-56-2
Sample Info: ITS3 Aniline Calibration Std (exp 5/97)

Instrument: ITS3.i
Operator: WSW
Column diameter: 0.25

Column phase: DB-5



Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/28Aug1996A.b/fd067.d
Lab Smp Id: ANLN010 AB396-56-2 Client Smp ID: ANLN010 AB396-56-2
Inj Date : 28-AUG-1996 19:16
Operator : WSW Inst ID: ITS3.i
Smp Info : ITS3 Aniline Calibration Std (exp 5/97)
Misc Info : 10ug/mL 03-12-96 AB396-56-2 BTL#12
Comment :
Method : /chem2/ITS3.i/28Aug1996A.b/abn3_AFCEE_Soil.m
Meth Date : 29-Aug-1996 09:52 wsw Quant Type: ISTD
Cal Date : 28-AUG-1996 18:07 Cal File: fd065.d
Als bottle: 18 Calibration Sample, Level: 1
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
5	Aniline	93.00	5.288	5.288	(0.924)	385464	10.0	11.1
31	4-Chloroaniline	127.00	8.242	8.242	(1.027)	297434	10.0	11.3
[illegible]	2-Nitroaniline	65.00	10.713	10.713	(0.927)	88290	10.0	10.5(M)
	3-Nitroaniline	138.00	11.566	11.566	(1.001)	94399	10.0	9.57
54	4-Nitroaniline	138.00	12.835	12.835	(1.111)	65048	10.0	7.63
* 10	1,4-Dichlorobenzene-d4	152.00	5.726	5.726	(1.000)	679833	40.0	
* 29	Naphthalene-d8	136.00	8.022	8.022	(1.000)	2453385	40.0	
* 45	Acenaphthene-d10	164.00	11.555	11.555	(1.000)	1112647	40.0	
* 62	Phenanthrene-d10	188.00	14.551	14.551	(1.000)	1316129	40.0	
* 74	Chrysene-d12	240.00	19.986	19.986	(1.000)	809843	40.0	
* 81	Perylene-d12	264.00	22.755	22.755	(1.000)	734092	40.0	
68	Benzidine	184.00	17.384	17.384	(0.870)	152699	10.0	9.79
72	3,3'-Dichlorobenzidine	252.00	19.975	19.975	(0.999)	91850	10.0	11.3
65	Carbazole	167.00	15.066	15.066	(1.035)	369915	10.0	10.3
57	1,2-Diphenylhydrazine	77.00	12.988	12.988	(0.893)	398591	10.0	12.4

QC Flag Legend

M - Compound response manually integrated.

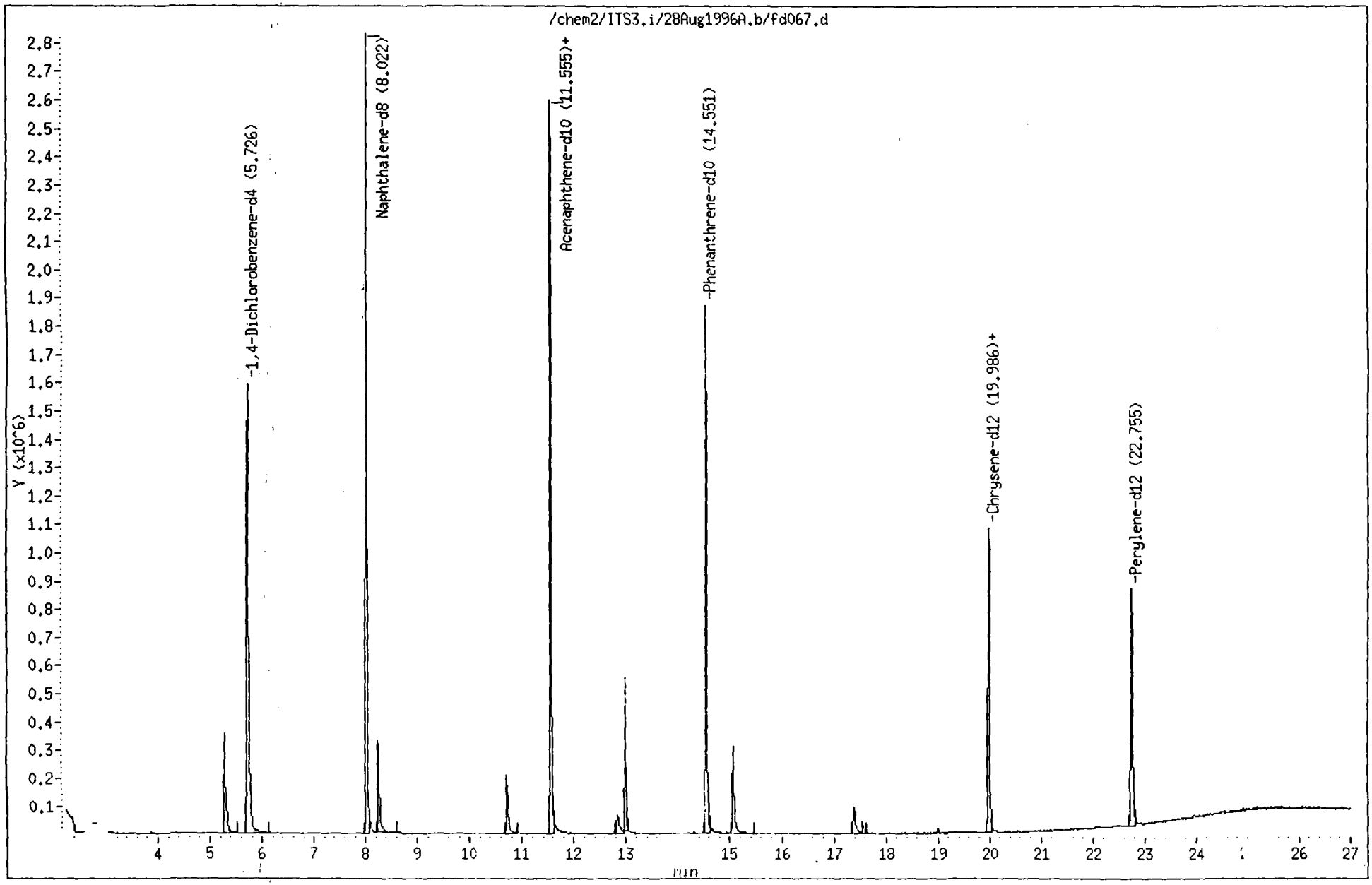
360

Data File: /chem2/ITS3.i/28Aug1996A.b/fd067.d
Date : 28-AUG-1996 19:16
Client ID: ANLN010 AB396-56-2
Sample Info: ITS3 Aniline Calibration Std (exp 5/97)

Instrument: ITS3.i

Operator: WSW
Column diameter: 0.25

Column phase: DB-5



FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS3 Calibration Date: 09/07/96 Time: 1642

Lab File ID: FD255 Init. Calib. Date(s): 08/28/96 08/28/96

Init. Calib. Times: 1144 1916

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
N-Nitrosodimethylamine	0.766	0.700	0.050	8.6	25.0	
Aniline	2.035	1.939	0.050	4.7	25.0	
Phenol	1.632	1.710	0.050	4.8	20.0	
Bis(2-chloroethyl)ether	1.478	1.562	0.050	5.7	25.0	
2-Chlorophenol	1.424	1.417	0.050	0.5	25.0	
1,3-Dichlorobenzene	1.604	1.634	0.050	1.9	25.0	
1,4-Dichlorobenzene	1.678	1.746	0.050	4.0	20.0	
Benzyl alcohol	0.869	0.884	0.050	1.7	25.0	
1,2-Dichlorobenzene	1.523	1.594	0.050	4.7	25.0	
2-Methylphenol	1.217	1.245	0.050	2.3	25.0	
Bis(2-chloroisopropyl)ether	1.452	1.440	0.050	0.8	25.0	
4-Methylphenol	1.208	1.275	0.050	5.5	25.0	
N-Nitrosodi-n-propylamine	0.630	0.704	0.050	11.7	25.0	
Hexachloroethane	0.730	0.778	0.050	6.6	25.0	
Nitrobenzene	0.331	0.350	0.050	5.7	25.0	
Isophorone	0.649	0.677	0.050	4.3	25.0	
2-Nitrophenol	0.222	0.234	0.050	5.4	20.0	
2,4-Dimethylphenol	0.314	0.369	0.050	17.5	25.0	
Bis(2-chloroethoxy)methane	0.473	0.480	0.050	1.5	25.0	
Benzoic acid	0.182	0.375	0.050	106.0	25.0	<-
2,4-Dichlorophenol	0.292	0.315	0.050	7.9	20.0	
1,2,4-Trichlorobenzene	0.322	0.335	0.050	4.0	25.0	
Naphthalene	1.050	1.090	0.050	3.8	25.0	
4-Chloroaniline	0.428	0.418	0.050	2.3	25.0	
Hexachlorobutadiene	0.181	0.193	0.050	6.6	20.0	
4-Chloro-3-methylphenol	0.283	0.321	0.050	13.4	20.0	
2-Methylnaphthalene	0.607	0.671	0.050	10.5	25.0	
Hexachlorocyclopentadiene	0.391	0.344	0.050	12.0	25.0	
2,4,6-Trichlorophenol	0.414	0.417	0.050	0.7	20.0	
2,4,5-Trichlorophenol	0.437	0.437	0.050	0.0	25.0	
2-Chloronaphthalene	1.279	1.300	0.050	1.6	25.0	
2-Nitroaniline	0.302	0.300	0.050	0.7	25.0	
Dimethyl phthalate	1.386	1.412	0.050	1.9	25.0	
Acenaphthylene	2.020	1.942	0.050	3.9	25.0	
2,6-Dinitrotoluene	0.339	0.352	0.050	3.8	25.0	
3-Nitroaniline	0.354	0.334	0.050	5.6	25.0	
Acenaphthene	1.169	1.214	0.050	3.8	20.0	

All other compounds must meet a minimum RRF of 0.010.

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS3 Calibration Date: 09/07/96 Time: 1642

Lab File ID: FD255 Init. Calib. Date(s): 08/28/96 08/28/96

Init. Calib. Times: 1144 1916

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
2,4-Dinitrophenol	0.200	0.184	0.050	8.0	25.0	
Dibenzofuran	1.687	1.685	0.050	0.1	25.0	
4-Nitrophenol	0.161	0.166	0.050	3.1	25.0	
2,4-Dinitrotoluene	0.443	0.450	0.050	1.6	25.0	
Diethyl phthalate	1.378	1.495	0.050	8.5	25.0	
Fluorene	1.322	1.337	0.050	1.1	25.0	
4-Chlorophenyl phenyl ether	0.599	0.606	0.050	1.2	25.0	
4-Nitroaniline	0.306	0.284	0.050	7.2	25.0	
4,6-Dinitro-2-methylphenol	0.208	0.170	0.050	18.3	25.0	
N-Nitrosodiphenylamine(1)	0.561	0.456	0.050		20.0	
1,2-Diphenylhydrazine	0.977	0.985	0.050	0.8	25.0	
4-Bromophenyl phenyl ether	0.232	0.202	0.050	12.9	25.0	
Hexachlorobenzene	0.320	0.280	0.050	12.5	25.0	
Pentachlorophenol	0.192	0.180	0.050	6.2	20.0	
Benzidine	0.770	0.539	0.050	30.0	25.0	<-
Phenanthrene	1.276	1.091	0.050	14.5	25.0	
Anthracene	1.298	1.106	0.050	14.8	25.0	
Carbazole	1.090	1.018	0.050	6.6	25.0	
Di-n-butylphthalate	1.732	1.701	0.050	1.8	25.0	
Fluoranthene	1.244	1.145	0.050	8.0	20.0	
Pyrene	1.842	1.694	0.050	8.0	25.0	
Butyl benzyl phthalate	1.000	1.138	0.050	13.8	25.0	
Benzo(a)anthracene	1.296	1.296	0.050	0.0	25.0	
3,3'-Dichlorobenzidine	0.402	0.362	0.050	10.0	25.0	
Chrysene	1.214	1.200	0.050	1.2	25.0	
Bis(2-ethylhexyl)phthalate	1.278	1.477	0.050	15.6	25.0	
Di-n-octylphthalate	2.311	2.846	0.050	23.2	20.0	<-
Benzo(b)fluoranthene	1.332	1.330	0.050	0.2	25.0	
Benzo(a)pyrene	1.078	1.048	0.050	2.8	20.0	
Indeno(1,2,3-cd)pyrene	1.115	1.098	0.050	1.5	25.0	
Dibenz(a,h)anthracene	0.929	0.899	0.050	3.2	25.0	
Benzo(g,h,i)perylene	0.955	0.894	0.050	6.4	25.0	
Pyridine			0.050		25.0	<-
m,p-Cresol			0.050		25.0	<-
Benzo(k)fluoranthene	1.313	1.392	0.050	6.0	25.0	

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of 0.010.

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS3 Calibration Date: 09/07/96 Time: 1642

Lab File ID: FD255 Init. Calib. Date(s): 08/28/96 08/28/96

Init. Calib. Times: 1144 1916

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D
Nitrobenzene-d5 (SS)	0.394	0.384	0.050	2.5	25.0
2-Fluorobiphenyl (SS)	1.559	1.451	0.050	6.9	25.0
Terphenyl-d14 (SS)	1.244	1.134	0.050	8.8	25.0
Phenol-d6 (SS)	1.734	1.695	0.050	2.2	25.0
2-Fluorophenol (SS)	1.596	1.499	0.050	6.1	25.0
2,4,6-Tribromophenol (SS)	0.214	0.238	0.050	11.2	25.0

All other compounds must meet a minimum RRF of 0.010.

Inchcape Testing Services - Environmental Laboratories

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ITS3.i Injection Date: 07-SEP-1996 16:42
Lab File ID: fd255.d Init. Calibration Date(s): 08/28/96 08/28/96
Analysis Type: Init. Calibration Times: 11:44 19:16
Lab Sample ID: SSTD050 AB396-72-2 Method File: /chem2/ITS3.i/07Sep1996.b/abn3_A
Quant Type: ISTD

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D	
	1 N-Nitrosodimethylamine	0.766	0.700	0.050	8.6	25.0	
$	3 2-Fluorophenol (SS)	1.596	1.499	0.050	6.1	25.0	
$	4 Phenol-d6 (SS)	1.734	1.695	0.050	2.2	25.0	
	6 Phenol	1.633	1.710	0.050	4.7	20.0	
	7 Bis(2-chloroethyl)ether	1.478	1.562	0.050	5.6	25.0	
	8 2-Chlorophenol	1.423	1.417	0.050	0.5	25.0	
	9 1,3-Dichlorobenzene	1.605	1.634	0.050	1.8	25.0	
	11 1,4-Dichlorobenzene	1.678	1.746	0.050	4.0	20.0	
	12 Benzyl alcohol	0.869	0.884	0.050	1.7	25.0	
	13 1,2-Dichlorobenzene	1.523	1.595	0.050	4.7	25.0	
	14 2-Methylphenol	1.217	1.245	0.050	2.3	25.0	
	15 Bis(2-chloroisopropyl)ether	1.452	1.440	0.050	0.8	25.0	
	16 N-Nitrosodi-n-propylamine	0.630	0.705	0.050	11.9	25.0	
	17 4-Methylphenol	1.208	1.275	0.050	5.6	25.0	
	18 Hexachloroethane	0.730	0.778	0.050	6.5	25.0	
$	19 Nitrobenzene-d5 (SS)	0.394	0.385	0.050	2.5	25.0	
	20 Nitrobenzene	0.331	0.351	0.050	5.9	25.0	
	21 Isophorone	0.649	0.677	0.050	4.3	25.0	
	22 2-Nitrophenol	0.222	0.234	0.050	5.2	20.0	
	23 2,4-Dimethylphenol	0.314	0.369	0.050	17.6	25.0	
	25 Bis(2-chloroethoxy)methane	0.473	0.480	0.050	1.3	25.0	
	26 Benzoic acid	0.183	0.375	0.050	105.6	25.0	<-
	27 2,4-Dichlorophenol	0.292	0.315	0.050	7.9	20.0	
	28 1,2,4-Trichlorobenzene	0.322	0.335	0.050	3.9	25.0	
	30 Naphthalene	1.050	1.090	0.050	3.8	25.0	
	32 Hexachlorobutadiene	0.181	0.193	0.050	6.5	20.0	
	33 4-Chloro-3-methylphenol	0.283	0.321	0.050	13.3	20.0	
	34 2-Methylnaphthalene	0.607	0.671	0.050	10.5	25.0	
	35 Hexachlorocyclopentadiene	0.391	0.344	0.050	12.1	25.0	
	36 2,4,6-Trichlorophenol	0.415	0.417	0.050	0.5	20.0	
	37 2,4,5-Trichlorophenol	0.437	0.437	0.050	0.0	25.0	
$	38 2-Fluorobiphenyl (SS)	1.559	1.451	0.050	6.9	25.0	
	39 2-Chloronaphthalene	1.279	1.300	0.050	1.7	25.0	
	41 Dimethyl phthalate	1.386	1.412	0.050	1.9	25.0	
	42 2,6-Dinitrotoluene	0.339	0.352	0.050	3.9	25.0	
	43 Acenaphthylene	2.020	1.942	0.050	3.8	25.0	
	46 Acenaphthene	1.169	1.215	0.050	3.9	20.0	
	47 2,4-Dinitrophenol	0.200	0.184	0.050	8.0	25.0	
	48 4-Nitrophenol	0.161	0.166	0.050	2.8	25.0	
	49 Dibenzofuran	1.687	1.685	0.050	0.2	25.0	

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CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ITS3.i Injection Date: 07-SEP-1996 16:42
Lab File ID: fd255.d Init. Calibration Date(s): 08/28/96 08/28/96
Analysis Type: Init. Calibration Times: 11:44 19:16
Lab Sample ID: SSTD050 AB396-72-2 Method File: /chem2/ITS3.i/07Sep1996.b/abn3_A
Quant Type: ISTD

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D	
	50 2,4-Dinitrotoluene	0.443	0.450	0.050	1.6	25.0	
	51 Diethyl phthalate	1.378	1.495	0.050	8.5	25.0	
	52 Fluorene	1.322	1.337	0.050	1.1	25.0	
	53 4-Chlorophenyl phenyl ether	0.600	0.606	0.050	1.1	25.0	
	55 4,6-Dinitro-2-methylphenol	0.208	0.170	0.050	18.1	25.0	
	56 N-Nitrosodiphenylamine	0.561	0.456	0.050	18.7	20.0	
$	58 2,4,6-Tribromophenol (SS)	0.214	0.238	0.050	11.1	25.0	
	59 4-Bromophenyl phenyl ether	0.232	0.202	0.050	12.8	25.0	
	60 Hexachlorobenzene	0.320	0.281	0.050	12.2	25.0	
	61 Pentachlorophenol	0.192	0.180	0.050	6.4	20.0	
	63 Phenanthrene	1.276	1.091	0.050	14.5	25.0	
	64 Anthracene	1.298	1.106	0.050	14.9	25.0	
	66 Di-n-butylphthalate	1.732	1.701	0.050	1.8	25.0	
	67 Fluoranthene	1.244	1.145	0.050	8.0	20.0	
	69 Pyrene	1.842	1.694	0.050	8.0	25.0	
$	70 Terphenyl-d14 (SS)	1.244	1.134	0.050	8.9	25.0	
	71 Butyl benzyl phthalate	1.000	1.138	0.050	13.8	25.0	
	73 Benzo(a)anthracene	1.296	1.296	0.050	0.0	25.0	
	75 Chrysene	1.215	1.200	0.050	1.2	25.0	
	76 Bis(2-ethylhexyl)phthalate	1.278	1.477	0.050	15.6	25.0	
	77 Di-n-octylphthalate	2.311	2.846	0.050	23.1	20.0	<-
	78 Benzo(b)fluoranthene	1.332	1.330	0.050	0.1	25.0	
	79 Benzo(k)fluoranthene	1.313	1.392	0.050	6.0	25.0	
	80 Benzo(a)pyrene	1.078	1.048	0.050	2.8	20.0	
	82 Indeno(1,2,3-cd)pyrene	1.115	1.099	0.050	1.5	25.0	
	83 Dibenz(a,h)anthracene	0.929	0.899	0.050	3.2	25.0	
	84 Benzo(g,h,i)perylene	0.955	0.894	0.050	6.4	25.0	

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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem2/ITS3.i/07Sep1996.b/fd255.d
Lab Smp Id: SSTD050 AB396-72-2 Client Smp ID: SSTD050 AB396-72-2
Inj Date : 07-SEP-1996 16:42
Operator : VDLITTLE Inst ID: ITS3.i
Smp Info : ITS3 CALIBRATION STANDARD EXP.(9/97)
Misc Info : 50 ug/mL AB396-72-2 08-27-96 BTL#2 *
Comment :
Method : /chem2/ITS3.i/07Sep1996.b/abn3_AFCEE_Soil.m
Meth Date : 09-Sep-1996 16:29 vdl Quant Type: ISTD
Cal Date : 07-SEP-1996 16:42 Cal File: fd255.d
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	1 N-Nitrosodimethylamine	74.00	2.500	2.500	(0.453)	600064	50.0	45.7
$	3 2-Fluorophenol (SS)	112.00	3.748	3.748	(0.679)	1284049	50.0	46.9
$	4 Phenol-d6 (SS)	99.00	5.072	5.072	(0.918)	1452285	50.0	48.9
	6 Phenol	94.00	5.094	5.094	(0.922)	1464767	50.0	52.4
	7 Bis(2-chloroethyl)ether	93.00	5.204	5.204	(0.942)	1337870	50.0	52.8
	8 2-Chlorophenol	128.00	5.247	5.247	(0.950)	1213914	50.0	49.8
	9 1,3-Dichlorobenzene	146.00	5.456	5.456	(0.988)	1399639	50.0	50.9
*	10 1,4-Dichlorobenzene-d4	152.00	5.522	5.522	(1.000)	685386	40.0	
	11 1,4-Dichlorobenzene	146.00	5.544	5.544	(1.004)	1495500	50.0	52.0
	12 Benzyl alcohol	108.00	5.829	5.829	(1.056)	757316	50.0	50.8
	13 1,2-Dichlorobenzene	146.00	5.862	5.862	(1.062)	1366122	50.0	52.3
	14 2-Methylphenol	108.00	6.059	6.059	(1.097)	1066575	50.0	51.1
	15 Bis(2-chloroisopropyl)ether	45.00	6.081	6.081	(1.101)	1233477	50.0	49.6(M)
	16 N-Nitrosodi-n-propylamine	70.00	6.356	6.356	(1.151)	603646	50.0	55.9
	17 4-Methylphenol	108.00	6.334	6.334	(1.147)	1092259	50.0	52.8
	18 Hexachloroethane	117.00	6.367	6.367	(1.153)	666645	50.0	53.3
$	19 Nitrobenzene-d5 (SS)	82.00	6.553	6.553	(0.839)	1139044	50.0	48.8
	20 Nitrobenzene	77.00	6.586	6.586	(0.843)	1038505	50.0	53.0
	21 Isophorone	82.00	7.002	7.002	(0.896)	2004304	50.0	52.2
	22 2-Nitrophenol	139.00	7.156	7.156	(0.916)	693083	50.0	52.6
	23 2,4-Dimethylphenol	107.00	7.287	7.287	(0.933)	1093589	50.0	58.8
	25 Bis(2-chloroethoxy)methane	93.00	7.463	7.463	(0.955)	1420888	50.0	50.7
	26 Benzoic acid	122.00	7.683	7.683	(0.983)	556103	25.0	51.4
	27 2,4-Dichlorophenol	162.00	7.606	7.606	(0.973)	932528	50.0	53.9
	28 1,2,4-Trichlorobenzene	180.00	7.738	7.738	(0.990)	991706	50.0	52.0
*	29 Naphthalene-d8	136.00	7.815	7.815	(1.000)	2369832	40.0	
	30 Naphthalene	128.00	7.848	7.848	(1.004)	3228408	50.0	51.9
	32 Hexachlorobutadiene	225.00	8.210	8.210	(1.051)	571942	50.0	53.3
	33 4-Chloro-3-methylphenol	107.00	9.031	9.031	(1.156)	950481	50.0	56.6

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	34 2-Methylnaphthalene	142.00	9.195	9.195	(1.177)	1986939	50.0	55.2
	35 Hexachlorocyclopentadiene	237.00	9.656	9.656	(0.853)	492339	50.0	44.0
	36 2,4,6-Trichlorophenol	196.00	9.853	9.853	(0.870)	597331	50.0	50.3
	37 2,4,5-Trichlorophenol	196.00	9.919	9.919	(0.876)	625823	50.0	50.0
$	38 2-Fluorobiphenyl (SS)	172.00	10.007	10.007	(0.884)	2078567	50.0	46.5
	39 2-Chloronaphthalene	162.00	10.161	10.161	(0.897)	1861889	50.0	50.8
	41 Dimethyl phthalate	163.00	10.950	10.950	(0.967)	2022689	50.0	50.9
	42 2,6-Dinitrotoluene	165.00	11.093	11.093	(0.980)	504454	50.0	52.0
	43 Acenaphthylene	152.00	11.005	11.005	(0.972)	2781975	50.0	48.1
*	45 Acenaphthene-d10	164.00	11.323	11.323	(1.000)	1145807	40.0	
	46 Acenaphthene	153.00	11.389	11.389	(1.006)	1739550	50.0	52.0
	47 2,4-Dinitrophenol	184.00	11.564	11.564	(1.021)	263652	50.0	46.0
	48 4-Nitrophenol	109.00	11.762	11.762	(1.039)	237373	50.0	51.4(M)
	49 Dibenzofuran	168.00	11.718	11.718	(1.035)	2413193	50.0	49.9
	50 2,4-Dinitrotoluene	165.00	11.872	11.872	(1.048)	644116	50.0	50.8
	51 Diethyl phthalate	149.00	12.387	12.387	(1.094)	2141812	50.0	54.2
	52 Fluorene	166.00	12.409	12.409	(1.096)	1914599	50.0	50.6
	53 4-Chlorophenyl phenyl ether	204.00	12.442	12.442	(1.099)	868080	50.0	50.5
	55 4,6-Dinitro-2-methylphenol	198.00	12.706	12.706	(0.888)	385108	50.0	40.9
	56 N-Nitrosodiphenylamine	169.00	12.728	12.728	(0.890)	1030444	50.0	40.6
$	58 2,4,6-Tribromophenol (SS)	329.90	12.959	12.959	(1.144)	340689	50.0	55.5
	59 4-Bromophenyl phenyl ether	248.00	13.430	13.430	(0.939)	457709	50.0	43.6
	60 Hexachlorobenzene	284.00	13.704	13.704	(0.958)	634352	50.0	43.9
	61 Pentachlorophenol	266.00	14.099	14.099	(0.985)	406061	50.0	46.8
*	62 Phenanthrene-d10	188.00	14.308	14.308	(1.000)	1808888	40.0	
	63 Phenanthrene	178.00	14.363	14.363	(1.004)	2466439	50.0	42.7
	64 Anthracene	178.00	14.451	14.451	(1.010)	2499712	50.0	42.6
	66 Di-n-butylphthalate	149.00	15.689	15.689	(1.097)	3847002	50.0	49.1
	67 Fluoranthene	202.00	16.795	16.795	(1.174)	2589430	50.0	46.0
	69 Pyrene	202.00	17.244	17.244	(0.874)	2637151	50.0	46.0
$	70 Terphenyl-d14 (SS)	244.00	17.628	17.628	(0.893)	1765158	50.0	45.6
	71 Butyl benzyl phthalate	149.00	18.722	18.722	(0.948)	1771771	50.0	56.9
	73 Benzo(a)anthracene	228.00	19.707	19.707	(0.998)	2017850	50.0	50.0
*	74 Chrysene-d12	240.00	19.740	19.740	(1.000)	1245113	40.0	
	75 Chrysene	228.00	19.796	19.796	(1.003)	1867897	50.0	49.4
	76 Bis(2-ethylhexyl)phthalate	149.00	19.928	19.928	(1.009)	2299028	50.0	57.8
	77 Di-n-octylphthalate	149.00	21.099	21.099	(0.939)	4036701	50.0	61.6(M)
	78 Benzo(b)fluoranthene	252.00	21.788	21.788	(0.969)	1886811	50.0	49.9
	79 Benzo(k)fluoranthene	252.00	21.833	21.833	(0.971)	1974285	50.0	53.0
	80 Benzo(a)pyrene	252.00	22.380	22.380	(0.996)	1486461	50.0	48.6
*	81 Perylene-d12	264.00	22.480	22.480	(1.000)	1134608	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	24.408	24.408	(1.086)	1558017	50.0	49.3
	83 Dibenz(a,h)anthracene	278.00	24.419	24.419	(1.086)	1275322	50.0	48.4
	84 Benzo(g,h,i)perylene	276.00	24.891	24.891	(1.107)	1268360	50.0	46.8

QC Flag Legend

M - Compound response manually integrated.

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: ITS3.i
Lab File ID: fd255.d
Lab Smp Id: SSTD050 AB396-72-2
Analysis Type: SV
Quant Type: ISTD
Operator: VDLITTLE
Method File: /chem2/ITS3.i/07Sep1996.b/abn3_AFCEE_Soil.m
Misc Info: 50 ug/mL AB396-72-2 08-27-96 BTL#2 *

Calibration Date: 09/07/96
Calibration Time: 1756
Client Smp ID: SSTD050 AB396-72-2
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	986316	493158	1972632	685386	-30.51
29 Naphthalene-d8	3687326	1843663	7374652	2369832	-35.73
45 Acenaphthene-d10	1611003	805502	3222006	1145807	-28.88
62 Phenanthrene-d10	1957014	978507	3914028	1808888	-7.57
74 Chrysene-d12	1279047	639524	2558094	1245113	-2.65
81 Perylene-d12	1248503	624252	2497006	1134608	-9.12

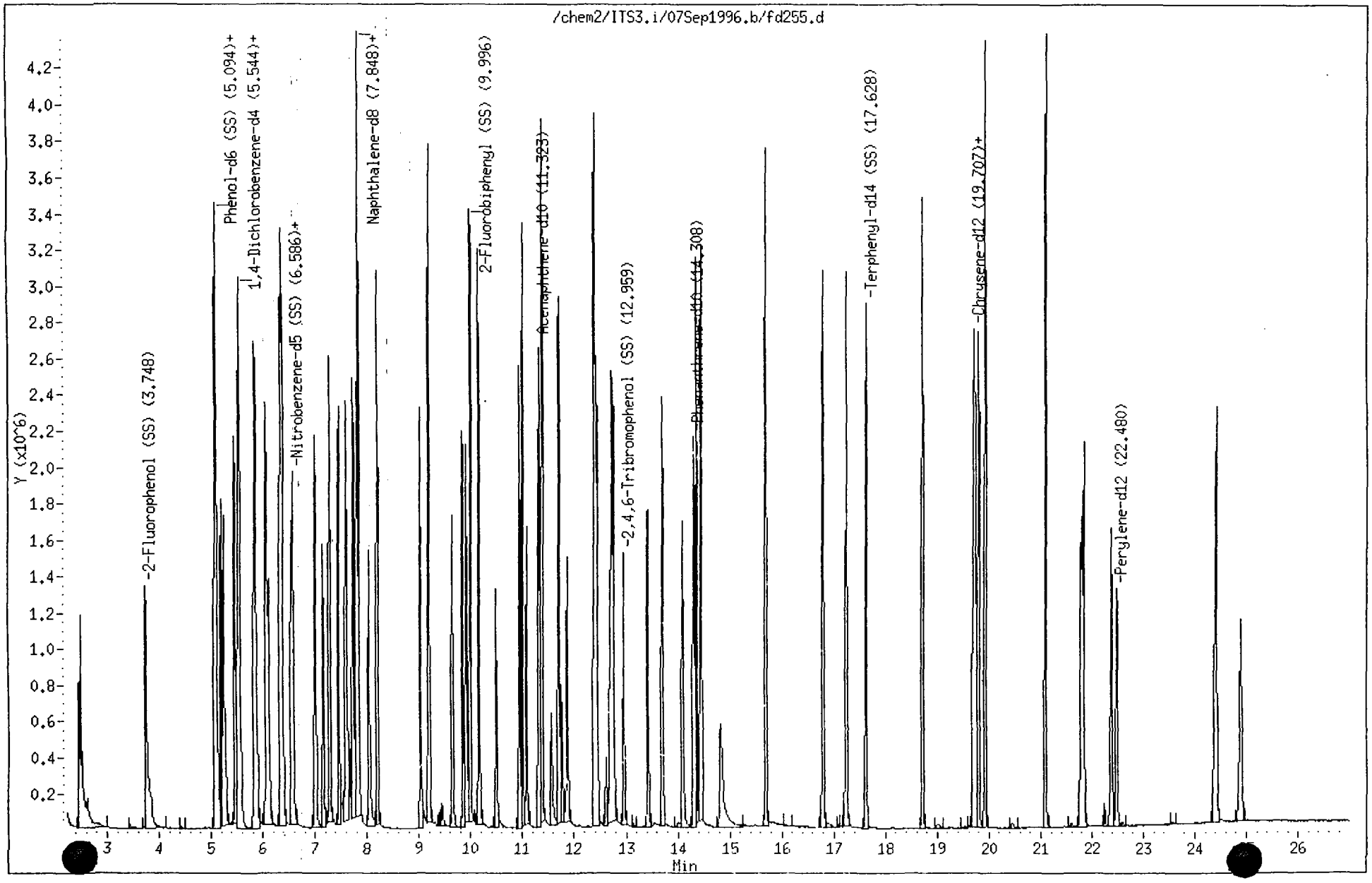
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	5.52	5.02	6.02	5.52	0.05
29 Naphthalene-d8	7.79	7.29	8.29	7.81	0.27
45 Acenaphthene-d10	11.32	10.82	11.82	11.32	0.06
62 Phenanthrene-d10	14.30	13.80	14.80	14.31	0.03
74 Chrysene-d12	19.73	19.23	20.23	19.74	0.06
81 Perylene-d12	22.48	21.98	22.98	22.48	0.02

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

Data File: /chem2/ITS3.i/07Sep1996.b/fd255.d
Date : 07-SEP-1996 16:42
Client ID: SSTD050 AB396-72-2
Sample Info: ITS3 CALIBRATION STANDARD EXP.(9/97)

Instrument: ITS3.i
Operator: VDLITTLE
Column diameter: 0.25

Column phase: DB-5



FORM 6
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS8 Calibration Date(s): 05/29/96 08/31/96

Calibration Time(s): 1621 1837

LAB FILE ID: RRF20 =HB514 RRF50 =HB508
RRF80 =HB512 RRF120=HB511 RRF160=HB510

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
N-Nitrosodimethylamine *	0.661	0.807	0.768	0.766	0.713	0.743	7.7*
Aniline *	2.138	1.862	1.846	1.796	1.789	1.886	7.7*
Phenol *	1.614	1.521	1.521	1.445	1.453	1.511	4.5*
Bis(2-chloroethyl)ether *	1.270	1.280	1.231	1.210	1.172	1.233	3.6*
2-Chlorophenol *	1.345	1.291	1.284	1.278	1.269	1.293	2.3*
1,3-Dichlorobenzene *	1.599	1.519	1.463	1.411	1.382	1.475	5.9*
1,4-Dichlorobenzene *	1.623	1.541	1.512	1.442	1.423	1.508	5.3*
Benzyl alcohol *	0.698	0.733	0.748	0.729	0.738	0.729	2.6*
1,2-Dichlorobenzene *	1.452	1.375	1.360	1.288	1.260	1.347	5.6*
2-Methylphenol *	1.192	1.117	1.115	1.069	1.084	1.115	4.2*
Bis(2-chloroisopropyl)ether *	2.188	2.071	2.124	2.109	2.184	2.135	2.4*
4-Methylphenol *	1.169	1.144	1.130	1.088	1.093	1.125	3.0*
N-Nitrosodi-n-propylamine *	0.913	0.945	0.930	0.922	0.922	0.926	1.3*
Hexachloroethane *	0.592	0.582	0.576	0.564	0.574	0.578	1.8*
Nitrobenzene *	0.361	0.347	0.330	0.330	0.315	0.337	5.2*
Isophorone *	0.668	0.634	0.635	0.633	0.636	0.641	2.3*
2-Nitrophenol *	0.200	0.214	0.214	0.206	0.200	0.207	3.3*
2,4-Dimethylphenol *	0.323	0.315	0.296	0.302	0.287	0.305	4.7*
Bis(2-chloroethoxy)methane *	0.441	0.432	0.425	0.411	0.391	0.420	4.7*
Benzoic acid *	0.152	0.127	0.146	0.172	0.199	0.159	17.2*
2,4-Dichlorophenol *	0.303	0.311	0.301	0.294	0.284	0.299	3.4*
1,2,4-Trichlorobenzene *	0.350	0.340	0.330	0.319	0.297	0.327	6.3*
Naphthalene *	1.059	0.975	0.913	0.869	0.774	0.918	11.7*
4-Chloroaniline *	0.402	0.435	0.407	0.409	0.379	0.406	5.0*
Hexachlorobutadiene *	0.204	0.196	0.189	0.184	0.175	0.190	5.9*
4-Chloro-3-methylphenol *	0.310	0.324	0.317	0.310	0.301	0.312	2.8*
2-Methylnaphthalene *	0.706	0.644	0.616	0.600	0.558	0.625	8.8*
Hexachlorocyclopentadiene *	0.158	0.231	0.253	0.267	0.283	0.238	20.4*
2,4,6-Trichlorophenol *	0.372	0.386	0.382	0.382	0.369	0.378	1.9*
2,4,5-Trichlorophenol *	0.452	0.400	0.413	0.388	0.415	0.414	5.8*
2-Chloronaphthalene *	1.226	1.206	1.088	1.050	0.987	1.111	9.2*
2-Nitroaniline *	0.332	0.432	0.392	0.397	0.393	0.389	9.3*
Dimethylphthalate *	1.412	1.364	1.314	1.277	1.202	1.314	6.1*
Acenaphthylene *	2.000	1.896	1.691	1.631	1.437	1.731	12.8*
2,6-Dinitrotoluene *	0.270	0.319	0.320	0.302	0.268	0.296	8.7*
3-Nitroaniline *	0.268	0.348	0.325	0.327	0.339	0.321	9.8*
Acenaphthene *	1.254	1.164	1.093	1.027	0.957	1.099	10.5*

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

FORM 6
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS8 Calibration Date(s): 05/29/96 08/31/96

Calibration Time(s): 1621 1837

LAB FILE ID: RRF20 =HB514 RRF50 =HB508
RRF80 =HB512 RRF120=HB511 RRF160=HB510

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
2,4-Dinitrophenol *	0.085	0.127	0.166	0.172	0.181	0.146	27.3*
Dibenzofuran *	1.751	1.700	1.616	1.497	1.349	1.583	10.3*
4-Nitrophenol *	0.117	0.124	0.127	0.130	0.117	0.123	4.8*
2,4-Dinitrotoluene *	0.415	0.462	0.454	0.443	0.410	0.437	5.3*
Diethylphthalate *	1.367	1.351	1.313	1.250	1.139	1.284	7.2*
Fluorene *	1.416	1.345	1.253	1.182	1.092	1.258	10.2*
4-Chlorophenyl phenyl ether *	0.636	0.638	0.608	0.592	0.560	0.607	5.3*
4-Nitroaniline *	0.266	0.324	0.286	0.316	0.340	0.306	9.7*
4,6-Dinitro-2-methylphenol *	0.082	0.137	0.163	0.172	0.181	0.147	27.0*
N-Nitrosodiphenylamine (1) *	0.570	0.530	0.519	0.505	0.532	0.531	4.5*
1,2-Diphenylhydrazine *	0.988	0.920	0.876	0.854	0.799	0.887	8.0*
4-Bromophenyl phenyl ether *	0.204	0.200	0.204	0.193	0.212	0.203	3.5*
Hexachlorobenzene *	0.262	0.248	0.251	0.241	0.247	0.250	3.1*
Pentachlorophenol *	0.091	0.119	0.112	0.122	0.128	0.114	12.6*
Benzidine *	0.841	0.931	0.916	0.915	0.908	0.902	3.9*
Phenanthrene *	1.192	1.160	1.141	1.098	1.080	1.134	4.0*
Anthracene *	1.127	1.173	1.162	1.127	1.105	1.139	2.4*
Carbazole *	1.067	1.050	0.977	1.009	1.008	1.022	3.5*
Di-n-butylphthalate *	1.478	1.530	1.448	1.362	1.239	1.411	8.1*
Fluoranthene *	1.183	1.248	1.216	1.189	1.061	1.179	6.0*
Pyrene *	1.659	1.546	1.535	1.373	1.509	1.524	6.7*
Butyl benzyl phthalate *	0.766	0.803	0.801	0.756	0.818	0.789	3.3*
Benzo(a)anthracene *	1.246	1.268	1.254	1.202	1.214	1.237	2.2*
3,3'-Dichlorobenzidine *	0.450	0.479	0.472	0.488	0.486	0.475	3.2*
Chrysene *	1.336	1.292	1.250	1.192	1.177	1.249	5.4*
Bis(2-ethylhexyl)phthalate *	1.081	1.112	1.100	1.032	1.092	1.083	2.9*
Di-n-octylphthalate *	1.756	1.854	1.738	1.507	1.710	1.713	7.4*
Benzo(b)fluoranthene *	1.186	1.242	1.156	1.068	1.188	1.168	5.5*
Benzo(k)fluoranthene *	1.303	1.212	1.159	1.187	1.152	1.203	5.1*
Benzo(a)pyrene *	1.118	1.098	1.060	1.019	1.054	1.070	3.6*
Indeno(1,2,3-cd)pyrene *	1.248	1.251	1.170	1.117	1.175	1.192	4.8*
Dibenz(a,h)anthracene *	0.999	0.992	0.976	0.929	0.968	0.973	2.8*
Benzo(g,h,i)perylene *	1.006	0.974	0.976	0.944	0.994	0.979	2.4*
Pyridine *	1.561	1.636	2.300	1.131	1.796	1.685	25.1*
m,p-Cresol *	1.232	1.093	1.602	0.731	1.120	1.156	27.1*
Nitrobenzene-d5 (SS) *	0.408	0.403	0.385	0.386	0.366	0.390	4.2*

(1) Cannot be seperated from Diphenylamine

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

FORM 6
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS8 Calibration Date(s): 05/29/96 08/31/96

Calibration Time(s): 1621 1837

LAB FILE ID: RRF20 =HB514 RRF50 =HB508
RRF80 =HB512 RRF120=HB511 RRF160=HB510

COMPOUND	RRF20	RRF50	RRF80	RRF120	RRF160	$\overline{RRF}$	% RSD
2-Fluorobiphenyl (SS) *	1.520	1.474	1.326	1.280	1.220	1.364	9.4*
Terphenyl-d14 (SS) *	1.160	1.102	1.088	0.996	1.099	1.089	5.4*
Phenol-d6 (SS) *	1.557	1.511	1.556	1.475	1.494	1.519	2.4*
2-Fluorophenol (SS) *	1.172	1.253	1.254	1.187	1.208	1.215	3.1*
2,4,6-Tribromophenol (SS) *	0.145	0.153	0.169	0.158	0.147	0.154	6.1*

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

Inchcape Testing Services - Environmental Laboratories

INITIAL CALIBRATION DATA

Start Cal Date : 31-AUG-1996 16:47
End Cal Date : 31-AUG-1996 22:17
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem3/ITS8.i/083196.b/abn8.m
Cal Date : 03-Sep-1996 19:22 wsw
Curve Type : Average

Calibration File Names:
Level 1: /chem3/ITS8.i/083196.b/HB514.d
Level 2: /chem3/ITS8.i/083196.b/HB513.d
Level 3: /chem3/ITS8.i/083196.b/HB512.d
Level 4: /chem3/ITS8.i/083196.b/HB511.d
Level 5: /chem3/ITS8.i/083196.b/HB510.d

	Compound	20 Level 1	50 Level 2	80 Level 3	120 Level 4	160 Level 5	$\overline{RRF}$	% RSD	
1	N-Nitrosodimethylamine	0.66069	0.80735	0.76799	0.76631	0.71335	0.74314	7.660	
2	Pyridine	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
5	Aniline	2.13855	1.86195	1.84609	1.79649	1.78929	1.88647	7.651	
6	Phenol	1.61390	1.52144	1.52097	1.44545	1.45349	1.51105	4.488	
7	Bis(2 chloroethyl)ether	1.27037	1.27956	1.23088	1.21003	1.17178	1.23252	3.593	
8	2-Chlorophenol	1.34496	1.29109	1.28419	1.27807	1.26900	1.29346	2.313	
9	1,3-Dichlorobenzene	1.59890	1.51884	1.46313	1.41114	1.38238	1.47488	5.879	
11	1,4-Dichlorobenzene	1.62303	1.54105	1.51216	1.44203	1.42287	1.50823	5.339	
12	Benzyl alcohol	0.69801	0.73332	0.74856	0.72890	0.73785	0.72933	2.601	
13	1,2-Dichlorobenzene	1.45190	1.37493	1.36051	1.28842	1.26048	1.34725	5.614	
14	2-Methylphenol	1.19188	1.11727	1.11510	1.06925	1.08457	1.11561	4.236	
15	Bis(2-chloroisopropyl)ether	2.18848	2.07116	2.12449	2.10911	2.18410	2.13547	2.356	
16	N-Nitrosodi-n-propylamine	0.91285	0.94467	0.93046	0.92204	0.92162	0.92633	1.295	
17	4-Methylphenol	1.16883	1.14396	1.12953	1.08842	1.09336	1.12482	3.028	
18	Hexachloroethane	0.59259	0.58177	0.57630	0.56405	0.57437	0.57781	1.810	
20	Nitrobenzene	0.36070	0.34685	0.32968	0.32961	0.31505	0.33638	5.249	
21	Isophorone	0.66773	0.63412	0.63494	0.63274	0.63562	0.64103	2.335	
22	2-Nitrophenol	0.20017	0.21358	0.21394	0.20635	0.20017	0.20684	3.288	
23	2,4-Dimethylphenol	0.32298	0.31472	0.29563	0.30173	0.28728	0.30447	4.728	
24	m,p-Cresol	+++++	+++++	+++++	+++++	+++++	+++++	+++++	<-
25	Bis(2-chloroethoxy)methane	0.44090	0.43242	0.42517	0.41076	0.39095	0.42004	4.682	
26	Benzoic acid	0.15259	0.12743	0.14561	0.17215	0.19901	0.15936	17.159	
27	2,4-Dichlorophenol	0.30337	0.31069	0.30110	0.29364	0.28437	0.29863	3.358	
28	1,2,4-Trichlorobenzene	0.35032	0.34056	0.33000	0.31914	0.29681	0.32737	6.314	
30	Naphthalene	1.05916	0.97465	0.91301	0.86914	0.77419	0.91803	11.710	
31	4-Chloroaniline	0.40156	0.43533	0.40706	0.40943	0.37896	0.40647	4.955	
32	Hexachlorobutadiene	0.20416	0.19628	0.18890	0.18371	0.17525	0.18966	5.881	

W.S.W. Wright Sept. 3, 1996
ANALYST Date

REVIEW Date

Inchcape Testing Services - Environmental Laboratories

INITIAL CALIBRATION DATA

Start Cal Date : 31-AUG-1996 16:47
End Cal Date : 31-AUG-1996 22:17
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem3/ITS8.i/083196.b/abn8.m
Cal Date : 03-Sep-1996 19:22 wsw
Curve Type : Average

Compound	20 Level 1	50 Level 2	80 Level 3	120 Level 4	160 Level 5	RRF	% RSD
33 4-Chloro-3-methylphenol	0.31009	0.32420	0.31748	0.31005	0.30103	0.31257	2.795
34 2-Methylnaphthalene	0.70559	0.64436	0.61591	0.59956	0.55811	0.62471	8.795
35 Hexachlorocyclopentadiene	0.15838	0.23148	0.25341	0.26676	0.28267	0.23854	20.367
36 2,4,6-Trichlorophenol	0.37248	0.38550	0.38156	0.38248	0.36917	0.37824	1.856
37 2,4,5-Trichlorophenol	0.45222	0.39979	0.41276	0.38824	0.41498	0.41360	5.833
39 2-Chloronaphthalene	1.22561	1.20551	1.08810	1.04978	0.98709	1.11122	9.188
40 2-Nitroaniline	0.33162	0.43194	0.39212	0.39720	0.39278	0.38913	9.290
41 Dimethylphthalate	1.41247	1.36425	1.31352	1.27694	1.20217	1.31387	6.148
42 2,6-Dinitrotoluene	0.26993	0.31934	0.31990	0.30185	0.26756	0.29572	8.685
43 Acenaphthylene	2.00016	1.89636	1.69098	1.63128	1.43681	1.73112	12.848
3-Nitroaniline	0.26761	0.34753	0.32505	0.32747	0.33901	0.32133	9.762
46 Acenaphthene	1.25379	1.16411	1.09269	1.02748	0.95749	1.09911	10.510
47 2,4-Dinitrophenol	0.08522	0.12757	0.16605	0.17203	0.18149	0.14643	27.273
48 4-Nitrophenol	0.11695	0.12442	0.12728	0.12990	0.11703	0.12312	4.809
49 Dibenzofuran	1.75148	1.70048	1.61563	1.49696	1.34916	1.58274	10.253
50 2,4-Dinitrotoluene	0.41506	0.46221	0.45434	0.44315	0.41025	0.43700	5.331
51 Diethylphthalate	1.36745	1.35094	1.31262	1.25004	1.13878	1.28397	7.234
52 Fluorene	1.41645	1.34466	1.25301	1.18190	1.09180	1.25757	10.219
53 4-Chlorophenyl phenyl ether	0.63603	0.63808	0.60789	0.59230	0.56053	0.60697	5.329
54 4-Nitroaniline	0.26622	0.32364	0.28589	0.31622	0.34004	0.30640	9.737
55 4,6-Dinitro-2-methylphenol	0.08233	0.13679	0.16312	0.17226	0.18084	0.14707	27.049
56 N-Nitrosodiphenylamine	0.56972	0.53019	0.51918	0.50548	0.53255	0.53142	4.505
57 1,2-Diphenylhydrazine	0.98789	0.92028	0.87619	0.85409	0.79908	0.88750	8.010
59 4-Bromophenyl phenyl ether	0.20389	0.20050	0.20372	0.19302	0.21246	0.20272	3.455
60 Hexachlorobenzene	0.26189	0.24793	0.25139	0.24108	0.24708	0.24987	3.072
61 Pentachlorophenol	0.09094	0.11869	0.11203	0.12238	0.12812	0.11443	12.561
63 Phenanthrene	1.19202	1.15959	1.14116	1.09798	1.08031	1.13421	4.004
64 Anthracene	1.12748	1.17261	1.16192	1.12737	1.10495	1.13886	2.437
65 Carbazole	1.06735	1.04958	0.97675	1.00862	1.00796	1.02205	3.542
66 Di-n-butylphthalate	1.47830	1.52987	1.44763	1.36195	1.23872	1.41129	8.086
67 Fluoranthene	1.18347	1.24857	1.21615	1.18917	1.06092	1.17966	6.037
68 Benzidine	0.84116	0.93111	0.91612	0.91479	0.90839	0.90231	3.900
69 Pyrene	1.65943	1.54604	1.53533	1.37292	1.50913	1.52457	6.721
71 Butyl benzyl phthalate	0.76598	0.80319	0.80078	0.75599	0.81764	0.78872	3.342

Inchcape Testing Services - Environmental Laboratories

INITIAL CALIBRATION DATA

Start Cal Date : 31-AUG-1996 16:47
End Cal Date : 31-AUG-1996 22:17
Quant Method : ISTD
Target Version : 3.10
Integrator : HP RTE
Method file : /chem3/ITS8.i/083196.b/abn8.m
Cal Date : 03-Sep-1996 19:22 wsw
Curve Type : Average

	Compound	20 Level 1	50 Level 2	80 Level 3	120 Level 4	160 Level 5	RRF	% RSD
72	3,3'-Dichlorobenzidine	0.44986	0.47930	0.47165	0.48777	0.48633	0.47498	3.250
73	Benzo(a)anthracene	1.24551	1.26841	1.25418	1.20229	1.21418	1.23691	2.243
75	Chrysene	1.33654	1.29250	1.24979	1.19243	1.17660	1.24957	5.368
76	Bis(2-ethylhexyl)phthalate	1.08065	1.11225	1.09972	1.03176	1.09222	1.08332	2.864
77	Di-n-octylphthalate	1.75572	1.85418	1.73826	1.50721	1.70955	1.71298	7.428
78	Benzo(b)fluoranthene	1.18657	1.24241	1.15637	1.06832	1.18780	1.16829	5.471
79	Benzo(k)fluoranthene	1.30284	1.21207	1.15942	1.18742	1.15182	1.20272	5.059
80	Benzo(a)pyrene	1.11797	1.09857	1.05978	1.01927	1.05379	1.06988	3.637
82	Indeno(1,2,3-cd)pyrene	1.24776	1.25148	1.17025	1.11694	1.17526	1.19234	4.788
83	Dibenz(a,h)anthracene	0.99942	0.99207	0.97636	0.92908	0.96795	0.97297	2.828
	Benzo(g,h,i)perylene	1.00645	0.97361	0.97580	0.94409	0.99399	0.97878	2.415
$ 3	2-Fluorophenol (SS)	1.17174	1.25320	1.25425	1.18686	1.20817	1.21485	3.110
$ 4	Phenol-d6 (SS)	1.55697	1.51111	1.55583	1.47538	1.49360	1.51858	2.421
$ 19	Nitrobenzene-d5 (SS)	0.40751	0.40289	0.38486	0.38657	0.36623	0.38961	4.208
$ 38	2-Fluorobiphenyl (SS)	1.51986	1.47382	1.32587	1.28007	1.22053	1.36403	9.377
$ 58	2,4,6-Tribromophenol (SS)	0.14527	0.15320	0.16890	0.15811	0.14746	0.15459	6.109
$ 70	Terphenyl-d14 (SS)	1.16034	1.10239	1.08836	0.99641	1.09868	1.08924	5.419

Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/083196.b/HB505.d
Lab Smp Id: SSTD160 AB396-55-2 Client Smp ID: SSTD160 AB396-55-2
Inj Date : 31-AUG-1996 16:47
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : ITS8 CALIBRATION STANDARD EXP.(9/96)
Misc Info : 160 ug/mL AB396-55-2 03-12-96 BTL# 2 *
Comment :
Method : /chem3/ITS8.i/083196.b/abn8.m
Meth Date : 04-Sep-1996 12:07 wsw Quant Type: ISTD
Cal Date : 31-AUG-1996 21:40 Cal File: HB513.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
1	N-Nitrosodimethylamine	74.00	2.142	2.154	(0.389)	97906	160	154
$ 3	2-Fluorophenol (SS)	112.00	3.568	3.578	(0.648)	165819	160	159
$ 4	Phenol-d6 (SS)	99.00	4.972	4.960	(0.903)	204994	160	157
	Phenol	94.00	5.003	4.981	(0.909)	199489	160	154
7	Bis(2-chloroethyl)ether	93.00	5.139	5.126	(0.934)	160825	160	152
8	2-Chlorophenol	128.00	5.160	5.158	(0.937)	174168	160	157
9	1,3-Dichlorobenzene	146.00	5.410	5.408	(0.983)	189729	160	150
* 10	1,4-Dichlorobenzene-d4	152.00	5.504	5.512	(1.000)	34312	40.0	
11	1,4-Dichlorobenzene	146.00	5.546	5.543	(1.008)	195286	160	151
12	Benzyl alcohol	108.00	5.807	5.793	(1.055)	101269	160	162(A)
13	1,2-Dichlorobenzene	146.00	5.786	5.783	(1.051)	172998	160	150
14	2-Methylphenol	108.00	6.015	6.002	(1.093)	148855	160	156
15	Bis(2-chloroisopropyl)ether	45.00	6.088	6.043	(1.106)	299764	160	164(AM)
16	N-Nitrosodi-n-propylamine	70.00	6.297	6.262	(1.144)	126491	160	159
17	4-Methylphenol	108.00	6.318	6.293	(1.148)	150061	160	156
18	Hexachloroethane	117.00	6.360	6.366	(1.155)	78831	160	159
$ 19	Nitrobenzene-d5 (SS)	82.00	6.506	6.491	(0.833)	209518	160	150
20	Nitrobenzene	77.00	6.548	6.533	(0.838)	180237	160	150
21	Isophorone	82.00	7.006	6.981	(0.897)	363631	160	159
22	2-Nitrophenol	139.00	7.121	7.116	(0.912)	114518	160	155
23	2,4-Dimethylphenol	107.00	7.277	7.262	(0.932)	164352	160	151
25	Bis(2-chloroethoxy)methane	93.00	7.465	7.449	(0.956)	223659	160	149
26	Benzoic acid	122.00	7.612	8.117	(0.975)	56927	160	200(AQM)
27	2,4-Dichlorophenol	162.00	7.591	7.585	(0.972)	162688	160	152
28	1,2,4-Trichlorobenzene	180.00	7.727	7.721	(0.989)	169805	160	145
* 29	Naphthalene-d8	136.00	7.811	7.804	(1.000)	143023	40.0	
30	Naphthalene	128.00	7.853	7.846	(1.005)	442909	160	135
32	Hexachlorobutadiene	225.00	8.114	8.117	(1.039)	100260	160	148
33	4-Chloro-3-methylphenol	107.00	9.030	9.033	(1.156)	172215	160	154

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	34 2-Methylnaphthalene	142.00	9.229	9.220	(1.182)	319290	160	143
	35 Hexachlorocyclopentadiene	237.00	9.532	9.533	(0.844)	94822	160	190(A)
	36 2,4,6-Trichlorophenol	196.00	9.824	9.825	(0.870)	123838	160	156
	37 2,4,5-Trichlorophenol	196.00	9.887	9.908	(0.875)	139203	160	160(A)
$	38 2-Fluorobiphenyl (SS)	172.00	10.003	9.992	(0.885)	409423	160	143
	39 2-Chloronaphthalene	162.00	10.191	10.180	(0.902)	331117	160	142
	41 Dimethylphthalate	163.00	10.889	10.866	(0.964)	403264	160	146
	42 2,6-Dinitrotoluene	165.00	10.994	10.981	(0.973)	89753	160	145
	43 Acenaphthylene	152.00	11.015	11.002	(0.975)	481976	160	133
*	45 Acenaphthene-d10	164.00	11.296	11.294	(1.000)	83862	40.0	
	46 Acenaphthene	153.00	11.370	11.357	(1.006)	321188	160	139
	47 2,4-Dinitrophenol	184.00	11.547	11.607	(1.022)	60880	160	198(A)
	48 4-Nitrophenol	109.00	11.746	11.784	(1.040)	39258	160	152(QM)
	49 Dibenzofuran	168.00	11.725	11.721	(1.038)	452574	160	136
	50 2,4-Dinitrotoluene	165.00	11.809	11.794	(1.045)	137616	160	150(M)
	51 Diethylphthalate	149.00	12.351	12.325	(1.093)	382001	160	142
	52 Fluorene	166.00	12.446	12.430	(1.102)	366241	160	139
	53 4-Chlorophenyl phenyl ether	204.00	12.509	12.492	(1.107)	188028	160	148
	55 4,6-Dinitro-2-methylphenol	198.00	12.676	12.691	(0.844)	80416	160	197(A)
	56 N-Nitrosodiphenylamine	169.00	12.802	12.795	(0.852)	236816	160	160(A)
$	58 2,4,6-Tribromophenol (SS)	330.00	13.011	13.014	(1.152)	49466	160	153
	59 4-Bromophenyl phenyl ether	248.00	13.772	13.763	(0.917)	94476	160	168(A)
	60 Hexachlorobenzene	284.00	13.856	13.847	(0.922)	109871	160	158
	61 Pentachlorophenol	266.00	14.523	14.585	(0.967)	56973	160	179(AM)
*	Phenanthrene-d10	188.00	15.025	15.023	(1.000)	111170	40.0	
	63 Phenanthrene	178.00	15.099	15.086	(1.005)	480394	160	152
	64 Anthracene	178.00	15.256	15.242	(1.015)	491348	160	155
	66 Di-n-butylphthalate	149.00	16.984	16.978	(1.130)	550832	160	140
	67 Fluoranthene	202.00	18.264	18.256	(1.216)	471772	160	144
	69 Pyrene	202.00	18.796	18.787	(0.872)	491579	160	158
$	70 Terphenyl-d14 (SS)	244.00	19.307	19.307	(0.896)	357880	160	161(A)
	71 Butyl benzyl phthalate	149.00	20.536	20.523	(0.953)	266334	160	166(A)
	73 Benzo(a)anthracene	228.00	21.547	21.532	(1.000)	395502	160	157
*	74 Chrysene-d12	240.00	21.557	21.553	(1.000)	81434	40.0	
	75 Chrysene	228.00	21.621	21.606	(1.003)	383262	160	151
	76 Bis(2-ethylhexyl)phthalate	149.00	21.840	21.836	(1.013)	355775	160	161(A)
	77 Di-n-octylphthalate	149.00	23.134	23.126	(0.950)	550016	160	160
	78 Benzo(b)fluoranthene	252.00	23.677	23.667	(0.972)	382152	160	163(A)
	79 Benzo(k)fluoranthene	252.00	23.740	23.720	(0.975)	370578	160	153
	80 Benzo(a)pyrene	252.00	24.263	24.251	(0.996)	339039	160	158
*	81 Perylene-d12	264.00	24.357	24.356	(1.000)	80433	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	26.238	26.233	(1.077)	378120	160	158
	83 Dibenz(a,h)anthracene	278.00	26.269	26.265	(1.078)	311420	160	159
	84 Benzo(g,h,i)perylene	276.00	26.689	26.694	(1.096)	319798	160	162(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Flag Legend

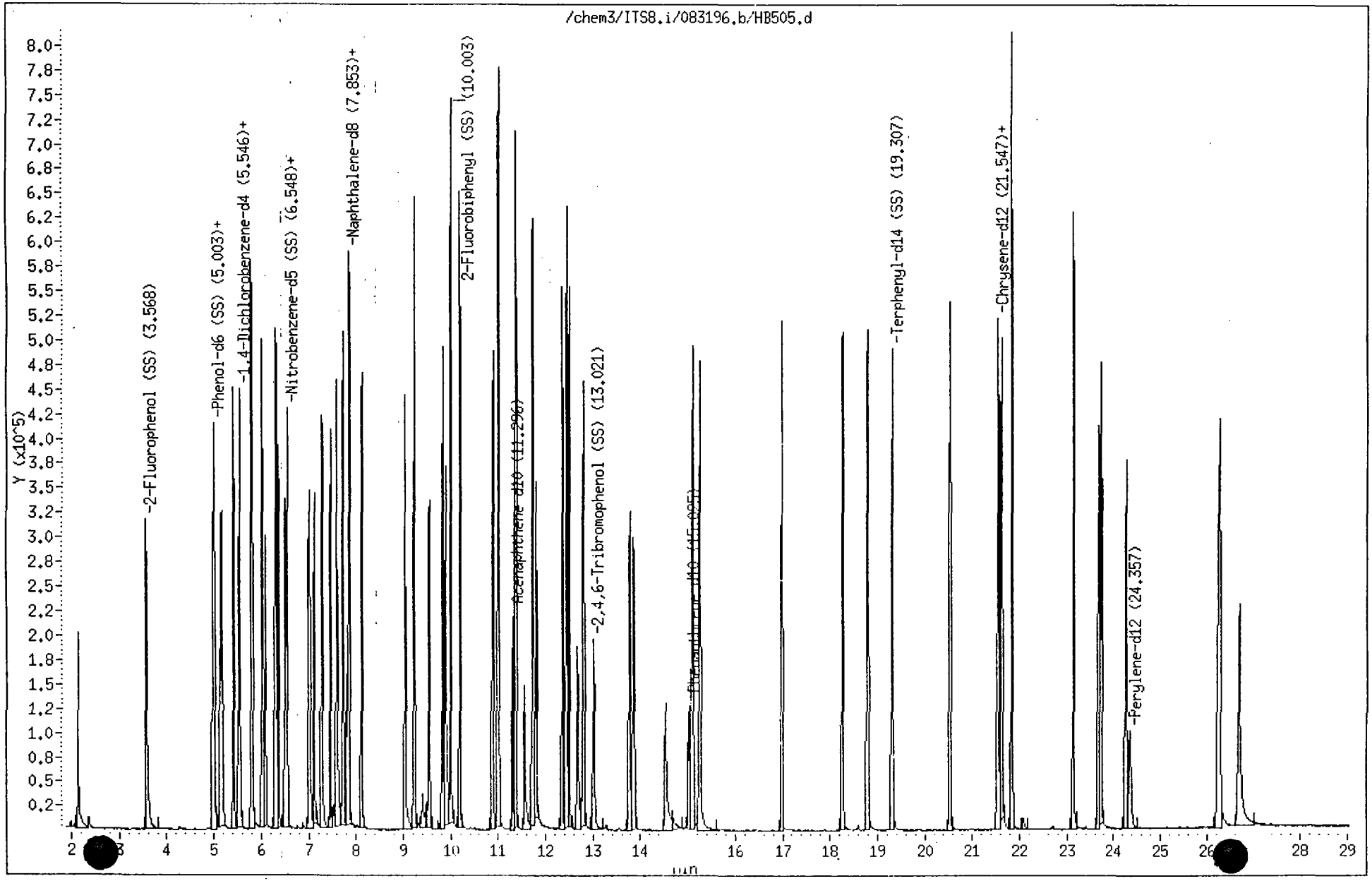
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: /chem3/ITS8.i/083196.b/HB505.d
Date : 31-AUG-1996 16:47
Client ID: SSTD160 AB396-55-2
Sample Info: ITS8 CALIBRATION STANDARD EXP.(9/96)

Column phase: DB-5

Instrument: ITS8.i

Operator: VDLITTLE
Column diameter: 0.25



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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/083196.b/HB506.d
Lab Smp Id: SSTD120 AB396-55-2 Client Smp ID: SSTD120 AB396-55-2
Inj Date : 31-AUG-1996 17:23
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : ITS8 CALIBRATION STANDARD EXP.(9/96)
Misc Info : 120 ug/mL AB396-55-2 03-12-96 BTL# 3 *
Comment :
Method : /chem3/ITS8.i/083196.b/abn8.m
Meth Date : 04-Sep-1996 12:07 wsw Quant Type: ISTD
Cal Date : 31-AUG-1996 21:40 Cal File: HB513.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	1 N-Nitrosodimethylamine	74.00	2.143	2.154	(0.389)	80506	120	124
$	3 2-Fluorophenol (SS)	112.00	3.567	3.578	(0.647)	124688	120	117
$	4 Phenol-d6 (SS)	99.00	4.972	4.960	(0.902)	154999	120	116
	Phenol	94.00	4.992	4.981	(0.905)	151855	120	115
	7 Bis(2-chloroethyl)ether	93.00	5.128	5.126	(0.930)	127122	120	118
	8 2-Chlorophenol	128.00	5.159	5.158	(0.936)	134270	120	118
	9 1,3-Dichlorobenzene	146.00	5.409	5.408	(0.981)	148250	120	115
*	10 1,4-Dichlorobenzene-d4	152.00	5.514	5.512	(1.000)	35019	40.0	
	11 1,4-Dichlorobenzene	146.00	5.535	5.543	(1.004)	151495	120	115
	12 Benzyl alcohol	108.00	5.795	5.793	(1.051)	76576	120	120
	13 1,2-Dichlorobenzene	146.00	5.785	5.783	(1.049)	135358	120	115
	14 2-Methylphenol	108.00	6.004	6.002	(1.089)	112332	120	115
	15 Bis(2-chloroisopropyl)ether	45.00	6.087	6.043	(1.104)	221577	120	118(M)
	16 N-Nitrosodi-n-propylamine	70.00	6.285	6.262	(1.140)	96867	120	119
	17 4-Methylphenol	108.00	6.306	6.293	(1.144)	114346	120	116
	18 Hexachloroethane	117.00	6.359	6.366	(1.153)	59257	120	117
$	19 Nitrobenzene-d5 (SS)	82.00	6.505	6.491	(0.833)	158154	120	119
	20 Nitrobenzene	77.00	6.536	6.533	(0.837)	134853	120	118
	21 Isophorone	82.00	6.995	6.981	(0.896)	258870	120	118
	22 2-Nitrophenol	139.00	7.120	7.116	(0.912)	84423	120	120
	23 2,4-Dimethylphenol	107.00	7.276	7.262	(0.932)	123444	120	119
	25 Bis(2-chloroethoxy)methane	93.00	7.464	7.449	(0.956)	168054	120	117
	26 Benzoic acid	122.00	7.579	8.117	(0.971)	35215	120	130(M)
	27 2,4-Dichlorophenol	162.00	7.589	7.585	(0.972)	120134	120	118
	28 1,2,4-Trichlorobenzene	180.00	7.725	7.721	(0.989)	130567	120	117
*	29 Naphthalene-d8	136.00	7.809	7.804	(1.000)	136375	40.0	
	30 Naphthalene	128.00	7.851	7.846	(1.005)	355588	120	114
	32 Hexachlorobutadiene	225.00	8.112	8.117	(1.039)	75161	120	116
	33 4-Chloro-3-methylphenol	107.00	9.028	9.033	(1.156)	126850	120	119

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	34 2-Methylnaphthalene	142.00	9.227	9.220	(1.182)	245295	120	115
	35 Hexachlorocyclopentadiene	237.00	9.530	9.533	(0.844)	63346	120	134
	36 2,4,6-Trichlorophenol	196.00	9.822	9.825	(0.870)	90825	120	121
	37 2,4,5-Trichlorophenol	196.00	9.885	9.908	(0.875)	92192	120	113
$	38 2-Fluorobiphenyl (SS)	172.00	10.000	9.992	(0.885)	303969	120	113
	39 2-Chloronaphthalene	162.00	10.189	10.180	(0.902)	249282	120	113
	41 Dimethylphthalate	163.00	10.876	10.866	(0.963)	303225	120	117
	42 2,6-Dinitrotoluene	165.00	10.991	10.981	(0.973)	71677	120	122
	43 Acenaphthylene	152.00	11.001	11.002	(0.974)	387367	120	113
*	45 Acenaphthene-d10	164.00	11.293	11.294	(1.000)	79154	40.0	
	46 Acenaphthene	153.00	11.367	11.357	(1.006)	243987	120	112
	47 2,4-Dinitrophenol	184.00	11.544	11.607	(1.022)	40851	120	141
	48 4-Nitrophenol	109.00	11.742	11.784	(1.040)	30847	120	127(QM)
	49 Dibenzofuran	168.00	11.721	11.721	(1.038)	355472	120	113
	50 2,4-Dinitrotoluene	165.00	11.805	11.794	(1.045)	105232	120	122(M)
	51 Diethylphthalate	149.00	12.348	12.325	(1.093)	296838	120	117
	52 Fluorene	166.00	12.442	12.430	(1.102)	280657	120	113
	53 4-Chlorophenyl phenyl ether	204.00	12.505	12.492	(1.107)	140648	120	117
	55 4,6-Dinitro-2-methylphenol	198.00	12.672	12.691	(0.844)	61436	120	140
	56 N-Nitrosodiphenylamine	169.00	12.798	12.795	(0.852)	180275	120	114
$	58 2,4,6-Tribromophenol (SS)	330.00	13.017	13.014	(1.153)	37544	120	123
	59 4-Bromophenyl phenyl ether	248.00	13.757	13.763	(0.916)	68838	120	114
	60 Hexachlorobenzene	284.00	13.852	13.847	(0.922)	85977	120	116
	61 Pentachlorophenol	266.00	14.529	14.585	(0.967)	43645	120	128(M)
*	Phenanthrene-d10	188.00	15.020	15.023	(1.000)	118880	40.0	
	63 Phenanthrene	178.00	15.094	15.086	(1.005)	391585	120	116
	64 Anthracene	178.00	15.251	15.242	(1.015)	402064	120	119
	66 Di-n-butylphthalate	149.00	16.979	16.978	(1.130)	485727	120	116
	67 Fluoranthene	202.00	18.269	18.256	(1.216)	424104	120	121
	69 Pyrene	202.00	18.790	18.787	(0.871)	429442	120	108
$	70 Terphenyl-d14 (SS)	244.00	19.311	19.307	(0.896)	311673	120	110
	71 Butyl benzyl phthalate	149.00	20.530	20.523	(0.952)	236471	120	115
	73 Benzo(a)anthracene	228.00	21.541	21.532	(0.999)	376071	120	117
*	74 Chrysene-d12	240.00	21.562	21.553	(1.000)	104265	40.0	
	75 Chrysene	228.00	21.615	21.606	(1.002)	372987	120	114
	76 Bis(2-ethylhexyl)phthalate	149.00	21.834	21.836	(1.013)	322729	120	114
	77 Di-n-octylphthalate	149.00	23.137	23.126	(0.950)	494911	120	106
	78 Benzo(b)fluoranthene	252.00	23.680	23.667	(0.972)	350797	120	110
	79 Benzo(k)fluoranthene	252.00	23.733	23.720	(0.974)	389904	120	118
	80 Benzo(a)pyrene	252.00	24.266	24.251	(0.996)	334690	120	114
*	81 Perylene-d12	264.00	24.361	24.356	(1.000)	109454	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	26.240	26.233	(1.077)	366760	120	112
	83 Dibenz(a,h)anthracene	278.00	26.272	26.265	(1.078)	305073	120	114
	84 Benzo(g,h,i)perylene	276.00	26.691	26.694	(1.096)	310003	120	116

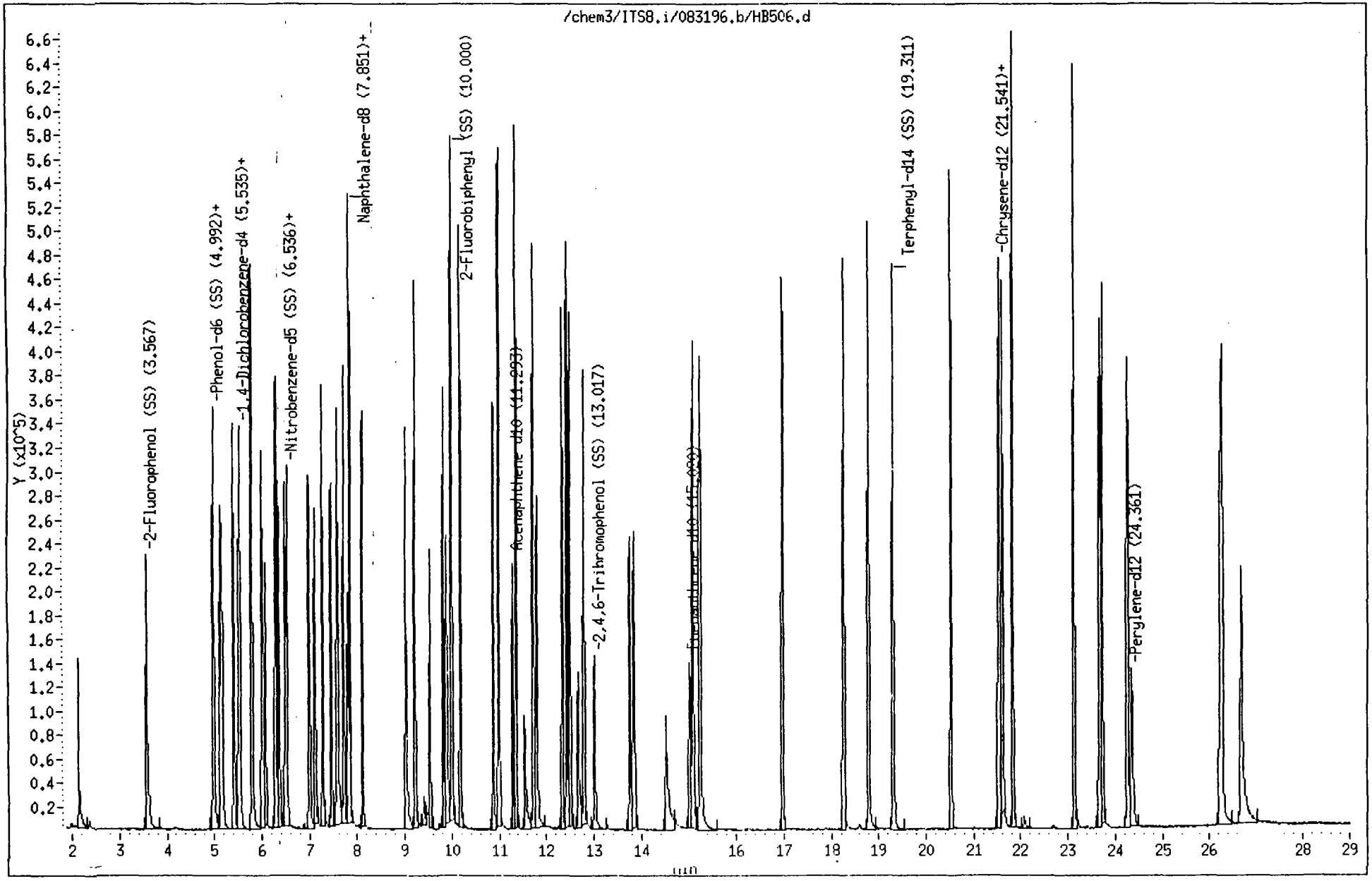
QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: /chem3/ITS8.i/083196.b/HB506.d
Date : 31-AUG-1996 17:23
Client ID: SSTD120 AB396-55-2
Sample Info: ITS8 CALIBRATION STANDARD EXP.(9/96)

Instrument: ITS8.i
Operator: VDLITTLE
Column diameter: 0.25

Column phase: DB-5



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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/083196.b/HB507.d
Lab Smp Id: SSTD080 AB396-55-2 Client Smp ID: SSTD080 AB396-55-2
Inj Date : 31-AUG-1996 18:00
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : ITS8 CALIBRATION STANDARD EXP (9/96)
Misc Info : 80 ug/mL AB396-55-2 03-12-96 BTL# 4 *
Comment :
Method : /chem3/ITS8.i/083196.b/abn8.m
Meth Date : 04-Sep-1996 12:07 wsw Quant Type: ISTD
Cal Date : 31-AUG-1996 21:40 Cal File: HB513.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	1 N-Nitrosodimethylamine	74.00	2.143	2.154	(0.389)	63843	80.0	82.7
$	3 2-Fluorophenol (SS)	112.00	3.568	3.578	(0.647)	104266	80.0	82.6
$	4 Phenol-d6 (SS)	99.00	4.972	4.960	(0.902)	129336	80.0	82.0
	Phenol	94.00	4.992	4.981	(0.905)	126438	80.0	80.5
	7 Bis(2-chloroethyl)ether	93.00	5.128	5.126	(0.930)	102323	80.0	79.9
	8 2-Chlorophenol	128.00	5.159	5.158	(0.936)	106755	80.0	79.4
	9 1,3-Dichlorobenzene	146.00	5.409	5.408	(0.981)	121630	80.0	79.4
*	10 1,4-Dichlorobenzene-d4	152.00	5.514	5.512	(1.000)	41565	40.0	
	11 1,4-Dichlorobenzene	146.00	5.535	5.543	(1.004)	125706	80.0	80.2
	12 Benzyl alcohol	108.00	5.795	5.793	(1.051)	62228	80.0	82.1
	13 1,2-Dichlorobenzene	146.00	5.785	5.783	(1.049)	113099	80.0	80.8
	14 2-Methylphenol	108.00	6.004	6.002	(1.089)	92698	80.0	80.0
	15 Bis(2-chloroisopropyl)ether	45.00	6.045	6.043	(1.096)	176609	80.0	79.6(M)
	16 N-Nitrosodi-n-propylamine	70.00	6.275	6.262	(1.138)	77349	80.0	80.4
	17 4-Methylphenol	108.00	6.296	6.293	(1.142)	93898	80.0	80.3
	18 Hexachloroethane	117.00	6.358	6.366	(1.153)	47908	80.0	79.8
$	19 Nitrobenzene-d5 (SS)	82.00	6.504	6.491	(0.833)	123801	80.0	79.0
	20 Nitrobenzene	77.00	6.536	6.533	(0.837)	106053	80.0	78.4
	21 Isophorone	82.00	6.994	6.981	(0.896)	204249	80.0	79.2
	22 2-Nitrophenol	139.00	7.119	7.116	(0.912)	68820	80.0	82.7
	23 2,4-Dimethylphenol	107.00	7.276	7.262	(0.932)	95098	80.0	77.7
	25 Bis(2-chloroethoxy)methane	93.00	7.453	7.449	(0.954)	136769	80.0	81.0
	26 Benzoic acid	122.00	7.568	8.117	(0.969)	23420	80.0	73.1(M)
	27 2,4-Dichlorophenol	162.00	7.578	7.585	(0.971)	96858	80.0	80.7
	28 1,2,4-Trichlorobenzene	180.00	7.725	7.721	(0.989)	106154	80.0	80.6
*	29 Naphthalene-d8	136.00	7.809	7.804	(1.000)	160840	40.0	
	30 Naphthalene	128.00	7.850	7.846	(1.005)	293697	80.0	79.6
	32 Hexachlorobutadiene	225.00	8.122	8.117	(1.040)	60765	80.0	79.7
	33 4-Chloro-3-methylphenol	107.00	9.027	9.033	(1.156)	102127	80.0	81.2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	34 2-Methylnaphthalene	142.00	9.226	9.220	(1.181)	198126	80.0	78.9
	35 Hexachlorocyclopentadiene	237.00	9.539	9.533	(0.845)	48498	80.0	85.0
	36 2,4,6-Trichlorophenol	196.00	9.821	9.825	(0.870)	73024	80.0	80.7
	37 2,4,5-Trichlorophenol	196.00	9.884	9.908	(0.875)	78995	80.0	79.8
$	38 2-Fluorobiphenyl (SS)	172.00	9.999	9.992	(0.885)	253748	80.0	77.8
	39 2-Chloronaphthalene	162.00	10.188	10.180	(0.902)	208242	80.0	78.3
	41 Dimethylphthalate	163.00	10.875	10.866	(0.963)	251384	80.0	80.0
	42 2,6-Dinitrotoluene	165.00	10.979	10.981	(0.972)	61224	80.0	86.5
	43 Acenaphthylene	152.00	11.000	11.002	(0.974)	323624	80.0	78.1
*	45 Acenaphthene-d10	164.00	11.292	11.294	(1.000)	95691	40.0	
	46 Acenaphthene	153.00	11.366	11.357	(1.006)	209122	80.0	79.5
	47 2,4-Dinitrophenol	184.00	11.543	11.607	(1.022)	31779	80.0	90.7
	48 4-Nitrophenol	109.00	11.741	11.784	(1.040)	24360	80.0	82.7(M)
	49 Dibenzofuran	168.00	11.720	11.721	(1.038)	309202	80.0	81.7
	50 2,4-Dinitrotoluene	165.00	11.804	11.794	(1.045)	86952	80.0	83.2(M)
	51 Diethylphthalate	149.00	12.347	12.325	(1.093)	251211	80.0	81.8
	52 Fluorene	166.00	12.441	12.430	(1.102)	239804	80.0	79.7
	53 4-Chlorophenyl phenyl ether	204.00	12.504	12.492	(1.107)	116339	80.0	80.1
	55 4,6-Dinitro-2-methylphenol	198.00	12.671	12.691	(0.844)	48429	80.0	88.7
	56 N-Nitrosodiphenylamine	169.00	12.796	12.795	(0.852)	154136	80.0	78.2
$	58 2,4,6-Tribromophenol (SS)	330.00	13.016	13.014	(1.153)	32325	80.0	87.4
	59 4-Bromophenyl phenyl ether	248.00	13.766	13.763	(0.917)	60482	80.0	80.4
	60 Hexachlorobenzene	284.00	13.850	13.847	(0.922)	74633	80.0	80.5
	61 Pentachlorophenol	266.00	14.527	14.585	(0.967)	33259	80.0	78.3
*	Phenanthrene-d10	188.00	15.018	15.023	(1.000)	148443	40.0	
	63 Phenanthrene	178.00	15.102	15.086	(1.006)	338795	80.0	80.5
	64 Anthracene	178.00	15.249	15.242	(1.015)	344958	80.0	81.6
	66 Di-n-butylphthalate	149.00	16.986	16.978	(1.131)	429781	80.0	82.0
	67 Fluoranthene	202.00	18.266	18.256	(1.216)	361059	80.0	82.5
	69 Pyrene	202.00	18.786	18.787	(0.871)	378661	80.0	80.6
$	70 Terphenyl-d14 (SS)	244.00	19.307	19.307	(0.896)	268424	80.0	79.9
	71 Butyl benzyl phthalate	149.00	20.526	20.523	(0.952)	197498	80.0	81.2
	73 Benzo(a)anthracene	228.00	21.546	21.532	(1.000)	309321	80.0	81.1
*	74 Chrysene-d12	240.00	21.557	21.553	(1.000)	123316	40.0	
	75 Chrysene	228.00	21.620	21.606	(1.003)	308238	80.0	80.0
	76 Bis(2-ethylhexyl)phthalate	149.00	21.839	21.836	(1.013)	271225	80.0	81.2
	77 Di-n-octylphthalate	149.00	23.132	23.126	(0.950)	446541	80.0	81.2
	78 Benzo(b)fluoranthene	252.00	23.685	23.667	(0.973)	297061	80.0	79.2
	79 Benzo(k)fluoranthene	252.00	23.737	23.720	(0.975)	297844	80.0	77.1
	80 Benzo(a)pyrene	252.00	24.260	24.251	(0.996)	272248	80.0	79.2
*	81 Perylene-d12	264.00	24.354	24.356	(1.000)	128445	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	26.234	26.233	(1.077)	300626	80.0	78.5
	83 Dibenz(a,h)anthracene	278.00	26.276	26.265	(1.079)	250817	80.0	80.3
	84 Benzo(g,h,i)perylene	276.00	26.685	26.694	(1.096)	250672	80.0	79.8

QC Flag Legend

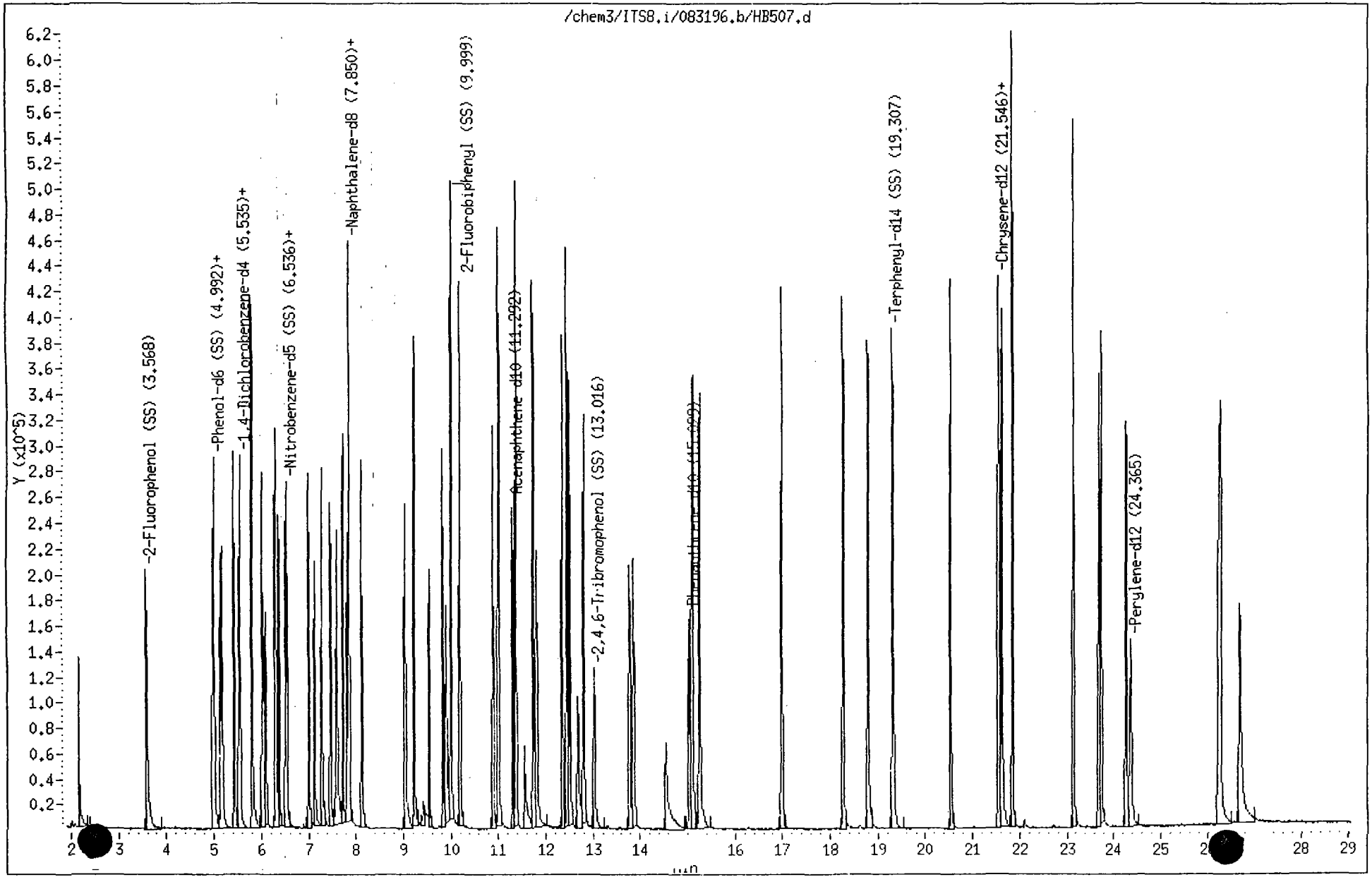
M - Compound response manually integrated.

Data File: /chem3/ITS8.i/083196.b/HB507.d
Date : 31-AUG-1996 18:00
Client ID: SSTD080 AB396-55-2
Sample Info: ITS8 CALIBRATION STANDARD EXP.(9/96)

Column phase: DB-5

Instrument: ITS8.i

Operator: VDLITTLE
Column diameter: 0.25



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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/083196.b/HB508.d
Lab Smp Id: SSTD050 AB396-55-2 Client Smp ID: SSTD050 AB396-55-2
Inj Date : 31-AUG-1996 18:37
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : ITS8 CALIBRATION STANDARD EXP.(9/96)
Misc Info : 50 ug/mL AB396-55-2 03-12-96 BTL# 5 *
Comment :
Method : /chem3/ITS8.i/083196.b/abn8.m
Meth Date : 04-Sep-1996 12:07 wsw Quant Type: ISTD
Cal Date : 31-AUG-1996 18:37 Cal File: HB508.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	1 N-Nitrosodimethylamine	74.00	2.143	2.154	(0.389)	43469	50.0	54.3
$	3 2-Fluorophenol (SS)	112.00	3.567	3.578	(0.647)	67474	50.0	51.6
$	4 Phenol-d6 (SS)	99.00	4.960	4.960	(0.900)	81360	50.0	49.8
	Phenol	94.00	4.991	4.981	(0.905)	81916	50.0	50.3
	7 Bis(2-chloroethyl)ether	93.00	5.127	5.126	(0.930)	68893	50.0	51.9
	8 2-Chlorophenol	128.00	5.158	5.158	(0.936)	69514	50.0	49.9
	9 1,3-Dichlorobenzene	146.00	5.408	5.408	(0.981)	81776	50.0	51.5
*	10 1,4-Dichlorobenzene-d4	152.00	5.512	5.512	(1.000)	43073	40.0	
	11 1,4-Dichlorobenzene	146.00	5.544	5.543	(1.006)	82972	50.0	51.1
	12 Benzyl alcohol	108.00	5.794	5.793	(1.051)	39483	50.0	50.3
	13 1,2-Dichlorobenzene	146.00	5.783	5.783	(1.049)	74028	50.0	51.0
	14 2-Methylphenol	108.00	6.002	6.002	(1.089)	60155	50.0	50.1
	15 Bis(2-chloroisopropyl)ether	45.00	6.086	6.043	(1.104)	111514	50.0	48.5(M)
	16 N-Nitrosodi-n-propylamine	70.00	6.273	6.262	(1.138)	50862	50.0	51.0
	17 4-Methylphenol	108.00	6.294	6.293	(1.142)	61592	50.0	50.8
	18 Hexachloroethane	117.00	6.367	6.366	(1.155)	31323	50.0	50.3
$	19 Nitrobenzene-d5 (SS)	82.00	6.493	6.491	(0.832)	79494	50.0	51.7
	20 Nitrobenzene	77.00	6.534	6.533	(0.837)	68437	50.0	51.6
	21 Isophorone	82.00	6.992	6.981	(0.896)	125116	50.0	49.5
	22 2-Nitrophenol	139.00	7.117	7.116	(0.912)	42140	50.0	51.6
	23 2,4-Dimethylphenol	107.00	7.263	7.262	(0.930)	62096	50.0	51.7
	25 Bis(2-chloroethoxy)methane	93.00	7.451	7.449	(0.955)	85319	50.0	51.5
	26 Benzoic acid	122.00	7.534	8.117	(0.965)	12571	50.0	40.0(M)
	27 2,4-Dichlorophenol	162.00	7.576	7.585	(0.971)	61302	50.0	52.0
	28 1,2,4-Trichlorobenzene	180.00	7.712	7.721	(0.988)	67196	50.0	52.0
*	29 Naphthalene-d8	136.00	7.806	7.804	(1.000)	157846	40.0	
	30 Naphthalene	128.00	7.848	7.846	(1.005)	192305	50.0	53.1
	32 Hexachlorobutadiene	225.00	8.119	8.117	(1.040)	38727	50.0	51.7
	33 4-Chloro-3-methylphenol	107.00	9.035	9.033	(1.157)	63968	50.0	51.9

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	34 2-Methylnaphthalene	142.00	9.223	9.220	(1.181)	127138	50.0	51.6
	35 Hexachlorocyclopentadiene	237.00	9.536	9.533	(0.845)	25304	50.0	48.5
	36 2,4,6-Trichlorophenol	196.00	9.818	9.825	(0.870)	42141	50.0	51.0
	37 2,4,5-Trichlorophenol	196.00	9.891	9.908	(0.876)	43703	50.0	48.3
$	38 2-Fluorobiphenyl (SS)	172.00	9.996	9.992	(0.886)	161111	50.0	54.0
	39 2-Chloronaphthalene	162.00	10.184	10.180	(0.902)	131780	50.0	54.2
	41 Dimethylphthalate	163.00	10.871	10.866	(0.963)	149133	50.0	51.9
	42 2,6-Dinitrotoluene	165.00	10.975	10.981	(0.972)	34909	50.0	54.0
	43 Acenaphthylene	152.00	10.996	11.002	(0.974)	207301	50.0	54.8
*	45 Acenaphthene-d10	164.00	11.288	11.294	(1.000)	87452	40.0	
	46 Acenaphthene	153.00	11.361	11.357	(1.006)	127255	50.0	53.0
	47 2,4-Dinitrophenol	184.00	11.549	11.607	(1.023)	13923	50.0	43.5
	48 4-Nitrophenol	109.00	11.736	11.784	(1.040)	13601	50.0	50.5(M)
	49 Dibenzofuran	168.00	11.726	11.721	(1.039)	185888	50.0	53.7
	50 2,4-Dinitrotoluene	165.00	11.799	11.794	(1.045)	50526	50.0	52.9(M)
	51 Diethylphthalate	149.00	12.331	12.325	(1.092)	147678	50.0	52.6
	52 Fluorene	166.00	12.435	12.430	(1.102)	146992	50.0	53.5
	53 4-Chlorophenyl phenyl ether	204.00	12.498	12.492	(1.107)	69752	50.0	52.6
	55 4,6-Dinitro-2-methylphenol	198.00	12.665	12.691	(0.843)	22952	50.0	46.5
	56 N-Nitrosodiphenylamine	169.00	12.791	12.795	(0.851)	88958	50.0	49.9
$	58 2,4,6-Tribromophenol (SS)	330.00	13.010	13.014	(1.153)	16747	50.0	49.6
	59 4-Bromophenyl phenyl ether	248.00	13.760	13.763	(0.916)	33641	50.0	49.4
	60 Hexachlorobenzene	284.00	13.844	13.847	(0.922)	41599	50.0	49.6
	61 Pentachlorophenol	266.00	14.541	14.585	(0.968)	19914	50.0	51.9(M)
*	Phenanthrene-d10	188.00	15.021	15.023	(1.000)	134228	40.0	
	63 Phenanthrene	178.00	15.084	15.086	(1.004)	194562	50.0	51.1
	64 Anthracene	178.00	15.241	15.242	(1.015)	196746	50.0	51.5
	66 Di-n-butylphthalate	149.00	16.978	16.978	(1.130)	256689	50.0	54.2
	67 Fluoranthene	202.00	18.256	18.256	(1.215)	209492	50.0	52.9
	69 Pyrene	202.00	18.787	18.787	(0.872)	216623	50.0	50.7
$	70 Terphenyl-d14 (SS)	244.00	19.308	19.307	(0.896)	154461	50.0	50.6
	71 Butyl benzyl phthalate	149.00	20.525	20.523	(0.952)	112539	50.0	50.9
	73 Benzo(a)anthracene	228.00	21.535	21.532	(0.999)	177723	50.0	51.3
*	74 Chrysene-d12	240.00	21.556	21.553	(1.000)	112092	40.0	
	75 Chrysene	228.00	21.608	21.606	(1.002)	181098	50.0	51.7
	76 Bis(2-ethylhexyl)phthalate	149.00	21.838	21.836	(1.013)	155843	50.0	51.3
	77 Di-n-octylphthalate	149.00	23.130	23.126	(0.949)	267276	50.0	54.1
	78 Benzo(b)fluoranthene	252.00	23.672	23.667	(0.972)	179090	50.0	53.2
	79 Benzo(k)fluoranthene	252.00	23.724	23.720	(0.974)	174717	50.0	50.4
	80 Benzo(a)pyrene	252.00	24.256	24.251	(0.996)	158356	50.0	51.3
*	81 Perylene-d12	264.00	24.361	24.356	(1.000)	115318	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	26.229	26.233	(1.077)	180398	50.0	52.5
	83 Dibenz(a,h)anthracene	278.00	26.261	26.265	(1.078)	143004	50.0	51.0
	84 Benzo(g,h,i)perylene	276.00	26.680	26.694	(1.095)	140343	50.0	49.7

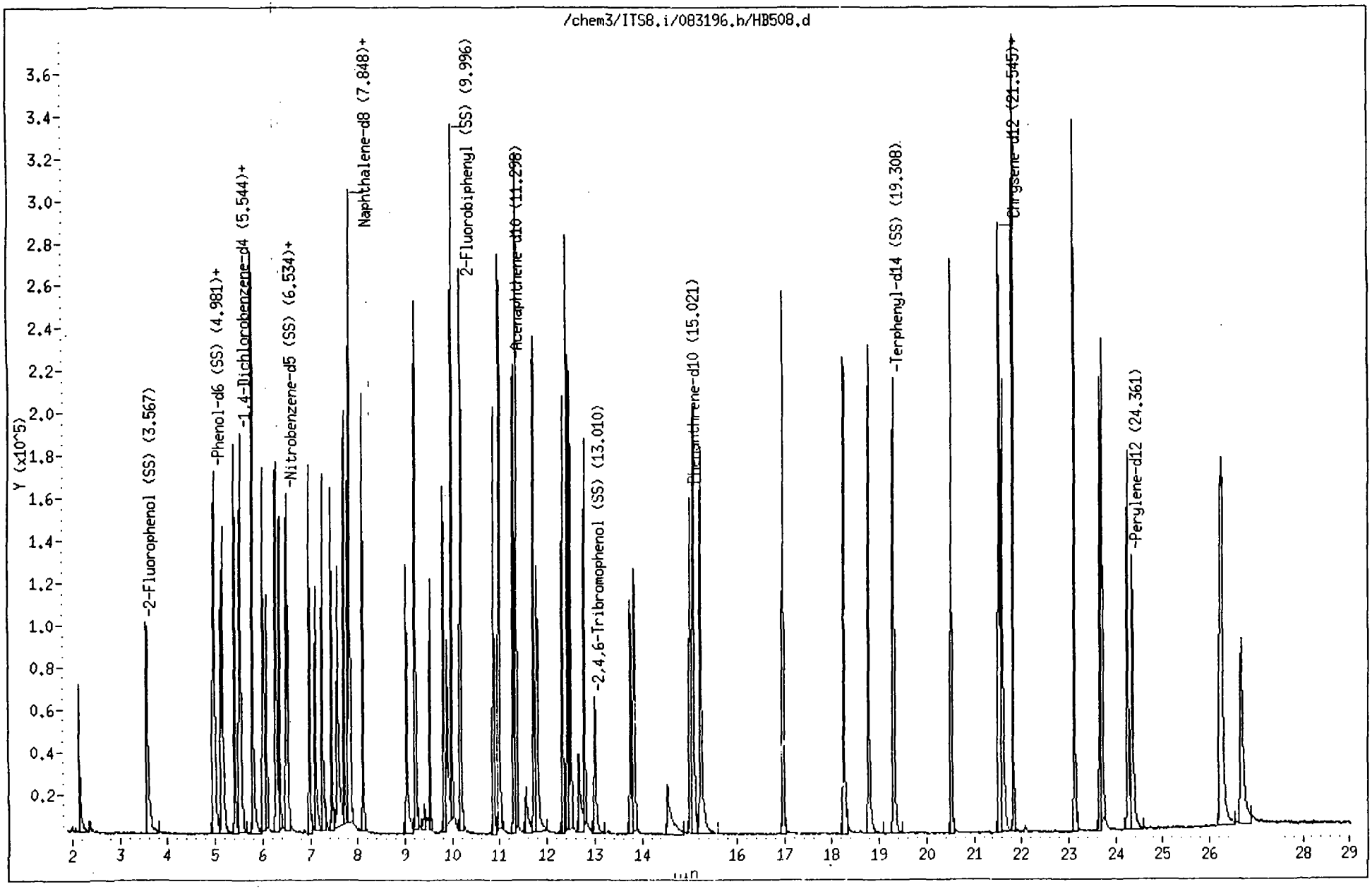
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem3/ITS8.i/083196.b/HB508.d
Date : 31-AUG-1996 18:37
Client ID: SSTD050 AB396-55-2
Sample Info: ITS8 CALIBRATION STANDARD EXP.(9/96)

Instrument: ITS8.i
Operator: VDLITTLE
Column diameter: 0.25

Column phase: DB-5



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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/083196.b/HB509.d
Lab Smp Id: SSTD020 AB396-55-2 Client Smp ID: SSTD020 AB396-55-2
Inj Date : 31-AUG-1996 19:13
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : ITS8 CALIBRATION STANDARD EXP.(9/96)
Misc Info : 20 ug/mL AB396-55-2 03-12-96 BTL# 6 *
Comment :
Method : /chem3/ITS8.i/083196.b/abn8.m
Meth Date : 04-Sep-1996 12:07 wsw Quant Type: ISTD
Cal Date : 31-AUG-1996 18:37 Cal File: HB508.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	1 N-Nitrosodimethylamine	74.00	2.154	2.154	(0.391)	15192	20.0	17.8(M)
$	3 2-Fluorophenol (SS)	112.00	3.578	3.578	(0.649)	26943	20.0	19.3
$	4 Phenol-d6 (SS)	99.00	4.960	4.960	(0.900)	35801	20.0	20.5
	Phenol	94.00	4.981	4.981	(0.904)	37110	20.0	21.4
	7 Bis(2-chloroethyl)ether	93.00	5.126	5.126	(0.930)	29211	20.0	20.6
	8 2-Chlorophenol	128.00	5.158	5.158	(0.936)	30926	20.0	20.8
	9 1,3-Dichlorobenzene	146.00	5.408	5.408	(0.981)	36765	20.0	21.7
*	10 1,4-Dichlorobenzene-d4	152.00	5.512	5.512	(1.000)	45988	40.0	
	11 1,4-Dichlorobenzene	146.00	5.543	5.543	(1.006)	37320	20.0	21.5
	12 Benzyl alcohol	108.00	5.793	5.793	(1.051)	16050	20.0	19.1
	13 1,2-Dichlorobenzene	146.00	5.783	5.783	(1.049)	33385	20.0	21.6
	14 2-Methylphenol	108.00	6.002	6.002	(1.089)	27406	20.0	21.4
	15 Bis(2-chloroisopropyl)ether	45.00	6.043	6.043	(1.096)	50322	20.0	20.5(M)
	16 N-Nitrosodi-n-propylamine	70.00	6.262	6.262	(1.136)	20990	20.0	19.7
	17 4-Methylphenol	108.00	6.293	6.293	(1.142)	26876	20.0	20.8
	18 Hexachloroethane	117.00	6.366	6.366	(1.155)	13626	20.0	20.5
$	19 Nitrobenzene-d5 (SS)	82.00	6.491	6.491	(0.832)	34467	20.0	20.9
	20 Nitrobenzene	77.00	6.533	6.533	(0.837)	30508	20.0	21.4
	21 Isophorone	82.00	6.981	6.981	(0.894)	56477	20.0	20.8
	22 2-Nitrophenol	139.00	7.116	7.116	(0.912)	16930	20.0	19.4
	23 2,4-Dimethylphenol	107.00	7.262	7.262	(0.930)	27318	20.0	21.2
	25 Bis(2-chloroethoxy)methane	93.00	7.449	7.449	(0.955)	37291	20.0	21.0
	26 Benzoic acid	122.00	8.117	8.117	(1.040)	6453	20.0	19.2(QM)
	27 2,4-Dichlorophenol	162.00	7.585	7.585	(0.972)	25659	20.0	20.3
	28 1,2,4-Trichlorobenzene	180.00	7.721	7.721	(0.989)	29630	20.0	21.4
*	29 Naphthalene-d8	136.00	7.804	7.804	(1.000)	169160	40.0	
	30 Naphthalene	128.00	7.846	7.846	(1.005)	89584	20.0	23.1
	32 Hexachlorobutadiene	225.00	8.117	8.117	(1.040)	17268	20.0	21.5
	33 4-Chloro-3-methylphenol	107.00	9.033	9.033	(1.157)	26227	20.0	19.8

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	34 2-Methylnaphthalene	142.00	9.220	9.220	(1.181)	59679	20.0	22.6
	35 Hexachlorocyclopentadiene	237.00	9.533	9.533	(0.844)	7722	20.0	13.3
	36 2,4,6-Trichlorophenol	196.00	9.825	9.825	(0.870)	18161	20.0	19.7
	37 2,4,5-Trichlorophenol	196.00	9.908	9.908	(0.877)	22049	20.0	21.9(M)
-$	38 2-Fluorobiphenyl (SS)	172.00	9.992	9.992	(0.885)	74104	20.0	22.3
	39 2-Chloronaphthalene	162.00	10.180	10.180	(0.901)	59757	20.0	22.0
	41 Dimethylphthalate	163.00	10.866	10.866	(0.962)	68868	20.0	21.5
	42 2,6-Dinitrotoluene	165.00	10.981	10.981	(0.972)	13161	20.0	18.2
	43 Acenaphthylene	152.00	11.002	11.002	(0.974)	97522	20.0	23.1
*	45 Acenaphthene-d10	164.00	11.294	11.294	(1.000)	97514	40.0	
	46 Acenaphthene	153.00	11.357	11.357	(1.006)	61131	20.0	22.8
	47 2,4-Dinitrophenol	184.00	11.607	11.607	(1.028)	4155	20.0	11.6(QM)
	48 4-Nitrophenol	109.00	11.784	11.784	(1.043)	5702	20.0	19.0(QM)
	49 Dibenzofuran	168.00	11.721	11.721	(1.038)	85397	20.0	22.1
	50 2,4-Dinitrotoluene	165.00	11.794	11.794	(1.044)	20237	20.0	19.0(QM)
	51 Diethylphthalate	149.00	12.325	12.325	(1.091)	66673	20.0	21.3
	52 Fluorene	166.00	12.430	12.430	(1.101)	69062	20.0	22.5
	53 4-Chlorophenyl phenyl ether	204.00	12.492	12.492	(1.106)	31011	20.0	21.0
	55 4,6-Dinitro-2-methylphenol	198.00	12.691	12.691	(0.845)	5842	20.0	11.2
	56 N-Nitrosodiphenylamine	169.00	12.795	12.795	(0.852)	40428	20.0	21.4
$	58 2,4,6-Tribromophenol (SS)	330.00	13.014	13.014	(1.152)	7083	20.0	18.8
	59 4-Bromophenyl phenyl ether	248.00	13.763	13.763	(0.916)	14468	20.0	20.1
	60 Hexachlorobenzene	284.00	13.847	13.847	(0.922)	18584	20.0	21.0
	Pentachlorophenol	266.00	14.585	14.585	(0.971)	6453	20.0	15.9(M)
*	Phenanthrene-d10	188.00	15.023	15.023	(1.000)	141922	40.0	
	63 Phenanthrene	178.00	15.086	15.086	(1.004)	84587	20.0	21.0
	64 Anthracene	178.00	15.242	15.242	(1.015)	80007	20.0	19.8
	66 Di-n-butylphthalate	149.00	16.978	16.978	(1.130)	104902	20.0	20.9
	67 Fluoranthene	202.00	18.256	18.256	(1.215)	83980	20.0	20.1
	69 Pyrene	202.00	18.787	18.787	(0.872)	88264	20.0	21.8
$	70 Terphenyl-d14 (SS)	244.00	19.307	19.307	(0.896)	61718	20.0	21.3
	71 Butyl benzyl phthalate	149.00	20.523	20.523	(0.952)	40742	20.0	19.4
	73 Benzo(a)anthracene	228.00	21.532	21.532	(0.999)	66248	20.0	20.1
*	74 Chrysene-d12	240.00	21.553	21.553	(1.000)	106379	40.0	
	75 Chrysene	228.00	21.606	21.606	(1.002)	71090	20.0	21.4
	76 Bis(2-ethylhexyl)phthalate	149.00	21.836	21.836	(1.013)	57479	20.0	20.0
	77 Di-n-octylphthalate	149.00	23.126	23.126	(0.949)	94256	20.0	20.5
	78 Benzo(b)fluoranthene	252.00	23.667	23.667	(0.972)	63701	20.0	20.3
	79 Benzo(k)fluoranthene	252.00	23.720	23.720	(0.974)	69943	20.0	21.7
	80 Benzo(a)pyrene	252.00	24.251	24.251	(0.996)	60018	20.0	20.9
*	81 Perylene-d12	264.00	24.356	24.356	(1.000)	107370	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	26.233	26.233	(1.077)	66986	20.0	20.9
	83 Dibenz(a,h)anthracene	278.00	26.265	26.265	(1.078)	53654	20.0	20.5
	84 Benzo(g,h,i)perylene	276.00	26.694	26.694	(1.096)	54031	20.0	20.6

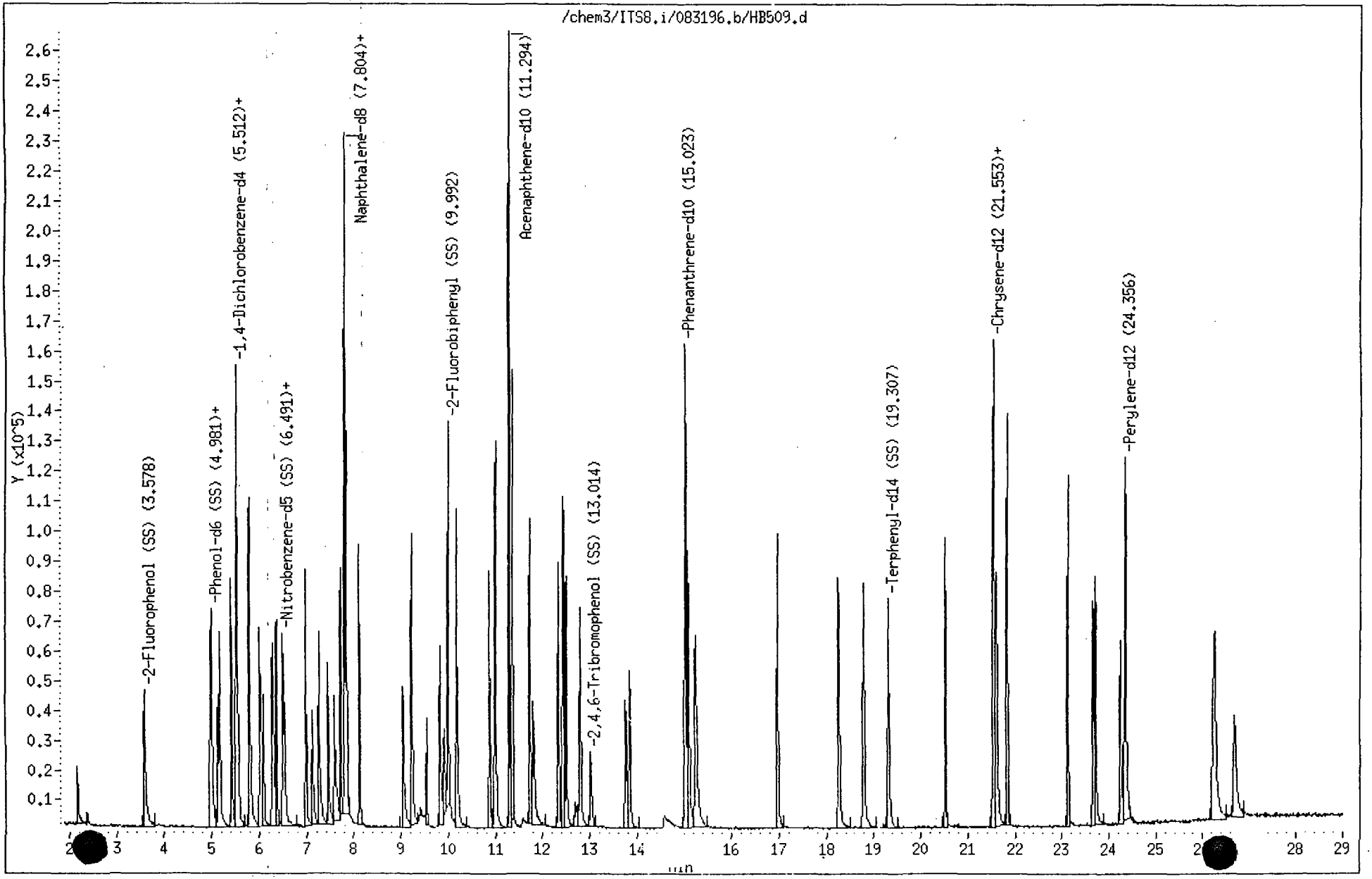
QC Flag Legend

Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: /chem3/ITS8.i/083196.b/HB509.d
Date : 31-AUG-1996 19:13
Client ID: SSTD020 AB396-55-2
Sample Info: ITS8 CALIBRATION STANDARD EXP.(9/96)

Instrument: ITS8.i
Operator: VDLITTLE
Column diameter: 0.25

Column phase: DB-5



Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/083196.b/HB510.d
Lab Smp Id: ANLN160 AB396-56-2 Client Smp ID: ANLN160 AB396-56-2
Inj Date : 31-AUG-1996 19:50
Operator : WSW Inst ID: ITS8.i
Smp Info : ITS8 Aniline Calibration Std (exp 5/97)
Misc Info : 160ug/mL 03-12-96 AB396-56-2 BTL# 7
Comment :
Method : /chem3/ITS8.i/083196.b/abn8.m
Meth Date : 03-Sep-1996 19:24 wsw Quant Type: ISTD
Cal Date : 31-AUG-1996 18:37 Cal File: HB508.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	
	5 Aniline	93.00	4.999	4.990	(0.907)	298503	160	152	
	31 4-Chloroaniline	127.00	8.014	8.025	(1.027)	262202	160	149	
	2-Nitroaniline	65.00	10.467	10.456	(0.927)	136059	160	161	(A)
	3-Nitroaniline	138.00	11.309	11.308	(1.002)	117432	160	169	(A)
	54 4-Nitroaniline	138.00	12.588	12.587	(1.115)	117791	160	178	(A)
*	10 1,4-Dichlorobenzene-d4	152.00	5.509	5.510	(1.000)	41707	40.0		
*	29 Naphthalene-d8	136.00	7.805	7.806	(1.000)	172974	40.0		
*	45 Acenaphthene-d10	164.00	11.288	11.287	(1.000)	86600	40.0		
*	62 Phenanthrene-d10	188.00	15.020	15.018	(1.000)	129945	40.0		
*	74 Chrysene-d12	240.00	21.550	21.554	(1.000)	101144	40.0		
*	81 Perylene-d12	264.00	24.361	24.353	(1.000)	95262	40.0		
	68 Benzidine	184.00	18.731	18.737	(0.869)	367512	160	161	(A)
	72 3,3'-Dichlorobenzidine	252.00	21.571	21.575	(1.001)	196756	160	164	(A)
	65 Carbazole	167.00	15.800	15.798	(1.052)	523920	160	158	
	57 1,2-Diphenylhydrazine	77.00	12.880	12.867	(0.857)	415344	160	144	

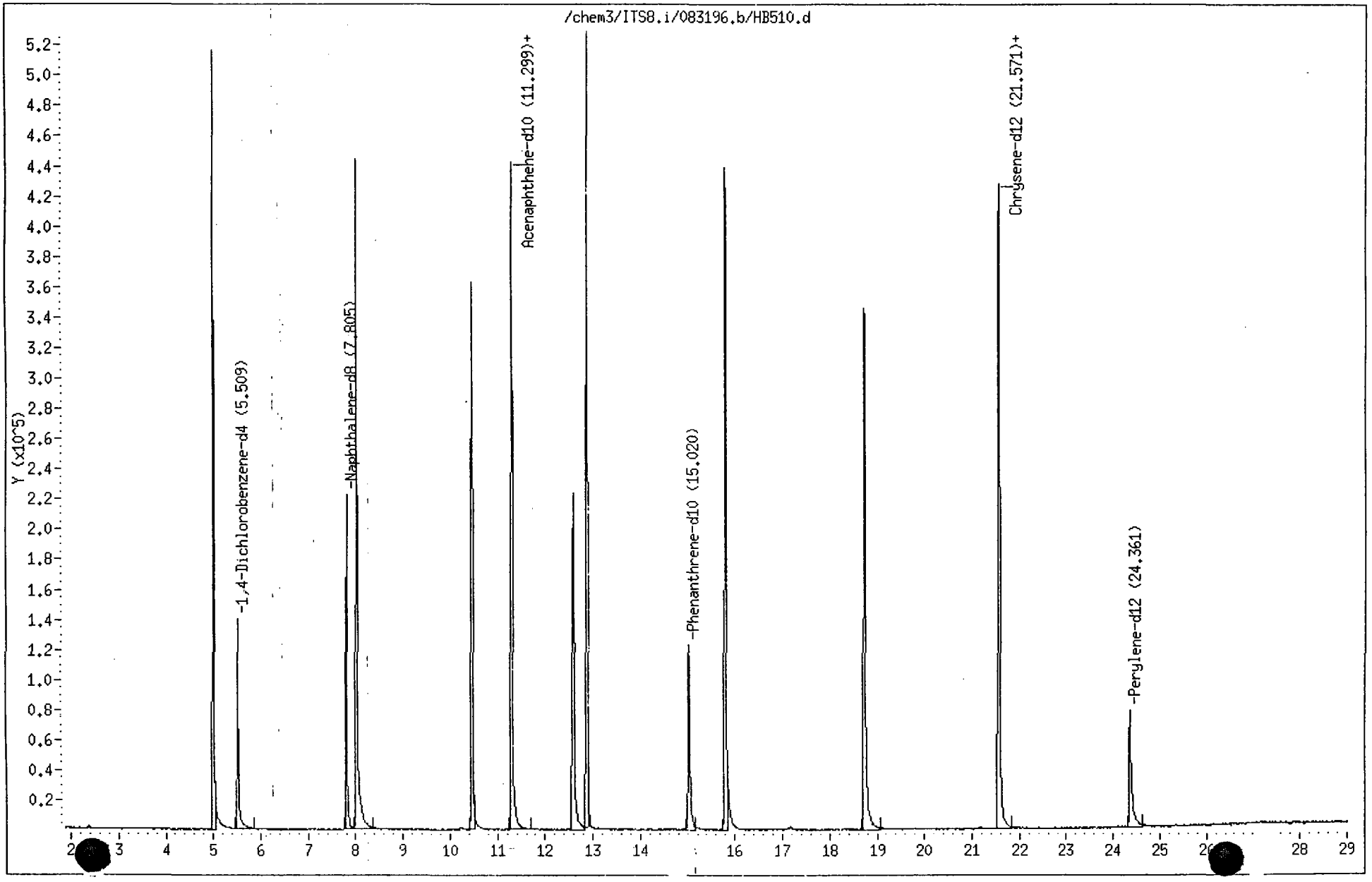
QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /chem3/ITS8.i/083196.b/HB510.d
Date : 31-AUG-1996 19:50
Client ID: ANLN160 AB396-56-2
Sample Info: ITS8 Aniline Calibration Std (exp 5/97)

Instrument: ITS8.i
Operator: WSW
Column diameter: 0.25

Column phase: DB-5



Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/083196.b/HB511.d
Lab Smp Id: ANLN120 AB396-56-2 Client Smp ID: ANLN120 AB396-56-2
Inj Date : 31-AUG-1996 20:27
Operator : WSW Inst ID: ITS8.i
Smp Info : ITS8 Aniline Calibration Std (exp 5/97)
Misc Info : 120ug/mL 03-12-96 AB396-56-2 BTL# 8
Comment :
Method : /chem3/ITS8.i/083196.b/abn8.m
Meth Date : 03-Sep-1996 19:24 wsw Quant Type: ISTD
Cal Date : 31-AUG-1996 18:37 Cal File: HB508.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	5 Aniline	93.00	4.988	4.990	(0.906)	220262	120	114
	31 4-Chloroaniline	127.00	8.014	8.025	(1.027)	193751	120	121
	40 2-Nitroaniline	65.00	10.456	10.456	(0.926)	98962	120	122
	3-Nitroaniline	138.00	11.298	11.308	(1.001)	81587	120	122
	54 4-Nitroaniline	138.00	12.576	12.587	(1.114)	78785	120	124
*	10 1,4-Dichlorobenzene-d4	152.00	5.509	5.510	(1.000)	40869	40.0	
*	29 Naphthalene-d8	136.00	7.805	7.806	(1.000)	157741	40.0	
*	45 Acenaphthene-d10	164.00	11.287	11.287	(1.000)	83049	40.0	
*	62 Phenanthrene-d10	188.00	15.018	15.018	(1.000)	123416	40.0	
*	74 Chrysene-d12	240.00	21.547	21.554	(1.000)	87775	40.0	
*	81 Perylene-d12	264.00	24.359	24.353	(1.000)	83857	40.0	
	68 Benzidine	184.00	18.729	18.737	(0.869)	240886	120	122
	72 3,3'-Dichlorobenzidine	252.00	21.568	21.575	(1.001)	128441	120	123
	65 Carbazole	167.00	15.799	15.798	(1.052)	373439	120	118
	57 1,2-Diphenylhydrazine	77.00	12.878	12.867	(0.858)	316225	120	115

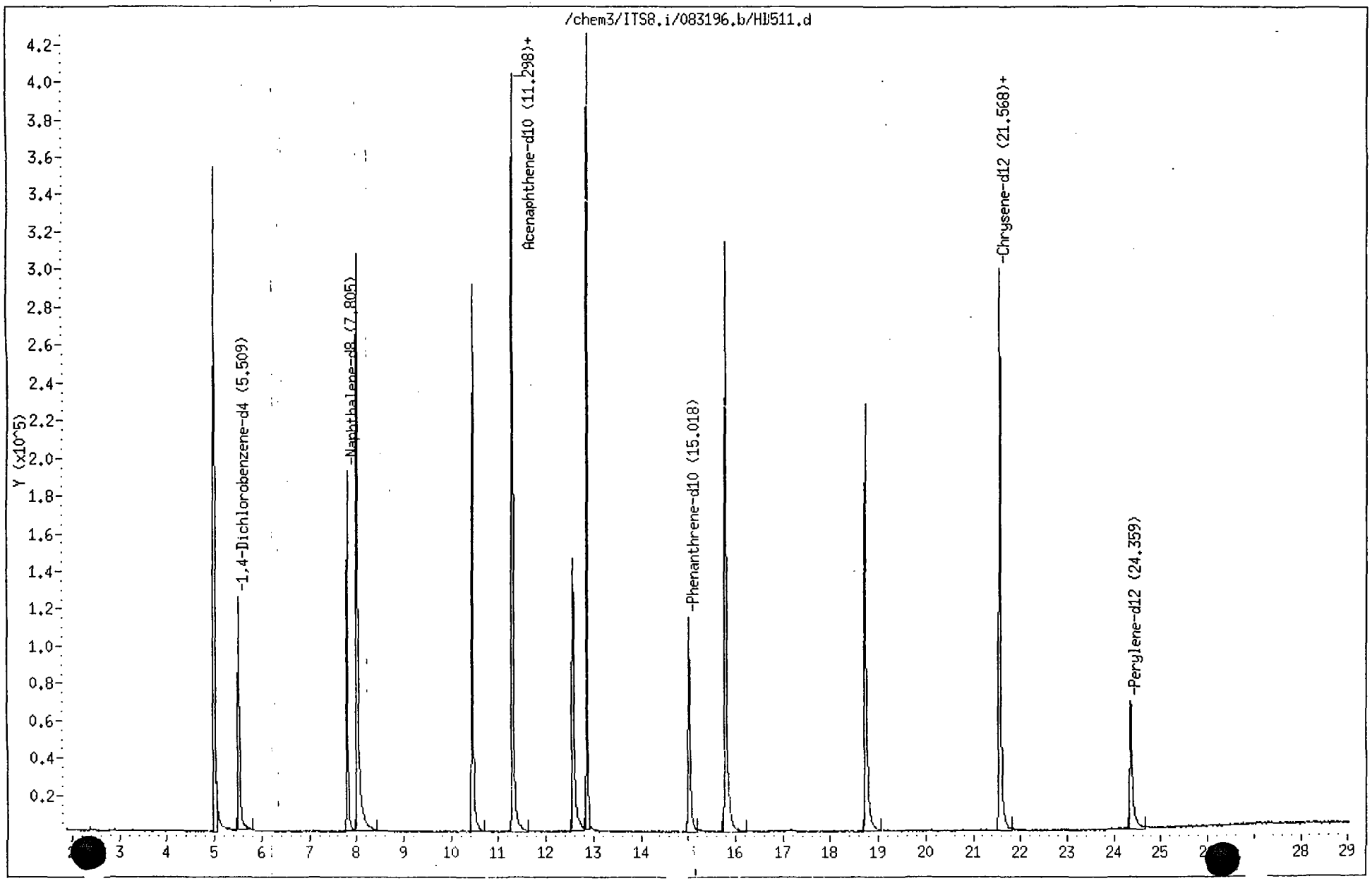
Data File: /chem3/ITS8.i/083196.b/HB511.d
Date : 31-AUG-1996 20:27
Client ID: ANLN120 AB396-56-2
Sample Info: ITS8 Aniline Calibration Std (exp 5/97)

Instrument: ITS8.i

Operator: WSW

Column phase: DB-5

Column diameter: 0.25



Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/083196.b/HB512.d
Lab Smp Id: ANLN080 AB396-56-2 Client Smp ID: ANLN080 AB396-56-2
Inj Date : 31-AUG-1996 21:03
Operator : WSW Inst ID: ITS8.i
Smp Info : ITS8 Aniline Calibration Std (exp 5/97)
Misc Info : 80ug/mL 03-12-96 AB396-56-2 BTL# 9
Comment :
Method : /chem3/ITS8.i/083196.b/abn8.m
Meth Date : 03-Sep-1996 19:24 wsw Quant Type: ISTD
Cal Date : 31-AUG-1996 18:37 Cal File: HB508.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

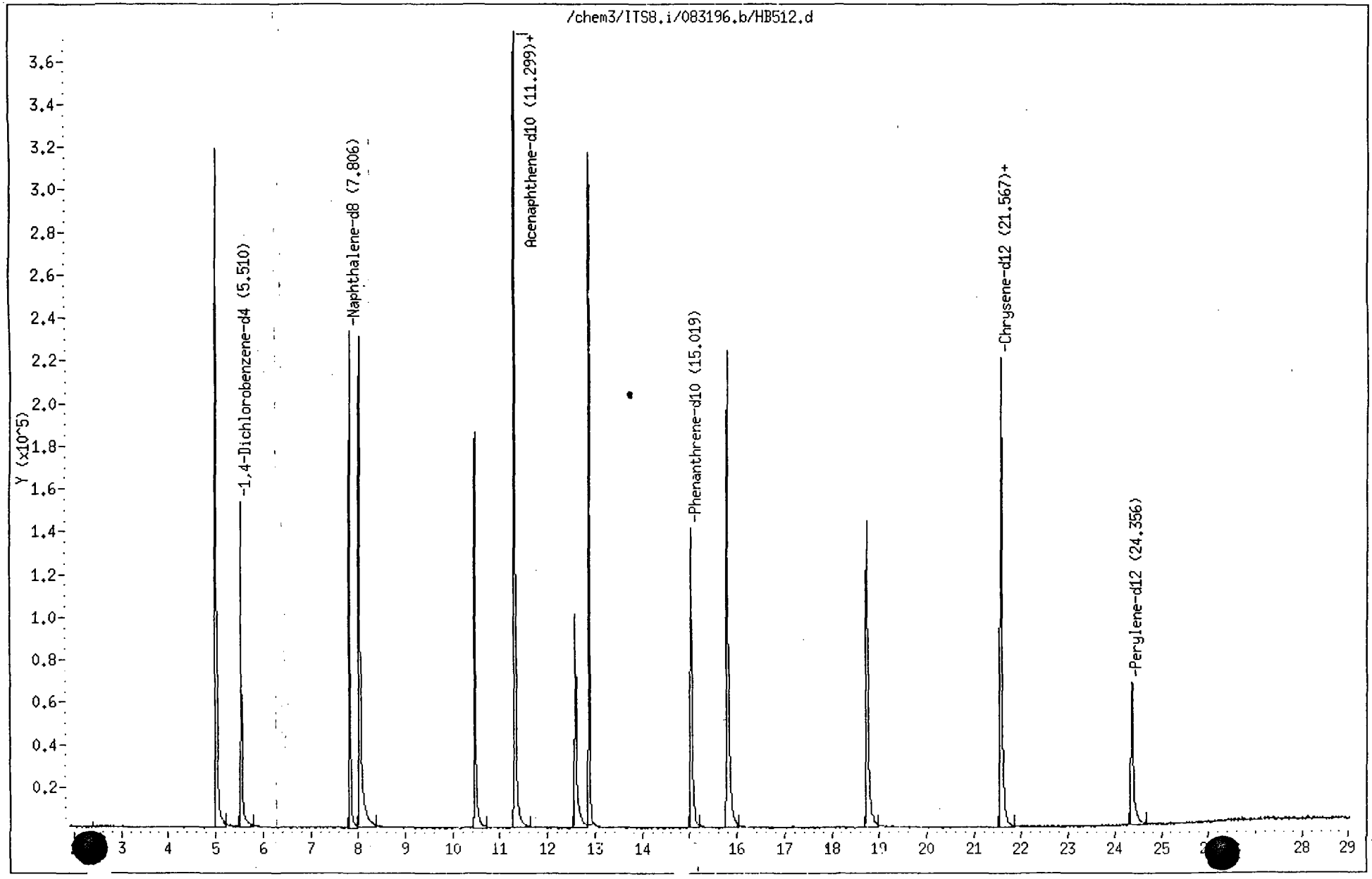
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	5 Aniline	93.00	4.990	4.990	(0.906)	169962	80.0	78.3
	31 4 Chloroaniline	127.00	8.015	8.025	(1.027)	150059	80.0	80.1
	40 2-Nitroaniline	65.00	10.457	10.456	(0.926)	76106	80.0	80.6
	3-Nitroaniline	138.00	11.299	11.308	(1.001)	63089	80.0	80.9
	54 4-Nitroaniline	138.00	12.567	12.587	(1.113)	55489	80.0	74.6
*	10 1,4-Dichlorobenzene-d4	152.00	5.510	5.510	(1.000)	46033	40.0	
*	29 Naphthalene-d8	136.00	7.806	7.806	(1.000)	184319	40.0	
*	45 Acenaphthene-d10	164.00	11.288	11.287	(1.000)	97045	40.0	
*	62 Phenanthrene-d10	188.00	15.019	15.018	(1.000)	144780	40.0	
*	74 Chrysene-d12	240.00	21.546	21.554	(1.000)	90028	40.0	
*	81 Perylene-d12	264.00	24.356	24.353	(1.000)	80949	40.0	
	68 Benzidine	184.00	18.729	18.737	(0.869)	164953	80.0	81.2
	72 3,3'-Dichlorobenzidine	252.00	21.567	21.575	(1.001)	84923	80.0	79.4
	65 Carbazole	167.00	15.789	15.798	(1.051)	282828	80.0	76.4
	57 1,2-Diphenylhydrazine	77.00	12.869	12.867	(0.857)	253710	80.0	79.0

Data File: /chem3/ITS8.i/083196.b/HB512.d
Date : 31-AUG-1996 21:03
Client ID: ANLN080 AB396-56-2
Sample Info: ITS8 Aniline Calibration Std (exp 5/97)

Instrument: ITS8.i

Operator: WSW
Column diameter: 0.25

Column phase: DB-5



Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

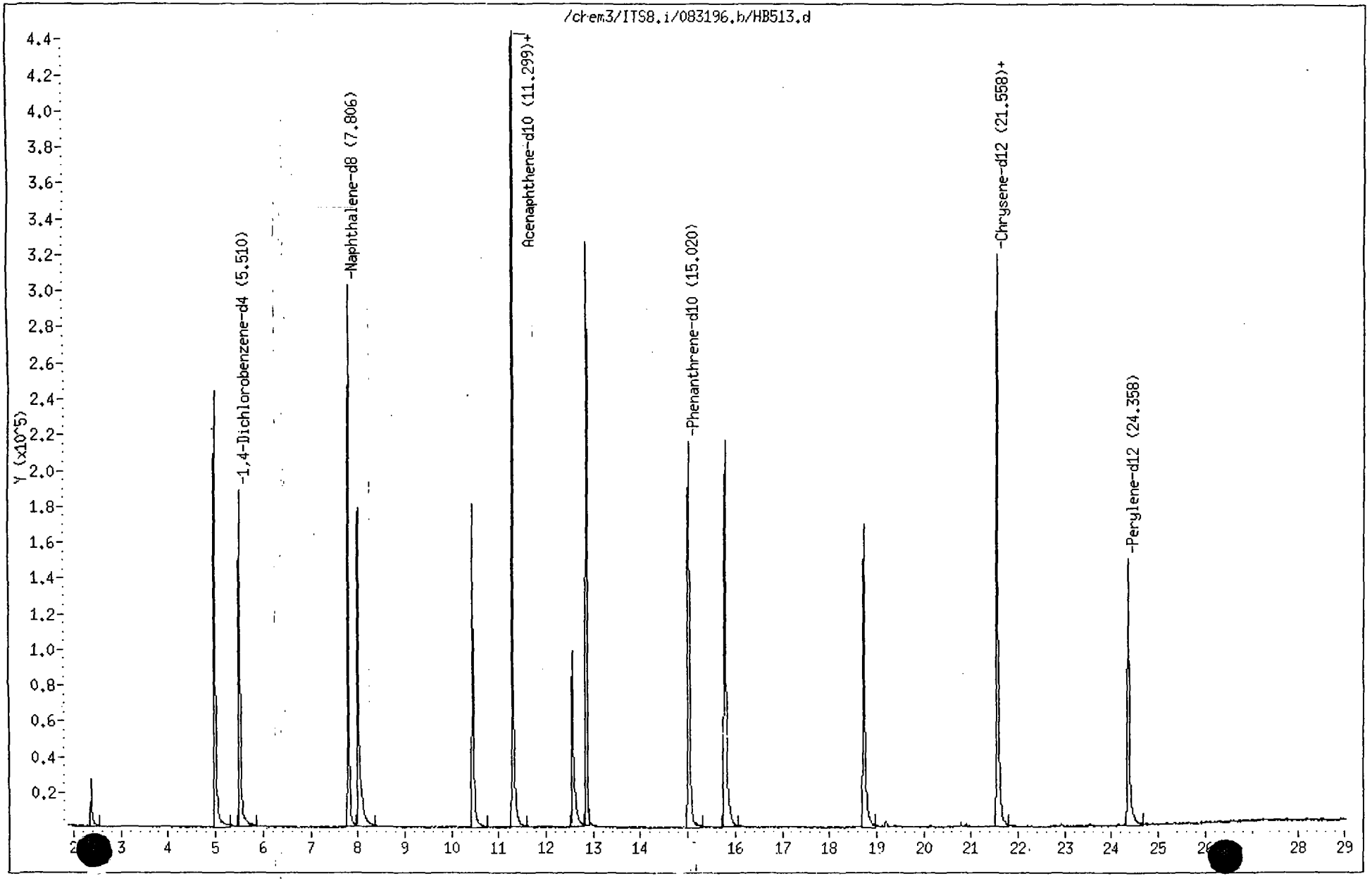
Data file : /chem3/ITS8.i/083196.b/HB513.d
Lab Smp Id: ANLN050 AB396-56-2 Client Smp ID: ANLN050 AB396-56-2
Inj Date : 31-AUG-1996 21:40
Operator : WSW Inst ID: ITS8.i
Smp Info : ITS8 Aniline Calibration Std (exp 5/97)
Misc Info : 50ug/mL 03-12-96 AB396-56-2 BTL#10
Comment :
Method : /chem3/ITS8.i/083196.b/abn8.m
Meth Date : 03-Sep-1996 19:24 wsw Quant Type: ISTD
Cal Date : 31-AUG-1996 21:40 Cal File: HB513.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	5 Aniline	93.00	4.990	4.990	(0.906)	141522	50.0	49.3
	31 4-Chloroaniline	127.00	8.004	8.025	(1.025)	132009	50.0	53.6
	40 2-Nitroaniline	65.00	10.447	10.456	(0.925)	71975	50.0	55.5
	3-Nitroaniline	138.00	11.299	11.308	(1.001)	57910	50.0	54.1
	54 4-Nitroaniline	138.00	12.567	12.587	(1.113)	53928	50.0	52.8
*	10 1,4-Dichlorobenzene-d4	152.00	5.510	5.510	(1.000)	60806	40.0	
*	29 Naphthalene-d8	136.00	7.806	7.806	(1.000)	242592	40.0	
*	45 Acenaphthene-d10	164.00	11.289	11.287	(1.000)	133305	40.0	
*	62 Phenanthrene-d10	188.00	15.020	15.018	(1.000)	207893	40.0	
*	74 Chrysene-d12	240.00	21.547	21.554	(1.000)	150146	40.0	
*	81 Perylene-d12	264.00	24.358	24.353	(1.000)	147689	40.0	
	68 Benzidine	184.00	18.730	18.737	(0.869)	174753	50.0	51.6
	72 3,3'-Dichlorobenzidine	252.00	21.568	21.575	(1.001)	89957	50.0	50.4
	65 Carbazole	167.00	15.790	15.798	(1.051)	272751	50.0	51.3
	57 1,2-Diphenylhydrazine	77.00	12.869	12.867	(0.857)	239149	50.0	51.8

Data File: /chem3/ITS8.i/083196.b/HB513.d
Date : 31-AUG-1996 21:40
Client ID: ANLN050 AB396-56-2
Sample Info: ITS8 Aniline Calibration Std (exp 5/97)

Instrument: ITS8.i
Operator: WSW
Column diameter: 0.25

Column phase: DB-5



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SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/083196.b/HB514.d
Lab Smp Id: ANLN020 AB396-56-2 Client Smp ID: ANLN020 AB396-56-2
Inj Date : 31-AUG-1996 22:17
Operator : WSW Inst ID: ITS8.i
Smp Info : ITS8 Aniline Calibration Std (exp 5/97)
Misc Info : 20ug/mL 03-12-96 AB396-56-2 BTL#11
Comment :
Method : /chem3/ITS8.i/083196.b/abn8.m
Meth Date : 03-Sep-1996 19:24 wsw Quant Type: ISTD
Cal Date : 31-AUG-1996 21:40 Cal File: HB513.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

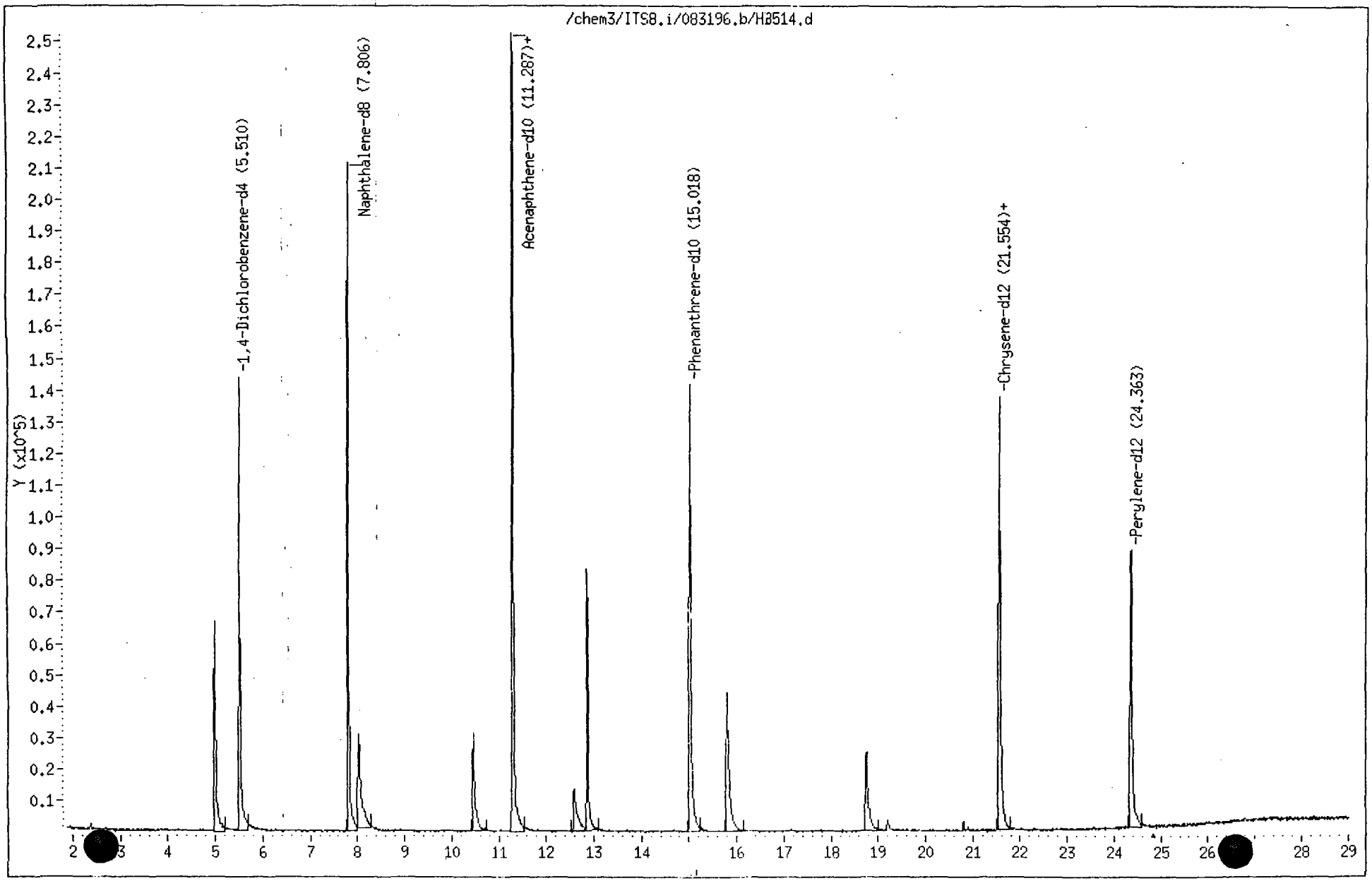
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	5 Aniline	93.00	4.990	4.990	(0.906)	47308	20.0	22.7
	31 4-Chloroaniline	127.00	8.025	8.025	(1.028)	37905	20.0	19.8
	30 2-Nitroaniline	65.00	10.456	10.456	(0.926)	17185	20.0	17.0
	3-Nitroaniline	138.00	11.308	11.308	(1.002)	13868	20.0	16.6
	54 4-Nitroaniline	138.00	12.587	12.587	(1.115)	13796	20.0	17.4
*	10 1,4-Dichlorobenzene-d4	152.00	5.510	5.510	(1.000)	44243	40.0	
*	29 Naphthalene-d8	136.00	7.806	7.806	(1.000)	188788	40.0	
*	45 Acenaphthene-d10	164.00	11.287	11.287	(1.000)	103643	40.0	
*	62 Phenanthrene-d10	188.00	15.018	15.018	(1.000)	147290	40.0	
*	74 Chrysene-d12	240.00	21.554	21.554	(1.000)	103814	40.0	
*	81 Perylene-d12	264.00	24.353	24.353	(1.000)	94414	40.0	
	68 Benzidine	184.00	18.737	18.737	(0.869)	43662	20.0	18.6
	72 3,3'-Dichlorobenzidine	252.00	21.575	21.575	(1.001)	23351	20.0	18.9
	65 Carbazole	167.00	15.798	15.798	(1.052)	78605	20.0	20.9
	57 1,2-Diphenylhydrazine	77.00	12.867	12.867	(0.857)	72753	20.0	22.3

401

Data File: /chem3/ITS8.i/083196.b/HB514.d
Date : 31-AUG-1996 22:17
Client ID: ANLN020 AB396-56-2
Sample Info: ITS8 Aniline Calibration Std (exp 5/97)

Instrument: ITS8.i
Operator: WSW
Column diameter: 0.25

Column phase: DB-5



FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS8 Calibration Date: 09/05/96 Time: 2234

Lab File ID: HB582 Init. Calib. Date(s): 08/31/96 08/31/96

Init. Calib. Times: 1647 1913

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
N-Nitrosodimethylamine	0.743	0.814	0.050	9.6	20.0	
Aniline	1.886	1.862	0.050	1.3	20.0	
Phenol	1.511	1.634	0.050	8.1	20.0	
Bis(2-chloroethyl)ether	1.233	1.351	0.050	9.6	20.0	
2-Chlorophenol	1.293	1.417	0.050	9.6	20.0	
1,3-Dichlorobenzene	1.475	1.632	0.050	10.6	20.0	
1,4-Dichlorobenzene	1.508	1.627	0.050	7.9	20.0	
Benzyl alcohol	0.729	0.776	0.050	6.4	20.0	
1,2-Dichlorobenzene	1.347	1.511	0.050	12.2	20.0	
2-Methylphenol	1.115	1.136	0.050	1.9	20.0	
Bis(2-chloroisopropyl)ether	2.135	2.262	0.050	5.9	20.0	
4-Methylphenol	1.125	1.235	0.050	9.8	20.0	
N-Nitrosodi-n-propylamine	0.926	1.020	0.050	10.2	20.0	
Hexachloroethane	0.578	0.648	0.050	12.1	20.0	
Nitrobenzene	0.337	0.373	0.050	10.7	20.0	
Isophorone	0.641	0.692	0.050	8.0	20.0	
2-Nitrophenol	0.207	0.240	0.050	15.9	20.0	
2,4-Dimethylphenol	0.305	0.363	0.050	19.0	20.0	
Bis(2-chloroethoxy)methane	0.420	0.459	0.050	9.3	20.0	
Benzoic acid	0.080	0.209	0.050	161.2	20.0	<-
2,4-Dichlorophenol	0.299	0.342	0.050	14.4	20.0	
1,2,4-Trichlorobenzene	0.327	0.374	0.050	14.4	20.0	
Naphthalene	0.918	1.033	0.050	12.5	20.0	
4-Chloroaniline	0.406	0.431	0.050	6.2	20.0	
Hexachlorobutadiene	0.190	0.218	0.050	14.7	20.0	
4-Chloro-3-methylphenol	0.312	0.351	0.050	12.5	20.0	
2-Methylnaphthalene	0.625	0.704	0.050	12.6	20.0	
Hexachlorocyclopentadiene	0.238	0.256	0.050	7.6	20.0	
2,4,6-Trichlorophenol	0.378	0.439	0.050	16.1	20.0	
2,4,5-Trichlorophenol	0.414	0.477	0.050	15.2	20.0	
2-Chloronaphthalene	1.111	1.196	0.050	7.6	20.0	
2-Nitroaniline	0.389	0.414	0.050	6.4	20.0	
Dimethylphthalate	1.314	1.417	0.050	7.8	20.0	
Acenaphthylene	1.731	1.755	0.050	1.4	20.0	
2,6-Dinitrotoluene	0.296	0.334	0.050	12.8	20.0	
3-Nitroaniline	0.321	0.337	0.050	5.0	20.0	
Acenaphthene	1.099	1.149	0.050	4.5	20.0	

All other compounds must meet a minimum RRF of 0.010.

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS8 Calibration Date: 09/05/96 Time: 2234

Lab File ID: HB582 Init. Calib. Date(s): 08/31/96 08/31/96

Init. Calib. Times: 1647 1913

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
2,4-Dinitrophenol	0.146	0.196	0.050	34.2	20.0	<-
Dibenzofuran	1.583	1.731	0.050	9.3	20.0	
4-Nitrophenol	0.123	0.138	0.050	12.2	20.0	
2,4-Dinitrotoluene	0.437	0.503	0.050	15.1	20.0	
Diethylphthalate	1.284	1.452	0.050	13.1	20.0	
Fluorene	1.258	1.336	0.050	6.2	20.0	
4-Chlorophenyl phenyl ether	0.607	0.680	0.050	12.0	20.0	
4-Nitroaniline	0.306	0.335	0.050	9.5	20.0	
4,6-Dinitro-2-methylphenol	0.147	0.161	0.050	9.5	20.0	
N-Nitrosodiphenylamine(1)	0.531	0.470	0.050		20.0	
1,2-Diphenylhydrazine	0.887	0.818	0.050	7.8	20.0	
4-Bromophenyl phenyl ether	0.203	0.193	0.050	4.9	20.0	
Hexachlorobenzene	0.250	0.234	0.050	6.4	20.0	
Pentachlorophenol	0.114	0.119	0.050	4.4	20.0	
Benzidine	0.902	0.870	0.050	3.5	20.0	
Phenanthrene	1.134	1.018	0.050	10.2	20.0	
Anthracene	1.139	1.001	0.050	12.1	20.0	
Carbazole	1.022	1.069	0.050	4.6	20.0	
Di-n-butylphthalate	1.411	1.300	0.050	7.9	20.0	
Fluoranthene	1.179	1.114	0.050	5.5	20.0	
Pyrene	1.524	1.567	0.050	2.8	20.0	
Butyl benzyl phthalate	0.789	0.854	0.050	8.2	20.0	
Benzo(a)anthracene	1.237	1.343	0.050	8.6	20.0	
3,3'-Dichlorobenzidine	0.475	0.479	0.050	0.8	20.0	
Chrysene	1.249	1.301	0.050	4.2	20.0	
Bis(2-ethylhexyl)phthalate	1.083	1.181	0.050	9.0	20.0	
Di-n-octylphthalate	1.713	1.736	0.050	1.3	20.0	
Benzo(b)fluoranthene	1.168	1.252	0.050	7.2	20.0	
Benzo(k)fluoranthene	1.203	1.207	0.050	0.3	20.0	
Benzo(a)pyrene	1.070	1.073	0.050	0.3	20.0	
Indeno(1,2,3-cd)pyrene	1.192	1.264	0.050	6.0	20.0	
Dibenz(a,h)anthracene	0.973	1.038	0.050	6.7	20.0	
Benzo(g,h,i)perylene	0.979	1.082	0.050	10.5	20.0	
Pyridine			0.050		20.0	<-
m,p-Cresol			0.050		20.0	<-

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of 0.010.

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS8 Calibration Date: 09/05/96 Time: 2234

Lab File ID: HB582 Init. Calib. Date(s): 08/31/96 08/31/96

Init. Calib. Times: 1647 1913

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
Nitrobenzene-d5 (SS)	0.390	0.386	0.050	1.0	20.0	
2-Fluorobiphenyl (SS)	1.364	1.372	0.050	0.6	20.0	
Terphenyl-d14 (SS)	1.089	1.090	0.050	0.1	20.0	
Phenol-d6 (SS)	1.519	1.598	0.050	5.2	20.0	
2-Fluorophenol (SS)	1.215	1.339	0.050	10.2	20.0	
2,4,6-Tribromophenol (SS)	0.154	0.210	0.050	36.4	20.0	<-

All other compounds must meet a minimum RRF of 0.010.

Inchcape Testing Services - Environmental Laboratories

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ITS8.i
Lab File ID: HB582.d
Analysis Type:
Lab Sample ID: SSTD050
Quant Type: ISTD

Injection Date: 05-SEP-1996 22:34
Init. Calibration Date(s): 08/31/96 08/31/96
Init. Calibration Times: 16:47 19:13
AB396-72-2 Method File: /chem3/ITS8.i/090596B.b/abn8.m

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D	
	1 N-Nitrosodimethylamine	0.743	0.814	0.050	9.5	20.0	
$	3 2-Fluorophenol (SS)	1.215	1.339	0.050	10.2	20.0	
$	4 Phenol-d6 (SS)	1.519	1.598	0.050	5.2	20.0	
	6 Phenol	1.511	1.634	0.050	8.2	20.0	
	7 Bis(2-chloroethyl)ether	1.233	1.351	0.050	9.6	20.0	
	8 2-Chlorophenol	1.293	1.417	0.050	9.6	20.0	
	9 1,3-Dichlorobenzene	1.475	1.632	0.050	10.7	20.0	
	11 1,4-Dichlorobenzene	1.508	1.627	0.050	7.9	20.0	
	12 Benzyl alcohol	0.729	0.776	0.050	6.3	20.0	
	13 1,2-Dichlorobenzene	1.347	1.511	0.050	12.2	20.0	
	14 2-Methylphenol	1.116	1.136	0.050	1.8	20.0	
	15 Bis(2-chloroisopropyl)ether	2.135	2.262	0.050	5.9	20.0	
	16 N-Nitrosodi-n-propylamine	0.926	1.020	0.050	10.1	20.0	
	17 4-Methylphenol	1.125	1.235	0.050	9.8	20.0	
	18 Hexachloroethane	0.578	0.648	0.050	12.2	20.0	
$	19 Nitrobenzene-d5 (SS)	0.390	0.386	0.050	1.0	20.0	
	20 Nitrobenzene	0.336	0.373	0.050	10.9	20.0	
	21 Isophorone	0.641	0.692	0.050	7.9	20.0	
	22 2-Nitrophenol	0.207	0.241	0.050	16.3	20.0	
	23 2,4-Dimethylphenol	0.304	0.363	0.050	19.1	20.0	
	25 Bis(2-chloroethoxy)methane	0.420	0.459	0.050	9.2	20.0	
	26 Benzoic acid	0.080	0.209	0.050	162.3	20.0	<-
	27 2,4-Dichlorophenol	0.299	0.342	0.050	14.6	20.0	
	28 1,2,4-Trichlorobenzene	0.327	0.375	0.050	14.4	20.0	
	30 Naphthalene	0.918	1.033	0.050	12.5	20.0	
	32 Hexachlorobutadiene	0.190	0.218	0.050	15.2	20.0	
	33 4-Chloro-3-methylphenol	0.313	0.351	0.050	12.4	20.0	
	34 2-Methylnaphthalene	0.625	0.704	0.050	12.7	20.0	
	35 Hexachlorocyclopentadiene	0.239	0.256	0.050	7.4	20.0	
	36 2,4,6-Trichlorophenol	0.378	0.439	0.050	16.2	20.0	
	37 2,4,5-Trichlorophenol	0.414	0.477	0.050	15.3	20.0	
$	38 2-Fluorobiphenyl (SS)	1.364	1.373	0.050	0.6	20.0	
	39 2-Chloronaphthalene	1.111	1.196	0.050	7.6	20.0	
	41 Dimethylphthalate	1.314	1.417	0.050	7.9	20.0	
	42 2,6-Dinitrotoluene	0.296	0.334	0.050	13.0	20.0	
	43 Acenaphthylene	1.731	1.755	0.050	1.4	20.0	
	46 Acenaphthene	1.099	1.149	0.050	4.6	20.0	
	47 2,4-Dinitrophenol	0.146	0.196	0.050	33.9	20.0	<-
	48 4-Nitrophenol	0.123	0.138	0.050	12.4	20.0	
	49 Dibenzofuran	1.583	1.731	0.050	9.4	20.0	

W.S. Wingert Sept. 6 1996
ANALYST

REVIEW Date

Inchcape Testing Services - Environmental Laboratories

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ITS8.i Injection Date: 05-SEP-1996 22:34
Lab File ID: HB582.d Init. Calibration Date(s): 08/31/96 08/31/96
Analysis Type: Init. Calibration Times: 16:47 19:13
Lab Sample ID: SSTD050 AB396-72-2 Method File: /chem3/ITS8.i/090596B.b/abn8.m
Quant Type: ISTD

	COMPOUND	$\overline{RRF}$	RF50	MIN RRF	%D	MAX %D	
	50 2,4-Dinitrotoluene	0.437	0.503	0.050	15.2	20.0	
	51 Diethylphthalate	1.284	1.452	0.050	13.0	20.0	
	52 Fluorene	1.258	1.336	0.050	6.2	20.0	
	53 4-Chlorophenyl phenyl ether	0.607	0.680	0.050	12.0	20.0	
	55 4,6-Dinitro-2-methylphenol	0.147	0.161	0.050	9.8	20.0	
	56 N-Nitrosodiphenylamine	0.531	0.470	0.050	11.5	20.0	
$	58 2,4,6-Tribromophenol (SS)	0.155	0.210	0.050	35.8	20.0	<-
	59 4-Bromophenyl phenyl ether	0.203	0.193	0.050	4.6	20.0	
	60 Hexachlorobenzene	0.250	0.234	0.050	6.4	20.0	
	61 Pentachlorophenol	0.114	0.119	0.050	4.0	20.0	
	63 Phenanthrene	1.134	1.019	0.050	10.2	20.0	
	64 Anthracene	1.139	1.001	0.050	12.1	20.0	
	66 Di-n-butylphthalate	1.411	1.300	0.050	7.9	20.0	
	67 Fluoranthene	1.180	1.114	0.050	5.6	20.0	
	69 Pyrene	1.525	1.567	0.050	2.8	20.0	
$	70 Terphenyl-d14 (SS)	1.089	1.091	0.050	0.1	20.0	
	71 Butyl benzyl phthalate	0.789	0.854	0.050	8.3	20.0	
	73 Benzo(a)anthracene	1.237	1.343	0.050	8.6	20.0	
	75 Chrysene	1.250	1.301	0.050	4.1	20.0	
	76 Bis(2-ethylhexyl)phthalate	1.083	1.181	0.050	9.0	20.0	
	77 Di-n-octylphthalate	1.713	1.736	0.050	1.3	20.0	
	78 Benzo(b)fluoranthene	1.168	1.252	0.050	7.1	20.0	
	79 Benzo(k)fluoranthene	1.203	1.207	0.050	0.4	20.0	
	80 Benzo(a)pyrene	1.070	1.073	0.050	0.3	20.0	
	82 Indeno(1,2,3-cd)pyrene	1.192	1.264	0.050	6.0	20.0	
	83 Dibenz(a,h)anthracene	0.973	1.038	0.050	6.7	20.0	
	84 Benzo(g,h,i)perylene	0.979	1.083	0.050	10.6	20.0	

Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/090596B.b/HB582.d
Lab Smp Id: SSTD050 AB396-72-2 Client Smp ID: SSTD050 AB396-72-2
Inj Date : 05-SEP-1996 22:34
Operator : WSW Inst ID: ITS8.i
Smp Info : ITS8 Calibration Standard (exp 8/97)
Misc Info : 50ug/mL 08-29-96 AB396-72-2 BTL# 2
Comment :
Method : /chem3/ITS8.i/090596B.b/abn8.m
Meth Date : 06-Sep-1996 07:54 wsw Quant Type: ISTD
Cal Date : 05-SEP-1996 22:34 Cal File: HB582.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

			QUANT SIG					AMOUNTS	
								CAL-AMT	ON-COL
		Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
	1	N-Nitrosodimethylamine	74.00	2.125	2.125	(0.392)	69176	50.0	54.8
$	3	2-Fluorophenol (SS)	112.00	3.520	3.520	(0.649)	113819	50.0	55.1
$	4	Phenol-d6 (SS)	99.00	4.914	4.914	(0.906)	135784	50.0	52.6
		Phenol	94.00	4.935	4.935	(0.910)	138886	50.0	54.1
	7	Bis(2-chloroethyl)ether	93.00	5.060	5.060	(0.933)	114779	50.0	54.8
	8	2-Chlorophenol	128.00	5.091	5.091	(0.938)	120432	50.0	54.8
	9	1,3-Dichlorobenzene	146.00	5.331	5.331	(0.983)	138708	50.0	55.3
*	10	1,4-Dichlorobenzene-d4	152.00	5.425	5.425	(1.000)	67985	40.0	
	11	1,4-Dichlorobenzene	146.00	5.457	5.457	(1.006)	138305	50.0	54.0
	12	Benzyl alcohol	108.00	5.718	5.718	(1.054)	65907	50.0	53.2
	13	1,2-Dichlorobenzene	146.00	5.707	5.707	(1.052)	128438	50.0	56.1
	14	2-Methylphenol	108.00	5.937	5.937	(1.094)	96528	50.0	50.9
	15	Bis(2-chloroisopropyl)ether	45.00	6.010	6.010	(1.108)	192237	50.0	53.0(M)
	16	N-Nitrosodi-n-propylamine	70.00	6.208	6.208	(1.144)	86707	50.0	55.1
	17	4-Methylphenol	108.00	6.229	6.229	(1.148)	104947	50.0	54.9
	18	Hexachloroethane	117.00	6.281	6.281	(1.158)	55103	50.0	56.1
$	19	Nitrobenzene-d5 (SS)	82.00	6.417	6.417	(0.831)	119685	50.0	49.5
	20	Nitrobenzene	77.00	6.459	6.459	(0.836)	115760	50.0	55.4
	21	Isophorone	82.00	6.917	6.917	(0.896)	214598	50.0	53.9
	22	2-Nitrophenol	139.00	7.032	7.032	(0.911)	74656	50.0	58.2
	23	2,4-Dimethylphenol	107.00	7.199	7.199	(0.932)	112544	50.0	59.6
	25	Bis(2-chloroethoxy)methane	93.00	7.377	7.377	(0.955)	142353	50.0	54.6
	26	Benzoic acid	122.00	7.554	7.554	(0.978)	64840	50.0	131(M)
	27	2,4-Dichlorophenol	162.00	7.502	7.502	(0.972)	106184	50.0	57.3
	28	1,2,4-Trichlorobenzene	180.00	7.638	7.638	(0.989)	116209	50.0	57.2
*	29	Naphthalene-d8	136.00	7.722	7.722	(1.000)	248236	40.0	
	30	Naphthalene	128.00	7.764	7.764	(1.005)	320558	50.0	56.3
	32	Hexachlorobutadiene	225.00	8.025	8.025	(1.039)	67780	50.0	57.6
	33	4-Chloro-3-methylphenol	107.00	8.953	8.953	(1.159)	109052	50.0	56.2

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	34 2-Methylnaphthalene	142.00	9.131	9.131	(1.182)	218457	50.0	56.3
	35 Hexachlorocyclopentadiene	237.00	9.445	9.445	(0.843)	47936	50.0	53.7
	36 2,4,6-Trichlorophenol	196.00	9.737	9.737	(0.869)	82207	50.0	58.1
	37 2,4,5-Trichlorophenol	196.00	9.800	9.800	(0.875)	89244	50.0	57.6
$	38 2-Fluorobiphenyl (SS)	172.00	9.905	9.905	(0.884)	256836	50.0	50.3
	39 2-Chloronaphthalene	162.00	10.093	10.093	(0.901)	223773	50.0	53.8
	41 Dimethylphthalate	163.00	10.792	10.792	(0.964)	265171	50.0	53.9
	42 2,6-Dinitrotoluene	165.00	10.897	10.897	(0.973)	62548	50.0	56.5
	43 Acenaphthylene	152.00	10.907	10.907	(0.974)	328347	50.0	50.7
*	45 Acenaphthene-d10	164.00	11.199	11.199	(1.000)	149694	40.0	
	46 Acenaphthene	153.00	11.262	11.262	(1.006)	215041	50.0	52.3
	47 2,4-Dinitrophenol	184.00	11.460	11.460	(1.023)	36680	50.0	66.9
	48 4-Nitrophenol	109.00	11.670	11.670	(1.042)	25890	50.0	56.2(M)
	49 Dibenzofuran	168.00	11.628	11.628	(1.038)	323935	50.0	54.7
	50 2,4-Dinitrotoluene	165.00	11.712	11.712	(1.046)	94185	50.0	57.6(M)
	51 Diethylphthalate	149.00	12.244	12.244	(1.093)	271603	50.0	56.5
	52 Fluorene	166.00	12.328	12.328	(1.101)	249972	50.0	53.1
	53 4-Chlorophenyl phenyl ether	204.00	12.391	12.391	(1.106)	127189	50.0	56.0
	55 4,6-Dinitro-2-methylphenol	198.00	12.569	12.569	(0.844)	56809	50.0	54.9
	56 N-Nitrosodiphenylamine	169.00	12.695	12.695	(0.853)	165503	50.0	44.3
$	58 2,4,6-Tribromophenol (SS)	330.00	12.893	12.893	(1.151)	39289	50.0	67.9
	59 4-Bromophenyl phenyl ether	248.00	13.624	13.624	(0.915)	68051	50.0	47.7
	60 Hexachlorobenzene	284.00	13.708	13.708	(0.921)	82253	50.0	46.8
	61 Pentachlorophenol	266.00	14.396	14.396	(0.967)	41868	50.0	52.0
*	Phenanthrene-d10	188.00	14.888	14.888	(1.000)	281449	40.0	
	63 Phenanthrene	178.00	14.962	14.962	(1.005)	358331	50.0	44.9
	64 Anthracene	178.00	15.108	15.108	(1.015)	352296	50.0	44.0
	66 Di-n-butylphthalate	149.00	16.870	16.870	(1.133)	457485	50.0	46.1
	67 Fluoranthene	202.00	18.152	18.152	(1.219)	391922	50.0	47.2
	69 Pyrene	202.00	18.674	18.674	(0.871)	402346	50.0	51.4
$	70 Terphenyl-d14 (SS)	244.00	19.196	19.196	(0.895)	280074	50.0	50.1
	71 Butyl benzyl phthalate	149.00	20.426	20.426	(0.952)	219363	50.0	54.2
	73 Benzo(a)anthracene	228.00	21.429	21.429	(0.999)	344961	50.0	54.3
*	74 Chrysene-d12	240.00	21.450	21.450	(1.000)	205446	40.0	
	75 Chrysene	228.00	21.503	21.503	(1.002)	334052	50.0	52.0
	76 Bis(2-ethylhexyl)phthalate	149.00	21.734	21.734	(1.013)	303245	50.0	54.5
	77 Di-n-octylphthalate	149.00	23.031	23.031	(0.950)	476562	50.0	50.7
	78 Benzo(b)fluoranthene	252.00	23.565	23.565	(0.972)	343612	50.0	53.6
	79 Benzo(k)fluoranthene	252.00	23.617	23.617	(0.974)	331500	50.0	50.2
	80 Benzo(a)pyrene	252.00	24.152	24.152	(0.996)	294495	50.0	50.1
*	81 Perylene-d12	264.00	24.247	24.247	(1.000)	219635	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	26.113	26.113	(1.077)	346962	50.0	53.0
	83 Dibenz(a,h)anthracene	278.00	26.145	26.145	(1.078)	285045	50.0	53.4
	84 Benzo(g,h,i)perylene	276.00	26.556	26.556	(1.095)	297211	50.0	55.3

QC Flag Legend

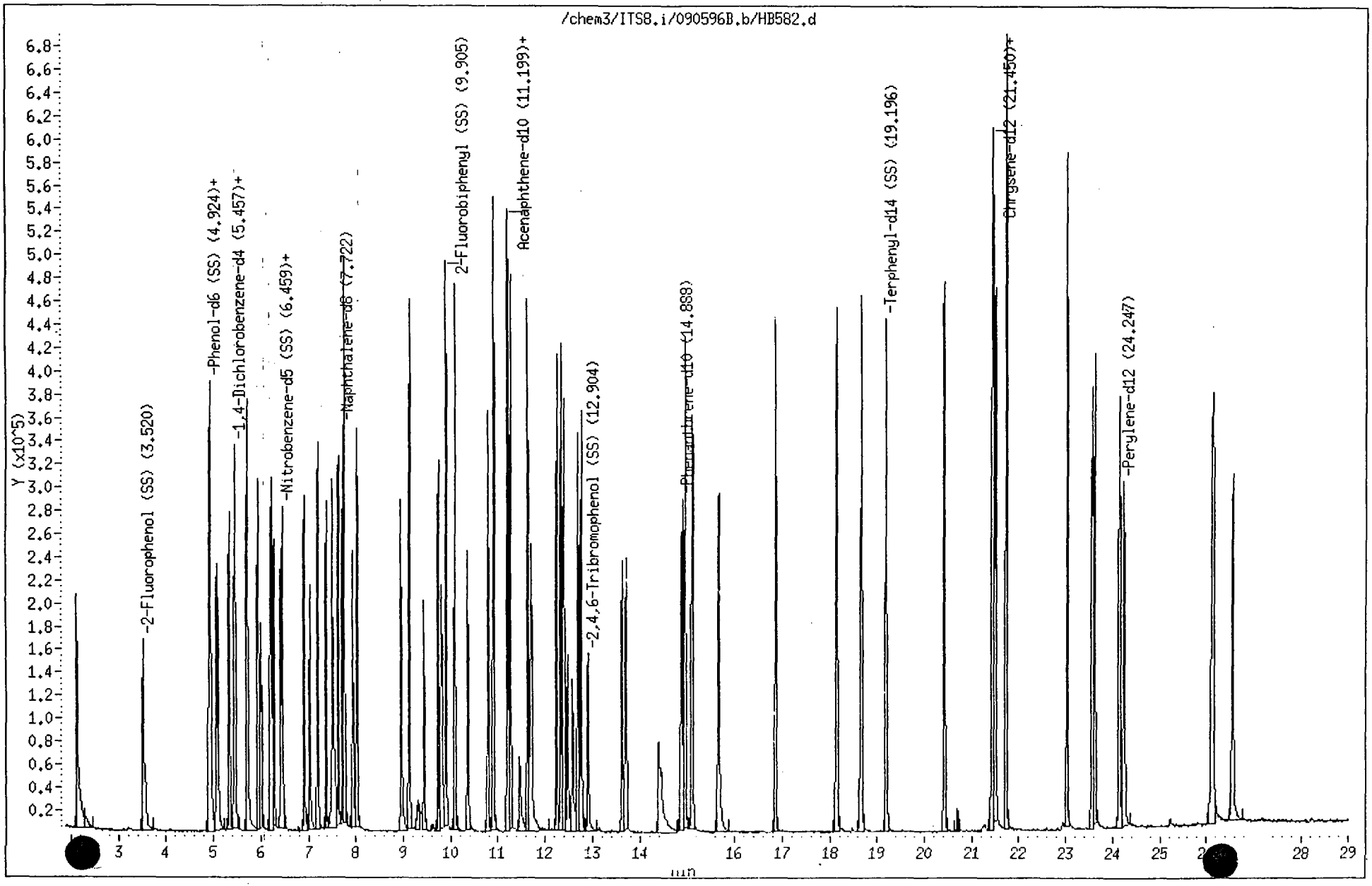
M - Compound response manually integrated.

Data File: /chem3/ITS8.i/090596B.b/HB582.d
Date : 05-SEP-1996 22:34
Client ID: SSTD050 AB396-72-2
Sample Info: ITS8 Calibration Standard (exp 8/97)

Instrument: ITS8.i

Operator: WSW
Column diameter: 0.25

Column phase: DB-5



Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/090596B.b/HB583.d
Lab Smp Id: ANLN050 AB396-56-2 Client Smp ID: ANLN050 AB396-56-2
Inj Date : 05-SEP-1996 23:10 Autotune Date: 03-Jun-92 08:58
Operator : WSW Inst ID: ITS8.i
Smp Info : ITS8 Aniline Calibration Std (exp 5/97)
Misc Info : 50ug/mL 03-12-96 AB396-56-2 BTL# 3
Comment :
Method : /chem3/ITS8.i/090596B.b/abn8.m
Meth Date : 06-Sep-1996 07:54 wsw Quant Type: ISTD
Cal Date : 05-SEP-1996 23:10 Cal File: HB583.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	5 Aniline	93.00	4.920	4.920	(0.906)	208084	50.0	47.7
	31 4-Chloroaniline	127.00	7.928	7.928	(1.027)	180991	50.0	52.4
	49 2-Nitroaniline	65.00	10.362	10.362	(0.926)	95132	50.0	52.3
	3-Nitroaniline	138.00	11.205	11.205	(1.001)	77315	50.0	51.5
	54 4-Nitroaniline	138.00	12.475	12.475	(1.114)	81487	50.0	56.9
*	10 1,4-Dichlorobenzene-d4	152.00	5.430	5.430	(1.000)	92500	40.0	
*	29 Naphthalene-d8	136.00	7.719	7.719	(1.000)	339918	40.0	
*	45 Acenaphthene-d10	164.00	11.195	11.195	(1.000)	186821	40.0	
*	62 Phenanthrene-d10	188.00	14.888	14.888	(1.000)	296423	40.0	
*	74 Chrysene-d12	240.00	21.447	21.447	(1.000)	263544	40.0	
*	81 Perylene-d12	264.00	24.244	24.244	(1.000)	287794	40.0	
	68 Benzidine	184.00	18.613	18.613	(0.868)	254647	50.0	42.8
	72 3,3'-Dichlorobenzidine	252.00	21.457	21.457	(1.000)	158600	50.0	50.7
	65 Carbazole	167.00	15.669	15.669	(1.052)	402929	50.0	53.2
	57 1,2-Diphenylhydrazine	77.00	12.756	12.756	(0.857)	311853	50.0	47.4

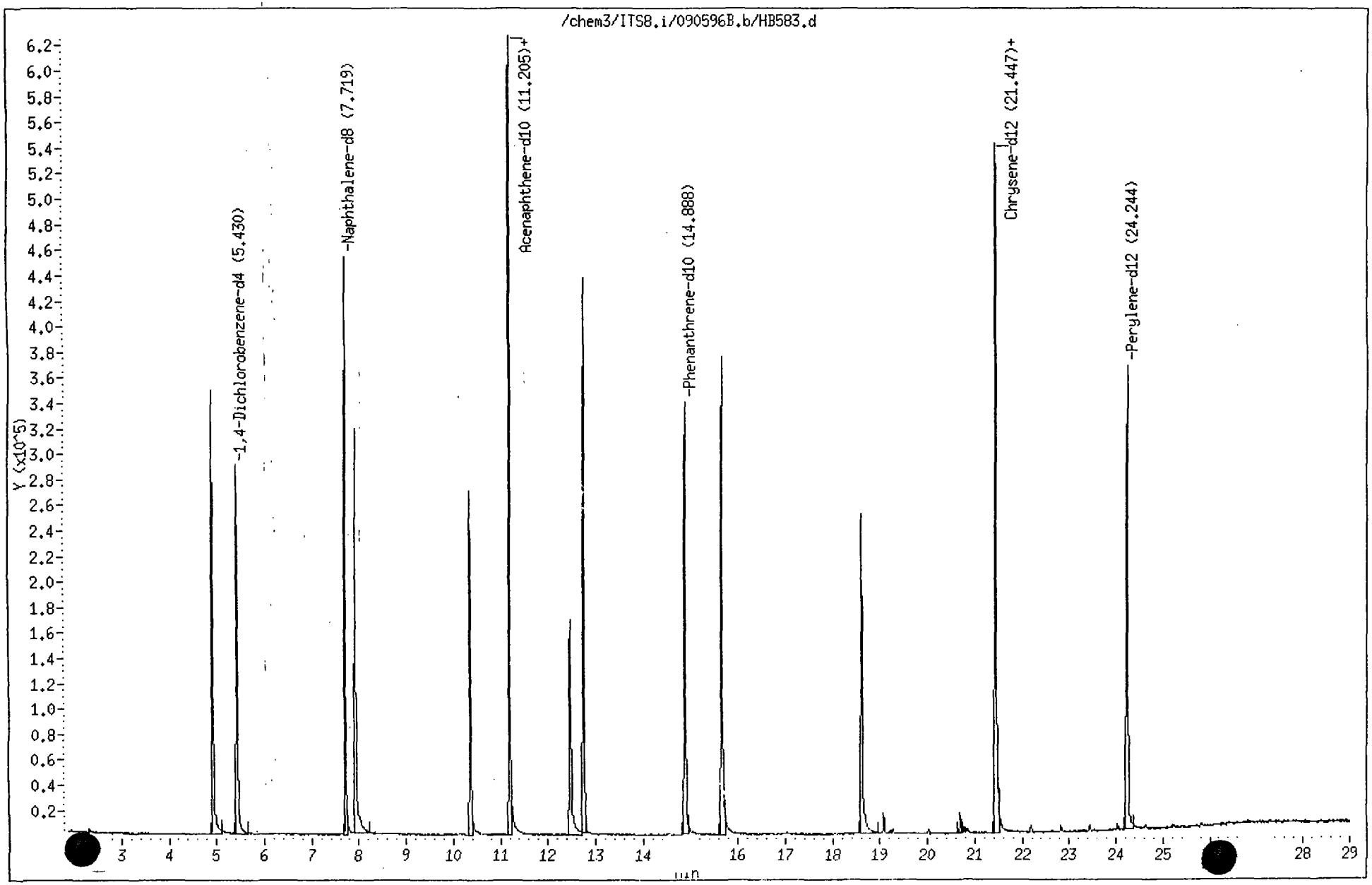
411

Data File: /chem3/ITS8.i/090596B.b/HB583.d
Date : 05-SEP-1996 23:10
Client ID: ANLN050 AB396-56-2
Sample Info: ITS8 Aniline Calibration Std (exp 5/97)

Instrument: ITS8.i

Operator: WSW
Column diameter: 0.25

Column phase: DB-5



FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS8 Calibration Date: 09/07/96 Time: 1834

Lab File ID: HB623 Init. Calib. Date(s): 08/31/96 08/31/96

Init. Calib. Times: 1647 1913

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
N-Nitrosodimethylamine	0.743	0.816	0.050	9.8	20.0	
Aniline	1.886	1.830	0.050	3.0	20.0	
Phenol	1.511	1.614	0.050	6.8	20.0	
Bis(2-chloroethyl)ether	1.233	1.328	0.050	7.7	20.0	
2-Chlorophenol	1.293	1.396	0.050	8.0	20.0	
1,3-Dichlorobenzene	1.475	1.650	0.050	11.9	20.0	
1,4-Dichlorobenzene	1.508	1.653	0.050	9.6	20.0	
Benzyl alcohol	0.729	0.739	0.050	1.4	20.0	
1,2-Dichlorobenzene	1.347	1.540	0.050	14.3	20.0	
2-Methylphenol	1.115	1.145	0.050	2.7	20.0	
Bis(2-chloroisopropyl)ether	2.135	2.303	0.050	7.9	20.0	
4-Methylphenol	1.125	1.201	0.050	6.8	20.0	
N-Nitrosodi-n-propylamine	0.926	1.026	0.050	10.8	20.0	
Hexachloroethane	0.578	0.655	0.050	13.3	20.0	
Nitrobenzene	0.337	0.367	0.050	8.9	20.0	
Isophorone	0.641	0.700	0.050	9.2	20.0	
2-Nitrophenol	0.207	0.230	0.050	11.1	20.0	
2,4-Dimethylphenol	0.305	0.331	0.050	8.5	20.0	
Bis(2-chloroethoxy)methane	0.420	0.458	0.050	9.0	20.0	
Benzoic acid	0.080	0.172	0.050	115.0	20.0	<-
2,4-Dichlorophenol	0.299	0.337	0.050	12.7	20.0	
1,2,4-Trichlorobenzene	0.327	0.364	0.050	11.3	20.0	
Naphthalene	0.918	0.930	0.050	1.3	20.0	
4-Chloroaniline	0.406	0.429	0.050	5.7	20.0	
Hexachlorobutadiene	0.190	0.210	0.050	10.5	20.0	
4-Chloro-3-methylphenol	0.312	0.351	0.050	12.5	20.0	
2-Methylnaphthalene	0.625	0.649	0.050	3.8	20.0	
Hexachlorocyclopentadiene	0.238	0.280	0.050	17.6	20.0	
2,4,6-Trichlorophenol	0.378	0.427	0.050	13.0	20.0	
2,4,5-Trichlorophenol	0.414	0.452	0.050	9.2	20.0	
2-Chloronaphthalene	1.111	1.223	0.050	10.1	20.0	
2-Nitroaniline	0.389	0.416	0.050	6.9	20.0	
Dimethylphthalate	1.314	1.444	0.050	9.9	20.0	
Acenaphthylene	1.731	1.712	0.050	1.1	20.0	
2,6-Dinitrotoluene	0.296	0.334	0.050	12.8	20.0	
3-Nitroaniline	0.321	0.357	0.050	11.2	20.0	
Acenaphthene	1.099	1.165	0.050	6.0	20.0	

All other compounds must meet a minimum RRF of 0.010.

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS8 Calibration Date: 09/07/96 Time: 1834

Lab File ID: HB623 Init. Calib. Date(s): 08/31/96 08/31/96

Init. Calib. Times: 1647 1913

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
2,4-Dinitrophenol	0.146	0.184	0.050	26.0	20.0	<-
Dibenzofuran	1.583	1.703	0.050	7.6	20.0	
4-Nitrophenol	0.123	0.102	0.050	17.1	20.0	
2,4-Dinitrotoluene	0.437	0.501	0.050	14.6	20.0	
Diethylphthalate	1.284	1.456	0.050	13.4	20.0	
Fluorene	1.258	1.354	0.050	7.6	20.0	
4-Chlorophenyl phenyl ether	0.607	0.688	0.050	13.3	20.0	
4-Nitroaniline	0.306	0.388	0.050	26.8	20.0	<-
4,6-Dinitro-2-methylphenol	0.147	0.145	0.050	1.4	20.0	
N-Nitrosodiphenylamine(1)	0.531	0.501	0.050		20.0	
1,2-Diphenylhydrazine	0.887	0.819	0.050	7.7	20.0	
4-Bromophenyl phenyl ether	0.203	0.198	0.050	2.5	20.0	
Hexachlorobenzene	0.250	0.243	0.050	2.8	20.0	
Pentachlorophenol	0.114	0.119	0.050	4.4	20.0	
Benzidine	0.902	0.752	0.050	16.6	20.0	
Phenanthrene	1.134	1.017	0.050	10.3	20.0	
Anthracene	1.139	1.031	0.050	9.5	20.0	
Carbazole	1.022	1.070	0.050	4.7	20.0	
Di-n-butylphthalate	1.411	1.220	0.050	13.5	20.0	
Fluoranthene	1.179	1.089	0.050	7.6	20.0	
Pyrene	1.524	1.527	0.050	0.2	20.0	
Butyl benzyl phthalate	0.789	0.832	0.050	5.4	20.0	
Benzo(a)anthracene	1.237	1.285	0.050	3.9	20.0	
3,3'-Dichlorobenzidine	0.475	0.462	0.050	2.7	20.0	
Chrysene	1.249	1.273	0.050	1.9	20.0	
Bis(2-ethylhexyl)phthalate	1.083	1.087	0.050	0.4	20.0	
Di-n-octylphthalate	1.713	1.532	0.050	10.6	20.0	
Benzo(b)fluoranthene	1.168	1.156	0.050	1.0	20.0	
Benzo(k)fluoranthene	1.203	1.292	0.050	7.4	20.0	
Benzo(a)pyrene	1.070	1.067	0.050	0.3	20.0	
Indeno(1,2,3-cd)pyrene	1.192	1.154	0.050	3.2	20.0	
Dibenz(a,h)anthracene	0.973	0.941	0.050	3.3	20.0	
Benzo(g,h,i)perylene	0.979	0.944	0.050	3.6	20.0	
Pyridine			0.050		20.0	<-
m,p-Cresol			0.050		20.0	<-

(1) Cannot be separated from Diphenylamine
All other compounds must meet a minimum RRF of 0.010.

FORM 7
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Instrument ID: ITS8 Calibration Date: 09/07/96 Time: 1834

Lab File ID: HB623 Init. Calib. Date(s): 08/31/96 08/31/96

Init. Calib. Times: 1647 1913

COMPOUND	$\overline{RRF}$	RRF50	MIN RRF	%D	MAX %D	
Nitrobenzene-d5 (SS)	0.390	0.383	0.050	1.8	20.0	
2-Fluorobiphenyl (SS)	1.364	1.396	0.050	2.3	20.0	
Terphenyl-d14 (SS)	1.089	1.071	0.050	1.6	20.0	
Phenol-d6 (SS)	1.519	1.568	0.050	3.2	20.0	
2-Fluorophenol (SS)	1.215	1.302	0.050	7.2	20.0	
2,4,6-Tribromophenol (SS)	0.154	0.200	0.050	29.9	20.0	<-

All other compounds must meet a minimum RRF of 0.010.

Inchcape Testing Services - Environmental Laboratories

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ITS8.i
Lab File ID: HB623.d
Analysis Type:
Lab Sample ID: SSTD050
Quant Type: ISTD

Injection Date: 07-SEP-1996 18:34
Init. Calibration Date(s): 08/31/96 08/31/96
Init. Calibration Times: 16:47 19:13
AB396-72-2 Method File: /chem3/ITS8.i/090796.b/abn8.

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D	
	1 N-Nitrosodimethylamine	0.743	0.816	0.050	9.8	20.0	
$	3 2-Fluorophenol (SS)	1.215	1.302	0.050	7.2	20.0	
$	4 Phenol-d6 (SS)	1.519	1.568	0.050	3.2	20.0	
	6 Phenol	1.511	1.614	0.050	6.8	20.0	
	7 Bis(2-chloroethyl)ether	1.233	1.328	0.050	7.7	20.0	
	8 2-Chlorophenol	1.293	1.397	0.050	8.0	20.0	
	9 1,3-Dichlorobenzene	1.475	1.650	0.050	11.9	20.0	
	11 1,4-Dichlorobenzene	1.508	1.653	0.050	9.6	20.0	
	12 Benzyl alcohol	0.729	0.739	0.050	1.4	20.0	
	13 1,2-Dichlorobenzene	1.347	1.540	0.050	14.3	20.0	
	14 2-Methylphenol	1.116	1.145	0.050	2.6	20.0	
	15 Bis(2-chloroisopropyl)ether	2.135	2.303	0.050	7.9	20.0	
	16 N-Nitrosodi-n-propylamine	0.926	1.026	0.050	10.8	20.0	
	17 4-Methylphenol	1.125	1.201	0.050	6.8	20.0	
	18 Hexachloroethane	0.578	0.655	0.050	13.4	20.0	
$	19 Nitrobenzene-d5 (SS)	0.390	0.383	0.050	1.7	20.0	
	20 Nitrobenzene	0.336	0.367	0.050	9.2	20.0	
	21 Isophorone	0.641	0.700	0.050	9.2	20.0	
	22 2-Nitrophenol	0.207	0.230	0.050	11.0	20.0	
	23 2,4-Dimethylphenol	0.304	0.331	0.050	8.7	20.0	
	25 Bis(2-chloroethoxy)methane	0.420	0.458	0.050	8.9	20.0	
	26 Benzoic acid	0.080	0.172	0.050	116.1	20.0	<-
	27 2,4-Dichlorophenol	0.299	0.337	0.050	12.7	20.0	
	28 1,2,4-Trichlorobenzene	0.327	0.364	0.050	11.3	20.0	
	30 Naphthalene	0.918	0.930	0.050	1.3	20.0	
	32 Hexachlorobutadiene	0.190	0.210	0.050	10.5	20.0	
	33 4-Chloro-3-methylphenol	0.313	0.351	0.050	12.2	20.0	
	34 2-Methylnaphthalene	0.625	0.649	0.050	4.0	20.0	
	35 Hexachlorocyclopentadiene	0.239	0.280	0.050	17.4	20.0	
	36 2,4,6-Trichlorophenol	0.378	0.427	0.050	12.9	20.0	
	37 2,4,5-Trichlorophenol	0.414	0.452	0.050	9.3	20.0	
$	38 2-Fluorobiphenyl (SS)	1.364	1.396	0.050	2.3	20.0	
	39 2-Chloronaphthalene	1.111	1.223	0.050	10.1	20.0	
	41 Dimethylphthalate	1.314	1.444	0.050	9.9	20.0	
	42 2,6-Dinitrotoluene	0.296	0.335	0.050	13.1	20.0	
	43 Acenaphthylene	1.731	1.713	0.050	1.1	20.0	
	46 Acenaphthene	1.099	1.165	0.050	6.0	20.0	
	47 2,4-Dinitrophenol	0.146	0.184	0.050	25.9	20.0	<-
	48 4-Nitrophenol	0.123	0.102	0.050	17.6	20.0	
	49 Dibenzofuran	1.583	1.703	0.050	7.6	20.0	

M Cudwick 9-7-96
ANALYST Date

REVIEW Date

DATA ENTRY Date

Inchcape Testing Services - Environmental Laboratories

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ITS8.i Injection Date: 07-SEP-1996 18:34
Lab File ID: HB623.d Init. Calibration Date(s): 08/31/96 08/31/96
Analysis Type: Init. Calibration Times: 16:47 19:13
Lab Sample ID: SSTD050 AB396-72-2 Method File: /chem3/ITS8.i/090796.b/abn8.
Quant Type: ISTD

	COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D	
	50 2,4-Dinitrotoluene	0.437	0.501	0.050	14.6	20.0	
	51 Diethylphthalate	1.284	1.456	0.050	13.4	20.0	
	52 Fluorene	1.258	1.354	0.050	7.7	20.0	
	53 4-Chlorophenyl phenyl ether	0.607	0.688	0.050	13.4	20.0	
	55 4,6-Dinitro-2-methylphenol	0.147	0.145	0.050	1.4	20.0	
	56 N-Nitrosodiphenylamine	0.531	0.501	0.050	5.7	20.0	
$	58 2,4,6-Tribromophenol (SS)	0.155	0.200	0.050	29.6	20.0	<-
	59 4-Bromophenyl phenyl ether	0.203	0.198	0.050	2.2	20.0	
	60 Hexachlorobenzene	0.250	0.243	0.050	2.8	20.0	
	61 Pentachlorophenol	0.114	0.119	0.050	4.0	20.0	
	63 Phenanthrene	1.134	1.017	0.050	10.3	20.0	
	64 Anthracene	1.139	1.031	0.050	9.5	20.0	
	66 Di-n-butylphthalate	1.411	1.220	0.050	13.5	20.0	
	67 Fluoranthene	1.180	1.089	0.050	7.7	20.0	
	69 Pyrene	1.525	1.527	0.050	0.1	20.0	
$	70 Terphenyl-d14 (SS)	1.089	1.071	0.050	1.7	20.0	
	71 Butyl benzyl phthalate	0.789	0.832	0.050	5.5	20.0	
	73 Benzo(a)anthracene	1.237	1.285	0.050	3.9	20.0	
	75 Chrysene	1.250	1.273	0.050	1.9	20.0	
	76 Bis(2-ethylhexyl)phthalate	1.083	1.087	0.050	0.4	20.0	
	77 Di-n-octylphthalate	1.713	1.532	0.050	10.6	20.0	
	78 Benzo(b)fluoranthene	1.168	1.156	0.050	1.0	20.0	
	79 Benzo(k)fluoranthene	1.203	1.292	0.050	7.4	20.0	
	80 Benzo(a)pyrene	1.070	1.067	0.050	0.2	20.0	
	82 Indeno(1,2,3-cd)pyrene	1.192	1.154	0.050	3.2	20.0	
	83 Dibenz(a,h)anthracene	0.973	0.941	0.050	3.3	20.0	
	84 Benzo(g,h,i)perylene	0.979	0.944	0.050	3.5	20.0	

Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/090796.b/HB623.d
Lab Smp Id: SSTD050 AB396-72-2 Client Smp ID: SSTD050 AB396-72-2
Inj Date : 07-SEP-1996 18:34
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : ITS8 CALIBRATION STANDARD EXP.(9/97)
Misc Info : 50 ug/mL AB396-72-2 0829-96
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 10:00 mll Quant Type: ISTD
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: SSTD050.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 N-Nitrosodimethylamine	74.00	2.114	2.114	(0.391)	89987	50.0	54.9
$	3 2-Fluorophenol (SS)	112.00	3.509	3.509	(0.648)	143676	50.0	53.6
$	4 Phenol-d6 (SS)	99.00	4.893	4.893	(0.904)	172962	50.0	51.6
	6 Phenol	94.00	4.924	4.924	(0.909)	177998	50.0	53.4
	7 Bis(2-chloroethyl)ether	93.00	5.049	5.049	(0.932)	146470	50.0	53.9
	8 2-Chlorophenol	128.00	5.081	5.081	(0.938)	154057	50.0	54.0
	9 1,3-Dichlorobenzene	146.00	5.310	5.310	(0.981)	182058	50.0	55.9
*	10 1,4-Dichlorobenzene-d4	152.00	5.415	5.415	(1.000)	88252	40.0	
	11 1,4-Dichlorobenzene	146.00	5.446	5.446	(1.006)	182356	50.0	54.8
	12 Benzyl alcohol	108.00	5.707	5.707	(1.054)	81574	50.0	50.7
	13 1,2-Dichlorobenzene	146.00	5.686	5.686	(1.050)	169900	50.0	57.2
	14 2-Methylphenol	108.00	5.926	5.926	(1.094)	126284	50.0	51.3
	15 Bis(2-chloroisopropyl)ether	45.00	5.989	5.989	(1.106)	254096	50.0	53.9(M)
	16 N-Nitrosodi-n-propylamine	70.00	6.197	6.197	(1.145)	113196	50.0	55.4
	17 4-Methylphenol	108.00	6.218	6.218	(1.148)	132486	50.0	53.4
	18 Hexachloroethane	117.00	6.260	6.260	(1.156)	72302	50.0	56.7
$	19 Nitrobenzene-d5 (SS)	82.00	6.407	6.407	(0.832)	162300	50.0	49.1
	20 Nitrobenzene	77.00	6.448	6.448	(0.837)	155609	50.0	54.6
	21 Isophorone	82.00	6.907	6.907	(0.897)	296557	50.0	54.6
	22 2-Nitrophenol	139.00	7.022	7.022	(0.912)	97319	50.0	55.5
	23 2,4-Dimethylphenol	107.00	7.178	7.178	(0.932)	140253	50.0	54.3
	25 Bis(2-chloroethoxy)methane	93.00	7.356	7.356	(0.955)	193929	50.0	54.5
	26 Benzoic acid	122.00	7.544	7.544	(0.980)	72972	50.0	108
	27 2,4-Dichlorophenol	162.00	7.492	7.492	(0.973)	142676	50.0	56.4
	28 1,2,4-Trichlorobenzene	180.00	7.618	7.618	(0.989)	154399	50.0	55.6
*	29 Naphthalene-d8	136.00	7.701	7.701	(1.000)	339046	40.0	
	30 Naphthalene	128.00	7.743	7.743	(1.005)	394088	50.0	50.6
	32 Hexachlorobutadiene	225.00	8.005	8.005	(1.039)	88833	50.0	55.2
	33 4-Chloro-3-methylphenol	107.00	8.932	8.932	(1.160)	148602	50.0	56.1

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	34 2-Methylnaphthalene	142.00	9.110	9.110	(1.183)	275226	50.0	52.0
	35 Hexachlorocyclopentadiene	237.00	9.424	9.424	(0.843)	67146	50.0	58.7
	36 2,4,6-Trichlorophenol	196.00	9.717	9.717	(0.869)	102415	50.0	56.4
	37 2,4,5-Trichlorophenol	196.00	9.780	9.780	(0.875)	108474	50.0	54.7
$	38 2-Fluorobiphenyl (SS)	172.00	9.884	9.884	(0.884)	334821	50.0	51.2
	39 2-Chloronaphthalene	162.00	10.073	10.073	(0.901)	293387	50.0	55.0
	41 Dimethylphthalate	163.00	10.771	10.771	(0.964)	346388	50.0	55.0
	42 2,6-Dinitrotoluene	165.00	10.876	10.876	(0.973)	80237	50.0	56.6
	43 Acenaphthylene	152.00	10.887	10.887	(0.974)	410773	50.0	49.5
*	45 Acenaphthene-d10	164.00	11.179	11.179	(1.000)	191883	40.0	
	46 Acenaphthene	153.00	11.252	11.252	(1.007)	279525	50.0	53.0
	47 2,4-Dinitrophenol	184.00	11.440	11.440	(1.023)	44228	50.0	63.0
	48 4-Nitrophenol	109.00	11.639	11.639	(1.041)	24346	50.0	41.2
	49 Dibenzofuran	168.00	11.607	11.607	(1.038)	408441	50.0	53.8
	50 2,4-Dinitrotoluene	165.00	11.691	11.691	(1.046)	120138	50.0	57.3(M)
	51 Diethylphthalate	149.00	12.224	12.224	(1.093)	349119	50.0	56.7
	52 Fluorene	166.00	12.307	12.307	(1.101)	324720	50.0	53.8
	53 4-Chlorophenyl phenyl ether	204.00	12.370	12.370	(1.107)	165028	50.0	56.7
	55 4,6-Dinitro-2-methylphenol	198.00	12.548	12.548	(0.845)	63365	50.0	49.3
	56 N-Nitrosodiphenylamine	169.00	12.674	12.674	(0.853)	218935	50.0	47.1
$	58 2,4,6-Tribromophenol (SS)	330.00	12.873	12.873	(1.152)	48056	50.0	64.8
	59 4-Bromophenyl phenyl ether	248.00	13.593	13.593	(0.915)	86649	50.0	48.9
	60 Hexachlorobenzene	284.00	13.677	13.677	(0.921)	106169	50.0	48.6
	61 Pentachlorophenol	266.00	14.365	14.365	(0.967)	52020	50.0	52.0(M)
*	62 Phenanthrene-d10	188.00	14.857	14.857	(1.000)	349685	40.0	
	63 Phenanthrene	178.00	14.931	14.931	(1.005)	444593	50.0	44.8
	64 Anthracene	178.00	15.077	15.077	(1.015)	450569	50.0	45.2
	66 Di-n-butylphthalate	149.00	16.839	16.839	(1.133)	533371	50.0	43.2
	67 Fluoranthene	202.00	18.120	18.120	(1.220)	476134	50.0	46.2
	69 Pyrene	202.00	18.653	18.653	(0.870)	487743	50.0	50.1
$	70 Terphenyl-d14 (SS)	244.00	19.175	19.175	(0.895)	342149	50.0	49.2
	71 Butyl benzyl phthalate	149.00	20.395	20.395	(0.952)	265942	50.0	52.8
	73 Benzo(a)anthracene	228.00	21.407	21.407	(0.999)	410482	50.0	51.9
*	74 Chrysene-d12	240.00	21.429	21.429	(1.000)	255574	40.0	
	75 Chrysene	228.00	21.482	21.482	(1.002)	406625	50.0	50.9
	76 Bis(2-ethylhexyl)phthalate	149.00	21.713	21.713	(1.013)	347388	50.0	50.2
	77 Di-n-octylphthalate	149.00	23.010	23.010	(0.950)	524174	50.0	44.7
	78 Benzo(b)fluoranthene	252.00	23.544	23.544	(0.972)	395630	50.0	49.5
	79 Benzo(k)fluoranthene	252.00	23.596	23.596	(0.974)	441977	50.0	53.7
	80 Benzo(a)pyrene	252.00	24.120	24.120	(0.996)	365261	50.0	49.9
*	81 Perylene-d12	264.00	24.226	24.226	(1.000)	273737	40.0	
	82 Indeno(1,2,3-cd)pyrene	276.00	26.080	26.080	(1.077)	394754	50.0	48.4
	83 Dibenz(a,h)anthracene	278.00	26.112	26.112	(1.078)	322083	50.0	48.4
	84 Benzo(g,h,i)perylene	276.00	26.522	26.522	(1.095)	323154	50.0	48.2

QC Flag Legend

M - Compound response manually integrated.

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: ITS8.i
Lab File ID: HB623.d
Lab Smp Id: SSTD050 AB396-72-2
Analysis Type: SV
Quant Type: ISTD
Operator: VDLITTLE
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 50 ug/mL AB396-72-2 0829-96

Calibration Date: 09/07/96
Calibration Time: 1911
Client Smp ID: SSTD050 AB396-
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	111069	55534	222138	88252	-20.54
29 Naphthalene-d8	405041	202520	810082	339046	-16.29
45 Acenaphthene-d10	227242	113621	454484	191883	-15.56
62 Phenanthrene-d10	395815	197908	791630	349685	-11.65
74 Chrysene-d12	355207	177604	710414	255574	-28.05
81 Perylene-d12	373424	186712	746848	273737	-26.70

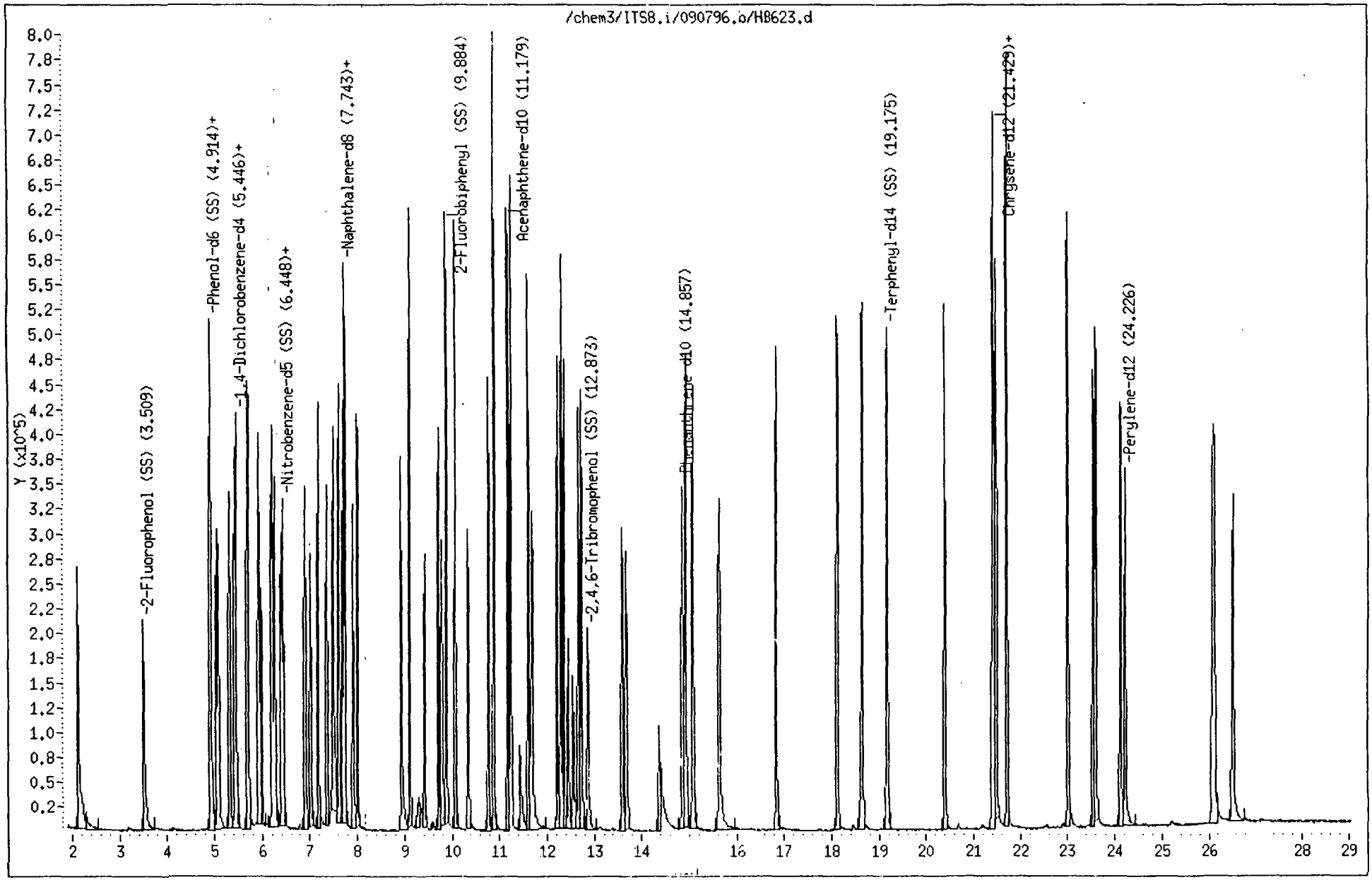
COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	5.42	4.92	5.92	5.41	-0.09
29 Naphthalene-d8	7.70	7.20	8.20	7.70	0.06
45 Acenaphthene-d10	11.18	10.68	11.68	11.18	-0.03
62 Phenanthrene-d10	14.85	14.35	15.35	14.86	0.02
74 Chrysene-d12	21.41	20.91	21.91	21.43	0.08
81 Perylene-d12	24.22	23.72	24.72	24.23	0.03

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

Data File: /chem3/ITS8.i/090796.b/HB623.d
Date : 07-SEP-1996 18:34
Client ID: SSTD050 AB396-72-2
Sample Info: ITS8 CALIBRATION STANDARD EXP.(9/97)

Instrument: ITS8.i
Operator: VDLITTLE
Column diameter: 0.25

Column phase: DB-5



Inchcape Testing Services - Environmental Laboratories

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: ITS8.i Injection Date: 07-SEP-96 19:11
Lab File ID: HB624.d Init. Calibration Date(s): 08/31/96 08/31/96
Analysis Type: Init. Calibration Times: 16:47 19:13
Lab Sample ID: ANLN050 AB396-56-2 Method File: /chem3/ITS8.i/090796.b/abn8.
Quant Type: ISTD

COMPOUND	RRF	RF50	MIN RRF	%D	MAX %D	
5 Aniline	1.886	1.830	0.050	3.0	20.0	
31 4-Chloroaniline	0.406	0.429	0.050	5.6	20.0	
40 2-Nitroaniline	0.389	0.416	0.050	6.8	20.0	
44 3-Nitroaniline	0.321	0.357	0.050	11.0	20.0	
54 4-Nitroaniline	0.306	0.388	0.050	26.6	20.0	<-
68 Benzidine	0.902	0.752	0.050	16.7	20.0	
72 3,3'-Dichlorobenzidine	0.475	0.462	0.050	2.8	20.0	
65 Carbazole	1.022	1.071	0.050	4.7	20.0	
57 1,2-Diphenylhydrazine	0.888	0.819	0.050	7.7	20.0	

Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/090796.b/HB624.d
Lab Smp Id: ANLN050 AB396-56-2 Client Smp ID: ANLN050 AB396-56-2
Inj Date : 07-SEP-96 19:11
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : ITS8 Aniline Calibration Std (exp 5/97)
Misc Info : 50ug/mL 03-12-96 AB396-56-2
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 09:58 Quant Type: ISTD
Cal Date : 07-SEP-96 19:11 Cal File: HB624.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: ANILINE_50.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	5 Aniline	93.00	4.909	4.909	(0.906)	254124	50.0	48.5
	31 4-Chloroaniline	127.00	7.905	7.905	(1.027)	217387	50.0	52.8
	40 2-Nitroaniline	65.00	10.349	10.349	(0.926)	118086	50.0	53.4
	44 3-Nitroaniline	138.00	11.192	11.192	(1.001)	101348	50.0	55.5
	54 4-Nitroaniline	138.00	12.451	12.451	(1.114)	110159	50.0	63.3
*	10 1,4-Dichlorobenzene-d4	152.00	5.419	5.419	(1.000)	111069	40.0	
*	29 Naphthalene-d8	136.00	7.697	7.697	(1.000)	405041	40.0	
*	45 Acenaphthene-d10	164.00	11.182	11.182	(1.000)	227242	40.0	
*	62 Phenanthrene-d10	188.00	14.854	14.854	(1.000)	395815	40.0	
*	74 Chrysene-d12	240.00	21.411	21.411	(1.000)	355207	40.0	
*	81 Perylene-d12	264.00	24.217	24.217	(1.000)	373424	40.0	
	68 Benzidine	184.00	18.589	18.589	(0.868)	333829	50.0	41.7
	72 3,3'-Dichlorobenzidine	252.00	21.432	21.432	(1.001)	204934	50.0	48.6
	65 Carbazole	167.00	15.645	15.645	(1.053)	529690	50.0	52.4
	57 1,2-Diphenylhydrazine	77.00	12.733	12.733	(0.857)	405132	50.0	46.1

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: ITS8.i
Lab File ID: HB624.d
Lab Smp Id: ANLN050 AB396-56-2
Analysis Type: SV
Quant Type: ISTD
Operator: VDLITTLE
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 50ug/mL 03-12-96 AB396-56-2

Calibration Date: 09/07/96
Calibration Time: 1834
Client Smp ID: ANLN050 AB396-
Level:
Sample Type:

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	88252	44126	176504	111069	25.85
29 Naphthalene-d8	339046	169523	678092	405041	19.46
45 Acenaphthene-d10	191883	95942	383766	227242	18.43
62 Phenanthrene-d10	349685	174842	699370	395815	13.19
74 Chrysene-d12	255574	127787	511148	355207	38.98
81 Perylene-d12	273737	136868	547474	373424	36.42

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	5.41	4.91	5.91	5.42	0.09
29 Naphthalene-d8	7.70	7.20	8.20	7.70	-0.06
45 Acenaphthene-d10	11.18	10.68	11.68	11.18	0.03
62 Phenanthrene-d10	14.86	14.36	15.36	14.85	-0.02
74 Chrysene-d12	21.43	20.93	21.93	21.41	-0.08
81 Perylene-d12	24.23	23.73	24.73	24.22	-0.03

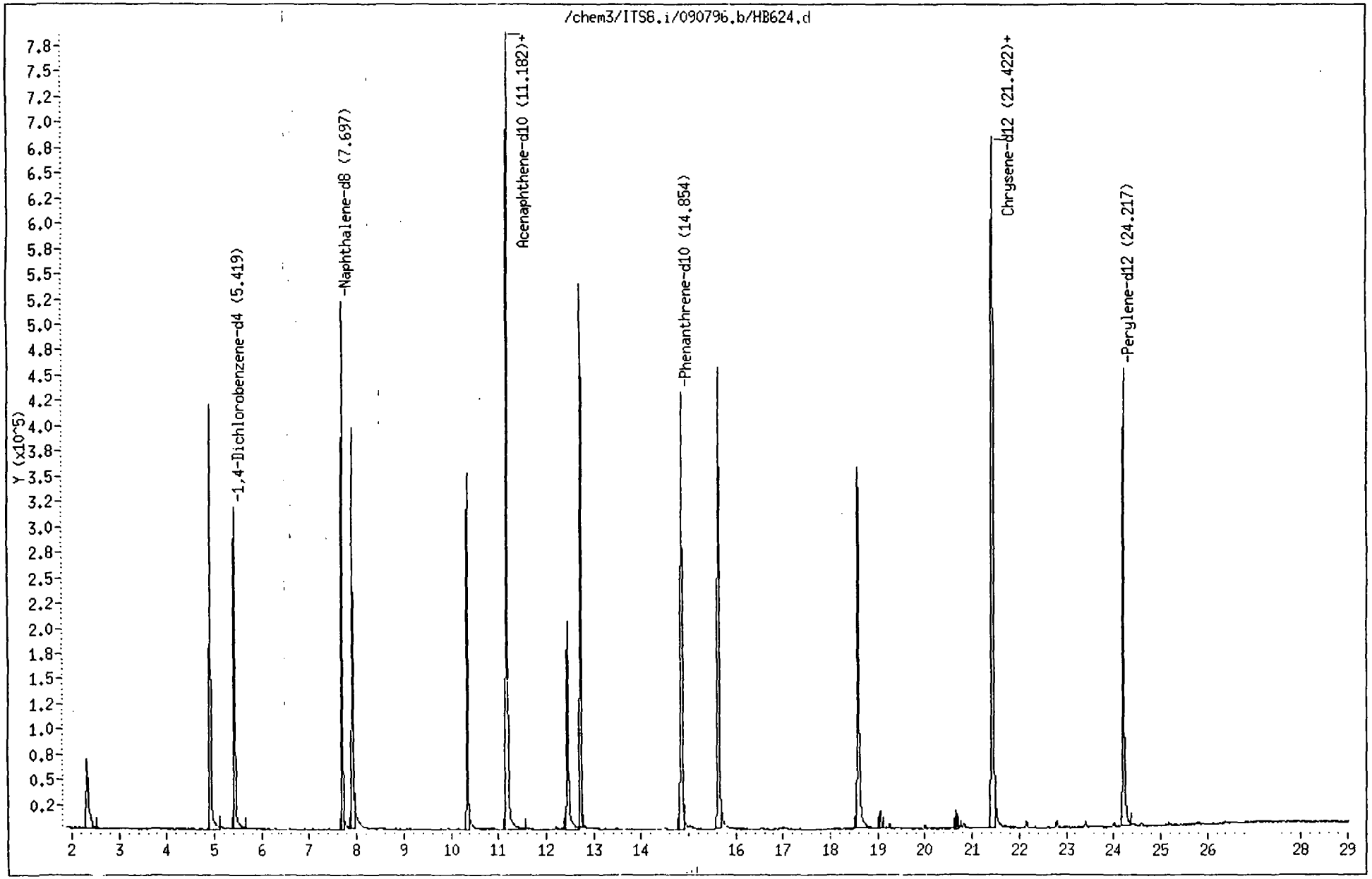
AREA UPPER LIMIT = +100% of internal standard area.
AREA LOWER LIMIT = - 50% of internal standard area.
RT UPPER LIMIT = + 0.50 minutes of internal standard RT.
RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

Data File: /chem3/ITS8.i/090796.b/HB624.d
Date : 07-SEP-96 19:11
Client ID: ANLN050 AB396-56-2
Sample Info: ITS8 Aniline Calibration Std (exp 5/97)

Instrument: ITS8.i

Operator: VDLITTLE
Column diameter: 0.25

Column phase: DB-5



RAW QUALITY CONTROL DATA

Data File: /chem2/ITS3.i/28Aug1996A.b/fd050.d

Page 1

Date : 28-AUG-96 09:43

Client ID: ITS3 DFTPP 04-01-96

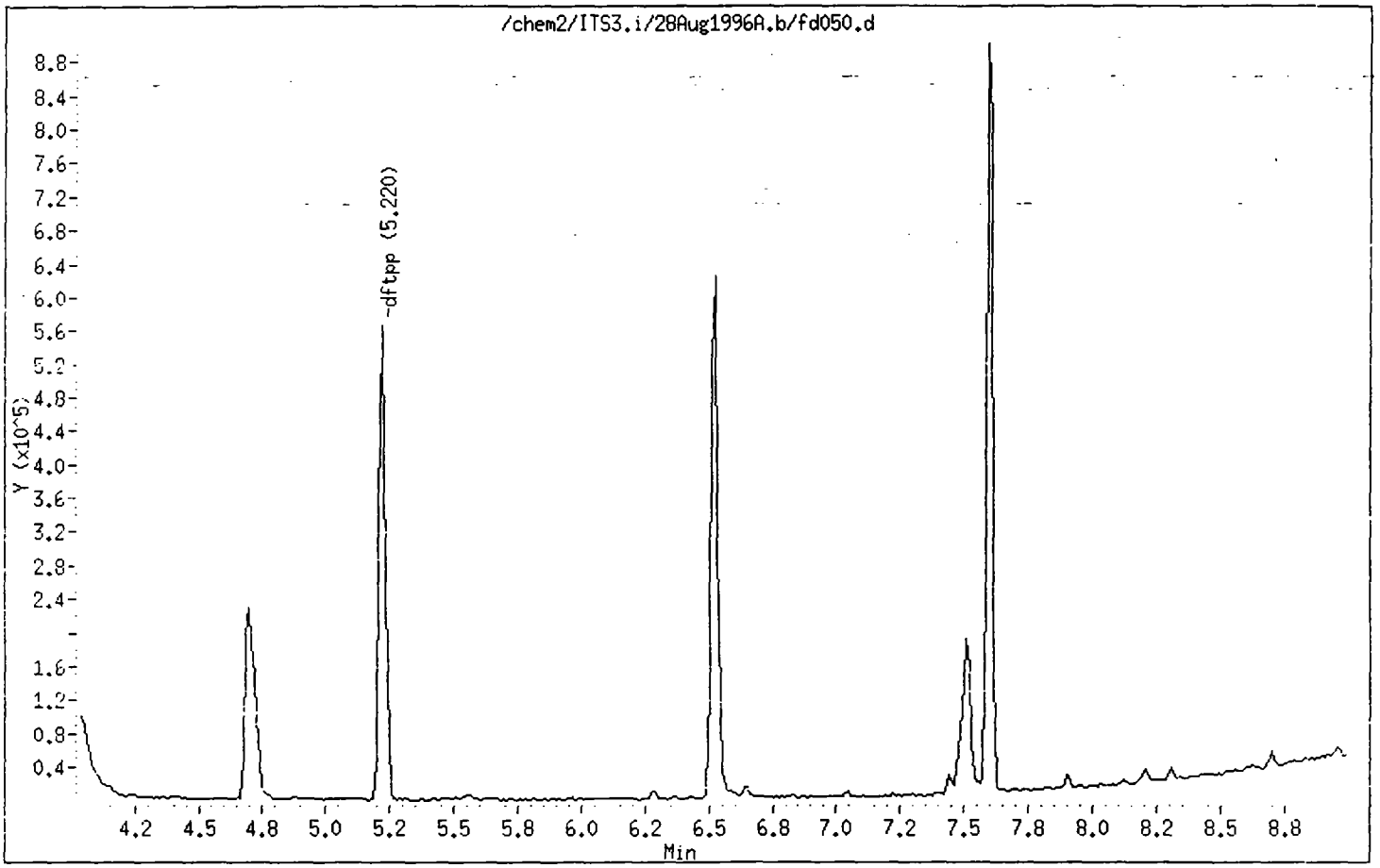
Instrument: ITS3.i

Sample Info: ITS3 DFTPP

Operator: Instrument ITS3

Column phase: DB-5

Column diameter: 0.25



Data File: /chem2/ITS3.i/28Aug1996A.b/fd050.d

Date : 28-AUG-96 09:43

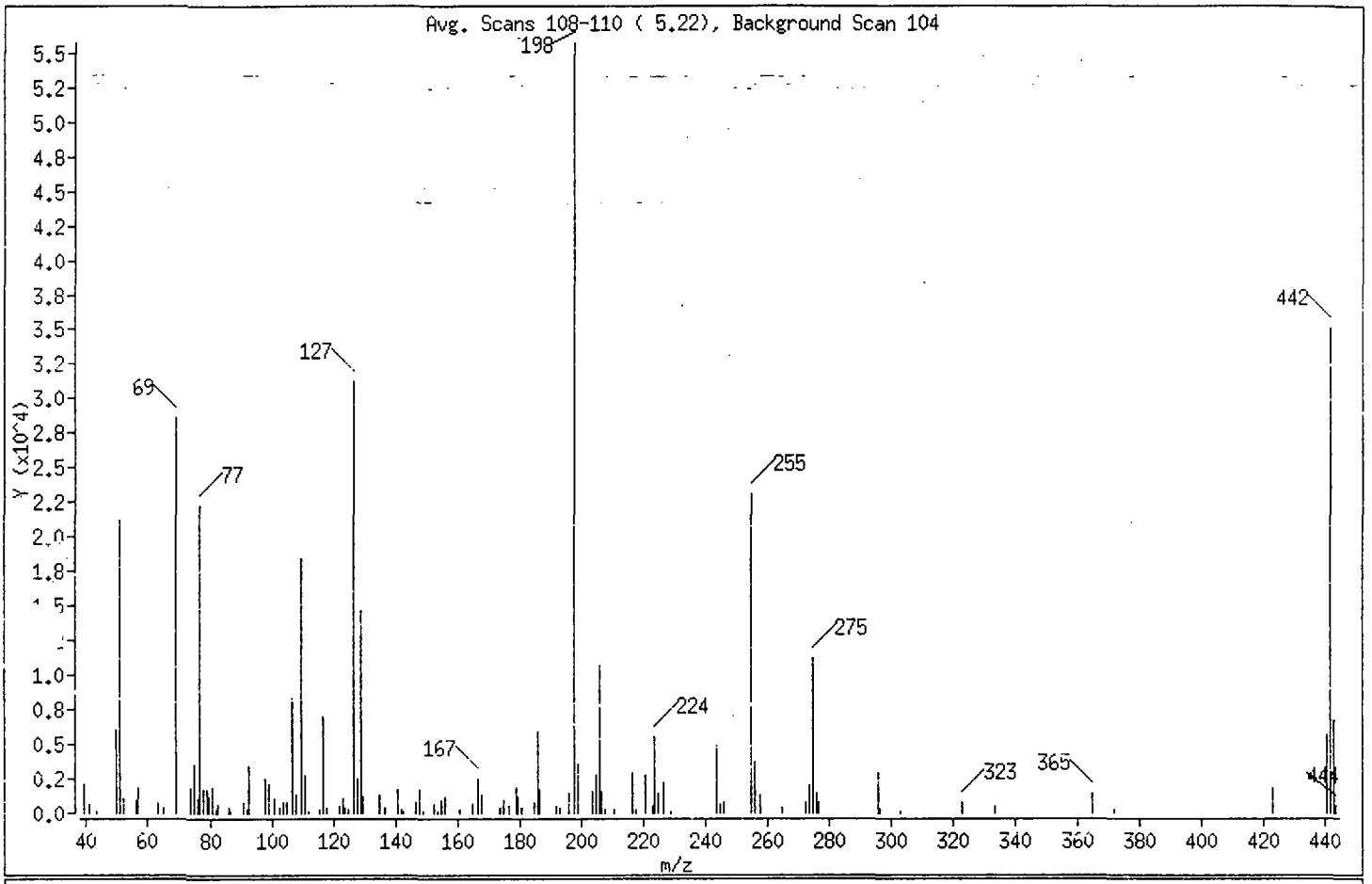
'ient ID: ITS3 DFTPP 04-01-96 Instrument: ITS3.i

Sample Info: ITS3 DFTPP

Operator: Instrument ITS3

Column phase: DB-5 Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	38.08
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	51.36
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	56.09
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.45
275	10.00 - 30.00% of mass 198	20.04
365	Greater than 1.00% of mass 198	2.57
441	Present, but less than mass 443	10.06
442	40.00 - 110.00% of mass 198	62.86
443	17.00 - 23.00% of mass 442	12.08 (19.22)

Data File: /chem2/ITS3.i/28Aug1996A.b/fd050.d

Date : 28-AUG-96 09:43

lient ID: ITS3 DFTPP 04-01-96

Instrument: ITS3.i

Sample Info: ITS3 DFTPP

Operator: Instrument ITS3

Column phase: DB-5

Column diameter: 0.25

Data File: fd050.d
Spectrum : Avg. Scans 108-110 (5.22), Background Scan 104
Largest m/z: 197.85
Number of peaks: 117

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.95	2090	103.95	819	160.90	260	224.90	1510
41.05	611	105.05	850	164.85	664	226.85	2254
42.95	175	106.90	8239	166.95	2558	228.85	192
49.95	6019	107.90	1331	167.95	1264	243.90	4821
50.95	21232	109.90	18432	173.85	386	245.00	667
51.95	1116	110.90	2810	174.95	899	245.90	845
55.90	928	111.85	173	176.85	539	254.90	23120
56.90	1927	115.85	244	178.90	1853	255.90	3638
62.95	803	116.90	6988	179.90	1202	257.85	1342
64.90	401	117.90	384	180.90	400	264.80	426
68.90	28632	121.85	516	184.95	826	272.80	804
73.95	1910	122.95	1015	185.85	5939	273.90	2068
74.95	3616	123.85	371	186.95	1777	274.90	11176
76.00	1088	124.85	204	191.80	567	275.90	1510
77.00	22248	126.90	31272	192.90	442	276.80	831
78.00	1725	127.90	2463	195.85	1430	295.90	2892
78.90	1709	126.90	14573	197.85	55760	296.80	211
79.90	1201	129.90	1228	198.85	3598	302.95	167
80.95	1821	134.85	1258	203.90	1575	322.85	815
81.85	225	136.85	444	204.95	2750	333.85	564
82.85	696	140.90	1712	205.95	10734	364.85	1433
86.00	431	142.00	209	206.95	1562	371.95	277
86.90	167	142.85	169	207.75	201	422.85	1822
90.85	755	146.95	828	210.60	223	441.00	5609
91.95	231	147.80	1777	210.80	213	441.90	35048
92.85	3378	148.90	177	216.85	2889	442.90	6738
97.90	2565	152.85	607	217.85	201	443.85	549
98.90	2086	153.95	193	220.80	2809		
100.90	1117	154.95	945	222.90	505		
102.85	349	155.95	1148	223.90	5579		

Data File: /chem2/ITS3.i/07Sep1996.b/fd254.d

Date : 07-SEP-96 16:26

Client ID: ITS3 DFTPP 04-01-96

Instrument: ITS3.i

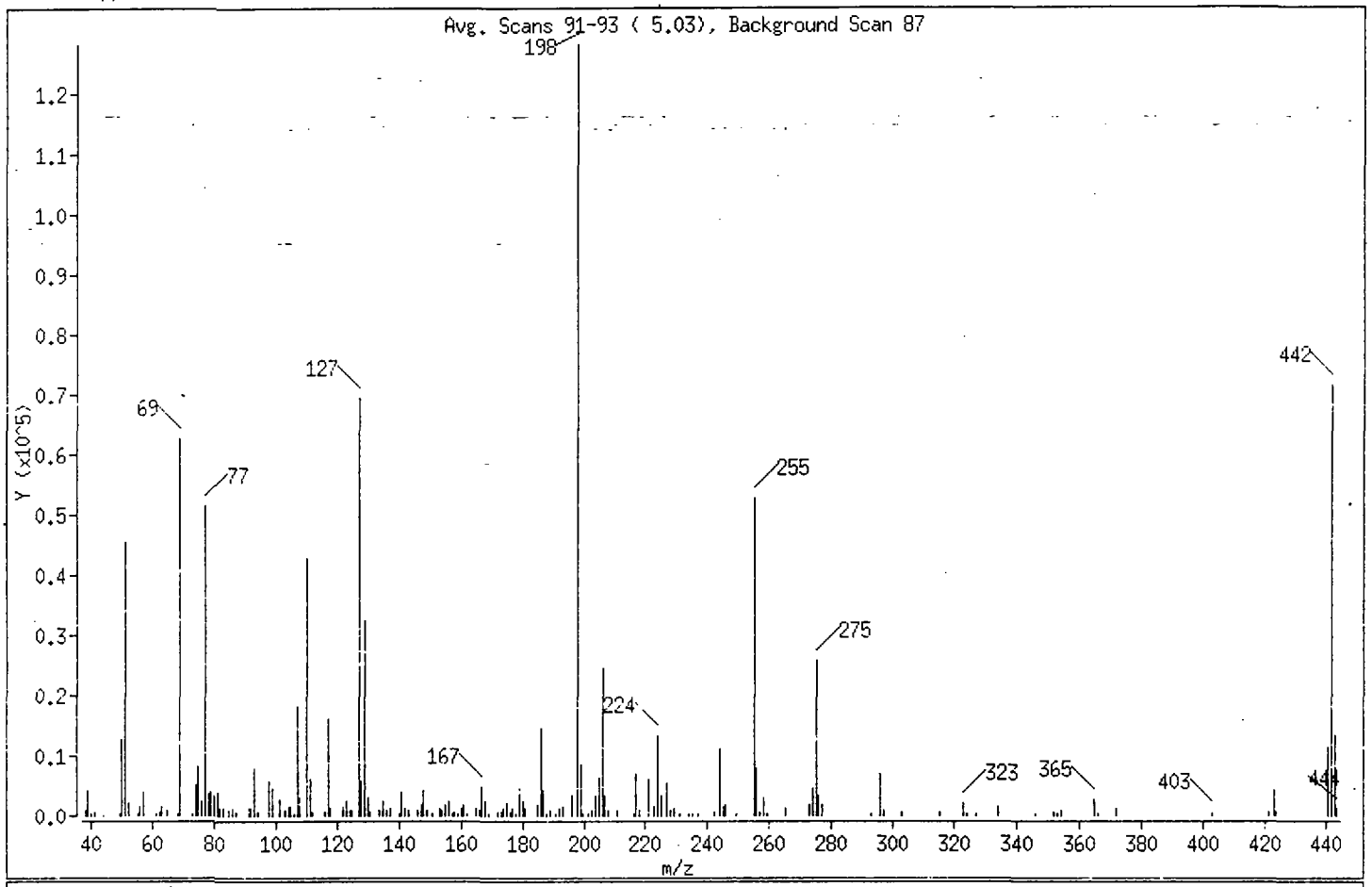
Sample Info: 50ug/mL 04-01-96 AB396-62-2 (exp 4/97)

Operator: Instrument ITS3

Column phase: DB-5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	35.53
68	Less than 2.00% of mass 69	0.20 (0.40)
69	Mass 69 relative abundance	48.86
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	54.24
197	Less than 1.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	6.60
275	10.00 - 30.00% of mass 198	20.00
365	Greater than 1.00% of mass 198	2.18
441	Present, but less than mass 443	9.05
442	40.00 - 110.00% of mass 198	55.82
443	17.00 - 23.00% of mass 442	10.52 (18.84)

Data File: /chem2/ITS3.i/07Sep1996.b/fd254.d

Date : 07-SEP-96 16:26

Client ID: ITS3 DFTPP 04-01-96 Instrument: ITS3.i

Sample Info: 50ug/mL 04-01-96 AB396-62-2 (exp 4/97)

Operator: Instrument ITS3

Column phase: DB-5 Column diameter: 0.25

Data File: fd254.d
Spectrum : Avg. Scans 91-93 (5.03), Background Scan 87
Largest m/z: 197.95
Number of peaks: 172

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	788	107.90	2968	172.00	459	242.00	756
39.05	4335	110.00	42576	173.00	481	243.90	11318
40.05	178	111.00	6106	173.95	1142	245.00	1448
40.95	522	111.85	527	174.95	2143	245.90	1965
44.00	51	116.05	660	175.95	479	248.95	186
49.10	178	116.90	16147	176.95	1121	254.90	52768
49.95	12668	118.00	1084	177.95	202	255.90	7755
51.05	45504	121.95	1378	178.90	4620	256.95	636
52.05	2204	122.95	2472	180.00	2570	257.95	3031
55.00	386	123.95	947	181.00	1357	258.95	176
56.00	1515	124.95	885	185.05	1953	264.90	1174
56.90	3872	126.95	69464	185.95	14432	272.90	1728
61.05	180	128.00	5791	186.95	4245	273.90	4685
62.05	541	128.90	32400	187.95	372	274.90	25608
63.05	1606	129.90	2943	188.95	965	275.90	3259
64.90	980	131.00	617	190.80	205	276.90	1966
68.00	251	133.85	860	191.90	1297	292.85	197
69.00	62576	134.95	2278	193.00	1393	295.90	6955
73.05	169	135.95	805	195.95	3441	296.90	1057
74.05	5016	136.95	1270	197.95	128072	302.95	756
74.95	8203	140.10	181	198.95	8456	314.90	549
76.00	2545	140.90	3983	199.90	266	322.95	2175
77.00	51320	141.90	1180	201.50	373	323.95	181
78.00	3551	142.85	986	202.90	894	326.90	240
79.00	4062	145.85	763	204.00	3575	333.95	1386
79.90	3195	146.95	1712	204.95	6231	345.80	359
80.95	4043	147.90	4224	205.95	24568	351.95	544
81.95	1125	148.90	812	206.95	3471	352.85	213
83.05	1186	151.00	184	207.85	953	353.95	761
84.95	884	152.95	1090	210.90	1014	364.95	2786
86.00	1106	153.95	873	215.95	190	365.80	173
87.00	461	154.95	1888	216.85	7020	371.95	1080
91.05	1283	155.95	2431	217.85	790	402.85	494
91.95	1261	156.95	386	220.90	6032	421.00	546
92.95	7896	157.95	532	222.90	1458	422.95	4187

Data File: /chem2/ITS3.i/07Sep1996.b/fd254.d

Date : 07-SEP-96 16:26

Client ID: ITS3 DFTPP 04-01-96 Instrument: ITS3.i

Sample Info: 50ug/mL 04-01-96 AB396-62-2 (exp 4/97)

Operator: Instrument ITS3

Column phase: DB-5 Column diameter: 0.25

Data File: fd254.d

Spectrum : Avg. Scans 91-93 (5.03), Background Scan 87

Largest m/z: 197.95

Number of peaks: 172

m/z	Y	m/z	Y	m/z	Y	m/z	Y
93.95	609	158.90	221	224.00	13256	423.85	592
98.00	5794	159.90	1065	225.00	3455	441.00	11592
99.00	4477	160.90	1689	226.95	5597	442.00	71496
101.00	2811	161.90	171	227.85	806	443.00	13473
102.95	905	164.95	1262	228.85	1152	443.85	1173
103.95	1637	166.05	984	230.90	346		
104.95	1554	166.95	4951	233.80	171		
105.95	227	167.95	2350	234.80	204		
106.90	18176	168.90	209	236.85	203		

Data File: /chem3/ITS8.i/083196.b/HB504.d

Date : 31-AUG-96 16:26

Client ID: ITS8 DFTPP 04-01-96

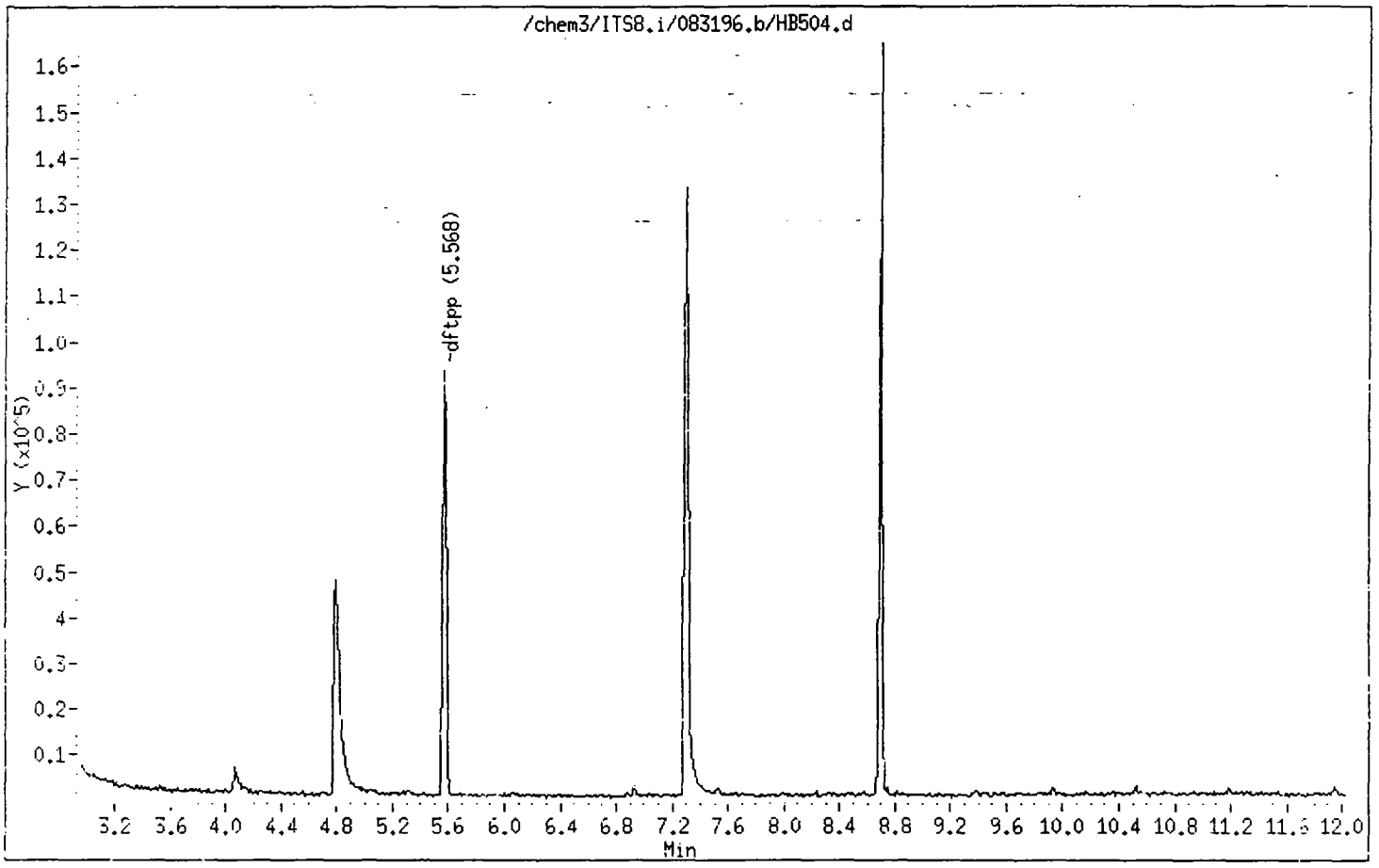
Instrument: ITS8.i

Sample Info:

Operator: Instrument ITS8

Column phase: DB-5

Column diameter: 0.25



Data File: /chem3/ITS8.i/083196.b/HB504.d

Date : 31-AUG-96 16:26

Client ID: ITS8 DFTPP 04-01-96

Instrument: ITS8.i

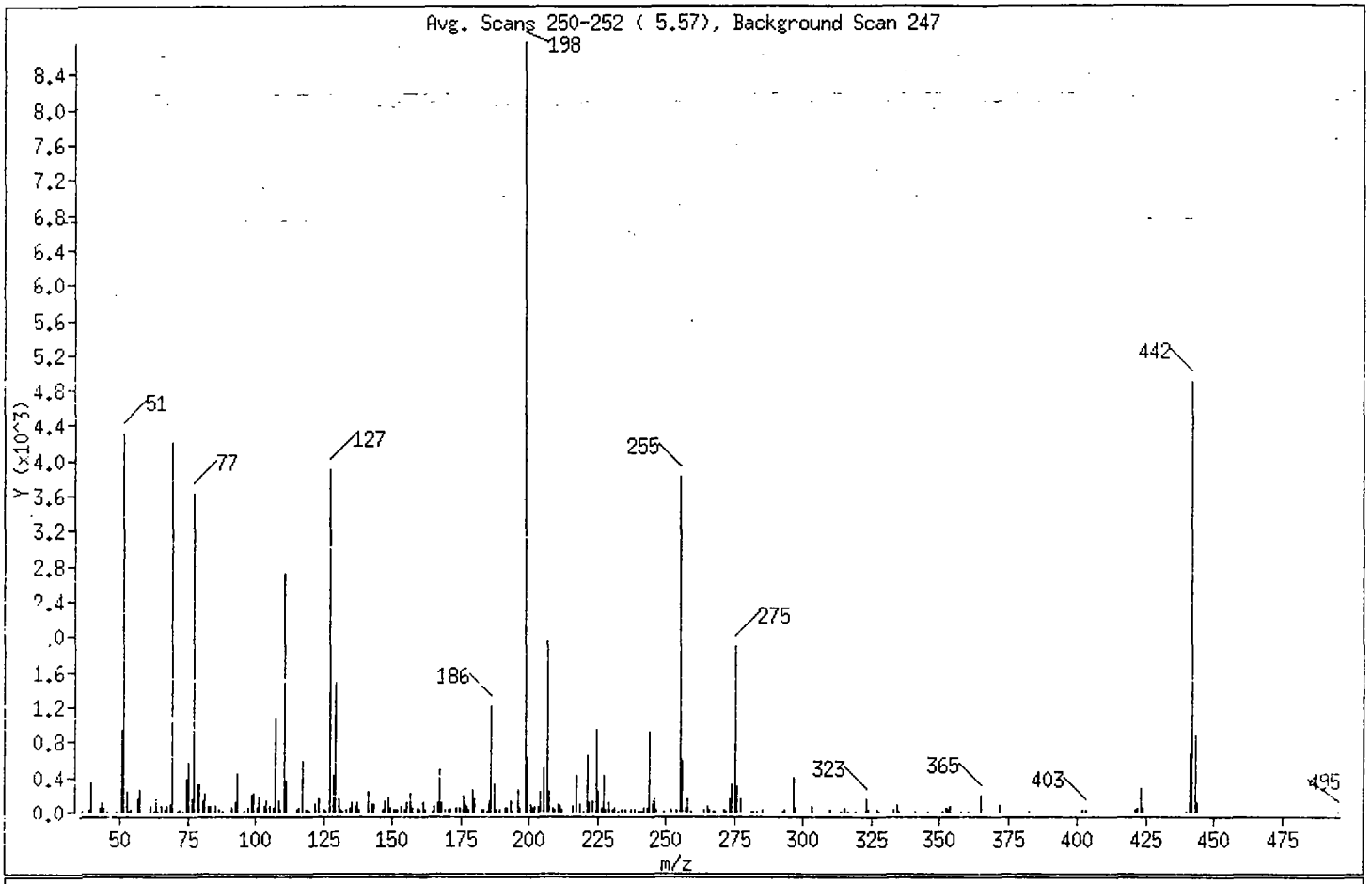
Sample Info:

Operator: Instrument ITS8

Column phase: DB-5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	49.20
68	Less than 2.00% of mass 69	0.87 (1.81)
69	Mass 69 relative abundance	47.99
70	Less than 2.00% of mass 69	0.00 (0.00)
127	40.00 - 60.00% of mass 198	44.36
197	Less than 1.00% of mass 198	0.38
199	5.00 - 9.00% of mass 198	6.99
275	10.00 - 30.00% of mass 198	21.41
365	Greater than 1.00% of mass 198	2.03
441	Present, but less than mass 443	7.51
442	40.00 - 110.00% of mass 198	55.81
443	17.00 - 23.00% of mass 442	9.89 (17.72)

Data File: /chem3/ITS8.i/083196.b/HB504.d

Date : 31-AUG-96 16:26

Client ID: ITS8 DFTPP 04-01-96 Instrument: ITS8.i

Sample Info:

Operator: Instrument ITS8

Column phase: DB-5 Column diameter: 0.25

Data File: HB504.d
Spectrum : Avg. Scans 250-252 (5.57), Background Scan 247
Largest m/z: 198.10
Number of peaks: 240

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	6	118.05	29	187.75	24	264.00	16
38.10	28	119.05	12	188.85	27	265.00	60
39.00	339	119.85	10	191.05	43	266.10	26
42.10	51	121.55	21	191.95	36	267.00	8
43.20	107	121.95	75	193.05	125	267.80	8
44.00	47	123.15	154	194.05	9	270.90	15
44.90	8	125.05	23	195.95	253	272.00	4
48.05	9	125.95	5	196.70	33	273.00	140
50.15	939	127.05	3885	198.10	8758	274.10	304
51.15	4309	128.05	404	199.10	612	275.10	1875
52.05	226	128.95	1478	200.10	83	276.00	281
52.75	7	130.05	136	201.30	49	277.00	142
53.95	15	131.15	12	201.80	52	280.80	2
56.05	146	131.95	9	203.10	53	282.10	9
57.05	245	133.35	20	204.00	235	283.20	4
60.95	57	134.35	47	205.10	492	285.00	24
62.15	10	135.05	94	206.10	1951	292.35	5
63.05	142	136.10	72	207.10	220	292.95	18
63.95	7	137.20	98	208.20	47	296.15	386
64.95	65	138.00	20	208.90	15	297.05	40
66.55	11	140.90	218	210.60	77	303.05	61
66.75	63	142.10	84	211.30	71	309.95	14
68.25	76	143.00	91	211.70	12	313.95	9
69.05	4203	146.10	26	216.00	70	314.85	46
70.95	10	147.10	117	217.00	405	316.15	6
71.95	16	148.10	171	218.10	88	319.20	8
73.15	6	149.10	45	220.00	3	323.10	144
74.05	367	150.30	30	221.10	650	324.00	21
74.95	565	151.00	20	221.90	104	327.20	16
76.10	137	152.00	25	222.90	114	328.10	6
77.10	3621	153.10	59	224.10	923	333.10	13
78.10	306	154.10	28	225.10	222	334.30	92
79.10	301	155.30	100	226.20	50	335.10	9
80.20	133	156.20	208	227.05	421	341.20	4
81.10	200	157.10	32	227.95	15	345.90	5

Data File: /chem3/ITS8.i/083196.b/HB504.d

Date : 31-AUG-96 16:26

Client ID: ITS8 DFTPP 04-01-96 Instrument: ITS8.i

Sample Info:

Operator: Instrument ITS8

Column phase: DB-5 Column diameter: 0.25

Data File: HB504.d
Spectrum : Avg. Scans 250-252 (5.57), Background Scan 247
Largest m/z: 198.10
Number of peaks: 240

m/z	Y	m/z	Y	m/z	Y	m/z	Y
82.10	55	159.10	51	228.95	94	351.05	5
82.90	60	159.80	28	230.15	13	352.15	34
85.10	62	161.00	95	231.15	33	353.15	30
86.10	27	161.70	18	232.65	3	353.95	58
88.00	6	164.20	10	233.75	17	358.05	6
91.10	50	165.10	66	235.25	30	360.35	2
92.20	95	166.15	94	237.05	20	364.95	178
93.10	440	167.15	466	238.55	12	371.65	10
95.80	7	168.05	111	239.55	5	372.15	88
96.80	39	168.95	26	240.35	2	382.80	5
98.10	192	170.35	19	240.85	5	402.10	25
99.20	205	170.85	18	241.95	40	402.90	30
100.30	39	173.05	41	242.95	45	420.85	16
101.00	163	174.15	38	244.05	314	422.05	40
102.90	63	175.65	182	245.05	122	423.15	259
104.00	130	176.45	90	246.05	155	423.85	34
105.00	60	177.05	65	246.75	20	439.80	3
106.25	33	178.05	19	248.85	10	441.10	658
107.05	1058	179.15	244	251.85	20	442.10	4888
108.15	133	180.05	144	253.65	24	443.10	866
108.95	25	182.25	11	253.75	16	443.80	107
110.05	2719	183.25	21	255.05	3802	495.55	9
111.15	354	184.15	6	256.05	578		
114.95	17	185.15	130	257.10	47		
115.95	47	186.05	1192	258.10	138		
117.05	586	187.15	307	259.00	9		

Data File: /chem3/ITS8.i/090596B.b/HB581.d

Page 1

Date : 05-SEP-1996 22:14

Client ID: ITS8 DFTPP 04-01-96

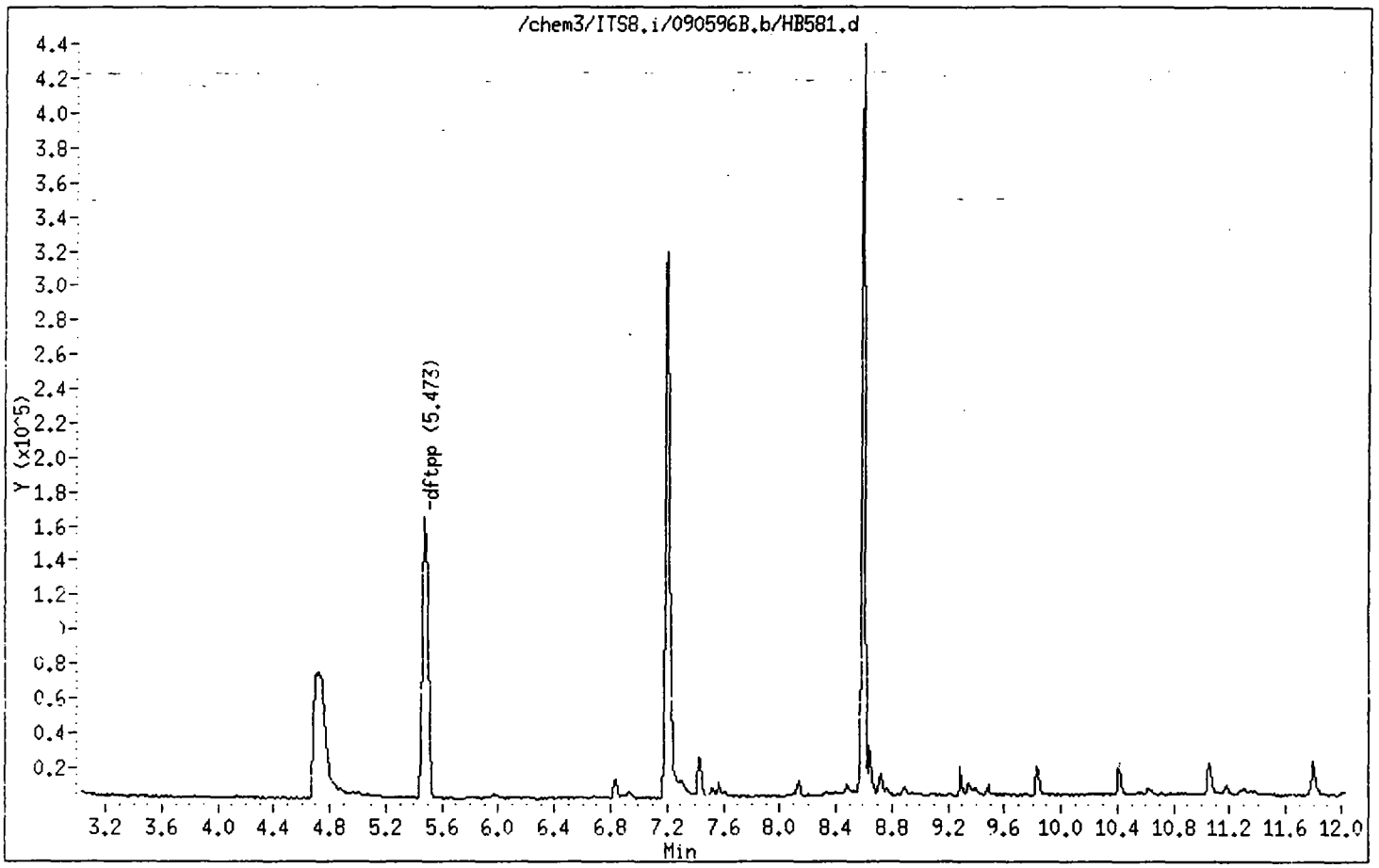
Instrument: ITS8.i

Sample Info: ITS8 DFTPP

Operator: Instrument ITS8

Column phase: DB-5

Column diameter: 0.25



Data File: /chem3/ITS8.i/090596B.b/HB581.d

Date : 05-SEP-1996 22:14

Client ID: ITS8 DFTPP 04-01-96

Instrument: ITS8.i

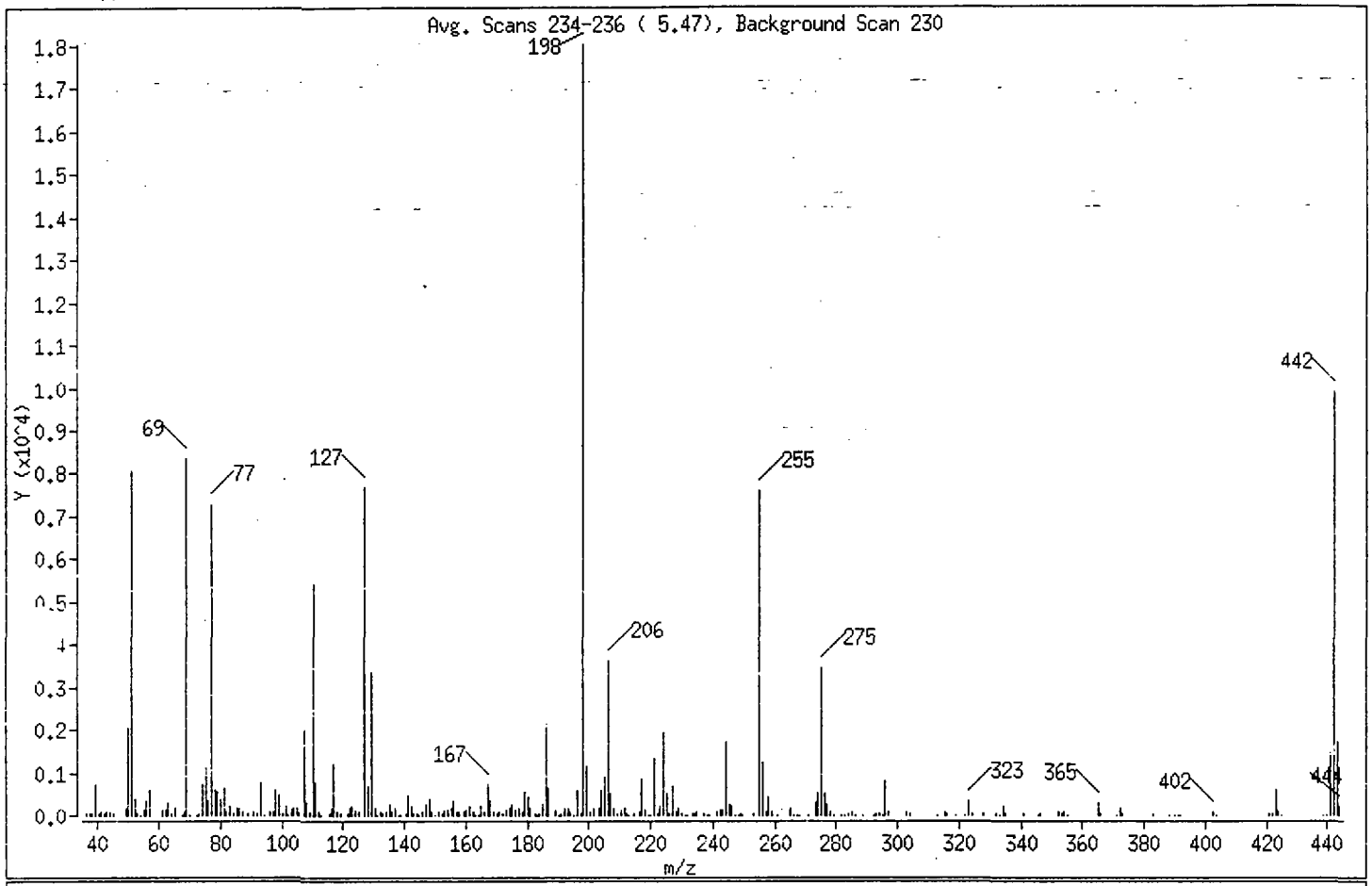
Sample Info: ITS8 DFTPP

Operator: Instrument ITS8

Column phase: DB-5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.57
68	Less than 2.00% of mass 69	0.50 (1.07)
69	Mass 69 relative abundance	46.41
70	Less than 2.00% of mass 69	0.11 (0.24)
127	40.00 - 60.00% of mass 198	42.47
197	Less than 1.00% of mass 198	0.31
199	5.00 - 9.00% of mass 198	6.42
275	10.00 - 30.00% of mass 198	19.24
365	Greater than 1.00% of mass 198	1.58
441	Present, but less than mass 443	8.12
442	40.00 - 110.00% of mass 198	54.73
443	17.00 - 23.00% of mass 442	9.36 (17.11)

Data File: /chem3/ITS8.i/090596B.b/HB581.d

Date : 05-SEP-1996 22:14

Client ID: ITS8 DFTPP 04-01-96 Instrument: ITS8.i

Sample Info: ITS8 DFTPP

Operator: Instrument ITS8

Column phase: DB-5 Column diameter: 0.25

Data File: HB581.d
Spectrum : Avg. Scans 234-236 (5.47), Background Scan 230
Largest m/z: 198.05
Number of peaks: 275

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	32	117.00	1202	188.90	146	267.95	9
37.10	38	117.80	91	190.10	9	271.15	14
38.00	56	119.10	36	191.00	62	272.95	319
39.00	724	121.40	22	192.10	179	274.05	574
40.10	28	122.10	170	193.00	180	275.05	3472
40.90	71	122.90	208	194.10	64	276.05	510
42.00	38	123.90	149	195.25	21	276.95	242
43.00	103	125.05	91	196.05	602	278.15	69
44.00	81	127.05	7662	197.15	56	279.05	11
44.80	32	128.05	673	198.05	18040	281.45	4
49.20	158	129.05	3364	199.05	1159	282.45	6
50.00	2032	130.15	168	200.05	105	282.75	17
51.00	8042	130.95	1	201.45	185	284.05	31
52.00	405	132.05	66	203.05	154	285.15	70
53.00	26	132.95	34	204.05	599	286.05	6
53.95	15	134.05	101	205.05	879	288.85	6
54.95	145	135.05	261	206.05	3645	292.05	9
55.95	341	135.95	103	207.05	532	292.95	36
57.05	604	136.95	180	208.05	187	294.05	25
61.05	116	137.95	8	208.95	25	295.05	21
62.05	122	138.85	20	210.55	109	296.05	808
63.05	297	140.35	34	211.35	187	296.85	101
63.95	43	141.05	469	212.25	60	303.00	101
65.15	156	142.05	192	213.05	21	304.10	28
67.55	7	143.05	63	214.65	23	313.10	8
67.95	90	143.95	30	214.85	45	315.20	82
69.05	8374	144.85	18	216.05	105	316.00	32
70.15	20	145.95	105	216.95	841	318.80	3
72.05	11	147.05	260	217.95	129	322.00	8
73.15	40	147.95	379	219.05	7	323.00	322
74.05	735	149.05	73	220.05	15	324.10	26
75.05	1103	150.05	14	221.05	1309	327.60	49
76.05	325	151.15	66	222.25	22	332.10	30
77.05	7285	152.05	60	222.85	200	333.10	15
78.05	581	152.95	130	224.05	1915	334.10	194

Data File: /chem3/ITS8.i/090596B.b/HB581.d

Date : 05-SEP-1996 22:14

Client ID: ITS8 DFTPP 04-01-96 Instrument: ITS8.i

Sample Info: ITS8 DFTPP

Operator: Instrument ITS8

Column phase: DB-5 Column diameter: 0.25

Data File: HB581.d
Spectrum : Avg. Scans 234-236 (5.47), Background Scan 230
Largest m/z: 198.05
Number of peaks: 275

m/z	Y	m/z	Y	m/z	Y	m/z	Y
78.95	557	154.15	111	225.05	520	334.70	28
79.95	385	155.05	185	225.95	42	341.05	32
81.05	619	156.15	322	226.95	678	345.65	16
82.05	90	156.85	80	227.95	106	346.05	41
83.15	194	157.85	82	228.95	152	352.15	90
84.15	38	159.50	74	230.00	33	353.15	56
85.35	153	160.10	140	231.40	2	353.95	88
85.95	166	161.00	205	231.90	5	354.75	1
87.05	74	162.20	82	233.50	39	364.95	285
89.00	23	163.00	4	234.00	51	365.95	60
91.00	85	164.10	8	235.00	84	371.20	17
92.00	55	165.00	203	237.00	44	372.20	166
93.10	757	166.00	95	238.00	13	373.00	52
94.10	21	167.10	745	238.80	11	382.60	10
96.20	103	168.00	348	241.00	64	382.80	33
97.30	65	169.00	75	242.20	145	388.10	3
98.10	607	170.10	60	243.10	110	389.80	9
99.00	457	170.90	79	244.10	1691	391.20	13
100.00	42	172.00	63	245.10	249	391.90	13
101.10	220	173.20	121	246.10	208	402.20	70
102.10	11	174.10	153	247.10	19	402.70	64
102.90	133	175.00	254	248.10	14	403.90	18
104.00	175	175.90	111	248.90	47	420.85	59
105.10	162	177.10	190	249.70	11	422.05	36
105.80	28	178.20	67	252.90	43	423.05	595
107.10	2014	179.00	539	255.00	7599	424.05	89
108.10	294	180.00	423	256.00	1232	424.75	6
109.10	98	181.00	188	257.00	68	438.45	5
110.00	5433	182.60	33	258.00	413	440.05	7
111.00	767	182.90	11	258.90	98	440.95	1465
112.10	99	183.80	23	260.80	14	442.00	9874
112.70	8	185.10	257	264.90	161	443.10	1689
115.40	22	186.10	2151	266.05	9	444.10	213
116.10	158	187.00	644	267.25	9		

Data File: /chem3/ITS8.i/090796.b/HB622.d

Date : 07-SEP-96 17:41

Client ID: ITS8 DFTPP 04-01-96

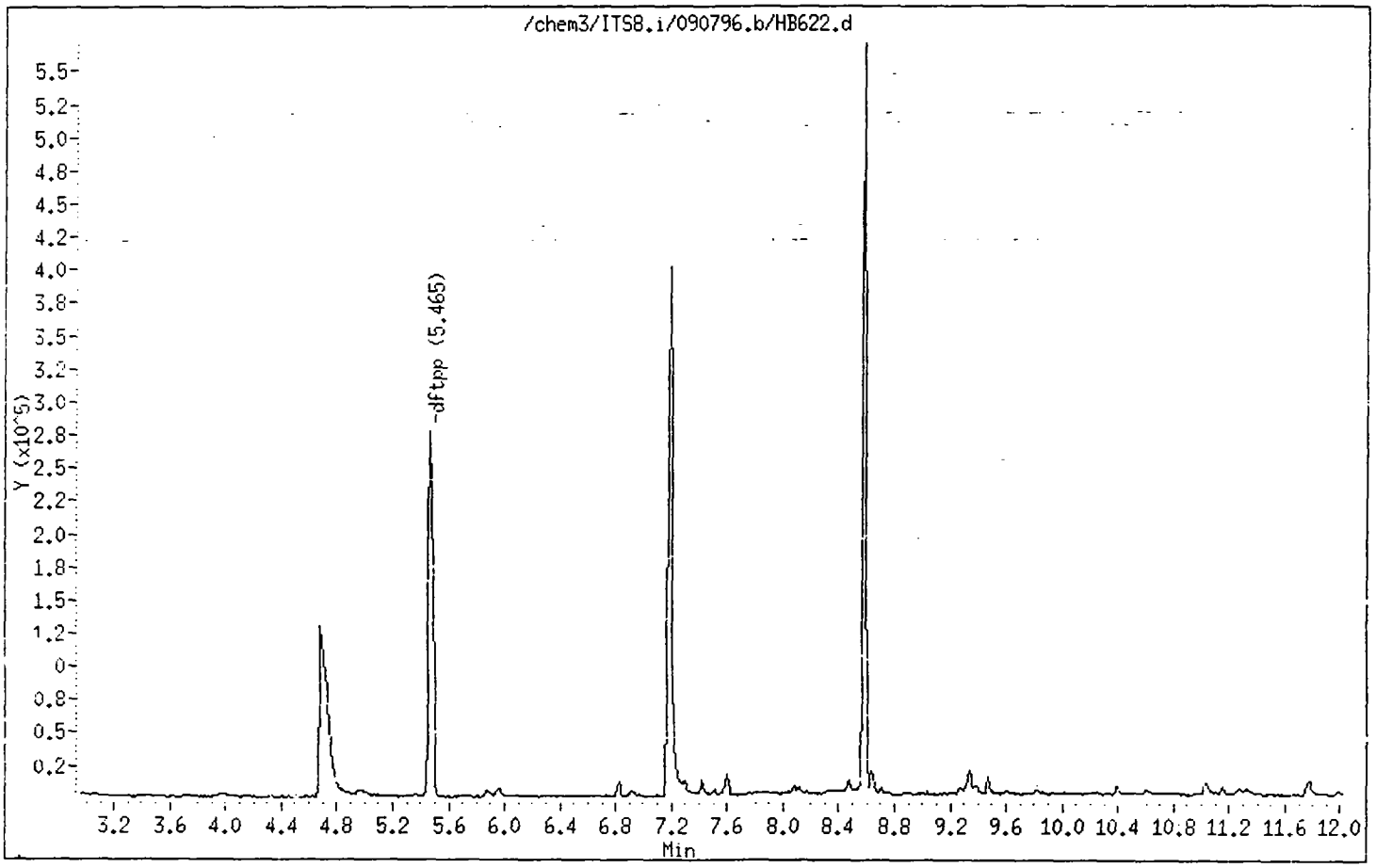
Instrument: ITS8.i

Sample Info:

Operator: Instrument ITS8

Column phase: DB-5

Column diameter: 0.25



Data File: /chem3/ITS8.i/090796.b/HB622.d

Date : 07-SEP-96 17:41

Client ID: ITS8 DFTPP 04-01-96

Instrument: ITS8.i

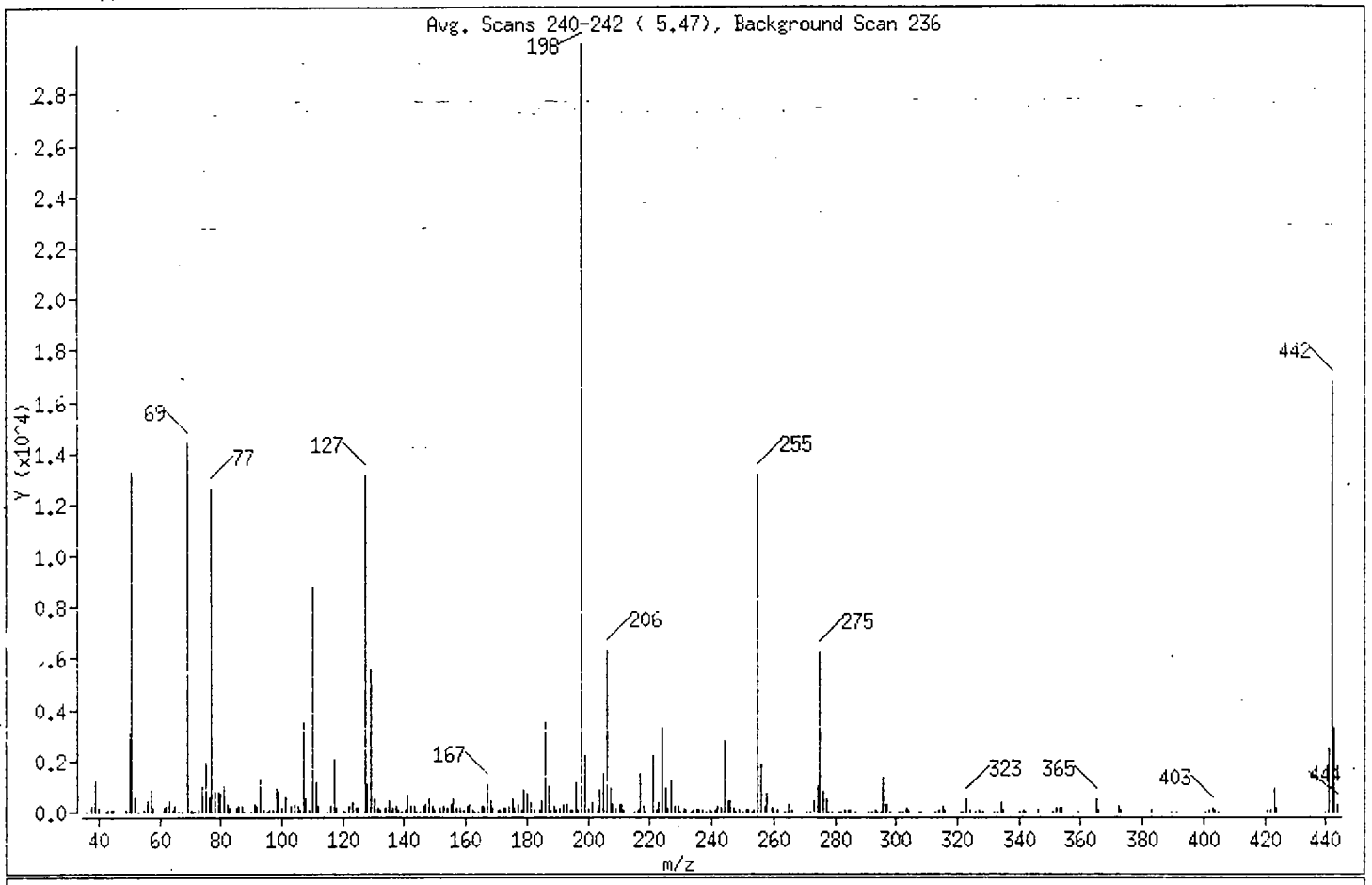
Sample Info:

Operator: Instrument ITS8

Column phase: DB-5

Column diameter: 0.25

1 dftpp



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	30.00 - 60.00% of mass 198	44.25
68	Less than 2.00% of mass 69	0.00 (0.00)
69	Mass 69 relative abundance	48.00
70	Less than 2.00% of mass 69	0.16 (0.34)
127	40.00 - 60.00% of mass 198	43.75
197	Less than 1.00% of mass 198	0.21
199	5.00 - 9.00% of mass 198	7.44
275	10.00 - 30.00% of mass 198	20.85
365	Greater than 1.00% of mass 198	1.72
441	Present, but less than mass 443	8.24
442	40.00 - 110.00% of mass 198	56.02
443	17.00 - 23.00% of mass 442	10.90 (19.45)

Data File: /chem3/ITS8.i/090796.b/HB622.d

Date : 07-SEP-96 17:41

Client ID: ITS8 DFTPP 04-01-96 Instrument: ITS8.i

Sample Info:

Operator: Instrument ITS8

Column phase: DB-5 Column diameter: 0.25

Data File: HB622.d
Spectrum : Avg. Scans 240-242 (5.47), Background Scan 236
Largest m/z: 198.05
Number of peaks: 283

m/z	Y	m/z	Y	m/z	Y	m/z	Y
35.80	18	121.90	206	195.05	62	275.95	796
38.00	248	123.00	327	196.15	1116	277.05	518
39.10	1182	124.05	150	196.75	63	277.85	30
40.10	119	125.15	166	198.05	29944	279.05	6
42.40	4	127.05	13102	199.05	2229	281.35	8
43.20	64	128.05	1035	199.95	127	281.85	11
44.00	61	129.05	5519	201.65	330	282.95	55
45.00	53	130.05	467	203.05	155	284.35	48
49.20	72	131.15	139	204.05	829	285.15	103
50.10	3070	132.05	60	205.05	1489	286.55	26
51.00	13253	133.55	54	206.05	6332	290.95	3
52.10	588	134.05	131	207.05	947	291.95	24
53.10	18	134.95	461	208.05	262	293.05	96
55.15	50	136.05	176	208.95	113	293.95	13
56.05	426	137.15	188	210.55	275	295.05	30
57.15	851	137.75	64	210.85	271	295.95	1334
57.95	133	139.05	20	211.75	41	297.05	273
61.25	159	140.15	82	214.85	30	297.85	12
62.05	196	140.95	674	215.95	37	301.10	2
63.15	428	141.95	234	216.95	1497	302.30	18
64.15	100	143.05	214	217.95	203	303.10	175
65.15	247	144.05	33	218.75	4	304.00	52
66.15	16	144.95	26	221.05	2230	307.60	5
67.25	31	146.25	182	221.95	87	308.00	20
69.05	14376	146.95	300	222.95	322	313.00	5
70.15	49	148.05	494	224.05	3298	313.90	45
71.15	23	148.95	179	225.05	892	315.00	193
71.85	15	150.05	54	225.95	119	316.00	93
72.95	70	151.65	148	226.95	1223	320.90	7
74.05	980	151.85	75	227.95	226	322.00	30
75.05	1914	152.95	197	229.05	201	323.00	488
76.15	535	154.05	153	230.00	35	324.10	84
77.05	12660	155.05	313	231.10	138	326.00	9
78.05	784	156.05	507	231.90	36	326.90	60
79.05	769	157.15	140	233.20	18	328.00	33

Data File: /chem2/ITS3.i/07Sep1996.b/fd254.d

Date : 07-SEP-96 16:26

Client ID: ITS3 DFTPP 04-01-96

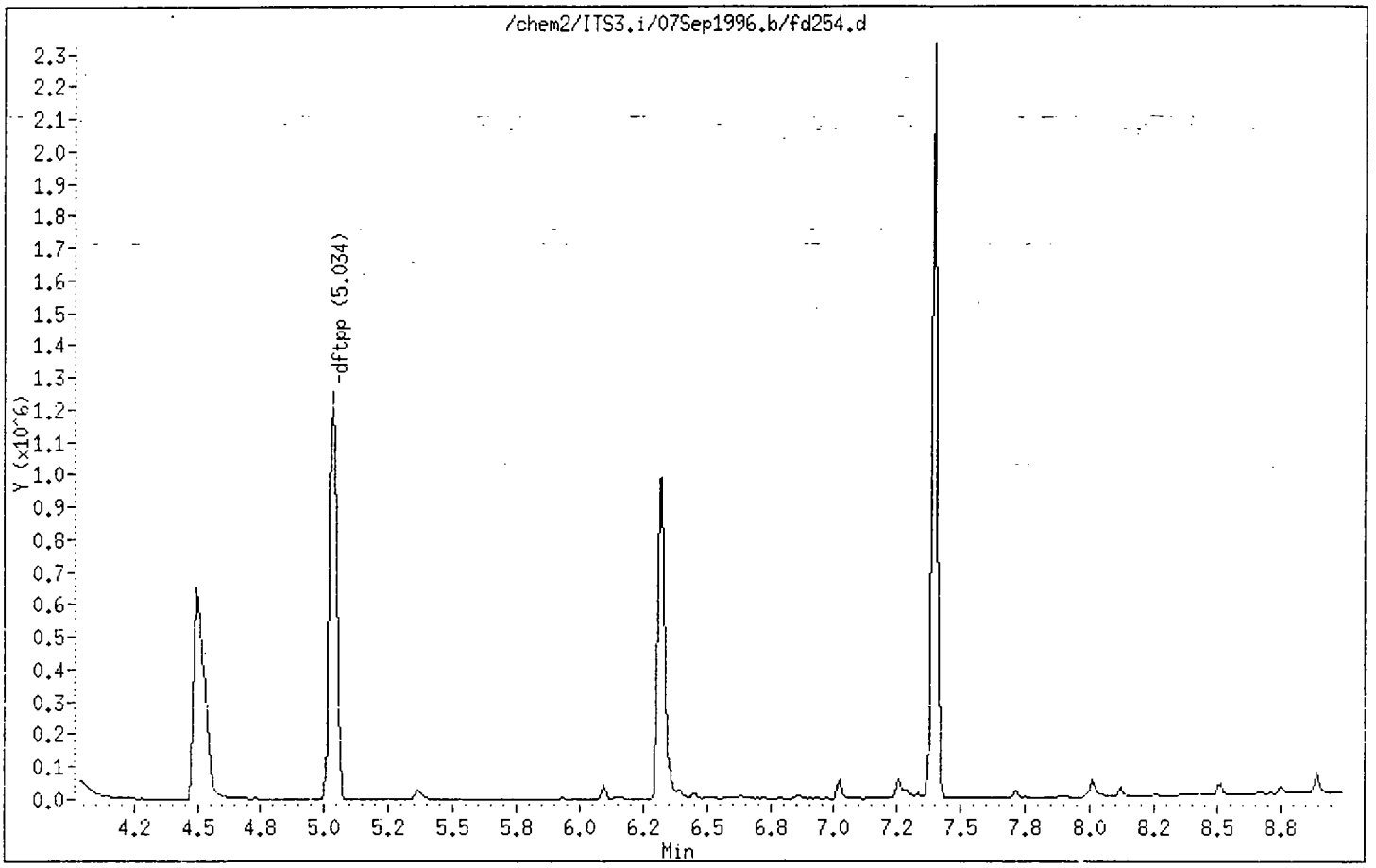
Instrument: ITS3.i

Sample Info: 50ug/mL 04-01-96 AB396-62-2 (exp 4/97)

Operator: Instrument ITS3

Column phase: DB-5

Column diameter: 0.25



FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

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

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB625

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/07/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
62-75-9	N-Nitrosodimethylamine	0.330	U
62-53-3	Aniline	0.330	U
108-95-2	Phenol	0.330	U
111-44-4	Bis(2-chloroethyl)ether	0.330	U
95-57-8	2-Chlorophenol	0.330	U
541-73-1	1,3-Dichlorobenzene	0.330	U
106-46-7	1,4-Dichlorobenzene	0.330	U
100-51-6	Benzyl alcohol	0.650	U
95-50-1	1,2-Dichlorobenzene	0.330	U
95-48-7	2-Methylphenol	0.330	U
39638-32-9	Bis(2-chloroisopropyl)ether	0.330	U
106-44-5	4-Methylphenol	0.330	U
621-64-7	N-Nitrosodi-n-propylamine	0.330	U
67-72-1	Hexachloroethane	0.330	U
98-95-3	Nitrobenzene	0.330	U
78-59-1	Isophorone	0.330	U
88-75-5	2-Nitrophenol	0.330	U
105-67-9	2,4-Dimethylphenol	0.330	U
111-91-1	Bis(2-chloroethoxy)methane	0.330	U
65-85-0	Benzoic acid	0.800	U
120-83-2	2,4-Dichlorophenol	0.330	U
120-82-1	1,2,4-Trichlorobenzene	0.330	U
91-20-3	Naphthalene	0.330	U
106-47-8	4-Chloroaniline	0.330	U
87-68-3	Hexachlorobutadiene	0.330	U
59-50-7	4-Chloro-3-methylphenol	0.650	U
91-57-6	2-Methylnaphthalene	0.330	U
77-47-4	Hexachlorocyclopentadiene	0.330	U
88-06-2	2,4,6-Trichlorophenol	0.330	U
95-95-4	2,4,5-Trichlorophenol	1.65	U
91-58-7	2-Chloronaphthalene	0.330	U
88-74-4	2-Nitroaniline	1.65	U
131-11-3	Dimethylphthalate	0.330	U

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

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

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB625

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/07/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
208-96-8	Acenaphthylene	0.330	U
606-20-2	2,6-Dinitrotoluene	0.330	U
99-09-2	3-Nitroaniline	1.65	U
83-32-9	Acenaphthene	0.330	U
51-28-5	2,4-Dinitrophenol	0.330	U
132-64-9	Dibenzofuran	0.330	U
100-02-7	4-Nitrophenol	0.800	U
121-14-2	2,4-Dinitrotoluene	0.330	U
84-66-2	Diethylphthalate	0.330	U
86-73-7	Fluorene	0.330	U
7005-72-3	4-Chlorophenyl phenyl ether	0.330	U
100-01-6	4-Nitroaniline	1.65	U
534-52-1	4,6-Dinitro-2-methylphenol	1.65	U
86-30-6	N-Nitrosodiphenylamine (1)	0.330	U
103-33-3	1,2-Diphenylhydrazine	0.330	U
101-55-3	4-Bromophenyl phenyl ether	0.330	U
118-74-1	Hexachlorobenzene	0.330	U
87-86-5	Pentachlorophenol	1.65	U
92875	Benzidine	1.67	U
85-01-8	Phenanthrene	0.330	U
120-12-7	Anthracene	0.330	U
86-74-8	Carbazole	0.330	U
84-74-2	Di-n-butylphthalate	0.330	U
206-44-0	Fluoranthene	0.330	U
129-00-0	Pyrene	0.330	U
85-68-7	Butyl benzyl phthalate	0.330	U
56-55-3	Benzo(a)anthracene	0.330	U
91-94-1	3,3'-Dichlorobenzidine	1.30	U
218-01-9	Chrysene	0.330	U
117-81-7	Bis(2-ethylhexyl)phthalate	0.330	U
117-84-0	Di-n-octylphthalate	0.330	U
205-99-2	Benzo(b)fluoranthene	0.330	U
207-08-9	Benzo(k)fluoranthene	0.330	U

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

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

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB625

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/07/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
50-32-8	Benzo(a)pyrene	0.330	U
193-39-5	Indeno(1,2,3-cd)pyrene	0.330	U
53-70-3	Dibenz(a,h)anthracene	0.330	U
191-24-2	Benzo(g,h,i)perylene	0.330	U

FORM 1

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CLIENT SAMPLE NO.

BLK

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

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

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB625

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

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

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/07/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
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14.					
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16.					
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18.					
19.					
20.					
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25.					
26.					
27.					
28.					
29.					
30.					

Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/090796.b/HB625.d
Lab Smp Id: 3550 BLANK Client Smp ID: 3550 BLANK
Inj Date : 07-SEP-1996 19:47
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : 30/1 EX 09-03-96
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll Quant Type: ISTD
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/Kg)
$	3 2-Fluorophenol (SS)	112.00	3.508	3.509	(0.648)	149058	56.4	1.88
$	4 Phenol-d6 (SS)	99.00	4.893	4.893	(0.904)	194321	61.1	2.04
*	10 1,4-Dichlorobenzene-d4	152.00	5.414	5.415	(1.000)	81143	40.0	
$	Nitrobenzene-d5 (SS)	82.00	6.392	6.407	(0.831)	92741	31.7	1.06
*	29 Naphthalene-d8	136.00	7.693	7.701	(1.000)	305141	40.0	
$	38 2-Fluorobiphenyl (SS)	172.00	9.879	9.884	(0.884)	231559	34.9	1.16
*	45 Acenaphthene-d10	164.00	11.170	11.179	(1.000)	189924	40.0	
$	58 2,4,6-Tribromophenol (SS)	330.00	12.856	12.873	(1.151)	50555	53.1	1.77
*	62 Phenanthrene-d10	188.00	14.844	14.857	(1.000)	344462	40.0	
$	70 Terphenyl-d14 (SS)	244.00	19.166	19.175	(0.895)	246856	34.3	1.14
*	74 Chrysene-d12	240.00	21.407	21.429	(1.000)	268412	40.0	
*	81 Perylene-d12	264.00	24.211	24.226	(1.000)	252988	40.0	

ANALYST 9-5-96 Date

REVIEW Date

DATA ENTRY Date

High Surrogates in BS, Regular 8270 Calibration
WSW Sept 12

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem3/ITS8.i/090796.b/HB625.d
Lab Smp Id: 3550 BLANK Client Smp ID: 3550 BLANK
Inj Date : 07-SEP-1996 19:47
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : 30/1 EX 09-03-96
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: ITS8.i
Lab File ID: HB625.d
Lab Smp Id: 3550 BLANK
Analysis Type: SV
Quant Type: ISTD
Operator: VDLITTLE
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/1 EX 09-03-96

Calibration Date: 09/07/96
Calibration Time: 1834
Client Smp ID: 3550 BLANK
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	88252	44126	176504	81143	-8.06
29 Naphthalene-d8	339046	169523	678092	305141	-10.00
45 Acenaphthene-d10	191883	95942	383766	189924	-1.02
62 Phenanthrene-d10	349685	174842	699370	344462	-1.49
74 Chrysene-d12	255574	127787	511148	268412	5.02
81 Perylene-d12	273737	136868	547474	252988	-7.58

OMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	5.41	4.91	5.91	5.41	-0.02
29 Naphthalene-d8	7.70	7.20	8.20	7.69	-0.10
45 Acenaphthene-d10	11.18	10.68	11.68	11.17	-0.08
62 Phenanthrene-d10	14.86	14.36	15.36	14.84	-0.09
74 Chrysene-d12	21.43	20.93	21.93	21.41	-0.10
81 Perylene-d12	24.23	23.73	24.73	24.21	-0.06

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

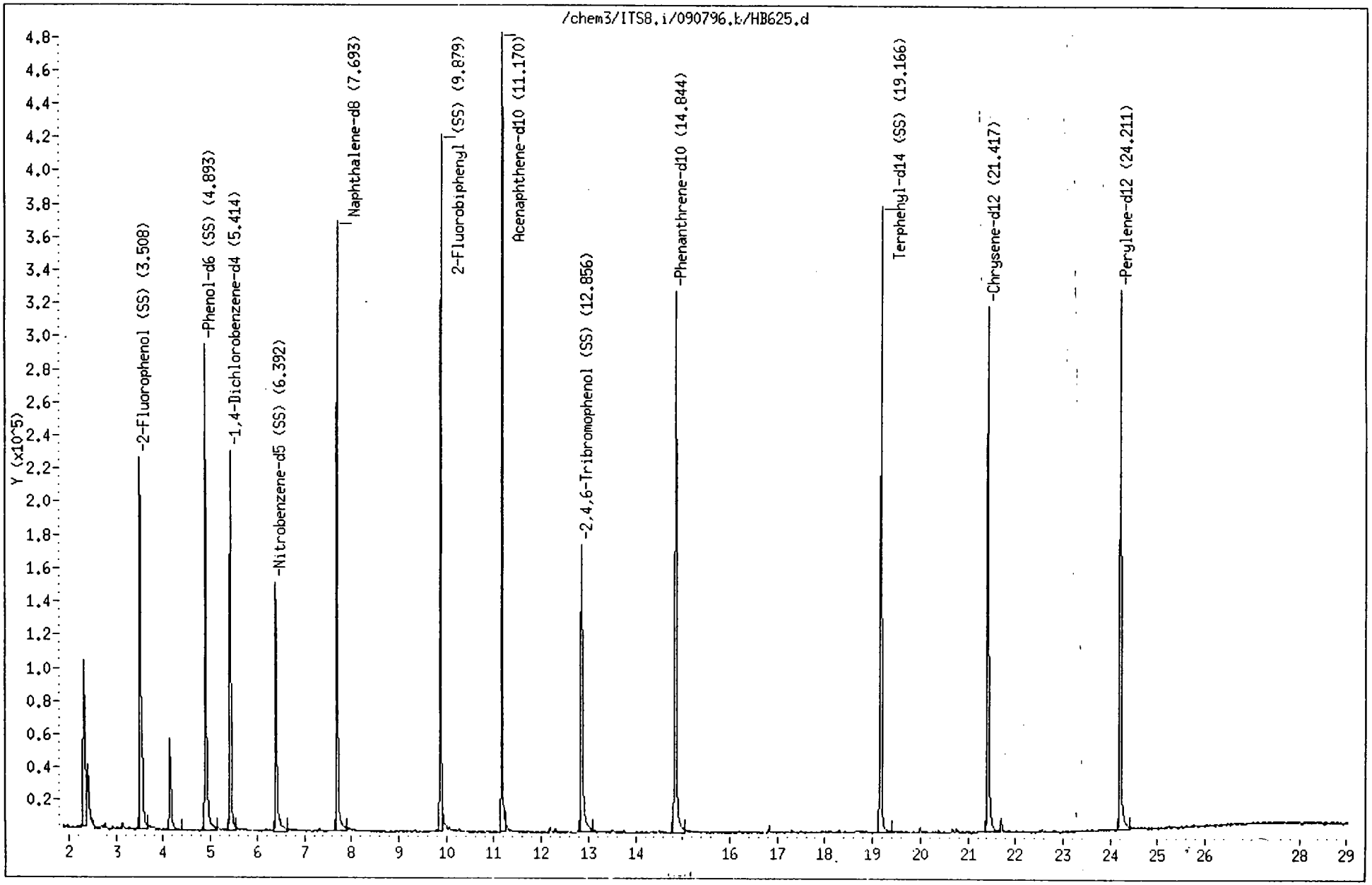
Client Name:
Sample Matrix: SOLID
Lab Smp Id: 3550 BLANK
Level: LOW
Data Type: MS DATA
SpikeList File: 8270_100.spk
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/1 EX 09-03-96

Client SDG: 090796
Fraction: SV
Client Smp ID: 3550 BLANK
Operator: VDLITTLE
SampleType: BLANK
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
$ 3 2-Fluorophenol (SS	3.33	1.88	56.42	25-121
$ 4 Phenol-d6 (SS)	3.33	2.04	61.10	24-113
$ 19 Nitrobenzene-d5 (S	1.67	1.06	63.49	23-120
$ 38 2-Fluorobiphenyl (	1.67	1.16	69.87	30-115
$ 58 2,4,6-Tribromophen	3.33	1.77	53.14	19-122
$ 70 Terphenyl-d14 (SS)	1.67	1.14	68.70	18-137

Data File: /chem3/ITS8.i/090796.b/HB625.d
Date : 07-SEP-1996 19:47
Client ID: 3550 BLANK
Sample Info: 8270_ABN_S;;AB848-83;1
Volume Injected (uL): 1.0
Column phase: DB-5

Instrument: ITS8.i
Operator: VDLITTLE
Column diameter: 0.25



FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-2MS

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2MS

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB638

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
62-75-9	N-Nitrosodimethylamine	2.37	
62-53-3	Aniline	0.155	J
108-95-2	Phenol	2.66	
111-44-4	Bis(2-chloroethyl)ether	2.46	
95-57-8	2-Chlorophenol	2.60	
541-73-1	1,3-Dichlorobenzene	2.56	
106-46-7	1,4-Dichlorobenzene	2.50	
100-51-6	Benzyl alcohol	3.17	
95-50-1	1,2-Dichlorobenzene	2.52	
95-48-7	2-Methylphenol	1.59	
39638-32-9	Bis(2-chloroisopropyl)ether	2.56	
106-44-5	4-Methylphenol	1.59	
621-64-7	N-Nitrosodi-n-propylamine	2.56	
67-72-1	Hexachloroethane	2.57	
98-95-3	Nitrobenzene	2.78	
78-59-1	Isophorone	2.98	
88-75-5	2-Nitrophenol	2.84	
105-67-9	2,4-Dimethylphenol	0.202	J
111-91-1	Bis(2-chloroethoxy)methane	2.44	
65-85-0	Benzoic acid	0.621	J
120-83-2	2,4-Dichlorophenol	2.66	
120-82-1	1,2,4-Trichlorobenzene	2.87	
91-20-3	Naphthalene	2.59	
106-47-8	4-Chloroaniline	0.559	
87-68-3	Hexachlorobutadiene	2.99	
59-50-7	4-Chloro-3-methylphenol	2.55	
91-57-6	2-Methylnaphthalene	3.38	
77-47-4	Hexachlorocyclopentadiene	2.22	
88-06-2	2,4,6-Trichlorophenol	2.56	
95-95-4	2,4,5-Trichlorophenol	2.80	
91-58-7	2-Chloronaphthalene	2.63	
88-74-4	2-Nitroaniline	2.41	
131-11-3	Dimethylphthalate	2.46	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-2MS

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2MS

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB638

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
208-96-8	Acenaphthylene	2.23	
606-20-2	2,6-Dinitrotoluene	2.53	
99-09-2	3-Nitroaniline	0.760	J
83-32-9	Acenaphthene	2.25	
51-28-5	2,4-Dinitrophenol	0.517	
132-64-9	Dibenzofuran	2.52	
100-02-7	4-Nitrophenol	2.68	
121-14-2	2,4-Dinitrotoluene	2.81	
84-66-2	Diethylphthalate	2.32	
86-73-7	Fluorene	2.23	
7005-72-3	4-Chlorophenyl phenyl ether	2.39	
100-01-6	4-Nitroaniline	0.449	J
534-52-1	4,6-Dinitro-2-methylphenol	2.09	
86-30-6	N-Nitrosodiphenylamine (1)	2.49	
103-33-3	1,2-Diphenylhydrazine	2.24	
101-55-3	4-Bromophenyl phenyl ether	2.54	
118-74-1	Hexachlorobenzene	3.03	
87-86-5	Pentachlorophenol	1.80	
92875	Benzidine	1.67	U
85-01-8	Phenanthrene	3.05	
120-12-7	Anthracene	2.38	
86-74-8	Carbazole	1.90	
84-74-2	Di-n-butylphthalate	2.12	
206-44-0	Fluoranthene	2.51	
129-00-0	Pyrene	3.14	
85-68-7	Butyl benzyl phthalate	2.66	
56-55-3	Benzo(a)anthracene	2.96	
91-94-1	3,3'-Dichlorobenzidine	0.227	J
218-01-9	Chrysene	2.78	
117-81-7	Bis(2-ethylhexyl)phthalate	2.63	
117-84-0	Di-n-octylphthalate	2.77	
205-99-2	Benzo(b)fluoranthene	3.52	
207-08-9	Benzo(k)fluoranthene	2.81	E

(1) - Cannot be separated from Diphenylamine

AH 10/14

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-2MS

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2MS

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB638

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
50-32-8	Benzo(a)pyrene	2.85	
193-39-5	Indeno(1,2,3-cd)pyrene	2.48	
53-70-3	Dibenz(a,h)anthracene	2.44	
191-24-2	Benzo(g,h,i)perylene	2.44	

Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/090796.b/HB638.d
Lab Smp Id: D96-9653-2MS Client Smp ID: D96-9653-2MS
Inj Date : 08-SEP-1996 03:44
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : 30/1 EX 09-03-96
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll Quant Type: ISTD
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/Kg)
	1 N-Nitrosodimethylamine	74.00	2.123	2.114	(0.392)	116165	71.0	2.37
	2 Pyridine	79.00	2.363	2.527	(0.436)	10290		(aQ)
$	3 2-Fluorophenol (SS)	112.00	3.522	3.509	(0.650)	180090	69.0	2.30
	Phenol-d6 (SS)	99.00	4.912	4.893	(0.907)	237427	75.6	2.52
	5 Aniline	93.00	4.933	4.909	(0.911)	17038	4.64	0.155(aQM)
	6 Phenol	94.00	4.944	4.924	(0.913)	257834	79.7	2.66(QM)
	7 Bis(2-chloroethyl)ether	93.00	5.059	5.049	(0.934)	196169	73.7	2.46
	8 2-Chlorophenol	128.00	5.090	5.081	(0.940)	218028	77.9	2.60
	9 1,3-Dichlorobenzene	146.00	5.321	5.310	(0.983)	253887	76.8	2.56
*	10 1,4-Dichlorobenzene-d4	152.00	5.415	5.415	(1.000)	80164	40.0	
	11 1,4-Dichlorobenzene	146.00	5.446	5.446	(1.006)	248733	75.1	2.50
	12 Benzyl alcohol	108.00	5.719	5.707	(1.056)	140893	95.1	3.17
	13 1,2-Dichlorobenzene	146.00	5.698	5.686	(1.052)	233599	75.7	2.52
	14 2-Methylphenol	108.00	5.928	5.926	(1.095)	109302	47.6	1.59
	15 Bis(2-chloroisopropyl)ether	45.00	5.949	5.989	(1.099)	354857	76.9	2.56(QM)
	16 N-Nitrosodi-n-propylamine	70.00	6.201	6.197	(1.145)	158067	76.9	2.56
	17 4-Methylphenol	108.00	6.222	6.218	(1.149)	115043	47.8	1.59
	18 Hexachloroethane	117.00	6.264	6.260	(1.157)	101220	77.1	2.57
$	19 Nitrobenzene-d5 (SS)	82.00	6.411	6.407	(0.831)	128018	44.1	1.47
	20 Nitrobenzene	77.00	6.453	6.448	(0.837)	232621	83.6	2.78
	21 Isophorone	82.00	6.914	6.907	(0.897)	474794	89.5	2.98
	22 2-Nitrophenol	139.00	7.029	7.022	(0.912)	148608	85.4	2.84
	23 2,4-Dimethylphenol	107.00	7.187	7.178	(0.932)	15206	6.06	0.202(aQM)
	24 m,p-Cresol	108.00	6.222	6.797	(1.149)	115043		(aQ)
	25 Bis(2-chloroethoxy)methane	93.00	7.365	7.356	(0.955)	254239	73.3	2.44
	26 Benzoic acid	122.00	7.460	7.544	(0.967)	24306	18.6	0.621(a)
	27 2,4-Dichlorophenol	162.00	7.502	7.492	(0.973)	203294	79.6	2.66
	28 1,2,4-Trichlorobenzene	180.00	7.617	7.618	(0.988)	237978	86.2	2.87
*	29 Naphthalene-d8	136.00	7.712	7.701	(1.000)	303260	40.0	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/Kg)
	30 Naphthalene	128.00	7.754	7.743	(1.005)	547547	77.7	2.59
	31 4-Chloroaniline	127.00	7.943	7.905	(1.030)	54596	16.8	0.559
	32 Hexachlorobutadiene	225.00	8.017	8.005	(1.040)	142627	89.8	2.99
	33 4-Chloro-3-methylphenol	107.00	8.941	8.932	(1.159)	203057	76.4	2.55
	34 2-Methylnaphthalene	142.00	9.120	9.110	(1.183)	499942	102	3.38
	35 Hexachlorocyclopentadiene	237.00	9.426	9.424	(0.843)	88710	66.4	2.22
	36 2,4,6-Trichlorophenol	196.00	9.721	9.717	(0.869)	156165	76.7	2.56
	37 2,4,5-Trichlorophenol	196.00	9.795	9.780	(0.876)	180990	83.9	2.80
$	38 2-Fluorobiphenyl (SS)	172.00	9.889	9.884	(0.884)	273025	41.0	1.37
	39 2-Chloronaphthalene	162.00	10.079	10.073	(0.901)	460539	79.0	2.63
	40 2-Nitroaniline	65.00	10.364	10.349	(0.926)	143243	72.2	2.41
	41 Dimethylphthalate	163.00	10.785	10.771	(0.964)	507310	73.7	2.46
	42 2,6-Dinitrotoluene	165.00	10.901	10.876	(0.975)	121236	76.0	2.53
	43 Acenaphthylene	152.00	10.901	10.887	(0.975)	546839	67.0	2.23
	44 3-Nitroaniline	138.00	11.207	11.192	(1.002)	38815	22.8	0.760(a)
*	45 Acenaphthene-d10	164.00	11.186	11.179	(1.000)	190746	40.0	
	46 Acenaphthene	153.00	11.260	11.252	(1.007)	374550	67.4	2.25
	47 2,4-Dinitrophenol	184.00	11.471	11.440	(1.025)	13647	15.5	0.517
	48 4-Nitrophenol	109.00	11.682	11.639	(1.044)	38934	80.4	2.68(QM)
	49 Dibenzofuran	168.00	11.619	11.607	(1.039)	613257	75.5	2.52
	50 2,4-Dinitrotoluene	165.00	11.714	11.691	(1.047)	201461	84.3	2.81
	51 Diethylphthalate	149.00	12.242	12.224	(1.094)	482085	69.4	2.32
	52 Fluorene	166.00	12.326	12.307	(1.102)	432452	67.0	2.23
	53 4-Chlorophenyl phenyl ether	204.00	12.379	12.370	(1.107)	235200	71.7	2.39
	54 4-Nitroaniline	138.00	12.464	12.451	(1.114)	24893	13.5	0.449(a)
	55 4,6-Dinitro-2-methylphenol	198.00	12.580	12.548	(0.846)	76139	62.6	2.09
	56 N-Nitrosodiphenylamine	169.00	12.686	12.674	(0.853)	313148	74.6	2.49
	57 1,2-Diphenylhydrazine	77.00	12.749	12.733	(0.858)	461904	67.3	2.24
$	58 2,4,6-Tribromophenol (SS)	330.00	12.887	12.873	(1.152)	67389	70.5	2.35
	59 4-Bromophenyl phenyl ether	248.00	13.607	13.593	(0.915)	126880	76.4	2.54
	60 Hexachlorobenzene	284.00	13.702	13.677	(0.922)	185172	90.9	3.03
	61 Pentachlorophenol	266.00	14.391	14.365	(0.968)	53789	53.9	1.80
*	62 Phenanthrene-d10	188.00	14.867	14.857	(1.000)	335316	40.0	
	63 Phenanthrene	178.00	14.952	14.931	(1.006)	780122	91.5	3.05
	64 Anthracene	178.00	15.100	15.077	(1.016)	615748	71.2	2.38
	65 Carbazole	167.00	15.651	15.645	(1.053)	512328	57.1	1.90
	66 Di-n-butylphthalate	149.00	16.851	16.839	(1.133)	650399	63.6	2.12
	67 Fluoranthene	202.00	18.147	18.120	(1.221)	686519	75.2	2.51
	69 Pyrene	202.00	18.669	18.653	(0.871)	727738	94.4	3.14
$	70 Terphenyl-d14 (SS)	244.00	19.170	19.175	(0.894)	272247	50.3	1.68
	71 Butyl benzyl phthalate	149.00	20.407	20.395	(0.952)	335907	79.9	2.66
	72 3,3'-Dichlorobenzidine	252.00	21.466	21.432	(1.001)	15898	6.82	0.227(aQM)
	73 Benzo(a)anthracene	228.00	21.423	21.407	(0.999)	577037	88.9	2.96
*	74 Chrysene-d12	240.00	21.445	21.429	(1.000)	202036	40.0	
	75 Chrysene	228.00	21.509	21.482	(1.003)	536048	83.4	2.78
	76 Bis(2-ethylhexyl)phthalate	149.00	21.723	21.713	(1.013)	433781	79.0	2.63
	77 Di-n-octylphthalate	149.00	23.010	23.010	(0.949)	543326	83.0	2.77
	78 Benzo(b)fluoranthene	252.00	23.569	23.544	(0.972)	522130	106	3.52
	79 Benzo(k)fluoranthene	252.00	23.622	23.596	(0.975)	465157	84.3	2.81

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/Kg)
80 Benzo(a)pyrene	252.00	24.150	24.120	(0.996)	389626	85.4	2.85
* 81 Perylene-d12	264.00	24.236	24.226	(1.000)	170868	40.0	
82 Indeno(1,2,3-cd)pyrene	276.00	26.109	26.080	(1.077)	367019	74.5	2.48
83 Dibenz(a,h)anthracene	278.00	26.131	26.112	(1.078)	294805	73.3	2.44
84 Benzo(g,h,i)perylene	276.00	26.540	26.522	(1.095)	294944	73.1	2.44

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem3/ITS8.i/090796.b/HB638.d
Lab Smp Id: D96-9653-2MS Client Smp ID: D96-9653-2MS
Inj Date : 08-SEP-1996 03:44
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : 30/1 EX 09-03-96
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: ITS8.i
Lab File ID: HB638.d
Lab Smp Id: D96-9653-2MS
Analysis Type: SV
Quant Type: ISTD
Operator: VDLITTLE
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/1 EX 09-03-96

Calibration Date: 09/07/96
Calibration Time: 1834
Client Smp ID: D96-9653-2MS
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	88252	44126	176504	80164	-9.16
29 Naphthalene-d8	339046	169523	678092	303260	-10.55
45 Acenaphthene-d10	191883	95942	383766	190746	-0.59
62 Phenanthrene-d10	349685	174842	699370	335316	-4.11
74 Chrysene-d12	255574	127787	511148	202036	-20.95
81 Perylene-d12	273737	136868	547474	170868	-37.58

OMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	5.41	4.91	5.91	5.41	0.00
29 Naphthalene-d8	7.70	7.20	8.20	7.71	0.13
45 Acenaphthene-d10	11.18	10.68	11.68	11.19	0.07
62 Phenanthrene-d10	14.86	14.36	15.36	14.87	0.07
74 Chrysene-d12	21.43	20.93	21.93	21.44	0.08
81 Perylene-d12	24.23	23.73	24.73	24.24	0.04

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: D96-9653-2MS
Level: LOW
Data Type: MS DATA
SpikeList File: 8270_100.spk
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/1 EX 09-03-96

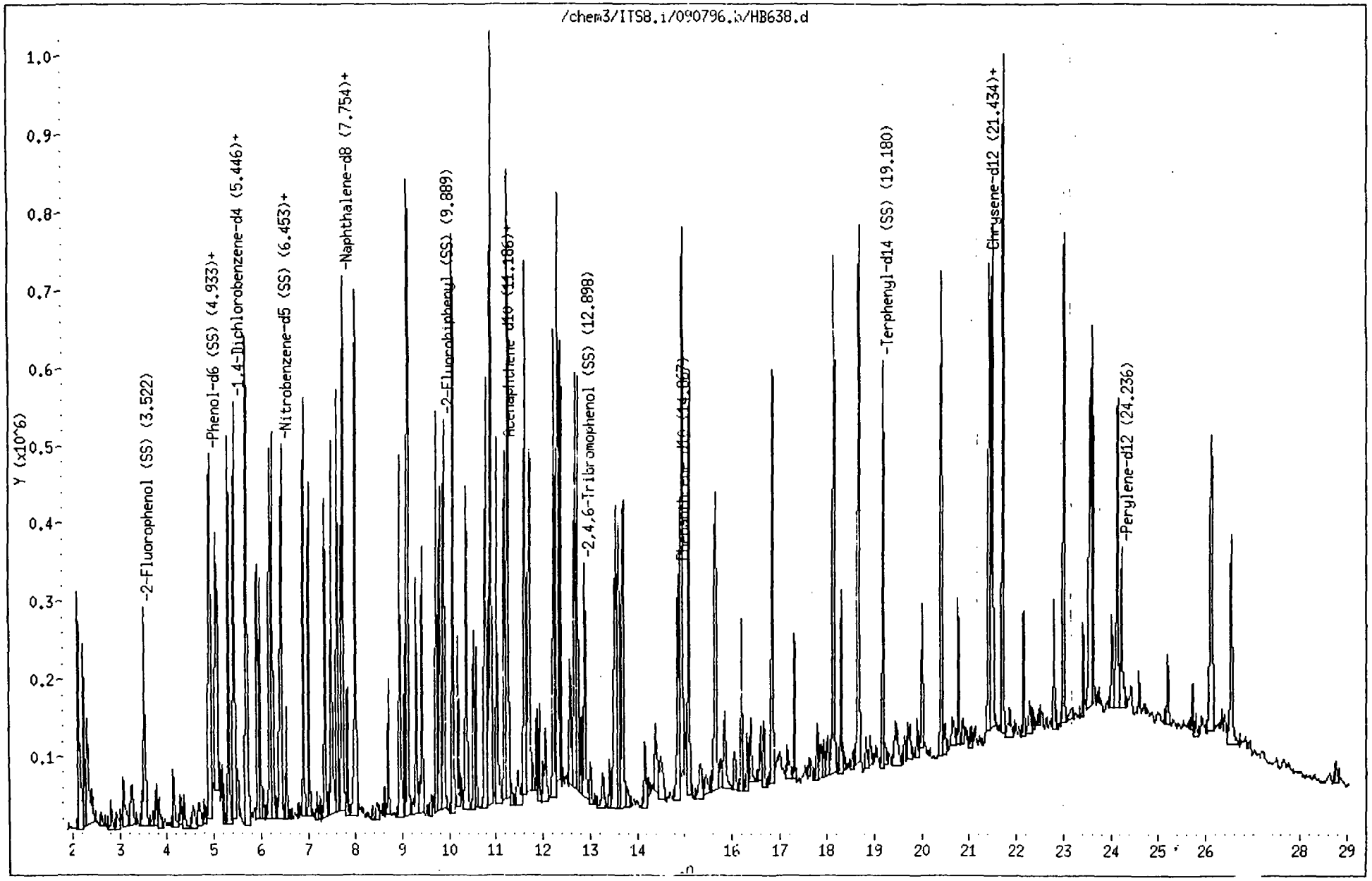
Client SDG: 090896
Fraction: SV
Client Smp ID: D96-9653-2MS
Operator: VDLITTLE
SampleType: MS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
6	Phenol	3.33	2.66	79.73	5-112
8	2-Chlorophenol	3.33	2.60	77.90	23-134
11	1,4-Dichlorobenzen	3.33	2.50	75.08	20-124
28	1,2,4-Trichloroben	3.33	2.87	86.16	44-142
33	4-Chloro-3-methylp	3.33	2.55	76.38	22-147
46	Acenaphthene	3.33	2.25	67.40	47-145
48	4-Nitrophenol	3.33	2.68	80.44	10-132
50	2,4-Dinitrotoluene	3.33	2.81	84.35	39-139
61	Pentachlorophenol	3.33	1.80	53.92	14-176
69	Pyrene	3.33	3.14	94.37	52-115
16	N-Nitrosodi-n-prop	3.33	2.56	76.86	10-230

	SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
$ 3	2-Fluorophenol (SS	3.33	2.30	69.00	25-121
$ 4	Phenol-d6 (SS)	3.33	2.52	75.56	24-113
$ 19	Nitrobenzene-d5 (S	1.67	1.47	88.19	23-120
$ 38	2-Fluorobiphenyl (	1.67	1.37	82.03	30-115
$ 58	2,4,6-Tribromophen	3.33	2.35	70.53	19-122
$ 70	Terphenyl-d14 (SS)	1.67	1.68	100.66	18-137

Data File: /chem3/ITS8.i/090796.b/HB638.d
Date : 08-SEP-1996 03:44
Client ID: D96-9653-2MS
Sample Info: 8270_ABN_S;;AB848-83;1
Volume Injected (uL): 1.0
Column phase: DB-5

Instrument: ITS8.i
Operator: VDLITTLE
Column diameter: 0.25



FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-2MSD

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2MSD

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB639

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
62-75-9	N-Nitrosodimethylamine	2.46	
62-53-3	Aniline	0.147	J
108-95-2	Phenol	2.40	
111-44-4	Bis(2-chloroethyl)ether	2.65	
95-57-8	2-Chlorophenol	2.60	
541-73-1	1,3-Dichlorobenzene	2.59	
106-46-7	1,4-Dichlorobenzene	2.52	
100-51-6	Benzyl alcohol	3.21	
95-50-1	1,2-Dichlorobenzene	2.51	
95-48-7	2-Methylphenol	1.46	
39638-32-9	Bis(2-chloroisopropyl)ether	2.53	
106-44-5	4-Methylphenol	1.56	
621-64-7	N-Nitrosodi-n-propylamine	2.61	
67-72-1	Hexachloroethane	2.53	
98-95-3	Nitrobenzene	2.79	
78-59-1	Isophorone	2.93	
88-75-5	2-Nitrophenol	2.85	
105-67-9	2,4-Dimethylphenol	0.184	J
111-91-1	Bis(2-chloroethoxy)methane	2.47	
65-85-0	Benzoic acid	0.571	J
120-83-2	2,4-Dichlorophenol	2.67	
120-82-1	1,2,4-Trichlorobenzene	2.82	
91-20-3	Naphthalene	2.66	
106-47-8	4-Chloroaniline	0.408	
87-68-3	Hexachlorobutadiene	3.05	
59-50-7	4-Chloro-3-methylphenol	2.56	
91-57-6	2-Methylnaphthalene	3.70	
77-47-4	Hexachlorocyclopentadiene	1.98	
88-06-2	2,4,6-Trichlorophenol	2.55	
95-95-4	2,4,5-Trichlorophenol	2.91	
91-58-7	2-Chloronaphthalene	2.53	
88-74-4	2-Nitroaniline	2.33	
131-11-3	Dimethylphthalate	2.41	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-2MSD

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2MSD

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB639

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
208-96-8	Acenaphthylene	2.26	
606-20-2	2,6-Dinitrotoluene	2.48	
99-09-2	3-Nitroaniline	0.532	J
83-32-9	Acenaphthene	2.25	
51-28-5	2,4-Dinitrophenol	0.425	
132-64-9	Dibenzofuran	2.59	
100-02-7	4-Nitrophenol	2.38	
121-14-2	2,4-Dinitrotoluene	2.67	
84-66-2	Diethylphthalate	2.27	
86-73-7	Fluorene	2.23	
7005-72-3	4-Chlorophenyl phenyl ether	2.44	
100-01-6	4-Nitroaniline	0.329	J
534-52-1	4,6-Dinitro-2-methylphenol	1.93	
86-30-6	N-Nitrosodiphenylamine (1)	2.56	
103-33-3	1,2-Diphenylhydrazine	2.22	
101-55-3	4-Bromophenyl phenyl ether	2.61	
118-74-1	Hexachlorobenzene	2.99	
87-86-5	Pentachlorophenol	1.86	
92875	Benzidine	1.67	U
85-01-8	Phenanthrene	3.06	
120-12-7	Anthracene	2.37	
86-74-8	Carbazole	1.85	
84-74-2	Di-n-butylphthalate	2.13	
206-44-0	Fluoranthene	2.63	
129-00-0	Pyrene	3.19	
85-68-7	Butyl benzyl phthalate	2.58	
56-55-3	Benzo(a)anthracene	3.12	
91-94-1	3,3'-Dichlorobenzidine	0.182	J
218-01-9	Chrysene	2.97	
117-81-7	Bis(2-ethylhexyl)phthalate	2.62	
117-84-0	Di-n-octylphthalate	3.00	
205-99-2	Benzo(b)fluoranthene	3.89	
207-08-9	Benzo(k)fluoranthene	2.68	E

(1) - Cannot be separated from Diphenylamine

AH 10/1/96

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

9653-2MSD

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2MSD

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB639

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/08/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
50-32-8	Benzo(a)pyrene	2.90	
193-39-5	Indeno(1,2,3-cd)pyrene	2.34	
53-70-3	Dibenz(a,h)anthracene	2.24	
191-24-2	Benzo(g,h,i)perylene	2.29	

Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/090796.b/HB639.d
Lab Smp Id: D96-9653-2MSD Client Smp ID: D96-9653-2MSD
Inj Date : 08-SEP-1996 04:20
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : 30/1 EX 09-03-96
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll Quant Type: ISTD
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/kg)
1	N-Nitrosodimethylamine	74.00	2.134	2.114	(0.394)	120493	73.7	2.46
2	Pyridine	79.00	2.124	2.527	(0.392)	119159		(aQ)
3	2-Fluorophenol (SS)	112.00	3.523	3.509	(0.650)	175086	67.0	2.23
	Phenol-d6 (SS)	99.00	4.913	4.893	(0.907)	228453	72.7	2.42
5	Aniline	93.00	4.945	4.909	(0.913)	16163	4.40	0.147(aQM)
6	Phenol	94.00	4.945	4.924	(0.913)	233000	72.0	2.40(QM)
7	Bis(2-chloroethyl)ether	93.00	5.060	5.049	(0.934)	211409	79.4	2.65(QM)
8	2-Chlorophenol	128.00	5.091	5.081	(0.940)	218106	77.9	2.60
9	1,3-Dichlorobenzene	146.00	5.322	5.310	(0.983)	257038	77.7	2.59
* 10	1,4-Dichlorobenzene-d4	152.00	5.416	5.415	(1.000)	80199	40.0	
11	1,4-Dichlorobenzene	146.00	5.448	5.446	(1.006)	250883	75.7	2.52
12	Benzyl alcohol	108.00	5.720	5.707	(1.056)	142928	96.4	3.21
13	1,2-Dichlorobenzene	146.00	5.699	5.686	(1.052)	232243	75.2	2.51
14	2-Methylphenol	108.00	5.930	5.926	(1.095)	100628	43.8	1.46
15	Bis(2-chloroisopropyl)ether	45.00	5.951	5.989	(1.099)	350757	76.0	2.53(QM)
16	N-Nitrosodi-n-propylamine	70.00	6.202	6.197	(1.145)	161028	78.3	2.61
17	4-Methylphenol	108.00	6.223	6.218	(1.149)	112661	46.8	1.56
18	Hexachloroethane	117.00	6.265	6.260	(1.157)	99847	76.0	2.53
$ 19	Nitrobenzene-d5 (SS)	82.00	6.412	6.407	(0.831)	126232	43.5	1.45
20	Nitrobenzene	77.00	6.454	6.448	(0.837)	232426	83.6	2.79
21	Isophorone	82.00	6.916	6.907	(0.897)	466122	88.0	2.93
22	2-Nitrophenol	139.00	7.031	7.022	(0.911)	148629	85.5	2.85
23	2,4-Dimethylphenol	107.00	7.188	7.178	(0.932)	13879	5.54	0.184(aQM)
24	m,p-Cresol	108.00	6.223	6.797	(1.149)	112661		(aQ)
25	Bis(2-chloroethoxy)methane	93.00	7.367	7.356	(0.955)	257256	74.2	2.47
26	Benzoic acid	122.00	7.472	7.544	(0.969)	22341	17.1	0.571(aQM)
27	2,4-Dichlorophenol	162.00	7.503	7.492	(0.973)	204587	80.2	2.67
28	1,2,4-Trichlorobenzene	180.00	7.619	7.618	(0.988)	233085	84.5	2.82
* 29	Naphthalene-d8	136.00	7.714	7.701	(1.000)	302939	40.0	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/Kg)
	30 Naphthalene	128.00	7.756	7.743	(1.005)	562407	79.9	2.66
	31 4-Chloroaniline	127.00	7.966	7.905	(1.033)	39823	12.2	0.408
	32 Hexachlorobutadiene	225.00	8.019	8.005	(1.040)	145319	91.5	3.05
	33 4-Chloro-3-methylphenol	107.00	8.944	8.932	(1.159)	203561	76.6	2.56
	34 2-Methylnaphthalene	142.00	9.123	9.110	(1.183)	546807	111	3.70
	35 Hexachlorocyclopentadiene	237.00	9.429	9.424	(0.843)	78567	59.3	1.98
	36 2,4,6-Trichlorophenol	196.00	9.724	9.717	(0.869)	154349	76.4	2.55
	37 2,4,5-Trichlorophenol	196.00	9.797	9.780	(0.876)	186643	87.2	2.91
$	38 2-Fluorobiphenyl (SS)	172.00	9.892	9.884	(0.884)	281388	42.6	1.42
	39 2-Chloronaphthalene	162.00	10.082	10.073	(0.901)	439376	75.9	2.53
	40 2-Nitroaniline	65.00	10.367	10.349	(0.926)	137256	69.8	2.33
	41 Dimethylphthalate	163.00	10.788	10.771	(0.964)	493098	72.2	2.41
	42 2,6-Dinitrotoluene	165.00	10.905	10.876	(0.975)	117898	74.5	2.48
	43 Acenaphthylene	152.00	10.905	10.887	(0.975)	548256	67.7	2.26
	44 3-Nitroaniline	138.00	11.211	11.192	(1.002)	26929	16.0	0.532(a)
*	45 Acenaphthene-d10	164.00	11.190	11.179	(1.000)	189209	40.0	
	46 Acenaphthene	153.00	11.263	11.252	(1.007)	372433	67.6	2.25
	47 2,4-Dinitrophenol	184.00	11.474	11.440	(1.025)	11132	12.8	0.425
	48 4-Nitrophenol	109.00	11.696	11.639	(1.045)	34240	71.3	2.38(QM)
	49 Dibenzofuran	168.00	11.622	11.607	(1.039)	626667	77.8	2.59
	50 2,4-Dinitrotoluene	165.00	11.717	11.691	(1.047)	189682	80.0	2.67(QM)
	51 Diethylphthalate	149.00	12.235	12.224	(1.093)	469185	68.1	2.27
	52 Fluorene	166.00	12.320	12.307	(1.101)	427888	66.8	2.23
	53 4-Chlorophenyl phenyl ether	204.00	12.383	12.370	(1.107)	238272	73.2	2.44
	4-Nitroaniline	138.00	12.478	12.451	(1.115)	18128	9.88	0.329(a)
	55 4,6-Dinitro-2-methylphenol	198.00	12.584	12.548	(0.846)	68086	57.9	1.93
	56 N-Nitrosodiphenylamine	169.00	12.679	12.674	(0.853)	312839	77.0	2.56
	57 1,2-Diphenylhydrazine	77.00	12.753	12.733	(0.858)	442874	66.6	2.22
$	58 2,4,6-Tribromophenol (SS)	330.00	12.891	12.873	(1.152)	60634	64.0	2.13
	59 4-Bromophenyl phenyl ether	248.00	13.611	13.593	(0.915)	125944	78.3	2.61
	60 Hexachlorobenzene	284.00	13.706	13.677	(0.922)	177015	89.8	2.99
	61 Pentachlorophenol	266.00	14.395	14.365	(0.968)	54050	56.0	1.86
*	62 Phenanthrene-d10	188.00	14.872	14.857	(1.000)	324653	40.0	
	63 Phenanthrene	178.00	14.956	14.931	(1.006)	756777	91.7	3.06
	64 Anthracene	178.00	15.105	15.077	(1.016)	596035	71.2	2.37
	65 Carbazole	167.00	15.656	15.645	(1.053)	482952	55.6	1.85
	66 Di-n-butylphthalate	149.00	16.856	16.839	(1.133)	634009	64.0	2.13
	67 Fluoranthene	202.00	18.153	18.120	(1.221)	698592	79.0	2.63
	69 Pyrene	202.00	18.675	18.653	(0.871)	719902	95.7	3.19
$	70 Terphenyl-d14 (SS)	244.00	19.176	19.175	(0.894)	253755	48.1	1.60
	71 Butyl benzyl phthalate	149.00	20.415	20.395	(0.952)	317025	77.3	2.58
	72 3,3'-Dichlorobenzidine	252.00	21.474	21.432	(1.001)	12431	5.47	0.182(aQM)
	73 Benzo(a)anthracene	228.00	21.431	21.407	(0.999)	591535	93.5	3.12
*	74 Chrysene-d12	240.00	21.452	21.429	(1.000)	196996	40.0	
	75 Chrysene	228.00	21.506	21.482	(1.002)	558928	89.2	2.97
	76 Bis(2-ethylhexyl)phthalate	149.00	21.720	21.713	(1.012)	420207	78.5	2.62
	77 Di-n-octylphthalate	149.00	23.019	23.010	(0.949)	547479	89.9	3.00
	78 Benzo(b)fluoranthene	252.00	23.578	23.544	(0.972)	536142	117	3.89
	79 Benzo(k)fluoranthene	252.00	23.621	23.596	(0.974)	413518	80.5	2.68

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/Kg)
80 Benzo(a)pyrene	252.00	24.148	24.120	(0.996)	369637	87.1	2.90
* 81 Perylene-d12	264.00	24.245	24.226	(1.000)	158995	40.0	
82 Indeno(1,2,3-cd)pyrene	276.00	26.110	26.080	(1.077)	321635	70.1	2.34
83 Dibenz(a,h)anthracene	278.00	26.132	26.112	(1.078)	251570	67.2	2.24
84 Benzo(g,h,i)perylene	276.00	26.552	26.522	(1.095)	258060	68.7	2.29

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem3/ITS8.i/090796.b/HB639.d
Lab Smp Id: D96-9653-2MSD Client Smp ID: D96-9653-2MSD
Inj Date : 08-SEP-1996 04:20
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : 30/1 EX 09-03-96
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: ITS8.i
Lab File ID: HB639.d
Lab Smp Id: D96-9653-2MSD
Analysis Type: SV
Quant Type: ISTD
Operator: VDLITTLE
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/1 EX 09-03-96

Calibration Date: 09/07/96
Calibration Time: 1834
Client Smp ID: D96-9653-2MSD
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene	88252	44126	176504	80199	-9.13
29 Naphthalene-d8	339046	169523	678092	302939	-10.65
45 Acenaphthene-d10	191883	95942	383766	189209	-1.39
62 Phenanthrene-d10	349685	174842	699370	324653	-7.16
74 Chrysene-d12	255574	127787	511148	196996	-22.92
81 Perylene-d12	273737	136868	547474	158995	-41.92

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	5.41	4.91	5.91	5.42	0.03
29 Naphthalene-d8	7.70	7.20	8.20	7.71	0.16
45 Acenaphthene-d10	11.18	10.68	11.68	11.19	0.10
62 Phenanthrene-d10	14.86	14.36	15.36	14.87	0.10
74 Chrysene-d12	21.43	20.93	21.93	21.45	0.11
81 Perylene-d12	24.23	23.73	24.73	24.24	0.08

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: D96-9653-2MSD
Level: LOW
Data Type: MS DATA
SpikeList File: 8270_100.spk
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/1 EX 09-03-96

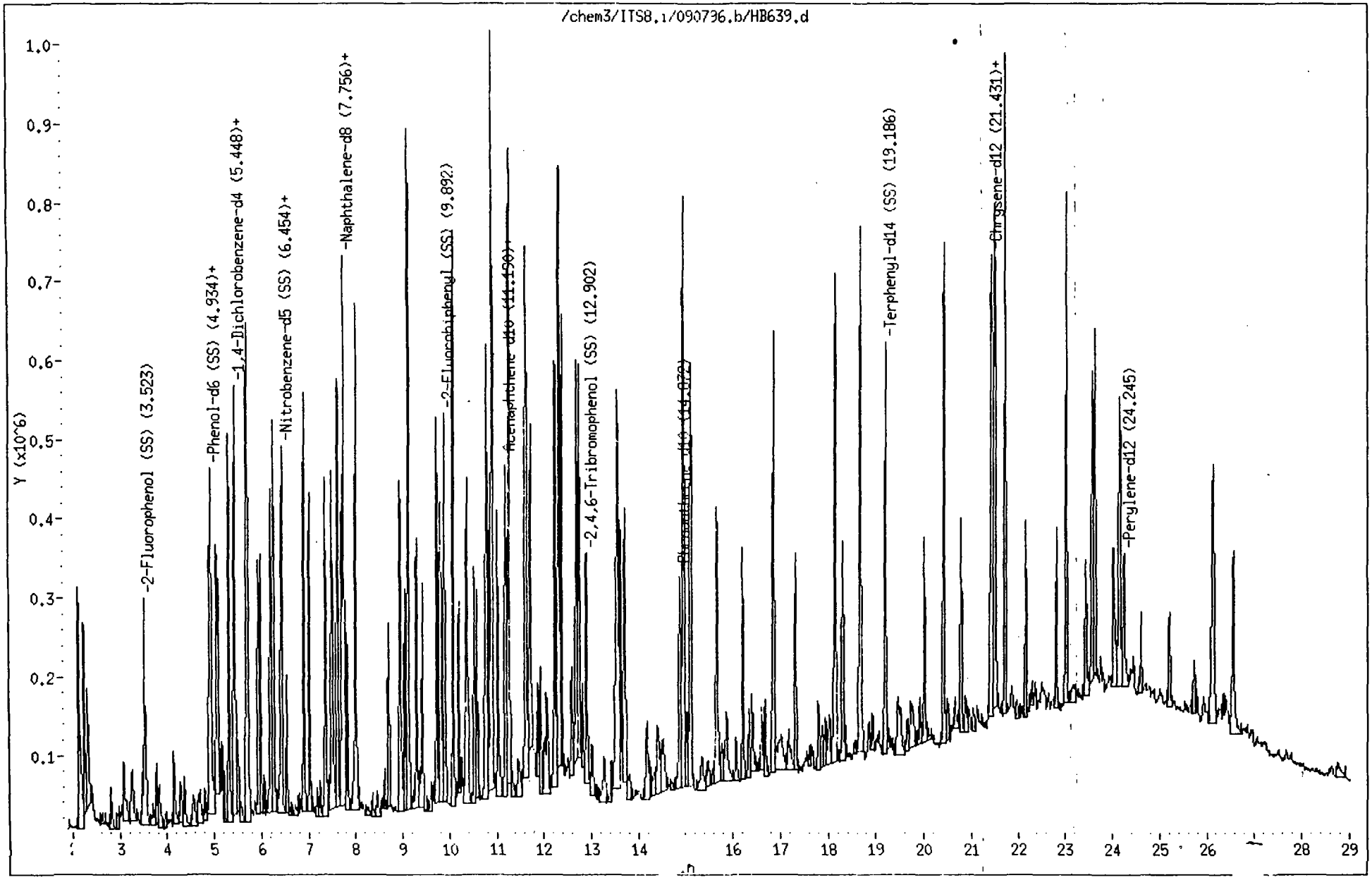
Client SDG: 090896
Fraction: SV
Client Smp ID: D96-9653-2MSD
Operator: VDLITTLE
SampleType: MSD
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
6	Phenol	3.33	2.40	72.02	5-112
8	2-Chlorophenol	3.33	2.60	77.90	23-134
11	1,4-Dichlorobenzen	3.33	2.52	75.70	20-124
28	1,2,4-Trichloroben	3.33	2.82	84.48	44-142
33	4-Chloro-3-methylp	3.33	2.56	76.66	22-147
46	Acenaphthene	3.33	2.25	67.56	47-145
48	4-Nitrophenol	3.33	2.38	71.31	10-132
50	2,4-Dinitrotoluene	3.33	2.67	80.06	39-139
61	Pentachlorophenol	3.33	1.86	55.96	14-176
69	Pyrene	3.33	3.19	95.74	52-115
16	N-Nitrosodi-n-prop	3.33	2.61	78.27	10-230

	SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
$ 3	2-Fluorophenol (SS	3.33	2.23	67.05	25-121
$ 4	Phenol-d6 (SS)	3.33	2.42	72.67	24-113
$ 19	Nitrobenzene-d5 (S	1.67	1.45	87.05	23-120
$ 38	2-Fluorobiphenyl (	1.67	1.42	85.23	30-115
$ 58	2,4,6-Tribromophen	3.33	2.13	63.98	19-122
$ 70	Terphenyl-d14 (SS)	1.67	1.60	96.22	18-137

Data File: /chem3/ITS8.i/090796.b/HB639.d
Date : 08-SEP-1996 04:20
Client ID: D96-9653-2MSD
Sample Info: 8270_ABN_S;;AB848-83;1
Volume Injected (uL): 1.0
Column phase: DB-5

Instrument: ITS8.i
Operator: VDLITTLE
Column diameter: 0.25



FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK BS

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: BLK BS

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB626

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/07/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
62-75-9	N-Nitrosodimethylamine	2.34	
62-53-3	Aniline	1.20	
108-95-2	Phenol	2.45	
111-44-4	Bis(2-chloroethyl)ether	2.40	
95-57-8	2-Chlorophenol	2.60	
541-73-1	1,3-Dichlorobenzene	2.47	
106-46-7	1,4-Dichlorobenzene	2.40	
100-51-6	Benzyl alcohol	2.94	
95-50-1	1,2-Dichlorobenzene	2.44	
95-48-7	2-Methylphenol	2.42	
39638-32-9	Bis(2-chloroisopropyl)ether	2.36	
106-44-5	4-Methylphenol	2.25	
621-64-7	N-Nitrosodi-n-propylamine	2.23	
67-72-1	Hexachloroethane	2.42	
98-95-3	Nitrobenzene	2.61	
78-59-1	Isophorone	2.84	
88-75-5	2-Nitrophenol	2.60	
105-67-9	2,4-Dimethylphenol	1.12	
111-91-1	Bis(2-chloroethoxy)methane	2.38	
65-85-0	Benzoic acid	2.83	
120-83-2	2,4-Dichlorophenol	2.55	
120-82-1	1,2,4-Trichlorobenzene	2.71	
91-20-3	Naphthalene	2.20	
106-47-8	4-Chloroaniline	1.81	
87-68-3	Hexachlorobutadiene	2.89	
59-50-7	4-Chloro-3-methylphenol	2.61	
91-57-6	2-Methylnaphthalene	2.60	
77-47-4	Hexachlorocyclopentadiene	2.63	
88-06-2	2,4,6-Trichlorophenol	2.68	
95-95-4	2,4,5-Trichlorophenol	2.85	
91-58-7	2-Chloronaphthalene	2.49	
88-74-4	2-Nitroaniline	2.36	
131-11-3	Dimethylphthalate	2.40	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK BS

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: BLK BS

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB626

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/07/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
208-96-8	Acenaphthylene	2.19	
606-20-2	2,6-Dinitrotoluene	2.56	
99-09-2	3-Nitroaniline	1.93	
83-32-9	Acenaphthene	2.24	
51-28-5	2,4-Dinitrophenol	2.78	
132-64-9	Dibenzofuran	2.40	
100-02-7	4-Nitrophenol	3.09	
121-14-2	2,4-Dinitrotoluene	2.85	
84-66-2	Diethylphthalate	2.35	
86-73-7	Fluorene	2.26	
7005-72-3	4-Chlorophenyl phenyl ether	2.34	
100-01-6	4-Nitroaniline	2.05	
534-52-1	4,6-Dinitro-2-methylphenol	3.03	
86-30-6	N-Nitrosodiphenylamine (1)	2.40	
103-33-3	1,2-Diphenylhydrazine	2.09	
101-55-3	4-Bromophenyl phenyl ether	2.39	
118-74-1	Hexachlorobenzene	2.84	
87-86-5	Pentachlorophenol	2.68	
92875	Benzidine	1.67	U
85-01-8	Phenanthrene	2.38	
120-12-7	Anthracene	2.36	
86-74-8	Carbazole	2.05	
84-74-2	Di-n-butylphthalate	2.10	
206-44-0	Fluoranthene	2.27	
129-00-0	Pyrene	2.48	
85-68-7	Butyl benzyl phthalate	2.47	
56-55-3	Benzo(a)anthracene	2.61	
91-94-1	3,3'-Dichlorobenzidine	1.61	
218-01-9	Chrysene	2.41	
117-81-7	Bis(2-ethylhexyl)phthalate	2.50	
117-84-0	Di-n-octylphthalate	2.20	
205-99-2	Benzo(b)fluoranthene	2.61	
207-08-9	Benzo(k)fluoranthene	2.42	E

AH 10/1/96

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK BS

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: BLK BS

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB626

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/07/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
50-32-8	Benzo(a)pyrene	2.53	
193-39-5	Indeno(1,2,3-cd)pyrene	2.55	
53-70-3	Dibenz(a,h)anthracene	2.54	
191-24-2	Benzo(g,h,i)perylene	2.53	

Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/090796.b/HB626.d
Lab Smp Id: 3550 BS Client Smp ID: 3550 BS
Inj Date : 07-SEP-1996 20:24
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : 30/1 EX 09-03-96
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll Quant Type: ISTD
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1 QC Sample: BS
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/Kg)
	1 N-Nitrosodimethylamine	74.00	2.123	2.114	(0.392)	112925	70.3	2.34
	2 Pyridine	79.00	2.134	2.527	(0.394)	35372		(aQ)
$	3 2-Fluorophenol (SS)	112.00	3.519	3.509	(0.650)	342264	133	4.45(R)
	Phenol-d6 (SS)	99.00	4.926	4.893	(0.909)	409640	133	4.42(R)
	5 Aniline	93.00	4.905	4.909	(0.905)	130038	36.1	1.20(QM)
	6 Phenol	94.00	4.947	4.924	(0.913)	233289	73.4	2.45
	7 Bis(2-chloroethyl)ether	93.00	5.062	5.049	(0.934)	188740	72.2	2.40(QM)
	8 2-Chlorophenol	128.00	5.083	5.081	(0.938)	214290	77.9	2.60
	9 1,3-Dichlorobenzene	146.00	5.323	5.310	(0.983)	241339	74.2	2.47
*	10 1,4-Dichlorobenzene-d4	152.00	5.417	5.415	(1.000)	78798	40.0	
	11 1,4-Dichlorobenzene	146.00	5.449	5.446	(1.006)	234979	72.2	2.40
	12 Benzyl alcohol	108.00	5.720	5.707	(1.056)	128269	88.0	2.94
	13 1,2-Dichlorobenzene	146.00	5.689	5.686	(1.050)	222160	73.2	2.44
	14 2-Methylphenol	108.00	5.929	5.926	(1.095)	163912	72.7	2.42
	15 Bis(2-chloroisopropyl)ether	45.00	5.961	5.989	(1.100)	320762	70.7	2.36(QM)
	16 N-Nitrosodi-n-propylamine	70.00	6.211	6.197	(1.147)	135224	66.9	2.23
	17 4-Methylphenol	108.00	6.232	6.218	(1.150)	159939	67.6	2.25
	18 Hexachloroethane	117.00	6.264	6.260	(1.156)	93892	72.7	2.42
$	19 Nitrobenzene-d5 (SS)	82.00	6.421	6.407	(0.833)	227614	79.4	2.65(R)
	20 Nitrobenzene	77.00	6.452	6.448	(0.837)	214911	78.2	2.61
	21 Isophorone	82.00	6.911	6.907	(0.897)	446570	85.3	2.84
	22 2-Nitrophenol	139.00	7.026	7.022	(0.912)	134159	78.1	2.60
	23 2,4-Dimethylphenol	107.00	7.183	7.178	(0.932)	83034	33.5	1.12
	24 m,p-Cresol	108.00	6.232	6.797	(1.150)	159939		(aQ)
	25 Bis(2-chloroethoxy)methane	93.00	7.361	7.356	(0.955)	244349	71.4	2.38
	26 Benzoic acid	122.00	7.591	7.544	(0.985)	109534	85.0	2.83
	27 2,4-Dichlorophenol	162.00	7.497	7.492	(0.973)	192869	76.6	2.55
	28 1,2,4-Trichlorobenzene	180.00	7.623	7.618	(0.989)	221853	81.4	2.71
*	29 Naphthalene-d8	136.00	7.707	7.701	(1.000)	299241	40.0	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/Kg)
	30 Naphthalene	128.00	7.748	7.743	(1.005)	458553	65.9	2.20
	31 4-Chloroaniline	127.00	7.916	7.905	(1.027)	174141	54.2	1.81
	32 Hexachlorobutadiene	225.00	8.011	8.005	(1.039)	135985	86.7	2.89
	33 4-Chloro-3-methylphenol	107.00	8.940	8.932	(1.160)	205693	78.4	2.61
	34 2-Methylnaphthalene	142.00	9.118	9.110	(1.183)	379481	78.1	2.60
	35 Hexachlorocyclopentadiene	237.00	9.422	9.424	(0.843)	98630	78.9	2.63
	36 2,4,6-Trichlorophenol	196.00	9.715	9.717	(0.869)	153348	80.4	2.68
	37 2,4,5-Trichlorophenol	196.00	9.789	9.780	(0.875)	172848	85.6	2.85
$	38 2-Fluorobiphenyl (SS)	172.00	9.894	9.884	(0.885)	431652	69.3	2.31(R)
	39 2-Chloronaphthalene	162.00	10.083	10.073	(0.902)	407931	74.7	2.49
	40 2-Nitroaniline	65.00	10.355	10.349	(0.926)	131369	70.8	2.36
	41 Dimethylphthalate	163.00	10.784	10.771	(0.964)	464219	72.0	2.40
	42 2,6-Dinitrotoluene	165.00	10.889	10.876	(0.974)	114619	76.8	2.56
	43 Acenaphthylene	152.00	10.889	10.887	(0.974)	502600	65.7	2.19
	44 3-Nitroaniline	138.00	11.203	11.192	(1.002)	92288	57.9	1.93
*	45 Acenaphthene-d10	164.00	11.182	11.179	(1.000)	178544	40.0	
	46 Acenaphthene	153.00	11.256	11.252	(1.007)	350287	67.3	2.24
	47 2,4-Dinitrophenol	184.00	11.445	11.440	(1.023)	68685	83.4	2.78
	48 4-Nitrophenol	109.00	11.655	11.639	(1.042)	41998	92.7	3.09
	49 Dibenzofuran	168.00	11.613	11.607	(1.038)	547591	72.0	2.40
	50 2,4-Dinitrotoluene	165.00	11.707	11.691	(1.047)	191079	85.5	2.85
	51 Diethylphthalate	149.00	12.242	12.224	(1.095)	457852	70.5	2.35
	52 Fluorene	166.00	12.316	12.307	(1.101)	409670	67.8	2.26
	53 4-Chlorophenyl phenyl ether	204.00	12.379	12.370	(1.107)	215645	70.2	2.34
	4-Nitroaniline	138.00	12.484	12.451	(1.116)	106566	61.6	2.05
	55 4,6-Dinitro-2-methylphenol	198.00	12.568	12.548	(0.845)	109415	90.8	3.03
	56 N-Nitrosodiphenylamine	169.00	12.683	12.674	(0.853)	300103	72.1	2.40
	57 1,2-Diphenylhydrazine	77.00	12.746	12.733	(0.857)	426722	62.7	2.09
$	58 2,4,6-Tribromophenol (SS)	330.00	12.883	12.873	(1.152)	144145	161	5.37(AR)
	59 4-Bromophenyl phenyl ether	248.00	13.607	13.593	(0.915)	118331	71.8	2.39
	60 Hexachlorobenzene	284.00	13.691	13.677	(0.921)	171899	85.1	2.84
	61 Pentachlorophenol	266.00	14.361	14.365	(0.966)	79616	80.5	2.68
*	62 Phenanthrene-d10	188.00	14.866	14.857	(1.000)	332569	40.0	
	63 Phenanthrene	178.00	14.940	14.931	(1.005)	603541	71.4	2.38
	64 Anthracene	178.00	15.098	15.077	(1.016)	606518	70.8	2.36
	65 Carbazole	167.00	15.643	15.645	(1.052)	548588	61.6	2.05
	66 Di-n-butylphthalate	149.00	16.839	16.839	(1.133)	638297	62.9	2.10
	67 Fluoranthene	202.00	18.132	18.120	(1.220)	617521	68.2	2.27
	69 Pyrene	202.00	18.659	18.653	(0.870)	621027	74.3	2.48
$	70 Terphenyl-d14 (SS)	244.00	19.175	19.175	(0.894)	490867	83.7	2.79(R)
	71 Butyl benzyl phthalate	149.00	20.406	20.395	(0.952)	338141	74.2	2.47
	72 3,3'-Dichlorobenzidine	252.00	21.436	21.432	(1.000)	122238	48.4	1.61
	73 Benzo(a)anthracene	228.00	21.404	21.407	(0.999)	550762	78.3	2.61
*	74 Chrysene-d12	240.00	21.436	21.429	(1.000)	219059	40.0	
	75 Chrysene	228.00	21.489	21.482	(1.002)	504314	72.3	2.41
	76 Bis(2-ethylhexyl)phthalate	149.00	21.710	21.713	(1.013)	447008	75.1	2.50
	77 Di-n-octylphthalate	149.00	23.003	23.010	(0.950)	599737	66.0	2.20
	78 Benzo(b)fluoranthene	252.00	23.549	23.544	(0.972)	536652	78.3	2.61
	79 Benzo(k)fluoranthene	252.00	23.602	23.596	(0.974)	555968	72.6	2.42

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/Kg)
80 Benzo(a)pyrene	252.00	24.128	24.120	(0.996)	479832	75.8	2.53
* 81 Perylene-d12	264.00	24.223	24.226	(1.000)	237118	40.0	
82 Indeno(1,2,3-cd)pyrene	276.00	26.082	26.080	(1.077)	524106	76.6	2.55
83 Dibenz(a,h)anthracene	278.00	26.124	26.112	(1.078)	426102	76.4	2.54
84 Benzo(g,h,i)perylene	276.00	26.524	26.522	(1.095)	425598	76.0	2.53

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount exceeded maximum amount.
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.
M - Compound response manually integrated.

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem3/ITS8.i/090796.b/HB626.d
Lab Smp Id: 3550 BS Client Smp ID: 3550 BS
Inj Date : 07-SEP-1996 20:24
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : 30/1 EX 09-03-96
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1 QC Sample: BS
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: ITS8.i
Lab File ID: HB626.d
Lab Smp Id: 3550 BS
Analysis Type: SV
Quant Type: ISTD
Operator: VDLITTLE
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/1 EX 09-03-96

Calibration Date: 09/07/96
Calibration Time: 1834
Client Smp ID: 3550 BS
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	88252	44126	176504	78798	-10.71
29 Naphthalene-d8	339046	169523	678092	299241	-11.74
45 Acenaphthene-d10	191883	95942	383766	178544	-6.95
62 Phenanthrene-d10	349685	174842	699370	332569	-4.89
74 Chrysene-d12	255574	127787	511148	219059	-14.29
81 Perylene-d12	273737	136868	547474	237118	-13.38

OMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	5.41	4.91	5.91	5.42	0.05
29 Naphthalene-d8	7.70	7.20	8.20	7.71	0.07
45 Acenaphthene-d10	11.18	10.68	11.68	11.18	0.03
62 Phenanthrene-d10	14.86	14.36	15.36	14.87	0.06
74 Chrysene-d12	21.43	20.93	21.93	21.44	0.03
81 Perylene-d12	24.23	23.73	24.73	24.22	-0.01

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: 3550 BS
Level: LOW
Data Type: MS DATA
SpikeList File: 8270_100.spk
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/1 EX 09-03-96

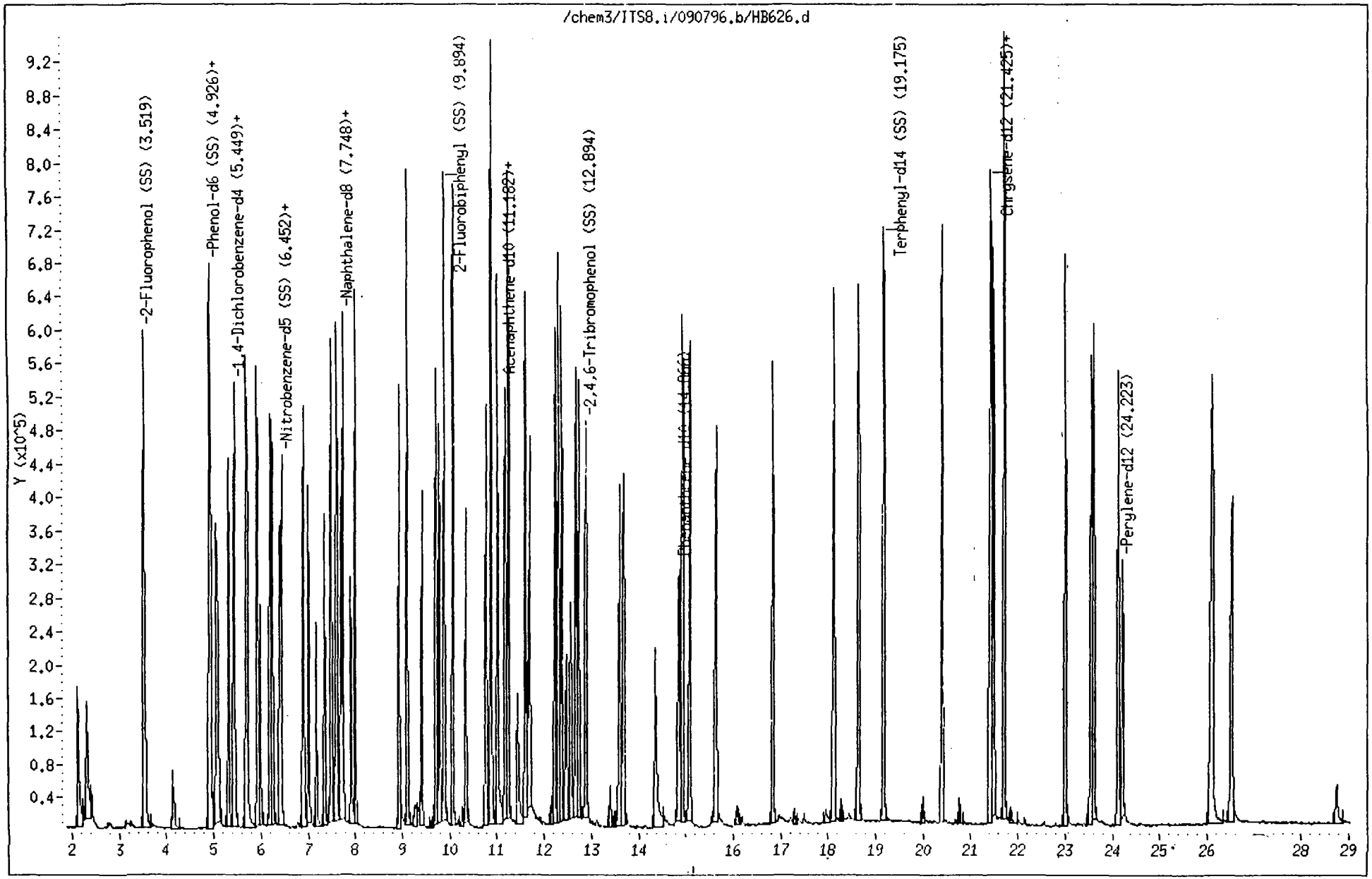
Client SDG: 090796
Fraction: SV
Client Smp ID: 3550 BS
Operator: VDLITTLE
SampleType: BS
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
6	Phenol	3.33	2.45	73.39	5-112
8	2-Chlorophenol	3.33	2.60	77.89	23-134
11	1,4-Dichlorobenzen	3.33	2.40	72.16	20-124
28	1,2,4-Trichloroben	3.33	2.71	81.40	44-142
33	4-Chloro-3-methylp	3.33	2.61	78.42	22-147
46	Acenaphthene	3.33	2.24	67.34	47-145
48	4-Nitrophenol	3.33	3.09	92.70	10-132
50	2,4-Dinitrotoluene	3.33	2.85	85.47	39-139
61	Pentachlorophenol	3.33	2.68	80.46	14-176
69	Pyrene	3.33	2.48	74.28	52-115
16	N-Nitrosodi-n-prop	3.33	2.23	66.90	10-230

	SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
$ 3	2-Fluorophenol (SS	3.33	4.45	133.40*	25-121
$ 4	Phenol-d6 (SS)	3.33	4.42	132.63*	24-113
$ 19	Nitrobenzene-d5 (S	1.67	2.65	158.90*	23-120
$ 38	2-Fluorobiphenyl (	1.67	2.31	138.55*	30-115
$ 58	2,4,6-Tribromophen	3.33	5.37	161.18*	19-122
$ 70	Terphenyl-d14 (SS)	1.67	2.79	167.38*	18-137

Data File: /chem3/ITS8.i/090796.b/HB626.d
Date : 07-SEP-1996 20:24
Client ID: 3550 BS
Sample Info: 8270_ABN_S;;AB848-83;1
Volume Injected (uL): 1.0
Column phase: DB-5

Instrument: ITS8.i
Operator: VDLITTLE
Column diameter: 0.25



FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK BSD

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: BLK BSD

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB627

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/07/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
62-75-9	N-Nitrosodimethylamine	2.32	
62-53-3	Aniline	1.36	
108-95-2	Phenol	2.62	
111-44-4	Bis(2-chloroethyl)ether	2.40	
95-57-8	2-Chlorophenol	2.69	
541-73-1	1,3-Dichlorobenzene	2.56	
106-46-7	1,4-Dichlorobenzene	2.50	
100-51-6	Benzyl alcohol	3.11	
95-50-1	1,2-Dichlorobenzene	2.57	
95-48-7	2-Methylphenol	2.55	
39638-32-9	Bis(2-chloroisopropyl)ether	2.48	
106-44-5	4-Methylphenol	2.37	
621-64-7	N-Nitrosodi-n-propylamine	2.37	
67-72-1	Hexachloroethane	2.58	
98-95-3	Nitrobenzene	2.71	
78-59-1	Isophorone	2.91	
88-75-5	2-Nitrophenol	2.68	
105-67-9	2,4-Dimethylphenol	1.24	
111-91-1	Bis(2-chloroethoxy)methane	2.45	
65-85-0	Benzoic acid	2.93	
120-83-2	2,4-Dichlorophenol	2.65	
120-82-1	1,2,4-Trichlorobenzene	2.63	
91-20-3	Naphthalene	2.16	
106-47-8	4-Chloroaniline	1.99	
87-68-3	Hexachlorobutadiene	2.90	
59-50-7	4-Chloro-3-methylphenol	2.67	
91-57-6	2-Methylnaphthalene	2.64	
77-47-4	Hexachlorocyclopentadiene	2.89	
88-06-2	2,4,6-Trichlorophenol	2.80	
95-95-4	2,4,5-Trichlorophenol	2.85	
91-58-7	2-Chloronaphthalene	2.58	
88-74-4	2-Nitroaniline	2.53	
131-11-3	Dimethylphthalate	2.48	

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK BSD

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: BLK BSD

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB627

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/07/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
208-96-8	Acenaphthylene	2.23	
606-20-2	2,6-Dinitrotoluene	2.62	
99-09-2	3-Nitroaniline	2.16	
83-32-9	Acenaphthene	2.37	
51-28-5	2,4-Dinitrophenol	2.98	
132-64-9	Dibenzofuran	2.41	
100-02-7	4-Nitrophenol	2.98	
121-14-2	2,4-Dinitrotoluene	2.97	
84-66-2	Diethylphthalate	2.43	
86-73-7	Fluorene	2.35	
7005-72-3	4-Chlorophenyl phenyl ether	2.46	
100-01-6	4-Nitroaniline	2.09	
534-52-1	4,6-Dinitro-2-methylphenol	3.02	
86-30-6	N-Nitrosodiphenylamine (1)	2.34	
103-33-3	1,2-Diphenylhydrazine	2.10	
101-55-3	4-Bromophenyl phenyl ether	2.42	
118-74-1	Hexachlorobenzene	2.82	
87-86-5	Pentachlorophenol	2.83	
92875	Benzidine	1.67	U
85-01-8	Phenanthrene	2.35	
120-12-7	Anthracene	2.26	
86-74-8	Carbazole	2.03	
84-74-2	Di-n-butylphthalate	2.05	
206-44-0	Fluoranthene	2.25	
129-00-0	Pyrene	2.43	
85-68-7	Butyl benzyl phthalate	2.50	
56-55-3	Benzo(a)anthracene	2.57	
91-94-1	3,3'-Dichlorobenzidine	1.78	
218-01-9	Chrysene	2.41	
117-81-7	Bis(2-ethylhexyl)phthalate	2.50	
117-84-0	Di-n-octylphthalate	2.32	
205-99-2	Benzo(b)fluoranthene	2.75	
207-08-9	Benzo(k)fluoranthene	2.39	E

AH 10/11/96

(1) - Cannot be separated from Diphenylamine

FORM 1
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT SAMPLE NO.

BLK BSD

Lab Name: ITS-DALLAS Contract:

Lab Code: Case No.: SAS No.: SDG No.: SV9653

Matrix: (soil/water) SOIL Lab Sample ID: BLK BSD

Sample wt/vol: 30000.0 (g/mL) G Lab File ID: HB627

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

% Moisture: 0 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 1000(uL) Date Analyzed: 09/07/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) MG/KG	Q
50-32-8	Benzo(a)pyrene	2.53	
193-39-5	Indeno(1,2,3-cd)pyrene	2.43	
53-70-3	Dibenz(a,h)anthracene	2.42	
191-24-2	Benzo(g,h,i)perylene	2.32	

Inchcape Testing Services - Environmental Laboratories

SEMIVOLATILE QUANTITATION REPORT

Data file : /chem3/ITS8.i/090796.b/HB627.d
Lab Smp Id: 3550 BSD Client Smp ID: 3550 BSD
Inj Date : 07-SEP-1996 21:01
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : 30/1 EX 09-03-96
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll Quant Type: ISTD
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1 QC Sample: BSD
Dil Factor: 1.000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 3.10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/Kg)
	1 N-Nitrosodimethylamine	74.00	2.122	2.114	(0.392)	109435	69.5	2.32
	2 Pyridine	79.00	2.133	2.527	(0.394)	32942		(aQ)
$	3 2-Fluorophenol (SS)	112.00	3.518	3.509	(0.650)	185341	73.7	2.46
	Phenol-d6 (SS)	99.00	4.914	4.893	(0.907)	219924	72.6	2.42
	5 Aniline	93.00	4.903	4.909	(0.905)	144161	40.8	1.36(QM)
	6 Phenol	94.00	4.935	4.924	(0.911)	245433	78.8	2.62
	7 Bis(2-chloroethyl)ether	93.00	5.060	5.049	(0.934)	184565	72.0	2.40
	8 2-Chlorophenol	128.00	5.081	5.081	(0.938)	217960	80.8	2.69
	9 1,3-Dichlorobenzene	146.00	5.321	5.310	(0.983)	244573	76.7	2.56
*	10 1,4-Dichlorobenzene-d4	152.00	5.415	5.415	(1.000)	77241	40.0	
	11 1,4-Dichlorobenzene	146.00	5.447	5.446	(1.006)	239887	75.2	2.50
	12 Benzyl alcohol	108.00	5.718	5.707	(1.056)	133161	93.2	3.11
	13 1,2-Dichlorobenzene	146.00	5.697	5.686	(1.052)	229123	77.0	2.57
	14 2-Methylphenol	108.00	5.927	5.926	(1.095)	169426	76.6	2.55
	15 Bis(2-chloroisopropyl)ether	45.00	6.000	5.989	(1.108)	330647	74.3	2.48(QM)
	16 N-Nitrosodi-n-propylamine	70.00	6.209	6.197	(1.147)	140877	71.1	2.37
	17 4-Methylphenol	108.00	6.230	6.218	(1.150)	165064	71.2	2.37
	18 Hexachloroethane	117.00	6.261	6.260	(1.156)	98125	77.5	2.58
$	19 Nitrobenzene-d5 (SS)	82.00	6.408	6.407	(0.831)	120904	41.6	1.38
	20 Nitrobenzene	77.00	6.450	6.448	(0.836)	226947	81.4	2.71
	21 Isophorone	82.00	6.909	6.907	(0.896)	464415	87.4	2.91
	22 2-Nitrophenol	139.00	7.024	7.022	(0.910)	140065	80.3	2.68
	23 2,4-Dimethylphenol	107.00	7.180	7.178	(0.931)	93264	37.1	1.24
	24 m,p-Cresol	108.00	6.230	6.797	(1.150)	165064		(aQ)
	25 Bis(2-chloroethoxy)methane	93.00	7.369	7.356	(0.955)	255064	73.4	2.45
	26 Benzoic acid	122.00	7.599	7.544	(0.985)	114889	87.8	2.93
	27 2,4-Dichlorophenol	162.00	7.494	7.492	(0.971)	203039	79.4	2.65
	28 1,2,4-Trichlorobenzene	180.00	7.620	7.618	(0.988)	218207	78.9	2.63
*	29 Naphthalene-d8	136.00	7.714	7.701	(1.000)	303787	40.0	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (mg/Kg)
	30 Naphthalene	128.00	7.756	7.743	(1.005)	456689	64.7	2.16
	31 4-Chloroaniline	127.00	7.913	7.905	(1.026)	194503	59.6	1.99
	32 Hexachlorobutadiene	225.00	8.018	8.005	(1.039)	138349	86.9	2.90
	33 4-Chloro-3-methylphenol	107.00	8.936	8.932	(1.158)	213634	80.2	2.67
	34 2-Methylnaphthalene	142.00	9.115	9.110	(1.181)	389991	79.1	2.64
	35 Hexachlorocyclopentadiene	237.00	9.429	9.424	(0.844)	107788	86.6	2.89
	36 2,4,6-Trichlorophenol	196.00	9.722	9.717	(0.870)	159333	84.0	2.80
	37 2,4,5-Trichlorophenol	196.00	9.785	9.780	(0.875)	171668	85.4	2.85
$	38 2-Fluorobiphenyl (SS)	172.00	9.890	9.884	(0.885)	260381	42.0	1.40
	39 2-Chloronaphthalene	162.00	10.079	10.073	(0.902)	420060	77.3	2.58
	40 2-Nitroaniline	65.00	10.361	10.349	(0.927)	140082	75.8	2.53
	41 Dimethylphthalate	163.00	10.779	10.771	(0.964)	477149	74.3	2.48
	42 2,6-Dinitrotoluene	165.00	10.895	10.876	(0.975)	116763	78.5	2.62
	43 Acenaphthylene	152.00	10.895	10.887	(0.975)	508348	66.8	2.23
	44 3-Nitroaniline	138.00	11.209	11.192	(1.003)	102662	64.7	2.16
*	45 Acenaphthene-d10	164.00	11.178	11.179	(1.000)	177764	40.0	
	46 Acenaphthene	153.00	11.251	11.252	(1.007)	368298	71.1	2.37
	47 2,4-Dinitrophenol	184.00	11.450	11.440	(1.024)	73349	89.5	2.98
	48 4-Nitrophenol	109.00	11.649	11.639	(1.042)	40281	89.3	2.98
	49 Dibenzofuran	168.00	11.618	11.607	(1.039)	546674	72.2	2.41
	50 2,4-Dinitrotoluene	165.00	11.702	11.691	(1.047)	198090	89.0	2.97
	51 Diethylphthalate	149.00	12.236	12.224	(1.095)	470953	72.8	2.43
	52 Fluorene	166.00	12.320	12.307	(1.102)	424760	70.6	2.35
	53 4-Chlorophenyl phenyl ether	204.00	12.373	12.370	(1.107)	225390	73.7	2.46
	4-Nitroaniline	138.00	12.478	12.451	(1.116)	108117	62.7	2.09
	55 4,6-Dinitro-2-methylphenol	198.00	12.572	12.548	(0.846)	113164	90.7	3.02
	56 N-Nitrosodiphenylamine	169.00	12.677	12.674	(0.853)	302571	70.2	2.34
	57 1,2-Diphenylhydrazine	77.00	12.751	12.733	(0.858)	443747	63.0	2.10
$	58 2,4,6-Tribromophenol (SS)	330.00	12.877	12.873	(1.152)	73833	82.9	2.76
	59 4-Bromophenyl phenyl ether	248.00	13.600	13.593	(0.915)	123789	72.6	2.42
	60 Hexachlorobenzene	284.00	13.695	13.677	(0.922)	176935	84.7	2.82
	61 Pentachlorophenol	266.00	14.364	14.365	(0.967)	86996	85.0	2.83
*	62 Phenanthrene-d10	188.00	14.858	14.857	(1.000)	344084	40.0	
	63 Phenanthrene	178.00	14.942	14.931	(1.006)	615986	70.4	2.35
	64 Anthracene	178.00	15.100	15.077	(1.016)	600939	67.8	2.26
	65 Carbazole	167.00	15.645	15.645	(1.053)	561313	61.0	2.03
	66 Di-n-butylphthalate	149.00	16.850	16.839	(1.134)	645179	61.5	2.05
	67 Fluoranthene	202.00	18.129	18.120	(1.220)	632721	67.5	2.25
	69 Pyrene	202.00	18.654	18.653	(0.870)	628238	72.8	2.43
$	70 Terphenyl-d14 (SS)	244.00	19.168	19.175	(0.894)	273314	45.1	1.50
	71 Butyl benzyl phthalate	149.00	20.405	20.395	(0.952)	352588	74.9	2.50
	72 3,3'-Dichlorobenzidine	252.00	21.432	21.432	(1.000)	139359	53.4	1.78
	73 Benzo(a)anthracene	228.00	21.411	21.407	(0.999)	560881	77.2	2.57
*	74 Chrysene-d12	240.00	21.432	21.429	(1.000)	226101	40.0	
	75 Chrysene	228.00	21.495	21.482	(1.003)	519437	72.2	2.41
	76 Bis(2-ethylhexyl)phthalate	149.00	21.717	21.713	(1.013)	461134	75.0	2.50
	77 Di-n-octylphthalate	149.00	23.008	23.010	(0.950)	612264	69.4	2.32
	78 Benzo(b)fluoranthene	252.00	23.554	23.544	(0.973)	549057	82.5	2.75
	79 Benzo(k)fluoranthene	252.00	23.607	23.596	(0.975)	532811	71.7	2.39

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (mg/Kg)
80 Benzo(a)pyrene	252.00	24.132	24.120	(0.997)	466481	75.9	2.53
* 81 Perylene-d12	264.00	24.217	24.226	(1.000)	230194	40.0	
82 Indeno(1,2,3-cd)pyrene	276.00	26.087	26.080	(1.077)	484318	72.9	2.43
83 Dibenz(a,h)anthracene	278.00	26.118	26.112	(1.079)	394167	72.8	2.42
84 Benzo(g,h,i)perylene	276.00	26.529	26.522	(1.095)	378835	69.7	2.32

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Inchcape Testing Services - Environmental Laboratories

Unknown Compounds Quantitation Report

Data file : /chem3/ITS8.i/090796.b/HB627.d
Lab Smp Id: 3550 BSD Client Smp ID: 3550 BSD
Inj Date : 07-SEP-1996 21:01
Operator : VDLITTLE Inst ID: ITS8.i
Smp Info : 8270_ABN_S;;AB848-83;1
Misc Info : 30/1 EX 09-03-96
Comment :
Method : /chem3/ITS8.i/090796.b/abn8.m
Meth Date : 09-Sep-1996 11:27 mll
Cal Date : 07-SEP-1996 18:34 Cal File: HB623.d
Als bottle: 1 QC Sample: BSD
Dil Factor: 1.000 Target Version: 3.10
Integrator: HP RTE Compound Sublist: all.sub
Sample Matrix: SOIL
Quantitative Mode : Use RF of Nearest Std

- NO TENTATIVELY IDENTIFIED COMPOUNDS -

Inchcape Testing Services - Environmental Laboratories

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: ITS8.i
Lab File ID: HB627.d
Lab Smp Id: 3550 BSD
Analysis Type: SV
Quant Type: ISTD
Operator: VDLITTLE
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/1 EX 09-03-96

Calibration Date: 09/07/96
Calibration Time: 1834
Client Smp ID: 3550 BSD
Level: LOW
Sample Type: SOIL

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	88252	44126	176504	77241	-12.48
29 Naphthalene-d8	339046	169523	678092	303787	-10.40
45 Acenaphthene-d10	191883	95942	383766	177764	-7.36
62 Phenanthrene-d10	349685	174842	699370	344084	-1.60
74 Chrysene-d12	255574	127787	511148	226101	-11.53
81 Perylene-d12	273737	136868	547474	230194	-15.91

OMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	% DIFF
10 1,4-Dichlorobenzene-	5.41	4.91	5.91	5.42	0.01
29 Naphthalene-d8	7.70	7.20	8.20	7.71	0.17
45 Acenaphthene-d10	11.18	10.68	11.68	11.18	-0.01
62 Phenanthrene-d10	14.86	14.36	15.36	14.86	0.01
74 Chrysene-d12	21.43	20.93	21.93	21.43	0.02
81 Perylene-d12	24.23	23.73	24.73	24.22	-0.04

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

Inchcape Testing Services - Environmental Laboratories

RECOVERY REPORT

Client Name:
Sample Matrix: SOLID
Lab Smp Id: 3550 BSD
Level: LOW
Data Type: MS DATA
SpikeList File: 8270_100.spk
Method File: /chem3/ITS8.i/090796.b/abn8.m
Misc Info: 30/1 EX 09-03-96

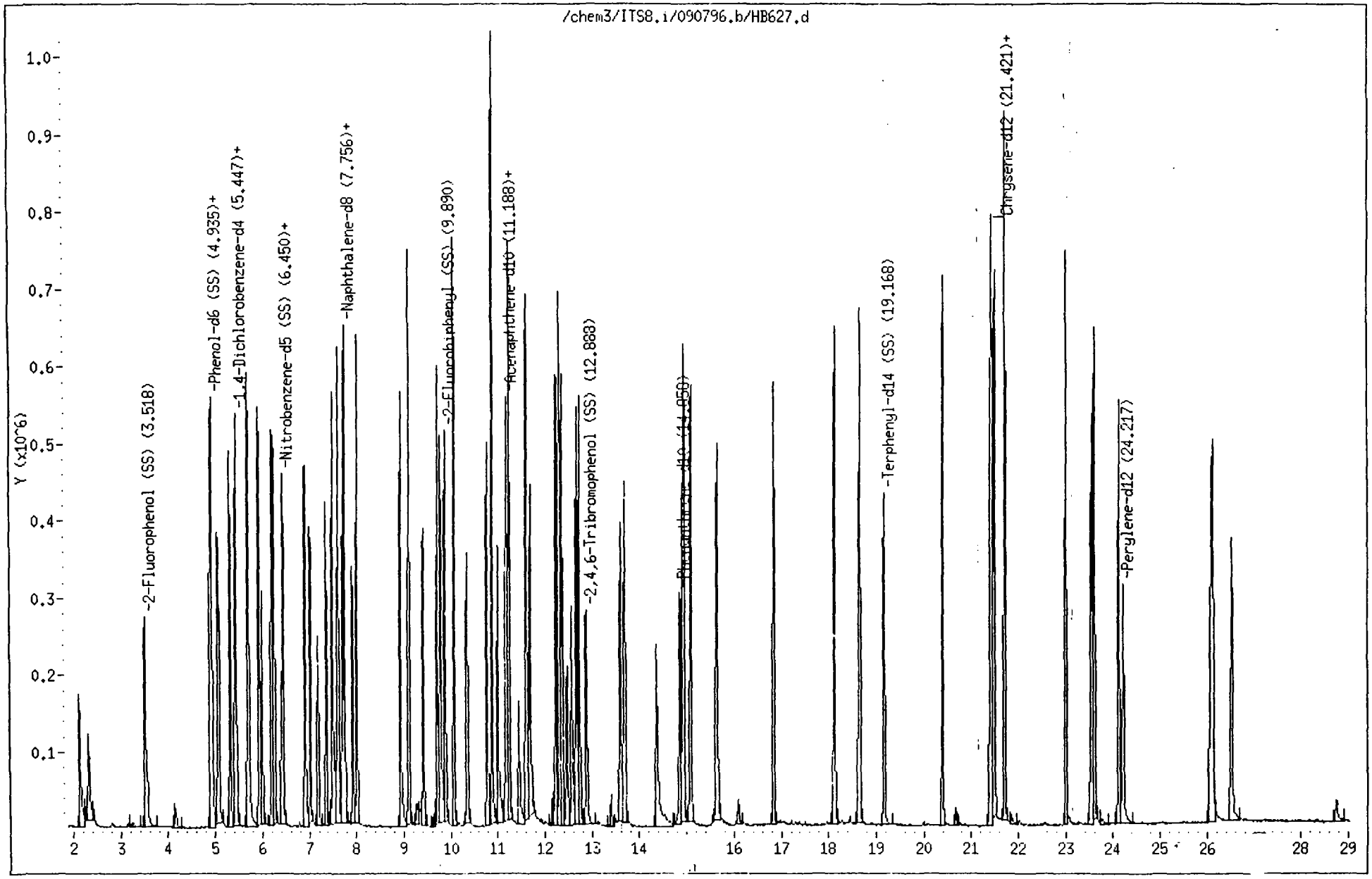
Client SDG: 090796
Fraction: SV
Client Smp ID: 3550 BSD
Operator: VDLITTLE
SampleType: BSD
Quant Type: ISTD

	SPIKE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
6	Phenol	3.33	2.62	78.77	5-112
8	2-Chlorophenol	3.33	2.69	80.82	23-134
11	1,4-Dichlorobenzen	3.33	2.50	75.15	20-124
28	1,2,4-Trichloroben	3.33	2.63	78.86	44-142
33	4-Chloro-3-methylp	3.33	2.67	80.22	22-147
46	Acenaphthene	3.33	2.37	71.11	47-145
48	4-Nitrophenol	3.33	2.98	89.30	10-132
50	2,4-Dinitrotoluene	3.33	2.97	88.99	39-139
61	Pentachlorophenol	3.33	2.83	84.98	14-176
69	Pyrene	3.33	2.43	72.80	52-115
16	N-Nitrosodi-n-prop	3.33	2.37	71.10	10-230

	SURROGATE COMPOUND	CONC ADDED mg/Kg	CONC RECOVERED mg/Kg	% RECOVERED	LIMITS
$ 3	2-Fluorophenol (SS	3.33	2.46	73.69	25-121
$ 4	Phenol-d6 (SS)	3.33	2.42	72.64	24-113
$ 19	Nitrobenzene-d5 (S	1.67	1.38	83.14	23-120
$ 38	2-Fluorobiphenyl (	1.67	1.40	83.94	30-115
$ 58	2,4,6-Tribromophen	3.33	2.76	82.92	19-122
$ 70	Terphenyl-d14 (SS)	1.67	1.50	90.29	18-137

Data File: /chem3/ITS8.i/090796.b/HB627.d
Date : 07-SEP-1996 21:01
Client ID: 3550 BSD
Sample Info: 8270_ABN_S;;AB848-83;1
Volume Injected (uL): 1.0
Column phase: DB-5

Instrument: ITS8.i
Operator: VDLITTLE
Column diameter: 0.25



PREPARATION AND ANALYSIS LOGS

BATCH: AB848-83

DATE STARTED: 9-3-96/1500

Method 3550 or Semi-Volatile Organics in Soil (8270)

ITS Environmental, Dallas, Tx (214) 238-5591

494

Sample I.D.:	RE-EXTRACT?	CLIENT I.D.:	Case Narrative?	30g soil +/- 0.1g	add 60g+ Na2SO4 lot# K05648	1.0mL surrogate 50 ppm B/N 100 acids # AB868-05	1.0 mL spike 100 ppm # AB868-10/AB868-8	100mL methylene chloride lot# K49324	sonicate 3 X 3 min.	K-D conc. to ~4mL (90-100 C)	GPC Cleanup (Y) / N Lot # K53075B / 4998ZC	K-D conc. to ~4 mL (90-100 C)	micro K-D to <1 mL	final vol. 1.0 mL	store in 1.8 mL clear vials	notes/comments (Sample re-weighed, Clean-up methods & Lot numbers, Screen Data, misc info, etc.,..)
* BLANK		N/A		P.S	P.S	P.S		P.S	PS	LT	LT	TP	TP	LT	LT	
BS		↓		↓	↓	↓	P.S	↓	↓	↓	↓	↓	↓	↓	↓	
BSD							↓									
MS, 9653-2																
MSD, 9653-2																
9636-1		80-6 HEAVY OIL TANK														
9650-1		96-22S#SR														
-2		-17D#SR														
-3		-17D#CS-3														
-4		-12D#SR-1														
9653-1		SS001SWMUG-5														
-2		SS001SWMUG-105														
-3		SG002AOC2-5														
9664-1		WOSS-3-2														
-2		-4-2														
-3		-5-2														
-4		-6-2														
9682-1		96-7S#SR														
-2		96-3S#SR														
9686-1		S-1 BOTTOM														
9558-9		B13-SB3		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	↓	

LT

0903827002

Date/Time Completed: 9-5-96 / 1500

APPROVAL:

SAMPLE INFORMATION SUMMARY

BATCH: /chem2/ITS3.i/28Aug1996A.b

File	Injection Date	Sample Type	Dil Factor	Inst ID	Method	Method Batch
fd050.d	28-AUG-96 09:43	DFTPP	1.00	ITS3	dftp3.m	28Aug1996.b
fd051.d	28-AUG-1996 10:00	Continuing Cal	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996.b
fd052.d	28-AUG-1996 10:34	Continuing Cal	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996.b
fd053.d	28-AUG-1996 11:09	Unknown	2.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996.b
fd054.d	28-AUG-1996 11:44	Cal Level 7	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd055.d	28-AUG-1996 12:19	Cal Level 6	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd056.d	28-AUG-1996 12:54	Cal Level 5	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd057.d	28-AUG-1996 13:28	Cal Level 4	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd058.d	28-AUG-1996 14:03	Continuing Cal	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd059.d	28-AUG-1996 14:38	Cal Level 2	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd060.d	28-AUG-1996 15:13	Cal Level 1	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd061.d	28-AUG-1996 15:48	Cal Level 7	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd062.d	28-AUG-1996 16:22	Cal Level 6	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd063.d	28-AUG-1996 16:57	Cal Level 5	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b

Data File	Matrix	Fraction	Lab Sample ID	Lab Prep Batch	Client Sample ID	Client Sample Group
fd050.d	NONE	SV	DFTPP AB396-62-2	28Aug1996	ITS3 DFTPP 04-01-96	28Aug1996
fd051.d	NONE	SV	ANLN050 AB396-56-2	AB396-56-2 03-12-96	ANLN050 AB396-56-2	28Aug1996
fd052.d	NONE	SV	SSTD050 AB396-55-2	AB396-55-2 03-12-96	SSTD050 AB396-55-2	28Aug1996
fd053.d	SOLID	SV	D96-9226-2	AB848-21 08-26-96	Analytical 30/2	28Aug1996
fd054.d	NONE	SV	SSTD160 AB396-55-2	AB396-55-2 03-12-96	SSTD160 AB396-55-2	28Aug1996
fd055.d	NONE	SV	SSTD120 AB396-55-2	AB396-55-2 03-12-96	SSTD120 AB396-55-2	28Aug1996
fd056.d	NONE	SV	SSTD100 AB396-58-3	AB396-58-3 08-01-96	SSTD100 AB396-58-3	28Aug1996
fd057.d	NONE	SV	SSTD080 AB396-55-2	AB396-55-2 03-12-96	SSTD080 AB396-55-2	28Aug1996
fd058.d	NONE	SV	SSTD050 AB396-55-2	AB396-55-2 03-12-96	SSTD050 AB396-55-2	28Aug1996
fd059.d	NONE	SV	SSTD020 AB396-55-2	AB396-55-2 03-12-96	SSTD020 AB396-55-2	28Aug1996
fd060.d	NONE	SV	SSTD010 AB396-55-2	AB396-55-2 03-12-96	SSTD010 AB396-55-2	28Aug1996
fd061.d	NONE	SV	ANLN160 AB396-56-2	AB396-56-2 03-12-96	ANLN160 AB396-56-2	28Aug1996
fd062.d	NONE	SV	ANLN120 AB396-56-2	AB396-56-2 03-12-96	ANLN120 AB396-56-2	28Aug1996
fd063.d	NONE	SV	ANLN100 AB396-69-1	AB396-69-1 08-01-96	ANLN100 AB396-69-1	28Aug1996

Data File	Compound Sublist	Spike List File	Sample Ref #	QC Group Ref #	Init Cal Ref #	Batch Ref #
fd050.d	all.sub		1055166	1055003	367179	1055001
fd051.d	ANILINE_50.sub	AFCEE_Soil.spk	1055168	1055003	1051583	1055020
fd052.d	SSTD050.sub	AFCEE_Soil.spk	1055169	1055003	1051583	1055020
fd053.d	all.sub	AFCEE_Soil.spk	1055171	1055003	1051583	1055020
fd054.d	SSTD050.sub	AFCEE_Soil.spk	1055172	1055003	1055217	1055170
fd055.d	SSTD050.sub	AFCEE_Soil.spk	1055173	1055003	1055217	1055170
fd056.d	SSTD050.sub	AFCEE_Soil.spk	1055174	1055003	1055217	1055170
fd057.d	SSTD050.sub	AFCEE_Soil.spk	1055175	1055003	1055217	1055170
fd058.d	SSTD050.sub	AFCEE_Soil.spk	1055176	1055003	1055217	1055170
fd059.d	SSTD050.sub	AFCEE_Soil.spk	1055177	1055003	1055217	1055170
fd060.d	SSTD050.sub	AFCEE_Soil.spk	1055178	1055003	1055217	1055170
fd061.d	ANILINE_50.sub	AFCEE_Soil.spk	1055179	1055003	1055217	1055170
fd062.d	ANILINE_50.sub	AFCEE_Soil.spk	1055180	1055003	1055217	1055170
fd063.d	ANILINE_50.sub	AFCEE_Soil.spk	1055181	1055003	1055217	1055170

SAMPLE INFORMATION SUMMARY

BATCH: /chem2/ITS3.i/28Aug1996A.b

File	Injection Date	Sample Type	Dil Factor	Inst ID	Method	Method Batch
fd064.d	28-AUG-1996 17:32	Cal Level 4	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd065.d	28-AUG-1996 18:07	Continuing Cal	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd066.d	28-AUG-1996 18:41	Cal Level 2	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd067.d	28-AUG-1996 19:16	Cal Level 1	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd068.d	28-AUG-1996 19:51	Unknown	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd069.d	28-AUG-1996 20:25	Unknown	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd070.d	28-AUG-1996 21:00	Unknown	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b
fd071.d	28-AUG-1996 21:34	Unknown	1.00	ITS3	abn3_AFCEE_Soil.m	28Aug1996A.b

Data File	Matrix	Fraction	Lab Sample ID	Lab Prep Batch	Client Sample ID	Client Sample Group
fd064.d	NONE	SV	ANLN080 AB396-56-2	AB396-56-2 03-12-96	ANLN080 AB396-56-2	28Aug1996
fd065.d	NONE	SV	ANLN050 AB396-56-2	AB396-56-2 03-12-96	ANLN050 AB396-56-2	28Aug1996
fd066.d	NONE	SV	ANLN020 AB396-56-2	AB396-56-2 03-12-96	ANLN020 AB396-56-2	28Aug1996
fd067.d	NONE	SV	ANLN010 AB396-56-2	AB396-56-2 03-12-96	ANLN010 AB396-56-2	28Aug1996
fd068.d	NONE	SV	ANLN050 AB396-58-1	AB396-58-1 03-13-96	ANLN050 AB396-58-1	28Aug1996
fd069.d	NONE	SV	SSTD050 AB396-60-2	AB396-60-2 03-19-96	SSTD050 AB396-60-2	28Aug1996
fd070.d	NONE	SV	(Data Not Used)	AB396-60-2 03-19-96	SSTD050 AB396-60-2	28Aug1996
fd071.d	NONE	SV	(Data Not Used)	AB396-58-1 03-13-96	ANLN050 AB396-58-1	28Aug1996

Data File	Compound Sublist	Spike List File	Sample Ref #	QC Group Ref #	Init Cal Ref #	Batch Ref #
fd064.d	ANILINE_50.sub	AFCEE_Soil.spk	1055182	1055003	1055217	1055170
fd065.d	ANILINE_50.sub	AFCEE_Soil.spk	1055183	1055003	1055217	1055170
fd066.d	ANILINE_50.sub	AFCEE_Soil.spk	1055184	1055003	1055217	1055170
fd067.d	ANILINE_50.sub	AFCEE_Soil.spk	1055185	1055003	1055217	1055170
fd068.d	ANLN_Supelco.sub	AFCEE_Soil.spk	1055222	1055003	1055217	1055170
fd069.d	all.sub	AFCEE_Soil.spk	1055223	1055003	1055217	1055170
fd070.d	all.sub	AFCEE_Soil.spk	1055224	1055003	1055217	1055170
fd071.d	ANLN_Supelco.sub	AFCEE_Soil.spk	1055225	1055003	1055217	1055170

09-06-96 W/W

Data File	Injection Date	Lab Sample ID	Lab Prep Batch	Client Sample ID
fd247.d	07-SEP-1996 00:03	D96-9246-2	0829827001	MW49D05#N1#(10-12')
fd248.d	07-SEP-1996 00:38	D96-9709-1	0904827001	EB2
fd249.d	07-SEP-1996 01:13	D96-9709-16	0904827002	SB107
fd250.d	07-SEP-1996 01:48	D96-9709-12	0904827002	B30-SB3 9.5-9.5'
fd251.d	07-SEP-96 02:23	ANLN050 AB396-56-2	AB396-56-2	ANLN050 AB396-56-2
fd252.d	07-SEP-1996 02:57	SSTD050 AB396-72-2	AB396-72-2	SSTD050 AB396-72-2
fd253.d	07-SEP-1996 03:32	SSTD050 AB396-72-2	AB396-72-2	SSTD050 AB396-72-2

09-07-96 W/W

Data File	Injection Date	Lab Sample ID	Lab Prep Batch	Client Sample ID
fd254.d	07-SEP-96 16:26	DFTPP AB396-62-2	07Sep1996	ITS3 DFTPP 04-01-96
fd255.d	07-SEP-1996 16:42	SSTD050 AB396-72-2	AB396-72-2	SSTD050 AB396-72-2
~~fd256.d~~	07-SEP-1996 17:21	DID NOT USE	07Sep1996	
fd257.d	07-SEP-96 17:56	ANLN050 AB396-56-2	AB396-56-2	ANLN050 AB396-56-2
fd258.d	07-SEP-1996 18:31	8270 BLK 30/1	AB878-2	8270 BLK 30/1
fd259.d	07-SEP-1996 19:05	8270 BS 30/1	AB878-2	8270 BS 30/1
fd260.d	07-SEP-1996 19:40	8270 BSD 30/1	AB878-2	8270 BSD 30/1
fd261.d	07-SEP-1996 20:15	D96-9654-5	AB878-2	D96-9654-5
fd262.d	07-SEP-1996 20:50	D96-9654-6	AB878-2	D96-9654-6
fd263.d	07-SEP-1996 21:25	D96-9654-4	AB878-2	96-9S#CS01
fd264.d	07-SEP-1996 21:59	D96-9654-10	AB878-2	96-23S#CS01
fd265.d	07-SEP-1996 22:34	D96-9654-13	AB878-2	96-23S#SR1
fd266.d	07-SEP-1996 23:09	D96-9654-1	AB878-2	96-6D#SR1
fd267.d	07-SEP-1996 23:43	D96-9654-2	AB878-2	96-34S#CS01

09-07-96 W/W

Data File	Injection Date	Lab Sample ID	Lab Prep Batch	Client Sample ID
fd268.d	08-SEP-1996 00:18	D96-9654-3	AB878-2	96-9S#SR
fd269.d	08-SEP-1996 00:53	D96-9654-7	AB878-2	96-8S#SR
fd270.d	08-SEP-1996 01:27	D96-9650-3	AB848-83	96-17D#CS-3
fd271.d	08-SEP-1996 02:02	D96-9650-1	AB848-83	96-22S#SR
fd272.d	08-SEP-1996 02:37	D96-9650-4	AB848-83	96-12D#SR-1
fd273.d	08-SEP-1996 03:11	D96-9653-3	AB848-83	SG002AOC2-5

09-09-96A W/W

Data File	Injection Date	Lab Sample ID	Lab Prep Batch	Client Sample ID
fd267.d	09-SEP-96 10:38	DFTPP AB396-62-2	09Sep1996	ITS3 DFTPP 04-01-96
fd268.d	09-SEP-1996 10:54	SSTD050 AB396-72-2	09Sep1996	SSTD050 AB396-72-2
fd269.d	09-SEP-96 11:29	ANLN050 AB396-56-2	09Sep1996	ANLN050 AB396-56-2
fd270.d	09-SEP-1996 12:03	D96-9709-20	09Sep1996	D96-9709-20
fd271.d	09-SEP-96 12:38	D96-9558-15	09Sep1996	D96-9558-15
fd272.d	09-SEP-96 13:13	D96-9558-16	09Sep1996	D96-9558-16
fd273.d	09-SEP-96 13:48	D96-9558-16	09Sep1996	D96-9558-16
fd274.d	09-SEP-96 14:22	D96-9557-9	09Sep1996	D96-9557-9
fd275.d	09-SEP-96 14:57	D96-9557-8	09Sep1996	D96-9557-8
fd276.d	09-SEP-96 15:32	D96-9557-3	09Sep1996	D96-9557-3
fd277.d	09-SEP-96 16:40	D96-9557-4	09Sep1996	D96-9557-4
fd278.d	09-SEP-96 17:16	D96-9557-5	09Sep1996	D96-9557-5
fd279.d	09-SEP-96 17:51	D96-9557-6	09Sep1996	D96-9557-6
fd280.d	09-SEP-96 18:25	D96-9557-7	09Sep1996	D96-9557-7

09-09-96A

Data File	Injection Date	Lab Sample ID
fd281.d	09-SEP-96 19:00	D96-9557-9
fd282.d	09-SEP-96 19:35	D96-9557-10
fd283.d	09-SEP-96 20:10	ANLN050 AB396-56-2
fd284.d	09-SEP-96 20:45	SSTD050 AB396-72-2

09-09-96B

Data File	Injection Date	Lab Sample ID
gc486.d	07-SEP-96 20:52	DFTPP AB396-62
gc487.d	07-SEP-1996 21:10	SSTD50 AB396-55
gc488.d	07-SEP-96 21:39	ANLN50 AB396-56
gc489.d	07-SEP-96 22:09	D96-9652-20
gc490.d	07-SEP-96 22:39	D96-9652-21
gc491.d	07-SEP-96 23:09	D96-9652-21
gc492.d	07-SEP-96 23:38	9654-4MS
gc493.d	08-SEP-96 00:08	9654-4MSD
gc494.d	08-SEP-96 00:38	D96-9654-4
gc495.d	08-SEP-96 01:08	D96-9652-11
gc496.d	08-SEP-96 01:37	D96-9652-1
gc497.d	08-SEP-96 02:07	D96-9652-12
gc498.d	08-SEP-96 02:37	D96-9652-13
gc499.d	08-SEP-96 03:06	D96-9652-14

09-09-96B

Data File	Injection Date	Lab Sample ID
gc500.d	08-SEP-96 03:34	D96-9652-15
gc501.d	08-SEP-96 04:06	D96-9652-16
gc502.d	08-SEP-96 04:35	D96-9652-17
gc503.d	08-SEP-96 05:05	D96-9652-2
gc504.d	08-SEP-96 05:35	D96-9652-3
gc505.d	08-SEP-96 06:05	D96-9652-10
gc506.d	08-SEP-96 06:34	D96-9652-18
gc507.d	08-SEP-96 07:04	ANLN050
gc508.d	08-SEP-1996 07:34	SSTD050

09-09-96

Data File	Injection Date	Lab Sample ID
fd285.d	09-SEP-96 21:33	DFTPP AB396-6
fd286.d	09-SEP-1996 21:49	SSTD050 AB396-7
fd287.d	09-SEP-96 22:23	ANLN050 AB396-5
fd288.d	09-SEP-1996 22:58	3520 BLANK
fd289.d	09-SEP-1996 23:33	3520 BS
fd290.d	10-SEP-1996 00:08	D96-9775-9
fd291.d	10-SEP-1996 00:43	D96-9815-1
fd292.d	10-SEP-1996 01:17	D96-9801-1
fd293.d	10-SEP-1996 01:52	D96-9709-17
fd294.d	10-SEP-1996 02:27	D96-9709-18
fd295.d	10-SEP-1996 03:01	D96-9706-18
fd296.d	10-SEP-1996 03:36	D96-9709-3
fd297.d	10-SEP-1996 04:11	D96-9709-4
fd298.d	10-SEP-1996 04:46	D96-9709-2

SAMPLE INFORMATION SUMMARY

BATCH: /chem3/ITS8.i/083196.b

File	Injection Date	Sample Type	Dil Factor	Inst ID	Method	Method Batch
HB504.d	31-AUG-96 16:26	DFTPP	1.00	ITS8	dftp8.m	083196.b
HB505.d	31-AUG-1996 16:47	Cal Level 5	1.00	ITS8	abn8.m	083196.b
HB506.d	31-AUG-1996 17:23	Cal Level 4	1.00	ITS8	abn8.m	083196.b
HB507.d	31-AUG-1996 18:00	Cal Level 3	1.00	ITS8	abn8.m	083196.b
HB508.d	31-AUG-1996 18:37	Cal Level 2	1.00	ITS8	abn8.m	083196.b
HB509.d	31-AUG-1996 19:13	Cal Level 1	1.00	ITS8	abn8.m	083196.b
HB510.d	31-AUG-1996 19:50	Cal Level 5	1.00	ITS8	abn8.m	083196.b
HB511.d	31-AUG-1996 20:27	Cal Level 4	1.00	ITS8	abn8.m	083196.b
HB512.d	31-AUG-1996 21:03	Cal Level 3	1.00	ITS8	abn8.m	083196.b
HB513.d	31-AUG-1996 21:40	Cal Level 2	1.00	ITS8	abn8.m	083196.b
HB514.d	31-AUG-1996 22:17	Cal Level 1	1.00	ITS8	abn8.m	083196.b
HB515.d	31-AUG-1996 22:53	BLANK	1.00	ITS8	abn8_625.m	083196.b
HB516.d	31-AUG-1996 23:30	BS	1.00	ITS8	abn8_625.m	083196.b
HB517.d	01-SEP-1996 00:07	BSD	1.00	ITS8	abn8_625.m	083196.b

Data File	Matrix	Fraction	Lab Sample ID	Lab Prep Batch	Client Sample ID	Client Sample Group
HB504.d	NONE	SV	DFTPP AB396-62-2	083196	ITS8 DFTPP 04-01-96	083196
HB505.d	NONE	SV	SSTD160 AB396-55-2	AB396-55-2	SSTD160 AB396-55-2	083196
HB506.d	NONE	SV	SSTD120 AB396-55-2	AB396-55-2	SSTD120 AB396-55-2	083196
HB507.d	NONE	SV	SSTD080 AB396-55-2	AB396-55-2	SSTD080 AB396-55-2	083196
HB508.d	NONE	SV	SSTD050 AB396-55-2	AB396-55-2	SSTD050 AB396-55-2	083196
HB509.d	NONE	SV	SSTD020 AB396-55-2	AB396-55-2	SSTD020 AB396-55-2	083196
HB510.d	NONE	SV	ANLN160 AB396-56-2	AB396-56-2 03-12-96	ANLN160 AB396-56-2	083196
HB511.d	NONE	SV	ANLN120 AB396-56-2	AB396-56-2 03-12-96	ANLN120 AB396-56-2	083196
HB512.d	NONE	SV	ANLN080 AB396-56-2	AB396-56-2 03-12-96	ANLN080 AB396-56-2	083196
HB513.d	NONE	SV	ANLN050 AB396-56-2	AB396-56-2 03-12-96	ANLN050 AB396-56-2	083196
HB514.d	NONE	SV	ANLN020 AB396-56-2	AB396-56-2 03-12-96	ANLN020 AB396-56-2	083196
HB515.d	LIQUID	SV	625 Blank 1000/1	AB848-74 08-31-96	625 Blank 1000/1	083196
HB516.d	LIQUID	SV	625 BS 1000/1	AB848-74 08-31-96	625 BS 1000/1	083196
HB517.d	LIQUID	SV	625 BSD 1000/1	AB848-74 08-31-96	625 BSD 1000/1	090196

Data File	Compound Sublist	Spike List File	Sample Ref #	QC Group Ref #	Init Cal Ref #	Batch Ref #
HB504.d	all.sub		1055776	1055777	367179	1055757
HB505.d	SSTD050.sub	8270_100.spk	1055782	1055777	1055964	1055756
HB506.d	SSTD050.sub	8270_100.spk	1055794	1055777	1055964	1055756
HB507.d	SSTD050.sub	8270_100.spk	1055799	1055777	1055964	1055756
HB508.d	SSTD050.sub	8270_100.spk	1055801	1055777	1055964	1055756
HB509.d	SSTD050.sub	8270_100.spk	1055804	1055777	1055964	1055756
HB510.d	ANILINE_50.sub	8270_100.spk	1055806	1055777	1055964	1055756
HB511.d	ANILINE_50.sub	8270_100.spk	1055808	1055777	1055964	1055756
HB512.d	ANILINE_50.sub	8270_100.spk	1055815	1055777	1055964	1055756
HB513.d	ANILINE_50.sub	8270_100.spk	1055818	1055777	1055964	1055756
HB514.d	ANILINE_50.sub	8270_100.spk	1055821	1055777	1055964	1055756
HB515.d	all.sub	625_QC.spk	1055823	1055777	1055860	1055847
HB516.d	all.sub	8270_100.spk	1055828	1055777	1055860	1055847
HB517.d	all.sub	8270_100.spk	1055840	1055777	1055860	1055847

SAMPLE INFORMATION SUMMARY

BATCH: /chem3/ITS8.i/083196.b

File	Injection Date	Sample Type	Dil Factor	Inst ID	Method	Method Batch
HB518.d	01-SEP-1996 00:43	Unknown	1.00	ITS8	abn8_625.m	083196.b
HB519.d	01-SEP-1996 01:20	Unknown	1.00	ITS8	abn8_625.m	083196.b
HB520.d	01-SEP-1996 01:57	Unknown	1.00	ITS8	abn8_625.m	083196.b
HB521.d	01-SEP-1996 02:33	Unknown	1.00	ITS8	abn8_625.m	083196.b
HB522.d	01-SEP-1996 03:10	Unknown	1.00	ITS8	abn8_625.m	083196.b
HB523.d	01-SEP-1996 03:47	Unknown	1.00	ITS8	abn8_625.m	083196.b

Data File	Matrix	Fraction	Lab Sample ID	Lab Prep Batch	Client Sample ID	Client Sample Group
HB518.d	LIQUID	SV	D96-9487-1	AB848-74 08-31-96	Lubbock 1000/1	090196
HB519.d	LIQUID	SV	D96-9487-2	AB848-74 08-31-96	Lubbock 1000/1	090196
HB520.d	LIQUID	SV	D96-9542-4	AB848-74 08-31-96	Dallas 1000/1	090196
HB521.d	LIQUID	SV	D96-9542-2	AB848-74 08-31-96	Dallas 1000/1	090196
HB522.d	LIQUID	SV	D96-9584-4	AB848-74 08-31-96	Dallas 1000/1	090196
HB523.d	LIQUID	SV	D96-9639-6	AB848-74 08-31-96	Dallas 1000/1	090196

Data File	Compound Sublist	Spike List File	Sample Ref #	QC Group Ref #	Init Cal Ref #	Batch Ref #
HB518.d	all.sub	625_QC.spk	1055841	1055777	1055860	1055847
HB519.d	all.sub	625_QC.spk	1055842	1055777	1055860	1055847
HB520.d	all.sub	625_QC.spk	1055843	1055777	1055860	1055847
HB521.d	all.sub	625_QC.spk	1055844	1055777	1055860	1055847
HB522.d	all.sub	625_QC.spk	1055845	1055777	1055860	1055847
HB523.d	all.sub	625_QC.spk	1055846	1055777	1055860	1055847

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Data File	Injection Date	Lab Sample ID	Lab Prep Batch	Client Sample ID
HB561.d	05-SEP-96 09:13	DFTPP AB396-62-2	090596	ITS8 DFTPP 04-01-96
HB562.d	05-SEP-1996 09:33	SSTD050 AB396-72-2	AB396-72-2 08-29-96	SSTD050 AB396-72-2
HB563.d	05-SEP-1996 10:09	ANLN050 AB396-56-2	AB396-56-2 03-12-96	ANLN050 AB396-56-2
HB564.d	05-SEP-1996 10:46	TCLP050 AB396-61-2	AB396-61-2 03-26-96	TCLP050 AB396-61-2
HB565.d	05-SEP-1996 11:23	TCLP Blank 100/1	AB848-90 09-03-96	TCLP Blank 100/1
HB566.d	05-SEP-1996 11:59	TCLP BS 100/1	AB848-90 09-03-96	TCLP BS 100/1
HB567.d	05-SEP-1996 12:36	TCLP BSD 100/1	AB848-90 09-03-96	TCLP BSD 100/1
HB568.d	05-SEP-1996 13:13	D96-9511-1	AB848-71 08-30-96	Handex 100/10
HB569.d	05-SEP-1996 13:49	D96-9516-1	AB848-90 09-03-96	Enviro-Tech 100/1
HB570.d	05-SEP-1996 14:26	D96-9614-12	AB848-76 09-03-96	3520 Blank 1000/1
HB571.d	05-SEP-1996 15:03	3520 BS 1000/1	AB848-76 09-03-96	3520 BS 1000/1
HB572.d	05-SEP-1996 15:39	3520 BSD 1000/1	AB848-76 09-03-96	3520 BSD 1000/1
HB573.d	05-SEP-1996 16:16	D96-9622-2	AB848-70 08-29-96	Delta 30/10
HB574.d	05-SEP-1996 16:53	D96-9603-4	AB848-76 09-03-96	Baton Rouge 800/1

09-05-96A WSW

Data File	Injection Date	Lab Sample ID	Lab Prep Batch	Client Sample ID
HB575.d	05-SEP-1996 17:29	9603-4 MS 400/1	AB848-76 09-03-96	9603-4 MS 400/1
HB576.d	05-SEP-1996 18:06	9603-4 MSD 400/1	AB848-76 09-03-96	9603-4 MSD 400/1
HB577.d	05-SEP-1996 18:43	D96-9614-4	AB848-76 09-03-96	Baton Rouge 800/1
HB578.d	05-SEP-1996 19:19	D96-9603-5	AB848-76 09-03-96	Baton Rouge 800/1
HB579.d	05-SEP-1996 19:56	D96-9614-1	AB848-76 09-03-96	Baton Rouge 800/1
HB580.d	05-SEP-1996 20:32	D96-9614-2	AB848-76 09-03-96	Baton Rouge 800/1

09-05-96B WSW

Data File	Injection Date	Lab Sample ID	Lab Prep Batch	Client Sample ID
HB581.d	05-SEP-1996 22:14	DFTPP AB396-62-2	090596	ITS8 DFTPP 04-01-96
HB582.d	05-SEP-1996 22:34	SSTD050 AB396-72-2	AB396-72-2 08-29-96	SSTD050 AB396-72-2
HB583.d	05-SEP-1996 23:10	ANLN050 AB396-56-2	AB396-56-2 03-12-96	ANLN050 AB396-56-2
HB584.d	05-SEP-1996 23:47	D96-9614-3	AB848-76	9608280054 09-5000-1
HB585.d	06-SEP-1996 00:24	D96-9614-5	AB848-76	9608280056 09-5000-1
HB586.d	06-SEP-1996 01:00	D96-9614-6	AB848-76	9608280057 09-5000-1
HB587.d	06-SEP-1996 01:37	D96-9614-7	AB848-76	9608280058 09-5000-1
HB588.d	06-SEP-1996 02:14	D96-9614-8	AB848-76	9608280059 09-5000-1
HB589.d	06-SEP-1996 02:50	D96-9614-9	AB848-76	9608280060 09-5000-1
HB590.d	06-SEP-1996 03:27	D96-9614-10	AB848-76	9608280061 09-5000-1
HB591.d	06-SEP-1996 04:04	D96-9654-8	AB878-76	96-9SR#CS
HB592.d	06-SEP-1996 04:40	D96-9664-1	AB848-83	Woss-3-2 Goodyear #6
HB593.d	06-SEP-1996 05:17	D96-9664-2	AB848-83	Woss-4-2 Goodyear #6
HB594.d	06-SEP-1996 05:54	D96-9664-3	AB848-83	Woss-5-2 Goodyear #6

09-05-96B WSW

Data File	Injection Date	Lab Sample ID	Lab Prep Batch	Client Sample ID
HB595.d	06-SEP-1996 06:30	D96-9664-4	AB848-83	Woss-6-2 Goodyear #6
HB596.d	06-SEP-1996 07:07	D96-9686-1	AB848-83	S-1 BOTTOM
HB597.d	06-SEP-1996 07:44	D96-9682-2	AB848-83	96-3S#SR
HB598.d	06-SEP-1996 08:20	D96-9653-1	AB848-83	SS001SWMUG-5
HB599.d	06-SEP-1996 08:57	D96-9682-1	AB848-83	96-7S#SR
HB600.d	06-SEP-1996 09:34	D96-9653-1	AB848-83	SS001SWMUG-5

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Data File	Inje
HB60[illegible].d	06-S
HB602.d	06-S
HB603.d	06-S
HB604.d	06-S
HB605.d	06-S
HB606.d	06-S
HB607.d	06-S
HB608.d	06-S
HB609.d	06-S
HB610.d	06-S
HB611.d	06-S
HB612.d	06-S
HB613.d	06-S
HB614.d	06

Data File	In
HB615.d	06-
HB616.d	06-
HB617.d	06-
HB618.d	06-
HB619.d	07-
HB620.d	07-
HB621.d	07-

Data File	I
HB622.d	0
HB623.d	0
HB624.d	0
HB625.d	0
HB626.d	0
HB627.d	0
HB628.d	0
HB629.d	0
HB630.d	0
HB631.d	0
HB632.d	0
HB633.d	0
HB634.d	0
HB635.d	0

Data File
HB636.d
HB637.d
HB638.d
HB639.d

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Client Sample ID	
ITS8 DFTPP 04-01-96	
SSTD050 AB396-72-2	
ANLN050 AB396-56-2	
TCLP050 AB396-61-2	
TCLP Blank	100/1
TCLP BS	100/1
TCLP BSD	100/1
Handex	100/10
Enviro-Tech	100/1
3520 Blank	1000/1
3520 BS	1000/1
3520 BSD	1000/1
Delta	30/10
Baton Rouge	800/1

Client Sample ID	
9603-4 MS	400/1
9603-4 MSD	400/1
Baton Rouge	800/1
Baton Rouge	800/1
Baton Rouge	800/1
Baton Rouge	800/1

Client Sample ID
ITS8 DFTPP 04-01-96
SSTD050 AB396-72-2
ANLN050 AB396-56-2
9608280054 09-5000-1
9608280056 09-5000-1
9608280057 09-5000-1
9608280058 09-5000-1
9608280059 09-5000-1
9608280060 09-5000-1
9608280061 09-5000-1
96-9SR#CS
Woss-3-2 Goodyear #6
Woss-4-2 Goodyear #6
Woss-5-2 Goodyear #6

Client Sample ID
Woss-6-2 Goodyear #6
S-1 BOTTOM
96-3S#SR
SS001SWMUG-5
96-7S#SR
SS002SWMUG-5

Instrument ITS8

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Data File	Injection Date	Lab Sample ID	Lab Prep Batch	Client Sample ID
HB601.d	06-SEP-96 13:47	DFTPP AB396-62-2	090696	ITS8 DFTPP 04-01-96
HB602.d	06-SEP-96 14:07	ANLN050 AB396-56-2	AB396-56-2 03-12-96	ANLN050 AB396-56-2
HB603.d	06-SEP-1996 14:44	SSTD050 AB396-72-2	AB396-72-2	SSTD050 AB396-72-2
HB604.d	06-SEP-96 15:26		090696	
HB605.d	06-SEP-1996 16:03	D96-9732-19	AB848-3	8270 BLK 30/1
HB606.d	06-SEP-1996 16:40	8270 BS 30/1	AB848-3	8270 BS 30/1
HB607.d	06-SEP-1996 17:16	8270 BSD 30/1	AB848-3	8270 BSD 30/1
HB608.d	06-SEP-1996 17:53	D96-9709-3 MS	AB848-3	D96-9709-3 MS
HB609.d	06-SEP-1996 18:30	D96-9709-4 MSD	AB848-3	D96-9709-4 MSD
HB610.d	06-SEP-1996 19:06	D96-9709-2	AB848-3	D96-9709-2
HB611.d	06-SEP-1996 19:43	D96-9732-16	AB848-3	EWA-04A-AX24
HB612.d	06-SEP-1996 20:20	D96-9732-13	AB848-3	EWA-02B-AX22
HB613.d	06-SEP-1996 20:56	8270 BLK 1000/1	AB848-92	8270 BLK 1000/1
HB614.d	06-SEP-1996 21:33	8270 BS 1000/1	AB848-92	8270 BS 1000/1

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Data File	Injection Date	Lab Sample ID	Lab Prep Batch	Client Sample ID
HB615.d	06-SEP-1996 22:09	8270 BSD 1000/1	AB848-92	8270 BSD 1000/1
HB616.d	06-SEP-1996 22:46	D96-9641-1 MS	AB848-92	D96-9641-1 MS
HB617.d	06-SEP-1996 23:23	D96-9641-1 MSD	AB848-92	D96-9641-1 MSD
HB618.d	06-SEP-1996 23:59	D96-9641-1	AB848-92	S60697-1 216
HB619.d	07-SEP-1996 00:36	D96-9641-2	AB848-92	S60697-2 217
HB620.d	07-SEP-1996 01:13	D96-9641-3	AB848-92	S60697-3 218
HB621.d	07-SEP-1996 01:49	D96-9641-5	AB848-92	S60697-5 256

09-07-96 WSW

Data File	Injection Date	Lab Sample ID	Lab Prep Batch	Client Sample ID
HB622.d	07-SEP-96 17:41	DFTPP AB396-62-2	090796	ITS8 DFTPP 04-01-96
HB623.d	07-SEP-1996 18:34	SSTD050 AB396-72-2	090796	SSTD050 AB396-72-2
HB624.d	07-SEP-1996 19:11	ANLN050 AB396-56-2	090796	ANLN050 AB396-56-2
HB625.d	07-SEP-1996 19:47	D96-9650-5	AB848-83	D96-9650-5
HB626.d	07-SEP-1996 20:24	3550 BS	AB848-83	3550 BS
HB627.d	07-SEP-1996 21:01	3550 BSD	AB848-83	3550 BSD
HB628.d	07-SEP-1996 21:37	3550 BS	AB848-70	3550 BS
HB629.d	07-SEP-1996 22:14	D96-9751-8	AB878-12	D96-9751-8
HB630.d	07-SEP-1996 22:51	3550 BS	AB878-12	3550 BS
HB631.d	07-SEP-1996 23:27	3550 BSD	AB878-12	3550 BSD
HB632.d	08-SEP-1996 00:04	D96-9751-2	AB878-12	D96-9751-1MS
HB633.d	08-SEP-1996 00:41	D96-9751-3	AB878-12	D96-9751-1MSD
HB634.d	08-SEP-1996 01:17	D96-9751-1	AB878-12	D96-9751-1
HB635.d	08-SEP-1996 01:54	D96-9751-4	AB878-12	D96-9751-4

09-07-96 WSW

Data File	Injection Date	Lab Sample ID	Lab Prep Batch	Client Sample ID
HB636.d	08-SEP-1996 02:30	D96-9653-2	AB848-83	D96-9653-2
HB637.d	08-SEP-1996 03:07	D96-9653-2	AB848-83	D96-9653-2
HB638.d	08-SEP-1996 03:44	D96-9653-2MS	AB848-83	D96-9653-2MS
HB639.d	08-SEP-1996 04:20	D96-9653-2MSD	AB848-83	D96-9653-2MSD

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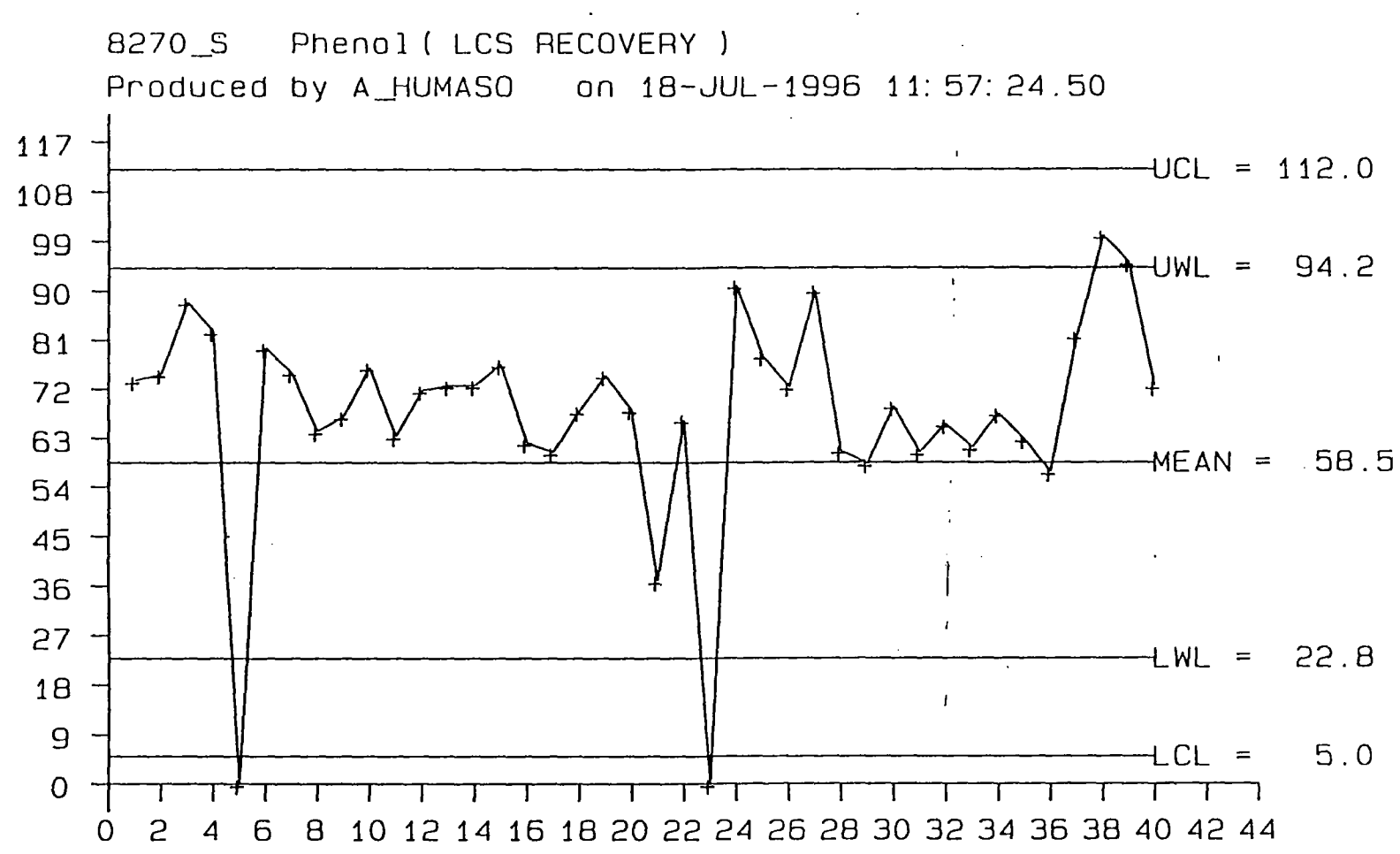
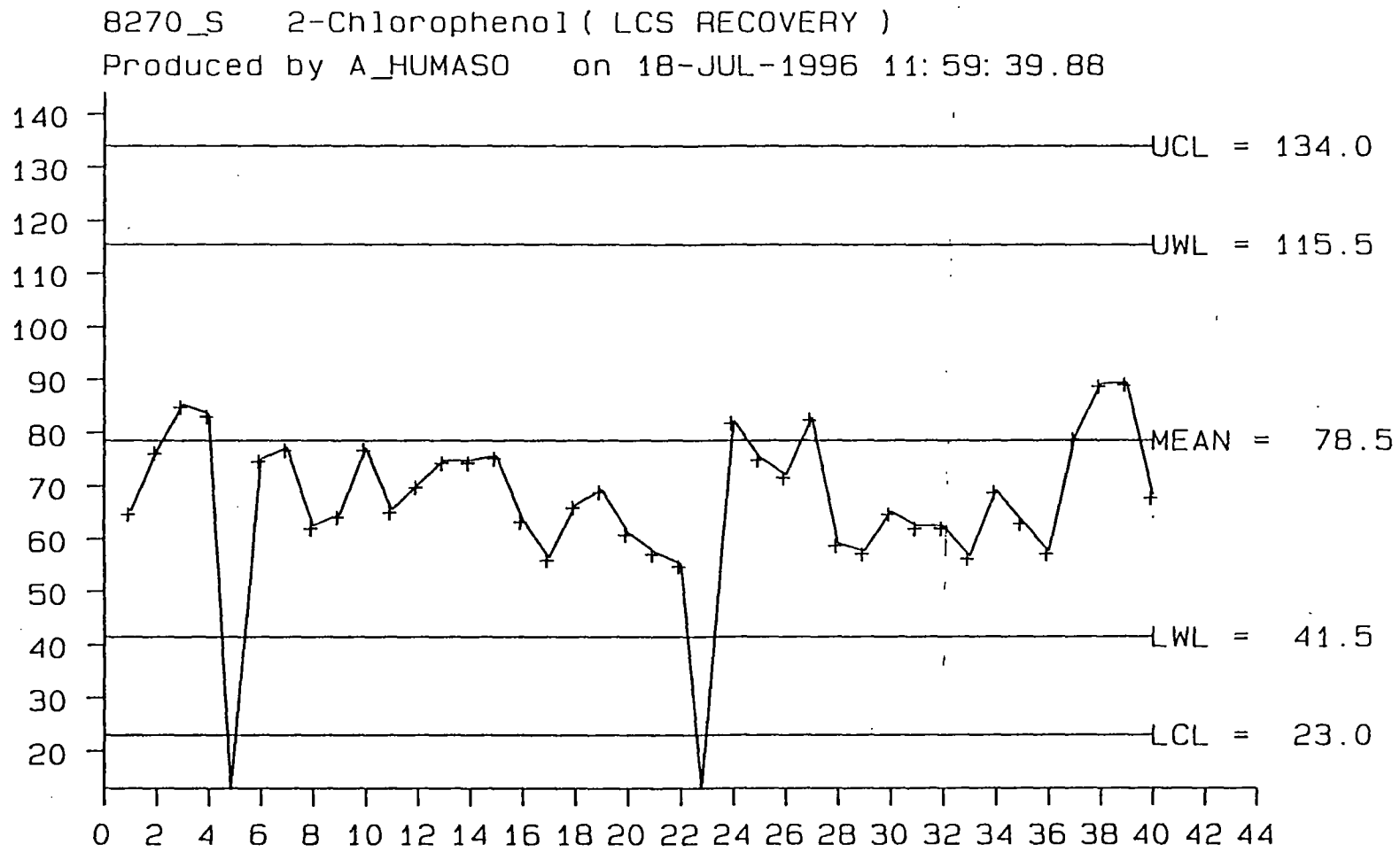
CONTROL CHARTS


8270_S Phenol (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 11:57:24.50
117
108
99
90
81
72
63
54
45
36
27
18
9
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44
UCL = 112.0
UWL = 94.2
MEAN = 58.5
LWL = 22.8
LCL = 5.0

Data Points for: 8270_S Phenol
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 11:57

Current Control Limits
(5.0 - 112.0)

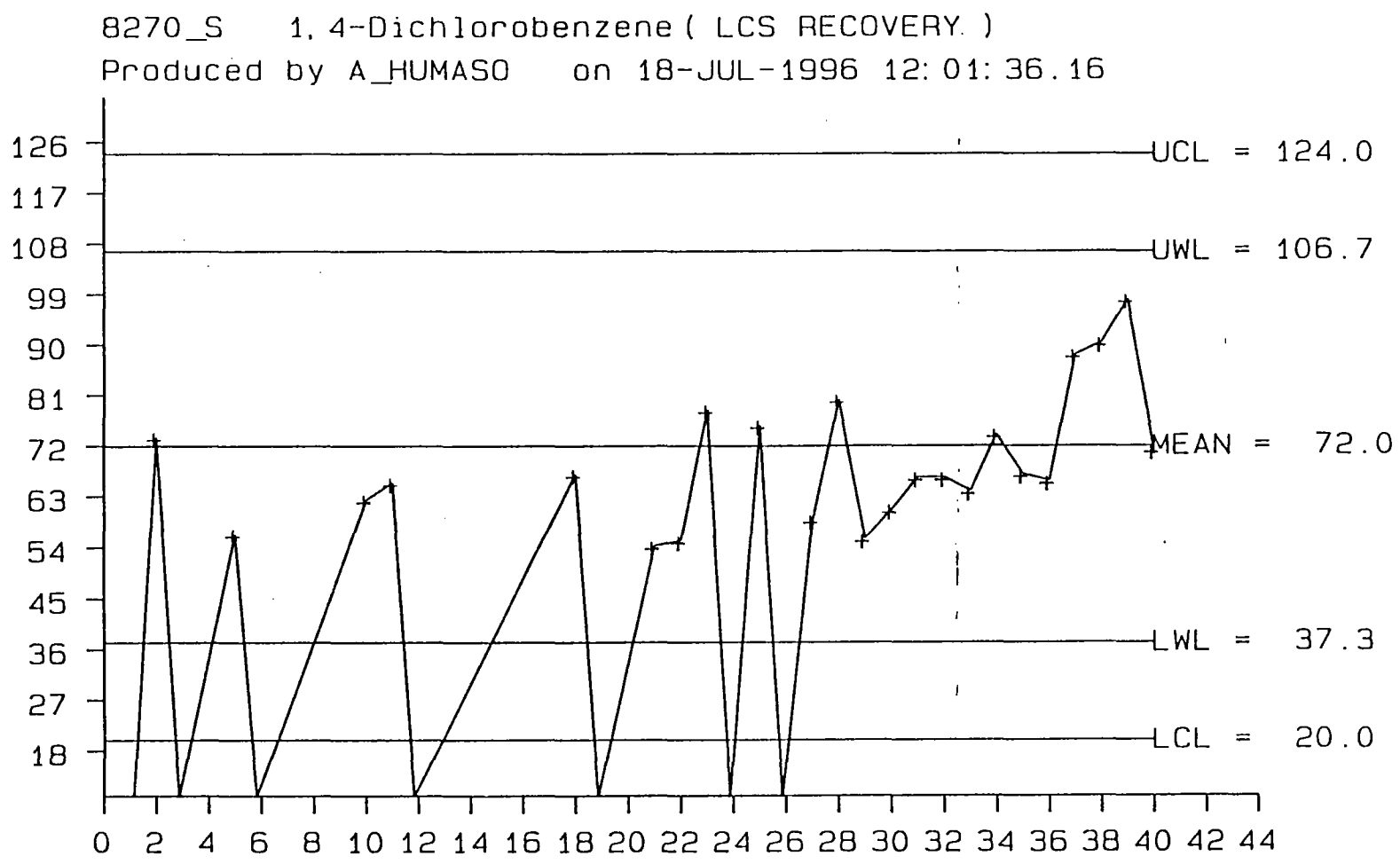
Point	Batch Number	Date Analyzed	Value (%)
1	AB711-44	20-MAR-1996 0	73.6
2	AB711-68	20-MAR-1996 0	74.8
3	AB711-52	20-MAR-1996 0	88.0
4	AB711-75	21-MAR-1996 0	82.6
5	AB711-92	22-MAR-1996 0	0.0
6	AB711-87	22-MAR-1996 0	79.6
7	AB711-100	23-MAR-1996 0	75.1
8	AB712-41	27-MAR-1996 0	64.3
9	AB712-47	28-MAR-1996 0	67.0
10	AB712-99	4-APR-1996 0	76.0
11	AB713-13	5-APR-1996 0	63.4
12	AB714-59	19-APR-1996 0	71.8
13	AB714-72	20-APR-1996 0	72.7
14	AB714-72B	20-APR-1996 0	72.7
15	AB714-40	21-APR-1996 0	76.6
16	AB715-28	26-APR-1996 0	62.2
17	AB715-10	26-APR-1996 0	60.4
18	AB716-93	6-MAY-1996 0	67.9
19	AB764-50B	9-MAY-1996 0	74.5
20	AB766-30	3-JUN-1996 0	68.2
21	AB766-8	7-JUN-1996 0	36.9
22	AB788-42	14-JUN-1996 0	66.4
23		17-JUN-1996 0	0.0
24	AB788-50	17-JUN-1996 0	91.0
25	AB788-81	19-JUN-1996 0	78.1
26	AB788-91	20-JUN-1996 0	72.4
27	AB790-11	21-JUN-1996 0	90.1
28	AB790-01	21-JUN-1996 0	60.7
29	AB790-01A	24-JUN-1996 0	58.3
30	AB790-22	24-JUN-1996 0	68.8
31	AB790-42	26-JUN-1996 0	60.4
32	AB790-67	29-JUN-1996 0	65.5
33	AB790-43	29-JUN-1996 0	61.3
34	AB790-61	29-JUN-1996 0	67.5
35	AB790-60	29-JUN-1996 0	62.8
36	AB790-82	2-JUL-1996 0	56.8
37	AB790-93	5-JUL-1996 0	81.7
38	AB815-22	9-JUL-1996 0	100
39	AB815-24	9-JUL-1996 0	95.2
40	AB815-39	11-JUL-1996 0	72.5


8270_S 2-Chlorophenol (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 11:59:39.88
140
130
120
110
100
90
80
70
60
50
40
30
20
UCL = 134.0
UWL = 115.5
MEAN = 78.5
LWL = 41.5
LCL = 23.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8270_S 2-Chlorophenol
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 11:59

Current Control Limits
(23.0 - 134.0)

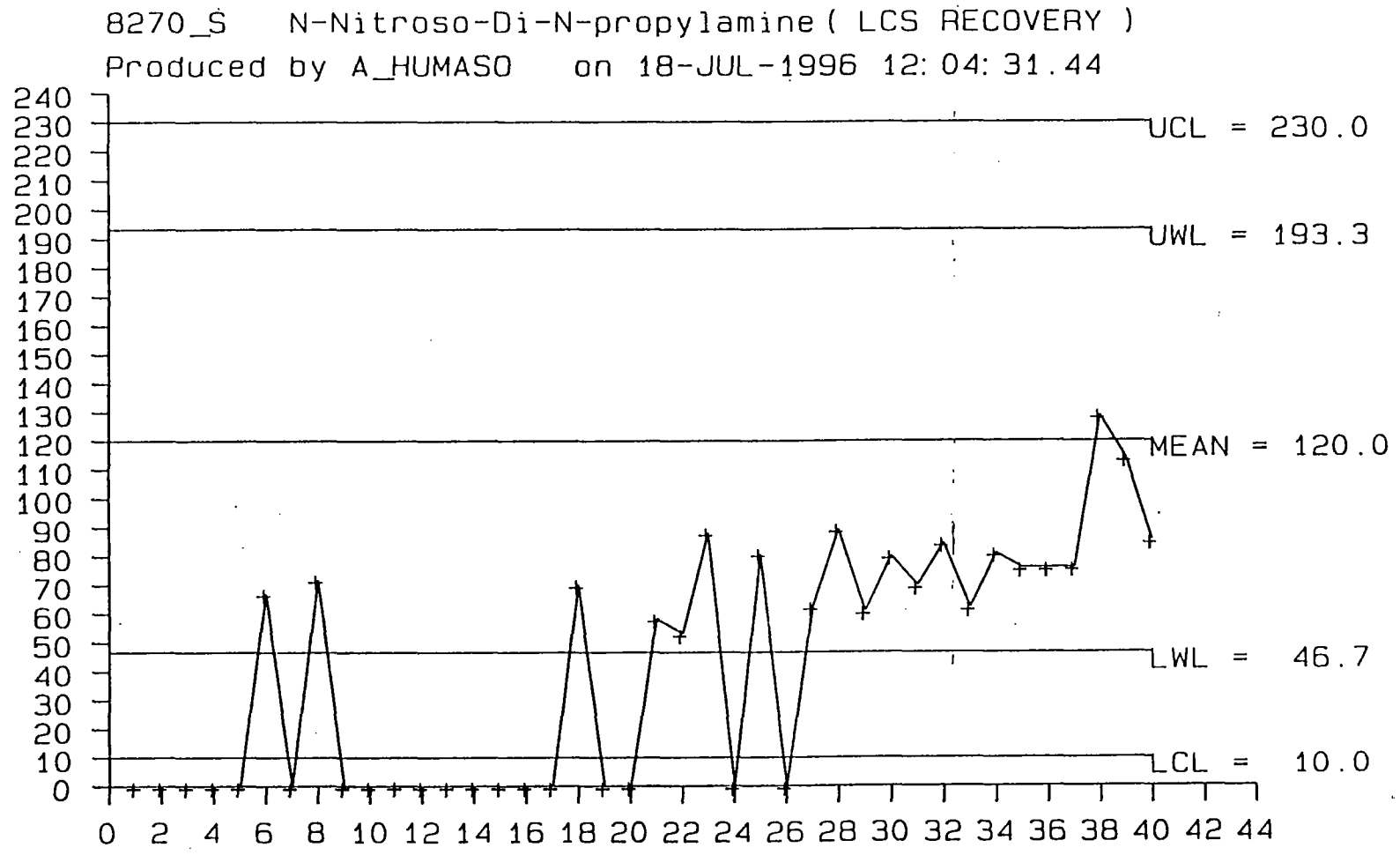
Point	Batch Number	Date Analyzed	Value (%)
1	AB711-44	20-MAR-1996 0	65.2
2	AB711-68	20-MAR-1996 0	76.6
3	AB711-52	20-MAR-1996 0	85.3
4	AB711-75	21-MAR-1996 0	83.5
5	AB711-92	22-MAR-1996 0	0.0
6	AB711-87	22-MAR-1996 0	75.1
7	AB711-100	23-MAR-1996 0	77.2
8	AB712-41	27-MAR-1996 0	62.5
9	AB712-47	28-MAR-1996 0	64.6
10	AB712-99	4-APR-1996 0	77.2
11	AB713-13	5-APR-1996 0	65.5
12	AB714-59	19-APR-1996 0	70.3
13	AB714-72	20-APR-1996 0	74.8
14	AB714-72B	20-APR-1996 0	74.8
15	AB714-40	21-APR-1996 0	75.7
16	AB715-28	26-APR-1996 0	63.7
17	AB715-10	26-APR-1996 0	56.5
18	AB716-93	6-MAY-1996 0	66.4
19	AB764-50B	9-MAY-1996 0	69.4
20	AB766-30	3-JUN-1996 0	61.3
21	AB766-8	7-JUN-1996 0	57.6
22	AB788-42	14-JUN-1996 0	55.3
23		17-JUN-1996 0	0.0
24	AB788-50	17-JUN-1996 0	82.3
25	AB788-81	19-JUN-1996 0	75.4
26	AB788-91	20-JUN-1996 0	72.1
27	AB790-11	21-JUN-1996 0	82.9
28	AB790-01	21-JUN-1996 0	59.2
29	AB790-01A	24-JUN-1996 0	57.7
30	AB790-22	24-JUN-1996 0	65.2
31	AB790-42	26-JUN-1996 0	62.5
32	AB790-67	29-JUN-1996 0	62.5
33	AB790-43	29-JUN-1996 0	56.8
34	AB790-61	29-JUN-1996 0	69.3
35	AB790-60	29-JUN-1996 0	63.4
36	AB790-82	2-JUL-1996 0	57.7
37	AB790-93	5-JUL-1996 0	79.3
38	AB815-22	9-JUL-1996 0	89.2
39	AB815-24	9-JUL-1996 0	89.5
40	AB815-39	11-JUL-1996 0	68.3


8270_S 1,4-Dichlorobenzene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12:01:36.16
126
117
108
99
90
81
72
63
54
45
36
27
18
UCL = 124.0
UWL = 106.7
MEAN = 72.0
LWL = 37.3
LCL = 20.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8270_S 1,4-Dichlorobenzene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:01

Current Control Limits
(20.0 - 124.0)

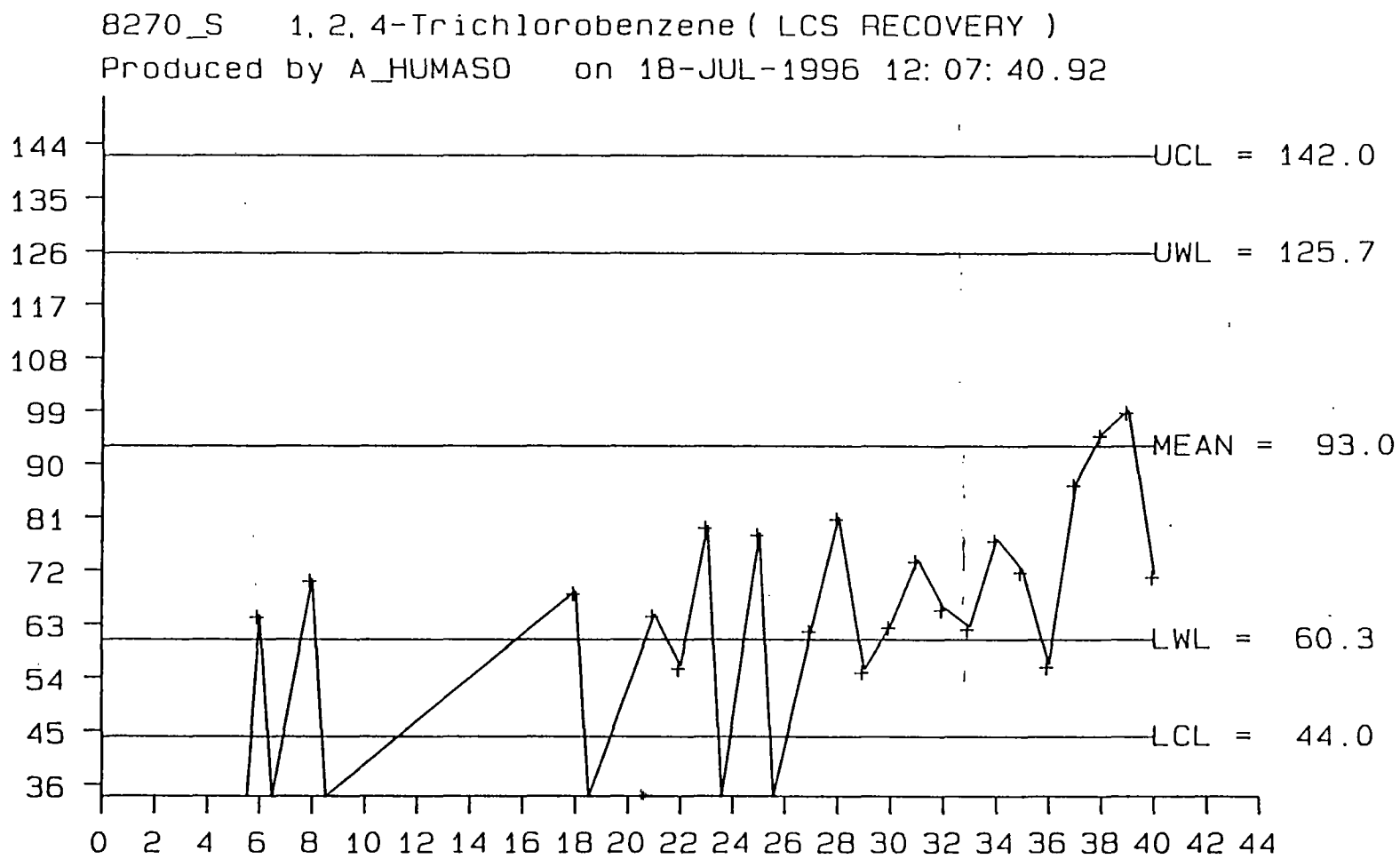
Point	Batch Number	Date Analyzed		Value (%)
1	AB714-72B	20-APR-1996	0	0.0
2	AB714-40	21-APR-1996	0	73.6
3	AB714-79	22-APR-1996	0	0.0
4	AB715-17	25-APR-1996	0	0.0
5	AB715-10	26-APR-1996	0	56.5
6	AB715-41	26-APR-1996	0	0.0
7	AB715-28	26-APR-1996	0	0.0
8	AB715-90	2-MAY-1996	0	0.0
9	AB715-78	2-MAY-1996	0	0.0
10	AB716-93	6-MAY-1996	0	62.5
11	AB764-50B	9-MAY-1996	0	65.5
12	AB764-96	15-MAY-1996	0	0.0
13	AB765-15	17-MAY-1996	0	0.0
14	AB765-33	17-MAY-1996	0	0.0
15	AB765-61	22-MAY-1996	0	0.0
16	AB765-65	23-MAY-1996	0	0.0
17	AB766-14	30-MAY-1996	0	0.0
18	AB766-30	3-JUN-1996	0	67.0
19	AB788-4	3-JUN-1996	0	0.0
20	AB788-13	5-JUN-1996	0	0.0
21	AB766-8	7-JUN-1996	0	54.3
22	AB788-42	14-JUN-1996	0	55.3
23	AB788-50	17-JUN-1996	0	78.4
24		17-JUN-1996	0	0.0
25	AB788-81	19-JUN-1996	0	75.7
26	AB788-91	20-JUN-1996	0	0.0
27	AB790-01	21-JUN-1996	0	58.9
28	AB790-11	21-JUN-1996	0	80.2
29	AB790-01A	24-JUN-1996	0	55.6
30	AB790-22	24-JUN-1996	0	60.7
31	AB790-42	26-JUN-1996	0	66.4
32	AB790-67	29-JUN-1996	0	66.4
33	AB790-43	29-JUN-1996	0	64.0
34	AB790-61	29-JUN-1996	0	74.1
35	AB790-60	29-JUN-1996	0	67.0
36	AB790-82	2-JUL-1996	0	65.8
37	AB790-93	5-JUL-1996	0	88.3
38	AB815-22	9-JUL-1996	0	90.4
39	AB815-24	9-JUL-1996	0	98.2
40	AB815-39	11-JUL-1996	0	71.3


8270_S N-Nitroso-Di-N-propylamine (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12:04:31.44
UCL = 230.0
UWL = 193.3
MEAN = 120.0
LWL = 46.7
LCL = 10.0
240
230
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8270_S N-Nitroso-Di-N-propylamine
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:04

Current Control Limits
(10.0 - 230.0)

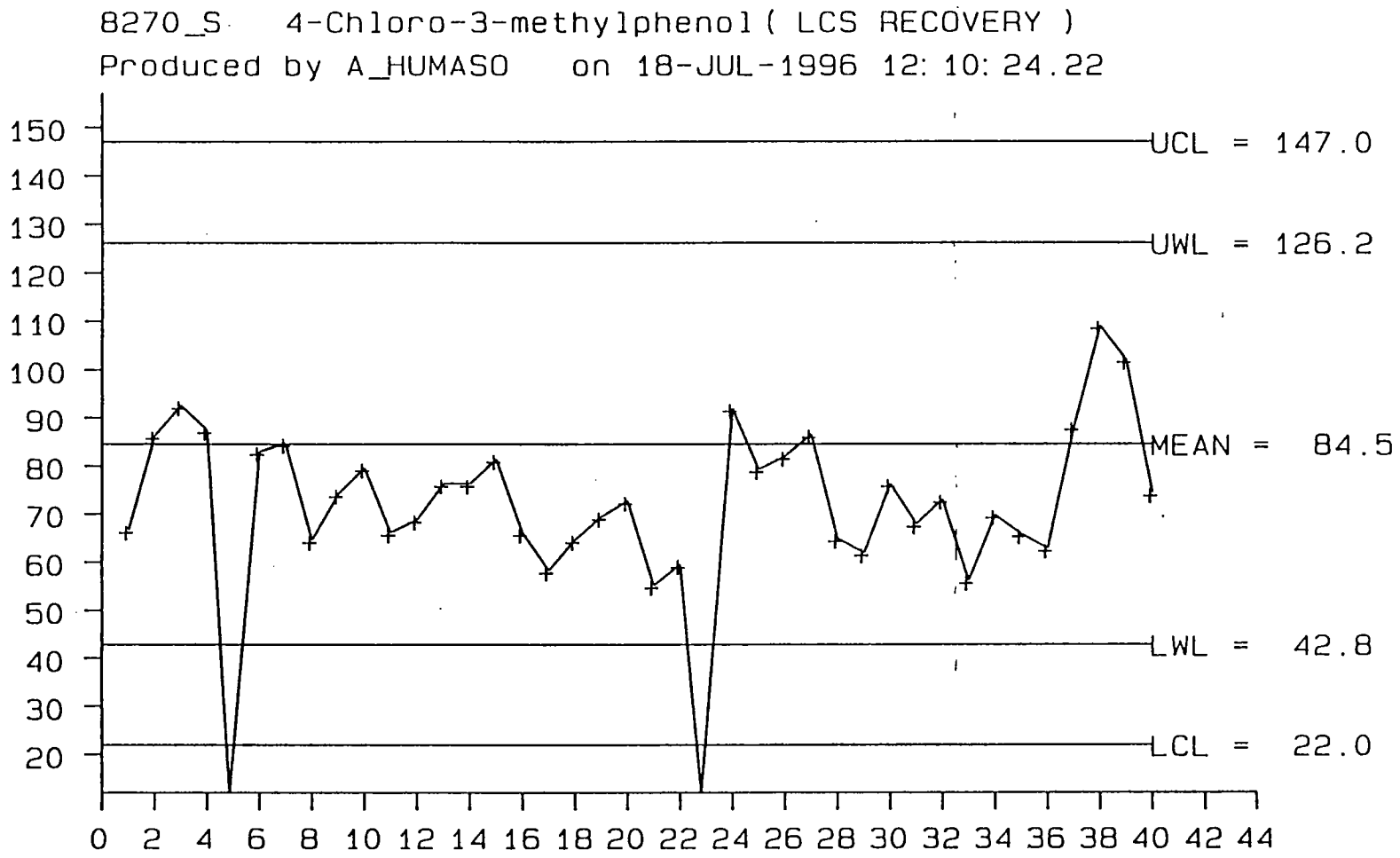
Point	Batch Number	Date Analyzed	Value (%)
1	AB715-66	1-MAY-1996 0	0.0
2	AB715-90	2-MAY-1996 0	0.0
3	AB715-78	2-MAY-1996 0	0.0
4	AB764-8	5-MAY-1996 0	0.0
5	AB764-16	6-MAY-1996 0	0.0
6	AB716-93	6-MAY-1996 0	67.3
7	AB764-48	8-MAY-1996 0	0.0
8	AB764-50B	9-MAY-1996 0	72.1
9	AB764-70	10-MAY-1996 0	0.0
10	AB764-82	13-MAY-1996 0	0.0
11	AB764-96	15-MAY-1996 0	0.0
12	AB765-15	17-MAY-1996 0	0.0
13	AB765-33	17-MAY-1996 0	0.0
14	AB765-61	22-MAY-1996 0	0.0
15	AB765-65	23-MAY-1996 0	0.0
16	AB765-82	23-MAY-1996 0	0.0
17	AB766-14	30-MAY-1996 0	0.0
18	AB766-30	3-JUN-1996 0	70.3
19	AB788-4	3-JUN-1996 0	0.0
20	AB788-13	5-JUN-1996 0	0.0
21	AB766-8	7-JUN-1996 0	58.4
22	AB788-42	14-JUN-1996 0	53.2
23	AB788-50	17-JUN-1996 0	88.3
24		17-JUN-1996 0	0.0
25	AB788-81	19-JUN-1996 0	81.1
26	AB788-91	20-JUN-1996 0	0.0
27	AB790-01	21-JUN-1996 0	62.5
28	AB790-11	21-JUN-1996 0	89.5
29	AB790-01A	24-JUN-1996 0	61.0
30	AB790-22	24-JUN-1996 0	80.2
31	AB790-42	26-JUN-1996 0	70.0
32	AB790-67	29-JUN-1996 0	84.7
33	AB790-43	29-JUN-1996 0	62.2
34	AB790-61	29-JUN-1996 0	81.1
35	AB790-60	29-JUN-1996 0	76.0
36	AB790-82	2-JUL-1996 0	76.0
37	AB790-93	5-JUL-1996 0	76.3
38	AB815-22	9-JUL-1996 0	129
39	AB815-24	9-JUL-1996 0	114
40	AB815-39	11-JUL-1996 0	85.6


8270_S 1, 2, 4-Trichlorobenzene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12: 07: 40.92
144
135
126
117
108
99
90
81
72
63
54
45
36
UCL = 142.0
UWL = 125.7
MEAN = 93.0
LWL = 60.3
LCL = 44.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8270_S 1,2,4-Trichlorobenzene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:07

Current Control Limits
(44.0 - 142.0)

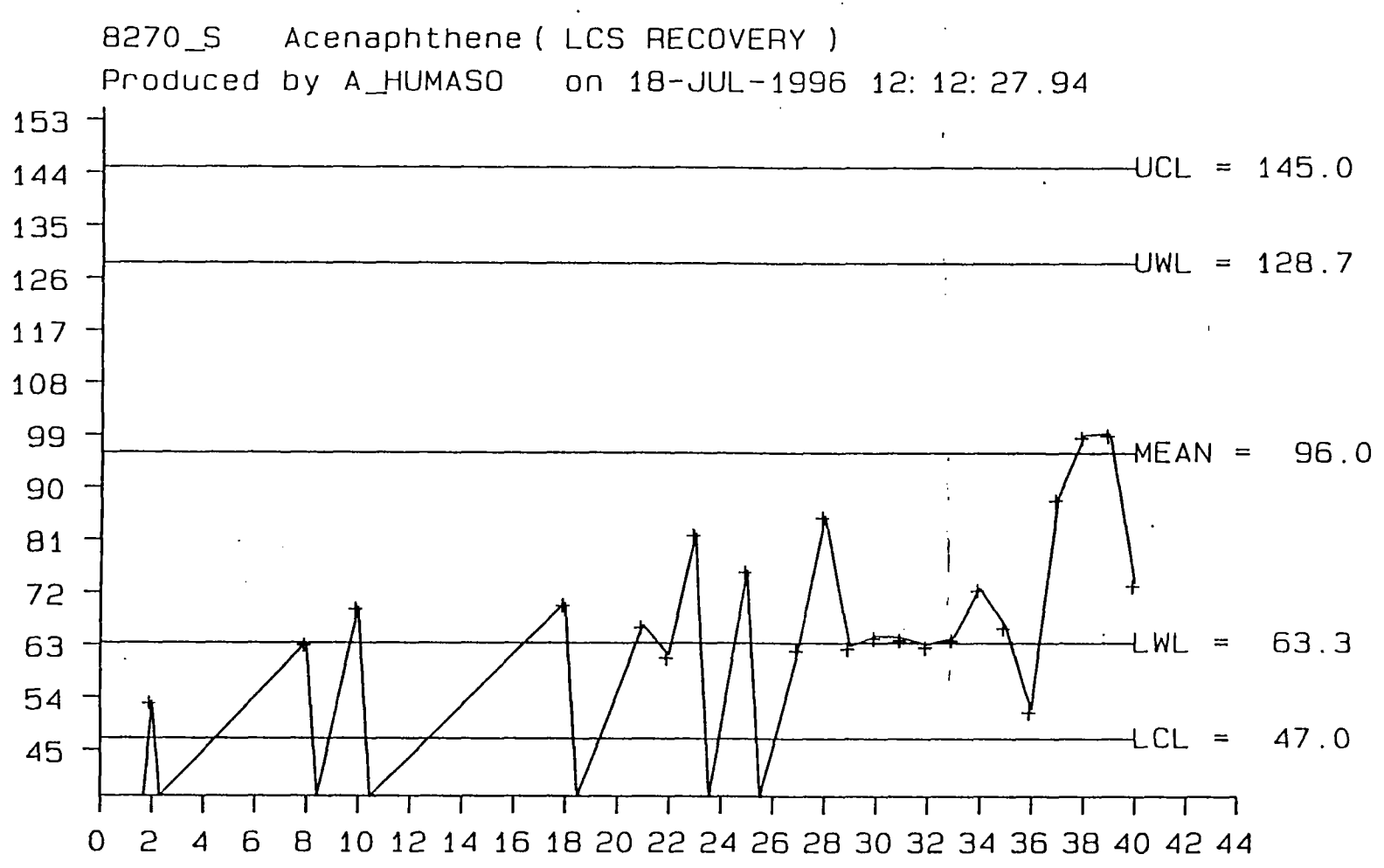
Point	Batch Number	Date Analyzed	Value (%)
1	AB715-66	1-MAY-1996 0	0.0
2	AB715-90	2-MAY-1996 0	0.0
3	AB715-78	2-MAY-1996 0	0.0
4	AB764-8	5-MAY-1996 0	0.0
5	AB764-16	6-MAY-1996 0	0.0
6	AB716-93	6-MAY-1996 0	64.6
7	AB764-48	8-MAY-1996 0	0.0
8	AB764-50B	9-MAY-1996 0	70.6
9	AB764-70	10-MAY-1996 0	0.0
10	AB764-82	13-MAY-1996 0	0.0
11	AB764-96	15-MAY-1996 0	0.0
12	AB765-15	17-MAY-1996 0	0.0
13	AB765-33	17-MAY-1996 0	0.0
14	AB765-61	22-MAY-1996 0	0.0
15	AB765-65	23-MAY-1996 0	0.0
16	AB765-82	23-MAY-1996 0	0.0
17	AB766-14	30-MAY-1996 0	0.0
18	AB766-30	3-JUN-1996 0	68.5
19	AB788-4	3-JUN-1996 0	0.0
20	AB788-13	5-JUN-1996 0	0.0
21	AB766-8	7-JUN-1996 0	64.7
22	AB788-42	14-JUN-1996 0	55.9
23	AB788-50	17-JUN-1996 0	79.6
24		17-JUN-1996 0	0.0
25	AB788-81	19-JUN-1996 0	78.4
26	AB788-91	20-JUN-1996 0	0.0
27	AB790-01	21-JUN-1996 0	62.2
28	AB790-11	21-JUN-1996 0	81.1
29	AB790-01A	24-JUN-1996 0	55.3
30	AB790-22	24-JUN-1996 0	62.8
31	AB790-42	26-JUN-1996 0	73.9
32	AB790-67	29-JUN-1996 0	65.8
33	AB790-43	29-JUN-1996 0	62.5
34	AB790-61	29-JUN-1996 0	77.4
35	AB790-60	29-JUN-1996 0	72.1
36	AB790-82	2-JUL-1996 0	56.2
37	AB790-93	5-JUL-1996 0	86.8
38	AB815-22	9-JUL-1996 0	95.2
39	AB815-24	9-JUL-1996 0	99.1
40	AB815-39	11-JUL-1996 0	71.3


8270_S 4-Chloro-3-methylphenol (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12:10:24.22
150
140
130
120
110
100
90
80
70
60
50
40
30
20
UCL = 147.0
UWL = 126.2
MEAN = 84.5
LWL = 42.8
LCL = 22.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8270_S 4-Chloro-3-methylphenol
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:10

Current Control Limits
(22.0 - 147.0)

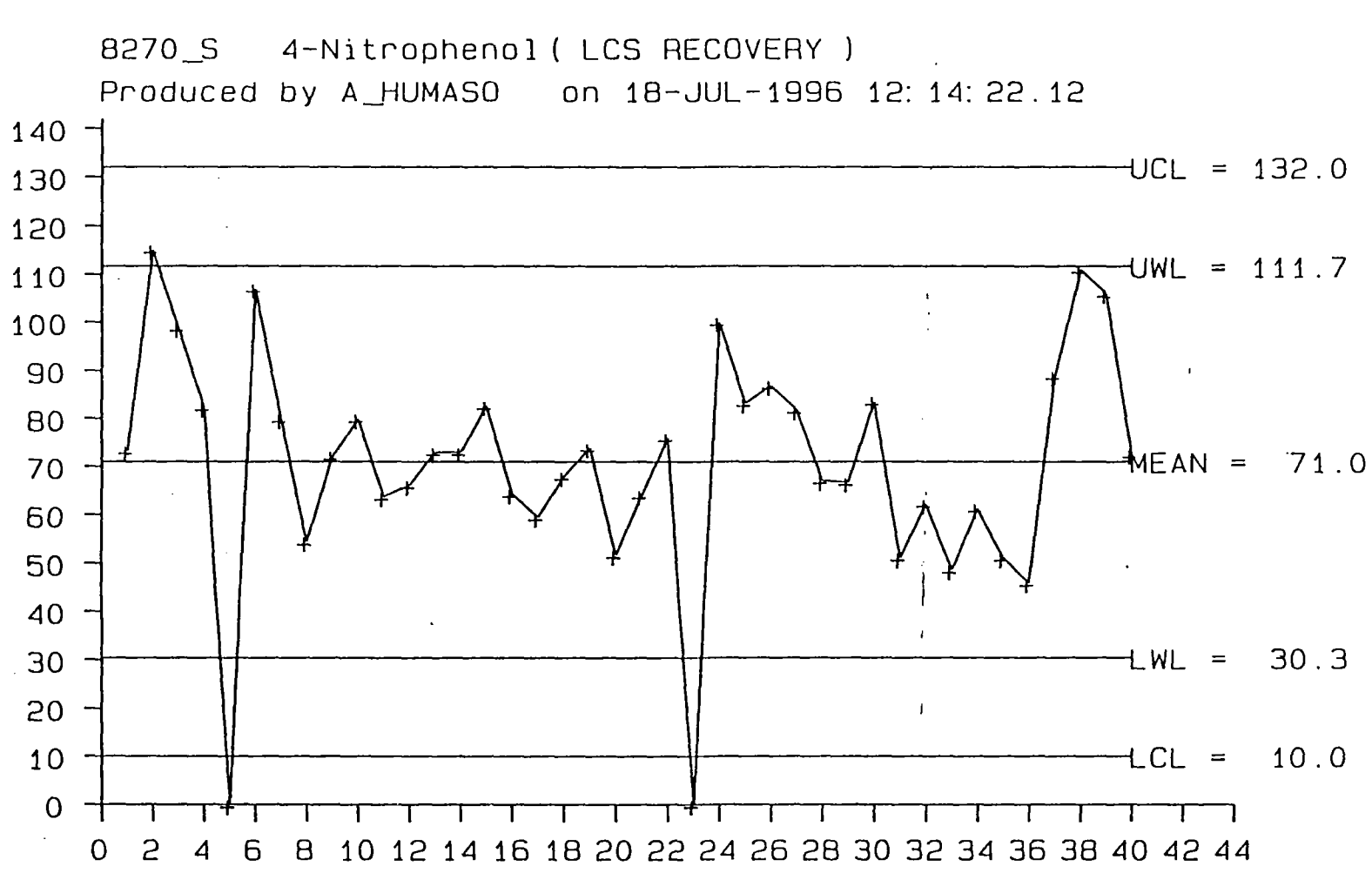
Point	Batch Number	Date Analyzed	Value (%)
1	AB711-44	20-MAR-1996 0	66.7
2	AB711-68	20-MAR-1996 0	86.2
3	AB711-52	20-MAR-1996 0	92.5
4	AB711-75	21-MAR-1996 0	87.4
5	AB711-92	22-MAR-1996 0	0.0
6	AB711-87	22-MAR-1996 0	82.9
7	AB711-100	23-MAR-1996 0	84.7
8	AB712-41	27-MAR-1996 0	64.6
9	AB712-47	28-MAR-1996 0	74.2
10	AB712-99	4-APR-1996 0	79.6
11	AB713-13	5-APR-1996 0	66.1
12	AB714-59	19-APR-1996 0	68.8
13	AB714-72	20-APR-1996 0	76.3
14	AB714-72B	20-APR-1996 0	76.3
15	AB714-40	21-APR-1996 0	81.4
16	AB715-28	26-APR-1996 0	66.1
17	AB715-10	26-APR-1996 0	58.3
18	AB716-93	6-MAY-1996 0	64.6
19	AB764-50B	9-MAY-1996 0	69.4
20	AB766-30	3-JUN-1996 0	72.7
21	AB766-8	7-JUN-1996 0	55.2
22	AB788-42	14-JUN-1996 0	59.5
23		17-JUN-1996 0	0.0
24	AB788-50	17-JUN-1996 0	91.9
25	AB788-81	19-JUN-1996 0	79.3
26	AB788-91	20-JUN-1996 0	82.0
27	AB790-11	21-JUN-1996 0	86.5
28	AB790-01	21-JUN-1996 0	64.9
29	AB790-01A	24-JUN-1996 0	61.9
30	AB790-22	24-JUN-1996 0	76.3
31	AB790-42	26-JUN-1996 0	67.9
32	AB790-67	29-JUN-1996 0	73.0
33	AB790-43	29-JUN-1996 0	56.2
34	AB790-61	29-JUN-1996 0	69.7
35	AB790-60	29-JUN-1996 0	65.8
36	AB790-82	2-JUL-1996 0	62.8
37	AB790-93	5-JUL-1996 0	88.0
38	AB815-22	9-JUL-1996 0	109
39	AB815-24	9-JUL-1996 0	102
40	AB815-39	11-JUL-1996 0	74.3


8270_S Acenaphthene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12: 12: 27.94
153
144
135
126
117
108
99
90
81
72
63
54
45
UCL = 145.0
UWL = 128.7
MEAN = 96.0
LWL = 63.3
LCL = 47.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8270_S Acenaphthene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:12

Current Control Limits
(47.0 - 145.0)

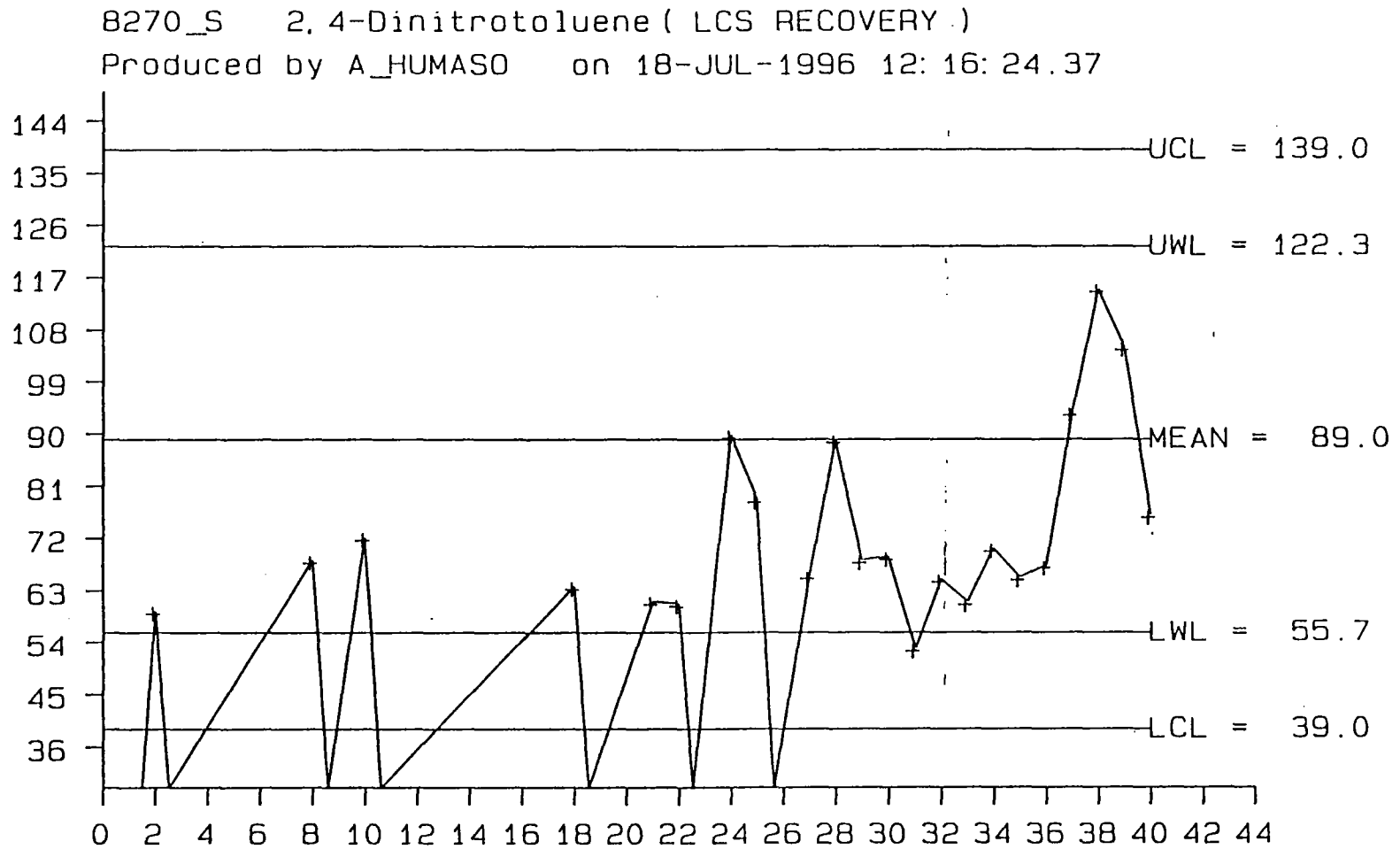
Point	Batch Number	Date Analyzed	Value (%)
1	AB715-41	26-APR-1996 0	0.0
2	AB715-10	26-APR-1996 0	53.5
3	AB715-55	29-APR-1996 0	0.0
4	AB715-66	1-MAY-1996 0	0.0
5	AB715-78	2-MAY-1996 0	0.0
6	AB715-90	2-MAY-1996 0	0.0
7	AB764-8	5-MAY-1996 0	0.0
8	AB716-93	6-MAY-1996 0	63.4
9	AB764-16	6-MAY-1996 0	0.0
10	AB764-50B	9-MAY-1996 0	69.7
11	AB764-82	13-MAY-1996 0	0.0
12	AB764-96	15-MAY-1996 0	0.0
13	AB765-33	17-MAY-1996 0	0.0
14	AB765-15	17-MAY-1996 0	0.0
15	AB765-65	23-MAY-1996 0	0.0
16	AB765-82	23-MAY-1996 0	0.0
17	AB766-14	30-MAY-1996 0	0.0
18	AB766-30	3-JUN-1996 0	70.3
19	AB788-4	3-JUN-1996 0	0.0
20	AB788-13	5-JUN-1996 0	0.0
21	AB766-8	7-JUN-1996 0	66.5
22	AB788-42	14-JUN-1996 0	61.3
23	AB788-50	17-JUN-1996 0	82.3
24		17-JUN-1996 0	0.0
25	AB788-81	19-JUN-1996 0	76.0
26	AB788-91	20-JUN-1996 0	0.0
27	AB790-01	21-JUN-1996 0	62.5
28	AB790-11	21-JUN-1996 0	85.3
29	AB790-01A	24-JUN-1996 0	62.8
30	AB790-22	24-JUN-1996 0	64.6
31	AB790-42	26-JUN-1996 0	64.3
32	AB790-67	29-JUN-1996 0	63.1
33	AB790-43	29-JUN-1996 0	64.3
34	AB790-61	29-JUN-1996 0	72.9
35	AB790-60	29-JUN-1996 0	56.4
36	AB790-82	2-JUL-1996 0	52.0
37	AB790-93	5-JUL-1996 0	88.3
38	AB815-22	9-JUL-1996 0	99.1
39	AB815-24	9-JUL-1996 0	99.4
40	AB815-39	11-JUL-1996 0	73.7


8270_S 4-Nitrophenol (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12: 14: 22.12
UCL = 132.0
UWL = 111.7
MEAN = 71.0
LWL = 30.3
LCL = 10.0
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8270_S 4-Nitrophenol
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:14

Current Control Limits
(10.0 - 132.0)

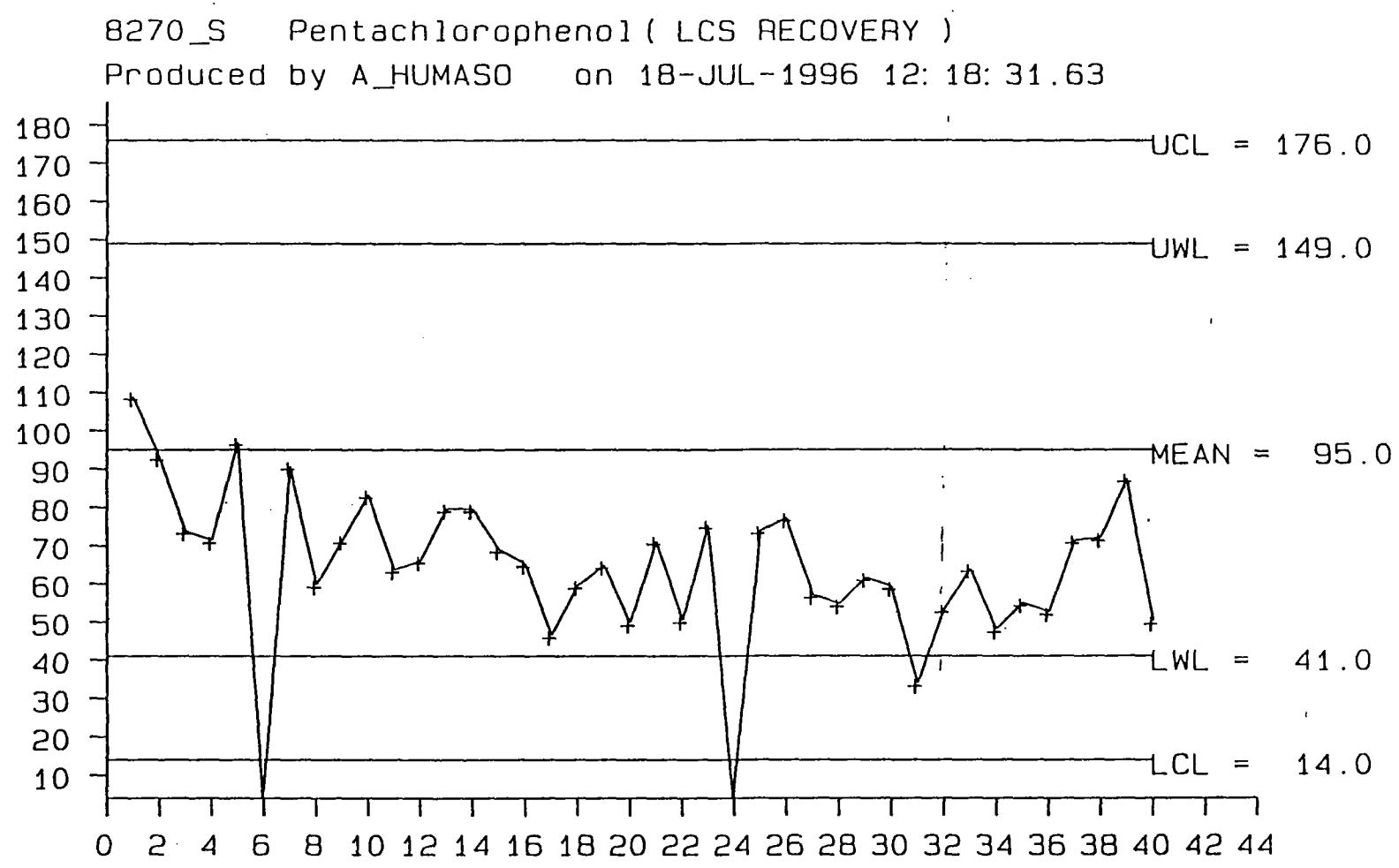
Point	Batch Number	Date Analyzed	Value (%)
1	AB711-44	20-MAR-1996 0	73.3
2	AB711-68	20-MAR-1996 0	115
3	AB711-52	20-MAR-1996 0	98.8
4	AB711-75	21-MAR-1996 0	82.3
5	AB711-92	22-MAR-1996 0	0.0
6	AB711-87	22-MAR-1996 0	107
7	AB711-100	23-MAR-1996 0	79.9
8	AB712-41	27-MAR-1996 0	54.4
9	AB712-47	28-MAR-1996 0	72.1
10	AB712-99	4-APR-1996 0	79.9
11	AB713-13	5-APR-1996 0	63.7
12	AB714-59	19-APR-1996 0	66.1
13	AB714-72	20-APR-1996 0	73.0
14	AB714-72B	20-APR-1996 0	73.0
15	AB714-40	21-APR-1996 0	82.6
16	AB715-28	26-APR-1996 0	64.3
17	AB715-10	26-APR-1996 0	59.5
18	AB716-93	6-MAY-1996 0	67.9
19	AB764-50B	9-MAY-1996 0	73.9
20	AB766-30	3-JUN-1996 0	51.7
21	AB766-8	7-JUN-1996 0	64.0
22	AB788-42	14-JUN-1996 0	76.0
23		17-JUN-1996 0	0.0
24	AB788-50	17-JUN-1996 0	100
25	AB788-81	19-JUN-1996 0	83.2
26	AB788-91	20-JUN-1996 0	86.8
27	AB790-11	21-JUN-1996 0	81.7
28	AB790-01	21-JUN-1996 0	67.0
29	AB790-01A	24-JUN-1996 0	66.7
30	AB790-22	24-JUN-1996 0	83.5
31	AB790-42	26-JUN-1996 0	51.1
32	AB790-67	29-JUN-1996 0	62.2
33	AB790-43	29-JUN-1996 0	48.6
34	AB790-61	29-JUN-1996 0	61.2
35	AB790-60	29-JUN-1996 0	51.1
36	AB790-82	2-JUL-1996 0	45.9
37	AB790-93	5-JUL-1996 0	88.9
38	AB815-22	9-JUL-1996 0	111
39	AB815-24	9-JUL-1996 0	106
40	AB815-39	11-JUL-1996 0	72.5


8270_S 2, 4-Dinitrotoluene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12: 16: 24.37
144
135
126
117
108
99
90
81
72
63
54
45
36
UCL = 139.0
UWL = 122.3
MEAN = 89.0
LWL = 55.7
LCL = 39.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8270_S 2,4-Dinitrotoluene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:16

Current Control Limits
(39.0 - 139.0)

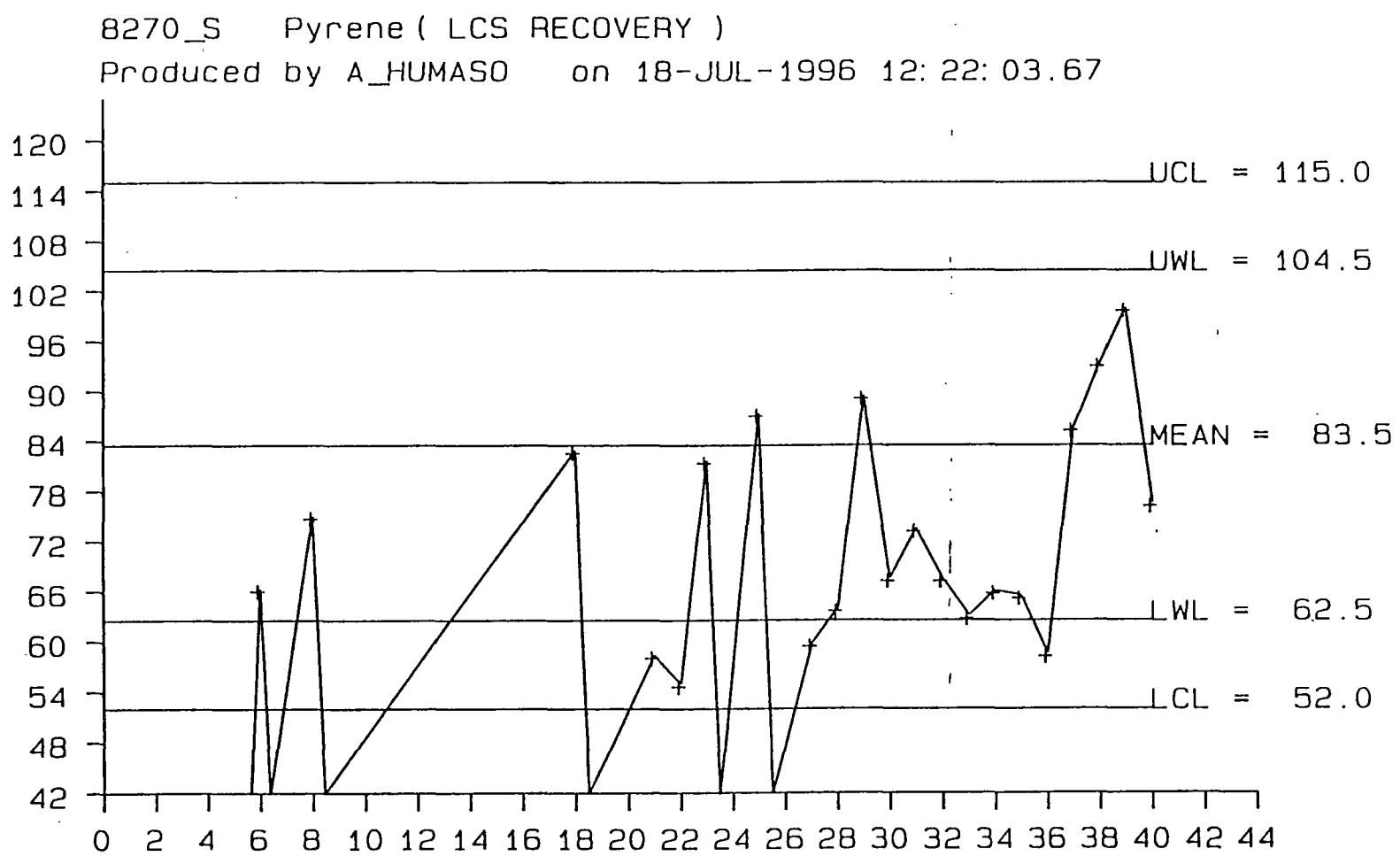
Point	Batch Number	Date Analyzed	Value (%)
1	AB715-41	26-APR-1996 0	0.0
2	AB715-10	26-APR-1996 0	59.5
3	AB715-55	29-APR-1996 0	0.0
4	AB715-90	2-MAY-1996 0	0.0
5	AB715-78	2-MAY-1996 0	0.0
6	AB764-8	5-MAY-1996 0	0.0
7	AB764-16	6-MAY-1996 0	0.0
8	AB716-93	6-MAY-1996 0	68.2
9	AB764-48	8-MAY-1996 0	0.0
10	AB764-50B	9-MAY-1996 0	72.1
11	AB764-82	13-MAY-1996 0	0.0
12	AB764-96	15-MAY-1996 0	0.0
13	AB765-15	17-MAY-1996 0	0.0
14	AB765-33	17-MAY-1996 0	0.0
15	AB765-82	23-MAY-1996 0	0.0
16	AB765-65	23-MAY-1996 0	0.0
17	AB766-14	30-MAY-1996 0	0.0
18	AB766-30	3-JUN-1996 0	63.7
19	AB788-4	3-JUN-1996 0	0.0
20	AB788-13	5-JUN-1996 0	0.0
21	AB766-8	7-JUN-1996 0	61.1
22	AB788-42	14-JUN-1996 0	60.7
23		17-JUN-1996 0	0.0
24	AB788-50	17-JUN-1996 0	89.8
25	AB788-81	19-JUN-1996 0	78.7
26	AB788-91	20-JUN-1996 0	0.0
27	AB790-01	21-JUN-1996 0	65.5
28	AB790-11	21-JUN-1996 0	88.9
29	AB790-01A	24-JUN-1996 0	68.2
30	AB790-22	24-JUN-1996 0	68.8
31	AB790-42	26-JUN-1996 0	52.9
32	AB790-67	29-JUN-1996 0	64.9
33	AB790-43	29-JUN-1996 0	61.0
34	AB790-61	29-JUN-1996 0	70.2
35	AB790-60	29-JUN-1996 0	65.2
36	AB790-82	2-JUL-1996 0	67.3
37	AB790-93	5-JUL-1996 0	93.7
38	AB815-22	9-JUL-1996 0	115
39	AB815-24	9-JUL-1996 0	105
40	AB815-39	11-JUL-1996 0	75.0


8270_S Pentachlorophenol (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12: 18: 31.63
UCL = 176.0
UWL = 149.0
MEAN = 95.0
LWL = 41.0
LCL = 14.0
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8270_S Pentachlorophenol
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:18

Current Control Limits
(14.0 - 176.0)

Point	Batch Number	Date Analyzed	Value (%)
1	AB711-52	20-MAR-1996 0	109
2	AB711-68	20-MAR-1996 0	93.1
3	AB711-44	20-MAR-1996 0	73.9
4	AB711-75	21-MAR-1996 0	71.5
5	AB711-87	22-MAR-1996 0	97.0
6	AB711-92	22-MAR-1996 0	0.0
7	AB711-100	23-MAR-1996 0	90.7
8	AB712-41	27-MAR-1996 0	59.8
9	AB712-47	28-MAR-1996 0	71.5
10	AB712-99	4-APR-1996 0	83.2
11	AB713-13	5-APR-1996 0	63.7
12	AB714-59	19-APR-1996 0	66.1
13	AB714-72B	20-APR-1996 0	79.6
14	AB714-72	20-APR-1996 0	79.6
15	AB714-40	21-APR-1996 0	69.1
16	AB715-28	26-APR-1996 0	65.2
17	AB715-10	26-APR-1996 0	46.5
18	AB716-93	6-MAY-1996 0	59.5
19	AB764-50B	9-MAY-1996 0	64.9
20	AB766-30	3-JUN-1996 0	49.8
21	AB766-8	7-JUN-1996 0	71.2
22	AB788-42	14-JUN-1996 0	50.5
23	AB788-50	17-JUN-1996 0	75.4
24		17-JUN-1996 0	0.0
25	AB788-81	19-JUN-1996 0	73.9
26	AB788-91	20-JUN-1996 0	77.2
27	AB790-01	21-JUN-1996 0	57.1
28	AB790-11	21-JUN-1996 0	54.7
29	AB790-22	24-JUN-1996 0	61.6
30	AB790-01A	24-JUN-1996 0	59.2
31	AB790-42	26-JUN-1996 0	33.9
32	AB790-60	29-JUN-1996 0	53.2
33	AB790-61	29-JUN-1996 0	64.0
34	AB790-43	29-JUN-1996 0	48.0
35	AB790-67	29-JUN-1996 0	55.0
36	AB790-82	2-JUL-1996 0	52.6
37	AB790-93	5-JUL-1996 0	71.5
38	AB815-22	9-JUL-1996 0	72.1
39	AB815-24	9-JUL-1996 0	87.4
40	AB815-39	11-JUL-1996 0	50.1

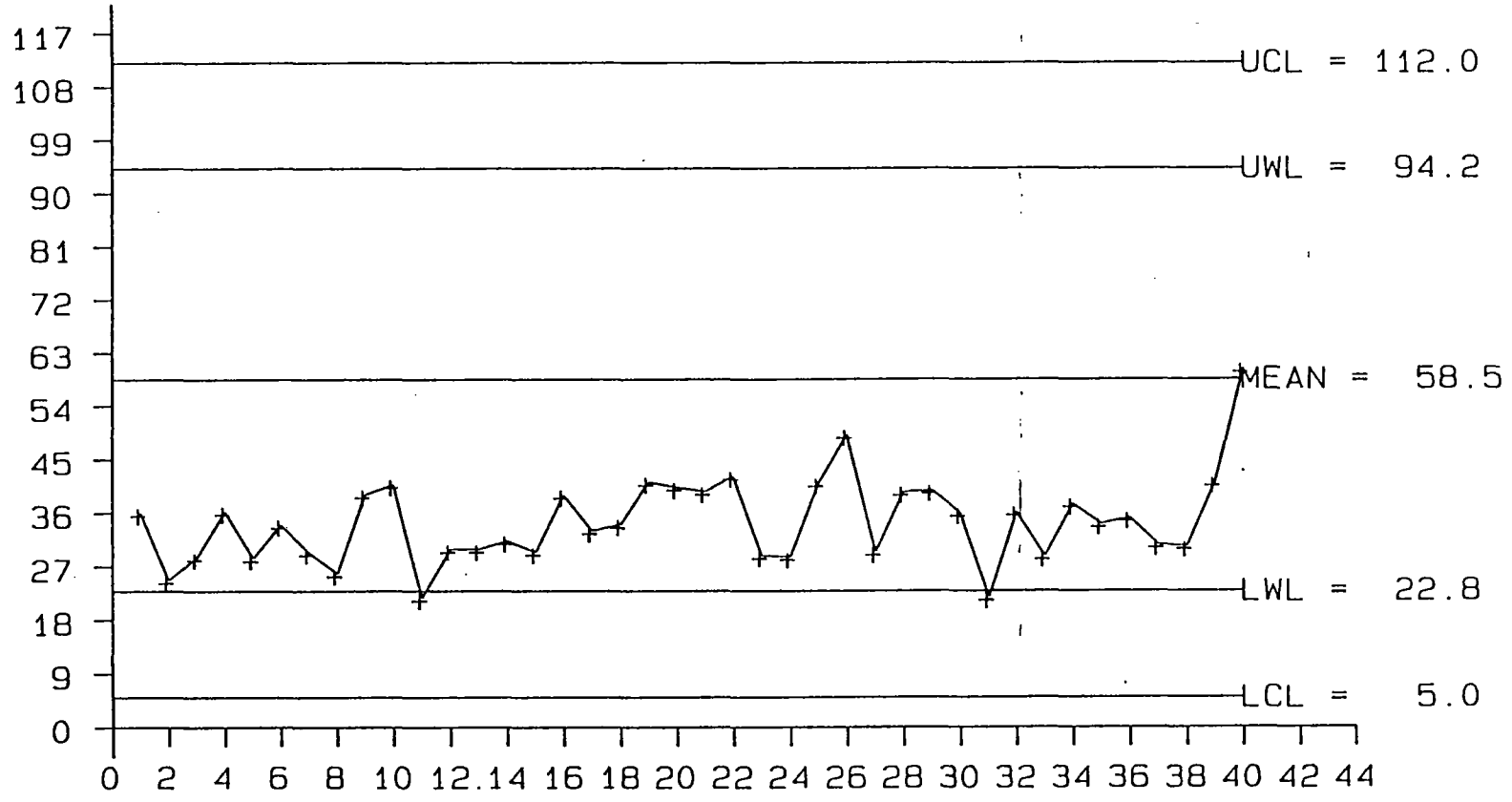

8270_S Pyrene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12: 22: 03.67
120
114
108
102
96
90
84
78
72
66
60
54
48
42
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44
UCL = 115.0
UWL = 104.5
MEAN = 83.5
LWL = 62.5
LCL = 52.0

Data Points for: 8270_S Pyrene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:22

Current Control Limits
(52.0 - 115.0)

Point	Batch Number	Date Analyzed	Value (%)
1	AB715-66	1-MAY-1996 0	0.0
2	AB715-90	2-MAY-1996 0	0.0
3	AB715-78	2-MAY-1996 0	0.0
4	AB764-8	5-MAY-1996 0	0.0
5	AB764-16	6-MAY-1996 0	0.0
6	AB716-93	6-MAY-1996 0	66.4
7	AB764-48	8-MAY-1996 0	0.0
8	AB764-50B	9-MAY-1996 0	75.1
9	AB764-70	10-MAY-1996 0	0.0
10	AB764-82	13-MAY-1996 0	0.0
11	AB764-96	15-MAY-1996 0	0.0
12	AB765-15	17-MAY-1996 0	0.0
13	AB765-33	17-MAY-1996 0	0.0
14	AB765-61	22-MAY-1996 0	0.0
15	AB765-65	23-MAY-1996 0	0.0
16	AB765-82	23-MAY-1996 0	0.0
17	AB766-14	30-MAY-1996 0	0.0
18	AB766-30	3-JUN-1996 0	82.9
19	AB788-4	3-JUN-1996 0	0.0
20	AB788-13	5-JUN-1996 0	0.0
21	AB766-8	7-JUN-1996 0	58.4
22	AB788-42	14-JUN-1996 0	55.0
23	AB788-50	17-JUN-1996 0	81.7
24		17-JUN-1996 0	0.0
25	AB788-81	19-JUN-1996 0	87.4
26	AB788-91	20-JUN-1996 0	0.0
27	AB790-01	21-JUN-1996 0	59.8
28	AB790-11	21-JUN-1996 0	64.0
29	AB790-01A	24-JUN-1996 0	89.5
30	AB790-22	24-JUN-1996 0	67.6
31	AB790-42	26-JUN-1996 0	73.6
32	AB790-67	29-JUN-1996 0	67.6
33	AB790-43	29-JUN-1996 0	63.1
34	AB790-61	29-JUN-1996 0	66.1
35	AB790-60	29-JUN-1996 0	65.5
36	AB790-82	2-JUL-1996 0	58.6
37	AB790-93	5-JUL-1996 0	85.6
38	AB815-22	9-JUL-1996 0	93.4
39	AB815-24	9-JUL-1996 0	100
40	AB815-39	11-JUL-1996 0	76.6

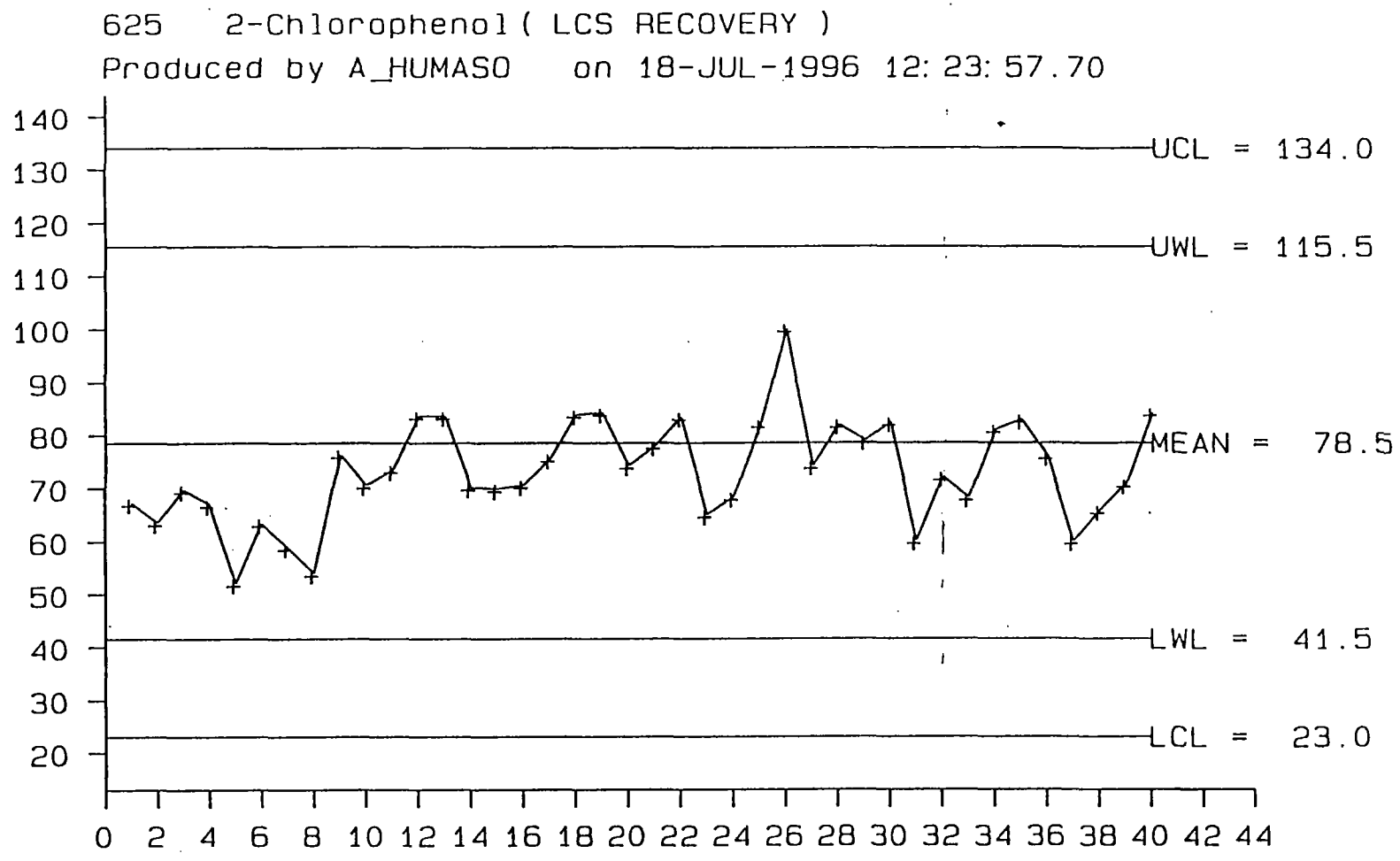
625 Phenol (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12:23:21.56



Data Points for: 625 Phenol
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:23

Current Control Limits
(5.0 - 112.0)

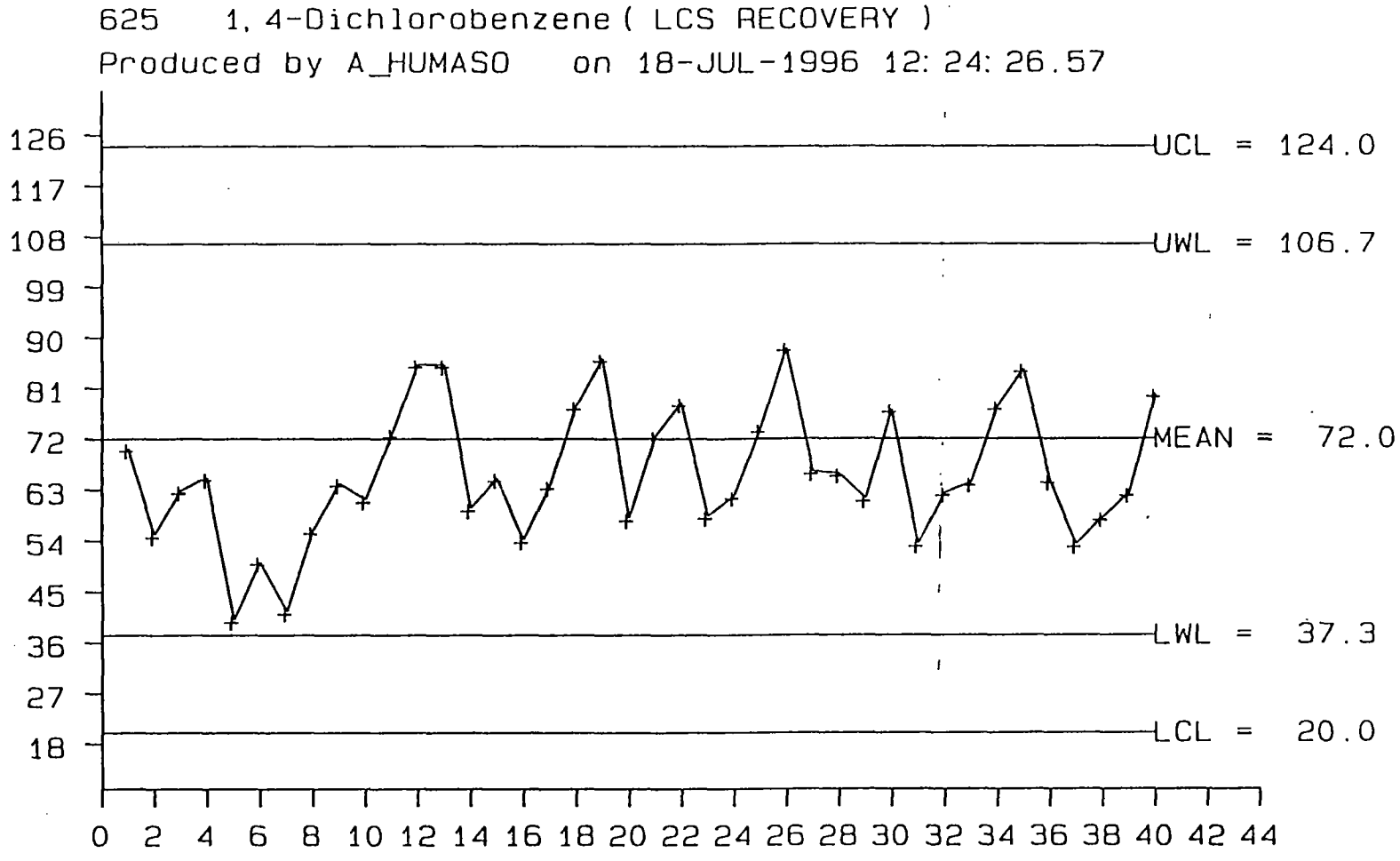
Point	Batch Number	Date Analyzed	Value (%)
1	AB389-58	7-JUN-1995 0	36.0
2	AB389-85	27-JUN-1995 0	24.7
3	AB477-12	13-JUL-1995 0	28.6
4	AB477-22	19-JUL-1995 0	36.2
5	AB477-44	5-AUG-1995 0	28.4
6	AB522-20	16-AUG-1995 0	34.0
7	AB522-66	18-AUG-1995 0	29.4
8	AB523-100	6-SEP-1995 0	25.8
9	AB544-84	13-SEP-1995 0	39.0
10	AB545-58	5-OCT-1995 0	40.7
11	AB545-90	10-OCT-1995 0	21.7
12	AB546-31	11-OCT-1995 0	29.9
13	AB546-8	11-OCT-1995 0	29.9
14	AB589-50	21-OCT-1995 0	31.3
15	AB589-86	25-OCT-1995 0	29.4
16	AB589-149	1-NOV-1995 0	38.9
17	AB590-43	6-NOV-1995 0	33.0
18	AB590-58	8-NOV-1995 0	34.0
19	AB590-83	10-NOV-1995 0	41.1
20	AB624-3	20-NOV-1995 0	40.2
21	AB624-60	28-NOV-1995 0	39.5
22	AB624-81	29-NOV-1995 0	42.1
23	AB625-11	4-DEC-1995 0	28.8
24	AB625-90	13-DEC-1995 0	28.6
25	AB648-10	15-DEC-1995 0	40.9
26	AB649-24	9-JAN-1996 0	49.1
27	AB649-82	16-JAN-1996 0	29.4
28	AB670-16	22-JAN-1996 0	39.4
29	AB672-7	14-FEB-1996 0	39.7
30	AB674-42	7-MAR-1996 0	35.9
31	AB711-18	14-MAR-1996 0	21.8
32	AB711-83	22-MAR-1996 0	36.1
33	AB712-45	28-MAR-1996 0	28.7
34	AB712-78	2-APR-1996 0	37.4
35	AB713-9	4-APR-1996 0	34.1
36	AB713-56	10-APR-1996 0	35.1
37	AB765-59	22-MAY-1996 0	30.6
38	AB788-93	19-JUN-1996 0	30.4
39	AB790-2	20-JUN-1996 0	41.0
40	AB790-87	2-JUL-1996 0	60.2


625 2-Chlorophenol (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12:23:57.70
140
130
120
110
100
90
80
70
60
50
40
30
20
UCL = 134.0
UWL = 115.5
MEAN = 78.5
LWL = 41.5
LCL = 23.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 625 2-Chlorophenol
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:23

Current Control Limits
(23.0 - 134.0)

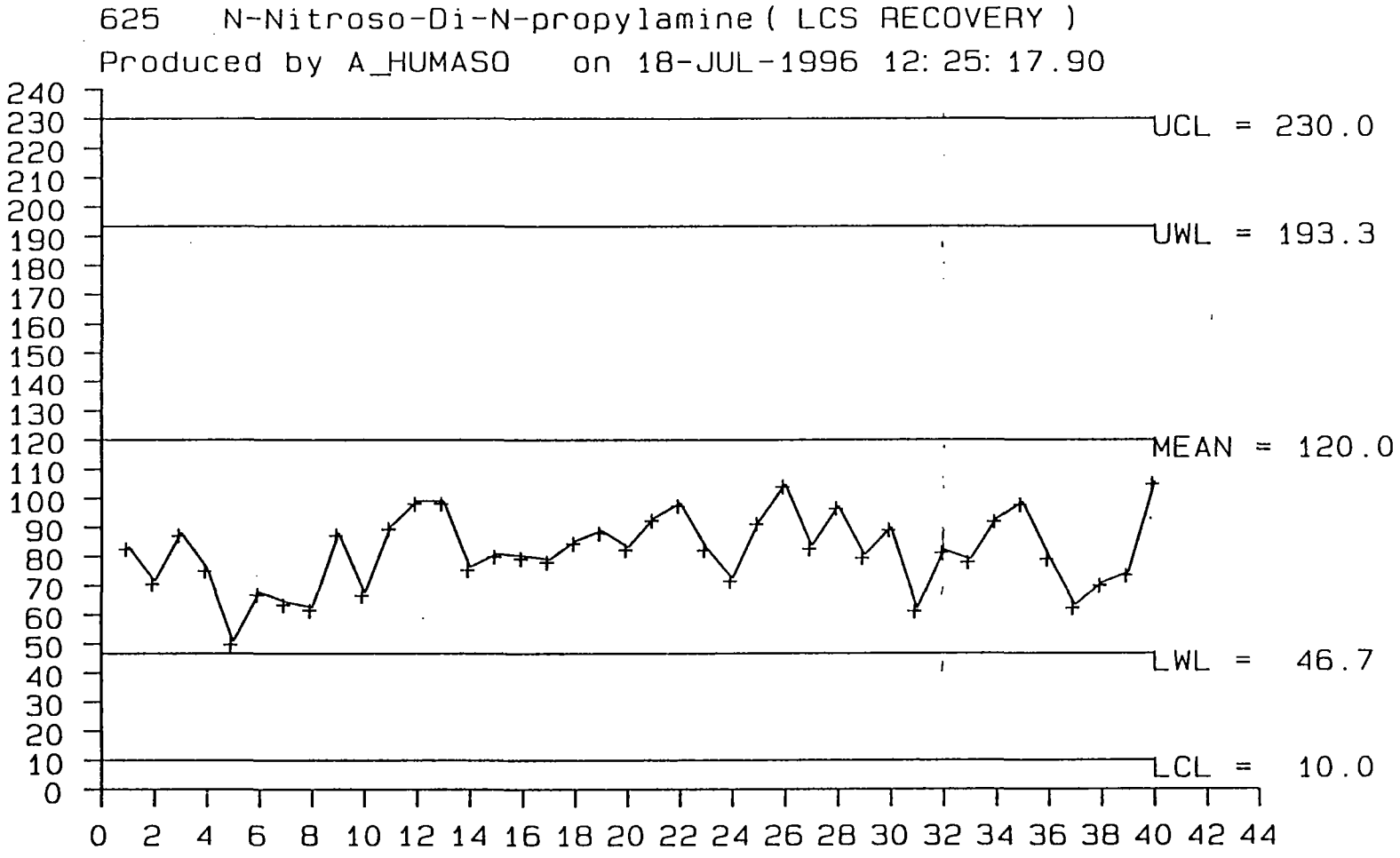
Point	Batch Number	Date Analyzed	Value (%)
1	AB389-58	7-JUN-1995 0	67.3
2	AB389-85	27-JUN-1995 0	63.6
3	AB477-12	13-JUL-1995 0	69.7
4	AB477-22	19-JUL-1995 0	67.0
5	AB477-44	5-AUG-1995 0	52.1
6	AB522-20	16-AUG-1995 0	63.4
7	AB522-66	18-AUG-1995 0	58.9
8	AB523-100	6-SEP-1995 0	54.0
9	AB544-84	13-SEP-1995 0	76.3
10	AB545-58	5-OCT-1995 0	70.5
11	AB545-90	10-OCT-1995 0	73.4
12	AB546-31	11-OCT-1995 0	83.6
13	AB546-8	11-OCT-1995 0	83.6
14	AB589-50	21-OCT-1995 0	70.1
15	AB589-86	25-OCT-1995 0	69.8
16	AB589-149	1-NOV-1995 0	70.5
17	AB590-43	6-NOV-1995 0	75.5
18	AB590-58	8-NOV-1995 0	83.8
19	AB590-83	10-NOV-1995 0	84.2
20	AB624-3	20-NOV-1995 0	74.2
21	AB624-60	28-NOV-1995 0	78.0
22	AB624-81	29-NOV-1995 0	83.4
23	AB625-11	4-DEC-1995 0	65.0
24	AB625-90	13-DEC-1995 0	68.3
25	AB648-10	15-DEC-1995 0	82.0
26	AB649-24	9-JAN-1996 0	100
27	AB649-82	16-JAN-1996 0	74.2
28	AB670-16	22-JAN-1996 0	81.9
29	AB672-7	14-FEB-1996 0	79.0
30	AB674-42	7-MAR-1996 0	82.4
31	AB711-18	14-MAR-1996 0	60.1
32	AB711-83	22-MAR-1996 0	72.0
33	AB712-45	28-MAR-1996 0	68.2
34	AB712-78	2-APR-1996 0	81.0
35	AB713-9	4-APR-1996 0	82.9
36	AB713-56	10-APR-1996 0	76.0
37	AB765-59	22-MAY-1996 0	60.0
38	AB788-93	19-JUN-1996 0	65.8
39	AB790-2	20-JUN-1996 0	70.7
40	AB790-87	2-JUL-1996 0	84.2


625 1,4-Dichlorobenzene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12:24:26.57
126
117
108
99
90
81
72
63
54
45
36
27
18
UCL = 124.0
UWL = 106.7
MEAN = 72.0
LWL = 37.3
LCL = 20.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 625 1,4-Dichlorobenzene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:24

Current Control Limits
(20.0 - 124.0)

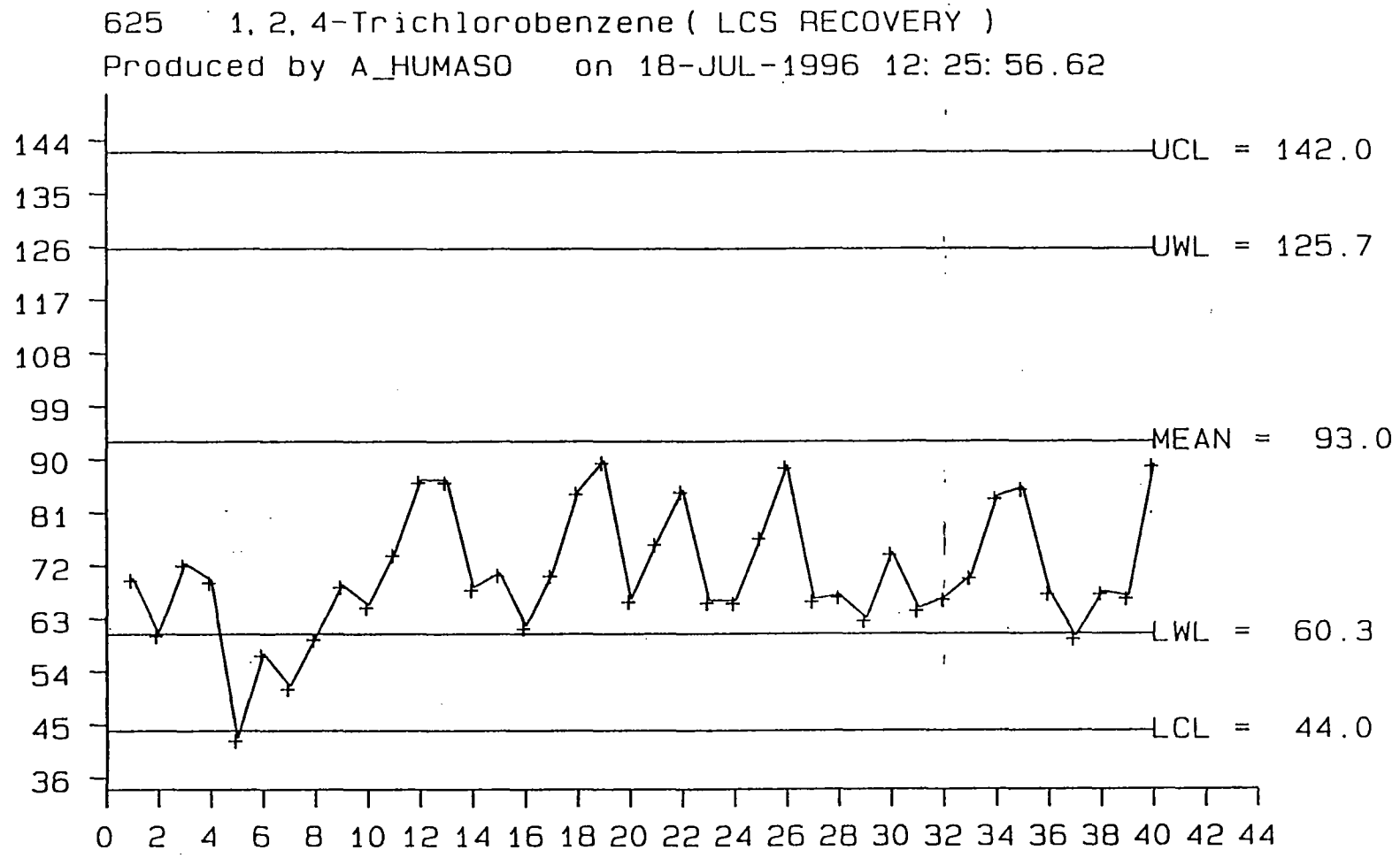
Point	Batch Number	Date Analyzed	Value (%)
1	AB389-58	7-JUN-1995 0	70.4
2	AB389-85	27-JUN-1995 0	55.1
3	AB477-12	13-JUL-1995 0	62.9
4	AB477-22	19-JUL-1995 0	65.2
5	AB477-44	5-AUG-1995 0	40.1
6	AB522-20	16-AUG-1995 0	50.3
7	AB522-66	18-AUG-1995 0	41.6
8	AB523-100	6-SEP-1995 0	55.8
9	AB544-84	13-SEP-1995 0	64.2
10	AB545-58	5-OCT-1995 0	61.3
11	AB545-90	10-OCT-1995 0	72.9
12	AB546-31	11-OCT-1995 0	85.2
13	AB546-8	11-OCT-1995 0	85.2
14	AB589-50	21-OCT-1995 0	59.8
15	AB589-86	25-OCT-1995 0	65.1
16	AB589-149	1-NOV-1995 0	54.2
17	AB590-43	6-NOV-1995 0	63.7
18	AB590-58	8-NOV-1995 0	77.7
19	AB590-83	10-NOV-1995 0	86.3
20	AB624-3	20-NOV-1995 0	58.1
21	AB624-60	28-NOV-1995 0	72.5
22	AB624-81	29-NOV-1995 0	78.4
23	AB625-11	4-DEC-1995 0	58.5
24	AB625-90	13-DEC-1995 0	62.0
25	AB648-10	15-DEC-1995 0	73.7
26	AB649-24	9-JAN-1996 0	88.2
27	AB649-82	16-JAN-1996 0	66.3
28	AB670-16	22-JAN-1996 0	65.9
29	AB672-7	14-FEB-1996 0	61.5
30	AB674-42	7-MAR-1996 0	77.2
31	AB711-18	14-MAR-1996 0	53.5
32	AB711-83	22-MAR-1996 0	62.5
33	AB712-45	28-MAR-1996 0	64.3
34	AB712-78	2-APR-1996 0	77.7
35	AB713-9	4-APR-1996 0	84.4
36	AB713-56	10-APR-1996 0	64.7
37	AB765-59	22-MAY-1996 0	53.4
38	AB788-93	19-JUN-1996 0	58.2
39	AB790-2	20-JUN-1996 0	62.5
40	AB790-87	2-JUL-1996 0	79.9


625 N-Nitroso-Di-N-propylamine (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12:25:17.90
UCL = 230.0
UWL = 193.3
MEAN = 120.0
LWL = 46.7
LCL = 10.0
240
230
220
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 625 N-Nitroso-Di-N-propylamine
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:25

Current Control Limits
(10.0 - 230.0)

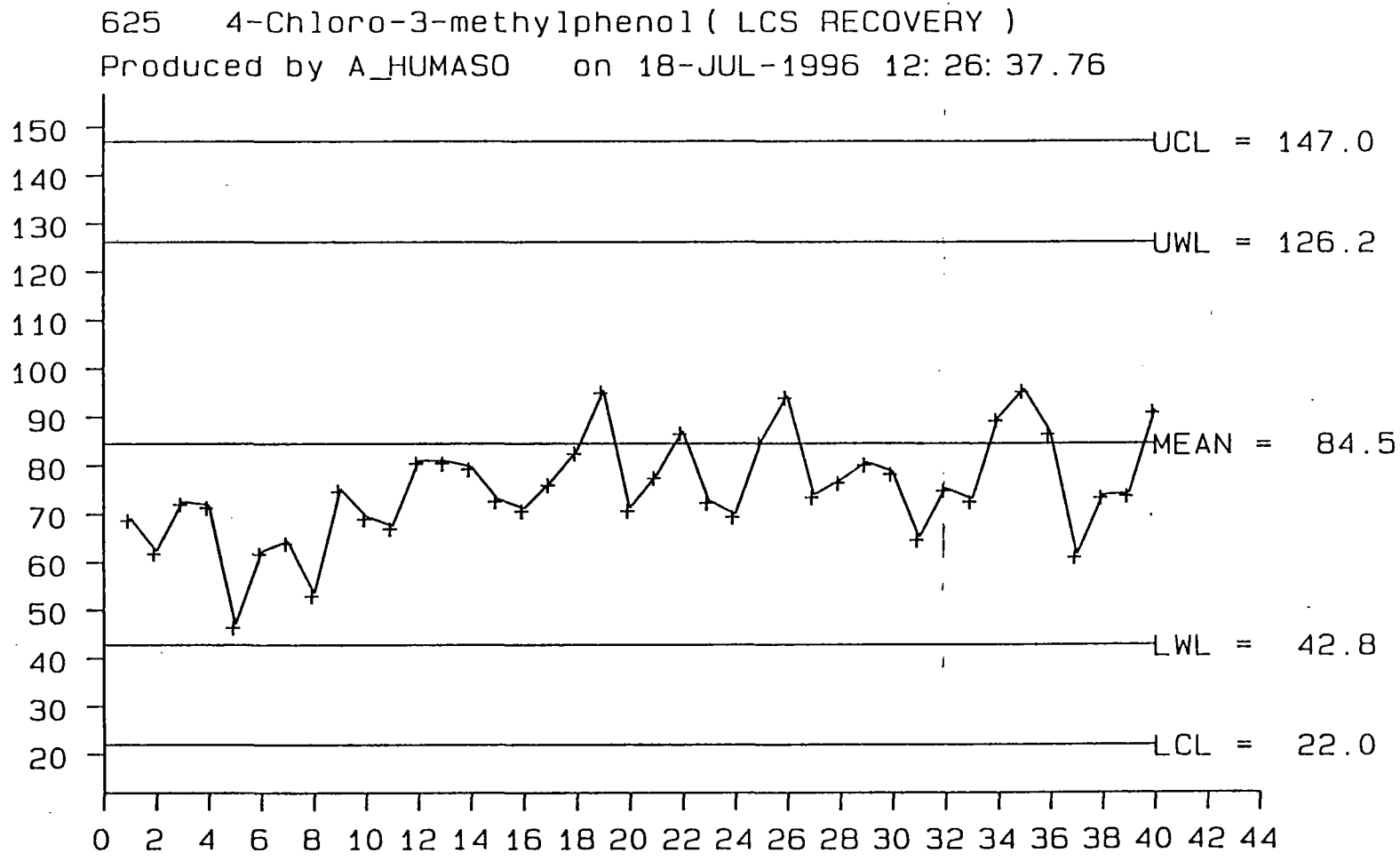
Point	Batch Number	Date Analyzed	Value (%)
1	AB389-58	7-JUN-1995 0	83.5
2	AB389-85	27-JUN-1995 0	71.6
3	AB477-12	13-JUL-1995 0	88.1
4	AB477-22	19-JUL-1995 0	76.0
5	AB477-44	5-AUG-1995 0	50.8
6	AB522-20	16-AUG-1995 0	67.8
7	AB522-66	18-AUG-1995 0	64.4
8	AB523-100	6-SEP-1995 0	62.5
9	AB544-84	13-SEP-1995 0	88.2
10	AB545-58	5-OCT-1995 0	67.6
11	AB545-90	10-OCT-1995 0	90.4
12	AB546-31	11-OCT-1995 0	99.1
13	AB546-8	11-OCT-1995 0	99.1
14	AB589-50	21-OCT-1995 0	76.4
15	AB589-86	25-OCT-1995 0	80.9
16	AB589-149	1-NOV-1995 0	80.2
17	AB590-43	6-NOV-1995 0	79.0
18	AB590-58	8-NOV-1995 0	85.4
19	AB590-83	10-NOV-1995 0	89.0
20	AB624-3	27-NOV-1995 0	83.2
21	AB624-60	28-NOV-1995 0	93.4
22	AB624-81	29-NOV-1995 0	98.5
23	AB625-11	4-DEC-1995 0	83.1
24	AB625-90	13-DEC-1995 0	72.5
25	AB648-10	15-DEC-1995 0	92.1
26	AB649-24	9-JAN-1996 0	105
27	AB649-82	16-JAN-1996 0	83.6
28	AB670-16	22-JAN-1996 0	97.5
29	AB672-7	14-FEB-1996 0	80.5
30	AB674-42	7-MAR-1996 0	90.0
31	AB711-18	14-MAR-1996 0	62.2
32	AB711-83	22-MAR-1996 0	82.2
33	AB712-45	28-MAR-1996 0	79.0
34	AB712-78	2-APR-1996 0	93.0
35	AB713-9	4-APR-1996 0	98.8
36	AB713-56	10-APR-1996 0	80.0
37	AB765-59	22-MAY-1996 0	63.3
38	AB788-93	19-JUN-1996 0	71.0
39	AB790-2	20-JUN-1996 0	74.5
40	AB790-87	2-JUL-1996 0	106


625 1, 2, 4-Trichlorobenzene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12: 25: 56.62
144
135
126
117
108
99
90
81
72
63
54
45
36
UCL = 142.0
UWL = 125.7
MEAN = 93.0
LWL = 60.3
LCL = 44.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 625 1,2,4-Trichlorobenzene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:25

Current Control Limits
(44.0 - 142.0)

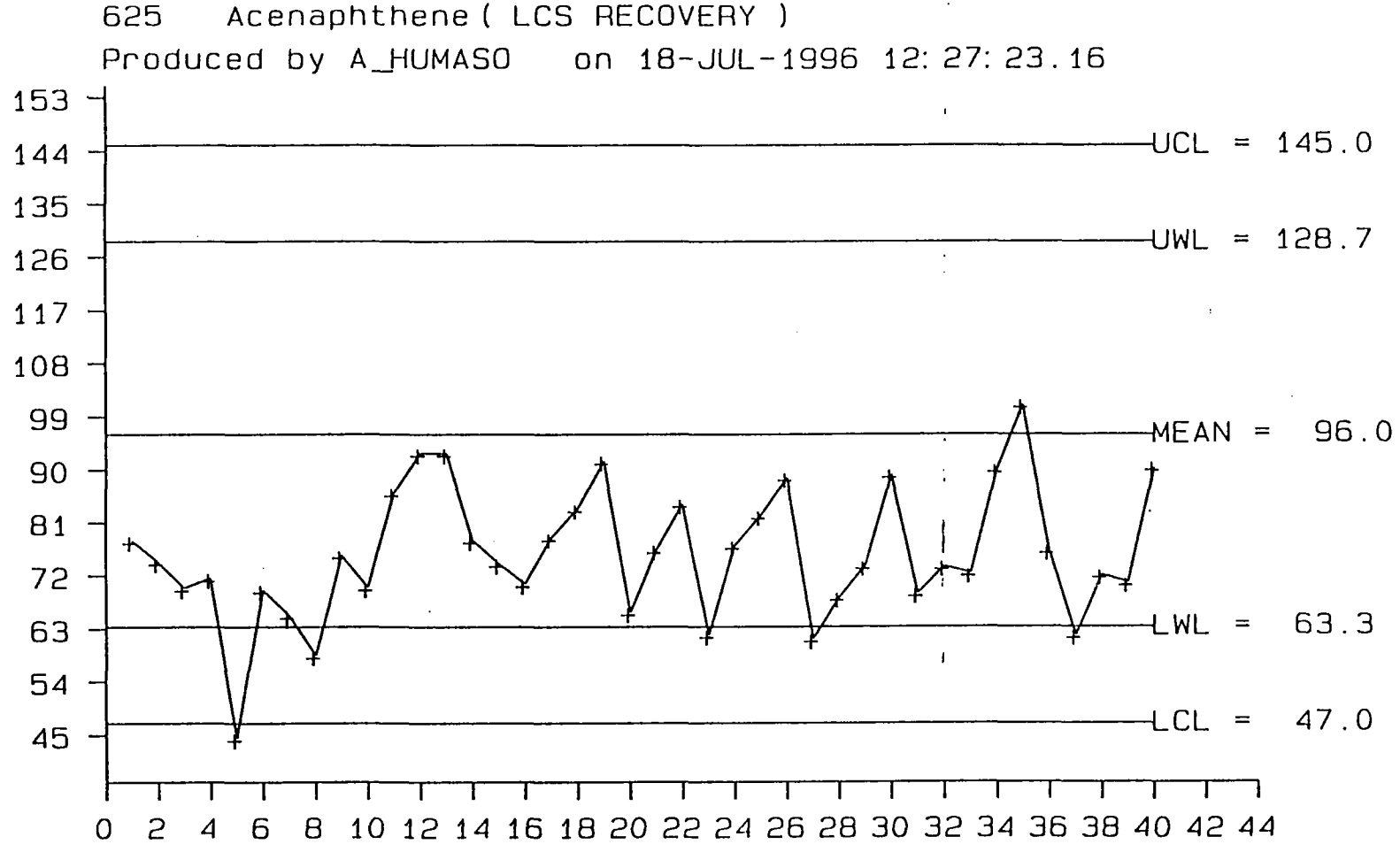
Point	Batch Number	Date Analyzed	Value (%)
1	AB389-58	7-JUN-1995 0	70.0
2	AB389-85	27-JUN-1995 0	60.5
3	AB477-12	13-JUL-1995 0	72.5
4	AB477-22	19-JUL-1995 0	69.6
5	AB477-44	5-AUG-1995 0	42.8
6	AB522-20	16-AUG-1995 0	57.1
7	AB522-66	18-AUG-1995 0	51.5
8	AB523-100	6-SEP-1995 0	59.8
9	AB544-84	13-SEP-1995 0	68.8
10	AB545-58	5-OCT-1995 0	65.3
11	AB545-90	10-OCT-1995 0	74.2
12	AB546-31	11-OCT-1995 0	86.5
13	AB546-8	11-OCT-1995 0	86.5
14	AB589-50	21-OCT-1995 0	68.3
15	AB589-86	25-OCT-1995 0	70.8
16	AB589-149	1-NOV-1995 0	61.7
17	AB590-43	6-NOV-1995 0	70.7
18	AB590-58	8-NOV-1995 0	84.6
19	AB590-83	10-NOV-1995 0	89.8
20	AB624-3	20-NOV-1995 0	66.3
21	AB624-60	28-NOV-1995 0	76.0
22	AB624-81	29-NOV-1995 0	84.9
23	AB625-11	4-DEC-1995 0	66.1
24	AB625-90	13-DEC-1995 0	66.0
25	AB648-10	15-DEC-1995 0	77.0
26	AB649-24	9-JAN-1996 0	89.0
27	AB649-82	16-JAN-1996 0	66.3
28	AB670-16	22-JAN-1996 0	67.0
29	AB672-7	14-FEB-1996 0	63.0
30	AB674-42	7-MAR-1996 0	74.3
31	AB711-18	14-MAR-1996 0	64.7
32	AB711-83	22-MAR-1996 0	66.6
33	AB712-45	28-MAR-1996 0	70.3
34	AB712-78	2-APR-1996 0	83.7
35	AB713-9	4-APR-1996 0	85.3
36	AB713-56	10-APR-1996 0	67.6
37	AB765-59	22-MAY-1996 0	59.9
38	AB788-93	19-JUN-1996 0	67.6
39	AB790-2	20-JUN-1996 0	66.8
40	AB790-87	2-JUL-1996 0	89.2


625 4-Chloro-3-methylphenol (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12:26:37.76
150
140
130
120
110
100
90
80
70
60
50
40
30
20
UCL = 147.0
UWL = 126.2
MEAN = 84.5
LWL = 42.8
LCL = 22.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 625 4-Chloro-3-methylphenol
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:26

Current Control Limits
(22.0 - 147.0)

Point	Batch Number	Date Analyzed	Value (%)
1	AB389-58	7-JUN-1995 0	69.3
2	AB389-85	27-JUN-1995 0	62.4
3	AB477-12	13-JUL-1995 0	72.6
4	AB477-22	19-JUL-1995 0	71.9
5	AB477-44	5-AUG-1995 0	47.0
6	AB522-20	16-AUG-1995 0	62.3
7	AB522-66	18-AUG-1995 0	64.5
8	AB523-100	6-SEP-1995 0	53.5
9	AB544-84	13-SEP-1995 0	75.3
10	AB545-58	5-OCT-1995 0	69.6
11	AB545-90	10-OCT-1995 0	67.6
12	AB546-31	11-OCT-1995 0	81.0
13	AB546-8	11-OCT-1995 0	81.0
14	AB589-50	21-OCT-1995 0	79.8
15	AB589-86	25-OCT-1995 0	73.2
16	AB589-149	1-NOV-1995 0	71.2
17	AB590-43	6-NOV-1995 0	76.6
18	AB590-58	8-NOV-1995 0	83.0
19	AB590-83	10-NOV-1995 0	95.6
20	AB624-3	20-NOV-1995 0	71.3
21	AB624-60	28-NOV-1995 0	78.0
22	AB624-81	29-NOV-1995 0	87.1
23	AB625-11	4-DEC-1995 0	72.9
24	AB625-90	13-DEC-1995 0	70.0
25	AB648-10	15-DEC-1995 0	85.1
26	AB649-24	9-JAN-1996 0	94.5
27	AB649-82	16-JAN-1996 0	74.0
28	AB670-16	22-JAN-1996 0	77.0
29	AB672-7	14-FEB-1996 0	80.7
30	AB674-42	7-MAR-1996 0	78.8
31	AB711-18	14-MAR-1996 0	65.2
32	AB711-83	22-MAR-1996 0	75.4
33	AB712-45	28-MAR-1996 0	73.1
34	AB712-78	2-APR-1996 0	89.8
35	AB713-9	4-APR-1996 0	95.8
36	AB713-56	10-APR-1996 0	87.0
37	AB765-59	22-MAY-1996 0	61.6
38	AB788-93	19-JUN-1996 0	73.9
39	AB790-2	20-JUN-1996 0	74.3
40	AB790-87	2-JUL-1996 0	91.5


625 Acenaphthene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12:27:23.16
153
144
135
126
117
108
99
90
81
72
63
54
45
UCL = 145.0
UWL = 128.7
MEAN = 96.0
LWL = 63.3
LCL = 47.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

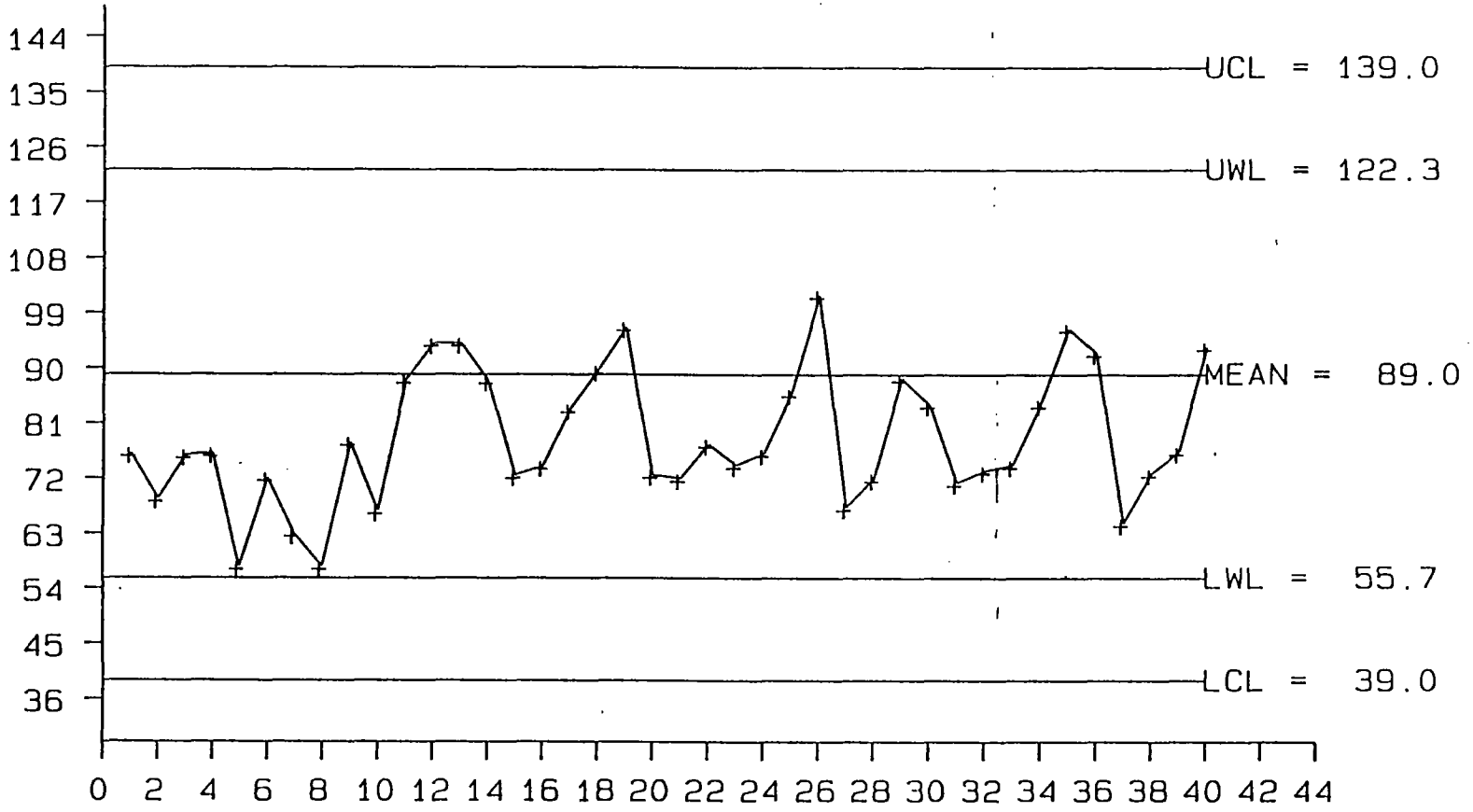
Data Points for: 625 Acenaphthene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:27

Current Control Limits
(47.0 - 145.0)

Point	Batch Number	Date Analyzed	Value (%)
1	AB389-58	7-JUN-1995 0	77.9
2	AB389-85	27-JUN-1995 0	74.3
3	AB477-12	13-JUL-1995 0	69.9
4	AB477-22	19-JUL-1995 0	71.6
5	AB477-44	5-AUG-1995 0	44.5
6	AB522-20	16-AUG-1995 0	69.6
7	AB522-66	18-AUG-1995 0	65.3
8	AB523-100	6-SEP-1995 0	58.5
9	AB544-84	13-SEP-1995 0	75.4
10	AB545-58	5-OCT-1995 0	70.0
11	AB545-90	10-OCT-1995 0	86.1
12	AB546-31	11-OCT-1995 0	92.8
13	AB546-8	11-OCT-1995 0	92.8
14	AB589-50	21-OCT-1995 0	78.0
15	AB589-86	25-OCT-1995 0	74.0
16	AB589-149	1-NOV-1995 0	70.6
17	AB590-43	6-NOV-1995 0	78.4
18	AB590-58	8-NOV-1995 0	83.4
19	AB590-83	10-NOV-1995 0	91.5
20	AB624-3	20-NOV-1995 0	65.8
21	AB624-60	28-NOV-1995 0	76.3
22	AB624-81	29-NOV-1995 0	84.2
23	AB625-11	4-DEC-1995 0	62.0
24	AB625-90	13-DEC-1995 0	77.0
25	AB648-10	15-DEC-1995 0	82.2
26	AB649-24	9-JAN-1996 0	88.7
27	AB649-82	16-JAN-1996 0	61.3
28	AB670-16	22-JAN-1996 0	68.3
29	AB672-7	14-FEB-1996 0	73.6
30	AB674-42	7-MAR-1996 0	89.2
31	AB711-18	14-MAR-1996 0	69.0
32	AB711-83	22-MAR-1996 0	73.5
33	AB712-45	28-MAR-1996 0	72.4
34	AB712-78	2-APR-1996 0	90.1
35	AB713-9	4-APR-1996 0	101
36	AB713-56	10-APR-1996 0	76.2
37	AB765-59	22-MAY-1996 0	61.9
38	AB788-93	19-JUN-1996 0	72.1
39	AB790-2	20-JUN-1996 0	70.8
40	AB790-87	2-JUL-1996 0	90.4

625 2,4-Dinitrotoluene (LCS RECOVERY)

Produced by A_HUMASO on 18-JUL-1996 12:29:13.47



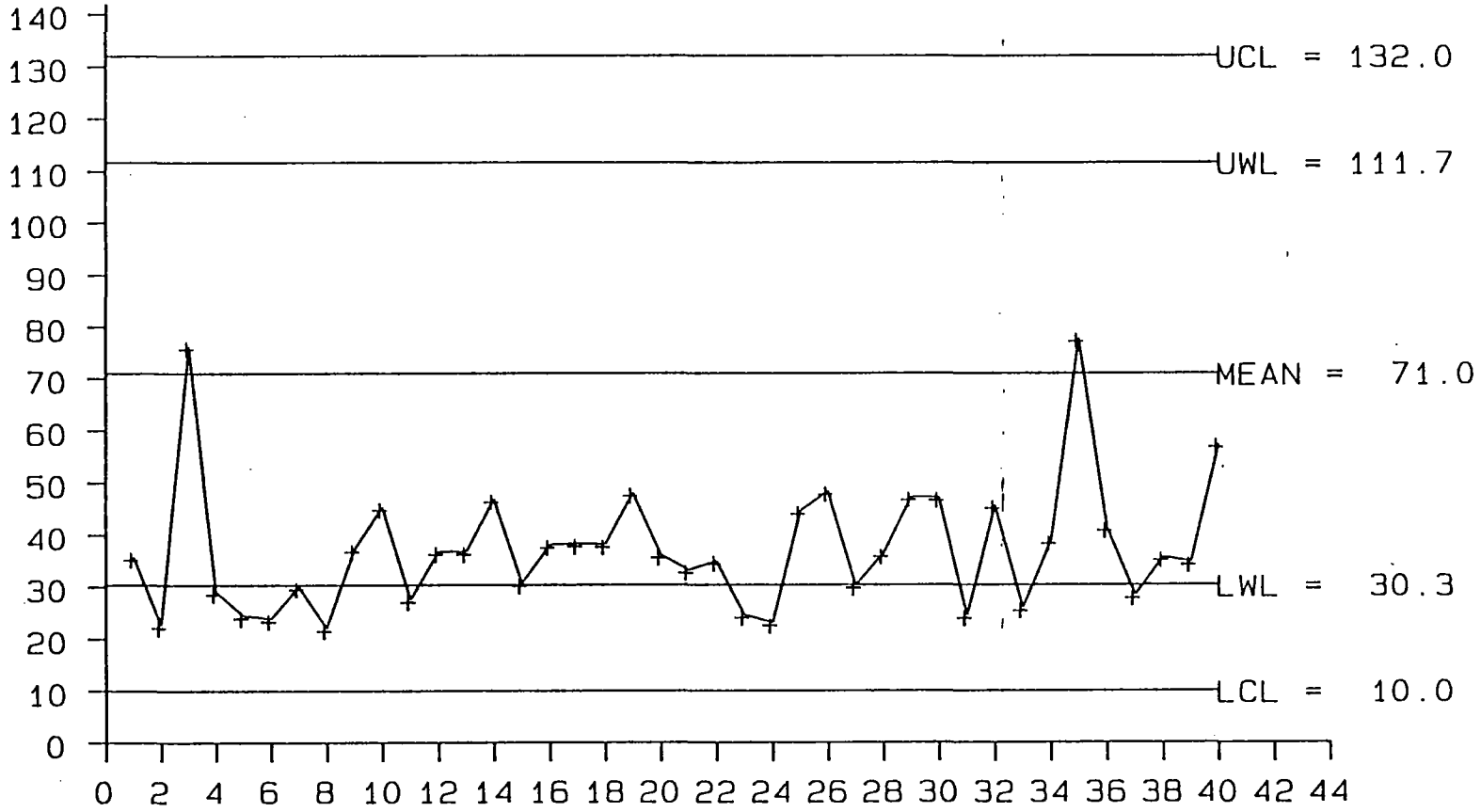
Data Points for: 625 4-Nitrophenol
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:28

Current Control Limits
(10.0 - 132.0)

Point	Batch Number	Date Analyzed	Value (%)
1	AB389-58	7-JUN-1995 0	35.8
2	AB389-85	27-JUN-1995 0	22.7
3	AB477-12	13-JUL-1995 0	76.3
4	AB477-22	19-JUL-1995 0	29.1
5	AB477-44	5-AUG-1995 0	24.5
6	AB522-20	16-AUG-1995 0	23.9
7	AB522-66	18-AUG-1995 0	30.1
8	AB523-100	6-SEP-1995 0	22.1
9	AB544-84	13-SEP-1995 0	37.3
10	AB545-58	5-OCT-1995 0	45.4
11	AB545-90	10-OCT-1995 0	27.6
12	AB546-31	11-OCT-1995 0	36.8
13	AB546-8	11-OCT-1995 0	36.8
14	AB589-50	21-OCT-1995 0	46.9
15	AB589-86	25-OCT-1995 0	30.7
16	AB589-149	1-NOV-1995 0	38.1
17	AB590-43	6-NOV-1995 0	38.3
18	AB590-58	8-NOV-1995 0	38.2
19	AB590-83	10-NOV-1995 0	48.1
20	AB624-3	20-NOV-1995 0	36.2
21	AB624-60	28-NOV-1995 0	33.2
22	AB624-81	29-NOV-1995 0	35.0
23	AB625-11	4-DEC-1995 0	24.6
24	AB625-90	13-DEC-1995 0	23.1
25	AB648-10	15-DEC-1995 0	44.6
26	AB649-24	9-JAN-1996 0	48.4
27	AB649-82	16-JAN-1996 0	30.3
28	AB670-16	22-JAN-1996 0	36.4
29	AB672-7	14-FEB-1996 0	47.3
30	AB674-42	7-MAR-1996 0	47.2
31	AB711-18	14-MAR-1996 0	24.5
32	AB711-83	22-MAR-1996 0	45.7
33	AB712-45	28-MAR-1996 0	26.0
34	AB712-78	2-APR-1996 0	38.9
35	AB713-9	4-APR-1996 0	77.8
36	AB713-56	10-APR-1996 0	41.4
37	AB765-59	22-MAY-1996 0	28.4
38	AB788-93	19-JUN-1996 0	35.7
39	AB790-2	20-JUN-1996 0	34.8
40	AB790-87	2-JUL-1996 0	57.4

625 4-Nitrophenol (LCS RECOVERY)

Produced by A_HUMASO on 18-JUL-1996 12: 28: 19.09



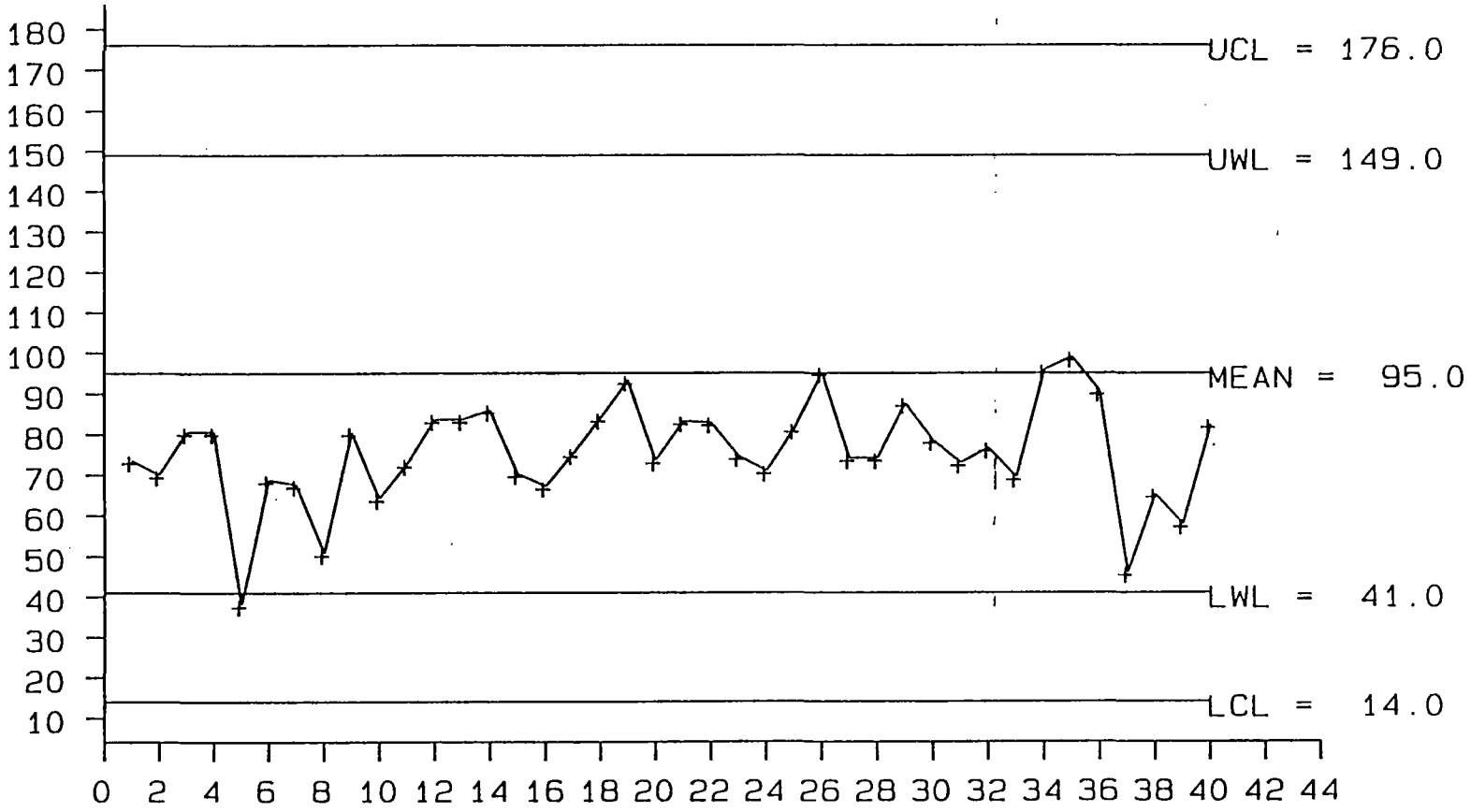
Data Points for: 625 2,4-Dinitrotoluene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:29

Current Control Limits
(39.0 - 139.0)

Point	Batch Number	Date Analyzed	Value (%)
1	AB389-58	7-JUN-1995 0	76.1
2	AB389-85	27-JUN-1995 0	68.7
3	AB477-12	13-JUL-1995 0	75.8
4	AB477-22	19-JUL-1995 0	76.1
5	AB477-44	5-AUG-1995 0	57.6
6	AB522-20	16-AUG-1995 0	72.1
7	AB522-66	18-AUG-1995 0	63.0
8	AB523-100	6-SEP-1995 0	57.6
9	AB544-84	13-SEP-1995 0	77.9
10	AB545-58	5-OCT-1995 0	66.7
11	AB545-90	10-OCT-1995 0	88.1
12	AB546-31	11-OCT-1995 0	94.1
13	AB546-8	11-OCT-1995 0	94.1
14	AB589-50	21-OCT-1995 0	88.0
15	AB589-86	25-OCT-1995 0	72.5
16	AB589-149	1-NOV-1995 0	74.0
17	AB590-43	6-NOV-1995 0	83.3
18	AB590-58	8-NOV-1995 0	89.7
19	AB590-83	10-NOV-1995 0	96.7
20	AB624-3	20-NOV-1995 0	72.6
21	AB624-60	28-NOV-1995 0	72.0
22	AB624-81	29-NOV-1995 0	77.6
23	AB625-11	4-DEC-1995 0	74.2
24	AB625-90	13-DEC-1995 0	76.1
25	AB648-10	15-DEC-1995 0	85.9
26	AB649-24	9-JAN-1996 0	102
27	AB649-82	16-JAN-1996 0	67.3
28	AB670-16	22-JAN-1996 0	72.0
29	AB672-7	14-FEB-1996 0	88.4
30	AB674-42	7-MAR-1996 0	84.1
31	AB711-18	14-MAR-1996 0	71.3
32	AB711-83	22-MAR-1996 0	73.3
33	AB712-45	28-MAR-1996 0	74.2
34	AB712-78	2-APR-1996 0	84.1
35	AB713-9	4-APR-1996 0	96.5
36	AB713-56	10-APR-1996 0	92.5
37	AB765-59	22-MAY-1996 0	64.7
38	AB788-93	19-JUN-1996 0	72.8
39	AB790-2	20-JUN-1996 0	76.4
40	AB790-87	2-JUL-1996 0	93.5

625 Pentachlorophenol (LCS RECOVERY)

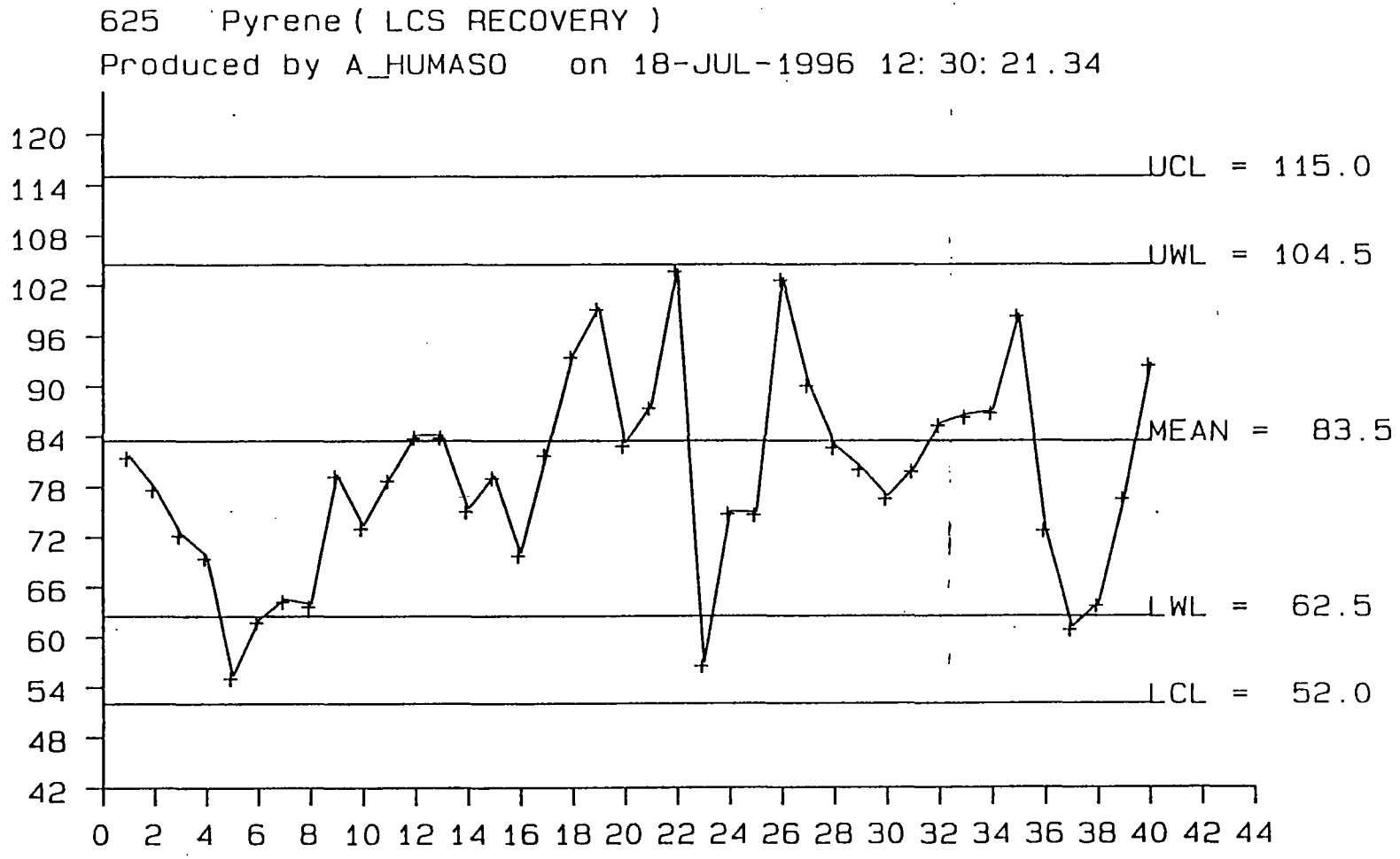
Produced by A_HUMASO on 18-JUL-1996 12:29:49.14



Data Points for: 625 Pentachlorophenol
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:29

Current Control Limits
(14.0 - 176.0)

Point	Batch Number	Date Analyzed	Value (%)
1	AB389-58	7-JUN-1995 0	73.6
2	AB389-85	27-JUN-1995 0	70.1
3	AB477-12	13-JUL-1995 0	80.6
4	AB477-22	19-JUL-1995 0	80.6
5	AB477-44	5-AUG-1995 0	38.2
6	AB522-20	16-AUG-1995 0	68.8
7	AB522-66	18-AUG-1995 0	67.6
8	AB523-100	6-SEP-1995 0	50.8
9	AB544-84	13-SEP-1995 0	80.5
10	AB545-58	5-OCT-1995 0	64.3
11	AB545-90	10-OCT-1995 0	72.7
12	AB546-31	11-OCT-1995 0	83.7
13	AB546-8	11-OCT-1995 0	83.7
14	AB589-50	21-OCT-1995 0	86.0
15	AB589-86	25-OCT-1995 0	70.3
16	AB589-149	1-NOV-1995 0	67.2
17	AB590-43	6-NOV-1995 0	75.2
18	AB590-58	8-NOV-1995 0	84.0
19	AB590-83	10-NOV-1995 0	93.2
20	AB624-3	20-NOV-1995 0	73.6
21	AB624-60	28-NOV-1995 0	83.2
22	AB624-81	29-NOV-1995 0	82.9
23	AB625-11	4-DEC-1995 0	74.6
24	AB625-90	13-DEC-1995 0	71.0
25	AB648-10	15-DEC-1995 0	81.3
26	AB649-24	9-JAN-1996 0	95.2
27	AB649-82	16-JAN-1996 0	74.1
28	AB670-16	22-JAN-1996 0	74.2
29	AB672-7	14-FEB-1996 0	87.7
30	AB674-42	7-MAR-1996 0	78.6
31	AB711-18	14-MAR-1996 0	73.0
32	AB711-83	22-MAR-1996 0	76.7
33	AB712-45	28-MAR-1996 0	69.5
34	AB712-78	2-APR-1996 0	95.8
35	AB713-9	4-APR-1996 0	99.0
36	AB713-56	10-APR-1996 0	90.6
37	AB765-59	22-MAY-1996 0	46.0
38	AB788-93	19-JUN-1996 0	65.2
39	AB790-2	20-JUN-1996 0	57.9
40	AB790-87	2-JUL-1996 0	82.4


625 Pyrene (LCS RECOVERY)
Produced by A_HUMASO on 18-JUL-1996 12:30:21.34
120
114
108
102
96
90
84
78
72
66
60
54
48
42
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44
UCL = 115.0
UWL = 104.5
MEAN = 83.5
LWL = 62.5
LCL = 52.0

Data Points for: 625 Pyrene
Chart Type: LCS RECOVERY
Generated on: 18-JUL-1996 12:30

Current Control Limits
(52.0 - 115.0)

Point	Batch Number	Date Analyzed	Value (%)
1	AB389-58	7-JUN-1995 0	81.8
2	AB389-85	27-JUN-1995 0	78.0
3	AB477-12	13-JUL-1995 0	72.5
4	AB477-22	19-JUL-1995 0	69.8
5	AB477-44	5-AUG-1995 0	55.4
6	AB522-20	16-AUG-1995 0	62.1
7	AB522-66	18-AUG-1995 0	64.6
8	AB523-100	6-SEP-1995 0	64.0
9	AB544-84	13-SEP-1995 0	79.6
10	AB545-58	5-OCT-1995 0	73.4
11	AB545-90	10-OCT-1995 0	79.1
12	AB546-31	11-OCT-1995 0	84.2
13	AB546-8	11-OCT-1995 0	84.2
14	AB589-50	21-OCT-1995 0	75.4
15	AB589-86	25-OCT-1995 0	79.4
16	AB589-149	1-NOV-1995 0	70.1
17	AB590-43	6-NOV-1995 0	82.1
18	AB590-58	8-NOV-1995 0	93.8
19	AB590-83	10-NOV-1995 0	99.5
20	AB624-3	20-NOV-1995 0	83.2
21	AB624-60	28-NOV-1995 0	87.7
22	AB624-81	29-NOV-1995 0	104
23	AB625-11	4-DEC-1995 0	56.9
24	AB625-90	13-DEC-1995 0	75.1
25	AB648-10	15-DEC-1995 0	75.0
26	AB649-24	9-JAN-1996 0	103
27	AB649-82	16-JAN-1996 0	90.4
28	AB670-16	22-JAN-1996 0	83.0
29	AB672-7	14-FEB-1996 0	80.4
30	AB674-42	7-MAR-1996 0	76.9
31	AB711-18	14-MAR-1996 0	80.2
32	AB711-83	22-MAR-1996 0	85.6
33	AB712-45	28-MAR-1996 0	86.6
34	AB712-78	2-APR-1996 0	87.1
35	AB713-9	4-APR-1996 0	98.7
36	AB713-56	10-APR-1996 0	73.1
37	AB765-59	22-MAY-1996 0	61.2
38	AB788-93	19-JUN-1996 0	64.1
39	AB790-2	20-JUN-1996 0	76.9
40	AB790-87	2-JUL-1996 0	92.8

PESTICIDES DATA

QUALITY CONTROL SUMMARY

FORM 2
SOIL 8080 SURROGATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Level: (low/med) LOW

	AT Kearney SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	BLK	90	89							0
02	BLKBS	92	90							0
03	BLKBSD	94	97							0
04	9654-4MS	84	86							0
05	9654-4MSD	91	91							0
06	9654-4	93	93							0
07	SWMUG-5	90	71							0
08	SWMUG-105	101	66							0
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

		QC LIMITS
S1 =	TCMX	(60-140%)
S2 =	DCBP	(60-140%)

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

FORM 3
SOIL 8080 MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Matrix Spike - Client Sample ID: 9654-4 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Gamma-BHC (Lindane)	98.6	0.000	71.7	73	32-127
Heptachlor	98.6	0.000	75.7	77	34-111
Aldrin	98.6	0.000	70.1	71	42-122
Dieldrin	98.6	0.000	62.6	63	36-146
Endrin	98.6	0.000	69.3	72	30-147
4,4'-DDT	98.6	0.000	69.9	71	25-160

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Gamma-BHC (Lindane)	98.0	75.4	77	5	23	32-127
Heptachlor	98.0	80.3	82	6	20	34-111
Aldrin	98.0	74.6	76	7	21	42-122
Dieldrin	98.0	74.0	75	17	38	36-146
Endrin	98.0	70.7	76	5	37	30-147
4,4'-DDT	98.0	72.8	73	3	36	25-160

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS: _____

FORM 3
SOIL 8080 BLANK SPIKE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Matrix Spike - Client Sample ID: BLK Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	BLANK CONCENTRATION (ug/Kg)	BS CONCENTRATION (ug/Kg)	BS % REC #	QC. LIMITS REC.
Gamma-BHC (Lindane)	83.3	0.000	64.9	78	32-127
Heptachlor	83.3	0.000	70.0	84	34-111
Aldrin	83.3	0.000	64.8	78	42-122
Dieldrin	83.3	0.000	62.3	75	36-146
Endrin	83.3	0.000	62.9	75	30-147
4,4'-DDT	83.3	0.000	62.2	75	25-160

COMPOUND	SPIKE ADDED (ug/Kg)	BSD CONCENTRATION (ug/Kg)	BSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Gamma-BHC (Lindane)	83.3	63.9	77	1	23	32-127
Heptachlor	83.3	69.9	84	0	20	34-111
Aldrin	83.3	65.5	79	1	21	42-122
Dieldrin	83.3	68.4	82	9	38	36-146
Endrin	83.3	63.8	77	3	37	30-147
4,4'-DDT	83.3	65.1	78	5	36	25-160

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS: _____

FORM 4
8080 METHOD BLANK SUMMARY

AT Kearney SAMPLE NO.

BLK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Lab File ID: PEST091196-I081 Lab Sample ID: BLK

Instrument ID: CH22 Date Extracted: 09/03/96

Matrix: (soil/water) SOIL Date Analyzed: 09/11/96

Level: (low/med) LOW Time Analyzed: 1432

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

	AT Kearney SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	BLKBS	BLKBS	091196-i091.d	09/11/96
02	BLKBSD	BLKBSD	091196-i101.d	09/11/96
03	9654-4MS	9654-4MS	091196-i111.d	09/11/96
04	9654-4MSD	9654-4MSD	091196-i121.d	09/11/96
05	9654-4	9654-4	091196-i141.d	09/11/96
06	SWMUG-5	9653-1	091196-i151.d	09/11/96
07	SWMUG-105	9653-2	091196-i161.d	09/11/96
08				
09				
10				
11				
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COMMENTS:

SAMPLE DATA

FORM 1
8080 ORGANICS ANALYSIS DATA SHEET

AT Kearney SAMPLE NO.

SWMUG-5

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: PEST091196-I151

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 9.7 decanted: (Y/N) N Date Extracted: 09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/11/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	Alpha-BHC	1.50	U
319-85-7	Beta-BHC	5.10	P
319-86-8	Delta-BHC	1.50	U
58-89-9	Gamma-BHC (Lindane)	1.50	U
76-44-8	Heptachlor	5.60	P
309-00-2	Aldrin	3.00	U
1024-57-3	Heptachlor epoxide	1.50	U
959-98-8	Endosulfan I	3.70	U
60-57-1	Dieldrin	1.50	U
72-55-9	4,4'-DDE	3.00	U
72-20-8	Endrin	3.70	U
33213-65-9	Endosulfan II	3.00	U
72-54-8	4,4'-DDD	3.70	U
1031-07-8	Endosulfan sulfate	3.70	U
50-29-3	4,4'-DDT	3.70	U
72-43-5	Methoxychlor	185	U
7421-36-3	Endrin aldehyde	3.70	U
8001-35-2	Toxaphene	178	U
12674-11-2	Aroclor 1016	6.70	U
11104-28-2	Aroclor 1221	6.70	U
1114-16-5	Aroclor 1232	6.70	U
53469-21-9	Aroclor 1242	6.70	U
12672-29-6	Aroclor 1248	6.70	U
11097-69-1	Aroclor 1254	6.70	U
11096-82-5	Aroclor 1260	398	
12789-03-6	Chlordane	8.90	U
----------	Isodrin	7.40	U
----------	Kepone	7.40	U

Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i151.d
Lab Smp Id: 9653-1 Client Smp ID: SWMUG-5
Inj Date : 11-SEP-96 18:12:00
Operator : MAK Inst ID: ch22.i
Smp Info : 9653-1 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 12-Sep-96 13:23:15 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Report
1260 359 ppb

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
6 Beta-BHC	7.734	7.752	(1.247)	8496	0.0196	•13.1 Uncont. Cu.24
9 Delta-BHC	8.812	8.794	(1.421)	2125	0.00343	2.29(a) ∠
8 Heptachlor	8.572	8.541	(1.383)	9550	0.0129	• 8.58 Uncont Cu.24
15 Heptachlor epoxide	11.511	11.498	(1.857)	1785	0.00261	1.74(a) ∠
16 Endosulfan I	12.895	12.979	(2.080)	569	0.000936	0.624(a) ∠
20 Dieldrin	14.291	14.247	(2.305)	17848	0.0266	17.7
18 4,4'-DDE	13.839	13.852	(2.232)	12534	0.0219	14.6 } Arochlor
22 Endrin	15.807	15.754	(2.549)	11742	0.0228	15.2 1260
25 Endosulfan II	16.481	16.481	(2.658)	4168	0.00963	6.42
24 4,4'-DDD	16.197	16.153	(2.612)	1182	0.00277	1.85(a)
29 Endosulfan sulfate	18.303	18.308	(2.952)	1749	0.00436	2.90(a)
27 4,4'-DDT	17.510	17.426	(2.824)	13446	0.0300	20.0 1260
30 Methoxychlor	20.586	20.511	(3.320)	16159	0.0820	54.6(a)
28 Endrin aldehyde	17.785	17.833	(2.868)	6410	0.0218	14.5(a)

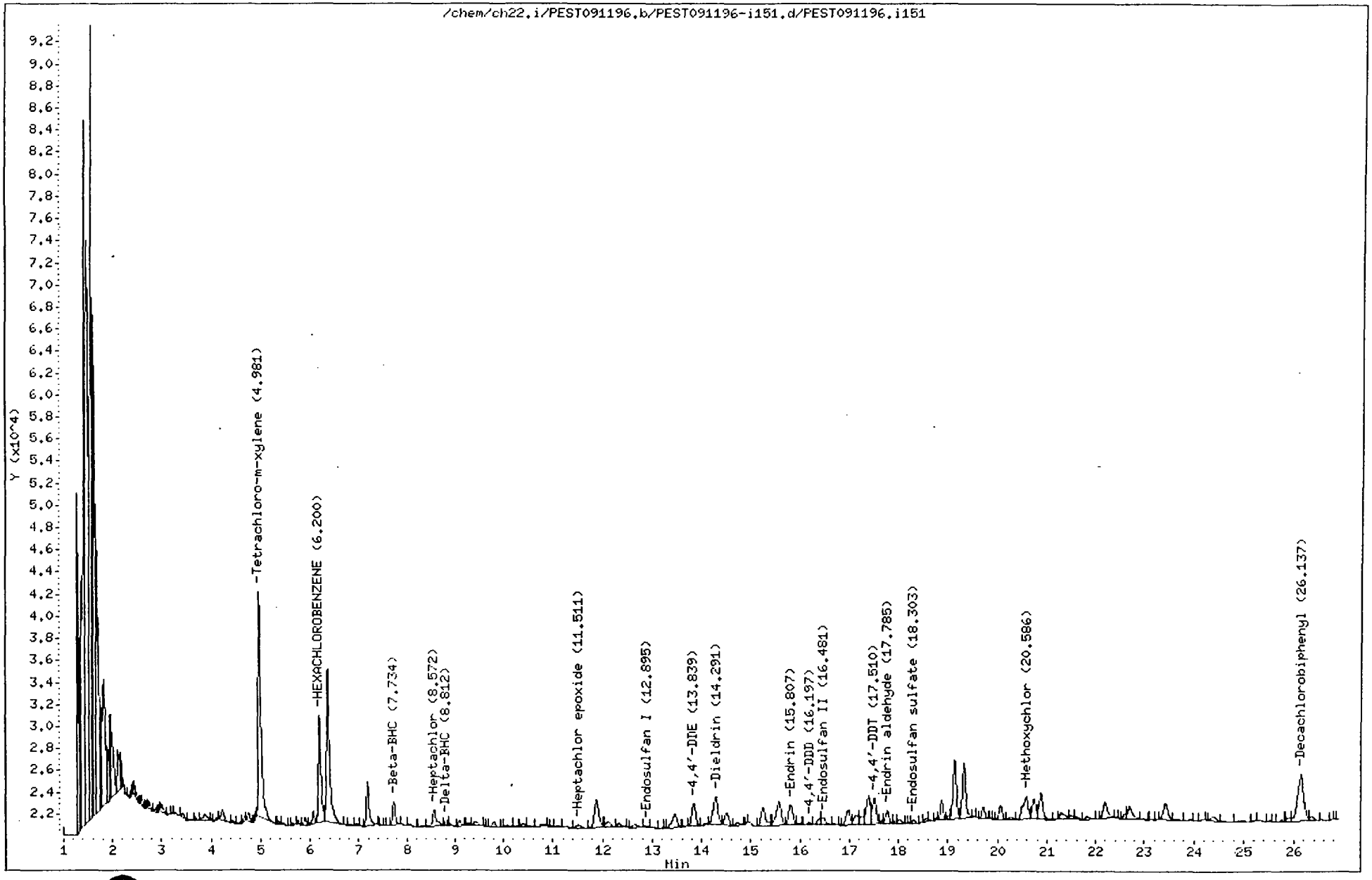
Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)	
$ 1 Tetrachloro-m-xylene	4.981	4.977	(0.803)	80204	0.113	75.2	90.3%
* 2 HEXACHLOROBENZENE	6.200	6.191	(1.000)	38824	1.00		
$ 32 Decachlorobiphenyl	26.137	26.150	(4.215)	37203	0.0886	59.1	70.9%

QC Flag Legend

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

556

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i151.d
Date : 11-SEP-96 18:12:00
Client ID: SWNUG-5
Instrument: ch22.i
Sample Info: 9653-1 30/10 AB848-84A 9-3-96
Volume Injected (uL): 0.5
Operator: MAK
Column phase: DB-608
Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch24.i\PEST091196.b\PEST091196-i151.d
Lab Smp Id: 9653-1 Client Smp ID: SWMUG-5
Inj Date : 11-SEP-96 18:12:00
Operator : MAKOWALSKI Inst ID: ch24.i
Smp Info : 9653-1 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch24.i\PEST091196.b\24pest0906.m
Meth Date : 13-Sep-96 13:46:00 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Report
Beta-BHC 4.65ppb
Heptachlor 5.04ppb

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
3 Alpha-BHC	6.366	6.357	(1.167)	9495	0.000686	0.457(a)
9 Beta-BHC	9.004	8.982	(1.651)	27360	0.00697	4.65
11 Delta-BHC	9.869	9.793	(1.810)	18010	0.00210	1.40(a)
7 Heptachlor	7.909	7.931	(1.450)	89470	0.00756	5.04
8 Aldrin	8.601	8.685	(1.577)	60234	0.00574	3.83
15 Endosulfan I	11.677	11.677	(2.141)	13236	0.00164	1.09(a)
17 Dieldrin	13.074	13.078	(2.398)	7469	0.000931	0.621(a)
16 4,4'-DDE	12.356	12.342	(2.266)	148230	0.0189	12.6
19 Endrin	13.916	13.899	(2.552)	11050	0.00162	1.08(a)
23 Endosulfan II	15.667	15.654	(2.873)	155793	0.0292	19.5
24 4,4'-DDT	16.071	16.075	(2.947)	111288	0.0188	12.5
28 Endrin ketone	19.706	19.671	(3.614)	19328	0.00352	2.34(a)
26 Endrin aldehyde	17.232	17.148	(3.160)	34957	0.0103	6.85(a)
$ 1 Tetrachloro-m-xylene	4.544	4.535	(0.833)	977336	0.0982	65.4

MAK 9-13-96

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
* 2 HEXACHLOROBENZENE	5.453	5.444	(1.000)	556013	1.00	
$ 29 Decachlorobiphenyl	22.575	22.566	(4.140)	316306	0.0618	41.2(R)
27 Endosulfan sulf./Methoxychlor	18.345	18.327	(3.364)	2950	0.000851	0.567(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data Fi /chem/ch24.i/PEST091196.b/PEST091196-i151.d

Date : 11-SEP-96 18:12:00

Client ID: SWMUG-5

Instrument: ch24.i

Sample Info: 9653-1 30/10 AB848-84A 9-3-96

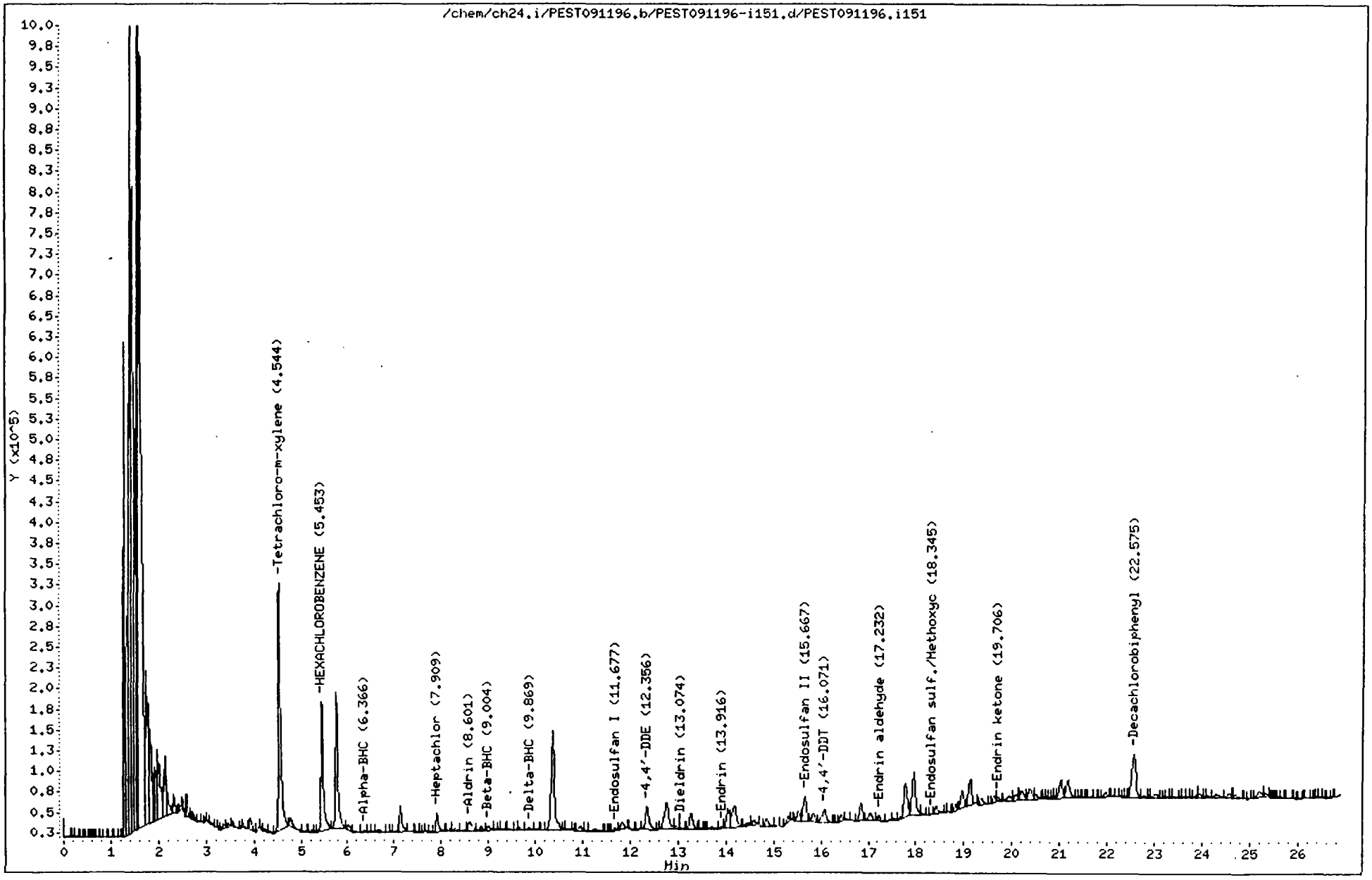
Volume Injected (uL): 0.5

Operator: NAKOWALSKI

Column phase: DB-1701

Column diameter: 0.53

559



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i151.d
Lab Smp Id: 9653-1 Client Smp ID: SWMUG-5
Inj Date : 11-SEP-96 18:12:00
Operator : MAK Inst ID: ch22.i
Smp Info : 9653-1 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 12-Sep-96 13:23:15 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ISO-KEP.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
14 Isodrin	11.095	11.064	(1.789)	502	0.000840	0.560(a)
23 Kepone	15.958	15.980	(2.574)	486	0.00451	3.00
* 2 HEXACHLOROBENZENE	6.200	6.191	(1.000)	38824	1.00	

QC Flag Legend

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

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i151.d

Date : 11-SEP-96 18:12:00

Client ID: SWMUG-5

Instrument: ch22.i

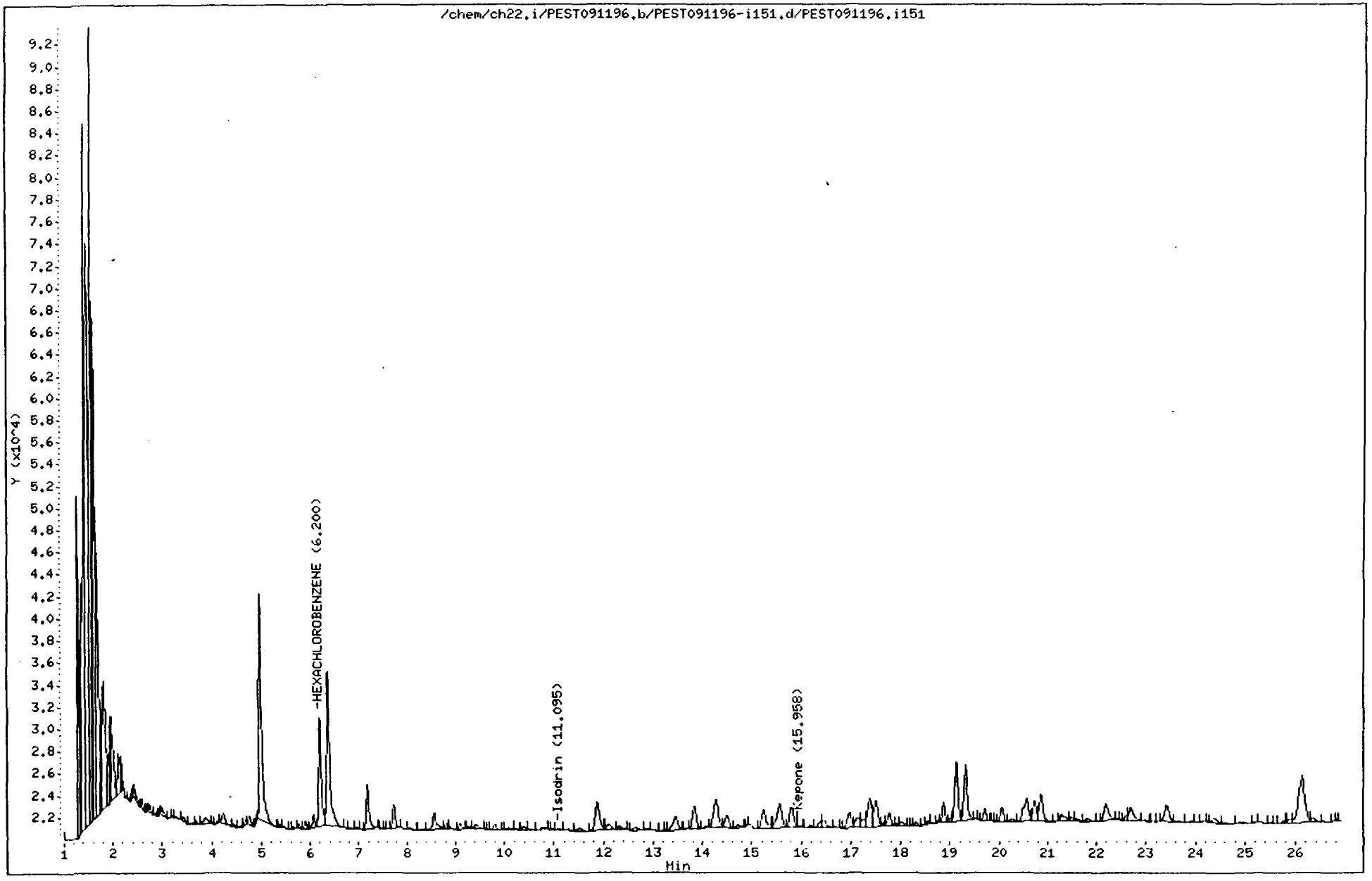
Sample Info: 9653-1 30/10 AB848-84A 9-3-96

Volume Injected (uL): 0.5

Operator: MAK

Column phase: DB-608

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i151.d
Lab Smp Id: 9653-1 Client Smp ID: SWMUG-5
Inj Date : 11-SEP-96 18:12:00
Operator : MAK Inst ID: ch22.i
Smp Info : 9653-1 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 12-Sep-96 15:01:55 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.21 Sample Matrix: SOIL
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

RT	EXP RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/Kg)	TARGET RANGE	RATIO
13 Aroclor 1016				CAS #: 12674-11-2		
7.539	7.530 (0.000)	94	0.00339	2.26		100.00(a)
8.882	8.976 (0.000)	982	0.0595	39.7	0.00- 0.00	1044.68
9.414	9.388 (0.000)	2418	0.109	72.4	0.00- 0.00	2572.34
10.514	10.510 (0.000)	993	0.0564	37.6	0.00- 0.00	1056.38
	Average of Peak Concentrations =			38.0		
21 Aroclor 1260				CAS #: 11096-82-5		
15.249	15.235 (0.000)	11079	0.384	256		100.00
15.568	15.572 (0.000)	15935	0.520	347	0.00- 0.00	143.83
17.390	17.381 (0.000)	16719	0.554	369	0.00- 0.00	150.91
17.510	17.505 (0.000)	13446	0.698	465	0.00- 0.00	121.36
	Average of Peak Concentrations =			359		

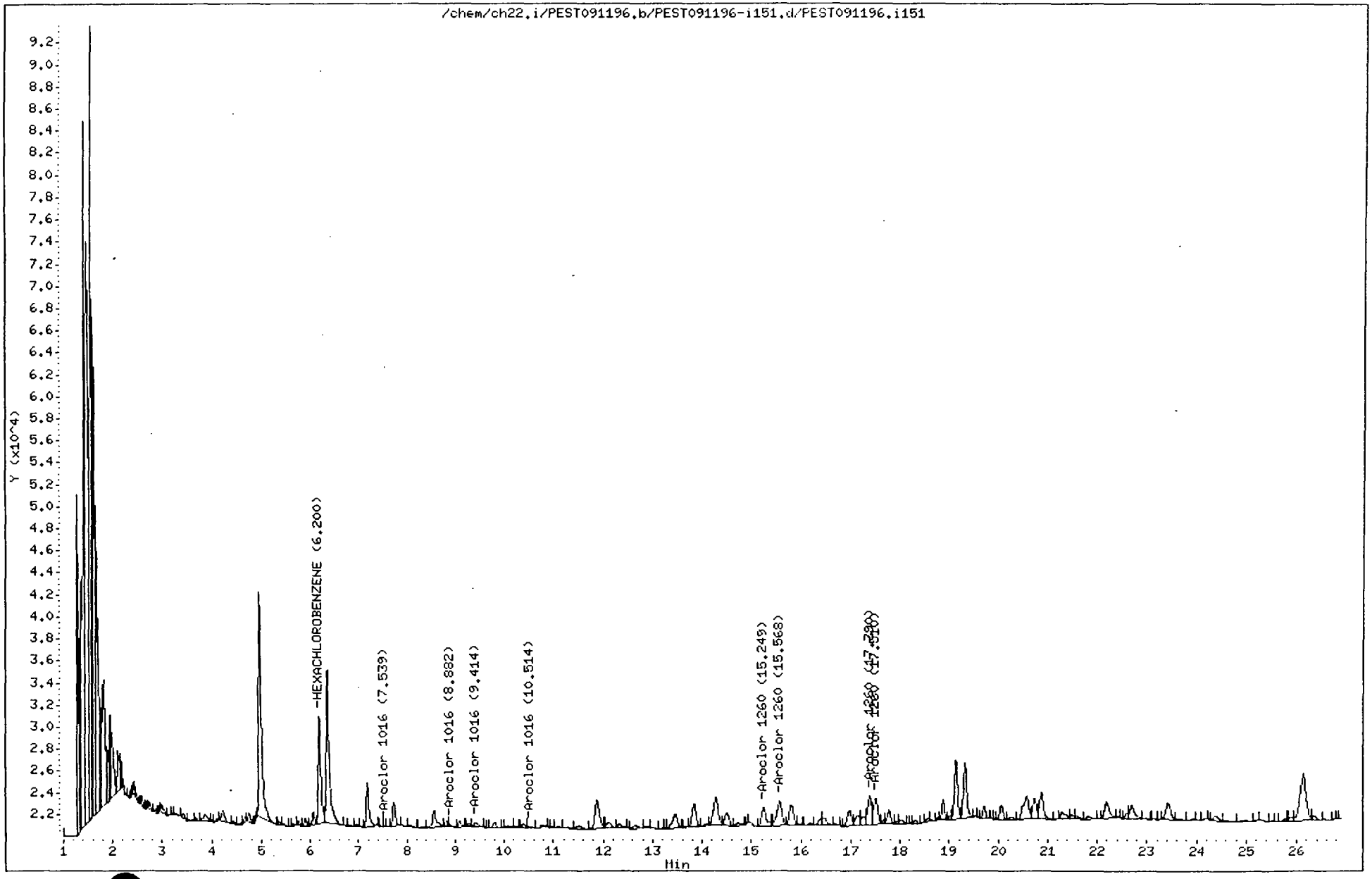
RT	EXP RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
* 2 HEXACHLOROBENZENE				CAS #:		
6.200	6.191 (1.000)	38824	1.00			100.00

QC Flag Legend

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

564

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i151.d
Date : 11-SEP-96 18:12:00
Client ID: SWMUG-5
Instrument: ch22.i
Sample Info: 9653-1 30/10 AB848-84A 9-3-96
Volume Injected (uL): 0.5
Operator: MAK
Column phase: DB-608
Column diameter: 0.53



FORM 1
8080 ORGANICS ANALYSIS DATA SHEET

AT Kearney SAMPLE NO.

SWMUG-105

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: PEST091196-I161

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 11.2 decanted: (Y/N) N Date Extracted: 09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/11/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	Alpha-BHC	1.50	U
319-85-7	Beta-BHC	1.50	U
319-86-8	Delta-BHC	1.50	U
58-89-9	Gamma-BHC (Lindane)	1.50	U
76-44-8	Heptachlor	5.00	P
309-00-2	Aldrin	3.00	U
1024-57-3	Heptachlor epoxide	1.50	U
959-98-8	Endosulfan I	3.80	U
60-57-1	Dieldrin	1.50	U
72-55-9	4,4'-DDE	3.00	U
72-20-8	Endrin	3.80	U
33213-65-9	Endosulfan II	3.00	U
72-54-8	4,4'-DDD	3.80	U
1031-07-8	Endosulfan sulfate	3.80	U
50-29-3	4,4'-DDT	3.80	U
72-43-5	Methoxychlor	189	U
7421-36-3	Endrin aldehyde	3.80	U
8001-35-2	Toxaphene	181	U
12674-11-2	Aroclor 1016	6.80	U
11104-28-2	Aroclor 1221	6.80	U
1114-16-5	Aroclor 1232	6.80	U
53469-21-9	Aroclor 1242	6.80	U
12672-29-6	Aroclor 1248	6.80	U
11097-69-1	Aroclor 1254	6.80	U
11096-82-5	Aroclor 1260	430	
12789-03-6	Chlordane	9.10	U
----------	Isodrin	7.50	U
----------	Kepone	7.50	U

Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i161.d
Lab Smp Id: 9653-2 Client Smp ID: SWMUG-105
Inj Date : 11-SEP-96 18:44:00
Operator : MAK Inst ID: ch22.i
Smp Info : 9653-2 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 12-Sep-96 13:23:15 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Report

1260 382

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
6 Beta-BHC	7.730	7.752	(1.248)	8810	0.0203	• 13.5 DXC
9 Delta-BHC	8.812	8.794	(1.422)	1823	0.00294	1.96(a)
8 Heptachlor	8.572	8.541	(1.384)	9188	0.0123	• 8.23 unconf ch.24
11 Aldrin	9.547	9.534	(1.541)	1314	0.00169	1.12(a)
15 Heptachlor epoxide	11.525	11.498	(1.860)	1801	0.00262	1.75(a)
16 Endosulfan I	12.904	12.979	(2.083)	1087	0.00178	1.19(a)
20 Dieldrin	14.282	14.247	(2.305)	24686	0.0367	• 24.5
18 4,4'-DDE	13.839	13.852	(2.234)	14813	0.0258	17.2
22 Endrin	15.807	15.754	(2.551)	13673	0.0265	17.7 } 1260
25 Endosulfan II	16.472	16.481	(2.659)	3778	0.00871	5.80
24 4,4'-DDD	16.189	16.153	(2.613)	1610	0.00377	2.51(a)
29 Endosulfan sulfate	18.303	18.308	(2.954)	1858	0.00462	3.08(a)
27 4,4'-DDT	17.386	17.426	(2.806)	15741	0.0351	23.4 1260
30 Methoxychlor	20.586	20.511	(3.323)	15215	0.0770	51.3(a)

MAK 9-13-96

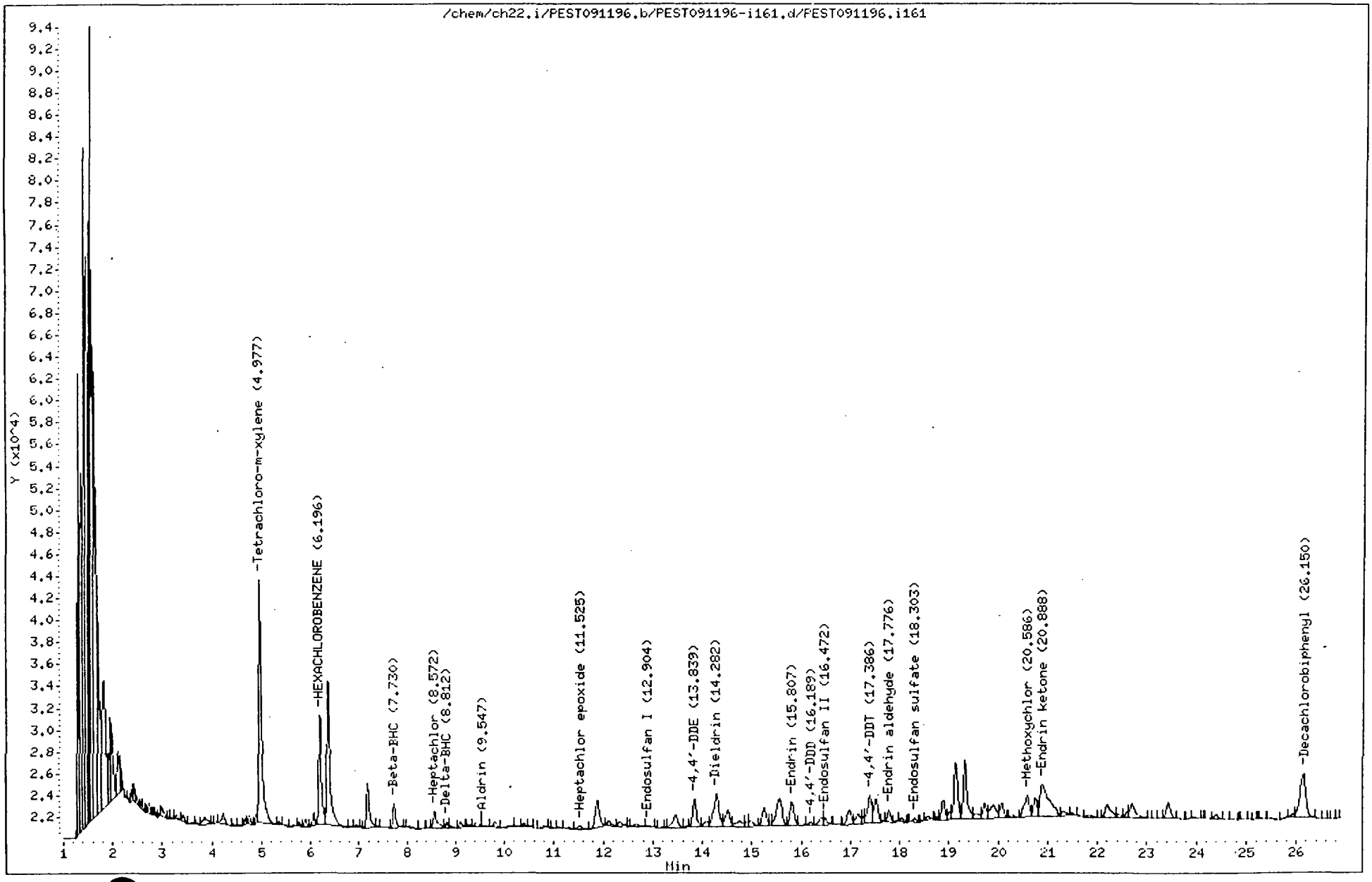
Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
31 Endrin ketone	20.888	20.977	(3.371)	38515	0.0908	60.6
28 Endrin aldehyde	17.776	17.833	(2.869)	5423	0.0184	12.2(a)
$ 1 Tetrachloro-m-xylene	4.977	4.977	(0.803)	90090	0.126	84.2 101%
* 2 HEXACHLOROBENZENE	6.196	6.191	(1.000)	38925	1.00	
$ 32 Decachlorobiphenyl	26.150	26.150	(4.221)	34690	0.0824	55.0 66.0%

QC Flag Legend

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

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i161.d
Date : 11-SEP-96 18:44:00
Client ID: SWMUG-105
Sample Info: 9653-2 30/10 AB848-84A 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-608

Instrument: ch22.i
Operator: MAK
Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch24.i\PEST091196.b\PEST091196-i161.d
Lab Smp Id: 9653-2 Client Smp ID: SWMUG-105
Inj Date : 11-SEP-96 18:44:00
Operator : MAKOWALSKI Inst ID: ch24.i
Smp Info : 9653-2 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch24.i\PEST091196.b\24pest0906.m
Meth Date : 13-Sep-96 13:46:00 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Report
Heptachlor 4.48ppb

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
9	Beta-BHC	8.995	8.982	(1.651)	15829	0.00377	2.52(a)
7	Heptachlor	7.905	7.931	(1.451)	84885	0.00671	4.48
13	Heptachlor epoxide	10.591	10.591	(1.944)	6226	0.000636	0.424(a)
15	Endosulfan I	11.669	11.677	(2.142)	12990	0.00150	1.00(a)
16	4,4'-DDE	12.356	12.342	(2.268)	199622	0.0239	15.9
23	Endosulfan II	15.659	15.654	(2.874)	207879	0.0365	24.3
21	4,4'-DDD	15.393	15.366	(2.825)	25029	0.00449	3.00(a)
24	4,4'-DDT	16.075	16.075	(2.950)	116638	0.0184	12.3
28	Endrin ketone	19.609	19.671	(3.599)	31208	0.00531	3.54
26	Endrin aldehyde	17.232	17.148	(3.163)	35666	0.00981	6.54(a)
$ 1	Tetrachloro-m-xylene	4.544	4.535	(0.834)	1057122	0.0994	66.2
* 2	HEXACHLOROBENZENE	5.449	5.444	(1.000)	594299	1.00	
$ 29	Decachlorobiphenyl	22.570	22.566	(4.142)	297698	0.0544	36.3(R)
27	Endosulfan sulf./Methoxychlor	18.319	18.327	(3.362)	2014	0.000543	0.362(a)

MAK 9-13-96

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data Fil[redacted]chem/ch24.i/PEST091196.b/PEST091196-i161.d

Pa[redacted]

Date : 11-SEP-96 18:44:00

Client ID: SWMUG-105

Instrument: ch24.i

Sample Info: 9653-2 30/10 AB848-84A 9-3-96

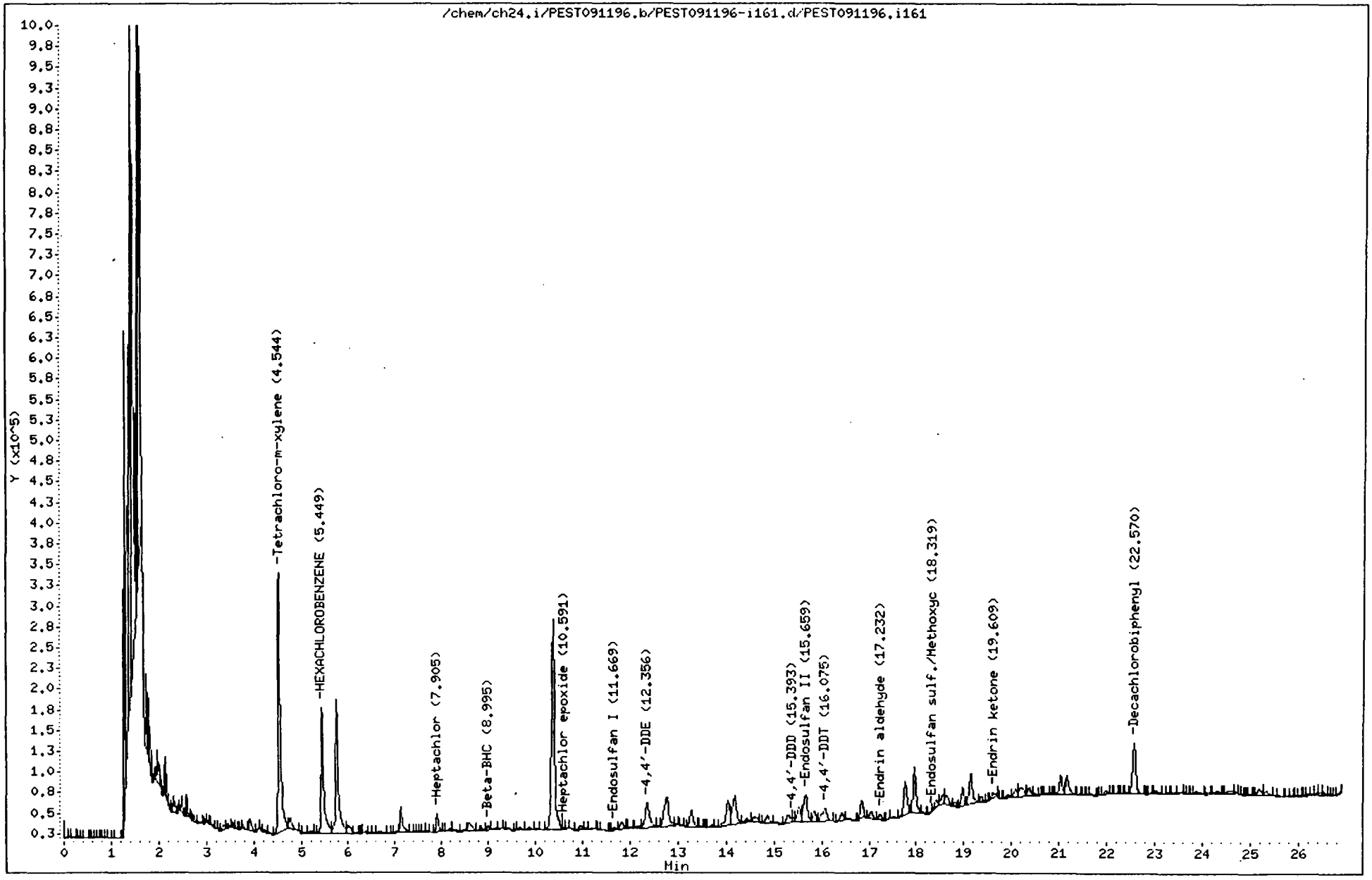
Volume Injected (uL): 0.5

Operator: MAKOWALSKI

Column phase: DB-1701

Column diameter: 0.53

571



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i161.d
Lab Smp Id: 9653-2 Client Smp ID: SWMUG-105
Inj Date : 11-SEP-96 18:44:00
Operator : MAK Inst ID: ch22.i
Smp Info : 9653-2 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 12-Sep-96 13:23:15 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ISO-KEP.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
14 Isodrin	11.099	11.064	(1.791)	418	0.000697	0.465(a)
23 Kepone	15.994	15.980	(2.581)	1918	0.0177	11.8
* 2 HEXACHLOROBENZENE	6.196	6.191	(1.000)	38925	1.00	

1260

QC Flag Legend

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

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i161.d

Date : 11-SEP-96 18:44:00

Client ID: SWMUG-105

Instrument: ch22.i

Sample Info: 9653-2 30/10 AB848-84A 9-3-96

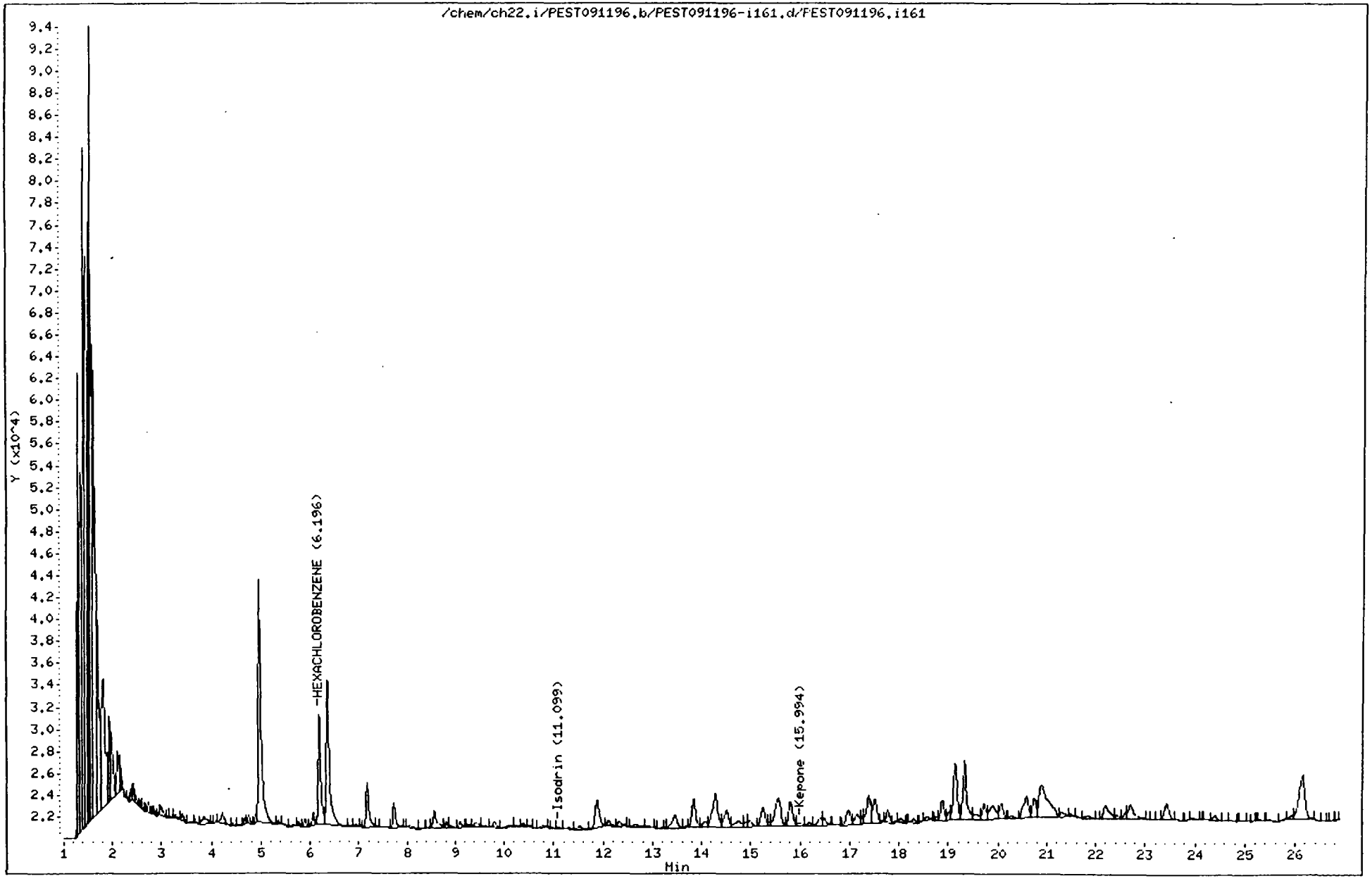
Volume Injected (uL): 0.5

Operator: HAK

Column phase: DB-608

Column diameter: 0.53

573



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i161.d
Lab Smp Id: 9653-2 Client Smp ID: SWMUG-105
Inj Date : 11-SEP-96 18:44:00
Operator : MAK Inst ID: ch22.i
Smp Info : 9653-2 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 12-Sep-96 15:01:55 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.21 Sample Matrix: SOIL
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

RT	EXP RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COL (ng)	FINAL (ug/Kg)	TARGET RANGE		RATIO
13 Aroclor 1016				CAS #: 12674-11-2			
0.000	7.530 (0.000)	0					0.00
8.882	8.976 (0.000)	924	0.0559	37.2	0.00-	0.00	0.00
9.414	9.388 (0.000)	2983	0.134	89.2	0.00-	0.00	0.00
10.501	10.510 (0.000)	548	0.0311	20.7	0.00-	0.00	0.00
	Average of Peak Concentrations =			49.0			
21 Aroclor 1260				CAS #: 11096-82-5			
15.244	15.235 (0.000)	11422	0.395	264			100.00
15.559	15.572 (0.000)	22011	0.717	478	0.00-	0.00	192.71
17.386	17.381 (0.000)	15741	0.520	347	0.00-	0.00	137.81
17.519	17.505 (0.000)	12723	0.658	439	0.00-	0.00	111.39
	Average of Peak Concentrations =			382			

RT	EXP RT (REL RT)	RESPONSE	CONCENTRATIONS ON-COL (ng)	CONCENTRATIONS FINAL (ug/Kg)	TARGET RANGE	RATIO
* 2 HEXACHLOROBENZENE				CAS #:		
6.196	6.191 (1.000)	38925	1.00			100.00

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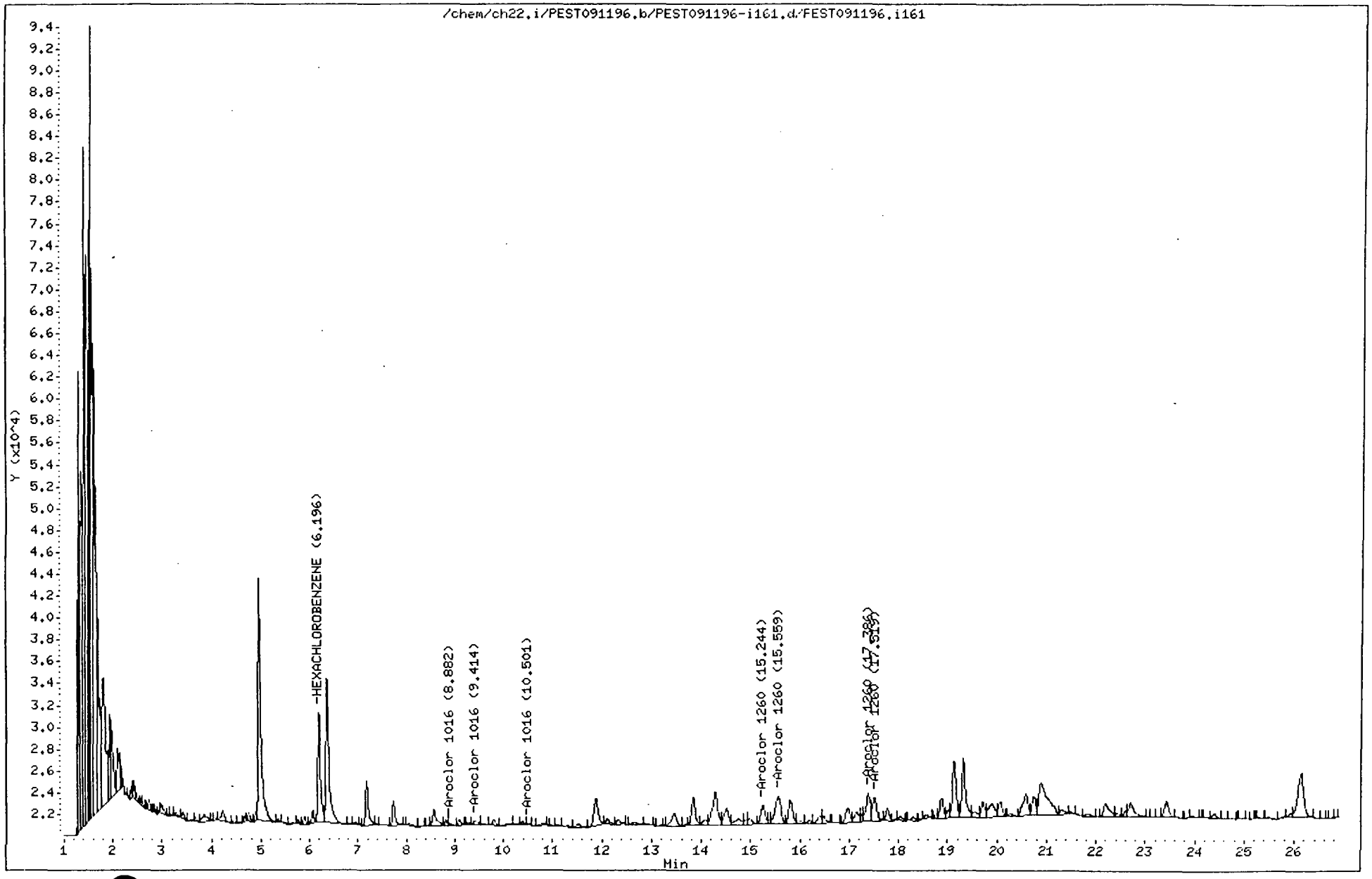
Data File: /chem/ch22.i/PEST091196.b/PEST091196-i161.d
Date : 11-SEP-96 18:44:00
Client ID: SWMUG-105
Sample Info: 9653-2 30/10 AB848-84A 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-608

Instrument: ch22.i
Operator: MAK
Column diameter: 0.53



STANDARDS DATA

FORM 6
8080 INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date(s): 07/01/96 09/07/96

Column: DB-608 ID: 0.53 (mm) Calibration Time(s): 1307 0204

LAB FILE ID: RF1: PEST090696-I2RF2: PEST090696-I2RF3: PEST090696-I2
RF4: PEST090696-I2RF5: PEST090696-I2

COMPOUND	RF1	RF2	RF3	RF4	RF5
Alpha-BHC	29.185	29.778	26.915	25.802	25.577
Beta-BHC	9.440	12.529	11.819	10.981	10.862
Delta-BHC	15.804	18.413	19.069	16.950	
Gamma-BHC (Lindane)	20.147	20.876	18.993	17.751	17.960
Heptachlor	22.016	23.124	21.356	19.994	19.173
Aldrin	19.526	22.381	21.316	19.948	19.845
Heptachlor epoxide	16.827	19.289	18.759	18.015	17.964
Endosulfan I	14.295	16.095	15.050	14.832	16.093
Dieldrin	16.013	17.224	18.101	16.508	17.630
4,4'-DDE	15.158	16.871	16.096	15.213	15.372
Endrin	13.079	13.851	13.666	13.224	13.188
Endosulfan II	11.193	12.196	11.466	11.367	11.364
4,4'-DDD	10.270	11.236	11.388	11.084	11.191
Endosulfan sulfate	10.421	10.774	10.959	10.553	10.102
4,4'-DDT	12.953	13.004	12.682	11.690	11.979
Methoxychlor	6.892	5.594	5.483	5.190	5.292
Endrin ketone	12.928	13.482	11.676	10.862	11.525
Endrin aldehyde	8.510	9.010	8.948	7.771	
Toxaphene					
Aroclor 1016	0.819	0.713	0.700	0.648	0.739
(2)	0.361	0.345	0.402	0.431	0.430
(3)	0.783	0.577	0.588	0.577	0.569
(4)	0.442	0.443	0.454	0.430	0.461
Aroclor 1260	0.779	0.754	0.753	0.730	0.744
(2)	0.831	0.764	0.780	0.803	0.787
(3)	0.714	0.788	0.837	0.788	0.764
(4)	0.478	0.507	0.499	0.505	0.493
Chlordane	0.612	0.675	0.757	0.706	0.649
(2)	1.260	1.317	1.372	1.176	
(3)	2.871	2.523	2.542	2.391	2.199
(4)	0.410	0.359	0.481	0.420	0.405
(5)	1.753	1.210	1.436	1.256	1.202
Isodrin	19.047	18.954	16.221	15.300	15.306
Kepone	12.537	3.211	2.621	2.758	2.811
Tetrachloro-m-xylene	20.499	21.086	19.366	18.142	18.248
Decachlorobiphenyl	14.119	11.980	11.192	10.632	10.849

FORM 6
8080 INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date(s): 07/01/96 09/07/96

Column: DB-608 ID: 0.53 (mm) Calibration Time(s): 1307 0204

RF6: PEST090696-I2

COMPOUND	RF6	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2
Alpha-BHC		LINR	0.00000000	25.7989313	0.999
Beta-BHC	11.242	LINR	0.00000000	11.1408391	0.999
Delta-BHC	15.507	LINR	0.00000000	15.9590723	0.993
Gamma-BHC (Lindane)		LINR	0.00000000	17.9942408	0.999
Heptachlor	18.717	LINR	0.00000000	19.1156080	0.997
Aldrin		LINR	0.00000000	20.0253329	0.999
Heptachlor epoxide	17.319	LINR	0.00000000	17.6256173	0.999
Endosulfan I	15.760	LINR	0.00000000	15.6751906	0.998
Dieldrin		LINR	0.00000000	17.2724933	0.997
4,4'-DDE	14.294	LINR	0.00000000	14.7470687	0.996
Endrin	13.228	LINR	0.00000000	13.2359428	1.000
Endosulfan II	10.984	LINR	0.00000000	11.1472421	0.999
4,4'-DDD	10.855	LINR	0.00000000	10.9855401	0.999
Endosulfan sulfate		LINR	0.00000000	10.3408589	0.998
4,4'-DDT	11.223	LINR	0.00000000	11.5221055	0.997
Methoxychlor	4.937	LINR	0.00000000	5.07694300	0.997
Endrin ketone	10.594	LINR	0.00000000	10.8929186	0.996
Endrin aldehyde	7.447	LINR	0.00000000	7.58431741	0.996
Toxaphene		LINR			
Aroclor 1016		LINR	0.00000000	0.71332369	0.993
(2)		LINR	0.00000000	0.42481449	0.997
(3)		LINR	0.00000000	0.57303847	1.000
(4)		LINR	0.00000000	0.45309386	0.998
Aroclor 1260		LINR	0.00000000	0.74233624	1.000
(2)		LINR	0.00000000	0.78909317	1.000
(3)		LINR	0.00000000	0.77755466	0.998
(4)		LINR	0.00000000	0.49647477	1.000
Chlordane	0.682	LINR	0.00000000	0.68091670	0.998
(2)	1.106	LINR	0.00000000	1.12465936	0.996
(3)	2.257	LINR	0.00000000	2.27002685	0.998
(4)	0.443	LINR	0.00000000	0.43517803	0.997
(5)	1.211	LINR	0.00000000	1.22097490	0.998
Isodrin		LINR	0.00000000	15.4058194	0.998
Kepone		LINR	0.00000000	2.77962206	0.991
Tetrachloro-m-xylene		LINR	0.00000000	18.3260183	0.999
Decachlorobiphenyl		LINR	0.00000000	10.8095101	0.999

FORM 6
8080 INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date(s): 07/01/96 09/07/96

Column: DB-608 ID: 0.53 (mm) Calibration Time(s): 1307 0204

LAB FILE ID: RT1: PEST090696-I2RT2: PEST090696-I2RT3: PEST090696-I2
RT4: PEST090696-I2RT5: PEST090696-I2

COMPOUND	RT1	RT2	RT3	RT4	RT5
Alpha-BHC	6.595	6.599	6.582	6.599	6.590
Beta-BHC	7.752	7.770	7.743	7.761	7.752
Delta-BHC	8.794	8.807	8.785	8.803	
Gamma-BHC (Lindane)	7.619	7.632	7.610	7.628	7.615
Heptachlor	8.541	8.554	8.528	8.546	8.541
Aldrin	9.530	9.543	9.525	9.543	9.530
Heptachlor epoxide	11.498	11.511	11.489	11.503	11.498
Endosulfan I	12.997	13.010	12.974	12.992	12.992
Dieldrin	14.251	14.265	14.242	14.260	14.251
4,4'-DDE	13.852	13.866	13.835	13.866	13.839
Endrin	15.767	15.776	15.754	15.763	15.754
Endosulfan II	16.477	16.499	16.477	16.495	16.477
4,4'-DDD	16.153	16.180	16.153	16.171	16.149
Endosulfan sulfate	18.321	18.334	18.308	18.325	18.308
4,4'-DDT	17.430	17.439	17.417	17.430	17.426
Methoxychlor	20.511	20.533	20.502	20.524	20.507
Endrin ketone	20.959	20.981	20.963	20.977	20.963
Endrin aldehyde	17.833	17.838	17.829	17.847	
Toxaphene	16.754	16.754	16.754	16.754	16.754
Aroclor 1016	7.517	7.530	7.521	7.530	7.517
(2)	8.962	8.976	8.962	8.976	8.962
(3)	9.357	9.379	9.370	9.388	9.379
(4)	10.492	10.510	10.492	10.510	10.496
Aroclor 1260	15.218	15.231	15.218	15.235	15.222
(2)	15.555	15.555	15.546	15.572	15.559
(3)	17.346	17.368	17.359	17.381	17.363
(4)	17.492	17.496	17.488	17.505	17.483
Chlordane	8.098	8.093	8.102	8.089	8.098
(2)	8.546	8.523	8.541	8.523	
(3)	12.168	12.150	12.172	12.154	12.168
(4)	12.496	12.496	12.509	12.491	12.505
(5)	12.837	12.819	12.837	12.815	12.828
Isodrin	11.019	11.064	11.064	11.064	11.064
Kepone	15.949	15.998	15.980	15.994	15.980
Tetrachloro-m-xylene	4.986	4.990	4.968	4.986	4.981
Decachlorobiphenyl	26.141	26.186	26.164	26.159	26.150

FORM 6
8080 INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date(s): 07/01/96 09/07/96

Column: DB-608 ID: 0.53 (mm) Calibration Time(s): 1307 0204

RT6: PEST090696-I2

COMPOUND	RT6	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Alpha-BHC		6.593	6.490	6.690
Beta-BHC	7.752	7.755	7.652	7.852
Delta-BHC	8.794	8.797	8.694	8.894
Gamma-BHC (Lindane)		7.621	7.519	7.719
Heptachlor	8.541	8.542	8.441	8.641
Aldrin		9.534	9.434	9.634
Heptachlor epoxide	11.498	11.499	11.398	11.598
Endosulfan I	12.979	12.991	12.879	13.079
Dieldrin		14.254	14.147	14.347
4,4'-DDE	13.852	13.852	13.752	13.952
Endrin	15.754	15.761	15.654	15.854
Endosulfan II	16.481	16.484	16.381	16.581
4,4'-DDD	16.153	16.160	16.053	16.253
Endosulfan sulfate		18.319	18.208	18.408
4,4'-DDT	17.426	17.428	17.326	17.526
Methoxychlor	20.511	20.515	20.411	20.611
Endrin ketone	20.977	20.970	20.877	21.077
Endrin aldehyde	17.833	17.836	17.733	17.933
Toxaphene		16.754	16.654	16.854
Aroclor 1016	7.521	7.523	7.430	7.630
(2)	8.962	8.967	8.876	9.076
(3)	9.370	9.374	9.288	9.488
(4)	10.492	10.499	10.410	10.610
Aroclor 1260	15.218	15.224	15.135	15.335
(2)	15.546	15.556	15.472	15.672
(3)	17.359	17.363	17.281	17.481
(4)	17.488	17.492	17.405	17.605
Chlordane	8.093	8.095	7.993	8.193
(2)	8.528	8.532	8.428	8.628
(3)	12.163	12.163	12.063	12.263
(4)	12.500	12.500	12.400	12.600
(5)	12.828	12.827	12.728	12.928
Isodrin		11.055	10.964	11.164
Kepone		15.983	15.880	16.080
Tetrachloro-m-xylene		4.982	4.877	5.077
Decachlorobiphenyl		26.160	26.050	26.250

FORM 6
OTHER INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date(s): 07/06/96 09/06/96

Column: ID: 2.00 (mm) Calibration Time(s): 1608 1914

LAB FILE ID: RF0.1: PEST090696-RF0.375: PEST09069RF0.75: PEST090696
RF1.25: PEST090696RF2.5: PEST090696-

COMPOUND	RF0.1	RF0.375	RF0.75	RF1.25	RF2.5
Toxaphene	5.771	5.962	6.165	7.110	6.989

FORM 6
OTHER INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date(s): 07/06/96 09/06/96

Column: ID: 2.00 (mm) Calibration Time(s): 1608 1914

COMPOUND	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2
Toxaphene	LINR	0.00000000	6.93843801	0.997

FORM VI OTHER

FORM 6
OTHER INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date(s): 07/06/96 09/06/96

Column: ID: 2.00 (mm) Calibration Time(s): 1608 1914

LAB FILE ID: RT1: PEST090696-I0RT2: PEST090696-I1RT3: PEST090696-I1
RT4: PEST090696-I1RT5: PEST090696-I1

COMPOUND	RT1	RT2	RT3	RT4	RT5
Toxaphene	18.000	18.000	18.000	18.000	18.000

FORM 6
OTHER INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date(s): 07/06/96 09/06/96

Column: ID: 2.00 (mm) Calibration Time(s): 1608 1914

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Toxaphene	18.000	14.500	21.500

FORM 7
8080 CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date: 09/11/96 Time: 1154

Lab File ID: PEST091196-I03

COMPOUND	SAMPLE AMOUNT	CAL3 AMOUNT	CURVE	%REC	%REC LIM.
Alpha-BHC	0.0509	0.0500	LINR	101.8	80-120
Beta-BHC	0.0511	0.0500	LINR	102.2	80-120
Delta-BHC	0.0586	0.0500	LINR	117.2	80-120
Gamma-BHC (Lindane)	0.0503	0.0500	LINR	100.6	80-120
Heptachlor	0.0531	0.0500	LINR	106.2	80-120
Aldrin	0.0515	0.0500	LINR	103.0	80-120
Heptachlor epoxide	0.0512	0.0500	LINR	102.4	80-120
Endosulfan I	0.0497	0.0500	LINR	99.4	80-120
Dieldrin	0.0452	0.0500	LINR	90.4	80-120
4,4'-DDE	0.0510	0.0500	LINR	102.0	80-120
Endrin	0.0471	0.0500	LINR	94.2	80-120
Endosulfan II	0.0505	0.0500	LINR	101.0	80-120
4,4'-DDD	0.0498	0.0500	LINR	99.6	80-120
Endosulfan sulfate	0.0450	0.0500	LINR	90.0	80-120
4,4'-DDT	0.0492	0.0500	LINR	98.4	80-120
Methoxychlor	0.0475	0.0500	LINR	95.0	80-120
Endrin ketone	0.0482	0.0500	LINR	96.4	80-120
Endrin aldehyde	0.0510	0.0500	LINR	102.0	80-120
Tetrachloro-m-xylene	0.0510	0.0500	LINR	102.0	80-120
Decachlorobiphenyl	0.0469	0.0500	LINR	93.8	80-120

FORM 7
OTHER CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date: 09/11/96 Time: 1226

Lab File ID: PEST091196-I04

COMPOUND	SAMPLE AMOUNT	0.75 AMOUNT	CURVE	%REC	%REC LIM.
Toxaphene	0.784	0.750	LINR	104.5	60-140

FORM 7
8080 CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date: 09/11/96 Time: 1257

Lab File ID: PEST091196-I05

COMPOUND	SAMPLE AMOUNT	CAL3 AMOUNT	CURVE	%REC	%REC LIM.
Aldrin	0.0520	0.0500	LINR	104.0	80-120
Dieldrin	0.0466	0.0500	LINR	93.2	80-120
Chlordane	0.171	0.150	LINR	114.0	80-120
Tetrachloro-m-xylene	0.0442	0.0500	LINR	88.4	80-120
Decachlorobiphenyl	0.0569	0.0500	LINR	113.8	80-120

FORM 7
8080 CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date: 09/11/96 Time: 1329

Lab File ID: PEST091196-I06

COMPOUND	SAMPLE AMOUNT	CAL3 AMOUNT	CURVE	%REC	%REC LIM.
Aroclor 1016	0.475	0.500	LINR	95.0	75-125
Aroclor 1260	0.482	0.500	LINR	96.4	75-125

FORM 7
8080 CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date: 09/11/96 Time: 1400

Lab File ID: PEST091196-I07

COMPOUND	SAMPLE AMOUNT	CAL3 AMOUNT	CURVE	%REC	%REC LIM.
Isodrin	0.0568	0.0500	LINR	113.6	80-120
Kepone	0.0405	0.0500	LINR	81.0	80-120

FORM 7
8080 CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date: 09/11/96 Time: 1947

Lab File ID: PEST091196-I18

COMPOUND	SAMPLE AMOUNT	CAL3 AMOUNT	CURVE	%REC	%REC LIM.
Alpha-BHC	0.0516	0.0500	LINR	103.2	80-120
Beta-BHC	0.0482	0.0500	LINR	96.4	80-120
Delta-BHC	0.0520	0.0500	LINR	104.0	80-120
Gamma-BHC (Lindane)	0.0515	0.0500	LINR	103.0	80-120
Heptachlor	0.0530	0.0500	LINR	106.0	80-120
Aldrin	0.0498	0.0500	LINR	99.6	80-120
Heptachlor epoxide	0.0549	0.0500	LINR	109.8	80-120
Endosulfan I	0.0473	0.0500	LINR	94.6	80-120
Dieldrin	0.0468	0.0500	LINR	93.6	80-120
4,4'-DDE	0.0517	0.0500	LINR	103.4	80-120
Endrin	0.0482	0.0500	LINR	96.4	80-120
Endosulfan II	0.0508	0.0500	LINR	101.6	80-120
4,4'-DDD	0.0502	0.0500	LINR	100.4	80-120
Endosulfan sulfate	0.0446	0.0500	LINR	89.2	80-120
4,4'-DDT	0.0484	0.0500	LINR	96.8	80-120
Methoxychlor	0.0467	0.0500	LINR	93.4	80-120
Endrin ketone	0.0515	0.0500	LINR	103.0	80-120
Endrin aldehyde	0.0541	0.0500	LINR	108.2	80-120
Tetrachloro-m-xylene	0.0520	0.0500	LINR	104.0	80-120
Decachlorobiphenyl	0.0539	0.0500	LINR	107.8	80-120

FORM 7
8080 CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH22 Calibration Date: 09/11/96 Time: 2018

Lab File ID: PEST091196-I19

COMPOUND	SAMPLE AMOUNT	CAL3 AMOUNT	CURVE	%REC	%REC LIM.
Isodrin	0.0541	0.0500	LINR	108.2	80-120
Kepone	0.0420	0.0500	LINR	84.0	80-120

FORM 6
8080 INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH24 Calibration Date(s): 09/06/96 09/06/96

Column: DB-1701 ID: 0.53 (mm) Calibration Time(s): 1328 1605

LAB FILE ID: RF0.0025: PEST0906RF0.0125: PEST0906RF0.05: PEST090696
RF0.1: PEST090696-RF0.125: PEST09069

COMPOUND	RF0.0025	RF0.0125	RF0.05	RF0.1	RF0.125
Alpha-BHC	19.291	22.899	23.134	24.128	24.073
Beta-BHC	8.310	6.506	7.425		7.608
Delta-BHC	18.294	14.419	15.181	15.775	
Gamma-BHC (Lindane)	16.610	19.500	20.756	20.800	20.850
Heptachlor	19.100	20.338	20.271	20.480	20.731
Aldrin	18.472	18.064	18.177	18.173	18.490
Heptachlor epoxide	12.739	13.983	14.293	15.993	16.497
Endosulfan I	12.382	13.362	13.730	13.803	14.297
Dieldrin	16.520	14.670	13.327	14.123	14.067
4,4'-DDE	14.106	12.763	13.851	14.266	13.419
Endrin	11.140	11.089	13.163	11.974	11.753
Endosulfan II	10.906	9.753	9.655	10.078	9.263
4,4'-DDD	9.489	9.244	9.339	9.543	9.267
Endosulfan sulf./Methoxychlo	4.538	4.083	5.938	6.572	6.095
4,4'-DDT	9.798	9.976	10.162	10.744	10.372
Endrin ketone	10.969	14.120	9.643	10.030	9.362
Endrin aldehyde	1.566	4.196	4.657		5.988
Tetrachloro-m-xylene	23.314	18.734	17.633	17.301	17.418
Decachlorobiphenyl	14.793	9.411	9.071	8.962	8.969

FORM 6
8080 INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH24 Calibration Date(s): 09/06/96 09/06/96

Column: DB-1701 ID: 0.53 (mm) Calibration Time(s): 1328 1605

RF0.2: PEST090696-

COMPOUND	RF0.2	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2
Alpha-BHC	25.544	LINR	0.00000000	24.9052029	0.998
Beta-BHC	6.819	LINR	0.00000000	7.05615618	0.994
Delta-BHC	15.358	LINR	0.00000000	15.4266345	1.000
Gamma-BHC (Lindane)	21.852	LINR	0.00000000	21.4225906	0.999
Heptachlor	21.749	LINR	0.00000000	21.2726687	0.998
Aldrin	19.247	LINR	0.00000000	18.8742459	0.999
Heptachlor epoxide	16.732	LINR	0.00000000	16.4737445	0.998
Endosulfan I	14.866	LINR	0.00000000	14.5349603	0.998
Dieldrin	14.718	LINR	0.00000000	14.4312234	0.998
4,4'-DDE	14.294	LINR	0.00000000	14.0696445	0.998
Endrin	12.552	LINR	0.00000000	12.3032614	0.998
Endosulfan II		LINR	0.00000000	9.58878007	0.996
4,4'-DDD		LINR	0.00000000	9.37111258	1.000
Endosulfan sulf./Methoxychlo		LINR	0.00000000	6.23851778	0.995
4,4'-DDT	10.794	LINR	0.00000000	10.6650558	0.999
Endrin ketone	10.059	LINR	0.00000000	9.88943593	0.997
Endrin aldehyde	6.263	LINR	0.00000000	6.11460593	0.994
Tetrachloro-m-xylene	18.254	LINR	0.00000000	17.9019845	0.999
Decachlorobiphenyl	9.361	LINR	0.00000000	9.20260874	0.999

FORM 6
8080 INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH24 Calibration Date(s): 09/06/96 09/06/96

Column: DB-1701 ID: 0.53 (mm) Calibration Time(s): 1328 1605

LAB FILE ID: RT1: PEST090696-I0RT2: PEST090696-I0RT3: PEST090696-I0
RT4: PEST090696-I0RT5: PEST090696-I0

COMPOUND	RT1	RT2	RT3	RT4	RT5
Alpha-BHC	6.366	6.375	6.366	6.384	6.371
Beta-BHC	8.986	9.004	8.991		8.995
Delta-BHC	9.802	9.820	9.802	9.824	
Gamma-BHC (Lindane)	7.311	7.319	7.311	7.333	7.319
Heptachlor	7.931	7.949	7.936	7.958	7.945
Aldrin	8.685	8.698	8.689	8.712	8.698
Heptachlor epoxide	10.600	10.618	10.609	10.622	10.605
Endosulfan I	11.682	11.704	11.691	11.708	11.700
Dieldrin	13.096	13.101	13.092	13.109	13.096
4,4'-DDE	12.365	12.378	12.365	12.387	12.373
Endrin	13.916	13.934	13.907	13.925	13.916
Endosulfan II	15.676	15.685	15.676	15.690	15.681
4,4'-DDD	15.384	15.397	15.379	15.406	15.388
Endosulfan sulf./Methoxychlo	18.345	18.358	18.345	18.363	18.358
4,4'-DDT	16.089	16.106	16.089	16.111	16.093
Endrin ketone	19.684	19.702	19.693	19.697	19.688
Endrin aldehyde	17.148	17.197	17.179		17.184
Tetrachloro-m-xylene	4.540	4.549	4.540	4.557	4.549
Decachlorobiphenyl	22.579	22.583	22.588	22.592	22.592

FORM 6
8080 INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH24 Calibration Date(s): 09/06/96 09/06/96

Column: DB-1701 ID: 0.53 (mm) Calibration Time(s): 1328 1605

RT6: PEST090696-I0

COMPOUND	RT6	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Alpha-BHC	6.371	6.372	6.266	6.466
Beta-BHC	8.995	8.994	8.891	9.091
Delta-BHC	9.811	9.812	9.702	9.902
Gamma-BHC (Lindane)	7.319	7.319	7.211	7.411
Heptachlor	7.945	7.944	7.836	8.036
Aldrin	8.694	8.696	8.589	8.789
Heptachlor epoxide	10.618	10.612	10.509	10.709
Endosulfan I	11.700	11.698	11.591	11.791
Dieldrin	13.105	13.100	12.992	13.192
4,4'-DDE	12.373	12.374	12.265	12.465
Endrin	13.925	13.920	13.807	14.007
Endosulfan II		15.682	15.576	15.776
4,4'-DDD		15.391	15.279	15.479
Endosulfan sulf./Methoxychlo		18.354	18.245	18.445
4,4'-DDT	16.097	16.098	15.989	16.189
Endrin ketone	19.697	19.694	19.593	19.793
Endrin aldehyde	17.184	17.178	17.079	17.279
Tetrachloro-m-xylene	4.544	4.546	4.440	4.640
Decachlorobiphenyl	22.592	22.588	22.488	22.688

FORM 7
8080 CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH24 Calibration Date: 09/11/96 Time: 1154

Lab File ID: PEST091196-I03

COMPOUND	SAMPLE AMOUNT	0.05 AMOUNT	CURVE	%REC	%REC LIM.	
Alpha-BHC	0.0468	0.0500	LINR	93.6	80-120	
Beta-BHC	0.0493	0.0500	LINR	98.6	80-120	
Delta-BHC	0.0496	0.0500	LINR	99.2	80-120	
Gamma-BHC (Lindane)	0.0460	0.0500	LINR	92.0	80-120	
Heptachlor	0.0455	0.0500	LINR	91.0	80-120	
Aldrin	0.0469	0.0500	LINR	93.8	80-120	
Heptachlor epoxide	0.0461	0.0500	LINR	92.2	80-120	
Endosulfan I	0.0474	0.0500	LINR	94.8	80-120	
Dieldrin	0.0491	0.0500	LINR	98.2	80-120	
4,4'-DDE	0.0498	0.0500	LINR	99.6	80-120	
Endrin	0.0439	0.0500	LINR	87.8	80-120	
Endosulfan II	0.0470	0.0500	LINR	94.0	80-120	
4,4'-DDD	0.0471	0.0500	LINR	94.2	80-120	
Endosulfan sulf./Methoxychlo	0.0846	0.100	LINR	84.6	80-120	
4,4'-DDT	0.0452	0.0500	LINR	90.4	80-120	
Endrin ketone	0.0561	0.0500	LINR	112.2	80-120	
Endrin aldehyde	0.0388	0.0500	LINR	77.6	80-120	<-
Tetrachloro-m-xylene	0.0490	0.0500	LINR	98.0	80-120	
Decachlorobiphenyl	0.0452	0.0500	LINR	90.4	80-120	

FORM 7
8080 CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Instrument ID: CH24 Calibration Date: 09/11/96 Time: 1947

Lab File ID: PEST091196-I18

COMPOUND	SAMPLE AMOUNT	0.05 AMOUNT	CURVE	%REC	%REC LIM.
Alpha-BHC	0.0470	0.0500	LINR	94.0	80-120
Beta-BHC	0.0468	0.0500	LINR	93.6	80-120
Delta-BHC	0.0463	0.0500	LINR	92.6	80-120
Gamma-BHC (Lindane)	0.0454	0.0500	LINR	90.8	80-120
Heptachlor	0.0461	0.0500	LINR	92.2	80-120
Aldrin	0.0467	0.0500	LINR	93.4	80-120
Heptachlor epoxide	0.0442	0.0500	LINR	88.4	80-120
Endosulfan I	0.0495	0.0500	LINR	99.0	80-120
Dieldrin	0.0480	0.0500	LINR	96.0	80-120
4,4'-DDE	0.0485	0.0500	LINR	97.0	80-120
Endrin	0.0469	0.0500	LINR	93.8	80-120
Endosulfan II	0.0483	0.0500	LINR	96.6	80-120
4,4'-DDD	0.0492	0.0500	LINR	98.4	80-120
Endosulfan sulf./Methoxychlo	0.0887	0.100	LINR	88.7	80-120
4,4'-DDT	0.0467	0.0500	LINR	93.4	80-120
Endrin ketone	0.0446	0.0500	LINR	89.2	80-120
Endrin aldehyde	0.0403	0.0500	LINR	80.6	80-120
Tetrachloro-m-xylene	0.0484	0.0500	LINR	96.8	80-120
Decachlorobiphenyl	0.0482	0.0500	LINR	96.4	80-120

8D
8080 ANALYTICAL SEQUENCE

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

GC Column: DB-608 ID: 0.53 (mm) Init. Calib. Date(s): 09/03/96 09/06/96

Instrument ID: CH22

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.98 DCB: 26.15

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	IKINCALL1	IKINCALL1	09/03/96	1728		
02	IKINCALL2	IKINCALL2	09/03/96	1758		
03	IKINCALL3	IKINCALL3	09/03/96	1828		
04	IKINCALL4	IKINCALL4	09/03/96	1857		
05	IKINCALL5	IKINCALL5	09/03/96	1927		
06	PESTCALL1	PESTCALL1	09/06/96	1328	4.99	26.14
07	PESTCALL2	PESTCALL2	09/06/96	1359	4.99	26.19
08	PESTCALL3	PESTCALL3	09/06/96	1431	4.97	26.16
09	PESTCALL4	PESTCALL4	09/06/96	1502	4.99	26.16
10	PESTCALL5	PESTCALL5	09/06/96	1534	4.98	26.15
11	PESTCALL6	PESTCALL6	09/06/96	1605	4.98	26.15
12	TOXCALL1	TOXCALL1	09/06/96	1708		
13	TOXCALL2	TOXCALL2	09/06/96	1740		
14	TOXCALL3	TOXCALL3	09/06/96	1811		
15	TOXCALL4	TOXCALL4	09/06/96	1843		
16	TOXCALL5	TOXCALL5	09/06/96	1914		
17	PCHLRL1	PCHLRL1	09/06/96	2017		
18	PCHLRL2	PCHLRL2	09/06/96	2049		
19	PCHLRL3	PCHLRL3	09/06/96	2120		
20	PCHLRL4	PCHLRL4	09/06/96	2152		
21	PCHLRL5	PCHLRL5	09/06/96	2223		
22	PCHLRL6	PCHLRL6	09/06/96	2255		
23	1660-L1	1660-L1	09/06/96	2358		
24	1660-L2	1660-L2	09/07/96	0029		
25	1660-L3	1660-L3	09/07/96	0101		
26	1600-L4	1660-L4	09/07/96	0132		
27	1660-L5	1660-L5	09/07/96	0204		
28	PESTCAL-1	PESTCAL-1	09/11/96	1154	4.97	26.15
29	TOXCAL-1	TOXCAL-1	09/11/96	1226		
30	PCHLR-1	PCHLR-1	09/11/96	1257		
31	1660-1	1660-1	09/11/96	1329		
32	ISO-KEP-1	ISO-KEP-1	09/11/96	1400		

QC LIMITS

TCX = Tetrachloro-m-xylene (+/- 0.10 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.10 MINUTES)

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

FORM VIII PEST

8D
8080 ANALYTICAL SEQUENCE

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

GC Column: DB-608 ID: 0.53 (mm) Init. Calib. Date(s): 07/01/96 09/07/96

Instrument ID: CH22

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.98 DCB: 26.15

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	BLK	BLK	09/11/96	1432		
02	BLKBS	BLKBS	09/11/96	1503	4.98	26.15
03	BLKBSD	BLKBSD	09/11/96	1535	4.99	26.17
04	9654-4MS	9654-4MS	09/11/96	1606	4.97	26.16
05	9654-4MSD	9654-4MSD	09/11/96	1638	4.98	26.15
06	9654-4	9654-4	09/11/96	1741	4.98	26.16
07	SWMUG-5	9653-1	09/11/96	1844		
08	SWMUG-105	9653-2	09/11/96	1915		
09	PESTCAL-2	PESTCAL-2	09/11/96	1947	4.97	26.12
10	ISO-KEP-2	ISO-KEP-2	09/11/96	2018		
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.10 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.10 MINUTES)

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

FORM VIII PEST

8D
8080 ANALYTICAL SEQUENCE

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

GC Column: DB-1701 ID: 0.53 (mm) Init. Calib. Date(s): 09/06/96

Instrument ID: CH24

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
TCX: 4.54 DCB: 22.59

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	TCX RT #	DCB RT #
01	PESTCALL1	PESTCALL1	09/06/96	1328	4.54	22.58
02	PESTCALL2	PESTCALL2	09/06/96	1359	4.55	22.58
03	PESTCALL3	PESTCALL3	09/06/96	1431	4.54	22.59
04	PESTCALL4	PESTCALL4	09/06/96	1502	4.56	22.59
05	PESTCALL5	PESTCALL5	09/06/96	1534	4.55	22.59
06	PESTCALL6	PESTCALL6	09/06/96	1605	4.54	22.59
07	PESTCAL-1	PESTCAL-1	09/11/96	1154	4.54	22.59
08	BLK	BLK	09/11/96	1432	4.55	22.60
09	BLKBS	BLKBS	09/11/96	1503	4.55	22.59
10	BLKBSD	BLKBSD	09/11/96	1535	4.55	22.59
11	9654-5MS	9654-5MS	09/11/96	1606	4.56	22.58
12	9654-6MSD	9654-6MSD	09/11/96	1638	4.54	22.58
13	9654-4	9654-4	09/11/96	1741	4.55	22.59
14	SWMUG-5	9653-1	09/11/96	1812	4.54	22.57
15	SWMUG-105	9653-2	09/11/96	1844	4.54	22.57
16	PESTCAL-2	PESTCAL-2	09/11/96	1947	4.54	22.57
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32						

QC LIMITS
TCX = Tetrachloro-m-xylene (+/- 0.10 MINUTES)
DCB = Decachlorobiphenyl (+/- 0.10 MINUTES)

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

FORM VIII PEST

FORM 10
8080 IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

AT Kearney SAMPLE NO.

SWMUG-5

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Lab Sample ID: 9653-1 Date(s) Analyzed: 09/11/96 09/11/96

Instrument ID (1): CH22 Instrument ID (2): CH24

GC Column(1): DB-608 ID: 0.53(mm) GC Column(2): DB-1701 ID: 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Beta-BHC	1	7.73	7.65	7.85	15.8	
	2	9.00	8.88	9.08	4.65	109.0
Heptachlor	1	8.57	8.44	8.64	8.30	
	2	7.91	7.83	8.03	5.04	48.9

FORM 10
8080 IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

AT Kearney SAMPLE NO.

SWMUG-105

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Lab Sample ID: 9653-2 Date(s) Analyzed: 09/11/96 09/11/96

Instrument ID (1): CH22 Instrument ID (2): CH24

GC Column(1): DB-608 ID: 0.53(mm) GC Column(2): DB-1701 ID: 0.53(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
Heptachlor	1	8.57	8.44	8.64	7.62	
	2	7.90	7.83	8.03	4.48	51.9

Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST90396.b\PEST90396-i011.d
Lab Smp Id: IKINCALL1 Client Smp ID: IKINCALL1
Inj Date : 03-SEP-96 17:28:00
Operator : MAK Inst ID: ch22.i
Smp Info : ISODRIN/KEPONE - 0.005UG/ML #AA904-76-3
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST90396.b\22pest0903.m
Meth Date : 11-Sep-96 14:48:19 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 19:27:00 Cal File: PEST90396-i051.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ISO-KEP.sub
Target Version: 3.21
Procesing Host: GC1

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
11 Isodrin	11.019	11.064	(1.781)	2901	0.00250	0.00309
22 Kepone	15.949	15.980	(2.578)	1808	0.00250	0.0107
* 1 HEXACHLOROBENZENE	6.187	6.196	(1.000)	60941	1.00	

Data File: /chem/ch22.i/PEST90396.b/PEST90396-i011.d

Date : 03-SEP-96 17:28:00

Client ID: IKINCALL1

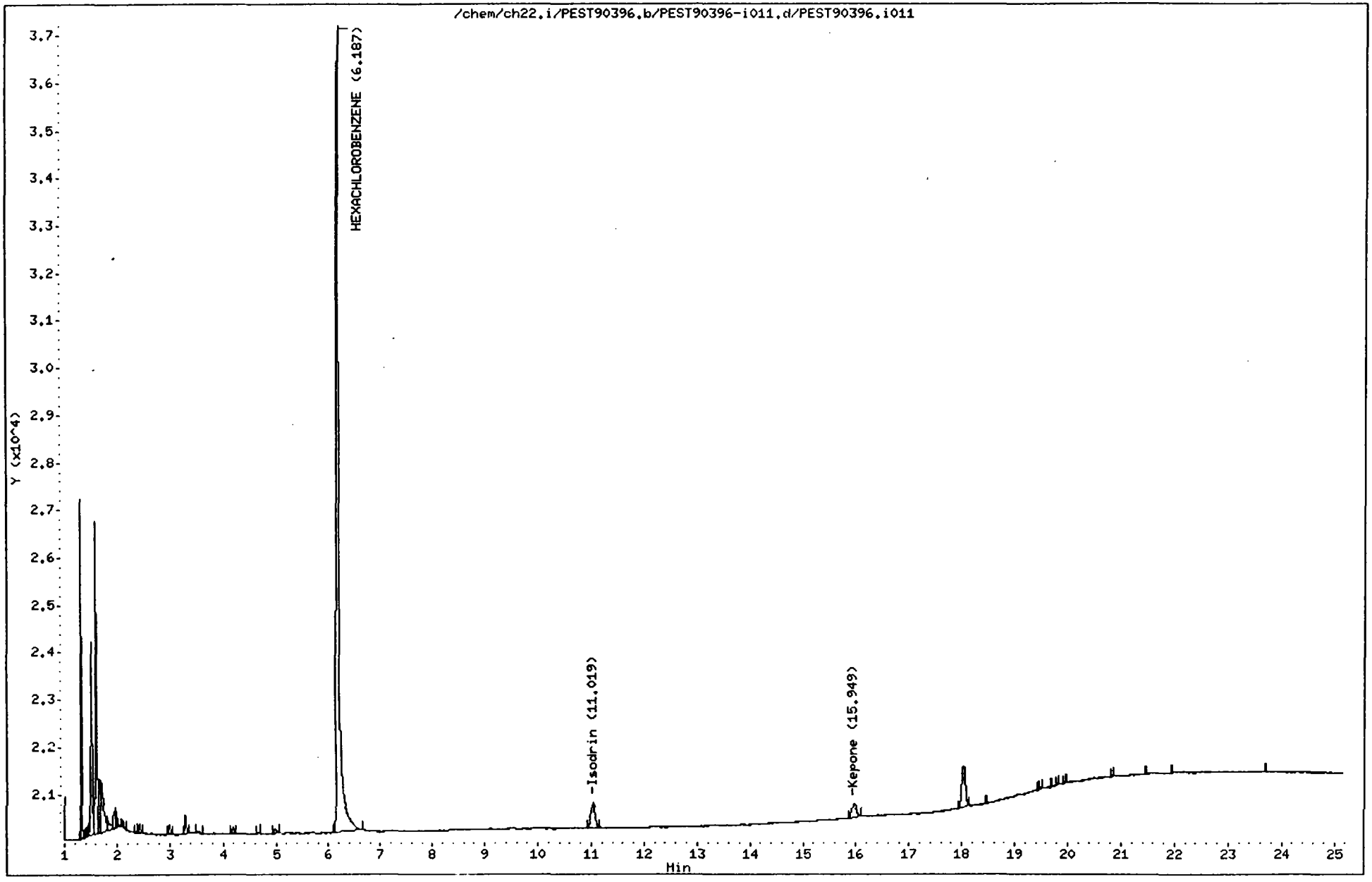
Sample Info: ISODRIN/KEPONE - 0.005UG/ML #AA904-76-3

Column phase: DB-608

Instrument: ch22.i

Operator: MAK

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST90396.b\PEST90396-i021.d
Lab Smp Id: IKINCALL2 Client Smp ID: IKINCALL2
Inj Date : 03-SEP-96 17:58:00
Operator : MAK Inst ID: ch22.i
Smp Info : ISODRIN/KEPONE - 0.025UG/ML #AA904-76-3
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST90396.b\22pest0903.m
Meth Date : 11-Sep-96 14:48:19 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 19:27:00 Cal File: PEST90396-i051.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ISO-KEP.sub
Target Version: 3.21
Procesing Host: GC1

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
11 Isodrin	11.064	11.064	(1.783)	13541	0.0125	0.0154
22 Kepone	15.998	15.980	(2.578)	2294	0.0125	0.0144
* 1 HEXACHLOROBENZENE	6.205	6.196	(1.000)	57153	1.00	

Data Fil[redacted]/chem/ch22.i/PEST90396.b/PEST90396-i021.d

Date : 03-SEP-96 17:58:00

Client ID: IKINCALL2

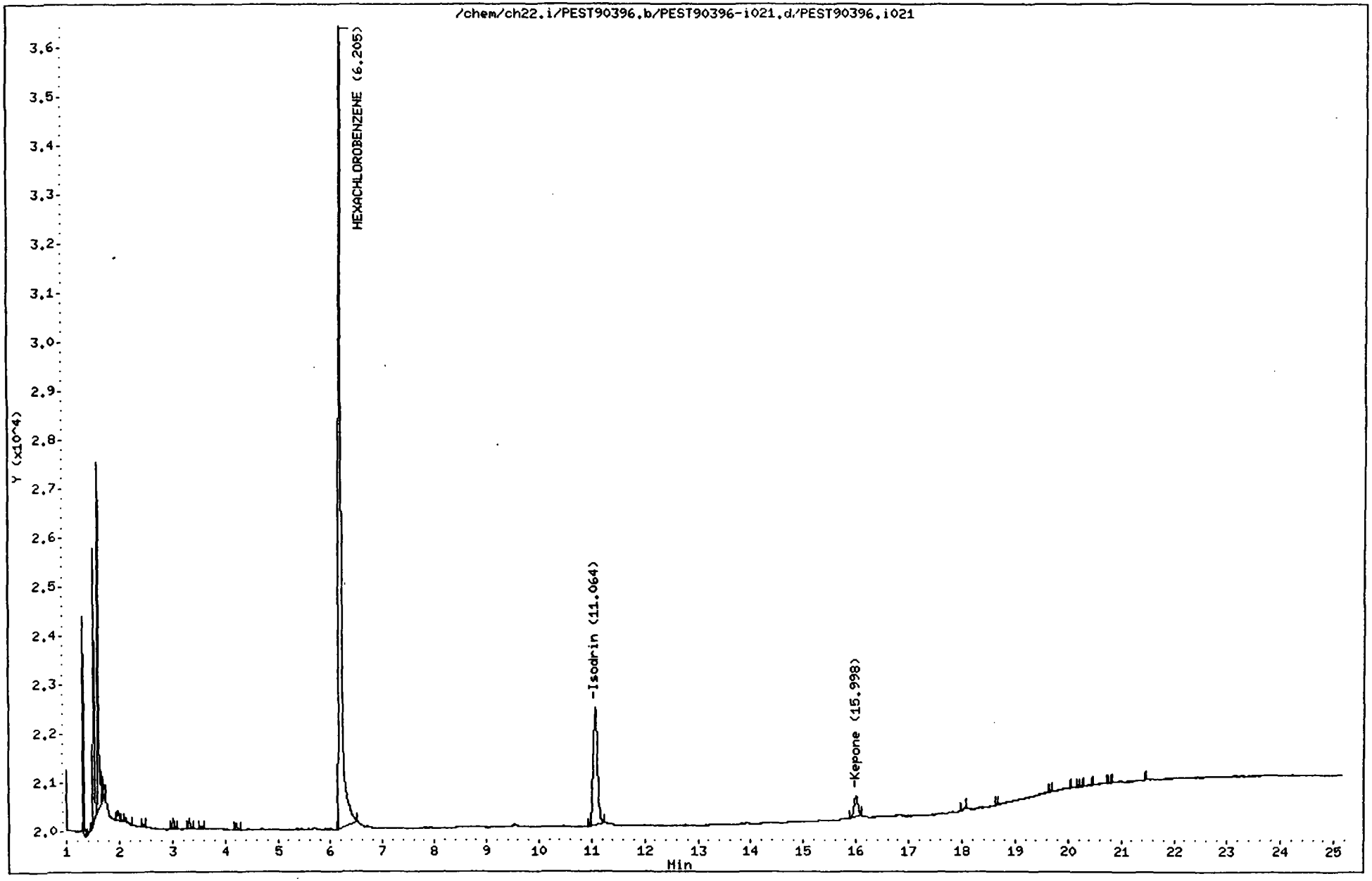
Sample Info: ISODRIN/KEPONE - 0.025UG/ML #AA904-76-3

Column phase: DB-608

Instrument: ch22.i

Operator: HAK

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST90396.b\PEST90396-i031.d
Lab Smp Id: IKINCALL3 Client Smp ID: IKINCALL3
Inj Date : 03-SEP-96 18:28:00
Operator : MAK Inst ID: ch22.i
Smp Info : ISODRIN/KEPONE - 0.100UG/ML #AA904-76-3
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST90396.b\22pest0903.m
Meth Date : 11-Sep-96 14:48:19 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 19:27:00 Cal File: PEST90396.i051
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ISO-KEP.sub
Target Version: 3.21
Procesing Host: GC1

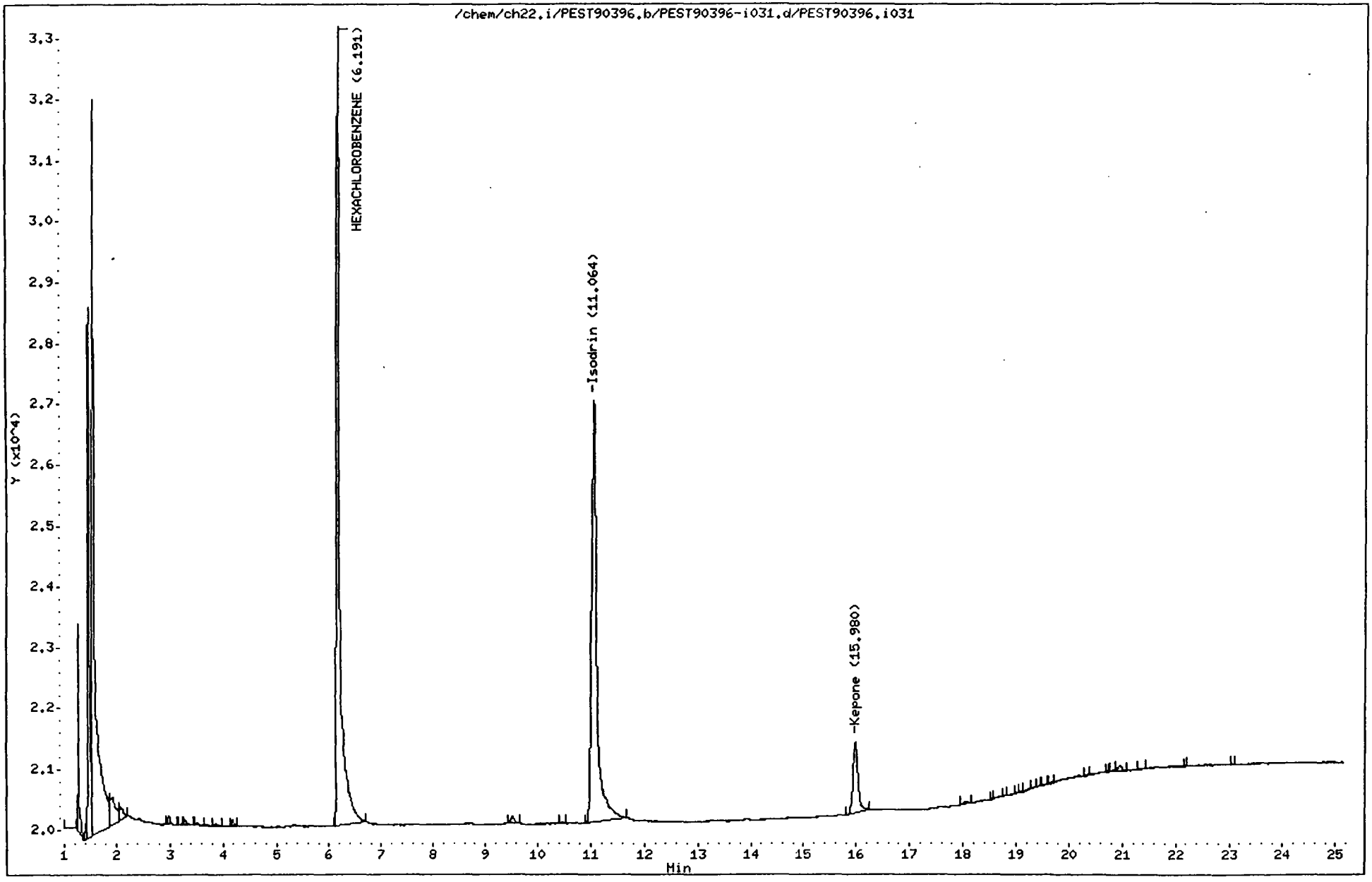
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
11 Isodrin	11.064	11.064	(1.787)	48284	0.0500	0.0522
22 Kepone	15.980	15.980	(2.581)	7802	0.0500	0.0465
* 1 HEXACHLOROBENZENE	6.191	6.196	(1.000)	59533	1.00	

Data File: /chem/ch22.i/PEST90396.b/PEST90396-i031.d
Date : 03-SEP-96 18:28:00
Client ID: IKINCALL3
Sample Info: ISODRIN/KEPONE - 0.100UG/ML #AA904-76-3

Column phase: DB-608

Instrument: ch22.i

Operator: MAK
Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST90396.b\PEST90396-i041.d
Lab Smp Id: IKINCALL4 Client Smp ID: IKINCALL4
Inj Date : 03-SEP-96 18:57:00
Operator : MAK Inst ID: ch22.i
Smp Info : ISODRIN/KEPONE - 0.200UG/ML #AA904-76-3
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST90396.b\22pest0903.m
Meth Date : 11-Sep-96 14:48:19 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 19:27:00 Cal File: PEST90396.i051
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ISO-KEP.sub
Target Version: 3.21
Procesing Host: GC1

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
11 Isodrin	11.064	11.064	(1.787)	94006	0.100	0.0993
22 Kepone	15.994	15.980	(2.583)	16944	0.100	0.0992
* 1 HEXACHLOROBENZENE	6.191	6.196	(1.000)	61442	1.00	

Data File: /chem/ch22.i/PEST90396.b/PEST90396-i041.d

Date : 03-SEP-96 18:57:00

Client ID: IKINCALL4

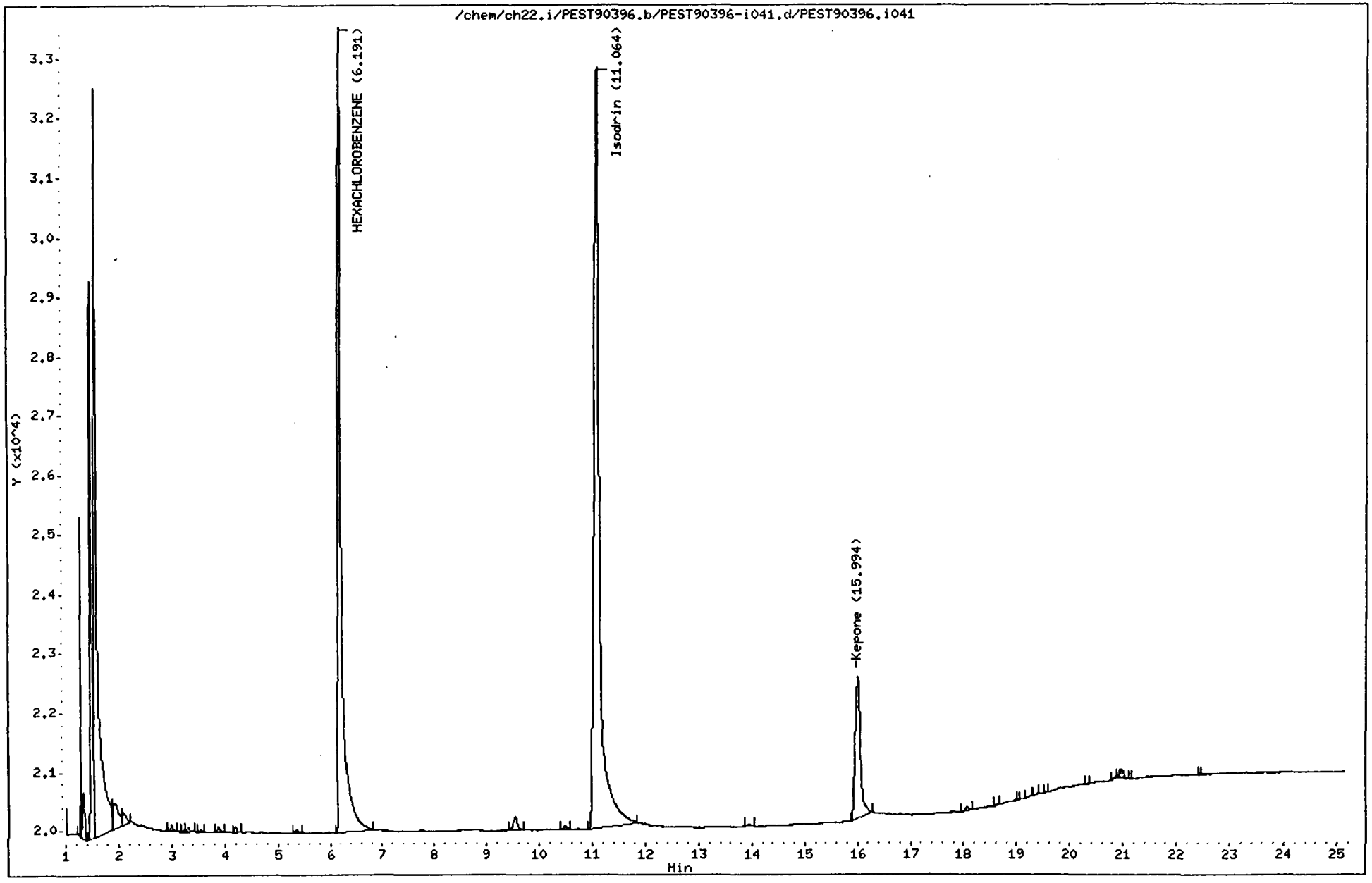
Sample Info: ISODRIN/KEPONE - 0.200UG/ML #AA904-76-3

Instrument: ch22.i

Operator: MAK

Column phase: DB-608

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST90396.b\PEST90396-i051.d
Lab Smp Id: IKINCALL5 Client Smp ID: IKINCALL5
Inj Date : 03-SEP-96 19:27:00
Operator : MAK Inst ID: ch22.i
Smp Info : ISODRIN/KEPONE - 0.250UG/ML #AA904-76-3
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST90396.b\22pest0903.m
Meth Date : 11-Sep-96 14:48:19 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 19:27:00 Cal File: PEST90396-i051.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ISO-KEP.sub
Target Version: 3.21
Procesing Host: GC1

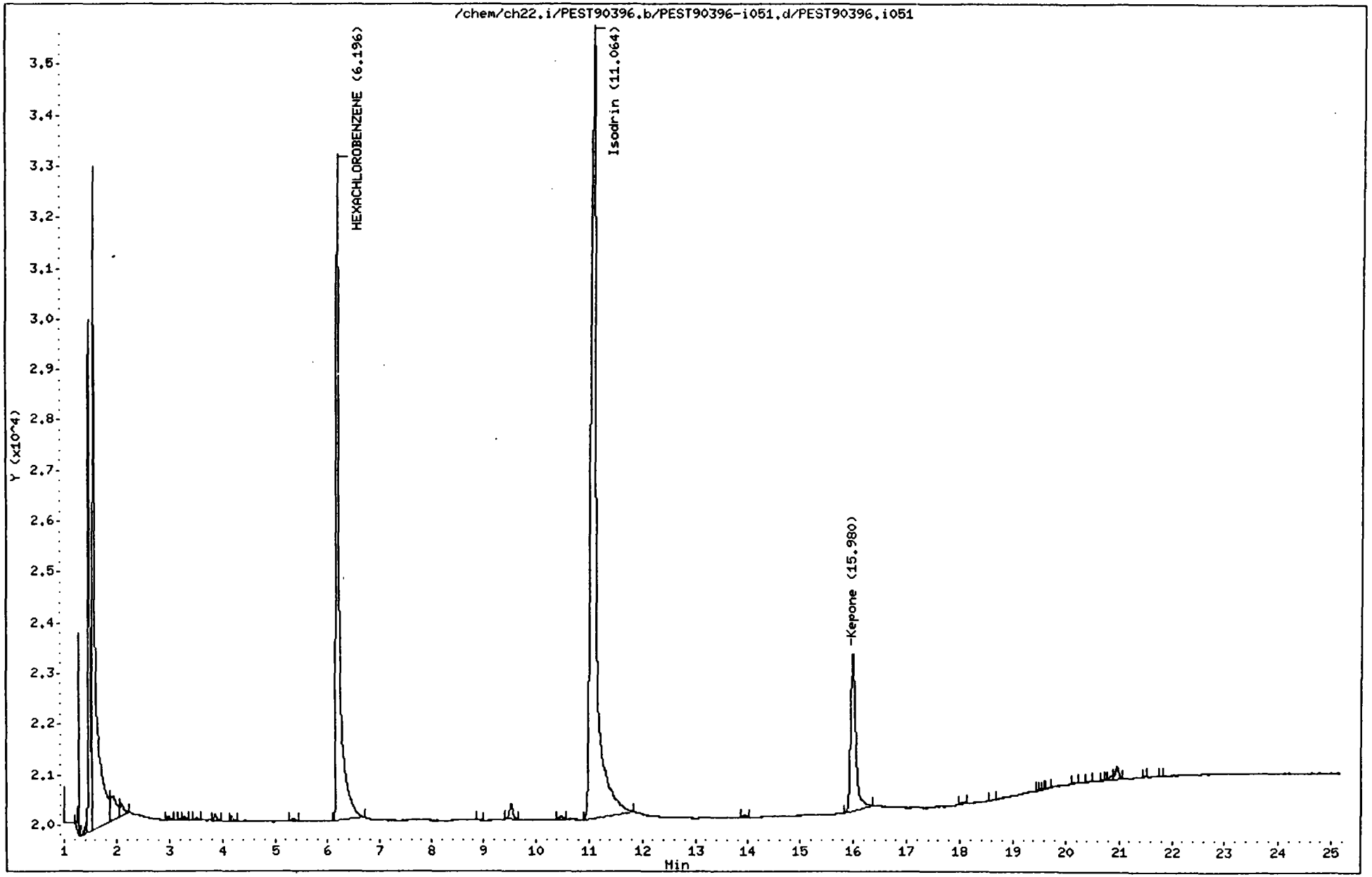
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
11 Isodrin	11.064	11.064	(1.786)	115053	0.125	0.124
22 Kepone	15.980	15.980	(2.579)	21128	0.125	0.126
* 1 HEXACHLOROBENZENE	6.196	6.196	(1.000)	60134	1.00	

Data File: /chem/ch22.i/PEST90396.b/PEST90396-i051.d
Date : 03-SEP-96 19:27:00
Client ID: IKINCALL5
Sample Info: ISODRIN/KEPONE - 0.250UG/ML #AA904-76-3

Column phase: DB-608

Instrument: ch22.i

Operator: MAK
Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i021.d
Lab Smp Id: PESTCALL1 Client Smp ID: PESTCALL1
Inj Date : 06-SEP-96 13:28:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDES CAL STD 0.005UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 11:21:06 mtwillet Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	3 Alpha-BHC	6.595	6.590	(1.064)	3481	0.00250	0.00283
	6 Beta-BHC	7.752	7.752	(1.250)	1126	0.00250	0.00212
	9 Delta-BHC	8.794	8.794	(1.418)	1885	0.00250	0.00248
	5 Gamma-BHC (Lindane)	7.619	7.619	(1.229)	2403	0.00250	0.00280
	8 Heptachlor	8.541	8.541	(1.378)	2626	0.00250	0.00288
	11 Aldrin	9.530	9.534	(1.537)	2329	0.00250	0.00250
	15 Heptachlor epoxide	11.498	11.498	(1.854)	2007	0.00250	0.00239
	16 Endosulfan I	12.997	12.979	(2.096)	1705	0.00250	0.00228
	20 Dieldrin	14.251	14.247	(2.298)	1910	0.00250	0.00250
	18 4,4'-DDE	13.852	13.852	(2.234)	1808	0.00250	0.00257
	22 Endrin	15.767	15.754	(2.543)	1560	0.00250	0.00247
	25 Endosulfan II	16.477	16.481	(2.657)	1335	0.00250	0.00251
	24 4,4'-DDD	16.153	16.153	(2.605)	1225	0.00250	0.00234
	29 Endosulfan sulfate	18.321	18.308	(2.955)	1243	0.00250	0.00252
	27 4,4'-DDT	17.430	17.426	(2.811)	1545	0.00250	0.00281
	30 Methoxychlor	20.511	20.511	(3.308)	822	0.00250	0.00339
	31 Endrin ketone	20.959	20.977	(3.380)	1542	0.00250	0.00297
	28 Endrin aldehyde	17.833	17.833	(2.876)	1015	0.00250	0.00280
$	1 Tetrachloro-m-xylene	4.986	4.977	(0.804)	2445	0.00250	0.00250
*	2 HEXACHLOROBENZENE	6.200	6.191	(1.000)	47710	1.00	
$	32 Decachlorobiphenyl	26.141	26.150	(4.216)	1684	0.00250	0.00250

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i021.d

Date : 06-SEP-96 13:28:00

Client ID: PESTCALL1

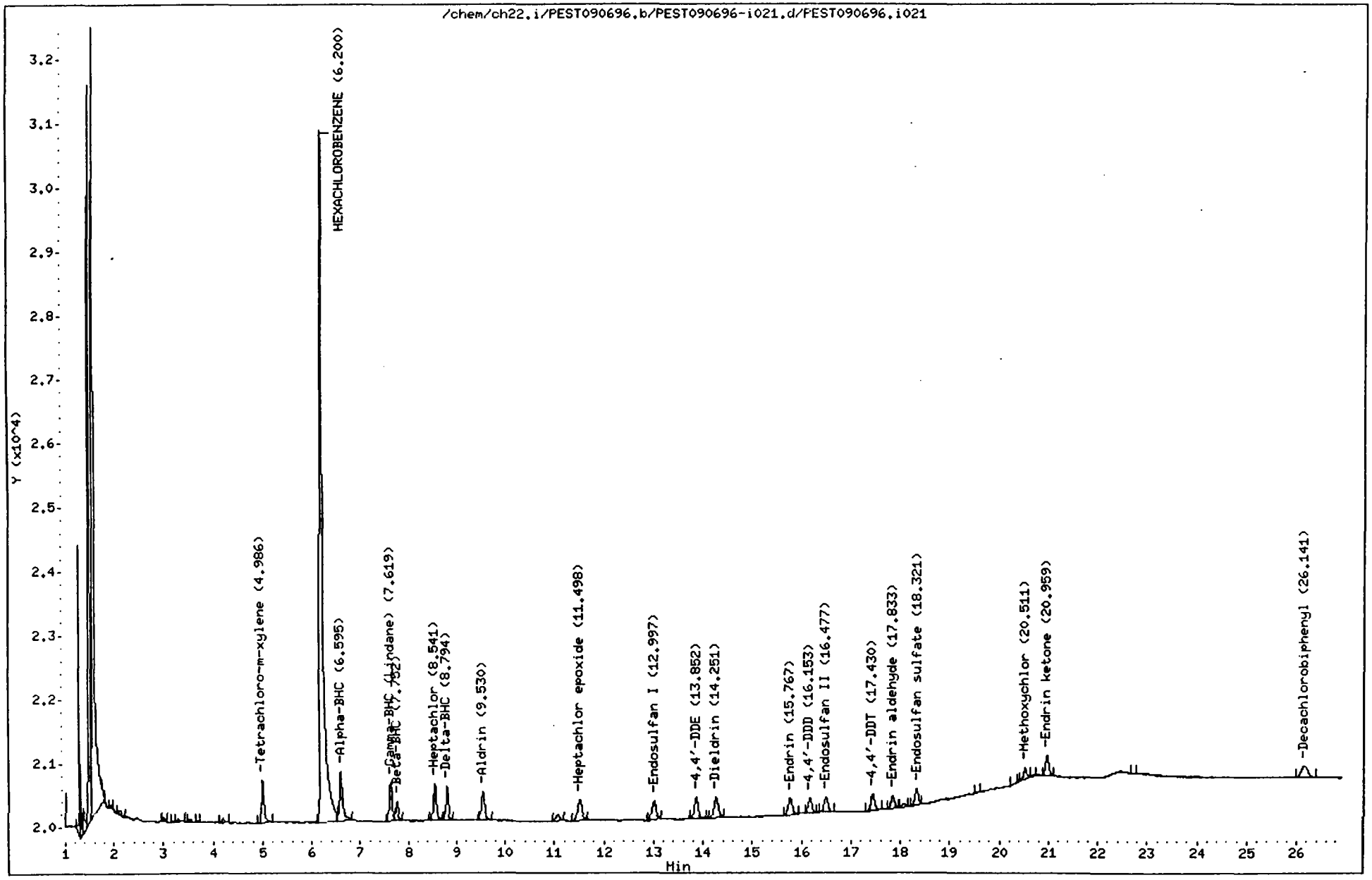
Sample Info: PESTICIDES CAL STD 0.005UG/ML AA904-73-

Column phase: DB-608

Instrument: ch22.i

Operator: MAK

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch24.i\PEST090696.b\PEST090696-i021.d
Lab Smp Id: PESTCALL1 Client Smp ID: PESTCALL1
Inj Date : 06-SEP-96 13:28:00
Operator : MAKOWALSKI Inst ID: ch24.i
Smp Info : PESTICIDES CAL STD 0.005UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch24.i\PEST090696.b\24pest0906.m
Meth Date : 23-Sep-96 13:39:02 makowalski Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
3	Alpha-BHC	6.366	6.366	(1.168)	26853	0.00250	0.00194
9	Beta-BHC	8.986	8.991	(1.649)	11568	0.00250	0.00294
11	Delta-BHC	9.802	9.802	(1.799)	25465	0.00250	0.00296
5	Gamma-BHC (Lindane)	7.311	7.311	(1.342)	23121	0.00250	0.00194
7	Heptachlor	7.931	7.936	(1.456)	26587	0.00250	0.00224
8	Aldrin	8.685	8.689	(1.594)	25713	0.00250	0.00245
13	Heptachlor epoxide	10.600	10.609	(1.945)	17733	0.00250	0.00193
15	Endosulfan I	11.682	11.691	(2.144)	17236	0.00250	0.00213
17	Dieldrin	13.096	13.092	(2.404)	22995	0.00250	0.00286
16	4,4'-DDE	12.365	12.365	(2.269)	19635	0.00250	0.00251
19	Endrin	13.916	13.907	(2.554)	15507	0.00250	0.00226
23	Endosulfan II	15.676	15.676	(2.877)	15181	0.00250	0.00284
21	4,4'-DDD	15.384	15.379	(2.823)	13208	0.00250	0.00253
24	4,4'-DDT	16.089	16.089	(2.953)	13639	0.00250	0.00230
28	Endrin ketone	19.684	19.693	(3.613)	15269	0.00250	0.00277
26	Endrin aldehyde	17.148	17.179	(3.147)	2180	0.00250	0.000656
$ 1	Tetrachloro-m-xylene	4.540	4.540	(0.833)	32452	0.00250	0.00326
* 2	HEXACHLOROBENZENE	5.449	5.449	(1.000)	556789	1.00	
$ 29	Decachlorobiphenyl	22.579	22.588	(4.144)	20591	0.00250	0.00402
27	Endosulfan sulf./Methoxychlor	18.345	18.345	(3.367)	12634	0.00500	0.00364

Data Fil chem/ch24.i/PEST090696.b/PEST090696-i021.d

Pa

Date : 06-SEP-96 13:28:00

Client ID: PESTCALL1

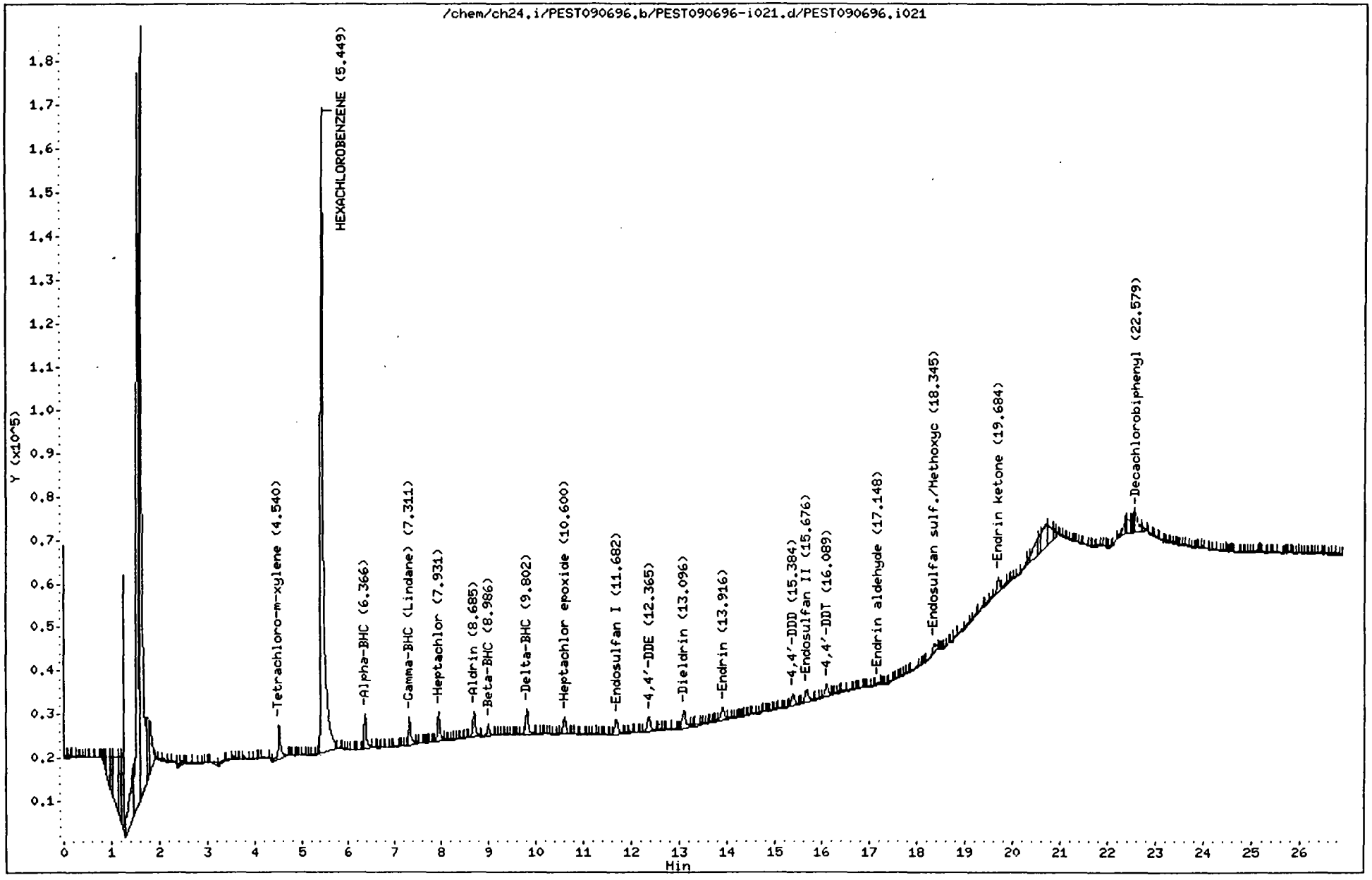
Instrument: ch24.i

Sample Info: PESTICIDES CAL STD 0.005UG/ML AA904-73-

Operator: MAKOWALSKI

Column phase: DB-1701

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i031.d
Lab Smp Id: PESTCALL2 Client Smp ID: PESTCALL2
Inj Date : 06-SEP-96 13:59:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDES CAL STD 0.025UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 11:21:06 mtwillet Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	3 Alpha-BHC	6.599	6.590	(1.063)	18220	0.0125	0.0144
	6 Beta-BHC	7.770	7.752	(1.251)	7666	0.0125	0.0140
	9 Delta-BHC	8.807	8.794	(1.418)	11266	0.0125	0.0144
	5 Gamma-BHC (Lindane)	7.632	7.619	(1.229)	12773	0.0125	0.0145
	8 Heptachlor	8.554	8.541	(1.378)	14149	0.0125	0.0151
	11 Aldrin	9.543	9.534	(1.537)	13694	0.0125	0.0126
	15 Heptachlor epoxide	11.511	11.498	(1.854)	11802	0.0125	0.0137
	16 Endosulfan I	13.010	12.979	(2.095)	9848	0.0125	0.0128
	20 Dieldrin	14.265	14.247	(2.297)	10539	0.0125	0.0125
	18 4,4'-DDE	13.866	13.852	(2.233)	10323	0.0125	0.0143
	22 Endrin	15.776	15.754	(2.541)	8475	0.0125	0.0131
	25 Endosulfan II	16.499	16.481	(2.657)	7462	0.0125	0.0137
	24 4,4'-DDD	16.180	16.153	(2.606)	6875	0.0125	0.0128
	29 Endosulfan sulfate	18.334	18.308	(2.953)	6592	0.0125	0.0130
	27 4,4'-DDT	17.439	17.426	(2.809)	7957	0.0125	0.0141
	30 Methoxychlor	20.533	20.511	(3.307)	3423	0.0125	0.0138
	31 Endrin ketone	20.981	20.977	(3.379)	8249	0.0125	0.0155
	28 Endrin aldehyde	17.838	17.833	(2.873)	5513	0.0125	0.0148
$	1 Tetrachloro-m-xylene	4.990	4.977	(0.804)	12902	0.0125	0.0125
*	2 HEXACHLOROBENZENE	6.209	6.191	(1.000)	48949	1.00	
$	32 Decachlorobiphenyl	26.186	26.150	(4.217)	7330	0.0125	0.0124

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i031.d

Date : 06-SEP-96 13:59:00

Client ID: PESTCALL2

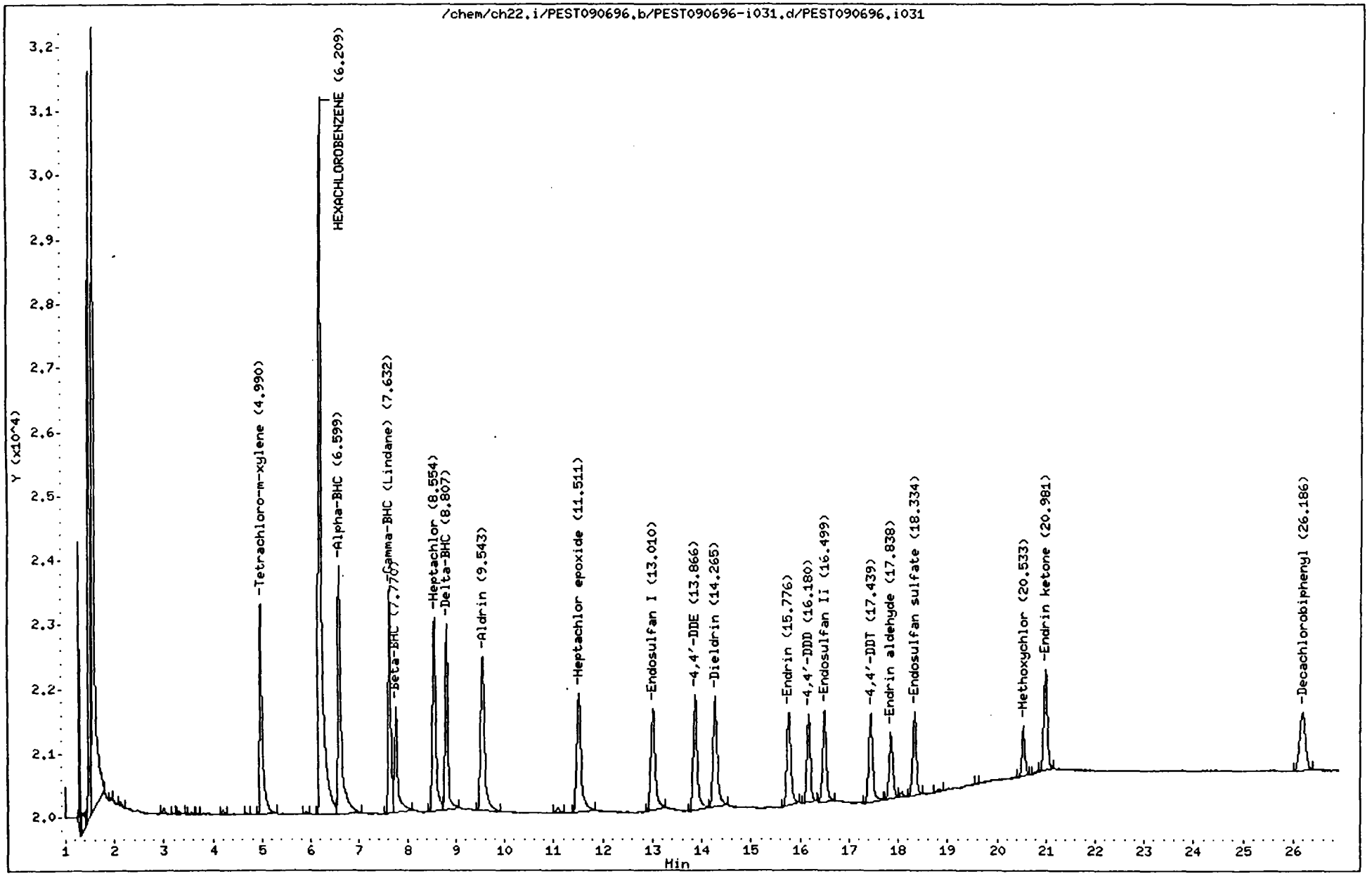
Instrument: ch22.i

Sample Info: PESTICIDES CAL STD 0.025UG/ML AA904-73-

Operator: MAK

Column phase: DB-608

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch24.i\PEST090696.b\PEST090696-i031.d
Lab Smp Id: PESTCALL2 Client Smp ID: PESTCALL2
Inj Date : 06-SEP-96 13:59:00
Operator : MAKOWALSKI Inst ID: ch24.i
Smp Info : PESTICIDES CAL STD 0.025UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch24.i\PEST090696.b\24pest0906.m
Meth Date : 23-Sep-96 13:39:02 makowalski Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
3	Alpha-BHC	6.375	6.366	(1.168)	163426	0.0125	0.0115
9	Beta-BHC	9.004	8.991	(1.650)	46436	0.0125	0.0115
11	Delta-BHC	9.820	9.802	(1.799)	102909	0.0125	0.0117
5	Gamma-BHC (Lindane)	7.319	7.311	(1.341)	139166	0.0125	0.0114
7	Heptachlor	7.949	7.936	(1.457)	145147	0.0125	0.0120
8	Aldrin	8.698	8.689	(1.594)	128920	0.0125	0.0120
13	Heptachlor epoxide	10.618	10.609	(1.946)	99796	0.0125	0.0106
15	Endosulfan I	11.704	11.691	(2.145)	95363	0.0125	0.0115
17	Dieldrin	13.101	13.092	(2.400)	104700	0.0125	0.0127
16	4,4'-DDE	12.378	12.365	(2.268)	91087	0.0125	0.0113
19	Endrin	13.934	13.907	(2.553)	79141	0.0125	0.0113
23	Endosulfan II	15.685	15.676	(2.874)	69607	0.0125	0.0127
21	4,4'-DDD	15.397	15.379	(2.821)	65974	0.0125	0.0123
24	4,4'-DDT	16.106	16.089	(2.951)	71195	0.0125	0.0117
28	Endrin ketone	19.702	19.693	(3.610)	100775	0.0125	0.0178
26	Endrin aldehyde	17.197	17.179	(3.151)	29949	0.0125	0.00879
$ 1	Tetrachloro-m-xylene	4.549	4.540	(0.833)	133704	0.0125	0.0131
* 2	HEXACHLOROBENZENE	5.457	5.449	(1.000)	570944	1.00	
$ 29	Decachlorobiphenyl	22.583	22.588	(4.138)	67165	0.0125	0.0128
27	Endosulfan sulf./Methoxychlor	18.358	18.345	(3.364)	58286	0.0250	0.0164

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Date : 06-SEP-96 13:59:00

Client ID: PESTCALL2

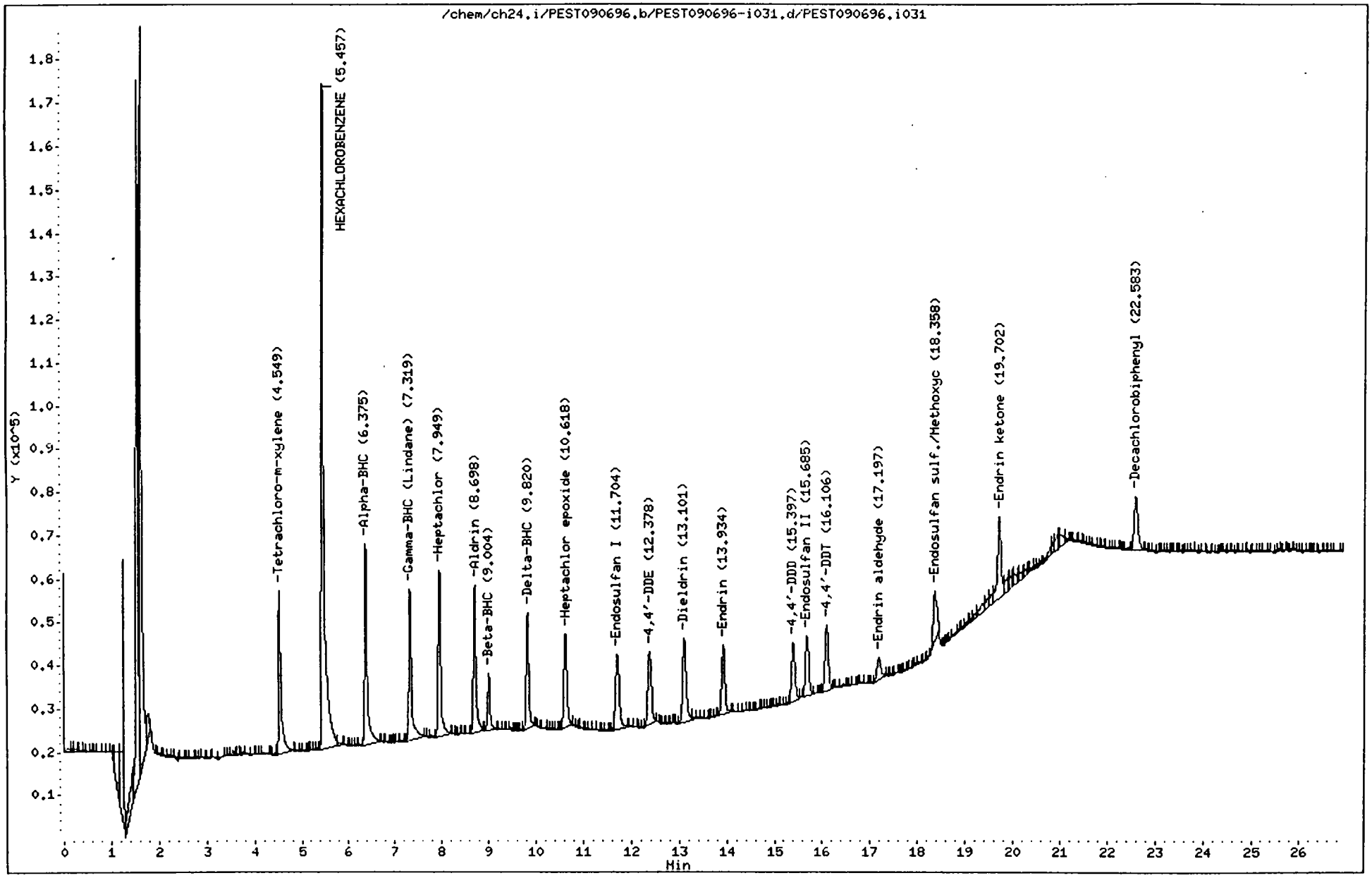
Instrument: ch24.i

Sample Info: PESTICIDES CAL STD 0.025UG/ML AA904-73-

Operator: MAKOWALSKI

Column phase: DB-1701

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i041.d
Lab Smp Id: PESTCALL3 Client Smp ID: PESTCALL3
Inj Date : 06-SEP-96 14:31:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDES CAL STD 0.100UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 11:21:06 mtwillet Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
3	Alpha-BHC	6.582	6.590	(1.063)	64036	0.0500	0.0522
6	Beta-BHC	7.743	7.752	(1.251)	28119	0.0500	0.0530
9	Delta-BHC	8.785	8.794	(1.419)	45369	0.0500	0.0597
5	Gamma-BHC (Lindane)	7.610	7.619	(1.229)	45188	0.0500	0.0528
8	Heptachlor	8.528	8.541	(1.377)	50810	0.0500	0.0559
11	Aldrin	9.525	9.534	(1.538)	50713	0.0500	0.0499
15	Heptachlor epoxide	11.489	11.498	(1.856)	44630	0.0500	0.0532
16	Endosulfan I	12.974	12.979	(2.096)	35807	0.0500	0.0480
20	Dieldrin	14.242	14.247	(2.300)	43065	0.0500	0.0502
18	4,4'-DDE	13.835	13.852	(2.234)	38294	0.0500	0.0546
22	Endrin	15.754	15.754	(2.545)	32514	0.0500	0.0516
25	Endosulfan II	16.477	16.481	(2.661)	27279	0.0500	0.0514
24	4,4'-DDD	16.153	16.153	(2.609)	27094	0.0500	0.0518
29	Endosulfan sulfate	18.308	18.308	(2.957)	26074	0.0500	0.0530
27	4,4'-DDT	17.417	17.426	(2.813)	30172	0.0500	0.0550
30	Methoxychlor	20.502	20.511	(3.311)	13044	0.0500	0.0540
31	Endrin ketone	20.963	20.977	(3.386)	27778	0.0500	0.0536
28	Endrin aldehyde	17.829	17.833	(2.880)	21289	0.0500	0.0590
$ 1	Tetrachloro-m-xylene	4.968	4.977	(0.802)	46076	0.0500	0.0497
* 2	HEXACHLOROBENZENE	6.191	6.191	(1.000)	47583	1.00	
$ 32	Decachlorobiphenyl	26.164	26.150	(4.226)	26628	0.0500	0.0498

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i041.d

Date : 06-SEP-96 14:31:00

Client ID: PESTCALL3

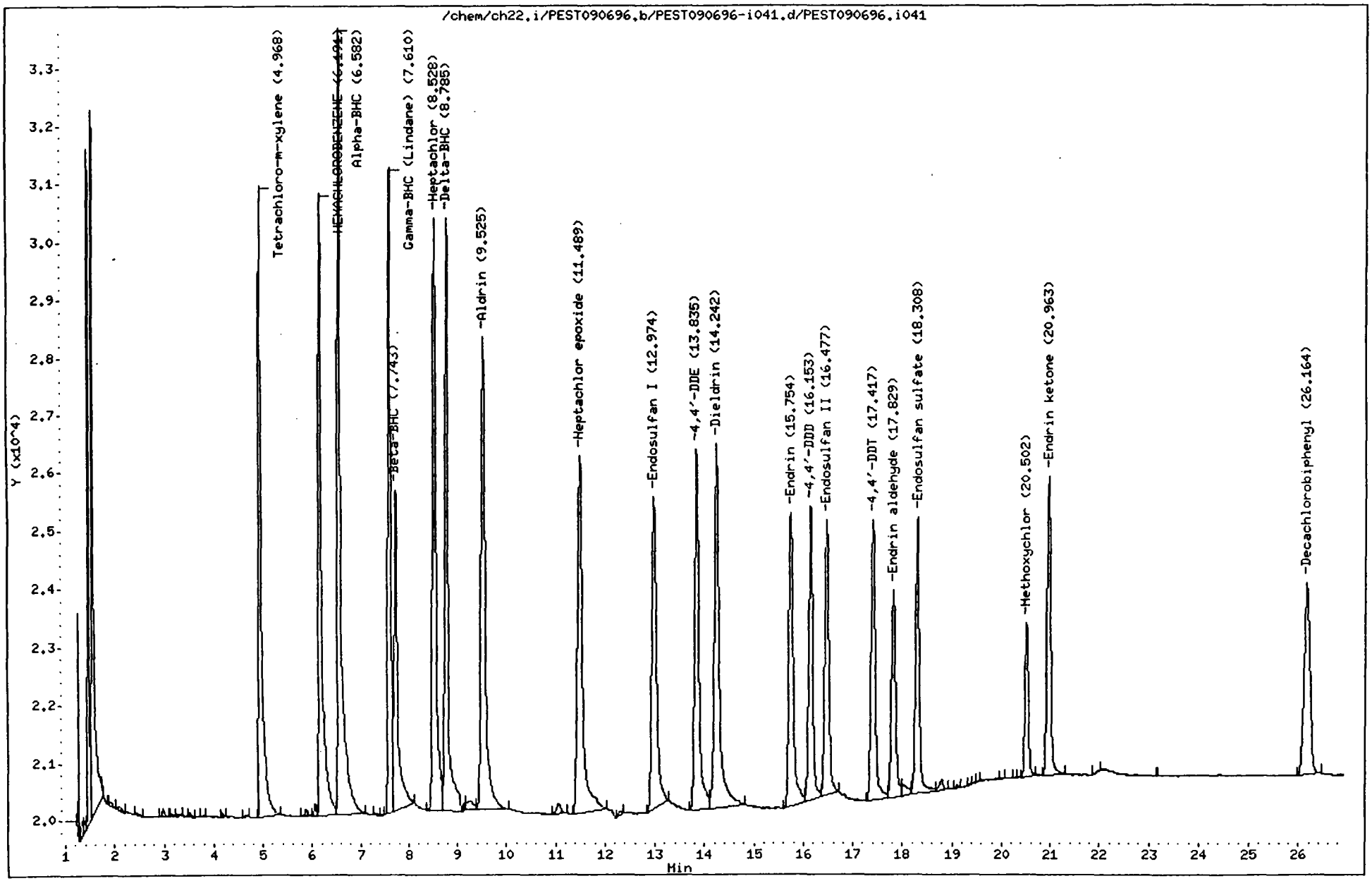
Sample Info: PESTICIDES CAL STD 0.100UG/ML AA904-73-

Column phase: DB-608

Instrument: ch22.i

Operator: MAK

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch24.i\PEST090696.b\PEST090696-i041.d
Lab Smp Id: PESTCALL3 Client Smp ID: PESTCALL3
Inj Date : 06-SEP-96 14:31:00
Operator : MAKOWALSKI Inst ID: ch24.i
Smp Info : PESTICIDES CAL STD 0.100UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch24.i\PEST090696.b\24pest0906.m
Meth Date : 23-Sep-96 13:39:02 makowalski Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
3	Alpha-BHC	6.366	6.366	(1.168)	657836	0.0500	0.0464
9	Beta-BHC	8.991	8.991	(1.650)	211141	0.0500	0.0526
11	Delta-BHC	9.802	9.802	(1.799)	431674	0.0500	0.0492
5	Gamma-BHC (Lindane)	7.311	7.311	(1.342)	590220	0.0500	0.0484
7	Heptachlor	7.936	7.936	(1.456)	576426	0.0500	0.0476
8	Aldrin	8.689	8.689	(1.595)	516887	0.0500	0.0482
13	Heptachlor epoxide	10.609	10.609	(1.947)	406421	0.0500	0.0434
15	Endosulfan I	11.691	11.691	(2.146)	390424	0.0500	0.0472
17	Dieldrin	13.092	13.092	(2.403)	378961	0.0500	0.0462
16	4,4'-DDE	12.365	12.365	(2.269)	393864	0.0500	0.0492
19	Endrin	13.907	13.907	(2.552)	374294	0.0500	0.0535
23	Endosulfan II	15.676	15.676	(2.877)	274555	0.0500	0.0503
21	4,4'-DDD	15.379	15.379	(2.823)	265555	0.0500	0.0498
24	4,4'-DDT	16.089	16.089	(2.953)	288955	0.0500	0.0476
28	Endrin ketone	19.693	19.693	(3.614)	274205	0.0500	0.0488
26	Endrin aldehyde	17.179	17.179	(3.153)	161354	0.0500	0.0472(M)
$ 1	Tetrachloro-m-xylene	4.540	4.540	(0.833)	501408	0.0500	0.0492
* 2	HEXACHLOROBENZENE	5.449	5.449	(1.000)	568714	1.00	
$ 29	Decachlorobiphenyl	22.588	22.588	(4.146)	257951	0.0500	0.0493
27	Endosulfan sulf./Methoxychlor	18.345	18.345	(3.367)	337699	0.100	0.0952

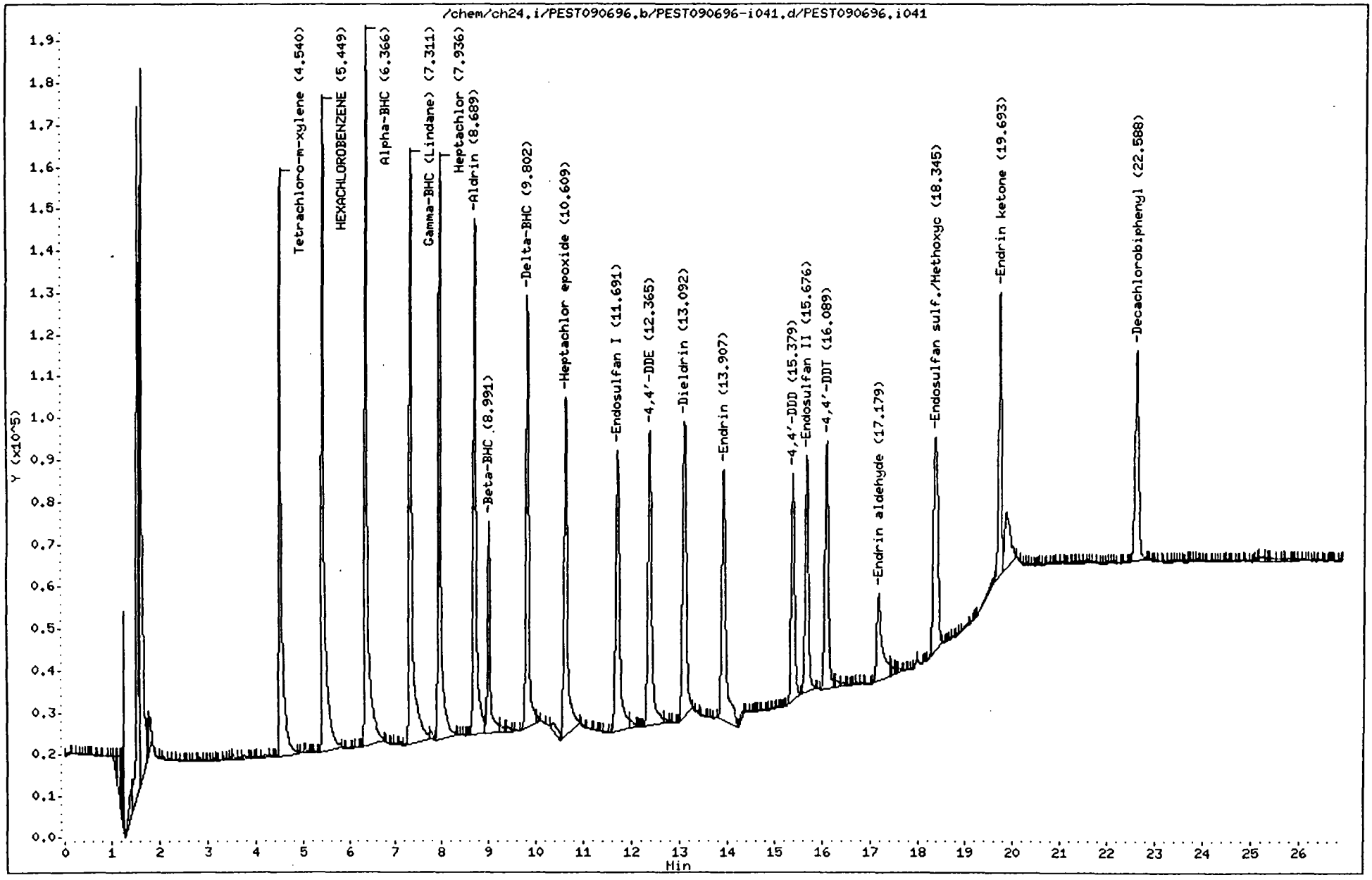
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch24.i/PEST090696.b/PEST090696-i041.d
Date : 06-SEP-96 14:31:00
Client ID: PESTCALL3
Sample Info: PESTICIDES CAL STD 0.100UG/ML AA904-73-

Instrument: ch24.i
Operator: MAKOWALSKI
Column diameter: 0.53

Column phase: DB-1701



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i051.d
Lab Smp Id: PESTCALL4 Client Smp ID: PESTCALL4
Inj Date : 06-SEP-96 15:02:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDES CAL STD 0.200UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 11:21:06 mtwillet Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	3 Alpha-BHC	6.599	6.590	(1.064)	128829	0.100	0.100
	6 Beta-BHC	7.761	7.752	(1.251)	54828	0.100	0.0986
	9 Delta-BHC	8.803	8.794	(1.419)	84630	0.100	0.106
	5 Gamma-BHC (Lindane)	7.628	7.619	(1.229)	88632	0.100	0.0986
	8 Heptachlor	8.546	8.541	(1.377)	99831	0.100	0.104
	11 Aldrin	9.543	9.534	(1.538)	99603	0.100	0.0985
	15 Heptachlor epoxide	11.503	11.498	(1.854)	89949	0.100	0.102
	16 Endosulfan I	12.992	12.979	(2.094)	74055	0.100	0.0946
	20 Dieldrin	14.260	14.247	(2.298)	82427	0.100	0.0981
	18 4,4'-DDE	13.866	13.852	(2.235)	75958	0.100	0.103
	22 Endrin	15.763	15.754	(2.540)	66030	0.100	0.0999
	25 Endosulfan II	16.495	16.481	(2.658)	56756	0.100	0.102
	24 4,4'-DDD	16.171	16.153	(2.606)	55340	0.100	0.101
	29 Endosulfan sulfate	18.325	18.308	(2.953)	52691	0.100	0.102
	27 4,4'-DDT	17.430	17.426	(2.809)	58367	0.100	0.101
	30 Methoxychlor	20.524	20.511	(3.308)	25912	0.100	0.102
	31 Endrin ketone	20.977	20.977	(3.381)	54234	0.100	0.0997
	28 Endrin aldehyde	17.847	17.833	(2.876)	38800	0.100	0.102
$	1 Tetrachloro-m-xylene	4.986	4.977	(0.803)	90585	0.100	0.0985
*	2 HEXACHLOROBENZENE	6.205	6.191	(1.000)	49930	1.00	
$	32 Decachlorobiphenyl	26.159	26.150	(4.216)	53084	0.100	0.0988

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i051.d

Page 2

Date : 06-SEP-96 15:02:00

Client ID: PESTCALL4

Instrument: ch22.i

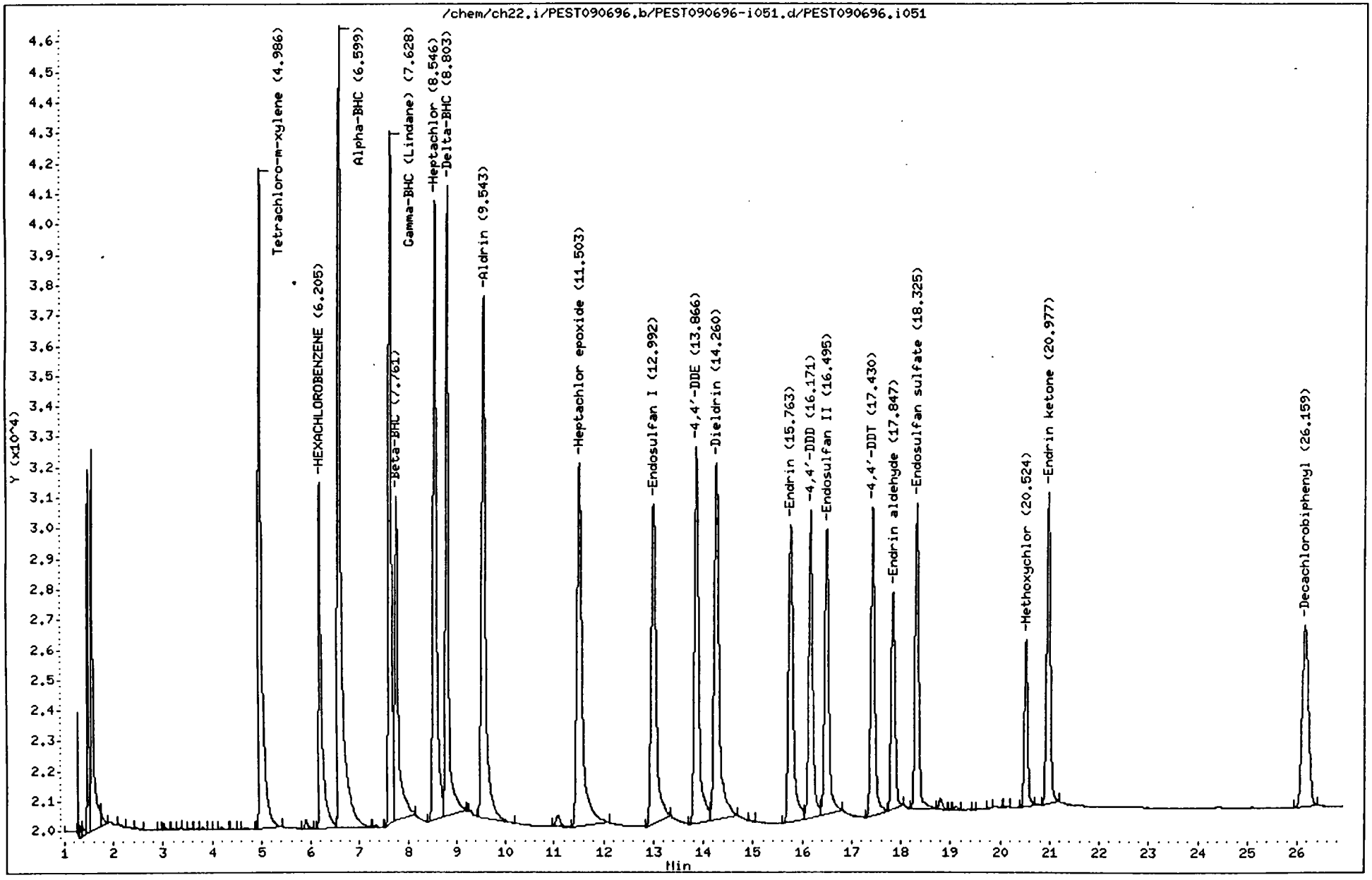
Sample Info: PESTICIDES CAL STD 0.200UG/ML AA904-73-

Operator: MAK

Column phase: DB-608

Column diameter: 0.53

627



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch24.i\PEST090696.b\PEST090696-i051.d
Lab Smp Id: PESTCALL4 Client Smp ID: PESTCALL4
Inj Date : 06-SEP-96 15:02:00
Operator : MAKOWALSKI Inst ID: ch24.i
Smp Info : PESTICIDES CAL STD 0.200UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch24.i\PEST090696.b\24pest0906.m
Meth Date : 23-Sep-96 13:39:02 makowalski Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	3 Alpha-BHC	6.384	6.366	(1.168)	1436600	0.100	0.0969
	9 Beta-BHC	9.009	8.991	(1.648)	377305	0.100	0.0898
	11 Delta-BHC	9.824	9.802	(1.797)	939226	0.100	0.102
	5 Gamma-BHC (Lindane)	7.333	7.311	(1.341)	1238439	0.100	0.0971
	7 Heptachlor	7.958	7.936	(1.456)	1219353	0.100	0.0963
	8 Aldrin	8.712	8.689	(1.594)	1082016	0.100	0.0963
	13 Heptachlor epoxide	10.622	10.609	(1.943)	952204	0.100	0.0971
	15 Endosulfan I	11.708	11.691	(2.142)	821829	0.100	0.0950
	17 Dieldrin	13.109	13.092	(2.398)	840867	0.100	0.0979
	16 4,4'-DDE	12.387	12.365	(2.266)	849363	0.100	0.101
	19 Endrin	13.925	13.907	(2.547)	712906	0.100	0.0973
	23 Endosulfan II	15.690	15.676	(2.870)	600020	0.100	0.105
	21 4,4'-DDD	15.406	15.379	(2.818)	568202	0.100	0.102
	24 4,4'-DDT	16.111	16.089	(2.947)	639717	0.100	0.101
	28 Endrin ketone	19.697	19.693	(3.603)	597160	0.100	0.101
	26 Endrin aldehyde	17.197	17.179	(3.146)	369879	0.100	0.101(M)
$	1 Tetrachloro-m-xylene	4.557	4.540	(0.834)	1030096	0.100	0.0966
*	2 HEXACHLOROBENZENE	5.466	5.449	(1.000)	595396	1.00	
$	29 Decachlorobiphenyl	22.592	22.588	(4.133)	533582	0.100	0.0974
	27 Endosulfan sulf./Methoxychlor	18.363	18.345	(3.359)	782659	0.200	0.211

QC Flag Legend

M - Compound response manually integrated.

Data Fi[redacted]/chem/ch24.i/PEST090696.b/PEST090696-i051.d

Date : 06-SEP-96 15:02:00

Client ID: PESTCALL4

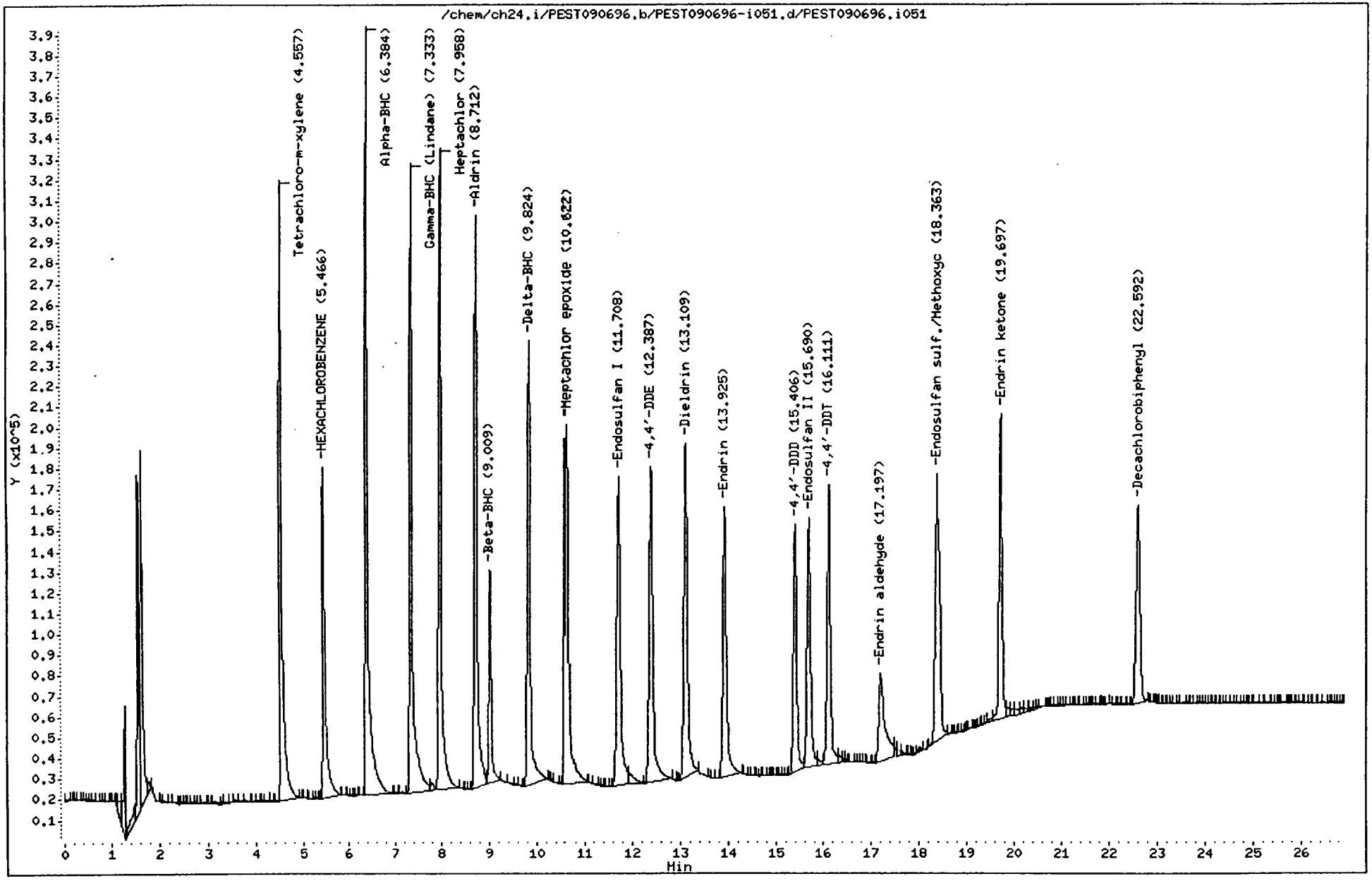
Instrument: ch24.i

Sample Info: PESTICIDES CAL STD 0.200UG/ML AA904-73-

Operator: MAKOWALSKI

Column phase: DB-1701

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i061.d
Lab Smp Id: PESTCALL5 Client Smp ID: PESTCALL5
Inj Date : 06-SEP-96 15:34:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDES CAL STD 0.250UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 11:21:06 mtwillet Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	3 Alpha-BHC	6.590	6.590	(1.063)	151593	0.125	0.124
	6 Beta-BHC	7.752	7.752	(1.250)	64378	0.125	0.122
	9 Delta-BHC	8.794	8.794	(1.418)	88414	0.125	0.117
	5 Gamma-BHC (Lindane)	7.615	7.619	(1.228)	106448	0.125	0.125
	8 Heptachlor	8.541	8.541	(1.378)	113637	0.125	0.125
	11 Aldrin	9.530	9.534	(1.537)	117617	0.125	0.124
	15 Heptachlor epoxide	11.498	11.498	(1.854)	106469	0.125	0.127
	16 Endosulfan I	12.992	12.979	(2.095)	95383	0.125	0.128
	20 Dieldrin	14.251	14.247	(2.298)	104490	0.125	0.128
	18 4,4'-DDE	13.839	13.852	(2.232)	91107	0.125	0.130
	22 Endrin	15.754	15.754	(2.541)	78162	0.125	0.124
	25 Endosulfan II	16.477	16.481	(2.657)	67353	0.125	0.127
	24 4,4'-DDD	16.149	16.153	(2.605)	66330	0.125	0.127
	29 Endosulfan sulfate	18.308	18.308	(2.953)	59872	0.125	0.122
	27 4,4'-DDT	17.426	17.426	(2.810)	70999	0.125	0.130
	30 Methoxychlor	20.507	20.511	(3.307)	31364	0.125	0.130
	31 Endrin ketone	20.963	20.977	(3.381)	68306	0.125	0.132
	28 Endrin aldehyde	17.829	17.833	(2.875)	50776	0.125	0.141
$	1 Tetrachloro-m-xylene	4.981	4.977	(0.803)	108157	0.125	0.124
*	2 HEXACHLOROBENZENE	6.200	6.191	(1.000)	47415	1.00	
$	32 Decachlorobiphenyl	26.150	26.150	(4.218)	64301	0.125	0.125

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i061.d

Date : 06-SEP-96 15:34:00

Client ID: PESTCALL5

Instrument: ch22.i

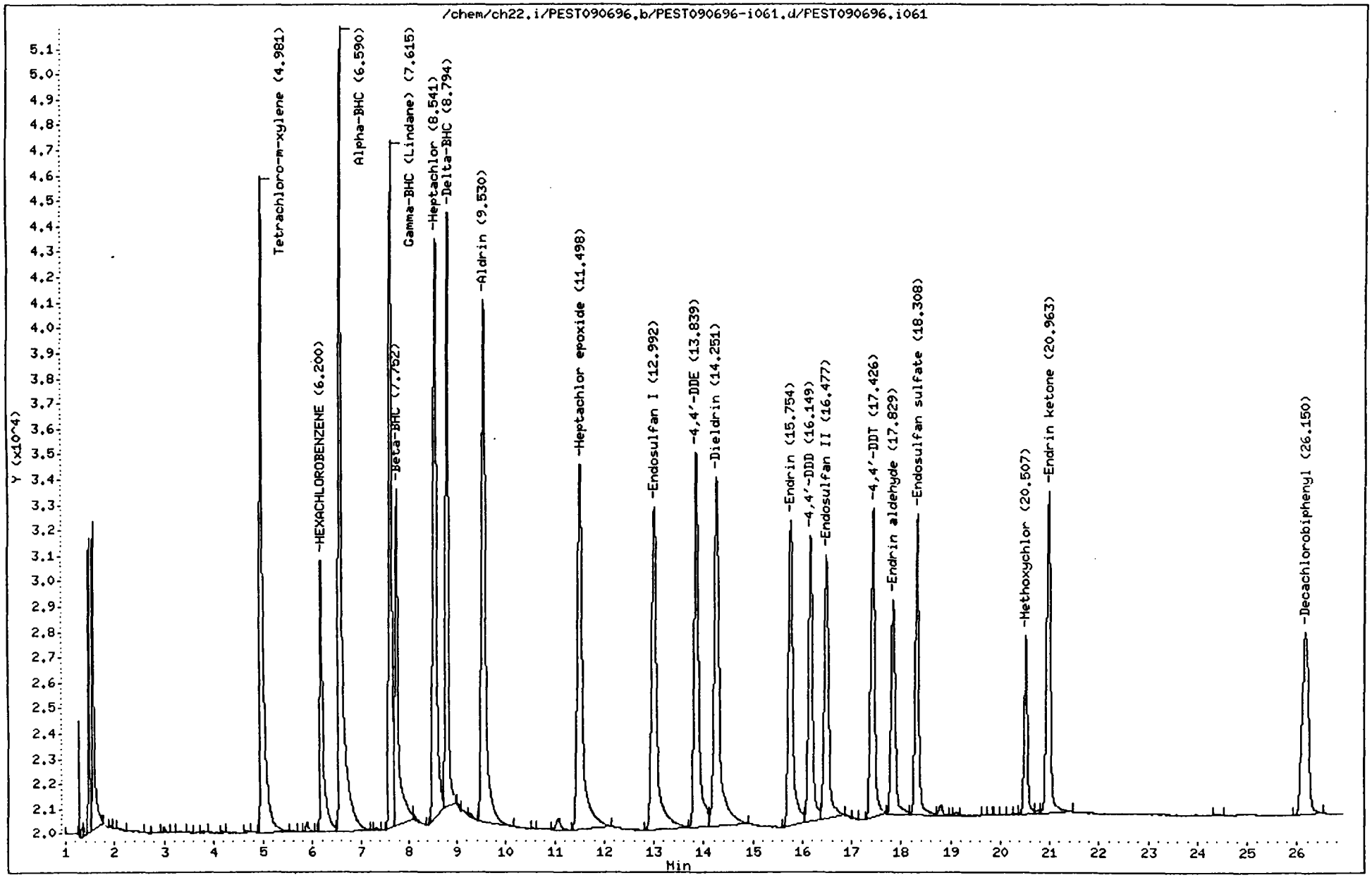
Sample Info: PESTICIDES CAL STD 0.250UG/ML AA904-73-

Operator: MAK

Column phase: DB-608

Column diameter: 0.53

631



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch24.i\PEST090696.b\PEST090696-i061.d
Lab Smp Id: PESTCALL5 Client Smp ID: PESTCALL5
Inj Date : 06-SEP-96 15:34:00
Operator : MAKOWALSKI Inst ID: ch24.i
Smp Info : PESTICIDES CAL STD 0.250UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch24.i\PEST090696.b\24pest0906.m
Meth Date : 23-Sep-96 13:39:02 makowalski Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	3 Alpha-BHC	6.371	6.366	(1.167)	1727914	0.125	0.121
	9 Beta-BHC	8.995	8.991	(1.648)	546127	0.125	0.135
	11 Delta-BHC	9.811	9.802	(1.798)	1017103	0.125	0.115
	5 Gamma-BHC (Lindane)	7.319	7.311	(1.341)	1496551	0.125	0.122
	7 Heptachlor	7.945	7.936	(1.456)	1488036	0.125	0.122
	8 Aldrin	8.698	8.689	(1.594)	1327135	0.125	0.122
	13 Heptachlor epoxide	10.605	10.609	(1.943)	1184113	0.125	0.125
	15 Endosulfan I	11.700	11.691	(2.144)	1026202	0.125	0.123
	17 Dieldrin	13.096	13.092	(2.400)	1009673	0.125	0.122
	16 4,4'-DDE	12.373	12.365	(2.267)	963157	0.125	0.119
	19 Endrin	13.916	13.907	(2.550)	843584	0.125	0.119
	23 Endosulfan II	15.681	15.676	(2.873)	664882	0.125	0.121
	21 4,4'-DDD	15.388	15.379	(2.820)	665187	0.125	0.124
	24 4,4'-DDT	16.093	16.089	(2.949)	744442	0.125	0.122
	28 Endrin ketone	19.688	19.693	(3.608)	672020	0.125	0.118
	26 Endrin aldehyde	17.184	17.179	(3.149)	429797	0.125	0.125
$	1 Tetrachloro-m-xylene	4.549	4.540	(0.833)	1250232	0.125	0.122
*	2 HEXACHLOROBENZENE	5.457	5.449	(1.000)	574221	1.00	
$	29 Decachlorobiphenyl	22.592	22.588	(4.140)	643756	0.125	0.122
	27 Endosulfan sulf./Methoxychlor	18.358	18.345	(3.364)	874974	0.250	0.244

Data File: /chem/ch24.i/PEST090696.b/PEST090696-i061.d

Date : 06-SEP-96 15:34:00

Client ID: PESTCALL5

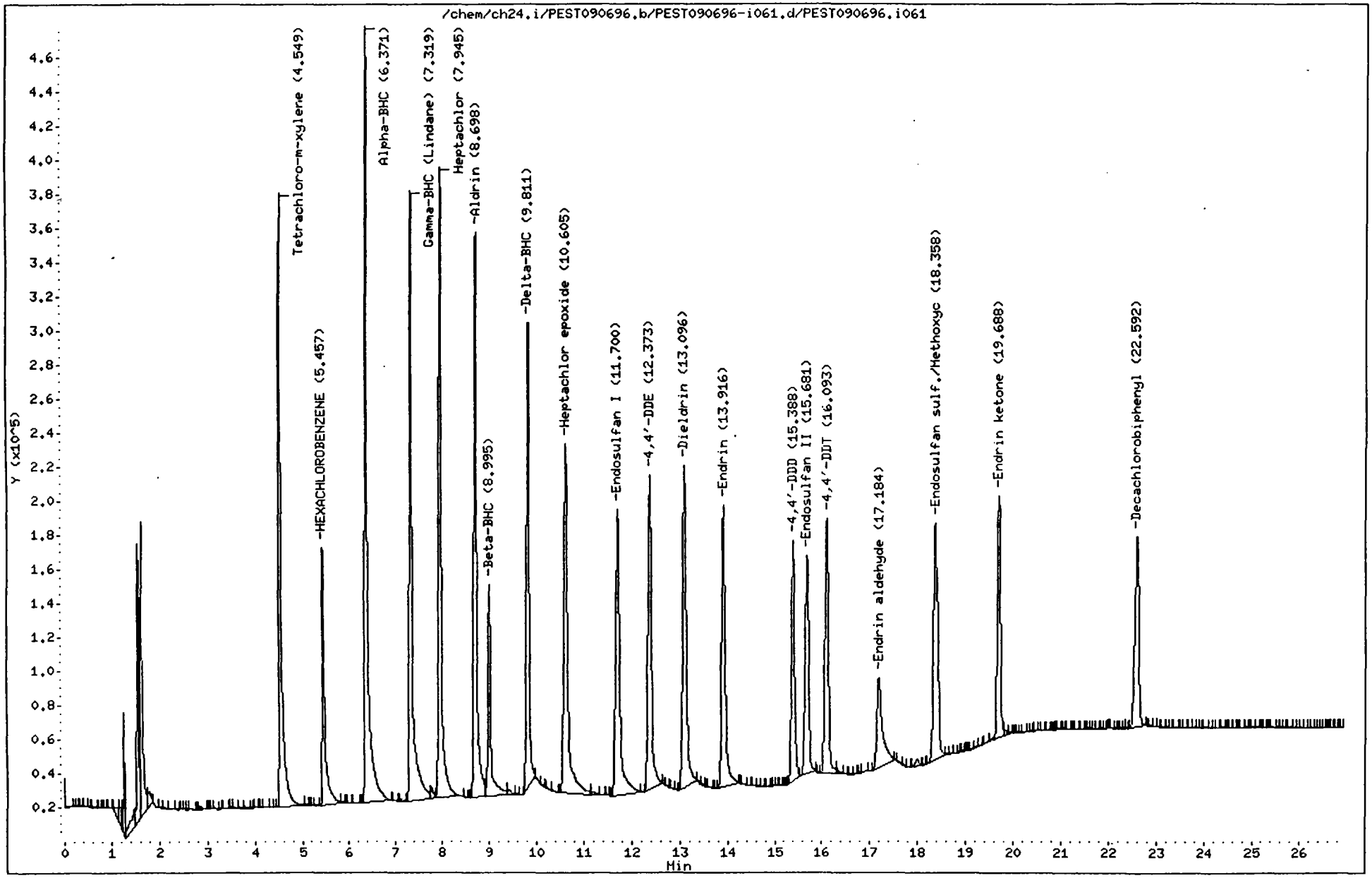
Sample Info: PESTICIDES CAL STD 0.250UG/ML AA904-73-

Column phase: DB-1701

Instrument: ch24.i

Operator: MAKUWALSKI

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i071.d
Lab Smp Id: PESTCALL6 Client Smp ID: PESTCALL6
Inj Date : 06-SEP-96 16:05:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDES CAL STD 0.400UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 11:21:06 mtwillet Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	3 Alpha-BHC	6.590	6.590	(1.064)	228844	0.200	0.183
	6 Beta-BHC	7.752	7.752	(1.252)	108777	0.200	0.202
	9 Delta-BHC	8.794	8.794	(1.420)	150047	0.200	0.194
	5 Gamma-BHC (Lindane)	7.619	7.619	(1.231)	162819	0.200	0.187
	8 Heptachlor	8.541	8.541	(1.380)	181105	0.200	0.196
	11 Aldrin	9.534	9.534	(1.540)	78843	0.200	0.0814
	15 Heptachlor epoxide	11.498	11.498	(1.857)	167575	0.200	0.196
	16 Endosulfan I	12.979	12.979	(2.096)	152494	0.200	0.201
	20 Dieldrin	14.247	14.247	(2.301)	145390	0.200	0.174
	18 4,4'-DDE	13.852	13.852	(2.237)	138305	0.200	0.194
	22 Endrin	15.754	15.754	(2.545)	127995	0.200	0.200
	25 Endosulfan II	16.481	16.481	(2.662)	106275	0.200	0.197
	24 4,4'-DDD	16.153	16.153	(2.609)	105027	0.200	0.198
	29 Endosulfan sulfate	18.308	18.308	(2.957)	86475	0.200	0.173
	27 4,4'-DDT	17.426	17.426	(2.814)	108593	0.200	0.195
	30 Methoxychlor	20.511	20.511	(3.313)	47771	0.200	0.194
	31 Endrin ketone	20.977	20.977	(3.388)	102510	0.200	0.194
	28 Endrin aldehyde	17.833	17.833	(2.880)	72053	0.200	0.196
$	1 Tetrachloro-m-xylene	4.977	4.977	(0.804)	168155	0.200	0.190
*	2 HEXACHLOROBENZENE	6.191	6.191	(1.000)	48379	1.00	
$	32 Decachlorobiphenyl	26.150	26.150	(4.224)	0	0.200	

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i071.d

Date : 06-SEP-96 16:05:00

Client ID: PESTCALL6

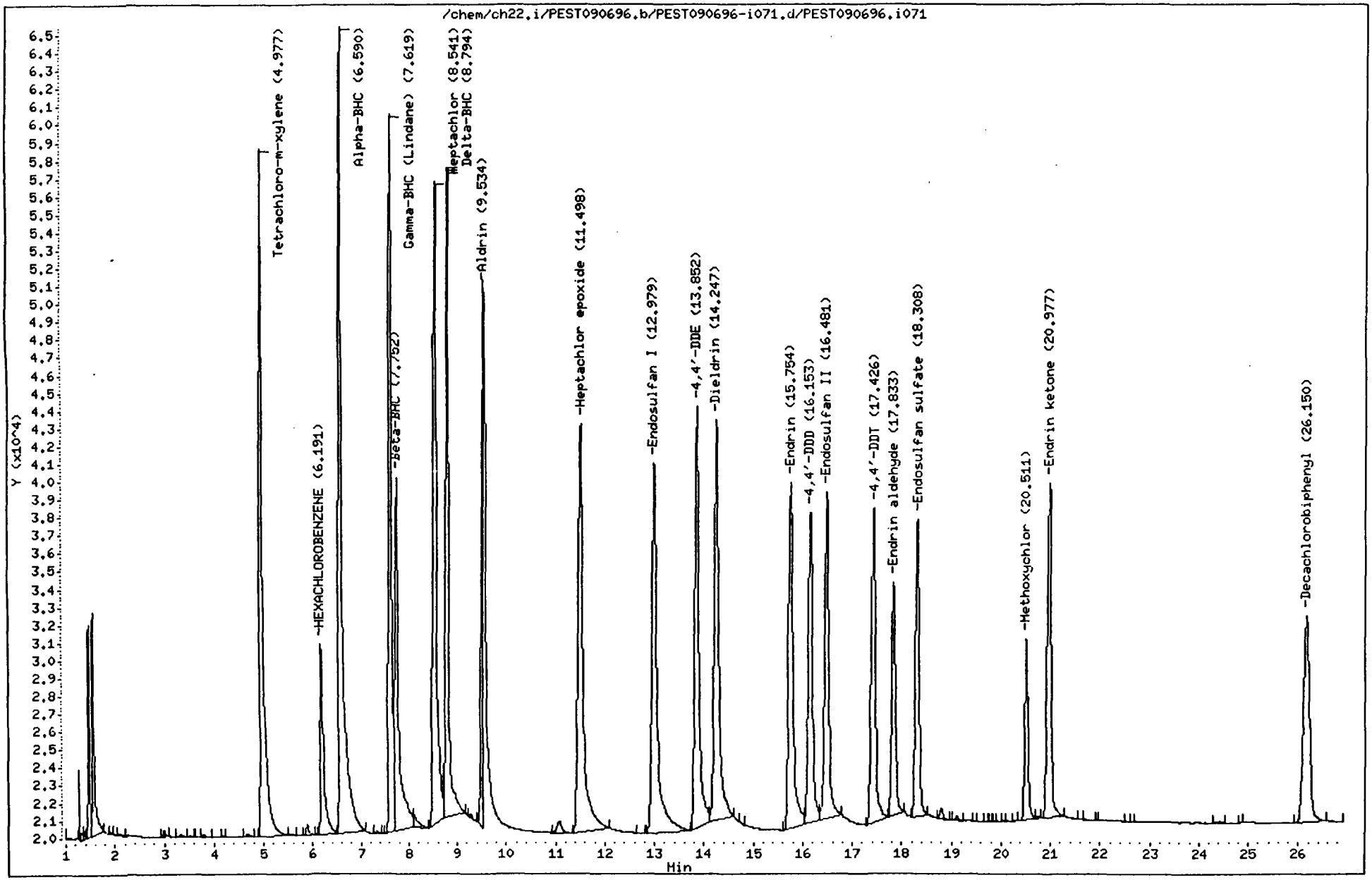
Instrument: ch22.i

Sample Info: PESTICIDES CAL STD 0.400UG/ML AA904-73-

Operator: MAK

Column phase: DB-608

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch24.i\PEST090696.b\PEST090696-i071.d
Lab Smp Id: PESTCALL6 Client Smp ID: PESTCALL6
Inj Date : 06-SEP-96 16:05:00
Operator : MAKOWALSKI Inst ID: ch24.i
Smp Info : PESTICIDES CAL STD 0.400UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch24.i\PEST090696.b\24pest0906.m
Meth Date : 23-Sep-96 13:39:02 makowalski Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	3 Alpha-BHC	6.371	6.366	(1.167)	2902439	0.200	0.205
	9 Beta-BHC	8.995	8.991	(1.648)	774843	0.200	0.193
	11 Delta-BHC	9.811	9.802	(1.798)	1745118	0.200	0.199
	5 Gamma-BHC (Lindane)	7.319	7.311	(1.341)	2482933	0.200	0.204
	7 Heptachlor	7.945	7.936	(1.456)	2471251	0.200	0.204
	8 Aldrin	8.694	8.689	(1.593)	2186913	0.200	0.204
	13 Heptachlor epoxide	10.618	10.609	(1.946)	1901138	0.200	0.203
	15 Endosulfan I	11.700	11.691	(2.144)	1689177	0.200	0.204
	17 Dieldrin	13.105	13.092	(2.401)	1672401	0.200	0.204
	16 4,4'-DDE	12.373	12.365	(2.267)	1624140	0.200	0.203
	19 Endrin	13.925	13.907	(2.552)	1426223	0.200	0.204
	23 Endosulfan II	15.681	15.676	(2.873)	1226518	0.200	0.225
	21 4,4'-DDD	15.393	15.379	(2.820)	1189923	0.200	0.224
	24 4,4'-DDT	16.097	16.089	(2.950)	1226497	0.200	0.202
	28 Endrin ketone	19.697	19.693	(3.609)	1142954	0.200	0.203
	26 Endrin aldehyde	17.184	17.179	(3.149)	711686	0.200	0.210
$	1 Tetrachloro-m-xylene	4.544	4.540	(0.833)	2074121	0.200	0.204
*	2 HEXACHLOROBENZENE	5.457	5.449	(1.000)	568129	1.00	
$	29 Decachlorobiphenyl	22.592	22.588	(4.140)	1063615	0.200	0.203
	27 Endosulfan sulf./Methoxychlor	18.385	18.345	(3.369)	798607	0.400	0.303

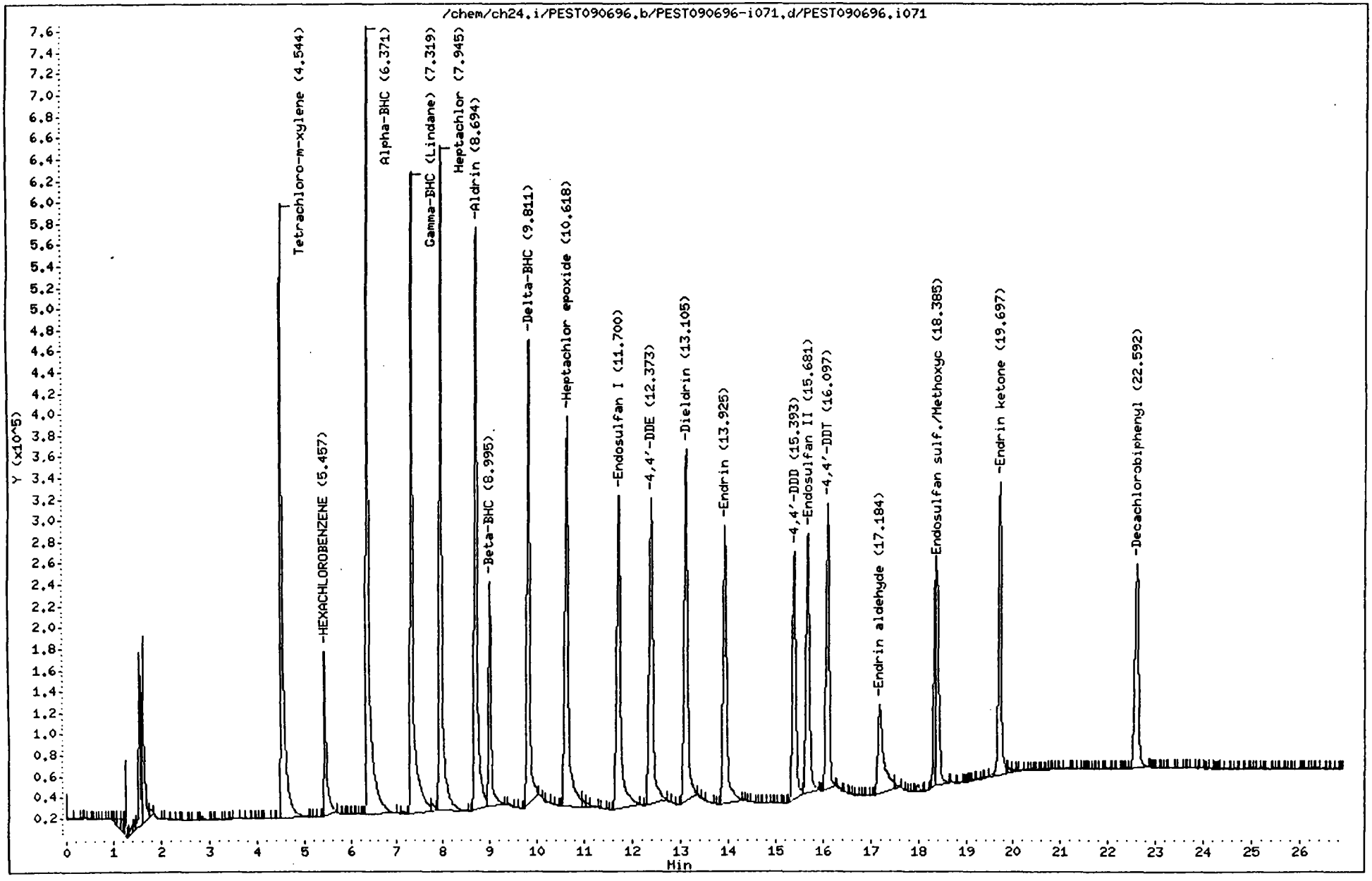
637

Data File: /chem/ch24.i/PEST090696.b/PEST090696-i071.d
Date : 06-SEP-96 16:05:00
Client ID: PESTCALL6
Sample Info: PESTICIDES CAL STD 0.400UG/ML AA904-73-

Instrument: ch24.i

Operator: MAKOWALSKI
Column diameter: 0.53

Column phase: DB-1701



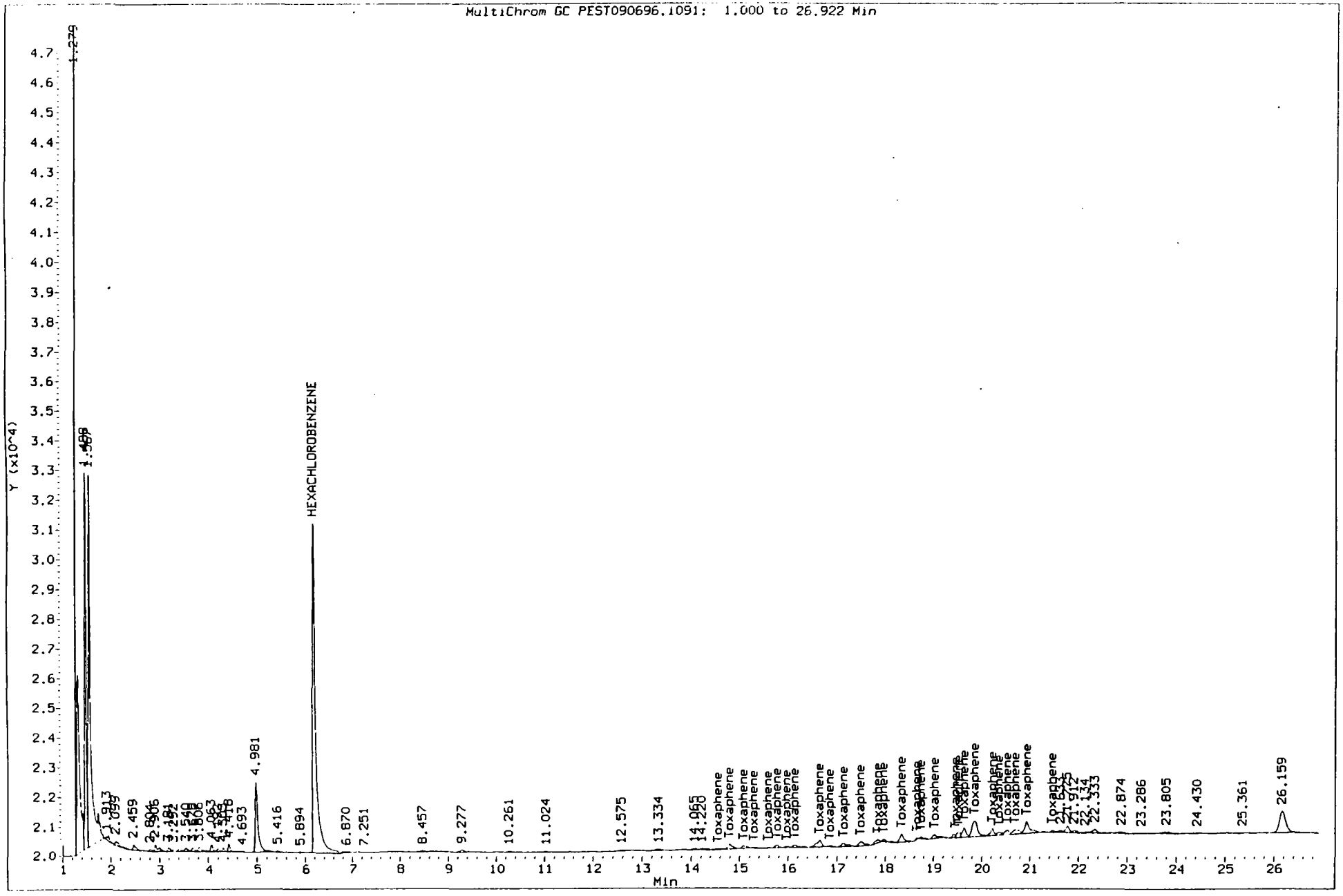
Thru-Put Systems, Inc.

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i091.d
Lab Smp Id: TOXCALL1 Client Smp ID: TOXCALL1
Inj Date : 06-SEP-96 17:08:00
Operator : MAK Inst ID: ch22.i
Smp Info : TOXAPHENE CAL STD 0.20UG/ML AA904-69-
Misc Info :
Comment :
Method : \chem\ch22.i\PEST090696.b\22tox090696.m
Meth Date : 23-Sep-96 10:43:51 mtwillet Quant Type: ISTD
Cal Date : 06-SEP-96 19:14:00 Cal File: PEST090696-i131.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
S	1 Toxaphene	14.500-21.500			28629	0.100	0.008
*	2 HEXACHLOROBENZENE	6.200	6.196	(1.000)	49611	1.000	

Data File: /chem/ch22.i/PEST090696.b/PEST090696-1091.d/PEST090696.1091
Injection Date: 06-SEP-96 17:08:00
Instrument: ch22.i
Client Sample ID: TOXCAL I

639

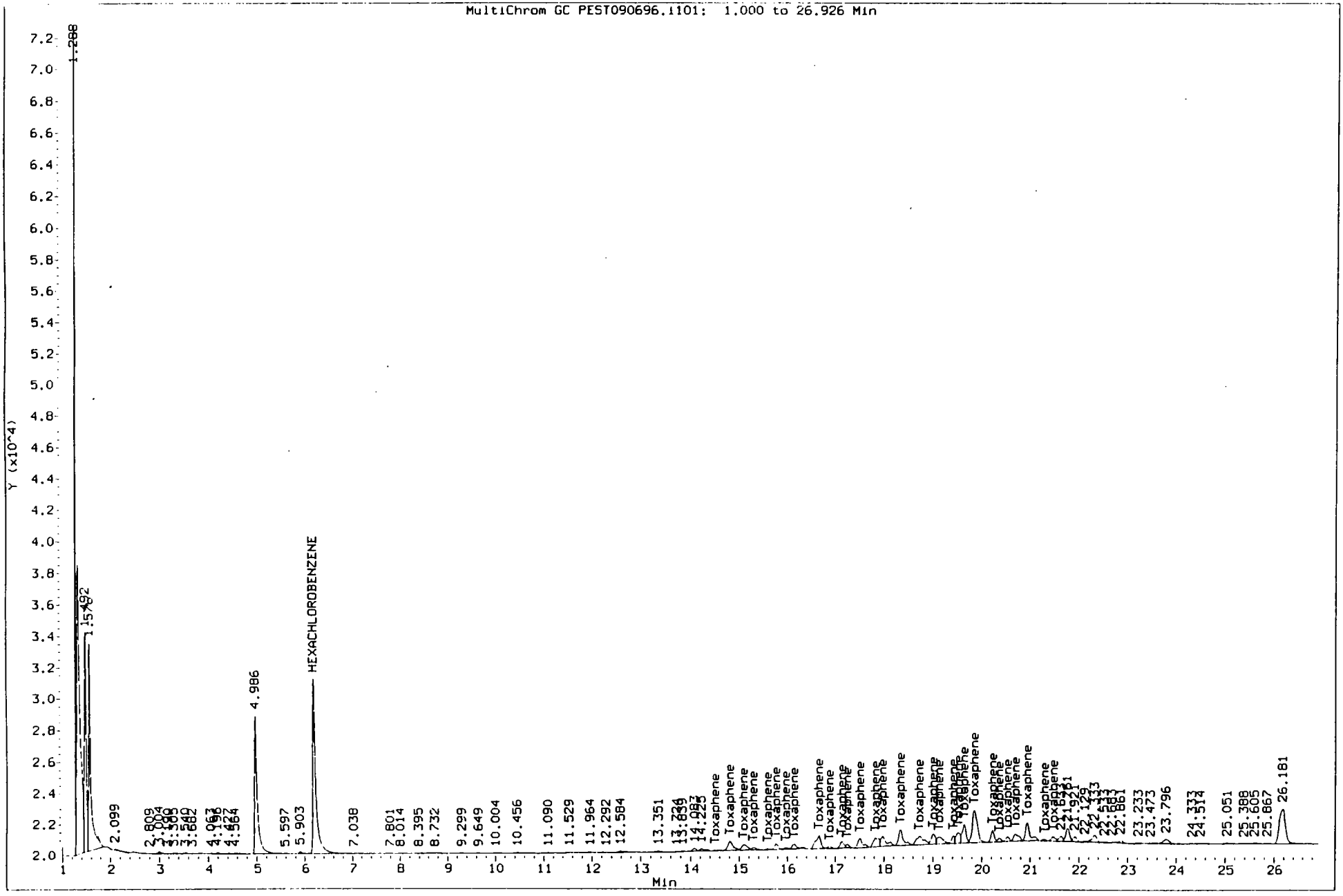


Thru-Put Systems, Inc.

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i101.d
Lab Smp Id: TOXCALL2 Client Smp ID: TOXCALL2
Inj Date : 06-SEP-96 17:40:00
Operator : MAK Inst ID: ch22.i
Smp Info : TOXAPHENE CAL STD 0.75UG/ML AA904-69-
Misc Info :
Comment :
Method : \chem\ch22.i\PEST090696.b\22tox090696.m
Meth Date : 23-Sep-96 10:43:51 mtwillet Quant Type: ISTD
Cal Date : 06-SEP-96 19:14:00 Cal File: PEST090696-i131.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
S	1 Toxaphene	14.500-21.500			112761	0.375	0.402
*	2 HEXACHLOROBENZENE	6.205	6.196	(1.000)	50439	1.000	

Data File: /chem/ch22.i/PEST090696.b/PEST090696-1101.d/PEST090696.1101
Injection Date: 06-SEP-96 17:40:00
Instrument: ch22.i
Client Sample ID: TOXCALL2

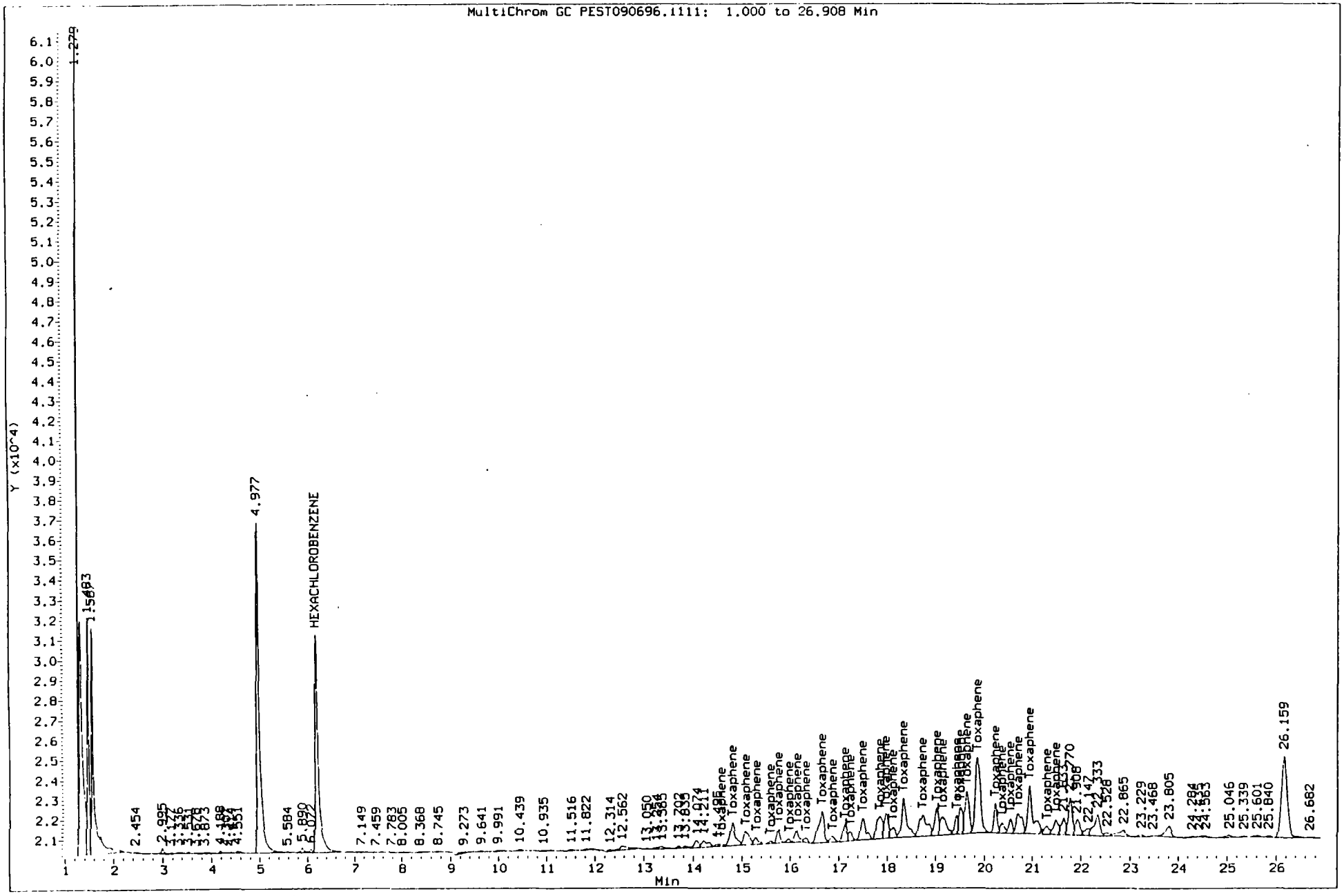


Thru-Put Systems, Inc.

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i111.d
Lab Smp Id: TOXCALL3 Client Smp ID: TOXCALL3
Inj Date : 06-SEP-96 18:11:00
Operator : MAK Inst ID: ch22.i
Smp Info : TOXAPHENE CAL STD 1.50UG/ML AA904-69-
Misc Info :
Comment :
Method : \chem\ch22.i\PEST090696.b\22tox090696.m
Meth Date : 23-Sep-96 10:43:51 mtwillet Quant Type: ISTD
Cal Date : 06-SEP-96 19:14:00 Cal File: PEST090696-i131.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.21
Procesing Host: GC1

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
S 1 Toxaphene	14.500-21.500			232441	0.750	0.695
* 2 HEXACHLOROBENZENE	6.196	6.196	(1.000)	50269	1.000	

Data File: /chem/ch22.i/PEST090696.b/PEST090696-1111.d/PEST090696.1111
Injection Date: 06-SEP-96 18:11:00
Instrument: ch22.i
Client Sample ID: TOXCAL13

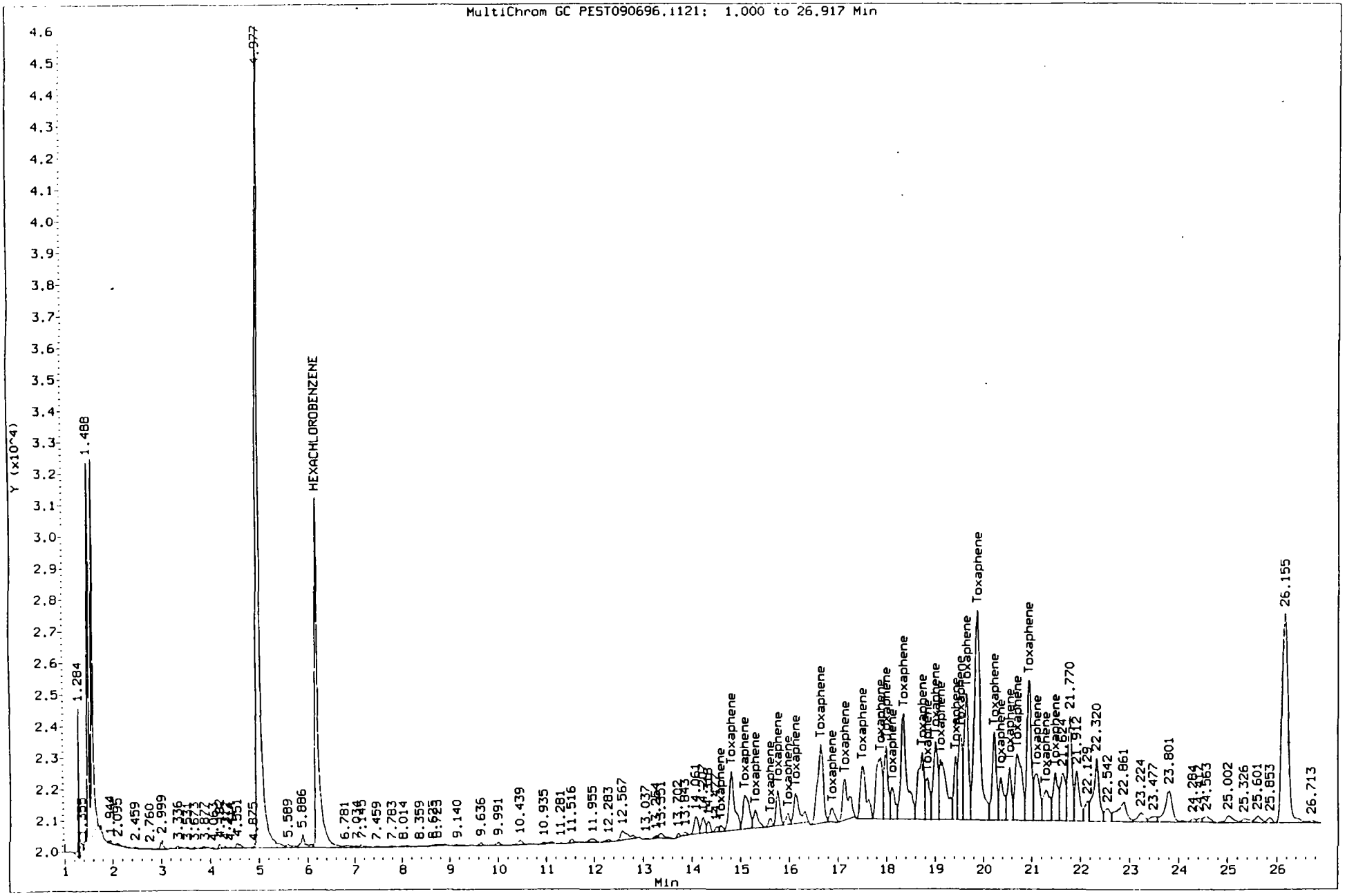


Thru-Put Systems, Inc.

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i121.d
Lab Smp Id: TOXCALL4 Client Smp ID: TOXCALL4
Inj Date : 06-SEP-96 18:43:00
Operator : MAK Inst ID: ch22.i
Smp Info : TOXAPHENE CAL STD 2.50UG/ML AA904-69-
Misc Info :
Comment :
Method : \chem\ch22.i\PEST090696.b\22tox090696.m
Meth Date : 23-Sep-96 10:43:51 mtwillet Quant Type: ISTD
Cal Date : 06-SEP-96 19:14:00 Cal File: PEST090696-i131.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.21
Procesing Host: GC1

						AMOUNTS	
						CAL-AMT	ON-COL
	Compounds	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
S	1 Toxaphene	14.500	21.500		458991	1.250	1.983
*	2 HEXACHLOROBENZENE	6.196	6.196	(1.000)	51648	1.000	

Data File: /chem/ch22.i/PEST090696.b/PEST090696-1121.d/PEST090696.1121
Injection Date: 06-SEP-96 18:43:00
Instrument: ch22.i
Client Sample ID: TOXCALL4

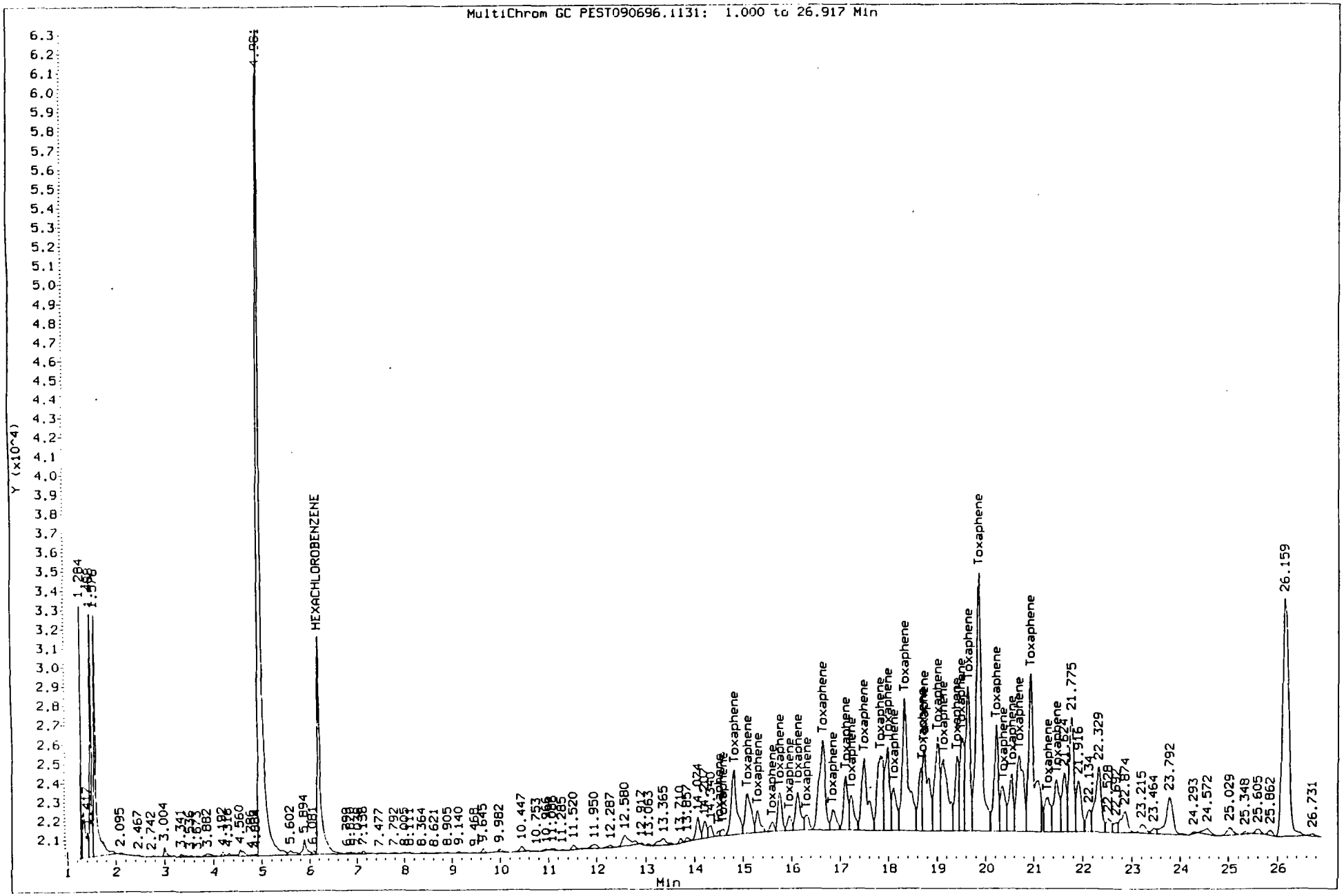


Thru-Put Systems, Inc.

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i131.d
Lab Smp Id: TOXCALL5 Client Smp ID: TOXCALL5
Inj Date : 06-SEP-96 19:14:00
Operator : MAK Inst ID: ch22.i
Smp Info : TOXAPHENE CAL STD 5.00UG/ML AA904-69-
Misc Info :
Comment :
Method : \chem\ch22.i\PEST090696.b\22tox090696.m
Meth Date : 23-Sep-96 10:43:51 mtwillet Quant Type: ISTD
Cal Date : 06-SEP-96 19:14:00 Cal File: PEST090696-i131.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.21
Procesing Host: GC1

						AMOUNTS	
						CAL-AMT	ON-COL
Compounds		RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
S	1 Toxaphene	14.500	21.500		923330	2.500	2.525
*	2 HEXACHLOROBENZENE	6.200	6.196	(1.000)	52844	1.000	

Data File: /chem/ch22.i/PEST090696.b/PEST090696-1131.d/PEST090696.1131
Injection Date: 06-SEP-96 19:14:00
Instrument: ch22.i
Client Sample ID: TOXCAL5



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i151.d
Lab Smp Id: PCHLRL1 Client Smp ID: PCHLRL1
Inj Date : 06-SEP-96 20:17:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDE/CHLORDANE MIX L1 #AA904-66-4
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 17:22:46 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCHLR.sub
Target Version: 3.21 Sample Matrix: None
Procesing Host: GC1

RT	EXP RT (REL RT)	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	TARGET RANGE	RATIO
19 Chlordane				CAS #: 12789-03-6		
8.098	8.098 (0.000)	221	0.00750	0.00674		100.00(M)
8.546	8.546 (0.000)	455	0.00750	0.00840	0.00- 0.00	205.88
12.168	12.168 (0.000)	1037	0.00750	0.00949	0.00- 0.00	469.23
12.496	12.496 (0.000)	148	0.00750	0.00706	0.00- 0.00	66.97
12.837	12.837 (0.000)	633	0.00750	0.0108	0.00- 0.00	286.43
	Average of Peak Amounts =			0.00849		
* 2 HEXACHLOROBENZENE				CAS #:		
6.191	6.191 (1.000)	48156	1.00			100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i151.d

Page

Date : 06-SEP-96 20:17:00

Client ID: PCHLRL1

Instrument: ch22.i

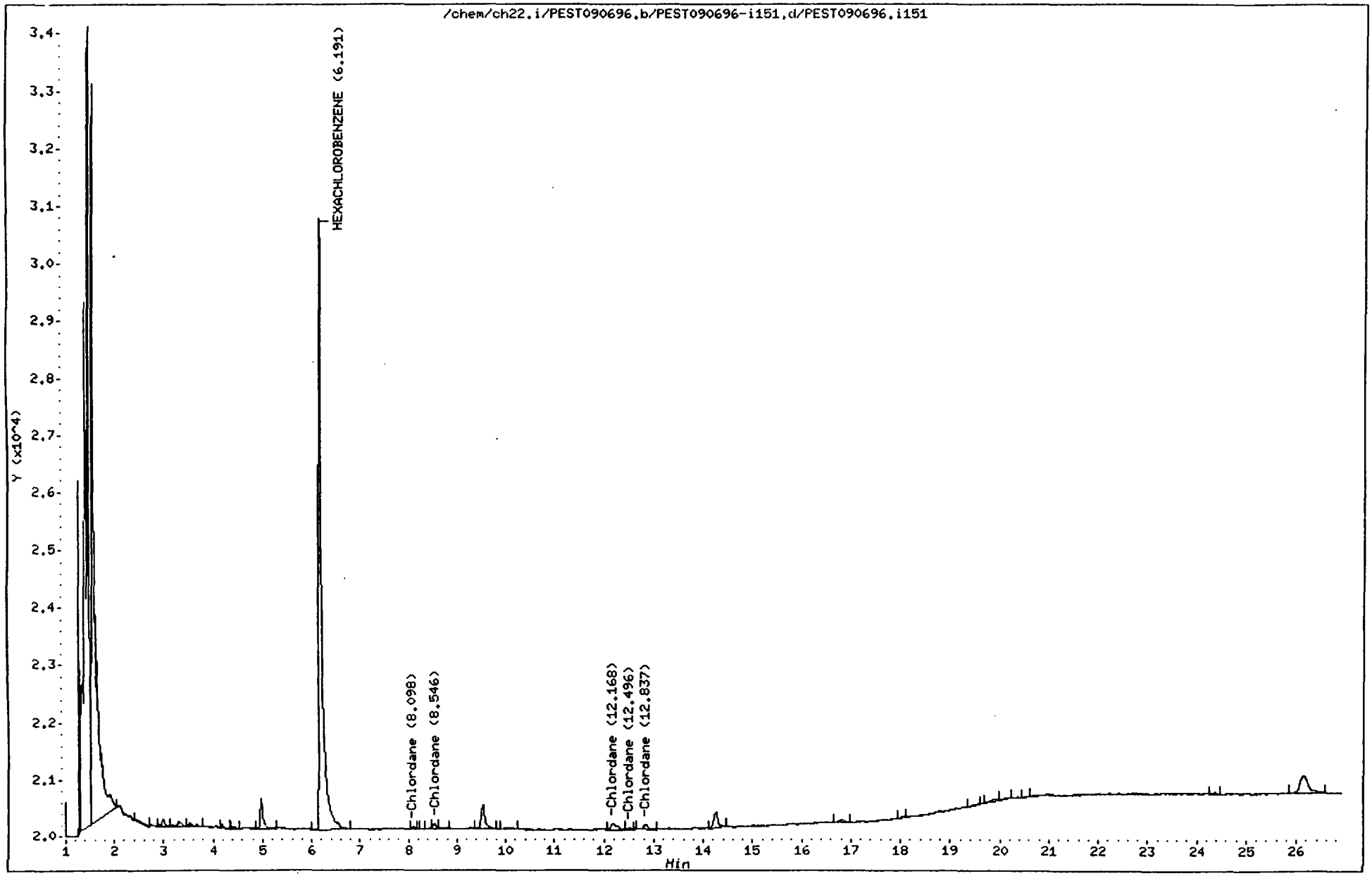
Sample Info: PESTICIDE/CHLORDANE MIX L1 #AA904-66-4

Operator: MAK

Column phase: DB-608

Column diameter: 0.53

649



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i161.d
Lab Smp Id: PCHLRL2 Client Smp ID: PCHLRL2
Inj Date : 06-SEP-96 20:49:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDE/CHLORDANE MIX L2 #AA904-66-4
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 17:22:59 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCHLR.sub
Target Version: 3.21 Sample Matrix: None
Procesing Host: GC1

RT	EXP RT (REL RT)	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	TARGET RANGE	RATIO
19 Chlordane				CAS #: 12789-03-6		
8.093	8.093 (0.000)	1231	0.0375	0.0372		100.00
8.523	8.523 (0.000)	2401	0.0375	0.0439	0.00- 0.00	195.04
12.150	12.150 (0.000)	4601	0.0375	0.0417	0.00- 0.00	373.76
12.496	12.496 (0.000)	655	0.0375	0.0310	0.00- 0.00	53.21
12.819	12.819 (0.000)	2206	0.0375	0.0372	0.00- 0.00	179.20
	Average of Peak Amounts =			0.0382		
* 2 HEXACHLOROBENZENE				CAS #:		
6.183	6.183 (1.000)	48628	1.00			100.00

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i161.d

Page

Date : 06-SEP-96 20:49:00

Client ID: PCHLRL2

Instrument: ch22.i

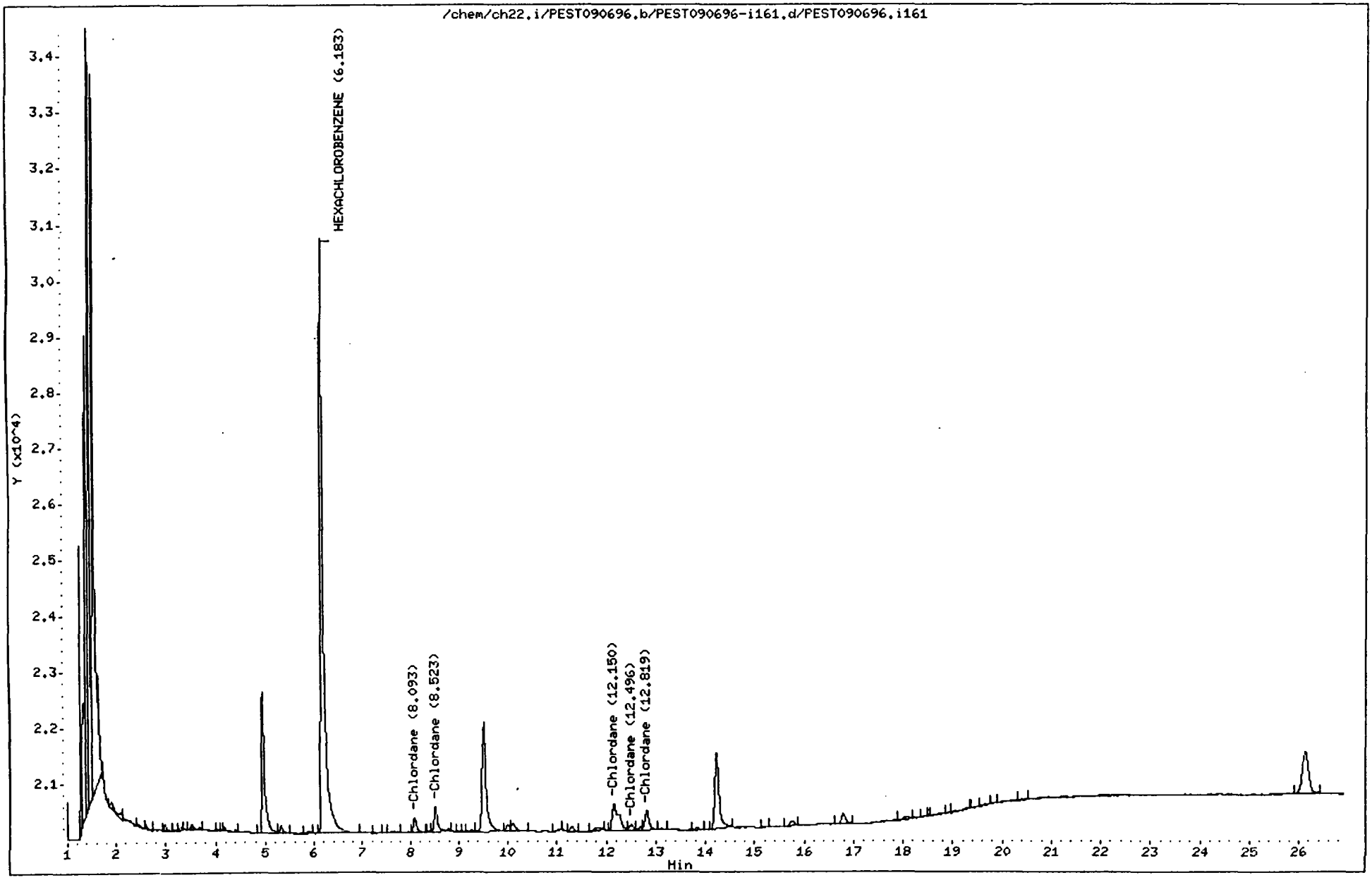
Sample Info: PESTICIDE/CHLORDANE MIX L2 #AA904-66-4

Operator: MAK

Column phase: DB-608

Column diameter: 0.53

651



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i171.d
Lab Smp Id: PCHLRL3 Client Smp ID: PCHLRL3
Inj Date : 06-SEP-96 21:20:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDE/CHLORDANE MIX L3 #AA904-66-4
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 17:23:12 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCHLR.sub
Target Version: 3.21 Sample Matrix: None
Procesing Host: GC1

RT	EXP RT (REL RT)	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	TARGET RANGE	RATIO
19 Chlordane				CAS #: 12789-03-6		
8.102	8.102 (0.000)	5607	0.150	0.167		100.00(M)
8.541	8.541 (0.000)	10156	0.150	0.183	0.00- 0.00	181.13
12.172	12.172 (0.000)	18824	0.150	0.168	0.00- 0.00	335.72
12.509	12.509 (0.000)	3564	0.150	0.166	0.00- 0.00	63.56
12.837	12.837 (0.000)	10636	0.150	0.176	0.00- 0.00	189.69
	Average of Peak Amounts =			0.172		
* 2 HEXACHLOROBENZENE				CAS #:		
6.196	6.196 (1.000)	49364	1.00			100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i171.d

Page

Date : 06-SEP-96 21:20:00

Client ID: PCHLRL3

Instrument: ch22.i

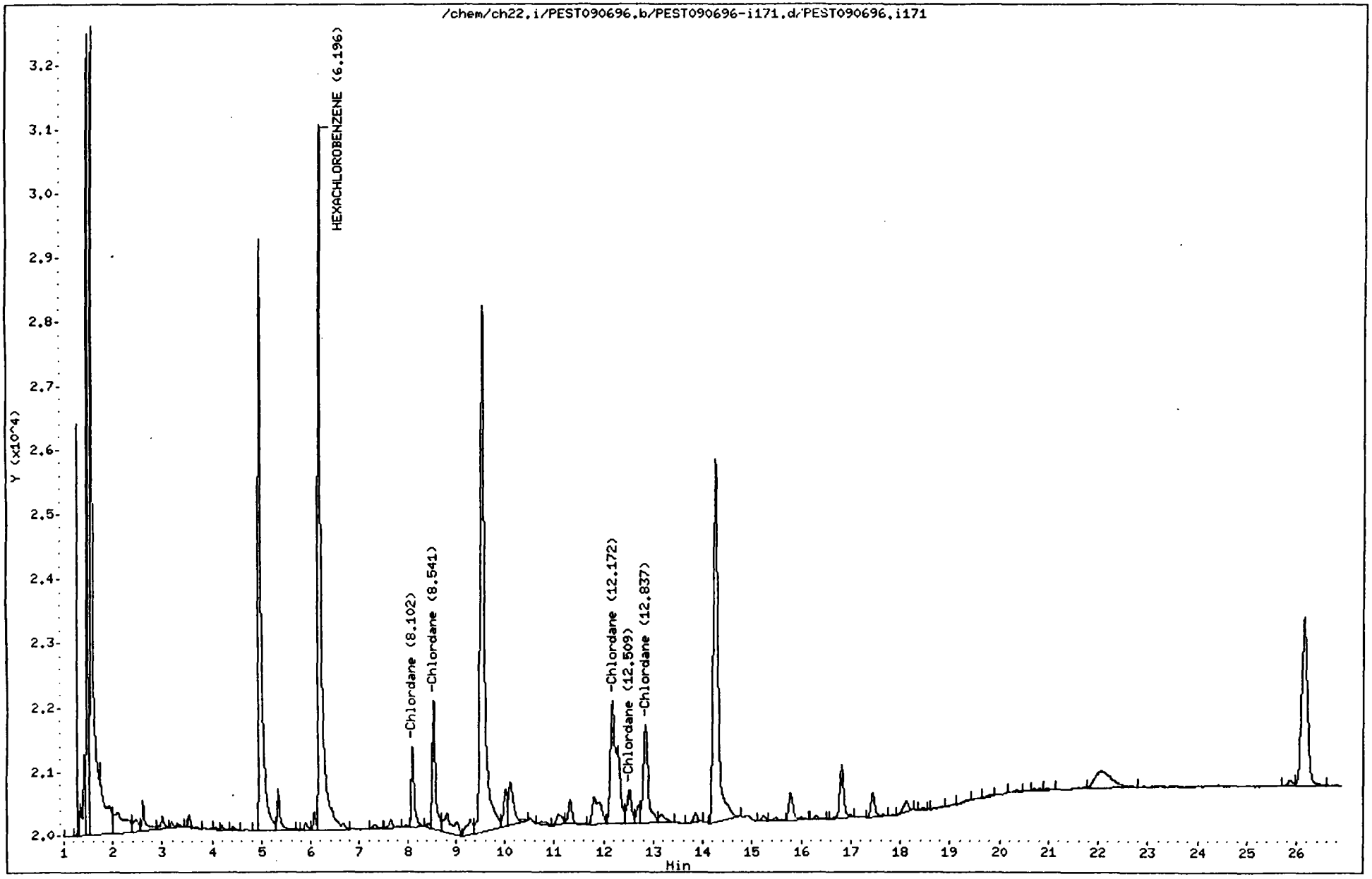
Sample Info: PESTICIDE/CHLORDANE MIX L3 #AA904-66-4

Operator: MAK

Column phase: DB-608

Column diameter: 0.53

653



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i181.d
Lab Smp Id: PCHLRL4 Client Smp ID: PCHLRL4
Inj Date : 06-SEP-96 21:52:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDE/CHLORDANE MIX L4 #AA904-66-4
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 17:23:24 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCHLR.sub
Target Version: 3.21 Sample Matrix: None
Procesing Host: GC1

			AMOUNTS				
			CAL-AMT	ON-COL			
RT	EXP RT (REL RT)	RESPONSE	(ng)	(ng)	TARGET RANGE		RATIO
19 Chlordane				CAS #: 12789-03-6			
8.089	8.089 (0.000)	10542	0.300	0.311			100.00
8.523	8.523 (0.000)	17562	0.300	0.314	0.00-	0.00	166.59
12.154	12.154 (0.000)	35713	0.300	0.316	0.00-	0.00	338.77
12.491	12.491 (0.000)	6273	0.300	0.290	0.00-	0.00	59.50
12.815	12.815 (0.000)	18753	0.300	0.308	0.00-	0.00	177.89
	Average of Peak Amounts =			0.308			
* 2 HEXACHLOROBENZENE				CAS #:			
6.183	6.183 (1.000)	49780	1.00				100.00

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i181.d

Date : 06-SEP-96 21:52:00

Client ID: PCHLRL4

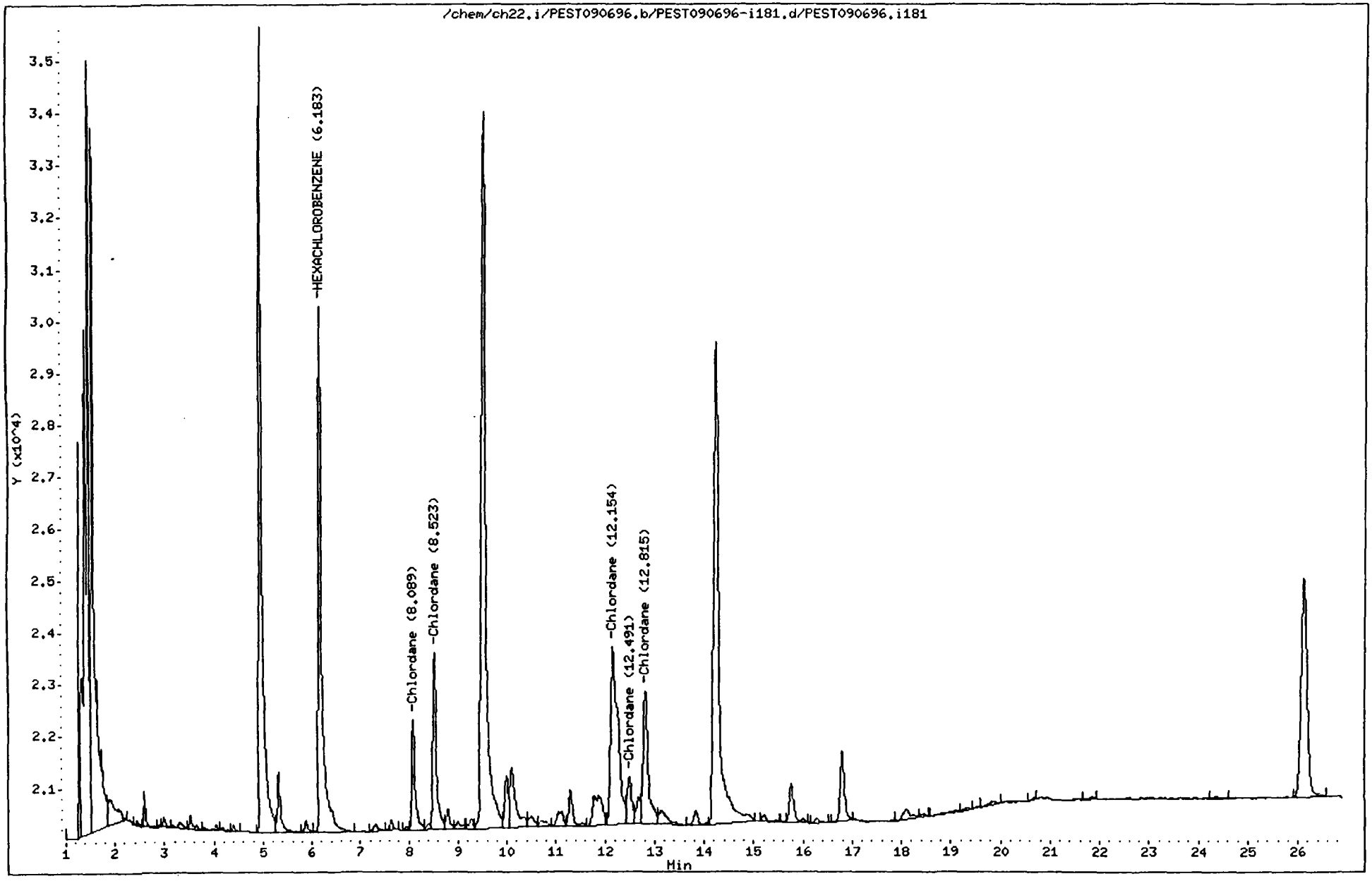
Sample Info: PESTICIDE/CHLORDANE MIX L4 #AA904-66-4

Column phase: DB-608

Instrument: ch22.i

Operator: MAK

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i191.d
Lab Smp Id: PCHLRL5 Client Smp ID: PCHLRL5
Inj Date : 06-SEP-96 22:23:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDE/CHLORDANE MIX L5 #AA904-66-4
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 17:23:36 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCHLR.sub
Target Version: 3.21 Sample Matrix: None
Procesing Host: GC1

RT	EXP RT (REL RT)	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	TARGET RANGE	RATIO
19 Chlordane				CAS #: 12789-03-6		
8.098	8.098 (0.000)	12831	0.375	0.357		100.00
8.532	8.532 (0.000)	20611	0.375	0.347	0.00- 0.00	160.63
12.168	12.168 (0.000)	43502	0.375	0.363	0.00- 0.00	339.04
12.505	12.505 (0.000)	8018	0.375	0.349	0.00- 0.00	62.49
12.828	12.828 (0.000)	23786	0.375	0.369	0.00- 0.00	185.38
	Average of Peak Amounts =			0.357		
* 2 HEXACHLOROBENZENE				CAS #:		
6.191	6.191 (1.000)	52749	1.00			100.00

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i191.d

Date : 06-SEP-96 22:23:00

Client ID: PCHLRL5

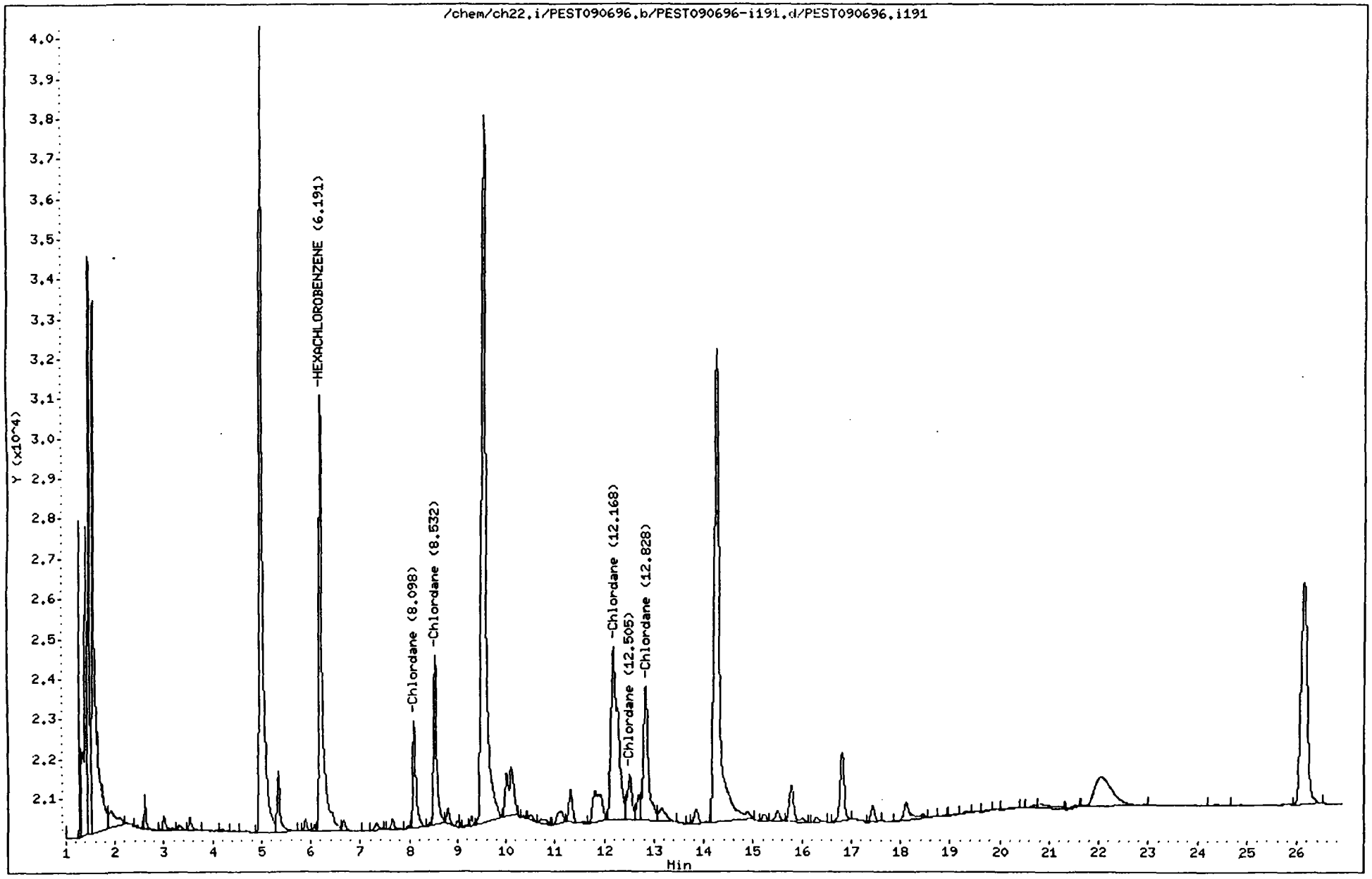
Instrument: ch22.i

Sample Info: PESTICIDE/CHLORDANE MIX L5 #AA904-66-4

Operator: MAK

Column phase: DB-608

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i201.d
Lab Smp Id: PCHLRL6 Client Smp ID: PCHLRL6
Inj Date : 06-SEP-96 22:55:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDE/CHLORDANE MIX L6 #AA904-66-4
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 17:23:49 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCHLR.sub
Target Version: 3.21 Sample Matrix: None
Procesing Host: GC1

RT	EXP RT (REL RT)	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	TARGET RANGE	RATIO
19 Chlordane				CAS #: 12789-03-6		
8.093	8.093 (0.000)	25363	0.750	0.751		100.00
8.528	8.528 (0.000)	41137	0.750	0.738	0.00- 0.00	162.19
12.163	12.163 (0.000)	83932	0.750	0.746	0.00- 0.00	330.92
12.500	12.500 (0.000)	16491	0.750	0.764	0.00- 0.00	65.02
12.828	12.828 (0.000)	45054	0.750	0.744	0.00- 0.00	177.64
	Average of Peak Amounts =			0.748		
* 2 HEXACHLOROBENZENE				CAS #:		
6.196	6.196 (1.000)	49589	1.00			100.00

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i201.d

Date : 06-SEP-96 22:55:00

Client ID: PCHLRL6

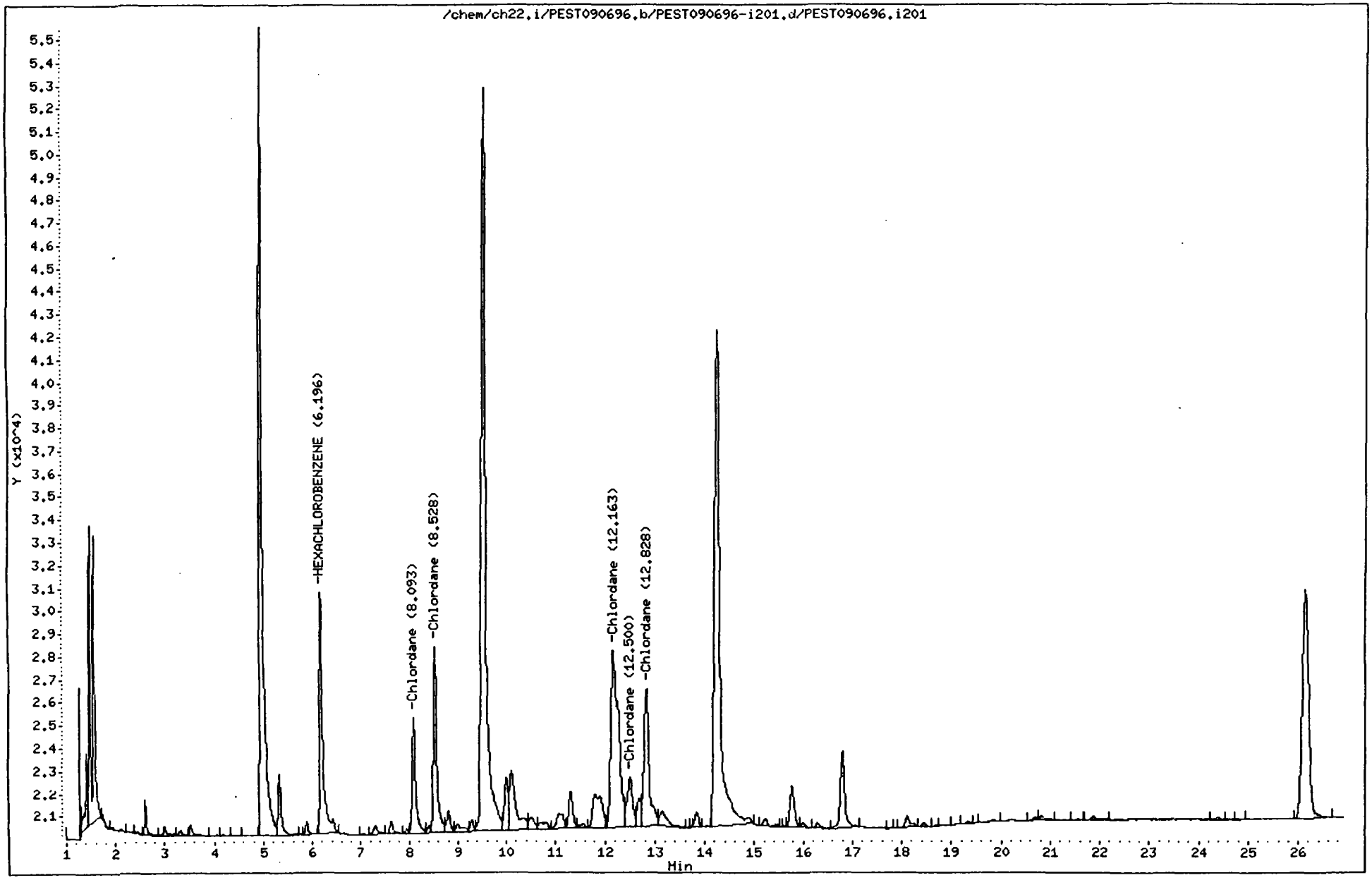
Instrument: ch22.i

Sample Info: PESTICIDE/CHLORDANE MIX L6 #AA904-66-4

Operator: MAK

Column phase: DB-608

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i221.d
Lab Smp Id: 1660-L1 Client Smp ID: 1660-L1
Inj Date : 06-SEP-96 23:58:00
Operator : MAK Inst ID: ch22.i
Smp Info : AROCHLOR 1660 - 0.03UG/ML #AA904-74-3
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 17:26:32 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.21 Sample Matrix: None
Procesing Host: GC1

			AMOUNTS				
			CAL-AMT	ON-COL			
RT	EXP RT (REL RT)	RESPONSE	(ng)	(ng)	TARGET RANGE		RATIO
13 Aroclor 1016				CAS #: 12674-11-2			
7.517	7.517 (0.000)	612	0.0150	0.0172			100.00(M)
8.962	8.962 (0.000)	270	0.0150	0.0128	0.00-	0.00	44.12
9.357	9.357 (0.000)	585	0.0150	0.0205	0.00-	0.00	95.59
10.492	10.492 (0.000)	330	0.0150	0.0146	0.00-	0.00	53.92
	Average of Peak Amounts =			0.0163			
21 Aroclor 1260				CAS #: 11096-82-5			
15.218	15.218 (0.000)	582	0.0150	0.0157			100.00
15.555	15.555 (0.000)	621	0.0150	0.0158	0.00-	0.00	106.70
17.346	17.346 (0.000)	533	0.0150	0.0138	0.00-	0.00	91.58
17.492	17.492 (0.000)	357	0.0150	0.0144	0.00-	0.00	61.34
	Average of Peak Amounts =			0.0149			
* 2 HEXACHLOROBENZENE				CAS #:			
6.178	6.178 (1.000)	49801	1.00				100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i221.d

Date : 06-SEP-96 23:58:00

Client ID: 1660-L1

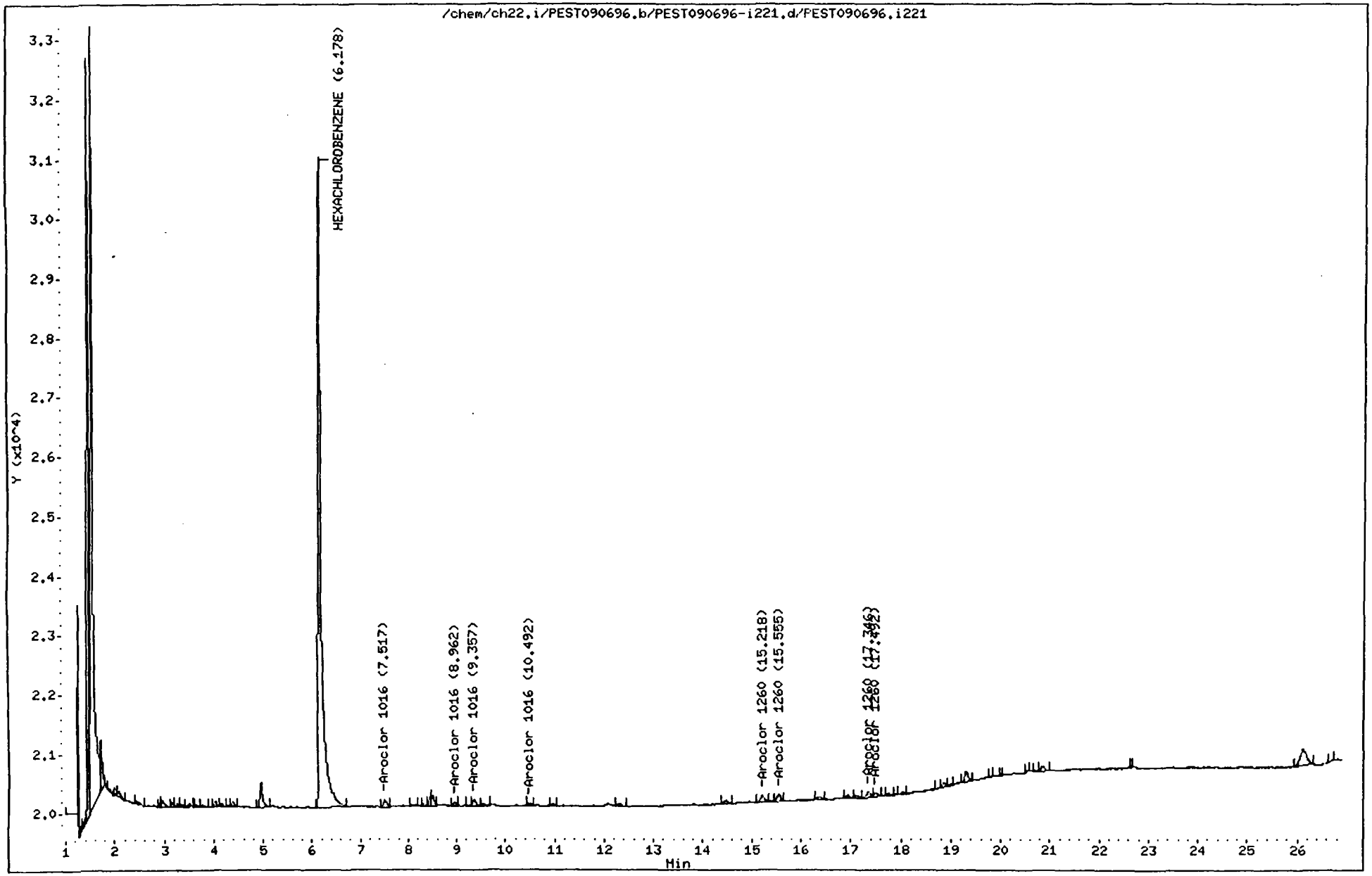
Sample Info: AROCHLOR 1660 - 0.03UG/ML #AA904-74-3

Column phase: DB-608

Instrument: ch22.i

Operator: MAK

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i231.d
Lab Smp Id: 1660-L2 Client Smp ID: 1660-L2
Inj Date : 07-SEP-96 00:29:00
Operator : MAK Inst ID: ch22.i
Smp Info : AROCHLOR 1660 - 0.50UG/ML #AA904-74-3
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 17:26:45 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.21 Sample Matrix: None
Procesing Host: GC1

RT	EXP RT (REL RT)	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	TARGET RANGE	RATIO
13 Aroclor 1016				CAS #: 12674-11-2		
7.530	7.530 (0.000)	8329	0.250	0.250		100.00(M)
8.976	8.976 (0.000)	4032	0.250	0.203	0.00- 0.00	48.41
9.379	9.379 (0.000)	6743	0.250	0.252	0.00- 0.00	80.96
10.510	10.510 (0.000)	5179	0.250	0.244	0.00- 0.00	62.18
	Average of Peak Amounts =			0.237		
21 Aroclor 1260				CAS #: 11096-82-5		
15.231	15.231 (0.000)	8818	0.250	0.254		100.00
15.555	15.555 (0.000)	8932	0.250	0.242	0.00- 0.00	101.29
17.368	17.368 (0.000)	9215	0.250	0.254	0.00- 0.00	104.50
17.496	17.496 (0.000)	5922	0.250	0.255	0.00- 0.00	67.16
	Average of Peak Amounts =			0.251		
* 2 HEXACHLOROBENZENE				CAS #:		
6.187	6.187 (1.000)	46746	1.00			100.00

QC Flag Legend

M - Compound response manually integrated.

Data Fi[redacted]/chem/ch22.i/PEST090696.b/PEST090696-i231.d

Date : 07-SEP-96 00:29:00

Client ID: 1660-L2

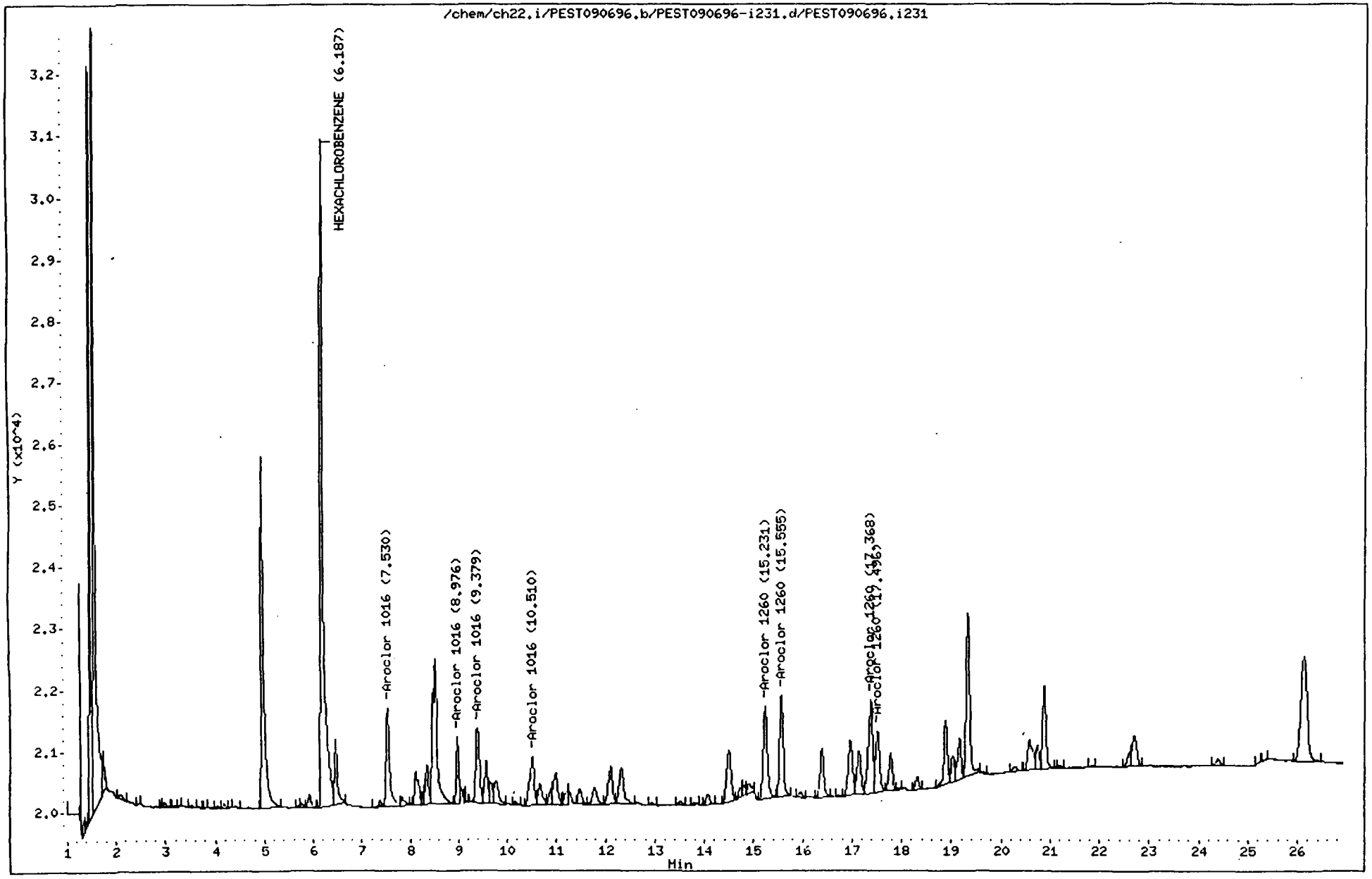
Sample Info: AROCHLOR 1660 - 0.50UG/ML #AA904-74-3

Column phase: DB-608

Instrument: ch22.i

Operator: MAK

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i241.d
Lab Smp Id: 1660-L3 Client Smp ID: 1660-L3
Inj Date : 07-SEP-96 01:01:00
Operator : MAK Inst ID: ch22.i
Smp Info : AROCHLOR 1660 - 1.00UG/ML #AA904-59-3
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 17:26:57 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.21 Sample Matrix: None
Procesing Host: GC1

			AMOUNTS CAL-AMT	AMOUNTS ON-COL			
RT	EXP RT (REL RT)	RESPONSE	(ng)	(ng)	TARGET RANGE		RATIO
13 Aroclor 1016				CAS #: 12674-11-2			
7.521	7.521 (0.000)	16503	0.500	0.491			100.00(M)
8.962	8.962 (0.000)	9478	0.500	0.473	0.00-	0.00	57.43
9.370	9.370 (0.000)	13861	0.500	0.513	0.00-	0.00	83.99
10.492	10.492 (0.000)	10707	0.500	0.501	0.00-	0.00	64.88
	Average of Peak Amounts =			0.494			
21 Aroclor 1260				CAS #: 11096-82-5			
15.218	15.218 (0.000)	17748	0.500	0.507			100.00
15.546	15.546 (0.000)	18382	0.500	0.494	0.00-	0.00	103.57
17.359	17.359 (0.000)	19742	0.500	0.538	0.00-	0.00	111.24
17.488	17.488 (0.000)	11767	0.500	0.503	0.00-	0.00	66.30
	Average of Peak Amounts =			0.510			
* 2 HEXACHLOROBENZENE				CAS #:			
6.178	6.178 (1.000)	47149	1.00				100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i241.d

Date : 07-SEP-96 01:01:00

Client ID: 1660-L3

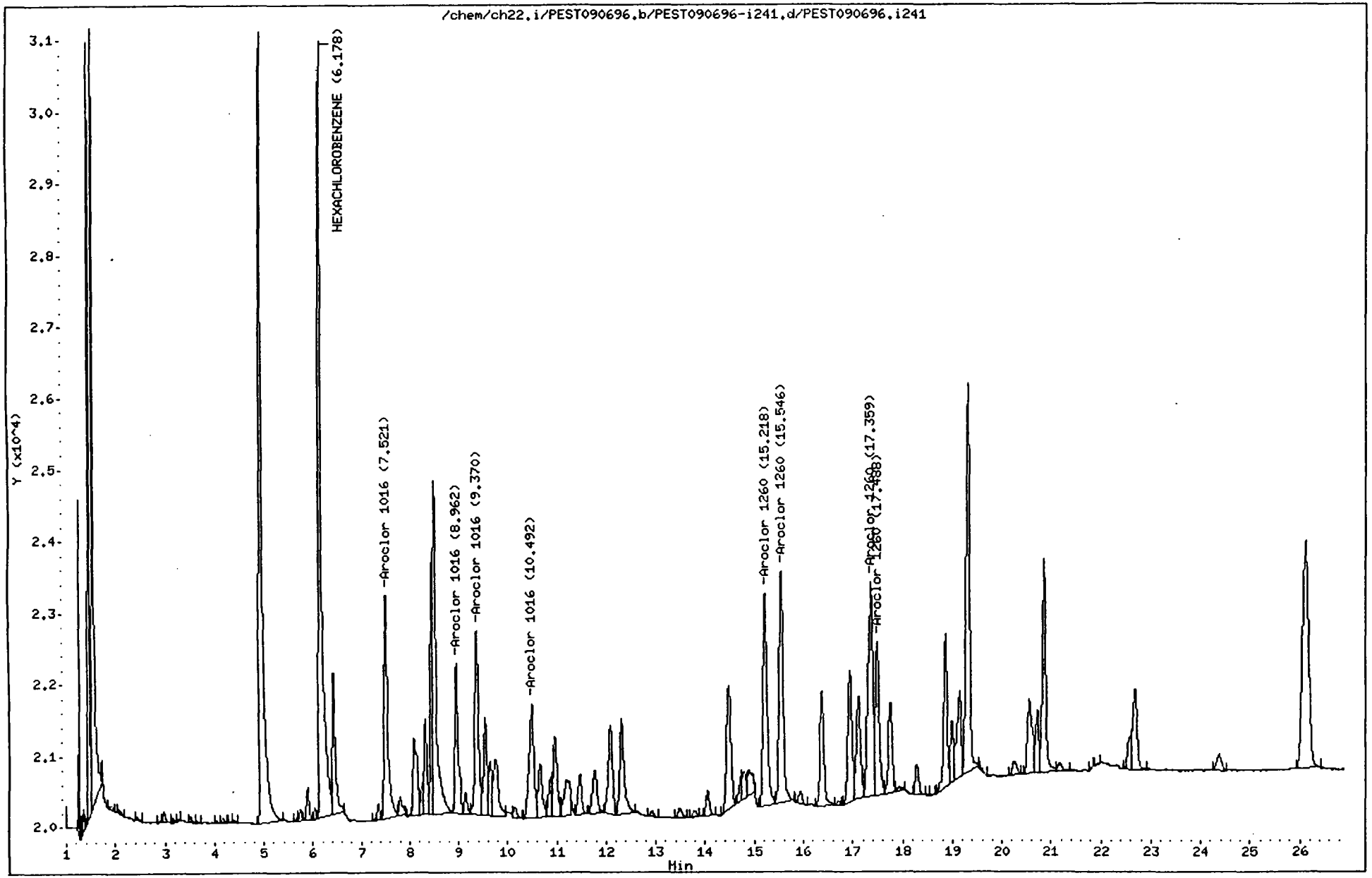
Instrument: ch22.i

Sample Info: AROCHLOR 1660 - 1.00UG/ML #AA904-59-3

Operator: MAK

Column phase: DB-608

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i251.d
Lab Smp Id: 1660-L4 Client Smp ID: 1660-L4
Inj Date : 07-SEP-96 01:32:00
Operator : MAK Inst ID: ch22.i
Smp Info : AROCHLOR 1660 - 1.50UG/ML #AA904-74-3
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 17:27:10 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.21 Sample Matrix: None
Procesing Host: GC1

RT	EXP RT (REL RT)	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	TARGET RANGE		RATIO
13 Aroclor 1016				CAS #: 12674-11-2			
7.530	7.530 (0.000)	22265	0.750	0.681			100.00(M)
8.976	8.976 (0.000)	14803	0.750	0.760	0.00-	0.00	66.49
9.388	9.388 (0.000)	19827	0.750	0.755	0.00-	0.00	89.05
10.510	10.510 (0.000)	14796	0.750	0.713	0.00-	0.00	66.45
	Average of Peak Amounts =			0.727			
21 Aroclor 1260				CAS #: 11096-82-5			
15.235	15.235 (0.000)	25100	0.750	0.738			100.00
15.572	15.572 (0.000)	27586	0.750	0.763	0.00-	0.00	109.90
17.381	17.381 (0.000)	27100	0.750	0.760	0.00-	0.00	107.97
17.505	17.505 (0.000)	17344	0.750	0.762	0.00-	0.00	69.10
	Average of Peak Amounts =			0.756			
* 2 HEXACHLOROBENZENE				CAS #:			
6.191	6.191 (1.000)	45824	1.00				100.00

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch22.i/PEST090696.b/PEST090696-i251.d

Date : 07-SEP-96 01:32:00

Client ID: 1660-L4

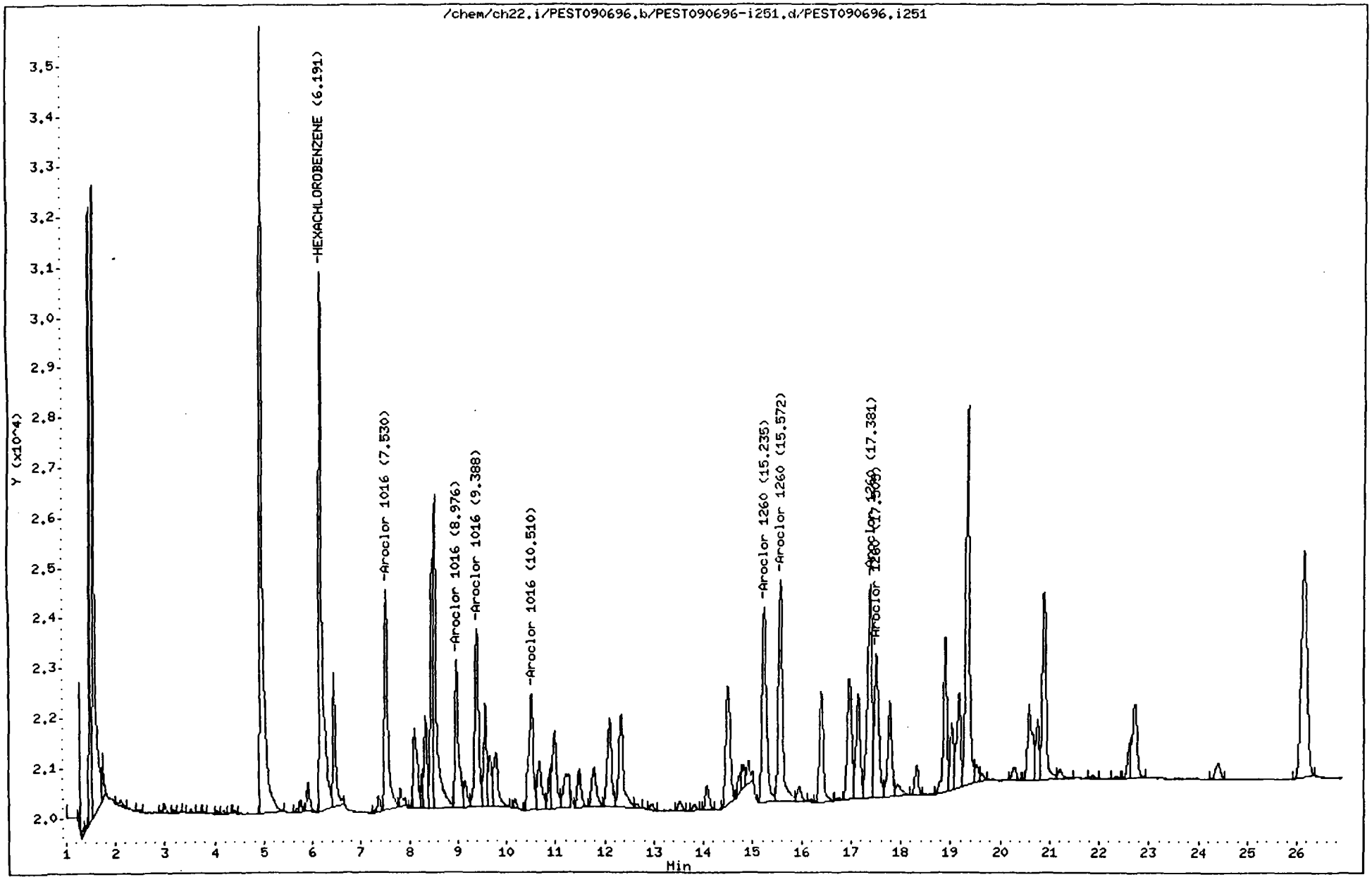
Instrument: ch22.i

Sample Info: AROCHLOR 1660 - 1.50UG/ML #AA904-74-3

Operator: MAK

Column phase: DB-608

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST090696.b\PEST090696-i261.d
Lab Smp Id: 1660-L5 Client Smp ID: 1660-L5
Inj Date : 07-SEP-96 02:04:00
Operator : MAK Inst ID: ch22.i
Smp Info : AROCHLOR 1660 - 2.50UG/ML #AA904-74-3
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 23-Sep-96 17:27:22 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.21 Sample Matrix: None
Procesing Host: GC1

			AMOUNTS				
			CAL-AMT	ON-COL			
RT	EXP RT (REL RT)	RESPONSE	(ng)	(ng)	TARGET RANGE		RATIO
13 Aroclor 1016				CAS #: 12674-11-2			
7.517	7.517 (0.000)	37699	1.25	1.30			100.00(M)
8.962	8.962 (0.000)	21911	1.25	1.26	0.00-	0.00	58.12
9.379	9.379 (0.000)	29029	1.25	1.24	0.00-	0.00	77.00
10.496	10.496 (0.000)	23539	1.25	1.27	0.00-	0.00	62.44
	Average of Peak Amounts =			1.27			
21 Aroclor 1260				CAS #: 11096-82-5			
15.222	15.222 (0.000)	37977	1.25	1.25			100.00
15.559	15.559 (0.000)	40130	1.25	1.25	0.00-	0.00	105.67
17.363	17.363 (0.000)	38952	1.25	1.23	0.00-	0.00	102.57
17.483	17.483 (0.000)	25133	1.25	1.24	0.00-	0.00	66.18
	Average of Peak Amounts =			1.24			
* 2 HEXACHLOROBENZENE				CAS #:			
6.178	6.178 (1.000)	40809	1.00				100.00

QC Flag Legend

M - Compound response manually integrated.

Data Fi[redacted]/chem/ch22.i/PEST090696.b/PEST090696-i261.d

Date : 07-SEP-96 02:04:00

Client ID: 1660-L5

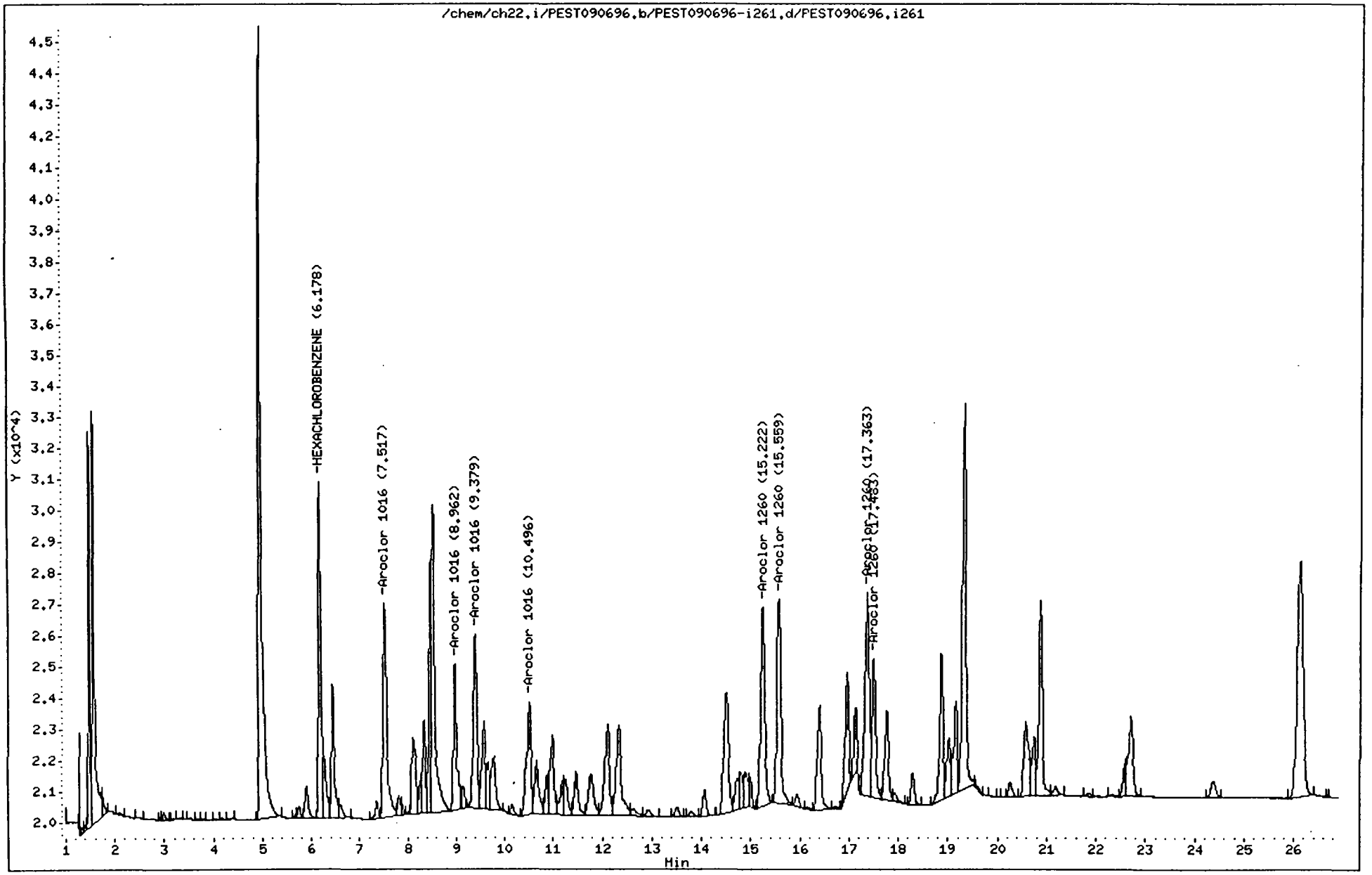
Instrument: ch22.i

Sample Info: AROCHLOR 1660 - 2.50UG/ML #AA904-74-3

Operator: MAK

Column phase: DB-608

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i031.d
Lab Smp Id: PESTCAL-1 Client Smp ID: PESTCAL-1
Inj Date : 11-SEP-96 11:54:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDES CAL STD 0.100UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 12-Sep-96 13:23:15 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	3 Alpha-BHC	6.586	6.590	(1.064)	67177	0.0500	0.0509
	6 Beta-BHC	7.743	7.752	(1.251)	29168	0.0500	0.0511
	9 Delta-BHC	8.785	8.794	(1.419)	47917	0.0500	0.0586
	5 Gamma-BHC (Lindane)	7.610	7.619	(1.229)	46354	0.0500	0.0503
	8 Heptachlor	8.532	8.541	(1.378)	51957	0.0500	0.0531
	11 Aldrin	9.521	9.534	(1.538)	52796	0.0500	0.0515
	15 Heptachlor epoxide	11.485	11.498	(1.855)	46173	0.0500	0.0512
	16 Endosulfan I	12.979	12.979	(2.096)	39877	0.0500	0.0497
	20 Dieldrin	14.242	14.247	(2.300)	39984	0.0500	0.0452
	18 4,4'-DDE	13.839	13.852	(2.235)	38529	0.0500	0.0510
	22 Endrin	15.741	15.754	(2.542)	31897	0.0500	0.0471
	25 Endosulfan II	16.472	16.481	(2.661)	28811	0.0500	0.0505
	24 4,4'-DDD	16.144	16.153	(2.608)	27996	0.0500	0.0498
	29 Endosulfan sulfate	18.308	18.308	(2.957)	23795	0.0500	0.0450
	27 4,4'-DDT	17.408	17.426	(2.812)	29030	0.0500	0.0492
	30 Methoxychlor	20.507	20.511	(3.312)	12338	0.0500	0.0475
	31 Endrin ketone	20.959	20.977	(3.385)	26852	0.0500	0.0482
	28 Endrin aldehyde	17.838	17.833	(2.881)	19806	0.0500	0.0510
$	1 Tetrachloro-m-xylene	4.972	4.977	(0.803)	47834	0.0500	0.0510
*	2 HEXACHLOROBENZENE	6.191	6.191	(1.000)	51186	1.00	
$	32 Decachlorobiphenyl	26.150	26.150	(4.224)	25938	0.0500	0.0469

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i031.d

Date : 11-SEP-96 11:54:00

Client ID: PESTCAL-1

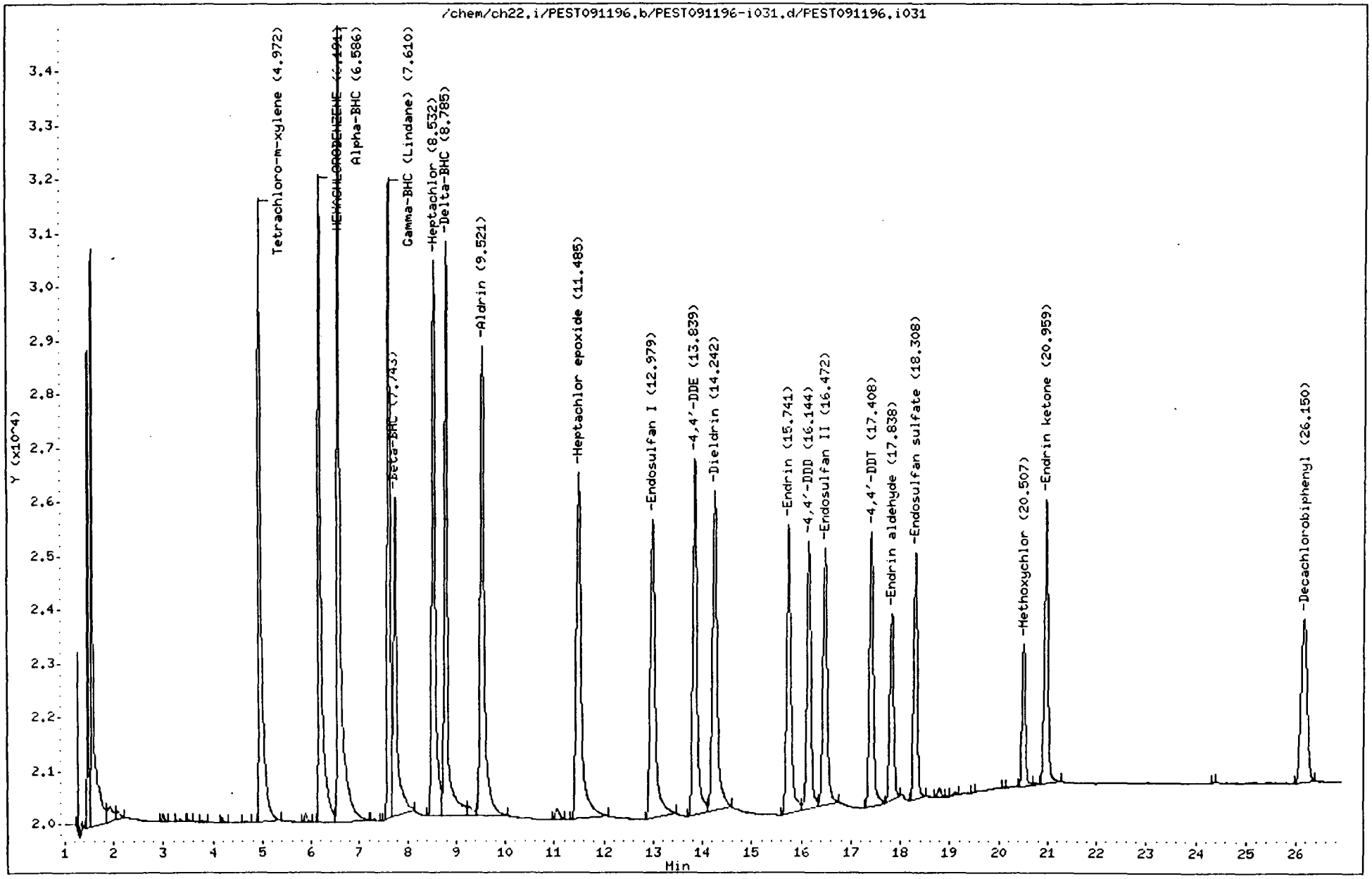
Sample Info: PESTICIDES CAL STD 0.100UG/ML AA904-73-

Column phase: DB-608

Instrument: ch22.i

Operator: MAK

Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch24.i\PEST091196.b\PEST091196-i031.d
Lab Smp Id: PESTCAL-1 Client Smp ID: PESTCAL-1
Inj Date : 11-SEP-96 11:54:00
Operator : MAKOWALSKI Inst ID: ch24.i
Smp Info : PESTICIDES CAL STD 0.100UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch24.i\PEST091196.b\24pest0906.m
Meth Date : 13-Sep-96 13:46:00 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	3 Alpha-BHC	6.366	6.357	(1.168)	709440	0.0500	0.0468
	9 Beta-BHC	8.986	8.982	(1.649)	211820	0.0500	0.0493(M)
	11 Delta-BHC	9.798	9.793	(1.798)	465728	0.0500	0.0496(M)
	5 Gamma-BHC (Lindane)	7.311	7.306	(1.342)	600293	0.0500	0.0460(M)
	7 Heptachlor	7.936	7.931	(1.456)	589782	0.0500	0.0455
	8 Aldrin	8.689	8.685	(1.595)	539069	0.0500	0.0469(M)
	13 Heptachlor epoxide	10.600	10.591	(1.945)	462421	0.0500	0.0461(M)
	15 Endosulfan I	11.695	11.677	(2.146)	418988	0.0500	0.0474(M)
	17 Dieldrin	13.087	13.078	(2.402)	431170	0.0500	0.0491(M)
	16 4,4'-DDE	12.360	12.342	(2.269)	426316	0.0500	0.0498(M)
	19 Endrin	13.903	13.899	(2.552)	328945	0.0500	0.0439(M)
	23 Endosulfan II	15.672	15.654	(2.876)	274237	0.0500	0.0470
	21 4,4'-DDD	15.379	15.366	(2.823)	268801	0.0500	0.0471
	24 4,4'-DDT	16.084	16.075	(2.952)	293510	0.0500	0.0452
	28 Endrin ketone	19.688	19.671	(3.614)	337754	0.0500	0.0561
	26 Endrin aldehyde	17.175	17.148	(3.152)	144430	0.0500	0.0388(M)
$	1 Tetrachloro-m-xylene	4.544	4.535	(0.834)	534340	0.0500	0.0490
*	2 HEXACHLOROBENZENE	5.449	5.444	(1.000)	608754	1.00	
$	29 Decachlorobiphenyl	22.588	22.566	(4.146)	253407	0.0500	0.0452
	27 Endosulfan sulf./Methoxychlor	18.341	18.327	(3.366)	321150	0.100	0.0846

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch24.i/PEST091196.b/PEST091196-i031.d

Date : 11-SEP-96 11:54:00

Client ID: PESTCAL-1

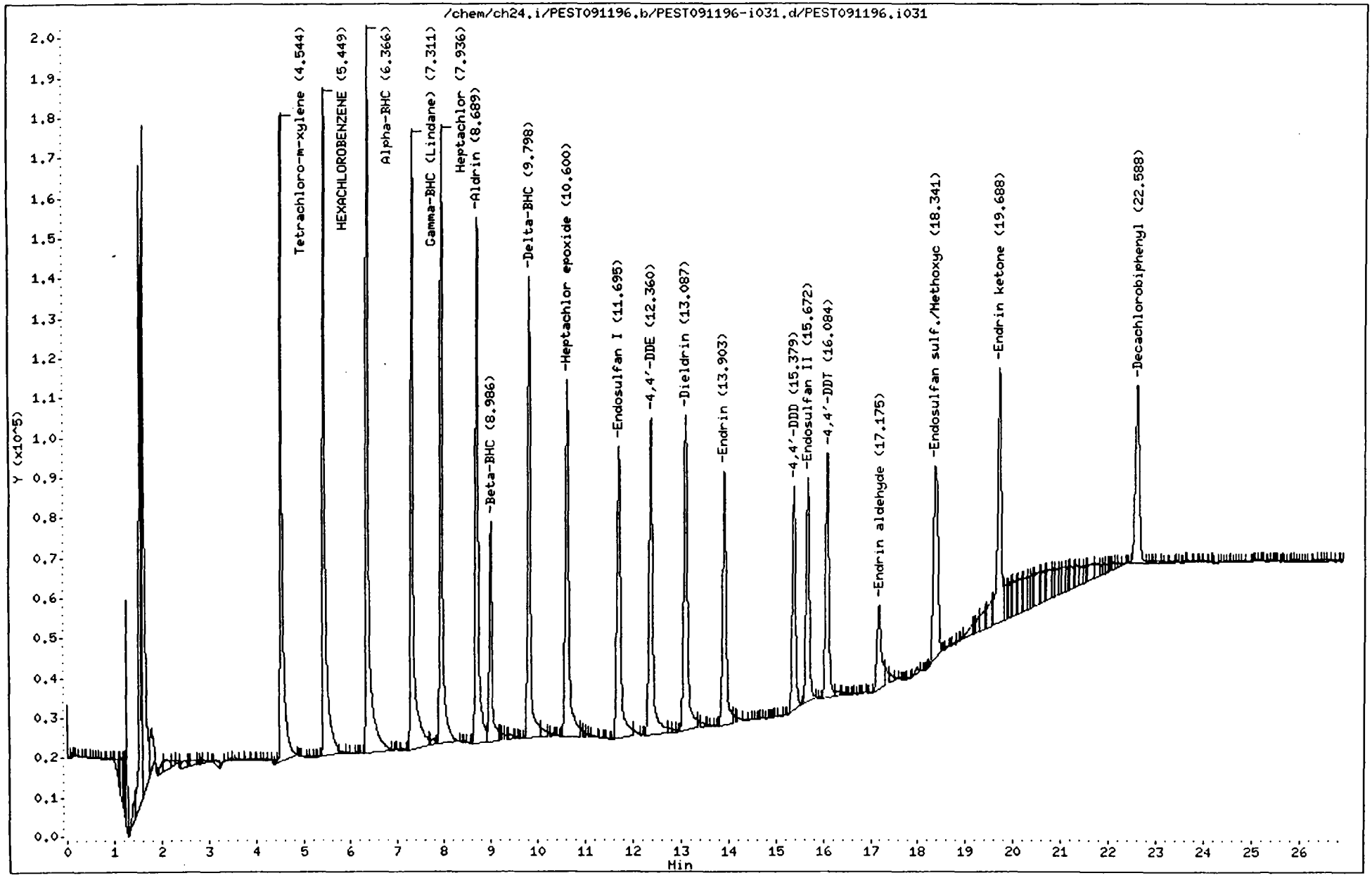
Sample Info: PESTICIDES CAL STD 0.100UG/ML AA904-73-

Column phase: DB-1701

Instrument: ch24.i

Operator: MAKOWALSKI

Column diameter: 0.53

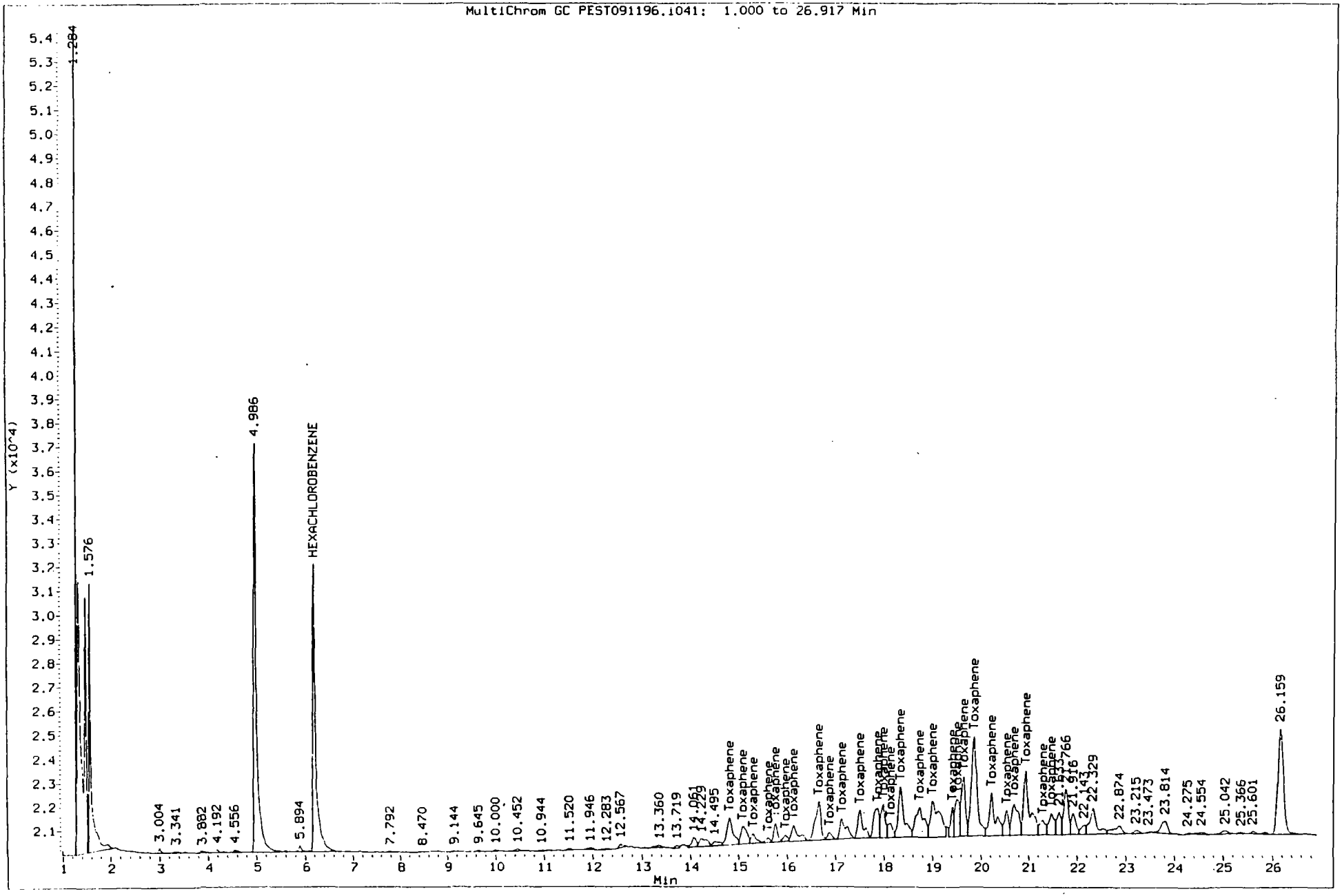


Thru-Put Systems, Inc.

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i041.d
Lab Smp Id: TOXCAL-1 Client Smp ID: TOXCAL-1
Inj Date : 11-SEP-96 12:26:00
Operator : Inst ID: ch22.i
Smp Info : TOXAPHENE CAL STD 1.50UG/ML AA904-69-
Misc Info :
Comment :
Method : \chem\ch22.i\PEST091196.b\22tox090696.m
Meth Date : 23-Sep-96 11:57:53 Quant Type: ISTD
Cal Date : 06-SEP-96 19:14:00 Cal File: PEST090696-i131.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: all.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
S	1 Toxaphene	14.500-21.500			288571	0.750	0.784
*	2 HEXACHLOROBENZENE	6.205	6.196	(1.000)	53050	1.000	

Data File: /chem/ch22.i/PEST091196.b/PEST091196-1041.d/PEST091196.1041
Injection Date: 11-SEP-96 12:26:00
Instrument: ch22.1
Client Sample ID: TOXCAL-1



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i051.d
Lab Smp Id: PCHLR-1 Client Smp ID: PCHLR-1
Inj Date : 11-SEP-96 12:57:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDE/CHLORDANE MIX L3 #AA904-66-4
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 23-Sep-96 12:40:08 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PCHLR.sub
Target Version: 3.21 Sample Matrix: None
Procesing Host: GC1

RT	EXP RT (REL RT)	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	TARGET RANGE	RATIO
19 Chlordane				CAS #: 12789-03-6		
8.102	8.093 (0.000)	5910	0.150	0.177		100.00
8.541	8.528 (0.000)	9934	0.150	0.180	0.00- 0.00	168.06
12.176	12.163 (0.000)	20374	0.150	0.183	0.00- 0.00	344.70
12.518	12.500 (0.000)	3111	0.150	0.146	0.00- 0.00	52.64
12.841	12.828 (0.000)	10059	0.150	0.168	0.00- 0.00	170.19
	Average of Peak Amounts =			0.171		
* 2 HEXACHLOROBENZENE				CAS #:		
6.200	6.191 (1.000)	48921	1.00			100.00(M)
$ 1 Tetrachloro-m-xylene				CAS #: 877-09-8		
4.986	4.977 (0.804)	39670	0.0500	0.0442		100.00
11 Aldrin				CAS #: 309-00-2		
9.539	9.534 (1.538)	50956	0.0500	0.0520		100.00
20 Dieldrin				CAS #: 60-57-1		
14.260	14.247 (2.300)	39387	0.0500	0.0466		100.00
$ 32 Decachlorobiphenyl				CAS #: 2051-24-3		
26.164	26.150 (4.220)	30092	0.0500	0.0569		100.00

QC Flag Legend

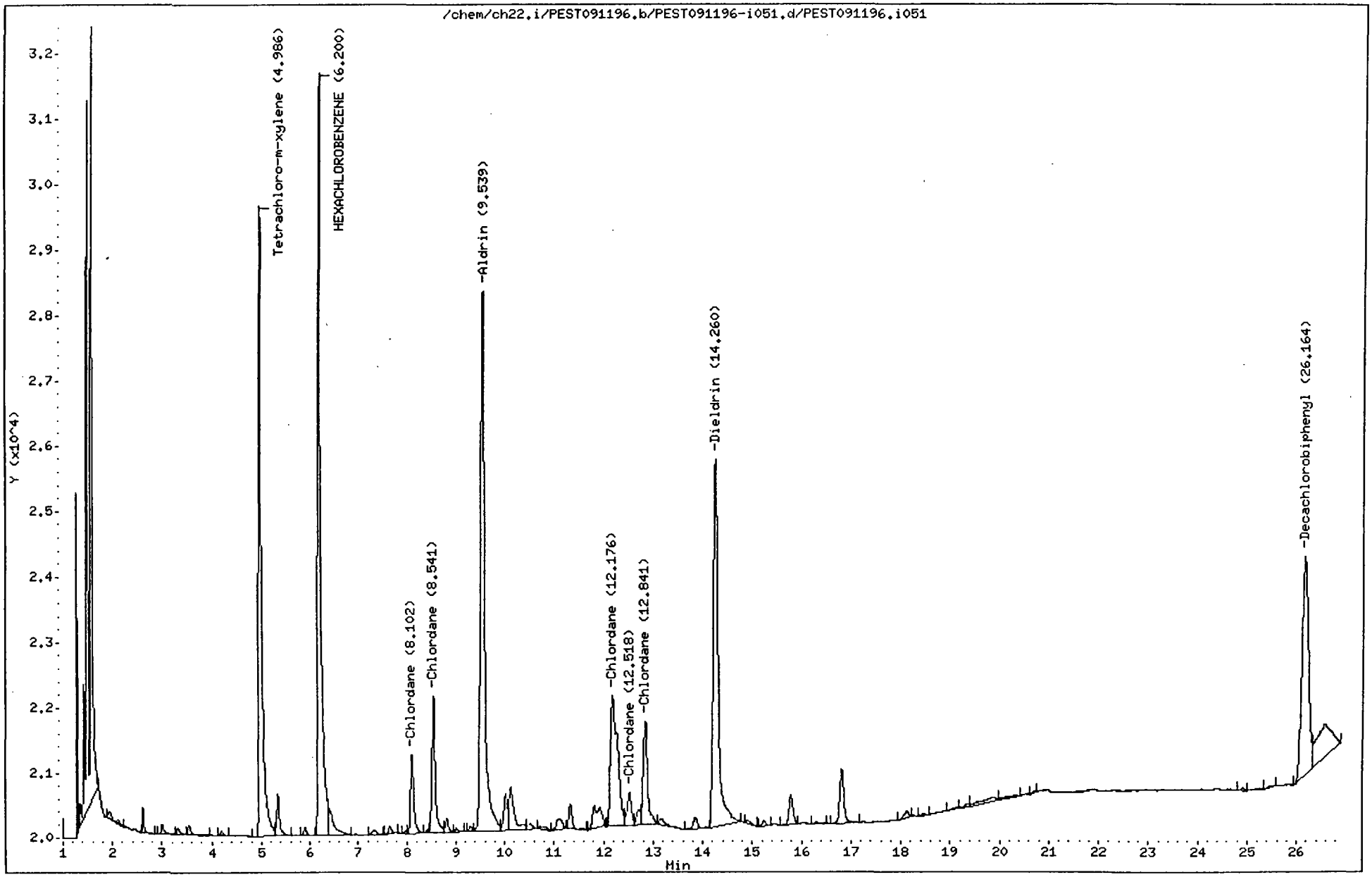
M - Compound response manually integrated.

678

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i051.d
Date : 11-SEP-96 12:57:00
Client ID: PCHLR-1
Sample Info: PESTICIDE/CHLORDANE MIX L3 #AA904-66-4

Instrument: ch22.i
Operator: MAK
Column diameter: 0.53

Column phase: DB-608



Thru-Put Systems, Inc.

EPA METHOD 8080/608

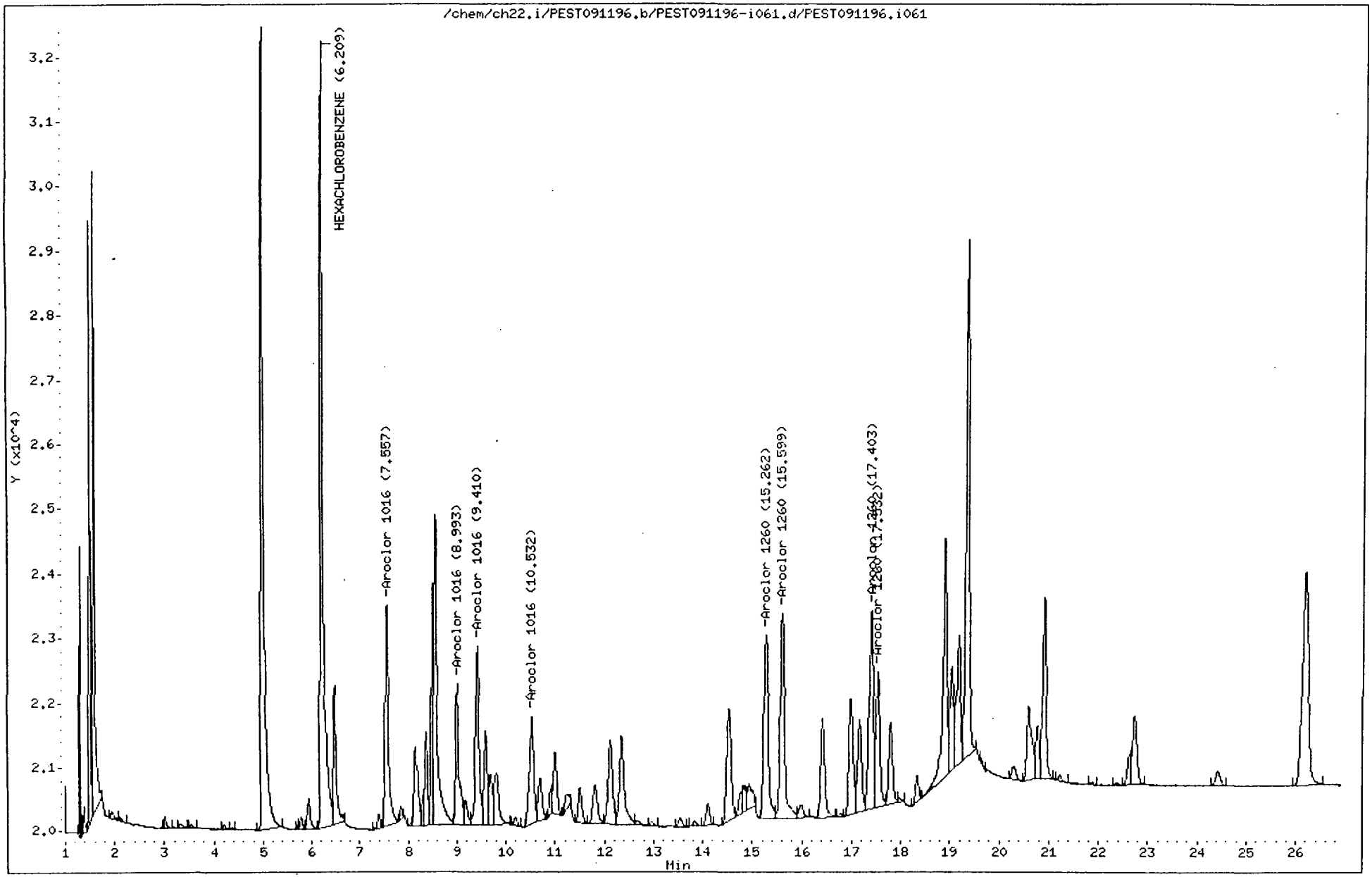
Data file : \chem\ch22.i\PEST091196.b\PEST091196-i061.d
Lab Smp Id: 1660-1 Client Smp ID: 1660-1
Inj Date : 11-SEP-96 13:29:00
Operator : MAK Inst ID: ch22.i
Smp Info : AROCHLOR 1660 - 1.00UG/ML #AA904-59-3
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 12-Sep-96 15:01:55 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.21 Sample Matrix: None
Procesing Host: GC1

RT	EXP RT (REL RT)	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)	TARGET RANGE		RATIO
13 Aroclor 1016				CAS #: 12674-11-2			
7.557	7.530 (0.000)	16867	0.500	0.459			100.00
8.993	8.976 (0.000)	11040	0.500	0.505	0.00-	0.00	65.45
9.410	9.388 (0.000)	14751	0.500	0.500	0.00-	0.00	87.45
10.532	10.510 (0.000)	10181	0.500	0.436	0.00-	0.00	60.36
	Average of Peak Amounts =			0.475			
21 Aroclor 1260				CAS #: 11096-82-5			
15.262	15.235 (0.000)	18605	0.500	0.487			100.00
15.599	15.572 (0.000)	20552	0.500	0.506	0.00-	0.00	110.46
17.403	17.381 (0.000)	18792	0.500	0.470	0.00-	0.00	101.01
17.532	17.505 (0.000)	11878	0.500	0.465	0.00-	0.00	63.84
	Average of Peak Amounts =			0.482			
* 2 HEXACHLOROBENZENE				CAS #:			
6.209	6.191 (1.000)	51469	1.00				100.00

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i061.d
Date : 11-SEP-96 13:29:00
Client ID: 1660-1
Sample Info: AROCHLOR 1660 - 1.00UG/ML #AA904-59-3

Instrument: ch22.i
Operator: MAK
Column diameter: 0.53

Column phase: DB-608



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i071.d
Lab Smp Id: ISO-KEP-1 Client Smp ID: ISO-KEP-1
Inj Date : 11-SEP-96 14:00:00
Operator : MAK Inst ID: ch22.i
Smp Info : ISODRIN/KEPONE MIX 0.100UG/ML AA904-76-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 23-Sep-96 12:40:08 makowalski Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ISO-KEP.sub
Target Version: 3.21
Procesing Host: GC1

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
14 Isodrin	11.064	11.064	(1.786)	46003	0.0500	0.0568
23 Kepone	15.989	15.980	(2.581)	5919	0.0500	0.0405(M)
* 2 HEXACHLOROBENZENE	6.196	6.191	(1.000)	52538	1.00	(M)

QC Flag Legend

M - Compound response manually integrated.

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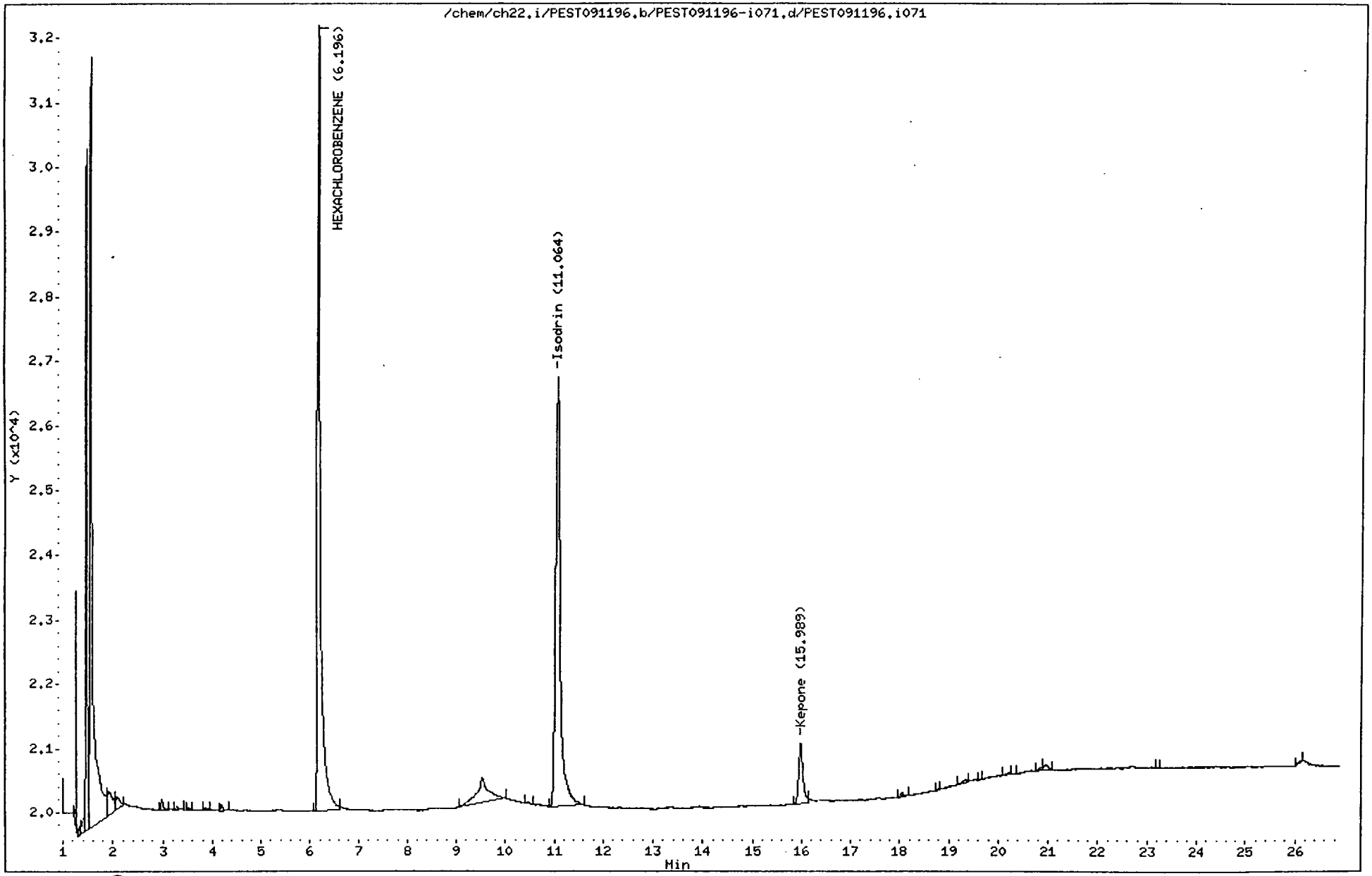
Data File: /chem/ch22.i/PEST091196.b/PEST091196-i071.d
Date : 11-SEP-96 14:00:00
Client ID: ISO-KEP-1
Sample Info: ISODRIN/KEPONE MIX 0.100UG/ML AA904-76-

Instrument: ch22.i
Operator: MAK
Column diameter: 0.53

Column phase: DB-608



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i181.d
Lab Smp Id: PESTCAL-2 Client Smp ID: PESTCAL-2
Inj Date : 11-SEP-96 19:47:00
Operator : MAK Inst ID: ch22.i
Smp Info : PESTICIDES CAL STD 0.100UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 12-Sep-96 13:23:15 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	3 Alpha-BHC	6.577	6.590	(1.063)	71500	0.0500	0.0516
	6 Beta-BHC	7.743	7.752	(1.252)	28871	0.0500	0.0482
	9 Delta-BHC	8.785	8.794	(1.420)	44542	0.0500	0.0520
	5 Gamma-BHC (Lindane)	7.610	7.619	(1.230)	49775	0.0500	0.0515
	8 Heptachlor	8.528	8.541	(1.378)	54441	0.0500	0.0530
	11 Aldrin	9.525	9.534	(1.540)	53607	0.0500	0.0498
	15 Heptachlor epoxide	11.472	11.498	(1.854)	51957	0.0500	0.0549
	16 Endosulfan I	12.970	12.979	(2.096)	39801	0.0500	0.0473
	20 Dieldrin	14.234	14.247	(2.301)	43454	0.0500	0.0468
	18 4,4'-DDE	13.830	13.852	(2.235)	40968	0.0500	0.0517
	22 Endrin	15.741	15.754	(2.544)	34243	0.0500	0.0482
	25 Endosulfan II	16.468	16.481	(2.662)	30384	0.0500	0.0508
	24 4,4'-DDD	16.144	16.153	(2.609)	29590	0.0500	0.0502
	29 Endosulfan sulfate	18.299	18.308	(2.958)	24793	0.0500	0.0446
	27 4,4'-DDT	17.408	17.426	(2.814)	29953	0.0500	0.0484
	30 Methoxychlor	20.498	20.511	(3.313)	12731	0.0500	0.0467
	31 Endrin ketone	20.946	20.977	(3.385)	30103	0.0500	0.0515
	28 Endrin aldehyde	17.825	17.833	(2.881)	22040	0.0500	0.0541
$	1 Tetrachloro-m-xylene	4.968	4.977	(0.803)	51197	0.0500	0.0520
*	2 HEXACHLOROBENZENE	6.187	6.191	(1.000)	53702	1.00	
$	32 Decachlorobiphenyl	26.124	26.150	(4.222)	31277	0.0500	0.0539

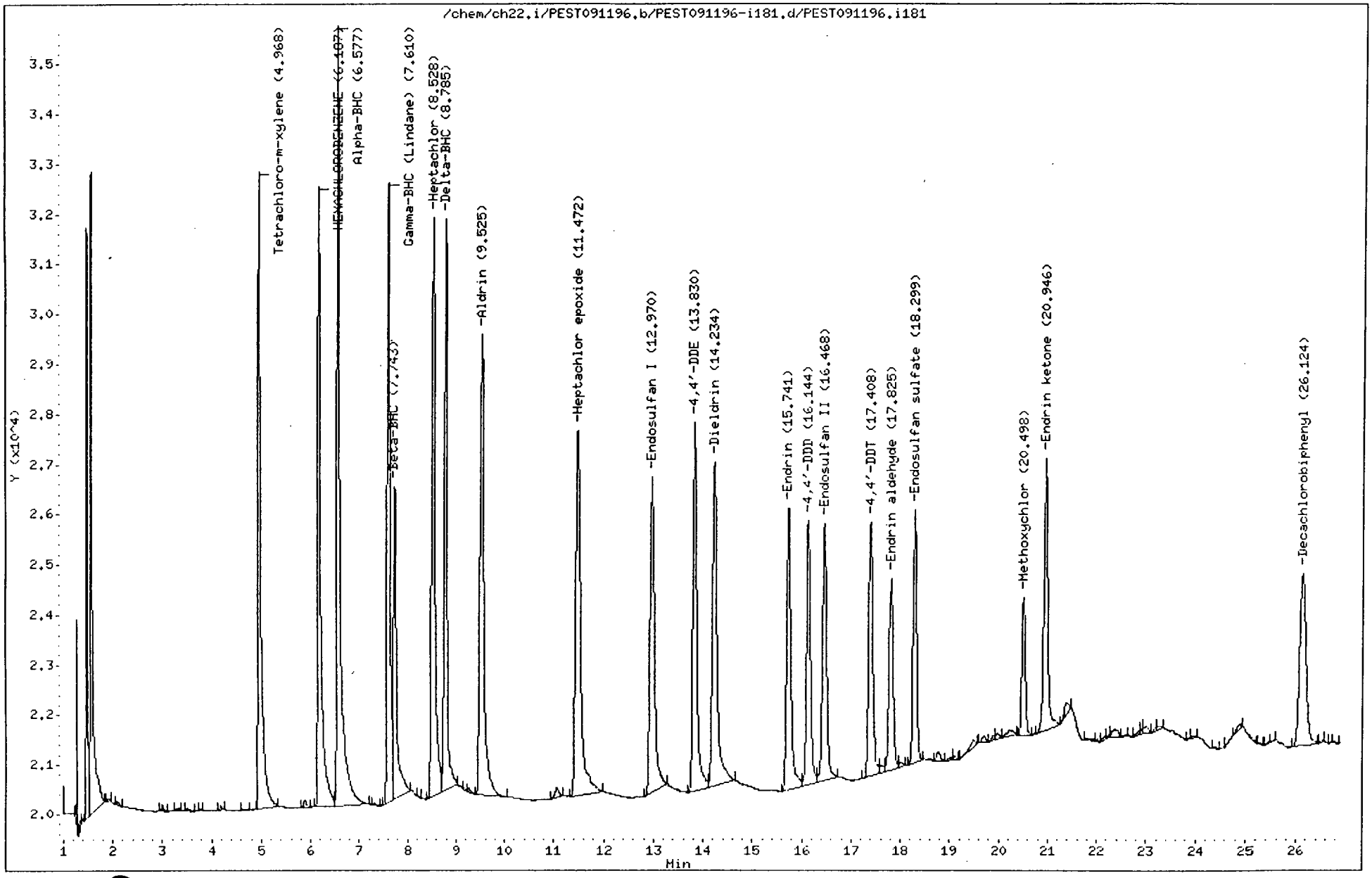
684

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i181.d
Date : 11-SEP-96 19:47:00
Client ID: PESTCAL-2
Sample Info: PESTICIDES CAL STD 0.100UG/ML AA904-73-

Instrument: ch22.i

Operator: MAK
Column diameter: 0.53

Column phase: DB-608



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch24.i\PEST091196.b\PEST091196-i181.d
Lab Smp Id: PESTCAL-2 Client Smp ID: PESTCAL-2
Inj Date : 11-SEP-96 19:47:00
Operator : MAKOWALSKI Inst ID: ch24.i
Smp Info : PESTICIDES CAL STD 0.100UG/ML AA904-73-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch24.i\PEST091196.b\24pest0906.m
Meth Date : 23-Sep-96 13:35:45 makowalski Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	3 Alpha-BHC	6.357	6.357	(1.168)	741836	0.0500	0.0470
	9 Beta-BHC	8.982	8.982	(1.650)	209487	0.0500	0.0468
	11 Delta-BHC	9.793	9.793	(1.799)	453079	0.0500	0.0463
	5 Gamma-BHC (Lindane)	7.306	7.306	(1.342)	616273	0.0500	0.0454
	7 Heptachlor	7.931	7.931	(1.457)	621727	0.0500	0.0461
	8 Aldrin	8.685	8.685	(1.595)	558983	0.0500	0.0467
	13 Heptachlor epoxide	10.591	10.591	(1.945)	461976	0.0500	0.0442
	15 Endosulfan I	11.677	11.677	(2.145)	456593	0.0500	0.0495
	17 Dieldrin	13.078	13.078	(2.402)	439634	0.0500	0.0480
	16 4,4'-DDE	12.342	12.342	(2.267)	432760	0.0500	0.0485
	19 Endrin	13.899	13.899	(2.553)	366193	0.0500	0.0469
	23 Endosulfan II	15.654	15.654	(2.875)	293419	0.0500	0.0483
	21 4,4'-DDD	15.366	15.366	(2.822)	292243	0.0500	0.0492
	24 4,4'-DDT	16.075	16.075	(2.953)	316085	0.0500	0.0467
	28 Endrin ketone	19.671	19.671	(3.613)	279443	0.0500	0.0446
	26 Endrin aldehyde	17.148	17.148	(3.150)	156351	0.0500	0.0403
$	1 Tetrachloro-m-xylene	4.535	4.535	(0.833)	549865	0.0500	0.0484
*	2 HEXACHLOROBENZENE	5.444	5.444	(1.000)	634041	1.00	
$	29 Decachlorobiphenyl	22.566	22.566	(4.145)	281352	0.0500	0.0482
	27 Endosulfan sulf./Methoxychlor	18.327	18.327	(3.366)	350915	0.100	0.0887

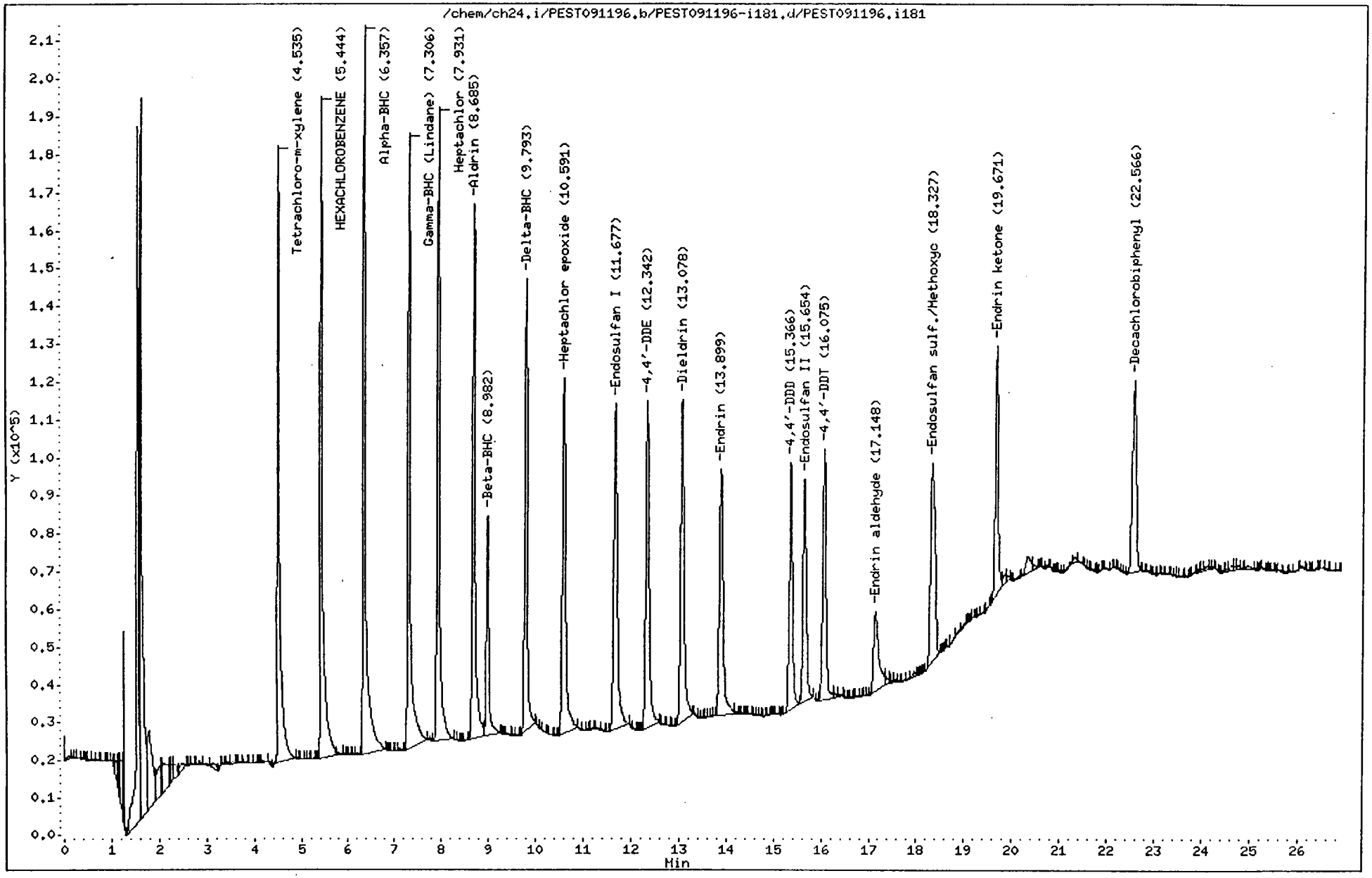
989

Data File: /chem/ch24.i/PEST091196.b/PEST091196-i181.d
Date : 11-SEP-96 19:47:00
Client ID: PESTCAL-2
Sample Info: PESTICIDES CAL STD 0.100UG/ML AA904-73-

Instrument: ch24.i

Operator: MAKOWALSKI
Column diameter: 0.53

Column phase: DB-1701



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i191.d
Lab Smp Id: ISO-KEP-2 Client Smp ID: ISO-KEP-2
Inj Date : 11-SEP-96 20:18:00
Operator : MAK Inst ID: ch22.i
Smp Info : ISODRIN/KEPONE MIX 0.100UG/ML AA904-76-
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 23-Sep-96 12:40:08 makowalski Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ISO-KEP.sub
Target Version: 3.21
Procesing Host: GC1

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
14 Isodrin	11.046	11.064	(1.787)	44548	0.0500	0.0541
23 Kepone	15.967	15.980	(2.583)	6240	0.0500	0.0420(M)
* 2 HEXACHLOROBENZENE	6.183	6.191	(1.000)	53489	1.00	

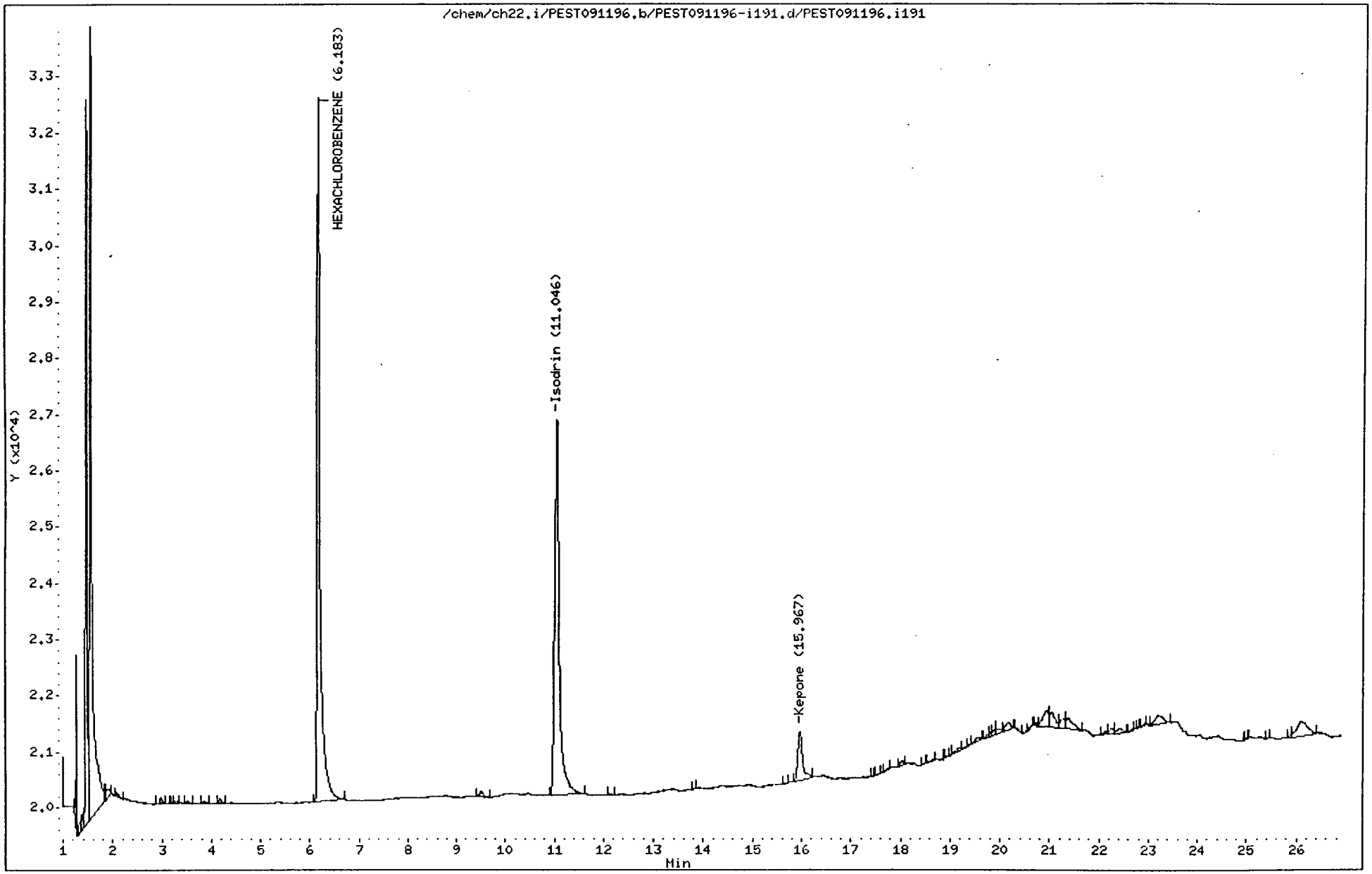
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i191.d
Date : 11-SEP-96 20:18:00
Client ID: ISO-KEP-2
Sample Info: ISODRIN/KEPONE MIX 0.100UG/ML AA904-76-

Instrument: ch22.i
Operator: MAK
Column diameter: 0.53

Column phase: DB-608



RAW QUALITY CONTROL DATA

FORM 1
8080 ORGANICS ANALYSIS DATA SHEET

AT Kearney SAMPLE NO.

BLK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

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

Sample wt/vol: 30.0 (g/mL) G Lab File ID: PEST091196-I081

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/11/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	Alpha-BHC	1.34	U
319-85-7	Beta-BHC	1.34	U
319-86-8	Delta-BHC	1.34	U
58-89-9	Gamma-BHC (Lindane)	1.34	U
76-44-8	Heptachlor	2.01	U
309-00-2	Aldrin	2.68	U
1024-57-3	Heptachlor epoxide	1.34	U
959-98-8	Endosulfan I	3.35	U
60-57-1	Dieldrin	1.34	U
72-55-9	4,4'-DDE	2.68	U
72-20-8	Endrin	3.35	U
33213-65-9	Endosulfan II	2.68	U
72-54-8	4,4'-DDD	3.35	U
1031-07-8	Endosulfan sulfate	3.35	U
50-29-3	4,4'-DDT	3.35	U
72-43-5	Methoxychlor	167	U
7421-36-3	Endrin aldehyde	3.35	U
8001-35-2	Toxaphene	161	U
12674-11-2	Aroclor 1016	6.03	U
11104-28-2	Aroclor 1221	6.03	U
1114-16-5	Aroclor 1232	6.03	U
53469-21-9	Aroclor 1242	6.03	U
12672-29-6	Aroclor 1248	6.03	U
11097-69-1	Aroclor 1254	6.03	U
11096-82-5	Aroclor 1260	6.03	U
12789-03-6	Chlordane	8.04	U
----------	Isodrin	6.70	U
----------	Kepone	6.70	U

Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i081.d
Lab Smp Id: BLK Client Smp ID: BLK
Inj Date : 11-SEP-96 14:32:00
Operator : MAK Inst ID: ch22.i
Smp Info : BLANK 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 12-Sep-96 13:23:15 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

UMAK
< LDL.
9-12-96

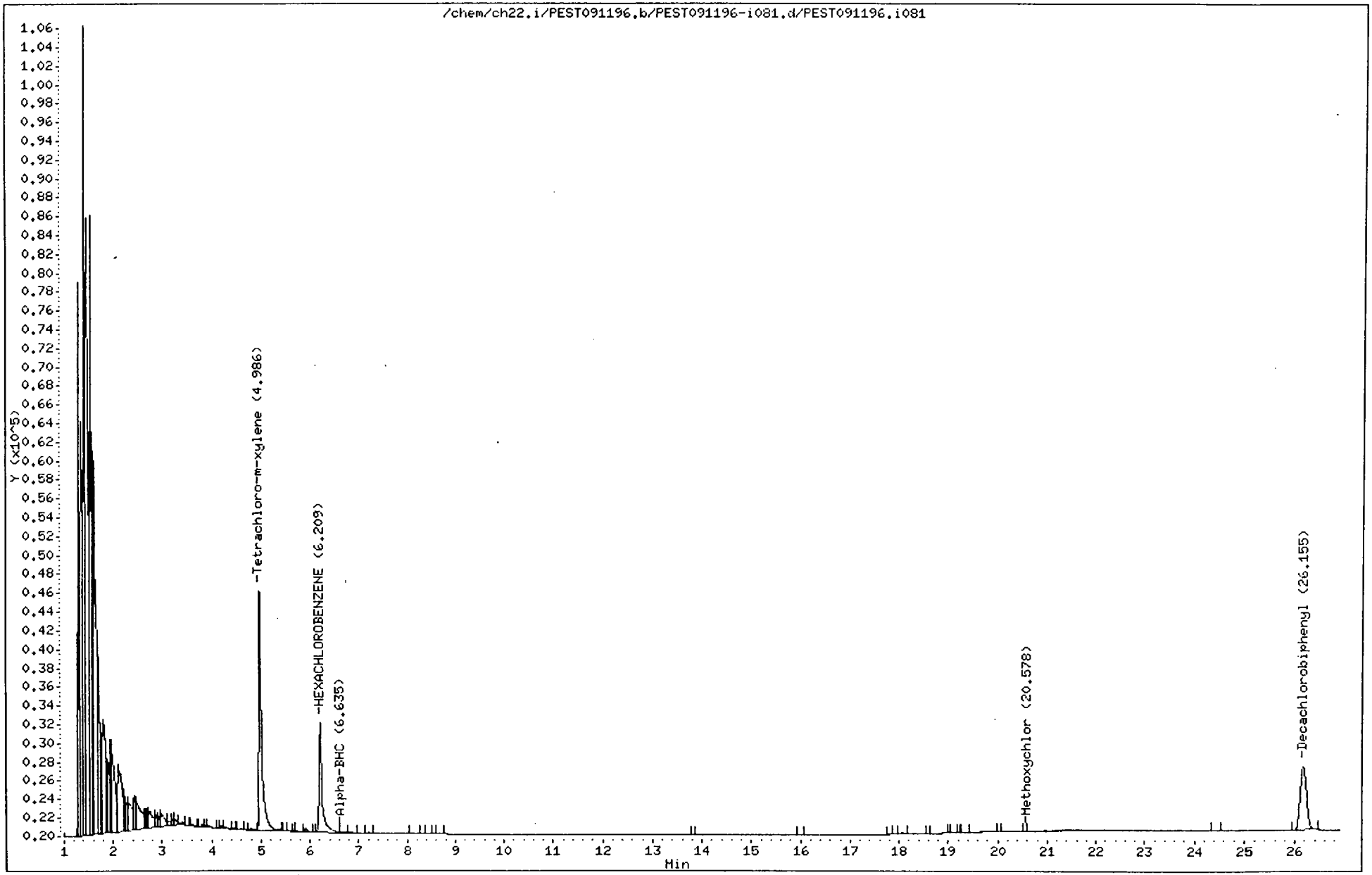
Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
3 Alpha-BHC	6.635	6.590	(1.069)	749	0.000568	0.379(a)
30 Methoxychlor	20.578	20.511	(3.314)	25	0.0000994	0.0663(a)
$ 1 Tetrachloro-m-xylene	4.986	4.977	(0.803)	104904	0.112	74.7 89.7%
* 2 HEXACHLOROBENZENE	6.209	6.191	(1.000)	51107	1.00	
$ 32 Decachlorobiphenyl	26.155	26.150	(4.212)	61792	0.112	74.6 89.5%

QC Flag Legend

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

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i081.d
Date : 11-SEP-96 14:32:00
Client ID: BLK
Instrument: ch22.i
Sample Info: BLANK 30/10 AB848-84A 9-3-96
Volume Injected (uL): 0.5
Operator: MAK
Column phase: DB-608
Column diameter: 0.53

692



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch24.i\PEST091196.b\PEST091196-i081.d
Lab Smp Id: BLK Client Smp ID: BLK
Inj Date : 11-SEP-96 14:32:00
Operator : MAKOWALSKI Inst ID: ch24.i
Smp Info : BLANK 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch24.i\PEST091196.b\24pest0906.m
Meth Date : 13-Sep-96 13:46:00 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

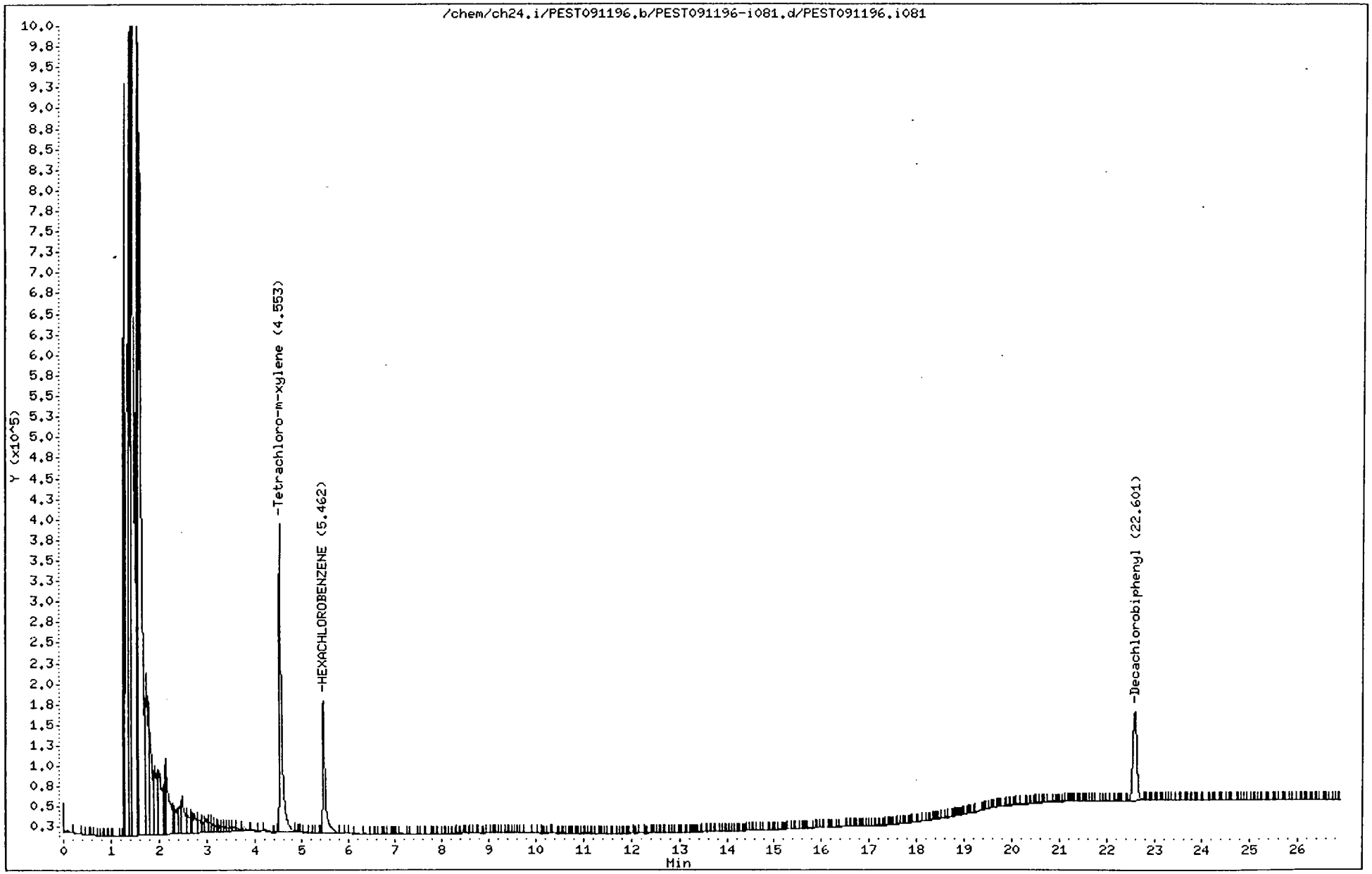
Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
$ 1 Tetrachloro-m-xylene	4.553	4.535	(0.834)	1244987	0.113	75.5
* 2 HEXACHLOROBENZENE	5.462	5.444	(1.000)	613758	1.00	
$ 29 Decachlorobiphenyl	22.601	22.566	(4.138)	628171	0.111	74.1

694

Data File: /chem/ch24.i/PEST091196.b/PEST091196-i081.d
Date : 11-SEP-96 14:32:00
Client ID: BLK
Sample Info: BLANK 30/10 AB848-84A 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-1701

Instrument: ch24.i
Operator: MAKOWALSKI
Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i081.d
Lab Smp Id: BLK Client Smp ID: BLK
Inj Date : 11-SEP-96 14:32:00
Operator : MAK Inst ID: ch22.i
Smp Info : BLANK 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 12-Sep-96 13:23:15 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: ISO-KEP.sub
Target Version: 3.21
Procesing Host: GC1

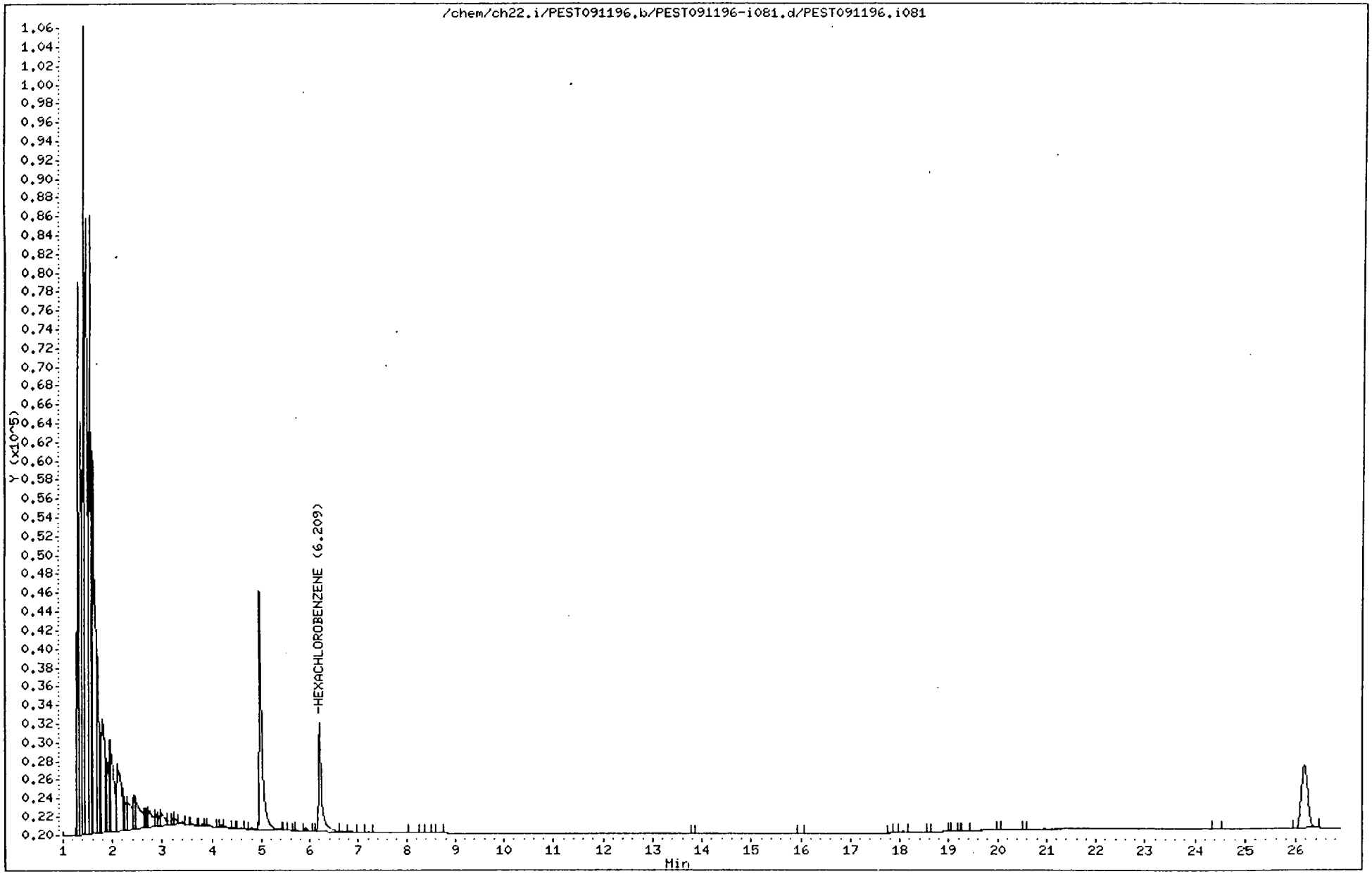
Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
* 2 HEXACHLOROBENZENE	6.209	6.191	(1.000)	51107	1.00	

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i081.d
Date : 11-SEP-96 14:32:00
Client ID: BLK
Sample Info: BLANK 30/10 AB848-84A 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-608

Instrument: ch22.i
Operator: MAK
Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i081.d
Lab Smp Id: BLK Client Smp ID: BLK
Inj Date : 11-SEP-96 14:32:00
Operator : MAK Inst ID: ch22.i
Smp Info : BLANK 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST090696.b\22pest0903.m
Meth Date : 12-Sep-96 15:01:55 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: AR1660.sub
Target Version: 3.21 Sample Matrix: SOIL
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

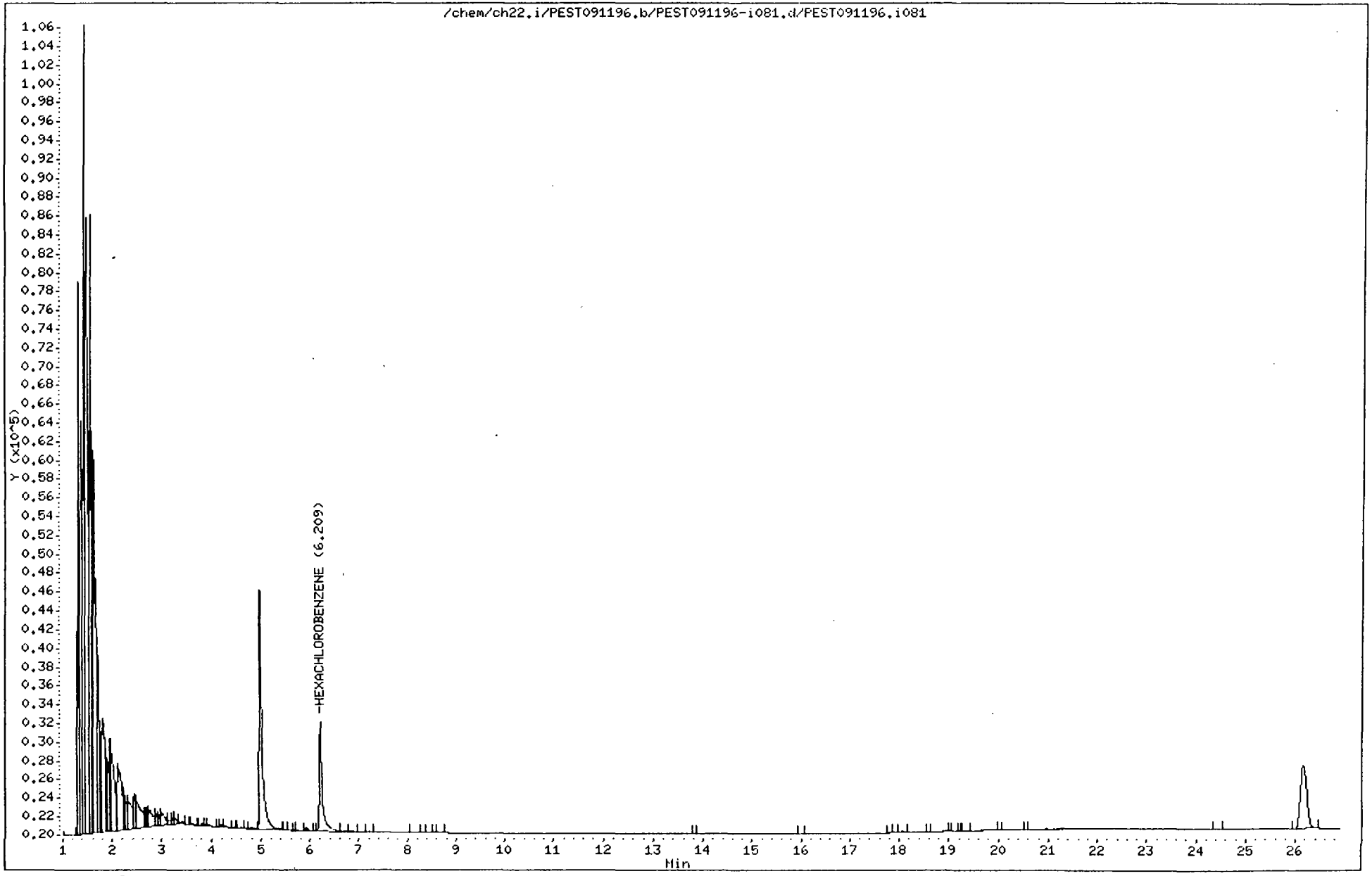
Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

				CONCENTRATIONS ON-COL	FINAL		
	RT	EXP RT (REL RT)	RESPONSE	(ng)	(ug/Kg)	TARGET RANGE	RATIO
*	2 HEXACHLOROBENZENE				CAS #:		
	6.209	6.191 (1.000)	51107	1.00			100.00

698

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i081.d
Date : 11-SEP-96 14:32:00
Client ID: BLK
Sample Info: BLANK 30/10 AB848-84A 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-608

Instrument: ch22.i
Operator: MAK
Column diameter: 0.53



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch24.i\PEST091196.b\PEST091196-i081.d
Lab Smp Id: BLK Client Smp ID: BLK
Inj Date : 11-SEP-96 14:32:00
Operator : MAKOWALSKI Inst ID: ch24.i
Smp Info : BLANK 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch24.i\PEST091196.b\24pest0906.m
Meth Date : 23-Sep-96 13:35:45 makowalski Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

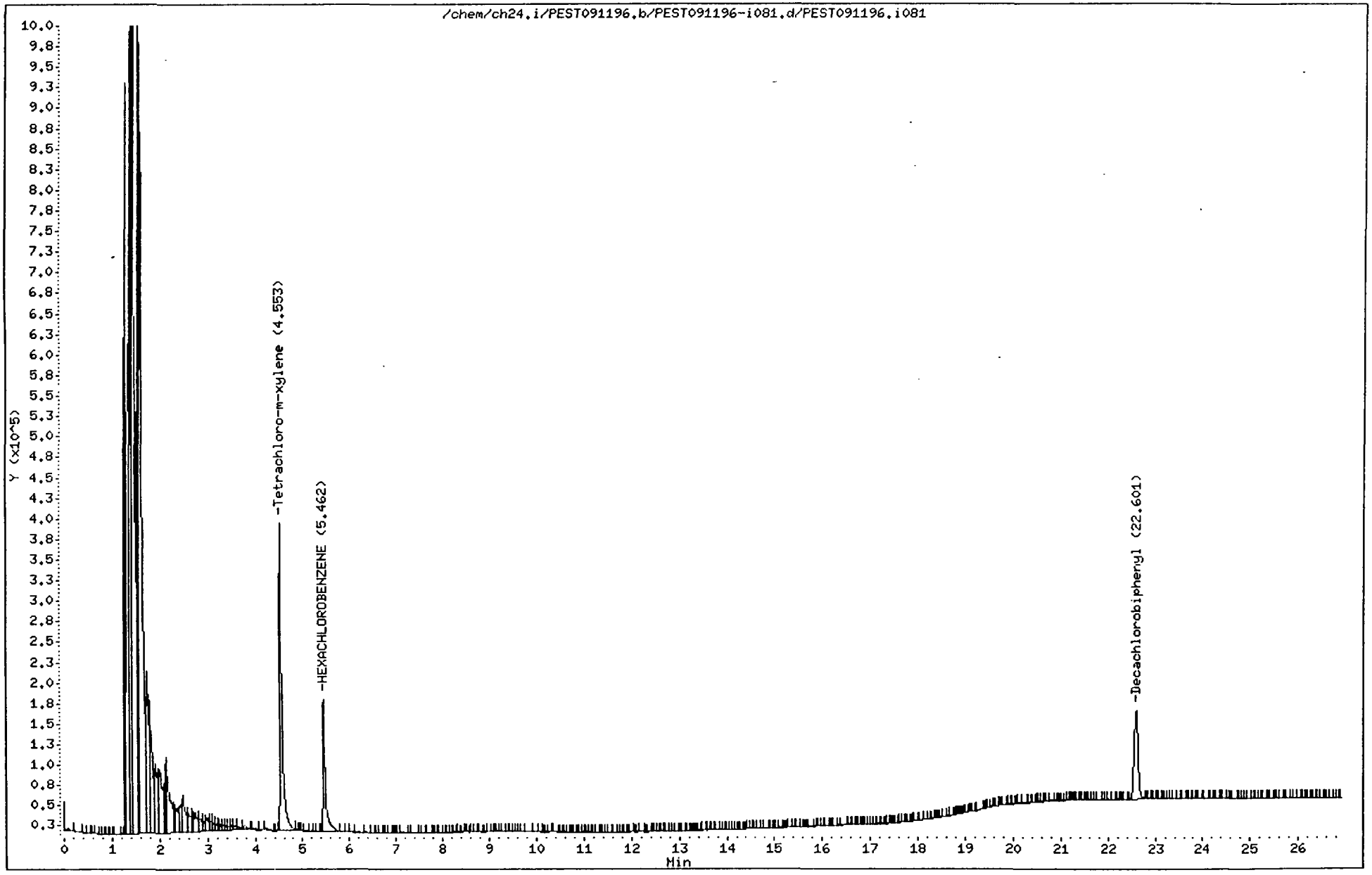
Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

					CONCENTRATIONS	
					ON-COLUMN	FINAL
Compounds	RT	EXP RT	REL RT	RESPONSE	(ng)	(ug/Kg)
$ 1 Tetrachloro-m-xylene	4.553	4.535	(0.834)	1244987	0.113	75.5
* 2 HEXACHLOROBENZENE	5.462	5.444	(1.000)	613758	1.00	
$ 29 Decachlorobiphenyl	22.601	22.566	(4.138)	628171	0.111	74.1

700

Data File: /chem/ch24.i/PEST091196.b/PEST091196-i081.d
Date : 11-SEP-96 14:32:00
Client ID: BLK
Sample Info: BLANK 30/10 AB848-84A 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-1701

Instrument: ch24.i
Operator: MAKOWALSKI
Column diameter: 0.53



FORM 1
8080 ORGANICS ANALYSIS DATA SHEET

AT Kearney SAMPLE NO.

9654-5MS

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Matrix: (soil/water) SOIL Lab Sample ID: 9654-5MS

Sample wt/vol: 30.0 (g/mL) G Lab File ID: PEST091196-I111

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 15.5 decanted: (Y/N) N Date Extracted: 09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/11/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	Gamma-BHC (Lindane)	71.7	
76-44-8	Heptachlor	75.7	
309-00-2	Aldrin	70.1	
60-57-1	Dieldrin	62.6	
72-20-8	Endrin	69.3	
50-29-3	4,4'-DDT	69.9	

FORM I 8080

Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i111.d
Lab Smp Id: 9654-5MS Client Smp ID: 9654-5MS
Inj Date : 11-SEP-96 16:06:00
Operator : MAK Inst ID: ch22.i
Smp Info : 9654-5MS 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 12-Sep-96 13:23:15 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

MAK 9-12-96

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
3 Alpha-BHC	6.582	6.590	(1.063)	128623	0.0919	61.3
6 Beta-BHC	7.743	7.752	(1.251)	53070	0.0878	58.6
9 Delta-BHC	8.785	8.794	(1.419)	81901	0.0946	63.1
5 Gamma-BHC (Lindane)	7.610	7.619	(1.229)	88701	0.0909	60.6
8 Heptachlor	8.532	8.541	(1.378)	99617	0.0961	64.0
11 Aldrin	9.525	9.534	(1.538)	96463	0.0888	59.2
15 Heptachlor epoxide	11.485	11.498	(1.855)	84057	0.0879	58.6
16 Endosulfan I	12.979	12.979	(2.096)	44129	0.0519	34.6(R)
20 Dieldrin	14.238	14.247	(2.300)	74383	0.0794	52.9
18 4,4'-DDE	13.835	13.852	(2.234)	72582	0.0907	60.5
22 Endrin	15.754	15.754	(2.545)	63114	0.0879	58.6
25 Endosulfan II	16.477	16.481	(2.661)	38731	0.0641	42.7
24 4,4'-DDD	16.153	16.153	(2.609)	53389	0.0896	59.7
29 Endosulfan sulfate	18.308	18.308	(2.957)	46382	0.0827	55.1

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
27 4,4'-DDT	17.412	17.426	(2.812)	55368	0.0886	59.1
30 Methoxychlor	20.502	20.511	(3.311)	23896	0.0868	57.8(a)
31 Endrin ketone	20.954	20.977	(3.384)	51520	0.0872	58.1
28 Endrin aldehyde	17.825	17.833	(2.879)	41847	0.102	67.8
$ 1 Tetrachloro-m-xylene	4.972	4.977	(0.803)	104875	0.106	70.3 84.4%
* 2 HEXACHLOROBENZENE	6.191	6.191	(1.000)	54234	1.00	
$ 32 Decachlorobiphenyl	26.159	26.150	(4.225)	63011	0.107	71.6 85.9%

QC Flag Legend

a - Target compound detected but, quantitated amount Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

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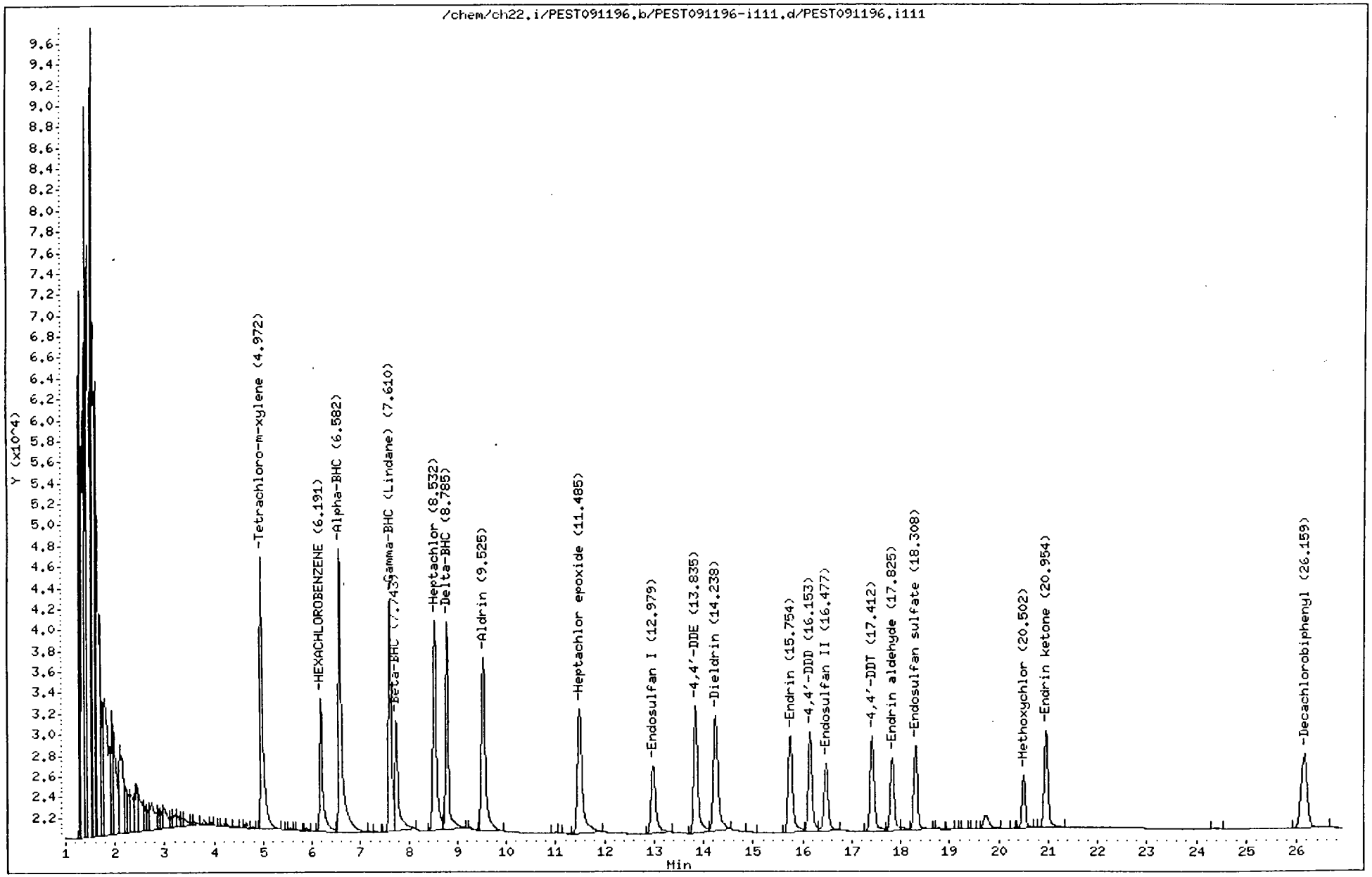
Data File: /chem/ch22.i/PEST091196.b/PEST091196-i111.d
Date : 11-SEP-96 16:06:00
Client ID: 9654-5MS
Sample Info: 9654-5MS 30/10 AB848-84A 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-608

Instrument: ch22.i
Operator: MAK
Column diameter: 0.53



FORM 1
8080 ORGANICS ANALYSIS DATA SHEET

AT Kearney SAMPLE NO.

9654-6MSD

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Matrix: (soil/water) SOIL Lab Sample ID: 9654-6MSD

Sample wt/vol: 30.0 (g/mL) G Lab File ID: PEST091196-I121

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 15.0 decanted: (Y/N) N Date Extracted: 09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/11/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	Gamma-BHC (Lindane)	75.4	
76-44-8	Heptachlor	80.3	
309-00-2	Aldrin	74.6	
60-57-1	Dieldrin	74.0	
72-20-8	Endrin	70.7	
50-29-3	4,4'-DDT	72.8	

FORM I 8080

Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i121.d
Lab Smp Id: 9654-6MSD Client Smp ID: 9654-6MSD
Inj Date : 11-SEP-96 16:38:00
Operator : MAK Inst ID: ch22.i
Smp Info : 9654-6MSD 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 12-Sep-96 13:23:15 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

MAK 9-12-96

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
3 Alpha-BHC	6.586	6.590	(1.063)	133332	0.0966	64.4
6 Beta-BHC	7.752	7.752	(1.251)	54504	0.0914	61.0
9 Delta-BHC	8.794	8.794	(1.419)	88346	0.103	69.0
5 Gamma-BHC (Lindane)	7.619	7.619	(1.230)	92571	0.0961	64.1
8 Heptachlor	8.537	8.541	(1.378)	104845	0.102	68.3
11 Aldrin	9.534	9.534	(1.539)	101941	0.0951	63.4
15 Heptachlor epoxide	11.494	11.498	(1.855)	87052	0.0923	61.5
16 Endosulfan I	12.983	12.979	(2.095)	46400	0.0553	36.9(R)
20 Dieldrin	14.251	14.247	(2.300)	87246	0.0944	62.9
18 4,4'-DDE	13.843	13.852	(2.234)	78222	0.0991	66.1
22 Endrin	15.759	15.754	(2.543)	63888	0.0902	60.1
25 Endosulfan II	16.472	16.481	(2.659)	39071	0.0655	43.7
24 4,4'-DDD	16.149	16.153	(2.606)	51438	0.0875	58.3
29 Endosulfan sulfate	18.308	18.308	(2.955)	49685	0.0898	59.9

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
27 4,4'-DDT	17.417	17.426	(2.811)	57235	0.0928	61.9
30 Methoxychlor	20.507	20.511	(3.310)	25810	0.0950	63.3(a)
31 Endrin ketone	20.959	20.977	(3.383)	55625	0.0954	63.6
28 Endrin aldehyde	17.833	17.833	(2.878)	45455	0.112	74.7
$ 1 Tetrachloro-m-xylene	4.977	4.977	(0.803)	111631	0.114	75.9 91.1%
* 2 HEXACHLOROBENZENE	6.196	6.191	(1.000)	53508	1.00	
$ 32 Decachlorobiphenyl	26.150	26.150	(4.221)	66005	0.114	76.1 91.4%

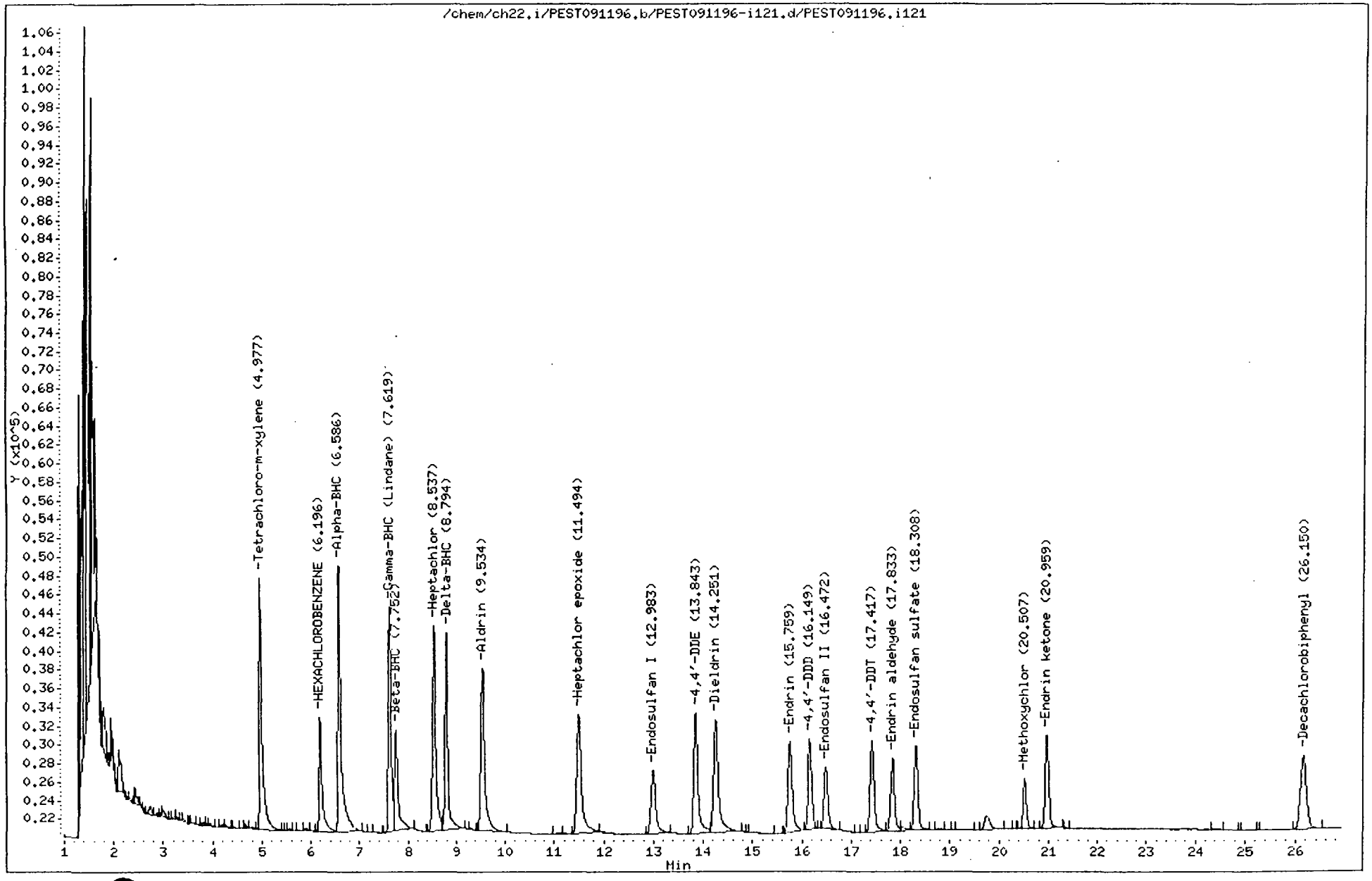
QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i121.d
Date : 11-SEP-96 16:38:00
Client ID: 9654-6MSD
Sample Info: 9654-6MSD 30/10 AB848-84A 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-608

Instrument: ch22.i
Operator: MAK
Column diameter: 0.53

708



FORM 1
8080 ORGANICS ANALYSIS DATA SHEET

AT Kearney SAMPLE NO.

9654-4

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

Matrix: (soil/water) SOIL Lab Sample ID: 9654-4

Sample wt/vol: 30.0 (g/mL) G Lab File ID: PEST091196-I141

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 15.8 decanted: (Y/N) N Date Extracted: 09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/11/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	Alpha-BHC	1.59	U
319-85-7	Beta-BHC	1.59	U
319-86-8	Delta-BHC	1.59	U
58-89-9	Gamma-BHC (Lindane)	1.59	U
76-44-8	Heptachlor	2.39	U
309-00-2	Aldrin	3.18	U
1024-57-3	Heptachlor epoxide	1.59	U
959-98-8	Endosulfan I	3.98	U
60-57-1	Dieldrin	1.59	U
72-55-9	4,4'-DDE	3.18	U
72-20-8	Endrin	3.98	U
33213-65-9	Endosulfan II	3.18	U
72-54-8	4,4'-DDD	3.98	U
1031-07-8	Endosulfan sulfate	3.98	U
50-29-3	4,4'-DDT	3.98	U
72-43-5	Methoxychlor	199	U
7421-36-3	Endrin aldehyde	3.98	U
8001-35-2	Toxaphene	191	U
12674-11-2	Aroclor 1016	7.16	U
11104-28-2	Aroclor 1221	7.16	U
1114-16-5	Aroclor 1232	7.16	U
53469-21-9	Aroclor 1242	7.16	U
12672-29-6	Aroclor 1248	7.16	U
11097-69-1	Aroclor 1254	7.16	U
11096-82-5	Aroclor 1260	7.16	U
12789-03-6	Chlordane	9.55	U
----------	Isodrin	7.96	U
----------	Kepone	7.96	U

Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i141.d
Lab Smp Id: 9654-4 Client Smp ID: 9654-4
Inj Date : 11-SEP-96 17:41:00
Operator : MAK Inst ID: ch22.i
Smp Info : 9654-4 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 12-Sep-96 13:23:15 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

MAK
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9-12-96

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
30 Methoxychlor	20.542	20.511	(3.315)	154	0.000568	0.379(a)
31 Endrin ketone	20.963	20.977	(3.383)	392	0.000674	0.449(a)
$ 1 Tetrachloro-m-xylene	4.981	4.977	(0.804)	113441	0.116	77.3 92.8%
* 2 HEXACHLOROBENZENE	6.196	6.191	(1.000)	53412	1.00	
$ 32 Decachlorobiphenyl	26.159	26.150	(4.222)	67411	0.117	77.8 93.4%

QC Flag Legend

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

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i141.d

Date : 11-SEP-96 17:41:00

Client ID: 9654-4

Instrument: ch22.i

Sample Info: 9654-4 30/10 AB848-84A 9-3-96

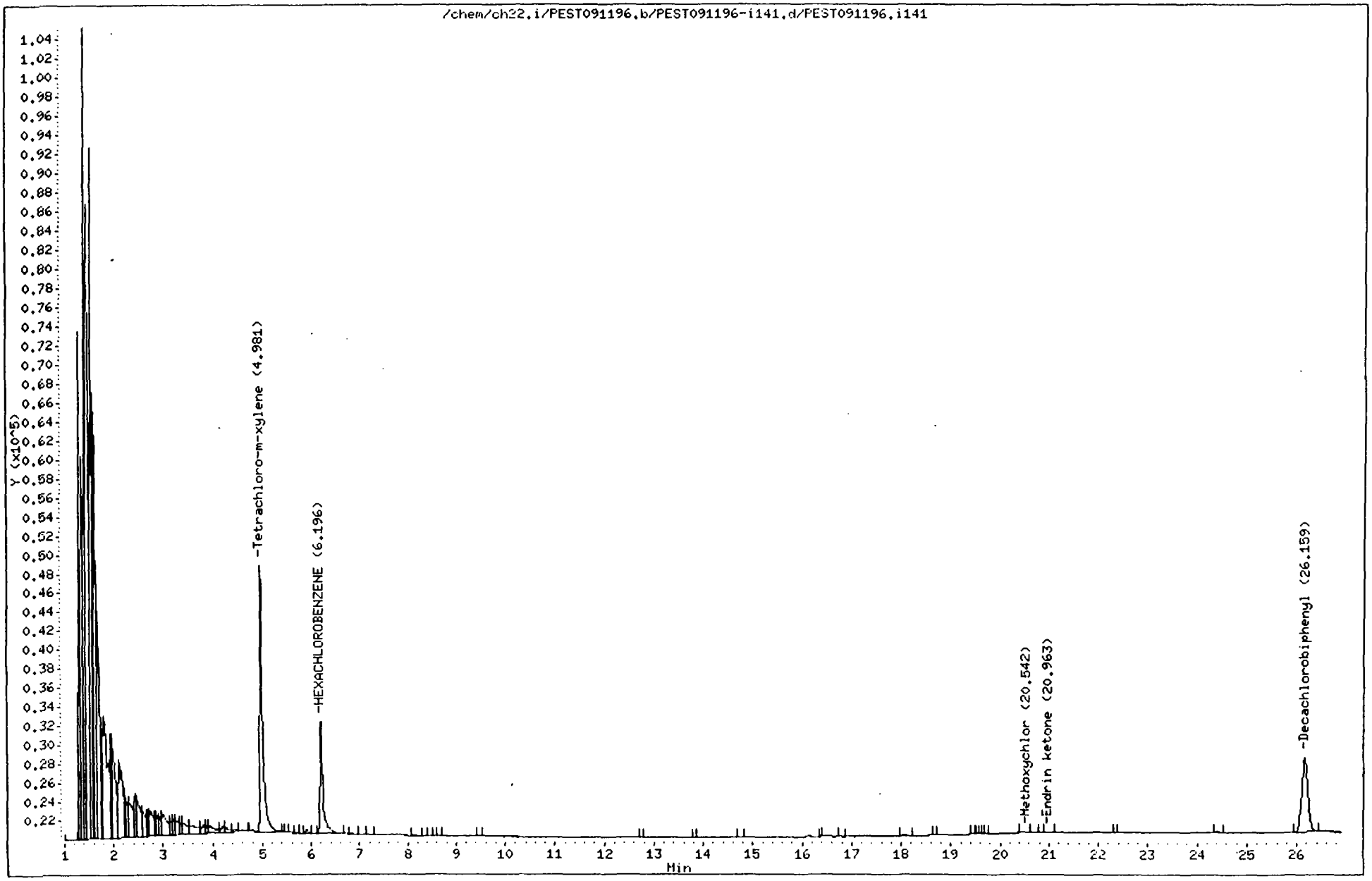
Volume Injected (uL): 0.5

Operator: MAK

Column phase: DB-608

Column diameter: 0.53

7111



Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch24.i\PEST091196.b\PEST091196-i141.d
Lab Smp Id: 9654-4 Client Smp ID: 9654-4
Inj Date : 11-SEP-96 17:41:00
Operator : MAKOWALSKI Inst ID: ch24.i
Smp Info : 9654-4 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch24.i\PEST091196.b\24pest0906.m
Meth Date : 13-Sep-96 13:46:00 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	28 Endrin ketone	19.733	19.671	(3.613)	7235	0.00114	0.757(a)
$	1 Tetrachloro-m-xylene	4.553	4.535	(0.834)	1321678	0.114	76.4
*	2 HEXACHLOROBENZENE	5.462	5.444	(1.000)	644536	1.00	
$	29 Decachlorobiphenyl	22.588	22.566	(4.136)	709808	0.120	79.8

QC Flag Legend

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

Data File: chem/ch24.i/PEST091196.b/PEST091196-i141.d

Date : 11-SEP-96 17:41:00

Client ID: 9654-4

Instrument: ch24.i

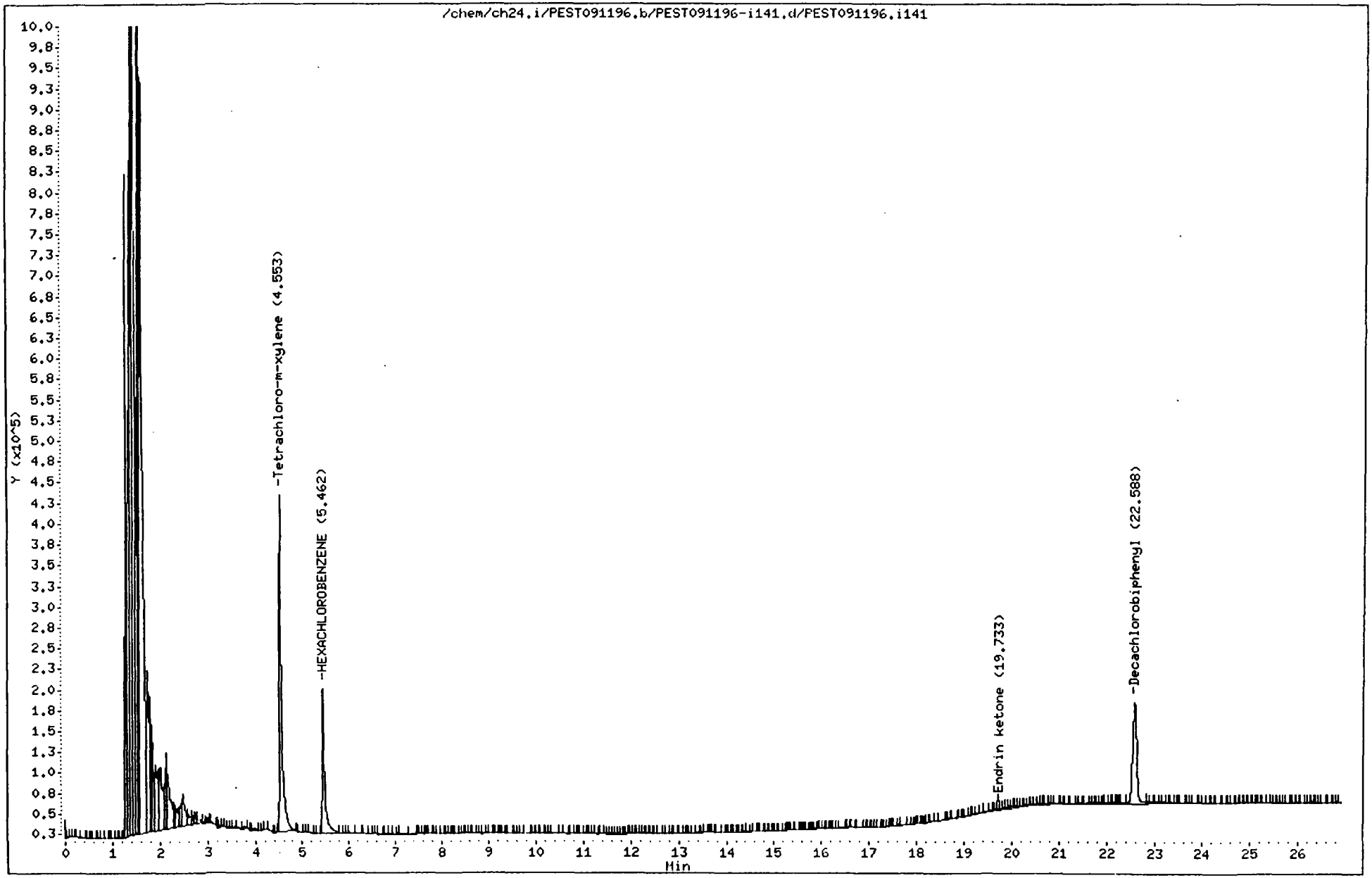
Sample Info: 9654-4 30/10 AB848-84A 9-3-96

Volume Injected (uL): 0.5

Operator: HAKOWALSKI

Column phase: DB-1701

Column diameter: 0.53



FORM 1 AT Kearney SAMPLE NO.

8080 ORGANICS ANALYSIS DATA SHEET

BLKBS

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

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

Sample wt/vol: 30.0 (g/mL) G Lab File ID: PEST091196-I091

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 0 decanted: (Y/N) N Date Extracted:09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/11/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	Gamma-BHC (Lindane)	64.9	
76-44-8	Heptachlor	70.0	
309-00-2	Aldrin	64.8	
60-57-1	Dieldrin	62.3	
72-20-8	Endrin	62.9	
50-29-3	4,4'-DDT	62.2	

Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i091.d
Lab Smp Id: BLKBS Client Smp ID: BLKBS
Inj Date : 11-SEP-96 15:03:00
Operator : MAK Inst ID: ch22.i
Smp Info : BS 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 12-Sep-96 13:23:15 Quant Type: ISTD
Cal Date : 06-SEP-96 16:05:00 Cal File: PEST090696-i071.d
Als bottle: 1 QC Sample: BS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
3 Alpha-BHC	6.595	6.590	(1.064)	131204	0.0970	64.6
6 Beta-BHC	7.756	7.752	(1.251)	59439	0.102	67.8
9 Delta-BHC	8.798	8.794	(1.419)	87198	0.104	69.5
5 Gamma-BHC (Lindane)	7.628	7.619	(1.230)	91823	0.0973	64.9
8 Heptachlor	8.546	8.541	(1.378)	105321	0.105	70.0
11 Aldrin	9.539	9.534	(1.538)	102118	0.0972	64.8
15 Heptachlor epoxide	11.498	11.498	(1.854)	88489	0.0957	63.8
16 Endosulfan I	13.001	12.979	(2.097)	47301	0.0575	38.4
20 Dieldrin	14.251	14.247	(2.298)	84613	0.0934	62.3
18 4,4'-DDE	13.852	13.852	(2.234)	76693	0.0992	66.1
22 Endrin	15.759	15.754	(2.542)	65512	0.0944	62.9
25 Endosulfan II	16.486	16.481	(2.659)	41231	0.0705	47.0
24 4,4'-DDD	16.162	16.153	(2.607)	55929	0.0971	64.7
29 Endosulfan sulfate	18.317	18.308	(2.954)	48203	0.0889	59.3

MAK 9-12-96

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
27 4,4'-DDT	17.421	17.426	(2.810)	56421	0.0934	62.2
30 Methoxychlor	20.524	20.511	(3.310)	25070	0.0942	62.8(a)
31 Endrin ketone	20.972	20.977	(3.382)	54547	0.0955	63.7
28 Endrin aldehyde	17.838	17.833	(2.877)	41194	0.104	69.0
$ 1 Tetrachloro-m-xylene	4.981	4.977	(0.803)	110126	0.114	76.4 91.7%
* 2 HEXACHLOROBENZENE	6.200	6.191	(1.000)	52437	1.00	
$ 32 Decachlorobiphenyl	26.155	26.150	(4.218)	63815	0.112	75.0 90.0%

QC Flag Legend

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

Data File: /chem/ch22.i/PEST091196.b/PEST091196-i091.d

Date : 11-SEP-96 15:03:00

Client ID: BLKBS

Instrument: ch22.i

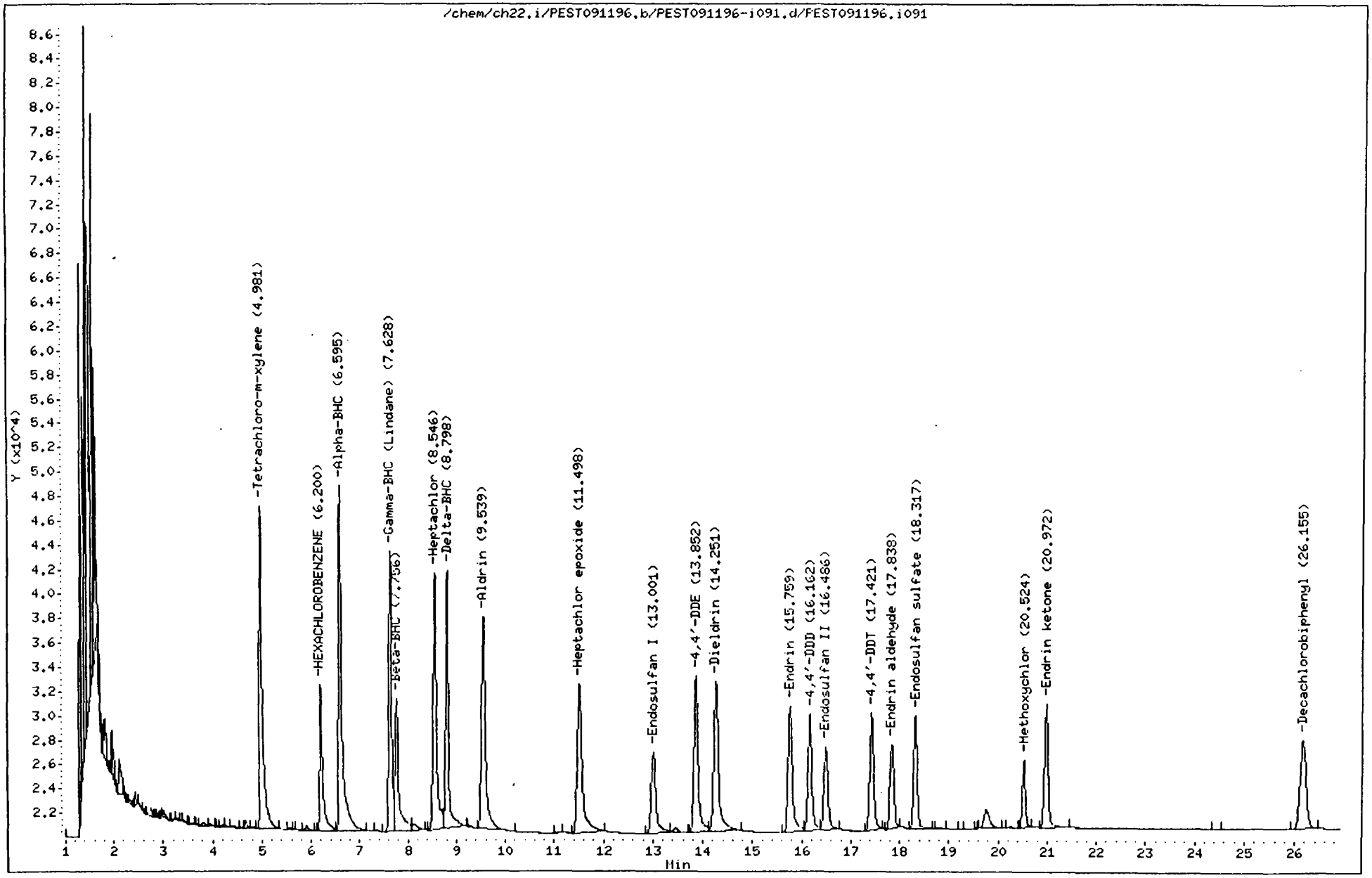
Sample Info: BS 30/10 AB848-84A 9-3-96

Volume Injected (uL): 0.5

Operator: HAK

Column phase: DB-608

Column diameter: 0.53



FORM 1
8080 ORGANICS ANALYSIS DATA SHEET

AT Kearney SAMPLE NO.

BLKBSD

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: PEST9653

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

Sample wt/vol: 30.0 (g/mL) G Lab File ID: PEST091196-I101

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 0 decanted: (Y/N) N Date Extracted:09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/11/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	Gamma-BHC (Lindane)	63.9	
76-44-8	Heptachlor	69.9	
309-00-2	Aldrin	65.5	
60-57-1	Dieldrin	68.4	
72-20-8	Endrin	63.8	
50-29-3	4,4'-DDT	65.1	

Thru-Put Systems, Inc.

EPA METHOD 8080/608

Data file : \chem\ch22.i\PEST091196.b\PEST091196-i101.d
Lab Smp Id: BLKBSD Client Smp ID: BLKBSD
Inj Date : 11-SEP-96 15:35:00
Operator : MAK Inst ID: ch22.i
Smp Info : BSD 30/10 AB848-84A 9-3-96
Misc Info :
Comment : EPA METHOD 8080/608
Method : \chem\ch22.i\PEST091196.b\22pest0903.m
Meth Date : 12-Sep-96 14:57:28 makowalski Quant Type: ISTD
Cal Date : 07-SEP-96 02:04:00 Cal File: PEST090696-i261.d
Als bottle: 1 QC Sample: BSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PEST.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	30.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
3 Alpha-BHC	6.599	6.590	(1.064)	129034	0.0955	63.6
6 Beta-BHC	7.761	7.752	(1.251)	52973	0.0908	60.5
9 Delta-BHC	8.803	8.794	(1.419)	93123	0.111	74.2
5 Gamma-BHC (Lindane)	7.628	7.619	(1.229)	90315	0.0958	63.9
8 Heptachlor	8.550	8.541	(1.378)	105068	0.105	69.9
11 Aldrin	9.543	9.534	(1.538)	103103	0.0983	65.5
15 Heptachlor epoxide	11.507	11.498	(1.855)	92981	0.101	67.1
16 Endosulfan I	12.997	12.979	(2.095)	48181	0.0587	39.1
20 Dieldrin	14.256	14.247	(2.298)	92776	0.102	68.4
18 4,4'-DDE	13.857	13.852	(2.233)	78667	0.102	67.9
22 Endrin	15.772	15.754	(2.542)	66335	0.0957	63.8
25 Endosulfan II	16.495	16.481	(2.658)	47882	0.0820	54.7
24 4,4'-DDD	16.171	16.153	(2.606)	57824	0.100	67.0
29 Endosulfan sulfate	18.325	18.308	(2.953)	52574	0.0970	64.7

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
27 4,4'-DDT	17.430	17.426	(2.809)	58989	0.0977	65.1
30 Methoxychlor	20.516	20.511	(3.306)	26892	0.101	67.4(a)
31 Endrin ketone	20.963	20.977	(3.379)	56747	0.0994	66.3
28 Endrin aldehyde	17.847	17.833	(2.876)	44560	0.112	74.8
$ 1 Tetrachloro-m-xylene	4.986	4.977	(0.803)	112869	0.118	78.4 94.1%
* 2 HEXACHLOROBENZENE	6.205	6.191	(1.000)	52390	1.00	
$ 32 Decachlorobiphenyl	26.168	26.150	(4.217)	68553	0.121	80.7 96.9%

QC Flag Legend

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

Data Fi[redacted]/chem/ch22.i/PEST091196.b/PEST091196-i101.d

Date : 11-SEP-96 15:35:00

Client ID: BLKBSD

Instrument: ch22.i

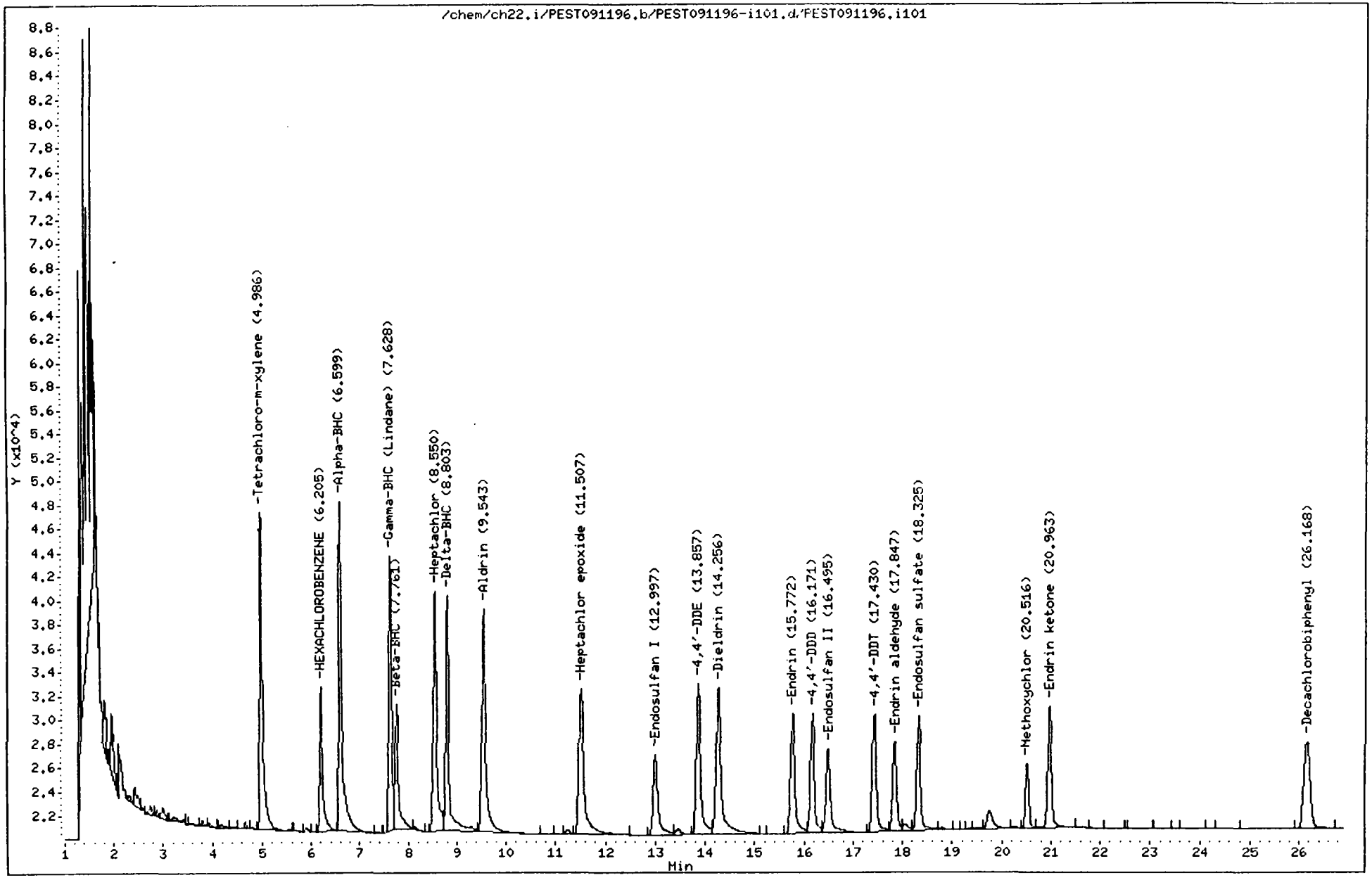
Sample Info: BSD 30/10 AB848-84A 9-3-96

Volume Injected (uL): 0.5

Operator: MHK

Column phase: DB-608

Column diameter: 0.53



PREPARATION AND ANALYSIS LOGS

BATCH: A6848-84

DATE STARTED: 9-3-96/1500

Method 3550A for Pesticides/PCB's in Soil (8080/8081)

ITS Environmental, Dallas, Tx (214) 238-5591

723

Sample I.D.:	RE-EXTRACT?	CLIENT I.D.:	Case Narrative?	30g soil +/- 0.1g	add 60g+ Na2SO4 lot# K05648	1.0ml surrogate (2.5 ppm) # AS8468-02	1.0 ml spike (2.5 ppm) # AB6046-80	100ml methylene chloride lot# K2Q3024	sonicate 3 X 3 min.	conc. to ~4ml in K-D (90-100 C)	Hexane exchange 50ml lot # K123014	conc. to <10 ml in K-D	final vol. 10.0ml	store in 12.0ml clear vials	notes/comments (Sample re-weighed, Clean-up methods & Lot numbers, Screen Data, misc info, etc.,..)
BLANK		N/A		PS	PS	PS		PS	LT	LT	LT	LT	HS	HS	
BS		↓		↓	↓	↓	PS	↓	↓	↓	↓	↓	↓	↓	
BSD		↓		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
MS, 9654-5		96-9SMS#CS01		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
MSD, 9654-6		-9SMSD#CS01		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	
9654-1		-6D#SR1		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
-2		-34S#CS01		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
-3		-9S#SR		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
-4		-9S#CS01		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
-7		-8S#SR		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
-10		-23S#CS01		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
-13		-23S#SR1		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
9682-1		96-7S#SR		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
-2		96-35#SR		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
9653-1		SS001 SWMW-105		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
-2		SS001 SWMW-105		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
-3		SS002 AOC2-5		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
9650-1		96-22S#SR		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
-2		96-17D#SR		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
-3		96-17D#CS-3		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	
-4		96-12D#SR-1		↓	↓	↓		↓	↓	↓	↓	↓	↓	↓	

Date/Time Completed: 9.4.96 \ 1130

APPROVAL:

MAK 9-6-96

[090296] 22 PEST90396
Reported on 5-SEP-1996 at 14:29
Modified on 5-SEP-1996 at 09:08

ANALYSIS SUMMARY

Method..... PEST8080 Run Sequence PEST8080
Calibration..... ISO-KEP1 Control.....

Calib. Sequence.. Sequential Standard

Lims Analysis ID. Analyst Name MAKOWALSKI
Comment..... VARIAN 3600, DUAL ECD, SERIAL #: 3600-0550

	SAMPLE NAME	SAMPLE ID	TYPE	NUM INJ	CAL LEVEL	RF UP 1st -->
1	ISODRIN/KEPONE - 0.005UG/ML #AA904-76-3		ST	1	L1	I
2	ISODRIN/KEPONE - 0.025UG/ML #AA904-76-3		ST	1	L2	I
3	ISODRIN/KEPONE - 0.100UG/ML #AA904-76-3		ST	1	L3	I
4	ISODRIN/KEPONE - 0.200UG/ML #AA904-76-3		ST	1	L4	I
5	ISODRIN/KEPONE - 0.250UG/ML #AA904-76-3		ST	1	L5	I
6	INST BLANK - HEXANE		SA	1		
7	ISODRIN/KEPONE - 0.100UG/ML #AA904-76-3		SA	1		
8	BLANK 30/10 AB848-26 8-26-96 I/K MDL		SA	1		
9	BS-MDL#1 30/10 AB848-26 8-26-96 I/K MDL		SA	1		
10	BS-MDL#2 30/10 AB848-26 8-26-96 I/K MDL		SA	1		
11	BS-MDL#3 30/10 AB848-26 8-26-96 I/K MDL		SA	1		
12	BS-MDL#4 30/10 AB848-26 8-26-96 I/K MDL		SA	1		
13	BS-MDL#5 30/10 AB848-26 8-26-96 I/K MDL		SA	1		
14	BS-MDL#6 30/10 AB848-26 8-26-96 I/K MDL		SA	1		
15	BS-MDL#7 30/10 AB848-26 8-26-96 I/K MDL		SA	1		
16	BLANK 1000/10 AB848-26 8-26-96 I/K MDL		SA	1		
17	BS-MDL#1 1000/10 AB848-33 8-27-96 I/K MD		SA	1		
18	ISODRIN/KEPONE - 0.100UG/ML #AA904-76-3		SA	1		
19	INST BLANK - HEXANE		SA	1		
20	BS-MDL#2 1000/10 AB848-33 8-27-96 I/K MD		SA	1		
21	BS-MDL#3 1000/10 AB848-33 8-27-96 I/K MD		SA	1		
22	BS-MDL#4 1000/10 AB848-33 8-27-96 I/K MD		SA	1		
23	BS-MDL#5 1000/10 AB848-33 8-27-96 I/K MD		SA	1		
24	BS-MDL#6 1000/10 AB848-33 8-27-96 I/K MD		SA	1		
25	BS-MDL#7 1000/10 AB848-33 8-27-96 I/K MD		SA	1		
26	ISODRIN/KEPONE - 0.100UG/ML #AA904-76-3		SA	1		

MAK 9-6-96

MAK 9-6-96

Continued on Page

Read and Understood By

Molly Makowalski Signed 9-6-96 Date

Karen Anglin Signed 724 9-11-96 Date

MAK 9-11-96

[090296] 22 PEST090696
Reported on 11-SEP-1996 at 08:56

ANALYSIS SUMMARY

Method..... PEST8080 Run Sequence PEST8080
Calibration..... PEST0626 Control.....

Calib. Sequence.. Sequential Standard

Lims Analysis ID. Analyst Name TCROTH
Comment..... VARIAN 3600, DUAL ECD, SERIAL #: 3600-0550

	SAMPLE NAME	SAMPLE ID	TYPE	NUM INJ	CAL LEVEL	RF UP 1st -->
1	PESTICIDES CAL STD 0.005UG/ML AA904-73-2		SA	1		
2	PESTICIDES CAL STD 0.005UG/ML AA904-73-2		SA	1		
3	PESTICIDES CAL STD 0.025UG/ML AA904-73-2		SA	1		
4	PESTICIDES CAL STD 0.100UG/ML AA904-73-2		SA	1		
5	PESTICIDES CAL STD 0.200UG/ML AA904-73-2		SA	1		
6	PESTICIDES CAL STD 0.250UG/ML AA904-73-2		SA	1		
7	PESTICIDES CAL STD 0.400UG/ML AA904-73-2		SA	1		
8	SYSTEM BLANK - HEXANE		SA	1		
9	TOXAPHENE CAL STD 0.20UG/ML AA904-69-6		SA	1		
10	TOXAPHENE CAL STD 0.75UG/ML AA904-69-6		SA	1		
11	TOXAPHENE CAL STD 1.50UG/ML AA904-69-6		SA	1		
12	TOXAPHENE CAL STD 2.50UG/ML AA904-69-6		SA	1		
13	TOXAPHENE CAL STD 5.00UG/ML AA904-69-6		SA	1		
14	SYSTEM BLANK - HEXANE		SA	1		
15	PESTICIDE/CHLORDANE MIX L1 #AA904-66-4		SA	1		
16	PESTICIDE/CHLORDANE MIX L2 #AA904-66-4		SA	1		
17	PESTICIDE/CHLORDANE MIX L3 #AA904-66-4		SA	1		
18	PESTICIDE/CHLORDANE MIX L4 #AA904-66-4		SA	1		
19	PESTICIDE/CHLORDANE MIX L5 #AA904-66-4		SA	1		
20	PESTICIDE/CHLORDANE MIX L6 #AA904-66-4		SA	1		
21	SYSTEM BLANK - HEXANE		SA	1		
22	AROCHLOR 1660 - 0.03UG/ML #AA904-74-3		SA	1		
23	AROCHLOR 1660 - 0.50UG/ML #AA904-74-3		SA	1		
24	AROCHLOR 1660 - 1.00UG/ML #AA904-59-3		SA	1		
25	AROCHLOR 1660 - 1.50UG/ML #AA904-74-3		SA	1		
26	AROCHLOR 1660 - 2.50UG/ML #AA904-74-3		SA	1		
27	SYSTEM BLANK - HEXANE		SA	1		
28	PEST. DEGR. STD - 0.05/0.10UG/ML AA904-4		SA	1		
29	PESTICIDE ICV STD 0.100UG/ML AA904-		SA	1		
30	TOXAPHENE CAL STD 1.50UG/ML AA904-69-6		SA	1		
31	PESTICIDE/CHLORDANE MIX L3 AA904-66-4		SA	1		
32	AROCHLOR 1660 - 1.00UG/ML #AA904-59-3		SA	1		
33	ISODRIN/KEPONE MIX 0.100UG/ML AA904-76-3		SA	1		
34	BLANK 30/10 AB878-10 9-5-96 I/K MDL		SA	1		
35	BS-MDL#1 30/10 AB878-10 9-5-96 I/K MDL		SA	1		
36	BS-MDL#2 30/10 AB878-10 9-5-96 I/K MDL		SA	1		
37	BS-MDL#3 30/10 AB878-10 9-5-96 I/K MDL		SA	1		
38	BS-MDL#4 30/10 AB878-10 9-5-96 I/K MDL		SA	1		
39	BS-MDL#5 30/10 AB878-10 9-5-96 I/K MDL		SA	1		
40	BS-MDL#6 30/10 AB878-10 9-5-96 I/K MDL		SA	1		

MAK 9-11-96

[090296] 22 PEST090696
Reported on 11-SEP-1996 at 08:56

41	BS-MDL#7 30/10 AB878-10 9-5-96 I/K MDL		SA	1		
42	ISODRIN/KEPONE MIX 0.10UG/ML AA904-76-3		SA	1		

MAK 9-11-96

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Read and Understood By

Signed Date Signed Date

725
9-11-96

MAK 9-23-96

[090996] 24 PEST091196
Reported on 23-SEP-1996 at 20:10

ANALYSIS SUMMARY

Method..... PEST8080 Run Sequence PEST8080
Calibration..... PEST0626 Control.....

Calib. Sequence.. Sequential Standard

Lims Analysis ID. Analyst Name TCROTH
Comment..... VARIAN 3600, DUAL ECD, SERIAL #: 3600-0550

	SAMPLE NAME	SAMPLE ID	TYPE	NUM CAL INJ	RF UP LEVEL 1st -->
1	INST BLANK - HEXANE		SA	1	
2	PEST DEGR. STD 0.05/0.10UG/ML AA904-46-9		SA	1	
3	PESTICIDES CAL STD 0.100UG/ML AA904-73-2		SA	1	
4	TOXAPHENE CAL STD 1.50UG/ML AA904-69-6		SA	1	
5	PESTICIDE/CHLORDANE MIX L3 #AA904-66-4		SA	1	
6	AROCHLOR 1660 - 1.00UG/ML #AA904-59-3		SA	1	
7	ISODRIN/KEPONE MIX 0.100UG/ML AA904-76-3		SA	1	
8	BLANK 30/10 AB848-84A 9-3-96		SA	1	
9	BS 30/10 AB848-84A 9-3-96		SA	1	
10	BSD 30/10 AB848-84A 9-3-96		SA	1	
11	9654-5MS 30/10 AB848-84A 9-3-96		SA	1	
12	9654-6MSD 30/10 AB848-84A 9-3-96		SA	1	
13	INST BLANK - HEXANE		SA	1	
14	9654-4 30/10 AB848-84A 9-3-96		SA	1	
15	9653-1 30/10 AB848-84A 9-3-96		SA	1	
16	9653-2 30/10 AB848-84A 9-3-96		SA	1	
17	9653-3 30/10 AB848-84A 9-3-96		SA	1	
18	PESTICIDES CAL STD 0.100UG/ML AA904-73-2		SA	1	
19	ISODRIN/KEPONE MIX 0.100UG/ML AA904-76-3		SA	1	

MAK 9-23-96

MAK 9-23-96

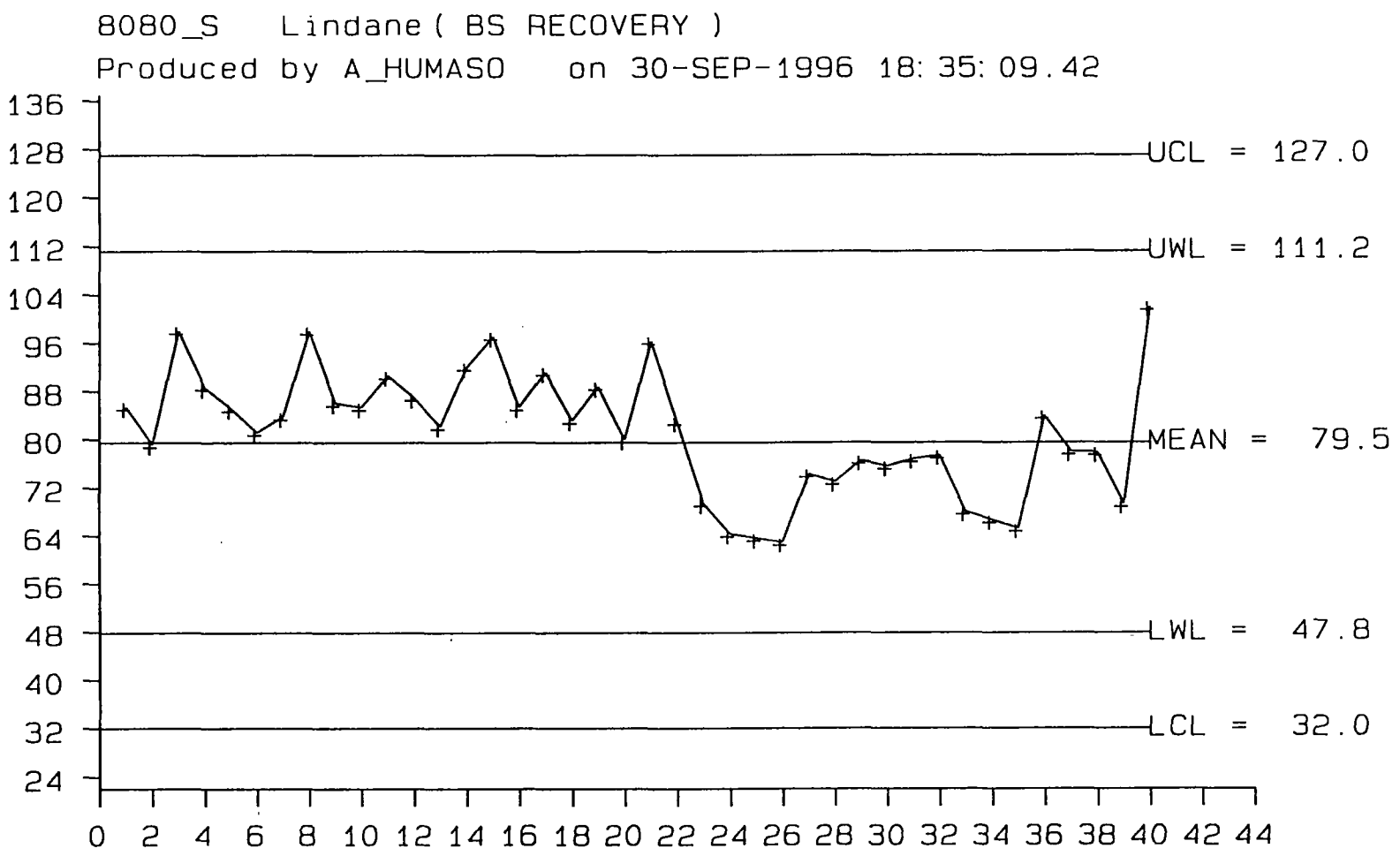
Continued on Page

Molly A Kowalski 9-23-96
Signed Date

Read and Understood By
Signed

726
9-23-96
Date

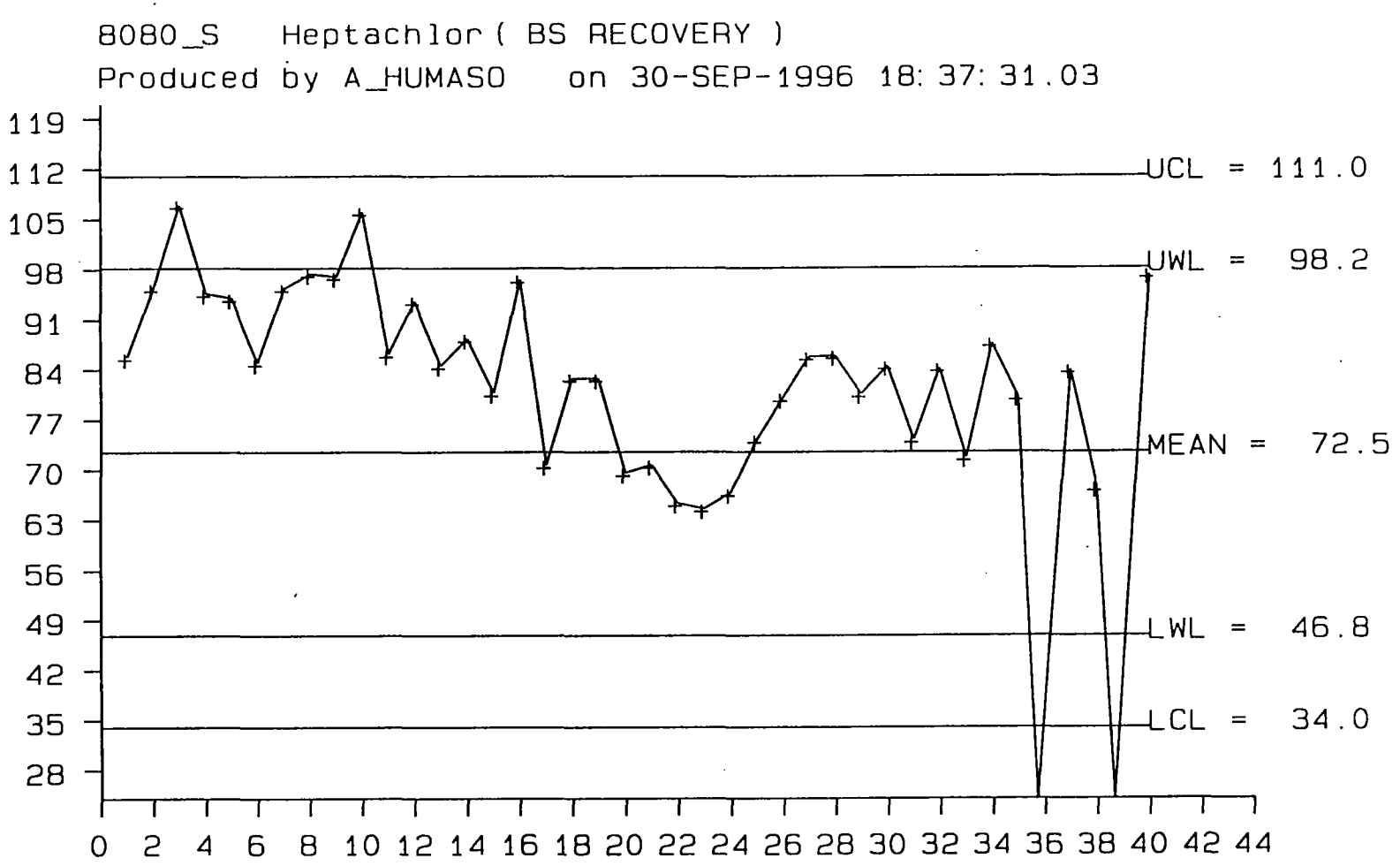
CONTROL CHARTS


8080_S Lindane (BS RECOVERY)
Produced by A_HUMASO on 30-SEP-1996 18: 35: 09.42
136
128
120
112
104
96
88
80
72
64
56
48
40
32
24
UCL = 127.0
UWL = 111.2
MEAN = 79.5
LWL = 47.8
LCL = 32.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8080_S Lindane
Chart Type: BS RECOVERY
Generated on: 30-SEP-1996 18:35

Current Control Limits
(32.0 - 127.0)

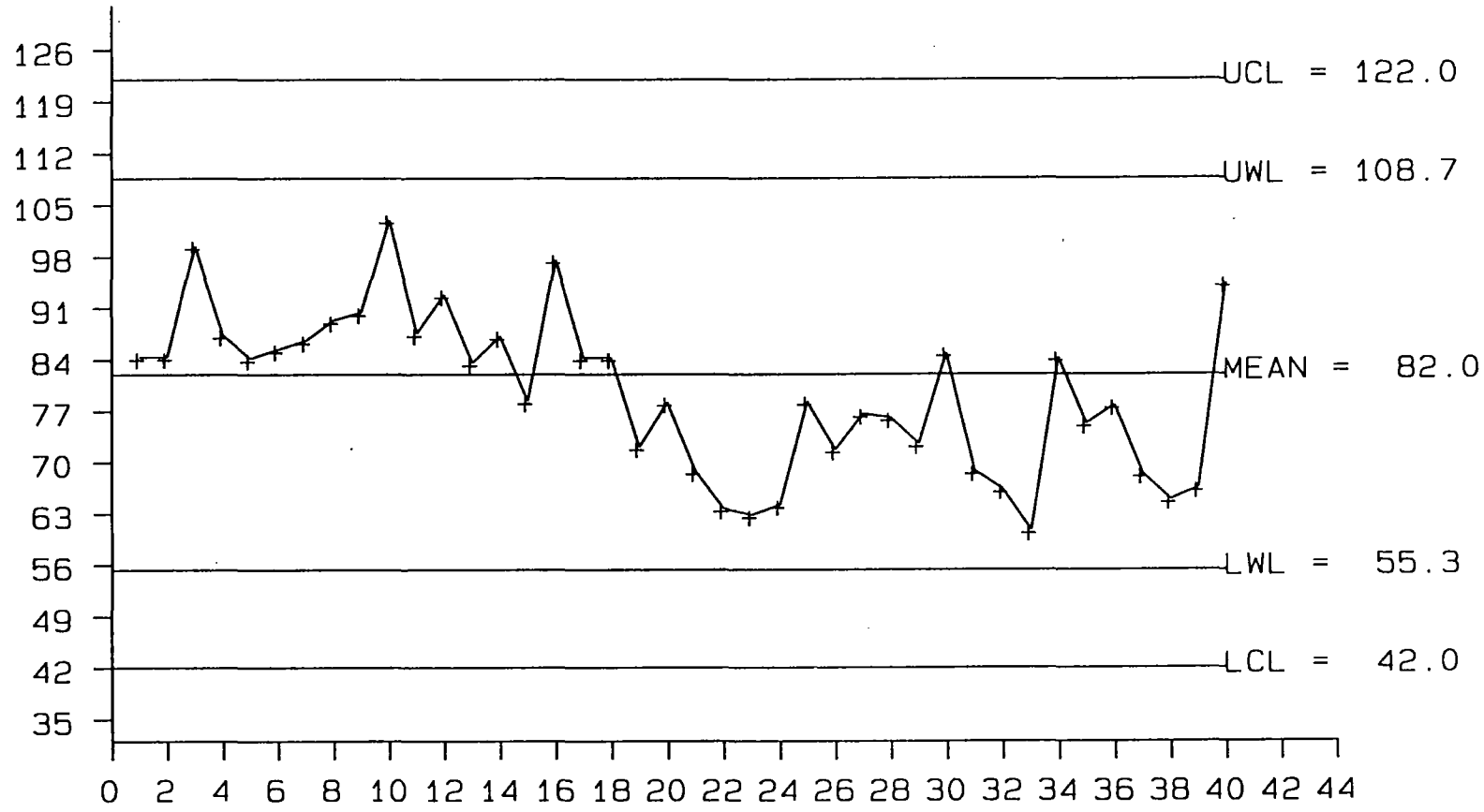
Point	Batch Number	Date Analyzed	Value (%)
1	AB715-57	30-APR-1996 0	85.5
2	AB715-96	4-MAY-1996 0	79.2
3	AB764-59	13-MAY-1996 0	98.1
4	AB765-2	16-MAY-1996 0	88.7
5	AB765-19	21-MAY-1996 0	85.2
6	AB765-67	23-MAY-1996 0	81.2
7	AB765-80	25-MAY-1996 0	83.8
8	AB788-34	14-JUN-1996 0	98.0
9	AB788-51	15-JUN-1996 0	86.1
10	AB788-69	20-JUN-1996 0	85.4
11	AB788-83	21-JUN-1996 0	90.6
12	AB788-88	21-JUN-1996 0	87.0
13	AB788-57	21-JUN-1996 0	82.2
14	AB788-98A	26-JUN-1996 0	92.0
15	AB790-13	27-JUN-1996 0	97.1
16	AB790-44	29-JUN-1996 0	85.4
17	AB790-65	2-JUL-1996 0	91.2
18	AB790-77	3-JUL-1996 0	83.2
19	AB815-9	7-JUL-1996 0	88.8
20	AB815-36	12-JUL-1996 0	80.0
21	AB815-99	18-JUL-1996 0	96.4
22	0718808001	22-JUL-1996 0	83.0
23	0718808002	23-JUL-1996 0	69.4
24	0722808001	24-JUL-1996 0	64.3
25	0722808002	25-JUL-1996 0	63.6
26	AB816-93	26-JUL-1996 0	62.9
27	AB846-42	5-AUG-1996 0	74.3
28	AB846-66	9-AUG-1996 0	73.0
29	AB846-83	10-AUG-1996 0	76.5
30	AB847-37	16-AUG-1996 0	75.6
31	AB847-72	20-AUG-1996 0	76.8
32	AB847-60	20-AUG-1996 0	77.4
33	AB848-40	28-AUG-1996 0	68.0
34	AB848-25	29-AUG-1996 0	66.6
35	AB848-62	30-AUG-1996 0	65.2
36	AB848-84	6-SEP-1996 0	84.0
37	AB878-11	6-SEP-1996 0	78.0
38	AB848-84A	11-SEP-1996 0	77.9
39	AB878-43	13-SEP-1996 0	69.3
40	AB879-29	21-SEP-1996 0	102


8080_S Heptachlor (BS RECOVERY)
Produced by A_HUMASO on 30-SEP-1996 18:37:31.03
119
112
105
98
91
84
77
70
63
56
49
42
35
28
UCL = 111.0
UWL = 98.2
MEAN = 72.5
LWL = 46.8
LCL = 34.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8080_S Heptachlor
Chart Type: BS RECOVERY
Generated on: 30-SEP-1996 18:37

Current Control Limits
(34.0 - 111.0)

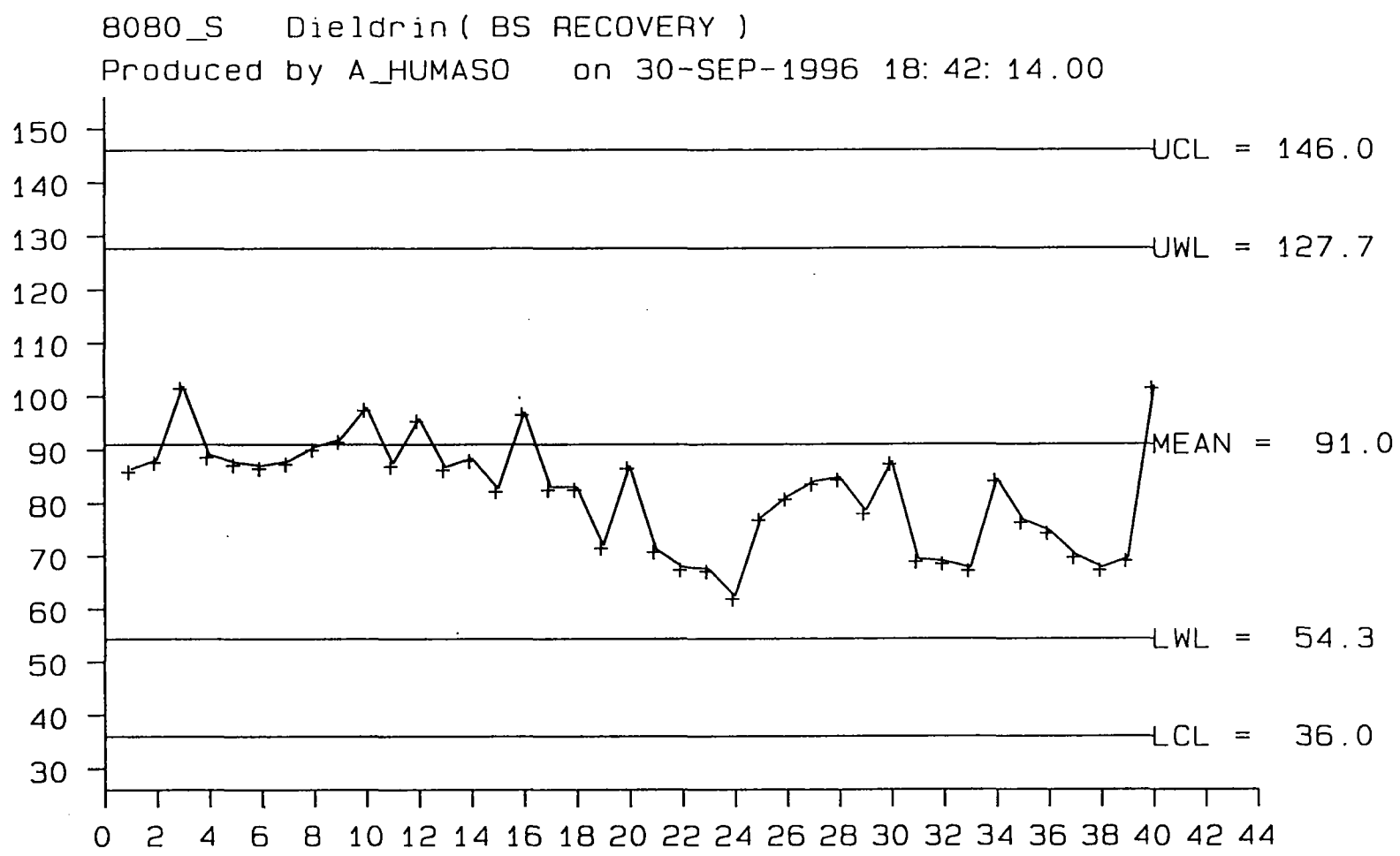
Point	Batch Number	Date Analyzed	Value (%)
1	AB765-67	23-MAY-1996 0	85.8
2	AB765-80	25-MAY-1996 0	95.4
3	AB788-34	14-JUN-1996 0	107
4	AB788-51	15-JUN-1996 0	94.7
5	AB788-69	20-JUN-1996 0	94.0
6	AB788-57	21-JUN-1996 0	85.0
7	AB788-88	21-JUN-1996 0	95.4
8	AB788-83	21-JUN-1996 0	97.4
9	AB788-98A	26-JUN-1996 0	97.0
10	AB790-13	27-JUN-1996 0	106
11	AB790-44	29-JUN-1996 0	86.2
12	AB790-65	2-JUL-1996 0	93.6
13	AB790-77	3-JUL-1996 0	84.6
14	AB815-9	7-JUL-1996 0	88.4
15	AB815-36	12-JUL-1996 0	80.8
16	AB815-99	18-JUL-1996 0	96.6
17	AB816-15	22-JUL-1996 0	70.7
18	0718808001	22-JUL-1996 0	82.8
19	AB816-26	22-JUL-1996 0	82.8
20	0718808002	23-JUL-1996 0	69.6
21	AB816-51	23-JUL-1996 0	70.7
22	0722808001	24-JUL-1996 0	65.4
23	0722808002	25-JUL-1996 0	64.6
24	AB816-93	26-JUL-1996 0	66.8
25	AB846-42	5-AUG-1996 0	74.2
26	AB846-66	9-AUG-1996 0	80.0
27	AB846-83	10-AUG-1996 0	85.8
28	AB847-37	16-AUG-1996 0	86.0
29	AB847-60	20-AUG-1996 0	80.6
30	AB847-72	20-AUG-1996 0	84.5
31	AB848-40	28-AUG-1996 0	74.2
32	AB848-25	29-AUG-1996 0	84.2
33	AB848-62	30-AUG-1996 0	71.7
34	AB848-84	6-SEP-1996 0	87.7
35	AB878-11	6-SEP-1996 0	80.2
36	AB878-59	11-SEP-1996 0	0.0
37	AB848-84A	11-SEP-1996 0	84.0
38	AB878-43	13-SEP-1996 0	67.5
39	AB879-14	18-SEP-1996 0	0.0
40	AB879-29	21-SEP-1996 0	97.2


8080_S Aldrin (BS RECOVERY)
Produced by A_HUMASO on 30-SEP-1996 18: 40: 15.46
126
119
112
105
98
91
84
77
70
63
56
49
42
35
UCL = 122.0
UWL = 108.7
MEAN = 82.0
LWL = 55.3
LCL = 42.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8080_S Aldrin
Chart Type: BS RECOVERY
Generated on: 30-SEP-1996 18:40

Current Control Limits
(42.0 - 122.0)

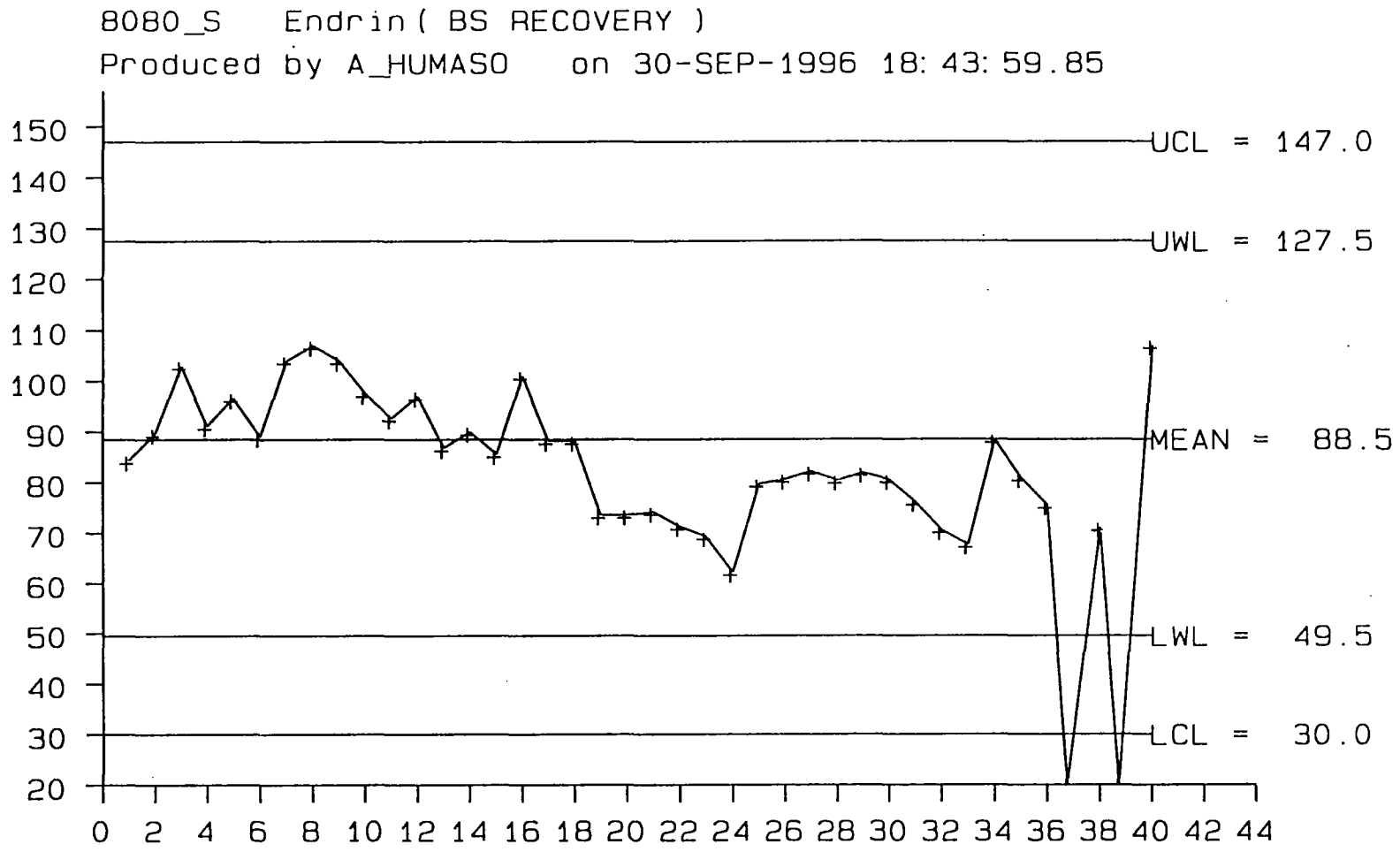
Point	Batch Number	Date Analyzed	Value (%)
1	AB765-67	23-MAY-1996 0	84.4
2	AB765-80	25-MAY-1996 0	84.4
3	AB788-34	14-JUN-1996 0	99.5
4	AB788-51	15-JUN-1996 0	87.4
5	AB788-69	20-JUN-1996 0	84.2
6	AB788-57	21-JUN-1996 0	85.4
7	AB788-88	21-JUN-1996 0	86.6
8	AB788-83	21-JUN-1996 0	89.3
9	AB788-98A	26-JUN-1996 0	90.4
10	AB790-13	27-JUN-1996 0	103
11	AB790-44	29-JUN-1996 0	87.6
12	AB790-65	2-JUL-1996 0	92.8
13	AB790-77	3-JUL-1996 0	83.6
14	AB815-9	7-JUL-1996 0	87.2
15	AB815-36	12-JUL-1996 0	78.4
16	AB815-99	18-JUL-1996 0	97.6
17	0718808001	22-JUL-1996 0	84.3
18	AB816-26	22-JUL-1996 0	84.3
19	AB816-15	22-JUL-1996 0	72.1
20	AB816-51	23-JUL-1996 0	78.2
21	0718808002	23-JUL-1996 0	68.8
22	0722808001	24-JUL-1996 0	63.7
23	0722808002	25-JUL-1996 0	62.8
24	AB816-93	26-JUL-1996 0	64.2
25	AB846-42	5-AUG-1996 0	78.3
26	AB846-66	9-AUG-1996 0	71.7
27	AB846-83	10-AUG-1996 0	76.6
28	AB847-37	16-AUG-1996 0	76.1
29	AB847-72	20-AUG-1996 0	72.5
30	AB847-60	20-AUG-1996 0	84.9
31	AB848-40	28-AUG-1996 0	68.8
32	AB848-25	29-AUG-1996 0	66.3
33	AB848-62	30-AUG-1996 0	60.7
34	AB848-84	6-SEP-1996 0	84.3
35	AB878-11	6-SEP-1996 0	75.3
36	AB848-84A	11-SEP-1996 0	77.8
37	AB878-59	11-SEP-1996 0	68.4
38	AB878-43	13-SEP-1996 0	64.9
39	AB879-14	18-SEP-1996 0	66.5
40	AB879-29	21-SEP-1996 0	94.4


8080_S Dieldrin (BS RECOVERY)
Produced by A_HUMASO on 30-SEP-1996 18: 42: 14.00
150
140
130
120
110
100
90
80
70
60
50
40
30
UCL = 146.0
UWL = 127.7
MEAN = 91.0
LWL = 54.3
LCL = 36.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8080_S Dieldrin
Chart Type: BS RECOVERY
Generated on: 30-SEP-1996 18:42

Current Control Limits
(36.0 - 146.0)

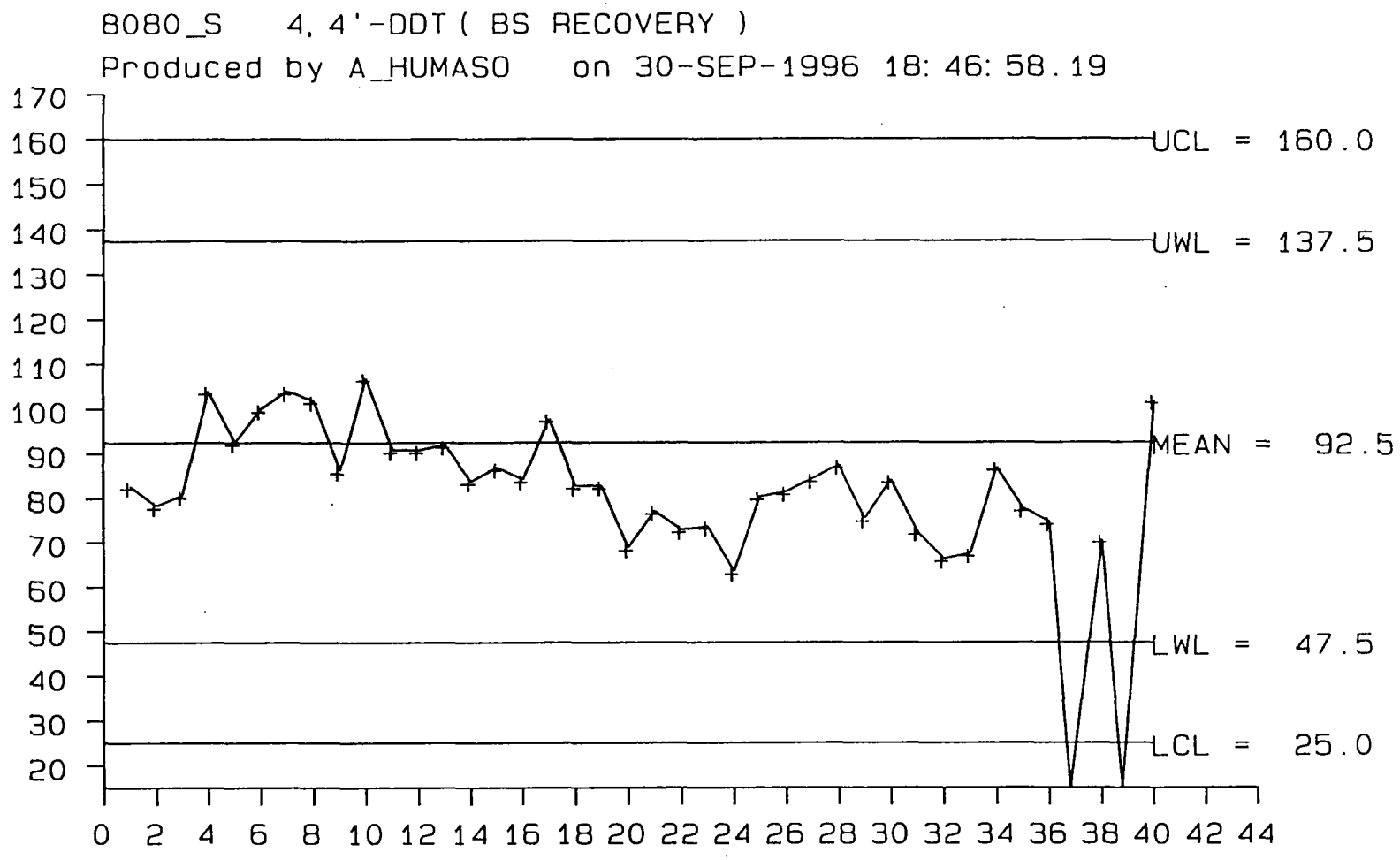
Point	Batch Number	Date Analyzed	Value (%)
1	AB765-67	23-MAY-1996 0	86.4
2	AB765-80	25-MAY-1996 0	88.1
3	AB788-34	14-JUN-1996 0	102
4	AB788-51	15-JUN-1996 0	89.1
5	AB788-69	20-JUN-1996 0	87.6
6	AB788-57	21-JUN-1996 0	87.0
7	AB788-88	21-JUN-1996 0	87.8
8	AB788-83	21-JUN-1996 0	90.5
9	AB788-98A	26-JUN-1996 0	92.0
10	AB790-13	27-JUN-1996 0	98.0
11	AB790-44	29-JUN-1996 0	87.4
12	AB790-65	2-JUL-1996 0	95.9
13	AB790-77	3-JUL-1996 0	86.7
14	AB815-9	7-JUL-1996 0	88.4
15	AB815-36	12-JUL-1996 0	82.7
16	AB815-99	18-JUL-1996 0	97.1
17	0718808001	22-JUL-1996 0	83.0
18	AB816-26	22-JUL-1996 0	83.0
19	AB816-15	22-JUL-1996 0	72.0
20	AB816-51	23-JUL-1996 0	87.0
21	0718808002	23-JUL-1996 0	71.3
22	0722808001	24-JUL-1996 0	67.9
23	0722808002	25-JUL-1996 0	67.6
24	AB816-93	26-JUL-1996 0	62.4
25	AB846-42	5-AUG-1996 0	77.3
26	AB846-66	9-AUG-1996 0	81.2
27	AB846-83	10-AUG-1996 0	84.0
28	AB847-37	16-AUG-1996 0	84.8
29	AB847-72	20-AUG-1996 0	78.5
30	AB847-60	20-AUG-1996 0	87.8
31	AB848-40	28-AUG-1996 0	69.4
32	AB848-25	29-AUG-1996 0	69.0
33	AB848-62	30-AUG-1996 0	67.7
34	AB848-84	6-SEP-1996 0	84.6
35	AB878-11	6-SEP-1996 0	76.8
36	AB848-84A	11-SEP-1996 0	74.8
37	AB878-59	11-SEP-1996 0	70.2
38	AB878-43	13-SEP-1996 0	67.8
39	AB879-14	18-SEP-1996 0	69.6
40	AB879-29	21-SEP-1996 0	102


8080_S Endrin (BS RECOVERY)
Produced by A_HUMASO on 30-SEP-1996 18: 43: 59.85
UCL = 147.0
UWL = 127.5
MEAN = 88.5
LWL = 49.5
LCL = 30.0
150
140
130
120
110
100
90
80
70
60
50
40
30
20
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8080_S Endrin
Chart Type: BS RECOVERY
Generated on: 30-SEP-1996 18:44

Current Control Limits
(30.0 - 147.0)

Point	Batch Number	Date Analyzed	Value (%)
1	AB765-67	23-MAY-1996 0	84.4
2	AB765-80	25-MAY-1996 0	89.7
3	AB788-34	14-JUN-1996 0	103
4	AB788-51	15-JUN-1996 0	91.1
5	AB788-69	20-JUN-1996 0	96.6
6	AB788-57	21-JUN-1996 0	89.0
7	AB788-88	21-JUN-1996 0	104
8	AB788-83	21-JUN-1996 0	107
9	AB788-98A	26-JUN-1996 0	104
10	AB790-13	27-JUN-1996 0	97.5
11	AB790-44	29-JUN-1996 0	92.7
12	AB790-65	2-JUL-1996 0	97.0
13	AB790-77	3-JUL-1996 0	86.8
14	AB815-9	7-JUL-1996 0	90.0
15	AB815-36	12-JUL-1996 0	85.6
16	AB815-99	18-JUL-1996 0	101
17	0718808001	22-JUL-1996 0	88.2
18	AB816-26	22-JUL-1996 0	88.2
19	AB816-15	22-JUL-1996 0	73.6
20	AB816-51	23-JUL-1996 0	73.6
21	0718808002	23-JUL-1996 0	74.2
22	0722808001	24-JUL-1996 0	71.3
23	0722808002	25-JUL-1996 0	69.3
24	AB816-93	26-JUL-1996 0	62.2
25	AB846-42	5-AUG-1996 0	79.7
26	AB846-66	9-AUG-1996 0	80.6
27	AB846-83	10-AUG-1996 0	82.2
28	AB847-37	16-AUG-1996 0	80.4
29	AB847-72	20-AUG-1996 0	81.9
30	AB847-60	20-AUG-1996 0	80.5
31	AB848-40	28-AUG-1996 0	76.1
32	AB848-25	29-AUG-1996 0	70.6
33	AB848-62	30-AUG-1996 0	67.7
34	AB848-84	6-SEP-1996 0	88.4
35	AB878-11	6-SEP-1996 0	80.9
36	AB848-84A	11-SEP-1996 0	75.5
37	AB878-59	11-SEP-1996 0	0.0
38	AB878-43	13-SEP-1996 0	71.1
39	AB879-14	18-SEP-1996 0	0.0
40	AB879-29	21-SEP-1996 0	107


8080_S 4,4'-DDT (BS RECOVERY)
Produced by A_HUMASO on 30-SEP-1996 18:46:58.19
UCL = 160.0
UWL = 137.5
MEAN = 92.5
LWL = 47.5
LCL = 25.0
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: 8080_S 4,4'-DDT
Chart Type: BS RECOVERY
Generated on: 30-SEP-1996 18:47

Current Control Limits
(25.0 - 160.0)

Point	Batch Number	Date Analyzed	Value (%)
1	AB765-19	21-MAY-1996 0	82.8
2	AB765-67	23-MAY-1996 0	78.3
3	AB765-80	25-MAY-1996 0	80.7
4	AB788-34	14-JUN-1996 0	104
5	AB788-51	15-JUN-1996 0	92.6
6	AB788-69	20-JUN-1996 0	100
7	AB788-83	21-JUN-1996 0	104
8	AB788-88	21-JUN-1996 0	102
9	AB788-57	21-JUN-1996 0	86.2
10	AB788-98A	26-JUN-1996 0	107
11	AB790-13	27-JUN-1996 0	90.9
12	AB790-44	29-JUN-1996 0	90.8
13	AB790-65	2-JUL-1996 0	92.0
14	AB790-77	3-JUL-1996 0	83.8
15	AB815-9	7-JUL-1996 0	86.9
16	AB815-36	12-JUL-1996 0	84.2
17	AB815-99	18-JUL-1996 0	97.8
18	AB816-26	22-JUL-1996 0	82.8
19	0718808001	22-JUL-1996 0	82.8
20	AB816-51	23-JUL-1996 0	68.8
21	0718808002	23-JUL-1996 0	77.1
22	0722808001	24-JUL-1996 0	72.9
23	0722808002	25-JUL-1996 0	73.7
24	AB816-93	26-JUL-1996 0	63.5
25	AB846-42	5-AUG-1996 0	80.3
26	AB846-66	9-AUG-1996 0	81.4
27	AB846-83	10-AUG-1996 0	84.3
28	AB847-37	16-AUG-1996 0	87.4
29	AB847-72	20-AUG-1996 0	75.4
30	AB847-60	20-AUG-1996 0	84.1
31	AB848-40	28-AUG-1996 0	72.4
32	AB848-25	29-AUG-1996 0	66.3
33	AB848-62	30-AUG-1996 0	67.5
34	AB848-84	6-SEP-1996 0	86.9
35	AB878-11	6-SEP-1996 0	77.7
36	AB848-84A	11-SEP-1996 0	74.7
37	AB878-59	11-SEP-1996 0	0.0
38	AB878-43	13-SEP-1996 0	70.6
39	AB879-14	18-SEP-1996 0	0.0
40	AB879-29	21-SEP-1996 0	102

Inchcape Testing Services
Environmental Laboratories

HERBICIDES DATA

QUALITY CONTROL SUMMARY

FORM 2
SOIL HERB SURROGATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Level: (low/med) LOW

	AT Kearney SAMPLE NO.	S1 #	S2 #	S3 #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	BLK	117								0
02	BLKBS	92								0
03	BLKBSD	83								0
04	SWMUG-5MS	96								0
05	SWMUG-5MSD	110								0
06	SWMUG-5	98								0
07	SWMUG-105	104								0
08										0
09										
10										
11										
12										
13										
14										
15										
16										
17										
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22										
23										
24										
25										
26										
27										
28										
29										
30										

QC LIMITS

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

FORM 3
SOIL HERB MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Matrix Spike - Client Sample ID: SWMUG-5 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
2,4-D	443	30.6	272	54	40-140
2,4,5-TP Silvex	44.3	0.000	35.5	80	40-140
2,4,5-T	44.3	0.000	41.0	92	40-140

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4-D	443	323	66	20	25	40-140
2,4,5-TP Silvex	44.3	44.7	101	23	25	40-140
2,4,5-T	44.3	49.2	111	19	25	40-140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 3 outside limits
Spike Recovery: 2 out of 6 outside limits

COMMENTS: _____

FORM 3
SOIL HERB BLANK SPIKE RECOVERY

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Matrix Spike - Client Sample ID: BLK Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	BLANK CONCENTRATION (ug/Kg)	BS CONCENTRATION (ug/Kg)	BS % REC #	QC. LIMITS REC.
2,4-D	400	0.000	311	78	40-140
2,4,5-TP Silvex	40.0	0.000	29.6	74	40-140
2,4,5-T	40.0	0.000	36.6	92	40-140

COMPOUND	SPIKE ADDED (ug/Kg)	BSD CONCENTRATION (ug/Kg)	BSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4-D	400	271	68	14	25	40-140
2,4,5-TP Silvex	40.0	25.6	64	14	25	40-140
2,4,5-T	40.0	29.1	73	23	25	40-140

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 6 outside limits

COMMENTS: _____

FORM 4
HERB METHOD BLANK SUMMARY

AT Kearney SAMPLE NO.

BLK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Lab File ID: HERB090696-I121 Lab Sample ID: BLK

Instrument ID: CH42 Date Extracted: 09/03/96

Matrix: (soil/water) SOIL Date Analyzed: 09/06/96

Level: (low/med) LOW Time Analyzed: 1927

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

	AT Kearney SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	BLKBS	BLKBS	090696-i131.d	09/06/96
02	BLKBSD	BLKBSD	090696-i141.d	09/06/96
03	SWMUG-5MS	9653-1MS	090696-i151.d	09/06/96
04	SWMUG-5MSD	9653-1MSD	090696-i161.d	09/06/96
05	SWMUG-5	9653-1	090696-i171.d	09/06/96
06	SWMUG-105	9653-2	090696-i181.d	09/06/96
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
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21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

SAMPLE DATA

FORM 1
HERB ORGANICS ANALYSIS DATA SHEET

AT Kearney SAMPLE NO.

SWMUG-5

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-1

Sample wt/vol: 10.0 (g/mL) G Lab File ID: HERB090696-I171

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 9.7 decanted: (Y/N) N Date Extracted: 09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/06/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	30.6	P
93-72-1	2,4,5-TP Silvex	4.43	U
93-76-5	2,4,5-T	4.43	U
----------	Pentachlorophenol	440	U

Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090696.b\HERB090696-i171.d
Lab Smp Id: 9653-1 Client Smp ID: SWMUG-5
Inj Date : 06-SEP-96 22:22:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : 9653-1 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090696.b\42herb0903.m
Meth Date : 09-Sep-96 13:40:07 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL) (1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

2,4-D
Silvex
2,4,5-T
Pentachlorophn.

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
1 Dalapon	3.622	3.626	(0.251)	81734	0.0789	158(a)
$ 2 2,4-Dichlorophenylacetic acid	12.648	12.719	(0.877)	159240	0.196	391 97.7%
6 Dichlorprop	14.160	14.200	(0.982)	8907	0.00760	15.2(a)
* 7 4,4-DBOFBP	14.417	14.426	(1.000)	303536	1.00	
8 2,4-D	14.896	14.909	(1.033)	338334	0.302	604 Uncont. Ck. 4427.6ppb
10 2,4,5-TP Silvex	15.765	15.765	(1.093)	6330	0.00176	3.52(a)
11 2,4,5-T	16.253	16.363	(1.127)	3506	0.00106	2.12(a)
12 2,4-DB	16.785	16.816	(1.164)	72775	0.145	290

QC Flag Legend

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

Data Fi[redacted]/chem/ch42.i/HERB090696.b/HERB090696-i171.d

Pa[redacted]

Date : 06-SEP-96 22:22:00

Client ID: SWHUG-5

Instrument: ch42.i

Sample Info: 9653-1 10/10 8150 AB848-82 9-3-96

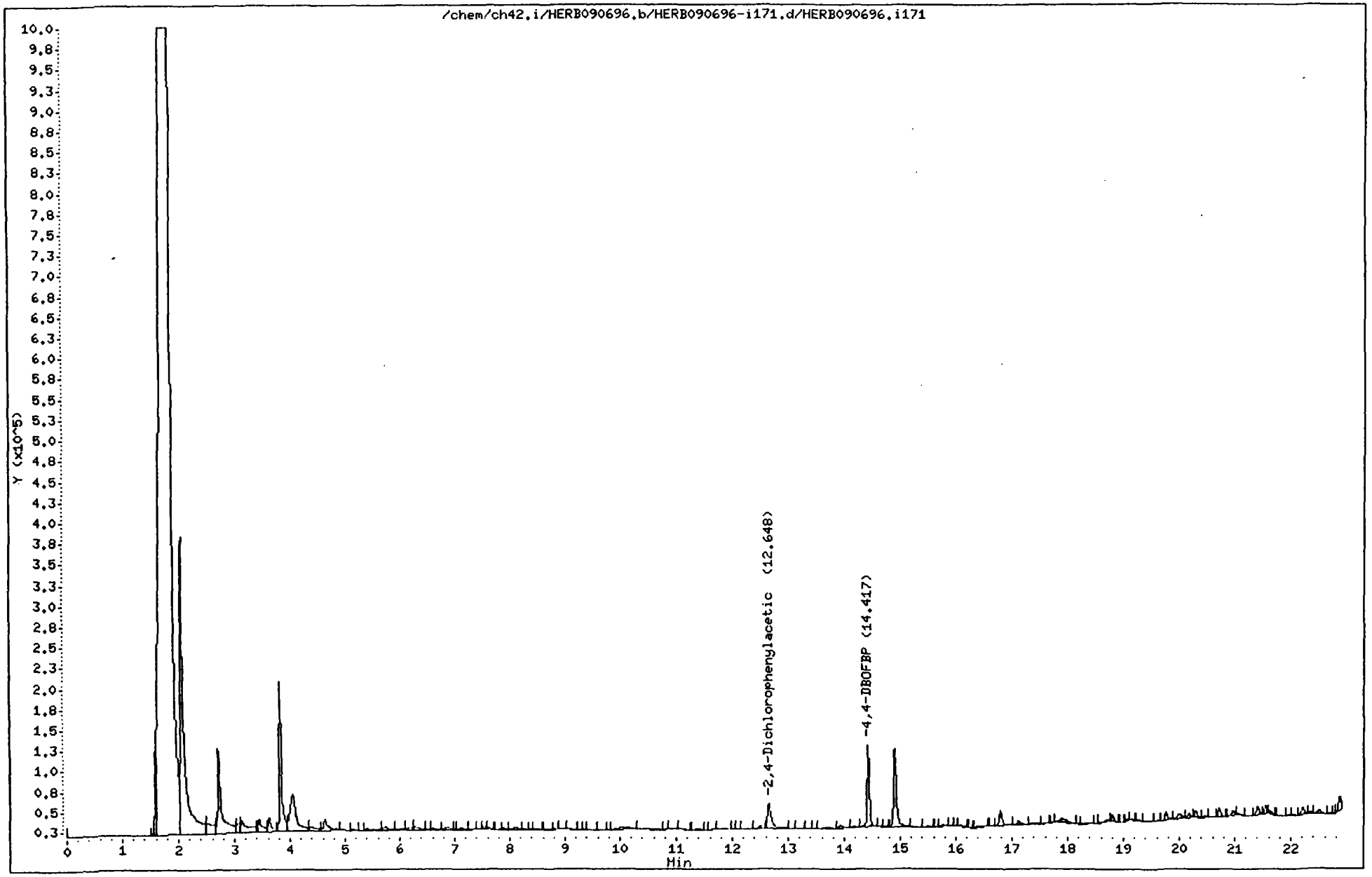
Volume Injected (uL): 0.5

Operator: MAKOWALSKI

Column phase: DB-XLB

Column diameter: 0.32

749



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090696.b\HERB090696-i171.d
Lab Smp Id: 9653-1 Client Smp ID: SWMUG-5
Inj Date : 06-SEP-96 22:22:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : 9653-1 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090696.b\44herb0903.m
Meth Date : 10-Sep-96 12:26:06 Quant Type: ISTD
Cal Date : 03-SEP-96 23:46:00 Cal File: HERB090396-i131.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	1 Dalapon	4.034	4.119	(0.250)	321150	0.195	389(a)
$	2 2,4-Dichlorophenylacetic acid	14.173	14.160	(0.877)	255836	0.180	359
	3 Dicamba	14.107	14.306	(0.873)	983	0.000200	0.400(a)
	7 2,4-D	15.761	15.800	(0.979)	22849	0.0138	27.6(aM)
*	8 4,4-DBOFBP	16.164	16.164	(1.000)	430617	1.00	
	10 2,4,5-TP Silvex	17.104	17.281	(1.058)	554137	0.102	205
	11 2,4,5-T	17.813	17.773	(1.102)	18233	0.00347	6.93(a)
	12 2,4-DB	18.332	18.518	(1.134)	31758	0.0421	84.3(a)
	13 Dinoseb	18.647	18.695	(1.154)	2666	0.000603	1.20(a)

QC Flag Legend

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

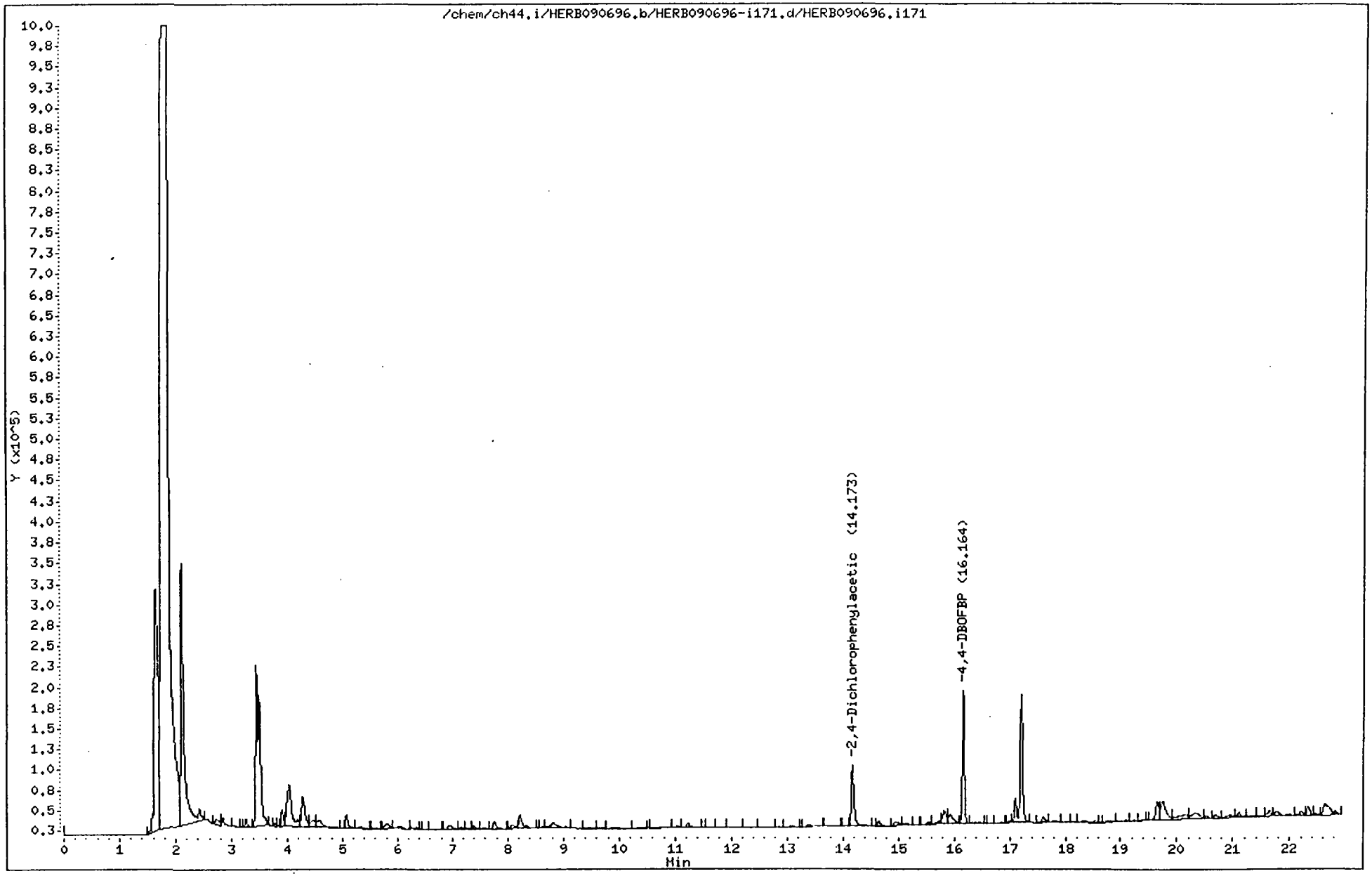
QC Flag Legend

M - Compound response manually integrated.

752

Data File: /chem/ch44.i/HERB090696.b/HERB090696-i171.d
Date : 06-SEP-96 22:22:00
Client ID: SWMUG-5
Sample Info: 9653-1 10/10 8150 AB848-82 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-1701

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090696.b\HERB090696-i171.d
Lab Smp Id: 9653-1 Client Smp ID: SWMUG-5
Inj Date : 06-SEP-96 22:22:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : 9653-1 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

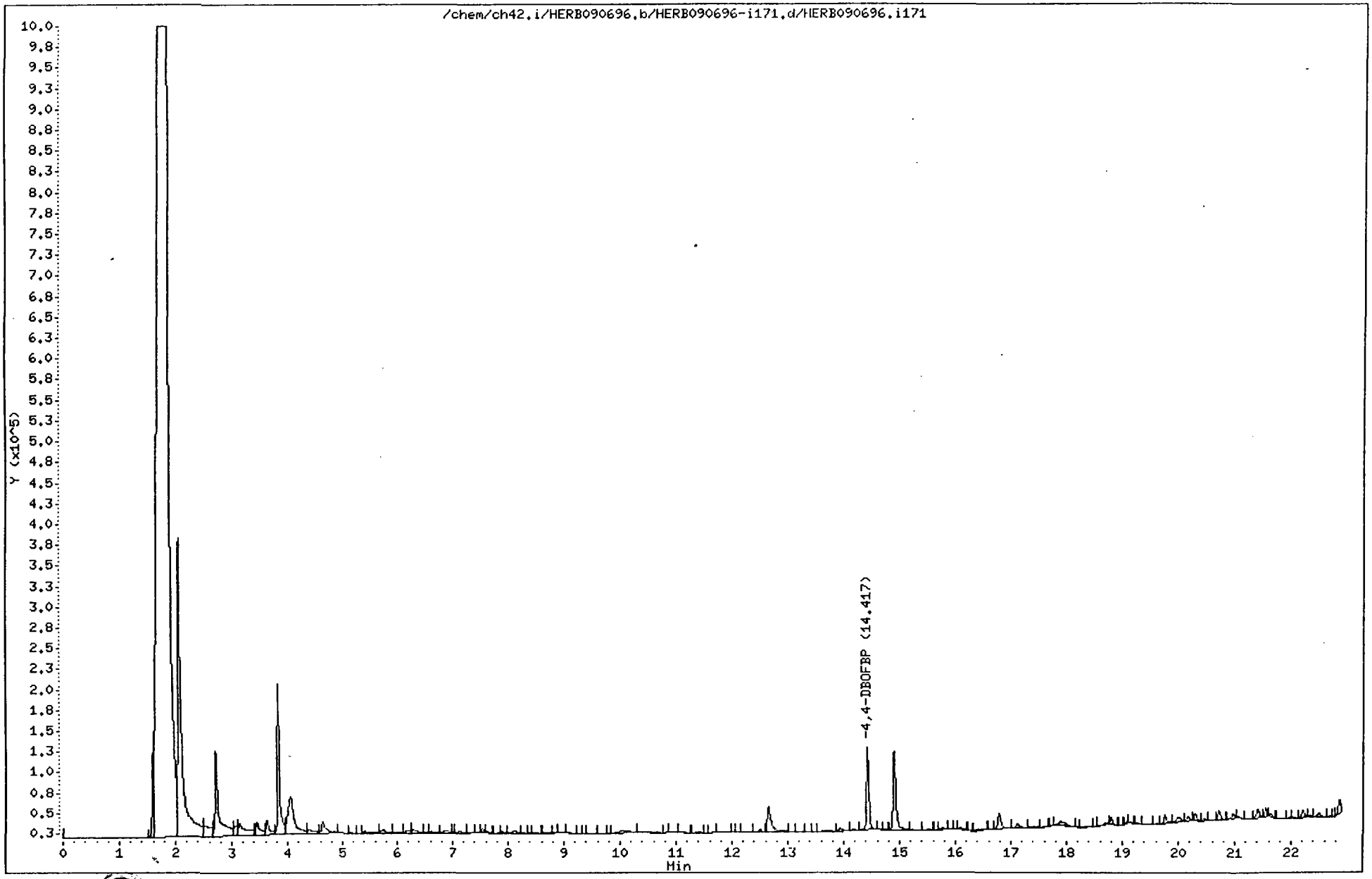
Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	9 Pentachlorophenol	14.896	14.909	(1.033)	338334	0.0316	63.1
*	7 4,4-DBOFBP	14.417	14.426	(1.000)	303536	1.00	

754

Data File: /chem/ch42.i/HERB090696.b/HERB090696-i171.d
Date : 06-SEP-96 22:22:00
Client ID: SWMUG-5
Sample Info: 9653-1 10/10 8150 AB848-82 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-XLB

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32



FORM 1
HERB ORGANICS ANALYSIS DATA SHEET

AT Kearney SAMPLE NO.

SWMUG-105

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-2

Sample wt/vol: 10.0 (g/mL) G Lab File ID: HERB090696-I181

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 11.2 decanted: (Y/N) N Date Extracted: 09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/06/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	23.3	P
93-72-1	2,4,5-TP Silvex	4.50	U
93-76-5	2,4,5-T	4.50	U
----------	Pentachlorophenol	450	U

Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090696.b\HERB090696-i181.d
Lab Smp Id: 9653-2 Client Smp ID: SWMUG-105
Inj Date : 06-SEP-96 22:56:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : 9653-2 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090696.b\42herb0903.m
Meth Date : 09-Sep-96 13:40:07 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL) (1000 low, 2-
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

2,4-D
Silvex
2,4,5-T
Pentachlorophn.

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	1 Dalapon	3.635	3.626	(0.252)	29268	0.0274	54.8(a)
$	2 2,4-Dichlorophenylacetic acid	12.662	12.719	(0.877)	174957	0.209	418 104%
	3 Dicamba	12.892	12.954	(0.893)	26396	0.00744	14.9(a)
	6 Dichlorprop	14.173	14.200	(0.982)	6016	0.00498	9.97(a)
*	7 4,4-DBOFBP	14.431	14.426	(1.000)	312551	1.00	
	8 2,4-D	14.905	14.909	(1.033)	17251	0.0150	29.9(a) ~~Cont~~ Unconf Report
	10 2,4,5-TP Silvex	15.676	15.765	(1.086)	300	0.0000812	0.162(a) Ch.44
	11 2,4,5-T	16.452	16.363	(1.140)	3318	0.000975	1.95(a)
	12 2,4-DB	16.798	16.816	(1.164)	246337	0.477	X 954
	13 Dinoseb	17.636	17.618	(1.222)	10132	0.00323	6.45(a)

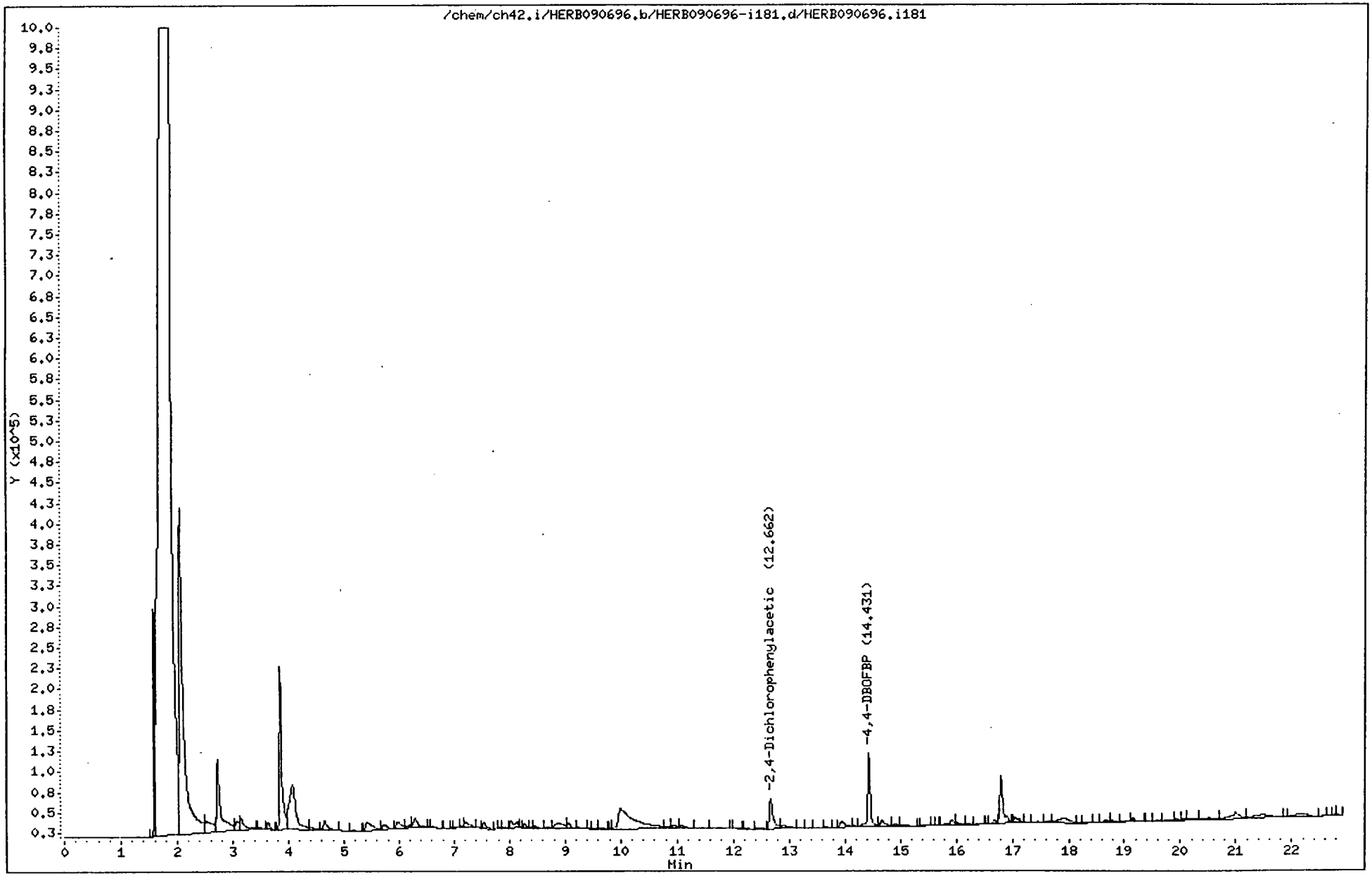
QC Flag Legend

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

Data File: /chem/ch42.i/HERB090696.b/HERB090696-i181.d
Date : 06-SEP-96 22:56:00
Client ID: SWMUG-105
Sample Info: 9653-2 10/10 8150 AB848-82 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-XLB

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

759



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090696.b\HERB090696-i181.d
Lab Smp Id: 9653-2 Client Smp ID: SWMUG-105
Inj Date : 06-SEP-96 22:56:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : 9653-2 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090696.b\44herb0903.m
Meth Date : 10-Sep-96 12:26:06 Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	1 Dalapon	4.048	4.119	(0.250)	524636	0.302	605(a)
$	2 2,4-Dichlorophenylacetic acid	14.169	14.160	(0.877)	306754	0.211	422
	7 2,4-D	15.610	15.800	(0.979)	18043	0.0104	• 20.7(aM)
*	8 4,4-DBOFBP	16.160	16.164	(1.000)	452767	1.00	
	10 2,4,5-TP Silvex	17.104	17.281	(1.058)	487111	0.0856	171
	12 2,4-DB	18.580	18.518	(1.150)	15081	0.0190	38.1(a)
	13 Dinoseb	18.815	18.695	(1.164)	18503	0.00398	7.95(a)

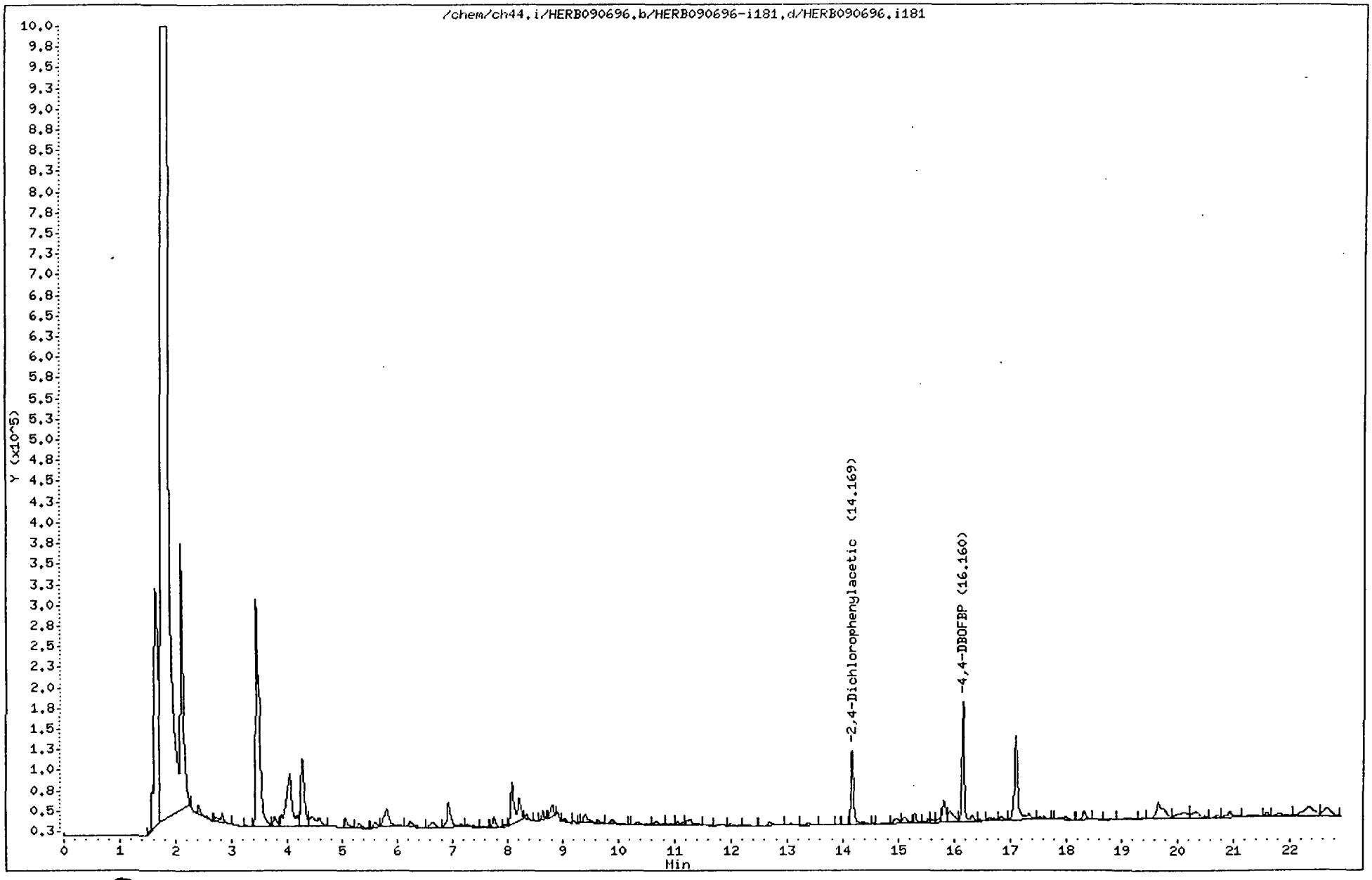
QC Flag Legend

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

760

Data File: /chem/ch44.i/HERB090696.b/HERB090696-i181.d
Date : 06-SEP-96 22:56:00
Client ID: SWMUG-105
Sample Info: 9653-2 10/10 8150 AB848-82 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-1701

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090696.b\HERB090696-i181.d
Lab Smp Id: 9653-2 Client Smp ID: SWMUG-105
Inj Date : 06-SEP-96 22:56:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : 9653-2 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

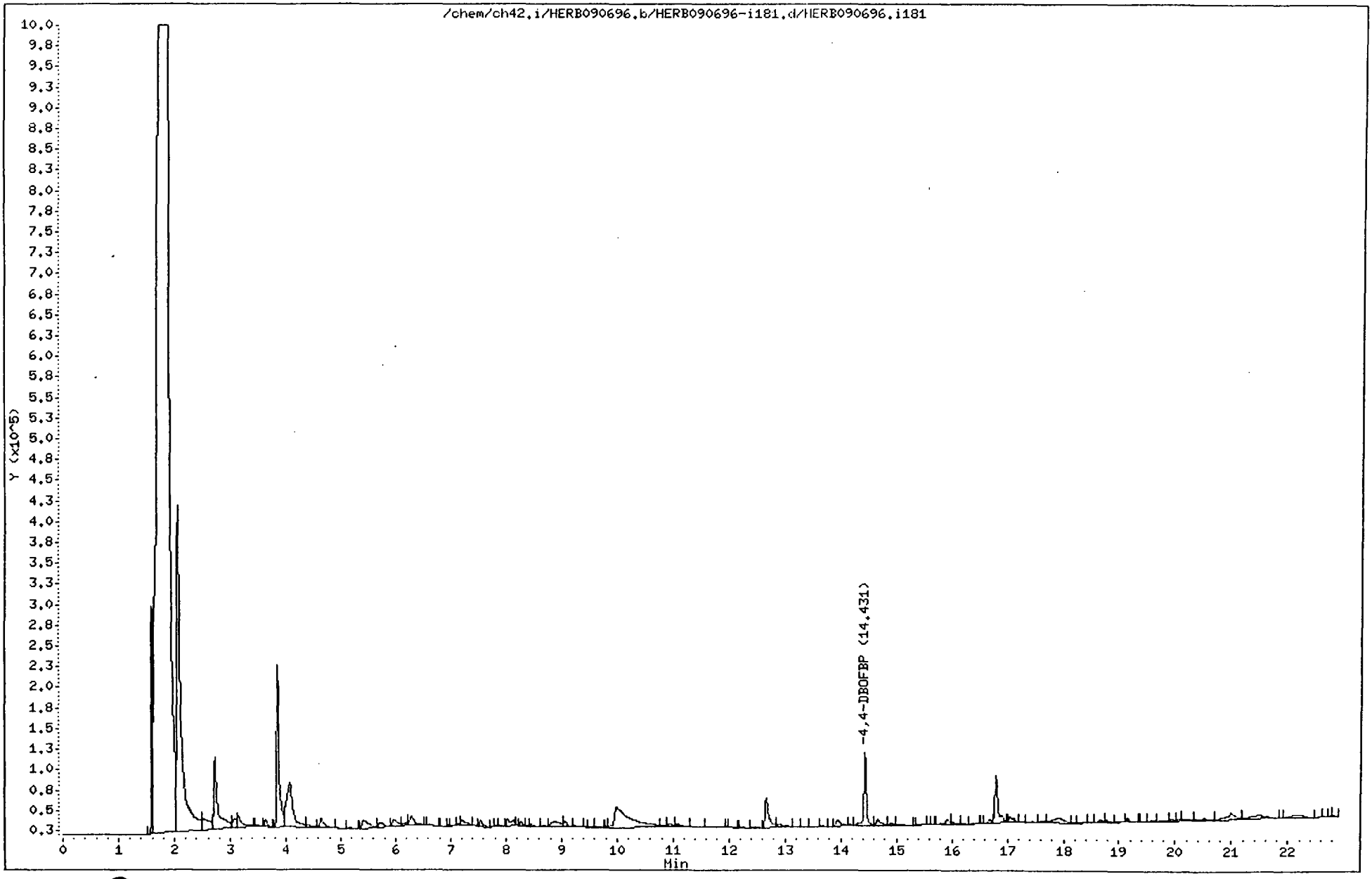
Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
* 7 4,4-DBOFBP	14.431	14.426	(1.000)	312551	1.00	

Data File: /chem/ch42.i/HERB090696.b/HERB090696-i181.d
Date : 06-SEP-96 22:56:00
Client ID: SWMUG-105
Sample Info: 9653-2 10/10 8150 AB848-82 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-XLB

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32



STANDARDS DATA

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date(s): 09/03/96 09/03/96

Column: DB-XLB ID: 0.32 (mm) Calibration Time(s): 1759 2237

LAB FILE ID: RF0: HERB090396-I0RF0: HERB090396-I0RF0.125: HERB09039
RF0.25: HERB090396RF0.375: HERB09039

COMPOUND	RF0	RF0	RF0.125	RF0.25	RF0.375
Dalapon	5.147	4.878	3.825	3.430	3.430
Dicamba	18.563	12.436	12.918	12.458	12.521
MCPP	0.014	0.016	0.015	0.014	0.015
MCPA		0.041	0.032	0.028	0.027
Dichlorprop	7.405	5.027	4.392	3.924	3.873
2,4-D	4.936	4.197	4.076	3.675	3.642
2,4,5-TP Silvex	10.348	11.082	11.735	11.854	11.546
2,4,5-T	12.690	8.884	10.930	10.473	10.860
2,4-DB	1.147	1.542	1.798	1.669	1.792
Dinoseb	10.639	11.084	11.445	10.506	10.735
2,4-Dichlorophenylacetic aci	3.375	3.303	3.099	3.107	2.935

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date(s): 09/03/96 09/03/96

Column: DB-XLB ID: 0.32 (mm) Calibration Time(s): 1759 2237

LAB FILE ID: RF0.5: HERB090396-RF0.75: HERB090396RF1: HERB090396-I1
RF0: HERB090396-I1

COMPOUND	RF0.5	RF0.75	RF1	RF0
Dalapon			3.393	
Dicamba		11.299	11.125	
MCPP		0.013	0.013	
MCPA		0.022	0.021	
Dichlorprop	3.760			
2,4-D	3.665			
2,4,5-TP Silvex	12.217	12.366	11.911	11.640
2,4,5-T	11.574	11.208	10.754	10.801
2,4-DB	1.798	1.745	1.634	1.609
Dinoseb	10.099	9.686		
2,4-Dichlorophenylacetic aci		2.674	2.614	

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date(s): 09/03/96 09/03/96

Column: DB-XLB ID: 0.32 (mm) Calibration Time(s): 1759 2237

COMPOUND	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2
Dalapon	LINR	0.00000000	3.41419543	0.998
Dicamba	LINR	0.00000000	11.3503570	0.996
MCPP	LINR	2.406e-002	1.254e-002	0.997
MCPA	LINR	0.13838703	1.933e-002	0.997
Dichlorprop	LINR	0.00000000	3.86263490	0.991
2,4-D	LINR	0.00000000	3.69103131	0.997
2,4,5-TP Silvex	LINR	0.00000000	11.8415249	0.999
2,4,5-T	LINR	0.00000000	10.8850044	0.999
2,4-DB	LINR	0.00000000	1.65310843	0.996
Dinoseb	LINR	0.00000000	10.0484722	0.994
2,4-Dichlorophenylacetic aci	LINR	0.00000000	2.68043329	0.994

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date(s): 09/03/96 09/03/96

Column: DB-XLB ID: 0.32 (mm) Calibration Time(s): 1759 2237

LAB FILE ID: RT1: HERB090396-I0RT2: HERB090396-I0RT3: HERB090396-I0
RT4: HERB090396-I0RT5: HERB090396-I0

COMPOUND	RT1	RT2	RT3	RT4	RT5
Dalapon	3.640	3.644	3.640	3.649	3.631
Dicamba	12.981	12.985	12.976	12.981	12.968
MCPP	13.256	13.256	13.247	13.256	13.238
MCPA		13.686	13.672	13.681	13.668
Dichlorprop	14.200	14.191	14.178	14.182	14.165
2,4-D	14.838	14.807	14.781	14.772	14.750
2,4,5-TP Silvex	15.792	15.792	15.783	15.787	15.769
2,4,5-T	16.501	16.479	16.461	16.461	16.439
2,4-DB	17.077	17.064	17.028	17.028	17.002
Dinoseb	17.764	17.769	17.756	17.764	17.747
2,4-Dichlorophenylacetic aci	12.724	12.715	12.693	12.697	12.679

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date(s): 09/03/96 09/03/96

Column: DB-XLB ID: 0.32 (mm) Calibration Time(s): 1759 2237

LAB FILE ID: RT6: HERB090396-I0RT7: HERB090396-I0RT8: HERB090396-I1
RT9: HERB090396-I1

COMPOUND	RT6	RT7	RT8	RT9
Dalapon			3.613	
Dicamba		12.972	12.954	
MCPP		13.251	13.234	
MCPA		13.677	13.664	
Dichlorprop	14.178			
2,4-D	14.754			
2,4,5-TP Silvex	15.778	15.774	15.747	15.761
2,4,5-T	16.443	16.434	16.403	16.412
2,4-DB	17.002	16.989	16.958	16.962
Dinoseb	17.760	17.751		
2,4-Dichlorophenylacetic aci		12.670	12.653	

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date(s): 09/03/96 09/03/96

Column: DB-XLB ID: 0.32 (mm) Calibration Time(s): 1759 2237

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Dalapon	3.636	3.431	3.831
Dicamba	12.974	12.768	13.168
MCPP	13.248	13.038	13.438
MCPA	13.675	13.468	13.868
Dichlorprop	14.182	13.965	14.365
2,4-D	14.784	14.550	14.950
2,4,5-TP Silvex	15.776	15.569	15.969
2,4,5-T	16.448	16.239	16.639
2,4-DB	17.012	16.802	17.202
Dinoseb	17.759	17.547	17.947
2,4-Dichlorophenylacetic aci	12.690	12.479	12.879

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date(s): 09/03/96 09/04/96

Column: DB-XLB ID: 0.32 (mm) Calibration Time(s): 2346 0312

LAB FILE ID: RF0: HERB090396-I1RF0: HERB090396-I1RF0.125: HERB09039
RF0.25: HERB090396RF0.375: HERB09039

COMPOUND	RF0	RF0	RF0.125	RF0.25	RF0.375
Pentachlorophenol	52.408	35.558	36.093	35.836	36.097

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date(s): 09/03/96 09/04/96

Column: DB-XLB ID: 0.32 (mm) Calibration Time(s): 2346 0312

LAB FILE ID: RF0.5: HERB090396-RF0.75: HERB090396

COMPOUND	RF0.5	RF0.75
Pentachlorophenol	35.374	35.032

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date(s): 09/03/96 09/04/96

Column: DB-XLB ID: 0.32 (mm) Calibration Time(s): 2346 0312

COMPOUND	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2
Pentachlorophenol	LINR	0.00000000	35.3061155	1.000

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date(s): 09/03/96 09/04/96

Column: DB-XLB ID: 0.32 (mm) Calibration Time(s): 2346 0312

LAB FILE ID: RT1: HERB090396-I1RT2: HERB090396-I1RT3: HERB090396-I1
RT4: HERB090396-I1RT5: HERB090396-I1

COMPOUND	RT1	RT2	RT3	RT4	RT5
Pentachlorophenol	14.923	14.931	14.927	14.918	14.909

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date(s): 09/03/96 09/04/96

Column: DB-XLB ID: 0.32 (mm) Calibration Time(s): 2346 0312

LAB FILE ID: RT6: HERB090396-I1RT7: HERB090396-I1

COMPOUND	RT6	RT7	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Pentachlorophenol	14.927	14.923	14.923	14.709	15.109

FORM 7
HERB CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date: 09/06/96 Time: 1412

Lab File ID: HERB090696-I03

COMPOUND	SAMPLE AMOUNT	0.25 AMOUNT	CURVE	%REC	%REC LIM.
2,4-D	0.235	0.235	LINR	100.0	85-115
2,4,5-TP Silvex	0.0251	0.0238	LINR	105.5	85-115
2,4,5-T	0.0245	0.0237	LINR	103.4	85-115
2,4-Dichlorophenylacetic aci	0.266	0.234	LINR	113.7	85-115

FORM 7
HERB CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date: 09/06/96 Time: 1818

Lab File ID: HERB090696-I10

COMPOUND	SAMPLE AMOUNT	0.25 AMOUNT	CURVE	%REC	%REC LIM.
2,4-D	0.258	0.235	LINR	110.0	85-115
2,4,5-TP Silvex	0.0250	0.0238	LINR	105.0	85-115
2,4,5-T	0.0263	0.0237	LINR	110.0	85-115
2,4-Dichlorophenylacetic aci	0.259	0.234	LINR	110.7	85-115

FORM 7
HERB CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date: 09/06/96 Time: 1852

Lab File ID: HERB090696-I11

COMPOUND	SAMPLE AMOUNT	0.25 AMOUNT	CURVE	%REC	%REC LIM.
Pentachlorophenol	0.0499	0.0475	LINR	105.0	60-140

FORM 7
HERB CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date: 09/07/96 Time: 0006

Lab File ID: HERB090696-I20

COMPOUND	SAMPLE AMOUNT	0.25 AMOUNT	CURVE	%REC	%REC LIM.
2,4-D	0.244	0.235	LINR	103.8	85-115
2,4,5-TP Silvex	0.0244	0.0238	LINR	102.5	85-115
2,4,5-T	0.0246	0.0237	LINR	103.8	85-115
2,4-Dichlorophenylacetic aci	0.265	0.234	LINR	113.2	85-115

FORM 7
HERB CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH42 Calibration Date: 09/07/96 Time: 0041

Lab File ID: HERB090696-I21

COMPOUND	SAMPLE AMOUNT	0.25 AMOUNT	CURVE	%REC	%REC LIM.
Pentachlorophenol	0.0502	0.0475	LINR	105.7	60-140

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB090396

Instrument ID: CH44 Calibration Date(s): 09/03/96 09/03/96

Column: DB-1701 ID: 0.32 (mm) Calibration Time(s): 1759 2237

LAB FILE ID: RF1: HERB090396-I0RF2: HERB090396-I0RF3: HERB090396-I0
RF4: HERB090396-I0RF5: HERB090396-I0

COMPOUND	RF1	RF2	RF3	RF4	RF5
Dalapon	5.402	5.080	3.937	3.487	3.509
Dicamba	15.653	15.440	13.507	12.504	12.511
MCPP		0.028	0.024	0.020	0.020
MCPA	0.084	0.047	0.036	0.030	0.029
Dichlorprop	5.576	5.384	4.607	4.044	4.015
2,4-D	4.327	4.318	4.059	3.600	3.530
2,4,5-TP Silvex	15.324	13.648	13.411	12.876	13.013
2,4,5-T	11.634	12.093	12.639	12.133	12.135
2,4-DB	2.056	2.071	2.047	1.874	1.790
Dinoseb	13.194	12.596	11.891	11.046	10.791
2,4-Dichlorophenylacetic aci	4.619	4.328	3.610	3.440	3.174

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB090396

Instrument ID: CH44 Calibration Date(s): 09/03/96 09/03/96

Column: DB-1701 ID: 0.32 (mm) Calibration Time(s): 1759 2237

LAB FILE ID: RF6: HERB090396-I0RF7: HERB090396-I0RF8: HERB090396-I1
RF9: HERB090396-I1

COMPOUND	RF6	RF7	RF8	RF9
Dalapon	4.272		3.769	
Dicamba		11.028	11.312	
MCPP	0.019	0.017	0.016	0.016
MCPA	0.028	0.024	0.024	
Dichlorprop		3.404	3.299	
2,4-D	3.555			
2,4,5-TP Silvex	13.244	12.819	12.191	
2,4,5-T	12.770	12.467	11.965	
2,4-DB	1.887	1.759	1.689	
Dinoseb	10.351	9.863		
2,4-Dichlorophenylacetic aci		2.809	2.878	

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB090396

Instrument ID: CH44 Calibration Date(s): 09/03/96 09/03/96

Column: DB-1701 ID: 0.32 (mm) Calibration Time(s): 1759 2237

COMPOUND	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2
Dalapon	LINR	0.00000000	3.83062749	0.992
Dicamba	LINR	0.00000000	11.4093582	0.995
MCPP	LINR	0.10848699	1.461e-002	0.996
MCPA	LINR	0.12598575	2.229e-002	0.992
Dichlorprop	LINR	0.12114395	3.17260880	0.995
2,4-D	LINR	0.00000000	3.59341501	0.995
2,4,5-TP Silvex	LINR	0.00000000	12.5686879	0.997
2,4,5-T	LINR	0.00000000	12.2138093	0.998
2,4-DB	LINR	0.00000000	1.74976539	0.994
Dinoseb	LINR	0.00000000	10.2721366	0.992
2,4-Dichlorophenylacetic aci	LINR	7.348e-002	2.75870244	0.997

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB090396

Instrument ID: CH44 Calibration Date(s): 09/03/96 09/03/96

Column: DB-1701 ID: 0.32 (mm) Calibration Time(s): 1759 2237

LAB FILE ID: RT1: HERB090396-I0RT2: HERB090396-I0RT3: HERB090396-I0
RT4: HERB090396-I0RT5: HERB090396-I0

COMPOUND	RT1	RT2	RT3	RT4	RT5
Dalapon	4.136	4.136	4.150	4.154	4.141
Dicamba	14.315	14.320	14.333	14.333	14.320
MCPP		14.639	14.652	14.652	14.639
MCPA	14.998	14.994	15.007	15.011	14.998
Dichlorprop	15.534	15.539	15.548	15.548	15.534
2,4-D	15.964	15.960	15.964	15.964	15.951
2,4,5-TP Silvex	17.299	17.303	17.317	17.317	17.303
2,4,5-T	17.804	17.804	17.818	17.818	17.800
2,4-DB	18.558	18.558	18.567	18.567	18.549
Dinoseb	18.718	18.718	18.731	18.731	18.718
2,4-Dichlorophenylacetic aci	14.182	14.187	14.196	14.196	14.182

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB090396

Instrument ID: CH44 Calibration Date(s): 09/03/96 09/03/96

Column: DB-1701 ID: 0.32 (mm) Calibration Time(s): 1759 2237

LAB FILE ID: RT6: HERB090396-I0RT7: HERB090396-I0RT8: HERB090396-I1
RT9: HERB090396-I1

COMPOUND	RT6	RT7	RT8	RT9
Dalapon	4.132		4.127	
Dicamba		14.320	14.311	
MCPP	14.639	14.643	14.639	14.630
MCPA	14.994	14.998	14.994	
Dichlorprop		15.534	15.530	
2,4-D	15.947			
2,4,5-TP Silvex	17.299	17.299	17.294	
2,4,5-T	17.795	17.795	17.787	
2,4-DB	18.545	18.545	18.536	
Dinoseb	18.713	18.713		
2,4-Dichlorophenylacetic aci		14.178	14.173	

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB090396

Instrument ID: CH44 Calibration Date(s): 09/03/96 09/03/96

Column: DB-1701 ID: 0.32 (mm) Calibration Time(s): 1759 2237

COMPOUND	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Dalapon	4.140	3.936	4.336
Dicamba	14.322	14.120	14.520
MCPP	14.642	14.439	14.839
MCPA	14.999	14.794	15.194
Dichlorprop	15.538	15.339	15.739
2,4-D	15.958	15.760	16.160
2,4,5-TP Silvex	17.304	17.103	17.503
2,4,5-T	17.803	17.604	18.004
2,4-DB	18.553	18.358	18.758
Dinoseb	18.720	18.518	18.918
2,4-Dichlorophenylacetic aci	14.185	13.987	14.387

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH44 Calibration Date(s): 09/03/96 09/04/96

Column: DB-1701 ID: 0.32 (mm) Calibration Time(s): 2346 0312

LAB FILE ID: RF1: HERB090396-I1RF2: HERB090396-I1RF3: HERB090396-I1
RF4: HERB090396-I1RF5: HERB090396-I1

COMPOUND	RF1	RF2	RF3	RF4	RF5
Pentachlorophenol	34.155	34.054	34.653	34.759	33.359

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH44 Calibration Date(s): 09/03/96 09/04/96

Column: DB-1701 ID: 0.32 (mm) Calibration Time(s): 2346 0312

LAB FILE ID: RF6: HERB090396-I1RF7: HERB090396-I1

COMPOUND	RF6	RF7
Pentachlorophenol	32.497	31.362

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH44 Calibration Date(s): 09/03/96 09/04/96

Column: DB-1701 ID: 0.32 (mm) Calibration Time(s): 2346 0312

COMPOUND	CURVE	COEFFICENTS A0	COEFFICENTS A1	%RSD OR R^2
Pentachlorophenol	LINR	8.178e-002	31.6135265	0.999

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH44 Calibration Date(s): 09/03/96 09/04/96

Column: DB-1701 ID: 0.32 (mm) Calibration Time(s): 2346 0312

LAB FILE ID: RT1: HERB090396-I1RT2: HERB090396-I1RT3: HERB090396-I1
RT4: HERB090396-I1RT5: HERB090396-I1

COMPOUND	RT1	RT2	RT3	RT4	RT5
Pentachlorophenol	17.201	17.206	17.197	17.197	17.215

FORM 6
HERB INITIAL CALIBRATION DATA

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH44 Calibration Date(s): 09/03/96 09/04/96

Column: DB-1701 ID: 0.32 (mm) Calibration Time(s): 2346 0312

LAB FILE ID: RT6: HERB090396-I1RT7: HERB090396-I1

COMPOUND	RT6	RT7	MEAN RT	RT WINDOW FROM	RT WINDOW TO
Pentachlorophenol	17.210	17.215	17.206	17.015	17.415

FORM 7
HERB CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH44 Calibration Date: 09/06/96 Time: 1412

Lab File ID: HERB090696-I03

COMPOUND	SAMPLE AMOUNT	CAL4 AMOUNT	CURVE	%REC	%REC LIM.
2,4-D	0.241	0.235	LINR	102.5	85-115
2,4,5-TP Silvex	0.0240	0.0238	LINR	100.8	85-115
2,4,5-T	0.0235	0.0237	LINR	99.2	85-115
2,4-Dichlorophenylacetic aci	0.245	0.234	LINR	104.7	85-115

FORM 7
HERB CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH44 Calibration Date: 09/06/96 Time: 1818

Lab File ID: HERB090696-I10

COMPOUND	SAMPLE AMOUNT	CAL4 AMOUNT	CURVE	%REC	%REC LIM.
2,4-D	0.258	0.235	LINR	109.8	85-115
2,4,5-TP Silvex	0.0251	0.0238	LINR	105.5	85-115
2,4,5-T	0.0261	0.0237	LINR	110.1	85-115
2,4-Dichlorophenylacetic aci	0.271	0.234	LINR	115.8	85-115

FORM 7
HERB CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH44 Calibration Date: 09/06/96 Time: 1852

Lab File ID: HERB090696-I11

COMPOUND	SAMPLE AMOUNT	CAL4 AMOUNT	CURVE	%REC	%REC LIM.
Pentachlorophenol	0.0498	0.0475	LINR	104.8	60-140

FORM 7
HERB CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH44 Calibration Date: 09/07/96 Time: 0006

Lab File ID: HERB090696-I20

COMPOUND	SAMPLE AMOUNT	CAL4 AMOUNT	CURVE	%REC	%REC LIM.
2,4-D	0.265	0.235	LINR	112.8	85-115
2,4,5-TP Silvex	0.0250	0.0238	LINR	105.0	85-115
2,4,5-T	0.0241	0.0237	LINR	101.7	85-115
2,4-Dichlorophenylacetic aci	0.271	0.234	LINR	115.8	85-115

FORM 7
HERB CONTINUING CALIBRATION CHECK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Instrument ID: CH44 Calibration Date: 09/07/96 Time: 0041

Lab File ID: HERB090696-I21

COMPOUND	SAMPLE AMOUNT	CAL4 AMOUNT	CURVE	%REC	%REC LIM.
Pentachlorophenol	0.0511	0.0475	LINR	107.6	60-140

8D
HERB ANALYTICAL SEQUENCE

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

GC Column: DB-XLB ID: 0.32 (mm) Init. Calib. Date(s): 07/07/96 09/04/96

Instrument ID: CH42

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 12.68

	CLIENT SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	INCALL1	INCALL1	09/03/96	1759	12.72	
02	INCALL2	INCALL2	09/03/96	1833	12.71	
03	INCALL3	INCALL3	09/03/96	1908	12.69	
04	INCALL4	INCALL4	09/03/96	1943	12.70	
05	INCALL5	INCALL5	09/03/96	2018	12.68	
06	INCALL6	INCALL6	09/03/96	2053	12.69	
07	INCALL7	INCALL7	09/03/96	2128	12.67	
08	INCALL8	INCALL8	09/03/96	2203	12.65	
09	INCALL9	INCALL9	09/03/96	2237	12.66	
10	P-INCALL1	P-INCALL1	09/03/96	2346		
11	P-INCALL2	P-INCALL2	09/04/96	0020		
12	P-INCALL3	P-INCALL3	09/04/96	0055		
13	P-INCALL4	P-INCALL4	09/04/96	0129		
14	P-INCALL5	P-INCALL5	09/04/96	0204		
15	P-INCALL6	P-INCALL6	09/04/96	0238		
16	P-INCALL7	P-INCALL7	09/04/96	0312		
17	HERBCAL-1	HERBCAL-1	09/06/96	1412	12.67	
18	HERBCAL-2	HERBCAL-2	09/06/96	1818	12.67	
19	PENTCHL-1	PENTCHL-1	09/06/96	1852		
20	BLK	BLK	09/06/96	1927	12.67	
21	BLKBS	BLKBS	09/06/96	2002	12.66	
22	BLKBSD	BLKBSD	09/06/96	2037	12.66	
23	SWMUG-5MS	9653-1MS	09/06/96	2112	12.67	
24	SWMUG-5MSD	9653-1MSD	09/06/96	2147	12.65	
25	SWMUG-5	9653-1	09/06/96	2222	12.65	
26	SWMUG-105	9653-2	09/06/96	2256	12.66	
27	HERBCAL-3	HERBCAL-3	09/07/96	0006	12.66	
28	PENTCHL-2	PENTCHL-2	09/07/96	0041		
29						
30						
31						
32						

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.20 MINUTES)

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

8D
HERB ANALYTICAL SEQUENCE

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

GC Column: DB-1701 ID: 0.32 (mm) Init. Calib. Date(s): 07/07/96 09/04/96

Instrument ID: CH44

THE ANALYTICAL SEQUENCE OF PERFORMANCE EVALUATION MIXTURES, BLANKS, SAMPLES, AND STANDARDS IS GIVEN BELOW:

MEAN SURROGATE RT FROM INITIAL CALIBRATION
S1 : 14.19

	AT KEARNEY SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED	TIME ANALYZED	S1 RT #	RT #
01	HERBCALL1	HERBCALL1	09/03/96	1759	14.18	
02	HERBCALL2	HERBCALL2	09/03/96	1833	14.19	
03	HERBCALL3	HERBCALL3	09/03/96	1908	14.20	
04	HERBCALL4	HERBCALL4	09/03/96	1943	14.20	
05	HERBCALL5	HERBCALL5	09/03/96	2018	14.18	
06	HERBCALL6	HERBCALL6	09/03/96	2053	14.18	
07	HERBCALL7	HERBCALL7	09/03/96	2128	14.18	
08	HERBCALL8	HERBCALL8	09/03/96	2203	14.17	
09	HERBCALL9	HERBCALL9	09/03/96	2237	14.16	
10	PENTCHLL1	PENTCHLL1	09/03/96	2346		
11	PENTCHLL2	PENTCHLL2	09/04/96	0020		
12	PENTCHLL3	PENTCHLL3	09/04/96	0055		
13	PENTCHLL4	PENTCHLL4	09/04/96	0129		
14	PENTCHLL5	PENTCHLL5	09/04/96	0204		
15	PENTCHLL6	PENTCHLL6	09/04/96	0238		
16	PENTCHLL7	PENTCHLL7	09/04/96	0312		
17	HERBCAL-1	HERBCAL-1	09/06/96	1412	14.18	
18	HERBCAL-2	HERBCAL-2	09/06/96	1818	14.17	
19	PENTCHL-1	PENTCHL-1	09/06/96	1852		
20	BLK	BLK	09/06/96	1927	14.16	
21	BLKBS	BLKBS	09/06/96	2002	14.17	
22	BLKBSD	BLKBSD	09/06/96	2037	14.16	
23	SWMUG-5MS	9653-1MS	09/06/96	2112	14.16	
24	SWMUG-5MSD	9653-1MSD	09/06/96	2147	14.16	
25	SWMUG-5	9653-1	09/06/96	2222	14.17	
26	SWMUG-105	9653-2	09/06/96	2256	14.17	
27	HERBCAL-3	HERBCAL-3	09/07/96	0006	14.17	
28	PENTCHL-2	PENTCHL-2	09/07/96	0041		
29						
30						
31						
32						

QC LIMITS
S1 = 2,4-Dichlorophenylacet (+/- 0.20 MINUTES)

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

FORM 10
HERB IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

AT Kearney SAMPLE NO.

SWMUG-105

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Lab Sample ID: 9653-2 Date(s) Analyzed: 09/06/96 09/06/96

Instrument ID (1): CH42 Instrument ID (2): CH44

GC Column(1): DB-XLB ID: 0.32(mm) GC Column(2): DB-1701 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
2,4-D	1	15.04	14.71	15.11	33.7	
	2	15.61	15.74	16.14	23.3	36.5

HERB

FORM 10
HERB IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

AT Kearney SAMPLE NO.

SWMUG-5

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Lab Sample ID: 9653-1 Date(s) Analyzed: 09/06/96 09/06/96

Instrument ID (1): CH42 Instrument ID (2): CH44

GC Column(1): DB-XLB ID: 0.32(mm) GC Column(2): DB-1701 ID: 0.32(mm)

ANALYTE	COL	RT	RT WINDOW FROM	RT WINDOW TO	CONCENTRATION	%RPD
2,4-D	1	14.74	14.71	15.11	669	
	2	15.76	15.74	16.14	30.6	182.5

Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i031.d
Lab Smp Id: INCALL1 Client Smp ID: INCALL1
Inj Date : 03-SEP-96 17:59:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : HERBICIDE CAL STD - L1 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 22:37:00 Cal File: HERB090396-i111.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	3.640	3.631	(0.252)	42809	0.0228	0.0334
$	2 2,4-Dichlorophenylacetic acid	12.724	12.679	(0.881)	11274	0.00936	0.00974
	3 Dicamba	12.981	12.968	(0.899)	3964	0.000940	0.000931
	4 MCPP	13.256	13.238	(0.918)	4241	0.939	(M)
	5 MCPA	13.703	13.668	(0.949)	15131	0.935	
	6 Dichlorprop	14.200	14.165	(0.983)	26155	0.00944	0.0180
*	7 4,4-DBOFBP	14.444	14.426	(1.000)	375271	1.00	
	8 2,4-D	14.838	14.750	(1.027)	15324	0.00940	0.0111(M)
	10 2,4,5-TP Silvex	15.792	15.769	(1.093)	3655	0.000950	0.000822
	11 2,4,5-T	16.501	16.439	(1.142)	4198	0.000950	0.00103
	12 2,4-DB	17.077	17.002	(1.182)	4374	0.00947	0.00705
	13 Dinoseb	17.764	17.747	(1.230)	18875	0.00472	0.00500

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i031.d

Date : 03-SEP-96 17:59:00

Client ID: INCALL1

Instrument: ch42.i

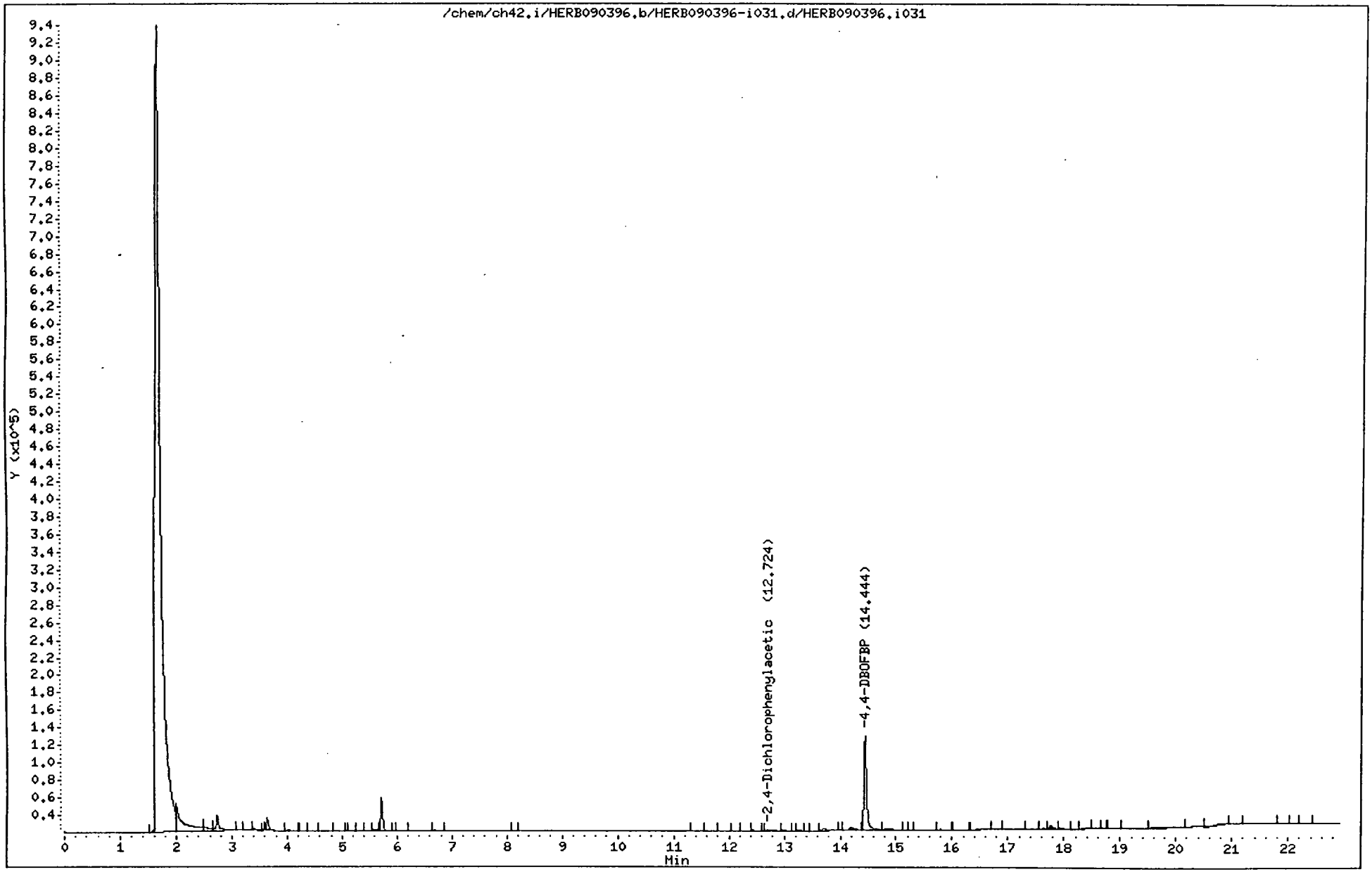
Sample Info: HERBICIDE CAL STD - L1 #AA904-68-7

Operator: MAKOWALSKI

Column phase: DB-XLB

Column diameter: 0.32

801



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090396.b\HERB090396-i031.d
Lab Smp Id: HERBCALL1 Client Smp ID: HERBCALL1
Inj Date : 03-SEP-96 17:59:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : HERBICIDE CAL STD - L1 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 22:37:00 Cal File: HERB090396-i111.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	4.136	4.136	(0.256)	64051	0.0228	0.0322
$	2 2,4-Dichlorophenylacetic acid	14.182	14.187	(0.877)	22479	0.00936	(M)
	3 Dicamba	14.315	14.320	(0.000)	7651	0.000940	0.00137(M)
	4 MCPP	14.639	14.639	(0.905)	15776	0.939	
	5 MCPA	14.998	14.994	(0.928)	40793	0.935	
	6 Dichlorprop	15.534	15.539	(0.961)	27371	0.00944	
	7 2,4-D	15.964	15.960	(0.987)	21151	0.00940	0.0113
*	8 4,4-DBOFBP	16.168	16.173	(1.000)	519982	1.00	
	10 2,4,5-TP Silvex	17.299	17.303	(1.070)	7570	0.000950	0.00116
	11 2,4,5-T	17.804	17.804	(1.101)	5747	0.000950	0.000905
	12 2,4-DB	18.558	18.558	(1.148)	10122	0.00947	0.0111
	13 Dinoseb	18.718	18.718	(1.158)	32382	0.00472	0.00607

QC Flag Legend

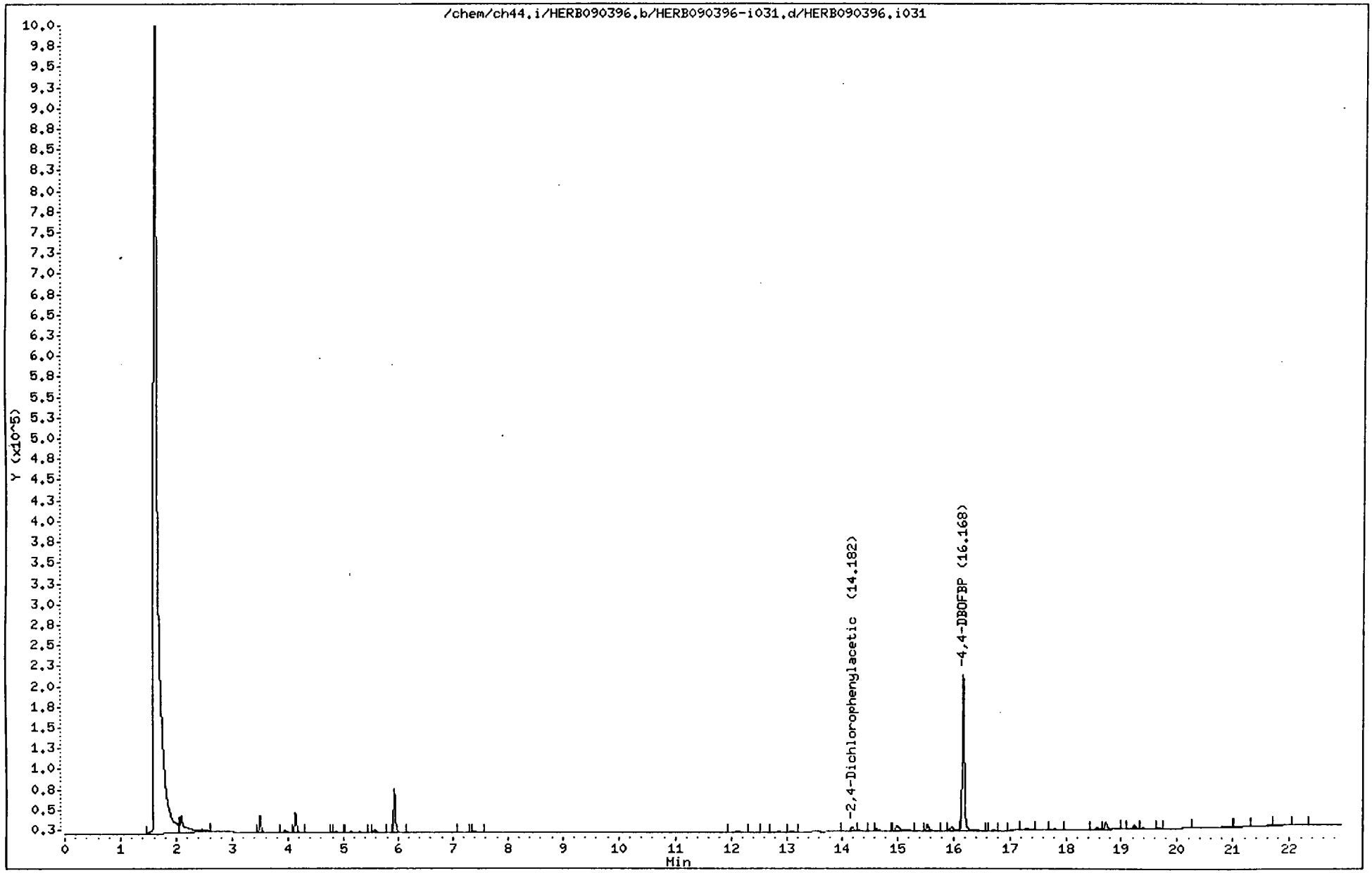
M - Compound response manually integrated.

803

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i031.d
Date : 03-SEP-96 17:59:00
Client ID: HERBCALL1
Sample Info: HERBICIDE CAL STD - L1 #AA904-68-7

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i041.d
Lab Smp Id: INCALL2 Client Smp ID: INCALL2
Inj Date : 03-SEP-96 18:33:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : HERBICIDE CAL STD - L2 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 20:18:00 Cal File: HERB090396-i071.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	3.644	3.631	(0.252)	180646	0.114	0.163
$	2 2,4-Dichlorophenylacetic acid	12.715	12.679	(0.880)	50210	0.0468	0.0501
	3 Dicamba	12.985	12.968	(0.899)	18987	0.00470	0.00515
	4 MCPP	13.256	13.238	(0.917)	24889	4.69	4.19
	5 MCPA	13.686	13.668	(0.947)	57537	4.69	1.83(M)
	6 Dichlorprop	14.191	14.165	(0.982)	77081	0.0472	0.0614
*	7 4,4-DBOFBP	14.448	14.426	(1.000)	324836	1.00	
	8 2,4-D	14.807	14.750	(1.025)	64084	0.0470	0.0534
	10 2,4,5-TP Silvex	15.792	15.769	(1.093)	17100	0.00475	0.00444
	11 2,4,5-T	16.479	16.439	(1.141)	13679	0.00474	0.00387
	12 2,4-DB	17.064	17.002	(1.181)	23697	0.0473	0.0441
	13 Dinoseb	17.769	17.747	(1.230)	84047	0.0236	0.0258(M)

QC Flag Legend

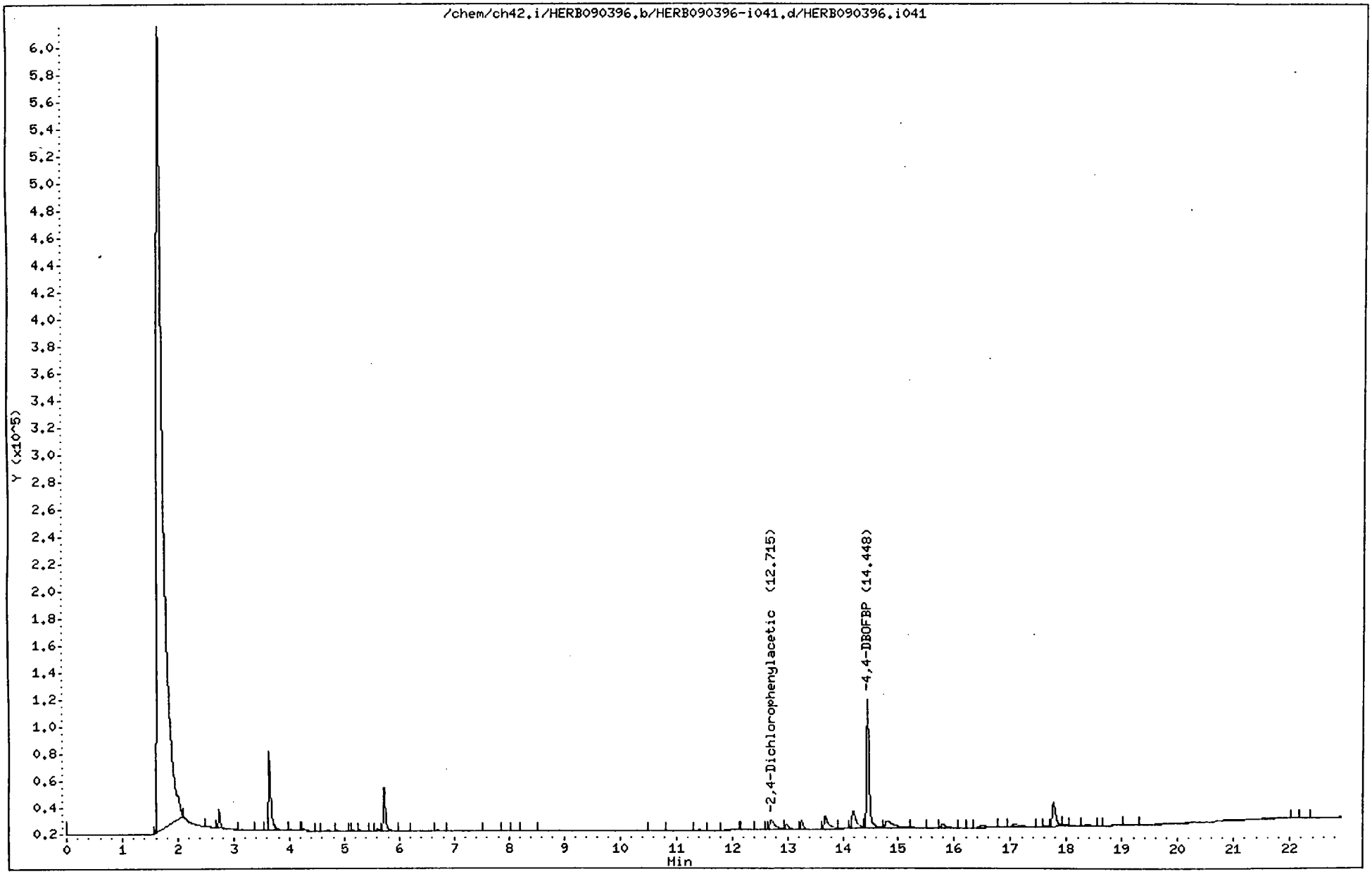
M - Compound response manually integrated.

805

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i041.d
Date : 03-SEP-96 18:33:00
Client ID: INCALL2
Sample Info: HERBICIDE CAL STD - L2 #AA904-68-7

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090396.b\HERB090396-i041.d
Lab Smp Id: HERBCALL2 Client Smp ID: HERBCALL2
Inj Date : 03-SEP-96 18:33:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : HERBICIDE CAL STD - L2 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 22:37:00 Cal File: HERB090396-i111.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	ON-COL (ng)
	1 Dalapon	4.136	4.136	(0.256)	270998	0.114	0.151
$	2 2,4-Dichlorophenylacetic acid	14.187	14.187	(0.877)	94784	0.0468	0.0468
	3 Dicamba	14.320	14.320	(0.885)	33959	0.00470	0.00636(M)
	4 MCPP	14.639	14.639	(0.905)	61579	4.69	1.58
	5 MCPA	14.994	14.994	(0.927)	101886	4.67	4.12(M)
	6 Dichlorprop	15.539	15.539	(0.961)	118911	0.0472	0.0419
	7 2,4-D	15.960	15.960	(0.987)	94960	0.0470	0.0565(M)
*	8 4,4-DBOFBP	16.173	16.173	(1.000)	467958	1.00	
	10 2,4,5-TP Silvex	17.303	17.303	(1.070)	30337	0.00475	0.00516
	11 2,4,5-T	17.804	17.804	(1.101)	26824	0.00474	0.00469
	12 2,4-DB	18.558	18.558	(1.147)	45836	0.0473	0.0560
	13 Dinoseb	18.718	18.718	(1.157)	139107	0.0236	0.0289

QC Flag Legend

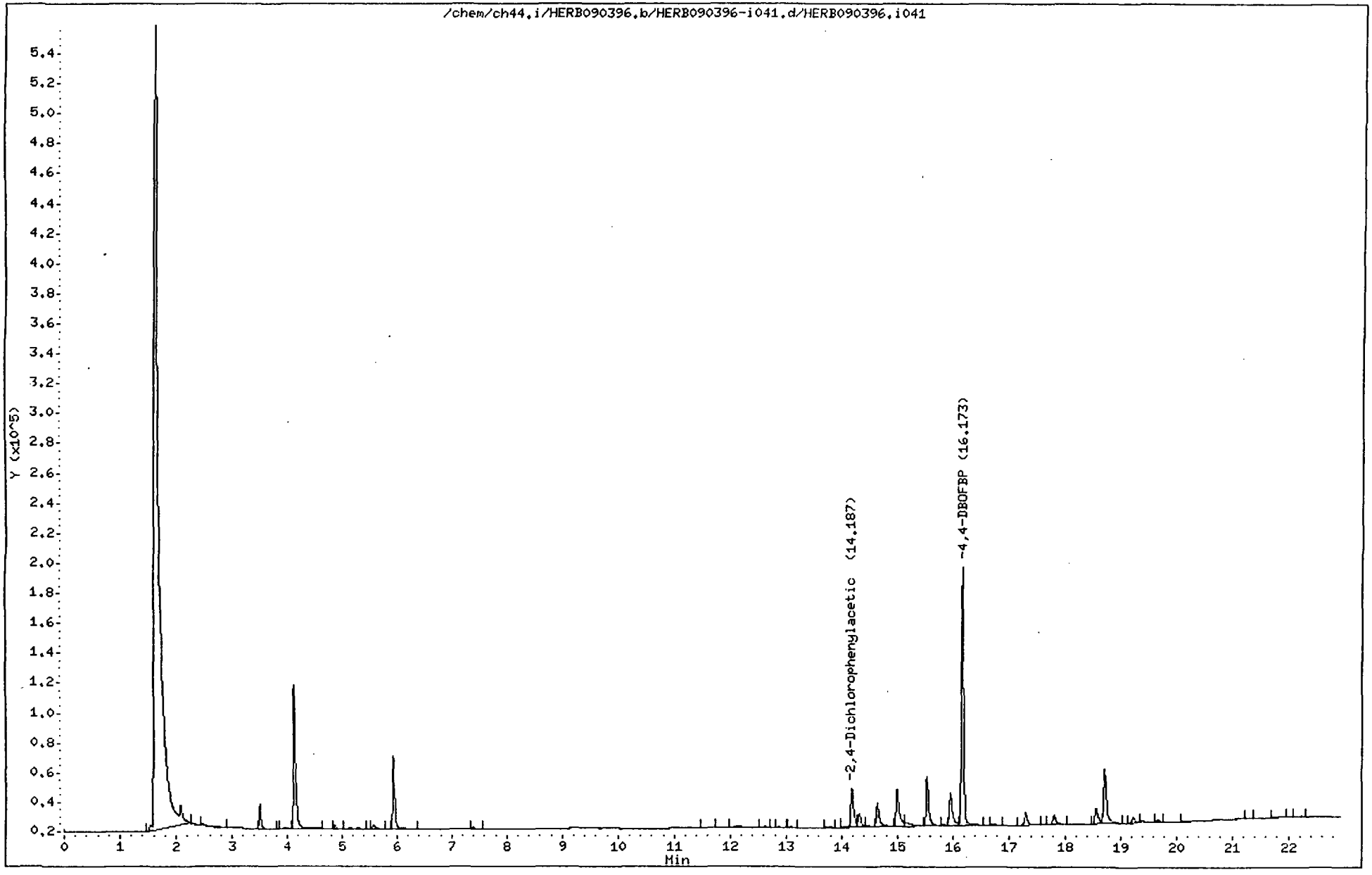
M - Compound response manually integrated.

807

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i041.d
Date : 03-SEP-96 18:33:00
Client ID: HERBCALL2
Sample Info: HERBICIDE CAL STD - L2 #AA904-68-7

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i051.d
Lab Smp Id: INCALL3 Client Smp ID: INCALL3
Inj Date : 03-SEP-96 19:08:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : HERBICIDE CAL STD - L3 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 20:18:00 Cal File: HERB090396-i071.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	3.640	3.631	(0.252)	412949	0.285	0.319
$	2 2,4-Dichlorophenylacetic acid	12.693	12.679	(0.879)	137337	0.117	0.118
	3 Dicamba	12.976	12.968	(0.899)	57249	0.0117	0.0133
	4 MCPP	13.247	13.238	(0.917)	68109	11.7	12.4
	5 MCPA	13.672	13.668	(0.947)	129121	11.7	10.4(M)
	6 Dichlorprop	14.178	14.165	(0.982)	196315	0.118	0.134
*	7 4,4-DBOFBP	14.439	14.426	(1.000)	378765	1.00	
	8 2,4-D	14.781	14.750	(1.024)	180640	0.117	0.129
	10 2,4,5-TP Silvex	15.783	15.769	(1.093)	52894	0.0119	0.0118
	11 2,4,5-T	16.461	16.439	(1.140)	48853	0.0118	0.0118
	12 2,4-DB	17.028	17.002	(1.179)	80379	0.118	0.128
	13 Dinoseb	17.756	17.747	(1.230)	234044	0.0591	0.0617(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i051.d

Date : 03-SEP-96 19:08:00

Client ID: INCALL3

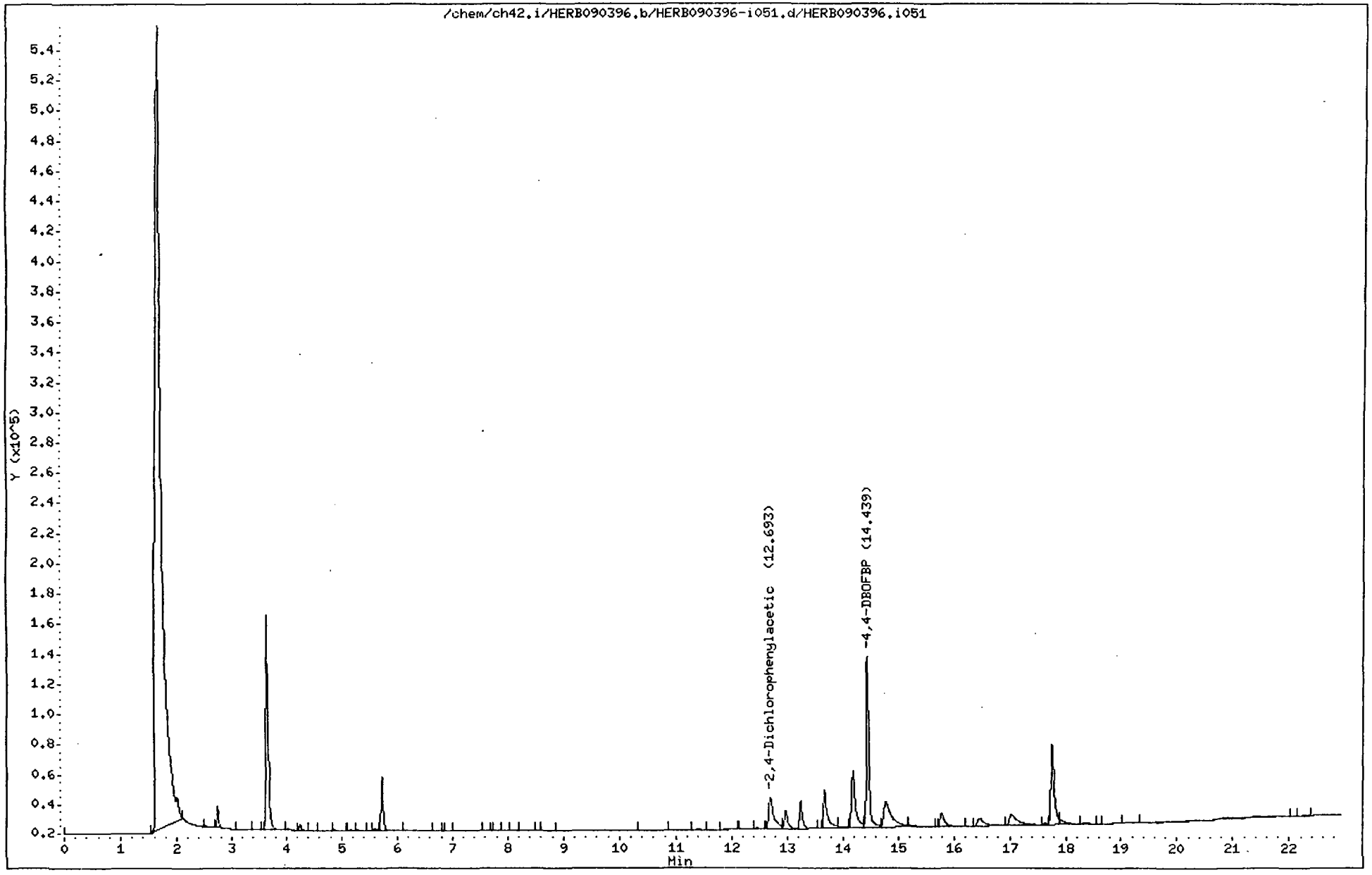
Instrument: ch42.i

Sample Info: HERBICIDE CAL STD - L3 #AA904-68-7

Operator: MAKOWALSKI

Column phase: DB-XLB

Column diameter: 0.32



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090396.b\HERB090396-i051.d
Lab Smp Id: HERBCALL3 Client Smp ID: HERBCALL3
Inj Date : 03-SEP-96 19:08:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : HERBICIDE CAL STD - L3 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 22:37:00 Cal File: HERB090396-i111.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	4.150	4.136	(0.256)	617037	0.285	0.293
$	2 2,4-Dichlorophenylacetic acid	14.196	14.187	(0.877)	232289	0.117	0.0738
	3 Dicamba	14.333	14.320	(0.886)	86909	0.0117	0.0147(M)
	4 MCPP	14.652	14.639	(0.905)	153908	11.7	11.6
	5 MCPA	15.007	14.994	(0.927)	231608	11.7	11.9(M)
	6 Dichlorprop	15.548	15.539	(0.961)	298979	0.118	0.118(M)
	7 2,4-D	15.964	15.960	(0.986)	261202	0.117	0.134
*	8 4,4-DBOFBP	16.186	16.173	(1.000)	549951	1.00	
	10 2,4,5-TP Silvex	17.317	17.303	(1.070)	87768	0.0119	0.0127
	11 2,4,5-T	17.818	17.804	(1.101)	82022	0.0118	0.0122
	12 2,4-DB	18.567	18.558	(1.147)	132835	0.118	0.138
	13 Dinoseb	18.731	18.718	(1.157)	386471	0.0591	0.0685

QC Flag Legend

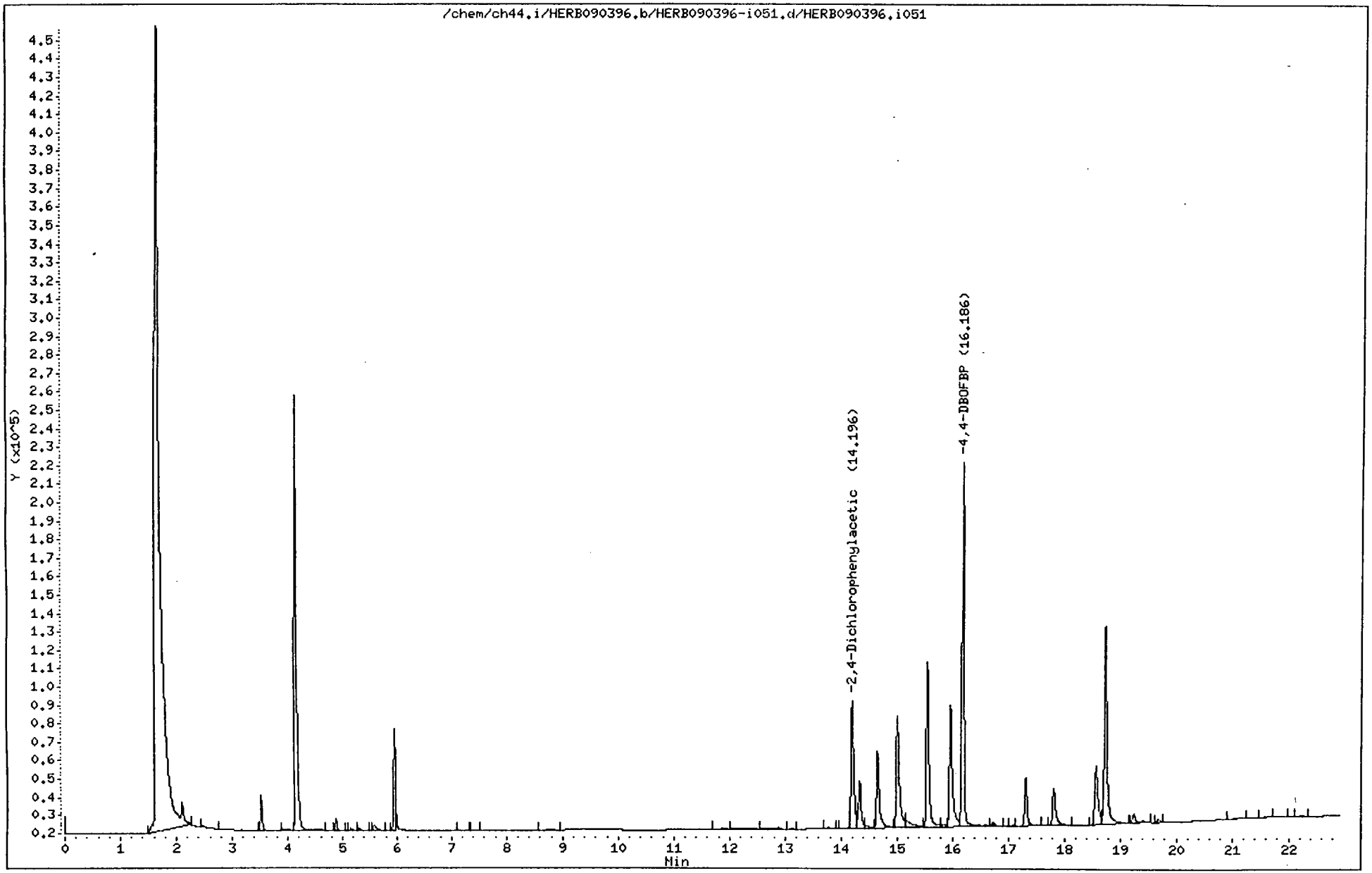
M - Compound response manually integrated.

811

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i051.d
Date : 03-SEP-96 19:08:00
Client ID: HERBCALL3
Sample Info: HERBICIDE CAL STD - L3 #AA904-68-7

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i061.d
Lab Smp Id: INCALL4 Client Smp ID: INCALL4
Inj Date : 03-SEP-96 19:43:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : HERBICIDE CAL STD - L4 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 20:18:00 Cal File: HERB090396-i071.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	3.649	3.631	(0.253)	568937	0.427	0.429
$	2 2,4-Dichlorophenylacetic acid	12.697	12.679	(0.879)	211218	0.175	0.176
	3 Dicamba	12.981	12.968	(0.898)	85175	0.0176	0.0193
	4 MCPP	13.256	13.238	(0.917)	97822	17.5	18.2
	5 MCPA	13.681	13.668	(0.947)	171973	17.5	15.6(M)
	6 Dichlorprop	14.182	14.165	(0.982)	269789	0.177	0.180
*	7 4,4-DBOFBP	14.448	14.426	(1.000)	388468	1.00	
	8 2,4-D	14.772	14.750	(1.022)	251246	0.176	0.175
	10 2,4,5-TP Silvex	15.787	15.769	(1.093)	81970	0.0178	0.0178
	11 2,4,5-T	16.461	16.439	(1.139)	72416	0.0178	0.0171
	12 2,4-DB	17.028	17.002	(1.179)	115422	0.178	0.180
	13 Dinoseb	17.764	17.747	(1.230)	361613	0.0886	0.0926

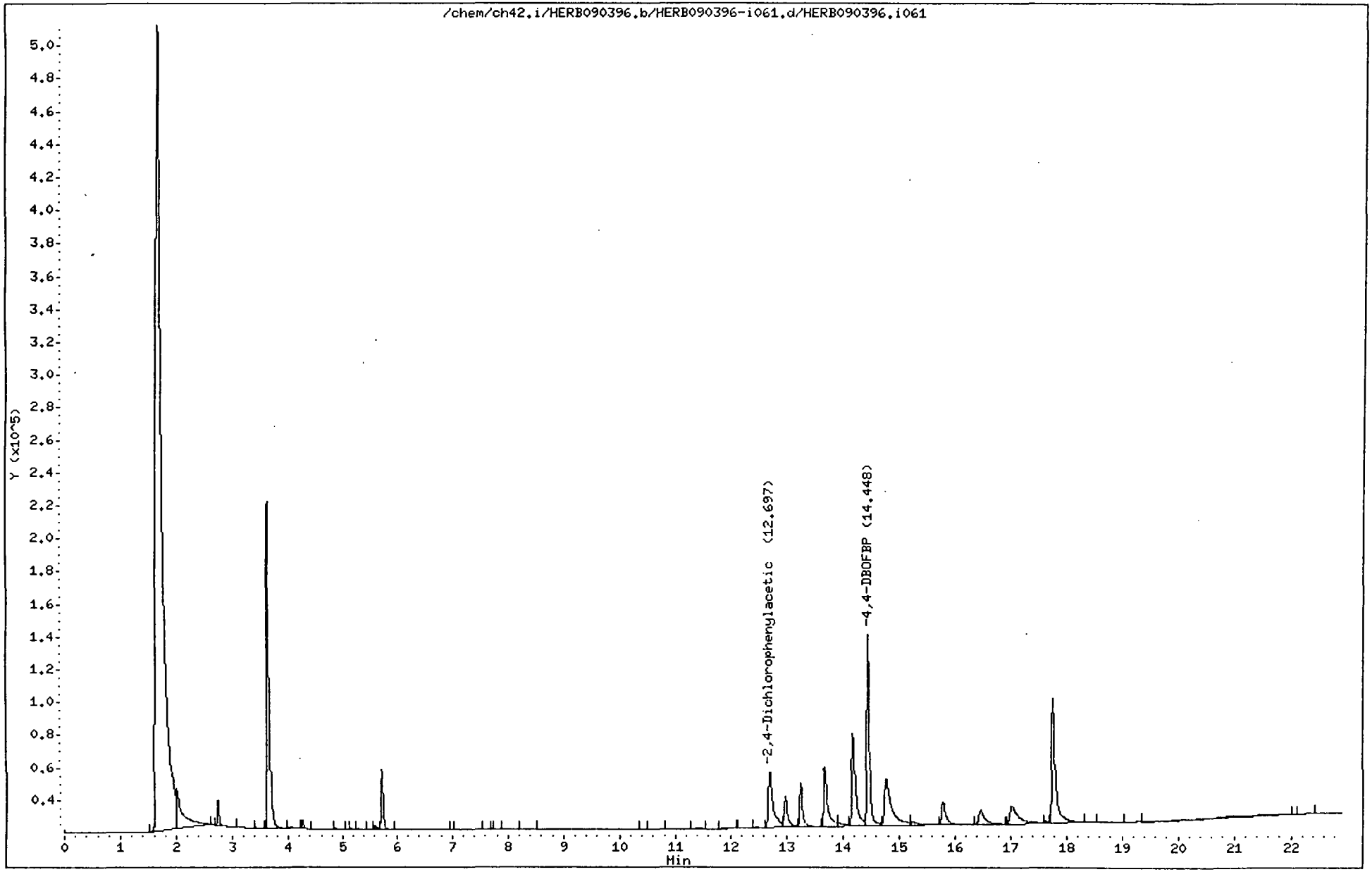
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i061.d
Date : 03-SEP-96 19:43:00
Client ID: INCALL4
Sample Info: HERBICIDE CAL STD - L4 #AA904-68-7

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090396.b\HERB090396-i061.d
Lab Smp Id: HERBCALL4 Client Smp ID: HERBCALL4
Inj Date : 03-SEP-96 19:43:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : HERBICIDE CAL STD - L4 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 22:37:00 Cal File: HERB090396-i111.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	4.154	4.136	(0.257)	843601	0.427	0.389
$	2 2,4-Dichlorophenylacetic acid	14.196	14.187	(0.877)	341060	0.175	0.146(M)
	3 Dicamba	14.333	14.320	(0.000)	124681	0.0176	0.0204(M)
	4 MCPP	14.652	14.639	(0.905)	199505	17.6	16.6
	5 MCPA	15.011	14.994	(0.927)	299163	17.5	15.9(M)
	6 Dichlorprop	15.548	15.539	(0.961)	405530	0.177	0.173(M)
	7 2,4-D	15.964	15.960	(0.986)	359002	0.176	0.179
*	8 4,4-DBOFBP	16.186	16.173	(1.000)	566534	1.00	
	10 2,4,5-TP Silvex	17.317	17.303	(1.070)	129848	0.0178	0.0182
	11 2,4,5-T	17.818	17.804	(1.101)	122353	0.0178	0.0177
	12 2,4-DB	18.567	18.558	(1.147)	188987	0.178	0.191
	13 Dinoseb	18.731	18.718	(1.157)	554482	0.0886	0.0954

QC Flag Legend

M - Compound response manually integrated.

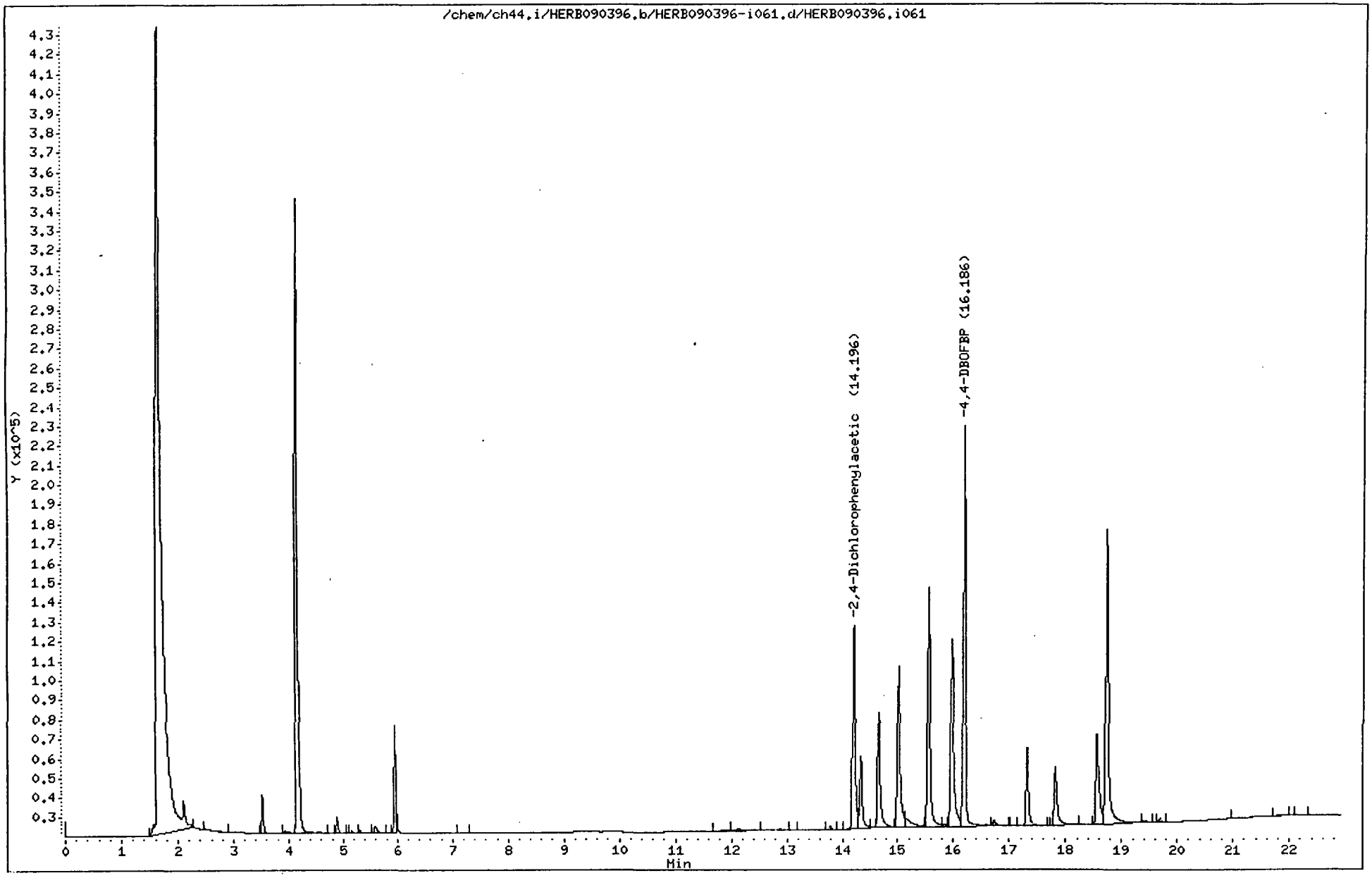
815

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i061.d
Date : 03-SEP-96 19:43:00
Client ID: HERBCALL4
Sample Info: HERBICIDE CAL STD - L4 #AA904-68-7

Instrument: ch44.i

Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i071.d
Lab Smp Id: INCALL5 Client Smp ID: INCALL5
Inj Date : 03-SEP-96 20:18:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : HERBICIDE CAL STD - L5 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 20:18:00 Cal File: HERB090396-i071.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	3.631	3.631	(0.189)	713890	0.569	0.572(M)
$	2 2,4-Dichlorophenylacetic acid	12.679	12.679	(0.000)	251186	0.234	0.223(M)
	3 Dicamba	12.968	12.968	(0.826)	107627	0.0235	0.0259(M)
	4 MCPP	13.238	13.238	(0.850)	117015	23.5	23.9(M)
	5 MCPA	13.668	13.668	(0.878)	209954	23.5	22.4(M)
	6 Dichlorprop	14.165	14.165	(0.898)	334354	0.236	0.237(M)
*	7 4,4-DBOFBP	14.435	14.426	(1.000)	365761	1.00	
	8 2,4-D	14.750	14.750	(0.947)	313011	0.235	0.232(M)
	10 2,4,5-TP Silvex	15.769	15.769	(1.022)	100508	0.0238	0.0232(M)
	11 2,4,5-T	16.439	16.439	(1.055)	94145	0.0237	0.0236(M)
	12 2,4-DB	17.002	17.002	(1.092)	155375	0.237	0.257(M)
	13 Dinoseb	17.747	17.747	(0.000)	463306	0.118	0.126(M)

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i071.d
Date : 03-SEP-96 20:18:00
Client ID: INCALL5
Sample Info: HERBICIDE CAL STD - L5 #AA904-68-7

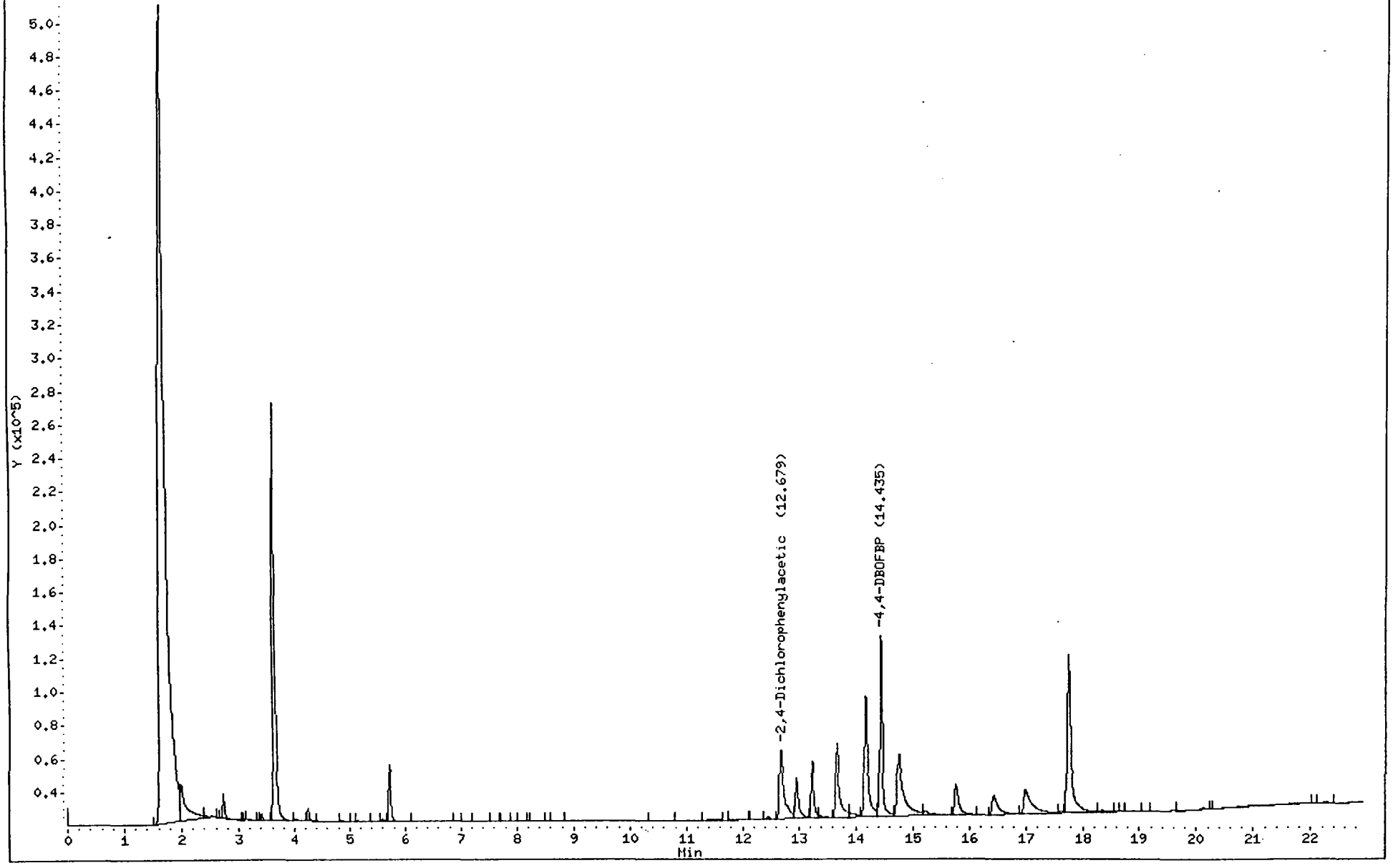
Instrument: ch42.i

Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB

817

/chem/ch42.i/HERB090396.b/HERB090396-i071.d/HERB090396.i071



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090396.b\HERB090396-i071.d
Lab Smp Id: HERBCALL5 Client Smp ID: HERBCALL5
Inj Date : 03-SEP-96 20:18:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : HERBICIDE CAL STD - L5 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 22:37:00 Cal File: HERB090396-i111.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	4.141	4.136	(0.256)	1067653	0.569	0.521
$	2 2,4-Dichlorophenylacetic acid	14.182	14.187	(0.877)	397185	0.234	0.193
	3 Dicamba	14.320	14.320	(0.885)	157206	0.0235	0.0273(M)
	4 MCPP	14.639	14.639	(0.905)	257159	23.5	25.5
	5 MCPA	14.998	14.994	(0.927)	368089	23.4	22.1(M)
	6 Dichlorprop	15.534	15.539	(0.961)	506657	0.236	0.247(M)
	7 2,4-D	15.951	15.960	(0.986)	443511	0.235	0.233
*	8 4,4-DBOFBP	16.173	16.173	(1.000)	534691	1.00	(M)
	10 2,4,5-TP Silvex	17.303	17.303	(1.070)	165602	0.0238	0.0246
	11 2,4,5-T	17.800	17.804	(1.101)	153777	0.0237	0.0235
	12 2,4-DB	18.549	18.558	(1.147)	226791	0.237	0.242
	13 Dinoseb	18.718	18.718	(1.157)	680835	0.118	0.124

QC Flag Legend

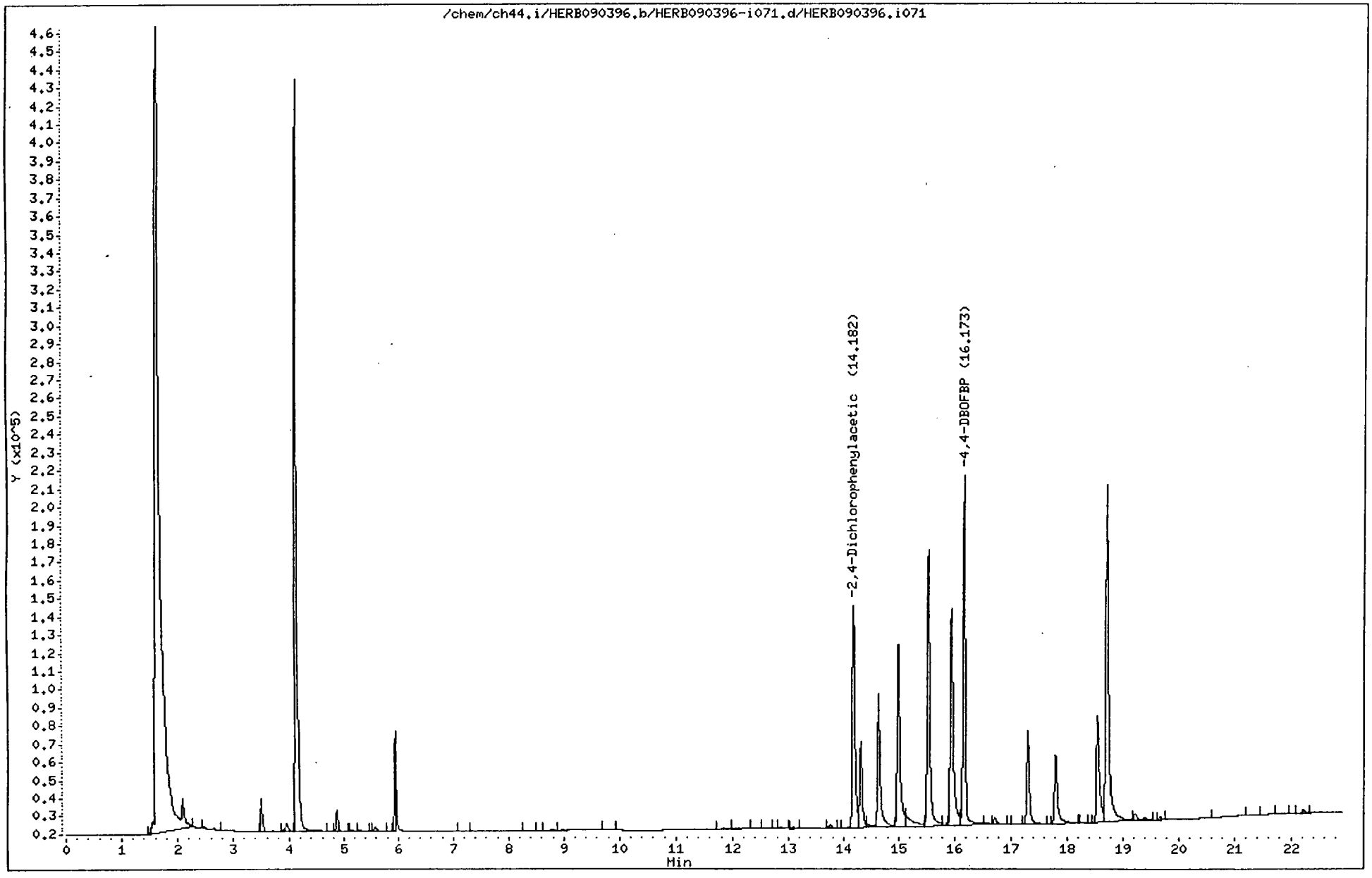
M - Compound response manually integrated.

819

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i071.d
Date : 03-SEP-96 20:18:00
Client ID: HERBCALL5
Sample Info: HERBICIDE CAL STD - L5 #AA904-68-7

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i081.d
Lab Smp Id: INCALL6 Client Smp ID: INCALL6
Inj Date : 03-SEP-96 20:53:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : HERBICIDE CAL STD - L6 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 20:53:00 Cal File: HERB090396-i081.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

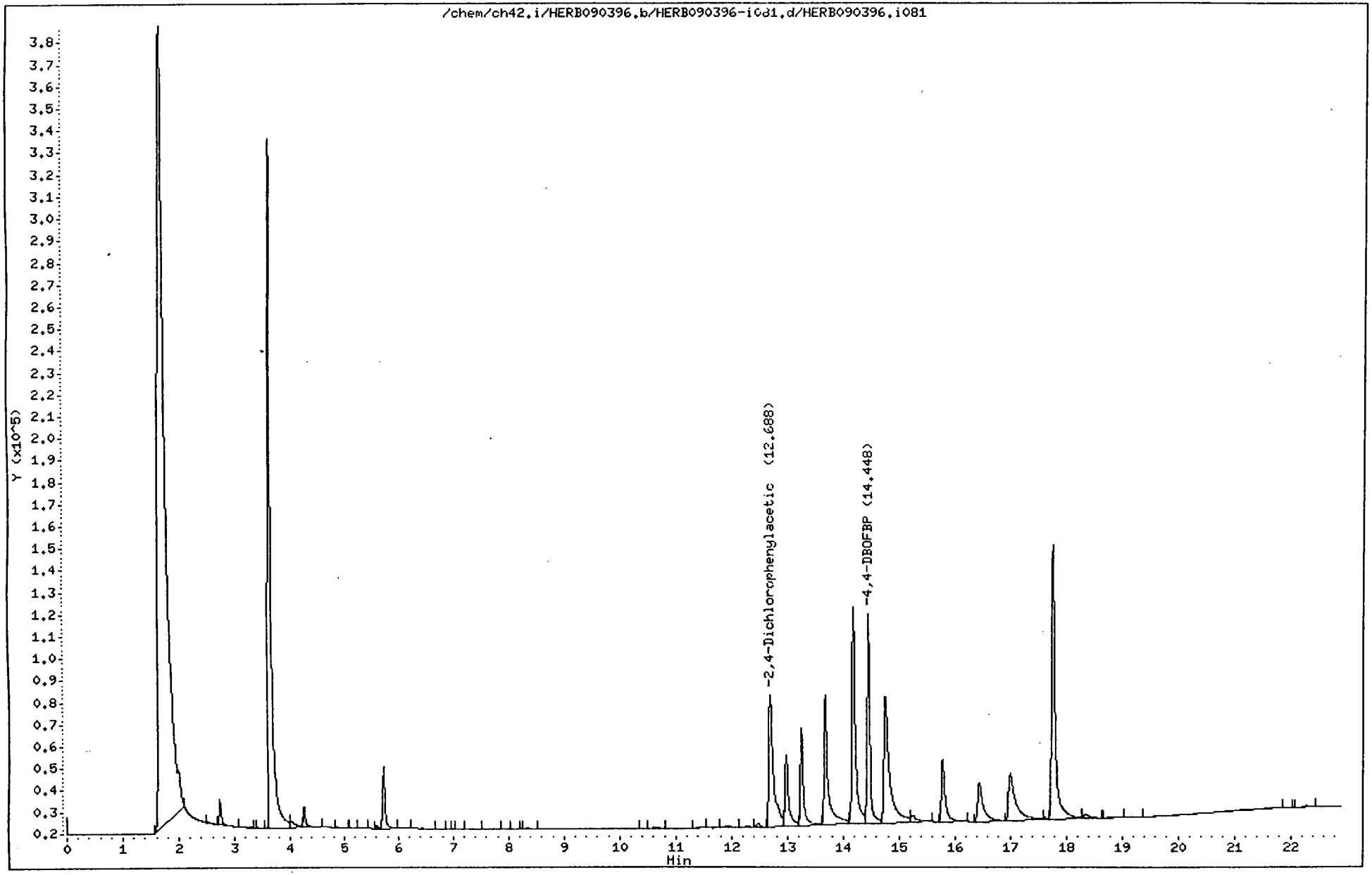
	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	3.644	3.631	(0.252)	1098994	0.854	0.905
$	2 2,4-Dichlorophenylacetic acid	12.688	12.679	(0.878)	352362	0.351	0.357
	3 Dicamba	12.981	12.968	(0.898)	146222	0.0352	0.0357
	4 MCPP	13.256	13.238	(0.917)	166844	35.2	35.4
	5 MCPA	13.681	13.668	(0.947)	293195	35.2	34.9
	6 Dichlorprop	14.178	14.165	(0.981)	425915	0.354	0.345
*	7 4,4-DBOFBP	14.448	14.426	(1.000)	319946	1.00	
	8 2,4-D	14.754	14.750	(1.021)	412716	0.352	0.349
	10 2,4,5-TP Silvex	15.778	15.769	(1.092)	139543	0.0357	0.0364
	11 2,4,5-T	16.443	16.439	(1.138)	131460	0.0355	0.0367
	12 2,4-DB	17.002	17.002	(1.177)	204259	0.355	0.359
	13 Dinoseb	17.760	17.747	(1.229)	571930	0.177	0.172

821

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i081.d
Date : 03-SEP-96 20:53:00
Client ID: INCALL6
Sample Info: HERBICIDE CAL STD - L6 #AA904-68-7

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090396.b\HERB090396-i081.d
Lab Smp Id: HERBCALL6 Client Smp ID: HERBCALL6
Inj Date : 03-SEP-96 20:53:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : HERBICIDE CAL STD - L6 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 22:37:00 Cal File: HERB090396-i111.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	4.132	4.136	(0.256)	1689990	0.854	0.952
$	2 2,4-Dichlorophenylacetic acid	14.178	14.187	(0.877)	550621	0.351	0.360(M)
	3 Dicamba	14.315	14.320	(0.000)	211646	0.0352	0.0415(M)
	4 MCPP	14.639	14.639	(0.905)	312427	35.2	39.0
	5 MCPA	14.994	14.994	(0.927)	451139	35.1	34.7(M)
	6 Dichlorprop	15.534	15.539	(0.961)	637063	0.354	0.384(M)
	7 2,4-D	15.947	15.960	(0.986)	579640	0.352	0.352
*	8 4,4-DBOFBP	16.168	16.173	(1.000)	463189	1.00	
	10 2,4,5-TP Silvex	17.299	17.303	(1.070)	219005	0.0357	0.0376
	11 2,4,5-T	17.795	17.804	(1.101)	209979	0.0355	0.0371
	12 2,4-DB	18.545	18.558	(1.147)	310228	0.355	0.383
	13 Dinoseb	18.713	18.718	(1.157)	848660	0.177	0.178

QC Flag Legend

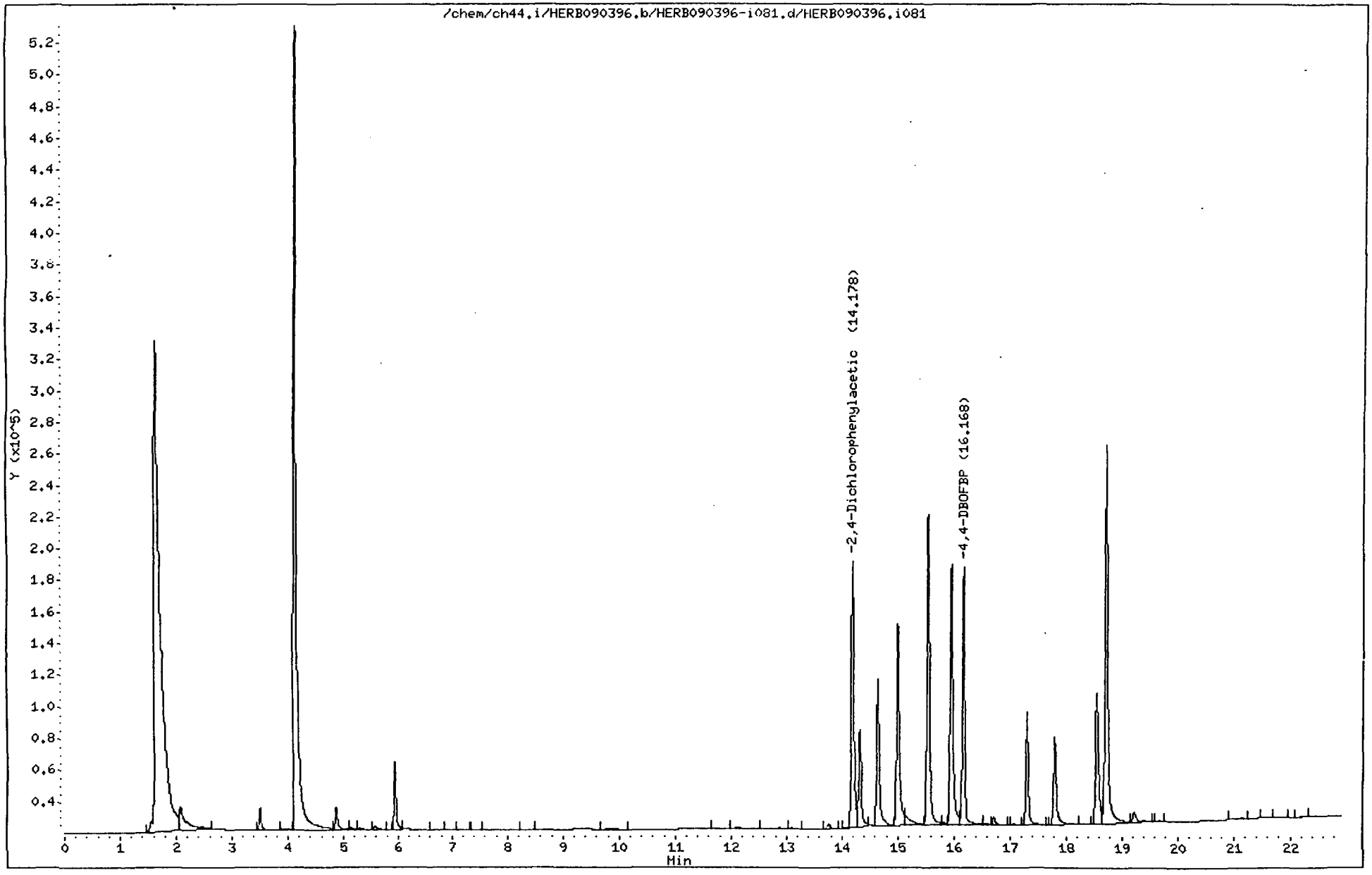
M - Compound response manually integrated.

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i081.d
Date : 03-SEP-96 20:53:00
Client ID: HERBCALL6
Sample Info: HERBICIDE CAL STD - L6 #AA904-68-7

Column phase: DB-1701

Instrument: ch44.i

Operator: MAKOWALSKI
Column diameter: 0.32



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i091.d
Lab Smp Id: INCALL7 Client Smp ID: INCALL7
Inj Date : 03-SEP-96 21:28:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : HERBICIDE CAL STD - L7 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 21:28:00 Cal File: HERB090396-i091.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	3.640	3.631	(0.252)	1328770	1.14	0.961
$	2 2,4-Dichlorophenylacetic acid	12.670	12.679	(0.877)	506915	0.468	0.406
	3 Dicamba	12.972	12.968	(0.898)	215099	0.0470	0.0468
	4 MCPP	13.251	13.238	(0.918)	243464	46.9	46.0
	5 MCPA	13.677	13.668	(0.947)	381943	46.9	41.7(M)
	6 Dichlorprop	14.169	14.165	(0.981)	633639	0.472	0.405
*	7 4,4-DBOFBP	14.439	14.426	(1.000)	405032	1.00	
	8 2,4-D	14.741	14.750	(1.021)	625903	0.470	0.419
	10 2,4,5-TP Silvex	15.774	15.769	(1.092)	237904	0.0475	0.0496
	11 2,4,5-T	16.434	16.439	(1.138)	215187	0.0474	0.0488
	12 2,4-DB	16.989	17.002	(1.177)	334288	0.473	0.499
	13 Dinoseb	17.751	17.747	(1.229)	925822	0.236	0.227

QC Flag Legend

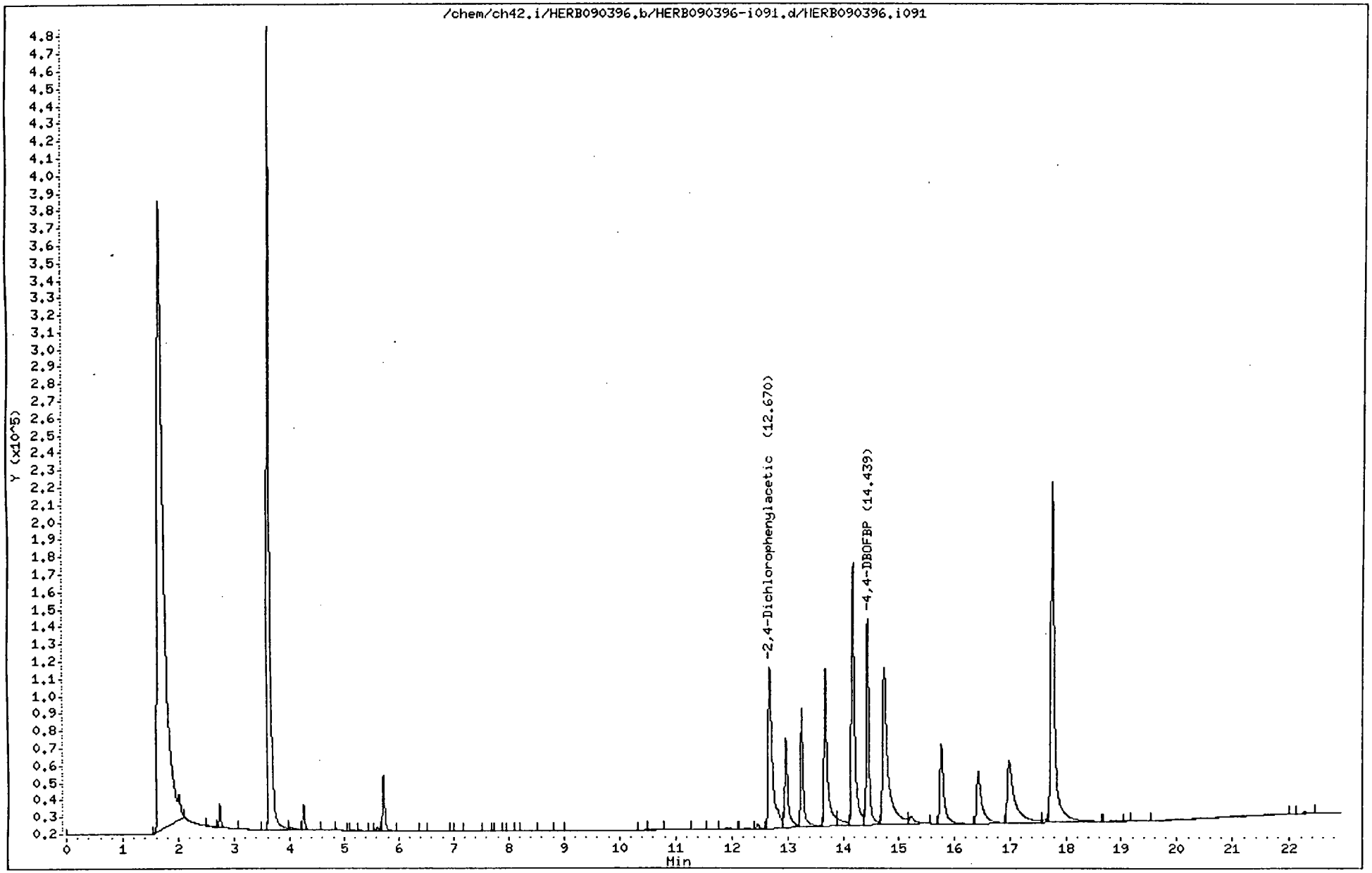
M - Compound response manually integrated.

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i091.d
Date : 03-SEP-96 21:28:00
Client ID: INCALL7
Sample Info: HERBICIDE CAL STD - L7 #AA904-68-7

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB

825



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090396.b\HERB090396-i091.d
Lab Smp Id: HERBCALL7 Client Smp ID: HERBCALL7
Inj Date : 03-SEP-96 21:28:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : HERBICIDE CAL STD - L7 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 22:37:00 Cal File: HERB090396-i111.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	4.136	4.136	(0.256)	2017846	1.14	0.896
$	2 2,4-Dichlorophenylacetic acid	14.178	14.187	(0.877)	772390	0.468	0.423(M)
	3 Dicamba	14.320	14.320	(0.000)	304532	0.0470	0.0471(M)
	4 MCPP	14.643	14.639	(0.905)	464607	46.9	47.1
	5 MCPA	14.998	14.994	(0.927)	652795	46.7	40.0(M)
	6 Dichlorprop	15.534	15.539	(0.961)	944054	0.472	0.459(M)
	7 2,4-D	15.947	15.960	(0.986)	883763	0.470	0.423
*	8 4,4-DBOFBP	16.173	16.173	(1.000)	587530	1.00	
	10 2,4,5-TP Silvex	17.299	17.303	(1.070)	357751	0.0475	0.0484
	11 2,4,5-T	17.795	17.804	(1.100)	347196	0.0474	0.0484
	12 2,4-DB	18.545	18.558	(1.147)	488868	0.473	0.476
	13 Dinoseb	18.713	18.718	(1.157)	1367542	0.236	0.226

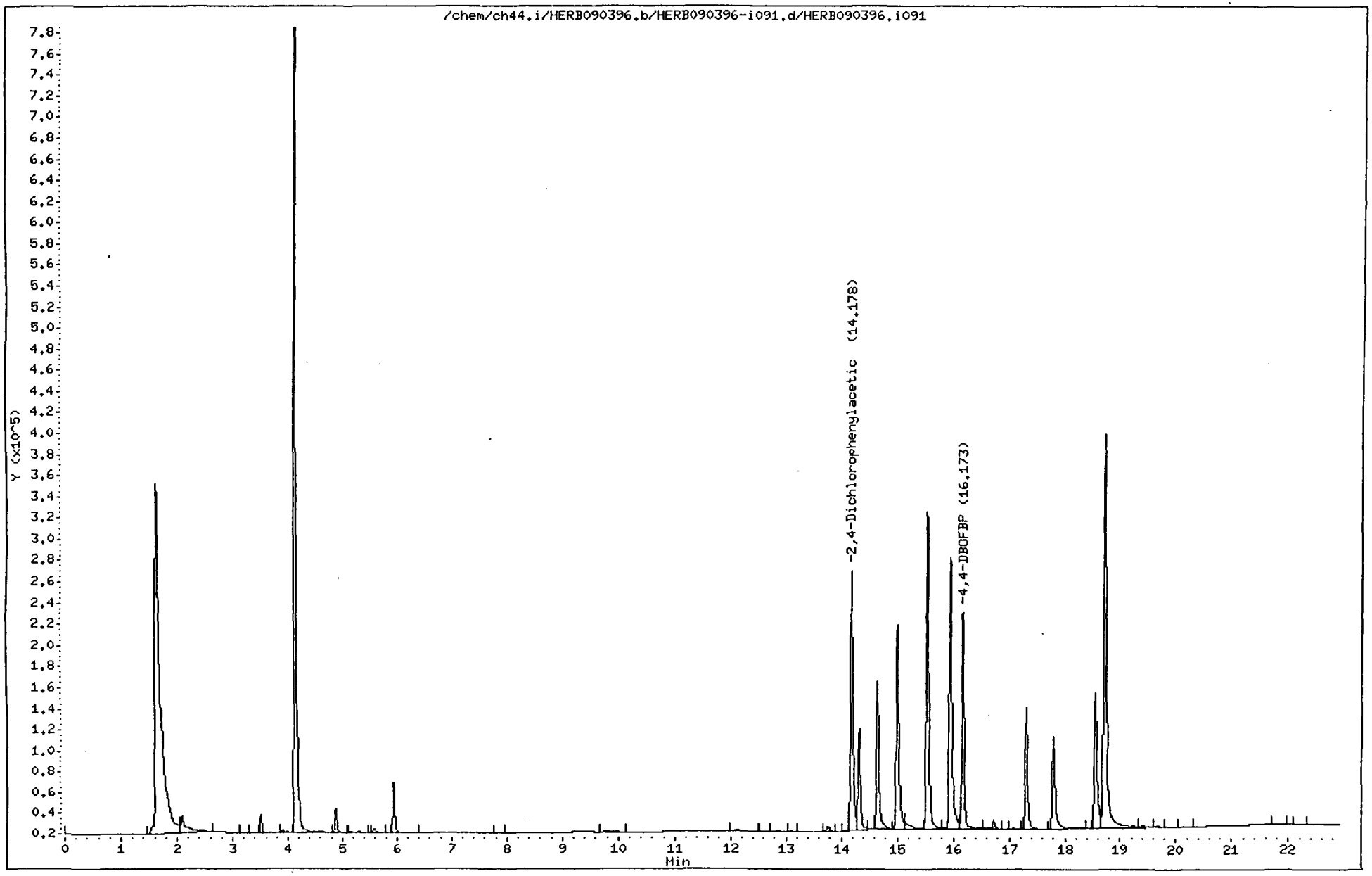
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i091.d
Date : 03-SEP-96 21:28:00
Client ID: HERBCALL7
Sample Info: HERBICIDE CAL STD - L7 #AA904-68-7

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i101.d
Lab Smp Id: INCALL8 Client Smp ID: INCALL8
Inj Date : 03-SEP-96 22:03:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : HERBICIDE CAL STD - L8 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 22:37:00 Cal File: HERB090396-i111.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	3.613	3.631	(0.251)	1971197	1.71	1.74
$	2 2,4-Dichlorophenylacetic acid	12.653	12.679	(0.877)	609753	0.702	0.674
	3 Dicamba	12.954	12.968	(0.898)	245364	0.0705	0.0709
	4 MCPP	13.234	13.238	(0.918)	269283	70.4	70.4
	5 MCPA	13.664	13.668	(0.947)	423605	70.4	68.3(M)
	6 Dichlorprop	14.147	14.165	(0.981)	693599	0.708	0.612
*	7 4,4-DBOFBP	14.422	14.426	(1.000)	293583	1.00	
	8 2,4-D	14.714	14.750	(1.020)	649530	0.705	0.599
	10 2,4,5-TP Silvex	15.747	15.769	(1.092)	265422	0.0713	0.0750
	11 2,4,5-T	16.403	16.439	(1.137)	257145	0.0711	0.0774
	12 2,4-DB	16.958	17.002	(1.176)	390276	0.710	0.774
	13 Dinoseb	17.729	17.747	(1.229)	972077	0.354	0.330

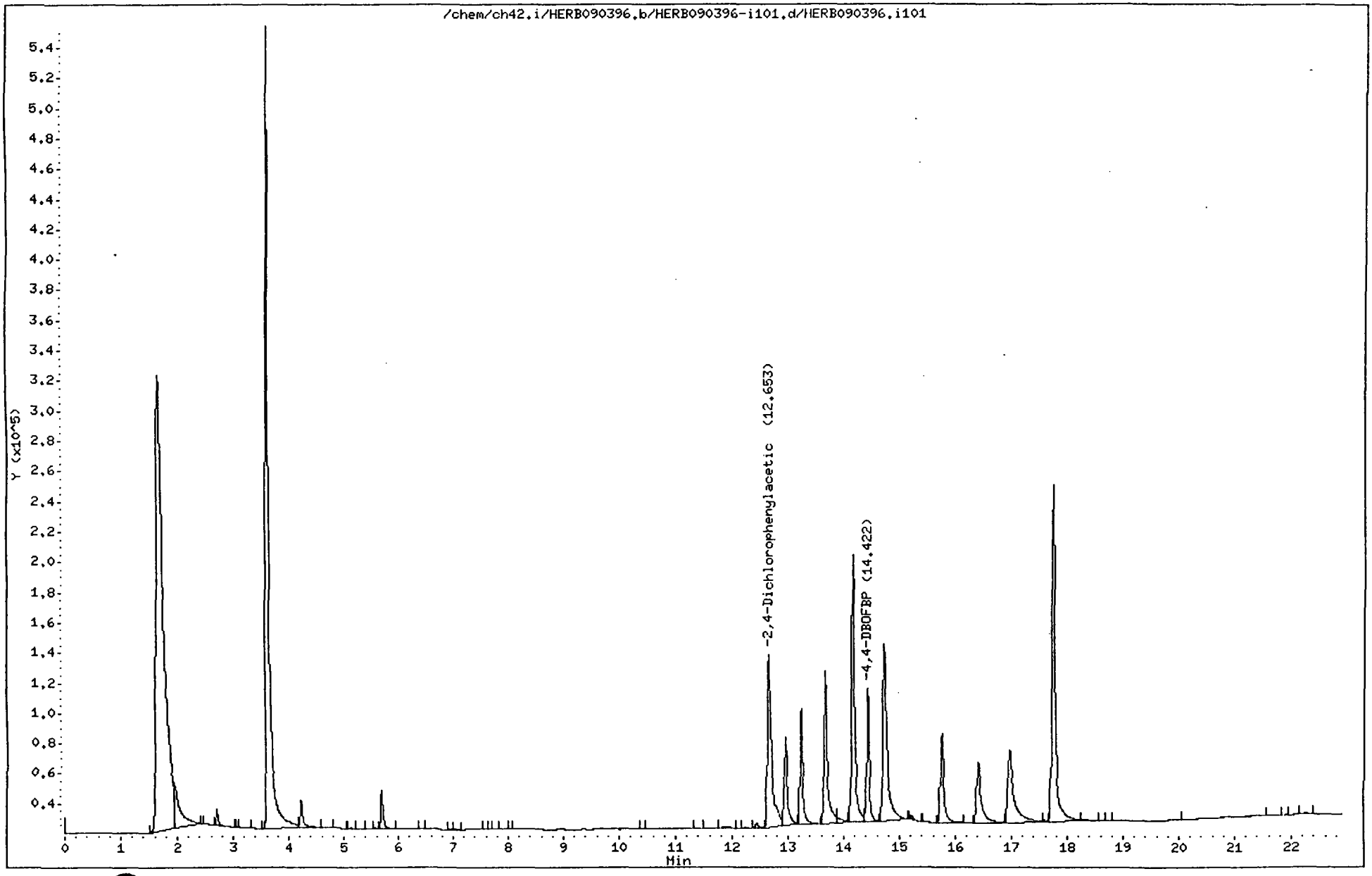
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i101.d
Date : 03-SEP-96 22:03:00
Client ID: INCALL8
Sample Info: HERBICIDE CAL STD - L8 #AA904-68-7

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090396.b\HERB090396-i101.d
Lab Smp Id: HERBCALL8 Client Smp ID: HERBCALL8
Inj Date : 03-SEP-96 22:03:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : HERBICIDE CAL STD - L8 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 22:37:00 Cal File: HERB090396-i111.d
Als bottle: 1 Calibration Sample, Level: 8
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	4.127	4.136	(0.255)	2993000	1.71	1.68
$	2 2,4-Dichlorophenylacetic acid	14.173	14.187	(0.877)	938349	0.702	0.748(M)
	3 Dicamba	14.311	14.320	(0.000)	370372	0.0705	0.0719(M)
	4 MCPP	14.639	14.639	(0.905)	530036	70.4	71.4
	5 MCPA	14.994	14.994	(0.927)	776612	70.1	61.9(M)
	6 Dichlorprop	15.530	15.539	(0.961)	1084660	0.708	0.696(M)
	7 2,4-D	15.942	15.960	(0.986)	1010088	0.705	0.612
*	8 4,4-DBOFBP	16.168	16.173	(1.000)	464433	1.00	
	10 2,4,5-TP Silvex	17.294	17.303	(1.070)	403685	0.0713	0.0692
	11 2,4,5-T	17.787	17.804	(1.100)	395109	0.0711	0.0696
	12 2,4-DB	18.536	18.558	(1.146)	557086	0.710	0.686
	13 Dinoseb	18.709	18.718	(1.157)	1430162	0.354	0.300

QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i101.d
Date : 03-SEP-96 22:03:00
Client ID: HERBCALL8
Sample Info: HERBICIDE CAL STD - L8 #AA904-68-7

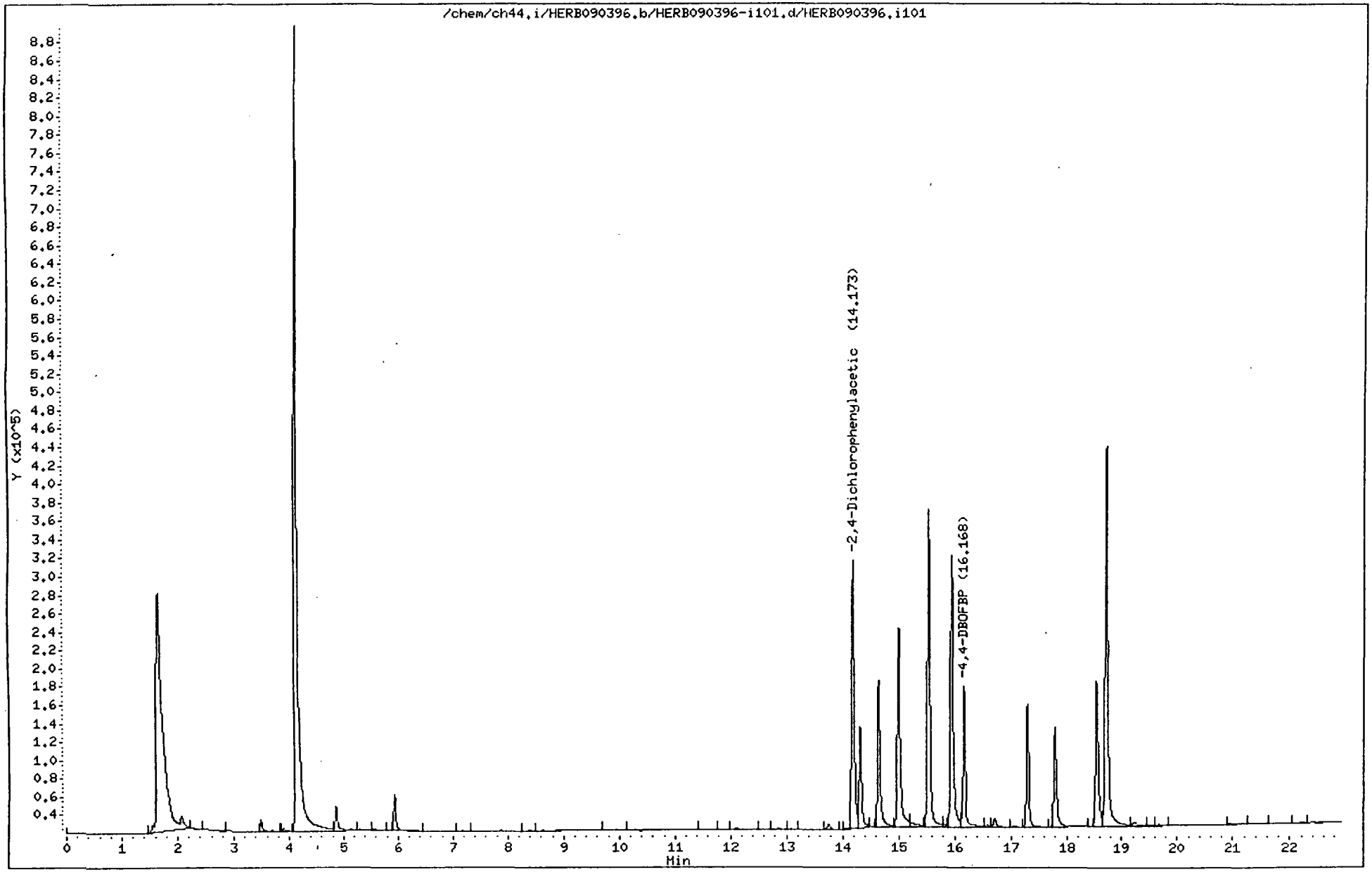
Column phase: DB-1701

Instrument: ch44.i

Operator: MAKOWALSKI
Column diameter: 0.32

831

/chem/ch44.i/HERB090396.b/HERB090396-i101.d/HERB090396.i101



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i111.d
Lab Smp Id: INCALL9 Client Smp ID: INCALL9
Inj Date : 03-SEP-96 22:37:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : HERBICIDE CAL STD - L9 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 22:37:00 Cal File: HERB090396.i111
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	3.626	3.631	(0.251)	2689330	2.28	1.91
$	2 2,4-Dichlorophenylacetic acid	12.657	12.679	(0.877)	899401	0.936	0.706
	3 Dicamba	12.963	12.968	(0.898)	388587	0.0940	0.0829
	4 MCPP	13.251	13.238	(0.918)	448124	93.9	84.6
	5 MCPA	13.681	13.668	(0.948)	725642	93.5	82.6
	6 Dichlorprop	14.160	14.165	(0.981)	1072192	0.944	0.672
*	7 4,4-DBOFBP	14.435	14.426	(1.000)	413076	1.00	
	8 2,4-D	14.723	14.750	(1.020)	1105292	0.940	0.725
	10 2,4,5-TP Silvex	15.761	15.769	(1.092)	451482	0.0951	0.0928
	11 2,4,5-T	16.412	16.439	(1.137)	417051	0.0948	0.0934
	12 2,4-DB	16.962	17.002	(1.175)	621238	0.947	0.915
	13 Dinoseb	17.742	17.747	(1.229)	1495982	0.472	0.360

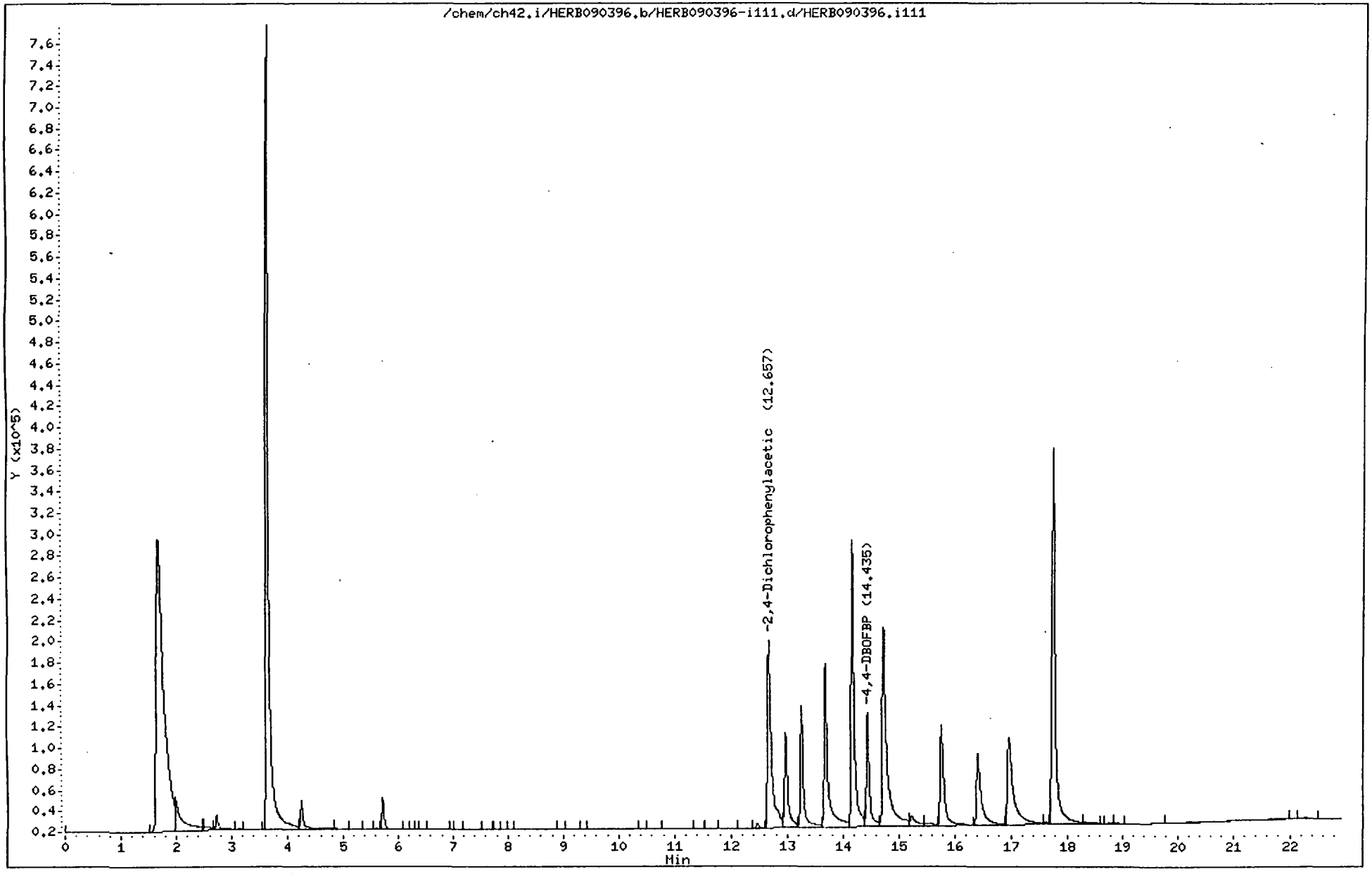
833

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i111.d
Date : 03-SEP-96 22:37:00
Client ID: INCALL9
Sample Info: HERBICIDE CAL STD - L9 #AA904-68-7

Column phase: DB-XLB

Instrument: ch42.i

Operator: MAKOWALSKI
Column diameter: 0.32



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090396.b\HERB090396-i111.d
Lab Smp Id: HERBCALL9 Client Smp ID: HERBCALL9
Inj Date : 03-SEP-96 22:37:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : HERBICIDE CAL STD - L9 #AA904-68-7
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 03-SEP-96 22:37:00 Cal File: HERB090396-i111.d
Als bottle: 1 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	4.123	4.136	(0.255)	3776205	2.28	1.75
$	2 2,4-Dichlorophenylacetic acid	14.160	14.187	(0.877)	1343944	0.936	0.883
	3 Dicamba	14.302	14.320	(0.885)	568075	0.0940	0.0901
	4 MCPP	14.630	14.639	(0.906)	820830	93.9	92.3
	5 MCPA	14.989	14.994	(0.928)	1140416	93.5	75.7(M)
	6 Dichlorprop	15.517	15.539	(0.960)	1607933	0.944	0.863(M)
	7 2,4-D	15.929	15.960	(0.986)	1516608	0.940	0.758
*	8 4,4-DBOFBP	16.155	16.173	(1.000)	563435	1.00	(M)
	10 2,4,5-TP Silvex	17.281	17.303	(1.070)	624672	0.0951	0.0882
	11 2,4,5-T	17.773	17.804	(1.100)	618321	0.0948	0.0898
	12 2,4-DB	18.522	18.558	(1.147)	865179	0.947	0.878
	13 Dinoseb	18.695	18.718	(1.157)	2141459	0.475	0.370

QC Flag Legend

M - Compound response manually integrated.

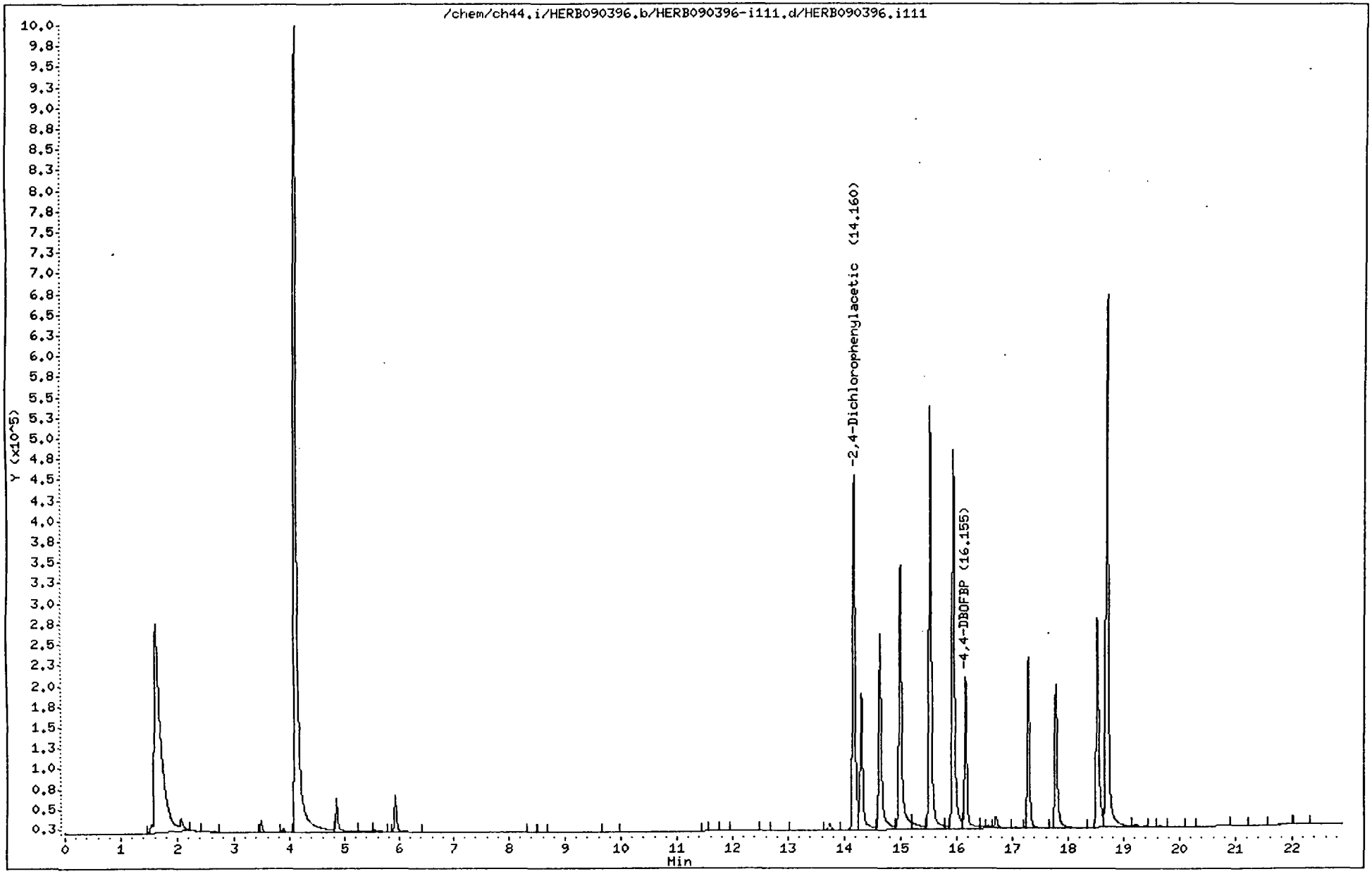
835

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i111.d
Date : 03-SEP-96 22:37:00
Client ID: HERBCALL9
Sample Info: HERBICIDE CAL STD - L9 #AA904-68-7

Instrument: ch44.i

Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i131.d
Lab Smp Id: P-INCALL1 Client Smp ID: P-INCALL1
Inj Date : 03-SEP-96 23:46:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : PICH/PENT CAL STD - L1 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

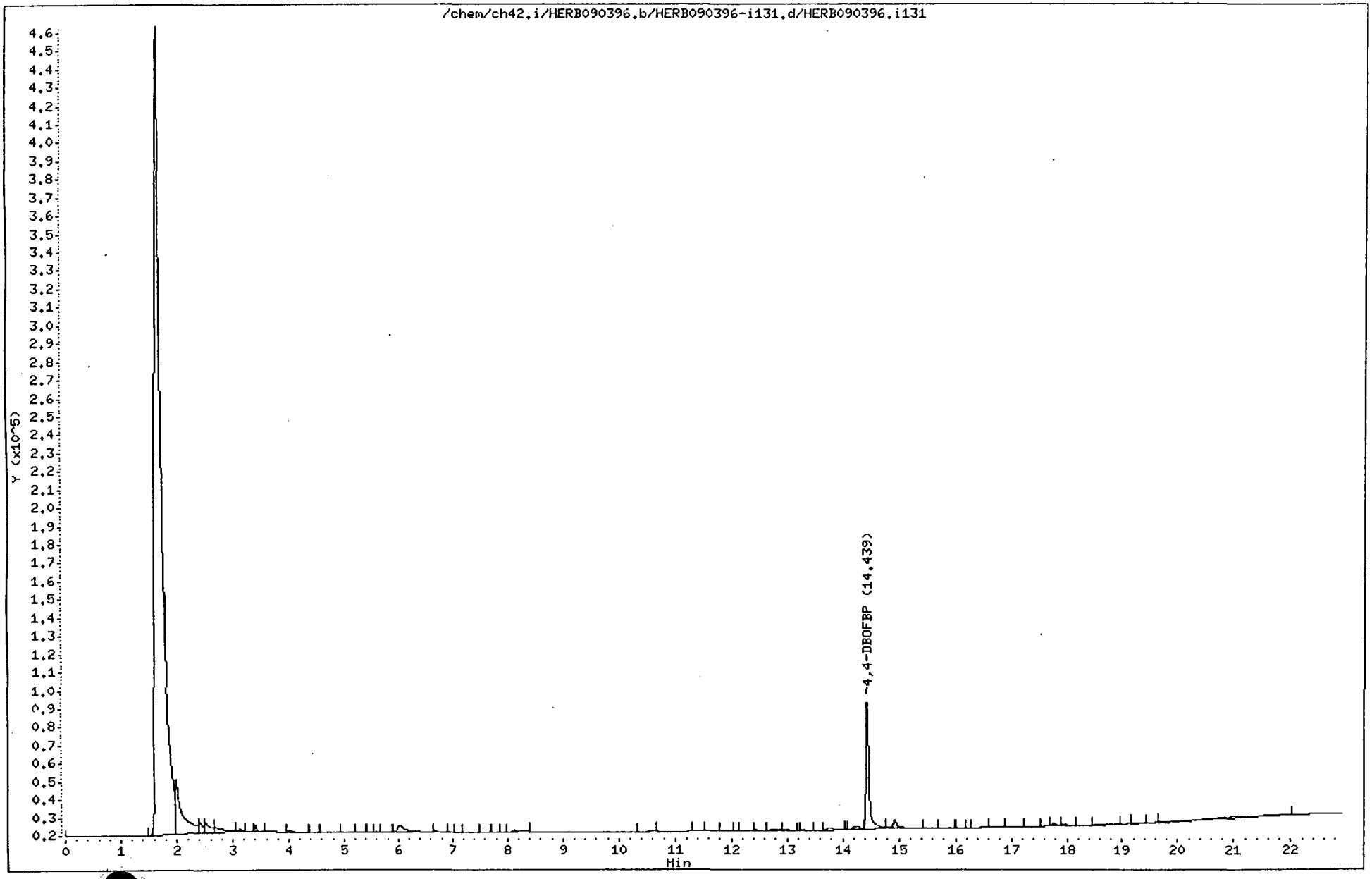
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
9 Pentachlorophenol	14.923	14.909	(1.033)	32967	0.00237	0.00352
* 7 4,4-DBOFBP	14.439	14.426	(1.000)	265420	1.00	

837

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i131.d
Date : 03-SEP-96 23:46:00
Client ID: P-INCALL1
Sample Info: PICH/PENT CAL STD - L1 #AA904-58-1

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB



Thru-Put Systems, Inc.

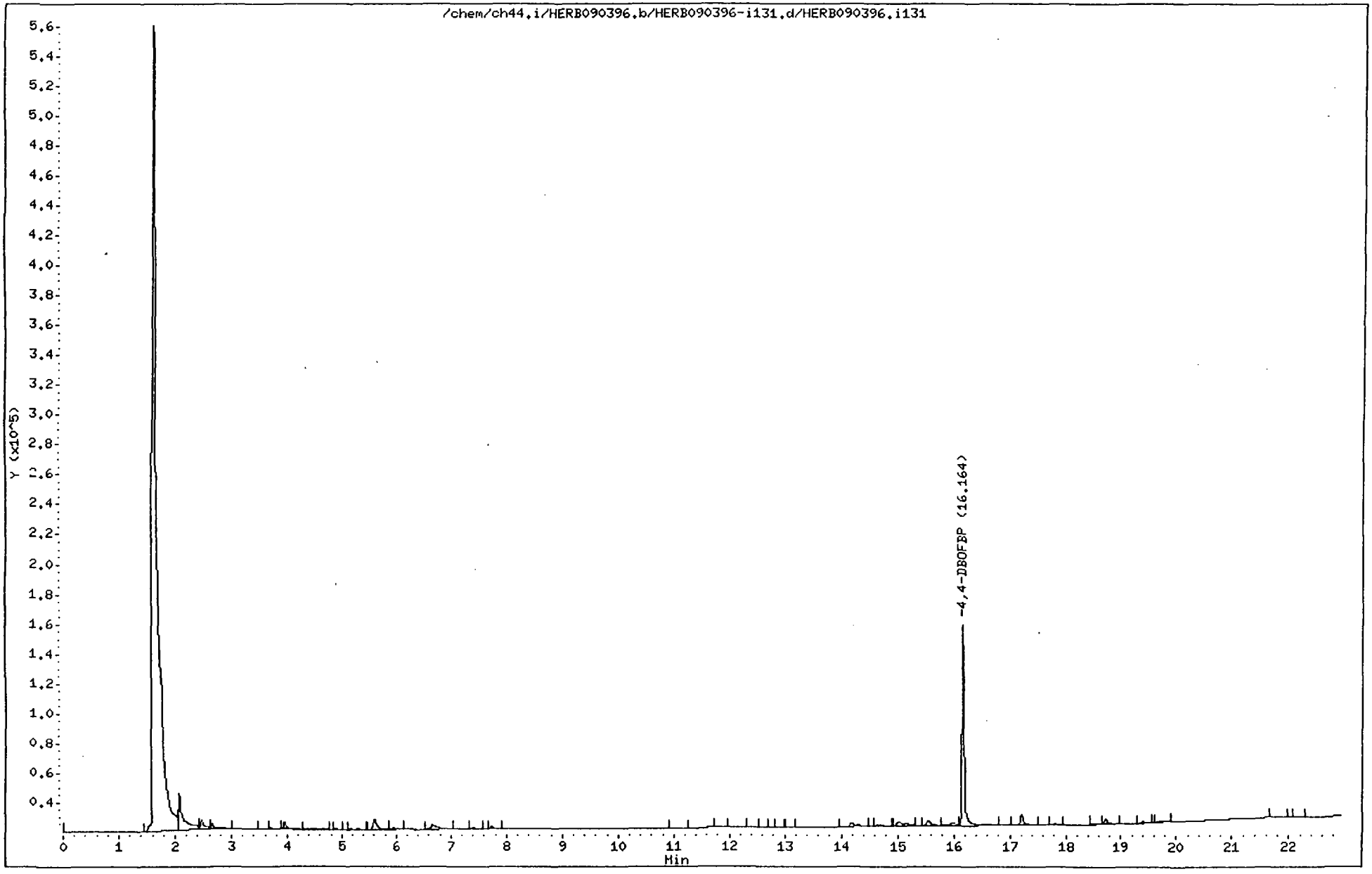
Data file : \chem\ch44.i\HERB090396.b\HERB090396-i131.d
Lab Smp Id: PENTCHLL1 Client Smp ID: PENTCHLL1
Inj Date : 03-SEP-96 23:46:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : PICH/PENT CAL STD - L1 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 01:29:00 Cal File: HERB090396-i161.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
* 8 4,4-DBOFBP	16.164	16.173	(1.000)	399492	1.00	
9 Pentachlorophenol	17.201	17.215	(1.064)	32338	0.00237	0.00237

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i131.d
Date : 03-SEP-96 23:46:00
Client ID: PENTCHLL1
Sample Info: PICH/PENT CAL STD - L1 #AA904-58-1

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i141.d
Lab Smp Id: P-INCALL2 Client Smp ID: P-INCALL2
Inj Date : 04-SEP-96 00:20:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : PICH/PENT CAL STD - L2 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

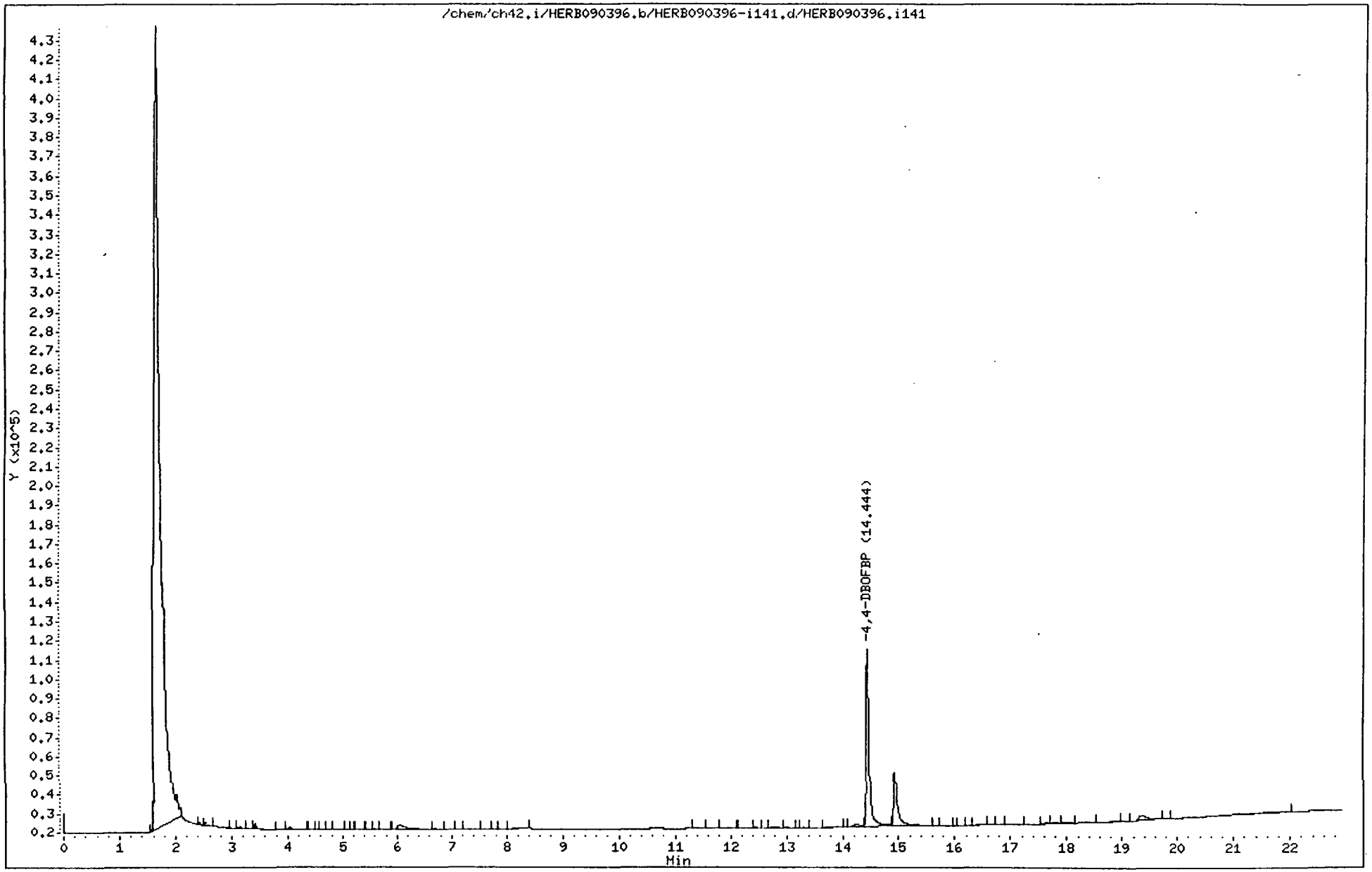
					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
9 Pentachlorophenol	14.931	14.909	(1.034)	148494	0.0119	0.0120
* 7 4,4-DBOFBP	14.444	14.426	(1.000)	350937	1.00	

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i141.d
Date : 04-SEP-96 00:20:00
Client ID: P-INCALL2
Sample Info: PICH/PENT CAL STD - L2 #AA904-58-1

Instrument: ch42.i
Operator: NAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB

841



Thru-Put Systems, Inc.

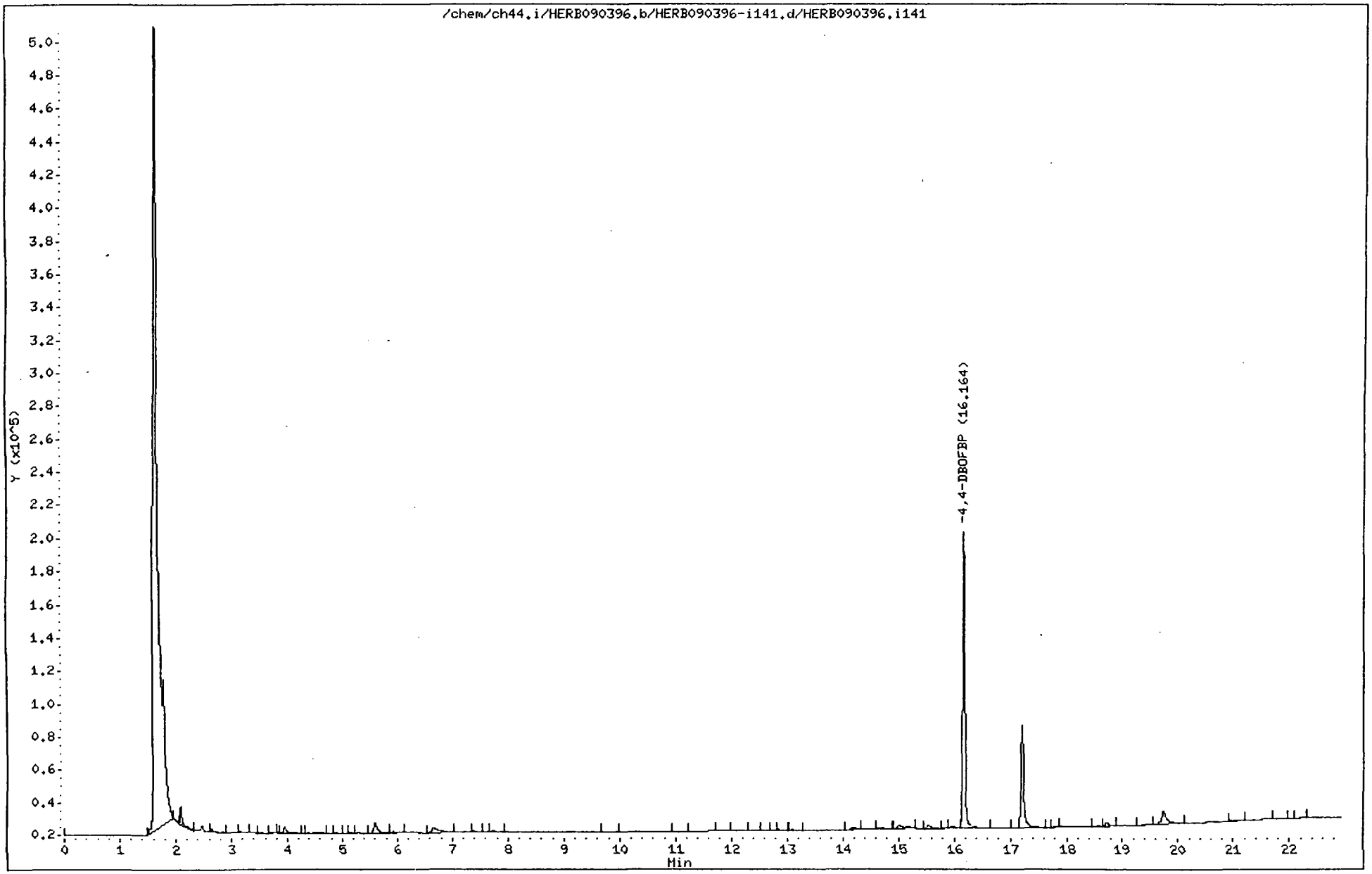
Data file : \chem\ch44.i\HERB090396.b\HERB090396-i141.d
Lab Smp Id: PENTCHLL2 Client Smp ID: PENTCHLL2
Inj Date : 04-SEP-96 00:20:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : PICH/PENT CAL STD - L2 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 01:29:00 Cal File: HERB090396-i161.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
* 8 4,4-DBOFBP	16.164	16.173	(1.000)	516845	1.00	
9 Pentachlorophenol	17.206	17.215	(1.064)	209450	0.0119	0.0118

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i141.d
Date : 04-SEP-96 00:20:00
Client ID: PENTCHLL2
Sample Info: PICH/PENT CAL STD - L2 #AA904-58-1

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i151.d
Lab Smp Id: P-INCALL3 Client Smp ID: P-INCALL3
Inj Date : 04-SEP-96 00:55:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : PICH/PENT CAL STD - L3 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

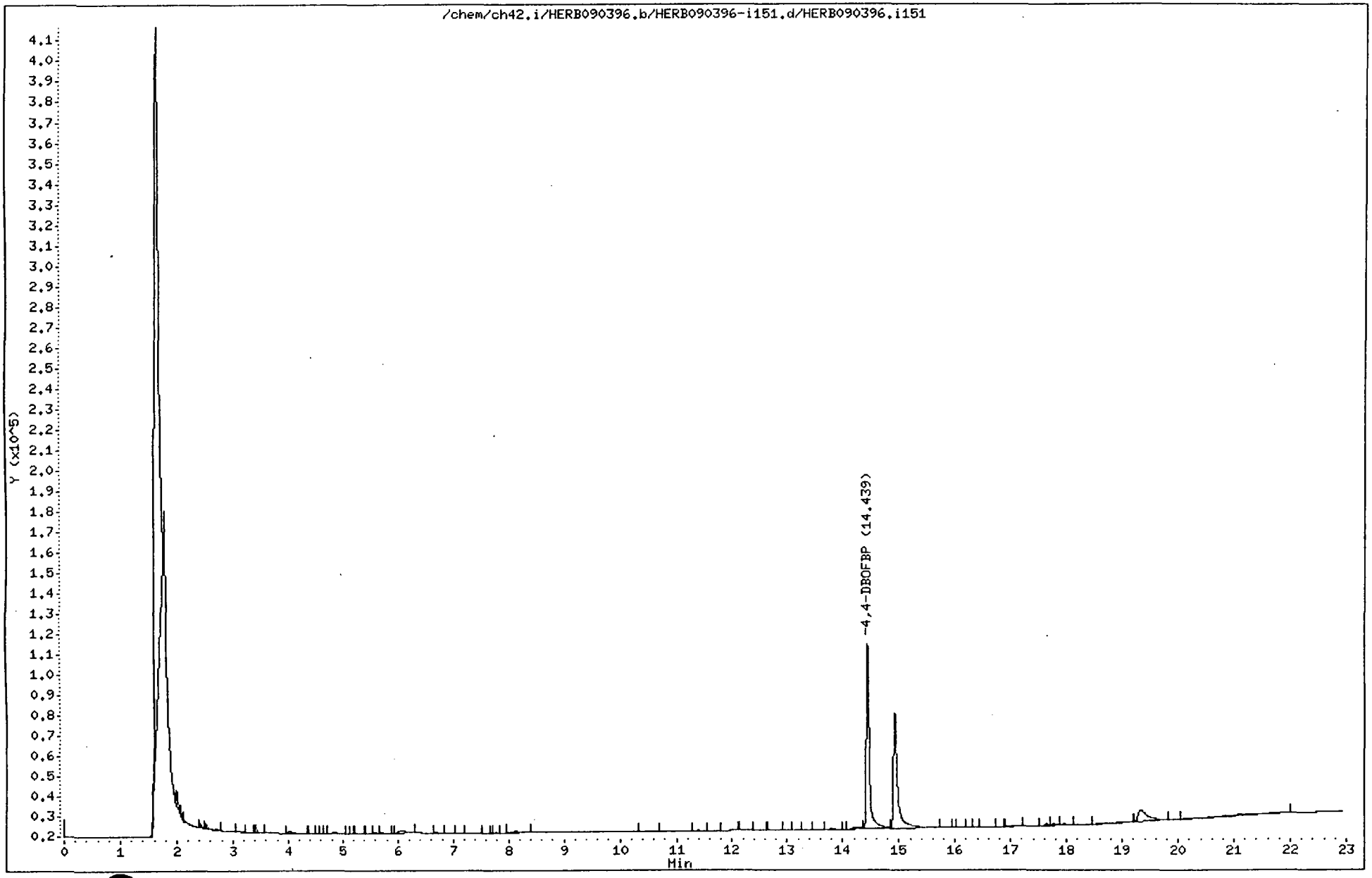
Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
9 Pentachlorophenol	14.927	14.909	(1.034)	301680	0.0237	0.0242
* 7 4,4-DBOFBP	14.439	14.426	(1.000)	352678	1.00	

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i151.d
Date : 04-SEP-96 00:55:00
Client ID: P-INCALL3
Sample Info: PICH/PENT CAL STD - L3 #AA904-58-1

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB

845



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090396.b\HERB090396-i151.d
Lab Smp Id: PENTCHLL3 Client Smp ID: PENTCHLL3
Inj Date : 04-SEP-96 00:55:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : PICH/PENT CAL STD - L3 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 01:29:00 Cal File: HERB090396-i161.d
Als bottle: 1 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

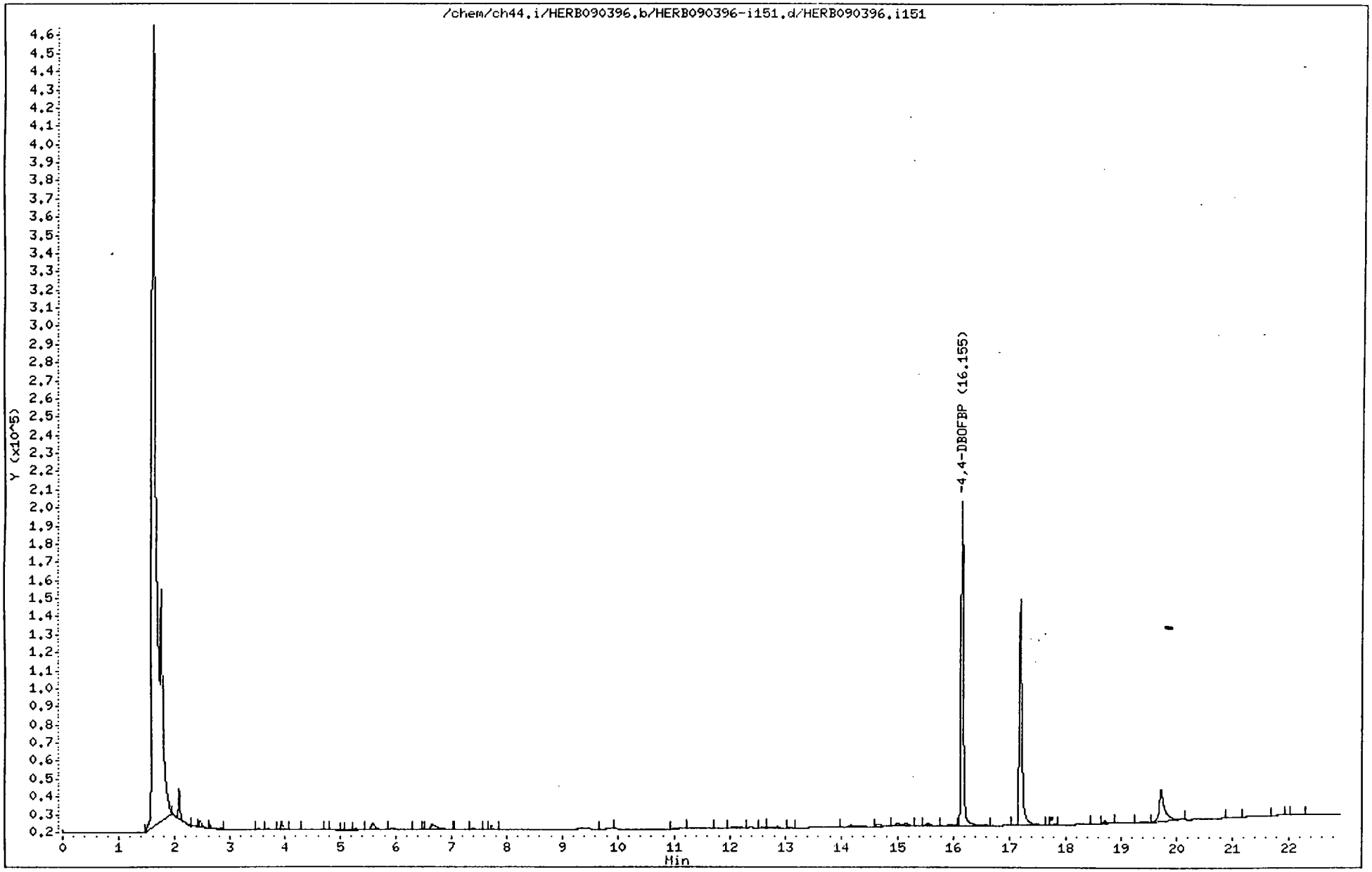
Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
* 8 4,4-DBOFBP	16.155	16.173	(1.000)	517369	1.00	
9 Pentachlorophenol	17.197	17.215	(1.064)	424902	0.0237	0.0237

S47

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i151.d
Date : 04-SEP-96 00:55:00
Client ID: PENTCHLL3
Sample Info: PICH/PENT CAL STD - L3 #AA904-58-1

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

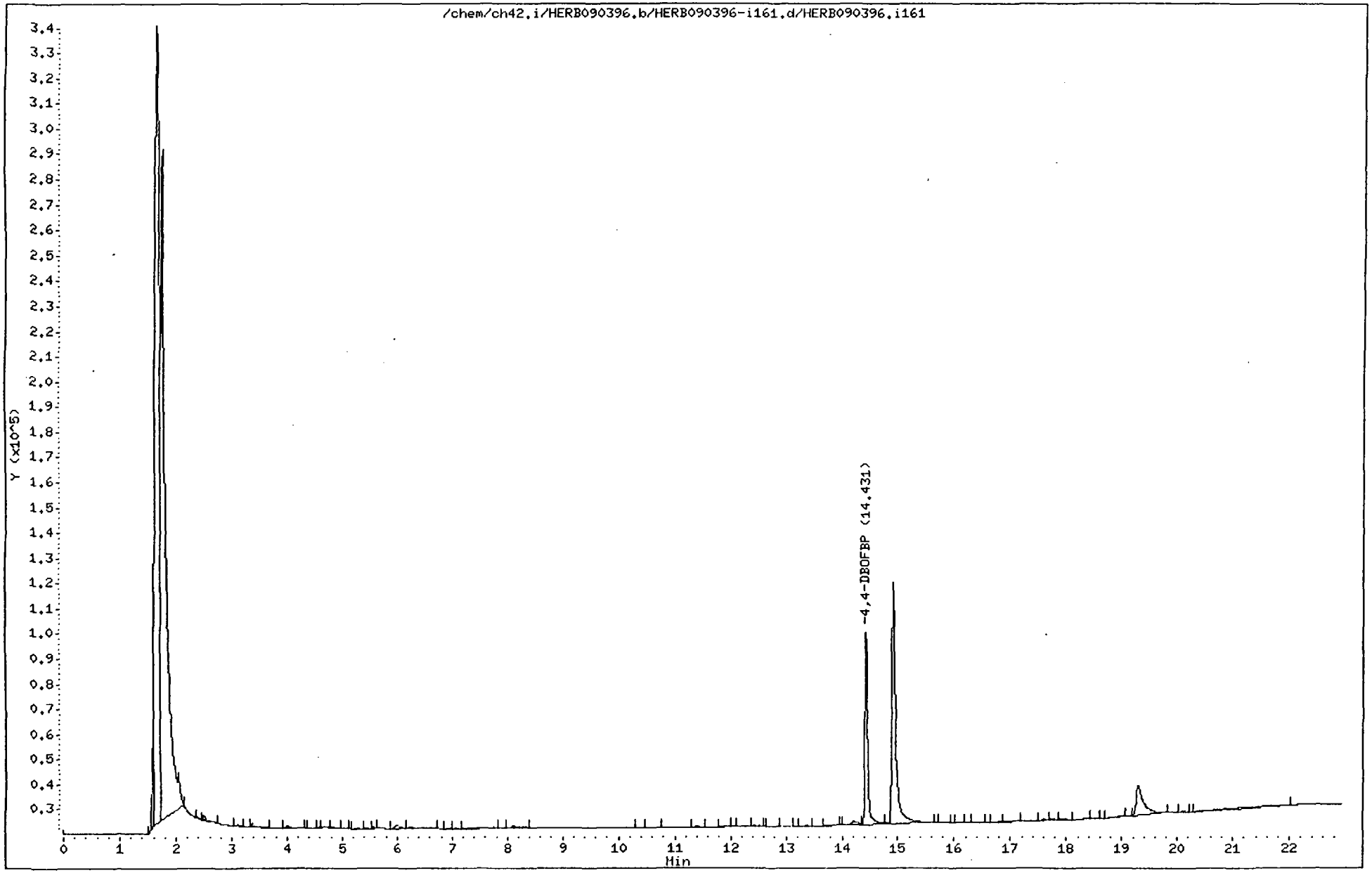
Data file : \chem\ch42.i\HERB090396.b\HERB090396-i161.d
Lab Smp Id: P-INCALL4 Client Smp ID: P-INCALL4
Inj Date : 04-SEP-96 01:29:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : PICH/PENT CAL STD - L4 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

					AMOUNTS	
					CAL-AMT	ON-COL
Compounds	RT	EXP RT	REL RT	RESPONSE	(ng)	(ng)
9 Pentachlorophenol	14.918	14.909	(1.034)	461081	0.0475	0.0482
* 7 4,4-DBOFBP	14.431	14.426	(1.000)	270873	1.00	

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i161.d
Date : 04-SEP-96 01:29:00
Client ID: P-INCALL4
Sample Info: PICH/PENT CAL STD - L4 #AA904-58-1

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090396.b\HERB090396-i161.d
Lab Smp Id: PENTCHLL4 Client Smp ID: PENTCHLL4
Inj Date : 04-SEP-96 01:29:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : PICH/PENT CAL STD - L4 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 01:29:00 Cal File: HERB090396-i161.d
Als bottle: 1 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
* 8 4,4-DBOFBP	16.160	16.173	(1.000)	400535	1.00	
9 Pentachlorophenol	17.197	17.215	(0.000)	661304	0.0475	0.0475(M)

QC Flag Legend

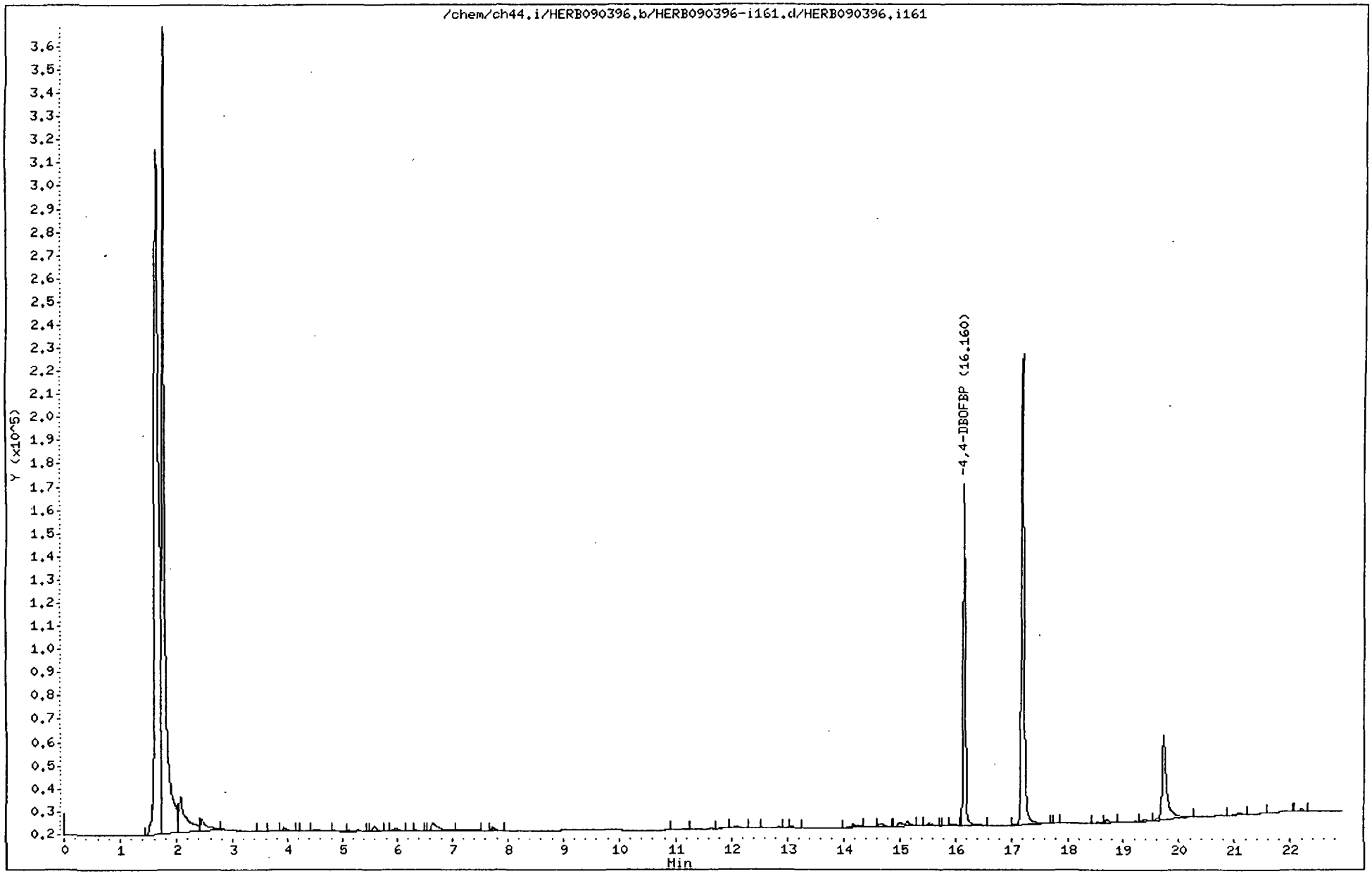
M - Compound response manually integrated.

851

Data File: /chem/ch44,i/HERB090396.b/HERB090396-i161.d
Date : 04-SEP-96 01:29:00
Client ID: PENTCHLL4
Sample Info: PICH/PENT CAL STD - L4 #AA904-58-1

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i171.d
Lab Smp Id: P-INCALL5 Client Smp ID: P-INCALL5
Inj Date : 04-SEP-96 02:04:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : PICH/PENT CAL STD - L5 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	9 Pentachlorophenol	14.931	14.909	(1.033)	1460880	0.119	0.122
*	7 4,4-DBOFBP	14.448	14.426	(1.000)	340088	1.00	

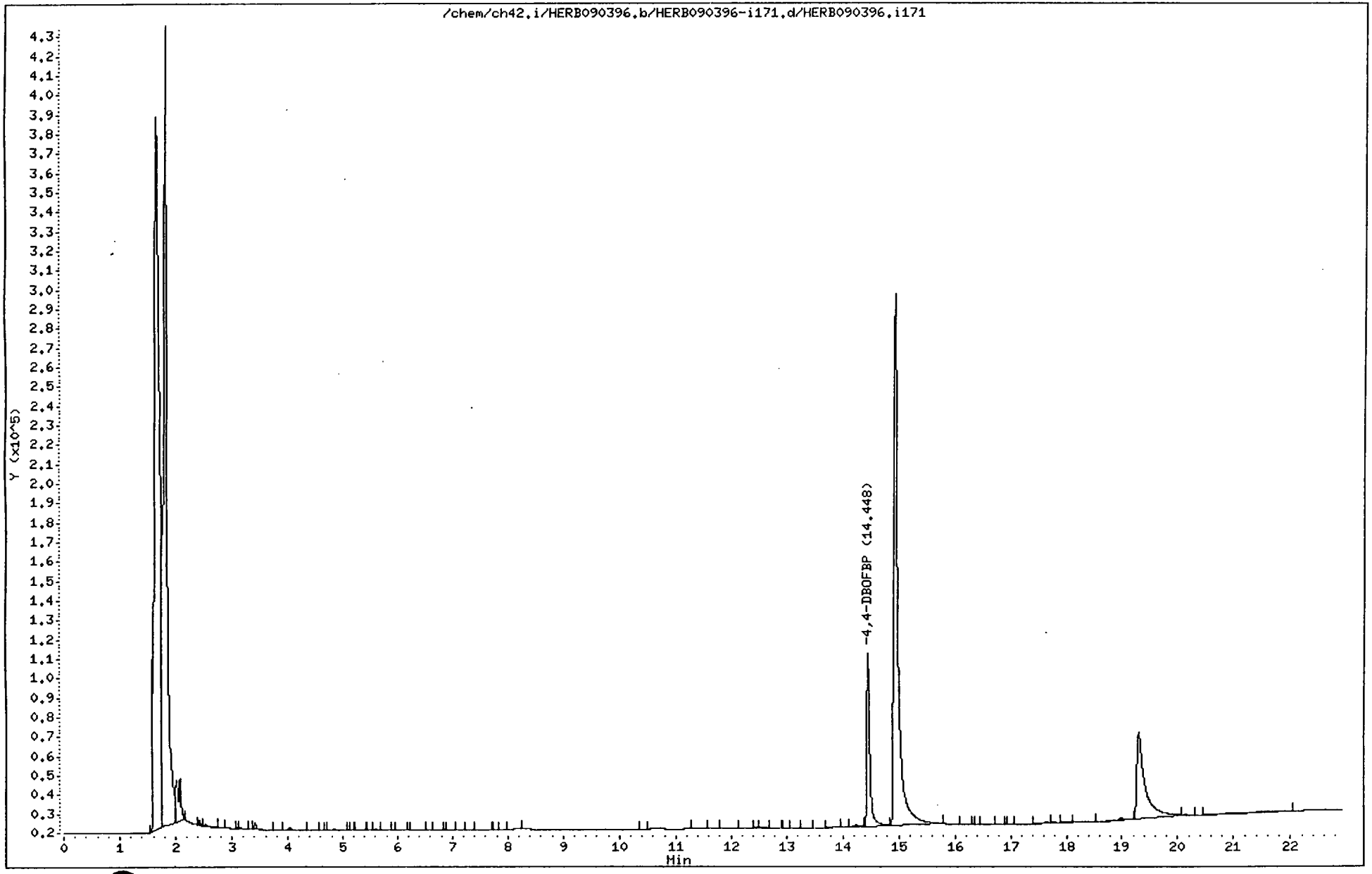
853

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i171.d
Date : 04-SEP-96 02:04:00
Client ID: P-INCALL5
Sample Info: PICH/PENT CAL STD - L5 #AA904-58-1

Instrument: ch42.i

Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090396.b\HERB090396-i171.d
Lab Smp Id: PENTCHLL5 Client Smp ID: PENTCHLL5
Inj Date : 04-SEP-96 02:04:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : PICH/PENT CAL STD - L5 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 02:04:00 Cal File: HERB090396-i171.d
Als bottle: 1 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
* 8 4,4-DBOFBP	16.177	16.173	(1.000)	511874	1.00	
9 Pentachlorophenol	17.215	17.215	(1.064)	2031989	0.119	0.118

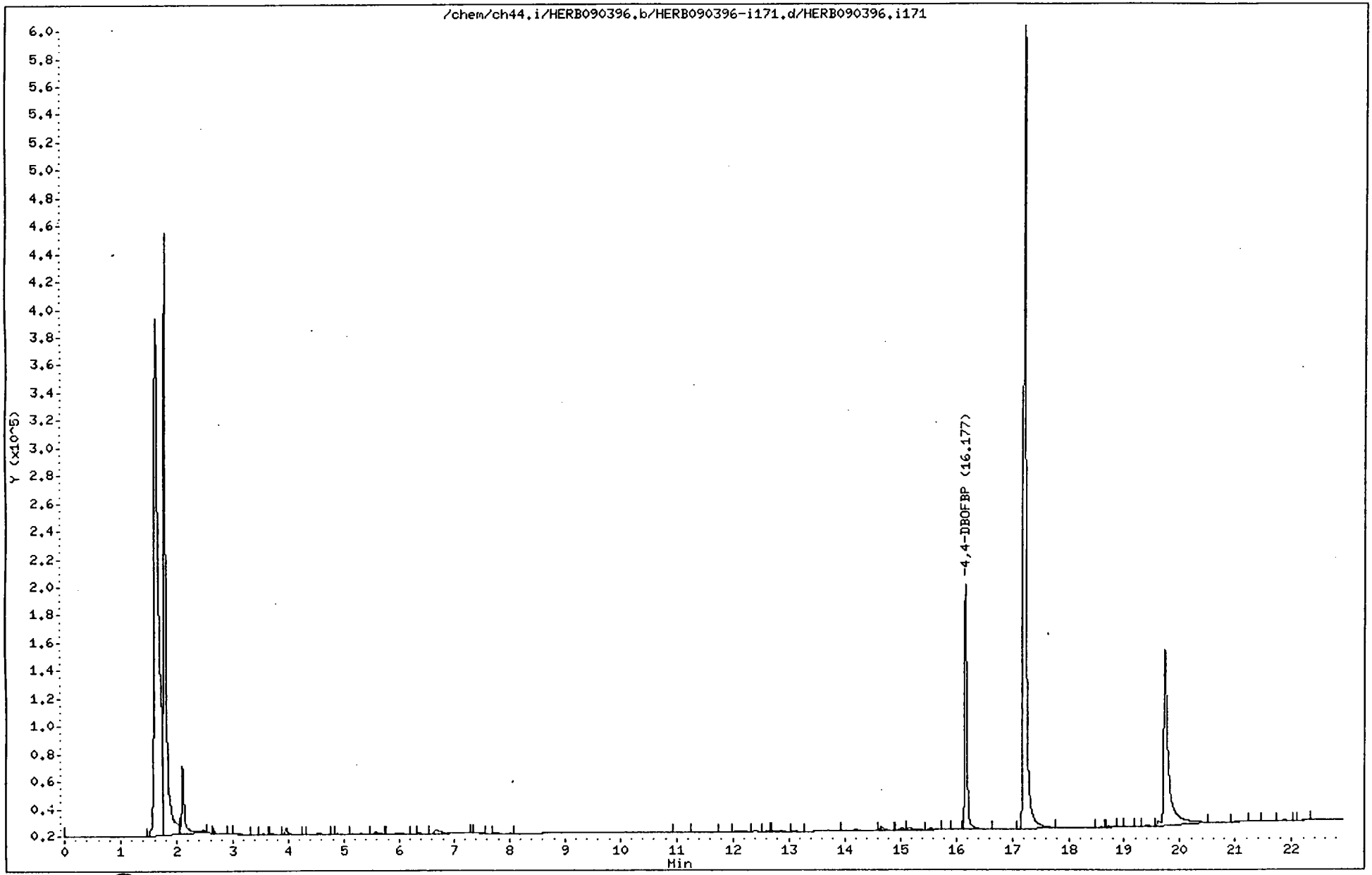
855

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i171.d
Date : 04-SEP-96 02:04:00
Client ID: PENTCHLL5
Sample Info: PICH/PENT CAL STD - L5 #AA904-58-1

Instrument: ch44.i

Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i181.d
Lab Smp Id: P-INCALL6 Client Smp ID: P-INCALL6
Inj Date : 04-SEP-96 02:38:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : PICH/PENT CAL STD - L6 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

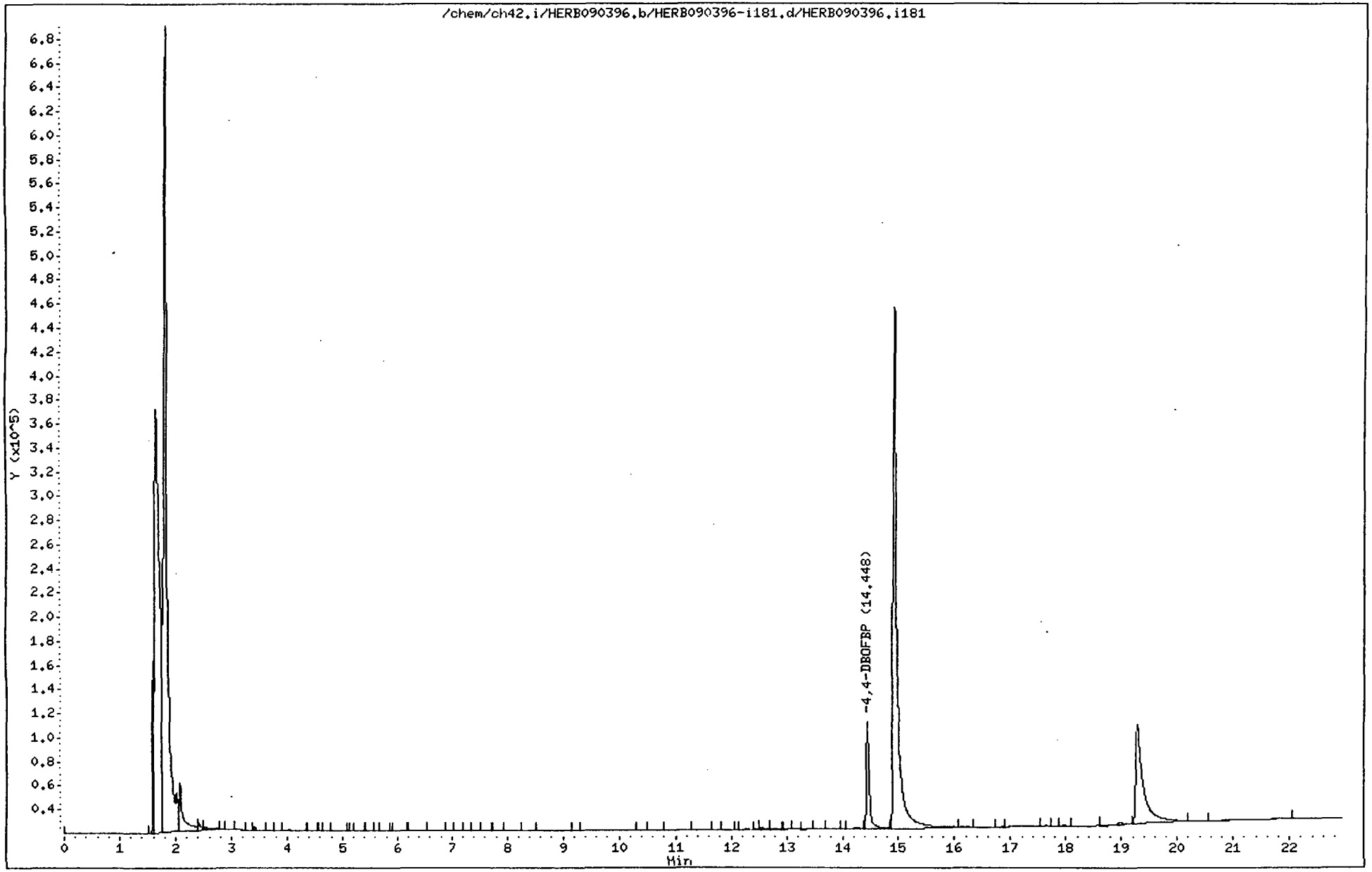
Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
9 Pentachlorophenol	14.927	14.909	(1.033)	2224525	0.190	0.190
* 7 4,4-DBOFBP	14.448	14.426	(1.000)	330982	1.00	

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i181.d
Date : 04-SEP-96 02:38:00
Client ID: P-INCALL6
Sample Info: PICH/PENT CAL STD - L6 #AA904-58-1

Instrument: ch42.i

Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB



Thru-Put Systems, Inc.

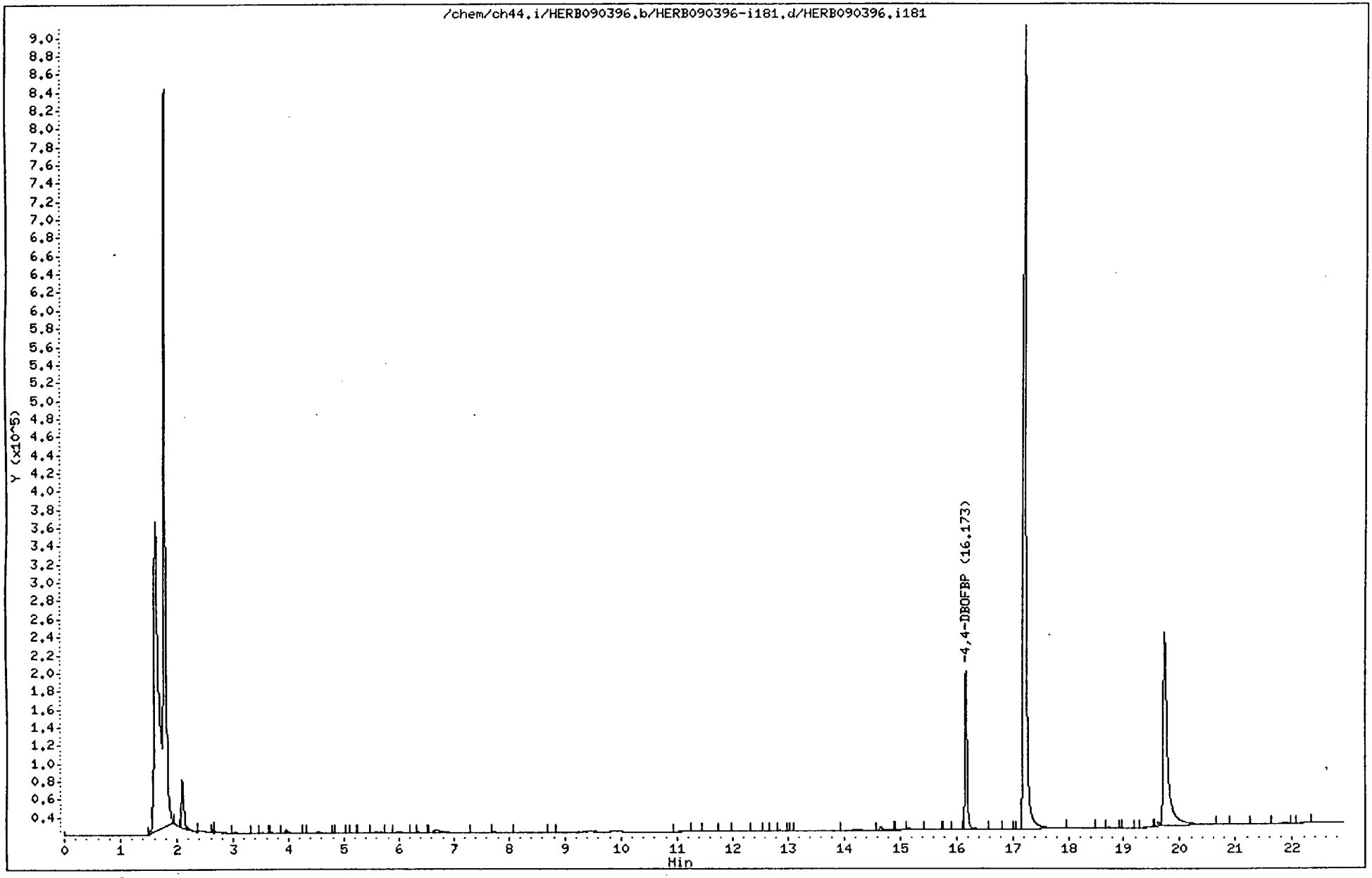
Data file : \chem\ch44.i\HERB090396.b\HERB090396-i181.d
Lab Smp Id: PENTCHLL6 Client Smp ID: PENTCHLL6
Inj Date : 04-SEP-96 02:38:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : PICH/PENT CAL STD - L6 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 02:38:00 Cal File: HERB090396-i181.d
Als bottle: 1 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
* 8 4,4-DBOFBP	16.173	16.173	(1.000)	486916	1.00	
9 Pentachlorophenol	17.210	17.215	(1.064)	3006430	0.190	0.188

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i181.d
Date : 04-SEP-96 02:38:00
Client ID: PENTCHLL6
Sample Info: PICH/PENT CAL STD - L6 #AA904-58-1

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



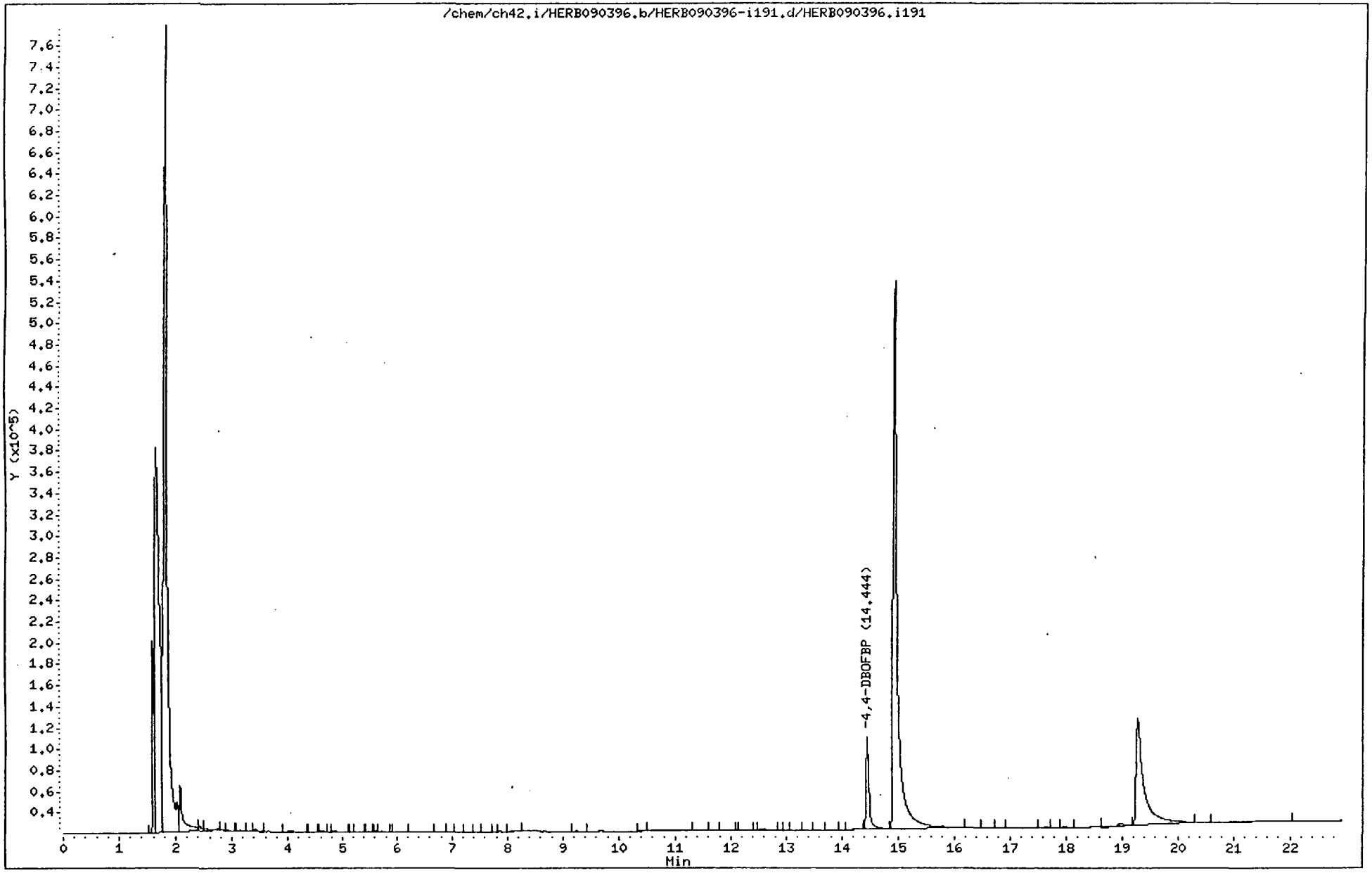
Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090396.b\HERB090396-i191.d
Lab Smp Id: P-INCALL7 Client Smp ID: P-INCALL7
Inj Date : 04-SEP-96 03:12:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : PICH/PENT CAL STD - L7 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
9 Pentachlorophenol	14.923	14.909	(1.033)	2771586	0.237	0.235
* 7 4,4-DBOFBP	14.444	14.426	(1.000)	333824	1.00	

Data File: /chem/ch42.i/HERB090396.b/HERB090396-i191.d
Date : 04-SEP-96 03:12:00
Client ID: P-INCALL7
Sample Info: PICH/PENT CAL STD - L7 #AA904-58-1

Instrument: ch42.i
Operator: MAKOWALSKI
Column phase: DB-XLB
Column diameter: 0.32



Thru-Put Systems, Inc.

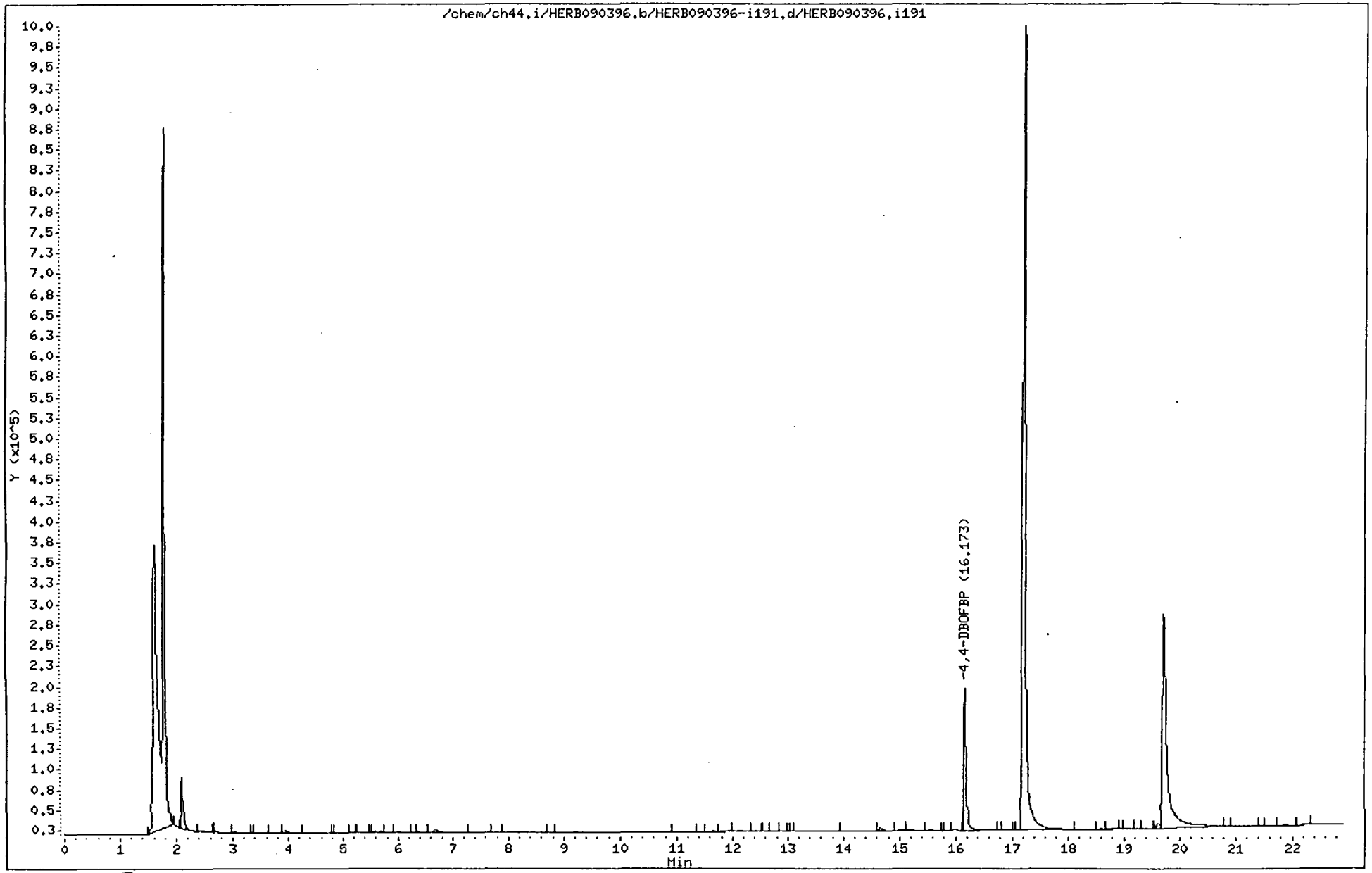
Data file : \chem\ch44.i\HERB090396.b\HERB090396-i191.d
Lab Smp Id: PENTCHLL7 Client Smp ID: PENTCHLL7
Inj Date : 04-SEP-96 03:12:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : PICH/PENT CAL STD - L7 #AA904-58-1
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090396.b\44herb0903.m
Meth Date : 10-Sep-96 11:04:25 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
* 8 4,4-DBOFBP	16.173	16.173	(1.000)	496133	1.00	
9 Pentachlorophenol	17.215	17.215	(1.064)	3687640	0.237	0.232

Data File: /chem/ch44.i/HERB090396.b/HERB090396-i191.d
Date : 04-SEP-96 03:12:00
Client ID: PENTCHLL7
Sample Info: PICH/PENT CAL STD - L7 #AA904-58-1

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

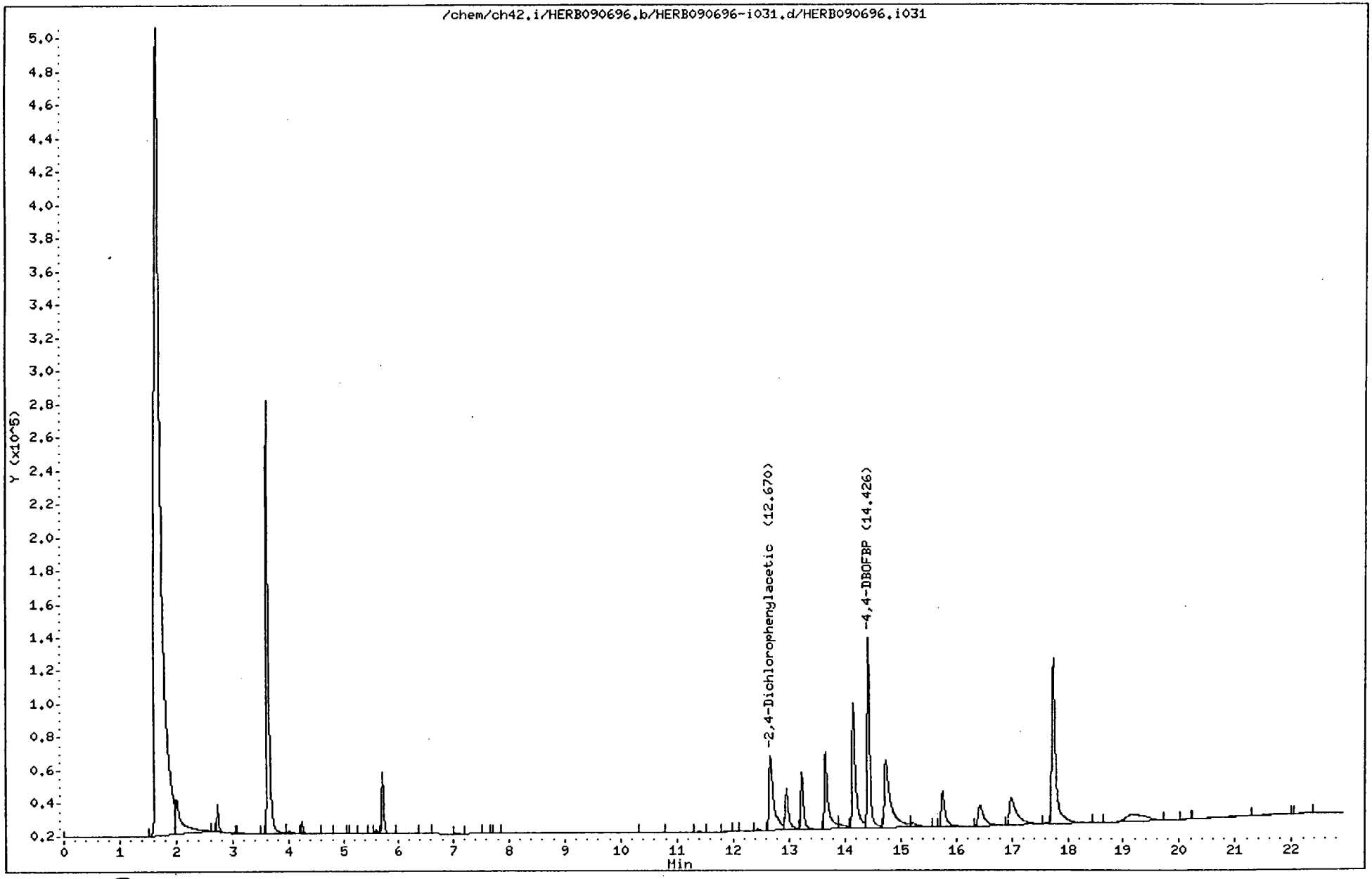
Data file : \chem\ch42.i\HERB090696.b\HERB090696-i031.d
Lab Smp Id: HERBCAL-1 Client Smp ID: HERBCAL-1
Inj Date : 06-SEP-96 14:12:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : HERBICIDE CAL STD - L5 #AA904-71-5
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090696.b\42herb0903.m
Meth Date : 09-Sep-96 13:40:07 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	3.631	3.626	(0.252)	744203	0.569	0.576
$	2 2,4-Dichlorophenylacetic acid	12.670	12.719	(0.878)	270128	0.234	0.266
	3 Dicamba	12.959	12.954	(0.898)	109140	0.0235	0.0254
	4 MCPP	13.234	13.375	(0.917)	123731	23.5	24.2
	5 MCPA	13.659	13.761	(0.947)	209282	23.5	21.5
	6 Dichlorprop	14.160	14.200	(0.982)	342488	0.236	0.234
*	7 4,4-DBOFBP	14.426	14.426	(1.000)	378323	1.00	
	8 2,4-D	14.741	14.909	(1.022)	327912	0.235	0.235
	10 2,4,5-TP Silvex	15.761	15.765	(1.093)	112339	0.0238	0.0251
	11 2,4,5-T	16.430	16.363	(1.139)	100766	0.0237	0.0245
	12 2,4-DB	16.993	16.816	(1.178)	164031	0.237	0.262
	13 Dinoseb	17.738	17.618	(1.230)	480443	0.118	0.126

Data File: /chem/ch42.i/HERB090696.b/HERB090696-i031.d
Date : 06-SEP-96 14:12:00
Client ID: HERBCAL-1
Sample Info: HERBICIDE CAL STD - L5 #AA904-71-5

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB



Thru-Put Systems, Inc.

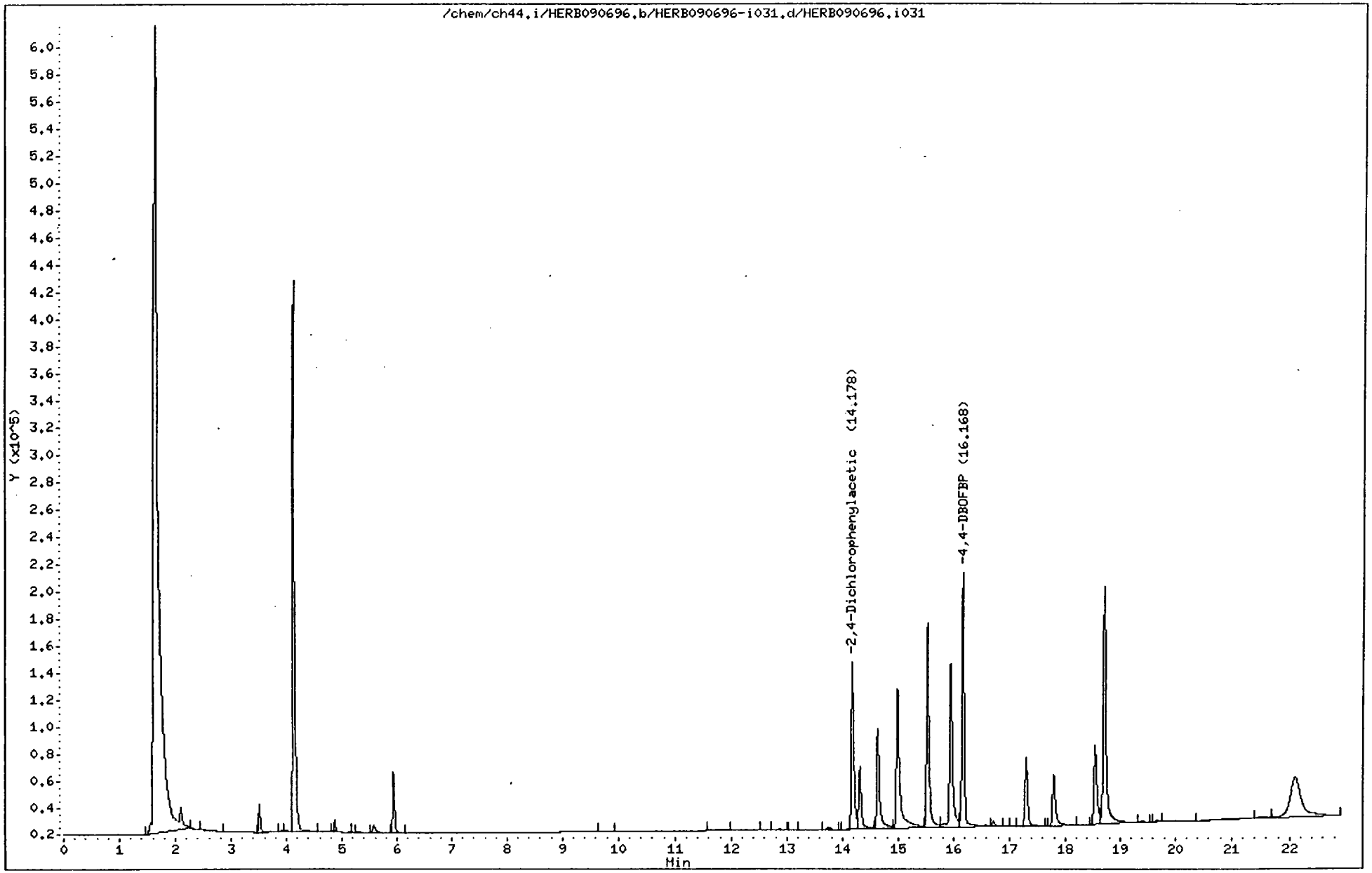
Data file : \chem\ch44.i\HERB090696.b\HERB090696-i031.d
Lab Smp Id: HERBCAL-1 Client Smp ID: HERBCAL-1
Inj Date : 06-SEP-96 14:12:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : HERBICIDE CAL STD - L5 #AA904-71-5
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090696.b\44herb0903.m
Meth Date : 20-Sep-96 15:54:45 Quant Type: ISTD
Cal Date : 03-SEP-96 23:46:00 Cal File: HERB090396-i131.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	4.136	4.136	(0.256)	1042785	0.569	0.508
$	2 2,4-Dichlorophenylacetic acid	14.178	14.178	(0.877)	401397	0.234	0.237
	3 Dicamba	14.315	14.315	(0.885)	158412	0.0235	0.0259
	4 MCPP	14.634	14.634	(0.905)	268691	23.5	26.9
	5 MCPA	14.989	14.989	(0.927)	440383	23.4	30.6
	6 Dichlorprop	15.530	15.530	(0.961)	504120	0.236	0.260
	7 2,4-D	15.947	15.947	(0.986)	464093	0.235	0.225
*	8 4,4-DBOFBP	16.168	16.168	(1.000)	536107	1.00	
	10 2,4,5-TP Silvex	17.299	17.299	(1.070)	161619	0.0238	0.0240
	11 2,4,5-T	17.795	17.795	(1.101)	153952	0.0237	0.0235
	12 2,4-DB	18.545	18.545	(1.147)	236690	0.237	0.252
	13 Dinoseb	18.713	18.713	(1.157)	655010	0.118	0.119

Data File: /chem/ch44.i/HERB090696.b/HERB090696-i031.d
Date : 06-SEP-96 14:12:00
Client ID: HERBCAL-1
Sample Info: HERBICIDE CAL STD - L5 #AA904-71-5

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090696.b\HERB090696-i101.d
Lab Smp Id: HERBCAL-2 Client Smp ID: HERBCAL-2
Inj Date : 06-SEP-96 18:18:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : HERBICIDE CAL STD - L5 #AA904-71-5
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090696.b\42herb0903.m
Meth Date : 09-Sep-96 13:40:07 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	3.631	3.626	(0.252)	714856	0.569	0.588
$	2 2,4-Dichlorophenylacetic acid	12.670	12.719	(0.878)	247077	0.234	0.259(M)
	3 Dicamba	12.963	12.954	(0.898)	98203	0.0235	0.0243(M)
	4 MCPP	13.238	13.375	(0.917)	118496	23.5	24.6
	5 MCPA	13.668	13.761	(0.947)	202278	23.5	22.2
	6 Dichlorprop	14.165	14.200	(0.981)	338188	0.236	0.246
*	7 4,4-DBOFBP	14.435	14.426	(1.000)	356284	1.00	
	8 2,4-D	14.745	14.909	(1.021)	339646	0.235	0.258
	10 2,4,5-TP Silvex	15.765	15.765	(1.092)	105663	0.0238	0.0250
	11 2,4,5-T	16.430	16.363	(1.138)	101947	0.0237	0.0263
	12 2,4-DB	16.997	16.816	(1.178)	156912	0.237	0.266
	13 Dinoseb	17.747	17.618	(1.229)	439512	0.118	0.123

MAK 9-9-96

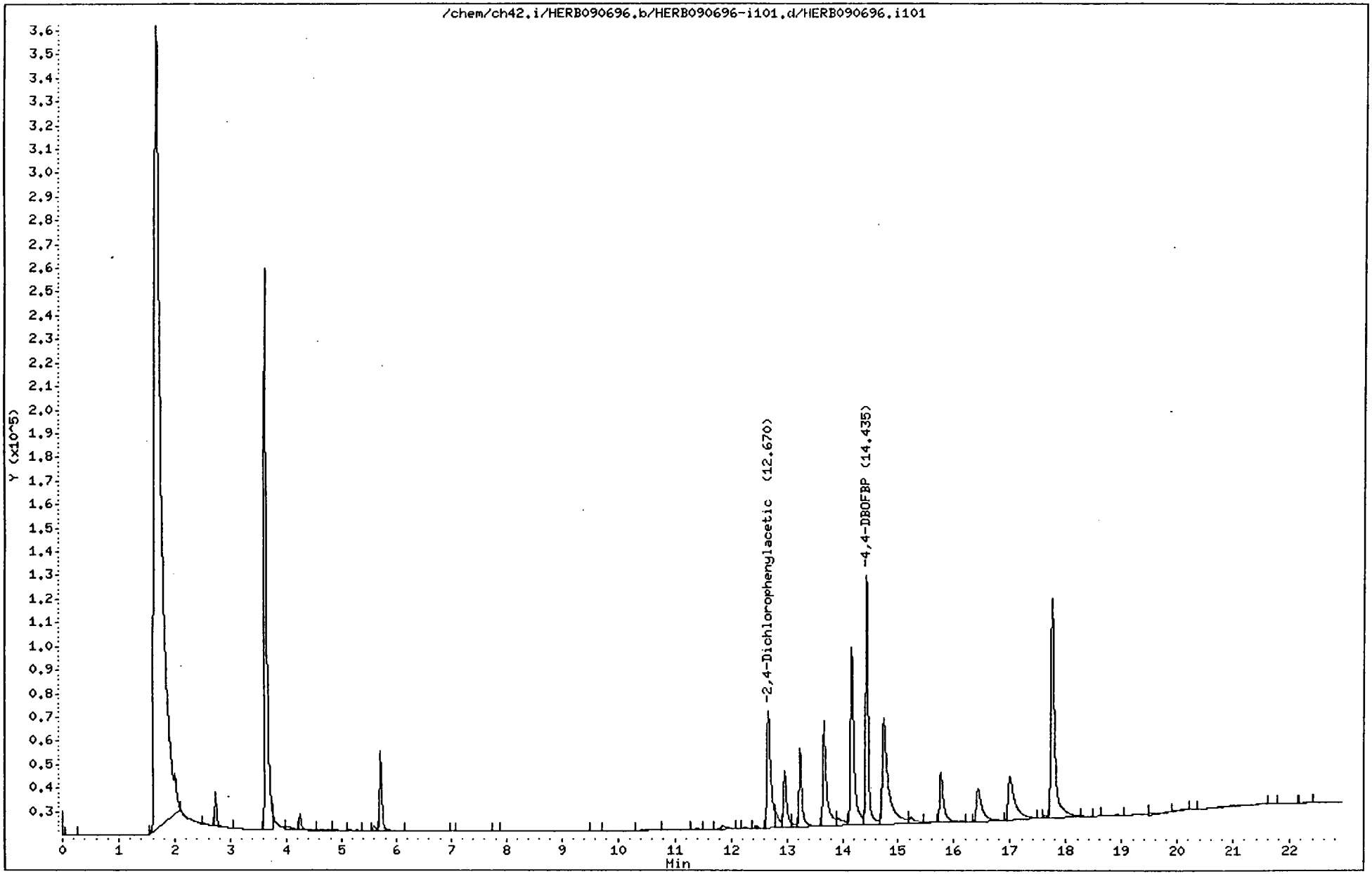
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch42.i/HERB090696.b/HERB090696-i101.d
Date : 06-SEP-96 18:18:00
Client ID: HERBCAL-2
Sample Info: HERBICIDE CAL STD - L5 #AA904-71-5

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090696.b\HERB090696-i101.d
Lab Smp Id: HERBCAL-2 Client Smp ID: HERBCAL-2
Inj Date : 06-SEP-96 18:18:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : HERBICIDE CAL STD - L5 #AA904-71-5
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090696.b\44herb0903.m
Meth Date : 20-Sep-96 15:54:58 Quant Type: ISTD
Cal Date : 03-SEP-96 23:46:00 Cal File: HERB090396-i131.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

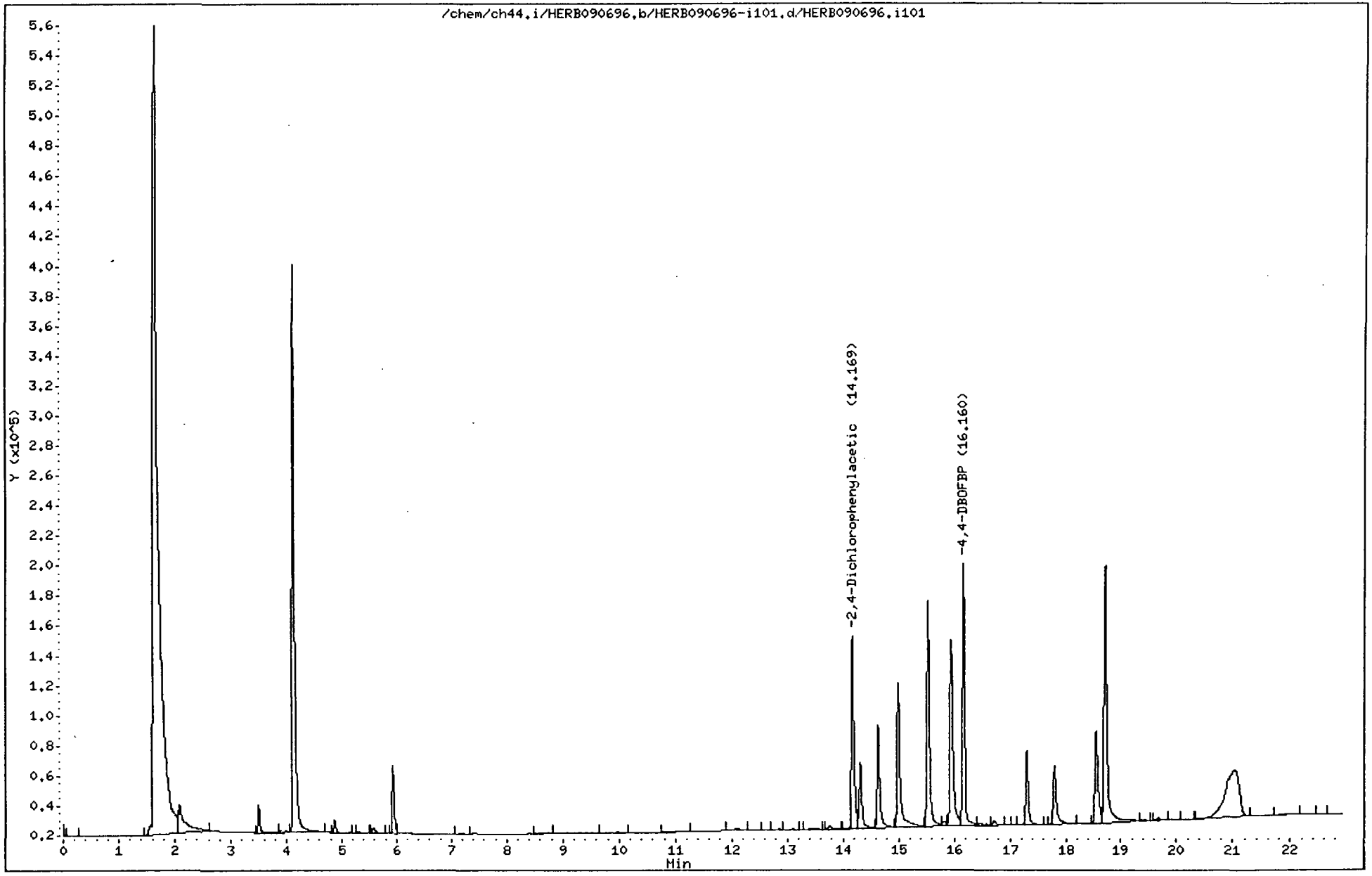
	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	4.127	4.127	(0.255)	1086218	0.569	0.565
$	2 2,4-Dichlorophenylacetic acid	14.169	14.169	(0.877)	412541	0.234	0.265
	3 Dicamba	14.306	14.306	(0.885)	150772	0.0235	0.0263
	4 MCPP	14.630	14.630	(0.905)	233571	23.5	24.4
	5 MCPA	14.985	14.985	(0.927)	385881	23.4	28.1
	6 Dichlorprop	15.526	15.526	(0.961)	498710	0.236	0.276
	7 2,4-D	15.942	15.942	(0.987)	465010	0.235	0.241
*	8 4,4-DBOFBP	16.160	16.160	(1.000)	501987	1.00	
	10 2,4,5-TP Silvex	17.294	17.294	(1.070)	158274	0.0238	0.0251
	11 2,4,5-T	17.791	17.791	(1.101)	159958	0.0237	0.0261
	12 2,4-DB	18.540	18.540	(1.147)	242484	0.237	0.276
	13 Dinoseb	18.709	18.709	(1.158)	658723	0.118	0.128

Data File: /chem/ch44.i/HERB090696.b/HERB090696-i101.d
Date : 06-SEP-96 18:18:00
Client ID: HERBCAL-2
Sample Info: HERBICIDE CAL STD - L5 #AA904-71-5

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701

871



Thru-Put Systems, Inc.

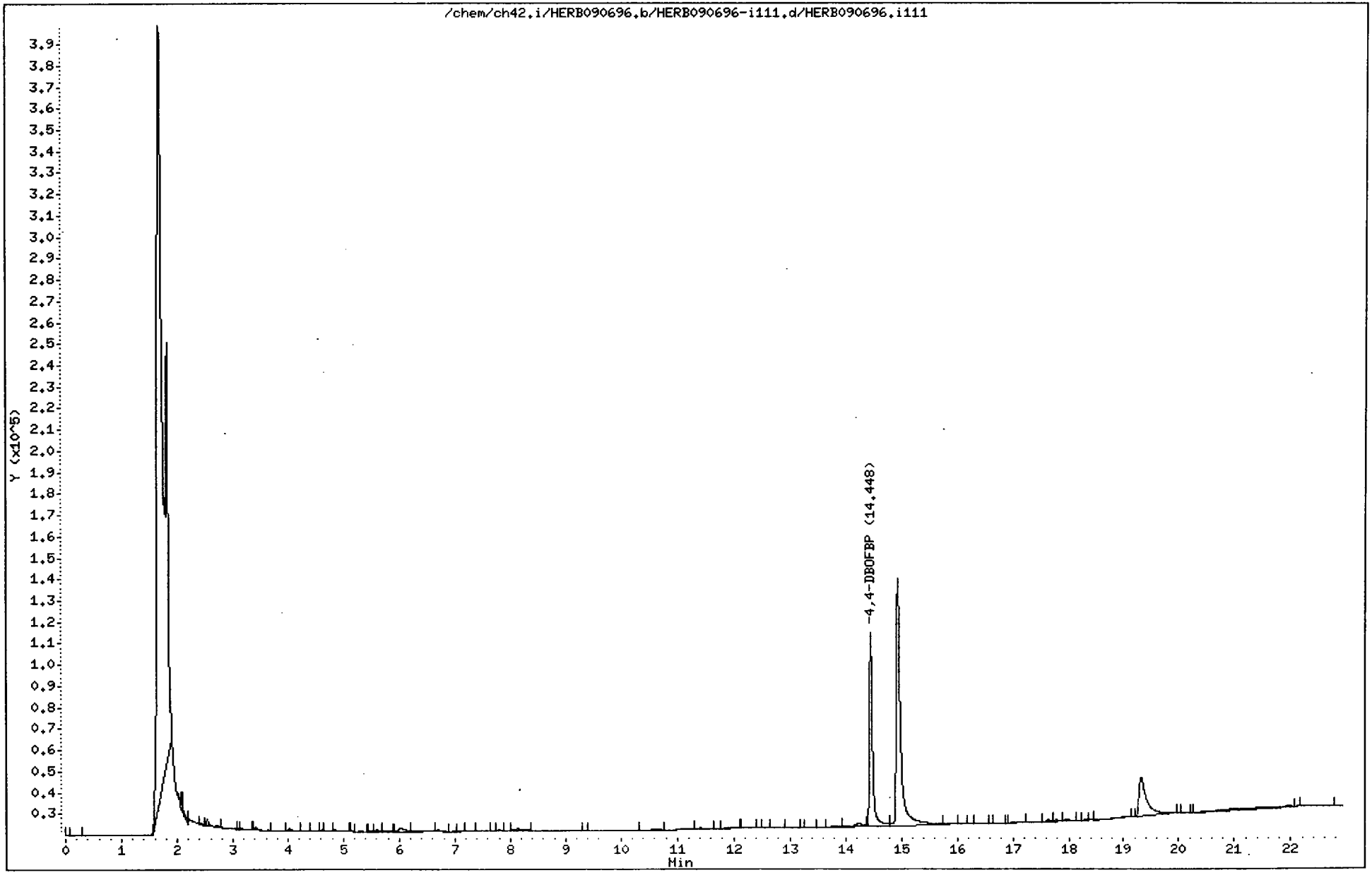
Data file : \chem\ch42.i\HERB090696.b\HERB090696-i111.d
Lab Smp Id: PENTCHL-1 Client Smp ID: PENTCHL-1
Inj Date : 06-SEP-96 18:52:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : PICH/PENT CAL STD - 0.100UG/ML AA904-58
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090696.b\42herb0903.m
Meth Date : 25-Sep-96 18:46:52 Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
9 Pentachlorophenol	14.931	14.931	(1.033)	618369	0.0475	0.0499
* 7 4,4-DBOFBP	14.448	14.448	(1.000)	350786	1.00	

Data File: /chem/ch42.i/HERB090696.b/HERB090696-i111.d
Date : 06-SEP-96 18:52:00
Client ID: PENTCHL-1
Sample Info: PICH/PENT CAL STD. - 0.100UG/ML AA904-58

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090696.b\HERB090696-i111.d
Lab Smp Id: PENTCHL-1 Client Smp ID: PENTCHL-1
Inj Date : 06-SEP-96 18:52:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : PICH/PENT CAL STD - 0.100UG/ML AA904-58
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090696.b\44herb0903.m
Meth Date : 10-Sep-96 12:26:06 Quant Type: ISTD
Cal Date : 03-SEP-96 23:46:00 Cal File: HERB090396-i131.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

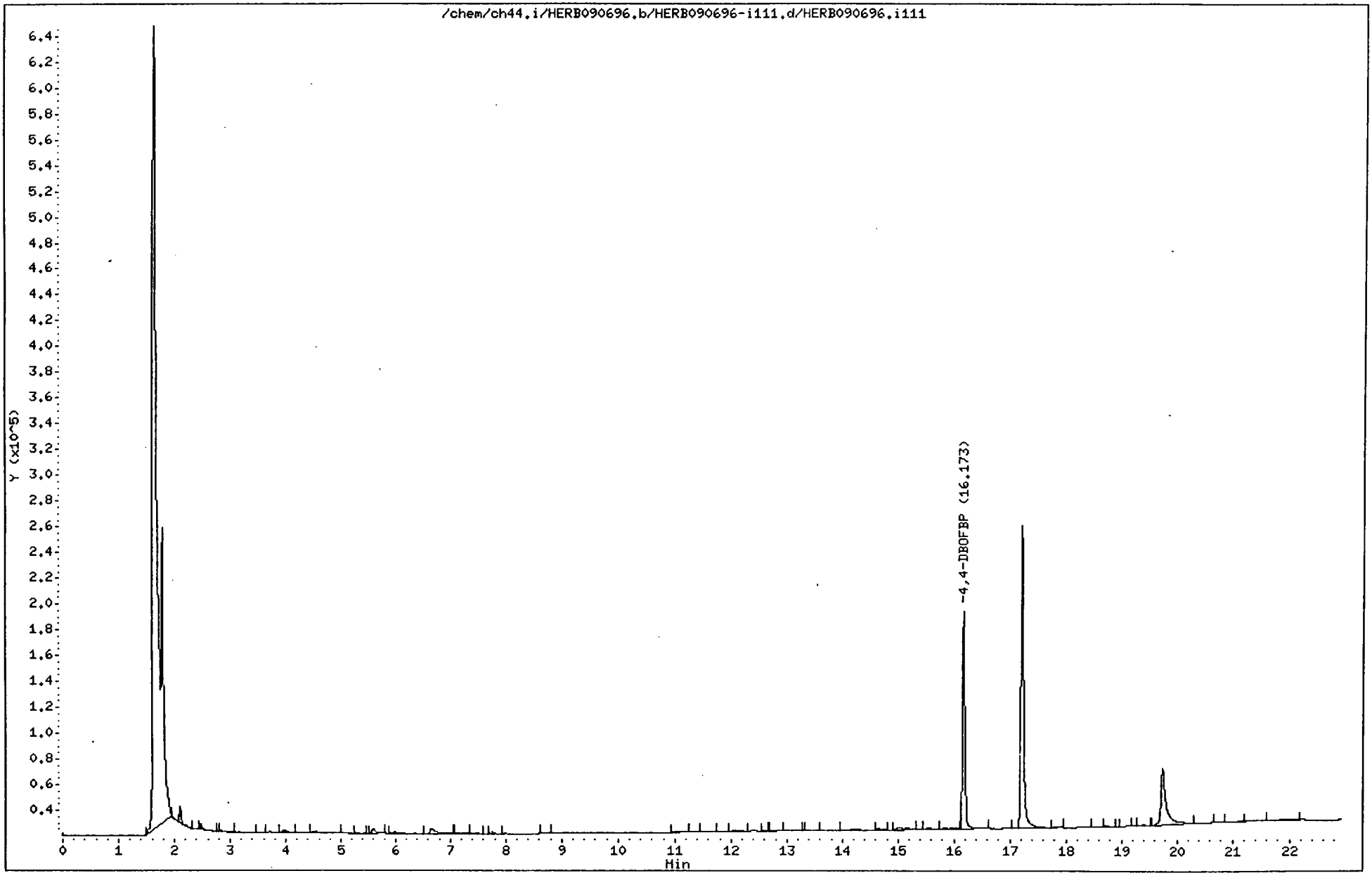
Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
* 8 4,4-DBOFBP	16.173	16.164	(1.000)	486026	1.00	
9 Pentachlorophenol	17.210	17.201	(1.064)	805213	0.0475	0.0498

875

Data File: /chem/ch44.i/HERB090696.b/HERB090696-i111.d
Date : 06-SEP-96 18:52:00
Client ID: PENTCHL-1
Sample Info: PICH/PENT CAL STD - 0.100UG/ML AA904-58

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090696.b\HERB090696-i201.d
Lab Smp Id: HERBCAL-3 Client Smp ID: HERBCAL-3
Inj Date : 07-SEP-96 00:06:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : HERBICIDE CAL STD - L5 #AA904-71-5
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090696.b\42herb0903.m
Meth Date : 09-Sep-96 13:40:07 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21

MAIL 9-9-96

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	3.631	3.626	(0.252)	701282	0.569	0.606
$	2 2,4-Dichlorophenylacetic acid	12.662	12.719	(0.878)	240721	0.234	0.265(M)
	3 Dicamba	12.954	12.954	(0.898)	93953	0.0235	0.0244(M)
	4 MCPP	13.234	13.375	(0.917)	115682	23.5	25.3
	5 MCPA	13.659	13.761	(0.947)	193965	23.5	22.4
	6 Dichlorprop	14.156	14.200	(0.981)	309941	0.236	0.237
*	7 4,4-DBOFBP	14.426	14.426	(1.000)	338895	1.00	
	8 2,4-D	14.728	14.909	(1.021)	305214	0.235	0.244
	10 2,4,5-TP Silvex	15.752	15.765	(1.092)	98052	0.0238	0.0244
	11 2,4,5-T	16.408	16.363	(1.137)	90792	0.0237	0.0246
	12 2,4-DB	16.971	16.816	(1.176)	154348	0.237	0.276
	13 Dinoseb	17.733	17.618	(1.229)	457230	0.118	0.134

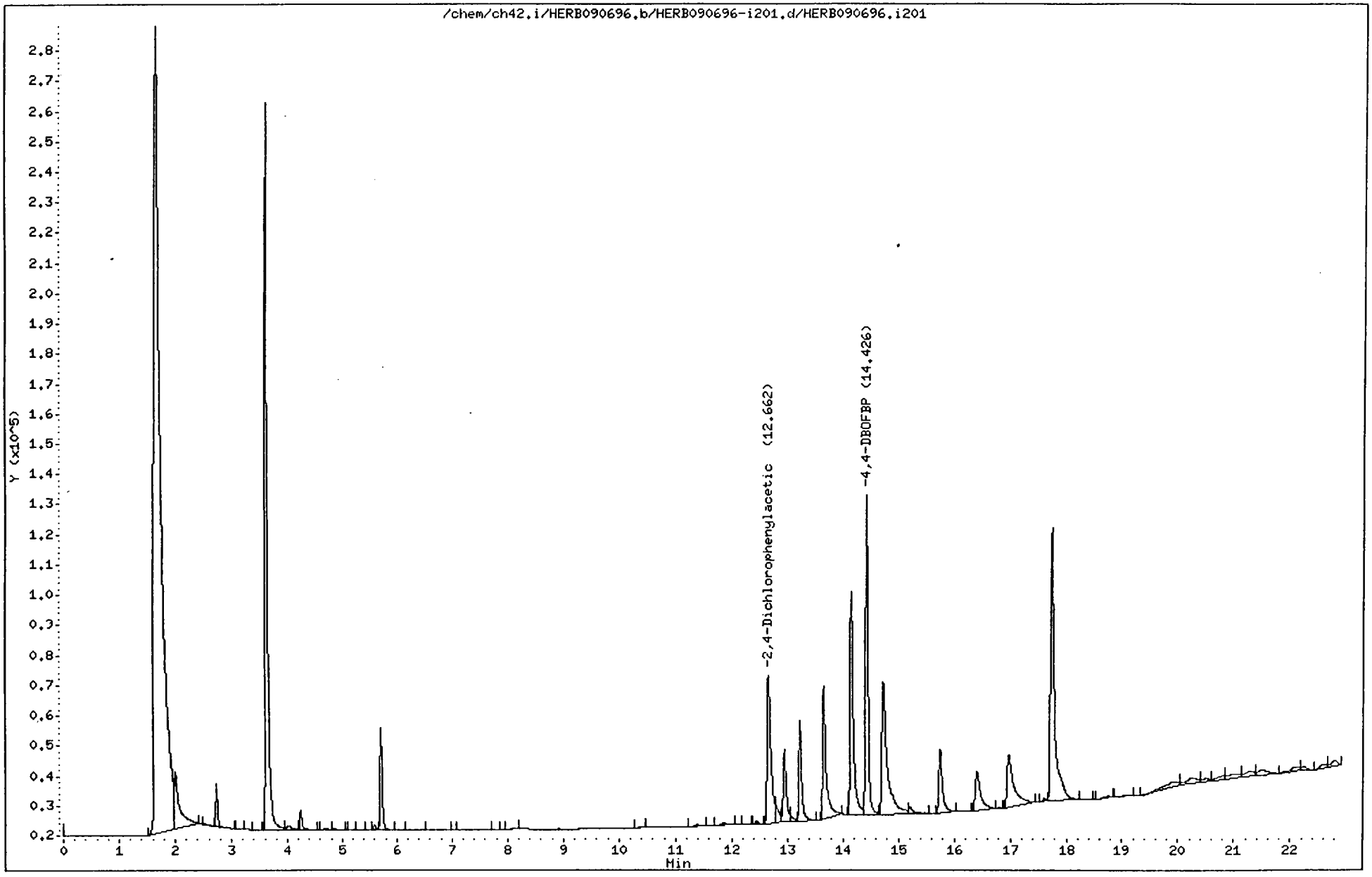
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch42.i/HERB090696.b/HERB090696-i201.d
Date : 07-SEP-96 00:06:00
Client ID: HERBCAL-3
Sample Info: HERBICIDE CAL STD - L5 #AA904-71-5

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090696.b\HERB090696-i201.d
Lab Smp Id: HERBCAL-3 Client Smp ID: HERBCAL-3
Inj Date : 07-SEP-96 00:06:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : HERBICIDE CAL STD - L5 #AA904-71-5
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090696.b\44herb0903.m
Meth Date : 20-Sep-96 15:55:08 Quant Type: ISTD
Cal Date : 03-SEP-96 23:46:00 Cal File: HERB090396-i131.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

	Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
	1 Dalapon	4.132	4.132	(0.256)	1038699	0.569	0.556
$	2 2,4-Dichlorophenylacetic acid	14.169	14.169	(0.877)	408648	0.234	0.271(M)
	3 Dicamba	14.306	14.306	(0.000)	138243	0.0235	0.0249(M)
	4 MCPP	14.626	14.626	(0.905)	227620	23.5	24.6
	5 MCPA	14.980	14.980	(0.927)	368457	23.4	27.5
	6 Dichlorprop	15.521	15.521	(0.960)	497485	0.236	0.285
	7 2,4-D	15.938	15.938	(0.986)	464002	0.235	0.247
*	8 4,4-DBOFBP	16.160	16.160	(1.000)	487143	1.00	
	10 2,4,5-TP Silvex	17.290	17.290	(1.070)	153312	0.0238	0.0250
	11 2,4,5-T	17.782	17.782	(1.100)	143171	0.0237	0.0240
	12 2,4-DB	18.536	18.536	(1.147)	223581	0.237	0.262
	13 Dinoseb	18.704	18.704	(1.157)	665375	0.118	0.133

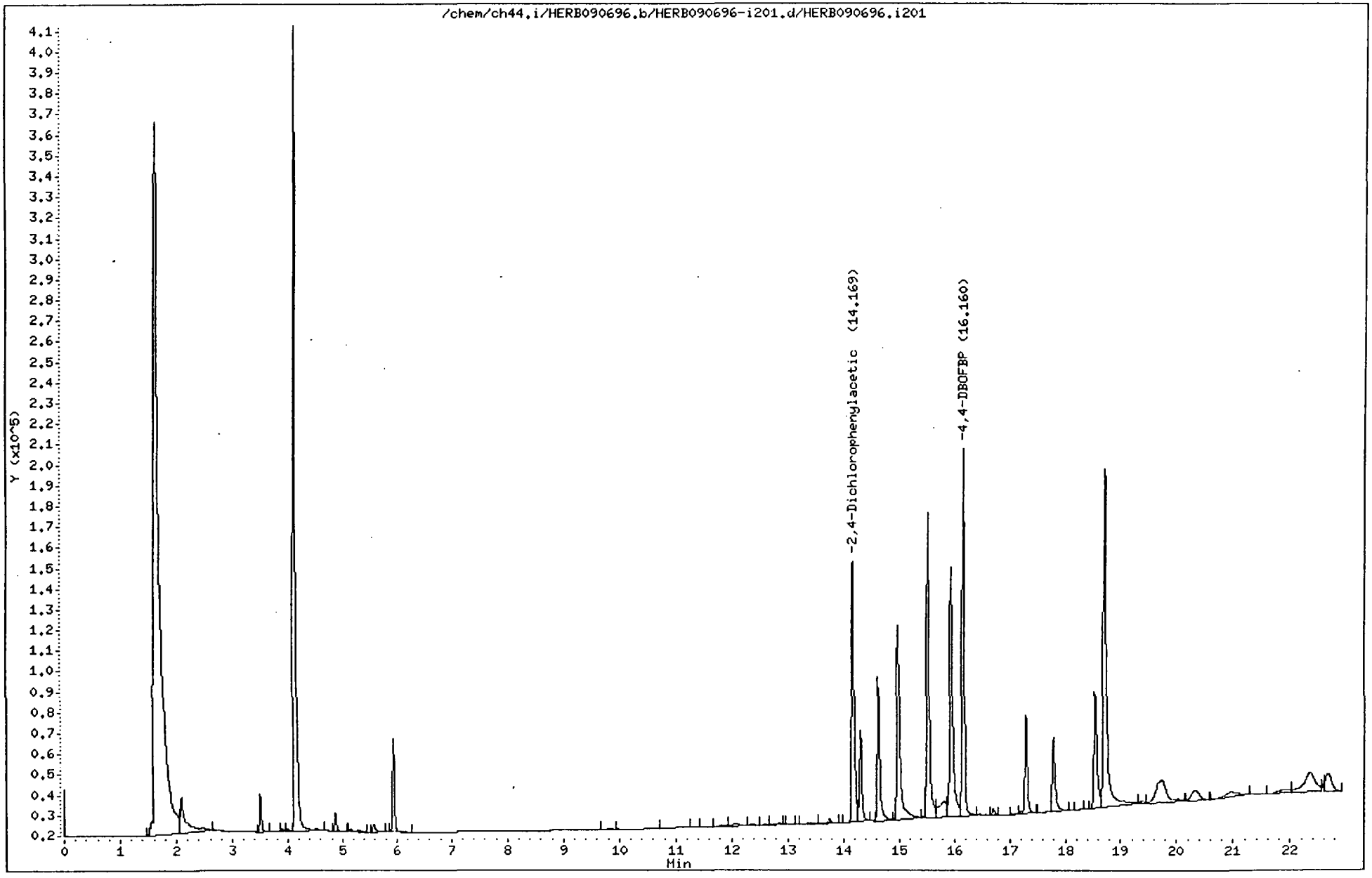
QC Flag Legend

M - Compound response manually integrated.

Data File: /chem/ch44.i/HERB090696.b/HERB090696-i201.d
Date : 07-SEP-96 00:06:00
Client ID: HERBCAL-3
Sample Info: HERBICIDE CAL STD - L5 #AA904-71-5

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-1701



Thru-Put Systems, Inc.

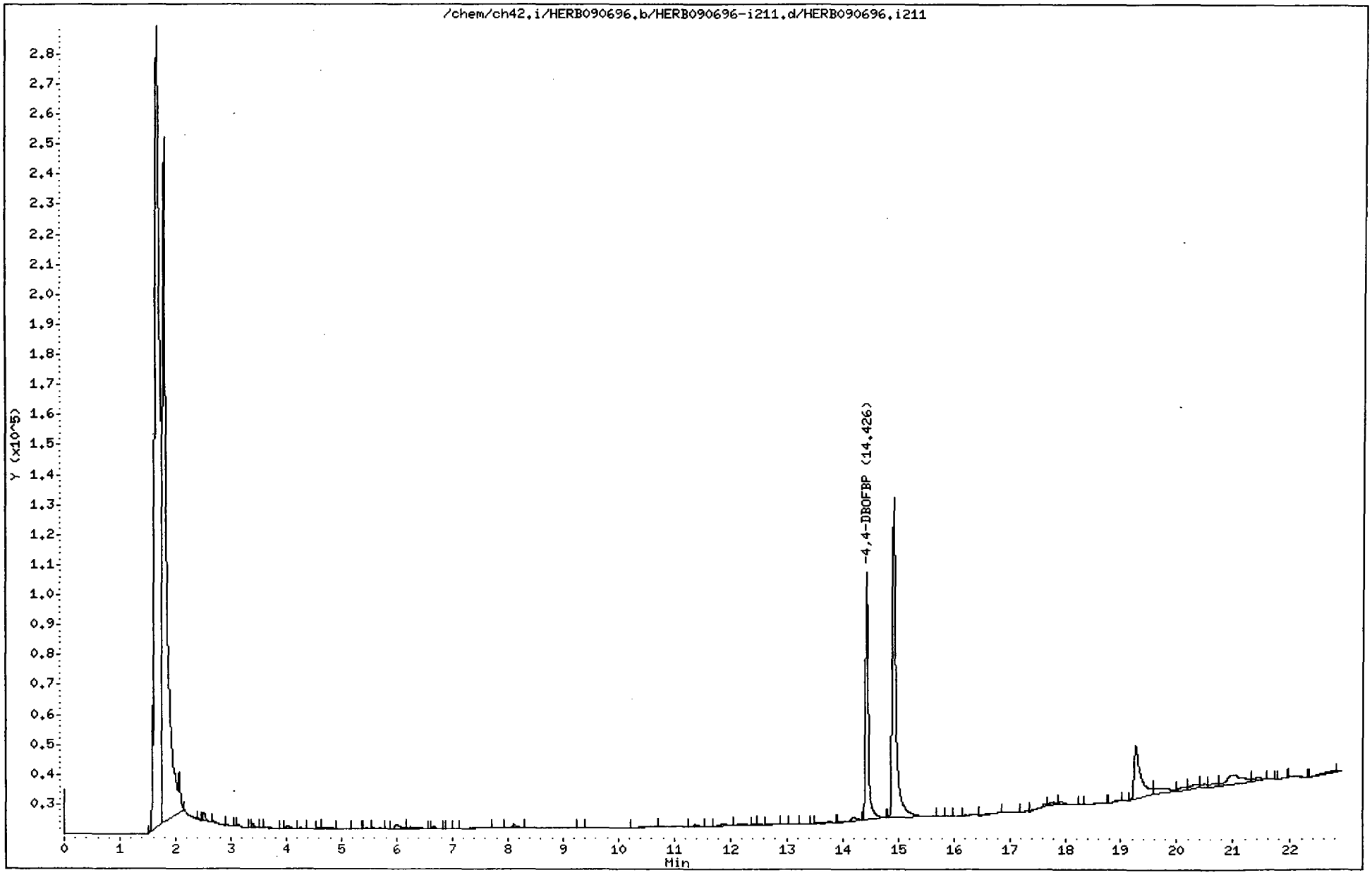
Data file : \chem\ch42.i\HERB090696.b\HERB090696-i211.d
Lab Smp Id: PENTCHL-2 Client Smp ID: PENTCHL-2
Inj Date : 07-SEP-96 00:41:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : PICH/PENT CAL STD - 0.10UG/ML AA904-58-
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090696.b\42herb0903.m
Meth Date : 25-Sep-96 18:49:19 Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
9 Pentachlorophenol	14.909	14.909	(1.033)	514369	0.0475	0.0502
* 7 4,4-DBOFBP	14.426	14.426	(1.000)	290204	1.00	

Data File: /chem/ch42.i/HERB090696.b/HERB090696-i211.d
Date : 07-SEP-96 00:41:00
Client ID: PENTCHL-2
Sample Info: PICH/PENT CAL STD - 0.10UG/ML AA904-58-

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

Column phase: DB-XLB



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090696.b\HERB090696-i211.d
Lab Smp Id: PENTCHL-2 Client Smp ID: PENTCHL-2
Inj Date : 07-SEP-96 00:41:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : PICH/PENT CAL STD - 0.10UG/ML AA904-58-
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090696.b\44herb0903.m
Meth Date : 10-Sep-96 12:26:06 Quant Type: ISTD
Cal Date : 03-SEP-96 23:46:00 Cal File: HERB090396-i131.d
Als bottle: 1 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

Compounds	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ng)	AMOUNTS ON-COL (ng)
* 8 4,4-DBOFBP	16.164	16.164	(1.000)	424902	1.00	
9 Pentachlorophenol	17.201	17.201	(1.064)	721674	0.0475	0.0511

Data File: /chem/ch44.i/HERB090696.b/HERB090696-i211.d

Date : 07-SEP-96 00:41:00

Client ID: PENTCHL-2

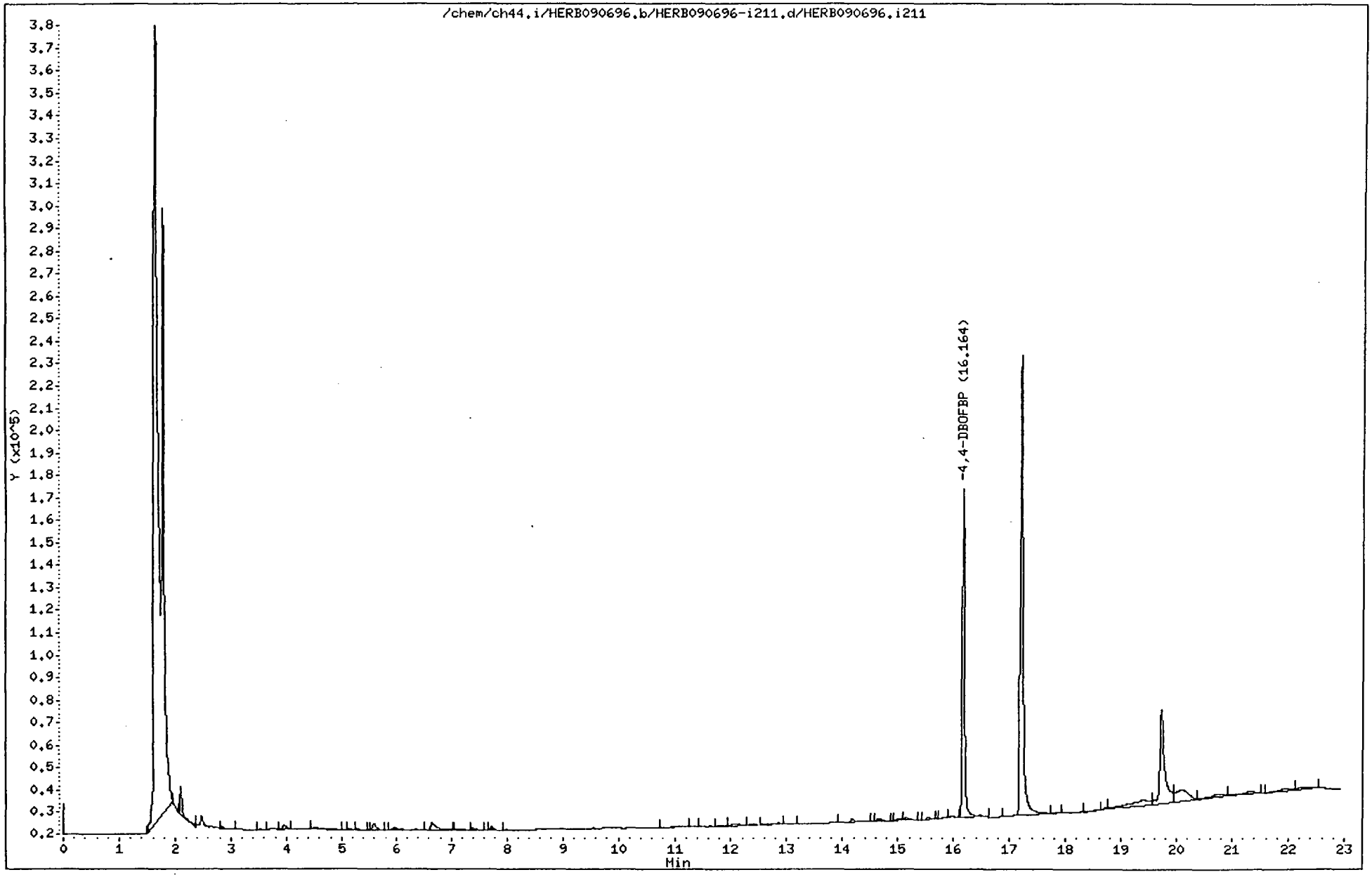
Instrument: ch44.i

Sample Info: PICH/PENT CAL STD - 0.10UG/ML AA904-58-

Operator: MAKOWALSKI

Column phase: DB-1701

Column diameter: 0.32



RAW QUALITY CONTROL DATA

FORM 1
HERB ORGANICS ANALYSIS DATA SHEET

AT Kearney SAMPLE NO.

BLK

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

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

Sample wt/vol: 10.0 (g/mL) G Lab File ID: HERB090696-I121

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 0 decanted: (Y/N) N Date Extracted:09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/06/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	20.0	U
93-72-1	2,4,5-TP Silvex	4.00	U
93-76-5	2,4,5-T	4.00	U
----------	Pentachlorophenol	400	U

Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090696.b\HERB090696-i121.d
Lab Smp Id: BLK Client Smp ID: BLK
Inj Date : 06-SEP-96 19:27:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : BLANK 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090696.b\42herb0903.m
Meth Date : 09-Sep-96 13:40:07 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

MAK
<DL
9-9-96

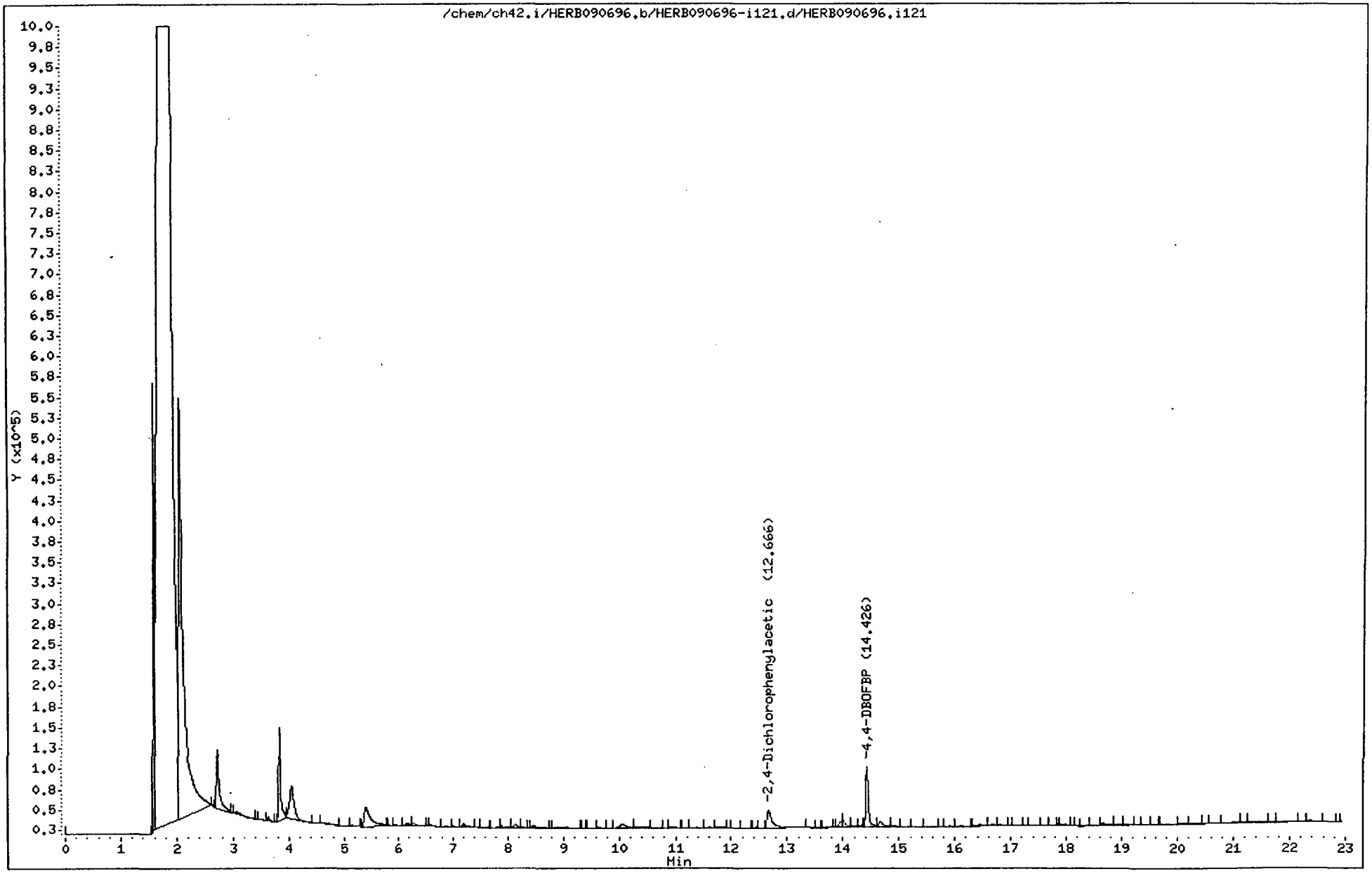
	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
	1 Dalapon	3.626	3.626	(0.251)	14439	0.0174	34.7(a)<
$	2 2,4-Dichlorophenylacetic acid	12.666	12.719	(0.878)	153375	0.235	470 117%
	6 Dichlorprop	14.178	14.200	(0.983)	14238	0.0151	30.2(a)<
*	7 4,4-DBOFBP	14.426	14.426	(1.000)	243664	1.00	
	8 2,4-D	14.896	14.909	(1.033)	7279	0.00809	16.2(a)<
	10 2,4,5-TP Silvex	15.752	15.765	(1.092)	224	0.0000778	0.156(a)<
	11 2,4,5-T	16.439	16.363	(1.140)	14992	0.00565	11.3(a)<
	12 2,4-DB	16.802	16.816	(1.165)	7701	0.0191	38.2(a)<

QC Flag Legend

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

887

Data File: /chem/ch42.i/HERB090696.b/HERB090696-i121.d
Date : 06-SEP-96 19:27:00
Client ID: BLK
Instrument: ch42.i
Sample Info: BLANK 10/10 8150 AB848-82 9-3-96
Volume Injected (uL): 0.5
Operator: MAKOWALSKI
Column phase: DB-XLB
Column diameter: 0.32



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090696.b\HERB090696-i121.d
Lab Smp Id: BLK Client Smp ID: BLK
Inj Date : 06-SEP-96 19:27:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : BLANK 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090696.b\44herb0903.m
Meth Date : 10-Sep-96 12:26:06 Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	1 Dalapon	4.021	4.119	(0.249)	344007	0.273	546(a)
$	2 2,4-Dichlorophenylacetic acid	14.165	14.160	(0.877)	245334	0.244	488
	5 MCPA	14.958	14.976	(0.926)	51511	1.38	2760(a)
	7 2,4-D	15.814	15.800	(0.979)	108795	0.0921	184(a)
*	8 4,4-DBOFBP	16.155	16.164	(1.000)	328683	1.00	
	10 2,4,5-TP Silvex	17.108	17.281	(1.059)	28707	0.00695	13.9(a)
	11 2,4,5-T	17.676	17.773	(1.094)	9721	0.00242	4.84(a)
	12 2,4-DB	18.509	18.518	(1.146)	11705	0.0204	40.7(a)
	13 Dinoseb	18.771	18.695	(1.162)	11291	0.00334	6.69(a)

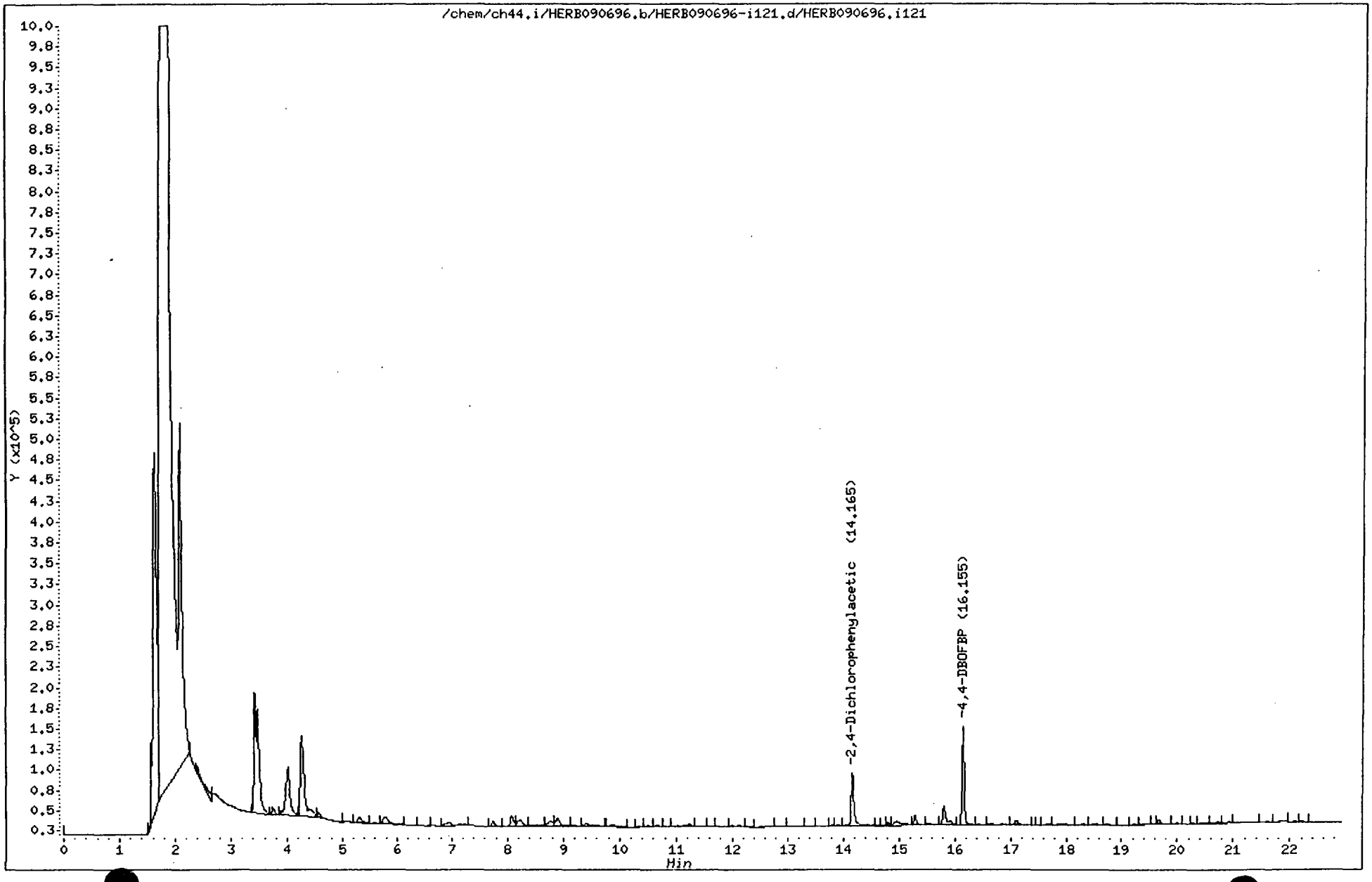
QC Flag Legend

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

889

Data File: /chem/ch44.i/HERB090696.b/HERB090696-i121.d
Date : 06-SEP-96 19:27:00
Client ID: BLK
Sample Info: BLANK 10/10 8150 AB848-82 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-1701

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32



Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090696.b\HERB090696-i121.d
Lab Smp Id: BLK Client Smp ID: BLK
Inj Date : 06-SEP-96 19:27:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : BLANK 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090396.b\42herb0903.m
Meth Date : 10-Sep-96 09:30:55 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: PENTCHL.sub
Target Version: 3.21
Procesing Host: GC1

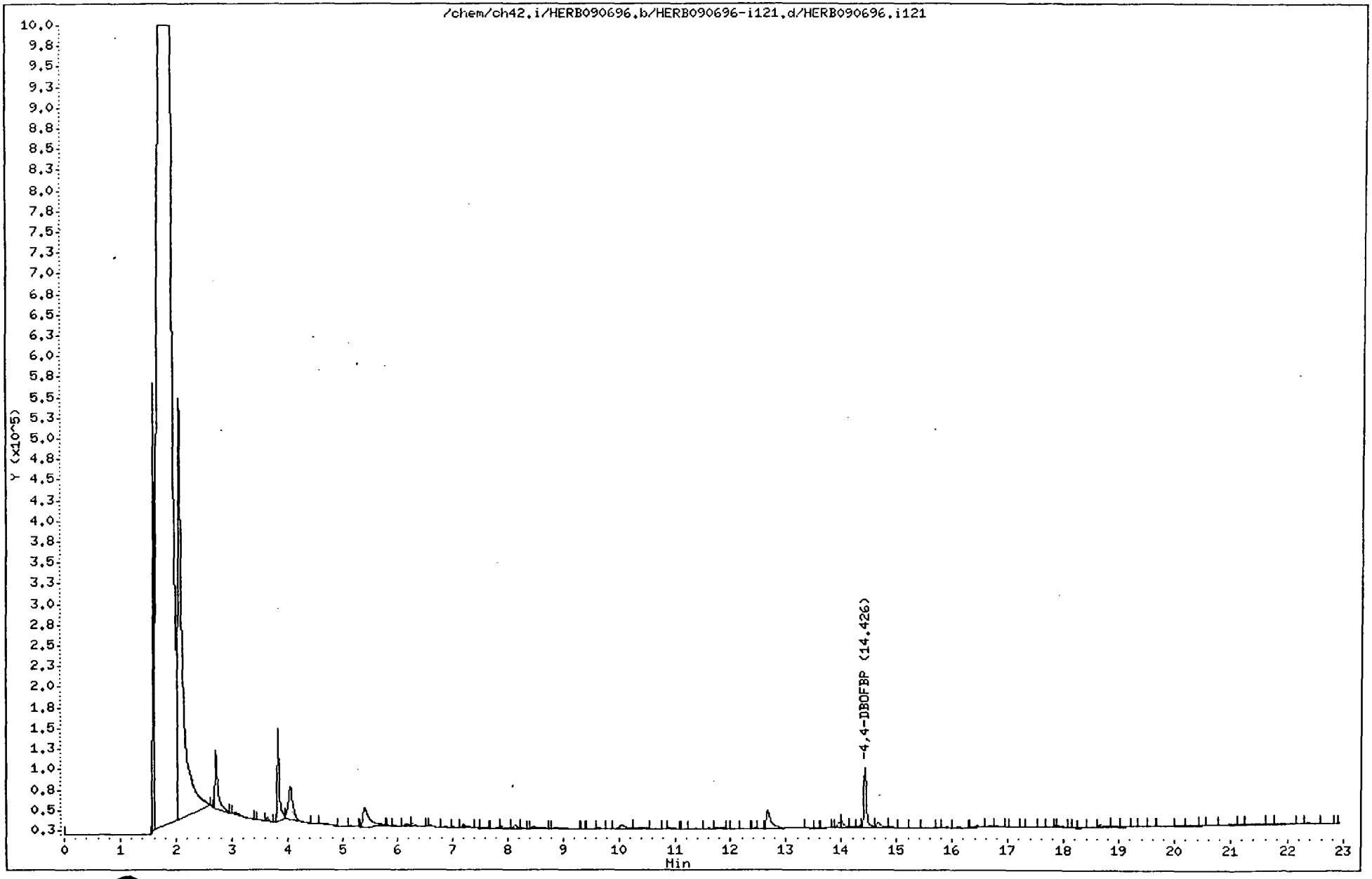
Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
* 7 4,4-DBOFBP	14.426	14.426	(1.000)	243664	1.00	

891

Data File: /chem/ch42.i/HERB090696.b/HERB090696-i121.d
Date : 06-SEP-96 19:27:00
Client ID: BLK
Instrument: ch42.i
Sample Info: BLANK 10/10 8150 AB848-82 9-3-96
Volume Injected (uL): 0.5
Operator: MAKOWALSKI
Column phase: DB-XLB
Column diameter: 0.32



FORM 1
HERB ORGANICS ANALYSIS DATA SHEET

AT Kearney SAMPLE NO.

SWMUG-5MS

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-1MS

Sample wt/vol: 10.0 (g/mL) G Lab File ID: HERB090696-I151

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 9.7 decanted: (Y/N) N Date Extracted: 09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/06/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	272	
93-72-1	2,4,5-TP Silvex	35.5	
93-76-5	2,4,5-T	41.0	

Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090696.b\HERB090696-i151.d
Lab Smp Id: 9653-1MS Client Smp ID: SWMUG-5MS
Inj Date : 06-SEP-96 21:12:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : 9653-1MS 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090696.b\42herb0903.m
Meth Date : 09-Sep-96 13:40:07 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL) (1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

MAK 9-9-96

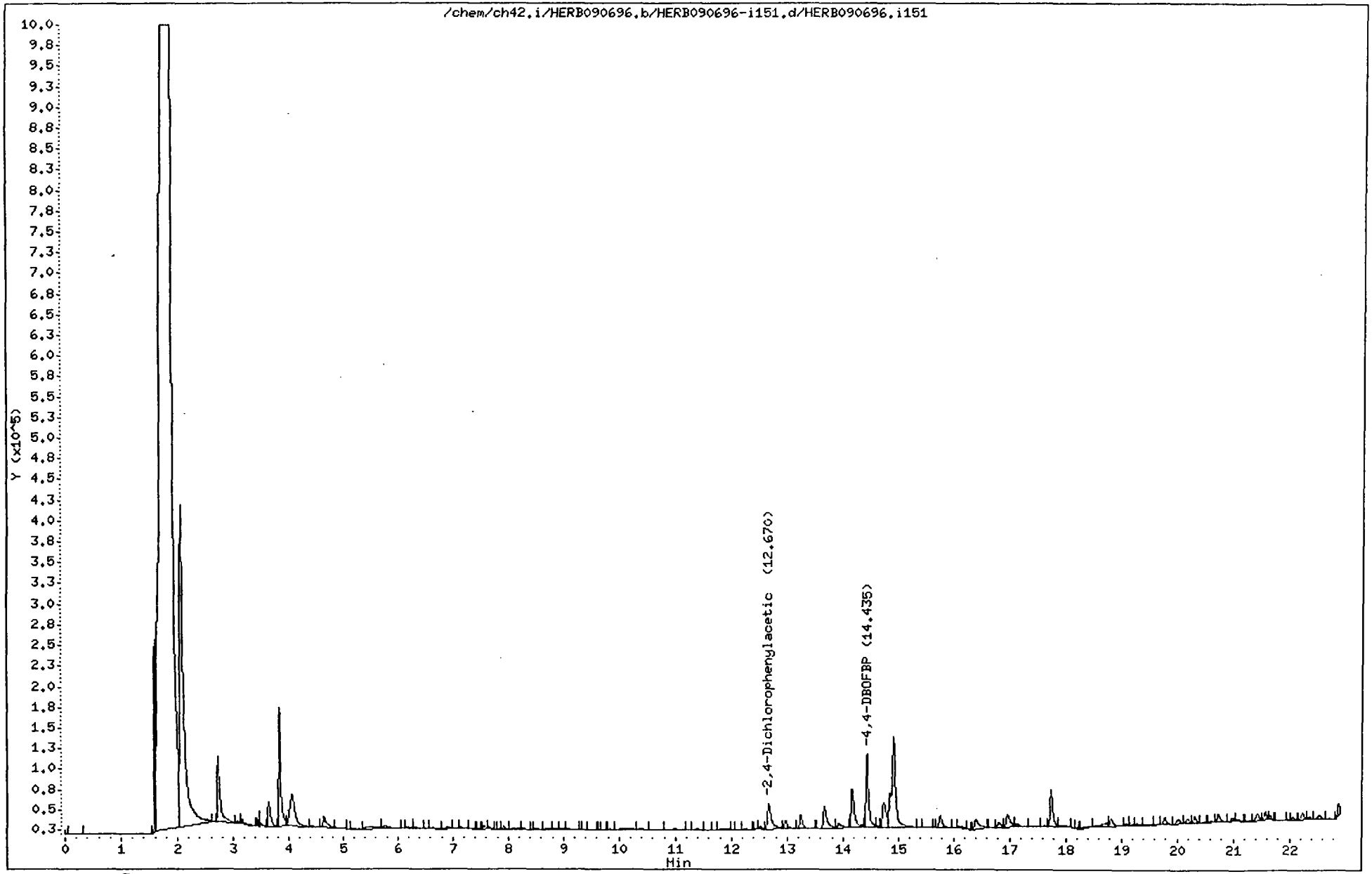
	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
	1 Dalapon	3.635	3.626	(0.252)	102257	0.0974	195(a)
$	2 2,4-Dichlorophenylacetic acid	12.670	12.719	(0.878)	158590	0.192	385 96.2%
	3 Dicamba	12.963	12.954	(0.898)	40772	0.0117	23.4(a)
	4 MCPP	13.242	13.375	(0.917)	59971	13.6	27200
	5 MCPA	13.668	13.761	(0.947)	128792	14.5	29000
	6 Dichlorprop	14.165	14.200	(0.981)	211089	0.178	355
*	7 4,4-DBOFBP	14.435	14.426	(1.000)	307551	1.00	
	8 2,4-D	14.736	14.909	(1.033)	139647	0.123	246(M) 61.5%
	10 2,4,5-TP Silvex	15.756	15.765	(1.092)	58491	0.0161	32.1(a) 80.2%
	11 2,4,5-T	16.394	16.363	(1.136)	61940	0.0185	37.0(a) 92.5%
	12 2,4-DB	16.802	16.816	(1.164)	25094	0.0494	98.7(a)

QC Flag Legend

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

Data File: /chem/ch42.i/HERB090696.b/HERB090696-i151.d
Date : 06-SEP-96 21:12:00
Client ID: SWMUG-5MS
Sample Info: 9653-1MS 10/10 8150 AB848-82 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-XLB

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090696.b\HERB090696-i151.d
Lab Smp Id: 9653-1MS Client Smp ID: SWMUG-5MS
Inj Date : 06-SEP-96 21:12:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : 9653-1MS 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090696.b\44herb0903.m
Meth Date : 10-Sep-96 12:26:06 Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 QC Sample: MS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	1 Dalapon	4.132	4.119	(0.256)	132799	0.0793	159(a)
$	2 2,4-Dichlorophenylacetic acid	14.165	14.160	(0.877)	244757	0.176	353
	3 Dicamba	14.302	14.306	(0.885)	72018	0.0144	28.9(a)
	4 MCPP	14.626	14.617	(0.905)	150100	16.1	32200
	5 MCPA	14.976	14.976	(0.927)	257008	20.7	41400
	6 Dichlorprop	15.521	15.517	(0.961)	326940	0.198	395
	7 2,4-D	15.933	15.800	(0.986)	325520	0.207	414
*	8 4,4-DBOFBP	16.155	16.164	(1.000)	437095	1.00	
	10 2,4,5-TP Silvex	17.192	17.281	(1.064)	613550	0.112	223(R)
	11 2,4,5-T	17.778	17.773	(1.100)	102681	0.0192	38.5(a)
	12 2,4-DB	18.527	18.518	(1.147)	127154	0.166	332
	13 Dinoseb	18.700	18.695	(1.158)	234103	0.0521	104

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

Data Fi[redacted]/chem/ch44.i/HERB090696.b/HERB090696-i151.d

Date : 06-SEP-96 21:12:00

Client ID: SWHUC-5MS

Instrument: ch44.i

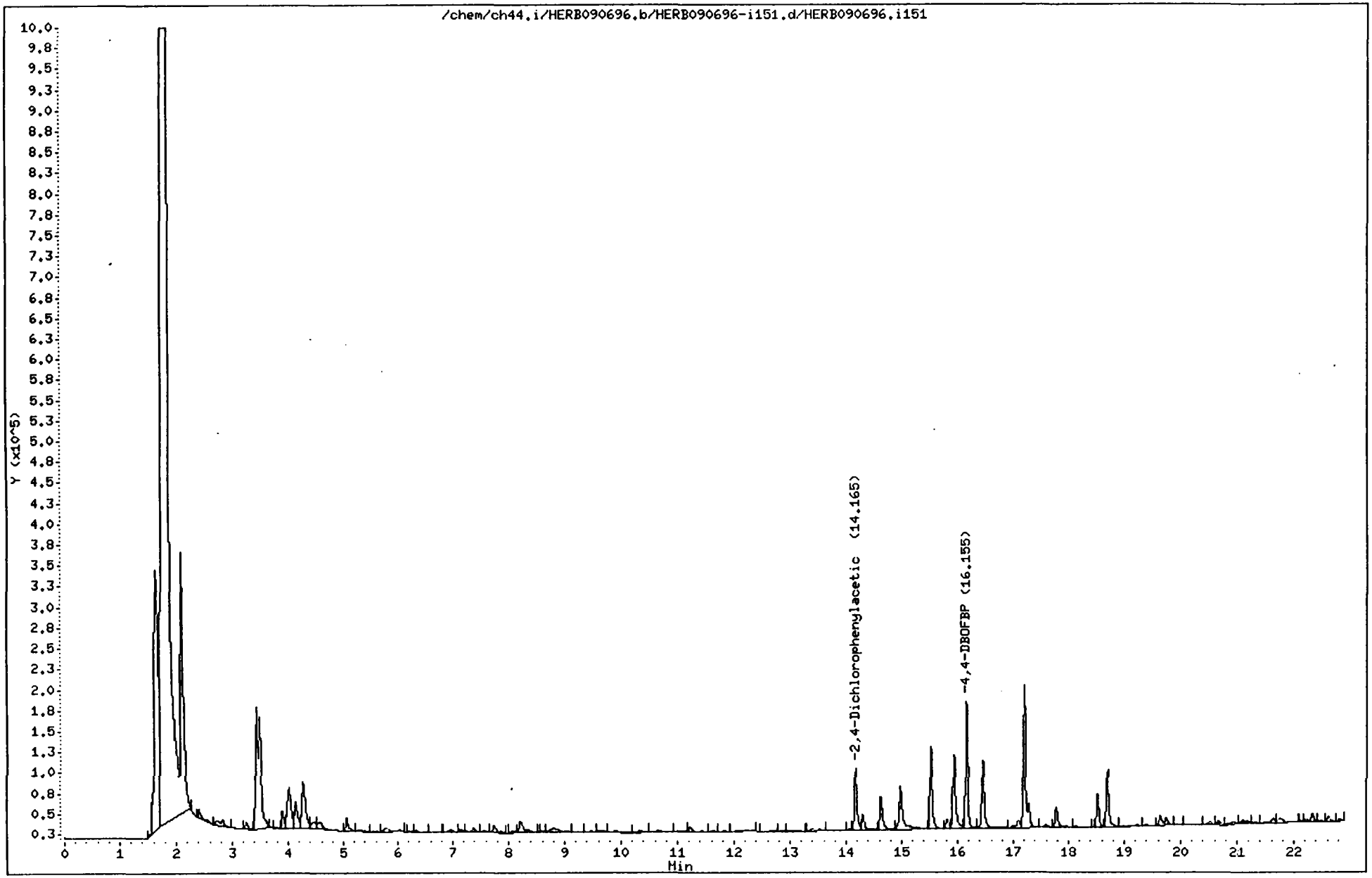
Sample Info: 9653-1MS 10/10 8150 AB848-82 9-3-96

Volume Injected (uL): 0.5

Operator: MAKOWALSKI

Column phase: DB-1701

Column diameter: 0.32



FORM 1 AT Kearney SAMPLE NO.

HERB ORGANICS ANALYSIS DATA SHEET

SWMUG-5MSD

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

Matrix: (soil/water) SOIL Lab Sample ID: 9653-1MSD

Sample wt/vol: 10.0 (g/mL) G Lab File ID: HERB090696-I161

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 9.7 decanted: (Y/N) N Date Extracted: 09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/06/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	323	
93-72-1	2,4,5-TP Silvex	44.7	
93-76-5	2,4,5-T	49.2	

Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090696.b\HERB090696-i161.d
Lab Smp Id: 9653-1MSD Client Smp ID: SWMUG-5MSD
Inj Date : 06-SEP-96 21:47:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : 9653-1MD 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090696.b\42herb0903.m
Meth Date : 09-Sep-96 13:40:07 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

MAK 9-9-96

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	1 Dalapon	3.626	3.626	(0.251)	125018	0.121	242(a)
$	2 2,4-Dichlorophenylacetic acid	12.653	12.719	(0.877)	178384	0.220	440 110%
	3 Dicamba	12.954	12.954	(0.898)	46943	0.0137	27.4(a)
	4 MCPP	13.234	13.375	(0.917)	74299	17.7	35400
	5 MCPA	13.659	13.761	(0.947)	145442	17.7	35500
	6 Dichlorprop	14.156	14.200	(0.981)	226341	0.194	388
*	7 4,4-DBOFBP	14.426	14.426	(1.000)	302256	1.00	
	8 2,4-D	14.719	14.909	(1.033)	163095	0.146	292(M) 73.0%
	10 2,4,5-TP Silvex	15.743	15.765	(1.091)	72265	0.0202	40.4 ~~100%~~ 101% MAK 9-9-96
	11 2,4,5-T	16.381	16.363	(1.136)	72970	0.0222	44.4(M) 111%
	12 2,4-DB	16.789	16.816	(1.164)	70645	0.141	283

QC Flag Legend

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

Data Fi[redacted]/chem/ch42.i/HERB090696.b/HERB090696-i161.d

Date : 06-SEP-96 21:47:00

Client ID: SWMUG-5MSD

Instrument: ch42.i

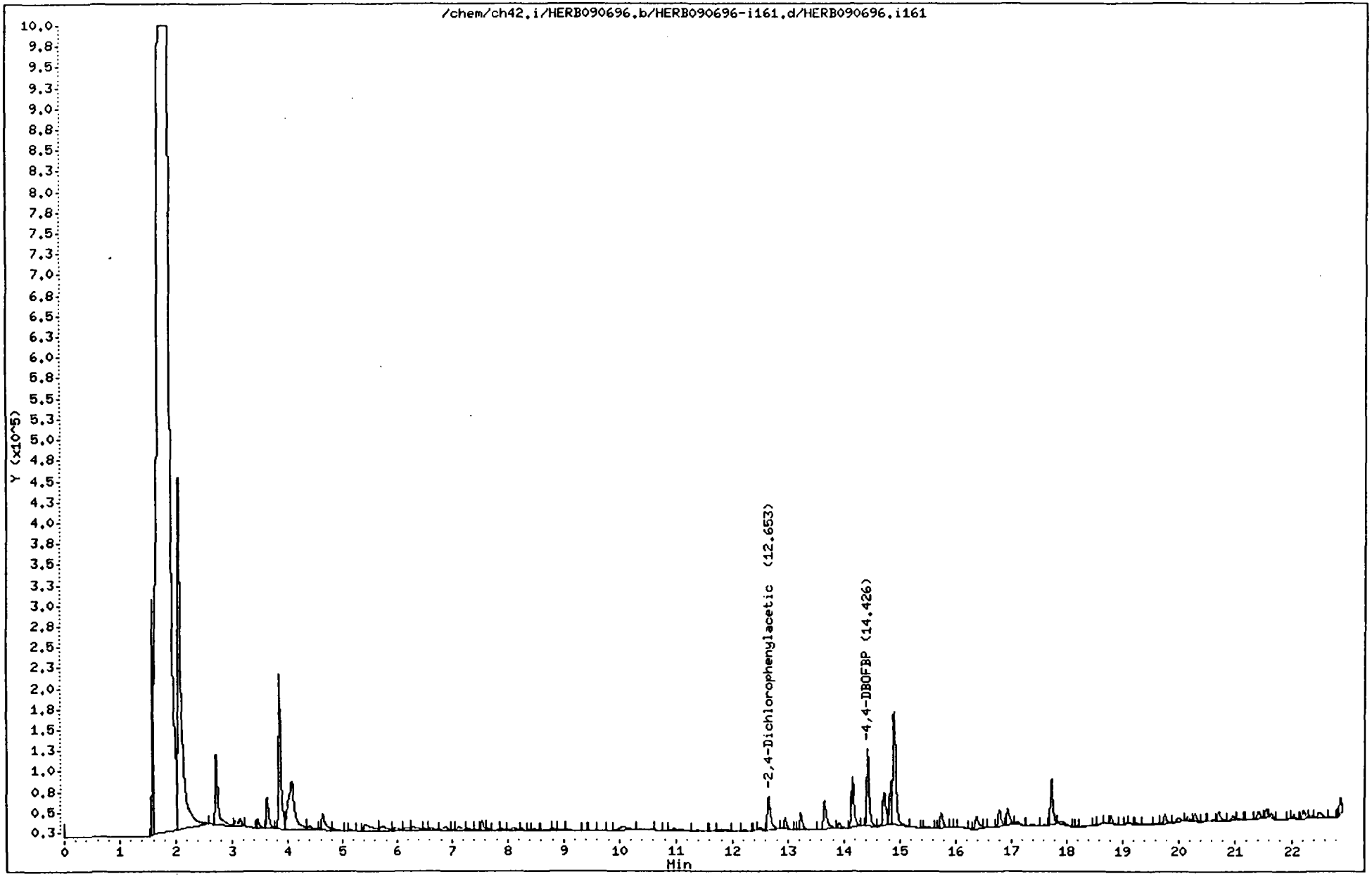
Sample Info: 9653-1MD 10/10 8150 AB848-82 9-3-96

Volume Injected (uL): 0.5

Operator: MAKOWALSKI

Column phase: DB-XLB

Column diameter: 0.32



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090696.b\HERB090696-i161.d
Lab Smp Id: 9653-1MSD Client Smp ID: SWMUG-5MSD
Inj Date : 06-SEP-96 21:47:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : 9653-1MD 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090696.b\44herb0903.m
Meth Date : 10-Sep-96 12:26:06 Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 QC Sample: MSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	1 Dalapon	4.039	4.119	(0.250)	675912	0.399	799(a)
$	2 2,4-Dichlorophenylacetic acid	14.160	14.160	(0.877)	275869	0.200	399
	3 Dicamba	14.298	14.306	(0.885)	59869	0.0119	23.8(a)
	4 MCPP	14.621	14.617	(0.905)	177212	20.0	40000
	5 MCPA	14.976	14.976	(0.927)	297457	24.6	49100
	6 Dichlorprop	15.512	15.517	(0.960)	378821	0.232	464
	7 2,4-D	15.925	15.800	(0.986)	408158	0.257	514
*	8 4,4-DBOFBP	16.151	16.164	(1.000)	441814	1.00	
	10 2,4,5-TP Silvex	17.188	17.281	(1.064)	733144	0.132	264(R)
	11 2,4,5-T	17.769	17.773	(1.100)	115555	0.0214	42.8
	12 2,4-DB	18.518	18.518	(1.147)	159385	0.206	412
	13 Dinoseb	18.691	18.695	(1.157)	278036	0.0613	122

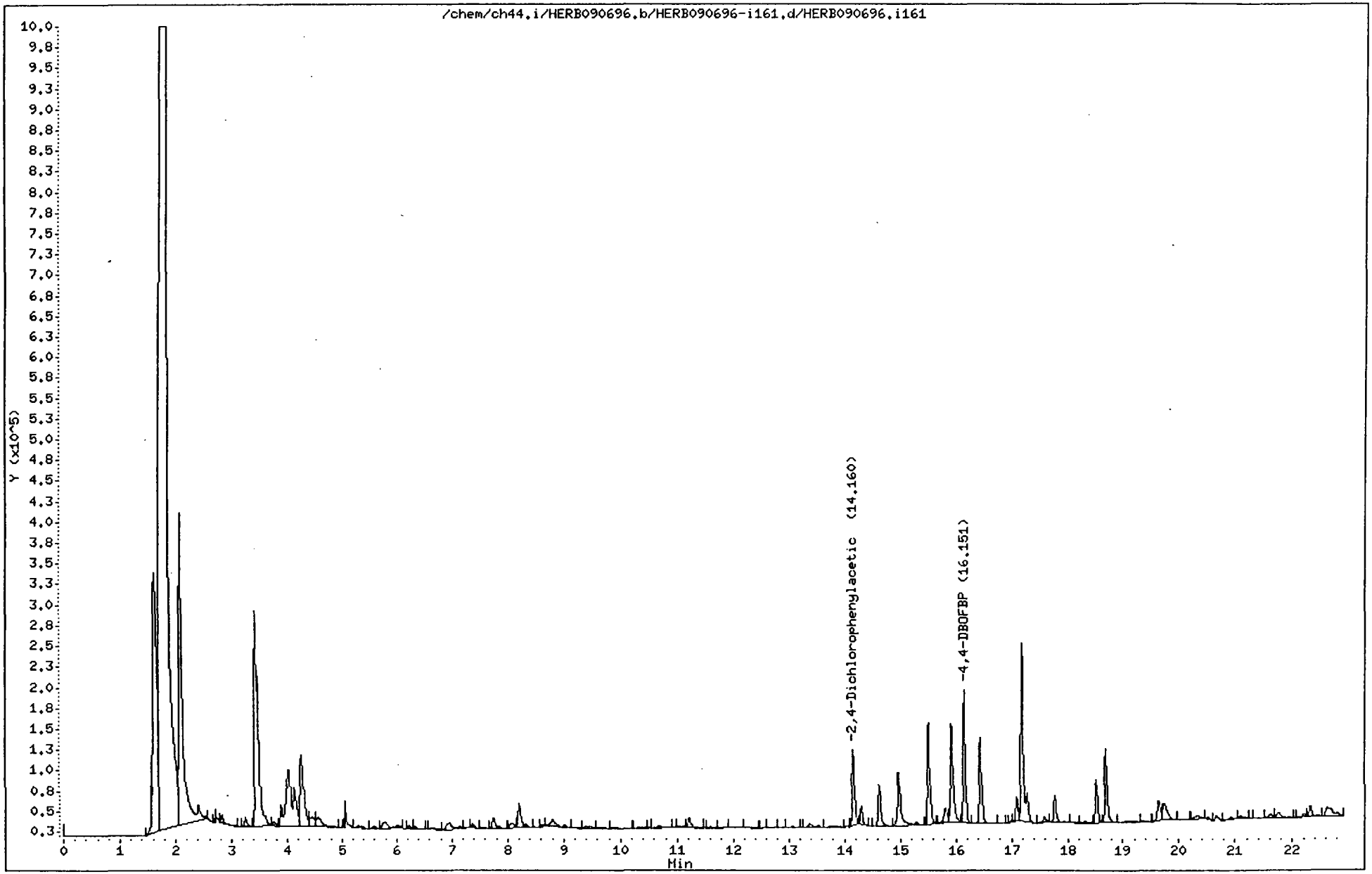
QC Flag Legend

a - Target compound detected but, quantitated amount
    Below Limit Of Quantitation(BLOQ).
R - Spike/Surrogate failed recovery limits.

905

Data File: /chem/ch44.i/HERB090696.b/HERB090696-i161.d
Date : 06-SEP-96 21:47:00
Client ID: SWMUG-5MSD
Sample Info: 9653-1MD 10/10 8150 AB848-82 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-1701

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32



FORM 1
HERB ORGANICS ANALYSIS DATA SHEET

AT Kearney SAMPLE NO.

BLKBS

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

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

Sample wt/vol: 10.0 (g/mL) G Lab File ID: HERB090696-I131

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/06/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	311	
93-72-1	2,4,5-TP Silvex	29.6	
93-76-5	2,4,5-T	36.6	

Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090696.b\HERB090696-i131.d
Lab Smp Id: BLKBS Client Smp ID: BLKBS
Inj Date : 06-SEP-96 20:02:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : BS 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090696.b\42herb0903.m
Meth Date : 09-Sep-96 13:40:07 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 QC Sample: BS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL) (1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

MAK 9-9-96

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)	
	1 Dalapon	3.631	3.626	(0.252)	201717	0.166	333(a)	
$	2 2,4-Dichlorophenylacetic acid	12.662	12.719	(0.877)	174507	0.184	367	91.7%
	3 Dicamba	12.959	12.954	(0.898)	63825	0.0158	31.7(a)	
	4 MCPP	13.238	13.375	(0.917)	70073	13.8	27700	
	5 MCPA	13.664	13.761	(0.947)	144190	13.9	27700	
	6 Dichlorprop	14.160	14.200	(0.981)	228727	0.167	334	
*	7 4,4-DBOFBP	14.431	14.426	(1.000)	354687	1.00		
	8 2,4-D	14.723	14.909	(1.029)	203529	0.155	311(M)	77.7%
	10 2,4,5-TP Silvex	15.752	15.765	(1.092)	62128	0.0148	29.6(a)	74.0%
	11 2,4,5-T	16.399	16.363	(1.136)	70574	0.0183	36.6(a)	91.5%
	12 2,4-DB	16.798	16.816	(1.164)	22456	0.0383	76.6(a)	

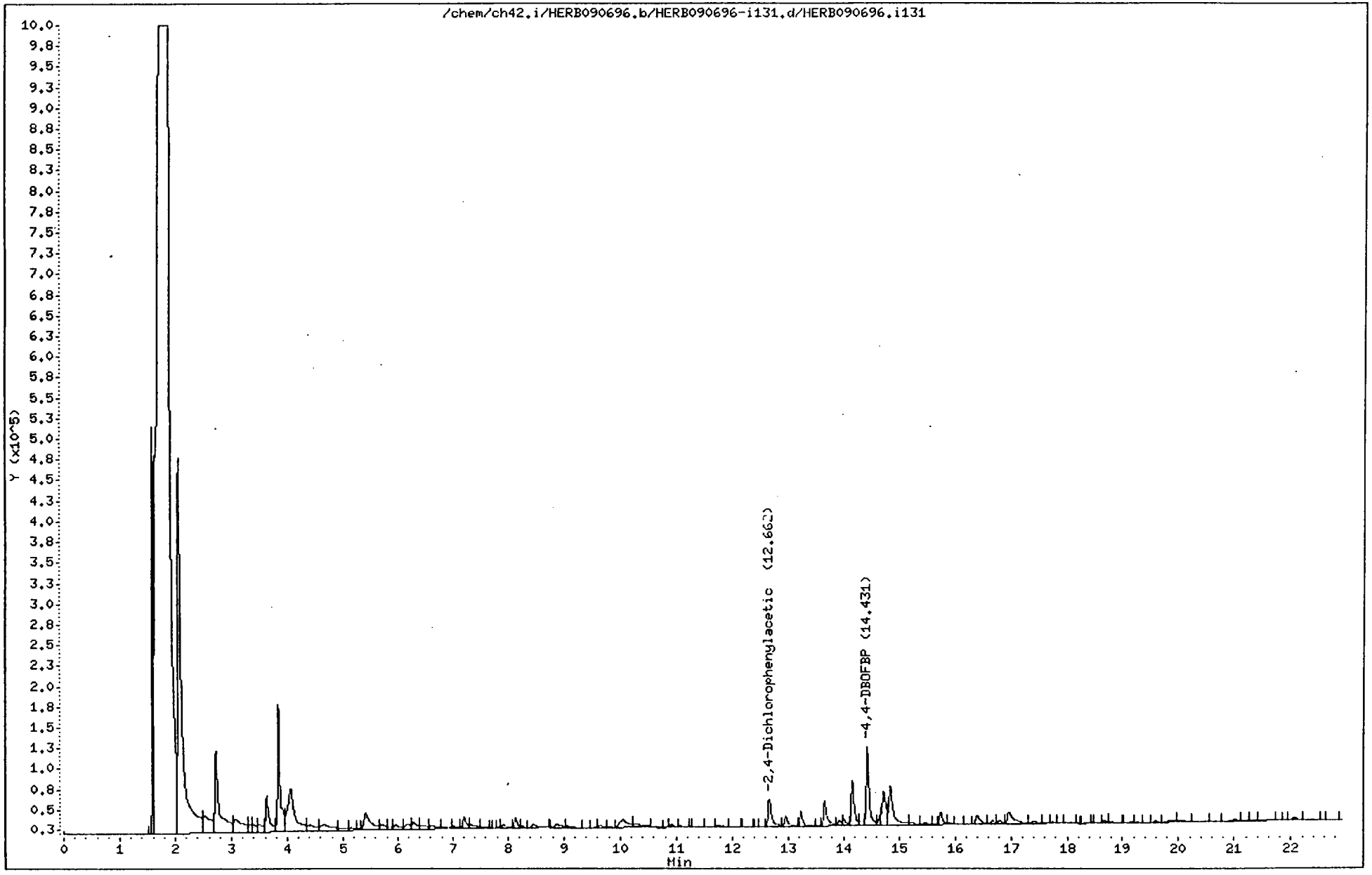
QC Flag Legend

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

Data File: /chem/ch42.i/HERB090696.b/HERB090696-i131.d
Date : 06-SEP-96 20:02:00
Client ID: BLKBS
Sample Info: BS 10/10 8150 AB848-82 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-XLB

Instrument: ch42.i
Operator: MAKOWALSKI
Column diameter: 0.32

909



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090696.b\HERB090696-i131.d
Lab Smp Id: BLKBS Client Smp ID: BLKBS
Inj Date : 06-SEP-96 20:02:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : BS 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090696.b\44herb0903.m
Meth Date : 10-Sep-96 12:26:06 Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 QC Sample: BS
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	1 Dalapon	4.034	4.119	(0.250)	526146	0.278	556(a)
$	2 2,4-Dichlorophenylacetic acid	14.173	14.160	(0.877)	357290	0.235	471
	4 MCPP	14.630	14.617	(0.905)	137186	11.6	23100
	5 MCPA	14.985	14.976	(0.927)	293220	21.0	41900
	6 Dichlorprop	15.526	15.517	(0.961)	381691	0.205	410
	7 2,4-D	15.938	15.800	(0.986)	389195	0.219	438
*	8 4,4-DBOFBP	16.164	16.164	(1.000)	494414	1.00	
	10 2,4,5-TP Silvex	17.294	17.281	(1.070)	101938	0.0164	32.8(a)
	11 2,4,5-T	17.787	17.773	(1.100)	97040	0.0161	32.1(a)
	12 2,4-DB	18.536	18.518	(1.147)	178548	0.206	413

QC Flag Legend

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

Data File: /chem/ch44.i/HERB090696.b/HERB090696-i131.d

Date : 06-SEP-96 20:02:00

Client ID: BLKBS

Instrument: ch44.i

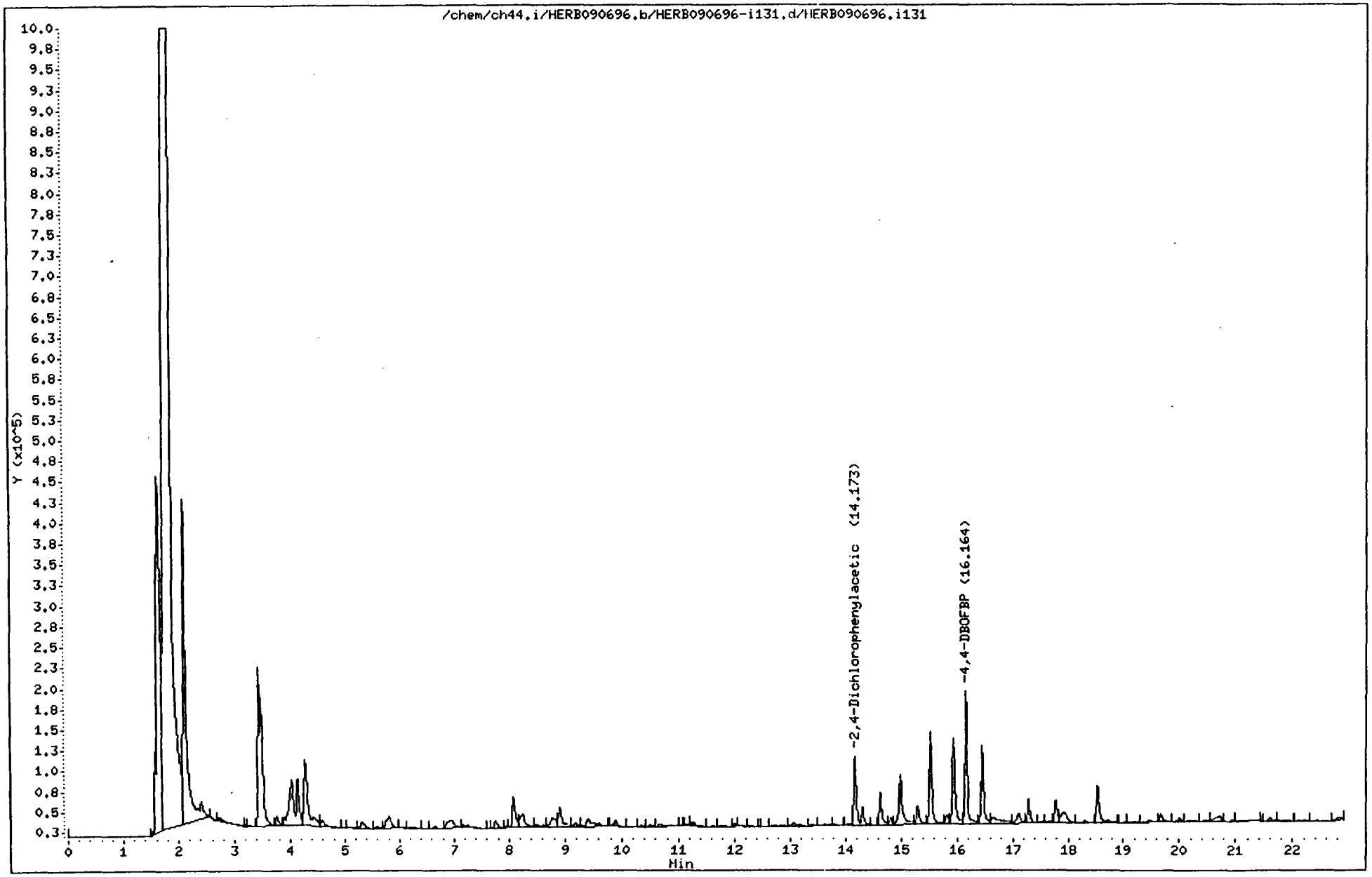
Sample Info: BS 10/10 8150 AB848-82 9-3-96

Volume Injected (uL): 0.5

Operator: MAKOWALSKI

Column phase: DB-1701

Column diameter: 0.32



FORM 1 AT Kearney SAMPLE NO.

HERB ORGANICS ANALYSIS DATA SHEET

BLKBSD

Lab Name: INCHCAPE TESTING SERVICES Contract: 729412

Lab Code: Case No.: SAS No.: SDG No.: HERB9653

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

Sample wt/vol: 10.0 (g/mL) G Lab File ID: HERB090696-I141

Level: (low/med) LOW Date Received: 08/22/96

% Moisture: 0 decanted: (Y/N) N Date Extracted: 09/03/96

Concentrated Extract Volume: 10000(uL) Date Analyzed: 09/06/96

Injection Volume: 0.5(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	271	
93-72-1	2,4,5-TP Silvex	25.6	
93-76-5	2,4,5-T	29.1	

Thru-Put Systems, Inc.

Data file : \chem\ch42.i\HERB090696.b\HERB090696-i141.d
Lab Smp Id: BLKBSD Client Smp ID: BLKBSD
Inj Date : 06-SEP-96 20:37:00
Operator : MAKOWALSKI Inst ID: ch42.i
Smp Info : BSD 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch42.i\HERB090696.b\42herb0903.m
Meth Date : 09-Sep-96 13:40:07 makowalski Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 QC Sample: BSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: HERBISTD.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	FINAL (ug/Kg)
	1 Dalapon	3.622	3.626	(0.251)	84009	0.0793	159(a)
$	2 2,4-Dichlorophenylacetic acid	12.662	12.719	(0.878)	138989	0.167	334 83.5%
	3 Dicamba	12.954	12.954	(0.898)	39726	0.0113	22.6(a)
	4 MCPP	13.229	13.375	(0.917)	52407	11.6	23100
	5 MCPA	13.659	13.761	(0.947)	114795	12.0	24000
	6 Dichlorprop	14.156	14.200	(0.981)	179153	0.150	299
*	7 4,4-DBOFBP	14.426	14.426	(1.000)	310117	1.00	
	8 2,4-D	14.723	14.909	(1.029)	154920	0.135	271(M) 67.7%
	10 2,4,5-TP Silvex	15.747	15.765	(1.092)	46925	0.0128	25.6(a) 64.0%
	11 2,4,5-T	16.394	16.363	(1.136)	49129	0.0146	29.1(a) 72.7%
	12 2,4-DB	16.793	16.816	(1.164)	11761	0.0229	45.9(a)

QC Flag Legend

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

Data File: /chem/ch42.i/HERB090696.b/HERB090696-i141.d

Date : 06-SEP-96 20:37:00

Client ID: BLKBSD

Instrument: ch42.i

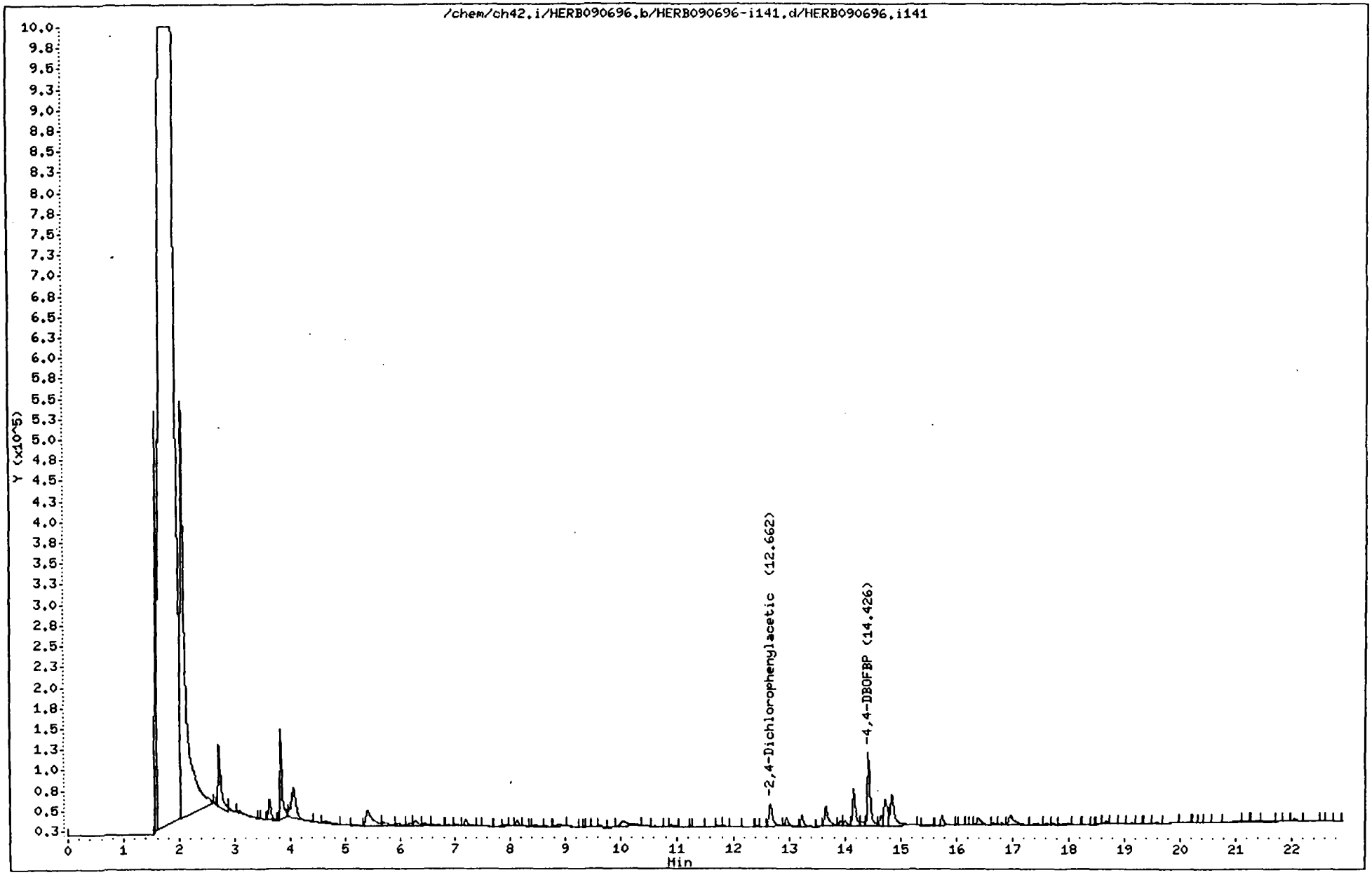
Sample Info: BSD 10/10 8150 AB848-82 9-3-96

Volume Injected (uL): 0.5

Operator: MAKOWALSKI

Column phase: DB-XLB

Column diameter: 0.32



Thru-Put Systems, Inc.

Data file : \chem\ch44.i\HERB090696.b\HERB090696-i141.d
Lab Smp Id: BLKBSD Client Smp ID: BLKBSD
Inj Date : 06-SEP-96 20:37:00
Operator : MAKOWALSKI Inst ID: ch44.i
Smp Info : BSD 10/10 8150 AB848-82 9-3-96
Misc Info :
Comment :
Method : \chem\ch44.i\HERB090696.b\44herb0903.m
Meth Date : 10-Sep-96 12:26:06 Quant Type: ISTD
Cal Date : 04-SEP-96 03:12:00 Cal File: HERB090396-i191.d
Als bottle: 1 QC Sample: BSD
Dil Factor: 1.00000
Integrator: Falcon Compound Sublist: herbistd.sub
Target Version: 3.21
Procesing Host: GC1

Concentration Formula: Uf * Vt/(Vi * Ws * (100 - M)/100)

Name	Value	Description
Uf	1.000	Correction factor
Vt	10000.000	Volume of final extract (uL)(1000 low, 2
Vi	0.500	Volume injected (uL)
Ws	10.000	Weight of sample extracted (g)
M	0.000	% Moisture

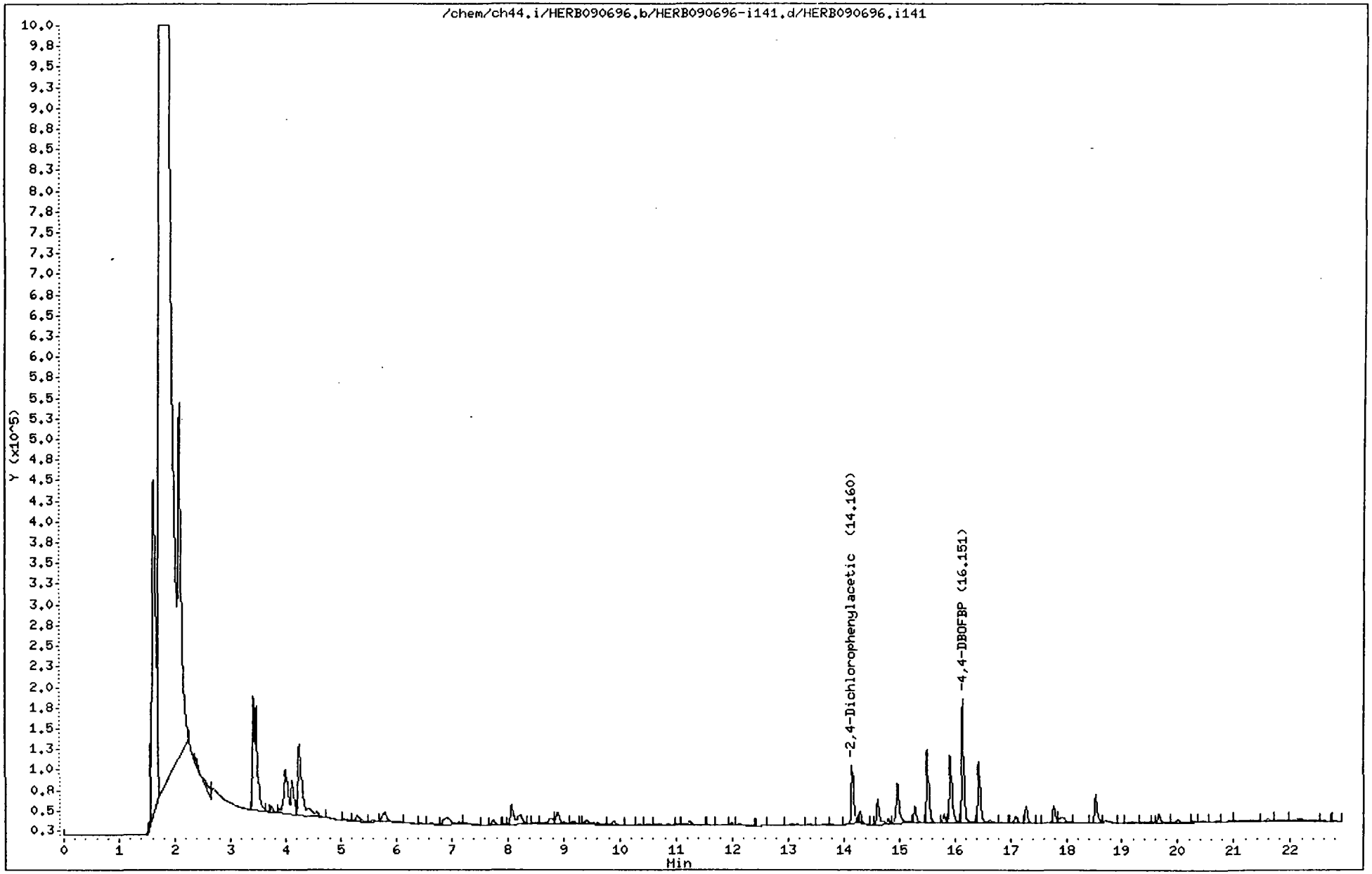
	Compounds	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ng)	CONCENTRATIONS FINAL (ug/Kg)
	1 Dalapon	4.021	4.119	(0.249)	457322	0.280	560(a)
$	2 2,4-Dichlorophenylacetic acid	14.160	14.160	(0.877)	220924	0.161	322
	3 Dicamba	14.298	14.306	(0.885)	49557	0.0102	20.4(a)
	4 MCPP	14.617	14.617	(0.905)	129583	13.4	26700
	5 MCPA	14.971	14.976	(0.927)	208067	16.2	32400
	6 Dichlorprop	15.512	15.517	(0.960)	289550	0.176	351
	7 2,4-D	15.925	15.800	(0.986)	294501	0.192	384
*	8 4,4-DBOFBP	16.151	16.164	(1.000)	426680	1.00	
	10 2,4,5-TP Silvex	17.277	17.281	(1.070)	66401	0.0124	24.8(a)
	11 2,4,5-T	17.773	17.773	(1.100)	73122	0.0140	28.1(a)
	12 2,4-DB	18.522	18.518	(1.147)	130621	0.175	350

QC Flag Legend

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

Data File: /chem/ch44.i/HERB090696.b/HERB090696-i141.d
Date : 06-SEP-96 20:37:00
Client ID: BLKBSD
Sample Info: BSD 10/10 8150 AB848-82 9-3-96
Volume Injected (uL): 0.5
Column phase: DB-1701

Instrument: ch44.i
Operator: MAKOWALSKI
Column diameter: 0.32



PREPARATION AND ANALYSIS LOGS

BATCH: A6848-82

DATE STARTED: 09-3-96 \ 1250

Method 8150A for Chlorinated Herbicides in Soil (8150)

ITS Environmental, Dallas, Tx (214)238-5591

Sample I.D.:	RE-EXTRACT?	CLIENT I.D.:	sx weight 10 g +/- 0.1g	1.0 ml surrogate Lot #A5604-96	1.0 ml spike Lot # A5604-95	pH <2 w/ 1:9 HCl	20 mL acetone Lot K26292	Shake 20 min	80 mL ether Lot BX0144	Shake 20 min	Collect ether, repeat acetone&ether (50 mL) 10'	Wash w/Na2SO4 water (250 mL) - Keep ether	30 mL H2O, 5 mL KOH	Hydrolysis 1 hr. @60C	3 x 20 mL ether - discard	pH <2 w/1:1 H2SO4	3 x 20 mL ether - collect	Dry w/Na2SO4 >2 hours	conc. to ~4ml in K-D (90-100 C)	Transfer to 12 mL vial	N2 evap. to <1 mL	Add ~2 mL diazomethane leave >10 minutes	N2 conc to ~ 1mL	final volume 10 ml
BIK			HS	HS		HS	HS	HS	HS	HS	HS	HS	HS	HS	AS	HS	HS	HS	LB	LB	LB	LB	LB	LB
BS			↓	↓	HS	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
BSD			↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
MS, 9653-1			↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
MSD, 9653-1			↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
9653-1			↓	↓		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
-2			↓	↓		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
-3																								

Date/Time Completed:

APPROVAL:

MAK 9-5-96

[090296] 42 HERB090396
Reported on 5-SEP-1996 at 14:16
Modified on 5-SEP-1996 at 09:08

ANALYSIS SUMMARY

Method..... HERB8150 Run Sequence HERB8150
Calibration..... HERBPIC2 Control.....

Calib. Sequence.. Sequential Standard

Lims Analysis ID. Analyst Name MAKOWALSKI
Comment..... HP 5890 SERIES II, DUAL ECD, SERIAL #: 3203A41769

	SAMPLE NAME	SAMPLE ID	TYPE	NUM INJ	CAL LEVEL	RF UP 1st -->
1	SYSTEM BLANK - HEXANE/ACETONE		SA	1		
2	SYSTEM BLANK - HEXANE/ACETONE		SA	1		
3	HERBICIDE CAL STD - L1 #AA904-68-7		ST	1	L1	I
4	HERBICIDE CAL STD - L2 #AA904-68-7		ST	1	L2	I
5	HERBICIDE CAL STD - L3 #AA904-68-7		ST	1	L3	I
6	HERBICIDE CAL STD - L4 #AA904-68-7		ST	1	L4	I
7	HERBICIDE CAL STD - L5 #AA904-68-7		ST	1	L5	I
8	HERBICIDE CAL STD - L6 #AA904-68-7		ST	1	L6	I
9	HERBICIDE CAL STD - L7 #AA904-68-7		ST	1	L7	I
10	HERBICIDE CAL STD - L8 #AA904-68-7		ST	1	L8	I
11	HERBICIDE CAL STD - L9 #AA904-68-7		ST	1	L9	I
12	SYSTEM BLANK - HEXANE/ACETONE		SA	1		
13	PICH/PENT CAL STD - L1 #AA904-58-1		ST	1	L1	I
14	PICH/PENT CAL STD - L2 #AA904-58-1		ST	1	L2	I
15	PICH/PENT CAL STD - L3 #AA904-58-1		ST	1	L3	I
16	PICH/PENT CAL STD - L4 #AA904-58-1		ST	1	L4	I
17	PICH/PENT CAL STD - L5 #AA904-58-1		ST	1	L5	I
18	PICH/PENT CAL STD - L6 #AA904-58-1		ST	1	L6	I
19	PICH/PENT CAL STD - L7 #AA904-58-1		ST	1	L7	I
20	SYSTEM BLANK - HEXANE/ACETONE		SA	1		
21	HERBICIDE CAL STD - L5 #AA904-68-7		SA	1		
22	PICH/PENT CAL STD - L4 #AA904-58-1		SA	1		

MAK 9-5-96

MAK 9-5-96

Continued on Pa

Read and Understood By

Molly Makowalski 9-5-96
Signed Date

Benson Anglin 9-11-96
Signed Date

MAK 9-11-96

[090296] 42 HERB090696
Reported on 9-SEP-1996 at 11:43

ANALYSIS SUMMARY

Method..... HERB8150 Run Sequence HERB8150
Calibration..... HERB0903 Control.....

Calib. Sequence.. Sequential Standard

Lims Analysis ID. Analyst Name MAKOWALSKI
Comment..... HP 5890 SERIES II, DUAL ECD, SERIAL #: 3203A41769

	SAMPLE NAME	SAMPLE ID	TYPE	NUM INJ	CAL LEVEL	RF UP 1st -->
1	SYSTEM BLANK - HEXANE/ACETONE		SA	1		
2	SYSTEM BLANK - HEXANE/ACETONE		SA	1		
3	HERBICIDE CAL STD - L5 #AA904-71-5		SA	1		
4	BLANK 100/10 TCLP AB878-7 9-5-96		SA	1		
5	BS 100/10 TCLP AB878-7 9-5-96		SA	1		
6	BSD 100/10 TCLP AB878-7 9-5-96		SA	1		
7	9660-2MS 100/10 TCLP AB878-7 9-5-96		SA	1		
8	9660-2MD 100/10 TCLP AB878-7 9-5-96		SA	1		
9	9660-2 100/10 TCLP AB878-7 9-5-96		SA	1		
10	HERBICIDE CAL STD - L5 #AA904-71-5		SA	1		
11	PICH/PENT CAL STD - 0.100UG/ML AA904-58-		SA	1		
12	BLANK 10/10 8150 AB848-82 9-3-96		SA	1		
13	BS 10/10 8150 AB848-82 9-3-96		SA	1		
14	BSD 10/10 8150 AB848-82 9-3-96		SA	1		
15	9653-1MS 10/10 8150 AB848-82 9-3-96		SA	1		
16	9653-1MD 10/10 8150 AB848-82 9-3-96		SA	1		
17	9653-1 10/10 8150 AB848-82 9-3-96		SA	1		
18	9653-2 10/10 8150 AB848-82 9-3-96		SA	1		
19	9653-3 10/10 8150 AB848-82 9-3-96		SA	1		
20	HERBICIDE CAL STD - L5 #AA904-71-5		SA	1		
21	PICH/PENT CAL STD - 0.10UG/ML AA904-58-1		SA	1		
22	BLANK 30/10 8151 AB878-6 9-5-96		SA	1		
23	BS 30/10 8151 AB878-6 9-5-96		SA	1		
24	BSD 30/10 8151 AB878-6 9-5-96		SA	1		
25	9660-2MS 5/10 8151 AB878-6 9-5-96		SA	1		
26	9660-2MSD 5/10 8151 AB878-6 9-5-96		SA	1		
27	9660-1 6/10 8151 AB878-6 9-5-96		SA	1		
28	9660-2 5/10 8151 AB878-6 9-5-96		SA	1		
29	9660-3 30/10 8151 AB878-6 9-5-96		SA	1		
30	HERBICIDE CAL STD - L5 #AA904-71-5		SA	1		

MAK 9-11-96

MAK 9-11-96

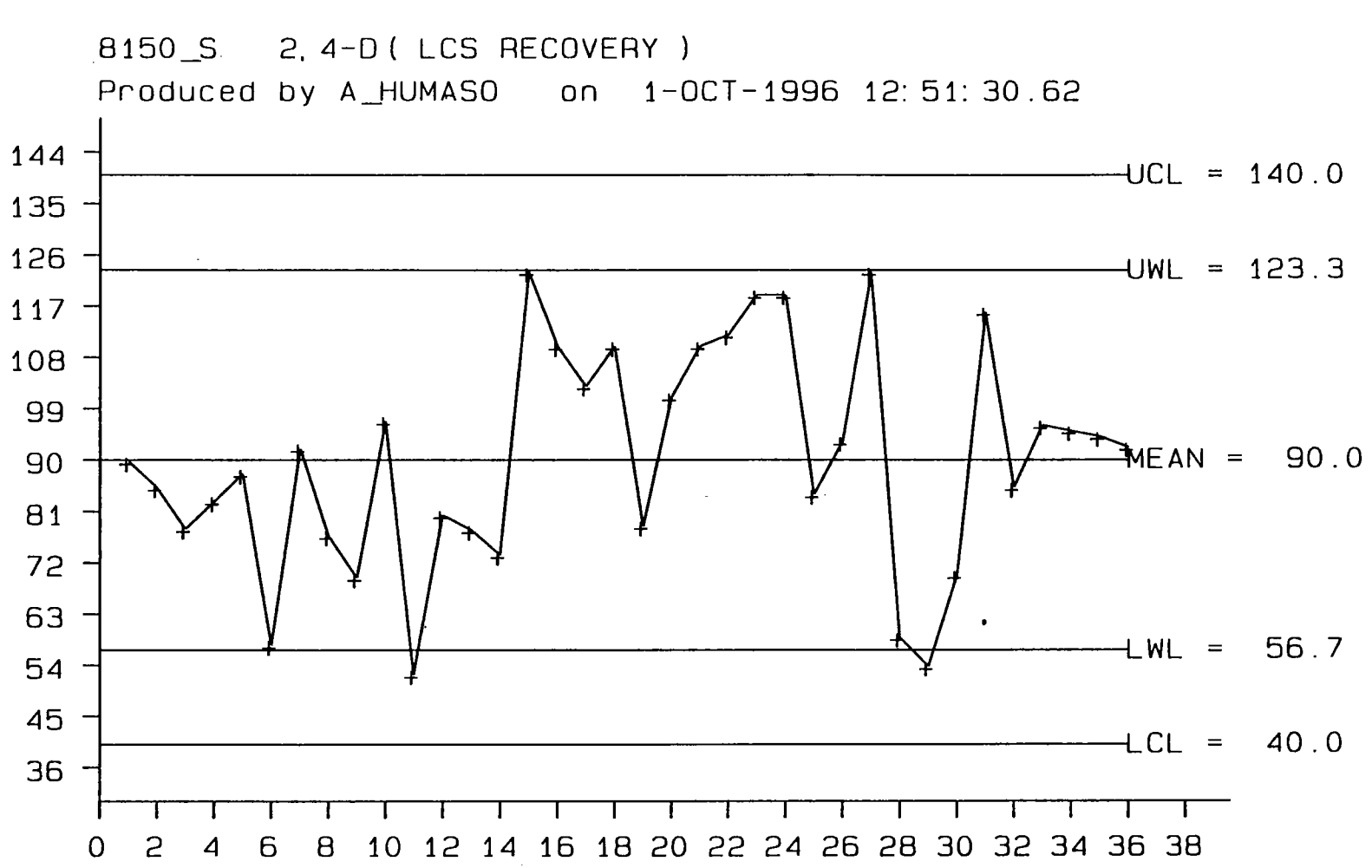
Continued on Page

Read and Understood By

Molly A Makowalski 9-11-96
Signed Date

Damon Anglin 9-11-96
Signed Date

CONTROL CHARTS


8150_S 2,4-D (LCS RECOVERY)
Produced by A_HUMASO on 1-OCT-1996 12:51:30.62
144
135
126
117
108
99
90
81
72
63
54
45
36
UCL = 140.0
UWL = 123.3
MEAN = 90.0
LWL = 56.7
LCL = 40.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38

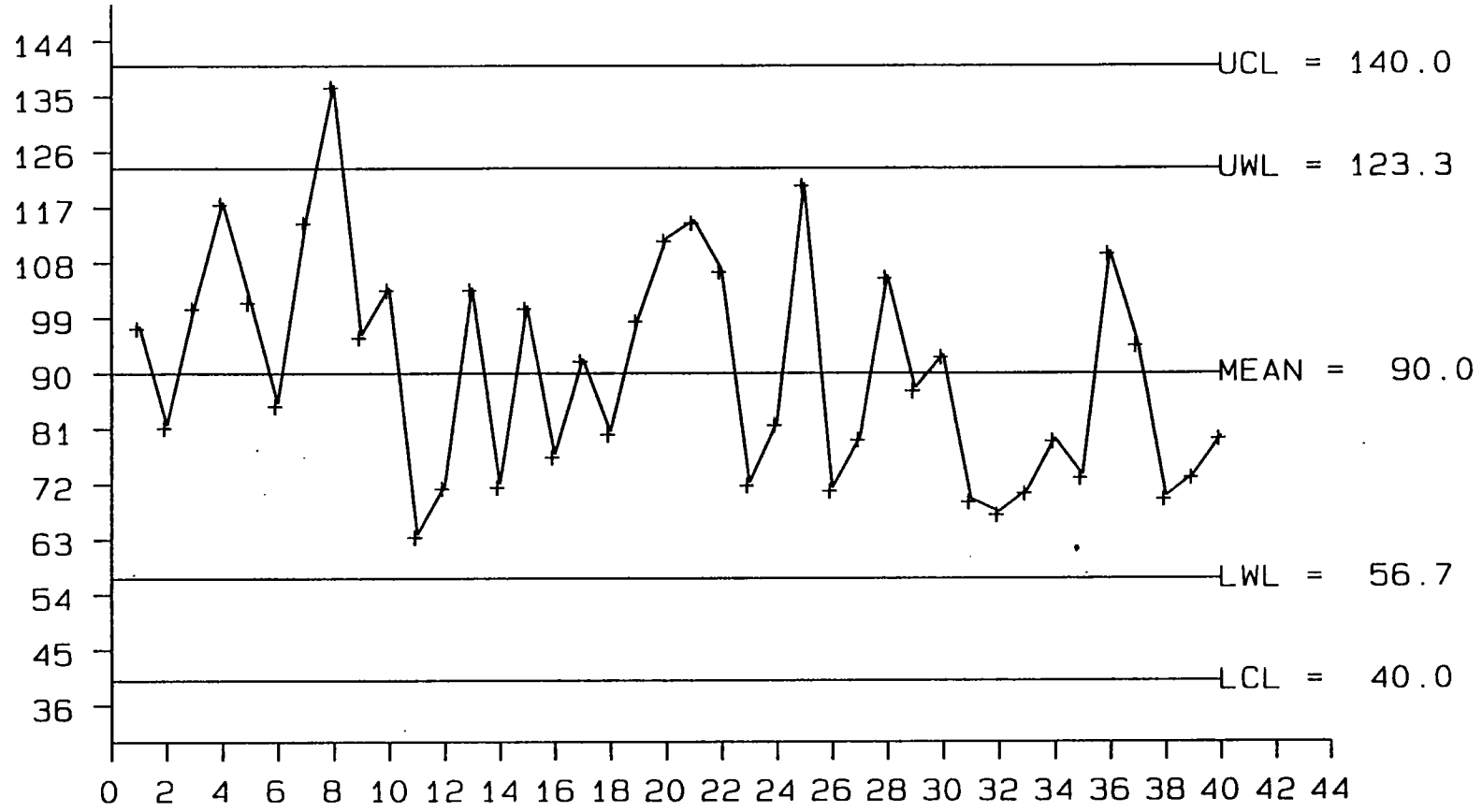
Data Points for: 8150_S 2,4-D
Chart Type: LCS RECOVERY
Generated on: 1-OCT-1996 12:51

Current Control Limits
(40.0 - 140.0)

Point	Batch Number	Date Analyzed	Value (%)
1	8150_035_S	24-OCT-1994 0	89.7
2	8150_036_S	2-NOV-1994 0	85.2
3	AA756-2	29-NOV-1994 0	78.0
4	AA756-5	11-JAN-1995 0	82.8
5	AA756-14	13-FEB-1995 0	87.6
6	AA756-20	17-MAR-1995 0	57.6
7	AA756-24	28-MAR-1995 0	92.0
8	AA756-28	14-APR-1995 0	76.8
9	AA756-31	25-APR-1995 0	69.4
10	AA756-35	26-MAY-1995 0	96.8
11	AA756-38	12-JUN-1995 0	52.4
12	AA756-43	15-JUN-1995 0	80.4
13	AA756-46	19-JUN-1995 0	77.8
14	AA756-49	29-JUN-1995 0	73.4
15	AA756-57	17-JUL-1995 0	123
16	AA756-63	27-JUL-1995 0	110
17	AA756-64	27-JUL-1995 0	103
18	AA756-69	7-AUG-1995 0	110
19	AB522-11	17-AUG-1995 0	78.5
20	AB544-23	11-SEP-1995 0	101
21	AB544-60	12-SEP-1995 0	110
22	AB544-61	12-SEP-1995 0	112
23	AB543-9	15-SEP-1995 0	119
24	AB543-72	21-SEP-1995 0	119
25	AB545-51	29-SEP-1995 0	84.0
26	AB545-34	30-SEP-1995 0	93.2
27	AB545-61	2-OCT-1995 0	123
28	AB589-30	19-OCT-1995 0	58.9
29	AB589-62	23-OCT-1995 0	53.8
30	AB589-79	24-OCT-1995 0	69.8
31	AB590-2	6-NOV-1995 0	116
32	AB590-150	17-NOV-1995 0	85.2
33	AB672-64	24-FEB-1996 0	96.1
34	AB673-48	28-FEB-1996 0	95.1
35	AB674-54	9-MAR-1996 0	94.1
36	AB766-47	7-JUN-1996 0	92.2

8150_S 2, 4, 5-T (LCS RECOVERY)

Produced by A_HUMASO on 1-OCT-1996 12: 52: 45.44



Data Points for: 8150_S 2,4,5-T
Chart Type: LCS RECOVERY
Generated on: 1-OCT-1996 12:52

Current Control Limits
(40.0 - 140.0)

Point	Batch Number	Date Analyzed	Value (%)
1	AA756-63	27-JUL-1995 0	97.8
2	AA756-64	27-JUL-1995 0	81.7
3	AA756-64	27-JUL-1995 0	101
4	AA756-69	7-AUG-1995 0	118
5	AA756-69	7-AUG-1995 0	102
6	AB522-11	17-AUG-1995 0	85.2
7	AB522-11	17-AUG-1995 0	115
8	AB544-23	11-SEP-1995 0	137
9	AB544-23	11-SEP-1995 0	96.3
10	AB544-60	12-SEP-1995 0	104
11	AB544-61	12-SEP-1995 0	63.9
12	AB544-61	12-SEP-1995 0	71.8
13	AB543-9	15-SEP-1995 0	104
14	AB543-9	15-SEP-1995 0	72.0
15	AB543-72	21-SEP-1995 0	101
16	AB543-72	21-SEP-1995 0	76.9
17	AB545-51	29-SEP-1995 0	92.4
18	AB545-51	29-SEP-1995 0	80.6
19	AB545-34	30-SEP-1995 0	98.9
20	AB545-34	30-SEP-1995 0	112
21	AB545-61	2-OCT-1995 0	115
22	AB545-61	2-OCT-1995 0	107
23	AB589-30	19-OCT-1995 0	72.3
24	AB589-30	19-OCT-1995 0	82.1
25	AB589-62	23-OCT-1995 0	121
26	AB589-62	23-OCT-1995 0	71.4
27	AB589-79	24-OCT-1995 0	79.7
28	AB590-2	6-NOV-1995 0	106
29	AB590-2	6-NOV-1995 0	87.6
30	AB590-150	17-NOV-1995 0	93.1
31	AB590-150	17-NOV-1995 0	69.6
32	AB672-64	24-FEB-1996 0	67.5
33	AB672-64	24-FEB-1996 0	71.0
34	AB673-48	28-FEB-1996 0	79.5
35	AB673-48	28-FEB-1996 0	73.5
36	AB674-54	9-MAR-1996 0	110
37	AB674-54	9-MAR-1996 0	95.0
38	AB766-47	7-JUN-1996 0	70.1
39	AB766-47	7-JUN-1996 0	73.6
40	AB846-13	31-JUL-1996 0	79.9

8150_S 2, 4, 5-TP (LCS RECOVERY)
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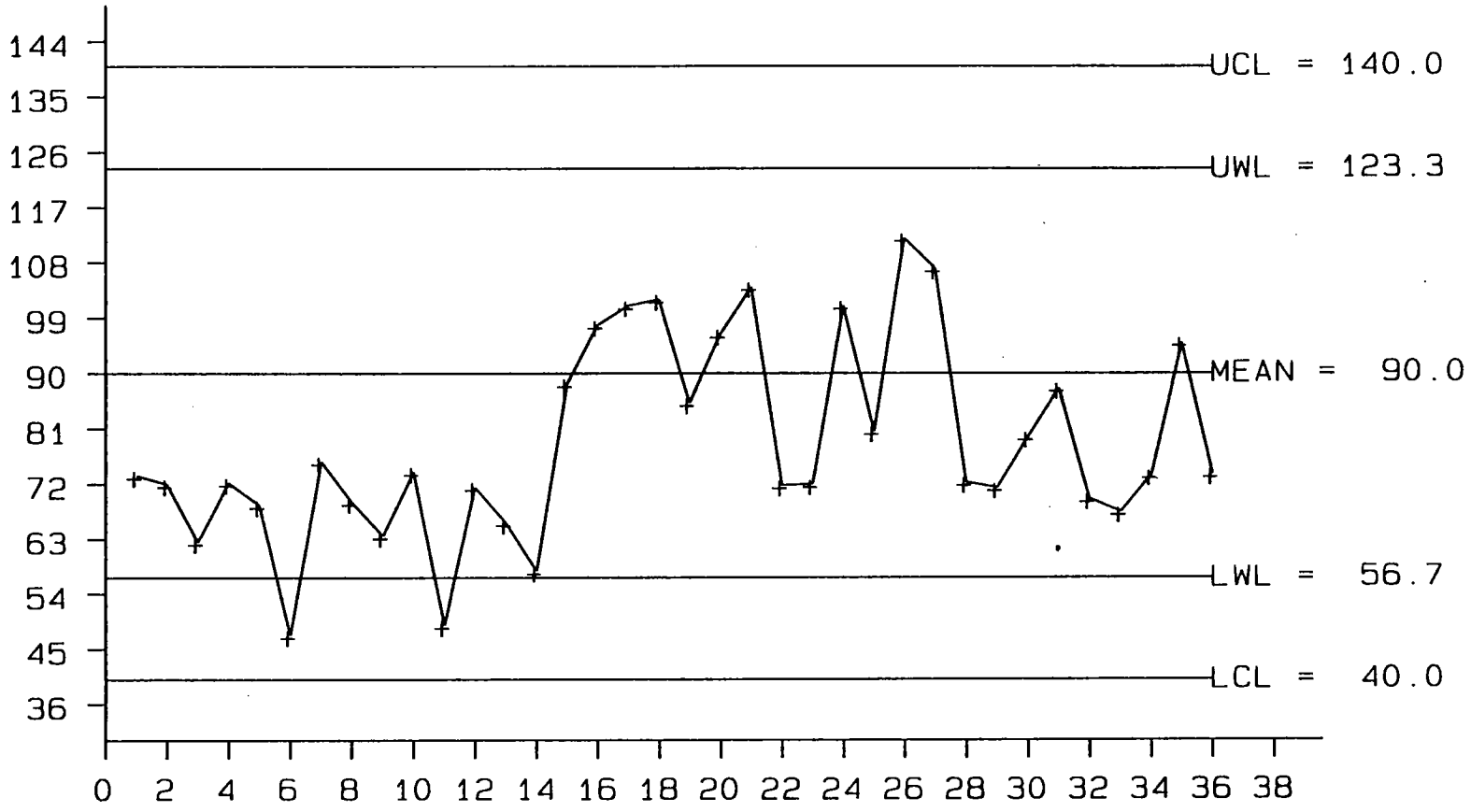

Data Points for: 8150_S 2,4,5-TP
Chart Type: LCS RECOVERY
Generated on: 1-OCT-1996 12:53

Current Control Limits
(40.0 - 140.0)

Point	Batch Number	Date Analyzed	Value (%)
1	8150_035_S	24-OCT-1994 0	73.4
2	8150_036_S	2-NOV-1994 0	72.0
3	AA756-2	29-NOV-1994 0	62.6
4	AA756-5	11-JAN-1995 0	72.2
5	AA756-14	13-FEB-1995 0	68.6
6	AA756-20	17-MAR-1995 0	47.3
7	AA756-24	28-MAR-1995 0	75.7
8	AA756-28	14-APR-1995 0	69.1
9	AA756-31	25-APR-1995 0	63.6
10	AA756-35	26-MAY-1995 0	74.0
11	AA756-38	12-JUN-1995 0	48.9
12	AA756-43	15-JUN-1995 0	71.5
13	AA756-46	19-JUN-1995 0	65.7
14	AA756-49	29-JUN-1995 0	57.8
15	AA756-57	17-JUL-1995 0	88.3
16	AA756-63	27-JUL-1995 0	97.8
17	AA756-64	27-JUL-1995 0	101
18	AA756-69	7-AUG-1995 0	102
19	AB522-11	17-AUG-1995 0	85.2
20	AB544-23	11-SEP-1995 0	96.3
21	AB544-60	12-SEP-1995 0	104
22	AB544-61	12-SEP-1995 0	71.8
23	AB543-9	15-SEP-1995 0	72.0
24	AB543-72	21-SEP-1995 0	101
25	AB545-51	29-SEP-1995 0	80.6
26	AB545-34	30-SEP-1995 0	112
27	AB545-61	2-OCT-1995 0	107
28	AB589-30	19-OCT-1995 0	72.3
29	AB589-62	23-OCT-1995 0	71.4
30	AB589-79	24-OCT-1995 0	79.7
31	AB590-2	6-NOV-1995 0	87.6
32	AB590-150	17-NOV-1995 0	69.6
33	AB672-64	24-FEB-1996 0	67.5
34	AB673-48	28-FEB-1996 0	73.5
35	AB674-54	9-MAR-1996 0	95.0
36	AB766-47	7-JUN-1996 0	73.6

METALS DATA

COVER PAGE

U.S. EPA
CP
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Inchcape Testing Services SDG No.: 9653

EPA Sample No.	Lab Sample ID.
9532-11	9532-11
9532-11D	9532-11D
9532-11MS	9532-11MS
9532-11MSD	9532-11MSD
9532-11L	9532-11L
WMUG-5	9653-1
MUG105	9653-2
AOC2-5	9653-3
9654-4	9654-4
9654-4D	9654-4D
9654-4MS	9654-4MS
9654-4MSD	9654-4MSD
9751-1	9751-1
9751-1D	9751-1D
9751-1MS	9751-1MS
9751-1MSD	9751-1MSD

Were ICP interelement corrections applied? Yes/No Yes

Were ICP backgrounds corrections applied? Yes/No Yes
If yes-were raw data generated before application of background corrections? Yes/No No

Comments:

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 diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Alan Humason Name: Alan Humason
Date: ~~Alan Humason~~ 10/1/96 Title: QA Coordinator
A# 10/1/96

933

Forms by WindowChem;p/n11014;v3.0;1/1/96

SAMPLE DATA

U.S. EPA

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

WMUG-5

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

Matrix (soil/water): SOIL Lab Sample ID: 9653-1

Level (low/med): LOW Date Received: 08/22/96

% Solids:

Concentration Units (ug/L or mg/kg): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony	< 3.2			F
7440-38-2	Arsenic	56.7			F
7440-39-3	Barium	56.0			P
7440-41-7	Beryllium	0.629			P
7440-43-9	Cadmium	0.561	B	N	F
7440-70-2	Calcium				
7440-47-3	Chromium	14.1			F
7440-48-4	Cobalt	6.19			P
7440-50-8	Copper	38.0			P
7439-89-6	Iron				
7439-92-1	Lead	86.1			F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	0.206			AV
7440-02-0	Nickel	9.96			P
7440-09-7	Potassium				
7782-49-2	Selenium	< 0.50			F
7440-22-4	Silver	< 0.36			P
7440-23-5	Sodium				
7440-28-0	Thallium	0.178		N	F
7440-62-2	Vanadium	12.8			P
7440-66-6	Zinc	101			P
	Tin	8.09	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

935

U.S. EPA

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MUG105

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

Matrix (soil/water): SOIL Lab Sample ID: 9653-2

Level (low/med): LOW Date Received: 08/22/96

% Solids:

Concentration Units (ug/L or mg/kg): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony	< 2.56			F
7440-38-2	Arsenic	80.9			F
7440-39-3	Barium	64.4			P
7440-41-7	Beryllium	0.66			P
7440-43-9	Cadmium	0.386	B	N	
7440-70-2	Calcium				
7440-47-3	Chromium	12.9			F
7440-48-4	Cobalt	5.75			P
7440-50-8	Copper	44.1			P
7439-89-6	Iron				
7439-92-1	Lead	85.1			
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	0.142			AV
7440-02-0	Nickel	13.1			P
7440-09-7	Potassium				
7782-49-2	Selenium	0.348	B	W	F
7440-22-4	Silver	< 0.36			P
7440-23-5	Sodium				
7440-28-0	Thallium	0.191		N W	F
7440-62-2	Vanadium	12.7			P
7440-66-6	Zinc	113			P
	Tin	8.43	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

936

U.S. EPA

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

AOC2-5

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

Matrix (soil/water): SOIL Lab Sample ID: 9653-3

Level (low/med): LOW Date Received: 08/22/96

% Solids:

Concentration Units (ug/L or mg/kg): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony	< 0.64		W	F
7440-38-2	Arsenic	7.09			F
7440-39-3	Barium	72.6			P
7440-41-7	Beryllium	0.943			P
7440-43-9	Cadmium	0.044	B	N	F
7440-70-2	Calcium				
7440-47-3	Chromium	13.4			F
7440-48-4	Cobalt	4.21			P
7440-50-8	Copper	9.22			P
7439-89-6	Iron				
7439-92-1	Lead	2.13		S	F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury	17.0			AV
7440-02-0	Nickel	8.75			P
7440-09-7	Potassium				
7782-49-2	Selenium	< 0.25		W	
7440-22-4	Silver	< 0.36			P
7440-23-5	Sodium				
7440-28-0	Thallium	< 0.06		N	F
7440-62-2	Vanadium	19.3			P
7440-66-6	Zinc	121			P
	Tin	2.73	B		P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

937

QUALITY CONTROL DATA

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony	36.0	37.20	103.3	50.0	51.10	102.2	49.30	98.6	F
Arsenic	40.0	37.50	93.8	25.0	24.60	98.4	22.30	89.2	F
Barium	400.0	404.84	101.2	500.0	493.44	98.7	503.81	100.8	P
Beryllium	200.0	208.45	104.2	250.0	257.91	103.2	260.62	104.2	P
Cadmium	6.0	5.45	90.8	5.0	4.75	95.0	4.71	94.2	F
Calcium									
Chromium	18.0	17.60	97.8	25.0	24.40	97.6	24.20	96.8	F
Cobalt	400.0	401.08	100.3	500.0	492.21	98.4	497.65	99.5	P
Copper	400.0	389.70	97.4	500.0	472.59	94.5	479.20	95.8	P
Iron									
Lead	20.0	19.79	99.0	30.0	30.53	101.8	29.88	99.6	F
Magnesium									
Manganese									
Mercury	2.5	2.59	103.6	3.0	2.90	96.7	2.87	95.7	AV
Nickel	400.0	397.81	99.5	500.0	494.08	98.8	497.00	99.4	P
Potassium									
Selenium	20.0	21.80	109.0	25.0	25.20	100.8	25.30	101.2	F
Silver	200.0	201.56	100.8	250.0	246.57	98.6	249.89	100.0	P
Sodium									
Thallium	40.0	43.60	109.0	25.0	26.40	105.6	26.70	106.8	F
Vanadium	400.0	415.55	103.9	500.0	507.18	101.4	517.23	103.4	P
Zinc	400.0	407.08	101.8	500.0	503.08	100.6	507.45	101.5	P
Tin	400.0	420.32	105.1	500.0	514.58	102.9	509.53	101.9	P

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115

(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

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U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony				50.0	48.20	96.4	54.00	108.0	F
Arsenic				25.0	23.20	92.8			F
Barium				500.0	501.92	100.4	501.92	100.4	P
Beryllium				250.0	261.83	104.7	261.83	104.7	P
Cadmium				5.0	4.68	93.6	4.66	93.2	F
Calcium									
Chromium				25.0	24.00	96.0	24.30	97.2	F
Cobalt				500.0	500.03	100.0	500.03	100.0	P
Copper				500.0	478.64	95.7	478.64	95.7	P
Iron									
Lead				30.0	29.71	99.0	29.39	98.0	F
Magnesium									
Manganese									
Mercury				3.0	2.88	96.0			AV
Nickel				500.0	499.59	99.9	499.59	99.9	P
Potassium									
Selenium				25.0	23.60	94.4			F
Silver				250.0	250.14	100.1	250.14	100.1	P
Sodium									
Thallium				25.0	29.90	119.6	28.00	112.0	F
Vanadium				500.0	517.13	103.4	517.13	103.4	P
Zinc				500.0	512.28	102.5	512.28	102.5	P
Tin				500.0	514.02	102.8	516.45	103.3	P

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115

(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

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U.S. EPA
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony				50.0	52.40	104.8	46.40	92.8	F
Arsenic									
Barium									
Beryllium									
Cadmium				5.0	4.95	99.0			
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				30.0	28.78	95.9	28.86	96.2	F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				25.0	27.80	111.2			F
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115
(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony				50.0	49.10	98.2	50.30	100.6	F
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				30.0	26.31	87.7	27.97	93.2	F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115

(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

942

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration			Continuing Calibration					M
	True	Found	%R(1)	True	Found	%R(1)	Found	%R(1)	
Aluminum									
Antimony				50.0	47.70	95.4	49.00	98.0	F
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115

(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

943

U.S. EPA
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony				50.0	50.40	100.8	42.80	85.6	F
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115
(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

944

U.S. EPA
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony				50.0	57.80	115.6	57.40	114.8	F
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115
(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony				50.0	58.20	116.4	58.30	116.6	F
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115

(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

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U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony				50.0	55.60	111.2	56.80	113.6	F
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115

(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony				50.0	53.80	107.6			F
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115

(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

U.S. EPA
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic	40.0	40.70	101.8	25.0	23.80	95.2	22.00	88.0	F
Barium									
Beryllium									
Cadmium	6.0	5.56	92.7	5.0	4.69	93.8	4.90	98.0	F
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	20.0	18.45	92.3	30.0	27.90	93.0	26.43	88.1	F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium	20.0	21.10	105.5	25.0	24.60	98.4	24.60	98.4	F
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115
(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Aluminum									
Antimony									
Arsenic				25.0	21.10	84.4	22.10	88.4	F
Barium									
Beryllium									
Cadmium				5.0	5.35	107.0	4.84	96.8	F
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				30.0	27.21	90.7	29.54	98.5	F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				25.0	21.10	84.4	23.40	93.6	F
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115

(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

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U.S. EPA
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic				25.0	24.30	97.2	23.30	93.2	F
Barium									
Beryllium									
Cadmium				5.0	4.90	98.0			F
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				30.0	30.04	100.1	46.62	155.4	F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				25.0	24.20	96.8			F
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115
(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

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U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				30.0	28.31	94.4	26.80	89.3	F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115

(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

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U.S. EPA
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				30.0	31.77	105.9	31.58	105.3	F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115
(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				30.0	33.34	111.1	34.45	114.8	F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115

(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

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U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				30.0	33.03	110.1			F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115

(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

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U.S. EPA
2A
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	20.0	20.39	102.0	30.0	29.70	99.0	30.77	102.6	F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium	20.0	20.40	102.0	25.0	25.50	102.0	24.30	97.2	F
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115
(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

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U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Initial Calibration Source: INORGANIC VENTURE

Continuing Calibration Source: HIGH PURITY

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				30.0	30.82	102.7	30.25	100.8	F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium				25.0	25.00	100.0	27.30	109.2	F
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

(1) ICV Control Limits: All Metals 90-110; Cyanide 85-115

(2) CCV Control Limits: ICP 90-110; AA Metals 80-120

U.S. EPA
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BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony	< 12.8		< 12.8		< 12.8		< 12.8		< 0.64		F
Arsenic	< 3.4		< 3.4		< 3.4		< 3.4		< 0.17		F
Barium	< 2.4		< 2.4		< 2.4		< 2.4		< 0.12		P
Beryllium	< 0.4		< 0.4		< 0.4		< 0.4		< 0.02		P
Cadmium	< 0.2		< 0.2		< 0.2		< 0.2		< 0.008		F
Calcium											
Chromium	< 0.7		< 0.7		< 0.7		< 0.7		< 0.034		F
Cobalt	< 0.6		< 0.6		< 0.6		< 0.6		< 0.03		P
Copper	< 2.2		< 2.2		< 2.2		< 2.2		< 0.11		P
Iron											
Lead	< 1.2		< 1.2		< 1.2		< 1.2		< 0.06		F
Magnesium											
Manganese											
Mercury	< 0.04		0.04	B	< 0.04		0.04	B	< 0.02		AV
Nickel	< 1.6		< 1.6		< 1.6		< 1.6		< 0.08		P
Potassium											
Selenium	< 5.0		< 5.0		< 5.0		< 5.0		< 0.25		F
Silver	< 7.2		< 7.2		< 7.2		< 7.2		< 0.36		P
Sodium											
Thallium	< 1.2		< 1.2		< 1.2		< 1.2		< 0.06		F
Vanadium	< 2.8		< 2.8		< 2.8		< 2.8		< 0.14		P
Zinc	< 14.2		< 14.2		< 14.2		< 14.2		< 0.71		P
Tin	< 2.2		< 2.2		< 2.2		< 2.2		2.76	B	P

AH 10/11/96

Forms by WindowChem:p/n11014;v3.0;1/1/9

U.S. EPA
3
BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony			< 12.8		< 12.8		< 12.8				F
Arsenic											
Barium			< 2.4								P
Beryllium			< 0.4								P
Cadmium			< 0.2		< 0.2						F
Calcium											
Chromium			< 0.7								F
Cobalt			< 0.6								P
Copper			< 2.2								P
Iron											
Lead			< 1.2		< 1.2		< 1.2				F
Magnesium											
Manganese											
Mercury											
Nickel			< 1.6								P
Potassium											
Selenium											
Silver			< 7.2								P
Sodium											
Thallium			< 1.2		< 1.2						F
Vanadium			< 2.8								P
Zinc			< 14.2								P
Tin			< 2.2								P

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U.S. EPA
3
BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony			< 12.8		< 12.8		< 12.8				F
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			< 1.2		< 1.2						F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Tin											

Forms by WindowChem;p/n11014;v3.0,1/1/96

U.S. EPA
3
BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony			< 12.8		< 12.8		< 12.8				F
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Tin											

Forms by WindowChem;p/n11014;v3.0;1/1/96

U.S. EPA
3
BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony			< 12.8		< 12.8		< 12.8				F
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Tin											

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U.S. EPA
3
BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony			< 12.8		< 12.8		< 12.8				F
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Tin											

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U.S. EPA
3
BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony			< 12.8								F
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Tin											

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U.S. EPA
3
BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic	< 3.4		< 3.4		< 3.4		< 3.4				F
Barium											
Beryllium											
Cadmium	< 0.2		< 0.2		< 0.2		< 0.2				F
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead	< 1.2		< 1.2		< 1.2		2.5	B			F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium	< 5.0		< 5.0		< 5.0		< 5.0				F
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Tin											

Forms by WindowChem;p/n11014;v3.0,1/1/96

U.S. EPA
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BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic			< 3.4		< 3.4		< 3.4				F
Barium											
Beryllium											
Cadmium			< 0.2		< 0.2						F
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			2.7	B	1.6	B	3.3	B			F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium			< 5.0		< 5.0						F
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Tin											

Forms by WindowChem;p/n11014;v3.0:1/1/96

U.S. EPA
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BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			2.5	B	5.6	B	1.3	B			F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Tin											

Forms by WindowChem;p/n11014;v3.0;1/1/96

U.S. EPA
3
BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			< 1.2		< 1.2		< 1.2				F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Tin											

U.S. EPA
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BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			< 1.2								F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Tin											

Forms by WindowChem:p/n11014:v3.0;1/1/96

U.S. EPA
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BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead	< 1.2		< 1.2		< 1.2		< 1.2				F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium	< 5.0		< 5.0		< 5.0		< 5.0				F
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Tin											

Forms by WindowChem:p/n11014:v3 0:1/1/96

U.S. EPA
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BLANKS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			< 1.2								F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium			< 5.0		< 5.0						F
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Tin											

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ICP INTERFERENCE CHECK SAMPLE

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

ICP ID Number: ICP_2 ICS Source: HIGH PURITY

Concentration Units: ug/L

Analyte	True Sol. A	True Sol. AB	Initial Found Sol. A	Initial Found Sol. AB	Initial Found %R	Final Found Sol. A	Final Found Sol. AB	Final Found %R
Aluminum	500000	500000	483714	472513.0	94.5	473132	474963.3	95.0
Antimony								
Arsenic								
Barium		500		481.0	96.2		488.7	97.7
Beryllium		500		501.6	100.3		516.9	103.4
Cadmium								
Calcium	500000	500000	492220	480561.1	96.1	498682	500595.4	100.1
Chromium								
Cobalt		500		506.6	101.3		517.4	103.5
Copper		500		531.5	106.3		529.0	105.8
Iron	200000	200000	186159	182413.0	91.2	185184	185207.8	92.6
Lead								
Magnesium	500000	500000	526308	515120.6	103.0	525749	525148.6	105.0
Manganese								
Mercury								
Nickel		1000		906.6	90.7		932.7	93.3
Potassium								
Selenium								
Silver		1000		1092.8	109.3		1101.4	110.1
Sodium								
Thallium								
Vanadium		500		535.6	107.1		539.8	108.0
Zinc		1000		1062.9	106.3		1091.6	109.2

Forms by WindowChem;p/n11014;v3.0,1/1/96

U.S. EPA
5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

9532-11MS

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

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

% Solids for Sample:

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR	C	Sample Result (SR	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony	60-140	970.0000		< 0.64		1000.00	97.0		F
Arsenic									
Barium	75-125	943.8220		48.8114		1000.00	89.5		P
Beryllium	75-125	97.0718		0.1567	B	100.00	96.9		P
Cadmium									
Calcium									
Chromium									
Cobalt	75-125	94.9820		3.5219		100.00	91.5		P
Copper	75-125	95.7623		3.5076		100.00	92.3		P
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel	75-125	100.1829		6.7037		100.00	93.5		P
Potassium									
Selenium									
Silver	60-140	9.2100		< 0.36		10.00	92.1		P
Sodium									
Thallium									
Vanadium	75-125	102.9491		7.2951		100.00	95.7		P
Zinc	75-125	107.7967		14.8469		100.00	92.9		P
Tin	75-125	913.7600		2.2429	B	1000.00	91.2		P

Comments:

Forms by WindowChem;p/n11014;v3.0;1/1/96

U.S. EPA

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SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

9532-11MSD

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

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

% Solids for Sample:

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR	C	Sample Result (SR	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony	60-140	1005.0000		< 0.64		1000.00	100.5		F
Arsenic									
Barium	75-125	948.5800		48.8114		1000.00	90.0		P
Beryllium	75-125	97.6900		0.1567	B	100.00	97.5		P
Cadmium									
Calcium									
Chromium									
Cobalt	75-125	95.0370		3.5219		100.00	91.5		P
Copper	75-125	95.9820		3.5076		100.00	92.5		P
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel	75-125	99.4800		6.7037		100.00	92.8		P
Potassium									
Selenium									
Silver	60-140	9.2399		< 0.36		10.00	92.4		P
Sodium									
Thallium									
Vanadium	75-125	102.6800		7.2951		100.00	95.4		P
Zinc	75-125	107.6000		14.8469		100.00	92.8		P
Tin	75-125	915.8500		2.2429	B	1000.00	91.4		P

Comments:

Forms by WindowChem;p/n11014;v3.0;1/1/96

U.S. EPA

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SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

9654-4MS

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

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

% Solids for Sample:

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR	C	Sample Result (SR	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium	75-125	97.6000		12.3077		100.00	85.3		F
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury	75-125	0.9720		< 0.02		1.00	97.2		AV
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

Comments:

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U.S. EPA

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SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

9654-4MSD

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

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

% Solids for Sample:

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR	C	Sample Result (SR	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium	75-125	89.8000		12.3077		100.00	77.5		F
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury	75-125	0.9450		< 0.02		1.00	94.5		AV
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Tin									

Comments:

Forms by WindowChem;p/n11014;v3.0.1/1/96

U.S. EPA
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SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

9751-1MS

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

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

% Solids for Sample:

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR	C	Sample Result (SR	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic	75-125	8.3500		5.1942		4.00	78.9		F
Barium									
Beryllium									
Cadmium	75-125	0.5710		0.2480		0.30	107.7		F
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	75-125	27.4500		23.7379		2.00	185.6		F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium	75-125	1.8000		< 0.25		2.00	90.0		F
Silver									
Sodium									
Thallium	75-125	2.7500		0.1553		4.00	64.9	N	F
Vanadium									
Zinc									
Tin									

Comments:

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U.S. EPA

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SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

9751-1MSD

Lab Name: Inchcape Testing Services Contract:

Lab Code: Case No.: SAS No.: SDG No.: 9653

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

% Solids for Sample:

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR	C	Sample Result (SR	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic	75-125	8.8500		5.1942		4.00	91.4		F
Barium									
Beryllium									
Cadmium	75-125	0.6600		0.2480		0.30	137.3	N	F
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	75-125	31.2250		23.7379		2.00	374.4		F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium	75-125	1.6400		< 0.25		2.00	82.0		F
Silver									
Sodium									
Thallium	75-125	2.7700		0.1553		4.00	65.4	N	F
Vanadium									
Zinc									
Tin									

Comments:

Forms by WindowChem:p/n11014:v3.0:1/:/96

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DUPLICATES

EPA SAMPLE NO.

9532-11D

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

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

% Solids for Sample: _____ % Solids for Duplicate: _____

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								
Antimony		< 0.64		< 0.64		NC		F
Arsenic								
Barium		48.8114		47.7478		2.2		P
Beryllium		0.1567	B	0.1584	B	1.1		P
Cadmium								
Calcium								
Chromium								
Cobalt		3.5219		3.5801		1.6		P
Copper		3.5076		3.2883		6.5		P
Iron								
Lead								
Magnesium								
Manganese								
Mercury								
Nickel		6.7037		6.6976		0.1		P
Potassium								
Selenium								
Silver		< 0.36		< 0.36		NC		P
Sodium								
Thallium								
Vanadium		7.2951		7.0778		3.0		P
Zinc		14.8469		13.8909		6.7		P
Tin		2.2429	B	1.9579	B	12.7		P

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DUPLICATES

EPA SAMPLE NO.
9654-4D

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

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

% Solids for Sample: _____ % Solids for Duplicate: _____

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium		12.3077		13.4634		9.0		
Cobalt								
Copper								
Iron								
Lead								
Magnesium								
Manganese								
Mercury		< 0.02		0.0297		NC		
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								
Tin								

Forms by WindowChem;p/n11014:v3.0;1/./96

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DUPLICATES

EPA SAMPLE NO.

9751-1D

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

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

% Solids for Sample: _____ % Solids for Duplicate: _____

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								
Antimony								
Arsenic		5.1942		4.6377		11.3		F
Barium								
Beryllium								
Cadmium		0.2480		0.2760		10.7		F
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead		23.7379		29.4927		21.6		F
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium		< 0.25		< 0.25		NC		F
Silver								
Sodium								
Thallium		0.1553		0.1594		2.6		F
Vanadium								
Zinc								
Tin								

Forms by WindowChem:p/n11014:v3.0;1/1/96

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LABORATORY CONTROL SAMPLE

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Solid LCS Source: HIGH PURITY

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony				1000.0	1110.00		600.0	1400.0	111.0
Arsenic				4.0	3.84		3.0	5.0	96.0
Barium				1000.0	962.01		750.0	1250.0	96.2
Beryllium				100.0	103.46		75.0	125.0	103.5
Cadmium				0.3	0.29		0.225	0.375	96.0
Calcium									
Chromium				100.0	93.00		75.0	125.0	93.0
Cobalt				100.0	98.86		75.0	125.0	98.9
Copper				100.0	98.34		75.0	125.0	98.3
Iron									
Lead				2.0	1.81		1.5	2.5	90.7
Magnesium									
Manganese									
Mercury				1.0	0.96		0.75	1.25	95.9
Nickel				100.0	101.19		75.0	125.0	101.2
Potassium									
Selenium				2.0	1.88		1.5	2.5	94.0
Silver				10.0	9.90		6.0	14.0	99.0
Sodium									
Thallium				4.0	3.64		3.0	5.0	91.0
Vanadium				100.0	101.19		75.0	125.0	101.2
Zinc				100.0	102.09		75.0	125.0	102.1
Tin				1000.0	1004.90		750.0	1250.0	100.5

Forms by WindowChem;p/n11014.v3.0;1/1/96

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STANDARD ADDITION RESULTS

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Concentration Units: ug/L

EPA Sample No.	An	0 ADD ABS	1 ADD CON	1 ADD ABS	2 ADD CON	2 ADD ABS	3 ADD CON	3 ADD ABS	Final Conc.	r	Q
AOC2-5	Pb	0.028	3.00	0.052	6.00	0.070	9.00	0.090	4.32	0.9983	S

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PREPARATION LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Method: P

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
PBS-14596	09/04/96	2.00	100
LCSS-14596	09/04/96	2.00	100
9532-11	09/04/96	2.07	100
9532-11D	09/04/96	2.06	100
9532-11MS	09/04/96	2.00	100
9532-11MSD	09/04/96	2.00	100
WMUG-5	09/04/96	2.00	100
MUG105	09/04/96	2.08	100
AOC2-5	09/04/96	2.00	100

Forms by WindowChem:p/n11014,v3.0,1/1/96

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PREPARATION LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Method: F

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
PBS-14596	09/04/96	2.00	100
LCSS-14596	09/04/96	2.00	100
9532-11	09/04/96	2.07	100
9532-11D	09/04/96	2.06	100
9532-11MS	09/04/96	2.00	100
9532-11MSD	09/04/96	2.00	100
WMUG-5	09/04/96	2.00	100
MUG105	09/04/96	2.08	100
AOC2-5	09/04/96	2.00	100

Forms by WindowChem;p/n11014,v3.0;1/1/96

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PREPARATION LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Method: F

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
PBS-14597	09/04/96	2.00	100
LCSS-14597	09/04/96	2.00	100
9654-4	09/04/96	2.08	100
9654-4D	09/04/96	2.05	100
9654-4MS	09/04/96	2.00	100
9654-4MSD	09/04/96	2.00	100
WMUG-5	09/04/96	2.01	100
MUG105	09/04/96	2.05	100
AOC2-5	09/04/96	2.04	100

Forms by WindowChem;p/n11014;v3.0;1/1/95

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PREPARATION LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Method: F

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
PBS-14606	09/06/96	2.00	100
LCSS-14606	09/06/96	2.00	100
9751-1	09/06/96	2.06	100
9751-1D	09/06/96	2.07	100
9751-1MS	09/06/96	2.00	100
9751-1MSD	09/06/96	2.00	100
WMUG-5	09/06/96	2.02	100
MUG105	09/06/96	2.04	100
AOC2-5	09/06/96	2.03	100

Forms by WindowChem:p/n11014;v3.0;1/1/96

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PREPARATION LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Method: AV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
PBS-2858	09/07/96	0.200	
LCSS-2858	09/07/96	0.200	
9654-4	09/07/96	0.209	
9654-4D	09/07/96	0.201	
9654-4MS	09/07/96	0.205	
9654-4MSD	09/07/96	0.200	
WMUG-5	09/07/96	0.205	
MUG105	09/07/96	0.212	
AOC2-5	09/07/96	0.209	

Forms by WindowChem;p/n11014;v3.0:1/1/9

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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number ICP_2 Method: P

Start Date 09/05/96 End Date: 09/05/96

EPA Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	ASS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	SN			
S0	1.00	04:36					X	X				X	X						X			X			X	X	X			
S1	1.00	04:40					X					X							X			X					X			
ZZZZZZ	1.00	04:44																												
ZZZZZZ	1.00	04:48																												
S4	1.00	04:51						X					X												X	X				
LRV1	1.00	04:56					X					X							X			X					X			
ZZZZZZ	1.00	05:00																												
ZZZZZZ	1.00	05:05																												
LRV4	1.00	05:10						X					X												X	X				
ICVA	1.00	05:15					X	X				X	X						X			X			X	X	X			
ICB	1.00	05:19					X	X				X	X						X			X			X	X	X			
ZZZZZZ	1.00	05:23																												
ICSAI	1.00	05:29		X						X				X		X														
ICSABI	1.00	05:34		X			X	X		X		X	X	X		X			X			X			X	X				
CCVA1	1.00	05:39					X	X				X	X						X			X			X	X	X			
CCB1	1.00	05:43					X	X				X	X						X			X			X	X	X			
PBS:14596	1.00	05:48					X	X				X	X						X			X			X	X	X			
LCSS:14596	1.00	05:52					X	X				X	X						X			X			X	X	X			
9532-11	1.00	05:57					X	X				X	X						X			X			X	X	X			
9532-11D	1.00	06:02					X	X				X	X						X			X			X	X	X			
9532-11MS	1.00	06:07					X	X				X	X						X			X			X	X	X			
9532-11MD	1.00	06:12					X	X				X	X						X			X			X	X	X			
9532-11L	5.00	06:17					X	X				X	X						X			X			X	X	X			
WMUG-5	1.00	06:22					X	X				X	X						X			X			X	X	X			
MUG105	1.00	06:27					X	X				X	X						X			X			X	X	X			
AOC2-5	1.00	06:31					X	X				X	X						X			X			X	X	X			
CCV2	1.00	06:36					X	X				X	X						X			X			X	X	X			
CCB2	1.00	06:41					X	X				X	X						X			X			X	X	X			
ZZZZZZ	1.00	06:46																												
ZZZZZZ	1.00	06:52																												
ZZZZZZ	1.00	06:57																												
ZZZZZZ	1.00	07:03																												
ZZZZZZ	1.00	07:08																												
ZZZZZZ	1.00	07:13																												
ZZZZZZ	1.00	07:18																												
ZZZZZZ	1.00	07:23																												
ZZZZZZ	1.00	07:29																												

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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number ICP_2 Method: P

Start Date 09/05/96 End Date: 09/05/96

EPA Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	SN				
ZZZZZZ	1.00	07:34																												
CCV3	1.00	07:39					X	X				X	X						X			X			X	X	X			
CCB3	1.00	07:43					X	X				X	X						X			X			X	X	X			
ZZZZZZ	1.00	07:48																												
ZZZZZZ	1.00	07:53																												
ICSAF	1.00	07:58		X						X				X		X														
ICSABF1	1.00	08:03		X			X	X		X		X	X	X		X			X			X			X	X				
CCV4	1.00	08:08					X	X				X	X						X			X			X	X	X			
CCB4	1.00	08:12					X	X				X	X						X			X			X	X	X			

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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/14/96 End Date: 09/14/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0958			X																						
S1	1.00	1001			X																						
S2	1.00	1003			X																						
S3	1.00	1006			X																						
ICV	1.00	1008			X																						
ICB	1.00	1010			X																						
ZZZZZZ	1.00	1013																									
ZZZZZZ	1.00	1015																									
CCV1	1.00	1017			X																						
CCB1	1.00	1019			X																						
ZZZZZZ	1.00	1022																									
ZZZZZZ	1.00	1024																									
ZZZZZZ	1.00	1026																									
ZZZZZZ	1.00	1028			X																						
PBS-14596	1.00	1030			X																						
PBSA	1.00	1033	104.5		X																						
LCSS-14596	1.00	1035			X																						
LCSSA	1.00	1037	62.9		X																						
9532-11	1.00	1040			X																						
9532-11A	1.00	1042	134.9		X																						
9532-11D	1.00	1044			X																						
9532-11DA	1.00	1046	109.7		X																						
9532-11MS	500.00	1049			X																						
ZZZZZZ	1.00	1051																									
9532-11MSD	500.00	1053			X																						
ZZZZZZ	1.00	1056																									
CCV2	1.00	1058			X																						
CCB2	1.00	1100			X																						
WMUG-5	1.00	1102																									
WMUG-5A	1.00	1105																									
WMUG-5A	1.00	1107	123.7																								
WMUG-5	5.00	1109			X																						
WMUG-5A	5.00	1111	99.0		X																						

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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/14/96 End Date: 09/14/96

EPA Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN			
MUG105	1.00	1113																												
MUG105A	1.00	1116	34.2																											
AOC2-5	1.00	1118			X																									
AOC2-5A	1.00	1120	130.5		X																									
ZZZZZZ	1.00	1122																												
ZZZZZZ	1.00	1125																												
ZZZZZZ	1.00	1127																												
ZZZZZZ	1.00	1129																												
ZZZZZZ	1.00	1132																												
ZZZZZZ	1.00	1134																												
CCV3	1.00	1136			X																									
CCB3	1.00	1139			X																									
ZZZZZZ	1.00	1141																												
ZZZZZZ	1.00	1143																												
ZZZZZZ	1.00	1145																												
ZZZZZZ	1.00	1148																												
ZZZZZZ	1.00	1150																												
ZZZZZZ	1.00	1152																												
ZZZZZZ	1.00	1154																												
ZZZZZZ	1.00	1157																												
ZZZZZZ	1.00	1159																												
ZZZZZZ	1.00	1201																												
ZZZZZZ	1.00	1203																												
ZZZZZZ	1.00	1205																												
ZZZZZZ	1.00	1208																												
ZZZZZZ	1.00	1210																												
ZZZZZZ	1.00	1212																												
ZZZZZZ	1.00	1215																												
CCV4	1.00	1217			X																									
CCB4	1.00	1219			X																									
ZZZZZZ	1.00	1221																												
ZZZZZZ	1.00	1224																												
ZZZZZZ	1.00	1226																												

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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/14/96 End Date: 09/14/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALB SBS AAS BAA BEA CDA CAA CRA COA CUA FEA PBA MGA MNA HGA NIA KSE SAG ANA TLA VNA ZCN
ZZZZZZ	1.00	1228		
ZZZZZZ	1.00	1230		
ZZZZZZ	1.00	1233		
ZZZZZZ	1.00	1235		
ZZZZZZ	1.00	1237		
ZZZZZZ	1.00	1239		
ZZZZZZ	1.00	1241		
ZZZZZZ	1.00	1244		
ZZZZZZ	1.00	1246		
ZZZZZZ	1.00	1248		
ZZZZZZ	1.00	1250		
ZZZZZZ	1.00	1253		
CCV5	1.00	1255		X
CCB5	1.00	1257		X
ZZZZZZ	1.00	1259		
ZZZZZZ	1.00	1302		
ZZZZZZ	1.00	1304		
ZZZZZZ	1.00	1306		
ZZZZZZ	1.00	1308		
ZZZZZZ	1.00	1311		
ZZZZZZ	1.00	1313		
ZZZZZZ	1.00	1315		
ZZZZZZ	1.00	1317		
ZZZZZZ	1.00	1320		
ZZZZZZ	1.00	1322		
ZZZZZZ	1.00	1324		
ZZZZZZ	1.00	1326		
ZZZZZZ	1.00	1329		
ZZZZZZ	1.00	1331		
ZZZZZZ	1.00	1333		
CCV6	1.00	1335		X
CCB6	1.00	1338		X
ZZZZZZ	1.00	1340		

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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/14/96 End Date: 09/14/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1342																									
ZZZZZZ	1.00	1344																									
ZZZZZZ	1.00	1347																									
ZZZZZZ	1.00	1349																									
ZZZZZZ	1.00	1351																									
ZZZZZZ	1.00	1354																									
ZZZZZZ	1.00	1357																									
CCV7	1.00	1359			X																						
CCB7	1.00	1401			X																						
ZZZZZZ	1.00	1511																									
CCV8	1.00	1513			X																						
CCB8	1.00	1516			X																						
ZZZZZZ	1.00	1518																									
ZZZZZZ	1.00	1520																									
ZZZZZZ	1.00	1522																									
ZZZZZZ	1.00	1525																									
ZZZZZZ	1.00	1527																									
ZZZZZZ	1.00	1529																									
ZZZZZZ	1.00	1532																									
ZZZZZZ	1.00	1534																									
ZZZZZZ	1.00	1536																									
ZZZZZZ	1.00	1538																									
ZZZZZZ	1.00	1541																									
ZZZZZZ	1.00	1543																									
ZZZZZZ	1.00	1545																									
ZZZZZZ	1.00	1548																									
ZZZZZZ	1.00	1550																									
ZZZZZZ	1.00	1552																									
CCV9	1.00	1554			X																						
CCB9	1.00	1556			X																						
ZZZZZZ	1.00	1559																									
ZZZZZZ	1.00	1601																									
ZZZZZZ	1.00	1603																									

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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/14/96 End Date: 09/14/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALB SBS AAS BAE BED CDA CAR CRO CUE FEB PBG MGN MNG HGI NKS AGE NAL TVN ZCN
ZZZZZZ	1.00	1605		
ZZZZZZ	1.00	1608		
ZZZZZZ	1.00	1610		
ZZZZZZ	1.00	1612		
ZZZZZZ	1.00	1614		
ZZZZZZ	1.00	1617		
ZZZZZZ	1.00	1619		
ZZZZZZ	1.00	1621		
ZZZZZZ	1.00	1624		
ZZZZZZ	1.00	1626		
ZZZZZZ	1.00	1628		
ZZZZZZ	1.00	1630		
ZZZZZZ	1.00	1633		
CCV10	1.00	1635		X
CCB10	1.00	1637		X
ZZZZZZ	1.00	1639		
ZZZZZZ	1.00	1642		
ZZZZZZ	1.00	1644		
ZZZZZZ	1.00	1646		
ZZZZZZ	1.00	1649		
ZZZZZZ	1.00	1651		
ZZZZZZ	1.00	1653		
ZZZZZZ	1.00	1656		
ZZZZZZ	1.00	1658		
ZZZZZZ	1.00	1700		
ZZZZZZ	1.00	1702		
ZZZZZZ	1.00	1705		
ZZZZZZ	1.00	1707		
ZZZZZZ	1.00	1710		
ZZZZZZ	1.00	1712		
ZZZZZZ	1.00	1714		
CCV11	1.00	1716		X
CCB11	1.00	1719		X

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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/14/96 End Date: 09/14/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALSBSASBEBDCACRCOCUEFBPMGMNHGNIKSESAGNALTVZNC
ZZZZZZ	1.00	1721		
ZZZZZZ	1.00	1723		
ZZZZZZ	1.00	1725		
ZZZZZZ	1.00	1728		
ZZZZZZ	1.00	1730		
ZZZZZZ	1.00	1732		
ZZZZZZ	1.00	1734		
ZZZZZZ	1.00	1737		
ZZZZZZ	1.00	1739		
ZZZZZZ	1.00	1741		
ZZZZZZ	1.00	1744		
ZZZZZZ	1.00	1746		
ZZZZZZ	1.00	1748		
ZZZZZZ	1.00	1750		
ZZZZZZ	1.00	1753		
ZZZZZZ	1.00	1755		
CCV12	1.00	1757		X
CCB12	1.00	1759		X
ZZZZZZ	1.00	1802		
ZZZZZZ	1.00	1804		
ZZZZZZ	1.00	1806		
ZZZZZZ	1.00	1808		
ZZZZZZ	1.00	1825		
ZZZZZZ	1.00	1829		
CCV13	1.00	1831		X
CCB13	1.00	1833		X
ZZZZZZ	1.00	1835		
ZZZZZZ	1.00	1838		
ZZZZZZ	1.00	1840		
ZZZZZZ	1.00	1842		
ZZZZZZ	1.00	1845		
ZZZZZZ	1.00	1847		
ZZZZZZ	1.00	1849		

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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/14/96 End Date: 09/14/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1851																									
ZZZZZZ	1.00	1854																									
ZZZZZZ	1.00	1856																									
ZZZZZZ	1.00	1858																									
ZZZZZZ	1.00	1901																									
ZZZZZZ	1.00	1903																									
ZZZZZZ	1.00	1905																									
ZZZZZZ	1.00	1907																									
ZZZZZZ	1.00	1910																									
CCV14	1.00	1912			X																						
CCB14	1.00	1914			X																						
ZZZZZZ	1.00	1916																									
ZZZZZZ	1.00	1918																									
ZZZZZZ	1.00	1921																									
ZZZZZZ	1.00	1923																									
ZZZZZZ	1.00	1925																									
ZZZZZZ	1.00	1927																									
ZZZZZZ	1.00	1930																									
ZZZZZZ	1.00	1932																									
ZZZZZZ	1.00	1934																									
ZZZZZZ	1.00	1937																									
ZZZZZZ	1.00	1939																									
ZZZZZZ	1.00	1941																									
ZZZZZZ	1.00	1943																									
ZZZZZZ	1.00	1946																									
ZZZZZZ	1.00	1948																									
ZZZZZZ	1.00	1950																									
CCV15	1.00	1952			X																						
CCB15	1.00	1955			X																						
ZZZZZZ	1.00	1957																									
ZZZZZZ	1.00	1959																									
ZZZZZZ	1.00	2001																									
ZZZZZZ	1.00	2004																									

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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/14/96 End Date: 09/14/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALSBSASBABEBCDCACRCOCUCEFBPBMGMNHGNIKSEAGANALTLVNZNCN
ZZZZZZ	1.00	2006		
ZZZZZZ	1.00	2008		
ZZZZZZ	1.00	2011		
ZZZZZZ	1.00	2013		
ZZZZZZ	1.00	2015		
ZZZZZZ	1.00	2018		
ZZZZZZ	1.00	2020		
ZZZZZZ	1.00	2022		
ZZZZZZ	1.00	2025		
ZZZZZZ	1.00	2027		
ZZZZZZ	1.00	2029		
ZZZZZZ	1.00	2032		
CCV16	1.00	2034		X
CCB16	1.00	2036		X
ZZZZZZ	1.00	2038		
ZZZZZZ	1.00	2041		
ZZZZZZ	1.00	2043		
ZZZZZZ	1.00	2045		
ZZZZZZ	1.00	2047		
ZZZZZZ	1.00	2050		
ZZZZZZ	1.00	2052		
ZZZZZZ	1.00	2054		
ZZZZZZ	1.00	2057		
ZZZZZZ	1.00	2059		
ZZZZZZ	1.00	2101		
ZZZZZZ	1.00	2103		
ZZZZZZ	1.00	2106		
ZZZZZZ	1.00	2108		
ZZZZZZ	1.00	2110		
ZZZZZZ	1.00	2112		
CCV17	1.00	2115		X
CCB17	1.00	2117		X
ZZZZZZ	1.00	2119		

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U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/14/96 End Date: 09/14/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALSBSASABAEBEDCCADCRCOCUFEPBMGMNHGNIKSEAGNALTLVNZCN
ZZZZZZ	1.00	2121		
ZZZZZZ	1.00	2124		
ZZZZZZ	1.00	2126		
ZZZZZZ	1.00	2128		
ZZZZZZ	1.00	2130		
ZZZZZZ	1.00	2133		
ZZZZZZ	1.00	2135		
ZZZZZZ	1.00	2137		
ZZZZZZ	1.00	2139		
ZZZZZZ	1.00	2142		
ZZZZZZ	1.00	2144		
ZZZZZZ	1.00	2146		
ZZZZZZ	1.00	2149		
ZZZZZZ	1.00	2151		
ZZZZZZ	1.00	2153		
CCV18	1.00	2155		X
CCB18	1.00	2158		X
ZZZZZZ	1.00	2200		
ZZZZZZ	1.00	2202		
ZZZZZZ	1.00	2204		
ZZZZZZ	1.00	2207		
MUG105	4.00	2209		X
MUG105A	4.00	2211	91.0	X
ZZZZZZ	1.00	2213		
ZZZZZZ	1.00	2216		
CCV19	1.00	2218		X
CCB19	1.00	2220		X

999

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-3 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	C N			
S0	1.00	0324				X																								
S1	1.00	0326				X																								
S2	1.00	0328				X																								
S3	1.00	0330				X																								
S4	1.00	0333				X																								
ICV	1.00	0335				X																								
ICB	1.00	0337				X																								
ZZZZZZ	1.00	0339				X																								
ZZZZZZ	1.00	0341				X																								
CCV1	1.00	0343				X																								
CCB1	1.00	0345				X																								
PBS-14606	1.00	0347				X																								
PBSA	1.00	0350	99.5			X																								
LCS-14606	2.00	0352				X																								
LCSA	2.00	0354	116.0			X																								
LCSA	5.00	0356																												
LCS	5.00	0358																												
LCSA	5.00	0400																												
9751-1	10.00	0402				X																								
9751-1A	10.00	0404	95.0			X																								
9751-1D	10.00	0406																												
9751-1DA	10.00	0408	84.1																											
9751-1MS	10.00	0410				X																								
ZZZZZZ	1.00	0412																												
9751-1MSD	1.00	0414				X																								
ZZZZZZ	1.00	0416																												
ZZZZZZ	1.00	0418																												
ZZZZZZ	1.00	0420																												
ZZZZZZ	1.00	0422																												
ZZZZZZ	1.00	0425																												
CCV2	1.00	0427				X																								
CCB2	1.00	0429				X																								
ZZZZZZ	1.00	0431																												
ZZZZZZ	1.00	0433																												

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U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-3 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0435				X																					
ZZZZZZ	1.00	0437				X																					
WMUG-5	50.00	0439				X																					
WMUG-5A	50.00	0441	96.7			X																					
MUG105	50.00	0443				X																					
MUG105A	50.00	0445	88.2			X																					
AOC2-5	10.00	0447				X																					
AOC2-5A	10.00	0450	111.5			X																					
ZZZZZZ	1.00	0452																									
ZZZZZZ	1.00	0454																									
ZZZZZZ	1.00	0456																									
ZZZZZZ	1.00	0458																									
ZZZZZZ	1.00	0500																									
ZZZZZZ	1.00	0502																									
ZZZZZZ	1.00	0503																									
ZZZZZZ	1.00	0505																									
ZZZZZZ	1.00	0507																									
CCV3	1.00	0509				X																					
CCB3	1.00	0512				X																					

1001

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-3 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALB SBS AAS BAA BEB CDC CAC CRC COC CUC FEF PBP MGM NMN HGH INI KES SAG NAA TLT VZV CNC
S0	1.00	0922		X
S1	1.00	0924		X
S2	1.00	0926		X
S3	1.00	0928		X
S4	1.00	0931		X
ICV	1.00	0933		X
ICB	1.00	0935		X
ZZZZZZ	1.00	0937		
ZZZZZZ	1.00	0939		
CCV1	1.00	0941		X
CCB1	1.00	0943		X
ZZZZZZ	1.00	0945		
ZZZZZZ	1.00	0948		
ZZZZZZ	1.00	0950		
ZZZZZZ	1.00	0952		
ZZZZZZ	1.00	0954		
ZZZZZZ	1.00	0956		
ZZZZZZ	1.00	0958		
ZZZZZZ	1.00	1000		
ZZZZZZ	1.00	1002		
ZZZZZZ	1.00	1004		
ZZZZZZ	1.00	1006		
ZZZZZZ	1.00	1008		
ZZZZZZ	1.00	1010		
ZZZZZZ	1.00	1012		
ZZZZZZ	1.00	1014		
ZZZZZZ	1.00	1016		
ZZZZZZ	1.00	1018		
ZZZZZZ	1.00	1020		
ZZZZZZ	1.00	1022		
CCV2	1.00	1024		X
CCB2	1.00	1026		X
ZZZZZZ	1.00	1028		

1002

U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-3 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1030																									
ZZZZZZ	1.00	1032																									
ZZZZZZ	1.00	1034																									
ZZZZZZ	1.00	1036																									
ZZZZZZ	1.00	1038																									
ZZZZZZ	1.00	1040																									
ZZZZZZ	1.00	1042																									
ZZZZZZ	1.00	1044																									
ZZZZZZ	1.00	1046																									
ZZZZZZ	1.00	1048																									
ZZZZZZ	1.00	1050																									
ZZZZZZ	1.00	1052																									
ZZZZZZ	1.00	1054																									
ZZZZZZ	1.00	1056																									
ZZZZZZ	1.00	1058																									
ZZZZZZ	1.00	1101																									
ZZZZZZ	1.00	1103																									
ZZZZZZ	1.00	1105																									
CCV3	1.00	1107				X																					
CCB3	1.00	1109				X																					
ZZZZZZ	1.00	1111																									
ZZZZZZ	1.00	1113																									
ZZZZZZ	1.00	1115																									
ZZZZZZ	1.00	1117																									
ZZZZZZ	1.00	1119																									
ZZZZZZ	1.00	1121																									
ZZZZZZ	1.00	1123																									
ZZZZZZ	1.00	1125																									
ZZZZZZ	1.00	1127																									
ZZZZZZ	1.00	1129																									
ZZZZZZ	1.00	1131																									
ZZZZZZ	1.00	1133																									
ZZZZZZ	1.00	1135																									

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U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-3 Method: F

Start Date 09/12/96 End Date 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1137																									
ZZZZZZ	1.00	1139																									
ZZZZZZ	1.00	1141																									
ZZZZZZ	1.00	1143																									
ZZZZZZ	1.00	1145																									
ZZZZZZ	1.00	1147																									
ZZZZZZ	1.00	1149																									
CCV4	1.00	1151				X																					
CCB4	1.00	1153				X																					
ZZZZZZ	1.00	1212																									
ZZZZZZ	1.00	1215																									
CCV5	1.00	1217				X																					
CCB5	1.00	1219				X																					
ZZZZZZ	1.00	1221																									
ZZZZZZ	1.00	1224																									
ZZZZZZ	1.00	1226																									
ZZZZZZ	1.00	1228																									
ZZZZZZ	1.00	1230																									
ZZZZZZ	1.00	1232																									
9751-1D	10.00	1234				X																					
9751-1DA	10.00	1236	99.7			X																					
ZZZZZZ	1.00	1238																									
ZZZZZZ	1.00	1240																									
ZZZZZZ	1.00	1242																									
ZZZZZZ	1.00	1245																									
ZZZZZZ	1.00	1247																									
ZZZZZZ	1.00	1249																									
ZZZZZZ	1.00	1251																									
ZZZZZZ	1.00	1253																									
ZZZZZZ	1.00	1255																									
ZZZZZZ	1.00	1257																									
ZZZZZZ	1.00	1259																									
ZZZZZZ	1.00	1301																									
CCV6	1.00	1303				X																					
CCB6	1.00	1305				X																					

1004

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/09/96 End Date 09/09/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALL BSAS BAA BERY CADM CCAR COIL CUEV FBEN PBGR MGNS MNGI NICK SEAG ANAL TVIN ZNC
S0	1.00	1747		X
S1	1.00	1749		X
S2	1.00	1752		X
S3	1.00	1753		X
ICV	1.00	1756		X
ICB	1.00	1758		X
ZZZZZZ	1.00	1800		
ZZZZZZ	1.00	1802		
CCV1	1.00	1804		X
CCB1	1.00	1805		X
ZZZZZZ	1.00	1807		
ZZZZZZ	1.00	1809		
ZZZZZZ	1.00	1811		
ZZZZZZ	1.00	1813		
ZZZZZZ	1.00	1815		
ZZZZZZ	1.00	1817		
ZZZZZZ	1.00	1819		
ZZZZZZ	1.00	1821		
ZZZZZZ	1.00	1823		
ZZZZZZ	1.00	1825		
ZZZZZZ	1.00	1827		
ZZZZZZ	1.00	1829		
ZZZZZZ	1.00	1831		
ZZZZZZ	1.00	1833		
ZZZZZZ	1.00	1835		
ZZZZZZ	1.00	1837		
ZZZZZZ	1.00	1839		
ZZZZZZ	1.00	1841		
ZZZZZZ	1.00	1843		
ZZZZZZ	1.00	1845		
CCV2	1.00	1847		X
CCB2	1.00	1849		X
ZZZZZZ	1.00	1851		
ZZZZZZ	1.00	1853		
ZZZZZZ	1.00	1855		

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U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/09/96 End Date 09/09/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALSBSASABEBCDCACRCOCUFEPBMGMNHGNIKSEAGNALTVZNC
ZZZZZZ	1.00	1857		
ZZZZZZ	1.00	1859		
ZZZZZZ	1.00	1901		
ZZZZZZ	1.00	1908		
CCV3	1.00	1910		X
CCB3	1.00	1911		X
ZZZZZZ	1.00	1913		
ZZZZZZ	1.00	1915		
ZZZZZZ	1.00	1917		
ZZZZZZ	1.00	1920		
ZZZZZZ	1.00	1921		
ZZZZZZ	1.00	1924		
ZZZZZZ	1.00	1925		
ZZZZZZ	1.00	1928		
ZZZZZZ	1.00	1930		
ZZZZZZ	1.00	1932		
ZZZZZZ	1.00	1934		
ZZZZZZ	1.00	1936		
PBS-14606	1.00	1938		X
PBSA	1.00	1940	100.9	X
LCSS-14606	2.00	1942		X
LCSSA	2.00	1944	105.4	X
9751-1	1.00	1946		X
9751-1A	1.00	1948	96.5	X
9751-1D	1.00	1950		X
9751-1DA	1.00	1952	96.8	X
CCV4	1.00	1954		X
CCB4	1.00	1956		X
9751-1MS	2.00	1957		X
ZZZZZZ	1.00	2000		
9751-1MSD	2.00	2001		X
ZZZZZZ	1.00	2004		
ZZZZZZ	1.00	2005		
ZZZZZZ	1.00	2007		
ZZZZZZ	1.00	2009		

U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/09/96 End Date 09/09/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
WMUG-5	1.00	2011																									
WMUG-5A	1.00	2013	189.4																								
MUG105	1.00	2015																									
MUG105A	1.00	2017																									
MUG105A	5.00	2019																									
MUG105	5.00	2021							X																		
MUG105A	5.00	2022	89.2						X																		
AOC2-5	1.00	2024							X																		
AOC2-5A	1.00	2026	96.1						X																		
ZZZZZZ	1.00	2028																									
ZZZZZZ	1.00	2030																									
ZZZZZZ	1.00	2032																									
ZZZZZZ	1.00	2034																									
CCV5	1.00	2036							X																		
CCB5	1.00	2038							X																		

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U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/10/96 End Date 09/10/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALBSASBABECDCACRCOCUFEPBMGMNHGNIKSEAGNATLVZNCN
S0	1.00	0401		X
S1	1.00	0403		X
S2	1.00	0405		X
S3	1.00	0407		X
ICV	1.00	0410		X
ICB	1.00	0411		X
ZZZZZZ	1.00	0413		
ZZZZZZ	1.00	0416		
CCV1	1.00	0418		X
CCB1	1.00	0420		X
ZZZZZZ	1.00	0422		
ZZZZZZ	1.00	0424		
CCV2	1.00	0426		
CCB2	1.00	0428		X
ZZZZZZ	1.00	0430		X
ZZZZZZ	1.00	0432		
ZZZZZZ	1.00	0434		
ZZZZZZ	1.00	0436		
ZZZZZZ	1.00	0438		
ZZZZZZ	1.00	0440		
ZZZZZZ	1.00	0442		
ZZZZZZ	1.00	0444		
ZZZZZZ	1.00	0446		
ZZZZZZ	1.00	0448		
ZZZZZZ	1.00	0450		
ZZZZZZ	1.00	0452		
ZZZZZZ	1.00	0454		
ZZZZZZ	1.00	0456		
ZZZZZZ	1.00	0458		
ZZZZZZ	1.00	0459		
ZZZZZZ	1.00	0501		
ZZZZZZ	1.00	0503		
ZZZZZZ	1.00	0505		
CCV3	1.00	0507		X
CCB3	1.00	0509		X

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U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/10/96 End Date 09/10/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0514																									
CCV4	1.00	0516							X																		
CCB4	1.00	0518							X																		
ZZZZZZ	1.00	0519																									
ZZZZZZ	1.00	0522																									
ZZZZZZ	1.00	0523																									
ZZZZZZ	1.00	0525																									
ZZZZZZ	1.00	0527																									
ZZZZZZ	1.00	0529																									
ZZZZZZ	1.00	0531																									
ZZZZZZ	1.00	0533																									
ZZZZZZ	1.00	0535																									
ZZZZZZ	1.00	0537																									
ZZZZZZ	1.00	0539							X																		
ZZZZZZ	1.00	0541							X																		
WMUG-5	100.00	0543							X																		
WMUG-5A	100.00	0545	104.8						X																		
ZZZZZZ	1.00	0547																									
ZZZZZZ	1.00	0549																									
ZZZZZZ	1.00	0551																									
ZZZZZZ	1.00	0553																									
ZZZZZZ	1.00	0555																									
ZZZZZZ	1.00	0557																									
CCV5	1.00	0559							X																		
CCB5	1.00	0601							X																		

1009

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/11/96 End Date: 09/11/96

EPA Sample No.	D/F	Time	% R	Analytes																						
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	KE	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0642									X															
S1	1.00	0644									X															
S2	1.00	0645									X															
S3	1.00	0647									X															
ICV	1.00	0649									X															
ICB	1.00	0650									X															
ZZZZZZ	1.00	0652									X															
ZZZZZZ	1.00	0653									X															
CCV1	1.00	0655									X															
CCB1	1.00	0656									X															
PBS-14597	1.00	0657									X															
PBSA	1.00	0659	103.3								X															
LCSS-14597	100.00	0700																								
LCSS	500.00	0702																								
LCSSA	500.00	0703	0.0																							
9654-4	40.00	0705																								
9654-4A	40.00	0706	68.4																							
9654-4D	1.00	0708																								
9654-4DA	1.00	0709	18.1																							
9654-4MS	40.00	0711																								
ZZZZZZ	1.00	0712																								
ZZZZZZ	1.00	0714																								
9654-4MS	40.00	0715																								
ZZZZZZ	1.00	0717																								
9654-4MSD	40.00	0718																								
ZZZZZZ	1.00	0720																								
WMUG-5	25.00	0721									X															
WMUG-5A	25.00	0723	106.5								X															
MUG105	20.00	0724																								
MUG105A	20.00	0726	124.9																							
CCV2	1.00	0727									X															
CCB2	1.00	0729									X															
AOC2-5	20.00	0730									X															
AOC2-5A	20.00	0732	89.5								X															
ZZZZZZ	1.00	0733																								
ZZZZZZ	1.00	0735																								
ZZZZZZ	1.00	0736																								

1010

U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/11/96 End Date: 09/11/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0738																									
ZZZZZZ	1.00	0740																									
ZZZZZZ	1.00	0741																									
ZZZZZZ	1.00	0743																									
ZZZZZZ	1.00	0744																									
ZZZZZZ	1.00	0746																									
ZZZZZZ	1.00	0747																									
ZZZZZZ	1.00	0752																									
CCV3	1.00	0754									X																
CCB3	1.00	0755									X																
LCSS-14597	100.00	0756									X																
LCSSA	100.00	0758	104.2								X																
9654-4	40.00	0759									X																
9654-4A	40.00	0801	91.8								X																
9654-4D	40.00	0803									X																
9654-4DA	40.00	0804	88.0								X																
9654-4MS	40.00	0806																									
9654-4MS	200.00	0807									X																
ZZZZZZ	1.00	0808																									
9654-4MSD	40.00	0810																									
9654-4MSD	200.00	0811									X																
ZZZZZZ	1.00	0812																									
MUG105	25.00	0814									X																
MUG105A	25.00	0816	114.8								X																
ZZZZZZ	1.00	0817																									
ZZZZZZ	1.00	0819																									
ZZZZZZ	1.00	0821																									
CCV4	1.00	0822									X																
CCB4	1.00	0824									X																

1011

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number PS-200 Method: AV

Start Date 09/08/96 End Date: 09/08/96

EPA Sample No.	D/F	Time	% R	Analytes																										
				ALB	SBS	AS A	BA E	BE D	CA R	CR O	CO U	CU E	FE B	PB G	MG N	MN G	HG I	NI K	SE G	AG A	NA L	TL V	VZ N	CN						
S0	1.00	1519														X														
S0	1.00	1522														X														
S1	1.00	1524														X														
S1	1.00	1527														X														
S2	1.00	1529														X														
S2	1.00	1531														X														
S3	1.00	1534														X														
S3	1.00	1536														X														
S4	1.00	1538														X														
S4	1.00	1541														X														
S5	1.00	1543														X														
S5	1.00	1545														X														
ICV	1.00	1548														X														
ICB	1.00	1551														X														
ZZZZZZ	1.00	1553														X														
PBS-2858	1.00	1555														X														
LCSS-2858	1.00	1557														X														
9654-4	1.00	1600														X														
9654-4D	1.00	1602														X														
9654-4MS	1.00	1604														X														
9654-4MSD	1.00	1606														X														
ZZZZZZ	1.00	1609														X														
ZZZZZZ	1.00	1611														X														
CCV1	1.00	1613														X														
CCB1	1.00	1616														X														
ZZZZZZ	1.00	1618														X														
ZZZZZZ	1.00	1620														X														
ZZZZZZ	1.00	1622														X														
ZZZZZZ	1.00	1625														X														
ZZZZZZ	1.00	1627														X														
WMUG-5	1.00	1629														X														
MUG105	1.00	1631														X														
A0C2-5	1.00	1634																												
ZZZZZZ	1.00	1636														X														

1012

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number PS-200 Method: AV

Start Date 09/08/96 End Date: 09/08/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCV2	1.00	1638																X									
CCB2	1.00	1641																X									
ZZZZZZ	1.00	1643																									
ZZZZZZ	1.00	1645																									
ZZZZZZ	1.00	1647																									
ZZZZZZ	1.00	1650																									
ZZZZZZ	1.00	1652																									
ZZZZZZ	1.00	1654																									
ZZZZZZ	1.00	1656																									
ZZZZZZ	1.00	1659																									
ZZZZZZ	1.00	1701																									
AOC2-5	1.00	1703																X									
CCV3	1.00	1705																X									
CCB3	1.00	1708																X									

1013

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0200													X												
S1	1.00	0202													X												
S2	1.00	0204													X												
S3	1.00	0206													X												
S4	1.00	0208													X												
ICV	1.00	0211													X												
ICB	1.00	0213													X												
ZZZZZZ	1.00	0215																									
ZZZZZZ	1.00	0217																									
CCV1	1.00	0219													X												
CCB1	1.00	0221													X												
ZZZZZZ	1.00	0223																									
ZZZZZZ	1.00	0225																									
ZZZZZZ	1.00	0227																									
ZZZZZZ	1.00	0230																									
ZZZZZZ	1.00	0232																									
ZZZZZZ	1.00	0234																									
ZZZZZZ	1.00	0236																									
ZZZZZZ	1.00	0238																									
ZZZZZZ	1.00	0240																									
ZZZZZZ	1.00	0242																									
ZZZZZZ	1.00	0244																									
ZZZZZZ	1.00	0246																									
ZZZZZZ	1.00	0248																									
ZZZZZZ	1.00	0250																									
ZZZZZZ	1.00	0252																									
ZZZZZZ	1.00	0254																									
ZZZZZZ	1.00	0256																									
ZZZZZZ	1.00	0258																									
ZZZZZZ	1.00	0300																									
CCV2	1.00	0302													X												
CCB2	1.00	0304													X												
ZZZZZZ	1.00	0306																									
ZZZZZZ	1.00	0308																									
ZZZZZZ	1.00	0301																									
CCV3	1.00	0313													X												
CCB3	1.00	0315													X												

1014

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALSBSASBAEBECDCACRCOCUFEPBMGMNHGNIKSEAGNATLVZNC
ZZZZZZ	1.00	0317		X
ZZZZZZ	1.00	0320		X
ZZZZZZ	1.00	0322		X
ZZZZZZ	1.00	0324		X
ZZZZZZ	1.00	0326		X
ZZZZZZ	1.00	0328		X
ZZZZZZ	1.00	0330		X
ZZZZZZ	1.00	0332		X
ZZZZZZ	1.00	0334		X
ZZZZZZ	1.00	0336		X
ZZZZZZ	1.00	0338		X
ZZZZZZ	1.00	0341		X
ZZZZZZ	1.00	0343		X
ZZZZZZ	1.00	0345		X
ZZZZZZ	1.00	0347		X
ZZZZZZ	1.00	0349		X
ZZZZZZ	1.00	0351		X
ZZZZZZ	1.00	0353		X
ZZZZZZ	1.00	0355		X
CCV4	1.00	0357		X
CCB4	1.00	0359		X
ZZZZZZ	1.00	0401		X
ZZZZZZ	1.00	0403		X
ZZZZZZ	1.00	0405		X
ZZZZZZ	1.00	0407		X
ZZZZZZ	1.00	0409		X
ZZZZZZ	1.00	0411		X
ZZZZZZ	1.00	0413		X
ZZZZZZ	1.00	0415		X
ZZZZZZ	1.00	0417		X
ZZZZZZ	1.00	0420		X
ZZZZZZ	1.00	0422		X
ZZZZZZ	1.00	0440		X
CCV5	1.00	0442		X
CCB5	1.00	0444		X
PBS-14606	1.00	0446		X
PBSA	1.00	0449	91.1	X

1015

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
LCSS-14606	1.00	0451													X												
LCSSA	1.00	0453	109.0												X												
9751-1	1.00	0455																									
9751-1	5.00	0456																									
ZZZZZZ	1.00	0501																									
CCV6	1.00	0504													X												
CCB6	1.00	0506													X												
9751-1	1.00	0508																									
9751-1A	1.00	0510	59.5																								
9751-1D	1.00	0512																									
9751-1DA	1.00	0514	47.8																								
9751-1MS	1.00	0516																									
ZZZZZZ	1.00	0518																									
9751-1MSD	1.00	0520																									
ZZZZZZ	1.00	0522																									
ZZZZZZ	1.00	0524																									
ZZZZZZ	1.00	0526																									
ZZZZZZ	1.00	0528																									
ZZZZZZ	1.00	0531																									
ZZZZZZ	1.00	0532																									
ZZZZZZ	1.00	0535																									
ZZZZZZ	1.00	0537																									
ZZZZZZ	1.00	0539																									
WMUG-5	10.00	0541																									
WMUG-5	50.00	0542													X												
WMUG-5A	50.00	0544	93.7												X												
CCV7	1.00	0547													X												
CCB7	1.00	0549													X												
MUG105	10.00	0551													X												
MUG105	50.00	0552													X												
MUG105A	50.00	0554	100.2												X												
AOC2-5	1.00	0556																									
AOC2-5	5.00	0558																									
AOC2-5A	5.00	0600	129.2																								
ZZZZZZ	1.00	0702																									
CCV8	1.00	0704													X												
CCB8	1.00	0706													X												

1016

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																						
				ALSB	ASAS	BAAE	BECD	CDAA	CRIO	CUPE	FEBG	PBMN	MGHG	NIKS	EAAL	NTVN	ZNCN									
S0	1.00	1003										X														
S1	1.00	1005										X														
S2	1.00	1007										X														
S3	1.00	1009										X														
S4	1.00	1011										X														
ICV	1.00	1014										X														
ICB	1.00	1016										X														
ZZZZZZ	1.00	1018																								
ZZZZZZ	1.00	1020																								
CCV1	1.00	1022										X														
CCB1	1.00	1024										X														
ZZZZZZ	1.00	1026																								
ZZZZZZ	1.00	1028																								
ZZZZZZ	1.00	1030																								
ZZZZZZ	1.00	1032																								
ZZZZZZ	1.00	1034																								
ZZZZZZ	1.00	1036																								
ZZZZZZ	1.00	1038																								
ZZZZZZ	1.00	1041																								
ZZZZZZ	1.00	1043																								
ZZZZZZ	1.00	1044																								
ZZZZZZ	1.00	1046																								
ZZZZZZ	1.00	1048																								
ZZZZZZ	1.00	1050																								
ZZZZZZ	1.00	1052																								
ZZZZZZ	1.00	1054																								
ZZZZZZ	1.00	1056																								
ZZZZZZ	1.00	1058																								
ZZZZZZ	1.00	1100																								
ZZZZZZ	1.00	1101																								
ZZZZZZ	1.00	1103																								
CCV2	1.00	1105										X														
CCB2	1.00	1107										X														
ZZZZZZ	1.00	1109																								
ZZZZZZ	1.00	1111																								
ZZZZZZ	1.00	1113																								
ZZZZZZ	1.00	1115																								

1017

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0117																									
ZZZZZZ	1.00	1119																									
ZZZZZZ	1.00	1121																									
ZZZZZZ	1.00	1123																									
ZZZZZZ	1.00	1125																									
ZZZZZZ	1.00	1127																									
ZZZZZZ	1.00	1129																									
ZZZZZZ	1.00	1131																									
ZZZZZZ	1.00	1133																									
ZZZZZZ	1.00	1134																									
ZZZZZZ	1.00	1136																									
ZZZZZZ	1.00	1144																									
ZZZZZZ	1.00	1207																									
ZZZZZZ	1.00	1211																									
CCV3	1.00	1213													X												
CCB3	1.00	1215													X												
ZZZZZZ	1.00	1219																									
CCV4	1.00	1221													X												
CCB4	1.00	1223													X												
ZZZZZZ	1.00	1228																									
CCV5	1.00	1230													X												
CCB5	1.00	1232													X												
ZZZZZZ	1.00	1234																									
ZZZZZZ	1.00	1236																									
ZZZZZZ	1.00	1238																									
ZZZZZZ	1.00	1240																									
ZZZZZZ	1.00	1242																									
ZZZZZZ	1.00	1244																									
ZZZZZZ	1.00	1246																									
ZZZZZZ	1.00	1248																									
ZZZZZZ	1.00	1250																									
ZZZZZZ	1.00	1252																									
ZZZZZZ	1.00	1254																									
ZZZZZZ	1.00	1256																									
ZZZZZZ	1.00	1258																									
ZZZZZZ	1.00	1300																									
ZZZZZZ	1.00	1302																									

1018

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1304																									
ZZZZZZ	1.00	1306																									
ZZZZZZ	1.00	1308																									
ZZZZZZ	1.00	1310																									
CCV6	1.00	1312													X												
CCB6	1.00	1314													X												
ZZZZZZ	1.00	1316																									
ZZZZZZ	1.00	1318																									
ZZZZZZ	1.00	1326																									
CCV7	1.00	1328													X												
CCB7	1.00	1330													X												
ZZZZZZ	1.00	1332																									
ZZZZZZ	1.00	1334																									
ZZZZZZ	1.00	1336																									
ZZZZZZ	1.00	1338																									
ZZZZZZ	1.00	1340																									
ZZZZZZ	1.00	1342																									
ZZZZZZ	1.00	1344																									
ZZZZZZ	1.00	1346																									
ZZZZZZ	1.00	1348																									
ZZZZZZ	1.00	1350																									
ZZZZZZ	1.00	1352																									
ZZZZZZ	1.00	1354																									
ZZZZZZ	1.00	1356																									
ZZZZZZ	1.00	1357																									
ZZZZZZ	1.00	1359																									
ZZZZZZ	1.00	1401																									
ZZZZZZ	1.00	1404																									
ZZZZZZ	1.00	1406																									
ZZZZZZ	1.00	1407																									
ZZZZZZ	1.00	1409																									
CCV8	1.00	1412													X												
CCB8	1.00	1414													X												
ZZZZZZ	1.00	1417																									
CCV9	1.00	1419													X												
CCB9	1.00	1421													X												
ZZZZZZ	1.00	1423																									

1019

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1426																									
ZZZZZZ	1.00	1428																									
ZZZZZZ	1.00	1430																									
ZZZZZZ	1.00	1432																									
ZZZZZZ	1.00	1434																									
ZZZZZZ	1.00	1436																									
ZZZZZZ	1.00	1438																									
ZZZZZZ	1.00	1440																									
ZZZZZZ	1.00	1442																									
ZZZZZZ	1.00	1444																									
ZZZZZZ	1.00	1446																									
ZZZZZZ	1.00	1448																									
ZZZZZZ	1.00	1450																									
ZZZZZZ	1.00	1452																									
ZZZZZZ	1.00	1454																									
ZZZZZZ	1.00	1456																									
ZZZZZZ	1.00	1458																									
ZZZZZZ	1.00	1500																									
CCV10	1.00	1502													X												
CCB10	1.00	1504													X												
ZZZZZZ	1.00	1506																									
ZZZZZZ	1.00	1512																									
CCV11	1.00	1514													X												
CCB11	1.00	1516													X												
ZZZZZZ	1.00	1518																									
ZZZZZZ	1.00	1520																									
ZZZZZZ	1.00	1522																									
ZZZZZZ	1.00	1525																									
ZZZZZZ	1.00	1527																									
ZZZZZZ	1.00	1529																									
ZZZZZZ	1.00	1531																									
ZZZZZZ	1.00	1533																									
ZZZZZZ	1.00	1535																									
ZZZZZZ	1.00	1537																									
ZZZZZZ	1.00	1539																									
ZZZZZZ	1.00	1541																									
ZZZZZZ	1.00	1543																									

1020

U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1549																									
CCV12	1.00	1551													X												
CCB12	1.00	1553													X												
ZZZZZZ	1.00	1555																									
ZZZZZZ	1.00	1557																									
9751-1	50.00	1559													X												
9751-1A	50.00	1601	106.8												X												
9751-1D	50.00	1603													X												
9751-1DA	50.00	1605	105.1												X												
9751-1MS	50.00	1607													X												
ZZZZZZ	1.00	1609																									
9751-1MSD	50.00	1611													X												
ZZZZZZ	1.00	1613																									
ZZZZZZ	1.00	1615																									
ZZZZZZ	1.00	1618																									
ZZZZZZ	1.00	1620																									
ZZZZZZ	1.00	1622																									
ZZZZZZ	1.00	1624																									
ZZZZZZ	1.00	1626																									
ZZZZZZ	1.00	1628																									
ZZZZZZ	1.00	1630																									
ZZZZZZ	1.00	1632																									
ZZZZZZ	1.00	1634																									
CCV13	1.00	1636													X												
CCB13	1.00	1638													X												

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U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/13/96 End Date: 09/13/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALBSASBABECDCACRCOCUFEPBMGMNHGNIKSEAGNALTVZNC
S0	1.00	1117		X
S1	1.00	1120		X
S2	1.00	1122		X
S3	1.00	1124		X
S4	1.00	1126		X
ICV	1.00	1128		X
ICB	1.00	1130		X
ZZZZZZ	1.00	1132		
ZZZZZZ	1.00	1135		
CCV1	1.00	1137		X
CCB1	1.00	1139		X
AOC2-5	10.00	1141		
AOC2-5A	10.00	1143	62.2	
ZZZZZZ	1.00	1145		
ZZZZZZ	1.00	1147		
ZZZZZZ	1.00	1149		
ZZZZZZ	1.00	1151		
ZZZZZZ	1.00	1153		
ZZZZZZ	1.00	1156		
ZZZZZZ	1.00	1159		
CCV2	1.00	1201		X
CCB2	1.00	1203		X
ZZZZZZ	1.00	1205		
ZZZZZZ	1.00	1208		
ZZZZZZ	1.00	1210		
ZZZZZZ	1.00	1212		
ZZZZZZ	1.00	1214		
ZZZZZZ	1.00	1216		
ZZZZZZ	1.00	1218		
ZZZZZZ	1.00	1220		
ZZZZZZ	1.00	1222		
ZZZZZZ	1.00	1224		
ZZZZZZ	1.00	1226		
ZZZZZZ	1.00	1229		
ZZZZZZ	1.00	1248		
CCV3	1.00	1250		X
CCB3	1.00	1252		X

1022

U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/13/96 End Date: 09/13/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				ALB	SBS	ASA	BAE	BED	CDA	CAR	CRO	COU	FUE	PBG	MGN	HGI	NIK	SES	AGA	NAL	TLV	ZNC	CN					
AOC2-5+0	10.00	1254												X														
AOC2-5+3	10.00	1256												X														
AOC2-5+6	10.00	1258												X														
AOC2-5+9	10.00	1300												X														
ZZZZZZ	1.00	1303																										
CCV4	1.00	1305												X														
CCB4	1.00	1307												X														

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U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				ALB	SBS	ASA	BE	BD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0200												X												
S1	1.00	0202												X												
S2	1.00	0204												X												
S3	1.00	0206												X												
S4	1.00	0208												X												
ICV	1.00	0211												X												
ICB	1.00	0213												X												
ZZZZZZ	1.00	0215																								
ZZZZZZ	1.00	0217																								
CCV1	1.00	0219												X												
CCB1	1.00	0221												X												
ZZZZZZ	1.00	0223																								
ZZZZZZ	1.00	0225																								
ZZZZZZ	1.00	0227																								
ZZZZZZ	1.00	0230																								
ZZZZZZ	1.00	0232																								
ZZZZZZ	1.00	0234																								
ZZZZZZ	1.00	0236																								
ZZZZZZ	1.00	0238																								
ZZZZZZ	1.00	0240																								
ZZZZZZ	1.00	0242																								
ZZZZZZ	1.00	0244																								
ZZZZZZ	1.00	0246																								
ZZZZZZ	1.00	0248																								
ZZZZZZ	1.00	0250																								
ZZZZZZ	1.00	0252																								
ZZZZZZ	1.00	0254																								
ZZZZZZ	1.00	0256																								
ZZZZZZ	1.00	0258																								
ZZZZZZ	1.00	0300																								
CCV2	1.00	0302												X												
CCB2	1.00	0304												X												
ZZZZZZ	1.00	0306																								
ZZZZZZ	1.00	0308																								
ZZZZZZ	1.00	0301																								
CCV3	1.00	0313												X												
CCB3	1.00	0315												X												

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U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALSBASABEBECDCACRCOCUFEPBMGMNHGNIKSEAGANALTVZNCN
ZZZZZZ	1.00	0317		X
ZZZZZZ	1.00	0320		X
ZZZZZZ	1.00	0322		X
ZZZZZZ	1.00	0324		X
ZZZZZZ	1.00	0326		X
ZZZZZZ	1.00	0328		X
ZZZZZZ	1.00	0330		X
ZZZZZZ	1.00	0332		X
ZZZZZZ	1.00	0334		X
ZZZZZZ	1.00	0336		X
ZZZZZZ	1.00	0338		X
ZZZZZZ	1.00	0341		X
ZZZZZZ	1.00	0343		X
ZZZZZZ	1.00	0345		X
ZZZZZZ	1.00	0347		X
ZZZZZZ	1.00	0349		X
ZZZZZZ	1.00	0351		X
ZZZZZZ	1.00	0353		X
ZZZZZZ	1.00	0355		X
CCV4	1.00	0357		X
CCB4	1.00	0359		X
ZZZZZZ	1.00	0401		X
ZZZZZZ	1.00	0403		X
ZZZZZZ	1.00	0405		X
ZZZZZZ	1.00	0407		X
ZZZZZZ	1.00	0409		X
ZZZZZZ	1.00	0411		X
ZZZZZZ	1.00	0413		X
ZZZZZZ	1.00	0415		X
ZZZZZZ	1.00	0417		X
ZZZZZZ	1.00	0420		X
ZZZZZZ	1.00	0422		X
ZZZZZZ	1.00	0440		X
CCV5	1.00	0442		X
CCB5	1.00	0444		X
PBS-14606	1.00	0446		X
PBSA	1.00	0449	91.1	X

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U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-2 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
LCSS-14606	1.00	0451													X												
LCSSA	1.00	0453	109.0												X												
9751-1	1.00	0455																									
9751-1	5.00	0456																									
ZZZZZZ	1.00	0501																									
CCV6	1.00	0504													X												
CCB6	1.00	0506													X												
9751-1	1.00	0508																									
9751-1A	1.00	0510	59.5																								
9751-1D	1.00	0512																									
9751-1DA	1.00	0514	47.8																								
9751-1MS	1.00	0516																									
ZZZZZZ	1.00	0518																									
9751-1MSD	1.00	0520																									
ZZZZZZ	1.00	0522																									
ZZZZZZ	1.00	0524																									
ZZZZZZ	1.00	0526																									
ZZZZZZ	1.00	0528																									
ZZZZZZ	1.00	0531																									
ZZZZZZ	1.00	0532																									
ZZZZZZ	1.00	0535																									
ZZZZZZ	1.00	0537																									
ZZZZZZ	1.00	0539																									
WMUG-5	10.00	0541																									
WMUG-5	50.00	0542													X												
WMUG-5A	50.00	0544	93.7												X												
CCV7	1.00	0547													X												
CCB7	1.00	0549													X												
MUG105	10.00	0551													X												
MUG105	50.00	0552													X												
MUG105A	50.00	0554	100.2												X												
AOC2-5	1.00	0556																									
AOC2-5	5.00	0558																									
AOC2-5A	5.00	0600	129.2																								
ZZZZZZ	1.00	0702																									
CCV8	1.00	0704													X												
CCB8	1.00	0706													X												

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U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/10/96 End Date: 09/10/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	2101																		X						
S1	1.00	2103																		X						
S2	1.00	2105																		X						
S3	1.00	2108																		X						
ICV	1.00	2110																		X						
ICB	1.00	2113																		X						
ZZZZZZ	1.00	2115																								
ZZZZZZ	1.00	2118																								
CCV1	1.00	2120																		X						
CCB1	1.00	2123																		X						
ZZZZZZ	1.00	2125																								
ZZZZZZ	1.00	2127																								
CCV2	1.00	2130																		X						
CCB2	1.00	2132																		X						
PBS-14606	1.00	2134																		X						
PBSA	1.00	2137	106.2																	X						
LCSS-14606	2.00	2139																		X						
LCSSA	2.00	2141	77.7																	X						
9751-1	1.00	2144																		X						
9751-1A	1.00	2146	103.7																	X						
9751-1D	1.00	2148																		X						
9751-1DA	1.00	2151	104.2																	X						
9751-1MS	2.00	2153																		X						
ZZZZZZ	1.00	2156																								
9751-1MSD	2.00	2158																		X						
ZZZZZZ	1.00	2200																								
ZZZZZZ	1.00	2203																								
ZZZZZZ	1.00	2205																								
ZZZZZZ	1.00	2207																								
ZZZZZZ	1.00	2210																								
ZZZZZZ	1.00	2212																								
ZZZZZZ	1.00	2214																								
ZZZZZZ	1.00	2216																								
ZZZZZZ	1.00	2219																								
CCV3	1.00	2221																		X						
CCB3	1.00	2223																		X						

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U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/11/96 End Date: 09/11/96

EPA Sample No.	D/F	Time	% R	Analytes																						
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	AN	TL	V	ZN	CN
S0	1.00	0819																		X						
S1	1.00	0821																		X						
S2	1.00	0824																		X						
S3	1.00	0826																		X						
ICV	1.00	0828																		X						
ICB	1.00	0831																		X						
ZZZZZZ	1.00	0833																								
ZZZZZZ	1.00	0835																								
ZZZZZZ	1.00	0838																								
CCV1	1.00	0842																		X						
CCB1	1.00	0844																		X						
ZZZZZZ	1.00	0846																								
ZZZZZZ	1.00	0849																								
CCV2	1.00	0851																		X						
CCB2	1.00	0853																		X						
ZZZZZZ	1.00	0856																								
ZZZZZZ	1.00	0858																								
ZZZZZZ	1.00	0900																								
ZZZZZZ	1.00	0903																								
ZZZZZZ	1.00	0905																								
ZZZZZZ	1.00	0907																								
ZZZZZZ	1.00	0910																								
ZZZZZZ	1.00	0912																								
ZZZZZZ	1.00	0914																								
ZZZZZZ	1.00	0917																								
WMUG-5	1.00	0919																								
WMUG-5A	1.00	0922	28.9																							
MUG105	1.00	0924																		X						
MUG105A	1.00	0926	80.2																	X						
AOC2-5	1.00	0928																								
AOC2-5A	1.00	0931	0.0																							
ZZZZZZ	1.00	0935																								
CCV3	1.00	0937																		X						
CCB3	1.00	0939																		X						
ZZZZZZ	1.00	0942																								
CCV4	1.00	0945																		X						
CCB4	1.00	0947																		X						

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U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/11/96 End Date: 09/11/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALBSASBABEBCDCACRCOCUFEPBMGMNHGNIKSEASGANALTVZNCN
ZZZZZZ	1.00	0949		
ZZZZZZ	1.00	0952		
AOC2-5	1.00	0954		X
AOC2-5A	1.00	0956	68.3	X
ZZZZZZ	1.00	0959		
ZZZZZZ	1.00	1001		
ZZZZZZ	1.00	1003		
ZZZZZZ	1.00	1007		
CCV5	1.00	1009		X
CCB5	1.00	1011		X

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U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/11/96 End Date: 09/11/96

EPA Sample No.	D/F	Time	% R	Analytes																						
				ALB	SBS	ASA	BAE	BED	CDA	CAR	CRO	COU	CUE	FEB	PBG	MGN	HGI	NIK	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1437																	X						
S1	1.00	1440																	X						
S2	1.00	1442																	X						
S3	1.00	1444																	X						
ICV	1.00	1447																	X						
ICB	1.00	1449																	X						
ZZZZZZ	1.00	1452																							
ZZZZZZ	1.00	1454																							
CCV1	1.00	1456																	X						
CCB1	1.00	1459																	X						
ZZZZZZ	1.00	1501																							
ZZZZZZ	1.00	1503																							
ZZZZZZ	1.00	1506																							
ZZZZZZ	1.00	1508																							
ZZZZZZ	1.00	1510																							
ZZZZZZ	1.00	1513																							
ZZZZZZ	1.00	1515																							
ZZZZZZ	1.00	1518																							
ZZZZZZ	1.00	1520																							
ZZZZZZ	1.00	1522																							
ZZZZZZ	1.00	1524																							
ZZZZZZ	1.00	1527																							
ZZZZZZ	1.00	1529																							
ZZZZZZ	1.00	1532																							
ZZZZZZ	1.00	1534																							
ZZZZZZ	1.00	1536																							
ZZZZZZ	1.00	1538																							
ZZZZZZ	1.00	1541																							
ZZZZZZ	1.00	1543																							
ZZZZZZ	1.00	1546																							
CCV2	1.00	1548																	X						
CCB2	1.00	1550																	X						
ZZZZZZ	1.00	1552																							
ZZZZZZ	1.00	1554																							
ZZZZZZ	1.00	1601																							
CCV3	1.00	1603																	X						
CCB3	1.00	1606																	X						

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U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-4 Method: F

Start Date 09/11/96 End Date: 09/11/96

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	GI	KE	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	1608																										
ZZZZZZ	1.00	1610																										
ZZZZZZ	1.00	1613																										
ZZZZZZ	1.00	1615																										
WMUG-5	2.00	1617																	X									
WMUG-5A	2.00	1620	89.4																X									
ZZZZZZ	1.00	1622																										
ZZZZZZ	1.00	1624																										
ZZZZZZ	1.00	1628																										
ZZZZZZ	1.00	1631																										
CCV4	1.00	1633																		X								
CCB4	1.00	1635																		X								

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U.S. EPA
14
ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-3 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes																										
				ALB	SBS	AAS	BAE	BED	CDA	CAR	CRO	COU	CUE	FEB	PBG	MGN	HGI	NIK	SEG	AGA	NAL	TLV	VZN	ZNC	CNN
S0	1.00	1333																			X			
S1	1.00	1336																			X			
S2	1.00	1338																			X			
S3	1.00	1340																			X			
ICV	1.00	1342																			X			
ICB	1.00	1344																			X			
ZZZZZZ	1.00	1346																						
ZZZZZZ	1.00	1348																						
CCV1	1.00	1350																			X			
CCB1	1.00	1352																			X			
ZZZZZZ	1.00	1354																						
ZZZZZZ	1.00	1356																						
ZZZZZZ	1.00	1358																						
ZZZZZZ	1.00	1400																						
ZZZZZZ	1.00	1402																						
ZZZZZZ	1.00	1404																						
ZZZZZZ	1.00	1406																						
ZZZZZZ	1.00	1408																						
ZZZZZZ	1.00	1410																						
ZZZZZZ	1.00	1412																						
ZZZZZZ	1.00	1413																						
ZZZZZZ	1.00	1416																						
ZZZZZZ	1.00	1417																						
ZZZZZZ	1.00	1419																						
ZZZZZZ	1.00	1421																						
ZZZZZZ	1.00	1423																						
ZZZZZZ	1.00	1425																						
ZZZZZZ	1.00	1427																						
ZZZZZZ	1.00	1429																						
ZZZZZZ	1.00	1431																						
CCV2	1.00	1433																			X			
CCB2	1.00	1435																			X			
ZZZZZZ	1.00	1736																						
CCV3	1.00	1738																			X			
CCB3	1.00	1740																			X			
ZZZZZZ	1.00	1742																						
ZZZZZZ	1.00	1744																						

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U.S. EPA
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ANALYSIS RUN LOG

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

Instrument ID Number GFAA-3 Method: F

Start Date 09/12/96 End Date: 09/12/96

EPA Sample No.	D/F	Time	% R	Analytes
				ALBSASBABEBCDCACRCOCUFEPBMGMNHGNIKSESAGANALTVZNCC
ZZZZZZ	1.00	1748		
CCV4	1.00	1750		X
CCB4	1.00	1752		X
PBS-14606	1.00	1754		
PBSA	1.00	1756	119.2	
LCSS-14606	2.00	1758		X
LCCSA	2.00	1800	108.4	X
9751-1	1.00	1802		X
9751-1A	1.00	1804	97.1	X
9751-1D	1.00	1806		X
9751-1DA	1.00	1808	92.3	X
9751-1MS	2.00	1810		X
ZZZZZZ	1.00	1812		
9751-1MSD	2.00	1814		X
ZZZZZZ	1.00	1816		
WMUG-5	1.00	1818		X
WMUG-5A	1.00	1820	97.6	X
MUG105	1.00	1822		X
MUG105A	1.00	1824	77.9	X
AOC2-5	1.00	1825		X
AOC2-5A	1.00	1827	93.8	X
PBS-14606	1.00	1829		X
PBSA	1.00	1831	111.2	X
CCV5	1.00	1833		X
CCB5	1.00	1835		X

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Inchcape Testing Services
Environmental Laboratories

VERIFICATION OF INSTRUMENT PARAMETERS

U.S. EPA
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METHOD DETECTION LIMITS (ANNUAL)

Lab Name: Inchcape Testing Services Contract: _____

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

ICP ID Number: ICP_2 Date: 02/24/96

Flame AA ID Number: _____

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	PQL (mg/kg)	MDL (mg/kg)	M
Aluminum	396.15		20.0	2.90	P
Antimony	206.83		10.0	0.47	P
Arsenic	193.70		20.0	0.82	P
Barium	233.53		1.0	0.12	P
Beryllium	313.04		0.5	0.02	P
Cadmium	214.44		2.0	0.03	P
Calcium	315.89		50.0	25.70	P
Chromium	267.72		2.0	0.04	P
Cobalt	238.89		2.0	0.03	P
Copper	324.75		1.0	0.11	P
Iron	234.35		10.0	0.90	P
Lead	220.35		10.0	0.50	P
Magnesium	279.08		50.0	7.64	P
Manganese	257.61		1.0	0.19	P
Mercury					
Nickel	231.60		2.0	0.08	P
Potassium	766.49		100.0	2.72	P
Selenium	196.03		40.0	0.81	P
Silver	328.07		1.0	0.36	P
Sodium	330.24		100.0	38.50	P
Thallium	190.80		15.0	1.29	P
Vanadium	292.40		2.0	0.14	P
Zinc	213.86		3.0	0.71	P
Tin	189.93		10.0	0.11	P

Comments:

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U.S. EPA
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METHOD DETECTION LIMITS (ANNUAL)

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

ICP ID Number: _____ Date: 03/11/96

Flame AA ID Number: _____

Furnace AA ID Number: GFAA-1

Analyte	Wave-length (nm)	Back-ground	PQL (mg/kg)	MDL (mg/kg)	M
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Cadmium					
Calcium					
Chromium	357.90		3.00	0.034	F
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Mercury					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Thallium					
Vanadium					
Zinc					

Comments:

U.S. EPA

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METHOD DETECTION LIMITS (ANNUAL)

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

ICP ID Number: _____ Date: 02/27/96

Flame AA ID Number: _____

Furnace AA ID Number: GFAA-2

Analyte	Wave-length (nm)	Back-ground	PQL (mg/kg)	MDL (mg/kg)	M
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Cadmium	228.80		0.10	0.008	F
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead	283.30		0.12	0.06	F
Magnesium					
Manganese					
Mercury					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Thallium					
Vanadium					
Zinc					

Comments:

U.S. EPA
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METHOD DETECTION LIMITS (ANNUAL)

Lab Name Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

ICP ID Number: _____ Date: 02/27/96

Flame AA ID Number: _____

Furnace AA ID Number GFAA-3

Analyte	Wave-length (nm)	Back-ground	PQL (mg/kg)	MDL (mg/kg)	M
Aluminum					
Antimony					
Arsenic	193.70		0.4	0.17	F
Barium					
Beryllium					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Mercury					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Thallium					
Vanadium					
Zinc					

Comments:

U.S. EPA

10

METHOD DETECTION LIMITS (ANNUAL)

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

ICP ID Number: _____ Date: 03/13/96

Flame AA ID Number: _____

Furnace AA ID Number: GFAA-3

Analyte	Wave-length (nm)	Back-ground	PQL (mg/kg)	MDL (mg/kg)	M
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Mercury					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Thallium	276.80		0.12	0.06	F
Vanadium					
Zinc					

Comments:

U.S. EPA

10

METHOD DETECTION LIMITS (ANNUAL)

Lab Name Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

ICP ID Number: _____ Date: 02/27/96

Flame AA ID Number: _____

Furnace AA ID Number GFAA-4

Analyte	Wave-length (nm)	Back-ground	PQL (mg/kg)	MDL (mg/kg)	M
Aluminum					
Antimony	217.60		1.0	0.64	F
Arsenic					
Barium					
Beryllium					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Mercury					
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Thallium					
Vanadium					
Zinc					

Comments:

U.S. EPA

10

METHOD DETECTION LIMITS (ANNUAL)

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

ICP ID Number: _____ Date: 08/08/96

Flame AA ID Number: _____

Furnace AA ID Number: GFAA-4

Analyte	Wave-length (nm)	Back-ground	PQL (mg/kg)	MDL (mg/kg)	M
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Mercury					
Nickel					
Potassium					
Selenium	196.00		0.6	0.25	F
Silver					
Sodium					
Thallium					
Vanadium					
Zinc					

Comments:

_____

_____

_____

_____

U.S. EPA

10

METHOD DETECTION LIMITS (ANNUAL)

Lab Name: Inchcape Testing Services Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 9653

ICP ID Number: _____ Date: _____

Flame AA ID Number: PS-200

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	PQL (mg/kg)	MDL (mg/kg)	M
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Magnesium					
Manganese					
Mercury	253.70		0.12	0.02	AV
Nickel					
Potassium					
Selenium					
Silver					
Sodium					
Thallium					
Vanadium					
Zinc					

Comments:

U.S. EPA

11A

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Inchcape Testing Services Contract: _____

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

ICP ID Number: ICP_2 Date: 04/09/96

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	
Aluminum	396.15	0.0000000	0.0000000	0.0000000	0.0000000	
Antimony	206.83	0.0000010	-0.0000010	0.0000000	-0.0000050	
Arsenic	193.70	0.0000430	0.0000000	0.0000000	-0.0000290	
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	
Beryllium	313.04	-0.0000500	0.0000280	0.0000990	0.0004470	
Cadmium	214.44	0.0000000	0.0000000	0.0000000	0.0000000	
Calcium	315.89	0.0000000	0.0000000	0.0000000	0.0000000	
Chromium	267.72	0.0000000	0.0000030	0.0000000	0.0000000	
Cobalt	238.89	0.0000000	0.0000000	0.0007660	0.0001320	
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	
Iron	234.35	0.0000000	0.0000000	0.0000000	0.0000000	
Lead	220.35	0.0000060	0.0000000	0.0000110	0.0000000	
Magnesium	279.08	0.0000000	0.0000000	-0.0000640	0.0000000	
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	
Mercury						
Nickel	231.60	0.0000000	0.0000000	0.0000100	0.0000090	
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	
Selenium	196.03	0.0000000	0.0000000	-0.0000080	0.0000000	
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	
Sodium	330.24	-0.0000030	-0.0000100	-0.0000110	-0.0000540	
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	
Vanadium	292.40	0.0000250	0.0000000	0.0010240	0.0000000	
Zinc	213.86	0.0000000	0.0000000	0.0005840	0.0000000	

Comments:

U.S. EPA

11B

ICP INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Inchcape Testing Services Contract: _____

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

ICP ID Number: ICP_2 Date: 04/09/96

Analyte	Wave-length (nm)	Interelement Correction Factors for: CO	PB			
Aluminum	396.15	0.0000000	0.0000000			
Antimony	206.83	0.0000020	-0.0000090			
Arsenic	193.70	0.0000000	-0.0000010			
Barium	233.53	0.0000000	-0.0000010			
Beryllium	313.04	-0.0000830	0.0124700			
Cadmium	214.44	0.0000000	-0.0000010			
Calcium	315.89	0.0024700	0.0000000			
Chromium	267.72	0.0000000	0.0000180			
Cobalt	238.89	0.0000000	0.0003650			
Copper	324.75	0.0000000	-0.0000010			
Iron	234.35	0.0000000	-0.0000230			
Lead	220.35	0.0003650	0.0000000			
Magnesium	279.08	-0.0000930	0.0000110			
Manganese	257.61	0.0000000	0.0000000			
Mercury						
Nickel	231.60	0.0000000	-0.0000120			
Potassium	766.49	0.0000000	0.0000010			
Selenium	196.03	0.0000000	0.0000000			
Silver	328.07	0.0000000	0.0000010			
Sodium	330.24	0.0000390	-0.0000054			
Thallium	190.80	0.0000000	-0.0000030			
Vanadium	292.40	-0.0000010	0.0000000			
Zinc	213.86	0.0000000	-0.0000019			

Comments:

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U.S. EPA
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ICP LINEAR RANGES (QUARTERLY)

Lab Name: Inchcape Testing Services Contract: _____

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

ICP ID Number: ICP_2 Date: 05/31/96

Analyte	Integ. Time (Sec.)	Concentration (ug/L)	P
Aluminum	5.00	500000.0	P
Antimony	5.00	50000.0	P
Arsenic	5.00	50000.0	P
Barium	5.00	20000.0	P
Beryllium	5.00	20000.0	P
Cadmium	5.00	20000.0	P
Calcium	5.00	500000.0	P
Chromium	5.00	50000.0	P
Cobalt	5.00	50000.0	P
Copper	5.00	50000.0	P
Iron	5.00	300000.0	P
Lead	5.00	50000.0	P
Magnesium	5.00	500000.0	P
Manganese	5.00	20000.0	P
Mercury			
Nickel	5.00	50000.0	P
Potassium	5.00	50000.0	P
Selenium	5.00	50000.0	PP
Silver	5.00	10000.0	P
Sodium	5.00	50000.0	P
Thallium	5.00	50000.0	P
Vanadium	5.00	50000.0	P
Zinc	5.00	50000.0	P
Tin	5.00	1000.0	P

Comments:

RAW DATA

ICP

Sample Information Detail Report
Document Name: EPA_6010

File Description
Default Sample Informatio

ANALYST 9-5-96 Date

REVIEW 9-5-96 Date

DATA ENTRY 9-5-96 Date

Std. Lot #: AE630-64 I ICS Lot #: AB315-45 47

ICV Lot #: AE630-65 A CCV Lot #: AE630-69 I

LCS & MS/MSD Lot #: 680019

Parameters Common To All Samples

Batch ID	P1694
Analyst Name	LSS
Volume Units	mL
Weight Units	g

Parameters That Vary With All Samples

	A/S Location	Sample ID	Initial Sample Wt.	Initial Sample Vol.
001	2	LRV1		1
002	3	LRV2		1
003	4	LRV3		1
004	5	LRV4		1
005	9	ICVA		1
006	10	ICB		1
007	11	CRII		1
008	12	ICSAI		1
009	13	ICSABI		1
010	14	CCVA1		1
011	15	CCB1		1
012	16	PBS:14596	2	
013	17	LCSS:14596	2	
014	18	9532-11	2.07	
015	19	9532-11D	2.06	
016	20	9532-11MS	2	
017	21	9532-11MD	2	
018	22	9532-11L	2.07	
019	23	9653-1	2	
020	24	9653-2	2.08	
021	25	9653-3	2	
022	26	CCV2		1
023	27	CCB2		1
024	28	9693-1	2.01	
025	29	9693-2	2	
026	30	9693-3	2.06	
027	31	9693-4	2.06	
028	32	9693-5	2.03	
029	33	9693-6	2.1	
030	34	9693-7	2.01	
031	35	9693-8	2.01	
032	36	9693-10	2.05	
033	37	9693-11	2.01	
034	38	CCV3		1
035	39	CCB3		1
036	40	9693-12	2.03	
037	41	CRIF1		1
038	42	ICSAF1		1
039	43	ICSABF1		1
040	44	CCV4		1
041	45	CCB4		1
042	46	PBS:14593	0.5	
043	47	LCSS:14593	0.5	
044	48	9572-1	0.501	
045	49	9572-1D	0.504	
046	50	9572-1MS	0.501	
047	51	9572-1MD	0.504	
048	52	9572-2	0.511	

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049	53	9572-3	0.5	
050	54	9572-4	0.51	
051	55	9572-5	0.508	
052	56	CCV5		1
053	57	CCB5		1
054	58	9572-6	0.507	
055	59	9572-7	0.513	
056	60	9572-8	0.499	
057	61	9572-9	0.503	
058	62	9572-10	0.512	
059	63	9572-11	0.5	
060	64	9572-12	0.509	
061	65	9572-13	0.516	
062	66	9572-14	0.51	
063	67	9572-15	0.5	
064	68	CCV6		1
065	69	CCB6		1
066	70	9572-16	0.5	
067	71	9572-17	0.504	
068	72	9572-18	0.503	
069	73	9572-19	0.514	
070	74	9572-20	0.504	
071	75	PBS:14595	2	
072	76	LCSS:14595	2	
073	77	9654-4	2.06	
074	78	9654-4D	2.11	
075	79	9654-5MS	2	
076	80	CCV7		1
077	81	CCB7		1
078	82	9654-6MD	2	
079	83	9654-1	2	
080	84	9654-2	2.01	
081	85	9654-3	2.01	
082	86	9654-7	2.02	
083	87	9654-10	2.06	
084	88	9654-13	2.01	
085	89	9659-5	2.05	
086	90	9659-6	2.03	
087	91	9659-7	2.03	
088	92	CCV8		1
089	93	CCB8		1
090	94	9659-8	2.05	
091	95	9659-9	2.03	
092	96	9659-10	2.04	
093	97	9650-1	2.01	
094	98	9650-2	2.03	
095	99	9650-3	2.01	
096	100	9650-4	2	
097	101	9682-1	2.04	
098	102	ICSAF2		1
099	103	ICSAB2		1
100	104	CCV9		1
101	105	CCB9		1

	Sample Prep. Vol.	Aliquot Volume	Diluted To Vol.	* Sample Units
001	1			mg/L
002	1			mg/L
003	1			mg/L
004	1			mg/L
005	1			mg/L
006	1			mg/L

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007	1			mg/L
008	1			mg/L
009	1			mg/L
010	1			mg/L
011	1			mg/L
012	100			mg/kg
013	100			mg/kg
014	100			mg/kg
015	100			mg/kg
016	100			mg/kg
017	100			mg/kg
018	100	1	5	mg/kg
019	100			mg/kg
020	100			mg/kg
021	100			mg/kg
022	1			mg/L
023	1			mg/L
024	100			mg/kg
025	100			mg/kg
026	100			mg/kg
027	100			mg/kg
028	100			mg/kg
029	100			mg/kg
030	100			mg/kg
031	100			mg/kg
032	100			mg/kg
033	100			mg/kg
034	1			mg/L
035	1			mg/L
036	100			mg/kg
037	1			mg/L
038	1			mg/L
039	1			mg/L
040	1			mg/L
041	1			mg/L
042	50			mg/kg
043	50			mg/kg
044	50			mg/kg
045	50			mg/kg
046	50			mg/kg
047	50			mg/kg
048	50			mg/kg
049	50			mg/kg
050	50			mg/kg
051	50			mg/kg
052	1			mg/L
053	1			mg/L
054	50			mg/kg
055	50			mg/kg
056	50			mg/kg
057	50			mg/kg
058	50			mg/kg
059	50			mg/kg
060	50			mg/kg
061	50			mg/kg
062	50			mg/kg
063	50			mg/kg
064	1			mg/L
065	1			mg/L
066	50			mg/kg
067	50			mg/kg
068	50			mg/kg
069	50			mg/kg

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070	50	mg/kg
071	100	mg/kg
072	100	mg/kg
073	100	mg/kg
074	100	mg/kg
075	100	mg/kg
076	1	mg/L
077	1	mg/L
078	100	mg/kg
079	100	mg/kg
080	100	mg/kg
081	100	mg/kg
082	100	mg/kg
083	100	mg/kg
084	100	mg/kg
085	100	mg/kg
086	100	mg/kg
087	100	mg/kg
088	1	mg/L
089	1	mg/L
090	100	mg/kg
091	100	mg/kg
092	100	mg/kg
093	100	mg/kg
094	100	mg/kg
095	100	mg/kg
096	100	mg/kg
097	100	mg/kg
098	1	mg/L
099	1	mg/L
100	1	mg/L
101	1	mg/L

	User Defined 1...
001	
002	
003	
004	
005	
006	
007	
008	
009	
010	
011	
012	14596
013	14596
014	14596
015	14596
016	14596
017	14596
018	14596
019	14596
020	14596
021	
022	
023	
024	14596
025	14596
026	14596
027	14596

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028	14596
029	14596
030	14596
031	14596
032	14596
033	14596
034	
035	
036	14596
037	
038	
039	
040	
041	
042	14593
043	14593
044	14593
045	14593
046	14593
047	14593
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052	
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066	14593
067	14593
068	14593
069	14593
070	14593
071	14595
072	14595
073	14595
074	14595
075	14595
076	
077	
078	14595
079	14595
080	14595
081	14595
082	14595
083	14595
084	14595
085	14595
086	14595
087	14595
088	
089	
090	14595

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Method: EPA_6010 IEC: 040996.iec MSF:
Results: P1694 Spectra Stored: Yes Method Stored: Yes
Sample Info: epa_6010 User: User1 Date: 9/5/96 4:32:40 AM
Method Description: EPA_6010

Replicate Data
ID: IS Init Date: 9/5/96 4:35:33 AM

Repl#	Element	Net Intensity	Corrected Intensity
1	Y 360.073	330785.1	330785.1
2	Y 360.073	334881.0	334881.0

Mean Data
ID: IS Init Seq. No.: 1 A/S Pos: 1
Data: Original Date: 9/5/96 4:35:33 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD
Y 360.073	332833.1	2896.26	0.87%

Replicate Data
ID: Calib Blank 1 Date: 9/5/96 4:36:07 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	341119.6	341119.6	1.025	mg/L
1	Ag 328.068	72.7	71.0	0	mg/L
1	Al 396.152	169.8	165.7	0	mg/L
1	As 193.696	1.0	0.9	0	mg/L
1	B 249.773	53.1	51.8	0	mg/L
1	Ba 233.527	-0.2	-0.2	0	mg/L
1	Be 313.042	9464.9	9235.0	0	mg/L
1	Bi 223.061	-141.2	-137.8	0	mg/L
1	Ca 315.887	-375.0	-365.9	0	mg/L
1	Cd 214.438	57.6	56.2	0	mg/L
1	Co 238.892	-16.0	-15.6	0	mg/L
1	Cr 267.716	962.9	939.6	0	mg/L
1	Cu 324.754	936.8	914.0	0	mg/L
1	Fe 234.349	620.8	605.7	0	mg/L
1	K 766.491	710.5	693.2	0	mg/L
1	Mo 202.030	-23.0	-22.5	0	mg/L
1	Mn 257.610	89.5	87.3	0	mg/L
1	Mg 279.079	13.5	13.1	0	mg/L
1	Ni 231.604	34.3	33.4	0	mg/L
1	Pb 220.353	67.2	65.5	0	mg/L
1	Sn 189.933	21.3	20.8	0	mg/L
1	Se 196.026	-57.3	-55.9	0	mg/L
1	Sb 206.833	36.9	36.0	0	mg/L
1	V 292.402	-234.8	-229.1	0	mg/L
1	Tl 190.800	-34.9	-34.0	0	mg/L
1	Zn 213.856	540.2	527.1	0	mg/L
1	Na 330.237	545.6	532.4	0	mg/L
1	Sr 407.771	57875.5	56469.6	0	mg/L
1	U 385.958	28388.5	27698.9	0	mg/L
1	U 367.007	12584.8	12279.1	0	mg/L
1	Zr 343.823	13761.3	13427.0	0	mg/L
1	Zr 339.198	15969.9	15582.0	0	mg/L
1	Zr 357.247	27706.3	27033.3	0	mg/L
2	Y 360.073	341904.3	341904.3	1.027	mg/L
2	Ag 328.068	50.8	49.5	0	mg/L
2	Al 396.152	223.3	217.3	0	mg/L
2	As 193.696	-0.1	-0.1	0	mg/L
2	B 249.773	49.9	48.6	0	mg/L
2	Ba 233.527	-1.9	-1.9	0	mg/L
2	Be 313.042	9458.8	9207.9	0	mg/L
2	Bi 223.061	-139.7	-136.0	0	mg/L
2	Ca 315.887	-358.3	-348.8	0	mg/L
2	Cd 214.438	58.2	56.7	0	mg/L
2	Co 238.892	-23.1	-22.5	0	mg/L

2	Cr 267.716	959.3	933.8	0 mg/L
2	Cu 324.754	946.3	921.2	0 mg/L
2	Fe 234.349	638.4	621.4	0 mg/L
2	K 766.491	765.6	745.3	0 mg/L
2	Mo 202.030	-28.4	-27.7	0 mg/L
2	Mn 257.610	96.6	94.0	0 mg/L
2	Mg 279.079	16.2	15.7	0 mg/L
2	Ni 231.604	32.0	31.1	0 mg/L
2	Pb 220.353	67.4	65.6	0 mg/L
2	Sn 189.933	17.8	17.3	0 mg/L
2	Se 196.026	-52.2	-50.9	0 mg/L
2	Sb 206.833	36.3	35.3	0 mg/L
2	V 292.402	-259.5	-252.6	0 mg/L
2	Tl 190.800	-33.2	-32.3	0 mg/L
2	Zn 213.856	549.3	534.7	0 mg/L
2	Na 330.237	543.3	528.9	0 mg/L
2	Sr 407.771	57880.5	56344.9	0 mg/L
2	U 385.958	28463.9	27708.7	0 mg/L
2	U 367.007	12634.9	12299.6	0 mg/L
2	Zr 343.823	13807.1	13440.8	0 mg/L
2	Zr 339.198	15924.8	15502.3	0 mg/L
2	Zr 357.247	27711.3	26976.1	0 mg/L

Mean Data

ID: Calib Blank 1 Seq. No.: 2 A/S Pos: 1
Data: Original Date: 9/5/96 4:36:07 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	341512.0	554.85	0.16%	1.026	mg/L
Ag 328.068	60.2	15.21	25.26%	0	mg/L
Al 396.152	191.5	36.52	19.07%	0	mg/L
As 193.696	0.4	0.74	180.18%	0	mg/L
B 249.773	50.2	2.29	4.56%	0	mg/L
Ba 233.527	-1.0	1.16	111.86%	0	mg/L
Be 313.042	9221.4	19.17	0.21%	0	mg/L
Bi 223.061	-136.9	1.29	0.94%	0	mg/L
Ca 315.887	-357.3	12.09	3.38%	0	mg/L
Cd 214.438	56.5	0.32	0.56%	0	mg/L
Co 238.892	-19.0	4.89	25.67%	0	mg/L
Cr 267.716	936.7	4.05	0.43%	0	mg/L
Cu 324.754	917.6	5.06	0.55%	0	mg/L
Fe 234.349	613.6	11.12	1.81%	0	mg/L
K 766.491	719.3	36.84	5.12%	0	mg/L
Mo 202.030	-25.1	3.71	14.79%	0	mg/L
Mn 257.610	90.7	4.76	5.25%	0	mg/L
Mg 279.079	14.4	1.84	12.77%	0	mg/L
Ni 231.604	32.3	1.64	5.09%	0	mg/L
Pb 220.353	65.6	0.06	0.09%	0	mg/L
Sn 189.933	19.0	2.44	12.80%	0	mg/L
Se 196.026	-53.4	3.54	6.63%	0	mg/L
Sb 206.833	35.7	0.49	1.39%	0	mg/L
V 292.402	-240.8	16.63	6.90%	0	mg/L
Tl 190.800	-33.2	1.23	3.70%	0	mg/L
Zn 213.856	530.9	5.39	1.01%	0	mg/L
Na 330.237	530.6	2.46	0.46%	0	mg/L
Sr 407.771	56407.2	88.17	0.16%	0	mg/L
U 385.958	27703.8	6.93	0.03%	0	mg/L
U 367.007	12289.3	14.55	0.12%	0	mg/L
Zr 343.823	13433.9	9.74	0.07%	0	mg/L
Zr 339.198	15542.1	56.33	0.36%	0	mg/L
Zr 357.247	27004.7	40.42	0.15%	0	mg/L

Replicate Data

ID: Calib Std 1 Date: 9/5/96 4:40:31 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	346537.1	346537.1	1.041	mg/L
1	Ag 328.068	23595.7	22662.6	0.50000	mg/L
1	As 193.696	285.9	274.6	0.50000	mg/L
1	B 249.773	29317.5	28158.1	1.00000	mg/L
1	Ba 233.527	39646.3	38078.5	1.00000	mg/L
1	Bi 223.061	3196.4	3070.0	1.00000	mg/L
1	Cd 214.438	25066.8	24075.5	0.50000	mg/L

1	Co 238.892	30609.6	29399.2	1.00000 mg/L
1	Cr 267.716	72452.6	69587.4	1.00000 mg/L
1	Mo 202.030	2563.2	2461.8	1.00000 mg/L
1	Mn 257.610	129980.0	124839.9	1.00000 mg/L
1	Ni 231.604	10380.3	9969.8	1.00000 mg/L
1	Pb 220.353	1449.6	1392.3	1.00000 mg/L
1	Sn 189.933	1831.8	1759.4	1.00000 mg/L
1	Sb 206.833	1001.2	961.6	1.00000 mg/L
1	Tl 190.800	533.4	512.3	0.50000 mg/L
2	Y 360.073	350848.3	350848.3	1.054 mg/L
2	Ag 328.068	23655.8	22441.1	0.50000 mg/L
2	As 193.696	293.6	278.5	0.50000 mg/L
2	B 249.773	29373.2	27864.9	1.00000 mg/L
2	Ba 233.527	39849.7	37803.5	1.00000 mg/L
2	Bi 223.061	3209.8	3045.0	1.00000 mg/L
2	Cd 214.438	25165.9	23873.7	0.50000 mg/L
2	Co 238.892	30643.7	29070.2	1.00000 mg/L
2	Cr 267.716	72841.3	69101.1	1.00000 mg/L
2	Mo 202.030	2575.9	2443.6	1.00000 mg/L
2	Mn 257.610	129868.7	123200.3	1.00000 mg/L
2	Ni 231.604	10390.3	9856.8	1.00000 mg/L
2	Pb 220.353	1462.1	1387.0	1.00000 mg/L
2	Sn 189.933	1830.6	1736.6	1.00000 mg/L
2	Sb 206.833	1041.9	988.4	1.00000 mg/L
2	Tl 190.800	541.5	513.7	0.50000 mg/L

Mean Data

ID: Calib Std 1 Seq. No.: 3 A/S Pos: 2
Data: Original Date: 9/5/96 4:40:31 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	348692.7	3048.49	0.87%	1.048	mg/L
Ag 328.068	22551.8	156.59	0.69%	0.50000	mg/L
As 193.696	276.6	2.79	1.01%	0.50000	mg/L
B 249.773	28011.5	207.29	0.74%	1.00000	mg/L
Ba 233.527	37941.0	194.43	0.51%	1.00000	mg/L
Bi 223.061	3057.5	17.65	0.58%	1.00000	mg/L
Cd 214.438	23974.6	142.71	0.60%	0.50000	mg/L
Co 238.892	29234.7	232.60	0.80%	1.00000	mg/L
Cr 267.716	69344.2	343.87	0.50%	1.00000	mg/L
Mo 202.030	2452.7	12.86	0.52%	1.00000	mg/L
Mn 257.610	124020.1	1159.39	0.93%	1.00000	mg/L
Ni 231.604	9913.3	79.87	0.81%	1.00000	mg/L
Pb 220.353	1389.6	3.76	0.27%	1.00000	mg/L
Sn 189.933	1748.0	16.09	0.92%	1.00000	mg/L
Sb 206.833	975.0	18.91	1.94%	1.00000	mg/L
Tl 190.800	513.0	0.95	0.19%	0.50000	mg/L

Replicate Data

ID: Calib Std 2 Date: 9/5/96 4:44:39 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	334167.7	334167.7	1.004	mg/L
1	K 766.491	Saturated			
1	Na 330.237	15911.4	15847.8	50.00000	mg/L
2	Y 360.073	336128.3	336128.3	1.010	mg/L
2	K 766.491	Saturated			
2	Na 330.237	15893.3	15737.5	50.00000	mg/L

Mean Data

ID: Calib Std 2 Seq. No.: 4 A/S Pos: 3
Data: Original Date: 9/5/96 4:44:39 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	335148.0	1386.39	0.41%	1.007	mg/L
K 766.491	Saturated				
Na 330.237	15792.6	78.03	0.49%	50.00000	mg/L

Replicate Data

ID: Calib Std 3 Date: 9/5/96 4:48:04 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	314501.4	314501.4	0.945	mg/L
1	Al 396.152	1208286.3	1278715.2	50.00000	mg/L
1	Ca 315.887	2135956.3	2260457.4	250.00000	mg/L
1	Fe 234.349	839812.0	888763.1	50.00000	mg/L
1	Mg 279.079	152708.6	161609.8	50.00000	mg/L
2	Y 360.073	314804.4	314804.4	0.946	mg/L
2	Al 396.152	1208636.4	1277854.5	50.00000	mg/L
2	Ca 315.887	2134120.5	2256340.7	250.00000	mg/L
2	Fe 234.349	841248.6	889426.5	50.00000	mg/L
2	Mg 279.079	153032.6	161796.8	50.00000	mg/L

Mean Data

ID: Calib Std 3 Seq. No.: 5 A/S Pos: 4
Data: Original Date: 9/5/96 4:48:04 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	314652.9	214.25	0.07%	0.945	mg/L
Al 396.152	1278284.9	608.57	0.05%	50.00000	mg/L
Ca 315.887	2258399.1	2910.93	0.13%	250.00000	mg/L
Fe 234.349	889094.8	469.11	0.05%	50.00000	mg/L
Mg 279.079	161703.3	132.23	0.08%	50.00000	mg/L

Replicate Data

ID: Calib Std 4 Date: 9/5/96 4:51:31 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units
1	Y 360.073	345129.7	345129.7	1.037	mg/L
1	Be 313.042	433514.2	418068.6	0.50000	mg/L
1	Cu 324.754	91654.5	88388.9	1.0000	mg/L
1	Se 196.026	577.8	557.2	1.0000	mg/L
1	V 292.402	97270.5	93804.9	1.0000	mg/L
1	Zn 213.856	25720.8	24804.4	1.0000	mg/L
2	Y 360.073	346743.4	346743.4	1.042	mg/L
2	Be 313.042	433076.9	415703.0	0.50000	mg/L
2	Cu 324.754	91721.2	88041.6	1.0000	mg/L
2	Se 196.026	579.9	556.6	1.0000	mg/L
2	V 292.402	97538.4	93625.4	1.0000	mg/L
2	Zn 213.856	25666.9	24637.2	1.0000	mg/L

Mean Data

ID: Calib Std 4 Seq. No.: 6 A/S Pos: 5
Data: Original Date: 9/5/96 4:51:31 AM

Element	Mean Corr. Intensity	Std.Dev.	RSD	Conc.	Calib Units
Y 360.073	345936.6	1141.12	0.33%	1.039	mg/L
Be 313.042	416885.8	1672.69	0.40%	0.50000	mg/L
Cu 324.754	88215.3	245.55	0.28%	1.0000	mg/L
Se 196.026	556.9	0.40	0.07%	1.0000	mg/L
V 292.402	93715.1	126.88	0.14%	1.0000	mg/L
Zn 213.856	24720.8	118.21	0.48%	1.0000	mg/L

Replicate Data

ID: LRV1 Date: 9/5/96 4:55:33 AM

Repl#	Element	Net Intensity	Corrected Intensity	Conc.	Calib Units	Sample Conc.	Units
1	Y 360.073	348008.2	348008.2	1.046	mg/L		
1	Ag 328.068	23404.5	22383.9	0.49553	mg/L	0.49553	mg/L
1	Al 396.152	922.8	882.6	-0.00201	mg/L	-0.00201	mg/L
1	As 193.696	288.3	275.7	0.49750	mg/L	0.49750	mg/L
1	B 249.773	29215.3	27941.3	0.99763	mg/L	0.99763	mg/L
1	Ba 233.527	39935.9	38194.4	1.0037	mg/L	1.0037	mg/L
1	Be 313.042	425292.8	406747.7	0.48891	mg/L	0.48891	mg/L
1	Bi 223.061	3205.4	3065.7	1.0084	mg/L	1.0084	mg/L
1	Ca 315.887	-319.5	-305.6	0.00573	mg/L	0.00573	mg/L

1 Cd 214.438	25291.1	24188.3	0.50447 mg/L	0.50447 mg/L	
1 Co 238.892	30482.6	29153.4	0.99748 mg/L	0.99748 mg/L	
1 Cr 267.716	72769.0	69595.8	1.0075 mg/L	1.0075 mg/L	
1 Cu 324.754	89257.8	85365.7	0.96720 mg/L	0.96720 mg/L	
1 Fe 234.349	924.0	883.7	0.00366 mg/L	0.00366 mg/L	
1 K 766.491	2456.9	2349.8			
1 Mo 202.030	2563.8	2452.1	0.99973 mg/L	0.99973 mg/L	
1 Mn 257.610	130058.1	124386.9	1.0030 mg/L	1.0030 mg/L	
1 Mg 279.079	28.4	27.2	0.00991 mg/L	0.00991 mg/L	
1 Ni 231.604	10381.3	9928.6	1.0016 mg/L	1.0016 mg/L	
1 Pb 220.353	1442.3	1379.4	0.99121 mg/L	0.99121 mg/L	
1 Sn 189.933	1850.0	1769.3	1.0123 mg/L	1.0123 mg/L	
1 Se 196.026	566.5	541.8	0.97422 mg/L	0.97422 mg/L	
1 Sb 206.833	1025.6	980.9	0.98215 mg/L	0.98215 mg/L	
1 V 292.402	93943.6	89847.1	0.97102 mg/L	0.97102 mg/L	
1 Tl 190.800	545.6	521.9	0.52736 mg/L	0.52736 mg/L	
1 Zn 213.856	25099.2	24004.7	0.96773 mg/L	0.96773 mg/L	
1 Na 330.237	599.7	573.5	-0.70808 mg/L	-0.70808 mg/L	
1 Sr 407.771	58808.1	56243.7			
1 U 385.958	28833.3	27576.0			
1 U 367.007	12866.8	12305.7			
1 Zr 343.823	14074.5	13460.7			
1 Zr 339.198	16647.3	15921.4			
1 Zr 357.247	28057.4	26834.0			
2 Y 360.073	350669.8	350669.8	1.054 mg/L		
2 Ag 328.068	23645.1	22442.4	0.49683 mg/L	0.49683 mg/L	
2 Al 396.152	928.1	880.9	-0.00183 mg/L	-0.00183 mg/L	
2 As 193.696	282.3	267.9	0.48332 mg/L	0.48332 mg/L	
2 B 249.773	29457.8	27959.4	0.99828 mg/L	0.99828 mg/L	
2 Ba 233.527	40223.4	38177.4	1.0033 mg/L	1.0033 mg/L	
2 Be 313.042	428897.8	407082.1	0.48932 mg/L	0.48932 mg/L	
2 Bi 223.061	3212.8	3049.4	1.0033 mg/L	1.0033 mg/L	
2 Ca 315.887	-312.8	-296.9	0.00669 mg/L	0.00669 mg/L	
2 Cd 214.438	25376.1	24085.3	0.50231 mg/L	0.50231 mg/L	
2 Co 238.892	30726.9	29164.0	0.99784 mg/L	0.99784 mg/L	
2 Cr 267.716	73130.4	69410.7	1.0047 mg/L	1.0047 mg/L	
2 Cu 324.754	90264.1	85672.8	0.97072 mg/L	0.97072 mg/L	
2 Fe 234.349	917.1	870.5	0.00297 mg/L	0.00297 mg/L	
2 K 766.491	2375.4	2254.6			
2 Mo 202.030	2560.9	2430.6	0.99107 mg/L	0.99107 mg/L	
2 Mn 257.610	131171.7	124499.7	1.0039 mg/L	1.0039 mg/L	
2 Mg 279.079	37.7	35.8	0.01258 mg/L	0.01258 mg/L	
2 Ni 231.604	10419.0	9889.0	0.99754 mg/L	0.99754 mg/L	
2 Pb 220.353	1451.4	1377.5	0.98982 mg/L	0.98982 mg/L	
2 Sn 189.933	1857.8	1763.3	1.0089 mg/L	1.0089 mg/L	
2 Se 196.026	576.9	547.6	0.98364 mg/L	0.98364 mg/L	
2 Sb 206.833	1059.4	1005.5	1.0084 mg/L	1.0084 mg/L	
2 V 292.402	94661.4	89846.5	0.97091 mg/L	0.97091 mg/L	
2 Tl 190.800	541.5	514.0	0.52015 mg/L	0.52015 mg/L	
2 Zn 213.856	25302.8	24015.8	0.96821 mg/L	0.96821 mg/L	
2 Na 330.237	610.9	579.8	-0.68790 mg/L	-0.68790 mg/L	
2 Sr 407.771	58246.7	55284.0			
2 U 385.958	28532.9	27081.6			
2 U 367.007	12686.7	12041.4			
2 Zr 343.823	14078.7	13362.6			
2 Zr 339.198	16447.2	15610.6			
2 Zr 357.247	27837.2	26421.3			

Mean Data ----------

ID: LRV1 Seq. No.: 7 Sample No.: 1 A/S Pos: 2

Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0

Data: Original Date: 9/5/96 4:55:33 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	349339.0	1.050	0.0057	mg/L				0.54%
Ag 328.068	22413.1	0.49618	0.000920	mg/L	0.49618 ✓	0.000920	mg/L	0.19%
Al 396.152	881.7	-0.00192	0.000132	mg/L	-0.00192	0.000132	mg/L	6.90%
As 193.696	271.8	0.49041	0.010027	mg/L	0.49041 ✓	0.010027	mg/L	2.04%
B 249.773	27950.4	0.99795	0.000458	mg/L	0.99795 ✓	0.000458	mg/L	0.05%
Ba 233.527	38185.9	1.0035	0.00031	mg/L	1.0035 ✓	0.00031	mg/L	0.03%
Be 313.042	406914.9	0.48912	0.000292	mg/L	0.48912 ✓	0.000292	mg/L	0.06%
Bi 223.061	3057.5	1.0058	0.00360	mg/L	1.0058 ✓	0.00360	mg/L	0.36%
Ca 315.887	-301.2	0.00621	0.000680	mg/L	0.00621	0.000680	mg/L	10.95%
Cd 214.438	24136.8	0.50339	0.001522	mg/L	0.50339 ✓	0.001522	mg/L	0.30%

Co 238.892	29158.7	0.99766	0.000253 mg/L	0.99766	0.000253 mg/L	0.03%
Cr 267.716	69503.2	1.0061	0.00194 mg/L	1.0061	0.00194 mg/L	0.19%
Cu 324.754	85519.3	0.96896	0.002491 mg/L	0.96896	0.002491 mg/L	0.26%
Fe 234.349	877.1	0.00332	0.000491 mg/L	0.00332	0.000491 mg/L	14.79%
K 766.491	2302.2					2.92%
Mo 202.030	2441.3	0.99540	0.006118 mg/L	0.99540	0.006118 mg/L	0.61%
Mn 257.610	124443.3	1.0034	0.00064 mg/L	1.0034	0.00064 mg/L	0.06%
Mg 279.079	31.5	0.01124	0.001888 mg/L	0.01124	0.001888 mg/L	16.80%
Ni 231.604	9908.8	0.99955	0.002834 mg/L	0.99955	0.002834 mg/L	0.28%
Pb 220.353	1378.5	0.99051	0.000985 mg/L	0.99051	0.000985 mg/L	0.10%
Sn 189.933	1766.3	1.0106	0.00246 mg/L	1.0106	0.00246 mg/L	0.24%
Se 196.026	544.7	0.97893	0.006663 mg/L	0.97893	0.006663 mg/L	0.68%
Sb 206.833	993.2	0.99528	0.018569 mg/L	0.99528	0.018569 mg/L	1.87%
V 292.402	89846.8	0.97097	0.000080 mg/L	0.97097	0.000080 mg/L	0.01%
Tl 190.800	517.9	0.52376	0.005097 mg/L	0.52376	0.005097 mg/L	0.97%
Zn 213.856	24010.3	0.96797	0.000340 mg/L	0.96797	0.000340 mg/L	0.04%
Na 330.237	576.7	-0.69799	0.014263 mg/L	-0.69799	0.014263 mg/L	2.04%
Sr 407.771	55763.9					1.22%
U 385.958	27328.8					1.28%
U 367.007	12173.6					1.54%
Zr 343.823	13411.7					0.52%
Zr 339.198	15766.0					1.39%
Zr 357.247	26627.6					1.10%

Replicate Data

ID: LRV2 Date: 9/5/96 4:59:57 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	335540.7	335540.7	1.008	mg/L		
1	Ag 328.068	47.4	47.0	-0.00030	mg/L	-0.00030	mg/L
1	Al 396.152	224.2	222.4	0.00093	mg/L	0.00093	mg/L
1	As 193.696	2.1	2.1	0.00311	mg/L	0.00311	mg/L
1	B 249.773	304.9	302.4	0.00901	mg/L	0.00901	mg/L
1	Ba 233.527	5.9	5.9	0.00018	mg/L	0.00018	mg/L
1	Be 313.042	9453.8	9377.5	0.00019	mg/L	0.00019	mg/L
1	Bi 223.061	-131.2	-130.1	0.00211	mg/L	0.00211	mg/L
1	Ca 315.887	-348.3	-345.5	0.00131	mg/L	0.00131	mg/L
1	Cd 214.438	62.7	62.2	0.00012	mg/L	0.00012	mg/L
1	Co 238.892	-13.5	-13.4	0.00019	mg/L	0.00019	mg/L
1	Cr 267.716	956.1	948.3	0.00021	mg/L	0.00021	mg/L
1	Cu 324.754	928.3	920.8	0.00003	mg/L	0.00003	mg/L
1	Fe 234.349	687.1	681.6	0.00382	mg/L	0.00382	mg/L
1	K 766.491	Saturated					
1	Mo 202.030	-1.6	-1.6	0.00949	mg/L	0.00949	mg/L
1	Mn 257.610	85.2	84.5	-0.00005	mg/L	-0.00005	mg/L
1	Mg 279.079	28.0	27.8	0.00413	mg/L	0.00413	mg/L
1	Ni 231.604	41.8	41.5	0.00093	mg/L	0.00093	mg/L
1	Pb 220.353	72.1	71.5	0.00452	mg/L	0.00452	mg/L
1	Sn 189.933	25.5	25.3	0.00362	mg/L	0.00362	mg/L
1	Se 196.026	-43.3	-42.9	0.01713	mg/L	0.01713	mg/L
1	Sb 206.833	104.9	104.1	0.07280	mg/L	0.07280	mg/L
1	V 292.402	-252.9	-250.9	0.00001	mg/L	0.00001	mg/L
1	Tl 190.800	-37.5	-37.2	-0.00370	mg/L	-0.00370	mg/L
1	Zn 213.856	581.2	576.5	0.00188	mg/L	0.00188	mg/L
1	Na 330.237	15708.6	15581.8	49.308	mg/L	49.308	mg/L
1	Sr 407.771	61117.8	60624.6				
1	U 385.958	28895.9	28662.7				
1	U 367.007	12935.4	12831.0				
1	Zr 343.823	14190.7	14076.2				
1	Zr 339.198	16320.7	16189.0				
1	Zr 357.247	28213.2	27985.6				
2	Y 360.073	335898.1	335898.1	1.009	mg/L		
2	Ag 328.068	85.9	85.1	0.00055	mg/L	0.00055	mg/L
2	Al 396.152	210.0	208.1	0.00043	mg/L	0.00043	mg/L
2	As 193.696	3.9	3.9	0.00627	mg/L	0.00627	mg/L
2	B 249.773	252.7	250.4	0.00715	mg/L	0.00715	mg/L
2	Ba 233.527	6.6	6.5	0.00020	mg/L	0.00020	mg/L
2	Be 313.042	9470.5	9384.1	0.00020	mg/L	0.00020	mg/L
2	Bi 223.061	-135.1	-133.8	0.00095	mg/L	0.00095	mg/L
2	Ca 315.887	-336.6	-333.5	0.00264	mg/L	0.00264	mg/L
2	Cd 214.438	63.3	62.7	0.00013	mg/L	0.00013	mg/L
2	Co 238.892	-11.4	-11.3	0.00026	mg/L	0.00026	mg/L
2	Cr 267.716	948.8	940.1	0.00008	mg/L	0.00008	mg/L

2	Cu 324.754	935.8	927.3	0.00011 mg/L	0.00011 mg/L
2	Fe 234.349	699.2	692.9	0.00446 mg/L	0.00446 mg/L
2	K 766.491	Saturated			
2	Mo 202.030	-6.5	-6.4	0.00752 mg/L	0.00752 mg/L
2	Mn 257.610	92.4	91.6	0.00001 mg/L	0.00001 mg/L
2	Mg 279.079	24.4	24.2	0.00302 mg/L	0.00302 mg/L
2	Ni 231.604	37.7	37.4	0.00052 mg/L	0.00052 mg/L
2	Pb 220.353	79.8	79.1	0.01024 mg/L	0.01024 mg/L
2	Sn 189.933	20.7	20.5	0.00083 mg/L	0.00083 mg/L
2	Se 196.026	-42.6	-42.2	0.01829 mg/L	0.01829 mg/L
2	Sb 206.833	90.5	89.7	0.05752 mg/L	0.05752 mg/L
2	V 292.402	-281.1	-278.5	-0.00031 mg/L	-0.00031 mg/L
2	Tl 190.800	-29.4	-29.1	0.00370 mg/L	0.00370 mg/L
2	Zn 213.856	585.4	580.1	0.00203 mg/L	0.00203 mg/L
2	Na 330.237	15743.9	15600.2	49.368 mg/L	49.368 mg/L
2	Sr 407.771	61208.7	60650.2		
2	U 385.958	28976.3	28711.9		
2	U 367.007	12960.4	12842.2		
2	Zr 343.823	14220.7	14091.0		
2	Zr 339.198	16370.8	16221.4		
2	Zr 357.247	28303.6	28045.3		

Mean Data ----------

ID: LRV2 Seq. No.: 8 Sample No.: 2 A/S Pos: 3
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 4:59:57 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	335719.4	1.009	0.0008	mg/L				0.08%
Ag 328.068	66.0	0.00013	0.000600	mg/L	0.00013	0.000600	mg/L	466.56%
Al 396.152	215.3	0.00068	0.000356	mg/L	0.00068	0.000356	mg/L	52.18%
As 193.696	3.0	0.00469	0.002237	mg/L	0.00469	0.002237	mg/L	47.70%
B 249.773	276.4	0.00808	0.001316	mg/L	0.00808	0.001316	mg/L	16.29%
Ba 233.527	6.2	0.00019	0.000014	mg/L	0.00019	0.000014	mg/L	7.50%
Be 313.042	9380.8	0.00019	0.000005	mg/L	0.00019	0.000005	mg/L	2.69%
Bi 223.061	-132.0	0.00153	0.000824	mg/L	0.00153	0.000824	mg/L	53.79%
Ca 315.887	-339.5	0.00197	0.000938	mg/L	0.00197	0.000938	mg/L	47.57%
Cd 214.438	62.4	0.00012	0.000007	mg/L	0.00012	0.000007	mg/L	5.87%
Co 238.892	-12.3	0.00023	0.000049	mg/L	0.00023	0.000049	mg/L	21.61%
Cr 267.716	944.2	0.00014	0.000090	mg/L	0.00014	0.000090	mg/L	62.34%
Cu 324.754	924.0	0.00007	0.000053	mg/L	0.00007	0.000053	mg/L	77.41%
Fe 234.349	687.2	0.00414	0.000453	mg/L	0.00414	0.000453	mg/L	10.95%
K 766.491	Saturated							
Mo 202.030	-4.0	0.00850	0.001391	mg/L	0.00850	0.001391	mg/L	16.36%
Mn 257.610	88.0	-0.00002	0.000041	mg/L	-0.00002	0.000041	mg/L	191.44%
Mg 279.079	26.0	0.00358	0.000789	mg/L	0.00358	0.000789	mg/L	22.05%
Ni 231.604	39.4	0.00072	0.000293	mg/L	0.00072	0.000293	mg/L	40.47%
Pb 220.353	75.3	0.00738	0.004043	mg/L	0.00738	0.004043	mg/L	54.77%
Sn 189.933	22.9	0.00222	0.001973	mg/L	0.00222	0.001973	mg/L	88.71%
Se 196.026	-42.5	0.01771	0.000821	mg/L	0.01771	0.000821	mg/L	4.63%
Sb 206.833	96.9	0.06516	0.010802	mg/L	0.06516	0.010802	mg/L	16.58%
V 292.402	-264.7	-0.00015	0.000225	mg/L	-0.00015	0.000225	mg/L	149.64%
Tl 190.800	-33.2	0.00000	0.005231	mg/L	0.00000	0.005231	mg/L	401189.10
Zn 213.856	578.3	0.00195	0.000108	mg/L	0.00195	0.000108	mg/L	5.50%
Na 330.237	15591.0	49.338	0.0426	mg/L	49.338	0.0426	mg/L	0.09%
Sr 407.771	60637.4							0.03%
U 385.958	28687.3							0.12%
U 367.007	12836.6							0.06%
Zr 343.823	14083.6							0.07%
Zr 339.198	16205.2							0.14%
Zr 357.247	28015.4							0.15%

Replicate Data ----------

ID: LRV3 Date: 9/5/96 5:04:40 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	314922.1	314922.1	0.946	mg/L		
1	Ag 328.068	-35.3	-37.3	-0.00217	mg/L	-0.00217	mg/L
1	Al 396.152	1198557.6	1266724.8	49.548	mg/L	49.548	mg/L
1	As 193.696	21.4	22.7	-0.02389	mg/L	-0.02389	mg/L
1	B 249.773	674.7	713.1	-0.10730	mg/L	-0.10730	mg/L
1	Ba 233.527	42.3	44.7	0.00118	mg/L	0.00118	mg/L
1	Be 313.042	9646.5	10195.1	0.00122	mg/L	0.00122	mg/L

1	Bi 223.061	-179.3	-189.5	-0.02066 mg/L	-0.02066 mg/L
1	Ca 315.887	2132898.0	2254205.2	249.54 mg/L	249.54 mg/L
1	Cd 214.438	56.7	60.0	-0.00310 mg/L	-0.00310 mg/L
1	Co 238.892	1192.4	1260.2	0.00976 mg/L	0.00976 mg/L
1	Cr 267.716	1016.5	1074.4	0.00200 mg/L	0.00200 mg/L
1	Cu 324.754	1223.5	1293.1	0.00313 mg/L	0.00313 mg/L
1	Fe 234.349	841144.1	888983.7	49.994 mg/L	49.994 mg/L
1	K 766.491	Saturated			
1	Mo 202.030	-30.0	-31.7	-0.00267 mg/L	-0.00267 mg/L
1	Mn 257.610	420.1	444.0	0.00285 mg/L	0.00285 mg/L
1	Mg 279.079	152761.6	161449.9	49.946 mg/L	49.946 mg/L
1	Ni 231.604	40.5	42.8	0.00106 mg/L	0.00106 mg/L
1	Pb 220.353	107.8	113.9	0.01902 mg/L	0.01902 mg/L
1	Sn 189.933	30.9	32.6	0.00785 mg/L	0.00785 mg/L
1	Se 196.026	-76.6	-80.9	-0.04339 mg/L	-0.04339 mg/L
1	Sb 206.833	26.9	28.4	-0.00778 mg/L	-0.00778 mg/L
1	V 292.402	799.3	844.8	0.01152 mg/L	0.01152 mg/L
1	Tl 190.800	-44.1	-46.6	-0.01168 mg/L	-0.01168 mg/L
1	Zn 213.856	713.9	754.5	0.00428 mg/L	0.00428 mg/L
1	Na 330.237	16994.4	17960.9	57.100 mg/L	57.100 mg/L
1	Sr 407.771	204797.1	216444.8		
1	U 385.958	39308.9	41544.6		
1	U 367.007	17349.5	18336.2		
1	Zr 343.823	16771.5	17725.4		
1	Zr 339.198	18997.1	20077.5		
1	Zr 357.247	32119.1	33945.9		
2	Y 360.073	317751.5	317751.5	0.955 mg/L	
2	Ag 328.068	-34.3	-35.9	-0.00214 mg/L	-0.00214 mg/L
2	Al 396.152	1203508.8	1260631.6	49.309 mg/L	49.309 mg/L
2	As 193.696	15.7	16.4	-0.03486 mg/L	-0.03486 mg/L
2	B 249.773	658.3	689.6	-0.10693 mg/L	-0.10693 mg/L
2	Ba 233.527	45.4	47.6	0.00125 mg/L	0.00125 mg/L
2	Be 313.042	9551.4	10004.7	0.00099 mg/L	0.00099 mg/L
2	Bi 223.061	-162.3	-170.0	-0.01453 mg/L	-0.01453 mg/L
2	Ca 315.887	2139445.5	2240991.2	248.07 mg/L	248.07 mg/L
2	Cd 214.438	58.3	61.1	-0.00304 mg/L	-0.00304 mg/L
2	Co 238.892	1192.4	1249.0	0.00969 mg/L	0.00969 mg/L
2	Cr 267.716	1039.7	1089.0	0.00221 mg/L	0.00221 mg/L
2	Cu 324.754	1255.8	1315.4	0.00340 mg/L	0.00340 mg/L
2	Fe 234.349	840894.6	880806.4	49.534 mg/L	49.534 mg/L
2	K 766.491	Saturated			
2	Mo 202.030	-32.0	-33.5	-0.00342 mg/L	-0.00342 mg/L
2	Mn 257.610	424.8	445.0	0.00286 mg/L	0.00286 mg/L
2	Mg 279.079	153123.9	160391.7	49.618 mg/L	49.618 mg/L
2	Ni 231.604	39.2	41.1	0.00089 mg/L	0.00089 mg/L
2	Pb 220.353	88.6	92.8	0.00320 mg/L	0.00320 mg/L
2	Sn 189.933	27.2	28.4	0.00544 mg/L	0.00544 mg/L
2	Se 196.026	-68.3	-71.5	-0.02802 mg/L	-0.02802 mg/L
2	Sb 206.833	22.4	23.4	-0.01307 mg/L	-0.01307 mg/L
2	V 292.402	792.9	830.6	0.01136 mg/L	0.01136 mg/L
2	Tl 190.800	-29.5	-30.9	0.00274 mg/L	0.00274 mg/L
2	Zn 213.856	715.6	749.5	0.00412 mg/L	0.00412 mg/L
2	Na 330.237	17042.7	17851.6	56.742 mg/L	56.742 mg/L
2	Sr 407.771	204813.6	214534.8		
2	U 385.958	39208.8	41069.8		
2	U 367.007	17369.5	18193.9		
2	Zr 343.823	16781.7	17578.2		
2	Zr 339.198	18967.0	19867.2		
2	Zr 357.247	32114.1	33638.3		

Mean Data

ID: LRV3 Seq. No.: 9 Sample No.: 3 A/S Pos: 4
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 5:04:40 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	316336.8	0.950	0.0060	mg/L				0.63%
Ag 328.068	-36.6	-0.00216	0.000022	mg/L	-0.00216	0.000022	mg/L	1.00%
Al 396.152	1263678.2	49.429	0.1685	mg/L	49.429	0.1685	mg/L	0.34%
As 193.696	19.5	-0.02938	0.007759	mg/L	-0.02938	0.007759	mg/L	26.41%
B 249.773	701.3	-0.10712	0.000257	mg/L	-0.10712	0.000257	mg/L	0.24%
Ba 233.527	46.1	0.00122	0.000054	mg/L	0.00122	0.000054	mg/L	4.43%
Be 313.042	10099.9	0.00111	0.000166	mg/L	0.00111	0.000166	mg/L	14.98%
Bi 223.061	-179.7	-0.01759	0.004339	mg/L	-0.01759	0.004339	mg/L	24.66%

1060

Ca 315.887	2247598.2	248.80	1.034 mg/L	248.80	1.034 mg/L	0.42%
Cd 214.438	60.5	-0.00307	0.000042 mg/L	-0.00307	0.000042 mg/L	1.37%
Co 238.892	1254.6	0.00972	0.000050 mg/L	0.00972	0.000050 mg/L	0.52%
Cr 267.716	1081.7	0.00211	0.000150 mg/L	0.00211	0.000150 mg/L	7.10%
Cu 324.754	1304.2	0.00327	0.000189 mg/L	0.00327	0.000189 mg/L	5.79%
Fe 234.349	884895.1	49.764	0.3254 mg/L	49.764	0.3254 mg/L	0.65%
K 766.491	Saturated					
Mo 202.030	-32.6	-0.00305	0.000527 mg/L	-0.00305	0.000527 mg/L	17.31%
Mn 257.610	444.5	0.00286	0.000006 mg/L	0.00286	0.000006 mg/L	0.19%
Mg 279.079	160920.8	49.782	0.2315 mg/L	49.782	0.2315 mg/L	0.47%
Ni 231.604	41.9	0.00098	0.000119 mg/L	0.00098	0.000119 mg/L	12.16%
Pb 220.353	103.4	0.01111	0.011187 mg/L	0.01111	0.011187 mg/L	100.71%
Sn 189.933	30.5	0.00664	0.001705 mg/L	0.00664	0.001705 mg/L	25.68%
Se 196.026	-76.2	-0.03571	0.010867 mg/L	-0.03571	0.010867 mg/L	30.43%
Sb 206.833	25.9	-0.01043	0.003739 mg/L	-0.01043	0.003739 mg/L	35.86%
V 292.402	837.7	0.01144	0.000113 mg/L	0.01144	0.000113 mg/L	0.99%
Tl 190.800	-38.7	-0.00447	0.010198 mg/L	-0.00447	0.010198 mg/L	228.19%
Zn 213.856	752.0	0.00420	0.000114 mg/L	0.00420	0.000114 mg/L	2.71%
Na 330.237	17906.3	56.921	0.2531 mg/L	56.921	0.2531 mg/L	0.44%
Sr 407.771	215489.8					0.63%
U 385.958	41307.2					0.81%
U 367.007	18265.1					0.55%
Zr 343.823	17651.8					0.59%
Zr 339.198	19972.4					0.74%
Zr 357.247	33792.1					0.64%

Replicate Data

ID: LRV4 Date: 9/5/96 5:09:21 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	351861.7	351861.7	1.057	mg/L		
1	Ag 328.068	129.4	122.4	0.00123	mg/L	0.00123	mg/L
1	Al 396.152	253.1	239.4	0.00184	mg/L	0.00184	mg/L
1	As 193.696	8.4	7.9	0.01304	mg/L	0.01304	mg/L
1	B 249.773	83.4	78.9	0.00111	mg/L	0.00111	mg/L
1	Ba 233.527	65.5	62.0	-0.00078	mg/L	-0.00078	mg/L
1	Be 313.042	436620.5	413008.1	0.49789	mg/L	0.49789	mg/L
1	Bi 223.061	-162.8	-154.0	-0.00113	mg/L	-0.00113	mg/L
1	Ca 315.887	-292.1	-276.3	0.00897	mg/L	0.00897	mg/L
1	Cd 214.438	64.7	61.2	0.00010	mg/L	0.00010	mg/L
1	Co 238.892	-3.3	-3.1	0.00054	mg/L	0.00054	mg/L
1	Cr 267.716	1000.1	946.0	0.00014	mg/L	0.00014	mg/L
1	Cu 324.754	92423.3	87425.1	0.99140	mg/L	0.99140	mg/L
1	Fe 234.349	717.5	678.7	0.00367	mg/L	0.00367	mg/L
1	K 766.491	2054.1	1943.0				
1	Mo 202.030	-23.8	-22.5	0.00104	mg/L	0.00104	mg/L
1	Mn 257.610	100.5	95.1	0.00004	mg/L	0.00004	mg/L
1	Mg 279.079	30.3	28.7	0.00442	mg/L	0.00442	mg/L
1	Ni 231.604	36.0	34.1	0.00018	mg/L	0.00018	mg/L
1	Pb 220.353	79.7	75.3	0.00713	mg/L	0.00713	mg/L
1	Sn 189.933	17.5	16.6	-0.00142	mg/L	-0.00142	mg/L
1	Se 196.026	577.5	546.2	0.98268	mg/L	0.98268	mg/L
1	Sb 206.833	43.6	41.3	0.00596	mg/L	0.00596	mg/L
1	V 292.402	97437.1	92167.7	0.98354	mg/L	0.98354	mg/L
1	Tl 190.800	-30.2	-28.6	0.01249	mg/L	0.01249	mg/L
1	Zn 213.856	25871.3	24472.2	0.98805	mg/L	0.98805	mg/L
1	Na 330.237	583.9	552.3	-0.78327	mg/L	-0.78327	mg/L
1	Sr 407.771	59975.4	56732.0				
1	U 385.958	28627.2	27079.1				
1	U 367.007	12874.1	12177.9				
1	Zr 343.823	14107.7	13344.8				
1	Zr 339.198	16233.2	15355.3				
1	Zr 357.247	28059.7	26542.3				
2	Y 360.073	352299.0	352299.0	1.058	mg/L		
2	Ag 328.068	99.3	93.8	0.00059	mg/L	0.00059	mg/L
2	Al 396.152	282.5	266.8	0.00291	mg/L	0.00291	mg/L
2	As 193.696	1.6	1.5	0.00144	mg/L	0.00144	mg/L
2	B 249.773	78.8	74.5	0.00095	mg/L	0.00095	mg/L
2	Ba 233.527	65.1	61.5	-0.00077	mg/L	-0.00077	mg/L
2	Be 313.042	434664.6	410647.6	0.49496	mg/L	0.49496	mg/L
2	Bi 223.061	-182.1	-172.1	-0.00683	mg/L	-0.00683	mg/L
2	Ca 315.887	-296.2	-279.8	0.00858	mg/L	0.00858	mg/L
2	Cd 214.438	69.3	65.4	0.00019	mg/L	0.00019	mg/L

2	Co 238.892	3.3	3.1	0.00076 mg/L	0.00076 mg/L
2	Cr 267.716	1023.3	966.7	0.00044 mg/L	0.00044 mg/L
2	Cu 324.754	91435.2	86383.1	0.97946 mg/L	0.97946 mg/L
2	Fe 234.349	693.8	655.5	0.00236 mg/L	0.00236 mg/L
2	K 766.491	1821.7	1721.0		
2	Mo 202.030	-22.9	-21.6	0.00140 mg/L	0.00140 mg/L
2	Mn 257.610	97.5	92.1	0.00001 mg/L	0.00001 mg/L
2	Mg 279.079	24.8	23.5	0.00280 mg/L	0.00280 mg/L
2	Ni 231.604	37.1	35.1	0.00028 mg/L	0.00028 mg/L
2	Pb 220.353	65.9	62.3	-0.00276 mg/L	-0.00276 mg/L
2	Sn 189.933	17.5	16.6	-0.00144 mg/L	-0.00144 mg/L
2	Se 196.026	569.5	538.0	0.96926 mg/L	0.96926 mg/L
2	Sb 206.833	38.3	36.2	0.00053 mg/L	0.00053 mg/L
2	V 292.402	96556.1	91221.0	0.97347 mg/L	0.97347 mg/L
2	Tl 190.800	-33.1	-31.3	0.00994 mg/L	0.00994 mg/L
2	Zn 213.856	25741.5	24319.2	0.98174 mg/L	0.98174 mg/L
2	Na 330.237	608.8	575.2	-0.70295 mg/L	-0.70295 mg/L
2	Sr 407.771	60676.9	57324.2		
2	U 385.958	29003.7	27401.2		
2	U 367.007	13024.8	12305.1		
2	Zr 343.823	14278.5	13489.6		
2	Zr 339.198	16448.4	15539.6		
2	Zr 357.247	28413.1	26843.2		

Mean Data ----------

ID: LRV4 Seq. No.: 10 Sample No.: 4 A/S Pos: 5
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 5:09:21 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	352080.4	1.058	0.0009	mg/L				0.09%
Ag 328.068	108.1	0.00091	0.000448	mg/L	0.00091	0.000448	mg/L	49.22%
Al 396.152	253.1	0.00237	0.000752	mg/L	0.00237	0.000752	mg/L	31.65%
As 193.696	4.7	0.00724	0.008207	mg/L	0.00724	0.008207	mg/L	113.32%
B 249.773	76.7	0.00103	0.000110	mg/L	0.00103	0.000110	mg/L	10.69%
Ba 233.527	61.8	-0.00078	0.000009	mg/L	-0.00078	0.000009	mg/L	1.19%
Be 313.042	411827.9	0.49643	0.002067	mg/L	0.49643	0.002067	mg/L	0.42%
Bi 223.061	-163.0	-0.00398	0.004029	mg/L	-0.00398	0.004029	mg/L	101.29%
Ca 315.887	-278.1	0.00877	0.000272	mg/L	0.00877	0.000272	mg/L	3.10%
Cd 214.438	63.3	0.00014	0.000063	mg/L	0.00014	0.000063	mg/L	44.27%
Co 238.892	0.0	0.00065	0.000152	mg/L	0.00065	0.000152	mg/L	23.33%
Cr 267.716	956.4	0.00029	0.000215	mg/L	0.00029	0.000215	mg/L	73.49%
Cu 324.754	86904.1	0.98543	0.008444	mg/L	0.98543	0.008444	mg/L	0.86%
Fe 234.349	667.1	0.00301	0.000925	mg/L	0.00301	0.000925	mg/L	30.72%
K 766.491	1832.0							8.57%
Mo 202.030	-22.0	0.00122	0.000249	mg/L	0.00122	0.000249	mg/L	20.40%
Mn 257.610	93.6	0.00002	0.000017	mg/L	0.00002	0.000017	mg/L	72.25%
Mg 279.079	26.1	0.00361	0.001146	mg/L	0.00361	0.001146	mg/L	31.78%
Ni 231.604	34.6	0.00023	0.000070	mg/L	0.00023	0.000070	mg/L	29.95%
Pb 220.353	68.8	0.00219	0.006992	mg/L	0.00219	0.006992	mg/L	319.85%
Sn 189.933	16.6	-0.00143	0.000011	mg/L	-0.00143	0.000011	mg/L	0.78%
Se 196.026	542.1	0.97597	0.009488	mg/L	0.97597	0.009488	mg/L	0.97%
Sb 206.833	38.7	0.00325	0.003840	mg/L	0.00325	0.003840	mg/L	118.16%
V 292.402	91694.4	0.97851	0.007122	mg/L	0.97851	0.007122	mg/L	0.73%
Tl 190.800	-29.9	0.01122	0.001807	mg/L	0.01122	0.001807	mg/L	16.11%
Zn 213.856	24395.7	0.98489	0.004459	mg/L	0.98489	0.004459	mg/L	0.45%
Na 330.237	563.8	-0.74311	0.056790	mg/L	-0.74311	0.056790	mg/L	7.64%
Sr 407.771	57028.1							0.73%
U 385.958	27240.1							0.84%
U 367.007	12241.5							0.73%
Zr 343.823	13417.2							0.76%
Zr 339.198	15447.4							0.84%
Zr 357.247	26692.7							0.80%

Replicate Data ----------

ID: ICVA Date: 9/5/96 5:14:11 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	330990.9	330990.9	0.994	mg/L		
1	Ag 328.068	9121.3	9172.0	0.20226	mg/L	0.20226	mg/L
1	Al 396.152	486194.9	488901.0	19.107	mg/L	19.107	mg/L
1	As 193.696	114.8	115.4	0.18318	mg/L	0.18318	mg/L
1	B 249.773	11800.4	11866.1	0.36871	mg/L	0.36871	mg/L

1	Ba 233.527	15360.3	15445.8	0.40585	mg/L	0.40585 mg/L
1	Be 313.042	177821.7	178811.4	0.20861	mg/L	0.20861 mg/L
1	Bi 223.061	1114.2	1120.4	0.39443	mg/L	0.39443 mg/L
1	Ca 315.887	188578.7	189628.3	21.028	mg/L	21.028 mg/L
1	Cd 214.438	10064.0	10120.0	0.20903	mg/L	0.20903 mg/L
1	Co 238.892	12066.7	12133.9	0.40153	mg/L	0.40153 mg/L
1	Cr 267.716	28514.6	28673.3	0.40704	mg/L	0.40704 mg/L
1	Cu 324.754	34765.5	34959.0	0.38940	mg/L	0.38940 mg/L
1	Fe 234.349	365002.3	367033.8	20.616	mg/L	20.616 mg/L
1	K 766.491	8766636.7	8815429.2			
1	Mo 202.030	992.0	997.5	0.41271	mg/L	0.41271 mg/L
1	Mn 257.610	48851.9	49123.8	0.39565	mg/L	0.39565 mg/L
1	Mg 279.079	64291.6	64649.5	20.000	mg/L	20.000 mg/L
1	Ni 231.604	3951.0	3972.9	0.39881	mg/L	0.39881 mg/L
1	Pb 220.353	606.3	609.7	0.40380	mg/L	0.40380 mg/L
1	Sn 189.933	744.4	748.6	0.42194	mg/L	0.42194 mg/L
1	Se 196.026	192.6	193.6	0.40517	mg/L	0.40517 mg/L
1	Sb 206.833	409.0	411.3	0.39012	mg/L	0.39012 mg/L
1	V 292.402	38202.8	38415.4	0.41646	mg/L	0.41646 mg/L
1	Tl 190.800	188.9	190.0	0.21233	mg/L	0.21233 mg/L
1	Zn 213.856	10422.1	10480.1	0.40816	mg/L	0.40816 mg/L
1	Na 330.237	6565.3	6601.8	19.532	mg/L	19.532 mg/L
1	Sr 407.771	66689.0	67060.1			
1	U 385.958	32558.2	32739.4			
1	U 367.007	14467.6	14548.1			
1	Zr 343.823	15020.5	15104.1			
1	Zr 339.198	17467.8	17565.0			
1	Zr 357.247	29558.9	29723.4			
2	Y 360.073	333937.4	333937.4	1.003	mg/L	
2	Ag 328.068	9139.2	9109.0	0.20086	mg/L	0.20086 mg/L
2	Al 396.152	489346.7	487728.4	19.061	mg/L	19.061 mg/L
2	As 193.696	115.2	114.9	0.18219	mg/L	0.18219 mg/L
2	B 249.773	11982.4	11942.8	0.37160	mg/L	0.37160 mg/L
2	Ba 233.527	15420.4	15369.4	0.40384	mg/L	0.40384 mg/L
2	Be 313.042	179138.9	178546.5	0.20828	mg/L	0.20828 mg/L
2	Bi 223.061	1109.3	1105.6	0.38982	mg/L	0.38982 mg/L
2	Ca 315.887	189884.8	189256.8	20.987	mg/L	20.987 mg/L
2	Cd 214.438	10108.7	10075.3	0.20810	mg/L	0.20810 mg/L
2	Co 238.892	12146.8	12106.6	0.40064	mg/L	0.40064 mg/L
2	Cr 267.716	28644.6	28549.9	0.40521	mg/L	0.40521 mg/L
2	Cu 324.754	35126.5	35010.3	0.38999	mg/L	0.38999 mg/L
2	Fe 234.349	367199.1	365984.8	20.557	mg/L	20.557 mg/L
2	K 766.491	8712817.6	8684004.1			
2	Mo 202.030	989.5	986.3	0.40816	mg/L	0.40816 mg/L
2	Mn 257.610	49240.2	49077.4	0.39528	mg/L	0.39528 mg/L
2	Mg 279.079	64689.7	64475.8	19.946	mg/L	19.946 mg/L
2	Ni 231.604	3966.3	3953.2	0.39681	mg/L	0.39681 mg/L
2	Pb 220.353	602.4	600.4	0.39679	mg/L	0.39679 mg/L
2	Sn 189.933	745.4	743.0	0.41870	mg/L	0.41870 mg/L
2	Se 196.026	205.5	204.8	0.42345	mg/L	0.42345 mg/L
2	Sb 206.833	421.0	419.6	0.39902	mg/L	0.39902 mg/L
2	V 292.402	38375.8	38248.9	0.41464	mg/L	0.41464 mg/L
2	Tl 190.800	179.8	179.2	0.20245	mg/L	0.20245 mg/L
2	Zn 213.856	10462.2	10427.6	0.40600	mg/L	0.40600 mg/L
2	Na 330.237	6525.5	6503.9	19.213	mg/L	19.213 mg/L
2	Sr 407.771	66408.2	66188.6			
2	U 385.958	32317.8	32211.0			
2	U 367.007	14387.5	14339.9			
2	Zr 343.823	15105.7	15055.8			
2	Zr 339.198	17327.7	17270.4			
2	Zr 357.247	29298.6	29201.7			

Mean Data

ID: ICVA Seq. No.: 11 Sample No.: 5 A/S Pos: 9
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 5:14:11 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	332464.1	0.999	0.0063	mg/L				0.63%
Ag 328.068	9140.5	0.20156	0.000990	mg/L	0.20156 ✓	0.000990	mg/L	0.49%
Al 396.152	488314.7	19.084	0.0323	mg/L	19.084 ✓	0.0323	mg/L	0.17%
As 193.696	115.2	0.18269	0.000697	mg/L	0.18269 ✓	0.000697	mg/L	0.38%
B 249.773	11904.5	0.37016	0.002048	mg/L	0.37016 ✓	0.002048	mg/L	0.55%
Ba 233.527	15407.6	0.40484	0.001418	mg/L	0.40484 ✓	0.001418	mg/L	0.35%

Be 313.042	178678.9	0.20845	0.000232	mg/L	0.20845 ✓	0.000232 mg/L	0.11%
Bi 223.061	1113.0	0.39213	0.003260	mg/L	0.39213 ✓	0.003260 mg/L	0.83%
Ca 315.887	189442.6	21.007	0.0291	mg/L	21.007 ✓	0.0291 mg/L	0.14%
Cd 214.438	10097.6	0.20856	0.000657	mg/L	0.20856 ✓	0.000657 mg/L	0.32%
Co 238.892	12120.2	0.40108	0.000631	mg/L	0.40108 ✓	0.000631 mg/L	0.16%
Cr 267.716	28611.6	0.40613	0.001289	mg/L	0.40613 ✓	0.001289 mg/L	0.32%
Cu 324.754	34984.7	0.38970	0.000418	mg/L	0.38970 ✓	0.000418 mg/L	0.11%
Fe 234.349	366509.3	20.586	0.0417	mg/L	20.586 ✓	0.0417 mg/L	0.20%
K 766.491	8749716.7						1.06%
Mo 202.030	991.9	0.41044	0.003218	mg/L	0.41044 ✓	0.003218 mg/L	0.78%
Mn 257.610	49100.6	0.39547	0.000264	mg/L	0.39547 ✓	0.000264 mg/L	0.07%
Mg 279.079	64562.6	19.973	0.0380	mg/L	19.973 ✓	0.0380 mg/L	0.19%
Ni 231.604	3963.1	0.39781	0.001414	mg/L	0.39781 ✓	0.001414 mg/L	0.36%
Pb 220.353	605.0	0.40029	0.004959	mg/L	0.40029 ✓	0.004959 mg/L	1.24%
Sn 189.933	745.8	0.42032	0.002284	mg/L	0.42032 ✓	0.002284 mg/L	0.54%
Se 196.026	199.2	0.41431	0.012922	mg/L	0.41431 ✓	0.012922 mg/L	3.12%
Sb 206.833	415.5	0.39457	0.006293	mg/L	0.39457 ✓	0.006293 mg/L	1.60%
V 292.402	38332.2	0.41555	0.001293	mg/L	0.41555 ✓	0.001293 mg/L	0.31%
Tl 190.800	184.6	0.20739	0.006987	mg/L	0.20739 ✓	0.006987 mg/L	3.37%
Zn 213.856	10453.8	0.40708	0.001526	mg/L	0.40708 ✓	0.001526 mg/L	0.37%
Na 330.237	6552.9	19.373	0.2255	mg/L	19.373 ✓	0.2255 mg/L	1.16%
Sr 407.771	66624.3						0.93%
U 385.958	32475.2						1.15%
U 367.007	14444.0						1.02%
Zr 343.823	15079.9						0.23%
Zr 339.198	17417.7						1.20%
Zr 357.247	29462.6						1.25%

Replicate Data ----------

ID: ICB Date: 9/5/96 5:18:44 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	349444.2	349444.2	1.050	mg/L		
1	Ag 328.068	75.9	72.3	0.00027	mg/L	0.00027	mg/L
1	Al 396.152	235.1	224.0	0.00115	mg/L	0.00115	mg/L
1	As 193.696	2.8	2.7	0.00415	mg/L	0.00415	mg/L
1	B 249.773	158.2	150.7	0.00359	mg/L	0.00359	mg/L
1	Ba 233.527	3.5	3.3	0.00011	mg/L	0.00011	mg/L
1	Be 313.042	9495.1	9043.7	-0.00022	mg/L	-0.00022	mg/L
1	Bi 223.061	-136.2	-129.8	0.00223	mg/L	0.00223	mg/L
1	Ca 315.887	-390.1	-371.5	-0.00157	mg/L	-0.00157	mg/L
1	Cd 214.438	65.8	62.6	0.00013	mg/L	0.00013	mg/L
1	Co 238.892	-14.5	-13.8	0.00018	mg/L	0.00018	mg/L
1	Cr 267.716	953.7	908.4	-0.00040	mg/L	-0.00040	mg/L
1	Cu 324.754	984.9	938.1	0.00023	mg/L	0.00023	mg/L
1	Fe 234.349	659.6	628.2	0.00082	mg/L	0.00082	mg/L
1	K 766.491	1081.6	1030.2				
1	Mo 202.030	-15.6	-14.9	0.00411	mg/L	0.00411	mg/L
1	Mn 257.610	79.0	75.2	-0.00012	mg/L	-0.00012	mg/L
1	Mg 279.079	28.4	27.1	0.00391	mg/L	0.00391	mg/L
1	Ni 231.604	34.1	32.5	0.00002	mg/L	0.00002	mg/L
1	Pb 220.353	83.0	79.0	0.01017	mg/L	0.01017	mg/L
1	Sn 189.933	21.3	20.3	0.00070	mg/L	0.00070	mg/L
1	Se 196.026	-41.8	-39.8	0.02224	mg/L	0.02224	mg/L
1	Sb 206.833	69.5	66.2	0.03252	mg/L	0.03252	mg/L
1	V 292.402	-264.8	-252.2	-0.00007	mg/L	-0.00007	mg/L
1	Tl 190.800	-36.9	-35.1	-0.00178	mg/L	-0.00178	mg/L
1	Zn 213.856	546.4	520.4	-0.00043	mg/L	-0.00043	mg/L
1	Na 330.237	573.3	546.0	0.05078	mg/L	0.05078	mg/L
1	Sr 407.771	58021.9	55263.8				
1	U 385.958	28539.2	27182.6				
1	U 367.007	12785.1	12177.4				
1	Zr 343.823	14035.4	13368.2				
1	Zr 339.198	16185.4	15416.0				
1	Zr 357.247	28007.4	26676.1				
2	Y 360.073	346095.4	346095.4	1.040	mg/L		
2	Ag 328.068	55.8	53.7	-0.00015	mg/L	-0.00015	mg/L
2	Al 396.152	212.4	204.3	0.00042	mg/L	0.00042	mg/L
2	As 193.696	2.7	2.6	0.00399	mg/L	0.00399	mg/L
2	B 249.773	144.1	138.6	0.00316	mg/L	0.00316	mg/L
2	Ba 233.527	7.6	7.3	0.00022	mg/L	0.00022	mg/L
2	Be 313.042	9488.1	9124.5	-0.00012	mg/L	-0.00012	mg/L
2	Bi 223.061	-143.3	-137.8	-0.00029	mg/L	-0.00029	mg/L

2	Ca 315.887	-343.3	-330.2	0.00301 mg/L	0.00301 mg/L
2	Cd 214.438	62.6	60.2	0.00008 mg/L	0.00008 mg/L
2	Co 238.892	-11.5	-11.0	0.00027 mg/L	0.00027 mg/L
2	Cr 267.716	947.0	910.7	-0.00037 mg/L	-0.00037 mg/L
2	Cu 324.754	908.3	873.5	-0.00051 mg/L	-0.00051 mg/L
2	Fe 234.349	667.6	642.0	0.00161 mg/L	0.00161 mg/L
2	K 766.491	939.7	903.7		
2	Mo 202.030	-18.8	-18.1	0.00282 mg/L	0.00282 mg/L
2	Mn 257.610	83.6	80.4	-0.00008 mg/L	-0.00008 mg/L
2	Mg 279.079	17.2	16.5	0.00065 mg/L	0.00065 mg/L
2	Ni 231.604	29.8	28.6	-0.00037 mg/L	-0.00037 mg/L
2	Pb 220.353	83.3	80.1	0.01096 mg/L	0.01096 mg/L
2	Sn 189.933	22.0	21.2	0.00124 mg/L	0.00124 mg/L
2	Se 196.026	-49.1	-47.2	0.01002 mg/L	0.01002 mg/L
2	Sb 206.833	65.1	62.6	0.02865 mg/L	0.02865 mg/L
2	V 292.402	-335.3	-322.5	-0.00083 mg/L	-0.00083 mg/L
2	Tl 190.800	-33.1	-31.9	0.00119 mg/L	0.00119 mg/L
2	Zn 213.856	565.7	544.0	0.00055 mg/L	0.00055 mg/L
2	Na 330.237	584.0	561.6	0.10110 mg/L	0.10110 mg/L
2	Sr 407.771	58648.0	56400.6		
2	U 385.958	28840.7	27735.5		
2	U 367.007	12930.4	12434.9		
2	Zr 343.823	14175.6	13632.4		
2	Zr 339.198	16355.7	15729.0		
2	Zr 357.247	28208.2	27127.3		

Mean Data ----------

ID: ICB Seq. No.: 12 Sample No.: 6 A/S Pos: 10
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 5:18:44 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	347769.8	1.045	0.0071	mg/L				0.68%
Ag 328.068	63.0	0.00006	0.000292	mg/L	0.00006	0.000292	mg/L	478.67%
Al 396.152	214.1	0.00078	0.000518	mg/L	0.00078	0.000518	mg/L	66.17%
As 193.696	2.7	0.00407	0.000113	mg/L	0.00407	0.000113	mg/L	2.78%
B 249.773	144.7	0.00338	0.000307	mg/L	0.00338	0.000307	mg/L	9.09%
Ba 233.527	5.3	0.00017	0.000075	mg/L	0.00017	0.000075	mg/L	45.31%
Be 313.042	9084.1	-0.00017	0.000069	mg/L	-0.00017	0.000069	mg/L	40.54%
Bi 223.061	-133.8	0.00097	0.001782	mg/L	0.00097	0.001782	mg/L	183.98%
Ca 315.887	-350.8	0.00072	0.003238	mg/L	0.00072	0.003238	mg/L	450.32%
Cd 214.438	61.4	0.00010	0.000037	mg/L	0.00010	0.000037	mg/L	35.60%
Co 238.892	-12.4	0.00023	0.000066	mg/L	0.00023	0.000066	mg/L	29.26%
Cr 267.716	909.5	-0.00038	0.000021	mg/L	-0.00038	0.000021	mg/L	5.45%
Cu 324.754	905.8	-0.00014	0.000523	mg/L	-0.00014	0.000523	mg/L	379.60%
Fe 234.349	635.1	0.00122	0.000553	mg/L	0.00122	0.000553	mg/L	45.47%
K 766.491	966.9							9.25%
Mo 202.030	-16.5	0.00347	0.000914	mg/L	0.00347	0.000914	mg/L	26.37%
Mn 257.610	77.8	-0.00010	0.000030	mg/L	-0.00010	0.000030	mg/L	28.43%
Mg 279.079	21.8	0.00228	0.002304	mg/L	0.00228	0.002304	mg/L	100.97%
Ni 231.604	30.6	-0.00017	0.000276	mg/L	-0.00017	0.000276	mg/L	160.09%
Pb 220.353	79.5	0.01056	0.000553	mg/L	0.01056	0.000553	mg/L	5.24%
Sn 189.933	20.7	0.00097	0.000381	mg/L	0.00097	0.000381	mg/L	39.30%
Se 196.026	-43.5	0.01613	0.008641	mg/L	0.01613	0.008641	mg/L	53.56%
Sb 206.833	64.4	0.03058	0.002738	mg/L	0.03058	0.002738	mg/L	8.95%
V 292.402	-287.4	-0.00045	0.000540	mg/L	-0.00045	0.000540	mg/L	119.15%
Tl 190.800	-33.5	-0.00029	0.002102	mg/L	-0.00029	0.002102	mg/L	715.01%
Zn 213.856	532.2	0.00006	0.000693	mg/L	0.00006	0.000693	mg/L	1243.02%
Na 330.237	553.8	0.07594	0.035584	mg/L	0.07594	0.035584	mg/L	46.86%
Sr 407.771	55832.2							1.44%
U 385.958	27459.0							1.42%
U 367.007	12306.1							1.48%
Zr 343.823	13500.3							1.38%
Zr 339.198	15572.5							1.42%
Zr 357.247	26901.7							1.19%

Replicate Data ----------

ID: CRII Date: 9/5/96 5:23:08 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	348388.8	348388.8	1.047	mg/L		
1	Ag 328.068	1092.6	1043.8	0.02184	mg/L	0.02184	mg/L
1	Al 396.152	173.1	165.4	-0.00108	mg/L	-0.00108	mg/L

1 As 193.696	12.2	11.7	0.02033 mg/L	0.02033 mg/L	
1 B 249.773	85.0	81.2	0.00110 mg/L	0.00110 mg/L	
1 Ba 233.527	8.0	7.6	-0.00002 mg/L	-0.00002 mg/L	
1 Be 313.042	18449.9	17626.1	0.01055 mg/L	0.01055 mg/L	
1 Bi 223.061	-144.9	-138.4	-0.00012 mg/L	-0.00012 mg/L	
1 Ca 315.887	-323.3	-308.8	0.00537 mg/L	0.00537 mg/L	
1 Cd 214.438	567.5	542.2	0.01015 mg/L	0.01015 mg/L	
1 Co 238.892	2979.6	2846.5	0.09796 mg/L	0.09796 mg/L	
1 Cr 267.716	2385.4	2278.9	0.01962 mg/L	0.01962 mg/L	
1 Cu 324.754	5398.0	5157.0	0.04861 mg/L	0.04861 mg/L	
1 Fe 234.349	660.6	631.1	0.00010 mg/L	0.00010 mg/L	
1 K 766.491	930.5	889.0			
1 Mo 202.030	-20.5	-19.6	0.00220 mg/L	0.00220 mg/L	
1 Mn 257.610	4003.0	3824.3	0.03013 mg/L	0.03013 mg/L	
1 Mg 279.079	18.0	17.2	0.00117 mg/L	0.00117 mg/L	
1 Ni 231.604	846.3	808.5	0.07855 mg/L	0.07855 mg/L	
1 Pb 220.353	93.8	89.7	0.01812 mg/L	0.01812 mg/L	
1 Sn 189.933	23.4	22.3	0.00189 mg/L	0.00189 mg/L	
1 Se 196.026	-39.0	-37.2	0.02638 mg/L	0.02638 mg/L	
1 Sb 206.833	140.0	133.8	0.10402 mg/L	0.10402 mg/L	
1 V 292.402	9320.9	8904.7	0.09737 mg/L	0.09737 mg/L	
1 Tl 190.800	-7.9	-7.6	0.02560 mg/L	0.02560 mg/L	
1 Zn 213.856	1622.6	1550.1	0.04173 mg/L	0.04173 mg/L	
1 Na 330.237	623.6	595.8	0.17708 mg/L	0.17708 mg/L	
1 Sr 407.771	61491.8	58746.2			
1 U 385.958	28654.8	27375.3			
1 U 367.007	12865.3	12290.8			
1 Zr 343.823	14120.5	13490.0			
1 Zr 339.198	16255.5	15529.7			
1 Zr 357.247	28082.7	26828.8			
2 Y 360.073	343586.7	343586.7	1.032 mg/L		
2 Ag 328.068	1040.9	1008.4	0.02105 mg/L	0.02105 mg/L	
2 Al 396.152	139.7	135.4	-0.00225 mg/L	-0.00225 mg/L	
2 As 193.696	18.2	17.7	0.03120 mg/L	0.03120 mg/L	
2 B 249.773	79.5	77.0	0.00095 mg/L	0.00095 mg/L	
2 Ba 233.527	7.3	7.1	-0.00003 mg/L	-0.00003 mg/L	
2 Be 313.042	18367.8	17793.0	0.01075 mg/L	0.01075 mg/L	
2 Bi 223.061	-145.3	-140.7	-0.00085 mg/L	-0.00085 mg/L	
2 Ca 315.887	-365.0	-353.6	0.00042 mg/L	0.00042 mg/L	
2 Cd 214.438	568.3	550.5	0.01033 mg/L	0.01033 mg/L	
2 Co 238.892	2969.6	2876.6	0.09898 mg/L	0.09898 mg/L	
2 Cr 267.716	2384.7	2310.1	0.02008 mg/L	0.02008 mg/L	
2 Cu 324.754	5282.8	5117.5	0.04815 mg/L	0.04815 mg/L	
2 Fe 234.349	672.3	651.3	0.00122 mg/L	0.00122 mg/L	
2 K 766.491	997.6	966.4			
2 Mo 202.030	-20.8	-20.2	0.00198 mg/L	0.00198 mg/L	
2 Mn 257.610	3964.6	3840.5	0.03026 mg/L	0.03026 mg/L	
2 Mg 279.079	23.0	22.3	0.00275 mg/L	0.00275 mg/L	
2 Ni 231.604	846.2	819.7	0.07969 mg/L	0.07969 mg/L	
2 Pb 220.353	83.5	80.9	0.01153 mg/L	0.01153 mg/L	
2 Sn 189.933	18.6	18.0	-0.00059 mg/L	-0.00059 mg/L	
2 Se 196.026	-51.0	-49.5	0.00637 mg/L	0.00637 mg/L	
2 Sb 206.833	147.1	142.5	0.11333 mg/L	0.11333 mg/L	
2 V 292.402	9136.7	8850.8	0.09679 mg/L	0.09679 mg/L	
2 Tl 190.800	-6.7	-6.5	0.02658 mg/L	0.02658 mg/L	
2 Zn 213.856	1612.8	1562.3	0.04222 mg/L	0.04222 mg/L	
2 Na 330.237	584.0	565.8	0.07829 mg/L	0.07829 mg/L	
2 Sr 407.771	62244.5	60296.4			
2 U 385.958	29107.0	28196.0			
2 U 367.007	13015.5	12608.2			
2 Zr 343.823	14310.9	13863.0			
2 Zr 339.198	16501.1	15984.6			
2 Zr 357.247	28454.2	27563.6			

Mean Data ----------

ID: CRII Seq. No.: 13 Sample No.: 7 A/S Pos: 11
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 5:23:08 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	345987.8	1.040	0.0102	mg/L				0.98%
Ag 328.068	1026.1	0.02144	0.000557	mg/L	0.02144	0.000557	mg/L	2.60%
Al 396.152	150.4	-0.00167	0.000827	mg/L	-0.00167	0.000827	mg/L	49.53%
As 193.696	14.7	0.02577	0.007687	mg/L	0.02577	0.007687	mg/L	29.83%

B 249.773	79.1	0.00103	0.000107 mg/L	0.00103	0.000107 mg/L	10.40%
Ba 233.527	7.4	-0.00002	0.000008 mg/L	-0.00002	0.000008 mg/L	38.22%
Be 313.042	17709.5	0.01065	0.000143 mg/L	0.01065	0.000143 mg/L	1.35%
Bi 223.061	-139.6	-0.00049	0.000518 mg/L	-0.00049	0.000518 mg/L	106.04%
Ca 315.887	-331.2	0.00289	0.003502 mg/L	0.00289	0.003502 mg/L	121.09%
Cd 214.438	546.3	0.01024	0.000122 mg/L	0.01024	0.000122 mg/L	1.20%
Co 238.892	2861.6	0.09847	0.000727 mg/L	0.09847	0.000727 mg/L	0.74%
Cr 267.716	2294.5	0.01985	0.000322 mg/L	0.01985	0.000322 mg/L	1.62%
Cu 324.754	5137.2	0.04838	0.000320 mg/L	0.04838	0.000320 mg/L	0.66%
Fe 234.349	641.2	0.00066	0.000791 mg/L	0.00066	0.000791 mg/L	120.00%
K 766.491	927.7					5.90%
Mo 202.030	-19.9	0.00209	0.000154 mg/L	0.00209	0.000154 mg/L	7.35%
Mn 257.610	3832.4	0.03019	0.000092 mg/L	0.03019	0.000092 mg/L	0.31%
Mg 279.079	19.8	0.00196	0.001115 mg/L	0.00196	0.001115 mg/L	56.84%
Ni 231.604	814.1	0.07912	0.000803 mg/L	0.07912	0.000803 mg/L	1.01%
Pb 220.353	85.3	0.01482	0.004660 mg/L	0.01482	0.004660 mg/L	31.43%
Sn 189.933	20.2	0.00065	0.001756 mg/L	0.00065	0.001756 mg/L	270.26%
Se 196.026	-43.3	0.01637	0.014151 mg/L	0.01637	0.014151 mg/L	86.44%
Sb 206.833	138.1	0.10868	0.006580 mg/L	0.10868	0.006580 mg/L	6.05%
V 292.402	8877.8	0.09708	0.000408 mg/L	0.09708	0.000408 mg/L	0.42%
Tl 190.800	-7.0	0.02609	0.000697 mg/L	0.02609	0.000697 mg/L	2.67%
Zn 213.856	1556.2	0.04198	0.000352 mg/L	0.04198	0.000352 mg/L	0.84%
Na 330.237	580.8	0.12768	0.069861 mg/L	0.12768	0.069861 mg/L	54.71%
Sr 407.771	59521.3					1.84%
U 385.958	27785.6					2.09%
U 367.007	12449.5					1.80%
Zr 343.823	13676.5					1.93%
Zr 339.198	15757.2					2.04%
Zr 357.247	27196.2					1.91%

Replicate Data ----------

ID: ICSAI Date: 9/5/96 5:27:54 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	292241.4	292241.4	0.878	mg/L		
1	Ag 328.068	-151.3	-172.3	-0.00518	mg/L	-0.00518	mg/L
1	Al 396.152	10896218.7	12409679.1	485.47	mg/L	485.47	mg/L
1	As 193.696	336.2	382.9	0.06706	mg/L	0.06706	mg/L
1	B 249.773	2141.5	2439.0	-0.40491	mg/L	-0.40491	mg/L
1	Ba 233.527	46.1	52.5	0.00130	mg/L	0.00130	mg/L
1	Be 313.042	9515.3	10837.0	0.00210	mg/L	0.00210	mg/L
1	Bi 223.061	-153.2	-174.5	-0.02071	mg/L	-0.02071	mg/L
1	Ca 315.887	3919865.5	4464326.0	494.15	mg/L	494.15	mg/L
1	Cd 214.438	-138.4	-157.6	-0.00757	mg/L	-0.00757	mg/L
1	Co 238.892	4495.8	5120.2	0.04857	mg/L	0.04857	mg/L
1	Cr 267.716	1172.1	1334.9	0.00580	mg/L	0.00580	mg/L
1	Cu 324.754	2110.2	2403.3	0.01264	mg/L	0.01264	mg/L
1	Fe 234.349	2919327.9	3324816.0	187.07	mg/L	187.07	mg/L
1	K 766.491	5322.0	6061.2				
1	Mo 202.030	-31.3	-35.6	-0.00425	mg/L	-0.00425	mg/L
1	Mn 257.610	2158.4	2458.2	0.01910	mg/L	0.01910	mg/L
1	Mg 279.079	1500970.5	1709452.0	528.71	mg/L	528.71	mg/L
1	Ni 231.604	38.0	43.3	0.00111	mg/L	0.00111	mg/L
1	Pb 220.353	426.1	485.3	0.14572	mg/L	0.14572	mg/L
1	Sn 189.933	42.1	47.9	0.01669	mg/L	0.01669	mg/L
1	Se 196.026	-79.1	-90.1	-0.06981	mg/L	-0.06981	mg/L
1	Sb 206.833	-37.5	-42.7	-0.08350	mg/L	-0.08350	mg/L
1	V 292.402	3598.6	4098.4	0.04613	mg/L	0.04613	mg/L
1	Tl 190.800	-50.9	-58.0	-0.01958	mg/L	-0.01958	mg/L
1	Zn 213.856	1774.6	2021.1	0.04307	mg/L	0.04307	mg/L
1	Na 330.237	276.1	314.4	-0.74571	mg/L	-0.74571	mg/L
1	Sr 407.771	208951.6	237974.5				
1	U 385.958	52319.8	59586.9				
1	U 367.007	21060.3	23985.5				
1	Zr 343.823	19677.9	22411.1				
1	Zr 339.198	21460.0	24440.8				
1	Zr 357.247	33225.2	37840.1				
2	Y 360.073	293298.3	293298.3	0.881	mg/L		
2	Ag 328.068	-139.0	-157.8	-0.00486	mg/L	-0.00486	mg/L
2	Al 396.152	10856575.3	12319975.4	481.96	mg/L	481.96	mg/L
2	As 193.696	353.5	401.1	0.10450	mg/L	0.10450	mg/L
2	B 249.773	2132.8	2420.3	-0.40079	mg/L	-0.40079	mg/L
2	Ba 233.527	48.7	55.3	0.00137	mg/L	0.00137	mg/L

2	Be 313.042	9485.3	10763.9	0 00201 mg/L	0.00201 mg/L
2	Bi 223.061	-160.9	-182.5	-0.02312 mg/L	-0.02312 mg/L
2	Ca 315.887	8903263.6	4429399.7	490.29 mg/L	490.29 mg/L
2	Cd 214.438	-143.6	-163.0	-0.00762 mg/L	-0.00762 mg/L
2	Co 238.892	4404.2	4997.9	0.04562 mg/L	0.04562 mg/L
2	Cr 267.716	1147.2	1301.8	0.00532 mg/L	0.00532 mg/L
2	Cu 324.754	2110.1	2394.6	0.01259 mg/L	0.01259 mg/L
2	Fe 234.349	2901301.5	3292379.2	185.25 mg/L	185.25 mg/L
2	K 766.491	5320.0	6037.1		
2	Mo 202.030	-30.5	-34.6	-0.00384 mg/L	-0.00384 mg/L
2	Mn 257.610	2182.9	2477.1	0.01926 mg/L	0.01926 mg/L
2	Mg 279.079	1492706.6	1693914.4	523.90 mg/L	523.90 mg/L
2	Ni 231.604	44.1	50.1	0.00180 mg/L	0.00180 mg/L
2	Pb 220.353	433.4	491.9	0.15193 mg/L	0.15193 mg/L
2	Sn 189.933	44.0	49.9	0.01786 mg/L	0.01786 mg/L
2	Se 196.026	-52.1	-59.1	-0.01902 mg/L	-0.01902 mg/L
2	Sb 206.833	-48.4	-55.0	-0.09658 mg/L	-0.09658 mg/L
2	V 292.402	3629.1	4118.3	0.04635 mg/L	0.04635 mg/L
2	Tl 190.800	-50.9	-57.8	-0.01945 mg/L	-0.01945 mg/L
2	Zn 213.856	1773.2	2012.2	0.04289 mg/L	0.04289 mg/L
2	Na 330.237	264.1	299.7	-0.79368 mg/L	-0.79368 mg/L
2	Sr 407.771	208096.9	236147.1		
2	U 385.958	52369.8	59428.9		
2	U 367.007	21129.7	23977.9		
2	Zr 343.823	19749.8	22412.0		
2	Zr 339.198	21499.1	24397.1		
2	Zr 357.247	33311.4	37801.6		

Mean Data ----------

ID: ICSAI Seq. No.: 14 Sample No.: 8 A/S Pos: 12
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 5:27:54 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	292769.8	0.880	0.0022	mg/L				0.26%
Ag 328.068	-165.0	-0.00502	0.000229	mg/L	-0.00502	0.000229	mg/L	4.56%
Al 396.152	12364827.2	483.71	2.481	mg/L	483.71	2.481	mg/L	0.51%
As 193.696	392.0	0.08578	0.026473	mg/L	0.08578	0.026473	mg/L	30.86%
B 249.773	2429.7	-0.40285	0.002909	mg/L	-0.40285	0.002909	mg/L	0.72%
Ba 233.527	53.9	0.00133	0.000051	mg/L	0.00133	0.000051	mg/L	3.85%
Be 313.042	10800.4	0.00205	0.000063	mg/L	0.00205	0.000063	mg/L	3.04%
Bi 223.061	-178.5	-0.02192	0.001700	mg/L	-0.02192	0.001700	mg/L	7.76%
Ca 315.887	4446862.8	492.22	2.733	mg/L	492.22	2.733	mg/L	0.56%
Cd 214.438	-160.3	-0.00760	0.000033	mg/L	-0.00760	0.000033	mg/L	0.43%
Co 238.892	5059.0	0.04709	0.002081	mg/L	0.04709	0.002081	mg/L	4.42%
Cr 267.716	1318.4	0.00556	0.000341	mg/L	0.00556	0.000341	mg/L	6.13%
Cu 324.754	2398.9	0.01261	0.000041	mg/L	0.01261	0.000041	mg/L	0.32%
Fe 234.349	3308597.6	186.16	1.291	mg/L	186.16	1.291	mg/L	0.69%
K 766.491	6049.1							0.28%
Mo 202.030	-35.1	-0.00404	0.000289	mg/L	-0.00404	0.000289	mg/L	7.15%
Mn 257.610	2467.6	0.01918	0.000108	mg/L	0.01918	0.000108	mg/L	0.56%
Mg 279.079	1701683.2	526.31	3.398	mg/L	526.31	3.398	mg/L	0.65%
Ni 231.604	46.7	0.00146	0.000486	mg/L	0.00146	0.000486	mg/L	33.42%
Pb 220.353	488.6	0.14883	0.004397	mg/L	0.14883	0.004397	mg/L	2.95%
Sn 189.933	48.9	0.01728	0.000829	mg/L	0.01728	0.000829	mg/L	4.80%
Se 196.026	-74.6	-0.04441	0.035917	mg/L	-0.04441	0.035917	mg/L	80.87%
Sb 206.833	-48.8	-0.09004	0.009250	mg/L	-0.09004	0.009250	mg/L	10.27%
V 292.402	4108.4	0.04624	0.000153	mg/L	0.04624	0.000153	mg/L	0.33%
Tl 190.800	-57.9	-0.01952	0.000095	mg/L	-0.01952	0.000095	mg/L	0.49%
Zn 213.856	2016.7	0.04298	0.000133	mg/L	0.04298	0.000133	mg/L	0.31%
Na 330.237	307.1	-0.76970	0.033922	mg/L	-0.76970	0.033922	mg/L	4.41%
Sr 407.771	237060.8							0.55%
U 385.958	59507.9							0.19%
U 367.007	23981.7							0.02%
Zr 343.823	22411.5							0.00%
Zr 339.198	24418.9							0.13%
Zr 357.247	37820.8							0.07%

Replicate Data ----------

ID: ICSABI Date: 9/5/96 5:33:00 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	293701.0	293701.0	0.882	mg/L		

1	Ag 328.068	43404.3	49187.3	1.0918 mg/L	1.0918 mg/L
1	Al 396.152	10676110.2	12098571.7	473.30 mg/L	473.30 mg/L
1	As 193.696	334.9	379.5	0.07626 mg/L	0.07626 mg/L
1	B 249.773	2041.5	2313.5	-0.39739 mg/L	-0.39739 mg/L
1	Ba 233.527	16157.3	18310.1	0.48128 mg/L	0.48128 mg/L
1	Be 313.042	368208.4	417267.7	0.50129 mg/L	0.50129 mg/L
1	Bi 223.061	-184.0	-208.5	-0.02791 mg/L	-0.02791 mg/L
1	Ca 315.887	3832957.1	4343651.9	480.80 mg/L	480.80 mg/L
1	Cd 214.438	40464.4	45855.8	0.95439 mg/L	0.95439 mg/L
1	Co 238.892	16273.8	18442.1	0.50710 mg/L	0.50710 mg/L
1	Cr 267.716	30691.7	34781.0	0.49460 mg/L	0.49460 mg/L
1	Cu 324.754	42025.5	47624.9	0.53099 mg/L	0.53099 mg/L
1	Fe 234.349	2861508.1	3242769.2	182.44 mg/L	182.44 mg/L
1	K 766.491	5062.1	5736.6		
1	Mo 202.030	-35.0	-39.6	-0.00588 mg/L	-0.00588 mg/L
1	Mn 257.610	54075.5	61280.4	0.49375 mg/L	0.49375 mg/L
1	Mg 279.079	1468981.0	1664704.8	514.87 mg/L	514.87 mg/L
1	Ni 231.604	7938.4	8996.1	0.90718 mg/L	0.90718 mg/L
1	Pb 220.353	1493.8	1692.8	1.0614 mg/L	1.0614 mg/L
1	Sn 189.933	35.5	40.2	0.01226 mg/L	0.01226 mg/L
1	Se 196.026	-56.1	-63.6	-0.02680 mg/L	-0.02680 mg/L
1	Sb 206.833	-42.3	-47.9	-0.09940 mg/L	-0.09940 mg/L
1	V 292.402	44233.6	50127.2	0.53601 mg/L	0.53601 mg/L
1	Tl 190.800	-57.5	-65.1	-0.01578 mg/L	-0.01578 mg/L
1	Zn 213.856	23571.3	26711.9	1.0603 mg/L	1.0603 mg/L
1	Na 330.237	319.2	361.7	-1.4759 mg/L	-1.4759 mg/L
1	Sr 407.771	204329.4	231553.8		
1	U 385.958	51969.4	58893.7		
1	U 367.007	21054.0	23859.2		
1	Zr 343.823	19697.4	22321.9		
1	Zr 339.198	21509.4	24375.3		
1	Zr 357.247	33273.2	37706.5		
2	Y 360.073	294170.9	294170.9	0.884 mg/L	
2	Ag 328.068	43554.6	49278.9	1.0939 mg/L	1.0939 mg/L
2	Al 396.152	10657716.3	12058433.8	471.73 mg/L	471.73 mg/L
2	As 193.696	340.3	385.0	0.08850 mg/L	0.08850 mg/L
2	B 249.773	2087.2	2361.5	-0.39551 mg/L	-0.39551 mg/L
2	Ba 233.527	16161.9	18286.1	0.48065 mg/L	0.48065 mg/L
2	Be 313.042	369184.2	417705.2	0.50182 mg/L	0.50182 mg/L
2	Bi 223.061	-155.8	-176.2	-0.01783 mg/L	-0.01783 mg/L
2	Ca 315.887	3835329.4	4339397.4	480.33 mg/L	480.33 mg/L
2	Cd 214.438	40526.3	45852.6	0.95428 mg/L	0.95428 mg/L
2	Co 238.892	16273.8	18412.7	0.50614 mg/L	0.50614 mg/L
2	Cr 267.716	30791.8	34838.7	0.49545 mg/L	0.49545 mg/L
2	Cu 324.754	42175.7	47718.8	0.53207 mg/L	0.53207 mg/L
2	Fe 234.349	2865106.0	3241659.8	182.38 mg/L	182.38 mg/L
2	K 766.491	4916.9	5563.1		
2	Mo 202.030	-26.7	-30.2	-0.00208 mg/L	-0.00208 mg/L
2	Mn 257.610	54175.7	61295.9	0.49387 mg/L	0.49387 mg/L
2	Mg 279.079	1472743.9	1666303.0	515.37 mg/L	515.37 mg/L
2	Ni 231.604	7940.3	8983.9	0.90594 mg/L	0.90594 mg/L
2	Pb 220.353	1485.3	1680.5	1.0527 mg/L	1.0527 mg/L
2	Sn 189.933	33.7	38.1	0.01103 mg/L	0.01103 mg/L
2	Se 196.026	-95.3	-107.8	-0.09897 mg/L	-0.09897 mg/L
2	Sb 206.833	-39.8	-45.0	-0.09631 mg/L	-0.09631 mg/L
2	V 292.402	44233.6	50047.1	0.53520 mg/L	0.53520 mg/L
2	Tl 190.800	-63.5	-71.9	-0.02209 mg/L	-0.02209 mg/L
2	Zn 213.856	23721.4	26839.1	1.0655 mg/L	1.0655 mg/L
2	Na 330.237	339.9	384.5	-1.4059 mg/L	-1.4059 mg/L
2	Sr 407.771	204430.0	231297.7		
2	U 385.958	51969.4	58799.6		
2	U 367.007	21061.2	23829.2		
2	Zr 343.823	19716.4	22307.7		
2	Zr 339.198	21507.9	24334.6		
2	Zr 357.247	33303.6	37680.6		

Mean Data

ID: ICSABI Seq. No.: 15 Sample No.: 9 A/S Pos: 13
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 5:33:00 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	293936.0	0.883	0.0010	mg/L				0.11%
Ag 328.068	49233.1	1.0928	0.00144	mg/L	1.0928	0.00144	mg/L	0.13%

Al 396.152	12078502.8	472.51	1.110	mg/L	472.51	1.110 mg/L	0.23%
As 193.696	382.2	0.08238	0.008652	mg/L	0.08238	0.008652 mg/L	10.50%
B 249.773	2337.5	-0.39645	0.001331	mg/L	-0.39645	0.001331 mg/L	0.34%
Ba 233.527	18298.1	0.48096	0.000448	mg/L	0.48096	0.000448 mg/L	0.09%
Be 313.042	417486.4	0.50155	0.000377	mg/L	0.50155	0.000377 mg/L	0.08%
Bi 223.061	-192.4	-0.02287	0.007129	mg/L	-0.02287	0.007129 mg/L	31.17%
Ca 315.887	4341524.7	480.56	0.333	mg/L	480.56	0.333 mg/L	0.07%
Cd 214.438	45854.2	0.95434	0.000076	mg/L	0.95434	0.000076 mg/L	0.01%
Co 238.892	18427.4	0.50662	0.000681	mg/L	0.50662	0.000681 mg/L	0.13%
Cr 267.716	34809.8	0.49503	0.000607	mg/L	0.49503	0.000607 mg/L	0.12%
Cu 324.754	47671.8	0.53153	0.000759	mg/L	0.53153	0.000759 mg/L	0.14%
Fe 234.349	3242214.5	182.41	0.044	mg/L	182.41	0.044 mg/L	0.02%
K 766.491	5649.9						2.17%
Mo 202.030	-34.9	-0.00398	0.002681	mg/L	-0.00398	0.002681 mg/L	67.37%
Mn 257.610	61288.1	0.49381	0.000089	mg/L	0.49381	0.000089 mg/L	0.02%
Mg 279.079	1665503.9	515.12	0.349	mg/L	515.12	0.349 mg/L	0.07%
Ni 231.604	8990.0	0.90656	0.000878	mg/L	0.90656	0.000878 mg/L	0.10%
Pb 220.353	1686.7	1.0570	0.00617	mg/L	1.0570	0.00617 mg/L	0.58%
Sn 189.933	39.2	0.01165	0.000869	mg/L	0.01165	0.000869 mg/L	7.47%
Se 196.026	-85.7	-0.06289	0.051031	mg/L	-0.06289	0.051031 mg/L	81.15%
Sb 206.833	-46.4	-0.09786	0.002182	mg/L	-0.09786	0.002182 mg/L	2.23%
V 292.402	50087.1	0.53561	0.000570	mg/L	0.53561	0.000570 mg/L	0.11%
Tl 190.800	-68.5	-0.01893	0.004459	mg/L	-0.01893	0.004459 mg/L	23.55%
Zn 213.856	26775.5	1.0629	0.00373	mg/L	1.0629	0.00373 mg/L	0.35%
Na 330.237	373.1	-1.4409	0.04953	mg/L	-1.4409	0.04953 mg/L	3.44%
Sr 407.771	231425.8						0.08%
U 385.958	58846.7						0.11%
U 367.007	23844.2						0.09%
Zr 343.823	22314.8						0.04%
Zr 339.198	24355.0						0.12%
Zr 357.247	37693.5						0.05%

Replicate Data

ID: CCVA1 Date: 9/5/96 5:38:03 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	331529.5	331529.5	0.996	mg/L		
1	Ag 328.068	11329.3	11373.9	0.25114	mg/L	0.25114	mg/L
1	Al 396.152	603506.7	605879.7	23.680	mg/L	23.680	mg/L
1	As 193.696	144.1	144.7	0.23011	mg/L	0.23011	mg/L
1	B 249.773	14687.1	14744.8	0.45911	mg/L	0.45911	mg/L
1	Ba 233.527	18992.4	19067.0	0.50099	mg/L	0.50099	mg/L
1	Be 313.042	218463.5	219322.5	0.25844	mg/L	0.25844	mg/L
1	Bi 223.061	1420.6	1426.2	0.49040	mg/L	0.49040	mg/L
1	Ca 315.887	234450.6	235372.5	26.091	mg/L	26.091	mg/L
1	Cd 214.438	12442.2	12491.1	0.25828	mg/L	0.25828	mg/L
1	Co 238.892	14919.2	14977.9	0.49551	mg/L	0.49551	mg/L
1	Cr 267.716	35148.3	35286.5	0.50406	mg/L	0.50406	mg/L
1	Cu 324.754	43025.5	43194.6	0.48362	mg/L	0.48362	mg/L
1	Fe 234.349	450617.8	452389.6	25.418	mg/L	25.418	mg/L
1	K 766.491	11173722.3	11217656.4				
1	Mo 202.030	1223.3	1228.1	0.50575	mg/L	0.50575	mg/L
1	Mn 257.610	60434.0	60671.6	0.48883	mg/L	0.48883	mg/L
1	Mg 279.079	79797.4	80111.2	24.784	mg/L	24.784	mg/L
1	Ni 231.604	4917.9	4937.2	0.49640	mg/L	0.49640	mg/L
1	Pb 220.353	736.9	739.8	0.50038	mg/L	0.50038	mg/L
1	Sn 189.933	912.1	915.7	0.51863	mg/L	0.51863	mg/L
1	Se 196.026	242.7	243.7	0.48724	mg/L	0.48724	mg/L
1	Sb 206.833	505.2	507.2	0.48987	mg/L	0.48987	mg/L
1	V 292.402	47421.9	47608.3	0.51544	mg/L	0.51544	mg/L
1	Tl 190.800	238.3	239.3	0.25938	mg/L	0.25938	mg/L
1	Zn 213.856	12802.0	12852.3	0.50547	mg/L	0.50547	mg/L
1	Na 330.237	8121.5	8153.4	24.530	mg/L	24.530	mg/L
1	Sr 407.771	68113.1	68380.9				
1	U 385.958	33199.1	33329.6				
1	U 367.007	14747.7	14805.7				
1	Zr 343.823	15251.8	15311.7				
1	Zr 339.198	17627.9	17697.2				
1	Zr 357.247	29779.1	29896.2				
2	Y 360.073	334522.0	334522.0	1.005	mg/L		
2	Ag 328.068	11369.4	11312.0	0.24977	mg/L	0.24977	mg/L
2	Al 396.152	607850.6	604781.7	23.637	mg/L	23.637	mg/L
2	As 193.696	142.6	141.9	0.22507	mg/L	0.22507	mg/L

2 B 249.773	14810.8	14736.0	0.45913 mg/L	0.45913 mg/L
2 Ba 233.527	19012.4	18916.4	0.49702 mg/L	0.49702 mg/L
2 Be 313.042	220395.9	219283.2	0.25839 mg/L	0.25839 mg/L
2 Bi 223.061	1420.0	1412.8	0.48620 mg/L	0.48620 mg/L
2 Ca 315.887	236835.1	235639.4	26.120 mg/L	26.120 mg/L
2 Cd 214.438	12442.1	12379.3	0.25596 mg/L	0.25596 mg/L
2 Co 238.892	15039.5	14963.5	0.49511 mg/L	0.49511 mg/L
2 Cr 267.716	35263.5	35085.4	0.50112 mg/L	0.50112 mg/L
2 Cu 324.754	43326.2	43107.5	0.48262 mg/L	0.48262 mg/L
2 Fe 234.349	452381.0	450097.0	25.289 mg/L	25.289 mg/L
2 K 766.491	11224867.5	11168195.7		
2 Mo 202.030	1233.4	1227.1	0.50537 mg/L	0.50537 mg/L
2 Mn 257.610	60970.2	60662.3	0.48876 mg/L	0.48876 mg/L
2 Mg 279.079	80212.9	79807.9	24.690 mg/L	24.690 mg/L
2 Ni 231.604	4921.9	4897.1	0.49234 mg/L	0.49234 mg/L
2 Pb 220.353	732.9	729.2	0.49234 mg/L	0.49234 mg/L
2 Sn 189.933	906.3	901.7	0.51053 mg/L	0.51053 mg/L
2 Se 196.026	244.5	243.3	0.48658 mg/L	0.48658 mg/L
2 Sb 206.833	518.2	515.6	0.49894 mg/L	0.49894 mg/L
2 V 292.402	47656.3	47415.7	0.51339 mg/L	0.51339 mg/L
2 Tl 190.800	236.8	235.6	0.25597 mg/L	0.25597 mg/L
2 Zn 213.856	12922.2	12857.0	0.50570 mg/L	0.50570 mg/L
2 Na 330.237	8161.6	8120.3	24.422 mg/L	24.422 mg/L
2 Sr 407.771	67992.7	67649.5		
2 U 385.958	33058.9	32892.0		
2 U 367.007	14707.7	14633.4		
2 Zr 343.823	15246.1	15169.1		
2 Zr 339.198	17647.9	17558.8		
2 Zr 357.247	29659.0	29509.3		

Mean Data ----------

ID: CCVA1 Seq. No.: 16 Sample No.: 10 A/S Pos: 14
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 5:38:03 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	333025.8	1.001	0.0064	mg/L				0.64%
Ag 328.068	11342.9	0.25045	0.000972	mg/L	0.25045	0.000972	mg/L	0.39%
Al 396.152	605330.7	23.659	0.0304	mg/L	23.659	0.0304	mg/L	0.13%
As 193.696	143.3	0.22759	0.003564	mg/L	0.22759	0.003564	mg/L	1.57%
B 249.773	14740.4	0.45912	0.000016	mg/L	0.45912	0.000016	mg/L	0.00%
Ba 233.527	18991.7	0.49900	0.002803	mg/L	0.49900	0.002803	mg/L	0.56%
Be 313.042	219302.8	0.25842	0.000035	mg/L	0.25842	0.000035	mg/L	0.01%
Bi 223.061	1419.5	0.48830	0.002966	mg/L	0.48830	0.002966	mg/L	0.61%
Ca 315.887	235505.9	26.105	0.0209	mg/L	26.105	0.0209	mg/L	0.08%
Cd 214.438	12435.2	0.25712	0.001645	mg/L	0.25712	0.001645	mg/L	0.64%
Co 238.892	14970.7	0.49531	0.000285	mg/L	0.49531	0.000285	mg/L	0.06%
Cr 267.716	35186.0	0.50259	0.002079	mg/L	0.50259	0.002079	mg/L	0.41%
Cu 324.754	43151.1	0.48312	0.000704	mg/L	0.48312	0.000704	mg/L	0.15%
Fe 234.349	451243.3	25.354	0.0912	mg/L	25.354	0.0912	mg/L	0.36%
K 766.491	11192926.1							0.31%
Mo 202.030	1227.6	0.50556	0.000268	mg/L	0.50556	0.000268	mg/L	0.05%
Mn 257.610	60667.0	0.48880	0.000053	mg/L	0.48880	0.000053	mg/L	0.01%
Mg 279.079	79959.5	24.737	0.0664	mg/L	24.737	0.0664	mg/L	0.27%
Ni 231.604	4917.1	0.49437	0.002872	mg/L	0.49437	0.002872	mg/L	0.58%
Pb 220.353	734.5	0.49636	0.005681	mg/L	0.49636	0.005681	mg/L	1.14%
Sn 189.933	908.7	0.51458	0.005729	mg/L	0.51458	0.005729	mg/L	1.11%
Se 196.026	243.5	0.48691	0.000470	mg/L	0.48691	0.000470	mg/L	0.10%
Sb 206.833	511.4	0.49440	0.006418	mg/L	0.49440	0.006418	mg/L	1.30%
V 292.402	47512.0	0.51441	0.001453	mg/L	0.51441	0.001453	mg/L	0.28%
Tl 190.800	237.4	0.25767	0.002415	mg/L	0.25767	0.002415	mg/L	0.94%
Zn 213.856	12854.6	0.50558	0.000162	mg/L	0.50558	0.000162	mg/L	0.03%
Na 330.237	8136.9	24.476	0.0768	mg/L	24.476	0.0768	mg/L	0.31%
Sr 407.771	68015.2							0.76%
U 385.958	33110.8							0.93%
U 367.007	14719.6							0.83%
Zr 343.823	15240.4							0.66%
Zr 339.198	17628.0							0.56%
Zr 357.247	29702.7							0.92%

Replicate Data ----------

ID: CCB1 Date: 9/5/96 5:42:43 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units

1	Y 360.073	346967.1	346967.1	1.042	mg/L	
1	Ag 328.068	78.8	75.6	0.00034	mg/L	0.00034 mg/L
1	Al 396.152	357.8	343.2	0.00579	mg/L	0.00579 mg/L
1	As 193.696	-0.4	-0.4	-0.00148	mg/L	-0.00148 mg/L
1	B 249.773	176.4	169.2	0.00425	mg/L	0.00425 mg/L
1	Ba 233.527	6.5	6.2	0.00019	mg/L	0.00019 mg/L
1	Be 313.042	9451.9	9066.9	-0.00019	mg/L	-0.00019 mg/L
1	Bi 223.061	-144.0	-138.1	-0.00038	mg/L	-0.00038 mg/L
1	Ca 315.887	-301.6	-289.3	0.00753	mg/L	0.00753 mg/L
1	Cd 214.438	66.8	64.0	0.00016	mg/L	0.00016 mg/L
1	Co 238.892	-11.1	-10.7	0.00029	mg/L	0.00029 mg/L
1	Cr 267.716	950.3	911.6	-0.00035	mg/L	-0.00035 mg/L
1	Cu 324.754	936.3	898.2	-0.00023	mg/L	-0.00023 mg/L
1	Fe 234.349	708.7	679.8	0.00372	mg/L	0.00372 mg/L
1	K 766.491	1034.6	992.5			
1	Mo 202.030	-13.2	-12.6	0.00501	mg/L	0.00501 mg/L
1	Mn 257.610	80.9	77.6	-0.00011	mg/L	-0.00011 mg/L
1	Mg 279.079	42.8	41.1	0.00825	mg/L	0.00825 mg/L
1	Ni 231.604	37.0	35.5	0.00032	mg/L	0.00032 mg/L
1	Pb 220.353	86.7	83.2	0.01332	mg/L	0.01332 mg/L
1	Sn 189.933	21.6	20.8	0.00100	mg/L	0.00100 mg/L
1	Se 196.026	-48.4	-46.5	0.01128	mg/L	0.01128 mg/L
1	Sb 206.833	71.9	68.9	0.03542	mg/L	0.03542 mg/L
1	V 292.402	-311.5	-298.8	-0.00056	mg/L	-0.00056 mg/L
1	Tl 190.800	-24.9	-23.9	0.00851	mg/L	0.00851 mg/L
1	Zn 213.856	551.6	529.2	-0.00007	mg/L	-0.00007 mg/L
1	Na 330.237	543.9	521.8	-0.02893	mg/L	-0.02893 mg/L
1	Sr 407.771	58698.5	56307.4			
1	U 385.958	28926.1	27747.7			
1	U 367.007	12965.4	12437.3			
1	Zr 343.823	14240.8	13660.6			
1	Zr 339.198	16360.8	15694.3			
1	Zr 357.247	28323.7	27169.9			
2	Y 360.073	346485.6	346485.6	1.041	mg/L	
2	Ag 328.068	88.3	84.8	0.00055	mg/L	0.00055 mg/L
2	Al 396.152	368.4	353.9	0.00624	mg/L	0.00624 mg/L
2	As 193.696	3.5	3.3	0.00525	mg/L	0.00525 mg/L
2	B 249.773	165.0	158.5	0.00386	mg/L	0.00386 mg/L
2	Ba 233.527	6.7	6.4	0.00019	mg/L	0.00019 mg/L
2	Be 313.042	9426.6	9055.2	-0.00020	mg/L	-0.00020 mg/L
2	Bi 223.061	-145.7	-140.0	-0.00096	mg/L	-0.00096 mg/L
2	Ca 315.887	-333.3	-320.2	0.00411	mg/L	0.00411 mg/L
2	Cd 214.438	65.2	62.6	0.00013	mg/L	0.00013 mg/L
2	Co 238.892	-11.0	-10.6	0.00029	mg/L	0.00029 mg/L
2	Cr 267.716	954.2	916.6	-0.00028	mg/L	-0.00028 mg/L
2	Cu 324.754	959.4	921.6	0.00004	mg/L	0.00004 mg/L
2	Fe 234.349	706.8	679.0	0.00368	mg/L	0.00368 mg/L
2	K 766.491	1096.1	1052.9			
2	Mo 202.030	-16.3	-15.7	0.00378	mg/L	0.00378 mg/L
2	Mn 257.610	85.9	82.5	-0.00007	mg/L	-0.00007 mg/L
2	Mg 279.079	43.8	42.1	0.00856	mg/L	0.00856 mg/L
2	Ni 231.604	33.1	31.8	-0.00005	mg/L	-0.00005 mg/L
2	Pb 220.353	79.2	76.1	0.00794	mg/L	0.00794 mg/L
2	Sn 189.933	19.3	18.6	-0.00028	mg/L	-0.00028 mg/L
2	Se 196.026	-33.6	-32.3	0.03455	mg/L	0.03455 mg/L
2	Sb 206.833	61.7	59.2	0.02508	mg/L	0.02508 mg/L
2	V 292.402	-234.4	-225.2	0.00021	mg/L	0.00021 mg/L
2	Tl 190.800	-26.4	-25.4	0.00712	mg/L	0.00712 mg/L
2	Zn 213.856	575.4	552.7	0.00090	mg/L	0.00090 mg/L
2	Na 330.237	600.2	576.6	0.14977	mg/L	0.14977 mg/L
2	Sr 407.771	58764.1	56448.7			
2	U 385.958	28911.0	27771.8			
2	U 367.007	12980.5	12469.0			
2	Zr 343.823	14215.7	13655.6			
2	Zr 339.198	16350.7	15706.5			
2	Zr 357.247	28323.7	27207.6			

Mean Data ----------

ID: CCB1 Seq. No.: 17 Sample No.: 11 A/S Pos: 15

Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0

Data: Original Date: 9/5/96 5:42:43 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD

1072

Y 360.073	346726.4	1.042	0.0010	mg/L			0.10%
Ag 328.068	80.2	0.00044	0.000145	mg/L	0.00044	0.000145 mg/L	32.71%
Al 396.152	348.6	0.00602	0.000322	mg/L	0.00602	0.000322 mg/L	5.35%
As 193.696	1.5	0.00189	0.004758	mg/L	0.00189	0.004758 mg/L	252.16%
B 249.773	163.8	0.00406	0.000271	mg/L	0.00406	0.000271 mg/L	6.69%
Ba 233.527	6.3	0.00019	0.000003	mg/L	0.00019	0.000003 mg/L	1.73%
Be 313.042	9061.1	-0.00020	0.000009	mg/L	-0.00020	0.000009 mg/L	4.45%
Bi 223.061	-139.0	-0.00067	0.000412	mg/L	-0.00067	0.000412 mg/L	61.14%
Ca 315.887	-304.7	0.00582	0.002417	mg/L	0.00582	0.002417 mg/L	41.51%
Cd 214.438	63.3	0.00014	0.000021	mg/L	0.00014	0.000021 mg/L	14.49%
Co 238.892	-10.6	0.00029	0.000002	mg/L	0.00029	0.000002 mg/L	0.64%
Cr 267.716	914.1	-0.00031	0.000048	mg/L	-0.00031	0.000048 mg/L	15.53%
Cu 324.754	909.9	-0.00009	0.000190	mg/L	-0.00009	0.000190 mg/L	208.45%
Fe 234.349	679.4	0.00370	0.000029	mg/L	0.00370	0.000029 mg/L	0.79%
K 766.491	1022.7						4.18%
Mo 202.030	-14.2	0.00440	0.000872	mg/L	0.00440	0.000872 mg/L	19.82%
Mn 257.610	80.0	-0.00009	0.000028	mg/L	-0.00009	0.000028 mg/L	32.80%
Mg 279.079	41.6	0.00840	0.000219	mg/L	0.00840	0.000219 mg/L	2.60%
Ni 231.604	33.6	0.00014	0.000264	mg/L	0.00014	0.000264 mg/L	190.32%
Pb 220.353	79.6	0.01063	0.003802	mg/L	0.01063	0.003802 mg/L	35.77%
Sn 189.933	19.7	0.00036	0.000901	mg/L	0.00036	0.000901 mg/L	250.67%
Se 196.026	-39.4	0.02292	0.016455	mg/L	0.02292	0.016455 mg/L	71.80%
Sb 206.833	64.1	0.03025	0.007312	mg/L	0.03025	0.007312 mg/L	24.17%
V 292.402	-262.0	-0.00017	0.000543	mg/L	-0.00017	0.000543 mg/L	316.54%
Tl 190.800	-24.6	0.00782	0.000979	mg/L	0.00782	0.000979 mg/L	12.53%
Zn 213.856	540.9	0.00041	0.000690	mg/L	0.00041	0.000690 mg/L	166.80%
Na 330.237	549.2	0.06042	0.126355	mg/L	0.06042	0.126355 mg/L	209.13%
Sr 407.771	56378.0						0.18%
U 385.958	27759.8						0.06%
U 367.007	12453.1						0.18%
Zr 343.823	13658.1						0.03%
Zr 339.198	15700.4						0.05%
Zr 357.247	27188.7						0.10%

Replicate Data

ID: PBS:14596 Date: 9/5/96 5:47:11 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	348624.5	348624.5	1.047	mg/L		
1	Ag 328.068	99.9	95.4	0.00078	mg/L	0.03904	mg/kg
1	Al 396.152	557.9	532.6	0.01326	mg/L	0.66321	mg/kg
1	As 193.696	2.6	2.5	0.00369	mg/L	0.18454	mg/kg
1	B 249.773	264.0	252.0	0.00720	mg/L	0.35998	mg/kg
1	Ba 233.527	10.9	10.4	0.00030	mg/L	0.01502	mg/kg
1	Be 313.042	9367.1	8942.8	-0.00034	mg/L	-0.01715	mg/kg
1	Bi 223.061	-148.1	-141.4	-0.00142	mg/L	-0.07104	mg/kg
1	Ca 315.887	12.4	11.8	0.04086	mg/L	2.0429	mg/kg
1	Cd 214.438	65.1	62.2	0.00012	mg/L	0.00595	mg/kg
1	Co 238.892	-20.2	-19.3	-0.00001	mg/L	-0.00068	mg/kg
1	Cr 267.716	1082.8	1033.7	0.00143	mg/L	0.07148	mg/kg
1	Cu 324.754	977.4	933.1	0.00018	mg/L	0.00880	mg/kg
1	Fe 234.349	784.3	748.7	0.00760	mg/L	0.37976	mg/kg
1	K 766.491	8418.3	8037.0				
1	Mo 202.030	-19.0	-18.2	0.00279	mg/L	0.13927	mg/kg
1	Mn 257.610	121.5	116.0	0.00020	mg/L	0.01021	mg/kg
1	Mg 279.079	32.4	31.0	0.00512	mg/L	0.25605	mg/kg
1	Ni 231.604	44.3	42.3	0.00101	mg/L	0.05060	mg/kg
1	Pb 220.353	88.1	84.1	0.01403	mg/L	0.70158	mg/kg
1	Sn 189.933	118.6	113.3	0.05450	mg/L	2.7250	mg/kg
1	Se 196.026	-43.4	-41.4	0.01956	mg/L	0.97814	mg/kg
1	Sb 206.833	58.0	55.4	0.02098	mg/L	1.0489	mg/kg
1	V 292.402	-237.9	-227.1	0.00018	mg/L	0.00900	mg/kg
1	Tl 190.800	-29.5	-28.1	0.00462	mg/L	0.23086	mg/kg
1	Zn 213.856	793.9	758.0	0.00938	mg/L	0.46907	mg/kg
1	Na 330.237	613.4	585.6	0.17185	mg/L	8.5923	mg/kg
1	Sr 407.771	59233.8	56550.7				
1	U 385.958	28634.7	27337.6				
1	U 367.007	12865.3	12282.5				
1	Zr 343.823	14130.5	13490.5				
1	Zr 339.198	16330.7	15591.0				
1	Zr 357.247	28067.7	26796.3				
2	Y 360.073	347977.2	347977.2	1.046	mg/L		
2	Ag 328.068	89.9	85.9	0.00057	mg/L	0.02857	mg/kg

2 Al 396.152	567.4	542.7	0.01363 mg/L	0.68158 mg/kg	
2 As 193.696	5.4	5.2	0.00867 mg/L	0.43326 mg/kg	
2 B 249.773	266.6	255.0	0.00731 mg/L	0.36544 mg/kg	
2 Ba 233.527	10.5	10.1	0.00029 mg/L	0.01454 mg/kg	
2 Be 313.042	9388.3	8979.8	-0.00030 mg/L	-0.01490 mg/kg	
2 Bi 223.061	-145.0	-138.7	-0.00056 mg/L	-0.02803 mg/kg	
2 Ca 315.887	0.7	0.7	0.03962 mg/L	1.9812 mg/kg	
2 Cd 214.438	62.3	59.6	0.00006 mg/L	0.00323 mg/kg	
2 Co 238.892	-19.4	-18.5	0.00001 mg/L	0.00069 mg/kg	
2 Cr 267.716	1082.0	1035.0	0.00145 mg/L	0.07256 mg/kg	
2 Cu 324.754	924.3	884.1	-0.00039 mg/L	-0.01931 mg/kg	
2 Fe 234.349	770.7	737.1	0.00695 mg/L	0.34729 mg/kg	
2 K 766.491	8531.1	8159.8			
2 Mo 202.030	-16.8	-16.1	0.00363 mg/L	0.18168 mg/kg	
2 Mn 257.610	128.2	122.6	0.00026 mg/L	0.01289 mg/kg	
2 Mg 279.079	33.6	32.1	0.00548 mg/L	0.27383 mg/kg	
2 Ni 231.604	39.7	38.0	0.00057 mg/L	0.02872 mg/kg	
2 Pb 220.353	79.5	76.1	0.00793 mg/L	0.39649 mg/kg	
2 Sn 189.933	121.2	116.0	0.05606 mg/L	2.8028 mg/kg	
2 Se 196.026	-54.5	-52.1	0.00204 mg/L	0.10187 mg/kg	
2 Sb 206.833	57.2	54.7	0.02020 mg/L	1.0101 mg/kg	
2 V 292.402	-247.6	-236.8	0.00009 mg/L	0.00437 mg/kg	
2 Tl 190.800	-31.8	-30.4	0.00254 mg/L	0.12717 mg/kg	
2 Zn 213.856	787.6	753.3	0.00919 mg/L	0.45962 mg/kg	
2 Na 330.237	599.1	573.0	0.13077 mg/L	6.5383 mg/kg	
2 Sr 407.771	59718.6	57119.6			
2 U 385.958	28895.9	27638.4			
2 U 367.007	12950.4	12386.8			
2 Zr 343.823	14250.8	13630.6			
2 Zr 339.198	16390.8	15677.5			
2 Zr 357.247	28303.6	27071.8			

Mean Data ----------

ID: PBS:14596 Seq. No.: 18 Sample No.: 12 A/S Pos: 16

Sample Qty: 2.0000 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0

Data: Original Date: 9/5/96 5:47:11 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	348300.8	1.046	0.0014	mg/L				0.13%
Ag 328.068	90.6	0.00068	0.000148	mg/L	0.03381	0.007399	mg/kg	21.89%
Al 396.152	537.7	0.01345	0.000260	mg/L	0.67240	0.012991	mg/kg	1.93%
As 193.696	3.8	0.00618	0.003517	mg/L	0.30890	0.175874	mg/kg	56.94%
B 249.773	253.5	0.00725	0.000077	mg/L	0.36271	0.003861	mg/kg	1.06%
Ba 233.527	10.3	0.00030	0.000007	mg/L	0.01478	0.000336	mg/kg	2.27%
Be 313.042	8961.3	-0.00032	0.000032	mg/L	-0.01603	0.001594	mg/kg	9.95%
Bi 223.061	-140.0	-0.00099	0.000608	mg/L	-0.04954	0.030414	mg/kg	61.40%
Ca 315.887	6.2	0.04024	0.000872	mg/L	2.0121	0.04359	mg/kg	2.17%
Cd 214.438	60.9	0.00009	0.000038	mg/L	0.00459	0.001924	mg/kg	41.89%
Co 238.892	-18.9	0.00000	0.000019	mg/L	0.00001	0.000966	mg/kg	18706.41%
Cr 267.716	1034.3	0.00144	0.000015	mg/L	0.07202	0.000762	mg/kg	1.06%
Cu 324.754	908.6	-0.00011	0.000398	mg/L	-0.00525	0.019877	mg/kg	378.32%
Fe 234.349	742.9	0.00727	0.000459	mg/L	0.36352	0.022965	mg/kg	6.32%
K 766.491	8098.4							1.07%
Mo 202.030	-17.1	0.00321	0.000600	mg/L	0.16048	0.029993	mg/kg	18.69%
Mn 257.610	119.3	0.00023	0.000038	mg/L	0.01155	0.001899	mg/kg	16.44%
Mg 279.079	31.6	0.00530	0.000251	mg/L	0.26494	0.012571	mg/kg	4.75%
Ni 231.604	40.1	0.00079	0.000309	mg/L	0.03966	0.015471	mg/kg	39.01%
Pb 220.353	80.1	0.01098	0.004315	mg/L	0.54903	0.215726	mg/kg	39.29%
Sn 189.933	114.6	0.05528	0.001100	mg/L	2.7639	0.05499	mg/kg	1.99%
Se 196.026	-46.8	0.01080	0.012392	mg/L	0.54001	0.619617	mg/kg	114.74%
Sb 206.833	55.0	0.02059	0.000549	mg/L	1.0295	0.02747	mg/kg	2.67%
V 292.402	-232.0	0.00013	0.000065	mg/L	0.00668	0.003274	mg/kg	49.01%
Tl 190.800	-29.3	0.00358	0.001466	mg/L	0.17902	0.073320	mg/kg	40.96%
Zn 213.856	755.6	0.00929	0.000134	mg/L	0.46435	0.006686	mg/kg	1.44%
Na 330.237	579.3	0.15131	0.029049	mg/L	7.5653	1.45243	mg/kg	19.20%
Sr 407.771	56835.1							0.71%
U 385.958	27488.0							0.77%
U 367.007	12334.6							0.60%
Zr 343.823	13560.5							0.73%
Zr 339.198	15634.2							0.39%
Zr 357.247	26934.1							0.72%

Replicate Data ----------

ID: LCSS:14596 Date: 9/5/96 5:51:53 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
	Y 360.073	336119.2	336119.2	1.010	mg/L		
1	Ag 328.068	9161.5	9072.0	0.19915	mg/L	9.9573	mg/kg
1	Al 396.152	51946.1	51438.3	2.0048	mg/L	100.24	mg/kg
1	As 193.696	5580.1	5525.6	9.9998	mg/L	499.99	mg/kg
1	B 249.773	67652.5	66991.1	2.3881	mg/L	119.41	mg/kg
1	Ba 233.527	737346.2	730137.4	19.238	mg/L	961.92	mg/kg
1	Be 313.042	1719559.6	1702748.1	2.0800	mg/L	104.00	mg/kg
1	Bi 223.061	-329.1	-325.8	-0.04479	mg/L	-2.2395	mg/kg
1	Ca 315.887	192795.2	190910.4	21.170	mg/L	1058.5	mg/kg
1	Cd 214.438	98851.2	97884.7	2.0449	mg/L	102.25	mg/kg
1	Co 238.892	58537.7	57965.4	1.9807	mg/L	99.034	mg/kg
1	Cr 267.716	141579.3	140195.1	2.0352	mg/L	101.76	mg/kg
1	Cu 324.754	174419.4	172714.2	1.9688	mg/L	98.441	mg/kg
1	Fe 234.349	38989.5	38608.3	2.1148	mg/L	105.74	mg/kg
1	K 766.491	7856318.4	7779509.9				
1	Mo 202.030	-27.9	-27.6	-0.00103	mg/L	-0.05166	mg/kg
1	Mn 257.610	249550.4	247110.6	1.9932	mg/L	99.662	mg/kg
1	Mg 279.079	6530.8	6467.0	2.0082	mg/L	100.41	mg/kg
1	Ni 231.604	20249.1	20051.2	2.0260	mg/L	101.30	mg/kg
1	Pb 220.353	2699.1	2672.7	1.9646	mg/L	98.228	mg/kg
1	Sn 189.933	35082.5	34739.5	20.082	mg/L	1004.1	mg/kg
1	Se 196.026	6005.7	5947.0	9.8306	mg/L	491.53	mg/kg
1	Sb 206.833	20566.6	20365.6	21.600	mg/L	1080.0	mg/kg
1	V 292.402	191968.7	190091.9	2.0258	mg/L	101.29	mg/kg
1	Tl 190.800	2098.1	2077.6	1.9765	mg/L	98.824	mg/kg
1	Zn 213.856	50608.8	50114.1	2.0439	mg/L	102.20	mg/kg
1	Na 330.237	6655.5	6590.4	18.061	mg/L	903.06	mg/kg
1	Sr 407.771	Saturated					
1	U 385.958	32698.3	32378.6				
1	U 367.007	14567.6	14425.2				
1	Zr 343.823	16997.9	16831.8				
1	Zr 339.198	20289.6	20091.3				
1	Zr 357.247	30900.3	30598.2				
	Y 360.073	337487.4	337487.4	1.014	mg/L		
2	Ag 328.068	9101.5	8976.0	0.19702	mg/L	9.8508	mg/kg
2	Al 396.152	52147.1	51428.0	2.0045	mg/L	100.22	mg/kg
2	As 193.696	5607.0	5529.7	10.007	mg/L	500.36	mg/kg
2	B 249.773	68216.5	67275.8	2.3983	mg/L	119.91	mg/kg
2	Ba 233.527	740475.2	730263.3	19.242	mg/L	962.09	mg/kg
2	Be 313.042	1708831.0	1685264.3	2.0585	mg/L	102.93	mg/kg
2	Bi 223.061	-341.8	-337.1	-0.04834	mg/L	-2.4169	mg/kg
2	Ca 315.887	192802.6	190143.7	21.085	mg/L	1054.2	mg/kg
2	Cd 214.438	99308.1	97938.5	2.0461	mg/L	102.30	mg/kg
2	Co 238.892	58564.9	57757.2	1.9736	mg/L	98.678	mg/kg
2	Cr 267.716	142112.5	140152.6	2.0346	mg/L	101.73	mg/kg
2	Cu 324.754	174779.5	172369.1	1.9649	mg/L	98.243	mg/kg
2	Fe 234.349	39149.9	38610.0	2.1150	mg/L	105.75	mg/kg
2	K 766.491	7789402.8	7681978.3				
2	Mo 202.030	-30.4	-30.0	-0.00199	mg/L	-0.09966	mg/kg
2	Mn 257.610	249674.8	246231.5	1.9861	mg/L	99.307	mg/kg
2	Mg 279.079	6550.9	6460.5	2.0062	mg/L	100.31	mg/kg
2	Ni 231.604	20288.0	20008.2	2.0217	mg/L	101.08	mg/kg
2	Pb 220.353	2715.2	2677.8	1.9684	mg/L	98.420	mg/kg
2	Sn 189.933	35279.9	34793.4	20.113	mg/L	1005.6	mg/kg
2	Se 196.026	6039.4	5956.1	9.8455	mg/L	492.27	mg/kg
2	Sb 206.833	20586.7	20302.8	21.533	mg/L	1076.6	mg/kg
2	V 292.402	192368.7	189715.8	2.0217	mg/L	101.09	mg/kg
2	Tl 190.800	2098.1	2069.2	1.9687	mg/L	98.434	mg/kg
2	Zn 213.856	50706.3	50007.0	2.0395	mg/L	101.98	mg/kg
2	Na 330.237	6672.4	6580.4	18.032	mg/L	901.61	mg/kg
2	Sr 407.771	Saturated					
2	U 385.958	32738.3	32286.8				
2	U 367.007	14567.6	14366.7				
2	Zr 343.823	17048.8	16813.6				
2	Zr 339.198	20309.6	20029.6				
2	Zr 357.247	30960.4	30533.4				

Mean Data

ID: LCSS:14596 Seq. No.: 19 Sample No.: 13 A/S Pos: 17

Sample Qty: 2.0000 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0

Data: Original Date: 9/5/96 5:51:53 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	336803.3	1.012	0.0029	mg/L				0.29%
Ag 328.068	9024.0	0.19808	0.001506	mg/L	9.9040	0.07532	mg/kg	0.76%
Al 396.152	51433.1	2.0047	0.00026	mg/L	100.23	0.013	mg/kg	0.01%
As 193.696	5527.6	10.003	0.0052	mg/L	500.17	0.261	mg/kg	0.05%
B 249.773	67133.4	2.3932	0.00720	mg/L	119.66	0.360	mg/kg	0.30%
Ba 233.527	730200.3	19.240	0.0024	mg/L	962.01	0.118	mg/kg	0.01%
Be 313.042	1694006.2	2.0693	0.01517	mg/L	103.46	0.759	mg/kg	0.73%
Bi 223.061	-331.5	-0.04656	0.002508	mg/L	-2.3282	0.12542	mg/kg	5.39%
Ca 315.887	190527.0	21.127	0.0600	mg/L	1056.4	3.00	mg/kg	0.28%
Cd 214.438	97911.6	2.0455	0.00079	mg/L	102.27	0.040	mg/kg	0.04%
Co 238.892	57861.3	1.9771	0.00503	mg/L	98.856	0.2517	mg/kg	0.25%
Cr 267.716	140173.9	2.0349	0.00044	mg/L	101.74	0.022	mg/kg	0.02%
Cu 324.754	172541.6	1.9668	0.00280	mg/L	98.342	0.1398	mg/kg	0.14%
Fe 234.349	38609.1	2.1149	0.00010	mg/L	105.74	0.005	mg/kg	0.00%
K 766.491	7730744.1							0.89%
Mo 202.030	-28.8	-0.00151	0.000679	mg/L	-0.07566	0.033936	mg/kg	44.85%
Mn 257.610	246671.1	1.9897	0.00502	mg/L	99.484	0.2508	mg/kg	0.25%
Mg 279.079	6463.8	2.0072	0.00144	mg/L	100.36	0.072	mg/kg	0.07%
Ni 231.604	20029.7	2.0238	0.00307	mg/L	101.19	0.154	mg/kg	0.15%
Pb 220.353	2675.2	1.9665	0.00271	mg/L	98.324	0.1354	mg/kg	0.14%
Sn 189.933	34766.4	20.097	0.0220	mg/L	1004.9	1.10	mg/kg	0.11%
Se 196.026	5951.6	9.8380	0.01054	mg/L	491.90	0.527	mg/kg	0.11%
Sb 206.833	20334.2	21.566	0.0473	mg/L	1078.3	2.36	mg/kg	0.22%
V 292.402	189903.8	2.0237	0.00284	mg/L	101.19	0.142	mg/kg	0.14%
Tl 190.800	2073.4	1.9726	0.00551	mg/L	98.629	0.2754	mg/kg	0.28%
Zn 213.856	50060.5	2.0417	0.00313	mg/L	102.09	0.157	mg/kg	0.15%
Na 330.237	6585.4	18.047	0.0205	mg/L	902.34	1.025	mg/kg	0.11%
Sr 407.771	Saturated							
U 385.958	32332.7							0.20%
U 367.007	14395.9							0.29%
Zr 343.823	16822.7							0.08%
Zr 339.198	20060.4							0.22%
Zr 357.247	30565.8							0.15%

Replicate Data ----------

ID: 9532-11 Date: 9/5/96 5:56:46 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	365619.9	365619.9	1.099	mg/L		
1	Ag 328.068	-54.8	-49.9	-0.00308	mg/L	-0.14884	mg/kg
1	Al 396.152	851434.3	775082.3	30.314	mg/L	1464.4	mg/kg
1	As 193.696	49.0	44.6	0.04004	mg/L	1.9342	mg/kg
1	B 249.773	2774.4	2525.6	-0.16031	mg/L	-7.7445	mg/kg
1	Ba 233.527	42160.0	38379.4	1.0112	mg/L	48.849	mg/kg
1	Be 313.042	12854.3	11701.6	0.00326	mg/L	0.15759	mg/kg
1	Bi 223.061	-254.3	-231.5	-0.03686	mg/L	-1.7806	mg/kg
1	Ca 315.887	512677.8	466703.7	51.694	mg/L	2497.3	mg/kg
1	Cd 214.438	168.3	153.2	-0.00589	mg/L	-0.28457	mg/kg
1	Co 238.892	4402.2	4007.4	0.07299	mg/L	3.5260	mg/kg
1	Cr 267.716	12159.4	11069.0	0.14780	mg/L	7.1402	mg/kg
1	Cu 324.754	8198.4	7463.2	0.07281	mg/L	3.5172	mg/kg
1	Fe 234.349	1858074.0	1691452.1	95.152	mg/L	4596.7	mg/kg
1	K 766.491	2788258.5	2538222.7				
1	Mo 202.030	-0.9	-0.8	0.00979	mg/L	0.47305	mg/kg
1	Mn 257.610	190003.9	172965.4	1.3949	mg/L	67.389	mg/kg
1	Mg 279.079	67849.7	61765.3	19.147	mg/L	925.00	mg/kg
1	Ni 231.604	1531.1	1393.8	0.13779	mg/L	6.6565	mg/kg
1	Pb 220.353	144.6	131.6	0.03887	mg/L	1.8780	mg/kg
1	Sn 189.933	108.8	99.1	0.04629	mg/L	2.2360	mg/kg
1	Se 196.026	-65.1	-59.3	-0.00453	mg/L	-0.21889	mg/kg
1	Sb 206.833	-1.3	-1.2	-0.04240	mg/L	-2.0481	mg/kg
1	V 292.402	15313.0	13939.8	0.15105	mg/L	7.2970	mg/kg
1	Tl 190.800	-42.4	-38.6	-0.00205	mg/L	-0.09913	mg/kg
1	Zn 213.856	8883.7	8087.0	0.30895	mg/L	14.925	mg/kg
1	Na 330.237	1039.1	945.9	1.0917	mg/L	52.737	mg/kg
1	Sr 407.771	2768910.5	2520609.7				
1	U 385.958	41703.3	37963.5				
1	U 367.007	17354.5	15798.3				
1	Zr 343.823	25001.2	22759.3				
1	Zr 339.198	31932.2	29068.7				
1	Zr 357.247	41857.3	38103.8				

2 Y 360.073	365368.4	365368.4	1.098 mg/L		
2 Ag 328.068	-46.3	-42.2	-0.00291 mg/L	-0.14068 mg/kg	
2 Al 396.152	852825.8	776883.3	30.384 mg/L	1467.8 mg/kg	
2 As 193.696	44.7	40.8	0.03297 mg/L	1.5927 mg/kg	
2 B 249.773	2609.8	2377.4	-0.16662 mg/L	-8.0492 mg/kg	
2 Ba 233.527	42066.5	38320.6	1.0096 mg/L	48.774 mg/kg	
2 Be 313.042	12813.5	11672.4	0.00323 mg/L	0.15589 mg/kg	
2 Bi 223.061	-252.9	-230.4	-0.03655 mg/L	-1.7655 mg/kg	
2 Ca 315.887	514396.2	468590.2	51.903 mg/L	2507.4 mg/kg	
2 Cd 214.438	161.8	147.4	-0.00605 mg/L	-0.29203 mg/kg	
2 Co 238.892	4402.2	4010.2	0.07282 mg/L	3.5179 mg/kg	
2 Cr 267.716	12100.6	11023.0	0.14713 mg/L	7.1078 mg/kg	
2 Cu 324.754	8155.8	7429.5	0.07241 mg/L	3.4981 mg/kg	
2 Fe 234.349	1864307.0	1698294.0	95.537 mg/L	4615.3 mg/kg	
2 K 766.491	2795339.9	2546420.3			
2 Mo 202.030	1.6	1.4	0.01069 mg/L	0.51657 mg/kg	
2 Mn 257.610	190606.2	173633.1	1.4003 mg/L	67.649 mg/kg	
2 Mg 279.079	67648.0	61624.1	19.104 mg/L	922.90 mg/kg	
2 Ni 231.604	1551.2	1413.1	0.13974 mg/L	6.7509 mg/kg	
2 Pb 220.353	164.8	150.1	0.05281 mg/L	2.5512 mg/kg	
2 Sn 189.933	109.3	99.6	0.04657 mg/L	2.2498 mg/kg	
2 Se 196.026	-70.1	-63.9	-0.01210 mg/L	-0.58442 mg/kg	
2 Sb 206.833	-3.0	-2.7	-0.04400 mg/L	-2.1255 mg/kg	
2 V 292.402	15293.2	13931.4	0.15097 mg/L	7.2932 mg/kg	
2 Tl 190.800	-31.7	-28.9	0.00688 mg/L	0.33219 mg/kg	
2 Zn 213.856	8792.2	8009.3	0.30571 mg/L	14.769 mg/kg	
2 Na 330.237	1041.3	948.6	1.1031 mg/L	53.291 mg/kg	
2 Sr 407.771	2777738.0	2530385.8			
2 U 385.958	41603.2	37898.5			
2 U 367.007	17469.8	15914.2			
2 Zr 343.823	25071.5	22838.9			
2 Zr 339.198	31997.4	29148.1			
2 Zr 357.247	41912.7	38180.4			

Mean Data ----------

ID: 9532-11 Seq. No.: 20 Sample No.: 14 A/S Pos: 18
Sample Qty: 2.0700 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 5:56:46 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	365494.1	1.098	0.0005	mg/L				0.05%
Ag 328.068	-46.0	-0.00300	0.000120	mg/L	-0.14476	0.005775	mg/kg	3.99%
Al 396.152	775982.8	30.349	0.0498	mg/L	1466.1	2.41	mg/kg	0.16%
As 193.696	42.7	0.03650	0.004999	mg/L	1.7635	0.24151	mg/kg	13.70%
B 249.773	2451.5	-0.16346	0.004459	mg/L	-7.8968	0.21541	mg/kg	2.73%
Ba 233.527	38350.0	1.0104	0.00110	mg/L	48.811	0.0529	mg/kg	0.11%
Be 313.042	11687.0	0.00324	0.000025	mg/L	0.15674	0.001200	mg/kg	0.77%
Bi 223.061	-230.9	-0.03670	0.000220	mg/L	-1.7731	0.01061	mg/kg	0.60%
Ca 315.887	467646.9	51.799	0.1476	mg/L	2502.4	7.13	mg/kg	0.29%
Cd 214.438	150.3	-0.00597	0.000109	mg/L	-0.28830	0.005276	mg/kg	1.83%
Co 238.892	4008.8	0.07290	0.000118	mg/L	3.5219	0.00571	mg/kg	0.16%
Cr 267.716	11046.0	0.14747	0.000474	mg/L	7.1240	0.02289	mg/kg	0.32%
Cu 324.754	7446.4	0.07261	0.000280	mg/L	3.5076	0.01350	mg/kg	0.38%
Fe 234.349	1694873.1	95.344	0.2722	mg/L	4606.0	13.15	mg/kg	0.29%
K 766.491	2542321.5							0.23%
Mo 202.030	0.3	0.01024	0.000637	mg/L	0.49481	0.030775	mg/kg	6.22%
Mn 257.610	173299.3	1.3976	0.00381	mg/L	67.519	0.1840	mg/kg	0.27%
Mg 279.079	61694.7	19.126	0.0307	mg/L	923.95	1.484	mg/kg	0.16%
Ni 231.604	1403.4	0.13877	0.001382	mg/L	6.7037	0.06675	mg/kg	1.00%
Pb 220.353	140.9	0.04584	0.009854	mg/L	2.2146	0.47605	mg/kg	21.50%
Sn 189.933	99.3	0.04643	0.000202	mg/L	2.2429	0.00974	mg/kg	0.43%
Se 196.026	-61.6	-0.00831	0.005350	mg/L	-0.40166	0.258468	mg/kg	64.35%
Sb 206.833	-2.0	-0.04320	0.001132	mg/L	-2.0868	0.05470	mg/kg	2.62%
V 292.402	13935.6	0.15101	0.000055	mg/L	7.2951	0.00267	mg/kg	0.04%
Tl 190.800	-33.8	0.00241	0.006313	mg/L	0.11653	0.304995	mg/kg	261.73%
Zn 213.856	8048.1	0.30733	0.002289	mg/L	14.847	0.1106	mg/kg	0.74%
Na 330.237	947.3	1.0974	0.00811	mg/L	53.014	0.3915	mg/kg	0.74%
Sr 407.771	2525497.8							0.27%
U 385.958	37931.0							0.12%
U 367.007	15856.2							0.52%
Zr 343.823	22799.1							0.25%
Zr 339.198	29108.4							0.19%
Zr 357.247	38142.1							0.14%

Replicate Data ----------

ID: 9532-11D Date: 9/5/96 6:01:46 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	359025.2	359025.2	1.079	mg/L		
1	Ag 328.068	-63.2	-58.6	-0.00329	mg/L	-0.15985	mg/kg
1	Al 396.152	800148.1	741774.5	29.011	mg/L	1408.3	mg/kg
1	As 193.696	37.8	35.1	0.02452	mg/L	1.1904	mg/kg
1	B 249.773	2341.5	2170.7	-0.17338	mg/L	-8.4164	mg/kg
1	Ba 233.527	40282.4	37343.7	0.98389	mg/L	47.762	mg/kg
1	Be 313.042	12602.8	11683.4	0.00325	mg/L	0.15764	mg/kg
1	Bi 223.061	-238.1	-220.7	-0.03372	mg/L	-1.6369	mg/kg
1	Ca 315.887	1048617.3	972116.9	107.63	mg/L	5224.9	mg/kg
1	Cd 214.438	151.8	140.7	-0.00620	mg/L	-0.30105	mg/kg
1	Co 238.892	4344.4	4027.5	0.07359	mg/L	3.5723	mg/kg
1	Cr 267.716	10661.5	9883.7	0.13045	mg/L	6.3327	mg/kg
1	Cu 324.754	7546.1	6995.5	0.06745	mg/L	3.2740	mg/kg
1	Fe 234.349	1826896.7	1693618.1	95.274	mg/L	4624.9	mg/kg
1	K 766.491	2848497.1	2640689.1				
1	Mo 202.030	-8.3	-7.7	0.00703	mg/L	0.34109	mg/kg
1	Mn 257.610	192626.3	178573.6	1.4402	mg/L	69.913	mg/kg
1	Mg 279.079	64343.8	59649.7	18.494	mg/L	897.74	mg/kg
1	Ni 231.604	1506.2	1396.4	0.13805	mg/L	6.7015	mg/kg
1	Pb 220.353	135.2	125.3	0.03460	mg/L	1.6797	mg/kg
1	Sn 189.933	94.9	87.9	0.03985	mg/L	1.9344	mg/kg
1	Se 196.026	-79.2	-73.5	-0.02774	mg/L	-1.3467	mg/kg
1	Sb 206.833	-6.5	-6.0	-0.04717	mg/L	-2.2896	mg/kg
1	V 292.402	14510.2	13451.6	0.14582	mg/L	7.0786	mg/kg
1	Tl 190.800	-47.5	-44.1	-0.00710	mg/L	-0.34443	mg/kg
1	Zn 213.856	8150.3	7555.7	0.28721	mg/L	13.942	mg/kg
1	Na 330.237	1009.5	935.9	1.0777	mg/L	52.317	mg/kg
1	Sr 407.771	4319976.9	4004819.2				
1	U 385.958	42761.5	39641.9				
1	U 367.007	17951.0	16641.4				
1	Zr 343.823	25101.5	23270.3				
1	Zr 339.198	31595.3	29290.3				
1	Zr 357.247	41917.1	38859.1				
2	Y 360.073	359063.8	359063.8	1.079	mg/L		
2	Ag 328.068	-69.5	-64.4	-0.00343	mg/L	-0.16630	mg/kg
2	Al 396.152	797636.4	739366.6	28.917	mg/L	1403.7	mg/kg
2	As 193.696	42.4	39.3	0.03232	mg/L	1.5691	mg/kg
2	B 249.773	2282.6	2115.9	-0.17508	mg/L	-8.4991	mg/kg
2	Ba 233.527	40263.5	37322.2	0.98332	mg/L	47.734	mg/kg
2	Be 313.042	12633.2	11710.3	0.00328	mg/L	0.15925	mg/kg
2	Bi 223.061	-238.4	-221.0	-0.03381	mg/L	-1.6412	mg/kg
2	Ca 315.887	1051650.3	974824.0	107.93	mg/L	5239.5	mg/kg
2	Cd 214.438	146.5	135.8	-0.00630	mg/L	-0.30574	mg/kg
2	Co 238.892	4352.9	4034.9	0.07391	mg/L	3.5879	mg/kg
2	Cr 267.716	10651.5	9873.3	0.13031	mg/L	6.3258	mg/kg
2	Cu 324.754	7602.2	7046.8	0.06803	mg/L	3.3026	mg/kg
2	Fe 234.349	1825218.4	1691880.6	95.176	mg/L	4620.2	mg/kg
2	K 766.491	2853540.0	2645080.2				
2	Mo 202.030	-0.0	-0.0	0.01010	mg/L	0.49045	mg/kg
2	Mn 257.610	193482.5	179348.1	1.4464	mg/L	70.216	mg/kg
2	Mg 279.079	64330.5	59631.0	18.488	mg/L	897.46	mg/kg
2	Ni 231.604	1504.7	1394.8	0.13789	mg/L	6.6936	mg/kg
2	Pb 220.353	153.0	141.8	0.04709	mg/L	2.2862	mg/kg
2	Sn 189.933	96.7	89.6	0.04082	mg/L	1.9815	mg/kg
2	Se 196.026	-47.4	-43.9	0.02068	mg/L	1.0040	mg/kg
2	Sb 206.833	-8.0	-7.5	-0.04868	mg/L	-2.3633	mg/kg
2	V 292.402	14504.8	13445.2	0.14579	mg/L	7.0771	mg/kg
2	Tl 190.800	-35.5	-32.9	0.00310	mg/L	0.15041	mg/kg
2	Zn 213.856	8095.0	7503.7	0.28510	mg/L	13.840	mg/kg
2	Na 330.237	1021.1	946.5	1.1143	mg/L	54.091	mg/kg
2	Sr 407.771	4320166.1	4004564.8				
2	U 385.958	42861.5	39730.4				
2	U 367.007	17956.0	16644.2				
2	Zr 343.823	25086.5	23253.8				
2	Zr 339.198	31600.4	29291.9				
2	Zr 357.247	41912.2	38850.4				

Mean Data

ID: 9532-11D Seq. No.: 21 Sample No.: 15 A/S Pos: 19

Sample Qty: 2.0600 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0

1079

Data: Original Date: 9/5/96 6:01:46 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	359044.5	1.079	0.0001	mg/L				0.01%
Ag 328.068	-61.5	-0.00336	0.000094	mg/L	-0.16307	0.004562	mg/kg	2.80%
Al 396.152	740570.5	28.964	0.0667	mg/L	1406.0	3.24	mg/kg	0.23%
As 193.696	37.2	0.02842	0.005516	mg/L	1.3797	0.26778	mg/kg	19.41%
B 249.773	2143.3	-0.17423	0.001204	mg/L	-8.4577	0.05845	mg/kg	0.69%
Ba 233.527	37332.9	0.98361	0.000402	mg/L	47.748	0.0195	mg/kg	0.04%
Be 313.042	11696.9	0.00326	0.000023	mg/L	0.15845	0.001135	mg/kg	0.72%
Bi 223.061	-220.8	-0.03377	0.000063	mg/L	-1.6391	0.00305	mg/kg	0.19%
Ca 315.887	973470.5	107.78	0.212	mg/L	5232.2	10.28	mg/kg	0.20%
Cd 214.438	138.2	-0.00625	0.000068	mg/L	-0.30340	0.003315	mg/kg	1.09%
Co 238.892	4031.2	0.07375	0.000227	mg/L	3.5801	0.01103	mg/kg	0.31%
Cr 267.716	9878.5	0.13038	0.000100	mg/L	6.3292	0.00483	mg/kg	0.08%
Cu 324.754	7021.2	0.06774	0.000415	mg/L	3.2883	0.02017	mg/kg	0.61%
Fe 234.349	1692749.4	95.225	0.0691	mg/L	4622.6	3.36	mg/kg	0.07%
K 766.491	2642884.7							0.12%
Mo 202.030	-3.8	0.00856	0.002176	mg/L	0.41577	0.105613	mg/kg	25.40%
Mn 257.610	178960.8	1.4433	0.00442	mg/L	70.064	0.2145	mg/kg	0.31%
Mg 279.079	59640.3	18.491	0.0041	mg/L	897.60	0.199	mg/kg	0.02%
Ni 231.604	1395.6	0.13797	0.000115	mg/L	6.6976	0.00556	mg/kg	0.08%
Pb 220.353	133.6	0.04085	0.008834	mg/L	1.9829	0.42884	mg/kg	21.63%
Sn 189.933	88.8	0.04033	0.000685	mg/L	1.9579	0.03325	mg/kg	1.70%
Se 196.026	-58.7	-0.00353	0.034241	mg/L	-0.17137	1.662171	mg/kg	969.93%
Sb 206.833	-6.7	-0.04793	0.001074	mg/L	-2.3265	0.05215	mg/kg	2.24%
V 292.402	13448.4	0.14580	0.000022	mg/L	7.0778	0.00107	mg/kg	0.02%
Tl 190.800	-38.5	-0.00200	0.007208	mg/L	-0.09701	0.349907	mg/kg	360.69%
Zn 213.856	7529.7	0.28615	0.001492	mg/L	13.891	0.0724	mg/kg	0.52%
Na 330.237	941.2	1.0960	0.02585	mg/L	53.204	1.2548	mg/kg	2.36%
Sr 407.771	4004692.0							0.00%
U 385.958	39686.1							0.16%
U 367.007	16642.8							0.01%
Zr 343.823	23262.1							0.05%
Zr 339.198	29291.1							0.00%
Zr 357.247	38854.8							0.02%

Replicate Data

ID: 9532-11MS Date: 9/5/96 6:06:56 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	350932.6	350932.6	1.054	mg/L		
1	Ag 328.068	8868.8	8411.4	0.18392	mg/L	9.1962	mg/kg
1	Al 396.152	1271239.2	1205674.2	47.159	mg/L	2358.0	mg/kg
1	As 193.696	5554.5	5268.0	9.4732	mg/L	473.66	mg/kg
1	B 249.773	59411.1	56346.9	1.7397	mg/L	86.983	mg/kg
1	Ba 233.527	754757.1	715830.1	18.861	mg/L	943.07	mg/kg
1	Be 313.042	1674759.1	1588382.4	1.9398	mg/L	96.991	mg/kg
1	Bi 223.061	-432.5	-410.2	-0.07981	mg/L	-3.9903	mg/kg
1	Ca 315.887	601228.7	570220.0	63.152	mg/L	3157.6	mg/kg
1	Cd 214.438	94722.1	89836.8	1.8685	mg/L	93.427	mg/kg
1	Co 238.892	60741.8	57609.0	1.8989	mg/L	94.946	mg/kg
1	Cr 267.716	147551.9	139941.8	2.0312	mg/L	101.56	mg/kg
1	Cu 324.754	177422.4	168271.7	1.9155	mg/L	95.777	mg/kg
1	Fe 234.349	1959343.6	1858289.3	104.52	mg/L	5226.0	mg/kg
1	K 766.491	12127236.0	11501766.4				
1	Mo 202.030	-6.4	-6.1	0.00765	mg/L	0.38256	mg/kg
1	Mn 257.610	419660.1	398015.8	3.2109	mg/L	160.55	mg/kg
1	Mg 279.079	77619.0	73615.8	22.827	mg/L	1141.4	mg/kg
1	Ni 231.604	20872.4	19795.9	2.0002	mg/L	100.01	mg/kg
1	Pb 220.353	2676.5	2538.5	1.8472	mg/L	92.361	mg/kg
1	Sn 189.933	33202.7	31490.2	18.202	mg/L	910.11	mg/kg
1	Se 196.026	5971.1	5663.2	9.3700	mg/L	468.50	mg/kg
1	Sb 206.833	19051.2	18068.6	19.154	mg/L	957.72	mg/kg
1	V 292.402	203562.1	193063.2	2.0575	mg/L	102.87	mg/kg
1	Tl 190.800	1957.0	1856.1	1.7742	mg/L	88.708	mg/kg
1	Zn 213.856	55909.7	53026.2	2.1605	mg/L	108.03	mg/kg
1	Na 330.237	7326.6	6948.7	19.134	mg/L	956.71	mg/kg
1	Sr 407.771	Saturated					
1	U 385.958	43003.7	40785.8				
1	U 367.007	17985.8	17058.1				
1	Zr 343.823	27918.6	26478.7				
1	Zr 339.198	35863.7	34014.0				

1	Zr 357.247	44170.1	41892.0			
2	Y 360.073	351234.6	351234.6	1.055	mg/L	
2	Ag 328.068	8902.9	8436.5	0.18448	mg/L	9.2238 mg/kg
2	Al 396.152	1274677.9	1207896.4	47.246	mg/L	2362.3 mg/kg
2	As 193.696	5594.9	5301.8	9.5342	mg/L	476.71 mg/kg
2	B 249.773	59620.2	56496.6	1.7446	mg/L	87.229 mg/kg
2	Ba 233.527	756618.3	716978.4	18.892	mg/L	944.58 mg/kg
2	Be 313.042	1678986.3	1591022.7	1.9431	mg/L	97.153 mg/kg
2	Bi 223.061	-432.8	-410.1	-0.07978	mg/L	-3.9890 mg/kg
2	Ca 315.887	603492.6	571875.1	63.335	mg/L	3166.7 mg/kg
2	Cd 214.438	95022.9	90044.6	1.8729	mg/L	93.644 mg/kg
2	Co 238.892	60841.9	57654.4	1.9004	mg/L	95.018 mg/kg
2	Cr 267.716	147952.5	140201.2	2.0350	mg/L	101.75 mg/kg
2	Cu 324.754	177522.4	168221.8	1.9150	mg/L	95.748 mg/kg
2	Fe 234.349	1964039.6	1861141.8	104.68	mg/L	5234.0 mg/kg
2	K 766.491	12118591.4	11483687.6			
2	Mo 202.030	-1.4	-1.4	0.00957	mg/L	0.47848 mg/kg
2	Mn 257.610	420939.1	398885.7	3.2179	mg/L	160.90 mg/kg
2	Mg 279.079	77919.7	73837.5	22.896	mg/L	1144.8 mg/kg
2	Ni 231.604	20963.3	19865.0	2.0072	mg/L	100.36 mg/kg
2	Pb 220.353	2654.0	2514.9	1.8294	mg/L	91.469 mg/kg
2	Sn 189.933	33497.7	31742.7	18.348	mg/L	917.42 mg/kg
2	Se 196.026	6007.0	5692.3	9.4177	mg/L	470.89 mg/kg
2	Sb 206.833	19150.4	18147.1	19.238	mg/L	961.89 mg/kg
2	V 292.402	204032.3	193342.8	2.0605	mg/L	103.02 mg/kg
2	Tl 190.800	1975.4	1871.9	1.7887	mg/L	89.435 mg/kg
2	Zn 213.856	55725.0	52805.5	2.1514	mg/L	107.57 mg/kg
2	Na 330.237	7352.7	6967.5	19.204	mg/L	960.19 mg/kg
2	Sr 407.771	Saturated				
2	U 385.958	43303.9	41035.1			
2	U 367.007	17924.0	16984.9			
2	Zr 343.823	27943.3	26479.3			
2	Zr 339.198	35890.8	34010.4			
2	Zr 357.247	44066.1	41757.4			

Mean Data

ID: 9532-11MS Seq. No.: 22 Sample No.: 16 A/S Pos: 20
Sample Qty: 2.0000 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 6:06:56 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	351083.6	1.055	0.0006	mg/L				0.06%
Ag 328.068	8423.9	0.18420	0.000391	mg/L	9.2100	0.01953	mg/kg	0.21%
Al 396.152	1206785.3	47.203	0.0614	mg/L	2360.1	3.07	mg/kg	0.13%
As 193.696	5284.9	9.5037	0.04311	mg/L	475.18	2.156	mg/kg	0.45%
B 249.773	56421.8	1.7421	0.00349	mg/L	87.106	0.1744	mg/kg	0.20%
Ba 233.527	716404.2	18.876	0.0214	mg/L	943.82	1.070	mg/kg	0.11%
Be 313.042	1589702.6	1.9414	0.00229	mg/L	97.072	0.1146	mg/kg	0.12%
Bi 223.061	-410.2	-0.07979	0.000019	mg/L	-3.9896	0.00094	mg/kg	0.02%
Ca 315.887	571047.5	63.243	0.1295	mg/L	3162.2	6.48	mg/kg	0.20%
Cd 214.438	89940.7	1.8707	0.00306	mg/L	93.535	0.1532	mg/kg	0.16%
Co 238.892	57631.7	1.8996	0.00102	mg/L	94.982	0.0510	mg/kg	0.05%
Cr 267.716	140071.5	2.0331	0.00268	mg/L	101.66	0.134	mg/kg	0.13%
Cu 324.754	168246.8	1.9152	0.00041	mg/L	95.762	0.0203	mg/kg	0.02%
Fe 234.349	1859715.5	104.60	0.113	mg/L	5230.0	5.67	mg/kg	0.11%
K 766.491	11492727.0							0.11%
Mo 202.030	-3.7	0.00861	0.001357	mg/L	0.43052	0.067828	mg/kg	15.75%
Mn 257.610	398450.8	3.2144	0.00496	mg/L	160.72	0.248	mg/kg	0.15%
Mg 279.079	73726.6	22.862	0.0486	mg/L	1143.1	2.43	mg/kg	0.21%
Ni 231.604	19830.5	2.0037	0.00495	mg/L	100.18	0.247	mg/kg	0.25%
Pb 220.353	2526.7	1.8383	0.01261	mg/L	91.915	0.6305	mg/kg	0.69%
Sn 189.933	31616.4	18.275	0.1033	mg/L	913.76	5.163	mg/kg	0.57%
Se 196.026	5677.7	9.3938	0.03376	mg/L	469.69	1.688	mg/kg	0.36%
Sb 206.833	18107.8	19.196	0.0590	mg/L	959.81	2.951	mg/kg	0.31%
V 292.402	193203.0	2.0590	0.00212	mg/L	102.95	0.106	mg/kg	0.10%
Tl 190.800	1864.0	1.7814	0.01028	mg/L	89.071	0.5139	mg/kg	0.58%
Zn 213.856	52915.8	2.1559	0.00646	mg/L	107.80	0.323	mg/kg	0.30%
Na 330.237	6958.1	19.169	0.0492	mg/L	958.45	2.459	mg/kg	0.26%
Sr 407.771	Saturated							
U 385.958	40910.5							0.43%
U 367.007	17021.5							0.30%
Zr 343.823	26479.0							0.00%
Zr 339.198	34012.2							0.01%
Zr 357.247	41824.7							0.23%

Replicate Data

ID: 9532-11MD Date: 9/5/96 6:11:41 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	353443.1	353443.1	1.062	mg/L		
1	Ag 328.068	8904.7	8385.4	0.18334	mg/L	9.1672	mg/kg
1	Al 396.152	1227311.1	1155744.0	45.206	mg/L	2260.3	mg/kg
1	As 193.696	5588.6	5262.8	9.4663	mg/L	473.31	mg/kg
1	B 249.773	60621.4	57086.4	1.7833	mg/L	89.167	mg/kg
1	Ba 233.527	764506.3	719926.3	18.969	mg/L	948.46	mg/kg
1	Be 313.042	1699733.2	1600618.2	1.9548	mg/L	97.741	mg/kg
1	Bi 223.061	-413.0	-388.9	-0.07259	mg/L	-3.6293	mg/kg
1	Ca 315.887	659103.2	620669.5	68.735	mg/L	3436.8	mg/kg
1	Cd 214.438	96278.1	90664.0	1.8864	mg/L	94.319	mg/kg
1	Co 238.892	61042.0	57482.5	1.8991	mg/L	94.954	mg/kg
1	Cr 267.716	148728.1	140055.4	2.0329	mg/L	101.65	mg/kg
1	Cu 324.754	179358.0	168899.3	1.9229	mg/L	96.144	mg/kg
1	Fe 234.349	1848892.7	1741079.9	97.923	mg/L	4896.2	mg/kg
1	K 766.491	12248583.3	11534342.6				
1	Mo 202.030	4.8	4.5	0.01195	mg/L	0.59740	mg/kg
1	Mn 257.610	423289.4	398606.5	3.2157	mg/L	160.78	mg/kg
1	Mg 279.079	76141.9	71701.9	22.232	mg/L	1111.6	mg/kg
1	Ni 231.604	20767.7	19556.7	1.9760	mg/L	98.798	mg/kg
1	Pb 220.353	2697.5	2540.2	1.8492	mg/L	92.460	mg/kg
1	Sn 189.933	33540.1	31584.3	18.257	mg/L	912.83	mg/kg
1	Se 196.026	6047.9	5695.2	9.4220	mg/L	471.10	mg/kg
1	Sb 206.833	18979.4	17872.7	18.946	mg/L	947.29	mg/kg
1	V 292.402	204665.0	192730.5	2.0540	mg/L	102.70	mg/kg
1	Tl 190.800	1993.2	1877.0	1.7932	mg/L	89.659	mg/kg
1	Zn 213.856	56125.5	52852.7	2.1541	mg/L	107.71	mg/kg
1	Na 330.237	7430.6	6997.3	19.299	mg/L	964.95	mg/kg
1	Sr 407.771	Saturated					
1	U 385.958	42903.7	40401.9				
1	U 367.007	18021.1	16970.3				
1	Zr 343.823	28072.8	26435.8				
1	Zr 339.198	36093.7	33989.0				
1	Zr 357.247	44258.2	41677.4				
2	Y 360.073	352840.8	352840.8	1.060	mg/L		
2	Ag 328.068	9028.1	8516.2	0.18625	mg/L	9.3125	mg/kg
2	Al 396.152	1222802.2	1153463.6	45.117	mg/L	2255.8	mg/kg
2	As 193.696	5656.1	5335.4	9.5979	mg/L	479.90	mg/kg
2	B 249.773	60521.2	57089.4	1.7834	mg/L	89.169	mg/kg
2	Ba 233.527	763388.7	720101.0	18.974	mg/L	948.69	mg/kg
2	Be 313.042	1695103.6	1598983.3	1.9528	mg/L	97.640	mg/kg
2	Bi 223.061	-443.5	-418.4	-0.08182	mg/L	-4.0911	mg/kg
2	Ca 315.887	658089.3	620772.6	68.747	mg/L	3437.3	mg/kg
2	Cd 214.438	96077.7	90629.7	1.8857	mg/L	94.283	mg/kg
2	Co 238.892	61042.0	57580.6	1.9024	mg/L	95.121	mg/kg
2	Cr 267.716	148653.8	140224.4	2.0354	mg/L	101.77	mg/kg
2	Cu 324.754	178455.4	168336.1	1.9164	mg/L	95.821	mg/kg
2	Fe 234.349	1846240.6	1741550.1	97.949	mg/L	4897.5	mg/kg
2	K 766.491	12185647.6	11494664.4				
2	Mo 202.030	9.4	8.8	0.01368	mg/L	0.68396	mg/kg
2	Mn 257.610	422381.8	398430.8	3.2143	mg/L	160.71	mg/kg
2	Mg 279.079	76141.9	71824.3	22.270	mg/L	1113.5	mg/kg
2	Ni 231.604	21018.2	19826.3	2.0032	mg/L	100.16	mg/kg
2	Pb 220.353	2709.3	2555.7	1.8609	mg/L	93.045	mg/kg
2	Sn 189.933	33703.7	31792.6	18.377	mg/L	918.86	mg/kg
2	Se 196.026	6082.3	5737.4	9.4912	mg/L	474.56	mg/kg
2	Sb 206.833	19168.4	18081.5	19.168	mg/L	958.40	mg/kg
2	V 292.402	204233.0	192652.0	2.0532	mg/L	102.66	mg/kg
2	Tl 190.800	2014.3	1900.1	1.8144	mg/L	90.719	mg/kg
2	Zn 213.856	55925.2	52754.0	2.1499	mg/L	107.50	mg/kg
2	Na 330.237	7434.1	7012.6	19.353	mg/L	967.63	mg/kg
2	Sr 407.771	Saturated					
2	U 385.958	42903.7	40470.9				
2	U 367.007	17966.5	16947.7				
2	Zr 343.823	28109.7	26515.7				
2	Zr 339.198	36170.1	34119.0				
2	Zr 357.247	44234.6	41726.3				

Mean Data

ID: 9532-11MD Seq. No.: 23 Sample No.: 17 A/S Pos: 21
Sample Qty: 2.0000 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 6:11:41 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	353141.9	1.061	0.0013	mg/L				0.12%
Ag 328.068	8450.8	0.18480	0.002055	mg/L	9.2399	0.10276	mg/kg	1.11%
Al 396.152	1154603.8	45.161	0.0631	mg/L	2258.1	3.16	mg/kg	0.14%
As 193.696	5299.1	9.5321	0.09308	mg/L	476.61	4.654	mg/kg	0.98%
B 249.773	57087.9	1.7834	0.00002	mg/L	89.168	0.0012	mg/kg	0.00%
Ba 233.527	720013.7	18.972	0.0033	mg/L	948.58	0.163	mg/kg	0.02%
Be 313.042	1599800.7	1.9538	0.00142	mg/L	97.690	0.0711	mg/kg	0.07%
Bi 223.061	-403.6	-0.07720	0.006532	mg/L	-3.8602	0.32660	mg/kg	8.46%
Ca 315.887	620721.0	68.741	0.0081	mg/L	3437.1	0.40	mg/kg	0.01%
Cd 214.438	90646.8	1.8860	0.00051	mg/L	94.301	0.0255	mg/kg	0.03%
Co 238.892	57531.5	1.9007	0.00236	mg/L	95.037	0.1180	mg/kg	0.12%
Cr 267.716	140139.9	2.0341	0.00175	mg/L	101.71	0.088	mg/kg	0.09%
Cu 324.754	168617.7	1.9196	0.00456	mg/L	95.982	0.2282	mg/kg	0.24%
Fe 234.349	1741315.0	97.936	0.0185	mg/L	4896.8	0.92	mg/kg	0.02%
K 766.491	11514503.5							0.24%
Mo 202.030	6.7	0.01281	0.001224	mg/L	0.64068	0.061211	mg/kg	9.55%
Mn 257.610	398518.6	3.2150	0.00100	mg/L	160.75	0.050	mg/kg	0.03%
Mg 279.079	71763.1	22.251	0.0268	mg/L	1112.6	1.34	mg/kg	0.12%
Ni 231.604	19691.5	1.9896	0.01929	mg/L	99.480	0.9647	mg/kg	0.97%
Pb 220.353	2547.9	1.8551	0.00827	mg/L	92.753	0.4134	mg/kg	0.45%
Sn 189.933	31688.4	18.317	0.0852	mg/L	915.85	4.259	mg/kg	0.47%
Se 196.026	5716.3	9.4566	0.04892	mg/L	472.83	2.446	mg/kg	0.52%
Sb 206.833	17977.1	19.057	0.1571	mg/L	952.85	7.857	mg/kg	0.82%
V 292.402	192691.3	2.0536	0.00058	mg/L	102.68	0.029	mg/kg	0.03%
Tl 190.800	1888.5	1.8038	0.01499	mg/L	90.189	0.7497	mg/kg	0.83%
Zn 213.856	52803.3	2.1520	0.00300	mg/L	107.60	0.150	mg/kg	0.14%
Na 330.237	7005.0	19.326	0.0379	mg/L	966.29	1.896	mg/kg	0.20%
Sr 407.771	Saturated							
U 385.958	40436.4							0.12%
U 367.007	16959.0							0.09%
Zr 343.823	26475.8							0.21%
Zr 339.198	34054.0							0.27%
Zr 357.247	41701.8							0.08%

Replicate Data

ID: 9532-11L Date: 9/5/96 6:16:00 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	353092.3	353092.3	1.061	mg/L		
1	Ag 328.068	28.3	26.7	-0.00089	mg/L	-0.21581	mg/kg
1	Al 396.152	182296.3	171836.8	6.7149	mg/L	1622.0	mg/kg
1	As 193.696	16.7	15.8	0.01897	mg/L	4.5814	mg/kg
1	B 249.773	1202.1	1133.2	-0.02112	mg/L	-5.1024	mg/kg
1	Ba 233.527	9571.3	9022.1	0.23773	mg/L	57.422	mg/kg
1	Be 313.042	10255.9	9667.4	0.00059	mg/L	0.14352	mg/kg
1	Bi 223.061	-181.6	-171.2	-0.01250	mg/L	-3.0204	mg/kg
1	Ca 315.887	114806.3	108219.1	12.017	mg/L	2902.7	mg/kg
1	Cd 214.438	99.6	93.9	-0.00114	mg/L	-0.27486	mg/kg
1	Co 238.892	997.1	939.9	0.01723	mg/L	4.1612	mg/kg
1	Cr 267.716	3660.5	3450.5	0.03666	mg/L	8.8561	mg/kg
1	Cu 324.754	2532.7	2387.4	0.01631	mg/L	3.9406	mg/kg
1	Fe 234.349	432116.4	407323.1	22.887	mg/L	5528.4	mg/kg
1	K 766.491	510523.6	481231.6				
1	Mo 202.030	-26.4	-24.8	0.00009	mg/L	0.02185	mg/kg
1	Mn 257.610	43311.2	40826.1	0.32870	mg/L	79.396	mg/kg
1	Mg 279.079	15206.2	14333.8	4.4405	mg/L	1072.6	mg/kg
1	Ni 231.604	406.3	383.0	0.03550	mg/L	8.5739	mg/kg
1	Pb 220.353	97.3	91.7	0.01733	mg/L	4.1867	mg/kg
1	Sn 189.933	42.2	39.8	0.01198	mg/L	2.8939	mg/kg
1	Se 196.026	-46.9	-44.2	0.01633	mg/L	3.9451	mg/kg
1	Sb 206.833	31.4	29.6	-0.00718	mg/L	-1.7344	mg/kg
1	V 292.402	3202.2	3018.5	0.03469	mg/L	8.3795	mg/kg
1	Tl 190.800	-33.2	-31.3	0.00242	mg/L	0.58345	mg/kg
1	Zn 213.856	2401.4	2263.6	0.07076	mg/L	17.092	mg/kg
1	Na 330.237	705.6	665.1	0.37884	mg/L	91.507	mg/kg
1	Sr 407.771	679644.4	640648.7				
1	U 385.958	33299.2	31388.6				
1	U 367.007	14650.4	13809.8				

1	Zr 343.823	16964.9	15991.5		
1	Zr 339.198	20180.1	19022.2		
1	Zr 357.247	32267.6	30416.2		
	Y 360.073	350865.7	350865.7	1.054 mg/L	
2	Ag 328.068	29.6	28.1	-0.00086 mg/L	-0.20860 mg/kg
2	Al 396.152	181785.3	172442.5	6.7385 mg/L	1627.7 mg/kg
2	As 193.696	16.9	16.1	0.01945 mg/L	4.6979 mg/kg
2	B 249.773	1056.0	1001.8	-0.02606 mg/L	-6.2952 mg/kg
2	Ba 233.527	9544.7	9054.2	0.23857 mg/L	57.626 mg/kg
2	Be 313.042	10215.3	9690.3	0.00062 mg/L	0.15051 mg/kg
2	Bi 223.061	-171.3	-162.5	-0.00980 mg/L	-2.3668 mg/kg
2	Ca 315.887	115231.4	109309.1	12.138 mg/L	2931.9 mg/kg
2	Cd 214.438	95.7	90.8	-0.00121 mg/L	-0.29234 mg/kg
2	Co 238.892	993.7	942.6	0.01726 mg/L	4.1690 mg/kg
2	Cr 267.716	3640.8	3453.7	0.03672 mg/L	8.8697 mg/kg
2	Cu 324.754	2479.7	2352.2	0.01591 mg/L	3.8425 mg/kg
2	Fe 234.349	431106.6	408950.1	22.979 mg/L	5550.5 mg/kg
2	K 766.491	510159.3	483939.8		
2	Mo 202.030	-20.5	-19.4	0.00229 mg/L	0.55209 mg/kg
2	Mn 257.610	43062.5	40849.3	0.32889 mg/L	79.441 mg/kg
2	Mg 279.079	15147.8	14369.2	4.4515 mg/L	1075.2 mg/kg
2	Ni 231.604	411.3	390.1	0.03622 mg/L	8.7477 mg/kg
2	Pb 220.353	105.9	100.4	0.02389 mg/L	5.7706 mg/kg
2	Sn 189.933	40.8	38.7	0.01139 mg/L	2.7521 mg/kg
2	Se 196.026	-44.5	-42.2	0.01956 mg/L	4.7237 mg/kg
2	Sb 206.833	32.6	30.9	-0.00583 mg/L	-1.4081 mg/kg
2	V 292.402	3216.6	3051.3	0.03507 mg/L	8.4703 mg/kg
2	Tl 190.800	-20.9	-19.9	0.01286 mg/L	3.1063 mg/kg
2	Zn 213.856	2396.6	2273.4	0.07115 mg/L	17.187 mg/kg
2	Na 330.237	726.0	688.7	0.45572 mg/L	110.08 mg/kg
2	Sr 407.771	677373.1	642559.8		
2	U 385.958	33479.4	31758.8		
2	U 367.007	14686.6	13931.8		
2	Zr 343.823	17047.4	16171.2		
2	Zr 339.198	20302.9	19259.4		
2	Zr 357.247	32407.2	30741.7		

Mean Data ----------

ID: 9532-11L Seq. No.: 24 Sample No.: 18 A/S Pos: 22
Sample Qty: 2.0700 g Prep. Vol.: 100.0 mL Dilution: 1.0: 5.0
Data: Original Date: 9/5/96 6:16:00 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	351979.0	1.058	0.0047	mg/L				0.45%
Ag 328.068	27.4	-0.00088	0.000021	mg/L	-0.21220	0.005099	mg/kg	2.40%
Al 396.152	172139.7	6.7267	0.01671	mg/L	1624.8	4.04	mg/kg	0.25%
As 193.696	15.9	0.01921	0.000341	mg/L	4.6397	0.08238	mg/kg	1.78%
B 249.773	1067.5	-0.02359	0.003492	mg/L	-5.6988	0.84347	mg/kg	14.80%
Ba 233.527	9038.1	0.23815	0.000596	mg/L	57.524	0.1439	mg/kg	0.25%
Be 313.042	9678.9	0.00061	0.000020	mg/L	0.14702	0.004949	mg/kg	3.37%
Bi 223.061	-166.9	-0.01115	0.001913	mg/L	-2.6936	0.46210	mg/kg	17.16%
Ca 315.887	108764.1	12.078	0.0853	mg/L	2917.3	20.61	mg/kg	0.71%
Cd 214.438	92.3	-0.00117	0.000051	mg/L	-0.28360	0.012361	mg/kg	4.36%
Co 238.892	941.2	0.01724	0.000023	mg/L	4.1651	0.00552	mg/kg	0.13%
Cr 267.716	3452.1	0.03669	0.000040	mg/L	8.8629	0.00960	mg/kg	0.11%
Cu 324.754	2369.8	0.01611	0.000287	mg/L	3.8915	0.06933	mg/kg	1.78%
Fe 234.349	408136.6	22.933	0.0647	mg/L	5539.4	15.64	mg/kg	0.28%
K 766.491	482585.7							0.40%
Mo 202.030	-22.1	0.00119	0.001552	mg/L	0.28697	0.374937	mg/kg	130.65%
Mn 257.610	40837.7	0.32879	0.000132	mg/L	79.418	0.0319	mg/kg	0.04%
Mg 279.079	14351.5	4.4460	0.00779	mg/L	1073.9	1.88	mg/kg	0.18%
Ni 231.604	386.6	0.03586	0.000509	mg/L	8.6608	0.12291	mg/kg	1.42%
Pb 220.353	96.1	0.02061	0.004637	mg/L	4.9787	1.11996	mg/kg	22.50%
Sn 189.933	39.2	0.01169	0.000415	mg/L	2.8230	0.10027	mg/kg	3.55%
Se 196.026	-43.2	0.01794	0.002279	mg/L	4.3344	0.55059	mg/kg	12.70%
Sb 206.833	30.3	-0.00650	0.000955	mg/L	-1.5712	0.23076	mg/kg	14.69%
V 292.402	3034.9	0.03488	0.000266	mg/L	8.4249	0.06420	mg/kg	0.76%
Tl 190.800	-25.6	0.00764	0.007385	mg/L	1.8449	1.78391	mg/kg	96.70%
Zn 213.856	2268.5	0.07096	0.000277	mg/L	17.140	0.0670	mg/kg	0.39%
Na 330.237	676.9	0.41728	0.054365	mg/L	100.79	13.132	mg/kg	13.03%
Sr 407.771	641604.3							0.21%
U 385.958	31573.7							0.83%
U 367.007	13870.8							0.62%
Zr 343.823	16081.4							0.79%

Zr 339.198	19140.8	0.88%
Zr 357.247	30578.9	0.75%

Replicate Data
ID: 9653-1 Date: 9/5/96 6:21:00 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	295964.8	295964.8	0.889	mg/L		
1	Ag 328.068	-577.6	-649.6	-0.01825	mg/L	-0.91227	mg/kg
1	Al 396.152	1787755.6	2010456.3	78.643	mg/L	3932.2	mg/kg
1	As 193.696	702.0	789.4	1.3304	mg/L	66.520	mg/kg
1	B 249.773	7533.7	8472.1	-0.39883	mg/L	-19.942	mg/kg
1	Ba 233.527	37832.1	42544.8	1.1207	mg/L	56.035	mg/kg
1	Be 313.042	17087.1	19215.6	0.01263	mg/L	0.63144	mg/kg
1	Bi 223.061	-266.0	-299.2	-0.06931	mg/L	-3.4655	mg/kg
1	Ca 315.887	Saturated					
1	Cd 214.438	447.2	502.9	-0.01313	mg/L	-0.65645	mg/kg
1	Co 238.892	8038.3	9039.6	0.12774	mg/L	6.3868	mg/kg
1	Cr 267.716	16391.8	18433.8	0.25437	mg/L	12.718	mg/kg
1	Cu 324.754	60226.2	67728.6	0.75914	mg/L	37.957	mg/kg
1	Fe 234.349	4231168.8	4758245.4	267.74	mg/L	13387	mg/kg
1	K 766.491	9130766.7	10268186.2				
1	Mo 202.030	-20.8	-23.4	0.00069	mg/L	0.03465	mg/kg
1	Mn 257.610	612855.9	689199.3	5.5605	mg/L	278.02	mg/kg
1	Mg 279.079	311952.8	350812.7	108.63	mg/L	5431.6	mg/kg
1	Ni 231.604	1786.3	2008.8	0.20003	mg/L	10.002	mg/kg
1	Pb 220.353	1762.6	1982.2	1.4188	mg/L	70.942	mg/kg
1	Sn 189.933	265.3	298.4	0.16156	mg/L	8.0780	mg/kg
1	Se 196.026	-88.3	-99.3	-0.05965	mg/L	-2.9825	mg/kg
1	Sb 206.833	-62.2	-69.9	-0.11776	mg/L	-5.8878	mg/kg
1	V 292.402	21259.3	23907.6	0.25703	mg/L	12.851	mg/kg
1	Tl 190.800	-53.8	-60.5	-0.02173	mg/L	-1.0865	mg/kg
1	Zn 213.856	43885.7	49352.5	2.0171	mg/L	100.85	mg/kg
1	Na 330.237	5167.0	5810.7	15.551	mg/L	777.55	mg/kg
1	Sr 407.771	Saturated					
1	U 385.958	85811.8	96501.4				
1	U 367.007	32355.6	36386.1				
1	Zr 343.823	37251.1	41891.5				
1	Zr 339.198	44562.2	50113.3				
1	Zr 357.247	55462.1	62371.1				
2	Y 360.073	298096.5	298096.5	0.896	mg/L		
2	Ag 328.068	-585.8	-654.1	-0.01834	mg/L	-0.91698	mg/kg
2	Al 396.152	1803607.6	2013778.5	78.773	mg/L	3938.6	mg/kg
2	As 193.696	704.1	786.2	1.3243	mg/L	66.217	mg/kg
2	B 249.773	7538.0	8416.4	-0.39753	mg/L	-19.877	mg/kg
2	Ba 233.527	38082.5	42520.2	1.1201	mg/L	56.003	mg/kg
2	Be 313.042	17137.1	19134.1	0.01253	mg/L	0.62638	mg/kg
2	Bi 223.061	-263.1	-293.7	-0.06749	mg/L	-3.3743	mg/kg
2	Ca 315.887	Saturated					
2	Cd 214.438	455.2	508.3	-0.01290	mg/L	-0.64477	mg/kg
2	Co 238.892	7872.2	8789.5	0.12004	mg/L	6.0021	mg/kg
2	Cr 267.716	16434.6	18349.7	0.25315	mg/L	12.658	mg/kg
2	Cu 324.754	60827.3	67915.4	0.76131	mg/L	38.066	mg/kg
2	Fe 234.349	4241607.3	4735873.5	266.48	mg/L	13324	mg/kg
2	K 766.491	9131030.4	10195051.4				
2	Mo 202.030	-13.8	-15.4	0.00390	mg/L	0.19503	mg/kg
2	Mn 257.610	615757.6	687510.6	5.5469	mg/L	277.34	mg/kg
2	Mg 279.079	313678.5	350230.8	108.45	mg/L	5422.6	mg/kg
2	Ni 231.604	1785.5	1993.6	0.19850	mg/L	9.9248	mg/kg
2	Pb 220.353	1782.5	1990.2	1.4249	mg/L	71.243	mg/kg
2	Sn 189.933	268.0	299.2	0.16206	mg/L	8.1030	mg/kg
2	Se 196.026	-94.6	-105.6	-0.07009	mg/L	-3.5046	mg/kg
2	Sb 206.833	-64.7	-72.2	-0.12020	mg/L	-6.0100	mg/kg
2	V 292.402	21320.9	23805.4	0.25598	mg/L	12.799	mg/kg
2	Tl 190.800	-58.2	-65.0	-0.02591	mg/L	-1.2953	mg/kg
2	Zn 213.856	44136.2	49279.3	2.0141	mg/L	100.70	mg/kg
2	Na 330.237	5152.2	5752.6	15.363	mg/L	768.16	mg/kg
2	Sr 407.771	Saturated					
2	U 385.958	86011.9	96034.7				
2	U 367.007	32390.6	36165.0				
2	Zr 343.823	37290.5	41635.9				
2	Zr 339.198	44644.2	49846.5				
2	Zr 357.247	55552.8	62026.2				

Mean Data

ID: 9653-1 Seq. No.: 25 Sample No.: 19 A/S Pos: 23
Sample Qty: 2.0000 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 6:21:00 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	297030.6	0.892	0.0045	mg/L				0.51%
Ag 328.068	-651.8	-0.01829	0.000067	mg/L	-0.91462	0.003332	mg/kg	0.36%
Al 396.152	2012117.4	78.708	0.0918	mg/L	3935.4	4.59	mg/kg	0.12%
As 193.696	787.8	1.3274	0.00429	mg/L	66.369	0.2143	mg/kg	0.32%
B 249.773	8444.3	-0.39818	0.000918	mg/L	-19.909	0.0459	mg/kg	0.23%
Ba 233.527	42532.5	1.1204	0.00046	mg/L	56.019	0.0229	mg/kg	0.04%
Be 313.042	19174.9	0.01258	0.000072	mg/L	0.62891	0.003581	mg/kg	0.57%
Bi 223.061	-296.4	-0.06840	0.001290	mg/L	-3.4199	0.06450	mg/kg	1.89%
Ca 315.887	Saturated							
Cd 214.438	505.6	-0.01301	0.000165	mg/L	-0.65061	0.008262	mg/kg	1.27%
Co 238.892	8914.6	0.12389	0.005441	mg/L	6.1944	0.27203	mg/kg	4.39%
Cr 267.716	18391.7	0.25376	0.000857	mg/L	12.688	0.0429	mg/kg	0.34%
Cu 324.754	67822.0	0.76023	0.001533	mg/L	38.011	0.0766	mg/kg	0.20%
Fe 234.349	4747059.5	267.11	0.890	mg/L	13355	44.5	mg/kg	0.33%
K 766.491	10231618.8							0.51%
Mo 202.030	-19.4	0.00230	0.002268	mg/L	0.11484	0.113407	mg/kg	98.75%
Mn 257.610	688355.0	5.5537	0.00964	mg/L	277.68	0.482	mg/kg	0.17%
Mg 279.079	350521.7	108.54	0.128	mg/L	5427.1	6.39	mg/kg	0.12%
Ni 231.604	2001.2	0.19926	0.001086	mg/L	9.9632	0.05432	mg/kg	0.55%
Pb 220.353	1986.2	1.4219	0.00425	mg/L	71.093	0.2127	mg/kg	0.30%
Sn 189.933	298.8	0.16181	0.000354	mg/L	8.0905	0.01770	mg/kg	0.22%
Se 196.026	-102.4	-0.06487	0.007385	mg/L	-3.2435	0.36923	mg/kg	11.38%
Sb 206.833	-71.1	-0.11898	0.001728	mg/L	-5.9489	0.08638	mg/kg	1.45%
V 292.402	23856.5	0.25650	0.000742	mg/L	12.825	0.0371	mg/kg	0.29%
Tl 190.800	-62.7	-0.02382	0.002952	mg/L	-1.1909	0.14762	mg/kg	12.40%
Zn 213.856	49315.9	2.0156	0.00210	mg/L	100.78	0.105	mg/kg	0.10%
Na 330.237	5781.7	15.457	0.1328	mg/L	772.85	6.638	mg/kg	0.86%
Sr 407.771	Saturated							
U 385.958	96268.0							0.34%
U 367.007	36275.5							0.43%
Zr 343.823	41763.7							0.43%
Zr 339.198	49979.9							0.38%
Zr 357.247	62198.6							0.39%

Replicate Data

ID: 9653-2 Date: 9/5/96 6:25:59 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	296493.8	296493.8	0.891	mg/L		
1	Ag 328.068	-617.9	-693.6	-0.01888	mg/L	-0.90781	mg/kg
1	Al 396.152	2182979.6	2450533.1	95.859	mg/L	4608.6	mg/kg
1	As 193.696	645.8	724.9	1.1882	mg/L	57.124	mg/kg
1	B 249.773	8897.8	9988.4	-0.30010	mg/L	-14.428	mg/kg
1	Ba 233.527	45374.7	50936.0	1.3418	mg/L	64.511	mg/kg
1	Be 313.042	17904.8	20099.2	0.01377	mg/L	0.66179	mg/kg
1	Bi 223.061	-292.0	-327.8	-0.07588	mg/L	-3.6482	mg/kg
1	Ca 315.887	Saturated					
1	Cd 214.438	430.1	482.8	-0.01147	mg/L	-0.55141	mg/kg
1	Co 238.892	7638.2	8574.4	0.12341	mg/L	5.9331	mg/kg
1	Cr 267.716	14818.3	16634.5	0.22828	mg/L	10.975	mg/kg
1	Cu 324.754	72620.7	81521.3	0.91754	mg/L	44.113	mg/kg
1	Fe 234.349	3969034.3	4455492.8	250.70	mg/L	12053	mg/kg
1	K 766.491	9757946.7	10953914.1				
1	Mo 202.030	-12.6	-14.2	0.00441	mg/L	0.21189	mg/kg
1	Mn 257.610	527033.0	591628.0	4.7732	mg/L	229.48	mg/kg
1	Mg 279.079	261859.3	293953.7	91.038	mg/L	4376.8	mg/kg
1	Ni 231.604	2441.1	2740.3	0.27406	mg/L	13.176	mg/kg
1	Pb 220.353	2062.3	2315.0	1.6642	mg/L	80.009	mg/kg
1	Sn 189.933	287.5	322.7	0.17564	mg/L	8.4440	mg/kg
1	Se 196.026	-97.5	-109.5	-0.07967	mg/L	-3.8304	mg/kg
1	Sb 206.833	-58.4	-65.5	-0.11254	mg/L	-5.4105	mg/kg
1	V 292.402	21912.9	24598.6	0.26443	mg/L	12.713	mg/kg
1	Tl 190.800	-59.5	-66.8	-0.02588	mg/L	-1.2442	mg/kg
1	Zn 213.856	51059.9	57318.0	2.3434	mg/L	112.66	mg/kg
1	Na 330.237	5592.6	6278.1	16.800	mg/L	807.70	mg/kg
1	Sr 407.771	Saturated					

1 U 385.958	89012.9	99922.7			
1 U 367.007	33624.8	37745.9			
1 Zr 343.823	39805.2	44683.9			
1 Zr 339.198	47934.1	53809.1			
1 Zr 357.247	57929.3	65029.3			
2 Y 360.073	296208.3	296208.3	0.890 mg/L		
2 Ag 328.068	-627.2	-704.7	-0.01914 mg/L	-0.91997 mg/kg	
2 Al 396.152	2183878.1	2453904.2	95.991 mg/L	4615.0 mg/kg	
2 As 193.696	643.1	722.7	1.1840 mg/L	56.921 mg/kg	
2 B 249.773	8934.4	10039.1	-0.29936 mg/L	-14.392 mg/kg	
2 Ba 233.527	45206.4	50796.0	1.3382 mg/L	64.334 mg/kg	
2 Be 313.042	17848.6	20055.5	0.01371 mg/L	0.65916 mg/kg	
2 Bi 223.061	-284.6	-319.7	-0.07342 mg/L	-3.5297 mg/kg	
2 Ca 315.887	Saturated				
2 Cd 214.438	428.6	481.6	-0.01153 mg/L	-0.55425 mg/kg	
2 Co 238.892	7438.2	8357.9	0.11573 mg/L	5.5639 mg/kg	
2 Cr 267.716	14742.3	16565.1	0.22724 mg/L	10.925 mg/kg	
2 Cu 324.754	72540.4	81509.7	0.91740 mg/L	44.106 mg/kg	
2 Fe 234.349	3971695.5	4462776.7	251.11 mg/L	12073 mg/kg	
2 K 766.491	9788721.7	10999050.4			
2 Mo 202.030	-22.7	-25.5	-0.00018 mg/L	-0.00872 mg/kg	
2 Mn 257.610	528140.8	593442.9	4.7878 mg/L	230.18 mg/kg	
2 Mg 279.079	261714.0	294073.7	91.075 mg/L	4378.6 mg/kg	
2 Ni 231.604	2428.8	2729.1	0.27293 mg/L	13.122 mg/kg	
2 Pb 220.353	2062.5	2317.5	1.6660 mg/L	80.097 mg/kg	
2 Sn 189.933	286.3	321.7	0.17504 mg/L	8.4152 mg/kg	
2 Se 196.026	-76.5	-85.9	-0.04101 mg/L	-1.9716 mg/kg	
2 Sb 206.833	-61.8	-69.5	-0.11673 mg/L	-5.6121 mg/kg	
2 V 292.402	21821.2	24519.2	0.26353 mg/L	12.670 mg/kg	
2 Tl 190.800	-50.5	-56.7	-0.01677 mg/L	-0.80622 mg/kg	
2 Zn 213.856	51063.2	57376.9	2.3459 mg/L	112.78 mg/kg	
2 Na 330.237	5521.3	6204.0	16.555 mg/L	795.93 mg/kg	
2 Sr 407.771	Saturated				
2 U 385.958	89012.9	100019.0			
2 U 367.007	33605.8	37761.0			
2 Zr 343.823	39741.1	44654.9			
2 Zr 339.198	47904.6	53827.7			
2 Zr 357.247	57908.4	65068.5			

Mean Data

ID: 9653-2 Seq. No.: 26 Sample No.: 20 A/S Pos: 24
Sample Qty: 2.0800 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 6:25:59 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	296351.1	0.890	0.0006	mg/L				0.07%
Ag 328.068	-699.2	-0.01901	0.000179	mg/L	-0.91389	0.008599	mg/kg	0.94%
Al 396.152	2452218.6	95.925	0.0933	mg/L	4611.8	4.49	mg/kg	0.10%
As 193.696	723.8	1.1861	0.00299	mg/L	57.022	0.1436	mg/kg	0.25%
B 249.773	10013.7	-0.29973	0.000524	mg/L	-14.410	0.0252	mg/kg	0.17%
Ba 233.527	50866.0	1.3400	0.00261	mg/L	64.423	0.1253	mg/kg	0.19%
Be 313.042	20077.4	0.01374	0.000039	mg/L	0.66047	0.001861	mg/kg	0.28%
Bi 223.061	-323.7	-0.07465	0.001743	mg/L	-3.5890	0.08378	mg/kg	2.33%
Ca 315.887	Saturated							
Cd 214.438	482.2	-0.01150	0.000042	mg/L	-0.55283	0.002008	mg/kg	0.36%
Co 238.892	8466.1	0.11957	0.005431	mg/L	5.7485	0.26109	mg/kg	4.54%
Cr 267.716	16599.8	0.22776	0.000733	mg/L	10.950	0.0352	mg/kg	0.32%
Cu 324.754	81515.5	0.91747	0.000100	mg/L	44.109	0.0048	mg/kg	0.01%
Fe 234.349	4459134.7	250.90	0.290	mg/L	12063	13.9	mg/kg	0.12%
K 766.491	10976482.3							0.29%
Mo 202.030	-19.8	0.00211	0.003245	mg/L	0.10159	0.155988	mg/kg	153.55%
Mn 257.610	592535.5	4.7805	0.01036	mg/L	229.83	0.498	mg/kg	0.22%
Mg 279.079	294013.7	91.056	0.0264	mg/L	4377.7	1.27	mg/kg	0.03%
Ni 231.604	2734.7	0.27350	0.000799	mg/L	13.149	0.0384	mg/kg	0.29%
Pb 220.353	2316.3	1.6651	0.00129	mg/L	80.053	0.0618	mg/kg	0.08%
Sn 189.933	322.2	0.17534	0.000424	mg/L	8.4296	0.02040	mg/kg	0.24%
Se 196.026	-97.7	-0.06034	0.027339	mg/L	-2.9010	1.31438	mg/kg	45.31%
Sb 206.833	-67.5	-0.11464	0.002965	mg/L	-5.5113	0.14254	mg/kg	2.59%
V 292.402	24558.9	0.26398	0.000637	mg/L	12.691	0.0306	mg/kg	0.24%
Tl 190.800	-61.7	-0.02132	0.006442	mg/L	-1.0252	0.30970	mg/kg	30.21%
Zn 213.856	57347.5	2.3446	0.00175	mg/L	112.72	0.084	mg/kg	0.07%
Na 330.237	6241.0	16.678	0.1731	mg/L	801.82	8.324	mg/kg	1.04%
Sr 407.771	Saturated							
U 385.958	99970.8							0.07%

U 367.007	37753.5	0.03%
Zr 343.823	44669.4	0.05%
Zr 339.198	53818.4	0.02%
Zr 357.247	65048.9	0.04%

Replicate Data

ID: 9653-3 Date: 9/5/96 6:30:57 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	288796.5	288796.5	0.868	mg/L		
1	Ag 328.068	-738.5	-851.2	-0.02204	mg/L	-1.1021	mg/kg
1	Al 396.152	4698893.7	5415395.6	211.85	mg/L	10592	mg/kg
1	As 193.696	218.1	251.3	0.17250	mg/L	8.6252	mg/kg
1	B 249.773	8126.9	9366.1	0.01250	mg/L	0.62500	mg/kg
1	Ba 233.527	47897.1	55200.6	1.4539	mg/L	72.697	mg/kg
1	Be 313.042	20757.1	23922.2	0.01883	mg/L	0.94171	mg/kg
1	Bi 223.061	-470.5	-542.2	-0.13299	mg/L	-6.6495	mg/kg
1	Ca 315.887	Saturated					
1	Cd 214.438	32.8	37.8	-0.00552	mg/L	-0.27617	mg/kg
1	Co 238.892	4220.1	4863.6	0.08366	mg/L	4.1829	mg/kg
1	Cr 267.716	11964.2	13788.5	0.18686	mg/L	9.3428	mg/kg
1	Cu 324.754	15020.3	17310.6	0.18508	mg/L	9.2541	mg/kg
1	Fe 234.349	1889584.3	2177713.9	122.52	mg/L	6125.8	mg/kg
1	K 766.491	Saturated					
1	Mo 202.030	-29.0	-33.4	-0.00335	mg/L	-0.16739	mg/kg
1	Mn 257.610	424033.8	488691.8	3.9426	mg/L	197.13	mg/kg
1	Mg 279.079	327245.9	377145.4	116.70	mg/L	5834.9	mg/kg
1	Ni 231.604	1538.4	1773.0	0.17617	mg/L	8.8085	mg/kg
1	Pb 220.353	332.3	382.9	0.16448	mg/L	8.2240	mg/kg
1	Sn 189.933	93.5	107.8	0.05131	mg/L	2.5657	mg/kg
1	Se 196.026	-62.8	-72.4	-0.04120	mg/L	-2.0601	mg/kg
1	Sb 206.833	-41.1	-47.4	-0.09234	mg/L	-4.6169	mg/kg
1	V 292.402	31303.9	36077.2	0.38650	mg/L	19.325	mg/kg
1	Tl 190.800	-63.8	-73.5	-0.02694	mg/L	-1.3472	mg/kg
1	Zn 213.856	50942.6	58710.4	2.4113	mg/L	120.57	mg/kg
1	Na 330.237	21394.8	24657.2	76.954	mg/L	3847.7	mg/kg
1	Sr 407.771	Saturated					
1	U 385.958	88061.5	101489.4				
1	U 367.007	34404.1	39650.1				
1	Zr 343.823	56995.5	65686.4				
1	Zr 339.198	73425.6	84621.7				
1	Zr 357.247	73022.9	84157.6				
2	Y 360.073	290961.2	290961.2	0.874	mg/L		
2	Ag 328.068	-734.0	-839.6	-0.02178	mg/L	-1.0890	mg/kg
2	Al 396.152	4730331.2	5411068.2	211.68	mg/L	10584	mg/kg
2	As 193.696	205.1	234.6	0.14242	mg/L	7.1208	mg/kg
2	B 249.773	8123.1	9292.1	0.01078	mg/L	0.53921	mg/kg
2	Ba 233.527	48063.0	54979.7	1.4481	mg/L	72.406	mg/kg
2	Be 313.042	20947.2	23961.7	0.01888	mg/L	0.94420	mg/kg
2	Bi 223.061	-484.2	-553.9	-0.13663	mg/L	-6.8317	mg/kg
2	Ca 315.887	Saturated					
2	Cd 214.438	15.7	18.0	-0.00591	mg/L	-0.29553	mg/kg
2	Co 238.892	4270.1	4884.6	0.08462	mg/L	4.2310	mg/kg
2	Cr 267.716	11992.8	13718.7	0.18585	mg/L	9.2924	mg/kg
2	Cu 324.754	15022.6	17184.4	0.18364	mg/L	9.1821	mg/kg
2	Fe 234.349	1898219.5	2171390.3	122.16	mg/L	6108.0	mg/kg
2	K 766.491	Saturated					
2	Mo 202.030	-23.5	-26.8	-0.00071	mg/L	-0.03538	mg/kg
2	Mn 257.610	426473.8	487847.2	3.9358	mg/L	196.79	mg/kg
2	Mg 279.079	328878.6	376207.1	116.41	mg/L	5820.4	mg/kg
2	Ni 231.604	1530.0	1750.2	0.17386	mg/L	8.6931	mg/kg
2	Pb 220.353	344.2	393.8	0.17274	mg/L	8.6370	mg/kg
2	Sn 189.933	104.3	119.3	0.05799	mg/L	2.8996	mg/kg
2	Se 196.026	-67.0	-76.7	-0.04830	mg/L	-2.4150	mg/kg
2	Sb 206.833	-37.7	-43.1	-0.08775	mg/L	-4.3873	mg/kg
2	V 292.402	31538.6	36077.3	0.38654	mg/L	19.327	mg/kg
2	Tl 190.800	-70.3	-80.4	-0.03324	mg/L	-1.6618	mg/kg
2	Zn 213.856	51293.3	58674.9	2.4099	mg/L	120.49	mg/kg
2	Na 330.237	21695.1	24817.2	77.479	mg/L	3874.0	mg/kg
2	Sr 407.771	Saturated					
2	U 385.958	88361.9	101078.0				
2	U 367.007	34471.7	39432.5				
2	Zr 343.823	57066.1	65278.4				

2 Zr 339.198	73776.1	84393.1	
2 Zr 357.247	73173.1	83703.4	

Mean Data

ID: 9653-3 Seq. No.: 27 Sample No.: 21 A/S Pos: 25
Sample Qty: 2.0000 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.
Data: Original Date: 9/5/96 6:30:57 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	289878.8	0.871	0.0046	mg/L				0.53%
Ag 328.068	-845.4	-0.02191	0.000184	mg/L	-1.0956	0.00920	mg/kg	0.84%
Al 396.152	5413231.9	211.76	0.120	mg/L	10588	6.0	mg/kg	0.06%
As 193.696	243.0	0.15746	0.021276	mg/L	7.8730	1.06378	mg/kg	13.51%
B 249.773	9329.1	0.01164	0.001213	mg/L	0.58210	0.060660	mg/kg	10.42%
Ba 233.527	55090.1	1.4510	0.00412	mg/L	72.551	0.2059	mg/kg	0.28%
Be 313.042	23942.0	0.01886	0.000035	mg/L	0.94295	0.001762	mg/kg	0.19%
Bi 223.061	-548.1	-0.13481	0.002578	mg/L	-6.7406	0.12890	mg/kg	1.91%
Ca 315.887	Saturated							
Cd 214.438	27.9	-0.00572	0.000274	mg/L	-0.28585	0.013691	mg/kg	4.79%
Co 238.892	4874.1	0.08414	0.000680	mg/L	4.2069	0.03400	mg/kg	0.81%
Cr 267.716	13753.6	0.18635	0.000713	mg/L	9.3176	0.03563	mg/kg	0.38%
Cu 324.754	17247.5	0.18436	0.001017	mg/L	9.2181	0.05087	mg/kg	0.55%
Fe 234.349	2174552.1	122.34	0.252	mg/L	6116.9	12.58	mg/kg	0.21%
K 766.491	Saturated							
Mo 202.030	-30.1	-0.00203	0.001867	mg/L	-0.10138	0.093342	mg/kg	92.07%
Mn 257.610	488269.5	3.9392	0.00482	mg/L	196.96	0.241	mg/kg	0.12%
Mg 279.079	376676.3	116.55	0.205	mg/L	5827.6	10.26	mg/kg	0.18%
Ni 231.604	1761.6	0.17502	0.001632	mg/L	8.7508	0.08158	mg/kg	0.93%
Pb 220.353	388.4	0.16861	0.005840	mg/L	8.4305	0.29199	mg/kg	3.46%
Sn 189.933	113.5	0.05465	0.004721	mg/L	2.7327	0.23606	mg/kg	8.64%
Se 196.026	-74.5	-0.04475	0.005019	mg/L	-2.2375	0.25097	mg/kg	11.22%
Sb 206.833	-45.2	-0.09004	0.003246	mg/L	-4.5021	0.16231	mg/kg	3.61%
V 292.402	36077.3	0.38652	0.000024	mg/L	19.326	0.0012	mg/kg	0.01%
Tl 190.800	-76.9	-0.03009	0.004449	mg/L	-1.5045	0.22245	mg/kg	14.79%
Zn 213.856	58692.7	2.4106	0.00103	mg/L	120.53	0.051	mg/kg	0.04%
Na 330.237	24737.2	77.217	0.3716	mg/L	3860.8	18.58	mg/kg	0.48%
Sr 407.771	Saturated							
U 385.958	101283.7							0.29%
U 367.007	39541.3							0.39%
Zr 343.823	65482.4							0.44%
Zr 339.198	84507.4							0.19%
Zr 357.247	83930.5							0.38%

Replicate Data

ID: CCV2 Date: 9/5/96 6:35:52 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	334912.1	334912.1	1.006	mg/L		
1	Ag 328.068	11447.7	11376.7	0.25120	mg/L	0.25120	mg/L
1	Al 396.152	608943.2	605163.1	23.652	mg/L	23.652	mg/L
1	As 193.696	150.5	149.5	0.23894	mg/L	0.23894	mg/L
1	B 249.773	14969.5	14876.6	0.46326	mg/L	0.46326	mg/L
1	Ba 233.527	19279.3	19159.6	0.50342	mg/L	0.50342	mg/L
1	Be 313.042	224719.4	223324.4	0.26335	mg/L	0.26335	mg/L
1	Bi 223.061	1412.1	1403.4	0.48323	mg/L	0.48323	mg/L
1	Ca 315.887	243909.9	242395.8	26.868	mg/L	26.868	mg/L
1	Cd 214.438	12587.1	12509.0	0.25864	mg/L	0.25864	mg/L
1	Co 238.892	15266.9	15172.1	0.50200	mg/L	0.50200	mg/L
1	Cr 267.716	35629.9	35408.7	0.50590	mg/L	0.50590	mg/L
1	Cu 324.754	43319.3	43050.4	0.48195	mg/L	0.48195	mg/L
1	Fe 234.349	459064.0	456214.3	25.633	mg/L	25.633	mg/L
1	K 766.491	11255131.2	11185263.1				
1	Mo 202.030	1268.2	1260.3	0.51875	mg/L	0.51875	mg/L
1	Mn 257.610	62191.4	61805.3	0.49798	mg/L	0.49798	mg/L
1	Mg 279.079	81723.0	81215.7	25.126	mg/L	25.126	mg/L
1	Ni 231.604	5040.9	5009.6	0.50373	mg/L	0.50373	mg/L
1	Pb 220.353	760.0	755.3	0.51206	mg/L	0.51206	mg/L
1	Sn 189.933	928.6	922.8	0.52273	mg/L	0.52273	mg/L
1	Se 196.026	231.9	230.5	0.46562	mg/L	0.46562	mg/L
1	Sb 206.833	507.0	503.9	0.48626	mg/L	0.48626	mg/L
1	V 292.402	48032.3	47734.1	0.51694	mg/L	0.51694	mg/L
1	Tl 190.800	236.4	234.9	0.25544	mg/L	0.25544	mg/L
1	Zn 213.856	13122.5	13041.0	0.51325	mg/L	0.51325	mg/L

1	Na 330.237	8321.9	8270.2	24.906	mg/L	24.906 mg/L
1	Sr 407.771	71964.6	71517.8			
1	U 385.958	34360.7	34147.4			
1	U 367.007	15348.0	15252.7			
1	Zr 343.823	16113.7	16013.6			
1	Zr 339.198	18808.6	18691.8			
1	Zr 357.247	31100.5	30907.4			
2	Y 360.073	346554.8	346554.8	1.041	mg/L	
2	Ag 328.068	11411.9	10960.0	0.24195	mg/L	0.24195 mg/L
2	Al 396.152	604748.1	580803.3	22.700	mg/L	22.700 mg/L
2	As 193.696	146.0	140.2	0.22329	mg/L	0.22329 mg/L
2	B 249.773	14909.4	14319.1	0.44603	mg/L	0.44603 mg/L
2	Ba 233.527	19159.0	18400.4	0.48347	mg/L	0.48347 mg/L
2	Be 313.042	223314.1	214472.1	0.25247	mg/L	0.25247 mg/L
2	Bi 223.061	1420.0	1363.8	0.47080	mg/L	0.47080 mg/L
2	Ca 315.887	242753.1	233141.3	25.844	mg/L	25.844 mg/L
2	Cd 214.438	12562.4	12065.0	0.24942	mg/L	0.24942 mg/L
2	Co 238.892	15179.9	14578.8	0.48242	mg/L	0.48242 mg/L
2	Cr 267.716	35464.3	34060.1	0.48611	mg/L	0.48611 mg/L
2	Cu 324.754	43120.3	41413.0	0.46323	mg/L	0.46323 mg/L
2	Fe 234.349	455821.7	437773.5	24.596	mg/L	24.596 mg/L
2	K 766.491	11232180.2	10787445.2			
2	Mo 202.030	1256.9	1207.1	0.49730	mg/L	0.49730 mg/L
2	Mn 257.610	61829.1	59381.0	0.47842	mg/L	0.47842 mg/L
2	Mg 279.079	81113.0	77901.4	24.100	mg/L	24.100 mg/L
2	Ni 231.604	5017.7	4819.0	0.48444	mg/L	0.48444 mg/L
2	Pb 220.353	753.4	723.6	0.48847	mg/L	0.48847 mg/L
2	Sn 189.933	913.3	877.2	0.49633	mg/L	0.49633 mg/L
2	Se 196.026	258.2	248.0	0.49437	mg/L	0.49437 mg/L
2	Sb 206.833	523.9	503.1	0.48597	mg/L	0.48597 mg/L
2	V 292.402	47819.0	45925.6	0.49743	mg/L	0.49743 mg/L
2	Tl 190.800	242.2	232.6	0.25297	mg/L	0.25297 mg/L
2	Zn 213.856	13062.4	12545.2	0.49291	mg/L	0.49291 mg/L
2	Na 330.237	8158.9	7835.8	23.501	mg/L	23.501 mg/L
2	Sr 407.771	72024.7	69172.9			
2	U 385.958	34400.8	33038.7			
2	U 367.007	15388.0	14778.7			
2	Zr 343.823	16101.6	15464.1			
2	Zr 339.198	18728.6	17987.0			
2	Zr 357.247	31120.5	29888.3			

Mean Data

ID: CCV2 Seq. No.: 28 Sample No.: 22 A/S Pos: 26
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 6:35:52 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Units	Mean Conc.	Sample Std.Dev.	Units	RSD
Y 360.073	340733.5	1.024	0.0247	mg/L				2.42%
Ag 328.068	11168.3	0.24657	0.006539	mg/L	0.24657	0.006539	mg/L	2.65%
Al 396.152	592983.2	23.176	0.6734	mg/L	23.176	0.6734	mg/L	2.91%
As 193.696	144.9	0.23111	0.011061	mg/L	0.23111	0.011061	mg/L	4.79%
B 249.773	14597.8	0.45465	0.012182	mg/L	0.45465	0.012182	mg/L	2.68%
Ba 233.527	18780.0	0.49344	0.014105	mg/L	0.49344	0.014105	mg/L	2.86%
Be 313.042	218898.2	0.25791	0.007697	mg/L	0.25791	0.007697	mg/L	2.98%
Bi 223.061	1383.6	0.47701	0.008793	mg/L	0.47701	0.008793	mg/L	1.84%
Ca 315.887	237768.5	26.356	0.7243	mg/L	26.356	0.7243	mg/L	2.75%
Cd 214.438	12287.0	0.25403	0.006516	mg/L	0.25403	0.006516	mg/L	2.56%
Co 238.892	14875.5	0.49221	0.013846	mg/L	0.49221	0.013846	mg/L	2.81%
Cr 267.716	34734.4	0.49600	0.013998	mg/L	0.49600	0.013998	mg/L	2.82%
Cu 324.754	42231.7	0.47259	0.013243	mg/L	0.47259	0.013243	mg/L	2.80%
Fe 234.349	446993.9	25.115	0.7337	mg/L	25.115	0.7337	mg/L	2.92%
K 766.491	10986354.2							2.56%
Mo 202.030	1233.7	0.50803	0.015171	mg/L	0.50803	0.015171	mg/L	2.99%
Mn 257.610	60593.1	0.48820	0.013832	mg/L	0.48820	0.013832	mg/L	2.83%
Mg 279.079	79558.5	24.613	0.7252	mg/L	24.613	0.7252	mg/L	2.95%
Ni 231.604	4914.3	0.49408	0.013640	mg/L	0.49408	0.013640	mg/L	2.76%
Pb 220.353	739.4	0.50026	0.016680	mg/L	0.50026	0.016680	mg/L	3.33%
Sn 189.933	900.0	0.50953	0.018670	mg/L	0.50953	0.018670	mg/L	3.66%
Se 196.026	239.2	0.47999	0.020330	mg/L	0.47999	0.020330	mg/L	4.24%
Sb 206.833	503.5	0.48612	0.000205	mg/L	0.48612	0.000205	mg/L	0.04%
V 292.402	46829.8	0.50718	0.013796	mg/L	0.50718	0.013796	mg/L	2.72%
Tl 190.800	233.8	0.25420	0.001750	mg/L	0.25420	0.001750	mg/L	0.69%
Zn 213.856	12793.1	0.50308	0.014385	mg/L	0.50308	0.014385	mg/L	2.86%
Na 330.237	8053.0	24.203	0.9937	mg/L	24.203	0.9937	mg/L	4.11%

Sr 407.771	70345.4	2.36%
U 385.958	33593.1	2.33%
U 367.007	15015.7	2.23%
Zr 343.823	15738.9	2.47%
Zr 339.198	18339.4	2.72%
Zr 357.247	30397.9	2.37%

Replicate Data

ID: CCB2 Date: 9/5/96 6:40:31 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	348426.6	348426.6	1.047	mg/L		
1	Ag 328.068	75.9	72.5	0.00027	mg/L	0.00027	mg/L
1	Al 396.152	249.1	238.0	0.00171	mg/L	0.00171	mg/L
1	As 193.696	-0.5	-0.4	-0.00153	mg/L	-0.00153	mg/L
1	B 249.773	255.9	244.5	0.00694	mg/L	0.00694	mg/L
1	Ba 233.527	8.9	8.5	0.00025	mg/L	0.00025	mg/L
1	Be 313.042	9413.4	8992.1	-0.00028	mg/L	-0.00028	mg/L
1	Bi 223.061	-136.2	-130.1	0.00212	mg/L	0.00212	mg/L
1	Ca 315.887	99.2	94.8	0.05004	mg/L	0.05004	mg/L
1	Cd 214.438	67.8	64.7	0.00017	mg/L	0.00017	mg/L
1	Co 238.892	-11.4	-10.9	0.00027	mg/L	0.00027	mg/L
1	Cr 267.716	971.3	927.8	-0.00011	mg/L	-0.00011	mg/L
1	Cu 324.754	956.4	913.6	-0.00005	mg/L	-0.00005	mg/L
1	Fe 234.349	739.0	706.0	0.00519	mg/L	0.00519	mg/L
1	K 766.491	1092.6	1043.7				
1	Mo 202.030	-16.9	-16.1	0.00362	mg/L	0.00362	mg/L
1	Mn 257.610	85.8	82.0	-0.00007	mg/L	-0.00007	mg/L
1	Mg 279.079	23.2	22.2	0.00240	mg/L	0.00240	mg/L
1	Ni 231.604	39.6	37.8	0.00056	mg/L	0.00056	mg/L
1	Pb 220.353	89.3	85.3	0.01491	mg/L	0.01491	mg/L
1	Sn 189.933	23.8	22.7	0.00214	mg/L	0.00214	mg/L
1	Se 196.026	-75.5	-72.1	-0.03075	mg/L	-0.03075	mg/L
1	Sb 206.833	74.3	71.0	0.03756	mg/L	0.03756	mg/L
1	V 292.402	-301.5	-288.0	-0.00046	mg/L	-0.00046	mg/L
1	Tl 190.800	-31.0	-29.6	0.00330	mg/L	0.00330	mg/L
1	Zn 213.856	571.2	545.6	0.00060	mg/L	0.00060	mg/L
1	Na 330.237	612.2	584.8	0.17701	mg/L	0.17701	mg/L
1	Sr 407.771	62077.5	59299.3				
1	U 385.958	30086.8	28740.3				
1	U 367.007	13576.5	12968.9				
1	Zr 343.823	14841.9	14177.7				
1	Zr 339.198	17127.5	16361.0				
1	Zr 357.247	29528.4	28206.9				
2	Y 360.073	349512.8	349512.8	1.050	mg/L		
2	Ag 328.068	78.3	74.5	0.00032	mg/L	0.00032	mg/L
2	Al 396.152	330.7	315.0	0.00473	mg/L	0.00473	mg/L
2	As 193.696	4.1	3.9	0.00624	mg/L	0.00624	mg/L
2	B 249.773	230.6	219.6	0.00605	mg/L	0.00605	mg/L
2	Ba 233.527	4.4	4.1	0.00013	mg/L	0.00013	mg/L
2	Be 313.042	9435.4	8985.1	-0.00029	mg/L	-0.00029	mg/L
2	Bi 223.061	-147.9	-140.8	-0.00123	mg/L	-0.00123	mg/L
2	Ca 315.887	149.3	142.2	0.05529	mg/L	0.05529	mg/L
2	Cd 214.438	63.6	60.5	0.00008	mg/L	0.00008	mg/L
2	Co 238.892	-17.1	-16.3	0.00009	mg/L	0.00009	mg/L
2	Cr 267.716	984.8	937.8	0.00003	mg/L	0.00003	mg/L
2	Cu 324.754	958.4	912.7	-0.00006	mg/L	-0.00006	mg/L
2	Fe 234.349	734.2	699.2	0.00481	mg/L	0.00481	mg/L
2	K 766.491	1077.4	1026.0				
2	Mo 202.030	-17.6	-16.7	0.00336	mg/L	0.00336	mg/L
2	Mn 257.610	96.9	92.3	0.00001	mg/L	0.00001	mg/L
2	Mg 279.079	21.1	20.1	0.00174	mg/L	0.00174	mg/L
2	Ni 231.604	39.4	37.5	0.00053	mg/L	0.00053	mg/L
2	Pb 220.353	84.3	80.3	0.01113	mg/L	0.01113	mg/L
2	Sn 189.933	23.8	22.7	0.00211	mg/L	0.00211	mg/L
2	Se 196.026	-47.1	-44.8	0.01400	mg/L	0.01400	mg/L
2	Sb 206.833	70.1	66.7	0.03308	mg/L	0.03308	mg/L
2	V 292.402	-249.5	-237.6	0.00008	mg/L	0.00008	mg/L
2	Tl 190.800	-31.8	-30.3	0.00266	mg/L	0.00266	mg/L
2	Zn 213.856	571.2	544.0	0.00054	mg/L	0.00054	mg/L
2	Na 330.237	592.2	563.9	0.10859	mg/L	0.10859	mg/L
2	Sr 407.771	62208.9	59240.1				
2	U 385.958	30106.9	28670.1				

2	U 367.007	13556.5	12909.5
2	Zr 343.823	14852.0	14143.2
2	Zr 339.198	17157.6	16338.8
2	Zr 357.247	29528.4	28119.2

Mean Data

ID: CCB2 Seq. No.: 29 Sample No.: 23 A/S Pos: 27
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 6:40:31 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	348969.7	1.048	0.0023	mg/L				0.22%
Ag 328.068	73.5	0.00030	0.000032	mg/L	0.00030	0.000032	mg/L	10.96%
Al 396.152	276.5	0.00322	0.002135	mg/L	0.00322	0.002135	mg/L	66.28%
As 193.696	1.7	0.00235	0.005494	mg/L	0.00235	0.005494	mg/L	233.59%
B 249.773	232.1	0.00649	0.000627	mg/L	0.00649	0.000627	mg/L	9.66%
Ba 233.527	6.3	0.00019	0.000082	mg/L	0.00019	0.000082	mg/L	42.59%
Be 313.042	8988.6	-0.00029	0.000005	mg/L	-0.00029	0.000005	mg/L	1.79%
Bi 223.061	-135.4	0.00045	0.002374	mg/L	0.00045	0.002374	mg/L	532.42%
Ca 315.887	118.5	0.05267	0.003709	mg/L	0.05267	0.003709	mg/L	7.04%
Cd 214.438	62.6	0.00013	0.000062	mg/L	0.00013	0.000062	mg/L	48.28%
Co 238.892	-13.6	0.00018	0.000130	mg/L	0.00018	0.000130	mg/L	71.27%
Cr 267.716	932.8	-0.00004	0.000103	mg/L	-0.00004	0.000103	mg/L	242.44%
Cu 324.754	913.2	-0.00005	0.000007	mg/L	-0.00005	0.000007	mg/L	13.72%
Fe 234.349	702.6	0.00500	0.000268	mg/L	0.00500	0.000268	mg/L	5.37%
K 766.491	1034.9							1.21%
Mo 202.030	-16.4	0.00349	0.000179	mg/L	0.00349	0.000179	mg/L	5.12%
Mn 257.610	87.1	-0.00003	0.000059	mg/L	-0.00003	0.000059	mg/L	205.63%
Mg 279.079	21.1	0.00207	0.000466	mg/L	0.00207	0.000466	mg/L	22.45%
Ni 231.604	37.7	0.00054	0.000024	mg/L	0.00054	0.000024	mg/L	4.34%
Pb 220.353	82.8	0.01302	0.002674	mg/L	0.01302	0.002674	mg/L	20.54%
Sn 189.933	22.7	0.00212	0.000026	mg/L	0.00212	0.000026	mg/L	1.20%
Se 196.026	-58.5	-0.00838	0.031641	mg/L	-0.00838	0.031641	mg/L	377.79%
Sb 206.833	68.8	0.03532	0.003169	mg/L	0.03532	0.003169	mg/L	8.97%
V 292.402	-262.8	-0.00019	0.000377	mg/L	-0.00019	0.000377	mg/L	197.41%
Tl 190.800	-29.9	0.00298	0.000455	mg/L	0.00298	0.000455	mg/L	15.28%
Zn 213.856	544.8	0.00057	0.000048	mg/L	0.00057	0.000048	mg/L	8.33%
Na 330.237	574.4	0.14280	0.048378	mg/L	0.14280	0.048378	mg/L	33.88%
Sr 407.771	59269.7							0.07%
U 385.958	28705.2							0.17%
U 367.007	12939.2							0.32%
Zr 343.823	14160.4							0.17%
Zr 339.198	16349.9							0.10%
Zr 357.247	28163.1							0.22%

Replicate Data

ID: 9693-1 Date: 9/5/96 6:45:20 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	342879.2	342879.2	1.030	mg/L		
1	Ag 328.068	-345.1	-335.0	-0.01112	mg/L	-0.55302	mg/kg
1	Al 396.152	8029418.9	7794163.3	304.91	mg/L	15169	mg/kg
1	As 193.696	302.1	293.2	0.11710	mg/L	5.8259	mg/kg
1	B 249.773	12351.2	11989.4	-0.58857	mg/L	-29.282	mg/kg
1	Ba 233.527	35128.8	34099.6	0.89676	mg/L	44.615	mg/kg
1	Be 313.042	31413.3	30492.9	0.02733	mg/L	1.3595	mg/kg
1	Bi 223.061	-208.7	-202.6	-0.04785	mg/L	-2.3808	mg/kg
1	Ca 315.887	2262294.4	2196010.9	243.09	mg/L	12094	mg/kg
1	Cd 214.438	54.7	53.1	-0.02706	mg/L	-1.3460	mg/kg
1	Co 238.892	18045.1	17516.4	0.33563	mg/L	16.698	mg/kg
1	Cr 267.716	53243.3	51683.3	0.74049	mg/L	36.840	mg/kg
1	Cu 324.754	32782.1	31821.6	0.34525	mg/L	17.177	mg/kg
1	Fe 234.349	7107509.0	6899264.6	388.22	mg/L	19314	mg/kg
1	K 766.491	Saturated					
1	Mo 202.030	-57.1	-55.4	-0.01224	mg/L	-0.60900	mg/kg
1	Mn 257.610	645219.9	626315.5	5.0531	mg/L	251.40	mg/kg
1	Mg 279.079	284400.2	276067.5	85.575	mg/L	4257.5	mg/kg
1	Ni 231.604	5028.0	4880.7	0.49068	mg/L	24.412	mg/kg
1	Pb 220.353	483.2	469.1	0.19620	mg/L	9.7610	mg/kg
1	Sn 189.933	111.9	108.6	0.05179	mg/L	2.5766	mg/kg
1	Se 196.026	-111.6	-108.4	-0.08708	mg/L	-4.3322	mg/kg
1	Sb 206.833	-155.6	-151.0	-0.21438	mg/L	-10.666	mg/kg
1	V 292.402	77800.1	75520.6	0.80620	mg/L	40.110	mg/kg

1	Tl 190.800	-70.7	-68.7	-0.00970 mg/L	-0.48243 mg/kg
1	Zn 213.856	28176.5	27351.0	1.0919 mg/L	54.325 mg/kg
1	Na 330.237	5791.2	5621.5	15.725 mg/L	782.36 mg/kg
1	Sr 407.771	Saturated			
1	U 385.958	74208.6	72034.4		
1	U 367.007	26242.2	25473.3		
1	Zr 343.823	57658.4	55969.1		
1	Zr 339.198	78434.9	76136.8		
1	Zr 357.247	98363.5	95481.5		
2	Y 360.073	341302.6	341302.6	1.025 mg/L	
2	Ag 328.068	-361.2	-352.2	-0.01150 mg/L	-0.57219 mg/kg
2	Al 396.152	8002115.5	7803541.2	305.27 mg/L	15188 mg/kg
2	As 193.696	296.3	288.9	0.10887 mg/L	5.4165 mg/kg
2	B 249.773	12405.7	12097.8	-0.58864 mg/L	-29.286 mg/kg
2	Ba 233.527	35078.7	34208.2	0.89962 mg/L	44.757 mg/kg
2	Be 313.042	31278.2	30502.1	0.02734 mg/L	1.3600 mg/kg
2	Bi 223.061	-202.6	-197.6	-0.04641 mg/L	-2.3089 mg/kg
2	Ca 315.887	2259090.3	2203030.5	243.87 mg/L	12133 mg/kg
2	Cd 214.438	55.2	53.8	-0.02717 mg/L	-1.3517 mg/kg
2	Co 238.892	17845.1	17402.2	0.33070 mg/L	16.453 mg/kg
2	Cr 267.716	53143.2	51824.5	0.74256 mg/L	36.943 mg/kg
2	Cu 324.754	32496.9	31690.5	0.34372 mg/L	17.100 mg/kg
2	Fe 234.349	7102341.7	6926095.4	389.73 mg/L	19390 mg/kg
2	K 766.491	Saturated			
2	Mo 202.030	-53.2	-51.9	-0.01084 mg/L	-0.53909 mg/kg
2	Mn 257.610	642713.1	626764.0	5.0567 mg/L	251.58 mg/kg
2	Mg 279.079	285104.7	278029.8	86.182 mg/L	4287.7 mg/kg
2	Ni 231.604	5039.3	4914.3	0.49408 mg/L	24.581 mg/kg
2	Pb 220.353	496.6	484.2	0.20754 mg/L	10.325 mg/kg
2	Sn 189.933	103.0	100.4	0.04706 mg/L	2.3414 mg/kg
2	Se 196.026	-105.9	-103.3	-0.07858 mg/L	-3.9095 mg/kg
2	Sb 206.833	-159.0	-155.0	-0.21867 mg/L	-10.879 mg/kg
2	V 292.402	77499.7	75576.6	0.80681 mg/L	40.140 mg/kg
2	Tl 190.800	-69.9	-68.1	-0.00930 mg/L	-0.46286 mg/kg
2	Zn 213.856	27876.2	27184.4	1.0849 mg/L	53.975 mg/kg
2	Na 330.237	5804.8	5660.8	15.860 mg/L	789.06 mg/kg
2	Sr 407.771	Saturated			
2	U 385.958	74208.6	72367.1		
2	U 367.007	26205.5	25555.2		
2	Zr 343.823	57608.4	56178.8		
2	Zr 339.198	78334.7	76390.8		
2	Zr 357.247	98413.5	95971.3		

Mean Data

ID: 9693-1 Seq. No.: 30 Sample No.: 24 A/S Pos: 28
Sample Qty: 2.0100 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 6:45:20 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	342090.9	1.028	0.0033	mg/L				0.33%
Ag 328.068	-343.6	-0.01131	0.000273	mg/L	-0.56261	0.013557	mg/kg	2.41%
Al 396.152	7798852.3	305.09	0.259	mg/L	15179	12.9	mg/kg	0.09%
As 193.696	291.1	0.11299	0.005819	mg/L	5.6212	0.28951	mg/kg	5.15%
B 249.773	12043.6	-0.58861	0.000049	mg/L	-29.284	0.0024	mg/kg	0.01%
Ba 233.527	34153.9	0.89819	0.002024	mg/L	44.686	0.1007	mg/kg	0.23%
Be 313.042	30497.5	0.02733	0.000007	mg/L	1.3597	0.00036	mg/kg	0.03%
Bi 223.061	-200.1	-0.04713	0.001023	mg/L	-2.3448	0.05088	mg/kg	2.17%
Ca 315.887	2199520.7	243.48	0.549	mg/L	12114	27.3	mg/kg	0.23%
Cd 214.438	53.4	-0.02711	0.000081	mg/L	-1.3489	0.00402	mg/kg	0.30%
Co 238.892	17459.3	0.33317	0.003485	mg/L	16.576	0.1734	mg/kg	1.05%
Cr 267.716	51753.9	0.74153	0.001463	mg/L	36.892	0.0728	mg/kg	0.20%
Cu 324.754	31756.1	0.34448	0.001087	mg/L	17.139	0.0541	mg/kg	0.32%
Fe 234.349	6912680.0	388.98	1.068	mg/L	19352	53.1	mg/kg	0.27%
K 766.491	Saturated							
Mo 202.030	-53.7	-0.01154	0.000994	mg/L	-0.57405	0.049434	mg/kg	8.61%
Mn 257.610	626539.7	5.0549	0.00256	mg/L	251.49	0.127	mg/kg	0.05%
Mg 279.079	277048.7	85.879	0.4296	mg/L	4272.6	21.37	mg/kg	0.50%
Ni 231.604	4897.5	0.49238	0.002406	mg/L	24.496	0.1197	mg/kg	0.49%
Pb 220.353	476.6	0.20187	0.008019	mg/L	10.043	0.3990	mg/kg	3.97%
Sn 189.933	104.5	0.04942	0.003343	mg/L	2.4590	0.16632	mg/kg	6.76%
Se 196.026	-105.8	-0.08283	0.006007	mg/L	-4.1209	0.29885	mg/kg	7.25%
Sb 206.833	-153.0	-0.21653	0.003035	mg/L	-10.773	0.1510	mg/kg	1.40%
V 292.402	75548.6	0.80651	0.000433	mg/L	40.125	0.0216	mg/kg	0.05%
Tl 190.800	-68.4	-0.00950	0.000278	mg/L	-0.47264	0.013839	mg/kg	2.93%

Zn 213.856	27267.7	1.0884	0.00497 mg/L	54.150	0.2474 mg/kg	0.46%
Na 330.237	5641.1	15.793	0.0952 mg/L	785.71	4.736 mg/kg	0.60%
Sr 407.771	Saturated					
U [illegible].958	72200.8					0.33%
U 367.007	25514.3					0.23%
Zr 343.823	56073.9					0.26%
Zr 339.198	76263.8					0.24%
Zr 357.247	95726.4					0.36%

Replicate Data ----------

ID: 9693-2 Date: 9/5/96 6:50:46 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	365292.2	365292.2	1.098	mg/L		
1	Ag 328.068	-151.0	-137.6	-0.00568	mg/L	-0.28400	mg/kg
1	Al 396.152	4958145.7	4517575.4	176.72	mg/L	8836.2	mg/kg
1	As 193.696	178.7	162.8	0.05256	mg/L	2.6281	mg/kg
1	B 249.773	4428.9	4035.4	-0.37873	mg/L	-18.936	mg/kg
1	Ba 233.527	50198.7	45738.2	1.2044	mg/L	60.222	mg/kg
1	Be 313.042	24100.5	21959.0	0.01644	mg/L	0.82182	mg/kg
1	Bi 223.061	-203.3	-185.2	-0.02904	mg/L	-1.4522	mg/kg
1	Ca 315.887	1834199.0	1671216.0	185.01	mg/L	9250.5	mg/kg
1	Cd 214.438	201.2	183.3	-0.01060	mg/L	-0.53018	mg/kg
1	Co 238.892	8305.5	7567.5	0.12396	mg/L	6.1982	mg/kg
1	Cr 267.716	20973.9	19110.2	0.26495	mg/L	13.247	mg/kg
1	Cu 324.754	18421.5	16784.6	0.17727	mg/L	8.8635	mg/kg
1	Fe 234.349	3886138.0	3540824.1	199.23	mg/L	9961.3	mg/kg
1	K 766.491	9884386.3	9006080.8				
1	Mo 202.030	-35.3	-32.1	-0.00285	mg/L	-0.14251	mg/kg
1	Mn 257.610	378893.4	345225.8	2.7849	mg/L	139.25	mg/kg
1	Mg 279.079	85811.4	78186.3	24.282	mg/L	1214.1	mg/kg
1	Ni 231.604	2061.8	1878.6	0.18685	mg/L	9.3426	mg/kg
1	Pb 220.353	632.9	576.6	0.32313	mg/L	16.156	mg/kg
1	Sn 189.933	103.9	94.7	0.04376	mg/L	2.1881	mg/kg
1	Se 196.026	-90.2	-82.1	-0.04885	mg/L	-2.4426	mg/kg
1	Sb 206.833	-66.9	-60.9	-0.10844	mg/L	-5.4221	mg/kg
1	V 292.402	43752.1	39864.4	0.42682	mg/L	21.341	mg/kg
1	Tl 190.800	-40.1	-36.5	0.00985	mg/L	0.49247	mg/kg
1	Zn 213.856	23774.3	21661.8	0.86628	mg/L	43.314	mg/kg
1	Na 330.237	625.0	569.5	-0.62502	mg/L	-31.251	mg/kg
1	Sr 407.771	9025621.6	8223624.1				
1	U 385.958	54508.9	49665.4				
1	U 367.007	21204.9	19320.7				
1	Zr 343.823	36491.1	33248.6				
1	Zr 339.198	48204.9	43921.5				
1	Zr 357.247	64337.1	58620.2				
2	Y 360.073	362899.6	362899.6	1.090	mg/L		
2	Ag 328.068	-145.0	-133.0	-0.00558	mg/L	-0.27883	mg/kg
2	Al 396.152	4964218.7	4552929.8	178.11	mg/L	8905.3	mg/kg
2	As 193.696	191.2	175.3	0.07331	mg/L	3.6655	mg/kg
2	B 249.773	4426.7	4060.0	-0.37850	mg/L	-18.925	mg/kg
2	Ba 233.527	50208.7	46048.8	1.2126	mg/L	60.631	mg/kg
2	Be 313.042	24109.5	22112.0	0.01663	mg/L	0.83134	mg/kg
2	Bi 223.061	-179.3	-164.4	-0.02254	mg/L	-1.1270	mg/kg
2	Ca 315.887	1833019.9	1681152.9	186.11	mg/L	9305.5	mg/kg
2	Cd 214.438	202.9	186.1	-0.01053	mg/L	-0.52641	mg/kg
2	Co 238.892	8222.4	7541.2	0.12290	mg/L	6.1448	mg/kg
2	Cr 267.716	20994.2	19254.8	0.26705	mg/L	13.353	mg/kg
2	Cu 324.754	18485.0	16953.5	0.17920	mg/L	8.9600	mg/kg
2	Fe 234.349	3865493.3	3545234.5	199.47	mg/L	9973.7	mg/kg
2	K 766.491	9858284.9	9041519.2				
2	Mo 202.030	-39.0	-35.8	-0.00432	mg/L	-0.21607	mg/kg
2	Mn 257.610	376375.3	345192.4	2.7847	mg/L	139.23	mg/kg
2	Mg 279.079	85887.9	78772.0	24.463	mg/L	1223.1	mg/kg
2	Ni 231.604	2073.7	1901.9	0.18921	mg/L	9.4606	mg/kg
2	Pb 220.353	624.9	573.1	0.31999	mg/L	15.999	mg/kg
2	Sn 189.933	113.0	103.6	0.04891	mg/L	2.4454	mg/kg
2	Se 196.026	-84.4	-77.4	-0.04118	mg/L	-2.0590	mg/kg
2	Sb 206.833	-67.3	-61.7	-0.10932	mg/L	-5.4661	mg/kg
2	V 292.402	43669.2	40051.2	0.42879	mg/L	21.439	mg/kg
2	Tl 190.800	-46.7	-42.8	0.00419	mg/L	0.20960	mg/kg
2	Zn 213.856	23685.8	21723.4	0.86878	mg/L	43.439	mg/kg
2	Na 330.237	623.1	571.5	-0.62064	mg/L	-31.032	mg/kg

2	Sr 407.771	9013844.9	8267041.6
2	U 385.958	54508.9	49992.8
2	U 367.007	21245.0	19484.8
2	Zr 343.823	36541.4	33513.9
2	Zr 339.198	48179.7	44188.0
2	Zr 357.247	64443.2	59104.0

Mean Data

ID: 9693-2 Seq. No.: 31 Sample No.: 25 A/S Pos: 29
Sample Qty: 2.0000 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 6:50:46 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	364095.9	1.094	0.0051	mg/L				0.46%
Ag 328.068	-135.3	-0.00563	0.000073	mg/L	-0.28141	0.003656	mg/kg	1.30%
Al 396.152	4535252.6	177.42	0.978	mg/L	8870.8	48.90	mg/kg	0.55%
As 193.696	169.1	0.06294	0.014671	mg/L	3.1468	0.73355	mg/kg	23.31%
B 249.773	4047.7	-0.37861	0.000160	mg/L	-18.931	0.0080	mg/kg	0.04%
Ba 233.527	45893.5	1.2085	0.00579	mg/L	60.427	0.2894	mg/kg	0.48%
Be 313.042	22035.5	0.01653	0.000135	mg/L	0.82658	0.006730	mg/kg	0.81%
Bi 223.061	-174.8	-0.02579	0.004600	mg/L	-1.2896	0.22998	mg/kg	17.83%
Ca 315.887	1676184.4	185.56	0.778	mg/L	9278.0	38.88	mg/kg	0.42%
Cd 214.438	184.7	-0.01057	0.000053	mg/L	-0.52829	0.002664	mg/kg	0.50%
Co 238.892	7554.3	0.12343	0.000756	mg/L	6.1715	0.03778	mg/kg	0.61%
Cr 267.716	19182.5	0.26600	0.001491	mg/L	13.300	0.0745	mg/kg	0.56%
Cu 324.754	16869.0	0.17823	0.001365	mg/L	8.9117	0.06825	mg/kg	0.77%
Fe 234.349	3543029.3	199.35	0.175	mg/L	9967.5	8.77	mg/kg	0.09%
K 766.491	9023800.0							0.28%
Mo 202.030	-34.0	-0.00359	0.001040	mg/L	-0.17929	0.052015	mg/kg	29.01%
Mn 257.610	345209.1	2.7848	0.00019	mg/L	139.24	0.010	mg/kg	0.01%
Mg 279.079	78479.2	24.372	0.1281	mg/L	1218.6	6.41	mg/kg	0.53%
Ni 231.604	1890.2	0.18803	0.001668	mg/L	9.4016	0.08341	mg/kg	0.89%
Pb 220.353	574.9	0.32156	0.002218	mg/L	16.078	0.1109	mg/kg	0.69%
Sn 189.933	99.2	0.04633	0.003640	mg/L	2.3167	0.18198	mg/kg	7.85%
Se 196.026	-79.8	-0.04502	0.005425	mg/L	-2.2508	0.27124	mg/kg	12.05%
Sb 206.833	-61.3	-0.10888	0.000623	mg/L	-5.4441	0.03113	mg/kg	0.57%
V 292.402	39957.8	0.42780	0.001393	mg/L	21.390	0.0697	mg/kg	0.33%
Tl 190.800	-39.7	0.00702	0.004000	mg/L	0.35104	0.200021	mg/kg	56.98%
Zn 213.856	21692.6	0.86753	0.001769	mg/L	43.377	0.0885	mg/kg	0.20%
Na 330.237	570.5	-0.62283	0.003100	mg/L	-31.141	0.1550	mg/kg	0.50%
Sr 407.771	8245332.9							0.37%
U 385.958	49829.1							0.46%
U 367.007	19402.7							0.60%
Zr 343.823	33361.3							0.56%
Zr 339.198	44054.8							0.43%
Zr 357.247	58862.1							0.58%

Replicate Data

ID: 9693-3 Date: 9/5/96 6:56:15 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	363165.5	363165.5	1.091	mg/L		
1	Ag 328.068	-86.5	-79.3	-0.00443	mg/L	-0.21509	mg/kg
1	Al 396.152	3560622.8	3263230.9	127.65	mg/L	6196.7	mg/kg
1	As 193.696	142.0	130.2	0.06027	mg/L	2.9259	mg/kg
1	B 249.773	3184.2	2918.3	-0.31564	mg/L	-15.323	mg/kg
1	Ba 233.527	37249.0	34137.9	0.89884	mg/L	43.633	mg/kg
1	Be 313.042	20200.9	18513.6	0.01215	mg/L	0.59003	mg/kg
1	Bi 223.061	-177.7	-162.9	-0.01935	mg/L	-0.93927	mg/kg
1	Ca 315.887	408870.0	374720.2	41.514	mg/L	2015.2	mg/kg
1	Cd 214.438	290.2	265.9	-0.00667	mg/L	-0.32400	mg/kg
1	Co 238.892	6764.0	6199.0	0.10391	mg/L	5.0442	mg/kg
1	Cr 267.716	15371.9	14088.0	0.19151	mg/L	9.2967	mg/kg
1	Cu 324.754	11381.8	10431.2	0.10539	mg/L	5.1159	mg/kg
1	Fe 234.349	3100905.8	2841910.6	159.89	mg/L	7761.9	mg/kg
1	K 766.491	5862094.6	5372478.3				
1	Mo 202.030	-24.8	-22.7	0.00094	mg/L	0.04568	mg/kg
1	Mn 257.610	393852.5	360957.0	2.9119	mg/L	141.35	mg/kg
1	Mg 279.079	44537.1	40817.2	12.707	mg/L	616.85	mg/kg
1	Ni 231.604	1433.9	1314.2	0.12973	mg/L	6.2977	mg/kg
1	Pb 220.353	365.7	335.2	0.15808	mg/L	7.6736	mg/kg
1	Sn 189.933	99.0	90.8	0.04148	mg/L	2.0135	mg/kg
1	Se 196.026	-96.4	-88.3	-0.05829	mg/L	-2.8297	mg/kg

1	Sb 206.833	-38.5	-35.3	-0.07954 mg/L	-3.8613 mg/kg
1	V 292.402	37827.4	34667.9	0.37156 mg/L	18.037 mg/kg
1	Tl 190.800	-56.4	-51.7	-0.00672 mg/L	-0.32639 mg/kg
1	Zn 213.856	10908.9	9997.8	0.38911 mg/L	18.889 mg/kg
1	Na 330.237	522.0	478.4	-0.51000 mg/L	-24.757 mg/kg
1	Sr 407.771	3489554.3	3198098.2		
1	U 385.958	46815.0	42904.9		
1	U 367.007	18497.5	16952.5		
1	Zr 343.823	32455.0	29744.3		
1	Zr 339.198	42659.4	39096.4		
1	Zr 357.247	54620.0	50058.0		
2	Y 360.073	358640.3	358640.3	1.078 mg/L	
2	Ag 328.068	-86.0	-79.8	-0.00447 mg/L	-0.21691 mg/kg
2	Al 396.152	3540237.9	3285487.2	128.52 mg/L	6239.0 mg/kg
2	As 193.696	144.2	133.8	0.06576 mg/L	3.1925 mg/kg
2	B 249.773	3123.2	2898.4	-0.32299 mg/L	-15.679 mg/kg
2	Ba 233.527	36985.1	34323.7	0.90374 mg/L	43.871 mg/kg
2	Be 313.042	20092.9	18647.0	0.01232 mg/L	0.59795 mg/kg
2	Bi 223.061	-183.1	-169.9	-0.02176 mg/L	-1.0565 mg/kg
2	Ca 315.887	411922.1	382280.7	42.351 mg/L	2055.9 mg/kg
2	Cd 214.438	285.7	265.2	-0.00690 mg/L	-0.33492 mg/kg
2	Co 238.892	6814.0	6323.7	0.10645 mg/L	5.1673 mg/kg
2	Cr 267.716	15273.8	14174.7	0.19276 mg/L	9.3573 mg/kg
2	Cu 324.754	11186.7	10381.7	0.10476 mg/L	5.0856 mg/kg
2	Fe 234.349	3110865.0	2887011.4	162.43 mg/L	7885.1 mg/kg
2	K 766.491	5835280.9	5415382.1		
2	Mo 202.030	-28.3	-26.2	-0.00047 mg/L	-0.02304 mg/kg
2	Mn 257.610	396930.1	368367.5	2.9717 mg/L	144.26 mg/kg
2	Mg 279.079	44194.4	41014.2	12.770 mg/L	619.88 mg/kg
2	Ni 231.604	1427.9	1325.1	0.13084 mg/L	6.3516 mg/kg
2	Pb 220.353	356.8	331.1	0.15472 mg/L	7.5109 mg/kg
2	Sn 189.933	98.0	91.0	0.04159 mg/L	2.0190 mg/kg
2	Se 196.026	-85.6	-79.4	-0.04362 mg/L	-2.1176 mg/kg
2	Sb 206.833	-41.8	-38.7	-0.08329 mg/L	-4.0432 mg/kg
2	V 292.402	37406.8	34715.1	0.37204 mg/L	18.060 mg/kg
2	Tl 190.800	-45.5	-42.2	0.00207 mg/L	0.10042 mg/kg
2	Zn 213.856	10766.7	9991.9	0.38891 mg/L	18.879 mg/kg
2	Na 330.237	525.3	487.5	-0.47983 mg/L	-23.293 mg/kg
2	Sr 407.771	3473585.0	3223630.6		
2	U 385.958	46765.0	43399.8		
2	U 367.007	18632.8	17292.0		
2	Zr 343.823	32399.6	30068.2		
2	Zr 339.198	42628.7	39561.2		
2	Zr 357.247	54655.1	50722.2		

Mean Data

ID: 9693-3 Seq. No.: 32 Sample No.: 26 A/S Pos: 30
Sample Qty: 2.0600 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 6:56:15 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	360902.9	1.084	0.0096	mg/L				0.89%
Ag 328.068	-79.6	-0.00445	0.000027	mg/L	-0.21600	0.001287	mg/kg	0.60%
Al 396.152	3274359.1	128.09	0.616	mg/L	6217.9	29.89	mg/kg	0.48%
As 193.696	132.0	0.06302	0.003882	mg/L	3.0592	0.18847	mg/kg	6.16%
B 249.773	2908.3	-0.31932	0.005195	mg/L	-15.501	0.2522	mg/kg	1.63%
Ba 233.527	34230.8	0.90129	0.003463	mg/L	43.752	0.1681	mg/kg	0.38%
Be 313.042	18580.3	0.01224	0.000115	mg/L	0.59399	0.005605	mg/kg	0.94%
Bi 223.061	-166.4	-0.02056	0.001708	mg/L	-0.99791	0.082929	mg/kg	8.31%
Ca 315.887	378500.5	41.932	0.5917	mg/L	2035.5	28.72	mg/kg	1.41%
Cd 214.438	265.6	-0.00679	0.000159	mg/L	-0.32946	0.007722	mg/kg	2.34%
Co 238.892	6261.3	0.10518	0.001793	mg/L	5.1058	0.08705	mg/kg	1.70%
Cr 267.716	14131.3	0.19214	0.000882	mg/L	9.3270	0.04282	mg/kg	0.46%
Cu 324.754	10406.5	0.10508	0.000442	mg/L	5.1008	0.02146	mg/kg	0.42%
Fe 234.349	2864461.0	161.16	1.795	mg/L	7823.5	87.12	mg/kg	1.11%
K 766.491	5393930.2							0.56%
Mo 202.030	-24.5	0.00023	0.001001	mg/L	0.01132	0.048597	mg/kg	429.27%
Mn 257.610	364662.3	2.9418	0.04228	mg/L	142.80	2.053	mg/kg	1.44%
Mg 279.079	40915.7	12.738	0.0441	mg/L	618.37	2.141	mg/kg	0.35%
Ni 231.604	1319.6	0.13029	0.000785	mg/L	6.3246	0.03808	mg/kg	0.60%
Pb 220.353	333.1	0.15640	0.002371	mg/L	7.5923	0.11508	mg/kg	1.52%
Sn 189.933	90.9	0.04153	0.000080	mg/L	2.0162	0.00390	mg/kg	0.19%
Se 196.026	-83.9	-0.05096	0.010373	mg/L	-2.4737	0.50353	mg/kg	20.36%
Sb 206.833	-37.0	-0.08142	0.002650	mg/L	-3.9522	0.12864	mg/kg	3.25%

V 292.402	34691.5	0.37180	0.000343 mg/L	18.048	0.0166 mg/kg	0.09%
Tl 190.800	-47.0	-0.00233	0.006217 mg/L	-0.11299	0.301798 mg/kg	267.11%
Zn 213.856	9994.8	0.38901	0.000142 mg/L	18.884	0.0069 mg/kg	0.04%
Na 330.237	482.9	-0.49492	0.021331 mg/L	-24.025	1.0355 mg/kg	4.31%
Sr 407.771	3210864.4					0.56%
U 385.958	43152.4					0.81%
U 367.007	17122.3					1.40%
Zr 343.823	29906.2					0.77%
Zr 339.198	39328.8					0.84%
Zr 357.247	50390.1					0.93%

Replicate Data ----------

ID: 9693-4 Date: 9/5/96 7:01:41 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	379046.9	379046.9	1.139	mg/L		
1	Ag 328.068	-171.0	-150.1	-0.00770	mg/L	-0.37396	mg/kg
1	Al 396.152	6294085.8	5526703.3	216.20	mg/L	10495	mg/kg
1	As 193.696	250.5	219.9	0.10262	mg/L	4.9816	mg/kg
1	B 249.773	5727.1	5028.8	-0.47449	mg/L	-23.034	mg/kg
1	Ba 233.527	94022.7	82559.3	2.1746	mg/L	105.56	mg/kg
1	Be 313.042	29015.5	25477.9	0.02109	mg/L	1.0240	mg/kg
1	Bi 223.061	-190.9	-167.6	-0.02664	mg/L	-1.2931	mg/kg
1	Ca 315.887	966002.3	848226.2	93.922	mg/L	4559.3	mg/kg
1	Cd 214.438	1800.7	1581.1	0.01513	mg/L	0.73439	mg/kg
1	Co 238.892	11292.0	9915.3	0.17011	mg/L	8.2576	mg/kg
1	Cr 267.716	23657.3	20773.0	0.28828	mg/L	13.994	mg/kg
1	Cu 324.754	22544.9	19796.2	0.21065	mg/L	10.226	mg/kg
1	Fe 234.349	5048541.2	4433017.0	249.43	mg/L	12108	mg/kg
1	K 766.491	12716226.8	11165849.1				
1	Mo 202.030	-18.8	-16.5	0.00344	mg/L	0.16717	mg/kg
1	Mn 257.610	950323.0	834458.5	6.7326	mg/L	326.83	mg/kg
1	Mg 279.079	97519.9	85630.2	26.624	mg/L	1292.4	mg/kg
1	Ni 231.604	4294.7	3771.1	0.37838	mg/L	18.368	mg/kg
1	Pb 220.353	918.7	806.7	0.48236	mg/L	23.415	mg/kg
1	Sn 189.933	117.4	103.1	0.04862	mg/L	2.3604	mg/kg
1	Se 196.026	-96.4	-84.7	-0.05701	mg/L	-2.7676	mg/kg
1	Sb 206.833	-101.1	-88.8	-0.13861	mg/L	-6.7284	mg/kg
1	V 292.402	60195.8	52856.6	0.56517	mg/L	27.436	mg/kg
1	Tl 190.800	-58.6	-51.5	-0.00021	mg/L	-0.01039	mg/kg
1	Zn 213.856	36920.9	32419.5	1.3246	mg/L	64.301	mg/kg
1	Na 330.237	1314.2	1154.0	0.89327	mg/L	43.362	mg/kg
1	Sr 407.771	8633061.0	7580507.8				
1	U 385.958	59211.6	51992.5				
1	U 367.007	21917.2	19245.0				
1	Zr 343.823	38971.2	34219.8				
1	Zr 339.198	51800.9	45485.3				
1	Zr 357.247	70377.6	61797.1				
2	Y 360.073	378522.6	378522.6	1.137	mg/L		
2	Ag 328.068	-227.0	-199.6	-0.00883	mg/L	-0.42869	mg/kg
2	Al 396.152	6269435.2	5512683.1	215.65	mg/L	10469	mg/kg
2	As 193.696	259.8	228.4	0.11877	mg/L	5.7658	mg/kg
2	B 249.773	5751.9	5057.6	-0.47694	mg/L	-23.152	mg/kg
2	Ba 233.527	94033.3	82683.0	2.1778	mg/L	105.72	mg/kg
2	Be 313.042	29013.7	25511.6	0.02114	mg/L	1.0260	mg/kg
2	Bi 223.061	-175.7	-154.4	-0.02264	mg/L	-1.0988	mg/kg
2	Ca 315.887	973759.1	856221.5	94.806	mg/L	4602.3	mg/kg
2	Cd 214.438	1796.8	1580.0	0.01497	mg/L	0.72647	mg/kg
2	Co 238.892	11292.0	9929.0	0.16967	mg/L	8.2365	mg/kg
2	Cr 267.716	23605.6	20756.3	0.28801	mg/L	13.981	mg/kg
2	Cu 324.754	22525.3	19806.4	0.21073	mg/L	10.230	mg/kg
2	Fe 234.349	5068426.4	4456642.0	250.76	mg/L	12173	mg/kg
2	K 766.491	12685987.2	11154725.3				
2	Mo 202.030	-19.6	-17.3	0.00316	mg/L	0.15321	mg/kg
2	Mn 257.610	958129.8	842478.7	6.7973	mg/L	329.97	mg/kg
2	Mg 279.079	97510.6	85740.5	26.659	mg/L	1294.1	mg/kg
2	Ni 231.604	4308.5	3788.4	0.38014	mg/L	18.453	mg/kg
2	Pb 220.353	909.6	799.8	0.47739	mg/L	23.174	mg/kg
2	Sn 189.933	114.9	101.0	0.04742	mg/L	2.3017	mg/kg
2	Se 196.026	-95.1	-83.6	-0.05516	mg/L	-2.6775	mg/kg
2	Sb 206.833	-95.8	-84.3	-0.13377	mg/L	-6.4935	mg/kg
2	V 292.402	60088.3	52835.3	0.56494	mg/L	27.424	mg/kg
2	Tl 190.800	-60.3	-53.0	-0.00165	mg/L	-0.08003	mg/kg

2 Zn 213.856	37062.0	32588.5	1.3318 mg/L	64.649 mg/kg	
2 Na 330.237	1253.3	1102.0	0.71696 mg/L	34.804 mg/kg	
2 Sr 407.771	8608001.4	7568972.7			
2 U 385.958	59411.7	52240.5			
2 U 367.007	21937.3	19289.3			
2 Zr 343.823	38875.6	34183.1			
2 Zr 339.198	51881.5	45619.2			
2 Zr 357.247	70367.3	61873.7			

Mean Data ----------

ID: 9693-4 Seq. No.: 33 Sample No.: 27 A/S Pos: 31
Sample Qty: 2.0600 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 7:01:41 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	378784.8	1.138	0.0011	mg/L				0.10%
Ag 328.068	-174.9	-0.00827	0.000797	mg/L	-0.40132	0.038700	mg/kg	9.64%
Al 396.152	5519693.2	215.93	0.388	mg/L	10482	18.8	mg/kg	0.18%
As 193.696	224.2	0.11070	0.011422	mg/L	5.3737	0.55446	mg/kg	10.32%
B 249.773	5043.2	-0.47571	0.001729	mg/L	-23.093	0.0839	mg/kg	0.36%
Ba 233.527	82621.2	2.1762	0.00231	mg/L	105.64	0.112	mg/kg	0.11%
Be 313.042	25494.7	0.02112	0.000029	mg/L	1.0250	0.00141	mg/kg	0.14%
Bi 223.061	-161.0	-0.02464	0.002830	mg/L	-1.1960	0.13739	mg/kg	11.49%
Ca 315.887	852223.8	94.364	0.6257	mg/L	4580.8	30.38	mg/kg	0.66%
Cd 214.438	1580.5	0.01505	0.000115	mg/L	0.73043	0.005602	mg/kg	0.77%
Co 238.892	9922.1	0.16989	0.000307	mg/L	8.2471	0.01490	mg/kg	0.18%
Cr 267.716	20764.6	0.28814	0.000185	mg/L	13.988	0.0090	mg/kg	0.06%
Cu 324.754	19801.3	0.21069	0.000060	mg/L	10.228	0.0029	mg/kg	0.03%
Fe 234.349	4444829.5	250.10	0.940	mg/L	12141	45.6	mg/kg	0.38%
K 766.491	11160287.2							0.07%
Mo 202.030	-16.9	0.00330	0.000203	mg/L	0.16019	0.009870	mg/kg	6.16%
Mn 257.610	838468.6	6.7650	0.04576	mg/L	328.40	2.221	mg/kg	0.68%
Mg 279.079	85685.4	26.641	0.0248	mg/L	1293.3	1.20	mg/kg	0.09%
Ni 231.604	3779.8	0.37926	0.001241	mg/L	18.411	0.0603	mg/kg	0.33%
Pb 220.353	803.3	0.47987	0.003511	mg/L	23.295	0.1704	mg/kg	0.73%
Sn 189.933	102.1	0.04802	0.000855	mg/L	2.3311	0.04150	mg/kg	1.78%
Se 196.026	-84.1	-0.05608	0.001313	mg/L	-2.7225	0.06376	mg/kg	2.34%
Sb 206.833	-86.5	-0.13619	0.003423	mg/L	-6.6110	0.16616	mg/kg	2.51%
V 292.402	52846.0	0.56506	0.000163	mg/L	27.430	0.0079	mg/kg	0.03%
Tl 190.800	-52.2	-0.00093	0.001014	mg/L	-0.04521	0.049242	mg/kg	108.92%
Zn 213.856	32504.0	1.3282	0.00507	mg/L	64.475	0.2460	mg/kg	0.38%
Na 330.237	1128.0	0.80512	0.124664	mg/L	39.083	6.0517	mg/kg	15.48%
Sr 407.771	7574740.2							0.11%
U 385.958	52116.5							0.34%
U 367.007	19267.2							0.16%
Zr 343.823	34201.5							0.08%
Zr 339.198	45552.2							0.21%
Zr 357.247	61835.4							0.09%

Replicate Data ----------

ID: 9693-5 Date: 9/5/96 7:07:07 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	363244.1	363244.1	1.091	mg/L		
1	Ag 328.068	-114.4	-104.9	-0.00504	mg/L	-0.24831	mg/kg
1	Al 396.152	3061449.0	2805142.2	109.73	mg/L	5405.5	mg/kg
1	As 193.696	141.2	129.4	0.08362	mg/L	4.1190	mg/kg
1	B 249.773	4402.2	4033.6	-0.38873	mg/L	-19.149	mg/kg
1	Ba 233.527	38876.9	35622.1	0.93780	mg/L	46.197	mg/kg
1	Be 313.042	21299.5	19516.2	0.01354	mg/L	0.66708	mg/kg
1	Bi 223.061	-168.1	-154.1	-0.02042	mg/L	-1.0060	mg/kg
1	Ca 315.887	578269.3	529856.2	58.684	mg/L	2890.8	mg/kg
1	Cd 214.438	886.7	812.5	0.00023	mg/L	0.01126	mg/kg
1	Co 238.892	8204.3	7517.4	0.11960	mg/L	5.8918	mg/kg
1	Cr 267.716	16079.7	14733.5	0.20093	mg/L	9.8982	mg/kg
1	Cu 324.754	14845.3	13602.4	0.14073	mg/L	6.9323	mg/kg
1	Fe 234.349	3939948.6	3610093.1	203.12	mg/L	10006	mg/kg
1	K 766.491	7829473.3	7173983.9				
1	Mo 202.030	-23.2	-21.3	0.00153	mg/L	0.07516	mg/kg
1	Mn 257.610	403789.0	369983.5	2.9847	mg/L	147.03	mg/kg
1	Mg 279.079	45670.5	41847.0	13.047	mg/L	642.70	mg/kg
1	Ni 231.604	1720.5	1576.4	0.15627	mg/L	7.6982	mg/kg
1	Pb 220.353	589.6	540.2	0.31924	mg/L	15.726	mg/kg

1 Sn 189.933	104.9	96.1	0.04458 mg/L	2.1959 mg/kg
1 Se 196.026	-79.4	-72.8	-0.02681 mg/L	-1.3209 mg/kg
1 Sb 206.833	-61.8	-56.7	-0.10253 mg/L	-5.0506 mg/kg
1 V 292.402	44300.7	40591.9	0.43461 mg/L	21.409 mg/kg
1 Tl 190.800	-42.8	-39.2	0.00457 mg/L	0.22537 mg/kg
1 Zn 213.856	11511.1	10547.4	0.40768 mg/L	20.083 mg/kg
1 Na 330.237	1003.3	919.3	0.91834 mg/L	45.238 mg/kg
1 Sr 407.771	5201960.5	4766448.5		
1 U 385.958	51869.7	47527.1		
1 U 367.007	19720.7	18069.7		
1 Zr 343.823	33500.2	30695.5		
1 Zr 339.198	43907.7	40231.8		
1 Zr 357.247	56400.2	51678.3		
2 Y 360.073	362382.1	362382.1	1.089 mg/L	
2 Ag 328.068	-78.8	-72.4	-0.00432 mg/L	-0.21303 mg/kg
2 Al 396.152	3083267.1	2831854.4	110.78 mg/L	5457.0 mg/kg
2 As 193.696	136.5	125.4	0.07499 mg/L	3.6940 mg/kg
2 B 249.773	4400.9	4042.0	-0.39311 mg/L	-19.365 mg/kg
2 Ba 233.527	38866.9	35697.6	0.93979 mg/L	46.295 mg/kg
2 Be 313.042	21248.9	19516.3	0.01354 mg/L	0.66723 mg/kg
2 Bi 223.061	-162.9	-149.6	-0.01918 mg/L	-0.94492 mg/kg
2 Ca 315.887	580216.9	532905.5	59.022 mg/L	2907.5 mg/kg
2 Cd 214.438	880.2	808.4	0.00001 mg/L	0.00042 mg/kg
2 Co 238.892	8038.2	7382.7	0.11378 mg/L	5.6051 mg/kg
2 Cr 267.716	16089.9	14777.9	0.20158 mg/L	9.9300 mg/kg
2 Cu 324.754	14756.0	13552.8	0.14012 mg/L	6.9023 mg/kg
2 Fe 234.349	3965205.1	3641878.3	204.91 mg/L	10094 mg/kg
2 K 766.491	7883814.8	7240960.6		
2 Mo 202.030	-23.6	-21.7	0.00136 mg/L	0.06683 mg/kg
2 Mn 257.610	404517.8	371533.0	2.9972 mg/L	147.65 mg/kg
2 Mg 279.079	45635.8	41914.6	13.069 mg/L	643.78 mg/kg
2 Ni 231.604	1730.6	1589.5	0.15760 mg/L	7.7634 mg/kg
2 Pb 220.353	587.8	539.9	0.31862 mg/L	15.695 mg/kg
2 Sn 189.933	107.2	98.5	0.04595 mg/L	2.2636 mg/kg
2 Se 196.026	-86.5	-79.5	-0.03776 mg/L	-1.8603 mg/kg
2 Sb 206.833	-58.7	-53.9	-0.09961 mg/L	-4.9069 mg/kg
2 V 292.402	44339.0	40723.6	0.43601 mg/L	21.478 mg/kg
2 Tl 190.800	-50.1	-46.0	-0.00167 mg/L	-0.08245 mg/kg
2 Zn 213.856	11547.9	10606.2	0.40999 mg/L	20.196 mg/kg
2 Na 330.237	1014.1	931.5	0.95622 mg/L	47.104 mg/kg
2 Sr 407.771	5242754.8	4815255.3		
2 U 385.958	51919.7	47686.2		
2 U 367.007	19821.0	18204.8		
2 Zr 343.823	33570.4	30833.0		
2 Zr 339.198	43962.9	40378.1		
2 Zr 357.247	56672.3	52051.2		

Mean Data ----------

ID: 9693-5 Seq. No.: 34 Sample No.: 28 A/S Pos: 32
Sample Qty: 2.0300 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 7:07:07 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	362813.1	1.090	0.0018	mg/L				0.17%
Ag 328.068	-88.6	-0.00468	0.000506	mg/L	-0.23067	0.024942	mg/kg	10.81%
Al 396.152	2818498.3	110.25	0.739	mg/L	5431.2	36.40	mg/kg	0.67%
As 193.696	127.4	0.07930	0.006100	mg/L	3.9065	0.30051	mg/kg	7.69%
B 249.773	4037.8	-0.39092	0.003095	mg/L	-19.257	0.1524	mg/kg	0.79%
Ba 233.527	35659.8	0.93880	0.001405	mg/L	46.246	0.0692	mg/kg	0.15%
Be 313.042	19516.3	0.01354	0.000002	mg/L	0.66716	0.000104	mg/kg	0.02%
Bi 223.061	-151.8	-0.01980	0.000877	mg/L	-0.97548	0.043220	mg/kg	4.43%
Ca 315.887	531380.8	58.853	0.2386	mg/L	2899.2	11.76	mg/kg	0.41%
Cd 214.438	810.4	0.00012	0.000156	mg/L	0.00584	0.007664	mg/kg	131.15%
Co 238.892	7450.1	0.11669	0.004115	mg/L	5.7485	0.20272	mg/kg	3.53%
Cr 267.716	14755.7	0.20126	0.000456	mg/L	9.9141	0.02247	mg/kg	0.23%
Cu 324.754	13577.6	0.14042	0.000431	mg/L	6.9173	0.02126	mg/kg	0.31%
Fe 234.349	3625985.7	204.02	1.265	mg/L	10050	62.3	mg/kg	0.62%
K 766.491	7207472.2							0.66%
Mo 202.030	-21.5	0.00144	0.000120	mg/L	0.07099	0.005892	mg/kg	8.30%
Mn 257.610	370758.2	2.9910	0.00884	mg/L	147.34	0.436	mg/kg	0.30%
Mg 279.079	41880.8	13.058	0.0154	mg/L	643.24	0.760	mg/kg	0.12%
Ni 231.604	1583.0	0.15694	0.000936	mg/L	7.7308	0.04610	mg/kg	0.60%
Pb 220.353	540.1	0.31893	0.000441	mg/L	15.711	0.0217	mg/kg	0.14%
Sn 189.933	97.3	0.04526	0.000971	mg/L	2.2297	0.04785	mg/kg	2.15%

Se 196.026	-76.1	-0.03229	0.007743 mg/L	-1.5906	0.38142 mg/kg	23.98%
Sb 206.833	-55.3	-0.10107	0.002063 mg/L	-4.9788	0.10164 mg/kg	2.04%
V 292.402	40657.7	0.43531	0.000990 mg/L	21.444	0.0488 mg/kg	0.23%
Tl 190.800	-42.6	0.00145	0.004419 mg/L	0.07146	0.217662 mg/kg	304.61%
Zn 213.856	10576.8	0.40883	0.001633 mg/L	20.140	0.0805 mg/kg	0.40%
Na 330.237	925.4	0.93728	0.026787 mg/L	46.171	1.3196 mg/kg	2.86%
Sr 407.771	4790851.9					0.72%
U 385.958	47606.6					0.24%
U 367.007	18137.2					0.53%
Zr 343.823	30764.3					0.32%
Zr 339.198	40304.9					0.26%
Zr 357.247	51864.8					0.51%

Replicate Data

ID: 9693-6 Date: 9/5/96 7:12:15 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	372959.2	372959.2	1.121	mg/L		
1	Ag 328.068	-158.7	-141.6	-0.00590	mg/L	-0.28088	mg/kg
1	Al 396.152	5285972.0	4717261.7	184.54	mg/L	8787.4	mg/kg
1	As 193.696	272.9	243.5	0.18733	mg/L	8.9207	mg/kg
1	B 249.773	6969.4	6219.6	-0.74176	mg/L	-35.322	mg/kg
1	Ba 233.527	55526.6	49552.6	1.3042	mg/L	62.103	mg/kg
1	Be 313.042	28842.4	25739.3	0.02193	mg/L	1.0441	mg/kg
1	Bi 223.061	-114.9	-102.5	-0.01690	mg/L	-0.80466	mg/kg
1	Ca 315.887	571875.6	510348.3	56.525	mg/L	2691.7	mg/kg
1	Cd 214.438	177.1	158.1	-0.02652	mg/L	-1.2627	mg/kg
1	Co 238.892	15610.4	13930.9	0.22677	mg/L	10.799	mg/kg
1	Cr 267.716	23194.4	20698.9	0.28815	mg/L	13.721	mg/kg
1	Cu 324.754	17509.2	15625.4	0.16017	mg/L	7.6270	mg/kg
1	Fe 234.349	7329528.6	6540954.9	368.06	mg/L	17527	mg/kg
1	K 766.491	6406350.5	5717100.2				
1	Mo 202.030	-19.6	-17.5	0.00305	mg/L	0.14534	mg/kg
1	Mn 257.610	411418.2	367154.3	2.9619	mg/L	141.04	mg/kg
1	Mg 279.079	68354.8	61000.6	19.050	mg/L	907.14	mg/kg
1	Ni 231.604	3017.4	2692.8	0.26925	mg/L	12.822	mg/kg
1	Pb 220.353	370.5	330.7	0.13448	mg/L	6.4039	mg/kg
1	Sn 189.933	110.9	99.0	0.04622	mg/L	2.2010	mg/kg
1	Se 196.026	-120.8	-107.8	-0.07589	mg/L	-3.6139	mg/kg
1	Sb 206.833	-163.0	-145.5	-0.19893	mg/L	-9.4729	mg/kg
1	V 292.402	79242.2	70716.6	0.75526	mg/L	35.965	mg/kg
1	Tl 190.800	-48.0	-42.9	0.00880	mg/L	0.41912	mg/kg
1	Zn 213.856	15635.7	13953.5	0.53125	mg/L	25.298	mg/kg
1	Na 330.237	384.8	343.4	-1.0761	mg/L	-51.244	mg/kg
1	Sr 407.771	4156607.4	3709403.8				
1	U 385.958	70807.6	63189.5				
1	U 367.007	24310.4	21694.8				
1	Zr 343.823	43173.8	38528.8				
1	Zr 339.198	56908.7	50786.0				
1	Zr 357.247	69914.2	62392.3				
2	Y 360.073	372085.9	372085.9	1.118	mg/L		
2	Ag 328.068	-160.8	-143.8	-0.00596	mg/L	-0.28364	mg/kg
2	Al 396.152	5273560.8	4717231.9	184.53	mg/L	8787.3	mg/kg
2	As 193.696	271.2	242.6	0.18566	mg/L	8.8409	mg/kg
2	B 249.773	6904.9	6176.4	-0.74519	mg/L	-35.485	mg/kg
2	Ba 233.527	55439.4	49590.9	1.3052	mg/L	62.151	mg/kg
2	Be 313.042	28823.9	25783.1	0.02198	mg/L	1.0465	mg/kg
2	Bi 223.061	-112.1	-100.2	-0.01626	mg/L	-0.77426	mg/kg
2	Ca 315.887	575427.1	514723.0	57.009	mg/L	2714.7	mg/kg
2	Cd 214.438	189.8	169.8	-0.02634	mg/L	-1.2542	mg/kg
2	Co 238.892	15444.2	13815.0	0.22232	mg/L	10.586	mg/kg
2	Cr 267.716	23117.7	20679.0	0.28783	mg/L	13.706	mg/kg
2	Cu 324.754	17525.2	15676.4	0.16074	mg/L	7.6541	mg/kg
2	Fe 234.349	7326703.8	6553780.7	368.78	mg/L	17561	mg/kg
2	K 766.491	6366716.9	5695066.6				
2	Mo 202.030	-33.8	-30.3	-0.00210	mg/L	-0.10000	mg/kg
2	Mn 257.610	413584.7	369954.0	2.9845	mg/L	142.12	mg/kg
2	Mg 279.079	68324.5	61116.6	19.086	mg/L	908.87	mg/kg
2	Ni 231.604	2993.4	2677.7	0.26772	mg/L	12.749	mg/kg
2	Pb 220.353	358.7	320.8	0.12705	mg/L	6.0501	mg/kg
2	Sn 189.933	117.8	105.4	0.04995	mg/L	2.3787	mg/kg
2	Se 196.026	-115.1	-103.0	-0.06793	mg/L	-3.2348	mg/kg
2	Sb 206.833	-161.8	-144.7	-0.19809	mg/L	-9.4327	mg/kg

2 V 292.402	78914.9	70589.9	0.75385 mg/L	35.897 mg/kg	
2 Tl 190.800	-55.0	-49.2	0.00294 mg/L	0.14005 mg/kg	
2 Zn 213.856	15464.3	13832.9	0.52632 mg/L	25.063 mg/kg	
2 Na 330.237	321.6	287.6	-1.2546 mg/L	-59.742 mg/kg	
2 Sr 407.771	4146724.7	3709270.2			
2 U 385.958	70807.6	63337.8			
2 U 367.007	24300.3	21736.8			
2 Zr 343.823	43168.8	38614.7			
2 Zr 339.198	56959.3	50950.5			
2 Zr 357.247	69889.1	62516.3			

Mean Data

ID: 9693-6 Seq. No.: 35 Sample No.: 29 A/S Pos: 33
Sample Qty: 2.1000 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 7:12:15 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	372522.6	1.119	0.0019	mg/L				0.17%
Ag 328.068	-142.7	-0.00593	0.000041	mg/L	-0.28226	0.001949	mg/kg	0.69%
Al 396.152	4717246.8	184.53	0.001	mg/L	8787.4	0.03	mg/kg	0.00%
As 193.696	243.1	0.18650	0.001185	mg/L	8.8808	0.05643	mg/kg	0.64%
B 249.773	6198.0	-0.74348	0.002426	mg/L	-35.404	0.1155	mg/kg	0.33%
Ba 233.527	49571.7	1.3047	0.00072	mg/L	62.127	0.0343	mg/kg	0.06%
Be 313.042	25761.2	0.02195	0.000036	mg/L	1.0453	0.00170	mg/kg	0.16%
Bi 223.061	-101.4	-0.01658	0.000451	mg/L	-0.78946	0.021496	mg/kg	2.72%
Ca 315.887	512535.6	56.767	0.3424	mg/L	2703.2	16.30	mg/kg	0.60%
Cd 214.438	163.9	-0.02643	0.000126	mg/L	-1.2585	0.00601	mg/kg	0.48%
Co 238.892	13872.9	0.22454	0.003150	mg/L	10.692	0.1500	mg/kg	1.40%
Cr 267.716	20689.0	0.28799	0.000225	mg/L	13.714	0.0107	mg/kg	0.08%
Cu 324.754	15650.9	0.16045	0.000403	mg/L	7.6406	0.01917	mg/kg	0.25%
Fe 234.349	6547367.8	368.42	0.510	mg/L	17544	24.3	mg/kg	0.14%
K 766.491	5706083.4							0.27%
Mo 202.030	-23.9	0.00048	0.003643	mg/L	0.02267	0.173477	mg/kg	765.25%
Mn 257.610	368554.1	2.9732	0.01597	mg/L	141.58	0.761	mg/kg	0.54%
Mg 279.079	61058.6	19.068	0.0257	mg/L	908.00	1.223	mg/kg	0.13%
Ni 231.604	2685.2	0.26849	0.001082	mg/L	12.785	0.0515	mg/kg	0.40%
Pb 220.353	325.7	0.13077	0.005254	mg/L	6.2270	0.25017	mg/kg	4.02%
Sn 189.933	102.2	0.04809	0.002639	mg/L	2.2899	0.12567	mg/kg	5.49%
Se 196.026	-105.4	-0.07191	0.005631	mg/L	-3.4243	0.26812	mg/kg	7.83%
Sb 206.833	-145.1	-0.19851	0.000597	mg/L	-9.4528	0.02842	mg/kg	0.30%
V 292.402	70653.2	0.75455	0.000998	mg/L	35.931	0.0475	mg/kg	0.13%
Tl 190.800	-46.0	0.00587	0.004144	mg/L	0.27958	0.197332	mg/kg	70.58%
Zn 213.856	13893.2	0.52879	0.003488	mg/L	25.180	0.1661	mg/kg	0.66%
Na 330.237	315.5	-1.1654	0.12618	mg/L	-55.493	6.0087	mg/kg	10.83%
Sr 407.771	3709337.0							0.00%
U 385.958	63263.7							0.17%
U 367.007	21715.8							0.14%
Zr 343.823	38571.8							0.16%
Zr 339.198	50868.2							0.23%
Zr 357.247	62454.3							0.14%

Replicate Data

ID: 9693-7 Date: 9/5/96 7:17:23 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	374163.4	374163.4	1.124	mg/L		
1	Ag 328.068	-151.5	-134.7	-0.00586	mg/L	-0.29146	mg/kg
1	Al 396.152	5594495.7	4976524.5	194.68	mg/L	9685.5	mg/kg
1	As 193.696	312.6	278.1	0.23587	mg/L	11.735	mg/kg
1	B 249.773	7237.0	6437.6	-0.75443	mg/L	-37.534	mg/kg
1	Ba 233.527	52811.8	46978.2	1.2362	mg/L	61.501	mg/kg
1	Be 313.042	29228.8	26000.2	0.02237	mg/L	1.1130	mg/kg
1	Bi 223.061	-99.0	-88.1	-0.01283	mg/L	-0.63848	mg/kg
1	Ca 315.887	536790.6	477496.4	52.889	mg/L	2631.3	mg/kg
1	Cd 214.438	252.6	224.7	-0.02555	mg/L	-1.2713	mg/kg
1	Co 238.892	16210.6	14420.0	0.23817	mg/L	11.849	mg/kg
1	Cr 267.716	24699.9	21971.6	0.30671	mg/L	15.259	mg/kg
1	Cu 324.754	18984.7	16887.6	0.17446	mg/L	8.6798	mg/kg
1	Fe 234.349	7509550.9	6680041.5	375.89	mg/L	18701	mg/kg
1	K 766.491	7268011.2	6465182.4				
1	Mo 202.030	-5.4	-4.8	0.00818	mg/L	0.40705	mg/kg
1	Mn 257.610	445625.4	396401.3	3.1979	mg/L	159.10	mg/kg
1	Mg 279.079	69258.6	61608.3	19.243	mg/L	957.34	mg/kg

1 Ni 231.604	3113.5	2769.6	0.27703 mg/L	13.782 mg/kg	
1 Pb 220.353	400.6	356.4	0.15029 mg/L	7.4772 mg/kg	
1 Sn 189.933	101.3	90.1	0.04111 mg/L	2.0454 mg/kg	
1 Se 196.026	-124.4	-110.7	-0.08118 mg/L	-4.0389 mg/kg	
1 Sb 206.833	-178.1	-158.4	-0.21309 mg/L	-10.602 mg/kg	
1 V 292.402	85334.8	75908.6	0.81058 mg/L	40.327 mg/kg	
1 Tl 190.800	-48.1	-42.8	0.00995 mg/L	0.49485 mg/kg	
1 Zn 213.856	17196.1	15296.6	0.58711 mg/L	29.210 mg/kg	
1 Na 330.237	344.0	306.0	-1.2473 mg/L	-62.052 mg/kg	
1 Sr 407.771	4057002.2	3608863.3			
1 U 385.958	71607.9	63698.1			
1 U 367.007	24435.9	21736.7			
1 Zr 343.823	44397.7	39493.5			
1 Zr 339.198	58687.4	52204.8			
1 Zr 357.247	70551.8	62758.6			
2 Y 360.073	373924.9	373924.9	1.123 mg/L		
2 Ag 328.068	-176.3	-156.9	-0.00634 mg/L	-0.31560 mg/kg	
2 Al 396.152	5616792.5	4999545.2	195.58 mg/L	9730.3 mg/kg	
2 As 193.696	312.9	278.5	0.23545 mg/L	11.714 mg/kg	
2 B 249.773	7190.2	6400.1	-0.75707 mg/L	-37.665 mg/kg	
2 Ba 233.527	52742.5	46946.4	1.2353 mg/L	61.459 mg/kg	
2 Be 313.042	29273.9	26056.9	0.02245 mg/L	1.1167 mg/kg	
2 Bi 223.061	-110.4	-98.2	-0.01603 mg/L	-0.79753 mg/kg	
2 Ca 315.887	533313.7	474706.2	52.580 mg/L	2615.9 mg/kg	
2 Cd 214.438	243.1	216.3	-0.02575 mg/L	-1.2809 mg/kg	
2 Co 238.892	16210.6	14429.2	0.23815 mg/L	11.848 mg/kg	
2 Cr 267.716	24618.6	21913.2	0.30586 mg/L	15.217 mg/kg	
2 Cu 324.754	18980.1	16894.3	0.17453 mg/L	8.6831 mg/kg	
2 Fe 234.349	7514633.3	6688826.3	376.38 mg/L	18725 mg/kg	
2 K 766.491	7311293.7	6507832.4			
2 Mo 202.030	-8.8	-7.9	0.00695 mg/L	0.34560 mg/kg	
2 Mn 257.610	442590.5	393952.9	3.1781 mg/L	158.12 mg/kg	
2 Mg 279.079	69312.6	61695.7	19.270 mg/L	958.70 mg/kg	
2 Ni 231.604	3097.5	2757.1	0.27577 mg/L	13.720 mg/kg	
2 Pb 220.353	426.4	379.5	0.16747 mg/L	8.3320 mg/kg	
2 Sn 189.933	103.4	92.1	0.04224 mg/L	2.1013 mg/kg	
2 Se 196.026	-107.5	-95.7	-0.05661 mg/L	-2.8166 mg/kg	
2 Sb 206.833	-171.7	-152.9	-0.20718 mg/L	-10.307 mg/kg	
2 V 292.402	85394.3	76010.1	0.81164 mg/L	40.380 mg/kg	
2 Tl 190.800	-63.8	-56.8	-0.00282 mg/L	-0.14006 mg/kg	
2 Zn 213.856	17203.1	15312.6	0.58763 mg/L	29.235 mg/kg	
2 Na 330.237	364.0	324.0	-1.1886 mg/L	-59.133 mg/kg	
2 Sr 407.771	4062342.4	3615918.6			
2 U 385.958	71607.9	63738.7			
2 U 367.007	24440.9	21755.0			
2 Zr 343.823	44372.6	39496.3			
2 Zr 339.198	58606.5	52166.0			
2 Zr 357.247	70597.3	62839.2			

Mean Data

ID: 9693-7 Seq. No.: 36 Sample No.: 30 A/S Pos: 34
Sample Qty: 2.0100 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 7:17:23 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	374044.1	1.124	0.0005	mg/L				0.05%
Ag 328.068	-145.8	-0.00610	0.000343	mg/L	-0.30353	0.017073	mg/kg	5.62%
Al 396.152	4988034.9	195.13	0.637	mg/L	9707.9	31.68	mg/kg	0.33%
As 193.696	278.3	0.23566	0.000292	mg/L	11.724	0.0145	mg/kg	0.12%
B 249.773	6418.8	-0.75575	0.001863	mg/L	-37.600	0.0927	mg/kg	0.25%
Ba 233.527	46962.3	1.2357	0.00059	mg/L	61.480	0.0295	mg/kg	0.05%
Be 313.042	26028.5	0.02241	0.000052	mg/L	1.1148	0.00258	mg/kg	0.23%
Bi 223.061	-93.2	-0.01443	0.002261	mg/L	-0.71800	0.112470	mg/kg	15.66%
Ca 315.887	476101.3	52.735	0.2184	mg/L	2623.6	10.86	mg/kg	0.41%
Cd 214.438	220.5	-0.02565	0.000137	mg/L	-1.2761	0.00681	mg/kg	0.53%
Co 238.892	14424.6	0.23816	0.000015	mg/L	11.849	0.0008	mg/kg	0.01%
Cr 267.716	21942.4	0.30629	0.000603	mg/L	15.238	0.0300	mg/kg	0.20%
Cu 324.754	16891.0	0.17450	0.000047	mg/L	8.6814	0.00234	mg/kg	0.03%
Fe 234.349	6684433.9	376.13	0.350	mg/L	18713	17.4	mg/kg	0.09%
K 766.491	6486507.4							0.46%
Mo 202.030	-6.3	0.00756	0.000873	mg/L	0.37633	0.043449	mg/kg	11.55%
Mn 257.610	395177.1	3.1880	0.01397	mg/L	158.61	0.695	mg/kg	0.44%
Mg 279.079	61652.0	19.256	0.0192	mg/L	958.02	0.956	mg/kg	0.10%
Ni 231.604	2763.4	0.27640	0.000890	mg/L	13.751	0.0443	mg/kg	0.32%

Pb 220.353	367.9	0.15888	0.012149 mg/L	7.9046	0.60445 mg/kg	7.65%
Sn 189.933	91.1	0.04167	0.000795 mg/L	2.0733	0.03956 mg/kg	1.91%
Se 196.026	-103.2	-0.06890	0.017373 mg/L	-3.4278	0.86434 mg/kg	25.22%
Sb 206.833	-155.6	-0.21014	0.004182 mg/L	-10.455	0.2081 mg/kg	1.99%
V 292.402	75959.4	0.81111	0.000753 mg/L	40.354	0.0375 mg/kg	0.09%
Tl 190.800	-49.8	0.00357	0.009024 mg/L	0.17740	0.448949 mg/kg	253.07%
Zn 213.856	15304.6	0.58737	0.000366 mg/L	29.223	0.0182 mg/kg	0.06%
Na 330.237	315.0	-1.2179	0.04149 mg/L	-60.593	2.0640 mg/kg	3.41%
Sr 407.771	3612391.0					0.14%
U 385.958	63718.4					0.05%
U 367.007	21745.9					0.06%
Zr 343.823	39494.9					0.01%
Zr 339.198	52185.4					0.05%
Zr 357.247	62798.9					0.09%

Replicate Data ----------

ID: 9693-8 Date: 9/5/96 7:22:33 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	372849.4	372849.4	1.120	mg/L		
1	Ag 328.068	-187.9	-167.8	-0.00673	mg/L	-0.33482	mg/kg
1	Al 396.152	4463069.6	3984067.3	155.85	mg/L	7753.8	mg/kg
1	As 193.696	276.6	246.9	0.23316	mg/L	11.600	mg/kg
1	B 249.773	7045.3	6289.2	-0.73999	mg/L	-36.816	mg/kg
1	Ba 233.527	49631.6	44304.9	1.1660	mg/L	58.012	mg/kg
1	Be 313.042	26266.8	23447.7	0.01898	mg/L	0.94410	mg/kg
1	Bi 223.061	-91.6	-81.7	-0.01097	mg/L	-0.54567	mg/kg
1	Ca 315.887	693544.5	619109.3	68.563	mg/L	3411.1	mg/kg
1	Cd 214.438	207.3	185.1	-0.02682	mg/L	-1.3343	mg/kg
1	Co 238.892	16244.5	14501.1	0.24606	mg/L	12.242	mg/kg
1	Cr 267.716	19570.9	17470.4	0.24079	mg/L	11.980	mg/kg
1	Cu 324.754	17768.9	15861.8	0.16284	mg/L	8.1013	mg/kg
1	Fe 234.349	7333075.9	6546048.2	368.35	mg/L	18326	mg/kg
1	K 766.491	7110480.5	6347343.0				
1	Mo 202.030	-28.8	-25.7	-0.00027	mg/L	-0.01355	mg/kg
1	Mn 257.610	494646.7	441558.4	3.5623	mg/L	177.23	mg/kg
1	Mg 279.079	63231.2	56444.9	17.644	mg/L	877.80	mg/kg
1	Ni 231.604	2857.0	2550.4	0.25485	mg/L	12.679	mg/kg
1	Pb 220.353	400.6	357.6	0.16492	mg/L	8.2050	mg/kg
1	Sn 189.933	105.0	93.7	0.04320	mg/L	2.1494	mg/kg
1	Se 196.026	-119.4	-106.5	-0.07159	mg/L	-3.5616	mg/kg
1	Sb 206.833	-172.1	-153.6	-0.20658	mg/L	-10.278	mg/kg
1	V 292.402	71440.0	63772.6	0.68131	mg/L	33.896	mg/kg
1	Tl 190.800	-50.3	-44.9	0.00525	mg/L	0.26111	mg/kg
1	Zn 213.856	16790.7	14988.6	0.57711	mg/L	28.712	mg/kg
1	Na 330.237	272.4	243.1	-1.4437	mg/L	-71.828	mg/kg
1	Sr 407.771	4082689.3	3644511.7				
1	U 385.958	70607.5	63029.5				
1	U 367.007	24425.8	21804.3				
1	Zr 343.823	40555.6	36203.0				
1	Zr 339.198	52849.5	47177.4				
1	Zr 357.247	66136.4	59038.3				
2	Y 360.073	374701.1	374701.1	1.126	mg/L		
2	Ag 328.068	-163.4	-145.1	-0.00623	mg/L	-0.31005	mg/kg
2	Al 396.152	4495638.7	3993309.3	156.21	mg/L	7771.8	mg/kg
2	As 193.696	266.9	237.1	0.21486	mg/L	10.689	mg/kg
2	B 249.773	7041.2	6254.5	-0.73962	mg/L	-36.797	mg/kg
2	Ba 233.527	49616.4	44072.4	1.1599	mg/L	57.707	mg/kg
2	Be 313.042	26283.4	23346.6	0.01884	mg/L	0.93745	mg/kg
2	Bi 223.061	-101.8	-90.4	-0.01363	mg/L	-0.67832	mg/kg
2	Ca 315.887	698279.6	620255.9	68.690	mg/L	3417.4	mg/kg
2	Cd 214.438	211.6	188.0	-0.02669	mg/L	-1.3279	mg/kg
2	Co 238.892	16244.5	14429.4	0.24403	mg/L	12.141	mg/kg
2	Cr 267.716	19663.9	17466.7	0.24074	mg/L	11.977	mg/kg
2	Cu 324.754	17797.3	15808.7	0.16224	mg/L	8.0716	mg/kg
2	Fe 234.349	7357153.2	6535086.6	367.73	mg/L	18295	mg/kg
2	K 766.491	7181255.1	6378842.8				
2	Mo 202.030	-24.2	-21.5	0.00143	mg/L	0.07124	mg/kg
2	Mn 257.610	498944.2	443193.6	3.5754	mg/L	177.88	mg/kg
2	Mg 279.079	63191.3	56130.5	17.546	mg/L	872.95	mg/kg
2	Ni 231.604	2879.8	2558.0	0.25562	mg/L	12.717	mg/kg
2	Pb 220.353	416.7	370.1	0.17421	mg/L	8.6670	mg/kg
2	Sn 189.933	105.6	93.8	0.04322	mg/L	2.1505	mg/kg

2	Se 196.026	-114.1	-101.3	-0.06317 mg/L	-3.1427 mg/kg
2	Sb 206.833	-165.8	-147.3	-0.19983 mg/L	-9.9417 mg/kg
2	V 292.402	71404.9	63426.3	0.67765 mg/L	33.714 mg/kg
2	Tl 190.800	-50.3	-44.7	0.00539 mg/L	0.26798 mg/kg
2	Zn 213.856	16733.4	14863.7	0.57207 mg/L	28.461 mg/kg
2	Na 330.237	275.7	244.9	-1.4336 mg/L	-71.321 mg/kg
2	Sr 407.771	4107140.7	3648220.9		
2	U 385.958	70807.6	62895.8		
2	U 367.007	24420.8	21692.1		
2	Zr 343.823	40540.6	36010.7		
2	Zr 339.198	52930.3	47016.0		
2	Zr 357.247	66131.3	58742.0		

Mean Data

ID: 9693-8 Seq. No.: 37 Sample No.: 31 A/S Pos: 35
Sample Qty: 2.0100 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 7:22:33 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	373775.2	1.123	0.0039	mg/L				0.35%
Ag 328.068	-156.4	-0.00648	0.000352	mg/L	-0.32243	0.017514	mg/kg	5.43%
Al 396.152	3988688.3	156.03	0.256	mg/L	7762.8	12.72	mg/kg	0.16%
As 193.696	242.0	0.22401	0.012940	mg/L	11.145	0.6438	mg/kg	5.78%
B 249.773	6271.8	-0.73981	0.000261	mg/L	-36.806	0.0130	mg/kg	0.04%
Ba 233.527	44188.6	1.1630	0.00433	mg/L	57.859	0.2152	mg/kg	0.37%
Be 313.042	23397.2	0.01891	0.000095	mg/L	0.94078	0.004707	mg/kg	0.50%
Bi 223.061	-86.1	-0.01230	0.001885	mg/L	-0.61200	0.093797	mg/kg	15.33%
Ca 315.887	619682.6	68.626	0.0897	mg/L	3414.2	4.46	mg/kg	0.13%
Cd 214.438	186.5	-0.02675	0.000091	mg/L	-1.3311	0.00453	mg/kg	0.34%
Co 238.892	14465.2	0.24505	0.001435	mg/L	12.192	0.0714	mg/kg	0.59%
Cr 267.716	17468.6	0.24076	0.000036	mg/L	11.978	0.0018	mg/kg	0.02%
Cu 324.754	15835.3	0.16254	0.000422	mg/L	8.0865	0.02098	mg/kg	0.26%
Fe 234.349	6540567.4	368.04	0.436	mg/L	18310	21.7	mg/kg	0.12%
K 766.491	6363092.9							0.35%
Mo 202.030	-23.6	0.00058	0.001205	mg/L	0.02885	0.059958	mg/kg	207.84%
Mn 257.610	442376.0	3.5688	0.00933	mg/L	177.55	0.464	mg/kg	0.26%
Mg 279.079	56287.7	17.595	0.0689	mg/L	875.37	3.429	mg/kg	0.39%
Ni 231.604	2554.2	0.25523	0.000545	mg/L	12.698	0.0271	mg/kg	0.21%
Pb 220.353	363.9	0.16956	0.006566	mg/L	8.4360	0.32665	mg/kg	3.87%
Sn 189.933	93.8	0.04321	0.000015	mg/L	2.1499	0.00075	mg/kg	0.03%
Se 196.026	-103.9	-0.06738	0.005954	mg/L	-3.3522	0.29620	mg/kg	8.84%
Sb 206.833	-150.4	-0.20321	0.004776	mg/L	-10.110	0.2376	mg/kg	2.35%
V 292.402	63599.5	0.67948	0.002591	mg/L	33.805	0.1289	mg/kg	0.38%
Tl 190.800	-44.8	0.00532	0.000098	mg/L	0.26455	0.004857	mg/kg	1.84%
Zn 213.856	14926.2	0.57459	0.003566	mg/L	28.587	0.1774	mg/kg	0.62%
Na 330.237	244.0	-1.4386	0.00720	mg/L	-71.574	0.3582	mg/kg	0.50%
Sr 407.771	3646366.3							0.07%
U 385.958	62962.6							0.15%
U 367.007	21748.2							0.36%
Zr 343.823	36106.8							0.38%
Zr 339.198	47096.7							0.24%
Zr 357.247	58890.1							0.36%

Replicate Data

ID: 9693-10 Date: 9/5/96 7:27:48 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	399587.2	399587.2	1.201	mg/L		
1	Ag 328.068	-263.9	-219.8	-0.00957	mg/L	-0.46702	mg/kg
1	Al 396.152	2549593.4	2123664.3	83.072	mg/L	4052.3	mg/kg
1	As 193.696	348.9	290.6	0.41283	mg/L	20.138	mg/kg
1	B 249.773	17824.9	14847.1	-1.3970	mg/L	-68.147	mg/kg
1	Ba 233.527	18095.1	15072.1	0.39453	mg/L	19.246	mg/kg
1	Be 313.042	39502.5	32903.3	0.03157	mg/L	1.5400	mg/kg
1	Bi 223.061	183.9	153.2	0.03068	mg/L	1.4967	mg/kg
1	Ca 315.887	161538.7	134552.4	14.932	mg/L	728.38	mg/kg
1	Cd 214.438	479.0	399.0	-0.05856	mg/L	-2.8565	mg/kg
1	Co 238.892	41611.1	34659.7	0.68476	mg/L	33.403	mg/kg
1	Cr 267.716	29389.5	24479.8	0.34234	mg/L	16.700	mg/kg
1	Cu 324.754	28075.2	23385.0	0.24053	mg/L	11.733	mg/kg
1	Fe 234.349	15720917.2	13094617.7	736.87	mg/L	35945	mg/kg
1	K 766.491	3336240.5	2778896.0				
1	Mo 202.030	-9.2	-7.7	0.00702	mg/L	0.34240	mg/kg

1	Mn 257.610	1082396.5	901573.9	7.2742	mg/L	354.84 mg/kg
1	Mg 279.079	38652.8	32195.6	10.339	mg/L	504.36 mg/kg
1	Ni 231.604	7202.5	5999.3	0.60389	mg/L	29.458 mg/kg
1	Pb 220.353	323.0	269.0	0.12302	mg/L	6.0008 mg/kg
1	Sn 189.933	102.5	85.4	0.03837	mg/L	1.8719 mg/kg
1	Se 196.026	-235.8	-196.4	-0.18051	mg/L	-8.8056 mg/kg
1	Sb 206.833	-528.4	-440.1	-0.51375	mg/L	-25.061 mg/kg
1	V 292.402	123748.4	103075.3	1.0997	mg/L	53.644 mg/kg
1	Tl 190.800	-53.6	-44.7	0.01170	mg/L	0.57082 mg/kg
1	Zn 213.856	26180.9	21807.2	0.83873	mg/L	40.914 mg/kg
1	Na 330.237	-402.9	-335.6	-3.5671	mg/L	-174.00 mg/kg
1	Sr 407.771	2218772.1	1848109.3			
1	U 385.958	135515.1	112876.2			
1	U 367.007	39050.7	32527.0			
1	Zr 343.823	49017.8	40829.0			
1	Zr 339.198	60336.4	50256.7			
1	Zr 357.247	78173.9	65114.4			
2	Y 360.073	400134.8	400134.8	1.202	mg/L	
2	Ag 328.068	-277.0	-230.4	-0.00981	mg/L	-0.47858 mg/kg
2	Al 396.152	2564645.9	2133278.8	83.448	mg/L	4070.6 mg/kg
2	As 193.696	345.0	286.9	0.40566	mg/L	19.788 mg/kg
2	B 249.773	18009.2	14980.1	-1.3919	mg/L	-67.897 mg/kg
2	Ba 233.527	18203.2	15141.5	0.39636	mg/L	19.335 mg/kg
2	Be 313.042	39637.6	32970.7	0.03166	mg/L	1.5443 mg/kg
2	Bi 223.061	197.2	164.1	0.03410	mg/L	1.6635 mg/kg
2	Ca 315.887	161739.4	134535.2	14.930	mg/L	728.29 mg/kg
2	Cd 214.438	474.6	394.8	-0.05862	mg/L	-2.8597 mg/kg
2	Co 238.892	41611.1	34612.2	0.68323	mg/L	33.328 mg/kg
2	Cr 267.716	29352.0	24415.1	0.34137	mg/L	16.652 mg/kg
2	Cu 324.754	28235.7	23486.6	0.24171	mg/L	11.791 mg/kg
2	Fe 234.349	15739513.1	13092165.8	736.73	mg/L	35938 mg/kg
2	K 766.491	3369100.5	2802426.1			
2	Mo 202.030	-30.0	-25.0	0.00004	mg/L	0.00211 mg/kg
2	Mn 257.610	1084305.7	901928.1	7.2770	mg/L	354.98 mg/kg
2	Mg 279.079	38649.3	32148.6	10.325	mg/L	503.65 mg/kg
2	Ni 231.604	7189.1	5979.9	0.60193	mg/L	29.362 mg/kg
2	Pb 220.353	318.3	264.7	0.11964	mg/L	5.8359 mg/kg
2	Sn 189.933	97.6	81.2	0.03596	mg/L	1.7543 mg/kg
2	Se 196.026	-221.6	-184.4	-0.16086	mg/L	-7.8471 mg/kg
2	Sb 206.833	-529.9	-440.7	-0.51439	mg/L	-25.092 mg/kg
2	V 292.402	124133.3	103254.4	1.1015	mg/L	53.733 mg/kg
2	Tl 190.800	-44.2	-36.8	0.01894	mg/L	0.92370 mg/kg
2	Zn 213.856	26339.4	21909.2	0.84299	mg/L	41.121 mg/kg
2	Na 330.237	-388.7	-323.3	-3.5305	mg/L	-172.22 mg/kg
2	Sr 407.771	2226691.0	1852167.0			
2	U 385.958	135515.1	112721.8			
2	U 367.007	39070.8	32499.2			
2	Zr 343.823	49041.9	40793.1			
2	Zr 339.198	60497.2	50321.7			
2	Zr 357.247	78244.4	65083.9			

Mean Data

ID: 9693-10 Seq. No.: 38 Sample No.: 32 A/S Pos: 36
Sample Qty: 2.0500 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 7:27:48 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	399861.0	1.201	0.0012	mg/L				0.10%
Ag 328.068	-225.1	-0.00969	0.000168	mg/L	-0.47280	0.008174	mg/kg	1.73%
Al 396.152	2128471.6	83.260	0.2661	mg/L	4061.5	12.98	mg/kg	0.32%
As 193.696	288.8	0.40925	0.005075	mg/L	19.963	0.2476	mg/kg	1.24%
B 249.773	14913.6	-1.3944	0.00362	mg/L	-68.022	0.1764	mg/kg	0.26%
Ba 233.527	15106.8	0.39545	0.001292	mg/L	19.290	0.0630	mg/kg	0.33%
Be 313.042	32937.0	0.03161	0.000063	mg/L	1.5422	0.00306	mg/kg	0.20%
Bi 223.061	158.6	0.03239	0.002418	mg/L	1.5801	0.11796	mg/kg	7.47%
Ca 315.887	134543.8	14.931	0.0013	mg/L	728.34	0.066	mg/kg	0.01%
Cd 214.438	396.9	-0.05859	0.000045	mg/L	-2.8581	0.00221	mg/kg	0.08%
Co 238.892	34635.9	0.68399	0.001081	mg/L	33.365	0.0528	mg/kg	0.16%
Cr 267.716	24447.4	0.34185	0.000689	mg/L	16.676	0.0336	mg/kg	0.20%
Cu 324.754	23435.8	0.24112	0.000828	mg/L	11.762	0.0404	mg/kg	0.34%
Fe 234.349	13093391.7	736.80	0.098	mg/L	35941	4.8	mg/kg	0.01%
K 766.491	2790661.0							0.60%
Mo 202.030	-16.3	0.00353	0.004933	mg/L	0.17226	0.240621	mg/kg	139.69%
Mn 257.610	901751.0	7.2756	0.00202	mg/L	354.91	0.099	mg/kg	0.03%

Mg 279.079	32172.1	10.332	0.0103 mg/L	504.01	0.503 mg/kg	0.10%
Ni 231.604	5989.6	0.60291	0.001386 mg/L	29.410	0.0676 mg/kg	0.23%
Pb 220.353	266.9	0.12133	0.002390 mg/L	5.9183	0.11660 mg/kg	1.97%
Sn [illegible].933	83.3	0.03717	0.001704 mg/L	1.8131	0.08312 mg/kg	4.58%
Se [illegible].026	-190.4	-0.17069	0.013894 mg/L	-8.3263	0.67776 mg/kg	8.14%
Sb 206.833	-440.4	-0.51407	0.000454 mg/L	-25.076	0.0221 mg/kg	0.09%
V 292.402	103164.8	1.1006	0.00129 mg/L	53.689	0.0628 mg/kg	0.12%
Tl 190.800	-40.7	0.01532	0.005115 mg/L	0.74726	0.249523 mg/kg	33.39%
Zn 213.856	21858.2	0.84086	0.003010 mg/L	41.018	0.1468 mg/kg	0.36%
Na 330.237	-329.4	-3.5488	0.02583 mg/L	-173.11	1.260 mg/kg	0.73%
Sr 407.771	1850138.2					0.16%
U 385.958	112799.0					0.10%
U 367.007	32513.1					0.06%
Zr 343.823	40811.1					0.06%
Zr 339.198	50289.2					0.09%
Zr 357.247	65099.1					0.03%

Replicate Data ----------

ID: 9693-11 Date: 9/5/96 7:33:06 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	363816.7	363816.7	1.093	mg/L		
1	Ag 328.068	-382.8	-350.2	-0.01132	mg/L	-0.56303	mg/kg
1	Al 396.152	9035715.2	8266208.3	323.37	mg/L	16088	mg/kg
1	As 193.696	359.6	329.0	0.15423	mg/L	7.6732	mg/kg
1	B 249.773	9133.1	8355.3	-0.56512	mg/L	-28.115	mg/kg
1	Ba 233.527	69991.5	64030.9	1.6857	mg/L	83.863	mg/kg
1	Be 313.042	34718.5	31761.8	0.02922	mg/L	1.4536	mg/kg
1	Bi 223.061	-166.8	-152.6	-0.02791	mg/L	-1.3886	mg/kg
1	Ca 315.887	4659213.5	4262421.8	471.81	mg/L	23473	mg/kg
1	Cd 214.438	188.9	172.8	-0.01857	mg/L	-0.92411	mg/kg
1	Co 238.892	13979.0	12788.5	0.21396	mg/L	10.645	mg/kg
1	Cr 267.716	34887.9	31916.7	0.45164	mg/L	22.470	mg/kg
1	Cu 324.754	29146.9	26664.7	0.28756	mg/L	14.306	mg/kg
1	Fe 234.349	6399577.8	5854571.8	329.43	mg/L	16390	mg/kg
1	K 766.491	Saturated					
1	Mo 202.030	-46.0	-42.1	-0.00687	mg/L	-0.34187	mg/kg
1	Mn 257.610	642017.6	587341.6	4.7386	mg/L	235.75	mg/kg
1	Mg 279.079	214256.9	196010.1	60.788	mg/L	3024.3	mg/kg
1	Ni 231.604	3759.0	3438.9	0.34476	mg/L	17.152	mg/kg
1	Pb 220.353	690.4	631.6	0.31256	mg/L	15.550	mg/kg
1	Sn 189.933	120.5	110.3	0.05276	mg/L	2.6250	mg/kg
1	Se 196.026	-113.5	-103.9	-0.08806	mg/L	-4.3812	mg/kg
1	Sb 206.833	-133.6	-122.2	-0.17762	mg/L	-8.8368	mg/kg
1	V 292.402	81499.9	74559.1	0.79603	mg/L	39.604	mg/kg
1	Tl 190.800	-61.7	-56.5	0.00160	mg/L	0.07975	mg/kg
1	Zn 213.856	28722.1	26276.1	1.0527	mg/L	52.376	mg/kg
1	Na 330.237	9741.1	8911.5	26.541	mg/L	1320.4	mg/kg
1	Sr 407.771	Saturated					
1	U 385.958	74621.3	68266.3				
1	U 367.007	26600.9	24335.5				
1	Zr 343.823	45432.2	41563.0				
1	Zr 339.198	60700.7	55531.3				
1	Zr 357.247	86614.4	79238.0				
2	Y 360.073	366638.0	366638.0	1.102	mg/L		
2	Ag 328.068	-388.0	-352.2	-0.01135	mg/L	-0.56468	mg/kg
2	Al 396.152	9083497.8	8245977.8	322.58	mg/L	16049	mg/kg
2	As 193.696	371.5	337.3	0.17037	mg/L	8.4759	mg/kg
2	B 249.773	9224.3	8373.8	-0.55944	mg/L	-27.833	mg/kg
2	Ba 233.527	70252.3	63774.9	1.6789	mg/L	83.528	mg/kg
2	Be 313.042	34824.5	31613.6	0.02903	mg/L	1.4444	mg/kg
2	Bi 223.061	-164.0	-148.8	-0.02658	mg/L	-1.3222	mg/kg
2	Ca 315.887	4679271.5	4247831.6	470.19	mg/L	23393	mg/kg
2	Cd 214.438	172.5	156.6	-0.01876	mg/L	-0.93338	mg/kg
2	Co 238.892	14079.0	12780.9	0.21501	mg/L	10.697	mg/kg
2	Cr 267.716	34985.8	31760.1	0.44935	mg/L	22.356	mg/kg
2	Cu 324.754	29401.9	26690.9	0.28790	mg/L	14.323	mg/kg
2	Fe 234.349	6411670.1	5820499.0	327.51	mg/L	16294	mg/kg
2	K 766.491	Saturated					
2	Mo 202.030	-49.6	-45.0	-0.00806	mg/L	-0.40097	mg/kg
2	Mn 257.610	643839.4	584475.9	4.7155	mg/L	234.60	mg/kg
2	Mg 279.079	214691.8	194896.7	60.443	mg/L	3007.1	mg/kg
2	Ni 231.604	3754.4	3408.2	0.34166	mg/L	16.998	mg/kg

2 Pb 220.353	697.0	632.8	0.31370 mg/L	15.607 mg/kg	
2 Sn 189.933	118.3	107.4	0.05108 mg/L	2.5415 mg/kg	
2 Se 196.026	-122.9	-111.6	-0.10076 mg/L	-5.0127 mg/kg	
2 Sb 206.833	-149.4	-135.6	-0.19182 mg/L	-9.5434 mg/kg	
2 V 292.402	81939.6	74384.6	0.79416 mg/L	39.511 mg/kg	
2 Tl 190.800	-65.5	-59.5	-0.00118 mg/L	-0.05855 mg/kg	
2 Zn 213.856	28890.0	26226.2	1.0508 mg/L	52.278 mg/kg	
2 Na 330.237	9757.4	8857.8	26.367 mg/L	1311.8 mg/kg	
2 Sr 407.771	Saturated				
2 U 385.958	74621.3	67741.0			
2 U 367.007	26587.6	24136.1			
2 Zr 343.823	45403.3	41217.0			
2 Zr 339.198	60791.1	55186.0			
2 Zr 357.247	86695.1	78701.6			

Mean Data

ID: 9693-11 Seq. No.: 39 Sample No.: 33 A/S Pos: 37
Sample Qty: 2.0100 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 7:33:06 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	365227.3	1.097	0.0060	mg/L				0.55%
Ag 328.068	-351.2	-0.01133	0.000023	mg/L	-0.56386	0.001164	mg/kg	0.21%
Al 396.152	8256093.0	322.98	0.560	mg/L	16069	27.8	mg/kg	0.17%
As 193.696	333.1	0.16230	0.011409	mg/L	8.0746	0.56763	mg/kg	7.03%
B 249.773	8364.5	-0.56228	0.004014	mg/L	-27.974	0.1997	mg/kg	0.71%
Ba 233.527	63902.9	1.6823	0.00477	mg/L	83.695	0.2372	mg/kg	0.28%
Be 313.042	31687.7	0.02913	0.000130	mg/L	1.4490	0.00647	mg/kg	0.45%
Bi 223.061	-150.7	-0.02724	0.000943	mg/L	-1.3554	0.04691	mg/kg	3.46%
Ca 315.887	4255126.7	471.00	1.142	mg/L	23433	56.8	mg/kg	0.24%
Cd 214.438	164.7	-0.01867	0.000132	mg/L	-0.92874	0.006552	mg/kg	0.71%
Co 238.892	12784.7	0.21448	0.000738	mg/L	10.671	0.0367	mg/kg	0.34%
Cr 267.716	31838.4	0.45050	0.001619	mg/L	22.413	0.0805	mg/kg	0.36%
Cu 324.754	26677.8	0.28773	0.000244	mg/L	14.315	0.0122	mg/kg	0.08%
Fe 234.349	5837535.4	328.47	1.356	mg/L	16342	67.5	mg/kg	0.41%
K 766.491	Saturated							
Mo 202.030	-43.6	-0.00747	0.000840	mg/L	-0.37142	0.041793	mg/kg	11.25%
Mn 257.610	585908.8	4.7270	0.01635	mg/L	235.18	0.813	mg/kg	0.35%
Mg 279.079	195453.4	60.615	0.2442	mg/L	3015.7	12.15	mg/kg	0.40%
Ni 231.604	3423.6	0.34321	0.002195	mg/L	17.075	0.1092	mg/kg	0.64%
Pb 220.353	632.2	0.31313	0.000806	mg/L	15.578	0.0401	mg/kg	0.26%
Sn 189.933	108.8	0.05192	0.001187	mg/L	2.5833	0.05904	mg/kg	2.29%
Se 196.026	-107.7	-0.09441	0.008976	mg/L	-4.6969	0.44656	mg/kg	9.51%
Sb 206.833	-128.9	-0.18472	0.010043	mg/L	-9.1901	0.49965	mg/kg	5.44%
V 292.402	74471.9	0.79510	0.001324	mg/L	39.557	0.0658	mg/kg	0.17%
Tl 190.800	-58.0	0.00021	0.001966	mg/L	0.01060	0.097796	mg/kg	922.51%
Zn 213.856	26251.1	1.0518	0.00139	mg/L	52.327	0.0692	mg/kg	0.13%
Na 330.237	8884.6	26.454	0.1232	mg/L	1316.1	6.13	mg/kg	0.47%
Sr 407.771	Saturated							
U 385.958	68003.7							0.55%
U 367.007	24235.8							0.58%
Zr 343.823	41390.0							0.59%
Zr 339.198	55358.6							0.44%
Zr 357.247	78969.8							0.48%

Replicate Data

ID: CCV3 Date: 9/5/96 7:38:10 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	340451.5	340451.5	1.023	mg/L		
1	Ag 328.068	11567.8	11308.9	0.24969	mg/L	0.24969	mg/L
1	Al 396.152	617568.4	603748.8	23.597	mg/L	23.597	mg/L
1	As 193.696	147.6	144.3	0.22945	mg/L	0.22945	mg/L
1	B 249.773	15031.3	14694.9	0.45683	mg/L	0.45683	mg/L
1	Ba 233.527	19653.8	19214.0	0.50486	mg/L	0.50486	mg/L
1	Be 313.042	225558.9	220511.5	0.25990	mg/L	0.25990	mg/L
1	Bi 223.061	1442.9	1410.6	0.48547	mg/L	0.48547	mg/L
1	Ca 315.887	244947.9	239466.6	26.544	mg/L	26.544	mg/L
1	Cd 214.438	12733.2	12448.2	0.25737	mg/L	0.25737	mg/L
1	Co 238.892	15350.4	15006.9	0.49637	mg/L	0.49637	mg/L
1	Cr 267.716	36190.8	35381.0	0.50547	mg/L	0.50547	mg/L
1	Cu 324.754	43734.4	42755.7	0.47858	mg/L	0.47858	mg/L
1	Fe 234.349	466227.1	455794.1	25.610	mg/L	25.610	mg/L

1	K 766.491	11242191.0	10990619.8		
1	Mo 202.030	1273.0	1244.5	0.51237 mg/L	0.51237 mg/L
1	Mn 257.610	62815.2	61409.6	0.49479 mg/L	0.49479 mg/L
1	Mg 279.079	82560.0	80712.6	24.970 mg/L	24.970 mg/L
1	Ni 231.604	5061.6	4948.3	0.49752 mg/L	0.49752 mg/L
1	Pb 220.353	757.4	740.4	0.50084 mg/L	0.50084 mg/L
1	Sn 189.933	930.7	909.9	0.51524 mg/L	0.51524 mg/L
1	Se 196.026	263.1	257.2	0.50951 mg/L	0.50951 mg/L
1	Sb 206.833	510.5	499.1	0.48125 mg/L	0.48125 mg/L
1	V 292.402	48773.3	47681.9	0.51630 mg/L	0.51630 mg/L
1	Tl 190.800	243.1	237.6	0.25787 mg/L	0.25787 mg/L
1	Zn 213.856	13159.5	12865.0	0.50600 mg/L	0.50600 mg/L
1	Na 330.237	8314.2	8128.1	24.447 mg/L	24.447 mg/L
1	Sr 407.771	70399.9	68824.5		
1	U 385.958	33739.8	32984.8		
1	U 367.007	15027.8	14691.6		
1	Zr 343.823	15723.6	15371.7		
1	Zr 339.198	18148.2	17742.1		
1	Zr 357.247	30539.9	29856.5		
2	Y 360.073	341270.7	341270.7	1.025 mg/L	
2	Ag 328.068	11614.2	11327.0	0.25010 mg/L	0.25010 mg/L
2	Al 396.152	619480.1	604164.0	23.613 mg/L	23.613 mg/L
2	As 193.696	144.7	141.1	0.22380 mg/L	0.22380 mg/L
2	B 249.773	15151.5	14776.9	0.45978 mg/L	0.45978 mg/L
2	Ba 233.527	19620.0	19134.9	0.50277 mg/L	0.50277 mg/L
2	Be 313.042	227299.1	221679.3	0.26134 mg/L	0.26134 mg/L
2	Bi 223.061	1429.5	1394.2	0.48033 mg/L	0.48033 mg/L
2	Ca 315.887	246754.1	240653.3	26.675 mg/L	26.675 mg/L
2	Cd 214.438	12757.9	12442.5	0.25725 mg/L	0.25725 mg/L
2	Co 238.892	15463.9	15081.5	0.49893 mg/L	0.49893 mg/L
2	Cr 267.716	36225.9	35330.2	0.50471 mg/L	0.50471 mg/L
2	Cu 324.754	43949.0	42862.4	0.47981 mg/L	0.47981 mg/L
2	Fe 234.349	467205.3	455654.0	25.602 mg/L	25.602 mg/L
2	K 766.491	11264215.3	10985716.7		
2	Mo 202.030	1266.8	1235.5	0.50874 mg/L	0.50874 mg/L
2	Mn 257.610	63143.4	61582.2	0.49618 mg/L	0.49618 mg/L
2	Mg 279.079	82816.2	80768.6	24.987 mg/L	24.987 mg/L
2	Ni 231.604	5063.2	4938.0	0.49648 mg/L	0.49648 mg/L
2	Pb 220.353	753.0	734.4	0.49626 mg/L	0.49626 mg/L
2	Sn 189.933	928.6	905.7	0.51281 mg/L	0.51281 mg/L
2	Se 196.026	245.5	239.4	0.48033 mg/L	0.48033 mg/L
2	Sb 206.833	525.5	512.5	0.49555 mg/L	0.49555 mg/L
2	V 292.402	49074.2	47860.9	0.51816 mg/L	0.51816 mg/L
2	Tl 190.800	243.4	237.4	0.25770 mg/L	0.25770 mg/L
2	Zn 213.856	13262.7	12934.7	0.50890 mg/L	0.50890 mg/L
2	Na 330.237	8306.6	8101.2	24.356 mg/L	24.356 mg/L
2	Sr 407.771	70018.7	68287.6		
2	U 385.958	33699.8	32866.6		
2	U 367.007	14967.8	14597.7		
2	Zr 343.823	15724.0	15335.3		
2	Zr 339.198	18088.2	17640.9		
2	Zr 357.247	30439.8	29687.2		

Mean Data ----------

ID: CCV3 Seq. No.: 40 Sample No.: 34 A/S Pos: 38
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 7:38:10 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	340861.1	1.024	0.0017	mg/L				0.17%
Ag 328.068	11318.0	0.24989	0.000284	mg/L	0.24989	0.000284	mg/L	0.11%
Al 396.152	603956.4	23.605	0.0116	mg/L	23.605	0.0116	mg/L	0.05%
As 193.696	142.7	0.22663	0.003997	mg/L	0.22663	0.003997	mg/L	1.76%
B 249.773	14735.9	0.45830	0.002088	mg/L	0.45830	0.002088	mg/L	0.46%
Ba 233.527	19174.5	0.50381	0.001476	mg/L	0.50381	0.001476	mg/L	0.29%
Be 313.042	221095.4	0.26062	0.001017	mg/L	0.26062	0.001017	mg/L	0.39%
Bi 223.061	1402.4	0.48290	0.003632	mg/L	0.48290	0.003632	mg/L	0.75%
Ca 315.887	240060.0	26.609	0.0929	mg/L	26.609	0.0929	mg/L	0.35%
Cd 214.438	12445.4	0.25731	0.000084	mg/L	0.25731	0.000084	mg/L	0.03%
Co 238.892	15044.2	0.49765	0.001807	mg/L	0.49765	0.001807	mg/L	0.36%
Cr 267.716	35355.6	0.50509	0.000535	mg/L	0.50509	0.000535	mg/L	0.11%
Cu 324.754	42809.1	0.47920	0.000867	mg/L	0.47920	0.000867	mg/L	0.18%
Fe 234.349	455724.1	25.606	0.0056	mg/L	25.606	0.0056	mg/L	0.02%
K 766.491	10988168.2							0.03%

Mo 202.030	1240.0	0.51056	0.002567 mg/L	0.51056	0.002567 mg/L	0.50%
Mn 257.610	61495.9	0.49549	0.000985 mg/L	0.49549	0.000985 mg/L	0.20%
Mg 279.079	80740.6	24.979	0.0123 mg/L	24.979	0.0123 mg/L	0.05%
Ni 231.604	4943.1	0.49700	0.000740 mg/L	0.49700	0.000740 mg/L	0.15%
Pb 220.353	737.4	0.49855	0.003238 mg/L	0.49855	0.003238 mg/L	0.65%
Sn 189.933	907.8	0.51402	0.001721 mg/L	0.51402	0.001721 mg/L	0.33%
Se 196.026	248.3	0.49492	0.020633 mg/L	0.49492	0.020633 mg/L	4.17%
Sb 206.833	505.8	0.48840	0.010112 mg/L	0.48840	0.010112 mg/L	2.07%
V 292.402	47771.4	0.51723	0.001316 mg/L	0.51723	0.001316 mg/L	0.25%
Tl 190.800	237.5	0.25779	0.000123 mg/L	0.25779	0.000123 mg/L	0.05%
Zn 213.856	12899.9	0.50745	0.002047 mg/L	0.50745	0.002047 mg/L	0.40%
Na 330.237	8114.7	24.401	0.0642 mg/L	24.401	0.0642 mg/L	0.26%
Sr 407.771	68556.0					0.55%
U 385.958	32925.7					0.25%
U 367.007	14644.6					0.45%
Zr 343.823	15353.5					0.17%
Zr 339.198	17691.5					0.40%
Zr 357.247	29771.8					0.40%

Replicate Data ----------

ID: CCB3 Date: 9/5/96 7:42:47 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	356946.1	356946.1	1.072	mg/L		
1	Ag 328.068	73.3	68.3	0.00018	mg/L	0.00018	mg/L
1	Al 396.152	371.6	346.5	0.00598	mg/L	0.00598	mg/L
1	As 193.696	2.9	2.7	0.00414	mg/L	0.00414	mg/L
1	B 249.773	226.5	211.2	0.00571	mg/L	0.00571	mg/L
1	Ba 233.527	11.6	10.8	0.00031	mg/L	0.00031	mg/L
1	Be 313.042	9458.4	8819.5	-0.00049	mg/L	-0.00049	mg/L
1	Bi 223.061	-141.9	-132.3	0.00142	mg/L	0.00142	mg/L
1	Ca 315.887	-303.2	-282.7	0.00826	mg/L	0.00826	mg/L
1	Cd 214.438	62.5	58.3	0.00004	mg/L	0.00004	mg/L
1	Co 238.892	-18.0	-16.8	0.00007	mg/L	0.00007	mg/L
1	Cr 267.716	973.8	908.0	-0.00041	mg/L	-0.00041	mg/L
1	Cu 324.754	917.3	855.3	-0.00072	mg/L	-0.00072	mg/L
1	Fe 234.349	993.1	926.0	0.01758	mg/L	0.01758	mg/L
1	K 766.491	1140.0	1063.0				
1	Mo 202.030	-19.4	-18.1	0.00281	mg/L	0.00281	mg/L
1	Mn 257.610	98.5	91.9	0.00001	mg/L	0.00001	mg/L
1	Mg 279.079	23.7	22.1	0.00238	mg/L	0.00238	mg/L
1	Ni 231.604	32.3	30.2	-0.00021	mg/L	-0.00021	mg/L
1	Pb 220.353	96.5	89.9	0.01841	mg/L	0.01841	mg/L
1	Sn 189.933	20.6	19.2	0.00008	mg/L	0.00008	mg/L
1	Se 196.026	-53.7	-50.1	0.00535	mg/L	0.00535	mg/L
1	Sb 206.833	74.3	69.3	0.03581	mg/L	0.03581	mg/L
1	V 292.402	-296.5	-276.4	-0.00034	mg/L	-0.00034	mg/L
1	Tl 190.800	-26.6	-24.8	0.00762	mg/L	0.00762	mg/L
1	Zn 213.856	575.1	536.2	0.00022	mg/L	0.00022	mg/L
1	Na 330.237	646.8	603.1	0.23722	mg/L	0.23722	mg/L
1	Sr 407.771	60440.8	56357.8				
1	U 385.958	29564.2	27567.0				
1	U 367.007	13215.9	12323.1				
1	Zr 343.823	14596.5	13610.4				
1	Zr 339.198	16761.7	15629.3				
1	Zr 357.247	29076.6	27112.4				
2	Y 360.073	357984.4	357984.4	1.076	mg/L		
2	Ag 328.068	69.8	64.9	0.00010	mg/L	0.00010	mg/L
2	Al 396.152	361.3	335.9	0.00554	mg/L	0.00554	mg/L
2	As 193.696	4.6	4.3	0.00704	mg/L	0.00704	mg/L
2	B 249.773	187.2	174.0	0.00438	mg/L	0.00438	mg/L
2	Ba 233.527	8.4	7.8	0.00023	mg/L	0.00023	mg/L
2	Be 313.042	9447.8	8784.0	-0.00054	mg/L	-0.00054	mg/L
2	Bi 223.061	-151.8	-141.1	-0.00134	mg/L	-0.00134	mg/L
2	Ca 315.887	-318.3	-295.9	0.00679	mg/L	0.00679	mg/L
2	Cd 214.438	65.0	60.4	0.00008	mg/L	0.00008	mg/L
2	Co 238.892	-20.1	-18.7	0.00000	mg/L	0.00000	mg/L
2	Cr 267.716	966.6	898.7	-0.00054	mg/L	-0.00054	mg/L
2	Cu 324.754	988.9	919.5	0.00002	mg/L	0.00002	mg/L
2	Fe 234.349	994.3	924.5	0.01749	mg/L	0.01749	mg/L
2	K 766.491	1375.6	1278.9				
2	Mo 202.030	-17.1	-15.9	0.00371	mg/L	0.00371	mg/L
2	Mn 257.610	109.6	101.9	0.00009	mg/L	0.00009	mg/L

2 Mg 279.079	24.6	22.9	0.00263 mg/L	0.00263 mg/L	
2 Ni 231.604	44.3	41.2	0.00090 mg/L	0.00090 mg/L	
2 Pb 220.353	82.7	76.9	0.00853 mg/L	0.00853 mg/L	
2 Sn 189.933	22.2	20.7	0.00095 mg/L	0.00095 mg/L	
2 Se 196.026	-52.4	-48.7	0.00765 mg/L	0.00765 mg/L	
2 Sb 206.833	60.5	56.2	0.02189 mg/L	0.02189 mg/L	
2 V 292.402	-303.7	-282.4	-0.00040 mg/L	-0.00040 mg/L	
2 Tl 190.800	-31.0	-28.8	0.00398 mg/L	0.00398 mg/L	
2 Zn 213.856	565.1	525.4	-0.00023 mg/L	-0.00023 mg/L	
2 Na 330.237	612.2	569.2	0.12648 mg/L	0.12648 mg/L	
2 Sr 407.771	59996.3	55781.1			
2 U 385.958	29383.3	27318.9			
2 U 367.007	13140.7	12217.5			
2 Zr 343.823	14461.2	13445.2			
2 Zr 339.198	16696.5	15523.4			
2 Zr 357.247	28921.0	26889.1			

Mean Data ----------

ID: CCB3 Seq. No.: 41 Sample No.: 35 A/S Pos: 39
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 7:42:47 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	357465.2	1.074	0.0022	mg/L				0.21%
Ag 328.068	66.6	0.00014	0.000054	mg/L	0.00014	0.000054	mg/L	37.78%
Al 396.152	341.2	0.00576	0.000313	mg/L	0.00576	0.000313	mg/L	5.43%
As 193.696	3.5	0.00559	0.002046	mg/L	0.00559	0.002046	mg/L	36.62%
B 249.773	192.6	0.00505	0.000940	mg/L	0.00505	0.000940	mg/L	18.61%
Ba 233.527	9.3	0.00027	0.000056	mg/L	0.00027	0.000056	mg/L	20.62%
Be 313.042	8801.7	-0.00052	0.000031	mg/L	-0.00052	0.000031	mg/L	5.97%
Bi 223.061	-136.7	0.00004	0.001949	mg/L	0.00004	0.001949	mg/L	4787.46%
Ca 315.887	-289.3	0.00753	0.001034	mg/L	0.00753	0.001034	mg/L	13.74%
Cd 214.438	59.3	0.00006	0.000031	mg/L	0.00006	0.000031	mg/L	52.70%
Co 238.892	-17.7	0.00003	0.000046	mg/L	0.00003	0.000046	mg/L	135.99%
Cr 267.716	903.3	-0.00047	0.000093	mg/L	-0.00047	0.000093	mg/L	19.67%
Cu 324.754	887.4	-0.00035	0.000519	mg/L	-0.00035	0.000519	mg/L	148.99%
Fe 234.349	925.2	0.01754	0.000070	mg/L	0.01754	0.000070	mg/L	0.40%
K 766.491	1171.0							13.04%
Mo 202.030	-17.0	0.00326	0.000640	mg/L	0.00326	0.000640	mg/L	19.61%
Mn 257.610	96.9	0.00005	0.000057	mg/L	0.00005	0.000057	mg/L	114.13%
Mg 279.079	22.5	0.00250	0.000179	mg/L	0.00250	0.000179	mg/L	7.14%
Ni 231.604	35.7	0.00034	0.000791	mg/L	0.00034	0.000791	mg/L	229.65%
Pb 220.353	83.4	0.01347	0.006988	mg/L	0.01347	0.006988	mg/L	51.86%
Sn 189.933	19.9	0.00052	0.000614	mg/L	0.00052	0.000614	mg/L	118.72%
Se 196.026	-49.4	0.00650	0.001628	mg/L	0.00650	0.001628	mg/L	25.03%
Sb 206.833	62.8	0.02885	0.009846	mg/L	0.02885	0.009846	mg/L	34.13%
V 292.402	-279.4	-0.00037	0.000037	mg/L	-0.00037	0.000037	mg/L	9.96%
Tl 190.800	-26.8	0.00580	0.002573	mg/L	0.00580	0.002573	mg/L	44.34%
Zn 213.856	530.8	-0.00001	0.000320	mg/L	-0.00001	0.000320	mg/L	5809.29%
Na 330.237	586.1	0.18185	0.078309	mg/L	0.18185	0.078309	mg/L	43.06%
Sr 407.771	56069.4							0.73%
U 385.958	27443.0							0.64%
U 367.007	12270.3							0.61%
Zr 343.823	13527.8							0.86%
Zr 339.198	15576.4							0.48%
Zr 357.247	27000.7							0.58%

Replicate Data ----------

ID: 9693-12 Date: 9/5/96 7:47:38 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	360625.3	360625.3	1.084	mg/L		
1	Ag 328.068	-126.5	-116.7	-0.00466	mg/L	-0.22953	mg/kg
1	Al 396.152	2681958.7	2475268.6	96.827	mg/L	4769.8	mg/kg
1	As 193.696	112.1	103.4	0.05461	mg/L	2.6902	mg/kg
1	B 249.773	6215.1	5736.1	-0.47944	mg/L	-23.618	mg/kg
1	Ba 233.527	22959.6	21190.1	0.55753	mg/L	27.465	mg/kg
1	Be 313.042	20478.8	18900.6	0.01262	mg/L	0.62147	mg/kg
1	Bi 223.061	-170.6	-157.5	-0.02662	mg/L	-1.3112	mg/kg
1	Ca 315.887	567704.7	523953.5	58.031	mg/L	2858.7	mg/kg
1	Cd 214.438	489.8	452.0	-0.01305	mg/L	-0.64285	mg/kg
1	Co 238.892	10306.6	9512.3	0.14838	mg/L	7.3091	mg/kg
1	Cr 267.716	20056.3	18510.6	0.25650	mg/L	12.635	mg/kg

1	Cu 324.754	15027.8	13869.7	0.14241 mg/L	7.0152 mg/kg	
1	Fe 234.349	5028540.2	4641006.5	261.14 mg/L	12864 mg/kg	
1	K 766.491	7164785.9	6612618.4			
1	Mo 202.030	-37.7	-34.8	-0.00391 mg/L	-0.19270 mg/kg	
1	Mn 257.610	204494.0	188734.3	1.5222 mg/L	74.985 mg/kg	
1	Mg 279.079	67090.4	61920.0	19.276 mg/L	949.58 mg/kg	
1	Ni 231.604	2321.3	2142.4	0.21356 mg/L	10.520 mg/kg	
1	Pb 220.353	333.9	308.1	0.14869 mg/L	7.3247 mg/kg	
1	Sn 189.933	97.4	89.9	0.04096 mg/L	2.0177 mg/kg	
1	Se 196.026	-95.4	-88.0	-0.04283 mg/L	-2.1099 mg/kg	
1	Sb 206.833	-92.6	-85.5	-0.13440 mg/L	-6.6208 mg/kg	
1	V 292.402	40161.9	37066.7	0.39703 mg/L	19.558 mg/kg	
1	Tl 190.800	-40.0	-36.9	0.00592 mg/L	0.29187 mg/kg	
1	Zn 213.856	14025.1	12944.2	0.49330 mg/L	24.301 mg/kg	
1	Na 330.237	1760.2	1624.6	3.1542 mg/L	155.38 mg/kg	
1	Sr 407.771	5950930.8	5492311.4			
1	U 385.958	56603.1	52240.8			
1	U 367.007	20904.2	19293.2			
1	Zr 343.823	33851.5	31242.7			
1	Zr 339.198	43786.3	40411.9			
1	Zr 357.247	59601.5	55008.2			
2	Y 360.073	363292.8	363292.8	1.092 mg/L		
2	Ag 328.068	-111.6	-102.3	-0.00434 mg/L	-0.21358 mg/kg	
2	Al 396.152	2693963.0	2468092.1	96.546 mg/L	4756.0 mg/kg	
2	As 193.696	112.6	103.2	0.05455 mg/L	2.6874 mg/kg	
2	B 249.773	6273.3	5747.3	-0.47621 mg/L	-23.459 mg/kg	
2	Ba 233.527	23045.5	21113.3	0.55551 mg/L	27.365 mg/kg	
2	Be 313.042	20489.4	18771.5	0.01246 mg/L	0.61374 mg/kg	
2	Bi 223.061	-152.8	-140.0	-0.02107 mg/L	-1.0381 mg/kg	
2	Ca 315.887	569445.5	521701.3	57.782 mg/L	2846.4 mg/kg	
2	Cd 214.438	485.6	444.9	-0.01311 mg/L	-0.64568 mg/kg	
2	Co 238.892	10272.7	9411.4	0.14566 mg/L	7.1754 mg/kg	
2	Cr 267.716	20056.6	18375.0	0.25452 mg/L	12.538 mg/kg	
2	Cu 324.754	15130.8	13862.1	0.14235 mg/L	7.0122 mg/kg	
2	Fe 234.349	5044756.3	4621787.1	260.06 mg/L	12811 mg/kg	
2	K 766.491	7202021.5	6598180.0			
2	Mo 202.030	-37.7	-34.5	-0.00381 mg/L	-0.18763 mg/kg	
2	Mn 257.610	205250.1	188041.3	1.5166 mg/L	74.709 mg/kg	
2	Mg 279.079	67503.4	61843.7	19.252 mg/L	948.39 mg/kg	
2	Ni 231.604	2328.6	2133.3	0.21264 mg/L	10.475 mg/kg	
2	Pb 220.353	320.0	293.2	0.13752 mg/L	6.7744 mg/kg	
2	Sn 189.933	96.6	88.5	0.04017 mg/L	1.9786 mg/kg	
2	Se 196.026	-91.6	-84.0	-0.03621 mg/L	-1.7838 mg/kg	
2	Sb 206.833	-90.6	-83.0	-0.13170 mg/L	-6.4875 mg/kg	
2	V 292.402	40414.1	37025.7	0.39659 mg/L	19.537 mg/kg	
2	Tl 190.800	-57.4	-52.6	-0.00853 mg/L	-0.41996 mg/kg	
2	Zn 213.856	14117.7	12934.0	0.49297 mg/L	24.284 mg/kg	
2	Na 330.237	1754.0	1606.9	3.0968 mg/L	152.55 mg/kg	
2	Sr 407.771	5978978.5	5477680.9			
2	U 385.958	56403.0	51674.0			
2	U 367.007	20934.3	19179.1			
2	Zr 343.823	33826.5	30990.4			
2	Zr 339.198	43957.5	40271.9			
2	Zr 357.247	59622.0	54623.1			

Mean Data

ID: 9693-12 Seq. No.: 42 Sample No.: 36 A/S Pos: 40
Sample Qty: 2.0300 g Prep. Vol.: 100.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 7:47:38 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	361959.0	1.088	0.0057	mg/L				0.52%
Ag 328.068	-109.5	-0.00450	0.000229	mg/L	-0.22155	0.011274	mg/kg	5.09%
Al 396.152	2471680.4	96.687	0.1985	mg/L	4762.9	9.78	mg/kg	0.21%
As 193.696	103.3	0.05458	0.000040	mg/L	2.6888	0.00197	mg/kg	0.07%
B 249.773	5741.7	-0.47783	0.002282	mg/L	-23.538	0.1124	mg/kg	0.48%
Ba 233.527	21151.7	0.55652	0.001431	mg/L	27.415	0.0705	mg/kg	0.26%
Be 313.042	18836.1	0.01254	0.000111	mg/L	0.61761	0.005468	mg/kg	0.89%
Bi 223.061	-148.7	-0.02385	0.003921	mg/L	-1.1746	0.19316	mg/kg	16.44%
Ca 315.887	522827.4	57.906	0.1763	mg/L	2852.5	8.68	mg/kg	0.30%
Cd 214.438	448.4	-0.01308	0.000041	mg/L	-0.64427	0.002004	mg/kg	0.31%
Co 238.892	9461.9	0.14702	0.001919	mg/L	7.2423	0.09454	mg/kg	1.31%
Cr 267.716	18442.8	0.25551	0.001400	mg/L	12.587	0.0690	mg/kg	0.55%
Cu 324.754	13865.9	0.14238	0.000043	mg/L	7.0137	0.00212	mg/kg	0.03%

Fe 234.349	4631396.8	260.60	0.765 mg/L	12837	37.7 mg/kg	0.29%
K 766.491	6605399.2					0.15%
Mo 202.030	-34.6	-0.00386	0.000073 mg/L	-0.19016	0.003587 mg/kg	1.89%
Mn 257.610	188387.8	1.5194	0.00395 mg/L	74.847	0.1948 mg/kg	0.26%
Mg 279.079	61881.8	19.264	0.0171 mg/L	948.98	0.841 mg/kg	0.09%
Ni 231.604	2137.9	0.21310	0.000650 mg/L	10.497	0.0320 mg/kg	0.31%
Pb 220.353	300.7	0.14311	0.007899 mg/L	7.0495	0.38911 mg/kg	5.52%
Sn 189.933	89.2	0.04056	0.000561 mg/L	1.9981	0.02765 mg/kg	1.38%
Se 196.026	-86.0	-0.03952	0.004681 mg/L	-1.9469	0.23057 mg/kg	11.84%
Sb 206.833	-84.3	-0.13305	0.001915 mg/L	-6.5542	0.09431 mg/kg	1.44%
V 292.402	37046.2	0.39681	0.000308 mg/L	19.547	0.0152 mg/kg	0.08%
Tl 190.800	-44.7	-0.00130	0.010218 mg/L	-0.06404	0.503337 mg/kg	785.92%
Zn 213.856	12939.1	0.49313	0.000238 mg/L	24.292	0.0117 mg/kg	0.05%
Na 330.237	1615.8	3.1255	0.04058 mg/L	153.97	1.999 mg/kg	1.30%
Sr 407.771	5484996.2					0.19%
U 385.958	51957.4					0.77%
U 367.007	19236.2					0.42%
Zr 343.823	31116.6					0.57%
Zr 339.198	40341.9					0.25%
Zr 357.247	54815.7					0.50%

Replicate Data ----------

ID: CRIF1 Date: 9/5/96 7:52:22 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	359759.0	359759.0	1.081	mg/L		
1	Ag 328.068	1076.6	996.0	0.02078	mg/L	0.02078	mg/L
1	Al 396.152	417.1	385.9	0.00756	mg/L	0.00756	mg/L
1	As 193.696	13.9	12.8	0.02241	mg/L	0.02241	mg/L
1	B 249.773	140.8	130.3	0.00281	mg/L	0.00281	mg/L
1	Ba 233.527	21.1	19.5	0.00030	mg/L	0.00030	mg/L
1	Be 313.042	18800.6	17393.5	0.01025	mg/L	0.01025	mg/L
1	Bi 223.061	-154.7	-143.2	-0.00163	mg/L	-0.00163	mg/L
1	Ca 315.887	-156.3	-144.6	0.02355	mg/L	0.02355	mg/L
1	Cd 214.438	596.2	551.6	0.01035	mg/L	0.01035	mg/L
1	Co 238.892	3089.9	2858.6	0.09836	mg/L	0.09836	mg/L
1	Cr 267.716	2480.7	2295.1	0.01986	mg/L	0.01986	mg/L
1	Cu 324.754	5388.4	4985.1	0.04664	mg/L	0.04664	mg/L
1	Fe 234.349	1030.7	953.6	0.01822	mg/L	0.01822	mg/L
1	K 766.491	2799.6	2590.1				
1	Mo 202.030	-23.1	-21.4	0.00148	mg/L	0.00148	mg/L
1	Mn 257.610	4173.3	3860.9	0.03042	mg/L	0.03042	mg/L
1	Mg 279.079	32.4	30.0	0.00512	mg/L	0.00512	mg/L
1	Ni 231.604	894.8	827.8	0.08051	mg/L	0.08051	mg/L
1	Pb 220.353	99.5	92.1	0.01995	mg/L	0.01995	mg/L
1	Sn 189.933	20.9	19.4	0.00018	mg/L	0.00018	mg/L
1	Se 196.026	-27.7	-25.6	0.04544	mg/L	0.04544	mg/L
1	Sb 206.833	129.8	120.1	0.08942	mg/L	0.08942	mg/L
1	V 292.402	9448.1	8741.0	0.09561	mg/L	0.09561	mg/L
1	Tl 190.800	-13.1	-12.1	0.02147	mg/L	0.02147	mg/L
1	Zn 213.856	2008.3	1858.0	0.05444	mg/L	0.05444	mg/L
1	Na 330.237	590.7	546.5	0.00471	mg/L	0.00471	mg/L
1	Sr 407.771	64119.5	59320.5				
1	U 385.958	29725.0	27500.2				
1	U 367.007	13311.0	12314.8				
1	Zr 343.823	14661.6	13564.2				
1	Zr 339.198	16942.1	15674.1				
1	Zr 357.247	29232.2	27044.4				
2	Y 360.073	363821.5	363821.5	1.093	mg/L		
2	Ag 328.068	1115.1	1020.1	0.02131	mg/L	0.02131	mg/L
2	Al 396.152	451.5	413.0	0.00865	mg/L	0.00865	mg/L
2	As 193.696	12.2	11.2	0.01939	mg/L	0.01939	mg/L
2	B 249.773	120.4	110.2	0.00210	mg/L	0.00210	mg/L
2	Ba 233.527	19.0	17.4	0.00025	mg/L	0.00025	mg/L
2	Be 313.042	18887.2	17278.4	0.01011	mg/L	0.01011	mg/L
2	Bi 223.061	-137.8	-126.1	0.00372	mg/L	0.00372	mg/L
2	Ca 315.887	-139.6	-127.7	0.02541	mg/L	0.02541	mg/L
2	Cd 214.438	595.6	544.8	0.01021	mg/L	0.01021	mg/L
2	Co 238.892	3086.6	2823.7	0.09716	mg/L	0.09716	mg/L
2	Cr 267.716	2475.2	2264.4	0.01940	mg/L	0.01940	mg/L
2	Cu 324.754	5430.0	4967.5	0.04643	mg/L	0.04643	mg/L
2	Fe 234.349	1009.2	923.2	0.01654	mg/L	0.01654	mg/L
2	K 766.491	2678.3	2450.2				

2	Mo 202.030	-25.7	-23.5	0.00063 mg/L	0.00063 mg/L
2	Mn 257.610	4212.0	3853.2	0.03036 mg/L	0.03036 mg/L
2	Mg 279.079	34.6	31.7	0.00565 mg/L	0.00565 mg/L
2	Ni 231.604	884.7	809.3	0.07864 mg/L	0.07864 mg/L
2	Pb 220.353	96.3	88.1	0.01692 mg/L	0.01692 mg/L
2	Sn 189.933	18.8	17.2	-0.00105 mg/L	-0.00105 mg/L
2	Se 196.026	-34.4	-31.5	0.03581 mg/L	0.03581 mg/L
2	Sb 206.833	140.9	128.9	0.09881 mg/L	0.09881 mg/L
2	V 292.402	9542.0	8729.3	0.09548 mg/L	0.09548 mg/L
2	Tl 190.800	-3.0	-2.7	0.03000 mg/L	0.03000 mg/L
2	Zn 213.856	2020.0	1848.0	0.05404 mg/L	0.05404 mg/L
2	Na 330.237	629.9	576.2	0.10233 mg/L	0.10233 mg/L
2	Sr 407.771	63533.3	58121.9		
2	U 385.958	29373.3	26871.4		
2	U 367.007	13130.7	12012.3		
2	Zr 343.823	14521.3	13284.5		
2	Zr 339.198	16721.6	15297.3		
2	Zr 357.247	28895.9	26434.7		

Mean Data ----------

ID: CRIF1 Seq. No.: 43 Sample No.: 37 A/S Pos: 41
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 7:52:22 AM

Element	Mean Corr. Intensity	Mean Conc.	Std.Dev.	Calib Units	Mean Conc.	Std.Dev.	Sample Units	RSD
Y 360.073	361790.2	1.087	0.0086	mg/L				0.79%
Ag 328.068	1008.1	0.02104	0.000379	mg/L	0.02104	0.000379	mg/L	1.80%
Al 396.152	399.5	0.00810	0.000766	mg/L	0.00810	0.000766	mg/L	9.45%
As 193.696	12.0	0.02090	0.002141	mg/L	0.02090	0.002141	mg/L	10.24%
B 249.773	120.2	0.00246	0.000505	mg/L	0.00246	0.000505	mg/L	20.58%
Ba 233.527	18.4	0.00028	0.000039	mg/L	0.00028	0.000039	mg/L	14.27%
Be 313.042	17336.0	0.01018	0.000100	mg/L	0.01018	0.000100	mg/L	0.98%
Bi 223.061	-134.6	0.00105	0.003783	mg/L	0.00105	0.003783	mg/L	360.45%
Ca 315.887	-136.2	0.02448	0.001321	mg/L	0.02448	0.001321	mg/L	5.40%
Cd 214.438	548.2	0.01028	0.000100	mg/L	0.01028	0.000100	mg/L	0.97%
Co 238.892	2841.2	0.09776	0.000845	mg/L	0.09776	0.000845	mg/L	0.86%
Cr 267.716	2279.7	0.01963	0.000319	mg/L	0.01963	0.000319	mg/L	1.63%
Cu 324.754	4976.3	0.04654	0.000143	mg/L	0.04654	0.000143	mg/L	0.31%
Fe 234.349	938.4	0.01738	0.001191	mg/L	0.01738	0.001191	mg/L	6.86%
K 766.491	2520.1							3.92%
Mo 202.030	-22.5	0.00105	0.000601	mg/L	0.00105	0.000601	mg/L	57.14%
Mn 257.610	3857.1	0.03039	0.000044	mg/L	0.03039	0.000044	mg/L	0.15%
Mg 279.079	30.8	0.00538	0.000371	mg/L	0.00538	0.000371	mg/L	6.90%
Ni 231.604	818.6	0.07958	0.001323	mg/L	0.07958	0.001323	mg/L	1.66%
Pb 220.353	90.1	0.01844	0.002141	mg/L	0.01844	0.002141	mg/L	11.61%
Sn 189.933	18.3	-0.00043	0.000870	mg/L	-0.00043	0.000870	mg/L	201.46%
Se 196.026	-28.5	0.04063	0.006806	mg/L	0.04063	0.006806	mg/L	16.75%
Sb 206.833	124.5	0.09412	0.006642	mg/L	0.09412	0.006642	mg/L	7.06%
V 292.402	8735.1	0.09555	0.000095	mg/L	0.09555	0.000095	mg/L	0.10%
Tl 190.800	-7.4	0.02573	0.006033	mg/L	0.02573	0.006033	mg/L	23.44%
Zn 213.856	1853.0	0.05424	0.000283	mg/L	0.05424	0.000283	mg/L	0.52%
Na 330.237	561.4	0.05352	0.069032	mg/L	0.05352	0.069032	mg/L	128.99%
Sr 407.771	58721.2							1.44%
U 385.958	27185.8							1.64%
U 367.007	12163.6							1.76%
Zr 343.823	13424.4							1.47%
Zr 339.198	15485.7							1.72%
Zr 357.247	26739.5							1.61%

Replicate Data ----------

ID: ICSAF1 Date: 9/5/96 7:57:08 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Units	Sample Conc.	Units
1	Y 360.073	302190.6	302190.6	0.908	mg/L		
1	Ag 328.068	-141.8	-156.2	-0.00482	mg/L	-0.00482	mg/L
1	Al 396.152	10976430.3	12089453.3	472.94	mg/L	472.94	mg/L
1	As 193.696	349.7	385.1	0.08814	mg/L	0.08814	mg/L
1	B 249.773	2191.6	2413.8	-0.40090	mg/L	-0.40090	mg/L
1	Ba 233.527	52.5	57.8	0.00144	mg/L	0.00144	mg/L
1	Be 313.042	9349.0	10297.0	0.00143	mg/L	0.00143	mg/L
1	Bi 223.061	-153.0	-168.5	-0.01888	mg/L	-0.01888	mg/L
1	Ca 315.887	4082767.9	4496765.4	497.74	mg/L	497.74	mg/L
1	Cd 214.438	-148.7	-163.8	-0.00790	mg/L	-0.00790	mg/L

1	Co 238.892	4562.8	5025.5	0.04660 mg/L	0.04660 mg/L
1	Cr 267.716	1168.5	1286.9	0.00510 mg/L	0.00510 mg/L
1	Cu 324.754	2149.7	2367.6	0.01228 mg/L	0.01228 mg/L
1	Fe 234.349	2988524.1	3291564.0	185.20 mg/L	185.20 mg/L
1	K 766.491	5171.2	5695.5		
1	Mo 202.030	-33.4	-36.8	-0.00472 mg/L	-0.00472 mg/L
1	Mn 257.610	2250.4	2478.6	0.01927 mg/L	0.01927 mg/L
1	Mg 279.079	1541188.0	1697466.3	525.00 mg/L	525.00 mg/L
1	Ni 231.604	40.9	45.0	0.00129 mg/L	0.00129 mg/L
1	Pb 220.353	443.7	488.7	0.15272 mg/L	0.15272 mg/L
1	Sn 189.933	42.7	47.0	0.01616 mg/L	0.01616 mg/L
1	Se 196.026	-69.3	-76.3	-0.04624 mg/L	-0.04624 mg/L
1	Sb 206.833	-48.7	-53.7	-0.09519 mg/L	-0.09519 mg/L
1	V 292.402	3665.4	4037.0	0.04547 mg/L	0.04547 mg/L
1	Tl 190.800	-53.9	-59.4	-0.02134 mg/L	-0.02134 mg/L
1	Zn 213.856	1833.0	2018.9	0.04317 mg/L	0.04317 mg/L
1	Na 330.237	299.1	329.4	-0.69668 mg/L	-0.69668 mg/L
1	Sr 407.771	212165.6	233679.5		
1	U 385.958	53320.7	58727.5		
1	U 367.007	21503.8	23684.4		
1	Zr 343.823	20165.3	22210.1		
1	Zr 339.198	22020.7	24253.7		
1	Zr 357.247	34163.3	37627.5		
2	Y 360.073	302091.3	302091.3	0.908 mg/L	
2	Ag 328.068	-157.2	-173.1	-0.00520 mg/L	-0.00520 mg/L
2	Al 396.152	10981683.5	12099214.0	473.32 mg/L	473.32 mg/L
2	As 193.696	353.0	388.9	0.09458 mg/L	0.09458 mg/L
2	B 249.773	2191.6	2414.6	-0.40079 mg/L	-0.40079 mg/L
2	Ba 233.527	48.5	53.5	0.00133 mg/L	0.00133 mg/L
2	Be 313.042	9470.1	10433.8	0.00160 mg/L	0.00160 mg/L
2	Bi 223.061	-170.7	-188.0	-0.02499 mg/L	-0.02499 mg/L
2	Ca 315.887	4096831.0	4513737.3	499.62 mg/L	499.62 mg/L
2	Cd 214.438	-150.7	-166.0	-0.00793 mg/L	-0.00793 mg/L
2	Co 238.892	4554.3	5017.8	0.04636 mg/L	0.04636 mg/L
2	Cr 267.716	1149.6	1266.6	0.00479 mg/L	0.00479 mg/L
2	Cu 324.754	2137.5	2355.0	0.01213 mg/L	0.01213 mg/L
2	Fe 234.349	2987008.5	3290975.9	185.17 mg/L	185.17 mg/L
2	K 766.491	5171.3	5697.5		
2	Mo 202.030	-37.1	-40.8	-0.00637 mg/L	-0.00637 mg/L
2	Mn 257.610	2256.9	2486.6	0.01933 mg/L	0.01933 mg/L
2	Mg 279.079	1545059.4	1702289.5	526.49 mg/L	526.49 mg/L
2	Ni 231.604	38.2	42.1	0.00100 mg/L	0.00100 mg/L
2	Pb 220.353	453.9	500.1	0.16123 mg/L	0.16123 mg/L
2	Sn 189.933	38.6	42.6	0.01361 mg/L	0.01361 mg/L
2	Se 196.026	-53.2	-58.6	-0.01720 mg/L	-0.01720 mg/L
2	Sb 206.833	-46.4	-51.1	-0.09242 mg/L	-0.09242 mg/L
2	V 292.402	3672.3	4046.0	0.04555 mg/L	0.04555 mg/L
2	Tl 190.800	-54.6	-60.1	-0.02209 mg/L	-0.02209 mg/L
2	Zn 213.856	1791.5	1973.8	0.04131 mg/L	0.04131 mg/L
2	Na 330.237	283.2	312.0	-0.75206 mg/L	-0.75206 mg/L
2	Sr 407.771	212064.4	233644.7		
2	U 385.958	53270.6	58691.6		
2	U 367.007	21548.1	23740.9		
2	Zr 343.823	20206.4	22262.7		
2	Zr 339.198	22082.6	24329.8		
2	Zr 357.247	34281.1	37769.6		

Mean Data

ID: ICSAF1 Seq. No.: 44 Sample No.: 38 A/S Pos: 42
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 7:57:08 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Sample Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	302141.0	0.908	0.0002	mg/L				0.02%
Ag 328.068	-164.7	-0.00501	0.000267	mg/L	-0.00501	0.000267	mg/L	5.32%
Al 396.152	12094333.7	473.13	0.270	mg/L	473.13	0.270	mg/L	0.06%
As 193.696	387.0	0.09136	0.004557	mg/L	0.09136	0.004557	mg/L	4.99%
B 249.773	2414.2	-0.40084	0.000079	mg/L	-0.40084	0.000079	mg/L	0.02%
Ba 233.527	55.6	0.00138	0.000080	mg/L	0.00138	0.000080	mg/L	5.80%
Be 313.042	10365.4	0.00152	0.000119	mg/L	0.00152	0.000119	mg/L	7.84%
Bi 223.061	-178.3	-0.02193	0.004319	mg/L	-0.02193	0.004319	mg/L	19.69%
Ca 315.887	4505251.4	498.68	1.328	mg/L	498.68	1.328	mg/L	0.27%
Cd 214.438	-164.9	-0.00791	0.000024	mg/L	-0.00791	0.000024	mg/L	0.30%
Co 238.892	5021.6	0.04648	0.000170	mg/L	0.04648	0.000170	mg/L	0.37%

Cr 267.716	1276.8	0.00494	0.000215 mg/L	0.00494	0.000215 mg/L	4.35%
Cu 324.754	2361.3	0.01221	0.000101 mg/L	0.01221	0.000101 mg/L	0.83%
Fe 234.349	3291269.9	185.18	0.023 mg/L	185.18	0.023 mg/L	0.01%
K 766.491	5696.5					0.02%
Mo 202.030	-38.8	-0.00554	0.001165 mg/L	-0.00554	0.001165 mg/L	21.02%
Mn 257.610	2482.6	0.01930	0.000046 mg/L	0.01930	0.000046 mg/L	0.24%
Mg 279.079	1699877.9	525.75	1.055 mg/L	525.75	1.055 mg/L	0.20%
Ni 231.604	43.6	0.00114	0.000205 mg/L	0.00114	0.000205 mg/L	17.98%
Pb 220.353	494.4	0.15697	0.006023 mg/L	0.15697	0.006023 mg/L	3.84%
Sn 189.933	44.8	0.01488	0.001803 mg/L	0.01488	0.001803 mg/L	12.11%
Se 196.026	-67.4	-0.03172	0.020537 mg/L	-0.03172	0.020537 mg/L	64.74%
Sb 206.833	-52.4	-0.09381	0.001956 mg/L	-0.09381	0.001956 mg/L	2.09%
V 292.402	4041.5	0.04551	0.000053 mg/L	0.04551	0.000053 mg/L	0.12%
Tl 190.800	-59.7	-0.02171	0.000535 mg/L	-0.02171	0.000535 mg/L	2.46%
Zn 213.856	1996.4	0.04224	0.001312 mg/L	0.04224	0.001312 mg/L	3.11%
Na 330.237	320.7	-0.72437	0.039155 mg/L	-0.72437	0.039155 mg/L	5.41%
Sr 407.771	233662.1					0.01%
U 385.958	58709.5					0.04%
U 367.007	23712.7					0.17%
Zr 343.823	22236.4					0.17%
Zr 339.198	24291.7					0.22%
Zr 357.247	37698.5					0.27%

Replicate Data ----------

ID: ICSABF1 Date: 9/5/96 8:02:14 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	295494.7	295494.7	0.888	mg/L		
1	Ag 328.068	44061.4	49629.0	1.1016	mg/L	1.1016	mg/L
1	Al 396.152	10800275.6	12164985.5	475.90	mg/L	475.90	mg/L
1	As 193.696	349.7	393.9	0.09969	mg/L	0.09969	mg/L
1	B 249.773	2187.2	2463.6	-0.40056	mg/L	-0.40056	mg/L
1	Ba 233.527	16550.2	18641.5	0.49000	mg/L	0.49000	mg/L
1	Be 313.042	382636.8	430986.3	0.51812	mg/L	0.51812	mg/L
1	Bi 223.061	-162.9	-183.4	-0.02033	mg/L	-0.02033	mg/L
1	Ca 315.887	4019517.9	4527419.3	501.14	mg/L	501.14	mg/L
1	Cd 214.438	41542.9	46792.2	0.97374	mg/L	0.97374	mg/L
1	Co 238.892	16715.9	18828.1	0.51809	mg/L	0.51809	mg/L
1	Cr 267.716	31142.5	35077.6	0.49894	mg/L	0.49894	mg/L
1	Cu 324.754	42090.8	47409.4	0.52845	mg/L	0.52845	mg/L
1	Fe 234.349	2930292.5	3300560.7	185.70	mg/L	185.70	mg/L
1	K 766.491	5165.3	5818.0				
1	Mo 202.030	-28.8	-32.4	-0.00297	mg/L	-0.00297	mg/L
1	Mn 257.610	55979.9	63053.5	0.50805	mg/L	0.50805	mg/L
1	Mg 279.079	1511109.0	1702050.9	526.42	mg/L	526.42	mg/L
1	Ni 231.604	8243.7	9285.3	0.93645	mg/L	0.93645	mg/L
1	Pb 220.353	1551.0	1747.0	1.1014	mg/L	1.1014	mg/L
1	Sn 189.933	46.4	52.3	0.01922	mg/L	0.01922	mg/L
1	Se 196.026	-62.6	-70.5	-0.03752	mg/L	-0.03752	mg/L
1	Sb 206.833	-60.2	-67.8	-0.12063	mg/L	-0.12063	mg/L
1	V 292.402	44884.7	50556.3	0.54061	mg/L	0.54061	mg/L
1	Tl 190.800	-46.5	-52.4	-0.00427	mg/L	-0.00427	mg/L
1	Zn 213.856	24422.2	27508.1	1.0928	mg/L	1.0928	mg/L
1	Na 330.237	361.5	407.2	-1.3552	mg/L	-1.3552	mg/L
1	Sr 407.771	207542.6	233767.5				
1	U 385.958	53120.5	59832.7				
1	U 367.007	21414.2	24120.1				
1	Zr 343.823	20165.8	22714.0				
1	Zr 339.198	22015.1	24796.9				
1	Zr 357.247	34178.5	38497.3				
2	Y 360.073	297357.4	297357.4	0.893	mg/L		
2	Ag 328.068	44317.2	49604.4	1.1011	mg/L	1.1011	mg/L
2	Al 396.152	10825743.6	12117289.4	474.03	mg/L	474.03	mg/L
2	As 193.696	350.6	392.5	0.09951	mg/L	0.09951	mg/L
2	B 249.773	2287.2	2560.1	-0.39455	mg/L	-0.39455	mg/L
2	Ba 233.527	16569.2	18546.0	0.48749	mg/L	0.48749	mg/L
2	Be 313.042	383337.3	429070.6	0.51577	mg/L	0.51577	mg/L
2	Bi 223.061	-164.8	-184.4	-0.02059	mg/L	-0.02059	mg/L
2	Ca 315.887	4036127.7	4517650.6	500.05	mg/L	500.05	mg/L
2	Cd 214.438	41516.4	46469.5	0.96703	mg/L	0.96703	mg/L
2	Co 238.892	16766.0	18766.2	0.51663	mg/L	0.51663	mg/L
2	Cr 267.716	31292.5	35025.8	0.49817	mg/L	0.49817	mg/L
2	Cu 324.754	42441.3	47504.7	0.52956	mg/L	0.52956	mg/L

2	Fe 234.349	2933258.5	3283205.6	184.72 mg/L	184.72 mg/L
2	K 766.491	5063.1	5667.2		
2	Mo 202.030	-35.9	-40.2	-0.00611 mg/L	-0.00611 mg/L
2	Mn 257.610	56230.4	62938.9	0.50713 mg/L	0.50713 mg/L
2	Mg 279.079	1513266.4	1693803.9	523.87 mg/L	523.87 mg/L
2	Ni 231.604	8230.3	9212.2	0.92905 mg/L	0.92905 mg/L
2	Pb 220.353	1566.8	1753.8	1.1072 mg/L	1.1072 mg/L
2	Sn 189.933	41.7	46.6	0.01595 mg/L	0.01595 mg/L
2	Se 196.026	-82.0	-91.8	-0.07246 mg/L	-0.07246 mg/L
2	Sb 206.833	-53.4	-59.8	-0.11215 mg/L	-0.11215 mg/L
2	V 292.402	45034.9	50407.7	0.53899 mg/L	0.53899 mg/L
2	Tl 190.800	-56.7	-63.5	-0.01444 mg/L	-0.01444 mg/L
2	Zn 213.856	24522.3	27447.9	1.0904 mg/L	1.0904 mg/L
2	Na 330.237	324.9	363.7	-1.4957 mg/L	-1.4957 mg/L
2	Sr 407.771	207643.4	232415.9		
2	U 385.958	53020.4	59345.9		
2	U 367.007	21462.1	24022.6		
2	Zr 343.823	20186.4	22594.7		
2	Zr 339.198	22063.4	24695.7		
2	Zr 357.247	34240.7	38325.8		

Mean Data ----------

ID: ICSABF1 Seq. No.: 45 Sample No.: 39 A/S Pos: 43
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 8:02:14 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	296426.1	0.891	0.0040	mg/L				0.44%
Ag 328.068	49616.7	1.1014	0.00039	mg/L	1.1014	0.00039	mg/L	0.04%
Al 396.152	12141137.4	474.96	1.319	mg/L	474.96	1.319	mg/L	0.28%
As 193.696	393.2	0.09960	0.000127	mg/L	0.09960	0.000127	mg/L	0.13%
B 249.773	2511.8	-0.39755	0.004250	mg/L	-0.39755	0.004250	mg/L	1.07%
Ba 233.527	18593.8	0.48875	0.001776	mg/L	0.48875	0.001776	mg/L	0.36%
Be 313.042	430028.5	0.51694	0.001664	mg/L	0.51694	0.001664	mg/L	0.32%
Bi 223.061	-183.9	-0.02046	0.000188	mg/L	-0.02046	0.000188	mg/L	0.92%
Ca 315.887	4522535.0	500.60	0.765	mg/L	500.60	0.765	mg/L	0.15%
Cd 214.438	46630.8	0.97039	0.004745	mg/L	0.97039	0.004745	mg/L	0.49%
Co 238.892	18797.2	0.51736	0.001028	mg/L	0.51736	0.001028	mg/L	0.20%
Cr 267.716	35051.7	0.49856	0.000544	mg/L	0.49856	0.000544	mg/L	0.11%
Cu 324.754	47457.0	0.52901	0.000789	mg/L	0.52901	0.000789	mg/L	0.15%
Fe 234.349	3291883.1	185.21	0.691	mg/L	185.21	0.691	mg/L	0.37%
K 766.491	5742.6							1.86%
Mo 202.030	-36.3	-0.00454	0.002221	mg/L	-0.00454	0.002221	mg/L	48.96%
Mn 257.610	62996.2	0.50759	0.000654	mg/L	0.50759	0.000654	mg/L	0.13%
Mg 279.079	1697927.4	525.15	1.804	mg/L	525.15	1.804	mg/L	0.34%
Ni 231.604	9248.8	0.93275	0.005233	mg/L	0.93275	0.005233	mg/L	0.56%
Pb 220.353	1750.4	1.1043	0.00406	mg/L	1.1043	0.00406	mg/L	0.37%
Sn 189.933	49.4	0.01758	0.002308	mg/L	0.01758	0.002308	mg/L	13.12%
Se 196.026	-81.1	-0.05499	0.024706	mg/L	-0.05499	0.024706	mg/L	44.93%
Sb 206.833	-63.8	-0.11639	0.005996	mg/L	-0.11639	0.005996	mg/L	5.15%
V 292.402	50482.0	0.53980	0.001145	mg/L	0.53980	0.001145	mg/L	0.21%
Tl 190.800	-57.9	-0.00935	0.007186	mg/L	-0.00935	0.007186	mg/L	76.82%
Zn 213.856	27478.0	1.0916	0.00167	mg/L	1.0916	0.00167	mg/L	0.15%
Na 330.237	385.4	-1.4255	0.09931	mg/L	-1.4255	0.09931	mg/L	6.97%
Sr 407.771	233091.7							0.41%
U 385.958	59589.3							0.58%
U 367.007	24071.4							0.29%
Zr 343.823	22654.3							0.37%
Zr 339.198	24746.3							0.29%
Zr 357.247	38411.5							0.32%

Replicate Data ----------

ID: CCV4 Date: 9/5/96 8:07:17 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	337750.3	337750.3	1.015	mg/L		
1	Ag 328.068	11511.9	11344.3	0.25048	mg/L	0.25048	mg/L
1	Al 396.152	613134.8	604208.2	23.615	mg/L	23.615	mg/L
1	As 193.696	148.8	146.6	0.23376	mg/L	0.23376	mg/L
1	B 249.773	14911.1	14694.0	0.45684	mg/L	0.45684	mg/L
1	Ba 233.527	19413.3	19130.7	0.50265	mg/L	0.50265	mg/L
1	Be 313.042	225176.8	221898.5	0.26160	mg/L	0.26160	mg/L
1	Bi 223.061	1442.8	1421.8	0.48898	mg/L	0.48898	mg/L

1 Ca 315.887	244311.2	240754.3	26.686 mg/L	26.686 mg/L	
1 Cd 214.438	12702.6	12517.6	0.25882 mg/L	0.25882 mg/L	
1 Co 238.892	15326.9	15103.8	0.49970 mg/L	0.49970 mg/L	
1 Cr 267.716	35910.3	35387.5	0.50557 mg/L	0.50557 mg/L	
1 Cu 324.754	43366.8	42735.5	0.47835 mg/L	0.47835 mg/L	
1 Fe 234.349	462178.1	455449.3	25.590 mg/L	25.590 mg/L	
1 K 766.491	11291154.3	11126767.7			
1 Mo 202.030	1267.7	1249.3	0.51431 mg/L	0.51431 mg/L	
1 Mn 257.610	62472.8	61563.2	0.49603 mg/L	0.49603 mg/L	
1 Mg 279.079	82192.5	80995.9	25.058 mg/L	25.058 mg/L	
1 Ni 231.604	5049.5	4976.0	0.50033 mg/L	0.50033 mg/L	
1 Pb 220.353	754.8	743.8	0.50339 mg/L	0.50339 mg/L	
1 Sn 189.933	927.0	913.5	0.51735 mg/L	0.51735 mg/L	
1 Se 196.026	261.0	257.2	0.50948 mg/L	0.50948 mg/L	
1 Sb 206.833	517.0	509.4	0.49224 mg/L	0.49224 mg/L	
1 V 292.402	48533.6	47827.0	0.51787 mg/L	0.51787 mg/L	
1 Tl 190.800	237.5	234.1	0.25467 mg/L	0.25467 mg/L	
1 Zn 213.856	13202.6	13010.4	0.51200 mg/L	0.51200 mg/L	
1 Na 330.237	8221.7	8102.0	24.356 mg/L	24.356 mg/L	
1 Sr 407.771	69296.5	68287.6			
1 U 385.958	33819.9	33327.6			
1 U 367.007	14987.8	14769.6			
1 Zr 343.823	15671.1	15443.0			
1 Zr 339.198	18168.2	17903.7			
1 Zr 357.247	30539.9	30095.3			
2 Y 360.073	339902.5	339902.5	1.021 mg/L		
2 Ag 328.068	11554.1	11313.8	0.24980 mg/L	0.24980 mg/L	
2 Al 396.152	615232.7	602436.8	23.545 mg/L	23.545 mg/L	
2 As 193.696	152.0	148.9	0.23786 mg/L	0.23786 mg/L	
2 B 249.773	15091.4	14777.5	0.45993 mg/L	0.45993 mg/L	
2 Ba 233.527	19479.7	19074.6	0.50118 mg/L	0.50118 mg/L	
2 Be 313.042	226992.4	222271.3	0.26206 mg/L	0.26206 mg/L	
2 Bi 223.061	1444.8	1414.8	0.48679 mg/L	0.48679 mg/L	
2 Ca 315.887	246349.7	241226.0	26.739 mg/L	26.739 mg/L	
2 Cd 214.438	12757.9	12492.6	0.25830 mg/L	0.25830 mg/L	
2 Co 238.892	15443.8	15122.6	0.50037 mg/L	0.50037 mg/L	
2 Cr 267.716	36030.5	35281.2	0.50402 mg/L	0.50402 mg/L	
2 Cu 324.754	43694.0	42785.2	0.47892 mg/L	0.47892 mg/L	
2 Fe 234.349	464414.3	454755.2	25.551 mg/L	25.551 mg/L	
2 K 766.491	11249860.8	11015881.7			
2 Mo 202.030	1277.5	1251.0	0.51499 mg/L	0.51499 mg/L	
2 Mn 257.610	63076.4	61764.5	0.49765 mg/L	0.49765 mg/L	
2 Mg 279.079	82455.1	80740.2	24.979 mg/L	24.979 mg/L	
2 Ni 231.604	5066.8	4961.4	0.49885 mg/L	0.49885 mg/L	
2 Pb 220.353	771.3	755.2	0.51206 mg/L	0.51206 mg/L	
2 Sn 189.933	929.7	910.4	0.51555 mg/L	0.51555 mg/L	
2 Se 196.026	271.6	266.0	0.52386 mg/L	0.52386 mg/L	
2 Sb 206.833	536.2	525.1	0.50891 mg/L	0.50891 mg/L	
2 V 292.402	48700.3	47687.4	0.51639 mg/L	0.51639 mg/L	
2 Tl 190.800	240.5	235.5	0.25598 mg/L	0.25598 mg/L	
2 Zn 213.856	13299.7	13023.0	0.51255 mg/L	0.51255 mg/L	
2 Na 330.237	8274.1	8102.0	24.356 mg/L	24.356 mg/L	
2 Sr 407.771	69116.0	67678.5			
2 U 385.958	33759.9	33057.7			
2 U 367.007	14967.8	14656.5			
2 Zr 343.823	15599.0	15274.6			
2 Zr 339.198	18068.1	17692.4			
2 Zr 357.247	30439.8	29806.7			

Mean Data ----------

ID: CCV4 Seq. No.: 46 Sample No.: 40 A/S Pos: 44

Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0

Data: Original Date: 9/5/96 8:07:17 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	338826.4	1.018	0.0046	mg/L				0.45%
Ag 328.068	11329.0	0.25014	0.000480	mg/L	0.25014	0.000480	mg/L	0.19%
Al 396.152	603322.5	23.580	0.0490	mg/L	23.580	0.0490	mg/L	0.21%
As 193.696	147.7	0.23581	0.002902	mg/L	0.23581	0.002902	mg/L	1.23%
B 249.773	14735.8	0.45839	0.002185	mg/L	0.45839	0.002185	mg/L	0.48%
Ba 233.527	19102.6	0.50192	0.001043	mg/L	0.50192	0.001043	mg/L	0.21%
Be 313.042	222084.9	0.26183	0.000322	mg/L	0.26183	0.000322	mg/L	0.12%
Bi 223.061	1418.3	0.48789	0.001549	mg/L	0.48789	0.001549	mg/L	0.32%
Ca 315.887	240990.2	26.712	0.0369	mg/L	26.712	0.0369	mg/L	0.14%

Cd 214.438	12505.1	0.25856	0.000369 mg/L	0.25856	0.000369 mg/L	0.14%
Co 238.892	15113.2	0.50003	0.000472 mg/L	0.50003	0.000472 mg/L	0.09%
Cr 267.716	35334.3	0.50480	0.001098 mg/L	0.50480	0.001098 mg/L	0.22%
Cu 324.754	42760.4	0.47864	0.000403 mg/L	0.47864	0.000403 mg/L	0.08%
Fe 234.349	455102.3	25.571	0.0276 mg/L	25.571	0.0276 mg/L	0.11%
K 766.491	11071324.7					0.71%
Mo 202.030	1250.1	0.51465	0.000482 mg/L	0.51465	0.000482 mg/L	0.09%
Mn 257.610	61663.9	0.49684	0.001148 mg/L	0.49684	0.001148 mg/L	0.23%
Mg 279.079	80868.1	25.018	0.0559 mg/L	25.018	0.0559 mg/L	0.22%
Ni 231.604	4968.7	0.49959	0.001048 mg/L	0.49959	0.001048 mg/L	0.21%
Pb 220.353	749.5	0.50772	0.006130 mg/L	0.50772	0.006130 mg/L	1.21%
Sn 189.933	912.0	0.51645	0.001274 mg/L	0.51645	0.001274 mg/L	0.25%
Se 196.026	261.6	0.51667	0.010163 mg/L	0.51667	0.010163 mg/L	1.97%
Sb 206.833	517.3	0.50058	0.011790 mg/L	0.50058	0.011790 mg/L	2.36%
V 292.402	47757.2	0.51713	0.001044 mg/L	0.51713	0.001044 mg/L	0.20%
Tl 190.800	234.8	0.25533	0.000928 mg/L	0.25533	0.000928 mg/L	0.36%
Zn 213.856	13016.7	0.51228	0.000384 mg/L	0.51228	0.000384 mg/L	0.08%
Na 330.237	8102.0	24.356	0.0003 mg/L	24.356	0.0003 mg/L	0.00%
Sr 407.771	67983.1					0.63%
U 385.958	33192.6					0.57%
U 367.007	14713.1					0.54%
Zr 343.823	15358.8					0.78%
Zr 339.198	17798.0					0.84%
Zr 357.247	29951.0					0.68%

Replicate Data ----------

ID: CCB4 Date: 9/5/96 8:11:56 AM

Repl#	Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1	Y 360.073	356743.3	356743.3	1.072	mg/L		
1	Ag 328.068	71.9	67.1	0.00015	mg/L	0.00015	mg/L
1	Al 396.152	357.0	333.1	0.00541	mg/L	0.00541	mg/L
1	As 193.696	5.6	5.2	0.00871	mg/L	0.00871	mg/L
1	B 249.773	214.8	200.4	0.00536	mg/L	0.00536	mg/L
1	Ba 233.527	-2.2	-2.1	-0.00003	mg/L	-0.00003	mg/L
1	Be 313.042	9504.0	8867.0	-0.00044	mg/L	-0.00044	mg/L
1	Bi 223.061	-137.5	-128.3	0.00268	mg/L	0.00268	mg/L
1	Ca 315.887	-296.6	-276.7	0.00892	mg/L	0.00892	mg/L
1	Cd 214.438	65.5	61.1	0.00010	mg/L	0.00010	mg/L
1	Co 238.892	-11.5	-10.8	0.00028	mg/L	0.00028	mg/L
1	Cr 267.716	995.5	928.8	-0.00010	mg/L	-0.00010	mg/L
1	Cu 324.754	983.9	918.0	0.00000	mg/L	0.00000	mg/L
1	Fe 234.349	770.3	718.7	0.00591	mg/L	0.00591	mg/L
1	K 766.491	878.1	819.3				
1	Mo 202.030	-14.9	-13.9	0.00450	mg/L	0.00450	mg/L
1	Mn 257.610	83.5	77.9	-0.00010	mg/L	-0.00010	mg/L
1	Mg 279.079	42.3	39.5	0.00775	mg/L	0.00775	mg/L
1	Ni 231.604	38.0	35.5	0.00032	mg/L	0.00032	mg/L
1	Pb 220.353	82.5	77.0	0.00862	mg/L	0.00862	mg/L
1	Sn 189.933	23.5	22.0	0.00168	mg/L	0.00168	mg/L
1	Se 196.026	-47.1	-44.0	0.01536	mg/L	0.01536	mg/L
1	Sb 206.833	76.7	71.6	0.03825	mg/L	0.03825	mg/L
1	V 292.402	-295.2	-275.5	-0.00031	mg/L	-0.00031	mg/L
1	Tl 190.800	-29.2	-27.3	0.00539	mg/L	0.00539	mg/L
1	Zn 213.856	573.5	535.0	0.00017	mg/L	0.00017	mg/L
1	Na 330.237	650.4	606.8	0.24929	mg/L	0.24929	mg/L
1	Sr 407.771	59663.0	55664.2				
1	U 385.958	29493.9	27517.1				
1	U 367.007	13190.8	12306.7				
1	Zr 343.823	14531.3	13557.4				
1	Zr 339.198	16706.5	15586.8				
1	Zr 357.247	29056.5	27109.0				
2	Y 360.073	355015.7	355015.7	1.067	mg/L		
2	Ag 328.068	74.3	69.7	0.00021	mg/L	0.00021	mg/L
2	Al 396.152	392.3	367.8	0.00678	mg/L	0.00678	mg/L
2	As 193.696	2.7	2.6	0.00389	mg/L	0.00389	mg/L
2	B 249.773	187.8	176.0	0.00449	mg/L	0.00449	mg/L
2	Ba 233.527	4.2	3.9	0.00013	mg/L	0.00013	mg/L
2	Be 313.042	9389.2	8802.5	-0.00051	mg/L	-0.00051	mg/L
2	Bi 223.061	-132.1	-123.8	0.00408	mg/L	0.00408	mg/L
2	Ca 315.887	-311.6	-292.2	0.00721	mg/L	0.00721	mg/L
2	Cd 214.438	64.2	60.2	0.00008	mg/L	0.00008	mg/L
2	Co 238.892	-5.7	-5.3	0.00046	mg/L	0.00046	mg/L

2 Cr 267.716	992.3	930.3	-0.00008 mg/L	-0.00008 mg/L	
2 Cu 324.754	924.8	867.0	-0.00058 mg/L	-0.00058 mg/L	
2 Fe 234.349	777.7	729.1	0.00650 mg/L	0.00650 mg/L	
2 K 766.491	970.9	910.2			
2 Mo 202.030	-16.6	-15.6	0.00383 mg/L	0.00383 mg/L	
2 Mn 257.610	77.7	72.8	-0.00014 mg/L	-0.00014 mg/L	
2 Mg 279.079	42.7	40.0	0.00791 mg/L	0.00791 mg/L	
2 Ni 231.604	36.1	33.8	0.00016 mg/L	0.00016 mg/L	
2 Pb 220.353	87.0	81.5	0.01205 mg/L	0.01205 mg/L	
2 Sn 189.933	20.6	19.3	0.00015 mg/L	0.00015 mg/L	
2 Se 196.026	-41.3	-38.7	0.02395 mg/L	0.02395 mg/L	
2 Sb 206.833	69.2	64.9	0.03108 mg/L	0.03108 mg/L	
2 V 292.402	-310.3	-290.9	-0.00049 mg/L	-0.00049 mg/L	
2 Tl 190.800	-29.8	-28.0	0.00476 mg/L	0.00476 mg/L	
2 Zn 213.856	563.8	528.6	-0.00010 mg/L	-0.00010 mg/L	
2 Na 330.237	648.5	607.9	0.25332 mg/L	0.25332 mg/L	
2 Sr 407.771	59395.4	55684.1			
2 U 385.958	29373.3	27537.9			
2 U 367.007	13145.7	12324.4			
2 Zr 343.823	14456.2	13552.9			
2 Zr 339.198	16656.4	15615.7			
2 Zr 357.247	28865.8	27062.1			

Mean Data ----------

ID: CCB4 Seq. No.: 47 Sample No.: 41 A/S Pos: 45
Sample Qty: 1.0000 mL Prep. Vol.: 1.0 mL Dilution: 1.0: 1.0
Data: Original Date: 9/5/96 8:11:56 AM

Element	Mean Corr. Intensity	Mean Conc.	Calib Std.Dev.	Calib Units	Mean Conc.	Sample Std.Dev.	Sample Units	RSD
Y 360.073	355879.5	1.069	0.0037	mg/L				0.34%
Ag 328.068	68.4	0.00018	0.000041	mg/L	0.00018	0.000041	mg/L	22.44%
Al 396.152	350.4	0.00610	0.000973	mg/L	0.00610	0.000973	mg/L	15.97%
As 193.696	3.9	0.00630	0.003411	mg/L	0.00630	0.003411	mg/L	54.13%
B 249.773	188.2	0.00492	0.000617	mg/L	0.00492	0.000617	mg/L	12.53%
Ba 233.527	0.9	0.00005	0.000112	mg/L	0.00005	0.000112	mg/L	223.75%
Be 313.042	8834.8	-0.00048	0.000056	mg/L	-0.00048	0.000056	mg/L	11.83%
Bi 223.061	-126.1	0.00338	0.000989	mg/L	0.00338	0.000989	mg/L	29.25%
Ca 315.887	-284.4	0.00807	0.001208	mg/L	0.00807	0.001208	mg/L	14.97%
Cd 214.438	60.7	0.00009	0.000014	mg/L	0.00009	0.000014	mg/L	15.72%
Co 238.892	-8.1	0.00037	0.000131	mg/L	0.00037	0.000131	mg/L	35.10%
Cr 267.716	929.5	-0.00009	0.000014	mg/L	-0.00009	0.000014	mg/L	16.22%
Cu 324.754	892.5	-0.00029	0.000413	mg/L	-0.00029	0.000413	mg/L	142.21%
Fe 234.349	723.9	0.00621	0.000414	mg/L	0.00621	0.000414	mg/L	6.68%
K 766.491	864.8							7.44%
Mo 202.030	-14.7	0.00417	0.000473	mg/L	0.00417	0.000473	mg/L	11.34%
Mn 257.610	75.3	-0.00012	0.000029	mg/L	-0.00012	0.000029	mg/L	23.18%
Mg 279.079	39.7	0.00783	0.000116	mg/L	0.00783	0.000116	mg/L	1.48%
Ni 231.604	34.6	0.00024	0.000117	mg/L	0.00024	0.000117	mg/L	49.24%
Pb 220.353	79.3	0.01034	0.002422	mg/L	0.01034	0.002422	mg/L	23.43%
Sn 189.933	20.6	0.00092	0.001083	mg/L	0.00092	0.001083	mg/L	118.08%
Se 196.026	-41.4	0.01965	0.006073	mg/L	0.01965	0.006073	mg/L	30.90%
Sb 206.833	68.2	0.03466	0.005073	mg/L	0.03466	0.005073	mg/L	14.63%
V 292.402	-283.2	-0.00040	0.000122	mg/L	-0.00040	0.000122	mg/L	30.48%
Tl 190.800	-27.6	0.00508	0.000448	mg/L	0.00508	0.000448	mg/L	8.82%
Zn 213.856	531.8	0.00004	0.000187	mg/L	0.00004	0.000187	mg/L	514.62%
Na 330.237	607.4	0.25130	0.002847	mg/L	0.25130	0.002847	mg/L	1.13%
Sr 407.771	55674.1							0.03%
U 385.958	27527.5							0.05%
U 367.007	12315.5							0.10%
Zr 343.823	13555.1							0.02%
Zr 339.198	15601.2							0.13%
Zr 357.247	27085.6							0.12%

Replicate Data ----------

ID: PBS:14593 Date: 9/5/96 8:16:22 AM

Repl# Element	Net Intensity	Corrected Intensity	Calib Conc.	Calib Units	Sample Conc.	Sample Units
1 Y 360.073	349269.0	349269.0	1.049	mg/L		
1 Ag 328.068	65.8	62.7	0.00006	mg/L	0.00563	mg/kg
1 Al 396.152	436.2	415.6	0.00875	mg/L	0.87537	mg/kg
1 As 193.696	1.1	1.0	0.00108	mg/L	0.10830	mg/kg
1 B 249.773	128.7	122.6	0.00256	mg/L	0.25629	mg/kg
1 Ba 233.527	21.7	20.7	0.00057	mg/L	0.05725	mg/kg

FURNACE

1030

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

INCHCAPE TESTING SERVICES
NDRC LABORATORY-DALLAS
FURNACE #4

ME	9/14/96
ANALYST	DATE
[illegible]	9-15-96
REVIEW	DATE
[illegible]	9-[illegible]
DATA ENTRY	DATE
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OPERATOR MARTY
DATE 9-14-96
BATCH SB

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	50
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	5
REPLICATE RSD LIMIT (%)	20.0

Std. Lot #: AB708-62A Modifier Lot #: AB708-55A
ICV Lot #: AB708-62I CCV Lot #: AB708-62H
LCS & MS/MSD Lot #: 690619

PROGRAM 1 Sb PLAT.3PT.Pd

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	8
LAMP CURRENT (mA)	7
SLIT WIDTH (nm)	0.2
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	217.6
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	1
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.40

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	175	10.0	3.0	NORMAL	NO
2	175	20.0	3.0	NORMAL	NO
3	1500	10.0	3.0	NORMAL	NO
4	1500	15.0	3.0	NORMAL	NO
5	1500	2.0	0.3	NORMAL	NO
6	2600	0.7	0.0	NORMAL	YES
7	2600	4.2	0.0	NORMAL	YES
8	2700	5.0	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	2	18	5
STANDARD 2	6	14	5
STANDARD 3	12	8	5
SAMPLE	20	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 90
INJECT RATE 7

QC PROTOCOL PARAMETERS

QC STANDARD RATE	16
QC INITIAL STANDARD POSITION	48
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	49
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	50.0
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	1
QC SPIKE VOLUME (µL)	4
QC SPIKE CONCENTRATION	100.0
MATRIX SPIKE CONCENTRATION	0.0
INSTRUMENT DETECTION LIMIT	1.4
REQUIRED DETECTION LIMIT	2.5

CONDITIONS FOR Sb :
Alternative Wavelengths (nm) : 231.2
Spectral Bandwidths (nm) : 0.5
Maximum Ash Temperature : 800°C
Recommended Atomize Temperature : 2000°C
Recommended Chemical Modifiers :
Palladium Chloride (500-2000µg/mL) plus reducing agent such as ascorbic acid, or
Nickel Nitrate (50-1000µg/mL).
Response with Argon : 10µL of 50ng/mL gives about 0.2 Abs.

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The modifiers permit the use of a higher ashing temperature and enhance the analyte signal.
Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

PROGRAM 1 Sb PLAT.3PT.Pd QC ZEEMAN
BLANK REPLICATE 1
ABSORBANCE CONCENTRATION SAMPLER AUTOMIX
PEAK AREA MAX.ABS. 1.40 BC ON

AUTOMATIC RUN PAUSED PRINTING

SAMPLE LABELS

1. 20PPB STD	2. 9730-1 1:10	3. 9730-1DP1:10
4. PB,TL:14541	5. LCS	6. 9641-1
7. 9641-1DP	8. 9641-1MS	9. 20PPB STD
10. 9730-1DP:10	11. PB,TS:14596	12. LCS
13. 9532-11	14. 9532-11DP	15. 9532-11MS
16. 9532-11MD	17. 9653-1	18. 9653-2
19. 9653-3	20. PB,TL:14525	21. LCS
22. 9792-14	23. 9792-14DP	24. 9792-14MS
25. 9792-14MD	26. PB,TL:14563	27. LCS
28. 9975-21	29. 9975-21DP	30. 9975-21MS
31. 9975-21MD	32. 10020-19	33. PB,TS:14609
34. LCS	35. 9747-4	36. 9747-4DP
37. 9747-5	38. 9747-6	39. 9747-1
40. 9747-2	41. 9747-7	42. 9747-8
43. 9747-10	44.	45.

F INCREMENT
1 LABELS

F CALIBRATION
6

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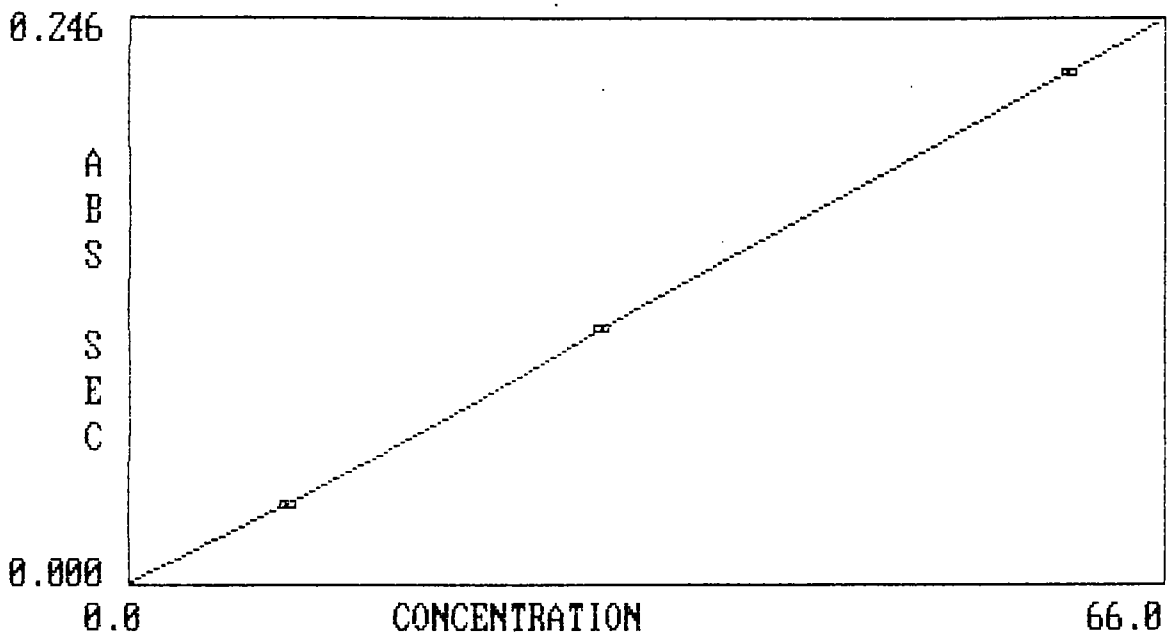
SAMPLE	CONC	%RSD	MEAN ABS	READINGS
BLANK QC	0.0		0.031	0.031 14Sep96 09:44 CONCENTRATION LESS THAN IDL
BLANK QC	0.0		-0.033	-0.033 14Sep96 09:48 CONCENTRATION LESS THAN IDL
BLANK QC	0.0		0.013	0.013 14Sep96 09:51 CONCENTRATION LESS THAN IDL
BLANK QC	0.0		-0.022	-0.022 14Sep96 09:54 CONCENTRATION LESS THAN IDL
BLANK QC	0.0		0.009	0.009 14Sep96 09:58 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	10.0	0.0	0.034	0.034 14Sep96 10:01

SAMPLE	CONC	%RSD	MEAN ABS	READINGS
STANDARD 2 QC	30.0	0.0	0.111	0.111 14Sep96 10:03

SAMPLE	CONC	%RSD	MEAN ABS	READINGS
STANDARD 3 QC	60.0	0.0	0.224	0.224 14Sep96 10:06

corr=0.998



9/14/96
ANALYST DATE
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4
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ANALYTE

ICV QC 36900	37.2	0.0 Q	0.138	0.138 14Sep96 10:08 %R = ~~74.5~~ 103
I QC	-1.4	0.0	-0.005	-0.005 14Sep96 10:10 ABS = -0.005 CONCENTRATION LESS THAN IDL
20PPB STD QC	21.8	0.0	0.078	0.078 14Sep96 10:13 %R: 109

%R FAILED, REPEAT BY STANDARD ADDITIONS

CCV 1 QC 50ppb	51.1	0.0	0.190	0.190 14Sep96 10:17 %R = 102.3
CCB 1 QC	-1.4	0.0	-0.005	-0.005 14Sep96 10:19 ABS = -0.006 CONCENTRATION LESS THAN IDL

SAMPLE	CONC	%RSD	MEAN ABS	READINGS
20PPB STD QC	20.8	0.0	0.074	0.074 14Sep96 10:22
QCSPIKE A QC	35.2	0.0	0.130	0.130 14Sep96 10:24 %R = 72.1 %R FAILED, REPEAT BY STANDARD ADDITIONS
9730-1DP:10 50/100 ~~100/100~~ QC	17.4	0.0	0.061	0.061 14Sep96 10:26
QCSPIKE A QC	37.4	0.0	0.138	0.138 14Sep96 10:28 %R = 100.3
PB,TS:14596 QC 2.00/100	2.6	0.0	0.009	0.009 14Sep96 10:30
QCSPIKE A QC	23.5	0.0	0.085	0.085 14Sep96 10:33 %R = 104.5
~~L~~CS 1:500 QC 1000ppm	44.4	0.0	0.164	0.164 14Sep96 10:35 %R=111
QCSPIKE A QC	57.0	0.0	0.212	0.212 14Sep96 10:37 %R = 62.9 %R FAILED, REPEAT BY STANDARD ADDITIONS
9532-11 2.07/100 QC	-0.5	0.0	-0.002	-0.002 14Sep96 10:40 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	27.0	0.0 W	0.098	0.098 14Sep96 10:42 %R = 134.9 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9532-11DP 2.06/100 QC	2.0	0.0	0.007	0.007 14Sep96 10:44
QCSPIKE A QC	24.0	0.0	0.086	0.086 14Sep96 10:46 %R = 109.7
1:500 9532-11MS 2.00/100	38.8	0.0	0.143	0.143 %R=97.0

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9/14/96
~~1740~~ ug/L
348.0 %

130 ug/kg

1110000 ug/l

97.1 ug

1124

970000 ug/l

QCSPIKE A QC	53.0	0.0	0.197	0.197 14Sep96 10:51 %R = 71.0 %R FAILED, REPEAT BY STANDARD ADDITIONS
1:500 2.00/100 9532-11MD QC [illegible]ppm	40.2	0.0	0.149	0.149 14Sep96 10:53

%RPD=3.04
%R=100
1005000 mg/L

SAMPLE	CONC	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	55.7	0.0	0.207	0.207 14Sep96 10:56 %R = 77.4 %R FAILED, REPEAT BY STANDARD ADDITIONS
CCV 2 QC 50ppb	49.3	0.0	0.183	0.183 14Sep96 10:58 %R = 98.6
CCB 2 QC	-0.3	0.0	-0.001	-0.001 14Sep96 11:00 ABS = -0.002 CONCENTRATION LESS THAN IDL
9653-1 QC	23.3	0.0	0.084	0.084 14Sep96 11:02
QCSPIKE A QC	OVER	0.0	0.525B	0.525B 14Sep96 11:05
QCSPIKE A QC	123.7	0.0	0.089	0.089 14Sep96 11:07 DF = 5.00
9653-1 2.00/100 QC	23.5	0.0	0.016	0.016 14Sep96 11:09 DF = 5.00
QCSPIKE A QC	122.5	0.0	0.089	0.089 14Sep96 11:11 DF = 5.00 %R = 99.0
9653-2 QC	26.3	0.0	0.096	0.096 14Sep96 11:13
QCSPIKE A QC	33.1	0.0 E	0.122	0.122 14Sep96 11:16 %R = 34.2 %R LESS THAN MINIMUM LIMIT
9653-3 2.00/100 QC	-0.3	0.0	-0.001	-0.001 14Sep96 11:18 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	26.1	0.0 U	0.095	0.095 14Sep96 11:20

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1175 mg/kg

1125

PB,TL:14525 QC	0.1	0.0	0.000	0.000 14Sep96 11:22 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	15.9	0.0 W	0.056	0.056 14Sep96 11:25 %R = 79.4 SAMPLE CONC (50% OF SPIKE CONCENTRATION

SAMPLE	CONC	%RSD	MEAN ABS	READINGS
LCS QC 50ppb 100/100	46.2	0.0	0.171	0.171 14Sep96 11:27 %R = 92.4
QCSPIKE A QC	53.6	0.0 E	0.199	0.199 14Sep96 11:29 %R = 37.1 %R LESS THAN MINIMUM LIMIT
9792-14 QC	-0.3	0.0	-0.001	-0.001 14Sep96 11:32 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	19.3	0.0	0.068	0.068 14Sep96 11:34 %R = 96.3
CCV 3 QC 50ppb	48.2	0.0	0.179	0.179 14Sep96 11:36 %R = 96.5
CCB 3 QC	-1.0	0.0	-0.004	-0.004 14Sep96 11:39 ABS = -0.004 CONCENTRATION LESS THAN IDL
9792-14DP QC 100/100	1.3	0.0	0.004	0.004 14Sep96 11:41 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	20.5	0.0	0.073	0.073 14Sep96 11:43 %R = 102.7
9792-14MS QC 50ppb	41.1	0.0	0.152	0.152 14Sep96 11:45 %R = 82.2
QCSPIKE A QC	65.1	0.0	0.243	0.243 14Sep96 11:48
QCSPIKE A QC	176.4	0.0	0.130	0.130 14Sep96 11:50 DF = 5.00
9792-14MS QC	55.7	0.0	0.038	0.038 14Sep96 11:52 DF = 5.00

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46.2 ug/L

41.1 ug/L

QC		W		14Sep96 11:54 DF = 5.00 %R = 117.8 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9792-14MD 100/100 QC	48.5	0.0	0.180	0.180 14Sep96 11:57 %RPD=16.5 %R=97.0 48.5 ug/L
QCSPIKE A QC	60.6	0.0	0.226	0.226 14Sep96 11:59

SAMPLE	CONC	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	176.8	0.0	0.131	0.131 14Sep96 12:01 DF = 5.00
9792-14MD QC	57.5	0.0	0.040	0.040 14Sep96 12:03 DF = 5.00
QCSPIKE A QC	175.9	0.0 W	0.130	0.130 14Sep96 12:05 DF = 5.00 %R = 118.4 SAMPLE CONC <50% OF SPIKE CONCENTRATION
PB,TL:14563 QC 100/100	-0.4	0.0	-0.001	-0.001 14Sep96 12:08 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	18.6	0.0	0.066	0.066 14Sep96 12:10 %R = 93.2
LCS QC 50ppb	48.8	0.0	0.181	0.181 14Sep96 12:12 %R=97.6 48.8 ug/L
QCSPIKE A QC	58.4	0.0	0.218	0.218 14Sep96 12:15 %R = 47.9 %R FAILED, REPEAT BY STANDARD ADDITIONS
CCV 4 QC 50ppb	54.0	0.0	0.201	0.201 14Sep96 12:17 %R = 107.9
CCB 4 QC	-1.7	0.0	-0.006	-0.006 14Sep96 12:19 ABS = -0.007 CONCENTRATION LESS THAN IDL
9775-21 QC 100/100	0.5	0.0	0.002	0.002 14Sep96 12:21 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	20.1	0.0	0.072	0.072 14Sep96 12:24 %R = 100.5

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1127

CONCENTRATION LESS THAN IDL

QCSPIKE A QC	19.6	0.0	0.070	0.070 14Sep96 12:28 %R = 98.1
9975-21MS 100/100 QC 60ppb	48.0	0.0	0.178	0.178 14Sep96 12:30 %R: 96.0

48.0 ng/L

SAMPLE	CONC	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	60.8	0.0	0.227	0.227 14Sep96 12:33
QCSPIKE A QC	169.9	0.0	0.125	0.125 14Sep96 12:35 DF = 5.00
9975-21MS QC	62.0	0.0	0.043	0.043 14Sep96 12:37 DF = 5.00
QCSPIKE A QC	175.9	0.0	0.130	0.130 14Sep96 12:39 DF = 5.00 %R = 114.0
9975-21MD 100/100 QC 60ppb	51.6	0.0	0.192	0.192 14Sep96 12:41 %R: 103
QCSPIKE A QC	58.1	0.0 E	0.216	0.216 14Sep96 12:44 %R = 32.7 %R LESS THAN MINIMUM LIMIT
10020-19 100/100 QC	-0.9	0.0	-0.003	-0.003 14Sep96 12:46 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	20.6	0.0	0.073	0.073 14Sep96 12:48 %R = 103.1
PB,TS:14609 (K spoken) QC	-0.7	0.0	-0.002	-0.002 14Sep96 12:50 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	30.4	0.0 W	0.112	0.112 14Sep96 12:53 %R = 152.1 SAMPLE CONC <50% OF SPIKE CONCENTRATIO
CCV 5 QC 50ppb	52.4	0.0	0.195	0.195 14Sep96 12:55 %R = 104.9
CCB 5 QC	-1.8	0.0	-0.006	-0.006 14Sep96 12:57

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51.6 ng/L

1128

CONCENTRATION LESS THAN IDL

LCS 1:500 2.00/100 QC 1000 ppm	44.1	0.0	0.164	0.164 14Sep96 12:59 %R = 110	1102500 ug/l
QCSPIKE A QC	56.5	0.0	0.210	0.210 14Sep96 13:02 %R = 61.7 %R FAILED, REPEAT BY STANDARD ADDITIONS	

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SAMPLE	CONC	%RSD	MEAN ABS	READINGS
9747-4 2.04/100 QC	7.0	0.0	0.024	0.024 14Sep96 13:04 — 343 ug/kg
QCSPIKE A QC W	31.3	0.0	0.115	0.115 14Sep96 13:06 %R = 121.5 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9747-4DP QC	6.5	0.0	0.022	0.022 14Sep96 13:08 — %R = NC — 319 ug/kg
QCSPIKE A QC	24.7	0.0	0.089	0.089 14Sep96 13:11 %R = 90.9
1:500 9747-5 MS 2.00/100 QC 1000 ppm	26.7	0.0	0.097	0.097 14Sep96 13:13 — %R = 66.7 — 667500 ug/l
QCSPIKE A QC	39.8	0.0	0.147	0.147 14Sep96 13:15 %R = 65.5 %R FAILED, REPEAT BY STANDARD ADDITIONS
1:500 9747-6 MD QC 1000 ppm	25.4	0.0	0.092	0.092 14Sep96 13:17 — %R = 63.5 — %RPD = 4.92 — 635000 ug/l
QCSPIKE A QC	39.6	0.0	0.147	0.147 14Sep96 13:20 %R = 71.1 %R FAILED, REPEAT BY STANDARD ADDITIONS
9747-1 3.00/100 QC	4.3	0.0	0.015	0.015 14Sep96 13:22 — 215 ug/kg
QCSPIKE A QC	22.7	0.0	0.081	0.081 14Sep96 13:24 %R = 91.6
9747-2 2.13/100 QC	3.0	0.0	0.010	0.010 14Sep96 13:26 — 1411 ug/kg
QCSPIKE A QC W	19.8	0.0	0.070	0.070 14Sep96 13:29 %R = 83.9 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9747-7 2.11/100	8.1	0.0	0.031	0.031

SAMPLE	CONC	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	23.7	0.0	0.085	0.085 14Sep96 13:33 %R = 72.9 %R FAILED, REPEAT BY STANDARD ADDITIONS
CCV 6 QC 50ppb	46.4	0.0	0.172	0.172 14Sep96 13:35 %R = 92.8
CCB 6 QC	0.2	0.0	0.001	0.001 14Sep96 13:38 ABS = 0.000 CONCENTRATION LESS THAN IDL
9747-8 QC	16.6	0.0	0.058	0.058 14Sep96 13:40
QCSPIKE A QC	19.9 E	0.0	0.071	0.071 14Sep96 13:42 %R = 16.7 %R LESS THAN MINIMUM LIMIT
9747-10 2.08/100 QC	8.3	0.0	0.028	0.028 14Sep96 13:44
QCSPIKE A QC	31.2	0.0	0.115	0.115 14Sep96 13:47 %R = 114.6
Pb, Tl: 14525 100/100 QC	-1.0	0.0	-0.004	-0.004 14Sep96 13:49 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	21.4	0.0	0.077	0.077 14Sep96 13:51 %R = 107.0
QC	0.8	0.0	0.003	0.003 14Sep96 13:54 CONCENTRATION LESS THAN IDL
BLANK QC	0.0		-0.006	-0.006 14Sep96 13:57 CONCENTRATION LESS THAN IDL
CCV 7 QC 50ppb	49.1	0.0	0.182	0.182 14Sep96 13:59 %R = 98.1
CCB 7 QC	-0.9	0.0	-0.003	-0.003 14Sep96 14:01 ABS = -0.005 CONCENTRATION LESS THAN IDL

399 ug/l

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SAMPLE	CONC	%RSD	MEAN ABS	READINGS
BLANK QC	0.0		0.002	0.002 14Sep96 15:11 CONCENTRATION LESS THAN IDL
CCV 8 QC	50.3	0.0	0.187	0.187 14Sep96 15:13 %R = 100.6
CCB 8 QC	-0.8	0.0	-0.003	-0.003 14Sep96 15:16 ABS = -0.004 CONCENTRATION LESS THAN IDL
PB,TS:14609 QC	0.6	0.0	0.002	0.002 14Sep96 15:18 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	26.6	0.0 W	0.097	0.097 14Sep96 15:20 %R = 133.2 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9653-2 1:2 QC	28.8B	0.0	0.106B	0.106B 14Sep96 15:22
QCSPIKE A QC	26.3	0.0 E	0.096	0.096 14Sep96 15:25 %R = -12.6 %R LESS THAN MINIMUM LIMIT

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SAMPLE	CONC	%RSD	MEAN ABS	READINGS
9747-7 QC	8.0	0.0	0.028	0.028 14Sep96 15:27
QCSPIKE A QC	31.6	0.0 W	0.116	0.116 14Sep96 15:29 %R = 117.8 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9747-8 QC	1.3	0.0	0.005	0.005 14Sep96 15:32 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	25.8	0.0 W	0.094	0.094 14Sep96 15:34 %R = 128.8 SAMPLE CONC <50% OF SPIKE CONCENTRATION
PB,TS:14635 QC	0.2	0.0	0.001	0.001 14Sep96 15:36 CONCENTRATION LESS THAN IDL
QCSPIKE A	24.7	0.0	0.089	0.089

LCS 1.500 QC 1000ppm	2.00/100	39.6	0.0	0.146	0.146 14Sep96 15:41	99.0%rec 990000.0 ug/kg
QCSPIKE A QC		52.6	0.0	0.195	0.195 14Sep96 15:43 %R = 64.9 %R FAILED, REPEAT BY STANDARD ADDITIONS	
9929-2 QC	2.07/100	4.0	0.0	0.014	0.014 14Sep96 15:45	193.2 ug/kg
QCSPIKE A QC		21.4	0.0	0.077	0.077 14Sep96 15:48 %R = 86.9	
9929-2D QC	2.00/100	5.8	0.0	0.020	0.020 14Sep96 15:50	NC/RPD 277.5 ug/kg
QCSPIKE A QC		28.2	0.0	0.103	0.103 14Sep96 15:52 %R = 112.4	
CCV 9 QC >0ppb		47.7	0.0	0.177	0.177 14Sep96 15:54 %R = 95.3	
CCB 9 QC		-0.9	0.0	-0.003	-0.003 14Sep96 15:56 ABS = -0.004 CONCENTRATION LESS THAN IDL	

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SAMPLE	CONC	%RSD	MEAN ABS	READINGS	
9929-2MS 1.500 QC 1000ppm	2.00/100	31.5	0.0	0.116	0.116 14Sep96 15:59	78.7%rec 787500.0 ug/kg
QCSPIKE A QC		46.9	0.0	0.174	0.174 14Sep96 16:01 %R = 77.1 %R FAILED, REPEAT BY STANDARD ADDITIONS	8.89%RPD
9929-2MD 1.500 QC 1000ppm		28.8	0.0	0.106	0.106 14Sep96 16:03	72.0%rec 720000.0 ug/kg
QCSPIKE A QC		44.3	0.0	0.164	0.164 14Sep96 16:05 %R = 77.5 %R FAILED, REPEAT BY STANDARD ADDITIONS	
9866-2 QC	2.06/100	4.4	0.0	0.015	0.015 14Sep96 16:08	213.6 ug/kg
QCSPIKE A QC		31.6	0.0 W	0.117	0.117 14Sep96 16:10 %R = 135.9 SAMPLE CONC <50% OF SPIKE CONCENTRATION	

9580-3 QC	2.2	0.0	0.008	0.008 14Sep96 16:12
QCSPIKE A QC	23.6	0.0	0.085	0.085 14Sep96 16:14 %R = 106.8
PBTS:14612 QC	1.5	0.0	0.005	0.005 14Sep96 16:17
QCSPIKE A QC	24.5	0.0	0.089	0.089 14Sep96 16:19 %R = 114.8
LCS QC	41.4	0.0	0.153	0.153 14Sep96 16:21
QCSPIKE A QC	53.3	0.0	0.198	0.198 14Sep96 16:24 %R = 59.4 %R FAILED, REPEAT BY STANDARD ADDITIONS
9747-4 QC	-0.3	0.0	-0.001	-0.001 14Sep96 16:26 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	29.0	0.0 W	0.107	0.107 14Sep96 16:28 %R = 145.1 SAMPLE CONC (50% OF SPIKE CONCENTRATION
9747-4D QC	0.3	0.0	0.001	0.001 14Sep96 16:30 CONCENTRATION LESS THAN IDL

SAMPLE	CONC	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	23.5	0.0 W	0.084	0.084 14Sep96 16:33 %R = 117.3 SAMPLE CONC (50% OF SPIKE CONCENTRATION
CCV 10 QC	49.0	0.0	0.182	0.182 14Sep96 16:35 %R = 97.9
CCB 10 QC	0.3	0.0	0.001	0.001 14Sep96 16:37 ABS = -0.000 CONCENTRATION LESS THAN IDL
9747-4MS QC	20.4	0.0	0.073	0.073 14Sep96 16:39
QCSPIKE A QC	35.2	0.0	0.130	0.130 14Sep96 16:42 %R = 74.2 %R FAILED, REPEAT BY STANDARD ADDITIONS

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QCSPIKE A QC		32.9	0.0	0.121	0.121 14Sep96 16:46 %R = 87.0
/9792-1 QC	1.01/100	1.3	0.0	0.004	0.004 14Sep96 16:49 CONCENTRATION LESS THAN IDL
QCSPIKE A QC		25.4	0.0 W	0.092	0.092 14Sep96 16:51 %R = 126.8 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9792-2 QC	2.07/100	5.3	0.0	0.018	0.018 14Sep96 16:53
QCSPIKE A QC		26.4	0.0	0.096	0.096 14Sep96 16:56 %R = 105.1
9792-3 QC	2.11/100	2.6	0.0	0.009	0.009 14Sep96 16:58
QCSPIKE A QC		23.4	0.0	0.084	0.084 14Sep96 17:00 %R = 103.9
9792-4 QC	2.06/100	0.4	0.0	0.001	0.001 14Sep96 17:02 CONCENTRATION LESS THAN IDL
QCSPIKE A QC		23.7	0.0 W	0.085	0.085 14Sep96 17:05 %R = 118.3 SAMPLE CONC <50% OF SPIKE CONCENTRATION

SAMPLE		CONC	%RSD	MEAN ABS	READINGS
9792-5 QC	2.08/100	3.0	0.0	0.010	0.010 14Sep96 17:07
QCSPIKE A QC		20.7	0.0	0.074	0.074 14Sep96 17:10 %R = 88.0
/9792-6 QC	2.08/100	0.1	0.0	0.000	0.000 14Sep96 17:12 CONCENTRATION LESS THAN IDL
QCSPIKE A QC		20.0	0.0	0.071	0.071 14Sep96 17:14 %R = 100.1
CCV 11 QC 50/11		50.4	0.0	0.187	0.187 14Sep96 17:16 %R = 100.8
CCB 11 QC		1.7	0.0	0.006	0.006 14Sep96 17:19 ABS = 0.005
9792-7	2.02	1.2	0.0	0.004	0.004

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				CONCENTRATION LESS THAN IDL
QCSPIKE A QC	21.4	0.0	0.077	0.077 14Sep96 17:23 %R = 107.2
9792-8 QC 2.00/1ω	-0.2	0.0	-0.001	-0.001 14Sep96 17:25 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	18.9	0.0	0.067	0.067 14Sep96 17:28 %R = 94.6
9792-9 QC 2.05/1ω	2.2	0.0	0.008	0.008 14Sep96 17:30
QCSPIKE A QC	21.6	0.0	0.077	0.077 14Sep96 17:32 %R = 97.0
9792-10 QC 2.05/1ω	0.9	0.0	0.003	0.003 14Sep96 17:34 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	21.1	0.0	0.076	0.076 14Sep96 17:37 %R = 105.7
9792-11 QC 2.06/1ω	0.4	0.0	0.001	0.001 14Sep96 17:39 CONCENTRATION LESS THAN IDL

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SAMPLE	CONC	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	18.3	0.0	0.065	0.065 14Sep96 17:41 %R = 91.3
9792-12 QC 2.00/1ω	-0.5	0.0	-0.002	-0.002 14Sep96 17:44 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	19.0	0.0	0.067	0.067 14Sep96 17:46 %R = 94.8
9792-13 QC 2.05/1ω	0.8	0.0	0.003	0.003 14Sep96 17:48 CONCENTRATION LESS THAN IDL
QCSPIKE A QC 2.00/10	17.4	0.0	0.061	0.061 14Sep96 17:50 %R = 86.8
PBL14609) 2.00/100 QC	-0.1	0.0	-0.000	-0.000 14Sep96 17:53 CONCENTRATION LESS THAN IDL

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QC				14Sep96 17:55 %R = 110.3
CCV 12 QC	42.8	0.0	0.158	0.158 14Sep96 17:57 %R = 85.6
CCB 12 QC	0.9	0.0	0.003	0.003 14Sep96 17:59 ABS = 0.002 CONCENTRATION LESS THAN IDL
QC	-1.7	0.0	-0.006	-0.006 14Sep96 18:02 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	22.5	0.0	0.081	0.081 14Sep96 18:04 %R = 112.7
QC	0.5	0.0	0.002	0.002 14Sep96 18:06 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	21.6	0.0	0.077	0.077 14Sep96 18:08 %R = 108.2
BLANK QC	0.0		0.046	0.046 14Sep96 18:25 CONCENTRATION LESS THAN IDL

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SAMPLE	CONC	%RSD	MEAN ABS	READINGS
BLANK QC	0.0		-0.026	-0.026 14Sep96 18:29 CONCENTRATION LESS THAN IDL
CCV ~~14~~ 13 QC	57.8	0.0	0.215	0.215 14Sep96 18:31 %R = 115.7
CCB 14 QC	0.3	0.0	0.001	0.001 14Sep96 18:33 ABS = 0.004 CONCENTRATION LESS THAN IDL
PB,TS:14643 QC	0.0	0.0	0.000	0.000 14Sep96 18:35 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	21.3	0.0	0.076	0.076 14Sep96 18:38 %R = 106.7
LCS QC	-0.3	0.0	-0.001	-0.001 14Sep96 18:40 CONCENTRATION LESS THAN IDL

QCSPIKE A QC	24.1	0.0 W	0.087	0.087 14Sep96 18:42 %R = 120.4 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9975-3 2.04/100 QC	6.0	0.0	0.021	0.021 14Sep96 18:45
QCSPIKE A QC	25.3	0.0	0.092	0.092 14Sep96 18:47 %R = 96.5
9975-3D 2.01/100 QC	5.3	0.0	0.018	0.018 14Sep96 18:49
QCSPIKE A QC	24.0	0.0	0.087	0.087 14Sep96 18:51 %R = 93.7
9975-4MS QC	0.3	0.0	0.001	0.001 14Sep96 18:54 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	24.5	0.0 W	0.089	0.089 14Sep96 18:56 %R = 122.5 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9975-5MD QC	0.3	0.0	0.001	0.001 14Sep96 18:58 CONCENTRATION LESS THAN IDL

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SAMPLE	CONC	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	22.7	0.0	0.081	0.081 14Sep96 19:01 %R = 113.3
9975-1 2.04/100 QC	8.2	0.0	0.028	0.028 14Sep96 19:03
QCSPIKE A QC	26.4	0.0	0.096	0.096 14Sep96 19:05 %R = 91.3
9975-2 2.09/100 QC	6.1	0.0	0.021	0.021 14Sep96 19:07
QCSPIKE A QC	24.6	0.0	0.089	0.089 14Sep96 19:10 %R = 92.3
CCV 15 QC Surr	57.4	0.0	0.214	0.214 14Sep96 19:12 %R = 114.8
CCB 15	0.3	0.0	0.001	0.001

CONCENTRATION LESS THAN IDL

9975-6	10.3	0.0	0.035	0.035	481.3 ug/L
QC 2.14/100				14Sep96 19:16	
QCSPIKE A	29.7	0.0	0.109	0.109	
QC				14Sep96 19:18	
				%R = 97.2	
9975-7	7.0	0.0	0.024	0.024	331.8 ug/L
QC 2.11/100				14Sep96 19:21	
QCSPIKE A	25.1	0.0	0.091	0.091	
QC				14Sep96 19:23	
				%R = 90.2	
9975-8	5.8	0.0	0.020	0.020	282.9 ug/L
QC 2.05/100				14Sep96 19:25	
QCSPIKE A	24.0	0.0	0.087	0.087	
QC				14Sep96 19:27	
				%R = 90.7	
9975-9 2.05/100	4.3	0.0	0.015	0.015	204.8 ug/L
QC				14Sep96 19:30	
QCSPIKE A	21.6	0.0	0.077	0.077	
QC				14Sep96 19:32	
				%R = 86.7	
9975-10	4.5	0.0	0.015	0.015	221.5 ug/L
QC 2.03/100				14Sep96 19:34	

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SAMPLE	CONC	%RSD	MEAN ABS	READINGS	
QCSPIKE A	20.0	0.0	0.071	0.071	
QC		W		14Sep96 19:37	
				%R = 77.9	
				SAMPLE CONC <50% OF SPIKE CONCENTRATION	
9975-11 2.11/100	4.1	0.0	0.014	0.014	194.3 ug/L
QC				14Sep96 19:39	
QCSPIKE A	20.7	0.0	0.074	0.074	
QC		W		14Sep96 19:41	
				%R = 82.9	
				SAMPLE CONC <50% OF SPIKE CONCENTRATION	
9975-13 2.07/100	2.2	0.0	0.008	0.008	106.3 ug/L
QC				14Sep96 19:43	
QCSPIKE A	22.1	0.0	0.079	0.079	
QC				14Sep96 19:46	
				%R = 99.3	
9975-14 2.08/100	14.9	0.0	0.052	0.052	1138 ug/L
QC				14Sep96 19:48	

				%R = 87.3
CCV 16 15 QC 50/1	58.2	0.0	0.217	0.217 14Sep96 19:52 %R = 116.3
CCB 16 QC	0.7	0.0	0.002	0.002 14Sep96 19:55 ABS = 0.005 CONCENTRATION LESS THAN IDL
9975-15 QC 2.13/100	7.1	0.0	0.024	0.024 14Sep96 19:57
QCSPIKE A QC	28.5	0.0	0.105	0.105 14Sep96 19:59 %R = 107.1
9975-16 QC 2.05/100	7.7	0.0	0.027	0.027 14Sep96 20:01
QCSPIKE A QC	23.8	0.0 W	0.086	0.086 14Sep96 20:04 %R = 80.4 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9975-17 QC 2.07/100	3.0	0.0	0.010	0.010 14Sep96 20:06
QCSPIKE A QC	21.8	0.0	0.078	0.078 14Sep96 20:08 %R = 94.0

333.3 ug/kg

330.2 ug/kg

144.9 ug/kg

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SAMPLE	CONC	%RSD	MEAN ABS	READINGS
9975-18 QC 2.07/100	4.1	0.0	0.014	0.014 14Sep96 20:11
QCSPIKE A QC	23.6	0.0	0.085	0.085 14Sep96 20:13 %R = 97.4
9975-19 QC 2.12/100	3.0	0.0	0.010	0.010 14Sep96 20:15
QCSPIKE A QC	22.9	0.0	0.082	0.082 14Sep96 20:18 %R = 99.5
9975-20 QC 2.05/100	4.7	0.0	0.016	0.016 14Sep96 20:20
QCSPIKE A QC	23.0	0.0	0.083	0.083 14Sep96 20:22 %R = 91.5
PB,TS:14659 QC 2.00/0	0.5	0.0	0.002	0.002 14Sep96 20:25 CONCENTRATION LESS THAN IDL

141.5 ug/kg

129.3 ug/kg

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QCSPIKE A QC	20.0	0.0	0.075	0.075 14Sep96 20:27 %R = 103.0
LCS 1:500 QC 1000ppm 2.00/100	41.7	0.0	0.154	0.154 14Sep96 20:29 104/100 1042.5 ug/L
QCSPIKE A QC	53.0	0.0	0.197	0.197 14Sep96 20:32 %R = 56.5 %R FAILED, REPEAT BY STANDARD ADDITIONS
CCV 17 1/5 QC 50 ug/L	58.3	0.0	0.217	0.217 14Sep96 20:34 %R = 116.7
CCB 17 QC	2.0	0.0	0.007	0.007 14Sep96 20:36 ABS = 0.010
10020-3 2.07/100 QC	5.1	0.0	0.017	0.017 14Sep96 20:38 246.4 ug/L
QCSPIKE A QC	24.2	0.0	0.087	0.087 14Sep96 20:41 %R = 95.6
10020-3D 2.01/100 QC	3.6	0.0	0.012	0.012 14Sep96 20:43 AC/100 239.1 ug/L
QCSPIKE A QC	22.8	0.0	0.082	0.082 14Sep96 20:45 %R = 96.0

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SAMPLE	CONC	%RSD	MEAN ABS	READINGS
10020-4MS 1:500 QC 1000ppm 2.03/100	28.5	0.0	0.104	0.104 14Sep96 20:47 20.2/100 2019 20.4 ug/L
QCSPIKE A QC	42.8	0.0	0.159	0.159 14Sep96 20:50 %R = 71.6 %R FAILED, REPEAT BY STANDARD ADDITIONS
10020-5MD 1:500 QC 1000ppm 2.01/100	32.1	0.0	0.119	12.8/100 0.119 14Sep96 20:52 19.8/100 1975 2.5 ug/L
QCSPIKE A QC	48.7	0.0	0.181	0.181 14Sep96 20:54 %R = 83.0 %R FAILED, REPEAT BY STANDARD ADDITIONS
10020-1 2.00/100 QC	7.7	0.0	0.026	0.026 14Sep96 20:57 385.0 ug/L
QCSPIKE A QC	25.5	0.0	0.092	0.092 14Sep96 20:59 %R = 89.0
10020-2 2.00/100	5.1	0.0	0.018	0.018

QCSPIKE A QC	23.0	0.0	0.083	0.083 14Sep96 21:03 %R = 89.3	
10020-6 2.00/100 QC	6.5	0.0	0.022	0.022 14Sep96 21:06	325.0 ug/kg
QCSPIKE A QC	22.8	0.0 W	0.082	0.082 14Sep96 21:08 %R = 81.2 SAMPLE CONC <50% OF SPIKE CONCENTRATION	
10020-7 2.01/100 QC	7.5	0.0	0.026	0.026 14Sep96 21:10	323.1 ug/kg
QCSPIKE A QC	24.8	0.0	0.090	0.090 14Sep96 21:12 %R = 86.5	
CCV ~~18~~ 17 QC 50 ppb	55.6	0.0	0.207	0.207 14Sep96 21:15 %R = 111.2	
CCB 18 QC	0.2	0.0	0.001	0.001 14Sep96 21:17 ABS = 0.004 CONCENTRATION LESS THAN IDL	
10020-8 2.00/100 QC	7.3	0.0	0.025	0.025 14Sep96 21:19	365.0 ug/kg

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SAMPLE	CONC	%RSD	MEAN ABS	READINGS	
QCSPIKE A QC	26.2	0.0	0.095	0.095 14Sep96 21:21 %R = 94.1	
10020-9 2.06/100 QC	4.5	0.0	0.015	0.015 14Sep96 21:24	218.4 ug/kg
QCSPIKE A QC	25.0	0.0	0.091	0.091 14Sep96 21:26 %R = 102.6	
10020-10 2.02/100 QC	5.3	0.0	0.018	0.018 14Sep96 21:28	262.4 ug/kg
QCSPIKE A QC	24.0	0.0	0.087	0.087 14Sep96 21:30 %R = 93.6	
10020-11 2.03/100 QC	2.1	0.0	0.007	0.007 14Sep96 21:33	103.4 ug/kg
QCSPIKE A QC	17.0	0.0 W	0.060	0.060 14Sep96 21:35 %R = 74.8	

10020-12 QC 2.00/100	6.1	0.0	0.021	0.021 14Sep96 21:37
QCSPIKE A QC	20.7	0.0 W	0.074	0.074 14Sep96 21:39 %R = 72.6 SAMPLE CONC <50% OF SPIKE CONCENTRATION
10020-13 QC 3.00/100	5.5	0.0	0.019	0.019 14Sep96 21:42
QCSPIKE A QC	25.6	0.0	0.093	0.093 14Sep96 21:44 %R = 100.7
10020-15 QC 2.00/100	3.1	0.0	0.011	0.011 14Sep96 21:46
QCSPIKE A QC	21.5	0.0	0.077	0.077 14Sep96 21:49 %R = 92.2
10020-17 QC 2.00/100	0.9	0.0	0.003	0.003 14Sep96 21:51 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	19.5	0.0	0.069	0.069 14Sep96 21:53 %R = 97.3
CCV ~~19~~ 18 QC SOap	56.8	0.0	0.211	0.211 14Sep96 21:55 %R = 113.6

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SAMPLE	CONC	%RSD	MEAN ABS	READINGS
CCB 19 QC	1.8	0.0	0.006	0.006 14Sep96 21:58 ABS = 0.009
10020-18 QC 2.00/100	3.7	0.0	0.013	0.013 14Sep96 22:00
QCSPIKE A QC	22.4	0.0	0.080	0.080 14Sep96 22:02 %R = 93.5
QC	4.9	0.0	0.017	0.017 14Sep96 22:04
QCSPIKE A QC	17.5	0.0 W	0.062	0.062 14Sep96 22:07 %R = 63.3 SAMPLE CONC <50% OF SPIKE CONCENTRATION
10020-19 QC 2.00/100	6.4	0.0	0.022	0.022 14Sep96 22:09
QCSPIKE A QC	24.6	0.0	0.089	0.089 14Sep96 22:11 %R = 91.0

	7.9	0.0	0.027	0.027
QC				14Sep96 22:13
QCSPIKE A	23.9	0.0	0.086	0.086
QC		W		14Sep96 22:16
				%R = 80.1
				SAMPLE CONC <50% OF SPIKE CONCENTRATION
CCV 20	53.8	0.0	0.200	0.200
QC				14Sep96 22:18
				%R = 107.7
CCB 20	0.6	0.0	0.002	0.002
QC				14Sep96 22:20
				ABS = 0.005
				CONCENTRATION LESS THAN IDL

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Run 1

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

INCHCAPE TESTING SERVICES
NDRC LABORATORY-DALLAS
FURNACE #3

ANALYST	DATE 9/12/96
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DATA ENTRY	DATE 9-12-96
ANALYTE	INST. #

OPERATOR MARTY
DATE 9-12-96
BATCH AS

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	52
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	5
REPLICATE RSD LIMIT (%)	20.0

Std. Lot #: AB08-61I Modifier Lot #: AB08-58A
ICV Lot #: AB08-61J CCV Lot #: AB08-61I
LCS & MS/MSD Lot #: 690619

PROGRAM 1 As PLAT.3PT,Pd

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	7
LAMP CURRENT (mA)	7
SLIT WIDTH (nm)	0.2
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	193.7
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	1
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	0.95

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	200	8.0	3.0	NORMAL	NO
2	200	10.0	3.0	NORMAL	NO
3	1300	10.0	3.0	NORMAL	NO
4	1300	10.0	0.0	NORMAL	NO
5	2400	0.7	0.0	NORMAL	YES
6	2400	4.0	0.0	NORMAL	YES
7	2500	3.0	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (fL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	1	19	5
STANDARD 2	2	18	5
STANDARD 3	6	14	5
STANDARD 4	12	8	5
SAMPLE	20	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 85
INJECT RATE 10

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	48
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	49
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (fL)	20
QC STANDARD CONCENTRATION	25.0 PPB
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	1
QC SPIKE VOLUME (fL)	4
QC SPIKE CONCENTRATION	100.0 PPB
MATRIX SPIKE CONCENTRATION	0.0 PPB
INSTRUMENT DETECTION LIMIT	1.0 PPB
REQUIRED DETECTION LIMIT	10.0 PPB

ANALYST 9/12/96 DATE
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CONDITIONS FOR As :
Alternative Wavelengths (nm) : 197.2
Spectral Bandwidths (nm) : 1.0
Maximum Ash Temperature : 1500 xC
Recommended Atomize Temperature : 2600 xC
Recommended Chemical Modifiers :
Palladium Chloride (10 fL of 500 fg/mL), or Palladium solution (500-2000 fg/mL) plus reducing agent such as ascorbic acid, or Nickel Nitrate solution (50 fg/mL).
Response with Argon : 10 fL of 50ng/mL gives about 0.2 Abs. (using Pd modifier)
Modifiers allow higher ash temperatures and enhance signals.
Without modifier, maximum ash temperature for AS is 300 xC and atomize temperature is 2300 xC.
Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

PROGRAM 1 As PLAT.3PT,Pd QC ZEEMAN
BLANK REPLICATE 1
ABSORBANCE CONCENTRATION SAMPLER AUTOMIX
PEAK AREA MAX.ABS. 0.95 BC ON

AUTOMATIC RUN PAUSED PRINTING

SAMPLE LABELS

1.	2. PB,TS:14606	3. LCS
4. 9751-1 1:10	5. 9751-1DP1:10	6. 9751-2MS1:10
7. 9751-3MD1:10	8. 9751-4 1:10	9. 9459-1 1:10
10. 9459-2 1:10	11. 9459-3 1:10	12. 9653-1 1:50
13. 9653-2 1:50	14. 9653-3 1:10	15. PB,TS:14597
16. LCS 1:100	17. 9654-4	18. 9654-4DP
19. 9654-5MS:100	20. 9654-6MD:100	21. 9654-1
22. 9654-2	23. 9654-3	24. 9654-7
25. 9654-10	26. 9654-13	27. 9650-1
28. 9650-2	29. 9650-3	30. 9650-4
31. PB,TS:14636	32. LCS	33. 9929-2
34. 9929-2DP	35. 9929-2MS	36. 9929-2MD
37. 9929-1	38. 9682-1	39. 9682-2
40. 9981-1	41. 9981-2	42. 9981-3
43.	44.	45.

F INCREMENT
1 LABELS

F CALIBRATION

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK QC	0.0		0.008	0.008 12Sep96 03:01 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	5.0	0.0	0.018	0.018 12Sep96 03:03
BLANK QC	0.0		0.016	0.016 12Sep96 03:06 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	5.0	0.0	0.016	0.016 12Sep96 03:09
BLANK QC	0.0		0.011	0.011 12Sep96 03:13 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	5.0	0.0	0.029	0.029 12Sep96 03:15
STANDARD 2 QC	10.0	0.0	0.050	0.050 12Sep96 03:18
BLANK QC	0.0		-0.025	-0.025 12Sep96 03:21 CONCENTRATION LESS THAN IDL

ANALYST DATE 9/12/96
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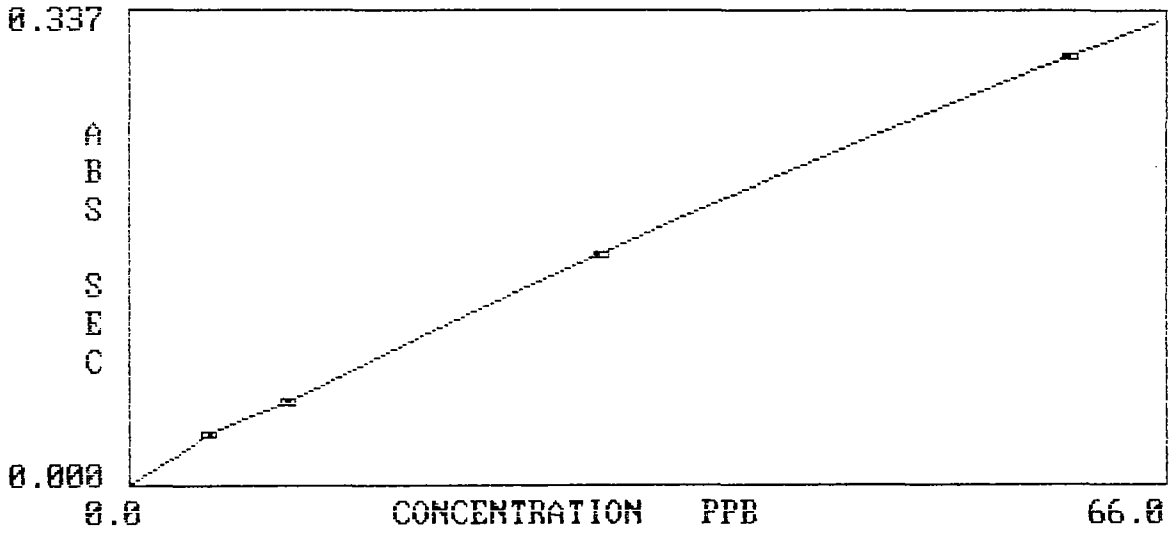
SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK	0.0		0.001	0.001
QC				12Sep96 03:24
				CONCENTRATION LESS THAN IDL
STANDARD 1	5.0	0.0	0.036	0.036
QC				12Sep96 03:26
STANDARD 2	10.0	0.0	0.058	0.058
QC				12Sep96 03:28
STANDARD 3	30.0	0.0	0.164	0.164
QC				12Sep96 03:30
STANDARD 4	60.0	0.0	0.306	0.306
QC				12Sep96 03:33

corr=0.999



9/12/96
ANALYST DATE
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DATA ENTRY DATE
ANALYTE INST.#

ICV	37.5	0.0	0.201	0.201
QC 40%		Q		12Sep96 03:35
				%R = ~~149.8~~ 93.8% mg-12-96
ICB	1.8	0.0	0.013	0.013
QC				12Sep96 03:37
				ABS = 0.015
	1.1	0.0	0.008	0.008
QC				12Sep96 03:39

1147

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	20.6	0.0	0.116	0.116 12Sep96 03:41 %R = 97.6
CCV 1 QC	24.6	0.0	0.137	0.137 12Sep96 03:43 %R = 98.3
CCB 1 QC	1.8	0.0	0.013	0.013 12Sep96 03:45 ABS = 0.015
PB,TS:14606 QC	2.0	0.0	0.014	0.014 12Sep96 03:47
QCSPIKE A QC	21.9	0.0	0.123	0.123 12Sep96 03:50 %R = 99.5
LCS QC	38.4	0.0	0.206	0.206 12Sep96 03:52
QCSPIKE A QC	61.6	0.0	0.313	0.313 12Sep96 03:54
QCSPIKE A QC	135.0	0.0	0.149	0.149 12Sep96 03:56 DF = 5.00
LCS QC	30.7	0.0	0.042	0.042 12Sep96 03:58 DF = 5.00
QCSPIKE A QC	139.7	0.0	0.154	0.154 12Sep96 04:00 DF = 5.00 %R = 109.0
9751-1 1:10 QC	10.7	0.0	0.062	0.062 12Sep96 04:02
QCSPIKE A QC	29.7	0.0	0.163	0.163 12Sep96 04:04 %R = 95.0
9751-1DP1:10 QC	13.2	0.0	0.076	0.076 12Sep96 04:06
QCSPIKE A QC	30.0	0.0	0.164	0.164 12Sep96 04:08 %R = 84.1 %R FAILED, REPEAT BY STANDARD ADDITIONS
9751-2MS1:10 QC	16.7	0.0	0.095	0.095 12Sep96 04:10
QCSPIKE A QC	35.4	0.0	0.191	0.191 12Sep96 04:12

ANALYST 9/12/96 DATE
REVIEW 9/13/96 DATE
DATA ENTRY 9-12-96 DATE
ANALYTE INST.#

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
9751-3MD1:10	17.7	0.0	0.101	0.101
QC 2.04 / 100				12Sep96 04:14
QCSPIKE A	33.9	0.0	0.184	0.184
QC				12Sep96 04:16
				%R = 81.0
				%R FAILED, REPEAT BY STANDARD ADDITIONS
9751-4 1:10	11.3	0.0	0.065	0.065
QC 2.03 / 100				12Sep96 04:18
QCSPIKE A	33.0	0.0	0.179	0.179
QC				12Sep96 04:20
				%R = 108.5
9459-1 1:10	8.6	0.0	0.053	0.053
QC 2.04 / 100				12Sep96 04:22
QCSPIKE A	27.7	0.0	0.153	0.153
QC				12Sep96 04:25
				%R = 95.3
CCV 2	22.3	0.0	0.125	0.125
QC 25/11				12Sep96 04:27
				%R = 89.1
CCB 2	1.0	0.0	0.007	0.007
QC				12Sep96 04:29
				ABS = 0.009
				CONCENTRATION LESS THAN IDL
9459-2 1:10	11.8	0.0	0.068	0.068
QC 2.03				12Sep96 04:31
QCSPIKE A 100	28.8	0.0	0.159	0.159
QC				12Sep96 04:33
				%R = 85.2
9459-3 1:10	11.8	0.0	0.068	0.068
QC 2.01 / 100				12Sep96 04:35
QCSPIKE A	30.2	0.0	0.165	0.165
QC				12Sep96 04:37
				%R = 91.9
9653-1 1:50	22.9	0.0	0.128	0.128
QC 2.02 / 100				12Sep96 04:39
QCSPIKE A	42.3	0.0	0.225	0.225
QC				12Sep96 04:41
				%R = 96.7
9653-2 1:50	33.0	0.0	0.180	0.180
QC 2.04				12Sep96 04:43
QCSPIKE A 100	50.7	0.0	0.264	0.264
QC				12Sep96 04:45
				%R = 88.2

ANALYST 9/12 DATE
REVIEW 9/12 DATE
DATA ENTRY 9/12 DATE
ANALYTE INST.#

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
9653-3 1:10 QC	14.4	0.0	0.083	0.083 12Sep96 04:47
QCSPIKE A QC	36.7	0.0	0.198	0.198 12Sep96 04:50 %R = 111.5
PB,TS:14597 QC	2.6	0.0	0.019	0.019 12Sep96 04:52
QCSPIKE A QC	24.7	0.0	0.137	0.137 12Sep96 04:54 %R = 110.3
LCS 1:100 QC	OVER	0.0	0.451	0.451 12Sep96 04:56
LCS 1:100 QC	112.1	0.0	0.126	0.126 12Sep96 04:58 DF = 5.00
QCSPIKE A QC	210.5	0.0	0.224	0.224 12Sep96 05:00 DF = 5.00 %R = 98.4
9654-4 QC	OVER	0.0	0.667B	0.667B 12Sep96 05:02
9654-4 QC	69.3	0.0	0.080	0.080 12Sep96 05:03 DF = 5.00
QCSPIKE A QC	189.6	0.0	0.204	0.204 12Sep96 05:05 DF = 5.00 %R = 120.3 %R FAILED, REPEAT BY STANDARD ADDITIONS
9654-4DP QC	OVER	0.0	0.614	0.614 12Sep96 05:07
CCV 3 QC	23.2	0.0	0.130	0.130 12Sep96 05:09 %R = 92.7
CCB 3 QC	2.9	0.0	0.021	0.021 12Sep96 05:12 ABS = 0.023
9654-4DP QC	82.0	0.0	0.094	0.094 12Sep96 05:13 DF = 5.00
QCSPIKE A QC	193.9	0.0	0.208	0.208 12Sep96 05:15 DF = 5.00 %R = 111.9

ANALYST 9/12/96 DATE
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1019

Run 2

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

IN[illegible]CAPE TESTING SERVICES
NDRC LABORATORY-DALLAS
FURNACE #3

ANALYST	DATE 9/12/96
REVIEW	DATE 9/12/96
DATA ENTRY	DATE 9-12-96
ANALYTE	INST. #

OPERATOR	MARTY
DATE	9-12-96
BATCH	AS

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	52
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	5
REPLICATE RSD LIMIT (%)	20.0

Std. Lot #: AA08-61I Modifier Lot #: AA08-55A
ICV Lot #: AA08-61J CCV Lot #: AA08-61I
LCS & MS/MSD Lot #: 690619

PROGRAM 1 As PLAT.3PT,Pd

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	7
LAMP CURRENT (mA)	7
SLIT WIDTH (nm)	0.2
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	193.7
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	1
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	0.95

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	200	8.0	3.0	NORMAL	NO
2	200	10.0	3.0	NORMAL	NO
3	1300	10.0	3.0	NORMAL	NO
4	1300	10.0	0.0	NORMAL	NO
5	2400	0.7	0.0	NORMAL	YES
6	2400	4.0	0.0	NORMAL	YES
7	2500	3.0	3.0	NORMAL	NO

SAMPLER PARAMETERS

VOLUMES (µL)

SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	1	19	5
STANDARD 2	2	18	5
STANDARD 3	6	14	5
STANDARD 4	12	8	5
SAMPLE	20	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 85
INJECT RATE 10

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	48
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	49
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	25.0 PPB
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	1
QC SPIKE VOLUME (µL)	4
QC SPIKE CONCENTRATION	100.0 PPB
MATRIX SPIKE CONCENTRATION	0.0 PPB
INSTRUMENT DETECTION LIMIT	1.0 PPB
REQUIRED DETECTION LIMIT	10.0 PPB

ANALYST	DATE 9/12/96
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CONDITIONS FOR As :
Alternative Wavelengths (nm) : 197.2
Spectral Bandwidths (nm) : 1.0
Maximum Ash Temperature : 1500°C
Recommended Atomize Temperature : 2600°C
Recommended Chemical Modifiers :
Palladium Chloride (10µL of 500µg/mL), or Palladium solution (500-2000µg/mL) plus reducing agent such as ascorbic acid, or Nickel Nitrate solution (50µg/mL).
Response with Argon : 10µL of 50ng/mL gives about 0.2 Abs. (using Pd modifier)
Modifiers allow higher ash temperatures and enhance signals.
Without modifier, maximum ash temperature for AS is 300°C and atomize temperature is 2300°C.
Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

PROGRAM 1 As PLAT.3PT,Pd QC ZEEMAN
BLANK REPLICATE 1
ABSORBANCE CONCENTRATION SAMPLER AUTOMIX
PEAK AREA MAX.ABS. 0.95 BC ON

AUTOMATIC RUN PAUSED PRINTING

SAMPLE LABELS

1.	2. PB,TS:14646	3. LCS
4. 10063-2	5. 10063-2D	6. 10063-2MS
7. 10063-2MD	8. 10071-1	9. 10071-2
10. 10071-3	11. 10062-1	12. 10062-2
13. 10062-3	14. PB,TS:14647	15. LCS
16. 10067-3	17. 10067-3D	18. 10067-3MS
19. 10067-3MD	20. 10076-1	21. 10045-1
22.	23.	24.
25.	26.	27.
28.	29.	30.
31.	32.	33.
34.	35.	36.
37.	38.	39.
40.	41.	42.
43.	44.	45.

F INCREMENT
1 LABELS

F CALIBRA-
6 TION

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK QC	0.0		0.015	0.015 12Sep96 09:22 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	5.0	0.0	0.025	0.025 12Sep96 09:24
STANDARD 2 QC	10.0	0.0	0.056	0.056 12Sep96 09:26
STANDARD 3 QC	30.0	0.0	0.159	0.159 12Sep96 09:28
STANDARD 4 QC	60.0	0.0	0.311	0.311 12Sep96 09:31

ANALYST 9/12/96 DATE
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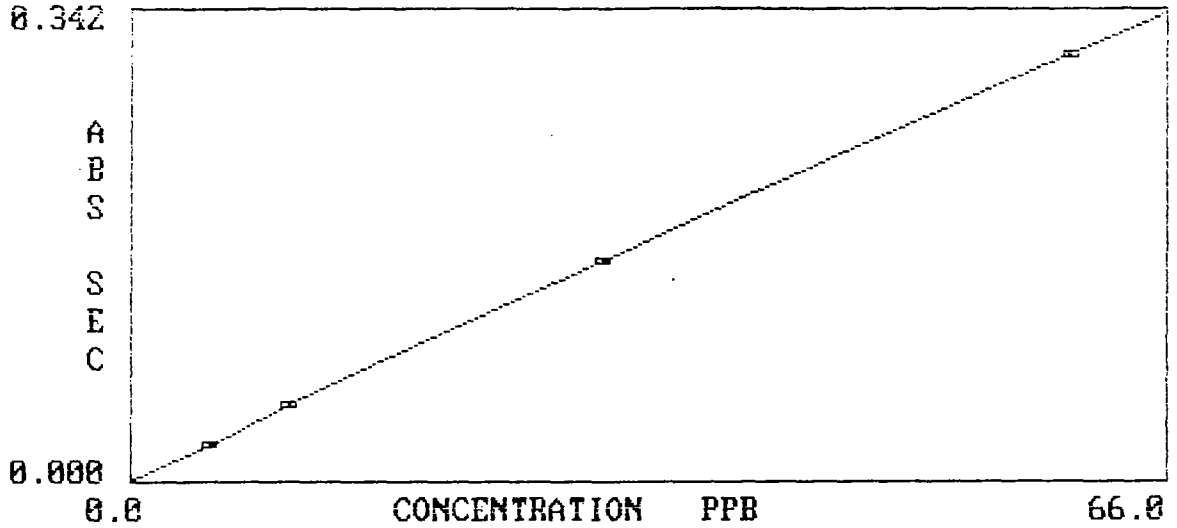

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
ICV QC 40%	40.7	0.0 Q	0.214	0.214 12Sep96 09:33 %R = ~~162.6~~ 102% 9-12-96
ICB QC	0.8	0.0	0.004	0.004 12Sep96 09:35 ABS = 0.007 CONCENTRATION LESS THAN IDL
QC	-0.6	0.0	-0.003	-0.003 12Sep96 09:37 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	21.7	0.0	0.117	0.117 12Sep96 09:39 %R = 108.3
CCV 1 QC 25%	23.8	0.0	0.128	0.128 12Sep96 09:41 %R = 95.1
CCB 1 QC	2.5	0.0	0.013	0.013 12Sep96 09:43 ABS = 0.016
PB,TS:14646 QC	1.3	0.0	0.006	0.006 12Sep96 09:45

ANALYST		9/12/96 DATE
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ANALYTE		1154

130.0 %

ANALYST	DATE
[illegible]	9/12/96
REVIEW	DATE
[illegible]	9-12-96
DATA ENTRY	DATE
[illegible]	
ANALYTE	INST. #

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS			
QCSPIKE A QC	21.2	0.0	0.115	0.115 12Sep96 %R =	 09:48 100.0		
LCS QC 4/pp. 0.500/50	37.1	0.0	0.196	0.196 12Sep96	 09:50	92.8/rev	3310.0 ug/kg
QCSPIKE A QC	54.4	0.0	0.283	0.283 12Sep96 %R =	 09:52 86.4		
10063-2 QC 0.518/50	19.9	0.0	0.108	0.108 12Sep96	 09:54		1920.8 ug/kg
QCSPIKE A QC	41.5	0.0	0.218	0.218 12Sep96 %R =	 09:56 108.1		
10063-2D QC	47.2	0.0	0.248	0.248 12Sep96	 09:58		
QCSPIKE A QC	60.4	0.0	0.313	0.313 12Sep96	 10:00		
QCSPIKE A QC	137.3	0.0	0.147	0.147 12Sep96 DF =	 10:02 5.00	59.6/rev	
10063-2D QC 0.500/50	35.5	0.0	0.037	0.037 12Sep96 DF =	 10:04 5.00		3550.0 ug/kg
QCSPIKE A QC	122.1	0.0	0.131	0.131 12Sep96 DF = %R =	 10:06 5.00 86.7		
10063-2MS QC	58.3	0.0	0.303	0.303 12Sep96	 10:08		
QCSPIKE A QC	OVER	0.0	0.407	0.407 12Sep96	 10:10		
QCSPIKE A QC	161.1	0.0	0.171	0.171 12Sep96 DF =	 10:12 5.00		
10063-2MS QC 4/pp 0.510/50	47.5	0.0	0.052	0.052 12Sep96 DF =	 10:14 5.00	68.4/rev	4656.9 ug/l
QCSPIKE A QC	157.1	0.0	0.167	0.167 12Sep96 DF = %R =	 10:16 5.00 109.5	17.5/rev	
10063-2MD QC	61.6B	0.0	0.319B	0.319B 12Sep96	 10:18		

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
10063-2MD QC	52.0	0.0	0.058	0.058 12Sep96 10:20 DF = 5.00
QCSPIKE A QC	175.8	0.0 W	0.186	0.186 12Sep96 10:22 DF = 5.00 %R = 123.8 SAMPLE CONC <50% OF SPIKE CONCENTRATION
CCV 2 QC	22.0	0.0	0.119	0.119 12Sep96 10:24 %R = 88.1
CCB 2 QC	0.4	0.0	0.002	0.002 12Sep96 10:26 ABS = 0.005 CONCENTRATION LESS THAN IDL
10071-1 QC	26.0	0.0	0.139	0.139 12Sep96 10:28
QCSPIKE A QC	42.4	0.0	0.223	0.223 12Sep96 10:30 %R = 82.0 %R FAILED, REPEAT BY STANDARD ADDITIONS
10071-2 QC	23.3	0.0	0.126	0.126 12Sep96 10:32
QCSPIKE A QC	44.7	0.0	0.235	0.235 12Sep96 10:34 %R = 106.8
10071-3 QC	30.6	0.0	0.163	0.163 12Sep96 10:36
QCSPIKE A QC	48.7	0.0	0.255	0.255 12Sep96 10:38 %R = 90.4
10062-1 QC	49.1	0.0	0.257	0.257 12Sep96 10:40
QCSPIKE A QC	60.4	0.0	0.313	0.313 12Sep96 10:42
QCSPIKE A QC	125.9	0.0	0.135	0.135 12Sep96 10:44 DF = 5.00
10062-1 QC	21.2	0.0	0.022	0.022 12Sep96 10:46 DF = 5.00
QCSPIKE A QC	~~126~~.2	0.0	0.136	0.136 12Sep96 10:48 DF = 5.00

ANALYSIS 9/12/96 DATE
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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
10062-2 QC	30.5	0.0	0.162	0.162 12Sep96 10:50
QCSPIKE A QC	46.6	0.0	0.244	0.244 12Sep96 10:52 %R = 80.5 %R FAILED, REPEAT BY STANDARD ADDITIONS
10062-3 QC	20.3	0.0	0.110	0.110 12Sep96 10:54
QCSPIKE A QC	47.9	0.0	0.251	0.251 12Sep96 10:56 %R = 138.1 %R FAILED, REPEAT BY STANDARD ADDITIONS
PB,TS:14647 QC	-0.8	0.0	-0.004	-0.004 12Sep96 10:58 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	19.6	0.0	0.106	0.106 12Sep96 11:01 %R = 97.8
LCS QC	34.1	0.0	0.181	0.181 12Sep96 11:03
QCSPIKE A QC	52.8	0.0	0.275	0.275 12Sep96 11:05 %R = 93.5
CCV 3 QC	21.1	0.0	0.115	0.115 12Sep96 11:07 %R = 84.5
CCB 3 QC	-0.9	0.0	-0.005	-0.005 12Sep96 11:09 ABS = -0.001 CONCENTRATION LESS THAN IDL
10067-3 QC	40.9	0.0	0.215	0.215 12Sep96 11:11
QCSPIKE A QC	62.5	0.0	0.324	0.324 12Sep96 11:13
QCSPIKE A QC	147.5	0.0	0.157	0.157 12Sep96 11:15 DF = 5.00
10067-3 QC	39.8	0.0	0.043	0.043 12Sep96 11:17 DF = 5.00
QCSPIKE A QC	156.1	0.0 W	0.166	0.166 12Sep96 11:19 DF = 5.00 %R = 116.3 SAMPLE CONC <50% OF SPIKE CONCENTRATION

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
10067-3D QC	37.4	0.0	0.198	0.198 12Sep96 11:21
QCSPIKE A QC	57.8	0.0	0.300	0.300 12Sep96 11:23 %R = 101.0
10067-3MS QC	OVER	0.0	0.369	0.369 12Sep96 11:25
10067-3MS QC	74.7	0.0	0.082	0.082 12Sep96 11:27 DF = 5.00
QCSPIKE A QC	177.3	0.0	0.188	0.188 12Sep96 11:29 DF = 5.00 %R = 102.6
10067-3MD QC	OVER	0.0	0.353	0.353 12Sep96 11:31
10067-3MD QC	78.5	0.0	0.086	0.086 12Sep96 11:33 DF = 5.00
QCSPIKE A QC	164.0	0.0	0.174	0.174 12Sep96 11:35 DF = 5.00 %R = 85.5
10076-1 QC	0.4	0.0	0.002	0.002 12Sep96 11:37 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	14.1 W	0.0	0.078	0.078 12Sep96 11:39 %R = 70.6 SAMPLE CONC <50% OF SPIKE CONCENTRATION
10045-1 QC	OVER	0.0	0.571	0.571 12Sep96 11:41
10045-1 QC	124.0	0.0	0.133	0.133 12Sep96 11:43 DF = 5.00
QCSPIKE A QC	220.8	0.0	0.232	0.232 12Sep96 11:45 DF = 5.00 %R = 96.9
QC	-0.2	0.0	-0.001	-0.001 12Sep96 11:47 CONCENTRATION LESS THAN IDL
QCSPIKE A	18.1	0.0	0.099	0.099

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1758

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
CCV 4	22.1	0.0	0.120	0.120
QC				12Sep96 11:51
				%R = 88.6
CCB 4	-2.7	0.0	-0.014	-0.014
QC				12Sep96 11:53
				ABS = -0.011
				CONCENTRATION LESS THAN IDL
BLANK	0.0		-0.016	-0.016
QC				12Sep96 12:12
				CONCENTRATION LESS THAN IDL
BLANK	0.0		0.013	0.013
QC				12Sep96 12:15
				CONCENTRATION LESS THAN IDL
CCV 6	24.3	0.0	0.131	0.131
QC				12Sep96 12:17
				%R = 97.1
CCB 6	0.5	0.0	0.003	0.003
QC				12Sep96 12:19
				ABS = 0.005
				CONCENTRATION LESS THAN IDL
10071-1 1:5	5.8	0.0	0.030	0.030
QC				12Sep96 12:21
QCSPIKE A	26.0	0.0	0.139	0.139
QC				12Sep96 12:24
				%R = 100.8
10062-2 1:5	5.3	0.0	0.027	0.027
QC				12Sep96 12:26
QCSPIKE A	24.8	0.0	0.133	0.133
QC				12Sep96 12:28
				%R = 97.6
10062-3 1:2	11.8	0.0	0.065	0.065
QC				12Sep96 12:30
QCSPIKE A	31.8	0.0	0.169	0.169
QC				12Sep96 12:32
				%R = 99.9
9751-1DP1:10	9.6	0.0	0.053	0.053
QC				12Sep96 12:34
QCSPIKE A	29.5	0.0	0.157	0.157
				12Sep96 12:36
				%R = 99.7
9654-4 1:5	15.8	0.0	0.087	0.087
QC				12Sep96 12:38

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	35.4	0.0	0.187	0.187 12Sep96 12:40 %R = 98.1
9654-4DP1:5 QC	15.3	0.0	0.084	0.084 12Sep96 12:42
QCSPIKE A QC	35.0	0.0	0.185	0.185 12Sep96 12:45 %R = 98.2
9682-2 1:5 QC	19.8	0.0	0.108	0.108 12Sep96 12:47
QCSPIKE A QC	40.8	0.0	0.215	0.215 12Sep96 12:49 %R = 105.1
9981-1 1:5 QC	18.6	0.0	0.101	0.101 12Sep96 12:51
QCSPIKE A QC	39.4	0.0	0.208	0.208 12Sep96 12:53 %R = 103.8
9981-2 1:5 QC	8.3	0.0	0.045	0.045 12Sep96 12:55
QCSPIKE A QC	27.9	0.0	0.149	0.149 12Sep96 12:57 %R = 98.0
9981-3 1:5 QC	8.2	0.0	0.044	0.044 12Sep96 12:59
QCSPIKE A QC	26.0	0.0	0.139	0.139 12Sep96 13:01 %R = 89.0
CCV 7 QC	23.3	0.0	0.126	0.126 12Sep96 13:03 %R = 93.1
CCB 7 QC	1.6	0.0	0.008	0.008 12Sep96 13:05 ABS = 0.011

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Run 1

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

ANALYST		9-9-96 DATE
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BENCHCAPE TESTING SERVICES
NDRC LABORATORY-DALLAS
FURNACE #2

OPERATOR	ANSON ~~MARTY~~
DATE	9-09-96
BATCH	CD

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	50
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	5
REPLICATE RSD LIMIT (%)	20.0

Std. Lot #: AB108-60J Modifier Lot #: AA108-55A

ICV Lot #: AB108-60K CCV Lot #: AB108-60J

LCS & MS/MSD Lot #: 690619

PROGRAM 44 Cd PLAT.3PT

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	6
LAMP CURRENT (mA)	4
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	228.8
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	1
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.40

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	275	5.0	3.0	NORMAL	NO
2	275	15.0	3.0	NORMAL	NO
3	1100	5.0	3.0	NORMAL	NO
4	1100	15.0	0.3	NORMAL	NO
5	2200	0.8	0.1	NORMAL	YES
6	2200	3.0	0.1	NORMAL	YES
7	2300	4.0	3.0	NORMAL	NO

SAMPLER PARAMETERS

VOLUMES (fL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	2	18	5
STANDARD 2	10	10	5
STANDARD 3	20	0	5
SAMPLE	20	0	5

RECALIBRATION RATE	0
RESLOPE RATE	0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 90
INJECT RATE 7

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	48
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	49
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (fL)	20
QC STANDARD CONCENTRATION	5.00 PPB
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	1
QC SPIKE VOLUME (fL)	6
QC SPIKE CONCENTRATION	10.00 PPB
MATRIX SPIKE CONCENTRATION	0.00 PPB
INSTRUMENT DETECTION LIMIT	0.04 PPB
REQUIRED DETECTION LIMIT	0.10 PPB

9-9-96 DATE
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CONDITIONS FOR Cd :
Alternative Wavelengths (nm) : 326.1
Spectral Bandwidths (nm) : 0.5
Maximum Ash Temperature : 300xC
Recommended Atomize Temperature : 1800xC
Recommended Chemical Modifiers :
Monobasic ammonium phosphate (5000fg/mL solution), or
Orthophosphoric acid (1000fg/mL), or
Pd solution (500-2000fg/mL) + reducing agent (ascorbic acid).
Response with Argon : 10fL of 1.1ng/mL gives about 0.2 Abs.

The ammonium phosphate modifier was used to obtain these results, giving a smooth peak shape and a maximum ash of 600xC. Palladium modifier permits a higher ashing temperature. Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK	0.00		0.010	0.010
QC				09Sep96 15:34
				CONCENTRATION LESS THAN IDL

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK QC	0.00		-0.002	-0.002 09Sep96 15:37 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	1.00	0.0	0.048	0.048 09Sep96 15:39
STANDARD 2 QC	5.00	0.0	0.220	0.220 09Sep96 15:42
STANDARD 3 QC	10.00	0.0	0.428	0.428 09Sep96 15:43

9-9-96

ANALYST	9-9-96	DATE
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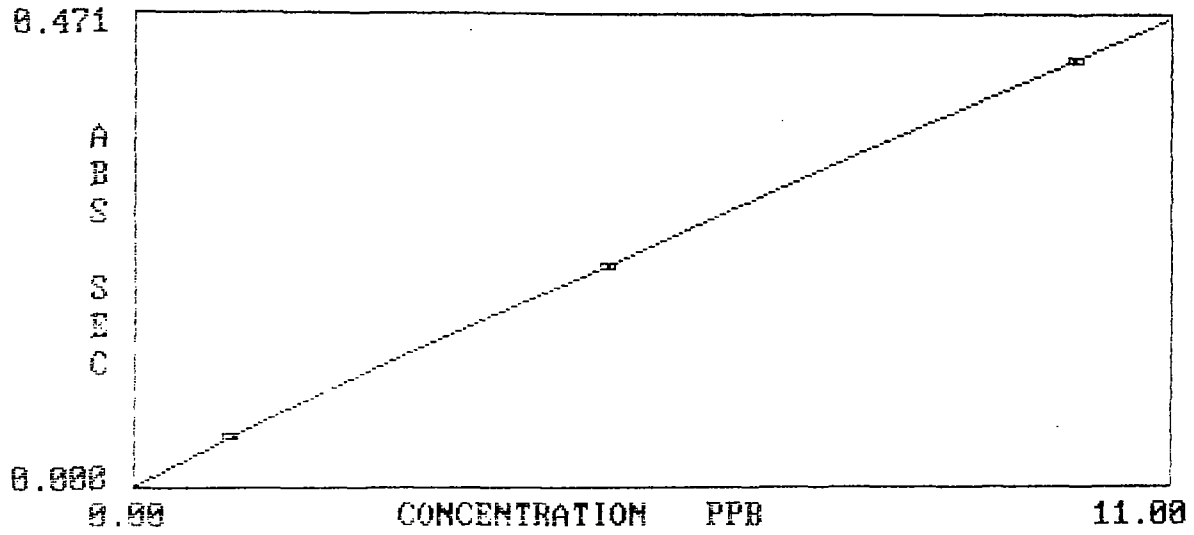
ANALYTE	INST.#	



ICV QC 6ppb	6.37	0.0 Q	0.278	0.278 09Sep96 15:46 %R = ~~127.3~~ 106 mc 9/10/96
ICB QC	-0.07	0.0	-0.003	-0.003 09Sep96 15:48 ABS = -0.001 CONCENTRATION LESS THAN IDL
1PPB STD QC	1.11	0.0	0.053	0.053 09Sep96 15:49
QCSPIKE A QC	5.75	0.0 W	0.252	0.252 09Sep96 15:52 %R = 154.7

1163

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
CCV 1 QC	5.61	0.0	0.246	0.246 09Sep96 15:54 %R = 112.2
BLANK QC	0.00		-0.001	-0.001 09Sep96 15:56 CONCENTRATION LESS THAN IDL
CCV 2 QC 5ppb	4.54	0.0	0.202	0.202 09Sep96 15:58 %R = 90.9
CCB 2 QC	-0.09	0.0	-0.004	-0.004 09Sep96 16:00 ABS = -0.002 CONCENTRATION LESS THAN IDL
1PPB STD QC	1.04	0.0	0.050	0.050 09Sep96 16:02 %R = 104
QCSPIKE A QC	5.58	0.0 W	0.245	0.245 09Sep96 16:04 %R = 151.2 SAMPLE CONC <50% OF SPIKE CONCENTRATION
CCV 3 QC 5ppb	4.96	0.0	0.218	0.218 09Sep96 16:06 %R = 99.2
CCB 3 QC	-0.07	0.0	-0.003	-0.003 09Sep96 16:08 ABS = -0.001 CONCENTRATION LESS THAN IDL
B 14603 9710-1 1:5 QC	1.56	0.0	0.074	0.074 09Sep96 16:10
QCSPIKE A QC	5.71	0.0 W	0.250	0.250 09Sep96 16:12 %R = 138.1 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9710-1D 1:5 0.503/50 QC	2.67	0.0	0.123	0.123 09Sep96 16:14
QCSPIKE A QC	5.47	0.0	0.240	0.240 09Sep96 16:16 %R = 93.3
9710-1MS 1:5 0.503/50 QC 0.3ppm	2.28	0.0	0.106	0.106 09Sep96 16:18 %R = NC
QCSPIKE A QC	4.89	0.0	0.215	0.215 09Sep96 16:20 %R = 87.1
9710-1MD 1:5 0.509/50 QC 0.3ppm	2.62	0.0	0.121	0.121 09Sep96 16:22 %R = NC

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1327 ~~265~~ ng/kg 9/10/96

2.18 %RPD

1133 ng/kg

Alt F

%RPD = NC

1287 ng/kg

1164

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	5.05	0.0	0.222	0.222 09Sep96 16:24 %R = 80.8 %R FAILED, REPEAT BY STANDARD ADDITIONS
PB,TS:14376 QC	0.02 0.500/50	0.0	0.001	0.001 09Sep96 16:26 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	2.58	0.0	0.119	0.119 09Sep96 16:28 %R = 85.9
LCS QC	0.504/50 3.72	0.0	0.168	0.168 09Sep96 16:30 %R= 36 ug/kg
QCSPIKE A QC	6.80	0.0	0.296	0.296 09Sep96 16:32 %R = 102.5
9364-11 1:10 QC	3.34	0.0	0.152	0.152 09Sep96 16:34
QCSPIKE A QC	5.02	0.0	0.221	0.221 09Sep96 16:36 %R = 56.3 %R FAILED, REPEAT BY STANDARD ADDITIONS
9364-11D QC	2.67	0.0	0.123	0.123 09Sep96 16:38
QCSPIKE A QC	6.38	0.0	0.278	0.278 09Sep96 16:40 %R = 123.5 %R FAILED, REPEAT BY STANDARD ADDITIONS
9364-11MS QC	3.33	0.0	0.152	0.152 09Sep96 16:42
QCSPIKE A QC	7.01	0.0	0.305	0.305 09Sep96 16:44 %R = 122.7 %R FAILED, REPEAT BY STANDARD ADDITIONS
9364-11MD QC	3.86	0.0	0.174	0.174 09Sep96 16:46
QCSPIKE A QC	7.71	0.0	0.334	0.334 09Sep96 16:48 %R = 128.4 %R FAILED, REPEAT BY STANDARD ADDITIONS
CCV 4 QC 6ppb	4.66	0.0	0.206	0.206 09Sep96 16:50 %R = 93.2
CCB 4 QC	-0.00	0.0	-0.000	-0.000 09Sep96 16:51 ABS = 0.002

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SAMPLE	CONC PPB		%RSD	MEAN ABS	READINGS
9364-4 1:2	3.56		0.0	0.161	0.161
QC					09Sep96 16:53
QCSPIKE A	7.55		0.0	0.328	0.328
QC					09Sep96 16:55
					%R = 133.1
					%R FAILED, REPEAT BY STANDARD ADDITIONS
9364-5	0.73		0.0	0.035	0.035
QC					09Sep96 16:57
QCSPIKE A	4.61		0.0	0.204	0.204
QC		W			09Sep96 16:59
					%R = 129.3
					SAMPLE CONC <50% OF SPIKE CONCENTRATION
9364-6	0.71		0.0	0.034	0.034
QC					09Sep96 17:01
QCSPIKE A	4.39		0.0	0.196	0.196
QC		W			09Sep96 17:03
					%R = 122.7
					SAMPLE CONC <50% OF SPIKE CONCENTRATION
9364-8 1:5	1.27		0.0	0.060	0.060
QC					09Sep96 17:05
QCSPIKE A	5.12		0.0	0.225	0.225
QC		W			09Sep96 17:07
					%R = 128.4
					SAMPLE CONC <50% OF SPIKE CONCENTRATION
9364-9	0.57		0.0	0.027	0.027
QC					09Sep96 17:09
QCSPIKE A	4.16		0.0	0.186	0.186
QC		W			09Sep96 17:11
					%R = 119.6
					SAMPLE CONC <50% OF SPIKE CONCENTRATION
9364-10	0.66		0.0	0.032	0.032
QC					09Sep96 17:13
QCSPIKE A	4.73		0.0	0.209	0.209
QC		W			09Sep96 17:15
					%R = 135.6
					SAMPLE CONC <50% OF SPIKE CONCENTRATION
9364-12 1:5	0.33		0.0	0.016	0.016
QC					09Sep96 17:17
QCSPIKE A	4.37		0.0	0.195	0.195
QC		W			09Sep96 17:19
					%R = 134.8
					SAMPLE CONC <50% OF SPIKE CONCENTRATION
9364-13	0.74		0.0	0.035	0.035
QC					09Sep96 17:21

9-9-96 DATE
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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	4.56	0.0 W	0.203	0.203 09Sep96 17:23 %R = 127.6 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9364-14 1:2 QC	1.51	0.0	0.072	0.072 09Sep96 17:25
QCSPIKE A QC	4.82	0.0	0.213	0.213 09Sep96 17:27 %R = 110.3
9364-15 1:2 QC	2.82	0.0	0.130	0.130 09Sep96 17:29
QCSPIKE A QC	6.62	0.0	0.288	0.288 09Sep96 17:31 %R = 126.4 %R FAILED, REPEAT BY STANDARD ADDITIONS
CCV 5 QC	6.12	0.0 Q	0.267	0.267 09Sep96 17:33 %R = 122.4
CCB 5 QC	0.10	0.0	0.005	0.005 09Sep96 17:35 ABS = 0.007
BLANK QC	0.00		0.004	0.004 09Sep96 17:38 CONCENTRATION LESS THAN IDL
CCV 6 QC	6.30	0.0 Q	0.275	0.275 09Sep96 17:40 %R = 126.1
BLANK QC	0.00		-0.001	-0.001 09Sep96 17:43 CONCENTRATION LESS THAN IDL
CCV 7 QC	6.27	0.0 Q	0.274	0.274 09Sep96 17:44 %R = 125.3
BLANK QC	0.00		0.001	0.001 09Sep96 17:47 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	1.00	0.0	0.058	0.058 09Sep96 17:49
STANDARD 2 QC	5.00	0.0	0.290	0.290 09Sep96 17:52
STANDARD 3 QC	10.00	0.0	0.535	0.535 09Sep96 17:53

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ANALYST
9-9-96 DATE
REVIEW
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DATA ENTRY
2 DATE
ANALYTE INST.#

1008

Run 2

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

INCHCAPE TESTING SERVICES
NORC LABORATORY-DALLAS
FURNACE #2

ANALYST — DATE 9/10/96
REVIEW — DATE 9-10-96
DATA ENTRY — DATE
ANALYTE — INST.#

OPERATOR	MARTY
DATE	9-10-96
BATCH	CD

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	50
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	5
REPLICATE RSD LIMIT (%)	20.0

Std. Lot #: AR08-61C Modifier Lot #: PR08-55A

ICV Lot #: PR08-61D CCV Lot #: PR08-61C

LCS & MS/MSD Lot #: 690619

PROGRAM 44 Cd PLAT.3PT

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	6
LAMP CURRENT (mA)	4
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	228.8
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.08
MEASUREMENT TIME (sec)	1.5
REPLICATES	3
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.500

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	275	5.0	3.0	NORMAL	NO
2	275	15.0	3.0	NORMAL	NO
3	1100	5.0	3.0	NORMAL	NO
4	1100	15.0	0.3	NORMAL	NO
5	2200	0.8	0.1	NORMAL	YES
6	2200	3.0	0.1	NORMAL	YES
7	2300	4.0	3.0	NORMAL	NO

SAMPLER PARAMETERS

VOLUMES (fL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	2	18	5
STANDARD 2	10	10	5
STANDARD 3	20	0	5
SAMPLE	20	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 90
INJECT RATE 7

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	40
QC INITIAL BLANK POSITION	81
QC CONTINUING STANDARD POSITION	47
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (fL)	20
QC STANDARD CONCENTRATION	5.00 PPB
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	1
QC SPIKE VOLUME (fL)	6
QC SPIKE CONCENTRATION	11.00 PPB
MATRIX SPIKE CONCENTRATION	0.00 PPB
INSTRUMENT DETECTION LIMIT	0.34 PPB
REQUIRED DETECTION LIMIT	2.21 PPB

ANALYST	DATE 9/10/96
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ANALYTE	INST.# 2

CONDITIONS FOR Cd :
Alternative Wavelengths (nm) : 326.1
Spectral Bandwidths (nm) : 0.5
Maximum Ash Temperature : 300xC
Recommended Atomize Temperature : 1800xC
Recommended Chemical Modifiers :
Monobasic ammonium phosphate (5000 fg/mL solution), or
Orthophosphoric acid (1000 fg/mL), or
Pd solution (500-2000 fg/mL) + reducing agent (ascorbic acid).
Response with Argon : 10 fL of 1.1ng/mL gives about 0.2 Abs.

The ammonium phosphate modifier was used to obtain these results, giving a smooth peak shape and a maximum ash of 600xC. Palladium modifier permits a higher ashing temperature. Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

QC ZEEMAN

PLAT

REPLICATI

SAMPLER AUTOMIX

ABS.

SAMPLE

1.	2. LCS:	3. LCS:14518
4.	5. PB,N	6. LCS
7.	8. RUND	9. 9169-1
10.	11.	12.
13.	14.	15.
16.	17.	18.
19.	20.	21.
22.	23.	24.
25.	26.	27.
28.	29.	30.
31.	32.	33.
34.	35.	36.
37.	38.	39.
40.	41.	42.
43.	44.	45.

CALIBRATION

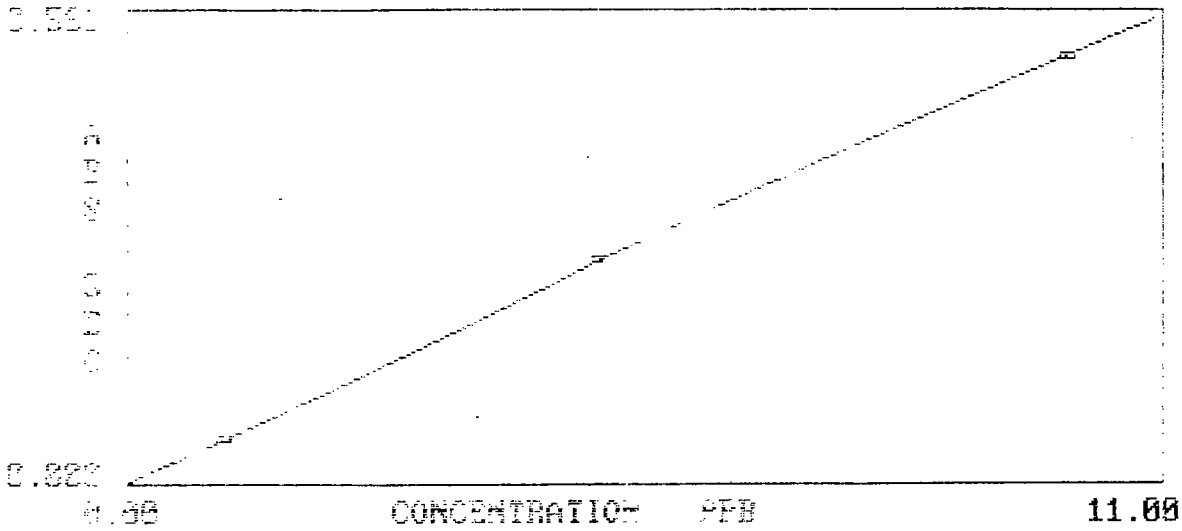
SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK	0.00		0.012	0.012
CC				10Sep96 03:58
				CONCENTRATION LESS THAN IDL
BLANK	0.00		0.000	0.000
CC				10Sep96 04:01
				CONCENTRATION LESS THAN IDL
STANDARD 1	1.00	0.0	0.051	0.051
CC				10Sep96 04:03
STANDARD 2	5.00	0.0	0.267	0.267
CC				10Sep96 04:05
STANDARD 3	10.00	0.0	0.515	0.515
CC				10Sep96 04:07

ANALYST 9/10/96 DATE

REVIEW 9-10-96 DATE

DATA ENTRY DATE

ANALYTE INST.# 1170



ANALYST			9/10/96 DATE
REVIEW			9/10/96 DATE
DATA ENTRY			DATE
ANALYTE			INST.#

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
CCV 6/1 CC	5.56	0.0	0.296	0.296 10:Sep96 04:10 %D = ~~111.2~~ 92.5% 9-10-96
ICB CC	0.06	0.0	0.003	0.003 10:Sep96 04:11 ADJ = 0.006
1PPB STD CC	1.15	0.0	0.059	0.059 10:Sep96 04:13
BLANK CC	0.00		0.003	0.003 10:Sep96 04:16 CONCENTRATION LESS THAN IDL
CCV 1 CC 5/1	4.69	0.0	0.249	0.249 10:Sep96 04:18 %D = 93.8
ICB 1 CC	-0.05	0.0	-0.003	-0.003 10:Sep96 04:20 ADJ = 0.001 CONCENTRATION LESS THAN IDL
1PPB STD CC	1.07	0.0	0.054	0.054 10:Sep96 04:22 10%/w

1171

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSTD E A QC	3.97	0.0	0.209	0.209 10Sep96 04:24 %R = 96.7
CCV 2 QC	4.90	0.0	0.261	0.261 10Sep96 04:26 %R = 98.0
CCB 2 QC	0.03	0.0	0.001	0.001 10Sep96 04:28 ABS = 0.005 CONCENTRATION LESS THAN IDL
LCS/LCSB QC	2.97	0.0	0.155	0.155 10Sep96 04:30
QCSTD E A QC	5.88	0.0	0.312	0.312 10Sep96 04:32 %R = 97.1
LCS/LCSB QC	2.78	0.0	0.145	0.145 10Sep96 04:34
QCSTD E A QC	5.90	0.0	0.313	0.313 10Sep96 04:36 %R = 104.0
960[illegible] QC	4.75	0.0	0.253	0.253 10Sep96 04:38
QCSTD E A QC	6.52	0.0	0.344	0.344 10Sep96 04:40 %R = 59.2 %R FAILED, REPEAT BY STANDARD ADDITION
PB,VL: QC	0.09	0.0	0.004	0.004 10Sep96 04:42
QCSTD E A QC	2.74	0.0	0.142	0.142 10Sep96 04:44 %R = 88.5
LCS QC	5.11	0.0	0.273	0.273 10Sep96 04:46
QCSTD E A QC	7.84	0.0	0.410	0.410 10Sep96 04:48 %R = 91.0
RWE QC	5.12	0.0	0.273	0.273 10Sep96 04:50
QCSTD E A QC	7.66	0.0	0.401	0.401 10Sep96 04:52 %R = 84.7 %R FAILED, REPEAT BY STANDARD ADDITION

ANALYST DATE 9/10/96
REVIEW DATE 9/10/96
DATA ENTRY DATE 9-10-96
ANALYTE INST.#

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
RWMD QC	5.09	0.0	0.271	0.271 10Sep96 04:54
QCSPIKE A QC	7.26	0.0	0.381	0.381 10Sep96 04:56 %R = 72.3 %R FAILED, REPEAT BY STANDARD ADDITIONS
9167 1 QC	OVER	0.0	2.664	2.664 10Sep96 04:58
9167 1 QC	OVER	0.0 D	1.094	1.094 10Sep96 04:59 DF = 5.00 REDUCED SAMPLE VOLUME LESS THAN 1 fL
QCSPIKE A QC	OVER	0.0 DE	1.158	1.158 10Sep96 05:01 DF = 5.00 %R = 0.0 REDUCED SAMPLE VOLUME LESS THAN 1 fL
9167 1D QC	1.88	0.0	0.097	0.097 10Sep96 05:03
QCSPIKE A QC	3.71	0.0	0.195	0.195 10Sep96 05:05 %R = 60.9 %R FAILED, REPEAT BY STANDARD ADDITIONS
CCV 3 QC S/1	5.35	0.0	0.285	0.285 10Sep96 05:07 %R = 106.9
CCB 3 QC	0.17	0.0	0.009	0.009 10Sep96 05:09 ABS = 0.013
BLANK QC	0.00		-0.001	-0.001 10Sep96 05:14 CONCENTRATION LESS THAN IDL
CCV 4 QC S/1	4.84	0.0	0.258	0.258 10Sep96 05:16 %R = 96.9
CCB 4 QC	-0.06	0.0	-0.003	-0.003 10Sep96 05:18 ABS = 0.000 CONCENTRATION LESS THAN IDL
PB.NL (091090A1) QC	-0.02	0.0	-0.001	-0.001 10Sep96 05:19 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	3.13	0.0	0.163	0.163 10Sep96 05:22 %R = 104.3

ANALYST VE DATE 9/10/96
REVIEW VE DATE 9/10/96
DATA ENTRY Cd DATE 9-10-96
ANALYTE INST.#

1173

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCC QC 5/11	5.06	0.0	0.270	0.270 10Sep96 05:23 101/ac 5.06
QCSPIKE A QC	7.89	0.0	0.413	0.413 10Sep96 05:25 %R = 94.4
RWMC QC 5/11	5.11	0.0	0.273	0.273 10Sep96 05:27 102/ac 5.11
QCSPIKE A QC	7.14	0.0	0.375	0.375 10Sep96 05:29 %R = 67.6 %R FAILED, REPEAT BY STANDARD ADDITION 0.98/ac
RWMC QC 5/11	5.15	0.0	0.275	0.275 10Sep96 05:31 103/ac 5.15
QCSPIKE A QC	8.74	0.0	0.454	0.454 10Sep96 05:33 %R = 119.9 %R FAILED, REPEAT BY STANDARD ADDITION
9107 1/100 QC	1.64	0.0	0.084	0.084 10Sep96 05:35 164.0 8.92/ac
QCSPIKE A QC	4.33	0.0	0.229	0.229 10Sep96 05:37 %R = 89.5
9107 1D QC	1.64	0.0	0.084	0.084 10Sep96 05:39
QCSPIKE A QC from 14666	3.81	0.0	0.201	0.201 10Sep96 05:41 %R = 72.3 %R FAILED, REPEAT BY STANDARD ADDITION
9653-11:5 QC 2.02/100	2.27	0.0	0.117	0.117 10Sep96 05:43 561.9
QCSPIKE A QC	5.43	0.0	0.289	0.289 10Sep96 05:45 %R = 105.2
QC	0.02	0.0	0.001	0.001 10Sep96 05:47 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	3.37	0.0	0.177	0.177 10Sep96 05:49 %R = 112.4
QC	-0.05	0.0	-0.003	-0.003 10Sep96 05:51 CONCENTRATION LESS THAN IDL

ANALYST 9/10/96 DATE
REVIEW 9/10/96
DATA ENTRY DATE
ANALYTE INST.#

1174

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	3.27	0.0	0.171	0.171 10Sep96 05:53 %R = 109.0
QC	-0.03	0.0	-0.001	-0.001 10Sep96 05:55 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	3.23	0.0	0.169	0.169 10Sep96 05:57 %R = 107.8
CCV 5 QC S.4 11	4.90	0.0	0.262	0.262 10Sep96 05:59 %R = 98.1
CCB 5 QC	-0.00	0.0	-0.000	-0.000 10Sep96 06:01 ABS = 0.003 CONCENTRATION LESS THAN IDL
QC	1.53	0.0	0.078	0.078 10Sep96 06:03
QCSPIKE A QC	3.22	0.0	0.168	0.168 10Sep96 06:05 %R = 56.4 %R FAILED, REPEAT BY STANDARD ADDITION
QC	-0.02	0.0	-0.001	-0.001 10Sep96 06:07 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	3.04	0.0	0.159	0.159 10Sep96 06:09 %R = 101.4
11-9-10-96 9169-10 1:100 QC	1.50	0.0	0.077	0.077 10Sep96 06:11
QCSPIKE A QC	4.64	0.0	0.247	0.247 10Sep96 06:13 %R = 104.8
QC	0.02	0.0	0.001	0.001 10Sep96 06:15 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	3.02	0.0	0.157	0.157 10Sep96 06:17 %R = 100.5
QC	-0.03	0.0	-0.001	-0.001 10Sep96 06:19 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	2.86	0.0	0.149	0.149 10Sep96 06:21 %R = 95.3

9/10/96
ANALYST DATE
9/10/96
REVIEW DATE
DATA ENTRY DATE
ANALYTE INST.#

150.0%

1175

(1004)

Varian SpectrAA 300/400 Zeeman QC Protocol Report

INCHCAPE TESTING SERVICES
NDRC LABORATORY-DALLAS
FURNACE #1

ANALYST 9/9/96 DATE
REVIEW 9-9-96 DATE
DATA ENTRY / DATE
ANALYTE INST. #

OPERATOR	MARTY
DATE	9-9-96
BATCH	CR

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	50
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	5
REPLICATE RSD LIMIT (%)	20.0

Std. Lot #: [illegible] Modifier Lot #: ———

ICV Lot #: [illegible] CCV Lot #: [illegible]

LCS & MS/MSD Lot #: 690619

PROGRAM 21 Cr 3PT.

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK HEIGHT
LAMP POSITION	3
LAMP CURRENT (mA)	7
SLIT WIDTH (nm)	0.2
SLIT HEIGHT	REDUCED
WAVELENGTH (nm)	357.9
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	1
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	2.00

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	300	25.0	3.0	NORMAL	NO
2	1475	5.0	3.0	NORMAL	NO
3	1475	1.0	3.0	NORMAL	NO
4	1475	2.0	3.0	NORMAL	NO
5	2700	0.7	0.0	NORMAL	YES
6	2700	3.0	0.0	NORMAL	YES
7	2800	4.0	3.0	NORMAL	NO

SAMPLER PARAMETERS

VOLUMES (fL)

SOLUTION	BLANK	MODIFIER
BLANK	--	20	0
STANDARD 1	2	18	0
STANDARD 2	8	12	0
STANDARD 3	16	4	0
SAMPLE	20	0	0

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 95
INJECT RATE 7

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	48
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	49
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (fL)	20
QC STANDARD CONCENTRATION	25.0 ppb
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	1
QC SPIKE VOLUME (fL)	8
QC SPIKE CONCENTRATION	50.0 ppb
MATRIX SPIKE CONCENTRATION	0.0 ppb
INSTRUMENT DETECTION LIMIT	0.4 ppb
REQUIRED DETECTION LIMIT	1.0 ppb

VEC 9/9/96
ANALYST DATE
REVIEW 9/9/96 DATE
DATA ENTRY DATE
ANALYTE INST:#

CONDITIONS FOR Cr :
Alternative Wavelengths (nm) : 429.0 520.8 520.5
Spectral Bandwidths (nm) : 0.5 0.2 0.2
Maximum Ash Temperature : 1100xC
Recommended Atomize Temperature : 2600xC
Recommended Chemical Modifiers :
Palladium Chloride (500-2000 fg/mL) plus a reducing agent such as ascorbic acid.
Response with Argon : 10fL of 7.5ng/mL gives about 0.2 Abs.

The chemical modifier permits the use of a higher ashing temperature.
Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

PROGRAM 21 Cr 3PT. QC ZEEMAN
BLANK REPLICATE 1
ABSORBANCE CONCENTRATION SAMPLER AUTOMIX
PEAK HEIGHT MAX.ABS. 2.00 BC ON

AUTOMATIC RUN PAUSED PRINTING

SAMPLE LABELS

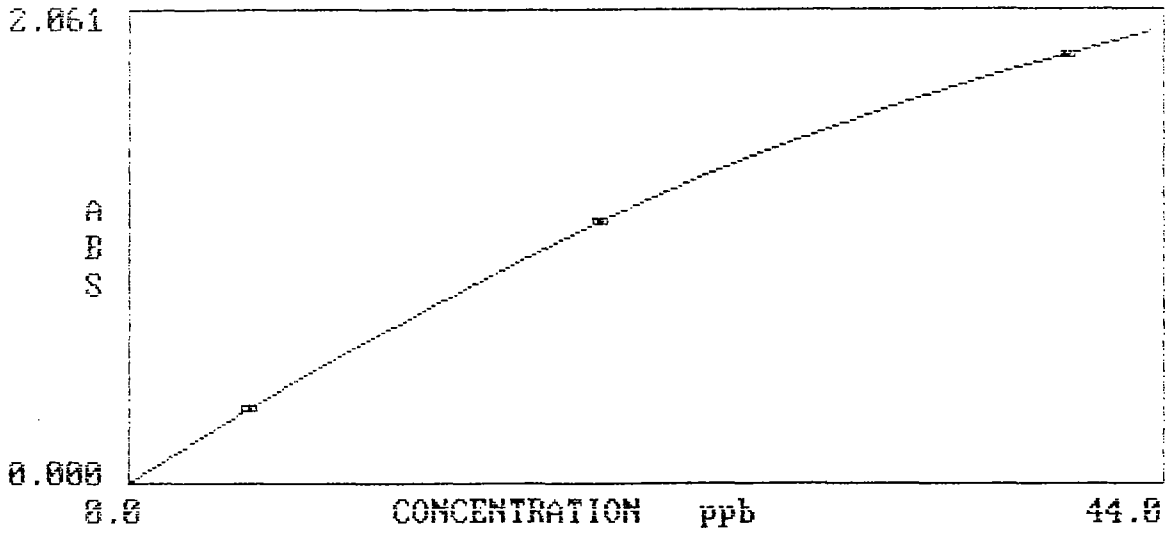
1. 5 PPB STD	2. PB,TS:14597	3. LCS :100
4. 9654-4 1:40	5. 9654-4D :40	6. 9654-4MS :40
7. 9654-4MD :40	8. 9653-1 1:25	9. 9653-2 1:20
10. 9653-3 1:20	11.	12.
13.	14.	15.
16.	17.	18.
19.	20.	21.
22.	23.	24.
25.	26.	27.
28.	29.	30.
31.	32.	33.
34.	35.	36.
37.	38.	39.
40.	41.	42.
43.	44.	45.

F INCREMENT
1 LABELS

F CALIBRA
5 TION

SAMPLE	CONC ppb	%RSD	MEAN ABS	READINGS
BLANK QC	0.0		0.004	0.004 09Sep96 06:42 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	5.0	0.0	0.318	0.318 09Sep96 06:44
STANDARD 2 QC	20.0	0.0	1.143	1.143 09Sep96 06:45
STANDARD 3 QC	40.0	0.0	1.873	1.873 09Sep96 06:47

ANALYST 9/9/96 DATE
REVIEW 9-9-96 DATE
DATA ENTRY DATE
ANALYTE INST. #



SAMPLE	CONC ppb	%RSD	MEAN ABS	READINGS
ICV QC 18/5 4	17.6	0.0 Q	1.023	1.023 09Sep96 06:49 %R = ~~70.4~~ 97.8 11-9-96
ICB QC	0.0	0.0	0.003	0.003 09Sep96 06:50 ABS = 0.007 CONCENTRATION LESS THAN IDL
5 PPB STD QC	4.4	0.0	0.282	0.282 09Sep96 06:52
QCSPIKE A QC	24.7	0.0	1.350	1.350 09Sep96 06:53 %R = 101.4
CCV 1 QC 5/5 4	24.4	0.0	1.339	1.339 09Sep96 06:55 %R = 97.7
CCB 1 QC	0.0	0.0	0.002	0.002 09Sep96 06:56 ABS = 0.006 CONCENTRATION LESS THAN IDL

ANALYST [signature] DATE 9/9/96
REVIEW [signature] DATE 9-9-96
DATA ENTRY [signature] DATE /
ANALYTE INST.# 1179

SAMPLE	CONC ppb	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	22.6	0.0	1.260	1.260 09Sep96 06:59 %R = 103.3
LCS :100 QC	OVER	0.0	4.000B	4.000B 09Sep96 07:00
LCS :100 QC	OVER D	0.0	4.000*	4.000* 09Sep96 07:02 DF = 5.00 REDUCED SAMPLE VOLUME LESS THAN 1 fL
QCSPIKE A QC	OVER DE	0.0	4.000*	4.000* 09Sep96 07:03 DF = 5.00 %R = 0.0 REDUCED SAMPLE VOLUME LESS THAN 1 fL
9654-4 1:40 QC	6.5	0.0	0.408	0.408 09Sep96 07:05
QCSPIKE A QC	20.1 W	0.0	1.150	1.150 09Sep96 07:06 %R = 68.4 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9654-4D :40 QC	5.4	0.0	0.342	0.342 09Sep96 07:08
QCSPIKE A QC	9.0 E	0.0	0.556	0.556 09Sep96 07:09 %R = 18.1 %R LESS THAN MINIMUM LIMIT
9654-4MS :40 QC	4.1	0.0	0.263	0.263 09Sep96 07:11
QCSPIKE A QC	41.7	0.0	1.923	1.923 09Sep96 07:12
QCSPIKE A QC	96.6	0.0	1.109	1.109 09Sep96 07:14 DF = 5.00
9654-4MS :40 QC	11.2	0.0	0.142	0.142 09Sep96 07:15 DF = 5.00
QCSPIKE A QC	10.0 E	0.0	0.127	0.127 09Sep96 07:17 DF = 5.00 %R = -1.2 %R LESS THAN MINIMUM LIMIT
9654-4MD :40 QC	2.3	0.0	0.146	0.146 09Sep96 07:18

ANALYST 9/9/96 DATE
REVIEW 9/9/96 DATE
DATA ENTRY DATE
ANALYTE INST.#

SAMPLE	CONC ppb	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	39.1	0.0 W	1.849	1.849 09Sep96 07:20 %R = 184.2 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9653-1 1:25 QC	11.3	0.0	0.685	0.685 09Sep96 07:21
QCSPIKE A QC	32.6	0.0	1.645	1.645 09Sep96 07:23 %R = 106.5
9653-2 1:20 QC	13.4	0.0	0.802	0.802 09Sep96 07:24
QCSPIKE A QC	38.4	0.0	1.827	1.827 09Sep96 07:26 %R = 124.9 %R FAILED, REPEAT BY STANDARD ADDITIONS
CCV 2 QC	24.2	0.0	1.329	1.329 09Sep96 07:27 %R = 96.8
CCB 2 QC	0.5	0.0	0.032	0.032 09Sep96 07:29 ABS = 0.036
9653-3 1:20 QC	13.7	0.0	0.816	0.816 09Sep96 07:30
QCSPIKE A QC	31.6	0.0	1.611	1.611 09Sep96 07:32 %R = 89.5
QC	0.5	0.0	0.031	0.031 09Sep96 07:33
QCSPIKE A QC	19.7	0.0	1.130	1.130 09Sep96 07:35 %R = 96.2
QC	0.6	0.0	0.037	0.037 09Sep96 07:36
QCSPIKE A QC	20.2	0.0	1.155	1.155 09Sep96 07:38 %R = 98.3
QC	0.2	0.0	0.013	0.013 09Sep96 07:40 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	20.6	0.0	1.171	1.171 09Sep96 07:41 %R = 103.0

ANALYST 9/9/96 DATE
REVIEW 9-9-96 DATE
DATA ENTRY DATE
ANALYTE INST.#

1131

SAMPLE	CONC ppb	%RSD	MEAN ABS	READINGS
QC	0.4	0.0	0.024	0.024 09Sep96 07:43 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	0.3	0.0 E	0.020	0.020 09Sep96 07:44 %R = 1.5 %R LESS THAN MINIMUM LIMIT CONCENTRATION LESS THAN IDL
QC	0.3	0.0	0.016	0.016 09Sep96 07:46 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	20.6	0.0	1.170	1.170 09Sep96 07:47 %R = 102.9
BLANK QC	0.0		0.008	0.008 09Sep96 07:52 CONCENTRATION LESS THAN IDL
CCV 3 QC	24.0	0.0	1.321	1.321 09Sep96 07:54 %R = 96.0
CCB 3 QC	0.0	0.0	0.001	0.001 09Sep96 07:55 ABS = 0.013 CONCENTRATION LESS THAN IDL
LCS 1:100 QC	18.6	0.0	1.073	1.073 09Sep96 07:56
QCSPIKE A QC	39.4	0.0	1.857	1.857 09Sep96 07:58 %R = 104.2
9654-4 1:40 QC	6.4	0.0	0.404	0.404 09Sep96 07:59
QCSPIKE A QC	24.8	0.0	1.353	1.353 09Sep96 08:01 %R = 91.8
9654-4D 1:40 QC	6.9	0.0	0.431	0.431 09Sep96 08:03
QCSPIKE A QC	24.5	0.0	1.341	1.341 09Sep96 08:04 %R = 88.0
9654-4MS 1:40 QC	OVER	0.0	2.002*	2.002* 09Sep96 08:06
9654-4MS 1:40 QC	48.8	0.0	0.600	0.600 09Sep96 08:07

ANALYST 01/9/96 DATE
REVIEW 9-9-96 DATE
DATA ENTRY / DATE
ANALYTE INST.#

93000.0 ug/kg

1230?.? ug/kg

13463.4 ug/kg

1182

SAMPLE	CONC ppb	%RSD	MEAN ABS	READINGS		
QCSPIKE A QC	145.2	0.0	1.521	1.521 09Sep96 08:08 DF = 5.00 %R = 96.4		
9654-4MD (:40 QC	42.9	0.0	1.959	1.959 09Sep96 08:10	9.58 /kg	
9654-4MD (:40 QC 100ppm 2.00/100	44.9	0.0	0.556	0.556 09Sep96 08:11 DF = 5.00	77.5 /ee	89800.0 ug/kg
QCSPIKE A QC	145.7	0.0	1.524	1.524 09Sep96 08:12 DF = 5.00 %R = 100.7		
9653-2 1:25 QC 2.05/100	10.6	0.0	0.646	0.646 09Sep96 08:14		12926.8 ug/kg
QCSPIKE A QC	33.5	0.0	1.678	1.678 09Sep96 08:16 %R = 114.8		
QC	0.3	0.0	0.018	0.018 09Sep96 08:17 CONCENTRATION LESS THAN IDL		
QCSPIKE A QC	20.2	0.0	1.153	1.153 09Sep96 08:19 %R = 101.0		
BLANK QC	0.0		0.008	0.008 09Sep96 08:21 CONCENTRATION LESS THAN IDL		
CCV 4 QC 5.5ppb	24.3	0.0	1.336	1.336 09Sep96 08:22 %R = 97.4		
CCB 4 QC	-0.1	0.0	-0.005	-0.005 09Sep96 08:24 ABS = 0.014 CONCENTRATION LESS THAN IDL		

ANALYST 9/9/96 DATE

REVIEW 9/9/96 DATE

DATA ENTRY 9-9-96 DATE

ANALYTE INST. #

(1617)

Run 1

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

INCHCAPE TESTING SERVICES
NDRC LABORATORY-DALLAS
FURNACE #2

ANAL/INIT 9/12/96 DATE
REVIEW 9-12-96 DATE
DATA ENTRY 9-12-96 DATE
PB 1 DATE
ANALYTE INST.#

OPERATOR	MARTY
DATE	9-12-96
BATCH	PB

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	50
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	5
REPLICATE RSD LIMIT (%)	20.0

Std. Lot #: AB208-61I Modifier Lot #: CR208-55A

ICV Lot #: AB208-61J CCV Lot #: AB208-61I

LCS & MS/MSD Lot #: 690619

PROGRAM 42 Pb PLATFORM 3PT. Pd

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	2
LAMP CURRENT (mA)	3
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	283.3
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	1
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.40

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	250	15.0	3.0	NORMAL	NO
2	250	10.0	3.0	NORMAL	NO
3	1600	10.0	3.0	NORMAL	NO
4	1600	8.0	3.0	NORMAL	NO
5	1600	2.0	0.3	NORMAL	NO
6	2600	0.5	0.0	NORMAL	YES
7	2600	4.0	0.0	NORMAL	YES
8	2700	5.0	3.0	NORMAL	NO

SAMPLER PARAMETERS

VOLUMES (fL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	1	19	5
STANDARD 2	3	17	5
STANDARD 3	10	10	5
STANDARD 4	20	0	5
SAMPLE	20	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 90
INJECT RATE 7

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	48
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	49
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (fL)	20
QC STANDARD CONCENTRATION	30.00 PPB
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	1
QC SPIKE VOLUME (fL)	4
QC SPIKE CONCENTRATION	100.00PPB
MATRIX SPIKE CONCENTRATION	0.00 PPB
INSTRUMENT DETECTION LIMIT	0.43 PPB
REQUIRED DETECTION LIMIT	3.00 PPB

NA 9/12/96
ANALYST DATE
9-18-96
REVIEW DATE
9-12-96
DATA ENTRY DATE
2
ANALYTE INST.#

CONDITIONS FOR Pb :
Alternative Wavelengths (nm) : 217.0 261.4
Spectral Bandwidths (nm) : 1.0 0.5
Maximum Ash Temperature : 600xC
Recommended Atomize Temperature : 2100xC
Recommended Chemical Modifiers :
Orthophosphoric acid (1000 fg/mL), or
Ammonium dihydrogen orthophosphate (5mg/mL), or
EDTA, citrate, oxalate (0.5 - 1% v/v), or
Palladium Chloride (500-2000 fg/mL) plus ascorbic acid.
Response with Argon : 10 fL of 27ng/mL gives about 0.2 Abs.

Background may be higher at the 217.0nm line, for which the MAX.ABS. is 0.6 and the MSR is 71%.
Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

PROGRAM 42 Pb PLATINUM 3PT. Pd QC ZEEMAN
BLANK REPLICATE 1
ABSORBANCE CONCENTRATION SAMPLER AUTOMIX
PEAK AREA MAX.ABS. * 99 BC ON

AUTOMATIC RUN PARSED PRINTING

SAMPLE LABELS

1. 5PPB STD	2. 9697-2	3. 9697-5
4. 9697-6	5. 9697-7	6. 9697-8
7. 9697-9	8. 9697-10	9. PB,NL:14527
10. LCS	11. 9696-3 1:5	12. 9696-3D:5
13. 9696-3MS:5	14. 9696-3MA:5	15. 9696-1
16. 9696-2	17. 9696-4	18. 9696-8
19. 9697-11	20. 9697-12	21. 9697-13
22. 9697-14	23. 9697-15	24. PB,TL:14518
25. LCS	26. 9603-4	27. 9603-4D
28. 9603-4MS	29. 9603-4mS	30. 9603-4MD
31. 9226-9	32. 9226-11	33. ANALYST 9/12/96 DATE
34.	35.	36. REVIEW 9-12-96 DATE
37.	38.	39. DATA ENTRY 9-12-96 DATE
40.	41.	42. ANALYTE INST.#
43.	44.	45.

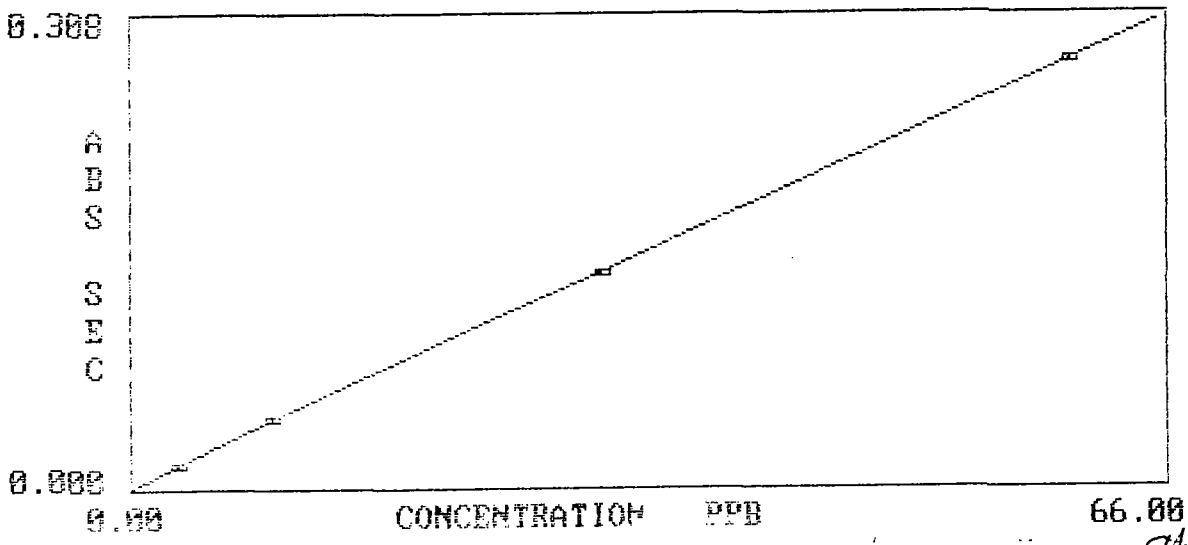
P INCREMENT
1 LABELS

F CALIBRA-
5 TION

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK	0.00		0.009	0.009
QC				12Sep96 01:43
				CONCENTRATION LESS THAN IDL
BLANK	0.00		-0.007	-0.007
QC				12Sep96 01:46
				CONCENTRATION LESS THAN IDL
STANDARD 1	3.00	0.0	0.003	0.003
QC				12Sep96 01:48
BLANK	0.00		0.003	0.003
QC				12Sep96 01:51
				CONCENTRATION LESS THAN IDL
STANDARD 1	3.00	0.0	-0.000	-0.000
QC				12Sep96 01:54
BLANK	0.00		-0.001	-0.001
QC				12Sep96 02:00
				CONCENTRATION LESS THAN IDL
STANDARD 1	3.00	0.0	0.015	0.015
QC				12Sep96 02:02

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
STANDARD 3 CC	30.00	0.0	0.141	0.141 12Sep96 02:06
STANDARD 4 CC	60.00	0.0	0.280	0.280 12Sep96 02:08

corr=0.999



ANALYST 9/12/96 DATE
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ICV CC 30%	19.79	0.0 Q	0.096	0.096 12Sep96 02:11 %R = ~~66.0~~ 99% = 97.2%
ICB CC	0.33	0.0	0.002	0.002 12Sep96 02:13 ABS = 0.002 CONCENTRATION LESS THAN IDL
5PPB STD CC	5.20	0.0	0.026	0.026 12Sep96 02:15 104% rec
QCSPIKE A CC	16.73	0.0 W	0.081	0.081 12Sep96 02:17 %R = 57.7 SAMPLE CONC <50% OF SPIKE CONCENTRATION
CCV 1 CC 30%	30.53	0.0	0.144	0.144 12Sep96 02:19

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ANALYST					DATE 9/12/96
REVIEW					DATE 9-12-96
DATA ENTRY					DATE 9-12-96
ANALYTE					INST.#

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS	
CCB 1 QC from 14526	0.48	0.0	0.002	0.002 12Sep96 02:21 ABS = 0.003 CONCENTRATION LESS THAN IDL	
9697-2 QC	2.56	0.0	0.013	0.013 12Sep96 02:23	2.56 ug/L
QCSPIKE A QC	20.12	0.0	0.097	0.097 12Sep96 02:25 %R = 87.8	
9697-5 QC	2.85	0.0	0.014	0.014 12Sep96 02:27	2.85 ug/L
QCSPIKE A QC	19.89	0.0	0.096	0.096 12Sep96 02:30 %R = 85.2	
9697-6 QC	4.07	0.0	0.020	0.020 12Sep96 02:32	4.07 ug/L
QCSPIKE A QC	22.76	0.0	0.109	0.109 12Sep96 02:34 %R = 93.4	
9697-7 QC	41.80	0.0	0.196	0.196 12Sep96 02:36	
QCSPIKE A QC	61.83	0.0	0.288	0.288 12Sep96 02:38	
QCSPIKE A QC	135.73	0.0	0.129	0.129 12Sep96 02:40 DF = 5.00	
9697-7 QC	34.50	0.0	0.034	0.034 12Sep96 02:42 DF = 5.00	34.5 ug/L
QCSPIKE A QC	133.10	0.0	0.126	0.126 12Sep96 02:44 DF = 5.00 %R = 98.6	
9697-8 QC	5.80	0.0	0.029	0.029 12Sep96 02:46	5.80 ug/L
QCSPIKE A QC	25.03	0.0	0.119	0.119 12Sep96 02:48 %R = 96.2	
9697-9 QC	7.96	0.0	0.040	0.040 12Sep96 02:50	7.96 ug/L
QCSPIKE A	28.06	0.0	0.133	0.133 12Sep96 02:52	

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
9697-10 QC	6.87	0.0	0.034	0.034 12Sep96 02:54
QCSPIKE A QC	27.27	0.0	0.129	0.129 12Sep96 02:56 %R = 102.0
PB,NL:14527 QC	0.39	0.0	0.002	0.002 12Sep96 02:58 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	18.82	0.0	0.091	0.091 12Sep96 03:00 %R = 94.1
CCV 2 QC	29.88	0.0	0.141	0.141 12Sep96 03:02 %R = 99.6
CCB 2 QC	0.49	0.0	0.002	0.002 12Sep96 03:04 ABS = 0.003
LCS QC	64.51	0.0	0.300	0.300 12Sep96 03:06
LCS QC	66.40	0.0	0.065	0.065 12Sep96 03:08 DF = 5.00
BLANK QC	0.00		-0.000	-0.000 12Sep96 03:11 CONCENTRATION LESS THAN IDL
CCV 3 QC	29.71	0.0	0.140	0.140 12Sep96 03:13 %R = 99.0
CCB 3 QC	0.08	0.0	0.000	0.000 12Sep96 03:15 ABS = 0.001 CONCENTRATION LESS THAN IDL
PB,TL:14518 QC	1.28	0.0	0.006	0.006 12Sep96 03:17
QCSPIKE A QC	19.53	0.0	0.094	0.094 12Sep96 03:20 %R = 91.2
LCS QC	15.17	0.0	0.074	0.074 12Sep96 03:22
QCSPIKE A QC	27.34	0.0	0.130	0.130 12Sep96 03:24 %R = 60.9

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ANALYTE INST.#

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ANALYST 9/12/96 DATE
REVIEW 9-12-96 DATE
DATA ENTRY 9-12-96 DATE
ANALYTE INST.:

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
9603-4 QC	8.53	0.0	0.042	0.042 12Sep96 03:26
QCSPIKE A QC	24.39	0.0	0.116	0.116 12Sep96 03:28 %R = 79.3 %R FAILED, REPEAT BY STANDARD ADDITIONS
9603-4D QC	8.50	0.0	0.042	0.042 12Sep96 03:30
QCSPIKE A QC	31.08	0.0	0.146	0.146 12Sep96 03:32 %R = 112.9
9603-4MS QC	27.13	0.0	0.129	0.129 12Sep96 03:34
QCSPIKE A QC	49.11	0.0	0.230	0.230 12Sep96 03:36 %R = 109.9
9603-4MD QC	27.83	0.0	0.132	0.132 12Sep96 03:38
QCSPIKE A QC	50.06	0.0	0.234	0.234 12Sep96 03:41 %R = 111.2
4126-9 ~~9603-4MD~~ QC	41.79	0.0	0.196	0.196 12Sep96 03:43
QCSPIKE A QC	61.31	0.0	0.286	0.286 12Sep96 03:45
QCSPIKE A QC	139.98	0.0	0.132	0.132 12Sep96 03:47 DF = 5.00
9226-9 ~~9603-4MD~~ QC	42.38	0.0	0.042	0.042 12Sep96 03:49 DF = 5.00
QCSPIKE A QC	139.05	0.0	0.132	0.132 12Sep96 03:51 DF = 5.00 %R = 96.7
9226-11 QC	0.79	0.0	0.004	0.004 12Sep96 03:53
QCSPIKE A QC	19.09	0.0	0.092	0.092 12Sep96 03:55 %R = 91.5
CCV 4	20.39	0.0	0.139	0.139 12Sep96 03:57

9.44 ug/L
30.14 ug/L
30.92 ug/L
47.09 ug/L
0.88 ug/L

1190

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
CCB 4 QC	0.26	0.0	0.001	0.001 12Sep96 03:59 ABS = 0.002 CONCENTRATION LESS THAN IDL
~~9226-11~~ 9603-4 QC	8.76	0.0	0.043	0.043 12Sep96 04:01
QCSPIKE A QC	31.76	0.0 W	0.150	0.150 12Sep96 04:03 %R = 116.0 SAMPLE CONC <50% OF SPIKE CONCENTRATION
QC	9.49	0.0	0.047	0.047 12Sep96 04:05
QCSPIKE A QC	22.27	0.0	0.107	0.107 12Sep96 04:07 %R = 63.9 %R FAILED, REPEAT BY STANDARD ADDITIONS
QC	9.26	0.0	0.046	0.046 12Sep96 04:09
QCSPIKE A QC	9.95	0.0 E	0.049	0.049 12Sep96 04:11 %R = 3.5 %R LESS THAN MINIMUM LIMIT
QC	3.67	0.0	0.018	0.018 12Sep96 04:13
QCSPIKE A QC	19.07	0.0 W	0.092	0.092 12Sep96 04:15 %R = 77.0 SAMPLE CONC <50% OF SPIKE CONCENTRATION
QC	3.61	0.0	0.018	0.018 12Sep96 04:17
QCSPIKE A QC	18.35	0.0 W	0.089	0.089 12Sep96 04:20 %R = 73.7 SAMPLE CONC <50% OF SPIKE CONCENTRATION
QC	0.03	0.0	0.000	0.000 12Sep96 04:22 CONCENTRATION LESS THAN IDL
BLANK QC	0.00		-0.001	-0.001 12Sep96 04:40 CONCENTRATION LESS THAN IDL
CCV 5 QC	28.78	0.0	0.136	0.136 12Sep96 04:42 %R = 95.9

ANALYST 9/12/96 DATE
REVIEW 9-12-96 DATE
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ANALYTE INST.#

9.73 mg/L

ANALYST	DATE
REVIEW	DATE
DATA ENTRY	DATE
ANALYTE	INST.#

9/12/96
9-12-96
9-12-96

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
CCB 5 QC	-0.07	0.0	-0.000	-0.000 12Sep96 04:44 ABS = 0.000 CONCENTRATION LESS THAN IDL
PB,TS:14606 QC	0.55	0.0	0.003	0.003 12Sep96 04:46
QCSPIKE A QC	10.77	0.0	0.091	0.091 12Sep96 04:49 %R = 91.1
LCS QC	36.26	0.0	0.170	0.170 12Sep96 04:51
QCSPIKE A QC	50.05	0.0	0.271	0.271 12Sep96 04:53 %R = 109.0
9751-1 QC	OVER	0.0	1.596*	1.596* 12Sep96 04:55
9751-1 QC	OVER D	0.0	0.526	0.526 12Sep96 04:56 DF = 5.00 REDUCED SAMPLE VOLUME LESS THAN 1 mL
BLANK QC	0.00		0.007	0.007 12Sep96 05:01 CONCENTRATION LESS THAN IDL
CCV 6 QC	29.06	0.0	0.136	0.136 12Sep96 05:04 %R = 96.2
CCB 6 QC	0.07	0.0	0.000	0.000 12Sep96 05:06 ABS = 0.002 CONCENTRATION LESS THAN IDL
9751-1 :25 QC	17.93	0.0	0.087	0.087 12Sep96 05:08
QCSPIKE A QC	29.03	0.0	0.140	0.140 12Sep96 05:10 %R = 59.5 %R FAILED, REPEAT BY STANDARD ADDITIONS
9751-1D QC	21.91	0.0	0.105	0.105 12Sep96 05:12
QCSPIKE A QC	31.48	0.0	0.148	0.148 12Sep96 05:14 %R = 47.8 %R FAILED, REPEAT BY STANDARD ADDITIONS

ANALYST ME 9/12/96 DATE
REVIEW 9-12-96 DATE
DATA ENTRY 9-12-96 DATE
ANALYTE PB INST.# 2

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	20.97	0.0	0.137	0.137 12Sep96 05:18 %R = 44.3 %R FAILED, REPEAT BY STANDARD ADDITIONS
9751-3MD QC	21.94	0.0	0.105	0.105 12Sep96 05:20
QCSPIKE A QC	30.25	0.0	0.142	0.142 12Sep96 05:22 %R = 41.6 %R FAILED, REPEAT BY STANDARD ADDITIONS
9751-4 ~~9459-1~~ 1:10 QC	51.15	0.0	0.239	0.239 12Sep96 05:24
QCSPIKE A QC	54.94 E	0.0	0.257	0.257 12Sep96 05:26 %R = 18.9 %R LESS THAN MINIMUM LIMIT
9459-1 1:10 QC	37.03	0.0	0.174	0.174 12Sep96 05:28
QCSPIKE A QC	44.21 E	0.0	0.207	0.207 12Sep96 05:31 %R = 35.9 %R LESS THAN MINIMUM LIMIT
9459-2 1:10 QC	35.77	0.0	0.168	0.168 12Sep96 05:32
QCSPIKE A QC	45.95	0.0	0.215	0.215 12Sep96 05:35 %R = 50.9 %R FAILED, REPEAT BY STANDARD ADDITIONS
9653-3 1:10 QC	47.14	0.0	0.230	0.230 12Sep96 05:37
QCSPIKE A QC	23.01 E	0.0	0.110	0.110 12Sep96 05:39 %R = -130.6 %R LESS THAN MINIMUM LIMIT
9653-1 1:10 QC	OVER	0.0	0.854	0.854 12Sep96 05:41
9653-1 1:10 QC	173.09	0.0	0.164	0.164 12Sep96 05:42 DF = 5.00
QCSPIKE A QC	267.72	0.0	0.250	0.250 12Sep96 05:44 DF = 5.00 %R = 93.7

2.02/100

86133.3 ug/kg

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
CCV 7 CC 30/1	26.31	0.0	0.125	0.125 12Sep96 05:47 %R = 87.7
CCB 7 CC	0.22	0.0	0.001	0.001 12Sep96 05:49 ABS = 0.003 CONCENTRATION LESS THAN IDL
9653-5 2 1:10 CC	OVER	0.0	0.840	0.840 12Sep96 05:51
9653-5 2 1:10 CC 10.04/100	173.62	0.0	0.163	0.163 12Sep96 05:52 DF = 5.00
CCSPIKE A CC	273.79	0.0	0.256	0.256 12Sep96 05:54 DF = 5.00 %R = 100.2
9659-7 ~~PB,TS:14597~~ CC	OVER	0.0	0.364	0.364 12Sep96 05:56
9659-3 ~~PB,TS:14597~~ CC	93.11	0.0	0.090	0.090 12Sep96 05:58 DF = 5.00
CCSPIKE A CC	222.31	0.0	0.208	0.208 12Sep96 06:00 DF = 5.00 %R = 129.2 %R FAILED, REPEAT BY STANDARD ADDITIONS
BLANK CC	0.00		-0.005	-0.005 12Sep96 07:02 CONCENTRATION LESS THAN IDL
CCV 8 CC 30/1	27.97	0.0	0.132	0.132 12Sep96 07:04 %R = 93.2
CCB 8 CC	-0.11	0.0	-0.001	-0.001 12Sep96 07:06 ABS = 0.000 CONCENTRATION LESS THAN IDL
9751-1 1:50 CC	9.33	0.0	0.041	0.041 12Sep96 07:08
CCSPIKE A CC	18.74	0.0	0.095	0.095 12Sep96 07:11 %R = 57.0 %R FAILED, REPEAT BY STANDARD ADDITIONS
9751-1D :50	9.09	0.0	0.049	0.049 12Sep96 07:13

8510). 8 4/5

ANALYST 9/12/96 DATE
REVIEW 9-12-96 DATE
DATA ENTRY 9/12/96 DATE
ANALYTE INST.#

1017

Run 2

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

INCHCAPE TESTING SERVICES
NDRC LABORATORY-DALLAS
FURNACE #2

ANALYST	DATE 9/12/96
REVIEW	DATE 9-12-96
DATA ENTRY	DATE 9-12-96
ANALYTE	INST. # 2

OPERATOR MARTY
DATE 9-12-96
BATCH PB

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	50
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	5
REPLICATE RSD LIMIT (%)	20.0

Std. Lot #: AR208-61I Modifier Lot #: AR208-55A
ICV Lot #: AR208-61J CCV Lot #: AR208-61I
LCS & MS/MSD Lot #: 690619

PROGRAM 42 Pb PLATFORM 3PT. Pd

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	2
LAMP CURRENT (mA)	3
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	203.3
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	1
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.40

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	250	15.0	3.0	NORMAL	NO
2	250	10.0	3.0	NORMAL	NO
3	1600	10.0	3.0	NORMAL	NO
4	1600	8.0	3.0	NORMAL	NO
5	1600	2.0	0.3	NORMAL	NO
6	2600	0.5	0.0	NORMAL	YES
7	2600	4.0	0.0	NORMAL	YES
8	2700	5.0	3.0	NORMAL	NO

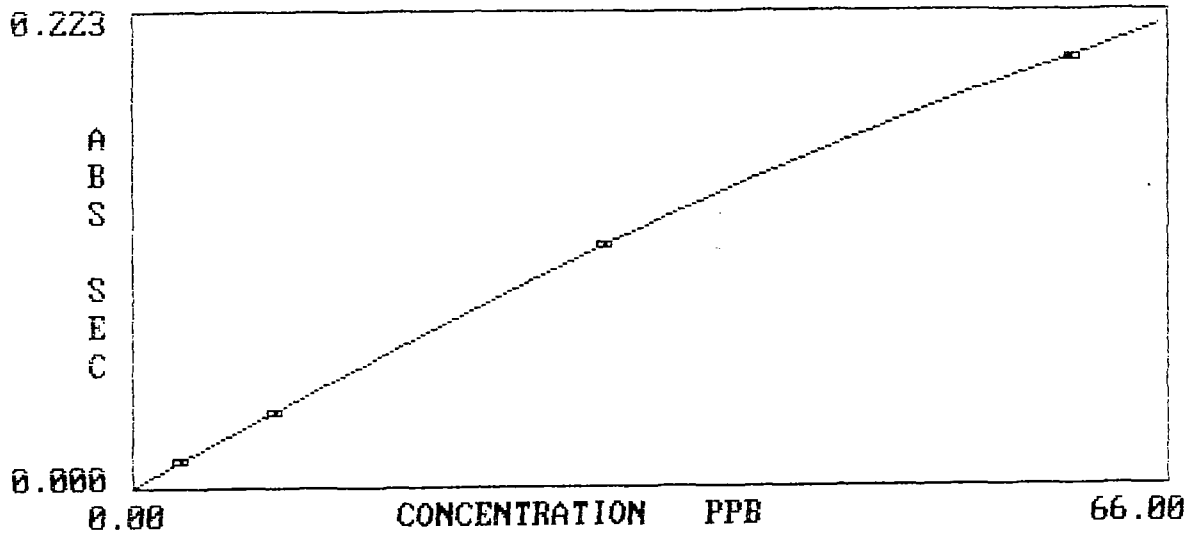
[illegible] MINIMUM LIMIT

SAMPLE	[illegible]	%RSD	MEAN ABS	READINGS
FB,TS:14597 QC	[illegible]	0.0	0.004	0.004 12Sep96 07:46
QCSPIKE A QC	[illegible]	0.0 W	0.046	0.046 12Sep96 07:48 %R = 42.4 SAMPLE CONC <50% OF SPIKE CONCENTRATION
CCV 9 QC	[illegible]	0.0 Q	0.082	0.082 12Sep96 07:50 %R = 56.0
BLANK QC	[illegible]		0.018	0.018 12Sep96 09:04 CONCENTRATION LESS THAN IDL
CCV 10 QC	[illegible]	0.0 Q	0.078	0.078 12Sep96 09:06 %R = 53.3
BLANK QC	0.00		-0.015	-0.015 12Sep96 09:14 CONCENTRATION LESS THAN IDL
BLANK QC	0.00		0.024	0.024 12Sep96 09:25 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	3.00	0.0	-0.015	-0.015 12Sep96 09:28
BLANK QC	0.00		-0.024	-0.024 12Sep96 09:56 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	3.00	0.0	0.008	0.008 12Sep96 09:58
BLANK QC	0.00		-0.003	-0.003 12Sep96 10:03 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	3.00	0.0	0.012	0.012 12Sep96 10:05
STANDARD 2 QC	9.00	0.0	0.035	0.035 12Sep96 10:07
STANDARD 3 QC	30.00	0.0	0.113	0.113 12Sep96 10:09
STANDARD 4 QC	60.00	0.0	0.203	0.203 12Sep96 10:11

ANALYST 9-12-96 DATE
REVIEW 9-12-96 DATE
DATA ENTRY 9-12-96 DATE
ANALYTE INST.#

cu. r=0.097

ANALYST		DATE 9-18-96
REVIEW		DATE 9-12
DATA ENTRY		DATE
ANALYTE	INST. #	



SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
ICV QC	18.45	0.0 Q	0.071	0.071 12Sep96 10:14 %R =
ICB QC	0.43	0.0	0.002	0.002 12Sep96 10:16 ABS = 0.002 CONCENTRATION LESS THAN IDL
5PPB STD QC	5.52	0.0	0.022	0.022 12Sep96 10:18
QCSPIKE A QC	26.96	0.0	0.103	0.103 12Sep96 10:20 %R = 107.2
CCV 1 QC	27.90	0.0	0.106	0.106 12Sep96 10:22 %R = 93.0
CCB 1 QC	0.66	0.0	0.003	0.003 12Sep96 10:24 ABS = 0.003
PB,TS:14638	0.04	0.0	0.000	0.000

1197

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	21.59	0.0	0.083	0.083 12Sep96 10:28 %R = 107.9
LCS QC	16.96	0.0	0.066	0.066 12Sep96 10:30
QCSPIKE A QC	42.80	0.0	0.155	0.155 12Sep96 10:32 %R = 129.2 %R FAILED, REPEAT BY STANDARD ADDITIONS
BS QC	20.11	0.0	0.077	0.077 12Sep96 10:34
QCSPIKE A QC	45.45	0.0	0.163	0.163 12Sep96 10:36 %R = 126.7 %R FAILED, REPEAT BY STANDARD ADDITIONS
BSD QC	20.45	0.0	0.079	0.079 12Sep96 10:38
QCSPIKE A QC	47.48	0.0	0.169	0.169 12Sep96 10:41 %R = 135.2 %R FAILED, REPEAT BY STANDARD ADDITIONS
9991-2 QC	OVER	0.0	0.824	0.824 12Sep96 10:43
9991-2 QC	270.21	0.0	0.188	0.188 12Sep96 10:44 DF = 5.00
QCSPIKE A QC	OVER DE	0.0	0.281	0.281 12Sep96 10:46 DF = 5.00 %R = -270.2 REDUCED SAMPLE VOLUME LESS THAN 1 mL
9991-2DP QC	OVER	0.0	0.482	0.482 12Sep96 10:48
9991-2DP QC	171.10	0.0	0.128	0.128 12Sep96 10:50 DF = 5.00
QCSPIKE A QC	279.98	0.0	0.193	0.193 12Sep96 10:52 DF = 5.00 %R = 108.9
9991-1 QC	OVER	0.0	0.229	0.229 12Sep96 10:54

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DF = 5.00

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	163.69	0.0	0.123	0.123 12Sep96 10:58 DF = 5.00 %R = 102.2
9991-3 QC	OVER	0.0	0.364	0.364 12Sep96 11:00
9991-3 QC 0.211/50	108.78	0.0	0.084	0.084 12Sep96 11:01 DF = 5.00
QCSPIKE A QC	203.35	0.0	0.149	0.149 12Sep96 11:03 DF = 5.00 %R = 94.6
CCV 2 QC 30/7	26.43	0.0	0.101	0.101 12Sep96 11:05 %R = 88.1
CCB 2 QC	0.21	0.0	0.001	0.001 12Sep96 11:07 ABS = 0.001 CONCENTRATION LESS THAN IDL
9991-4 QC	OVER	0.0	3.788*	3.788* 12Sep96 11:09
9991-4 QC	OVER D	0.0	2.514*	2.514* 12Sep96 11:11 DF = 5.00 REDUCED SAMPLE VOLUME LESS THAN 1 AL
QCSPIKE A QC	OVER DE	0.0	2.552*	2.552* 12Sep96 11:13 DF = 5.00 %R = 0.0 REDUCED SAMPLE VOLUME LESS THAN 1 AL
9991-5 QC	OVER	0.0	0.535	0.535 12Sep96 11:15
9991-5 QC 0.052/50	171.31	0.0	0.128	0.128 12Sep96 11:17 DF = 5.00
QCSPIKE A QC	263.47	0.0	0.184	0.184 12Sep96 11:19 DF = 5.00 %R = 92.2
9991-6 QC	OVER	0.0	3.857*	3.857* 12Sep96 11:21
9991-6	OVER	0.0	1.958*	1.958*

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	OVER	0.0 DE	2.017*	2.017* 12Sep96 11:25 DF = 5.00 %R = 0.0 REDUCED SAMPLE VOLUME LESS THAN 1 ML
9991-7 QC	OVER	0.0	3.561B	3.561B 12Sep96 11:27
9991-7 QC	OVER	0.0 D	3.595*	3.595* 12Sep96 11:29 DF = 5.00 REDUCED SAMPLE VOLUME LESS THAN 1 ML
QCSPIKE A QC	OVER	0.0 DE	3.848*	3.848* 12Sep96 11:31 DF = 5.00 %R = 0.0 REDUCED SAMPLE VOLUME LESS THAN 1 ML
9991-8 QC	OVER	0.0	3.417*	3.417* 12Sep96 11:33
9991-8 QC	OVER	0.0 D	1.400	1.400 12Sep96 11:34 DF = 5.00 REDUCED SAMPLE VOLUME LESS THAN 1 ML
QCSPIKE A QC	OVER	0.0 DE	1.433	1.433 12Sep96 11:36 DF = 5.00 %R = 0.0 REDUCED SAMPLE VOLUME LESS THAN 1 ML
BLANK QC	0.00		0.630	0.630 12Sep96 11:44 CONCENTRATION LESS THAN IDL
BLANK QC	0.00		-0.519	-0.519 12Sep96 12:07 CONCENTRATION LESS THAN IDL
BLANK QC	0.00		-0.021	-0.021 12Sep96 12:11 CONCENTRATION LESS THAN IDL
CCV 5 QC	27.21	0.0	0.103	0.103 12Sep96 12:13 %R = 90.7
CCB 5 QC	-2.48	0.0	-0.010	-0.010 12Sep96 12:15 ABS = 0.010 CONCENTRATION LESS THAN IDL
BLANK QC	0.00		-0.023	-0.023 12Sep96 12:19

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
CCV 6 QC	29.54	0.0	0.112	0.112 12Sep96 12:21 %R = 98.5
CCB 6 QC	-2.71	0.0	-0.011	-0.011 12Sep96 12:23 ABS = 0.004 CONCENTRATION LESS THAN IDL
BLANK QC	0.00		-0.015	-0.015 12Sep96 12:28 CONCENTRATION LESS THAN IDL
CCV 7 QC 30sp	30.04	0.0	0.113	0.113 12Sep96 12:30 %R = 100.1
CCB 7 QC	-1.63	0.0	-0.006	-0.006 12Sep96 12:32 ABS = 0.005 CONCENTRATION LESS THAN IDL
9991-5 1:10 QC	11.77	0.0	0.046	0.046 12Sep96 12:34
QCSPIKE A QC	31.45	0.0	0.118	0.118 12Sep96 12:36 %R = 98.4
9991-2 1:10 QC	21.43	0.0	0.082	0.082 12Sep96 12:38
QCSPIKE A QC	41.32	0.0	0.151	0.151 12Sep96 12:40 %R = 99.4
9991-2DP1:10 QC	11.59	0.0	0.045	0.045 12Sep96 12:42
QCSPIKE A QC	18.76	0.0 E	0.072	0.072 12Sep96 12:44 %R = 35.8 %R LESS THAN MINIMUM LIMIT
9991-4 1:10 QC	OVER	0.0	1.652*	1.652* 12Sep96 12:46
9991-4 1:10 QC	OVER	0.0 D	0.552	0.552 12Sep96 12:48 DF = 5.00 REDUCED SAMPLE VOLUME LESS THAN 1 mL
QCSPIKE A QC	OVER	0.0 DE	0.597	0.597 12Sep96 12:50 DF = 5.00 %R = 0.0 REDUCED SAMPLE VOLUME LESS THAN 1 mL

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SAMPLE	CONC PPB		%RSD	MEAN ABS	READINGS
9991-6 1:10 QC	OVER		0.0	1.405	1.405 12Sep96 12:52
9991-6 1:10 QC	OVER	D	0.0	0.397	0.397 12Sep96 12:54 DF = 5.00 REDUCED SAMPLE VOLUME LESS THAN 1 mL
QCSPIKE A QC	OVER	DE	0.0	0.497	0.497 12Sep96 12:56 DF = 5.00 %R = 0.0 REDUCED SAMPLE VOLUME LESS THAN 1 mL
9991-7 1:10 QC	OVER		0.0	2.547*	2.547* 12Sep96 12:58
9991-7 1:10 QC	OVER	D	0.0	0.716	0.716 12Sep96 13:00 DF = 5.00 REDUCED SAMPLE VOLUME LESS THAN 1 mL
QCSPIKE A QC	OVER	DE	0.0	0.818	0.818 12Sep96 13:02 DF = 5.00 %R = 0.0 REDUCED SAMPLE VOLUME LESS THAN 1 mL
9991-8 1:10 QC	OVER		0.0	0.794	0.794 12Sep96 13:04
9991-8 1:10 QC	242.77		0.0	0.172	0.172 12Sep96 13:06 DF = 5.00
QCSPIKE A QC	OVER	DE	0.0	0.250	0.250 12Sep96 13:08 DF = 5.00 %R = -242.8 REDUCED SAMPLE VOLUME LESS THAN 1 mL
9991-9 1:10 QC	OVER		0.0	3.643*	3.643* 12Sep96 13:10
CCV 8 QC	46.62	Q	0.0	0.167	0.167 12Sep96 13:12 %R = 155.4
CCB 8 QC	3.29		0.0	0.013	0.013 12Sep96 13:14 ABS = 0.025
9991-9 1:10 QC	OVER	D	0.0	2.705*	2.705* 12Sep96 13:16 DF = 5.00 REDUCED SAMPLE VOLUME LESS THAN 1 mL

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	OVER DE	0.0	2.876*	2.876* 12Sep96 13:18 DF = 5.00 %R = 0.0 REDUCED SAMPLE VOLUME LESS THAN 1 fL
BLANK QC	0.00		-0.009	-0.009 12Sep96 13:26 CONCENTRATION LESS THAN IDL
CCV 9 QC	28.31	0.0	0.107	0.107 12Sep96 13:28 %R = 94.4
CCB 9 QC	-2.46	0.0	-0.010	-0.010 12Sep96 13:30 ABS = 0.000 CONCENTRATION LESS THAN IDL
9991-5 1:10 QC	10.36 0.052 SU	0.0	0.040	0.040 12Sep96 13:32
QCSPIKE A QC	30.82	0.0	0.116	0.116 12Sep96 13:34 %R = 102.3
9991-2 1:10 QC	20.68 0.184 SU	0.0	0.080	0.080 12Sep96 13:36
QCSPIKE A QC	41.39	0.0	0.151	0.151 12Sep96 13:38 %R = 103.6
9991-2DP1:10 QC	12.76 0.132 SU	0.0	0.050	0.050 12Sep96 13:40
QCSPIKE A QC	30.45	0.0	0.115	0.115 12Sep96 13:42 %R = 88.4
9991-4 1:100 QC	OVER	0.0	0.273	0.273 12Sep96 13:44
9991-4 1:100 QC	59.42	0.0	0.046	0.046 12Sep96 13:46 DF = 5.00
QCSPIKE A QC	166.50	0.0	0.125	0.125 12Sep96 13:48 DF = 5.00 %R = 107.1
9991-6 1:100 QC	OVER	0.0	0.232	0.232 12Sep96 13:50
9991-6 1:100 QC	37.41	0.0	0.029	0.029 12Sep96 13:52

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	157.41	0.0 W	0.118	0.118 12Sep96 13:54 DF = 5.00 %R = 120.0 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9991-7 1:100 QC	OVER	0.0	0.474	0.474 12Sep96 13:56
9991-7 1:1001 QC	0.20	0.0	0.085	0.085 12Sep96 13:57 DF = 5.00
QCSPIKE A QC	245.96	0.0	0.174	0.174 12Sep96 13:59 DF = 5.00 %R = 135.8 %R FAILED, REPEAT BY STANDARD ADDITIONS
9991-8 1:100 QC	23.64	0.0	0.091	0.091 12Sep96 14:01
QCSPIKE A QC	46.35	0.0	0.166	0.166 12Sep96 14:04 %R = 113.5
9991-9 1:100 QC	OVER	0.0	2.283*	2.283* 12Sep96 14:06
9991-9 1:100 QC	OVER	0.0 D	0.824	0.824 12Sep96 14:07 DF = 5.00 REDUCED SAMPLE VOLUME LESS THAN 1 mL
QCSPIKE A QC	OVER	0.0 DE	0.890	0.890 12Sep96 14:09 DF = 5.00 %R = 0.0 REDUCED SAMPLE VOLUME LESS THAN 1 mL
CCV 10 QC	26.80	0.0	0.102	0.102 12Sep96 14:12 %R = 89.3
CCB 10 QC	-5.64	0.0	-0.022	-0.022 12Sep96 14:14 ADJ = -0.012 CONCENTRATION LESS THAN IDL
BLANK QC	0.00		-0.021	-0.021 12Sep96 14:17 CONCENTRATION LESS THAN IDL
CCV 11 QC	31.77	0.0	0.119	0.119 12Sep96 14:19 %R = 105.9

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
CCB 11 QC	-1.27	0.0	-0.005	-0.005 12Sep96 14:21 ADS = 0.000 CONCENTRATION LESS THAN IDL
9991-5 1:10 QC	13.47	0.0	0.052	0.052 12Sep96 14:23
QCSPIKE A QC	36.12	0.0	0.134	0.134 12Sep96 14:26 %R = 113.3
9991-2 1:10 QC	25.34	0.0	0.097	0.097 12Sep96 14:28
QCSPIKE A QC	47.29	0.0	0.169	0.169 12Sep96 14:30 %R = 109.7
9991-2DP1:10 QC	16.27	0.0	0.063	0.063 12Sep96 14:32
QCSPIKE A QC	35.89	0.0	0.133	0.133 12Sep96 14:34 %R = 98.1
9991-4 1:100 QC	OVER	0.0	0.316	0.316 12Sep96 14:36
9991-4 1:100 QC	81.91	0.0	0.063	0.063 12Sep96 14:38 DF = 5.00
QCSPIKE A QC	213.09	0.0	0.155	0.155 12Sep96 14:40 DF = 5.00 %R = 131.2 %R FAILED, REPEAT BY STANDARD ADDITION
9991-6 1:500 QC	13.04	0.0	0.051	0.051 12Sep96 14:42
QCSPIKE A QC	36.89	0.0	0.137	0.137 12Sep96 14:44 %R = 119.3 %R FAILED, REPEAT BY STANDARD ADDITION
9991-7 1:500 QC	29.64	0.0	0.112	0.112 12Sep96 14:46
QCSPIKE A QC	52.00	0.0	0.182	0.182 12Sep96 14:48 %R = 111.8
9991-8 1:100 QC	30.67	0.0	0.116	0.116 12Sep96 14:50

1205

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	54.62	0.0	0.189	0.189 12Sep96 14:52 %R = 119.8 %R FAILED, REPEAT BY STANDARD ADDITIONS
9991-9 :1000 QC	OVER	0.0	0.555	0.555 12Sep96 14:54
9991-9 :1000 QC	46.61	0.0	0.111	0.111 12Sep96 14:56 DF = 5.00
QCSPIKE A QC	288.65	0.0	0.197	0.197 12Sep96 14:58 DF = 5.00 %R = 142.0 %R FAILED, REPEAT BY STANDARD ADDITIONS
9991-10 :100 QC	OVER	0.0	2.172*	2.172* 12Sep96 15:00
CCV 12 QC	31.58	0.0	0.119	0.119 12Sep96 15:02 %R = 105.3
CCB 12 QC	-0.82	0.0	-0.003	-0.003 12Sep96 15:04 ABS = 0.002 CONCENTRATION LESS THAN IDL
9991-10 :100 QC	OVER D	0.0	0.799	0.799 12Sep96 15:06 DF = 5.00 REDUCED SAMPLE VOLUME LESS THAN 1 mL
BLANK QC	0.00		-0.001	-0.001 12Sep96 15:12 CONCENTRATION LESS THAN IDL
CCV 13 QC	33.34	0.0	0.125	0.125 12Sep96 15:14 %R = 111.1
CCB 13 QC	-0.30	0.0	-0.001	-0.001 12Sep96 15:16 ABS = 0.004 CONCENTRATION LESS THAN IDL
9991-4 :1000 QC	8.77	0.0	0.034	0.034 12Sep96 15:18
QCSPIKE A QC	30.73	0.0	0.116	0.116 12Sep96 15:20 %R = 109.8
9991-6 :1000	6.33	0.0	0.025	0.025 12Sep96 15:22

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4/34/584.2

1206

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	28.63	0.0	0.109	0.109 12Sep96 15:25 %R = 111.5
9991-8 1:500 QC	4.85 0.036 50	0.0	0.019	0.019 12Sep96 15:27
QCSPIKE A QC	27.04	0.0	0.103	0.103 12Sep96 15:29 %R = 110.9
9991-9:10000 QC	16.12 0.286 50	0.0	0.062	0.062 12Sep96 15:31
QCSPIKE A QC	37.93	0.0	0.140	0.140 12Sep96 15:33 %R = 109.0
9991-10:1000 QC	OVER	0.0	0.487	0.487 12Sep96 15:35
9991-10:1000 QC	134.59	0.0	0.102	0.102 12Sep96 15:37 DF = 5.00
QCSPIKE A QC	266.96	0.0	0.186	0.186 12Sep96 15:39 DF = 5.00 %R = 132.4 %R FAILED, REPEAT BY STANDARD ADDITIONS
QC	-1.54	0.0	-0.006	-0.006 12Sep96 15:41 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	21.34	0.0	0.082	0.082 12Sep96 15:43 %R = 106.7
BLANK QC	0.00		-0.007	-0.007 12Sep96 15:49 CONCENTRATION LESS THAN IDL
CCV 14 QC 30%	34.45	0.0	0.129	0.129 12Sep96 15:51 %R = 114.8
CCB 14 QC	0.20	0.0	0.001	0.001 12Sep96 15:53 ABS = 0.005 CONCENTRATION LESS THAN IDL
9991-10:10000 QC	14.85 0.203 50	0.0	0.058	0.058 12Sep96 15:55
QCSPIKE A QC	35.74	0.0	0.133	0.133 12Sep96 15:57

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1409883 ug/kg

28,18,18,18.2 ug/kg

36,536.354 ug/kg

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS			
9751-1 1:50 QC 2.06 1W	9.78	0.0	0.038	0.038 12Sep96	15:59		23332.9 ug/kg
QCSPIKE A QC	31.14	0.0	0.117	0.117 12Sep96 %R =	16:01 106.8	21.6 %/RPD	
9751-1D 1:50 QC 2.07 1W	12.21	0.0	0.048	0.048 12Sep96	16:03		29492.8 ug/kg
QCSPIKE A QC	33.24	0.0	0.124	0.124 12Sep96 %R =	16:05 105.1		
9751-2MS 1:50 QC 2nd 2.06 1W	10.98	0.0	0.043	0.043 12Sep96	16:07	NC/.ee	27450.0 ug/kg
QCSPIKE A QC	31.69	0.0	0.119	0.119 12Sep96 %R =	16:09 103.6		
9751-2MD 1:50 QC 2nd 2.00 1W	12.49	0.0	0.049	0.049 12Sep96	16:11	NC/.ee	31225.0 ug/kg
QCSPIKE A QC	33.80	0.0	0.126	0.126 12Sep96 %R =	16:13 106.6		
9751-4 1:100 QC 2.05 1W	5.66	0.0	0.022	0.022 12Sep96	16:15		23609.8 ug/kg
QCSPIKE A QC	26.68	0.0	0.102	0.102 12Sep96 %R =	16:18 105.1		
9459-1 1:50 QC 2.02 1W	7.52	0.0	0.029	0.029 12Sep96	16:20		18613.9 ug/kg
QCSPIKE A QC	28.65	0.0	0.109	0.109 12Sep96 %R =	16:22 105.7		
9459-2 1:50 QC 2.03 1W	6.94	0.0	0.027	0.027 12Sep96	16:24		17093.6 ug/kg
QCSPIKE A QC	27.94	0.0	0.106	0.106 12Sep96 %R =	16:26 105.0		
9459-3 1:100 QC 2.11 1W	9.60	0.0	0.037	0.037 12Sep96	16:28		45497.6 ug/kg
QCSPIKE A QC	30.26	0.0	0.114	0.114 12Sep96 %R =	16:30 103.3		

1208

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	18.17	0.0	0.070	0.070 12Sep96 16:34 %R = 70.5 SAMPLE CONC <50% OF SPIKE CONCENTRATIO
CCV 15 QC	33.03	0.0	0.124	0.124 12Sep96 16:36 %R = 110.1
CCB 15 QC	-0.38	0.0	-0.001	-0.001 12Sep96 16:38 ABS = 0.002 CONCENTRATION LESS THAN IDL
PB,TS:14597 QC	-0.39	0.0	-0.002	-0.002 12Sep96 16:40 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	21.17	0.0	0.081	0.081 12Sep96 16:42 %R = 105.9
LCS 1:100 QC	23.12	0.0	0.089	0.089 12Sep96 16:44
QCSPIKE A QC	44.35	0.0	0.160	0.160 12Sep96 16:47 %R = 106.1
9654-4 QC	OVER	0.0	0.271	0.271 12Sep96 16:49
9654-4 QC	220.70	0.0	0.159	0.159 12Sep96 16:50 DF = 5.00
QCSPIKE A QC	310.19	0.0	0.208	0.208 12Sep96 16:52 DF = 5.00 %R = 89.5 REDUCED SAMPLE VOLUME LESS THAN 1 mL
9654-4D QC	OVER	0.0	0.249	0.249 12Sep96 16:54
9654-4D QC	240.45	0.0	0.171	0.171 12Sep96 16:56 DF = 5.00
QCSPIKE A QC	OVER	0.0	0.230	0.230 12Sep96 16:58 DF = 5.00 %R = -240.4 REDUCED SAMPLE VOLUME LESS THAN 1 mL
9654-5MS:100 QC	26.35	0.0	0.100	0.100 12Sep96 17:00

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	46.24	0.0	0.166	0.166 12Sep96 17:02 %R = 99.4
9654-6MD:100 QC	26.29	0.0	0.100	0.100 12Sep96 17:04
QCSPIKE A QC	48.21	0.0	0.171	0.171 12Sep96 17:07 %R = 109.6
9654-1 QC	OVER	0.0	0.267	0.267 12Sep96 17:09
9654-1 QC	247.43	0.0	0.175	0.175 12Sep96 17:11 DF = 5.00
QCSPIKE A QC	OVER	0.0 DE	0.246	0.246 12Sep96 17:13 DF = 5.00 %R = -247.4 REDUCED SAMPLE VOLUME LESS THAN 1 mL
9654-2 QC	OVER	0.0	0.256	0.256 12Sep96 17:15
9654-2 QC	215.15	0.0	0.156	0.156 12Sep96 17:16 DF = 5.00
QCSPIKE A QC	297.25	0.0	0.202	0.202 12Sep96 17:19 DF = 5.00 %R = 82.1 %R FAILED, REPEAT BY STANDARD ADDITIONS
CCV 16 QC	30.24	0.0	0.114	0.114 12Sep96 17:21 %R = 100.8
CCB 16 QC	-0.36	0.0	-0.001	-0.001 12Sep96 17:23 ABS = 0.002 CONCENTRATION LESS THAN IDL
9654-3 QC	OVER	0.0	0.323	0.323 12Sep96 17:25
9654-3 QC	123.72	0.0	0.095	0.095 12Sep96 17:26 DF = 5.00
QCSPIKE A QC	189.56	0.0	0.140	0.140 12Sep96 17:29 DF = 5.00 %R = 65.8

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
9654-7 QC	48.04	0.0	0.171	0.171 12Sep96 17:31
QCSPIKE A QC	33.78	0.0 E	0.126	0.126 12Sep96 17:33 %R = -71.3 %R LESS THAN MINIMUM LIMIT
9654-10 QC	33.26	0.0	0.125	0.125 12Sep96 17:35
QCSPIKE A QC	47.08	0.0	0.168	0.168 12Sep96 17:37 %R = 69.1 %R FAILED, REPEAT BY STANDARD ADDITIONS
9654-13 QC	OVER	0.0	0.253	0.253 12Sep96 17:39
9654-13 QC	145.33	0.0	0.110	0.110 12Sep96 17:41 DF = 5.00
QCSPIKE A QC	292.62	0.0	0.199	0.199 12Sep96 17:43 DF = 5.00 %R = 147.3 %R FAILED, REPEAT BY STANDARD ADDITIONS
9650-1 QC	OVER	0.0	0.239	0.239 12Sep96 17:45
9650-1 QC	22.73	0.0	0.018	0.018 12Sep96 17:47 DF = 5.00
QCSPIKE A QC	OVER	0.0 DE	0.220	0.220 12Sep96 17:49 DF = 5.00 %R = -22.7 REDUCED SAMPLE VOLUME LESS THAN 1 mL
9650-2 QC	OVER	0.0	0.256	0.256 12Sep96 17:51
9650-2 QC	211.84	0.0	0.154	0.154 12Sep96 17:53 DF = 5.00
QCSPIKE A QC	OVER	0.0 DE	0.249	0.249 12Sep96 17:55 DF = 5.00 %R = -211.8 REDUCED SAMPLE VOLUME LESS THAN 1 mL
9650-3 QC	60.05	0.0	0.203	0.203 12Sep96 17:57

ANALYST DATE 9-12-96
REVIEW DATE 9-12-96
DATA ENTRY DATE
ANALYTE INST.#

1211

1027

Run 3

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

ANALYST 9/13/96 DATE
REVIEW 9-15-96 DATE
DATA ENTRY 9-18-96 DATE
ANALYTE INST. #

INCHCAPE TESTING SERVICES
NDRC LABORATORY-DALLAS
FURNACE #2

OPERATOR	MARTY
DATE	9-13-96
BATCH	PB

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	50
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	5
REPLICATE RSD LIMIT (%)	20.0

Std. Lot #: AB208-LLP Modifier Lot #: AB208-SA
ICV Lot #: AB208-LLB CCV Lot #: AB208-LLA
LCS & MS/MSD Lot #: 690619

PROGRAM 42 Pb PLATFORM 3PT. Pd

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	2
LAMP CURRENT (mA)	3
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	283.3
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	1
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.40

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	250	15.0	3.0	NORMAL	NO
2	250	10.0	3.0	NORMAL	NO
3	1400	10.0	3.0	NORMAL	NO
4	1400	8.0	3.0	NORMAL	NO
5	1400	2.0	0.3	NORMAL	NO
6	2500	0.6	0.0	NORMAL	YES
7	2500	4.0	0.0	NORMAL	YES
8	2600	5.0	3.0	NORMAL	NO

SAMPLER PARAMETERS

VOLUMES (fL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	1	19	5
STANDARD 2	3	17	5
STANDARD 3	10	10	5
STANDARD 4	20	0	5
SAMPLE	20	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 90
INJECT RATE 7

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	48
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	49
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (fL)	20
QC STANDARD CONCENTRATION	30.00 PPB
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	1
QC SPIKE VOLUME (fL)	4
QC SPIKE CONCENTRATION	100.00PPB
MATRIX SPIKE CONCENTRATION	0.00 PPB
INSTRUMENT DETECTION LIMIT	0.48 PPB
REQUIRED DETECTION LIMIT	3.00 PPB

CONDITIONS FOR Pb :
Alternative Wavelengths (nm) : 217.0 261.4
Spectral Bandwidths (nm) : 1.0 0.5
Maximum Ash Temperature : 600xC
Recommended Atomize Temperature : 2100xC
Recommended Chemical Modifiers :
Orthophosphoric acid (1000fg/mL), or
Ammonium dihydrogen orthophosphate (5mg/mL), or
EDTA, citrate, oxalate (0.5 - 1% v/v), or
Palladium Chloride (500-2000fg/mL) plus ascorbic acid.
Response with Argon : 10fL of 27ng/mL gives about 0.2 Abs.

Background may be higher at the 217.0nm line, for which the MAX.ABS. is 0.6 and the MSR is 71%.
Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

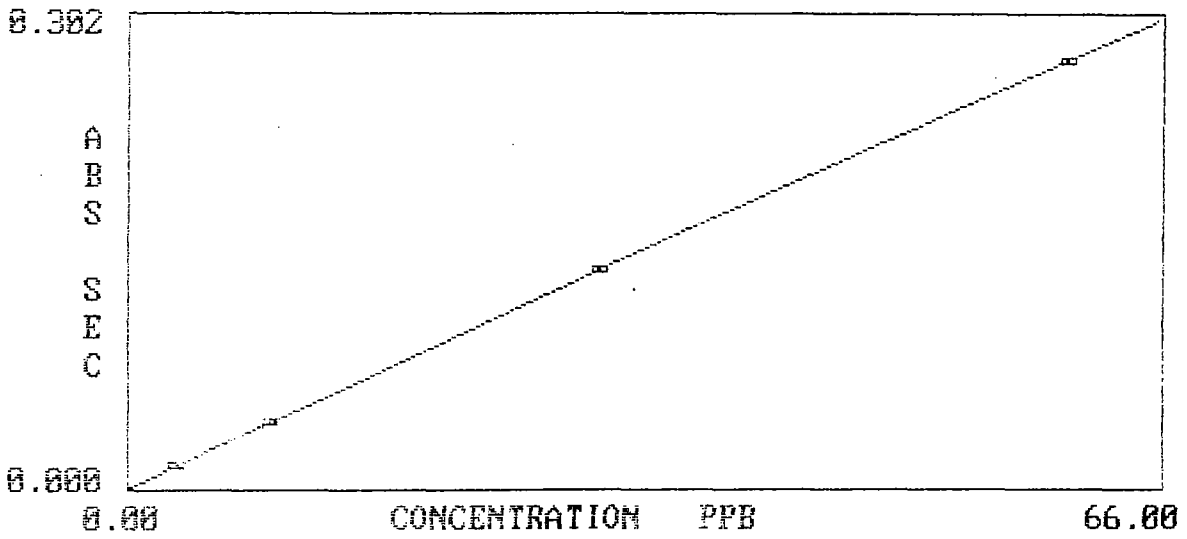
ANALYST		9/13/96 DATE
REVIEW		9-15-96 DATE
DATA ENTRY		9-15-97 DATE
ANALYTE		INST.#

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
9653-3 1:10 QC	2.27	0.0	0.009	0.009 13Sep96 10:34
QCSPIKE A QC	10.99	0.0 W	0.036	0.036 13Sep96 10:36 %R = 43.6 SAMPLE CONC <50% OF SPIKE CONCENTRATIO
9654-4 1:20 QC	12.41	0.0	0.040	0.040 13Sep96 10:38
QCSPIKE A QC	20.50	0.0	0.066	0.066 13Sep96 10:40 %R = 40.5 %R FAILED, REPEAT BY STANDARD ADDITIONS
BLANK QC	0.00		0.005	0.005 13Sep96 11:17 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	3.00	0.0	0.014	0.014 13Sep96 11:20
STANDARD 2 QC	9.00	0.0	0.041	0.041 13Sep96 11:22
STANDARD 3 QC	30.00	0.0	0.139	0.139 13Sep96 11:24
STANDARD 4 QC	60.00	0.0	0.274	0.274 13Sep96 11:26

corr=0.999

[signature]	9/13/96
ANALYST	DATE
[signature]	9-15-96
REVIEW	DATE
[signature]	9-15-96
DATA ENTRY	DATE
[signature]	[signature]
ANALYTE	INST. #

ANALYST	DATE 9/13/96
REVIEW	DATE 9-15-96
DATA ENTRY	DATE 9-15-96
ANALYTE	INST.#



SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
ICV QC >0.094	20.39	0.0 Q	0.094	0.094 13Sep96 11:28 %R = ~~68.0~~ 102 MS 9-15-96
ICB QC	0.14	0.0	0.001	0.001 13Sep96 11:30 ABS = 0.003 CONCENTRATION LESS THAN IDL
5PPB STD QC	5.08	0.0	0.024	0.024 13Sep96 11:32 102/mc
QCSPIKE A QC	19.50	0.0 W	0.090	0.090 13Sep96 11:35 %R = 72.1 SAMPLE CONC <50% OF SPIKE CONCENTRATIO
CCV 1 QC 30.0	29.70	0.0	0.138	0.138 13Sep96 11:37 %R = 99.0
CCB 1 QC	0.24	0.0	0.001	0.001 13Sep96 11:39 ABS = 0.003 CONCENTRATION LESS THAN IDL

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
9653-3 1:10 QC	7.13	0.0	0.033	0.033 13Sep96 11:41
QCSPIKE A QC	19.56	0.0	0.090	0.090 13Sep96 11:43 %R = 62.2 %R FAILED, REPEAT BY STANDARD ADDITIONS
9654-4 1:20 QC	13.62	0.0	0.063	0.063 13Sep96 11:45
QCSPIKE A QC	23.41	0.0	0.108	0.108 13Sep96 11:47 %R = 48.9 %R FAILED, REPEAT BY STANDARD ADDITIONS
9654-4DP1:20 QC	14.02	0.0	0.065	0.065 13Sep96 11:49
QCSPIKE A QC	23.41	0.0	0.108	0.108 13Sep96 11:51 %R = 46.9 %R FAILED, REPEAT BY STANDARD ADDITIONS
9654-1 1:50 QC	8.68	0.0	0.040	0.040 13Sep96 11:53
QCSPIKE A QC	20.22	0.0	0.094	0.094 13Sep96 11:56 %R = 57.7 %R FAILED, REPEAT BY STANDARD ADDITIONS
BLANK QC	0.00		-0.003	-0.003 13Sep96 11:59 CONCENTRATION LESS THAN IDL
CCV 2 QC 30ml	30.77	0.0	0.143	0.143 13Sep96 12:01 %R = 102.6
CCB 2 QC	0.24	0.0	0.001	0.001 13Sep96 12:03 ABS = 0.003 CONCENTRATION LESS THAN IDL
9653-3 1:10 QC	7.30	0.0	0.034	0.034 13Sep96 12:05
QCSPIKE A QC	18.35	0.0	0.085	0.085 13Sep96 12:08 %R = 55.2 %R FAILED, REPEAT BY STANDARD ADDITION
9654-4 1:20 QC	13.53	0.0	0.062	0.062 13Sep96 12:10
QCSPIKE A QC	22.67	0.0	0.105	0.105 13Sep96 12:12

ANALYST 9/13/96 DATE
REVIEW 9-15-96 DATE
DATA ENTRY 9-15-96 DATE
ANALYTE INST. #

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
9654-4DP1:20 QC	13.53	0.0	0.062	0.062 13Sep96 12:14
QCSPIKE A QC	22.69	0.0	0.105	0.105 13Sep96 12:16 %R = 45.8 %R FAILED, REPEAT BY STANDARD ADDITIONS
9654-1 1:50 QC	8.63	0.0	0.040	0.040 13Sep96 12:18
QCSPIKE A QC	18.09	0.0	0.084	0.084 13Sep96 12:20 %R = 47.3 %R FAILED, REPEAT BY STANDARD ADDITIONS
9654-2 1:20 QC	12.54	0.0	0.058	0.058 13Sep96 12:22
QCSPIKE A QC	22.60	0.0	0.105	0.105 13Sep96 12:24 %R = 50.3 %R FAILED, REPEAT BY STANDARD ADDITIONS
9654-3 1:50 QC	8.87	0.0	0.041	0.041 13Sep96 12:26
QCSPIKE A QC	19.49	0.0	0.090	0.090 13Sep96 12:29 %R = 53.1 %R FAILED, REPEAT BY STANDARD ADDITIONS
BLANK QC	0.00		-0.000	-0.000 13Sep96 12:48 CONCENTRATION LESS THAN IDL
CCV 3 QC	30.82	0.0	0.143	0.143 13Sep96 12:50 %R = 102.7
CCB 3 QC	0.03	0.0	0.000	0.000 13Sep96 12:52 ABS = 0.002 CONCENTRATION LESS THAN IDL
9653-3+01:10 QC	6.12	0.0	0.028	0.028 13Sep96 12:54
9653-3+3 QC	11.25	0.0	0.052	0.052 13Sep96 12:56
9653-3+6 QC	15.15	0.0	0.070	0.070 13Sep96 12:58
9653-3+9 QC	19.45	0.0	0.090	0.090 13Sep96 13:00

ANALYST: vg DATE: 9/13/96
REVIEW: DATE: 9-15-96
DATA ENTRY: DATE: 9-15-96
ANALYTE: INST. #:

Sm 14606

2.03/100

corr = 0.998
x-int = -4.32
y-int = 0.0294
slope = 0.0068

2158.1 %

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK QC	0.00		0.003	0.003 13Sep96 13:03 CONCENTRATION LESS THAN IDL
CCV 4 QC 30ppb	30.25	0.0	0.141	0.141 13Sep96 13:05 %R = 100.8
CCB 4 QC	0.05	0.0	0.000	0.000 13Sep96 13:07 ABS = 0.002 CONCENTRATION LESS THAN IDL
QC	-0.14	0.0	-0.001	-0.001 13Sep96 13:09 CONCENTRATION LESS THAN IDL
BLANK QC	0.00		-0.004	-0.004 13Sep96 13:14 CONCENTRATION LESS THAN IDL
CCV 5 QC 30ppb	30.96	0.0	0.144	0.144 13Sep96 13:16 %R = 103.2
CCB 5 QC	0.20	0.0	0.001	0.001 13Sep96 13:18 ABS = 0.002 CONCENTRATION LESS THAN IDL
9654-4 1:40 QC	7.00	0.0	0.032	0.032 13Sep96 13:20
QCSPIKE A QC	18.56	0.0	0.086	0.086 13Sep96 13:22 %R = 57.8 %R FAILED, REPEAT BY STANDARD ADDITIONS
9654-4DP1:40 QC	7.25	0.0	0.034	0.034 13Sep96 13:24
QCSPIKE A QC	18.86	0.0	0.087	0.087 13Sep96 13:26 %R = 58.0 %R FAILED, REPEAT BY STANDARD ADDITION
9654-1 1:50 QC	8.83	0.0	0.041	0.041 13Sep96 13:28
QCSPIKE A QC	18.09	0.0	0.084	0.084 13Sep96 13:31 %R = 46.3 %R FAILED, REPEAT BY STANDARD ADDITION
9654-2 1:20 QC	13.31	0.0	0.061	0.061 13Sep96 13:33

ANALYST 9/13/96 DATE
REVIEW 9-15-96 DATE
DATA ENTRY 9-15-96 DATE
ANALYTE INST.#

1011

Eval

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

INCHCAPE TESTING SERVICES
NDRC LABORATORY-DALLAS
FURNACE #4

OPERATOR	~~MARTY~~ Aaron
DATE	9-10-96
BATCH	SE

ANALYST		DATE 9-10-96
REVIEW		DATE 9-10-96
DATA ENTRY		DATE
ANALYTE	INST.#	

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	50
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	5
REPLICATE RSD LIMIT (%)	20.0

Std. Lot #: AR708-61C Modifier Lot #: AR708-557

ICV Lot #: AR708-610 CCV Lot #: AR708-61C

LCS & MS/MSD Lot #: 690619

PROGRAM 39 Se PLAT.3PT.Pd

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	3
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	1.0
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	196.0
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	1
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.20

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	275	15.0	3.0	NORMAL	NO
2	275	15.0	3.0	NORMAL	NO
3	1300	10.0	3.0	NORMAL	NO
4	1300	10.0	3.0	NORMAL	NO
5	1300	2.0	0.3	NORMAL	NO
6	2800	0.8	0.0	NORMAL	YES
7	2800	3.5	0.0	NORMAL	YES
8	2900	5.0	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	2	18	5
STANDARD 2	10	10	5
STANDARD 3	20	0	5
SAMPLE	20	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 90
INJECT RATE 10

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	48
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	49
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	25.0 PPB
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	1
QC SPIKE VOLUME (µL)	4
QC SPIKE CONCENTRATION	100.0 PPB
MATRIX SPIKE CONCENTRATION	0.0 PPB
INSTRUMENT DETECTION LIMIT	1.5 PPB
REQUIRED DETECTION LIMIT	5.0 PPB

9-10-96
ANALYST DATE
9-10-96
REVIEW DATE
9-10-96
DATA ENTRY DATE
Se 4
ANALYTE INST.#

CONDITIONS FOR Se :
Alternative Wavelengths (nm) : 204.0
Spectral Bandwidths (nm) : 0.5
Maximum Ash Temperature : 1200°C
Recommended Atomize Temperature : 2600°C
Recommended Chemical Modifiers :
Palladium Chloride (10µL of 500µg/mL), or
Nickel Nitrate (20µL of 50µg/mL).
Response with Argon : 10µL of 70ng/mL gives about 0.2 Abs.
(using Pd modifier)
Modifiers improve sensitivity and permit a higher ash temperature. Without modifier the maximum ash temperature is 1000°C, and atomize temperature is 2400°C.
Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK	0.0		0.010	0.010
				10Sep96 13:47
				CONCENTRATION LESS THAN IDL

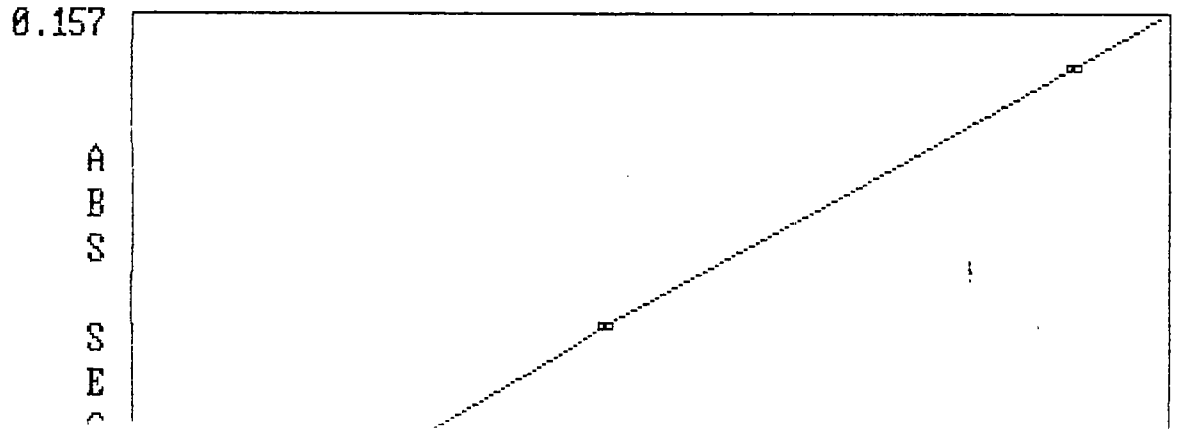
1220

9696-5 1:5 QC	5.5	0.0	0.012	0.012 10Sep96 20:46
BLANK QC	0.0		0.009	0.009 10Sep96 20:50 CONCENTRATION LESS THAN IDL
CCV 19 QC	30.5	0.0 Q	0.071	0.071 10Sep96 20:52 %R = 122.0

Run 1

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK QC	0.0		-0.002	-0.002 10Sep96 20:55 CONCENTRATION LESS THAN IDL
CCV 20 QC	31.3	0.0 Q	0.073	0.073 10Sep96 20:57 %R = 125.3
BLANK QC	0.0		0.005	0.005 10Sep96 21:01 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	5.0	0.0	0.012	0.012 10Sep96 21:03
STANDARD 2 QC	25.0	0.0	0.070	0.070 10Sep96 21:05
STANDARD 3 QC	50.0	0.0	0.143	0.143 10Sep96 21:08

ANALYST	DATE 9-10-96
REVIEW	DATE 9-11-96
DATA ENTRY	DATE
ANALYTE	INST.#



1221

ICV QC 20ppb	21.8	0.0	0.059	0.059 10Sep96 21:10 %R = ~~87.3~~ 109 ME 9/11/96
ICB QC	-0.6	0.0	-0.001	-0.001 10Sep96 21:13 ABS = -0.001 CONCENTRATION LESS THAN IDL

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
9696-5MS1:5 9 6 QC	6.0	0.0	0.014	0.014 10Sep96 21:15
BLANK QC	0.0		-0.015	-0.015 10Sep96 21:18 CONCENTRATION LESS THAN IDL
CCV 1 QC 25ppb	25.2	0.0	0.071	0.071 10Sep96 21:20 %R = 100.7
CCB 1 QC	-0.0	0.0	-0.000	-0.000 10Sep96 21:23 ABS = -0.003 CONCENTRATION LESS THAN IDL
5PPB STD QC	3.3	0.0	0.008	0.008 10Sep96 21:25
QCSPIKE A QC	22.7	0.0	0.062	0.062 10Sep96 21:27 %R = 97.0
CCV 2 QC 25ppb	25.3	0.0	0.071	0.071 10Sep96 21:30 %R = 101.2
CCB 2 QC	-1.0	0.0	-0.002	-0.002 10Sep96 21:32 ABS = -0.005 CONCENTRATION LESS THAN IDL
PB,TS:14606 QC 2.00/100	-0.7	0.0	-0.002	-0.002 10Sep96 21:34 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	21.2	0.0	0.057	0.057 10Sep96 21:37

9-10-96
ANALYST DATE
9-10-96
REVIEW DATE
9-11-96
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LCS QC 2ppm 1:2	18.8	0.0	0.050	0.050 10Sep96 21:39	%R = 94.0
QCSPIKE A QC	34.4	0.0	0.097	0.097 10Sep96 21:41 %R = 77.7 %R FAILED, REPEAT BY STANDARD ADDITIONS	
9751-1 QC	2.1	0.0	0.005	0.005 10Sep96 21:44	
QCSPIKE A QC	22.9	0.0	0.063	0.063 10Sep96 21:46 %R = 103.7	
9751-1DP QC	2.4	0.0	0.006	0.006 10Sep96 21:48	

ANALYST 9-10-96 DATE
REVIEW 9-11-96 DATE
DATA ENTRY DATE
ANALYTE INST.#

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS	
QCSPIKE A QC	23.2	0.0	0.064	0.064 10Sep96 21:51 %R = 104.2	
9751-2MS QC 2ppm 1:2	18.0	0.0	0.047	0.047 10Sep96 21:53	%R = 84.9
QCSPIKE A QC	34.8	0.0	0.098	0.098 10Sep96 21:56 %R = 83.9 %R FAILED, REPEAT BY STANDARD ADDITIONS	
9751-3MD QC 2ppm 1:2	16.4	0.0	0.042	0.042 10Sep96 21:58	%R = 9.89 %R = 76.9
QCSPIKE A QC	34.2	0.0	0.097	0.097 10Sep96 22:00 %R = 88.9	
9751-4 QC	3.9	0.0	0.009	0.009 10Sep96 22:03	
QCSPIKE A QC	21.8	0.0	0.059	0.059 10Sep96 22:05 %R = 89.6	
9459-1 QC	5.0	0.0	0.012	0.012 10Sep96 22:07	
QCSPIKE A QC	21.7	0.0 W	0.059	0.059 10Sep96 22:10 %R = 83.9 SAMPLE CONC <50% OF SPIKE CONCENTRATION	
9459-2 QC	-0.0	0.0	-0.000	-0.000 10Sep96 22:12 CONCENTRATION LESS THAN IDL	

QCSPIKE A QC		22.4	0.0	0.061	0.061 10Sep96 22:14 %R = 112.2
9459-3 QC	2.11/100	4.7	0.0	0.011	0.011 10Sep96 22:16
QCSPIKE A QC		23.8	0.0	0.066	0.066 10Sep96 22:19 %R = 95.5
CCV 3 QC 2.6ppb		23.6	0.0	0.065	0.065 10Sep96 22:21 %R = 94.6
CCB 3 QC		-0.5	0.0	-0.001	-0.001 10Sep96 22:23 ABS = -0.004 CONCENTRATION LESS THAN IDL

223 ng/kg

ANALYST DATE 9-10-96
REVIEW DATE 9-10-96
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ANALYTE INST.#

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
9653-1 QC	2.02/100 3.7	0.0	0.009	0.009 10Sep96 22:26
QCSPIKE A QC	19.5	0.0 W	0.052	0.052 10Sep96 22:28 %R = 79.1 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9653-2 QC	2.04/100 0.2	0.0	0.000	0.000 10Sep96 22:30 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	18.4	0.0	0.048	0.048 10Sep96 22:33 %R = 92.2
9653-3 QC	-11.9	0.0	-0.028	-0.028 10Sep96 22:35 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	7.6	0.0 E	0.018	0.018 10Sep96 22:38 %R = 37.8 %R LESS THAN MINIMUM LIMIT
PB,TS:14597 QC	0.5 2.00/100	0.0	0.001	0.001 10Sep96 22:40 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	20.8	0.0	0.056	0.056 10Sep96 22:42 %R = 104.2
LCS QC	OVER	0.0	1.009	1.009 10Sep96 22:45
LCS	OVER	0.0	0.932	0.932

183 ng/kg

1221

(1013)

Run 2

Varian SpectrAA 300/400 Zeeman
QC Protocol Report

IN[redacted]CAPE TESTING SERVICES
ND[redacted] LABORATORY-DALLAS
FURNACE #4

ANALYST		9/11/96	DATE
REVIEW		9/11/96	DATE
DATA ENTRY			DATE
ANALYTE		INST. #	

OPERATOR MARTY
DATE 9-11-96
BATCH SE

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	50
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	5
REPLICATE RSD LIMIT (%)	20.0

Std. Lot #: [illegible] Modifier Lot #: [illegible]
ICV Lot #: [illegible] CCV Lot #: [illegible]
LCS & MS/MSD Lot #: 960619

PROGRAM 39 Se PLAT.3PT.Pd

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	3
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	1.0
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	196.0
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	1
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.20

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	275	15.0	3.0	NORMAL	NO
2	275	15.0	3.0	NORMAL	NO
3	1300	10.0	3.0	NORMAL	NO
4	1300	10.0	3.0	NORMAL	NO
5	1300	2.0	0.3	NORMAL	NO
6	2800	0.8	0.0	NORMAL	YES
7	2800	3.5	0.0	NORMAL	YES
8	2900	5.0	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	2	18	5
STANDARD 2	10	10	5
STANDARD 3	20	0	5
SAMPLE	20	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 90
INJECT RATE 10

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	48
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	49
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	25.0 PPB
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	1
QC SPIKE VOLUME (µL)	4
QC SPIKE CONCENTRATION	100.0 PPB
MATRIX SPIKE CONCENTRATION	0.0 PPB
INSTRUMENT DETECTION LIMIT	1.5 PPB
REQUIRED DETECTION LIMIT	5.0 PPB

ANALYST	DATE 9/11/96
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ANALYTE	INST.#

CONDITIONS FOR Se :
Alternative Wavelengths (nm) : 204.0
Spectral Bandwidths (nm) : 0.5
Maximum Ash Temperature : 1200°C
Recommended Atomize Temperature : 2600°C
Recommended Chemical Modifiers :
Palladium Chloride (10µL of 500µg/mL), or
Nickel Nitrate (20µL of 50µg/mL).
Response with Argon : 10µL of 70ng/mL gives about 0.2 Abs.
(using Pd modifier)
Modifiers improve sensitivity and permit a higher ash temperature. Without modifier the maximum ash temperature is 300°C, and atomize temperature is 2400°C.
Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

PROGRAM 39 Se PLAT.3PT.Pd QC ZEEMAN
BLANK REPLICATE 1
ABSORBANCE CONCENTRATION SAMPLER AUTOMIX
PEAK AREA MAX.ABS. 1.20 BC ON

AL MATIC RUN PAUSED PRINTING

SAMPLE LABELS

1. 5PPB STD	2. 9697-6	3. 9697-7
4. 9697-8	5. 9697-9	6. 9697-10
7. 9653-1	8. 9653-2	9. 9653-3
10. 9654-8 1:2	11. PB,TS:14597	12. LCS
13. 9654-4	14. 9654-4D	15. 9654-5MS
16. 9654-6MD	17. 9654-1	18. 9654-2
19. 9654-3	20. 9654-7	21. 9654-10
22. 9654-13	23. 9650-1	24. 9650-2
25. 9650-3	26. 9650-4	27.
28.	29.	30.
31.	32.	33.
34.	35.	36.
37.	38.	39.
40.	41.	42.
43.	44.	45.

ANALYST 9/11/96 DATE
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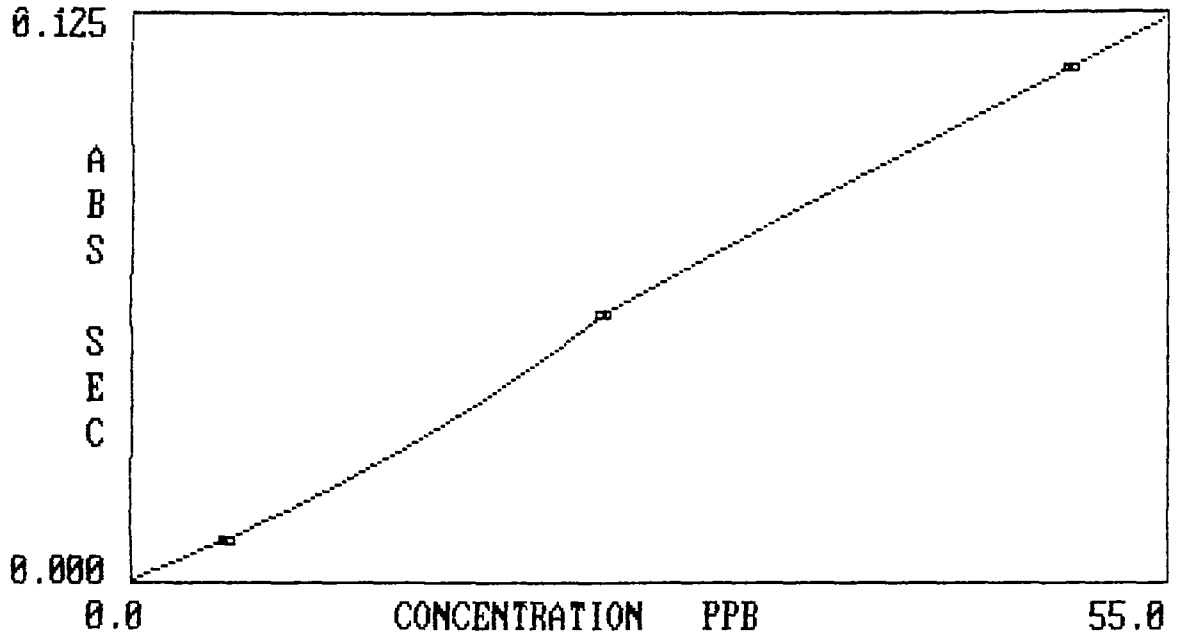
F INCREMENT
1 LABELS

F CALIBRA-
6 TION

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK	0.0		0.004	0.004
QC				11Sep96 08:19
				CONCENTRATION LESS THAN IDL
STANDARD 1	5.0	0.0	0.009	0.009
QC				11Sep96 08:21
STANDARD 2	25.0	0.0	0.058	0.058
QC				11Sep96 08:24
STANDARD 3	50.0	0.0	0.113	0.113
QC				11Sep96 08:26



corr=0.998

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
ICV QC 20/11	21.1	0.0	0.046	0.046 11Sep96 08:28 %R = ~~84.2~~ 106%
ICB QC	0.7	0.0	0.001	0.001 11Sep96 08:31 ABS = 0.002 CONCENTRATION LESS THAN IDL
5PPB STD QC	6.9	0.0	0.013	0.013 11Sep96 08:33
QCSPIKE A QC	24.0	0.0	0.055	0.055 11Sep96 08:35 %R = 85.5

ANALYST 9/11/96 DATE
REVIEW 9/11/96 DATE
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CCV 2 QC	24.6	0.0	0.057	0.057 11Sep96 08:42 %R = 98.5	
CCB 2 QC	1.6	0.0	0.003	0.003 11Sep96 08:44 ABS = 0.005	

ANALYST 9/11/96 DATE
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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
5PPB STD QC	5.1	0.0	0.009	0.009 11Sep96 08:46
QCSPIKE A QC	23.2	0.0	0.052	0.052 11Sep96 08:49 %R = 90.1
CCV 3 QC	24.6	0.0	0.057	0.057 11Sep96 08:51 %R = 98.4
CCB 3 QC	0.7	0.0	0.001	0.001 11Sep96 08:53 ABS = 0.004 CONCENTRATION LESS THAN IDL
9697-6 QC	1.0	0.0	0.002	0.002 11Sep96 08:56 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	20.2	0.0	0.044	0.044 11Sep96 08:58 %R = 101.0
9697-7 QC	1.9	0.0	0.003	0.003 11Sep96 09:00
QCSPIKE A QC	19.7	0.0	0.042	0.042 11Sep96 09:03 %R = 89.1
9697-8 QC	-0.1	0.0	-0.000	-0.000 11Sep96 09:05 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	18.2	0.0	0.038	0.038 11Sep96 09:07 %R = 91.1
9697-9 QC	0.5	0.0	0.001	0.001 11Sep96 09:10 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	19.9	0.0	0.043	0.043 11Sep96 09:12 %R = 99.4
9697-10 QC	1.1	0.0	0.002	0.002 11Sep96 09:14

				CONCENTRATION LESS THAN IDL
QCSPIKE A QC	18.9	0.0	0.040	0.040 11Sep96 09:17 %R = 94.3
9653-1 QC	5.8	0.0	0.010	0.010 11Sep96 09:19

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	11.6	0.0 E	0.022	0.022 11Sep96 09:22 %R = 28.9 %R LESS THAN MINIMUM LIMIT
9653-2 QC	7.1	0.0	0.013	0.013 11Sep96 09:24
QCSPIKE A QC	23.2	0.0 W	0.053	0.053 11Sep96 09:26 %R = 80.2 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9653-3 QC	-9.9	0.0	-0.018	-0.018 11Sep96 09:28 CONCENTRATION LESS THAN IDL
BLANK QC	0.0		-0.011	-0.011 11Sep96 09:31 CONCENTRATION LESS THAN IDL
BLANK QC	0.0		-0.004	-0.004 11Sep96 09:35 CONCENTRATION LESS THAN IDL
CCV 5 QC	21.1	0.0	0.046	0.046 11Sep96 09:37 %R = 84.5
CCB 5 QC	-4.1	0.0	-0.007	-0.007 11Sep96 09:39 ABS = -0.009 CONCENTRATION LESS THAN IDL
BLANK QC	0.0		0.006	0.006 11Sep96 09:42 CONCENTRATION LESS THAN IDL
CCV 6 QC	23.4	0.0	0.053	0.053 11Sep96 09:45 %R = 93.8
CCB 6 QC	0.1	0.0	0.000	0.000 11Sep96 09:47 ABS = 0.000 CONCENTRATION LESS THAN IDL

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	21.3	0.0	0.047	0.047 11Sep96 09:52 %R = 64.2 %R FAILED, REPEAT BY STANDARD ADDITIONS
9653-3 QC	0.3	0.0	0.001	0.001 11Sep96 09:54 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	13.7	0.0 W	0.027	0.027 11Sep96 09:56 %R = 68.3 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9654-8 1:2 QC	0.7	0.0	0.001	0.001 11Sep96 09:59 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	11.2	0.0 W	0.021	0.021 11Sep96 10:01 %R = 55.8 SAMPLE CONC <50% OF SPIKE CONCENTRATION
PB,TS:14597 QC	2.4	0.0	0.004	0.004 11Sep96 10:03
BLANK QC	0.0		0.003	0.003 11Sep96 10:07 CONCENTRATION LESS THAN IDL
CCV 7 QC	24.2	0.0	0.056	0.056 11Sep96 10:09 %R = 96.9
CCB 7 QC	0.1	0.0	0.000	0.000 11Sep96 10:11 ABS = 0.001 CONCENTRATION LESS THAN IDL
9653-1 QC	5.3	0.0	0.010	0.010 11Sep96 10:13
QCSPIKE A QC	22.3	0.0	0.050	0.050 11Sep96 10:16 %R = 85.1
PB,TS:14597 QC	1.8	0.0	0.003	0.003 11Sep96 10:18
QCSPIKE A QC	20.1	0.0	0.044	0.044 11Sep96 10:20 %R = 91.7
LCS QC	OVER	0.0	1.189	1.189 11Sep96 10:23
LCS	OVER	0.0	0.900	0.900

ANALYST 9/11/96 DATE
REVIEW 9/18/96 DATE
DATA ENTRY 9-11-96 DATE
ANALYTE INST.#

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(1013)

Varian SpectrAA 300/400 Zeeman QC Protocol Report

Run 3

INCHCAPE TESTING SERVICES
IDRC LABORATORY-DALLAS
FURNACE #4

ANALYST		9/11/96 DATE
REVIEW		9/11/96 DATE
DATA ENTRY		9-11-96 DATE
ANALYTE		INST.#

OPERATOR	MARTY
DATE	9-11-96
BATCH	SE

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	50
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	5
REPLICATE RSD LIMIT (%)	20.0

Std. Lot #: HP108-61F Modifier Lot #: EP208-55C

ICV Lot #: PE28-616 CCV Lot #: EP208-61F

LCS & MS/MSD Lot #: 69C619

PROGRAM 39 Se PLAT.3PT.Pd

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	3
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	1.0
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	196.0
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	1
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	1.20

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	275	15.0	3.0	NORMAL	NO
2	275	15.0	3.0	NORMAL	NO
3	1300	10.0	3.0	NORMAL	NO
4	1300	10.0	3.0	NORMAL	NO
5	1300	2.0	0.3	NORMAL	NO
6	2800	0.8	0.0	NORMAL	YES
7	2800	3.5	0.0	NORMAL	YES
8	2900	5.0	3.0	NORMAL	NO

SAMPLER PARAMETERS
VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	2	18	5
STANDARD 2	10	10	5
STANDARD 3	20	0	5
SAMPLE	20	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 90
INJECT RATE 10

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	48
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	49
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	25.0 PPB
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	1
QC SPIKE VOLUME (µL)	4
QC SPIKE CONCENTRATION	100.0 PPB
MATRIX SPIKE CONCENTRATION	0.0 PPB
INSTRUMENT DETECTION LIMIT	1.5 PPB
REQUIRED DETECTION LIMIT	5.0 PPB

ANALYST	[signature]	DATE 9/11/96
REVIEW	[signature]	DATE 9-11-96
DATA ENTRY	[signature]	DATE
ANALYTE		INST.#

CONDITIONS FOR Se :
Alternative Wavelengths (nm) : 204.0
Spectral Bandwidths (nm) : 0.5
Maximum Ash Temperature : 1200°C
Recommended Atomize Temperature : 2600°C
Recommended Chemical Modifiers :
Palladium Chloride (10µL of 500µg/mL), or
Nickel Nitrate (20µL of 50µg/mL).
Response with Argon : 10µL of 70ng/mL gives about 0.2 Abs.
(using Pd modifier)
Modifiers improve sensitivity and permit a higher ash temperature. Without modifier the maximum ash temperature is 300°C, and atomize temperature is 2400°C.
Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

QC				11Sep96 14:13 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	5.0	0.0	-0.001	-0.001 11Sep96 14:15
BLANK QC	0.0		-0.009	-0.009 11Sep96 14:22 CONCENTRATION LESS THAN IDL

Run 3

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK QC	0.0		-0.010	-0.010 11Sep96 14:25 CONCENTRATION LESS THAN IDL
BLANK QC	0.0		0.014	0.014 11Sep96 14:28 CONCENTRATION LESS THAN IDL
BLANK QC	0.0		-0.011	-0.011 11Sep96 14:31 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	5.0	0.0	0.013	0.013 11Sep96 14:34
BLANK QC	0.0		0.003	0.003 11Sep96 14:37 CONCENTRATION LESS THAN IDL
STANDARD 1 QC	5.0	0.0	0.010	0.010 11Sep96 14:40
STANDARD 2 QC	25.0	0.0	0.056	0.056 11Sep96 14:42
STANDARD 3 QC	50.0	0.0	0.115	0.115 11Sep96 14:44

r = 0.999

ANALYST	9/11/96 DATE
REVIEW	9/11/96 DATE
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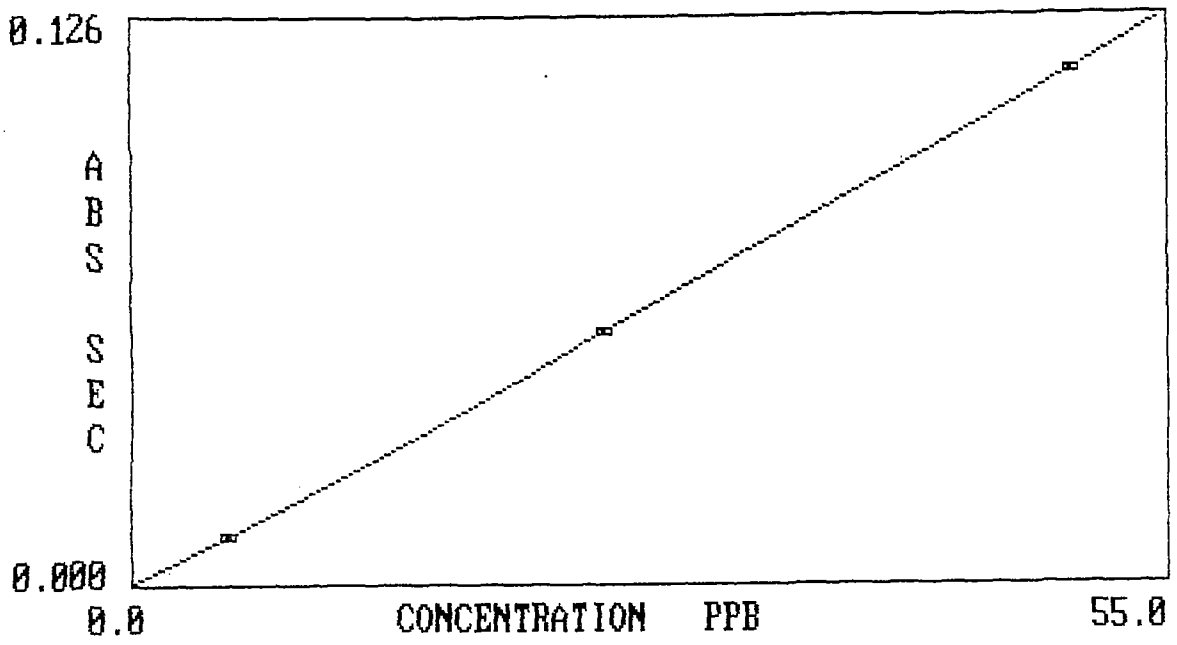
ANALYTE	INST.#



		9-11-96	
ANALYST		9/11/96	DATE
REVIEW		9-11-96	DATE
DATA ENTRY		4	DATE
ANALYTE		INST.#	

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
ICV QC 20/1	20.4	0.0	0.045	0.045 11Sep96 14:47 %R = ~~81.4~~ 102 / 9-11-96
ICB QC	-2.4	0.0	-0.005	-0.005 11Sep96 14:49 ABS = -0.005 ! CONCENTRATION LESS THAN IDL
5PPB STD QC	5.2	0.0	0.011	0.011 11Sep96 14:52 104/rec

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QC	W			11Sep96 14:54 %R = 84.8 SAMPLE CONC (50% OF SPIKE CONCENTRATION
CCV 1 QC	25.5	0.0	0.058	0.058 11Sep96 14:56 %R = 102.2
CCB 1 QC	-1.5	0.0	-0.003	-0.003 11Sep96 14:59 ABS = -0.004 CONCENTRATION LESS THAN IDL

ANALYST DATE 9-11-96
REVIEW DATE 9-11-96
DATA ENTRY DATE
ANALYTE INST.#

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
9697-6 QC	-0.1	0.0	-0.000	-0.000 11Sep96 15:01 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	17.1	0.0	0.037	0.037 11Sep96 15:03 %R = 85.3
9697-7 QC	0.1	0.0	0.000	0.000 11Sep96 15:06 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	18.1	0.0	0.039	0.039 11Sep96 15:08 %R = 90.6
9697-8 QC	-0.3	0.0	-0.001	-0.001 11Sep96 15:10 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	18.1	0.0	0.039	0.039 11Sep96 15:13 %R = 90.6
9697-9 QC	-0.9	0.0	-0.002	-0.002 11Sep96 15:15 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	18.6	0.0	0.040	0.040 11Sep96 15:18 %R = 92.9
9697-10 QC	1.1	0.0	0.002	0.002 11Sep96 15:20 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	21.9	0.0	0.048	0.048 11Sep96 15:22 %R = 109.4
9654-3 QC	20.7	0.0	0.046	0.046 11Sep96 15:24

QC				11Sep96 15:27 %R = 72.7 %R FAILED, REPEAT BY STANDARD ADDITIONS
9654-7 QC	8.4	0.0	0.017	0.017 11Sep96 15:29
QC IKE A QC	23.4	0.0	0.052	0.052 11Sep96 15:32 %R = 74.7 %R FAILED, REPEAT BY STANDARD ADDITIONS
9653-3 QC	0.5	0.0	0.001	0.001 11Sep96 15:34 CONCENTRATION LESS THAN IDL

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	13.7	0.0 W	0.029	0.029 11Sep96 15:36 %R = 68.7 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9653-1 QC	8.7	0.0	0.018	0.018 11Sep96 15:38
QCSPIKE A QC	14.7	0.0 E	0.031	0.031 11Sep96 15:41 %R = 29.6 %R LESS THAN MINIMUM LIMIT
PB,TS:14597 QC	1.6	0.0	0.003	0.003 11Sep96 15:43
QCSPIKE A QC	23.8	0.0	0.053	0.053 11Sep96 15:46 %R = 110.8
CCV 2 QC	24.3	0.0	0.054	0.054 11Sep96 15:48 %R = 97.1
CCB 2 QC	2.1	0.0	0.004	0.004 11Sep96 15:50 ABS = 0.004
LCS 1:100 QC	OVER	0.0	0.225	0.225 11Sep96 15:52
LCS 1:100 QC	125.3	0.0	0.056	0.056 11Sep96 15:54 DF = 5.00
BLANK QC	0.0		0.011	0.011 11Sep96 16:01 CONCENTRATION LESS THAN IDL
CCV 3 QC	25.0	0.0	0.056	0.056 11Sep96 16:03 %R = 100.1

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QC				11Sep96 16:06 ABS = 0.000 CONCENTRATION LESS THAN IDL
fm 14S9				
9654-3 1:2	9.3	0.0	0.019	0.019
QC 2.05/100				11Sep96 16:08
QCSPIKE A	27.1	0.0	0.061	0.061
QC				11Sep96 16:10 %R = 88.6
9654-7 1:2	6.0	0.0	0.012	0.012
QC 2.11/100				11Sep96 16:13

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A	22.7	0.0	0.050	0.050
QC		W		11Sep96 16:15 %R = 83.5 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9653-1 1:2	3.5	0.0	0.007	0.007
QC 2.02/100				11Sep96 16:17
QCSPIKE A	21.4	0.0	0.047	0.047
QC				11Sep96 16:20 %R = 89.4
	-1.4	0.0	-0.003	-0.003
QC				11Sep96 16:22 CONCENTRATION LESS THAN IDL
QCSPIKE A	22.4	0.0	0.050	0.050
QC				11Sep96 16:24 %R = 111.8
BLANK	0.0		-0.018	-0.018
QC				11Sep96 16:28 CONCENTRATION LESS THAN IDL
BLANK	0.0		0.009	0.009
QC				11Sep96 16:31 CONCENTRATION LESS THAN IDL
CCV 5	27.3	0.0	0.062	0.062
QC 1.5/11				11Sep96 16:33 %R = 109.4
CCB 5	1.9	0.0	0.004	0.004
QC				11Sep96 16:35 ABS = 0.003

9-11-96
ANALYST DATE
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Varian SpectrAA 300/400 Zeeman
QC Protocol Report

INCHCAPE TESTING SERVICES
NDRC LABORATORY-DALLAS
FURNACE #3

ANALYST	9-12-96 DATE
REVIEW	9-12-96 DATE
DATA ENTRY	9-12-96 DATE
ANALYTE	3 INST. #

OPERATOR ANSON
DATE 9-12-96
BATCH TL

QC PROTOCOL PARAMETERS

IF THERE IS AN ERROR	FLAG AND CONTINUE
QC SPIKE POSITION	52
RECOVERY LIMITS (%)	85 TO 115
RECOVERY MINIMUM LIMIT (%)	40
CORRELATION COEFFICIENT (r)	0.995
OVERRANGE VOLUME REDUCTION	5
REPLICATE RSD LIMIT (%)	20.0

Std. Lot #: AB208-61I Modifier Lot #: AB 108-55H
ICV Lot #: AB208-61J CCV Lot #: AB208-61I
LCS & MS/MSD Lot #: 690619

PROGRAM 5 T1 PLAT.3PT.Pd

INSTRUMENT MODE	ABSORBANCE
CALIBRATION MODE	CONCENTRATION
MEASUREMENT MODE	PEAK AREA
LAMP POSITION	6
LAMP CURRENT (mA)	10
SLIT WIDTH (nm)	0.5
SLIT HEIGHT	NORMAL
WAVELENGTH (nm)	276.8
SAMPLE INTRODUCTION	SAMPLER AUTOMIXING
TIME CONSTANT	0.05
MEASUREMENT TIME (sec)	1.0
REPLICATES	1
BACKGROUND CORRECTION	ON
MAXIMUM ABSORBANCE	0.55

FURNACE PARAMETERS

STEP NO.	TEMPERATURE (C)	TIME (sec)	GAS FLOW (L/min)	GAS TYPE	READ COMMAND
1	200	5.0	3.0	NORMAL	NO
2	200	10.0	3.0	NORMAL	NO
3	370	8.0	3.0	NORMAL	NO
4	370	15.0	3.0	NORMAL	NO
5	370	2.0	0.0	NORMAL	NO
6	1700	0.7	0.0	NORMAL	YES
7	1700	4.0	0.0	NORMAL	YES
[illegible]	2400	4.0	3.0	NORMAL	NO

SAMPLER PARAMETERS

VOLUMES (µL)

	SOLUTION	BLANK	MODIFIER
BLANK	--	20	5
STANDARD 1	2	18	5
STANDARD 2	6	14	5
STANDARD 3	12	8	5
SAMPLE	20	0	5

RECALIBRATION RATE 0
RESLOPE RATE 0

MULTIPLE INJECT NO HOT INJECT YES PRE INJECT NO
TEMPERATURE 90
INJECT RATE 7

QC PROTOCOL PARAMETERS

QC STANDARD RATE	20
QC INITIAL STANDARD POSITION	48
QC INITIAL BLANK POSITION	51
QC CONTINUING STANDARD POSITION	49
QC CONTINUING BLANK POSITION	51
QC STANDARD VOLUME (µL)	20
QC STANDARD CONCENTRATION	25.0 PPB
QC STANDARD LIMITS (%)	80 TO 120
QC SPIKE RATE	1
QC SPIKE VOLUME (µL)	4
QC SPIKE CONCENTRATION	100.0 PPB
MATRIX SPIKE CONCENTRATION	0.0 PPB
INSTRUMENT DETECTION LIMIT	1.0 PPB
REQUIRED DETECTION LIMIT	10.0 PPB

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CONDITIONS FOR Tl :
Alternative Wavelengths (nm) : 258.0
Spectral Bandwidths (nm) : 1.0
Maximum Ash Temperature : 400°C
Recommended Atomize Temperature : 2200°C
Recommended Chemical Modifiers :
1% sulphuric acid solution, or
Palladium Chloride solution (500-2000 µg/mL) plus reducing agent such as ascorbic acid.
Response with Argon : 10 µL of 75ng/mL gives about 0.2 Abs.

The 1% sulphuric acid overcomes severe interferences from hydrochloric acid, perchloric acid and sodium chloride. The palladium permits higher ashing temperatures.
Use of a multi-element lamp may require a different slit width, lamp current and wavelength to isolate the analytical line.

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK	0.0		0.031	0.031
QC				12Sep96 13:31
				CONCENTRATION LESS THAN IDL

1240

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK	0.0		-0.005	-0.005
QC				12Sep96 13:33
				CONCENTRATION LESS THAN IDL
STANDARD 1	10.0	0.0	0.037	0.037
QC				12Sep96 13:36
STANDARD 2	30.0	0.0	0.102	0.102
QC				12Sep96 13:38
STANDARD 3	60.0	0.0	0.196	0.196
QC				12Sep96 13:40

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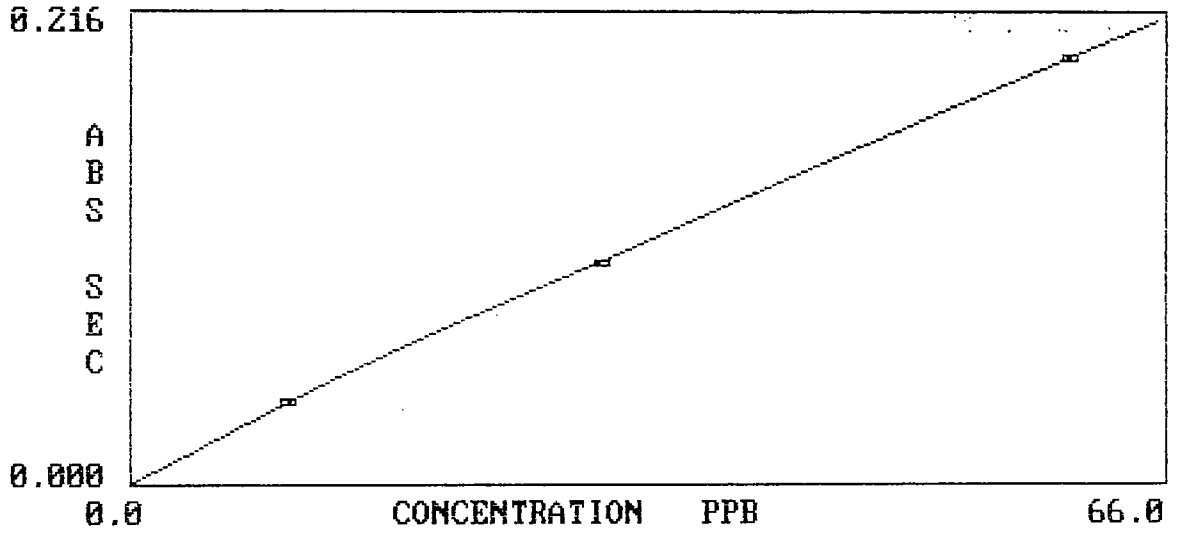

ICV	43.6	0.0	0.145	0.145
QC		Q		12Sep96 13:42
				%R = ~~174.2~~ 109
ICB	-0.5	0.0	-0.002	-0.002
QC				12Sep96 13:44
				ABS = 0.004
				CONCENTRATION LESS THAN IDL
10PPB STD	10.1	0.0	0.038	0.038
QC				12Sep96 13:46 101
QCSPIKE A	32.1	0.0	0.108	0.108
QC				12Sep96 13:48

1241

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS	
CCV 1 QC 25ppb	26.4	0.0	0.091	0.091 12Sep96 13:50 %R = 105.5	
CCB 1 QC	-0.6	0.0	-0.002	-0.002 12Sep96 13:52 ABS = 0.003 CONCENTRATION LESS THAN IDL	
PB,TL:14518 QC	0.3	0.0	0.001	0.001 12Sep96 13:54 CONCENTRATION LESS THAN IDL	
QCSPIKE A QC	20.9	0.0	0.074	0.074 12Sep96 13:56 %R = 104.4	
LCS QC	28.3	0.0	0.097	0.097 12Sep96 13:58	
QCSPIKE A QC	50.3	0.0	0.166	0.166 12Sep96 14:00 %R = 110.2	
9603-4 QC	0.2	0.0	0.001	0.001 12Sep96 14:02 CONCENTRATION LESS THAN IDL	
QCSPIKE A QC	19.8	0.0	0.070	0.070 12Sep96 14:04 %R = 99.1	
9603-4DP QC	-0.5	0.0	-0.002	-0.002 12Sep96 14:06 CONCENTRATION LESS THAN IDL	NC/RPD
QCSPIKE A QC	19.9	0.0	0.071	0.071 12Sep96 14:08 %R = 99.7	
9603-4MS QC 40ppb	27.7	0.0	0.095	0.095 12Sep96 14:10	>2.0%rec 30.8 ug/L
QCSPIKE A QC	47.6	0.0	0.158	0.158 12Sep96 14:12 %R = 99.3	6.53%RPD
9603-4MD QC 40ppb	29.6	0.0	0.100	0.100 12Sep96 14:13	82.2%rec 32.9 ug/L
QCSPIKE A QC	49.6	0.0	0.164	0.164 12Sep96 14:16 %R = 99.9	
9226-9 QC	7.1	0.0	0.027	0.027 12Sep96 14:17	>.89 ug/L

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
QCSPIKE A QC	30.1	0.0	0.102	0.102 12Sep96 14:19 %R = 114.9
9226-11 QC	-0.3	0.0	-0.001	-0.001 12Sep96 14:21 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	22.2	0.0	0.078	0.078 12Sep96 14:23 %R = 110.9
QC	0.0	0.0	0.000	0.000 12Sep96 14:25 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	22.0	0.0	0.077	0.077 12Sep96 14:27 %R = 109.9
LCS QC	29.7	0.0	0.101	0.101 12Sep96 14:29
QCSPIKE A QC	48.6	0.0	0.161	0.161 12Sep96 14:31 %R = 94.2
CCV 2 QC	26.7	0.0	0.092	0.092 12Sep96 14:33 %R = 106.8
CCB 2 QC	0.1	0.0	0.000	0.000 12Sep96 14:35 ABS = 0.006 CONCENTRATION LESS THAN IDL

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BLANK QC	0.0		0.003	0.003 12Sep96 17:36 CONCENTRATION LESS THAN IDL > 2 HRS SINCE MOST RECENT QC STANDARD
CCV 3 QC 26ppb	29.9	0.0	0.101	0.101 12Sep96 17:38 %R = 119.7
CCB 3 QC	0.1	0.0	0.000	0.000 12Sep96 17:40 ABS = 0.007 CONCENTRATION LESS THAN IDL
PB,TS:14606 QC	0.4	0.0	0.001	0.001 12Sep96 17:42 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	24.4 W	0.0	0.085	0.085 12Sep96 17:44 %R = 122.2 SAMPLE CONC <50% OF SPIKE CONCENTRATION

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS
BLANK QC	0.0		0.002	0.002 12Sep96 17:48 CONCENTRATION LESS THAN IDL
CCV 4 QC 26ppb	28.0	0.0	0.096	0.096 12Sep96 17:50 %R = 112.0
CCB 4 QC	0.3	0.0	0.001	0.001 12Sep96 17:52 ABS = 0.008 CONCENTRATION LESS THAN IDL
PB,TS:14606 QC 2.00/100	0.1	0.0	0.000	0.000 12Sep96 17:54 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	23.8 W	0.0	0.083	0.083 12Sep96 17:56 %R = 119.2 SAMPLE CONC <50% OF SPIKE CONCENTRATION
LCS 1:2 2.00/100 QC 4ppm	36.4	0.0	0.122	0.122 %R 91.0 12Sep96 17:58
QCSPIKE A QC	58.1	0.0	0.190	0.190 12Sep96 18:00 %R = 108.4
9751-1 2.06/100 QC	3.2	0.0	0.012	0.012 12Sep96 18:02

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3640 mg/kg

1214

155 mg/kg

QC				12Sep96 18:04 %R = 97.1	
9751-1DP 2.07/100 QC	3.3	0.0	0.012	0.012 12Sep96 18:06	159 mg/kg
QCSPIKE A QC	21.7	0.0	0.077	0.077 12Sep96 18:08 %R = 92.3	
9751-2MS 2.00/100 QC	27.5	0.0	0.094	0.094 12Sep96 18:10	2750 mg/kg
QCSPIKE A QC	44.0	0.0	0.147	0.147 12Sep96 18:12 %R = 82.7 %R FAILED, REPEAT BY STANDARD ADDITIONS	
9751-3MD QC	27.7	0.0	0.095	0.095 12Sep96 18:14	2770 mg/kg
QCSPIKE A QC	43.5	0.0	0.145	0.145 12Sep96 18:16 %R = 78.8 %R FAILED, REPEAT BY STANDARD ADDITIONS	

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SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS	
9653-1 2.12/100 QC	3.6	0.0	0.014	0.014 12Sep96 18:18	178 mg/kg
QCSPIKE A QC	23.1	0.0	0.081	0.081 12Sep96 18:20 %R = 97.6	
9653-2 2.04/100 QC	3.9	0.0	0.015	0.015 12Sep96 18:22	191 mg/kg
QCSPIKE A QC	19.5 W	0.0	0.069	0.069 12Sep96 18:24 %R = 77.9 SAMPLE CONC <50% OF SPIKE CONCENTRATION	
9653-3 2.03/100 QC	0.5	0.0	0.002	0.002 12Sep96 18:25 CONCENTRATION LESS THAN IDL	<
QCSPIKE A QC	18.8	0.0	0.067	0.067 12Sep96 18:27 %R = 93.8	
PBTS(14606) ~~PBTS:14514~~ QC 2.00/100	0.1	0.0	0.000	0.000 12Sep96 18:29 CONCENTRATION LESS THAN IDL	<
QCSPIKE A QC	22.2	0.0	0.078	0.078 12Sep96 18:31 %R = 111.2	1245

				%R = 111.-
CCB 5 QC	0.4	0.0	0.001	0.001 12Sep96 18:35 ABS = 0.008 CONCENTRATION LESS THAN IDL
LCS QC 40ppb	33.7	0.0	0.114	0.114 12Sep96 18:37 %A: 84.2
QCSPIKE A QC	53.8	0.0	0.177	0.177 12Sep96 18:39 %R = 100.6
9532-8 QC	0.5	0.0	0.002	0.002 12Sep96 18:41 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	22.6	0.0	0.079	0.079 12Sep96 18:43 %R = 112.9
9532-8DP QC	1.1	0.0	0.004	0.004 12Sep96 18:45 %RPD=NC
QCSPIKE A QC	24.4 W	0.0	0.085	0.085 12Sep96 18:47 %R = 116.7 SAMPLE CONC <50% OF SPIKE CONCENTRATION
9532-8MS QC 40ppb	33.4	0.0	0.113	0.113 12Sep96 18:49 %R=83.5
QCSPIKE A QC	56.3	0.0	0.185	0.185 12Sep96 18:51 %R = 114.5
9532-8MD QC 40ppb	35.3	0.0	0.119	0.119 12Sep96 18:53 %RPD=2.64 %R=88.2
QCSPIKE A QC	57.7	0.0	0.189	0.189 12Sep96 18:55 %R = 111.6
9654-8 QC	0.3	0.0	0.001	0.001 12Sep96 18:57 CONCENTRATION LESS THAN IDL
QCSPIKE A QC	19.0	0.0	0.068	0.068 12Sep96 18:59 %R = 95.1
9751-5 QC	0.4	0.0	0.001	0.001 12Sep96 19:01 CONCENTRATION LESS THAN IDL

SAMPLE	CONC PPB	%RSD	MEAN ABS	READINGS

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COLD VAPOR

```
: Protocol: A                                                                  :
:                    Rev: 3.001   Time: 15:07:55  08 Sep 1996                  :
: Folder: 090896A    Seq: 0                       Print: On                     :
: User: ANSON        Batch:            Id: CCB        Cup: 2 24 Gas:    0.30 LPM :
: State: Idle                                         Xmit: Off Autosampler: On :
: AUTOSAMPLER:  Rack entry   Rack 090896A  Range  1-44 Clear seQ Undo eXit      :
:cup Id         Extended id          Weight Volume Macro checK Help            :
: 1 ICV 2.5PPB                       1.0000 1.0000                             :
: 2 ICB                              1.0000 1.0000                             :
: 3 0.2PPB STD                       1.0000 1.0000                             :
: 4 PB,TS       2858                 .20000 100.00                             :
: 5 LCS         1PPM                 .20000 100.00                             :
: 6 9654-4                           .20900 100.00                             :
: 7 9654-4DP                         .20100 100.00                             :
: 8 9654-5MS    1PPM                 .20000 100.00                             :
: 9 9654-6MD    1PPM                 .20500 100.00                             :
:10 9654-1                           .20100 100.00                             :
:11 9654-2                           .21300 100.00                             :
:12 CCV 3.0PPB                       1.0000 1.0000                             :
:13 CCB                              1.0000 1.0000                             :
:14 9654-3                           .20500 100.00                             :
:15 9654-7                           .20400 100.00                             :
:                                                                         PgDn:
:                                                  Column entry, Ins to switch :
:                                                                              :
```

HG-130

1248

ANALYST		9-8-96 DATE
REVIEW		9-9-96 DATE
DATA ENTRY	HG	DATE
ANALYTE		INST. #

```
; Protocol: A                                                                  ;
;                    Rev: 3.001   Time: 15:08:20  08 Sep 1996                 ;
; Folder: 090896A    Seq: 0                      Print: On                    ;
; User: ANSON        Batch:          Id: CCB        Cup: 2 24 Gas:    0.30 LPM ;
; State: Idle                                     Xmit: Off Autosampler: On   ;
; AUTOSAMPLER:  Rack entry   Rack 090896A  Range  1-44 Clear seQ Undo eXit   PgUp;
;cup Id        Extended id          Weight Volume Macro checK Help             ;
;16 9654-10                         .20300 100.00                              ;
;17 9654-13                         .20100 100.00                              ;
;18 9653-1                          .20500 100.00                              ;
;19 9653-2                          .21200 100.00                              ;
;20 9653-3                          .20900 100.00                              ;
;21 9650-1                          .21100 100.00                              ;
;22 9650-2                          .20600 100.00                              ;
;23 CCV 3.0PPB                      1.0000 1.0000                              ;
;24 CCB                             1.0000 1.0000                              ;
;25 9650-3                          .20300 100.00                              ;
;26 9650-4                          .20400 100.00                              ;
;27 9710-1                          .20900 100.00                              ;
;28 9226-10                         .20400 100.00                              ;
;29 9226-12                         .20500 100.00                              ;
;30 9825-40                         .22400 100.00                              ;
;                                                                         PgDn;
;                                                  Column entry, Ins to switch ;
;                                                                              ;
```

1249

9-8-96

ANALYST		DATE 9-8-96
REVIEW		DATE 9-9-96
DATA ENTRY		DATE
ANALYTE		INST.#

Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 1 Rep: 1 Seq: 0 15:19:58 08 Sep 1996 HG

Hg .000 ug/L 665
Ave. Int. = 665 S. D. = 0

*** Standard: 1 Rep: 2 Seq: 1 15:22:19 08 Sep 1996 HG

Hg .000 ug/L 155
Ave. Int. = 155 S. D. = 0

*** Standard: 2 Rep: 1 Seq: 2 15:24:40 08 Sep 1996 HG

Hg .200 ug/L 3001
Ave. Int. = 3001 S. D. = 0

*** Standard: 2 Rep: 2 Seq: 3 15:27:01 08 Sep 1996 HG

Hg .200 ug/L 2960
Ave. Int. = 2960 S. D. = 0

*** Standard: 3 Rep: 1 Seq: 4 15:29:22 08 Sep 1996 HG

Hg .500 ug/L 7387
Ave. Int. = 7387 S. D. = 0

*** Standard: 3 Rep: 2 Seq: 5 15:31:43 08 Sep 1996 HG

Hg .500 ug/L 7527
Ave. Int. = 7527 S. D. = 0

*** Standard: 4 Rep: 1 Seq: 6 15:34:04 08 Sep 1996 HG

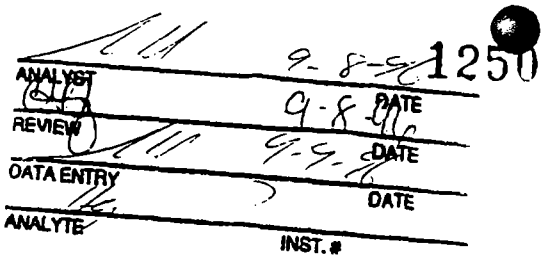
Hg 1.00 ug/L 14357
Ave. Int. = 14357 S. D. = 0

*** Standard: 4 Rep: 2 Seq: 7 15:36:25 08 Sep 1996 HG

Hg 1.00 ug/L 14263
Ave. Int. = 14263 S. D. = 0

*** Standard: 5 Rep: 1 Seq: 8 15:38:46 08 Sep 1996 HG

Hg 3.00 ug/L 42916
Ave. Int. = 42916 S. D. = 0



Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Standard: 5 Rep: 2 Seq: 9 15:41:08 08 Sep 1996 HG

Hg 3.00 ug/L 42634
Ave. Int. = 42634 S. D. = 0

*** Standard: 6 Rep: 1 Seq: 10 15:43:31 08 Sep 1996 HG

Hg 5.00 ug/L 70179
Ave. Int. = 70179 S. D. = 0

*** Standard: 6 Rep: 2 Seq: 11 15:45:53 08 Sep 1996 HG

Hg 5.00 ug/L 69261
Ave. Int. = 69261 S. D. = 0

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Protocol: A

Rev: 3.001 Time: 15:46:14 08 Sep 1996

Folder: 090896A Seq: 12 Print: On

User: ANSON Batch: Id: Std6Rep2 Cup: 2 24 Gas: 0.30 LPM

State: Idle Xmit: Off Autosampler: On

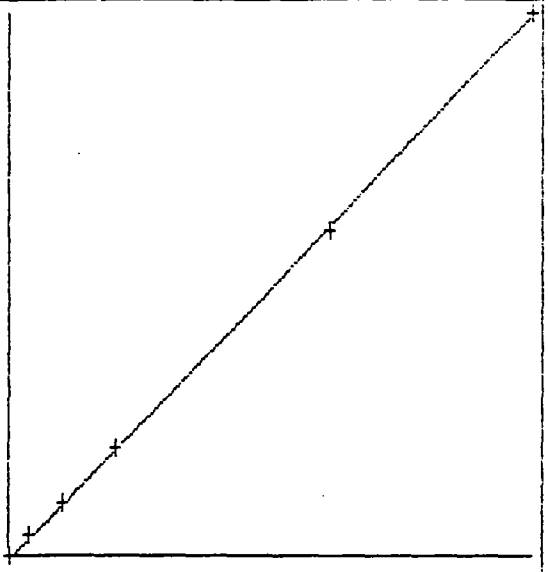
CALIBRATION: Line Calibration

Line: Hg

	Conc.	Calc.	Dev.	Accepted LiNear Quadratic WtdLinear Accept StdAdd
S1	.000	-.001	-.001	
S2	.200	.183	-.017	
S3	.500	.505	.005	
S4	1.00	.997	-.003	
S5	3.00	3.04	.041	
S6	5.00	4.98	-.024	

A .0000000 r .999934

B 7.18103e-5 C -3.08123e-2



Relative Absorbance

	Mean	%RSD		
S1	410	87.96	665	155
S2	2980	0.97	3001	2960
S3	7457	1.33	7387	7527
S4	14310	0.46	14357	14263
S5	42775	0.47	42916	42634
S6	69720	0.93	70179	69261

New calibration coefficients stored

H6-130

Std. Lot #: LB300-44A Modifier Lot #: ———

ICV Lot #: LB300-44B CCV Lot #: LB300-44A

LCS & MS/MSD Lot #: LB300-44A

ANALYST 9-8-96 DATE

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Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: ICV 2.5PPB Seq: 12 15:48:41 08 Sep 1996 HG

Hg 2.59 ug/L 36433 %R - 86.3

*** Sample ID: ICB Seq: 13 15:51:02 08 Sep 1996 HG

Hg -.037 ug/L -86

*** Sample ID: 0.2PPB STD Seq: 14 15:53:18 08 Sep 1996 HG

Hg .186 ug/L 3023 %R - 93.0

*** Sample ID: PB,TS Seq: 15 15:55:33 08 Sep 1996 HG
2858 Dil. Weight .20000 Volume 100.00

Hg 3.16 ug/L 517

*** Sample ID: LCS Seq: 16 15:57:48 08 Sep 1996 HG
1PPM Dil. Weight .20000 Volume 100.00

Hg 959. ug/L 27142 %R - 95.9

*** Sample ID: 9654-4 Seq: 17 16:00:09 08 Sep 1996 HG
Dil. Weight .20900 Volume 100.00

Hg 19.3 ug/L 992

%RPD - N C

*** Sample ID: 9654-4DP Seq: 18 16:02:25 08 Sep 1996 HG
Dil. Weight .20100 Volume 100.00

Hg 29.7 ug/L 1260

*** Sample ID: 9654-5MS Seq: 19 16:04:41 08 Sep 1996 HG
1PPM Dil. Weight .20000 Volume 100.00

Hg 972. ug/L 27502 %R : 97.2

*** Sample ID: 9654-6MD Seq: 20 16:06:58 08 Sep 1996 HG
1PPM Dil. Weight .20500 Volume 100.00

Hg 945. ug/L 27418 %RPD - 2.82

%R : 94.5

*** Sample ID: 9654-1 Seq: 21 16:09:15 08 Sep 1996 HG
Dil. Weight .20100 Volume 100.00

Hg 17.5 ug/L 920

*** Sample ID: 9654-2 Seq: 22 16:11:31 08 Sep 1996 HG
Dil. Weight .21300 Volume 100.00

Hg 16.1 ug/L 906

*** Sample ID: CCV 3.0PPB Seq: 23 16:13:46 08 Sep 1996 HG

Hg 2.90 ug/L 40763 %R - 96.7

1253

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Line	Conc.	Units	SD/RSD	1	2	3	4	5

*** Sample ID: CCB Seq: 24 16:16:05 08 Sep 1996 HG

Hg -.042 ug/L -161

*** Sample ID: 9654-3 Seq: 25 16:18:19 08 Sep 1996 HG
Dil. Weight .20500 Volume 100.00

Hg 28.7 ug/L 1248

*** Sample ID: 9654-7 Seq: 26 16:20:33 08 Sep 1996 HG
Dil. Weight .20400 Volume 100.00

Hg 55.3 ug/L 2001

*** Sample ID: 9654-10 Seq: 27 16:22:47 08 Sep 1996 HG
Dil. Weight .20300 Volume 100.00

Hg 7.18 ug/L 632

*** Sample ID: 9654-13 Seq: 28 16:25:01 08 Sep 1996 HG
Dil. Weight .20100 Volume 100.00

Hg 20.7 ug/L 1009

*** Sample ID: 9653-1 Seq: 29 16:27:15 08 Sep 1996 HG
Dil. Weight .20500 Volume 100.00

Hg 206. ug/L 6318

*** Sample ID: 9653-2 Seq: 30 16:29:29 08 Sep 1996 HG
Dil. Weight .21200 Volume 100.00

Hg 142. ug/L 4612

*** Sample ID: 9653-3 Seq: 31 16:31:43 08 Sep 1996 HG
Dil. Weight .20900 Volume 100.00

Hg 16100 ug/L 468207 Z

*** Sample ID: 9650-1 Seq: 32 16:34:27 08 Sep 1996 HG
Dil. Weight .21100 Volume 100.00

Hg -6.13 ug/L 249

*** Sample ID: 9650-2 Seq: 33 16:36:42 08 Sep 1996 HG
Dil. Weight .20600 Volume 100.00

Hg 47.0 ug/L 1778

*** Sample ID: CCV 3.0PPB Seq: 34 16:38:55 08 Sep 1996 HG

Hg 2.87 ug/L 40400 %R= 95.7

*** Sample ID: CCB Seq: 35 16:41:10 08 Sep 1996 HG

Hg -.040 ug/L -121

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Line	Conc.	Units	SD/RSD	1	2	3	4	5
*** Sample ID: 9650-3				Seq: 36	16:43:22 08 Sep 1996 HG			
					Dil. Weight .20300 Volume 100.00			
Hg	9.69	ug/L	703					
*** Sample ID: 9650-4				Seq: 37	16:45:35 08 Sep 1996 HG			
					Dil. Weight .20400 Volume 100.00			
Hg	28.6	ug/L	1241					
*** Sample ID: 9710-1				Seq: 38	16:47:48 08 Sep 1996 HG			
					Dil. Weight .20900 Volume 100.00			
Hg	23.2	ug/L	1104					
*** Sample ID: 9226-10				Seq: 39	16:50:01 08 Sep 1996 HG			
					Dil. Weight .20400 Volume 100.00			
Hg	552.	ug/L	16104					
*** Sample ID: 9226-12				Seq: 40	16:52:14 08 Sep 1996 HG			
					Dil. Weight .20500 Volume 100.00			
Hg	21.6	ug/L	1046					
*** Sample ID: 9825-40				Seq: 41	16:54:27 08 Sep 1996 HG			
					Dil. Weight .22400 Volume 100.00			
Hg	6560	ug/L	205123	7				
*** Sample ID: 9825-41				Seq: 42	16:56:57 08 Sep 1996 HG			
					Dil. Weight .23500 Volume 100.00			
Hg	127.	ug/L	4589					
*** Sample ID: 9825-42				Seq: 43	16:59:10 08 Sep 1996 HG			
					Dil. Weight .22400 Volume 100.00			
Hg	646.	ug/L	20570					
*** Sample ID: PB,TS				Seq: 44	17:01:24 08 Sep 1996 HG			
			2863		Dil. Weight .20000 Volume 100.00			
Hg	-9.45	ug/L	166					
*** Sample ID: 9653-3				Seq: 45	17:03:38 08 Sep 1996 HG			
			1:10		Dil. Weight .20900 Volume 100.00			
Hg	1700	ug/L	49878	17000 mg/kg				
*** Sample ID: CCV 3.0PPB				Seq: 46	17:05:55 08 Sep 1996 HG			
Hg	2.88	ug/L	40536		1-12:96.0			
*** Sample ID: CCB				Seq: 47	17:08:11 08 Sep 1996 HG			
Hg	-.043	ug/L	-166					

ANALYST 9-8-96 DATE
REVIEW 9-9-96 DATE
DATA ENTRY DATE
ANALYTE INST.#

Inchcape Testing Services
Environmental Laboratories

PREPARATION AND ANALYSIS LOGS

Metals Preparation Sample Tracking

45

Date: 09-04-96 Time: 12:00 Tech: CEL

Sample Number	Concentration
Blank	100ml
LCS-ICP	
~~LCS-AA~~ Cd.	
9532-11 MS-ICP	2.00
MD-ICP	2.00
~~MS-AA~~	*
~~MD-AA~~ Cd.	
DUP	2.06
	2.07
9653-1	2.00
2	2.08
3	2.00
9693-1	2.01
2	2.00
3	2.06
4	2.06
5	2.03
6	2.10
7	2.01
8	2.01
10	2.05
11	2.01
12	2.03
	Cd. 9/4/96

Preparation Information

Preparation Method: 3050

Matrix: Solid

Spiking Information

Amount-µL	Spike Number
2000	690813
2000	690805
2000	690817

Cd. 9/4/96

BATCH 14596 (ICP)

BATCH 14596F (AA)

Sample Notes:

Metals Preparation Sample Tracking

H5

Date: 09-04-96 Time: 3:00 pm Tech: CEL

Sample Number	Concentration
Blank	g/100ml
~~LCS-ICP~~	
LCS-AA	
~~MS-ICP~~	
~~MD-ICP~~	
9654-5 MS-AA	2.00g
-6 MD-AA	2.00
-4 DUP	2.05
-4	2.08
9654-1	2.06
2	2.12
3	2.05
7	2.11
10	2.03
13	2.02
9653-1	2.01
2	2.05
3	2.04
9650-1	2.08
2	2.10
3	2.03
4	2.00
CE	9/4/96

Preparation Information

Preparation Method: 3050F

Matrix: Solid

Spiking Information

Amount-µL	Spike Number
2000	690619

CE 9/5/96

BATCH 14597 (ICP)

BATCH 14597F (AA)

Sample Notes:

Metals Preparation Sample Tracking

Date: 9/6/96 Time: 11:00am Tech: CEL

Sample Number	Concentration	Preparation Information
Blank	100ml	Preparation Method
~~LCS-ICP~~ CL		3050F
LCS-AA		Matrix
~~8~~ a. ~~MS-ICP~~		Solid
~~MD-ICP~~ CL		
9751-2 MS-AA	2-00	
-3 MD-AA	2-00	Spiking Information
-1 DUP	2-07	Amount-µL / Spike Number
-1	2.06	2000 / 690619
-4	2-05	
9459-1	2-02	
2	2-03	
3	2-11	
9653-1	2-02	CL 9/6/96
2	2-04	
3	2-03	
		BATCH 14606 (ICP)
		BATCH 14606F (AA)
		Sample Notes:
CL 9/6/96		

Mercury Prep

Date: 9/7/96 Time: 9:00am 10:00 am Tech: CDL

Sample Number	Sample Volume
Blank	9/100ml
LCS	
9654-5 MS	.200g
-6 MSD	.205g
-4 DUP	.201g
-4	.209g
-1	.201g
-2	.213g
-3	.205g
-7	.204g
-10	.203g
-13	.201g
9653-1	.205g
2	.212g
3	.209g
9650-1	.211g
2	.206g
3	.203g
4	.204g
9710-1	.209g
9226-10	.204g
9226-12	.206g
9825-40	.224g
41	.235g
42	.224g

Bath Temp. Autoclave °C

MS/MSD/LCS Spike #:

AB300-44A (0.1 ppm)

LCS/MS/MSD amount: 2.0ml

Matrix: Solid

7471

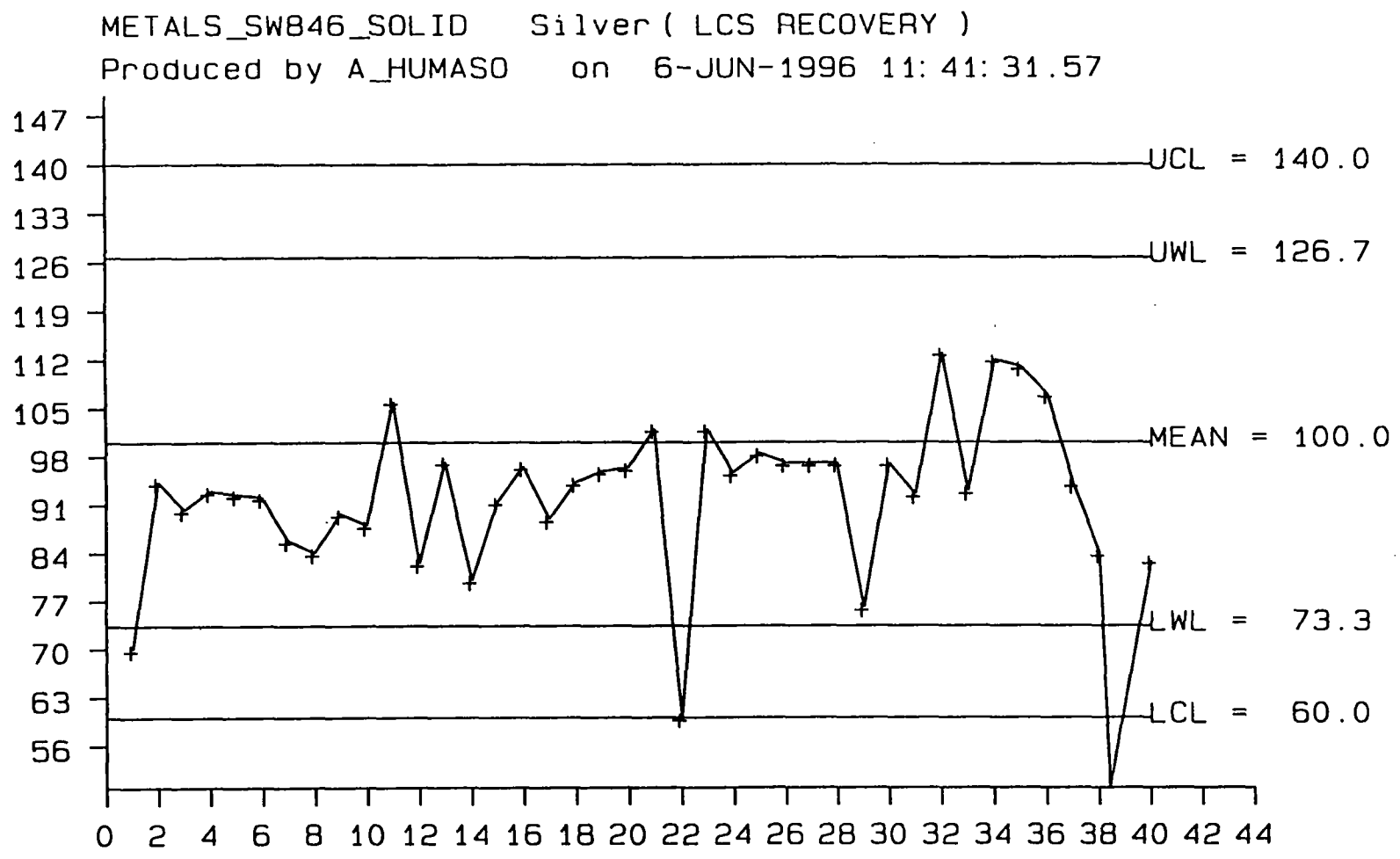
Batch HG-2858

For reporting purposes, final volume is recorded as 100 mL. Due to the addition of reagents, actual final volume is 136.5 mL. All samples ans standards are prepared to the same final volume thus maintaining a 1:1 prep ratio for liquids and a 1:500 prep ratio for solid samples.
QC samples were taken from different sample bottles.

Inchcape Testing Services
Environmental Laboratories

CONTROL CHARTS

1261

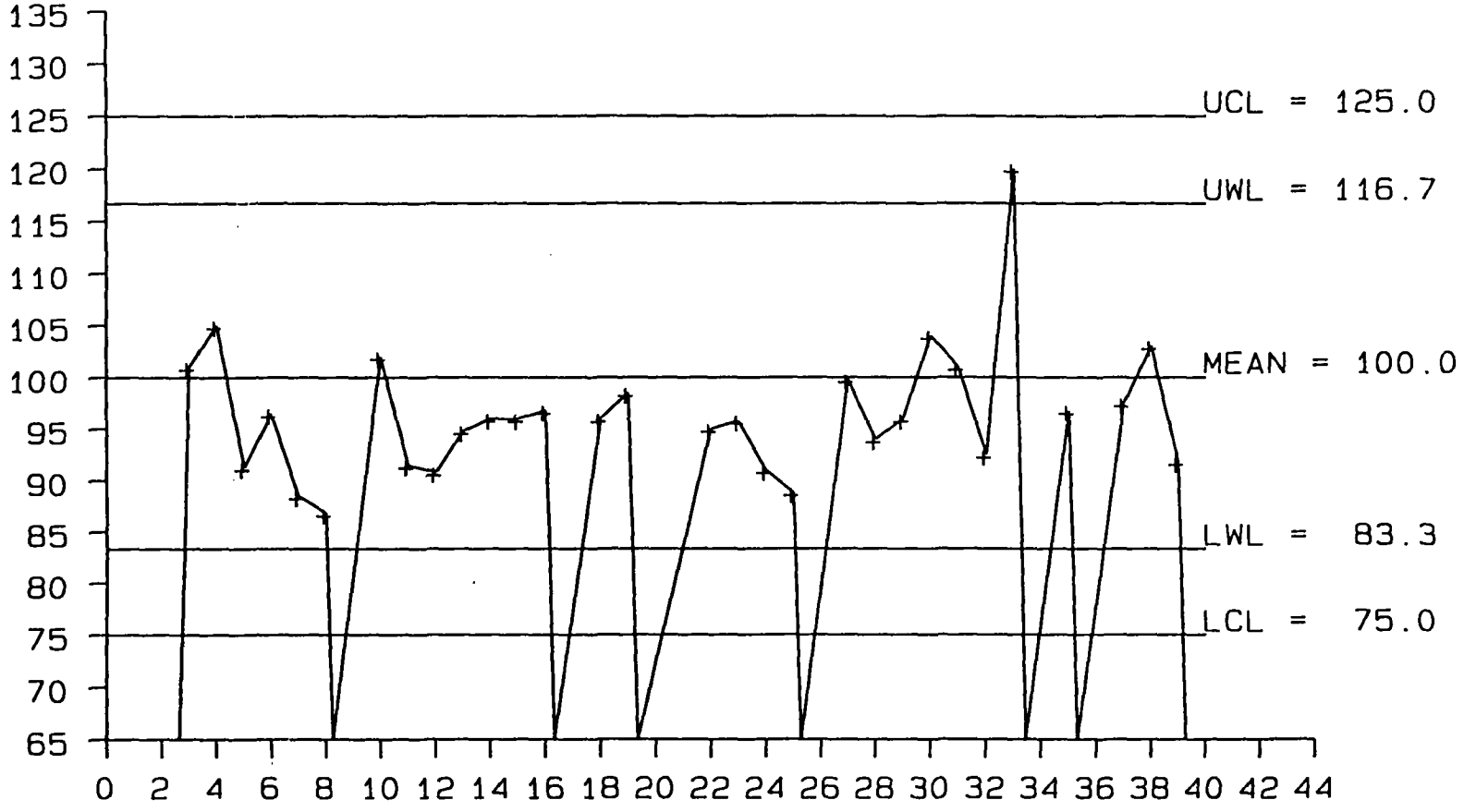

METALS_SW846_SOLID Silver (LCS RECOVERY)
Produced by A_HUMASO on 6-JUN-1996 11:41:31.57
147
140
133
126
119
112
105
98
91
84
77
70
63
56
UCL = 140.0
UWL = 126.7
MEAN = 100.0
LWL = 73.3
LCL = 60.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: METALS_SW846_SOLID Silver
Chart Type: LCS RECOVERY
Generated on: 6-JUN-1996 11:41

Current Control Limits
(60.0 - 140.0)

Point	Batch Number	Date Analyzed	Value (%)
1	13267	23-APR-1996 0	70.0
2	13272	23-APR-1996 0	94.3
3	13278	24-APR-1996 0	90.3
4	13274	24-APR-1996 0	93.0
5	13262	24-APR-1996 0	92.5
6	13273	24-APR-1996 0	92.1
7	13279	25-APR-1996 0	85.8
8	13384	26-APR-1996 0	84.0
9	13338	26-APR-1996 0	89.7
10	13275	27-APR-1996 0	88.0
11	13392	29-APR-1996 0	106
12	13390	1-MAY-1996 0	82.5
13	13395	2-MAY-1996 0	97.2
14	13401	3-MAY-1996 0	80.0
15	13413	6-MAY-1996 0	91.4
16	13410	8-MAY-1996 0	96.5
17	13416	8-MAY-1996 0	88.9
18	13405	8-MAY-1996 0	94.2
19	13420	11-MAY-1996 0	95.8
20	13425	11-MAY-1996 0	96.3
21	13422	14-MAY-1996 0	102
22	13436	16-MAY-1996 0	60.0
23	13448	17-MAY-1996 0	102
24	13443	17-MAY-1996 0	95.6
25	13444	17-MAY-1996 0	98.4
26	13455A	18-MAY-1996 0	97.0
27	13455M	18-MAY-1996 0	97.0
28	13450	18-MAY-1996 0	97.0
29	13453	18-MAY-1996 0	76.0
30	13455	18-MAY-1996 0	97.0
31	13432	22-MAY-1996 0	92.5
32	13468	23-MAY-1996 0	113
33	13469	24-MAY-1996 0	93.0
34	13477	28-MAY-1996 0	112
35	13471	29-MAY-1996 0	111
36	13478	29-MAY-1996 0	107
37	13684	30-MAY-1996 0	94.0
38	13690	3-JUN-1996 0	83.9
39	13687	3-JUN-1996 0	0.0
40	13689	4-JUN-1996 0	82.8

M_SW846_SOLID_GF Arsenic (LCS RECOVERY)
Produced by A_HUMASO on 6-JUN-1996 11:48:35.17

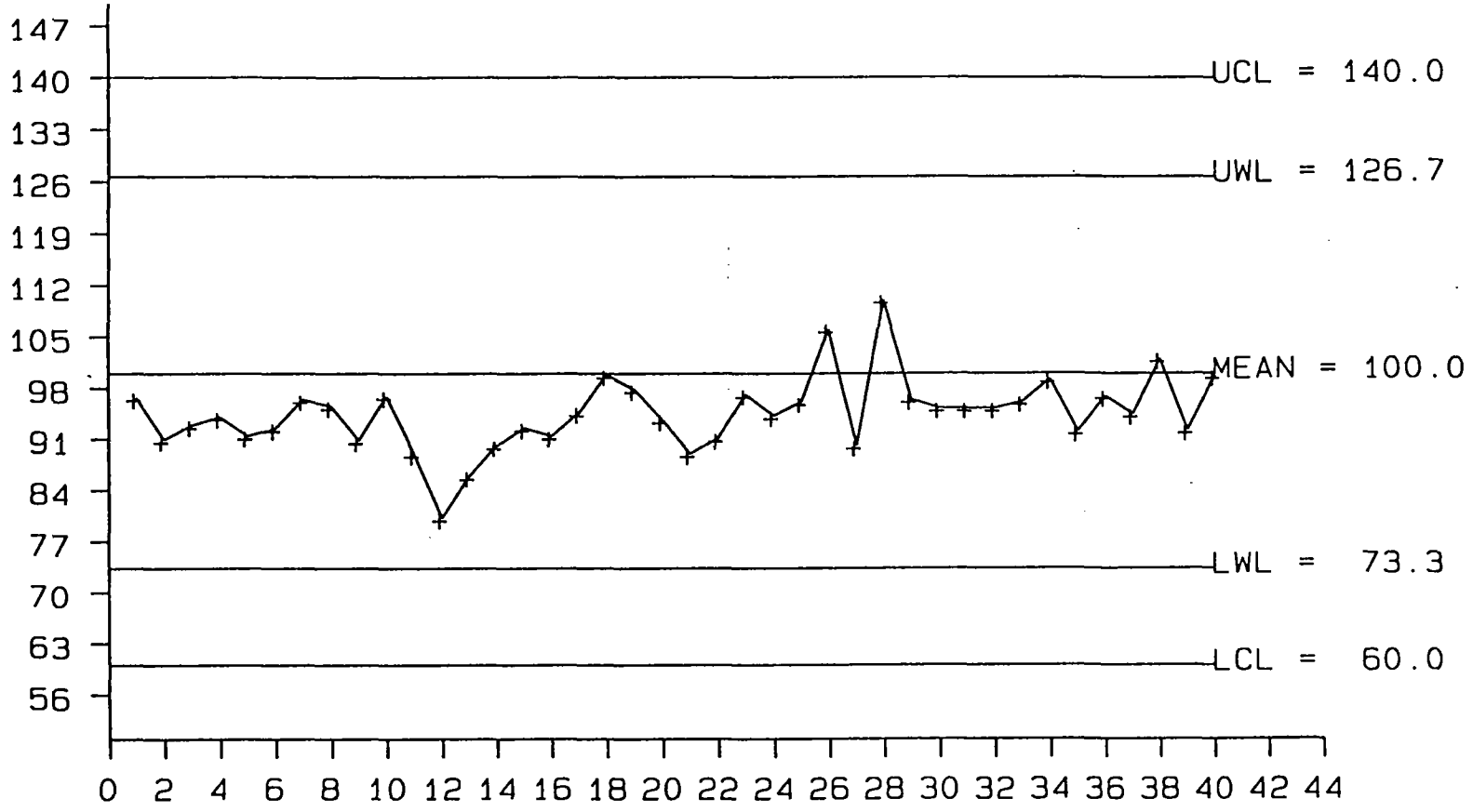


Data Points for: M_SW846_SOLID_GF Arsenic
Chart Type: LCS RECOVERY
Generated on: 6-JUN-1996 11:48

Current Control Limits
(75.0 - 125.0)

Point	Batch Number	Date Analyzed	Value (%)
1	13400F	2-MAY-1996 0	CHECK LEVEL
2	13404D	2-MAY-1996 0	CHECK LEVEL
3	13405F	3-MAY-1996 0	101
4	SOW-178	3-MAY-1996 0	105
5	13409F	6-MAY-1996 0	91.3
6	13410F	6-MAY-1996 0	96.5
7	13413F	6-MAY-1996 0	88.5
8	13416F	6-MAY-1996 0	86.8
9	SOW-175	7-MAY-1996 0	CHECK LEVEL
10	13420F	8-MAY-1996 0	102
11	13427F	9-MAY-1996 0	91.5
12	13425F	9-MAY-1996 0	90.8
13	13422F	9-MAY-1996 0	94.8
14	13432F	13-MAY-1996 0	96.0
15	13436F	14-MAY-1996 0	96.0
16	13431F	15-MAY-1996 0	96.8
17	13442D	15-MAY-1996 0	CHECK LEVEL
18	13443F	15-MAY-1996 0	96.0
19	13444F	16-MAY-1996 0	98.5
20	13434F	16-MAY-1996 0	CHECK LEVEL
21	13433F	16-MAY-1996 0	CHECK LEVEL
22	13450F	17-MAY-1996 0	95.0
23	13448F	17-MAY-1996 0	95.8
24	13455F	20-MAY-1996 0	91.0
25	13453F	20-MAY-1996 0	88.8
26	13457F	20-MAY-1996 0	CHECK LEVEL
27	13458F	21-MAY-1996 0	99.8
28	13466F	22-MAY-1996 0	94.0
29	13461F	22-MAY-1996 0	96.0
30	13468F	24-MAY-1996 0	104
31	13470F	24-MAY-1996 0	101
32	13471F	28-MAY-1996 0	92.5
33	13477F	29-MAY-1996 0	120
34	13683D	30-MAY-1996 0	CHECK LEVEL
35	13684F	30-MAY-1996 0	96.8
36	13477D	30-MAY-1996 0	CHECK LEVEL
37	13685F	31-MAY-1996 0	97.5
38	13687F	3-JUN-1996 0	103
39	13689F	3-JUN-1996 0	91.8
40	13686F	4-JUN-1996 0	CHECK LEVEL

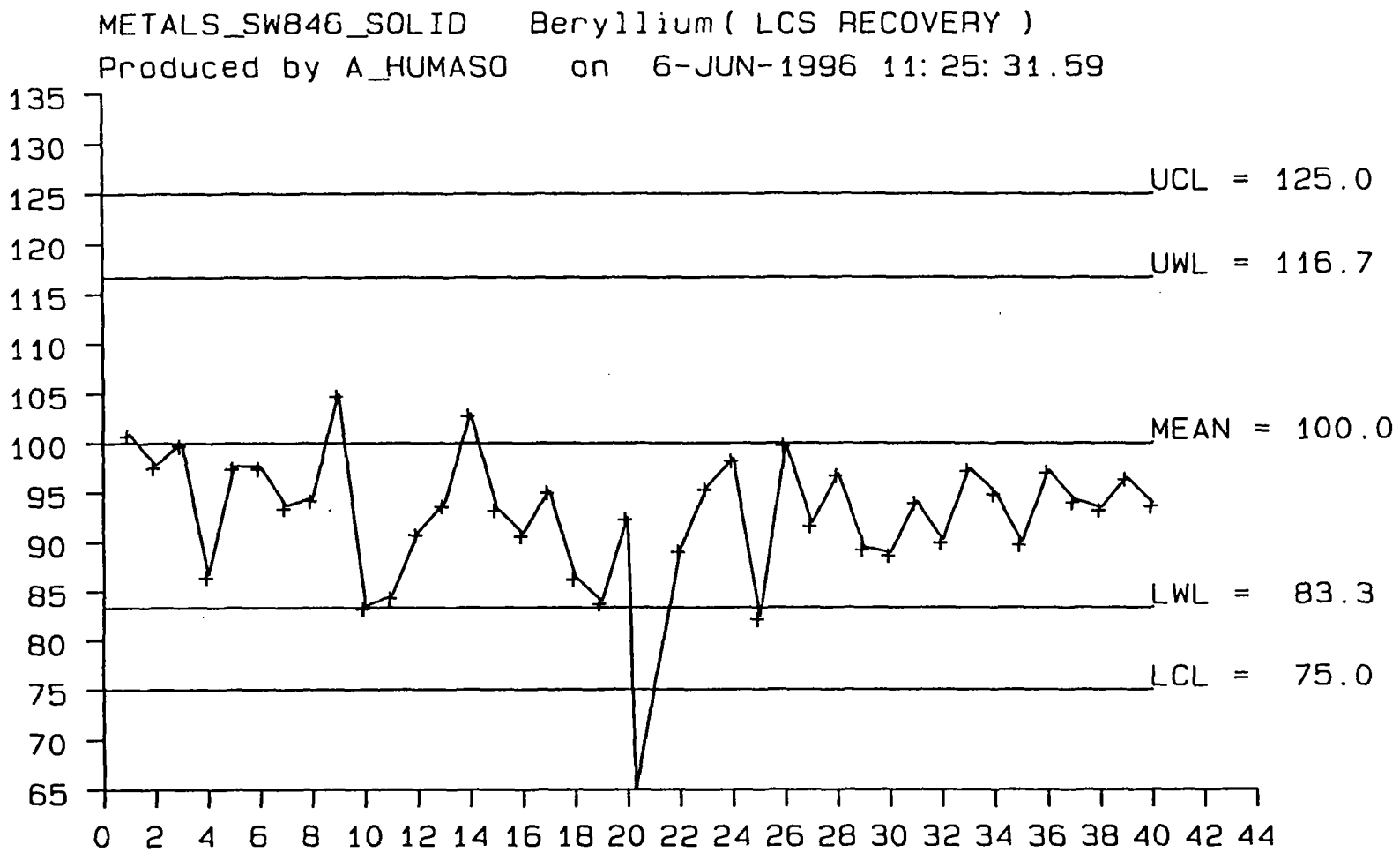
METALS_SW846_SOLID Barium(LCS RECOVERY)
Produced by A_HUMASO on 6-JUN-1996 11:23:05.36



Data Points for: METALS_SW846_SOLID Barium
Chart Type: LCS RECOVERY
Generated on: 6-JUN-1996 11:23

Current Control Limits
(60.0 - 140.0)

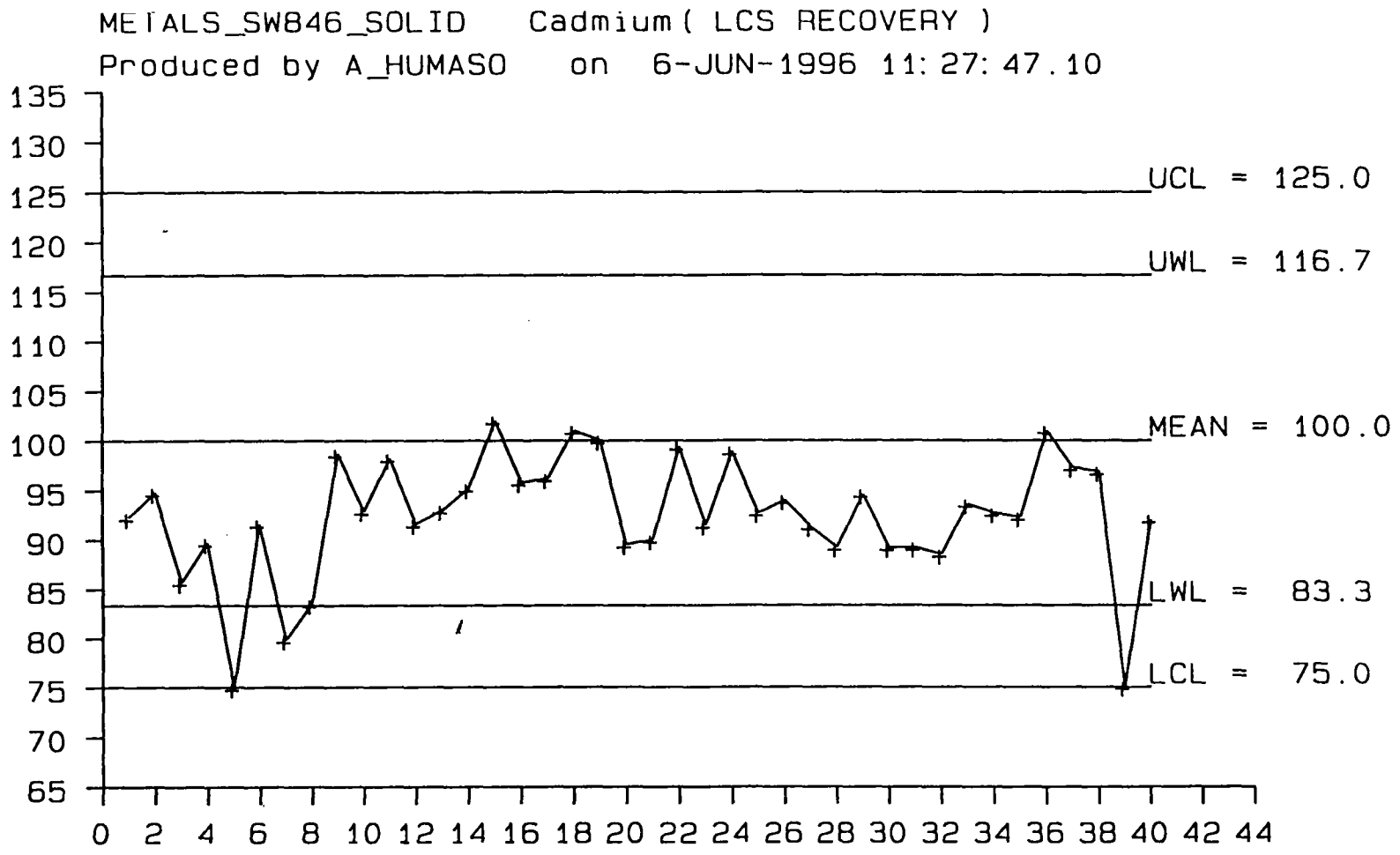
Point	Batch Number	Date Analyzed	Value (%)
1	13261	19-APR-1996 0	96.7
2	0418601001	19-APR-1996 0	90.9
3	0418601002	20-APR-1996 0	92.9
4	13262	20-APR-1996 0	94.0
5	13275	23-APR-1996 0	91.4
6	13272	23-APR-1996 0	92.4
7	13273	24-APR-1996 0	96.4
8	13274	24-APR-1996 0	95.5
9	13278	24-APR-1996 0	90.8
10	0418601003	25-APR-1996 0	96.9
11	13279	25-APR-1996 0	89.0
12	13384	26-APR-1996 0	80.2
13	13338	26-APR-1996 0	85.9
14	13392	29-APR-1996 0	90.1
15	13390	1-MAY-1996 0	92.5
16	13391	1-MAY-1996 0	91.4
17	13395	2-MAY-1996 0	94.6
18	13401	3-MAY-1996 0	99.8
19	13410	4-MAY-1996 0	97.8
20	13413	6-MAY-1996 0	93.6
21	13416	8-MAY-1996 0	89.0
22	13405	8-MAY-1996 0	91.1
23	13425	11-MAY-1996 0	97.1
24	13420	11-MAY-1996 0	94.2
25	13436	14-MAY-1996 0	96.1
26	13443	15-MAY-1996 0	106
27	13441	15-MAY-1996 0	90.1
28	13448	17-MAY-1996 0	110
29	13444	17-MAY-1996 0	96.4
30	13455M	18-MAY-1996 0	95.2
31	13455A	18-MAY-1996 0	95.2
32	13455	18-MAY-1996 0	95.2
33	13453	18-MAY-1996 0	96.1
34	13432	22-MAY-1996 0	99.2
35	13431	22-MAY-1996 0	92.0
36	13468	23-MAY-1996 0	96.9
37	13461	27-MAY-1996 0	94.4
38	13477	28-MAY-1996 0	102
39	13471	29-MAY-1996 0	92.2
40	13684	30-MAY-1996 0	99.7


METALS_SW846_SOLID Beryllium(LCS RECOVERY)
Produced by A_HUMASO on 6-JUN-1996 11:25:31.59
135
130
125
120
115
110
105
100
95
90
85
80
75
70
65
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44
UCL = 125.0
UWL = 116.7
MEAN = 100.0
LWL = 83.3
LCL = 75.0

Data Points for: METALS_SW846_SOLID Beryllium
Chart Type: LCS RECOVERY
Generated on: 6-JUN-1996 11:25

Current Control Limits
(75.0 - 125.0)

Point	Batch Number	Date Analyzed	Value (%)
1	12897	13-FEB-1996 0	101
2	0205601002	13-FEB-1996 0	97.8
3	12904	16-FEB-1996 0	100
4	12900P	16-FEB-1996 0	86.7
5	12908P	16-FEB-1996 0	97.7
6	12908	16-FEB-1996 0	97.7
7	12913	20-FEB-1996 0	93.7
8	12902P	21-FEB-1996 0	94.5
9	12902	21-FEB-1996 0	105
10	12912	22-FEB-1996 0	83.5
11	12915	26-FEB-1996 0	84.6
12	12934	27-FEB-1996 0	91.0
13	12916	29-FEB-1996 0	93.9
14	12942	1-MAR-1996 0	103
15	12943	3-MAR-1996 0	93.5
16	12950	6-MAR-1996 0	90.9
17	12953	8-MAR-1996 0	95.3
18	12956	11-MAR-1996 0	86.5
19	12955	11-MAR-1996 0	84.0
20	12960P	13-MAR-1996 0	92.6
21	12965	19-MAR-1996 0	CHECK LEVEL
22	12969	21-MAR-1996 0	89.3
23	12973	22-MAR-1996 0	95.6
24	13078	25-MAR-1996 0	98.5
25	13187	28-MAR-1996 0	82.4
26	13209	4-APR-1996 0	100
27	13212	6-APR-1996 0	91.9
28	13239	16-APR-1996 0	97.0
29	13262	20-APR-1996 0	89.5
30	13272	23-APR-1996 0	88.9
31	13273	24-APR-1996 0	94.2
32	13274	24-APR-1996 0	90.2
33	13338	26-APR-1996 0	97.5
34	13410	8-MAY-1996 0	95.1
35	13416	10-MAY-1996 0	90.0
36	13422	14-MAY-1996 0	97.3
37	13432	21-MAY-1996 0	94.3
38	13450	24-MAY-1996 0	93.5
39	13471	29-MAY-1996 0	96.6
40	13477	3-JUN-1996 0	93.9

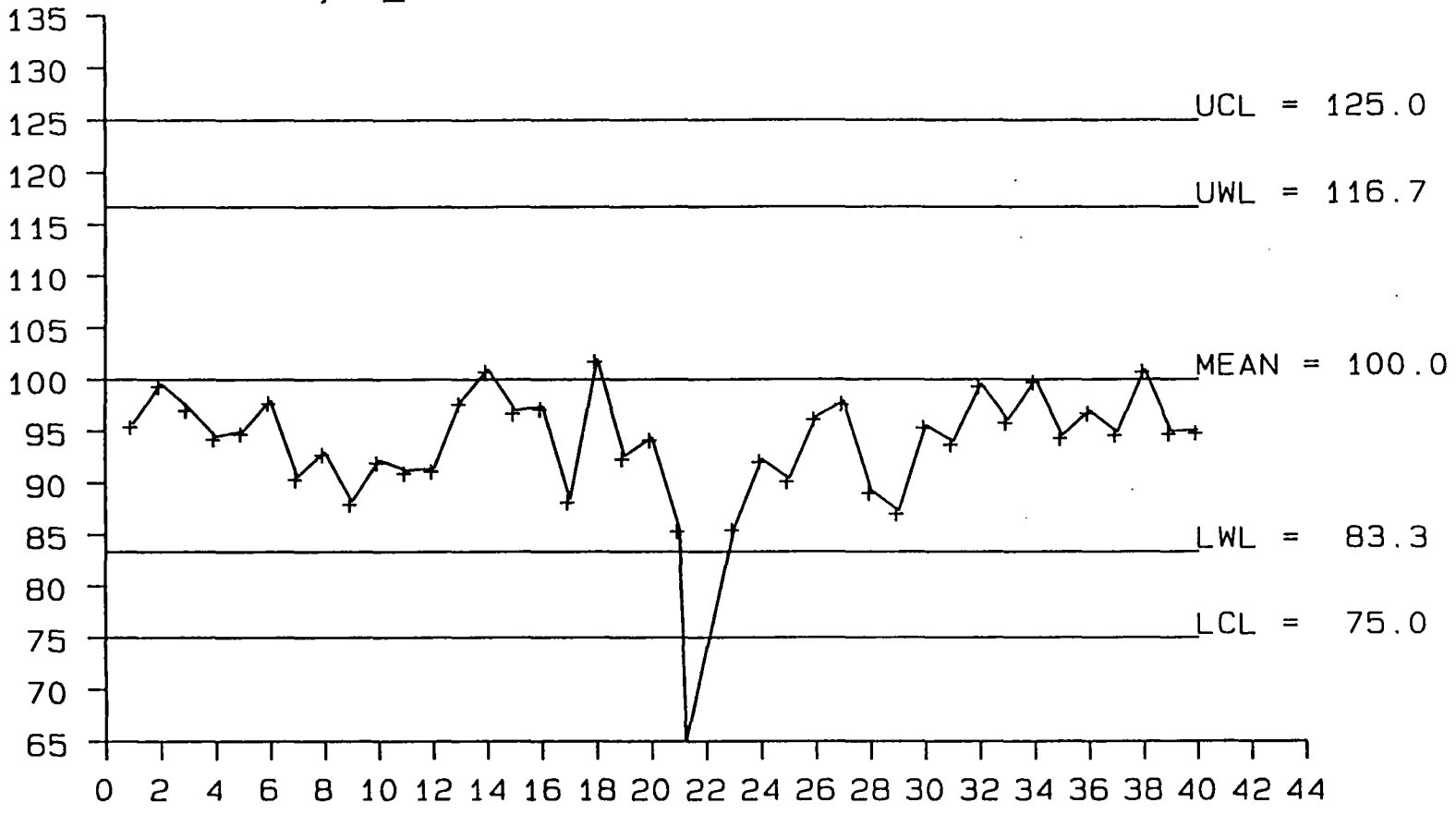

METALS_SW846_SOLID Cadmium (LCS RECOVERY)
Produced by A_HUMASO on 6-JUN-1996 11:27:47.10
135
130
125
120
115
110
105
100
95
90
85
80
75
70
65
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44
UCL = 125.0
UWL = 116.7
MEAN = 100.0
LWL = 83.3
LCL = 75.0

Data Points for: METALS_SW846_SOLID Cadmium
Chart Type: LCS RECOVERY
Generated on: 6-JUN-1996 11:27

Current Control Limits
(75.0 - 125.0)

Point	Batch Number	Date Analyzed	Value (%)
1	13273	24-APR-1996 0	92.3
2	13274	24-APR-1996 0	94.8
3	13278	24-APR-1996 0	85.7
4	13279	25-APR-1996 0	89.7
5	13384	26-APR-1996 0	75.0
6	13338	26-APR-1996 0	91.6
7	13392	29-APR-1996 0	79.9
8	13390	1-MAY-1996 0	83.5
9	13395	2-MAY-1996 0	98.7
10	13401	3-MAY-1996 0	92.9
11	13394	3-MAY-1996 0	98.2
12	13399	3-MAY-1996 0	91.6
13	13402	4-MAY-1996 0	93.0
14	13413	6-MAY-1996 0	95.2
15	13410	8-MAY-1996 0	102
16	13416	8-MAY-1996 0	95.8
17	13405	8-MAY-1996 0	96.2
18	13425	11-MAY-1996 0	101
19	13420	11-MAY-1996 0	100
20	13422	12-MAY-1996 0	89.5
21	13436	14-MAY-1996 0	90.0
22	13441	15-MAY-1996 0	99.4
23	13443	15-MAY-1996 0	91.5
24	13444	16-MAY-1996 0	98.9
25	13445	17-MAY-1996 0	92.7
26	13448	17-MAY-1996 0	94.0
27	13453	18-MAY-1996 0	91.3
28	13455	18-MAY-1996 0	89.2
29	13450	18-MAY-1996 0	94.6
30	13455A	18-MAY-1996 0	89.2
31	13455M	18-MAY-1996 0	89.2
32	13452P	20-MAY-1996 0	88.5
33	13432	21-MAY-1996 0	93.6
34	13468	23-MAY-1996 0	92.7
35	13461	27-MAY-1996 0	92.3
36	13477	28-MAY-1996 0	101
37	13471	29-MAY-1996 0	97.3
38	13684	30-MAY-1996 0	96.9
39	13687	3-JUN-1996 0	75.1
40	13689	4-JUN-1996 0	92.0

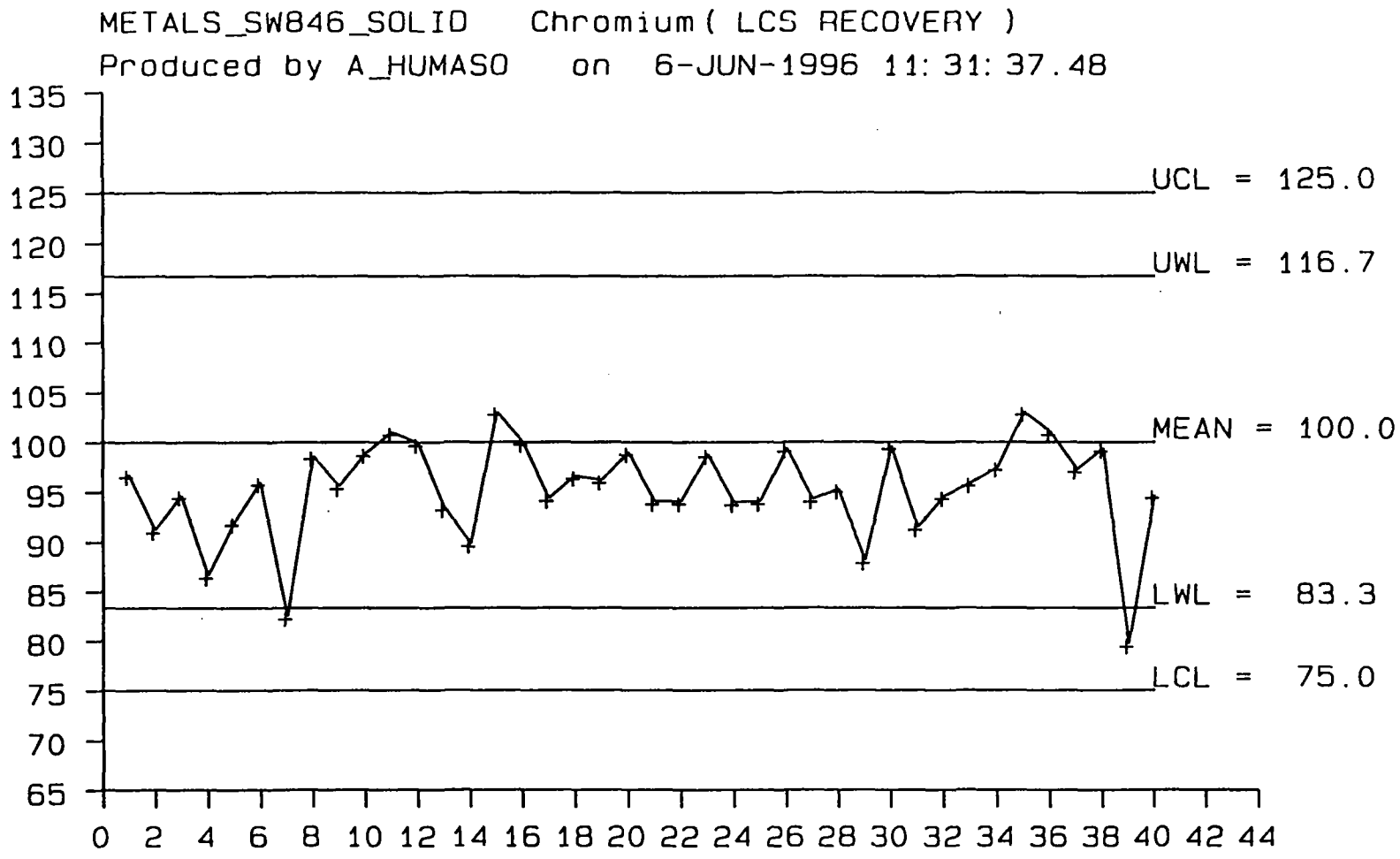
METALS_SW846_SOLID Cobalt (LCS RECOVERY)
Produced by A_HUMASO on 27-JUN-1996 11:03:02.31



Data Points for: METALS_SW846_SOLID Cobalt
Chart Type: LCS RECOVERY
Generated on: 27-JUN-1996 11:03

Current Control Limits
(75.0 - 125.0)

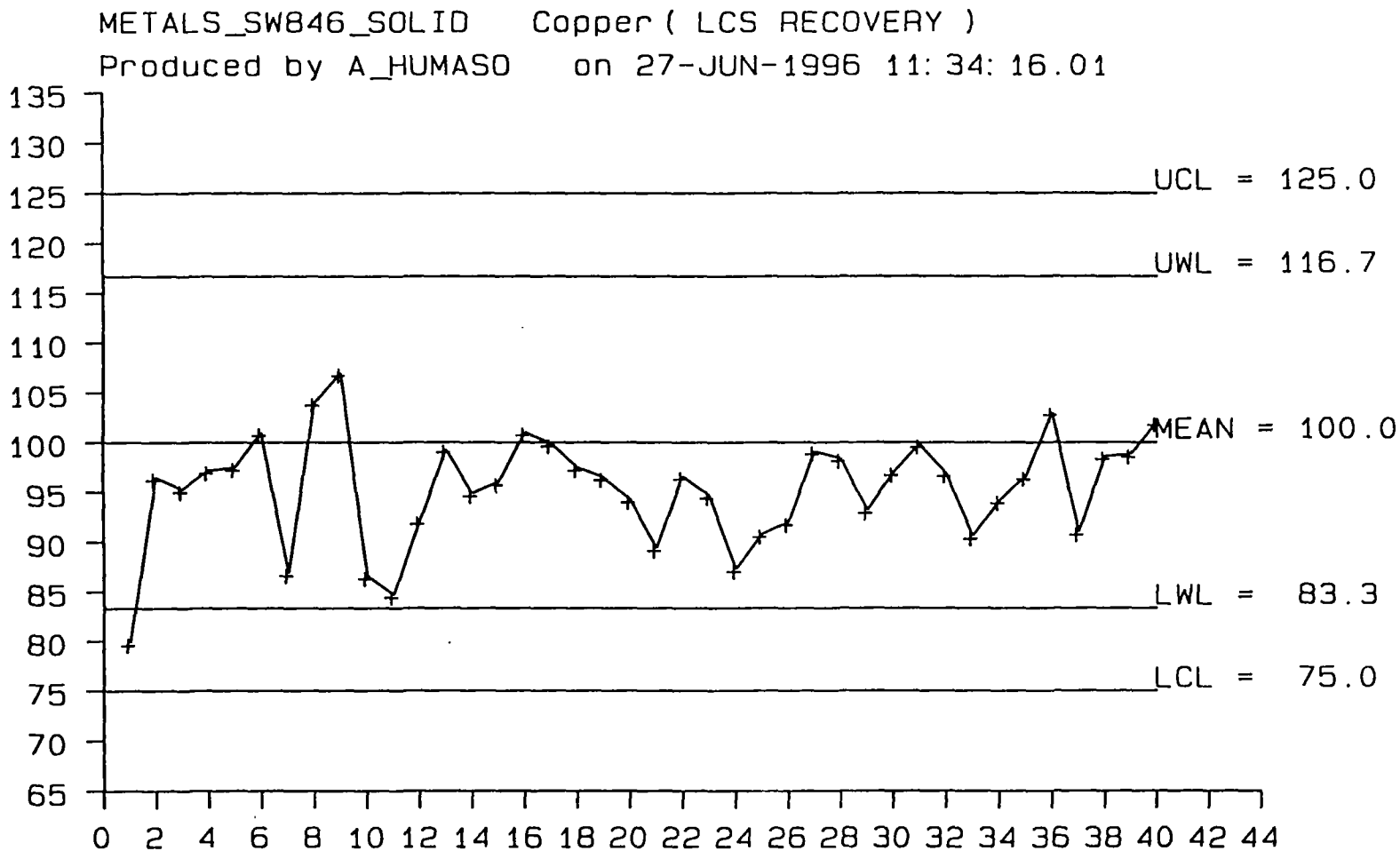
Point	Batch Number	Date Analyzed	Value (%)
1	12095	9-NOV-1995 0	95.7
2	12099	10-NOV-1995 0	99.6
3	12108	14-NOV-1995 0	97.3
4	12109	14-NOV-1995 0	94.5
5	12111	16-NOV-1995 0	95.0
6	12121	18-NOV-1995 0	98.0
7	12119	20-NOV-1995 0	90.6
8	12129	29-NOV-1995 0	93.0
9	12493	29-DEC-1995 0	88.2
10	12492	3-JAN-1996 0	92.2
11	12570	1-FEB-1996 0	91.2
12	12884	5-FEB-1996 0	91.4
13	12897	13-FEB-1996 0	97.9
14	12913	20-FEB-1996 0	101
15	12909	20-FEB-1996 0	97.0
16	12934	27-FEB-1996 0	97.4
17	12933	29-FEB-1996 0	88.4
18	12942	1-MAR-1996 0	102
19	12943	3-MAR-1996 0	92.6
20	12953	8-MAR-1996 0	94.4
21	12956	11-MAR-1996 0	85.6
22	12965	19-MAR-1996 0	CHECK LEVEL
23	12969	21-MAR-1996 0	85.7
24	12973	22-MAR-1996 0	92.3
25	13188	30-MAR-1996 0	90.4
26	13209	4-APR-1996 0	96.4
27	13239	16-APR-1996 0	97.9
28	13262	20-APR-1996 0	89.3
29	13272	23-APR-1996 0	87.3
30	13274	24-APR-1996 0	95.6
31	13338	26-APR-1996 0	94.0
32	13410	8-MAY-1996 0	99.6
33	13438	22-MAY-1996 0	96.1
34	13477	28-MAY-1996 0	100
35	13696	6-JUN-1996 0	94.6
36	13703	11-JUN-1996 0	97.0
37	13717	22-JUN-1996 0	94.9
38	13724	23-JUN-1996 0	101
39	13728	24-JUN-1996 0	95.0
40	13738	25-JUN-1996 0	95.1


METALS_SW846_SOLID Chromium (LCS RECOVERY)
Produced by A_HUMASO on 6-JUN-1996 11:31:37.48
135
130
125
120
115
110
105
100
95
90
85
80
75
70
65
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44
UCL = 125.0
UWL = 116.7
MEAN = 100.0
LWL = 83.3
LCL = 75.0

Data Points for: METALS_SW846_SOLID Chromium
Chart Type: LCS RECOVERY
Generated on: 6-JUN-1996 11:31

Current Control Limits
(75.0 - 125.0)

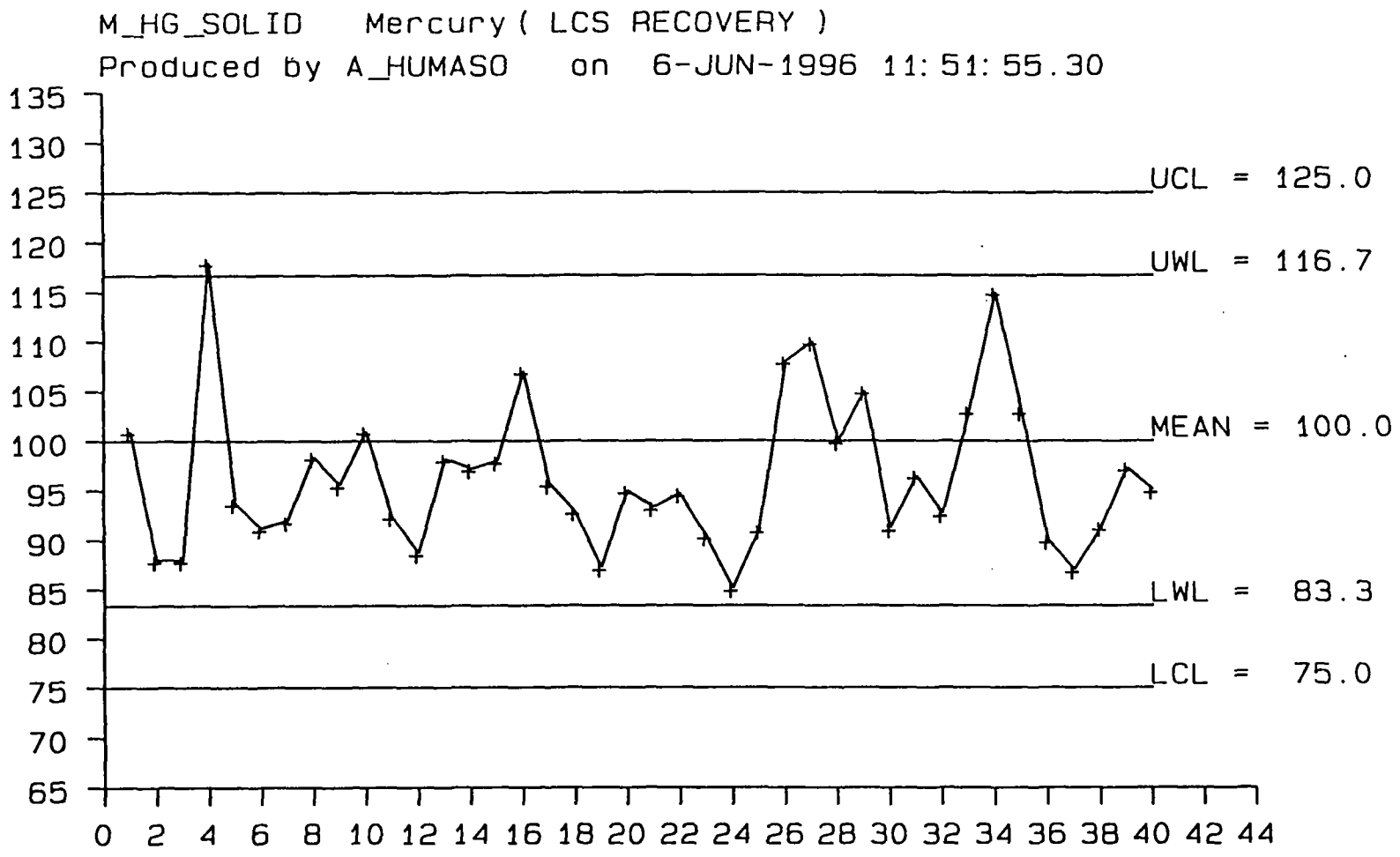
Point	Batch Number	Date Analyzed	Value (%)
1	13394	3-MAY-1996 0	96.8
2	13401	3-MAY-1996 0	91.2
3	13402	4-MAY-1996 0	94.7
4	13410	4-MAY-1996 0	86.6
5	13413	6-MAY-1996 0	92.0
6	13407	8-MAY-1996 0	96.0
7	13408	8-MAY-1996 0	82.5
8	13410P	8-MAY-1996 0	98.6
9	13416	8-MAY-1996 0	95.6
10	13405	8-MAY-1996 0	98.9
11	13420	11-MAY-1996 0	101
12	13425	11-MAY-1996 0	99.9
13	13422	12-MAY-1996 0	93.5
14	13436	14-MAY-1996 0	89.8
15	13439	15-MAY-1996 0	103
16	13441	15-MAY-1996 0	100
17	13443	15-MAY-1996 0	94.4
18	13444	16-MAY-1996 0	96.6
19	13445	17-MAY-1996 0	96.2
20	13448	17-MAY-1996 0	99.0
21	13455A	18-MAY-1996 0	94.1
22	13455M	18-MAY-1996 0	94.1
23	13450	18-MAY-1996 0	98.8
24	13453	18-MAY-1996 0	94.0
25	13455	18-MAY-1996 0	94.1
26	13449	20-MAY-1996 0	99.4
27	13432	21-MAY-1996 0	94.3
28	13451	22-MAY-1996 0	95.3
29	13458	22-MAY-1996 0	88.1
30	13438	22-MAY-1996 0	99.6
31	13456	23-MAY-1996 0	91.5
32	13468	23-MAY-1996 0	94.6
33	13459	23-MAY-1996 0	95.9
34	13458P	27-MAY-1996 0	97.5
35	13477	28-MAY-1996 0	103
36	13478	29-MAY-1996 0	101
37	13471	29-MAY-1996 0	97.3
38	13684	30-MAY-1996 0	99.4
39	13687	3-JUN-1996 0	79.7
40	13689	4-JUN-1996 0	94.7


METALS_SW846_SOLID Copper (LCS RECOVERY)
Produced by A_HUMASO on 27-JUN-1996 11:34:16.01
135
130
125
120
115
110
105
100
95
90
85
80
75
70
65
UCL = 125.0
UWL = 116.7
MEAN = 100.0
LWL = 83.3
LCL = 75.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44

Data Points for: METALS_SW846_SOLID Copper
Chart Type: LCS RECOVERY
Generated on: 27-JUN-1996 11:34

Current Control Limits
(75.0 - 125.0)

Point	Batch Number	Date Analyzed	Value (%)
1	13187	1-APR-1996 0	79.9
2	13209	4-APR-1996 0	96.5
3	13212	6-APR-1996 0	95.3
4	13225	11-APR-1996 0	97.2
5	13239	16-APR-1996 0	97.5
6	0418601001	19-APR-1996 0	101
7	13262	20-APR-1996 0	86.9
8	0418601002	20-APR-1996 0	104
9	0418601003	20-APR-1996 0	107
10	13272	23-APR-1996 0	86.6
11	13275	23-APR-1996 0	84.7
12	13273	24-APR-1996 0	92.1
13	13308	26-APR-1996 0	99.3
14	13399	3-MAY-1996 0	94.9
15	13402	4-MAY-1996 0	96.0
16	13410	8-MAY-1996 0	101
17	13416	8-MAY-1996 0	99.9
18	13422	14-MAY-1996 0	97.5
19	13438	22-MAY-1996 0	96.5
20	13450	24-MAY-1996 0	94.3
21	13470	24-MAY-1996 0	89.4
22	13471	29-MAY-1996 0	96.6
23	13479	30-MAY-1996 0	94.7
24	13685	31-MAY-1996 0	87.3
25	13687	3-JUN-1996 0	90.8
26	13477	3-JUN-1996 0	92.0
27	13686	3-JUN-1996 0	99.1
28	13691	5-JUN-1996 0	98.4
29	13701	10-JUN-1996 0	93.2
30	13703	11-JUN-1996 0	97.0
31	13695	12-JUN-1996 0	99.8
32	13706	12-JUN-1996 0	96.9
33	13713	13-JUN-1996 0	90.6
34	13710	14-JUN-1996 0	94.2
35	13704	14-JUN-1996 0	96.6
36	13709	19-JUN-1996 0	103
37	13727	19-JUN-1996 0	91.0
38	13726	19-JUN-1996 0	98.6
39	13732	20-JUN-1996 0	98.8
40	13715	22-JUN-1996 0	102

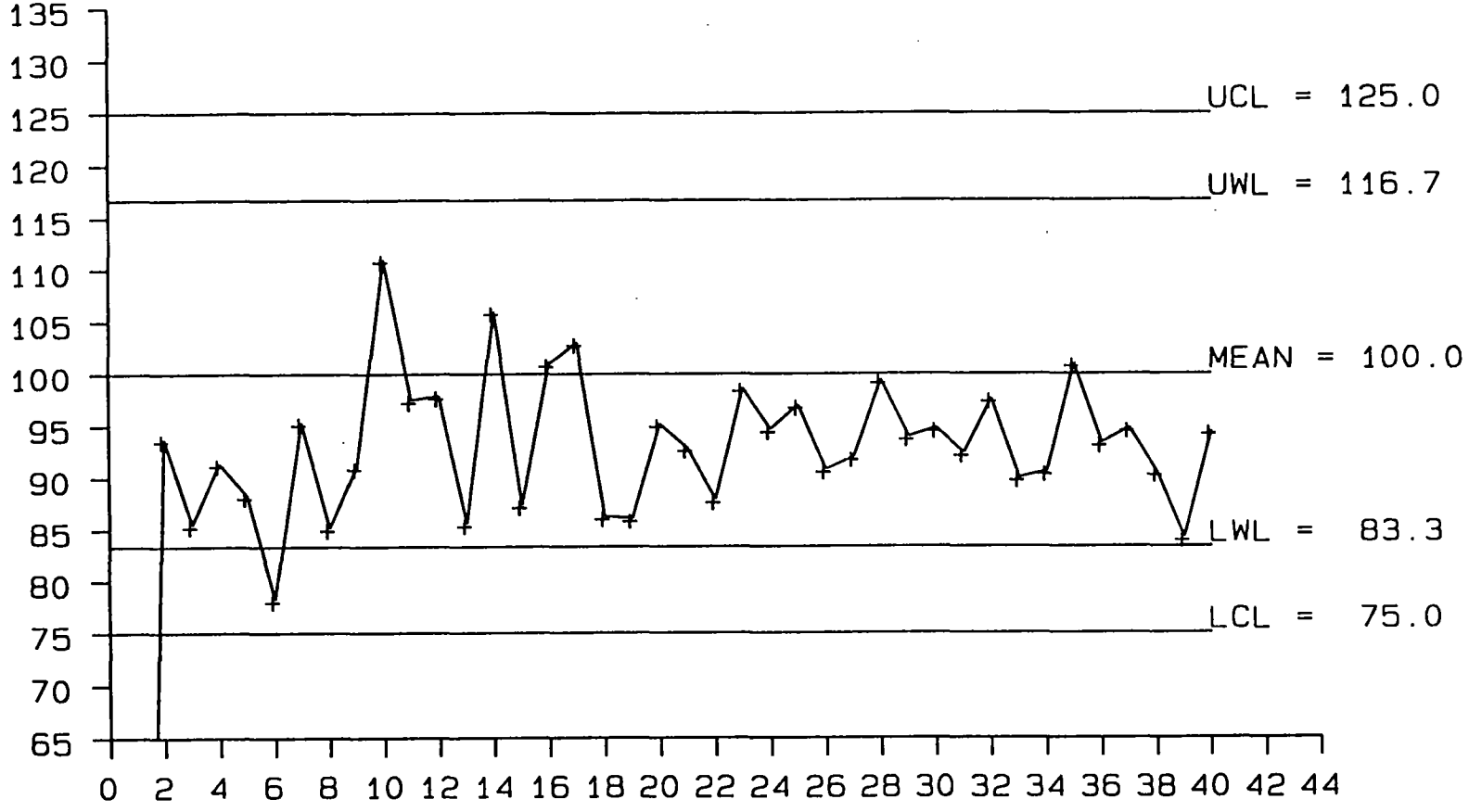

M_HG_SOLID Mercury (LCS RECOVERY)
Produced by A_HUMASO on 6-JUN-1996 11:51:55.30
135
130
125
120
115
110
105
100
95
90
85
80
75
70
65
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44
UCL = 125.0
UWL = 116.7
MEAN = 100.0
LWL = 83.3
LCL = 75.0

Data Points for: M_HG_SOLID Mercury
Chart Type: LCS RECOVERY
Generated on: 6-JUN-1996 11:51

Current Control Limits
(75.0 - 125.0)

Point	Batch Number	Date Analyzed	Value (%)
1	HG-2405	25-APR-1996 0	101
2	HG-4212	26-APR-1996 0	88.0
3	HG-2412	26-APR-1996 0	88.0
4	HG-2419	29-APR-1996 0	118
5	SOW-HG 44	30-APR-1996 0	93.8
6	HG-2430	1-MAY-1996 0	91.2
7	HG-2434	2-MAY-1996 0	92.0
8	HG-2435	2-MAY-1996 0	98.4
9	HG-2436	3-MAY-1996 0	95.6
10	HG-2437	3-MAY-1996 0	101
11	HG-2443	6-MAY-1996 0	92.4
12	HG-2442	6-MAY-1996 0	88.7
13	HG-2444	6-MAY-1996 0	98.2
14	HG-2454	8-MAY-1996 0	97.2
15	HG-2451	8-MAY-1996 0	98.0
16	HG-2457	10-MAY-1996 0	107
17	HG-2461	13-MAY-1996 0	95.7
18	HG-2460	13-MAY-1996 0	92.9
19	HG-2463	13-MAY-1996 0	87.2
20	HG-2458	13-MAY-1996 0	95.0
21	HG-2459	13-MAY-1996 0	93.3
22	HG-2465	13-MAY-1996 0	94.7
23	HG-2472	16-MAY-1996 0	90.4
24	HG-2473	17-MAY-1996 0	85.1
25	HG-2476	17-MAY-1996 0	91.0
26	HG-2480	20-MAY-1996 0	108
27	HG-2481	20-MAY-1996 0	110
28	HG-2482	21-MAY-1996 0	100
29	HG-2485	22-MAY-1996 0	105
30	HG-2486	22-MAY-1996 0	91.2
31	HG-2490	23-MAY-1996 0	96.5
32	HG-2494	24-MAY-1996 0	92.7
33	HG-2504	28-MAY-1996 0	103
34	HG-2503	28-MAY-1996 0	115
35	HG-2502	28-MAY-1996 0	103
36	HG-2506	29-MAY-1996 0	90.0
37	HG-2512	31-MAY-1996 0	87.0
38	HG-2517	3-JUN-1996 0	91.3
39	HG-2524	4-JUN-1996 0	97.3
40	HG-2521	4-JUN-1996 0	95.1

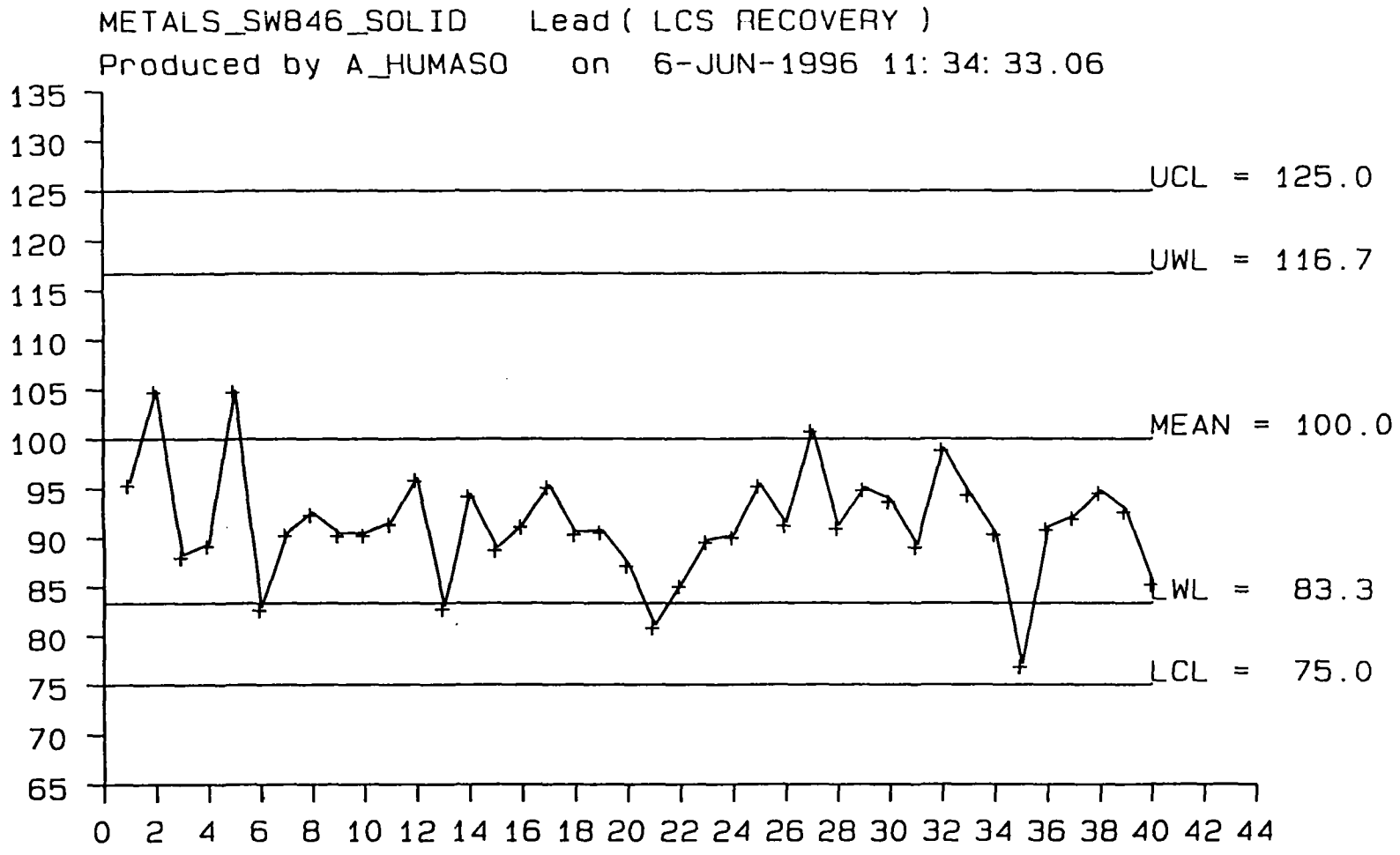
METALS_SW846_SOLID Nickel (LCS RECOVERY)
Produced by A_HUMASO on 6-JUN-1996 11:36:55.30



Data Points for: METALS_SW846_SOLID Nickel
Chart Type: LCS RECOVERY
Generated on: 6-JUN-1996 11:36

Current Control Limits
(75.0 - 125.0)

Point	Batch Number	Date Analyzed	Value (%)
1	12965	19-MAR-1996 0	CHECK LEVEL
2	12972	20-MAR-1996 0	93.8
3	12969	21-MAR-1996 0	85.5
4	12973	22-MAR-1996 0	91.4
5	13188	30-MAR-1996 0	88.3
6	13187	1-APR-1996 0	78.3
7	13209	4-APR-1996 0	95.4
8	13212	8-APR-1996 0	85.2
9	13225	10-APR-1996 0	91.1
10	13231	12-APR-1996 0	111
11	13239	16-APR-1996 0	97.5
12	0418601001	19-APR-1996 0	97.9
13	13254	19-APR-1996 0	85.6
14	13248P	19-APR-1996 0	106
15	13262	20-APR-1996 0	87.4
16	0418601002	20-APR-1996 0	101
17	0418601003	20-APR-1996 0	103
18	13272	23-APR-1996 0	86.3
19	13268	23-APR-1996 0	86.1
20	13274	24-APR-1996 0	95.2
21	13273	24-APR-1996 0	92.9
22	13275	26-APR-1996 0	87.9
23	13308	26-APR-1996 0	98.6
24	13401	3-MAY-1996 0	94.7
25	13394	3-MAY-1996 0	97.0
26	13399	3-MAY-1996 0	90.8
27	13402	4-MAY-1996 0	92.0
28	13410	8-MAY-1996 0	99.4
29	13416	8-MAY-1996 0	94.0
30	13422	12-MAY-1996 0	94.8
31	13432	21-MAY-1996 0	92.4
32	13438	22-MAY-1996 0	97.6
33	13450	24-MAY-1996 0	90.0
34	13470	24-MAY-1996 0	90.6
35	13477	28-MAY-1996 0	101
36	13471	29-MAY-1996 0	93.4
37	13479	29-MAY-1996 0	94.8
38	13685	31-MAY-1996 0	90.5
39	13687	3-JUN-1996 0	84.2
40	13686	3-JUN-1996 0	94.5


METALS_SW846_SOLID Lead (LCS RECOVERY)
Produced by A_HUMASO on 6-JUN-1996 11:34:33.06
135
130
125
120
115
110
105
100
95
90
85
80
75
70
65
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44
UCL = 125.0
UWL = 116.7
MEAN = 100.0
LWL = 83.3
LCL = 75.0

Inchcape Testing Services
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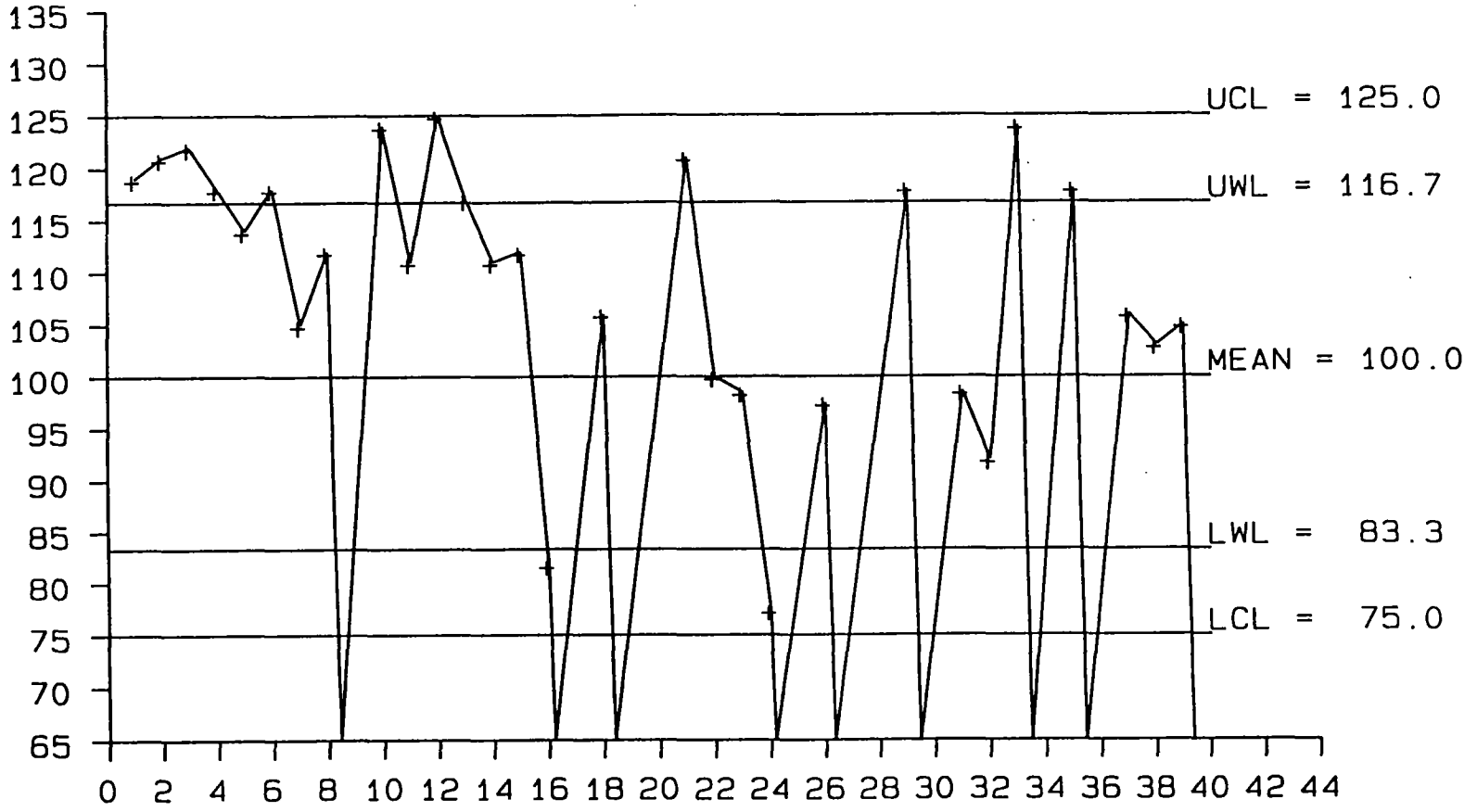
Data Points for: METALS_SW846_SOLID Lead
Chart Type: LCS RECOVERY
Generated on: 6-JUN-1996 11:34

Current Control Limits
(75.0 - 125.0)

Point	Batch Number	Date Analyzed	Value (%)
1	13444	16-MAY-1996 0	95.6
2	13443P	17-MAY-1996 0	105
3	13448	17-MAY-1996 0	88.3
4	13445	17-MAY-1996 0	89.4
5	13443	17-MAY-1996 0	105
6	13453	18-MAY-1996 0	82.9
7	13455	18-MAY-1996 0	90.5
8	13450	18-MAY-1996 0	92.6
9	13455M	18-MAY-1996 0	90.5
10	13455A	18-MAY-1996 0	90.5
11	13460	21-MAY-1996 0	91.6
12	13432	22-MAY-1996 0	96.1
13	13431	22-MAY-1996 0	83.0
14	13438	22-MAY-1996 0	94.5
15	13458	22-MAY-1996 0	89.0
16	13451	22-MAY-1996 0	91.4
17	13459	23-MAY-1996 0	95.4
18	13468	23-MAY-1996 0	90.6
19	13456	23-MAY-1996 0	90.8
20	13465	24-MAY-1996 0	87.4
21	13470	24-MAY-1996 0	81.1
22	13461	27-MAY-1996 0	85.3
23	13474	27-MAY-1996 0	89.8
24	13476	27-MAY-1996 0	90.3
25	13458P	27-MAY-1996 0	95.5
26	13475	28-MAY-1996 0	91.5
27	13477	28-MAY-1996 0	101
28	13680	29-MAY-1996 0	91.2
29	13471	29-MAY-1996 0	95.1
30	13471C	29-MAY-1996 0	93.9
31	13479	29-MAY-1996 0	89.3
32	13684	30-MAY-1996 0	99.1
33	13673P	30-MAY-1996 0	94.6
34	13685	31-MAY-1996 0	90.6
35	13687	3-JUN-1996 0	77.1
36	13690	3-JUN-1996 0	91.1
37	13686	3-JUN-1996 0	92.2
38	13689	4-JUN-1996 0	94.8
39	13692	4-JUN-1996 0	92.9
40	13693	5-JUN-1996 0	85.5

M_SW846_SOLID_GF Selenium(LCS RECOVERY)
Produced by A_HUMASO on 6-JUN-1996 11:49:38.71

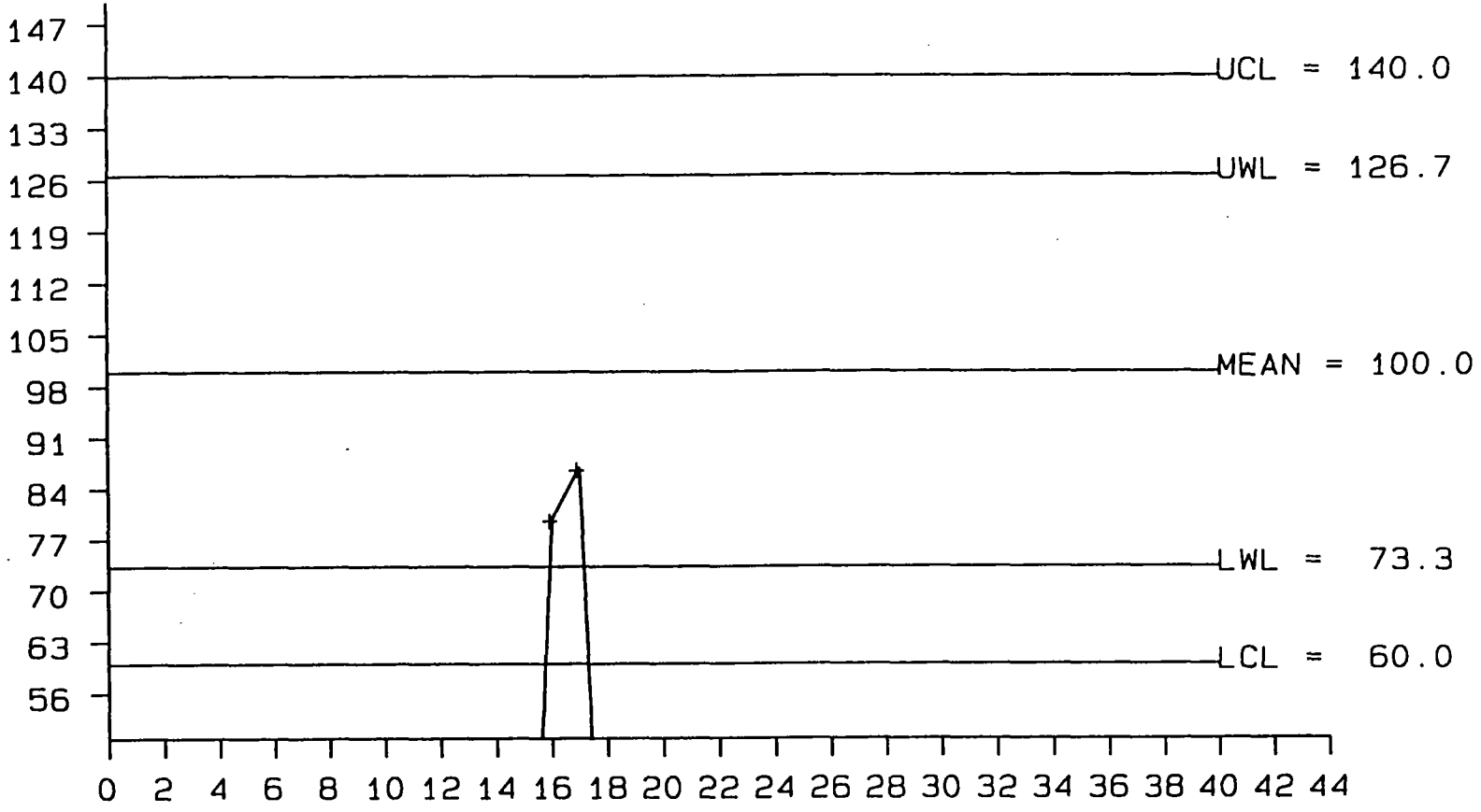


Data Points for: M_SW846_SOLID_GF Selenium
Chart Type: LCS RECOVERY
Generated on: 6-JUN-1996 11:49

Current Control Limits
(75.0 - 125.0)

Point	Batch Number	Date Analyzed	Value (%)
1	13393F	3-MAY-1996 0	119
2	13395F	3-MAY-1996 0	121
3	13401F	6-MAY-1996 0	122
4	13409F	6-MAY-1996 0	118
5	13410F	6-MAY-1996 0	114
6	13405F	7-MAY-1996 0	118
7	13413F	7-MAY-1996 0	105
8	13416F	7-MAY-1996 0	112
9	SOW-175	7-MAY-1996 0	CHECK LEVEL
10	13427F	10-MAY-1996 0	124
11	13425F	10-MAY-1996 0	111
12	13422F	10-MAY-1996 0	125
13	13420F	10-MAY-1996 0	117
14	13432F	15-MAY-1996 0	111
15	13436F	15-MAY-1996 0	112
16	13431F	15-MAY-1996 0	81.8
17	13442D	15-MAY-1996 0	CHECK LEVEL
18	13443F	15-MAY-1996 0	106
19	13433F	16-MAY-1996 0	CHECK LEVEL
20	13434F	16-MAY-1996 0	CHECK LEVEL
21	13444F	16-MAY-1996 0	121
22	13448F	17-MAY-1996 0	100
23	13455F	20-MAY-1996 0	98.5
24	13453F	20-MAY-1996 0	77.4
25	13457F	20-MAY-1996 0	CHECK LEVEL
26	13450F	21-MAY-1996 0	97.5
27	13458F	21-MAY-1996 0	CHECK LEVEL
28	13466F	22-MAY-1996 0	CHECK LEVEL
29	13461F	22-MAY-1996 0	118
30	13470F	24-MAY-1996 0	CHECK LEVEL
31	13468F	24-MAY-1996 0	98.6
32	13471F	29-MAY-1996 0	92.0
33	13477F	30-MAY-1996 0	124
34	13683D	30-MAY-1996 0	CHECK LEVEL
35	13684F	30-MAY-1996 0	118
36	13477D	30-MAY-1996 0	CHECK LEVEL
37	13685F	3-JUN-1996 0	106
38	13687F	3-JUN-1996 0	103
39	13689F	3-JUN-1996 0	105
40	13686F	4-JUN-1996 0	CHECK LEVEL

M_SW846_SOLID_GF Antimony (LCS RECOVERY)
Produced by A_HUMASO on 6-JUN-1996 11:50:47.07

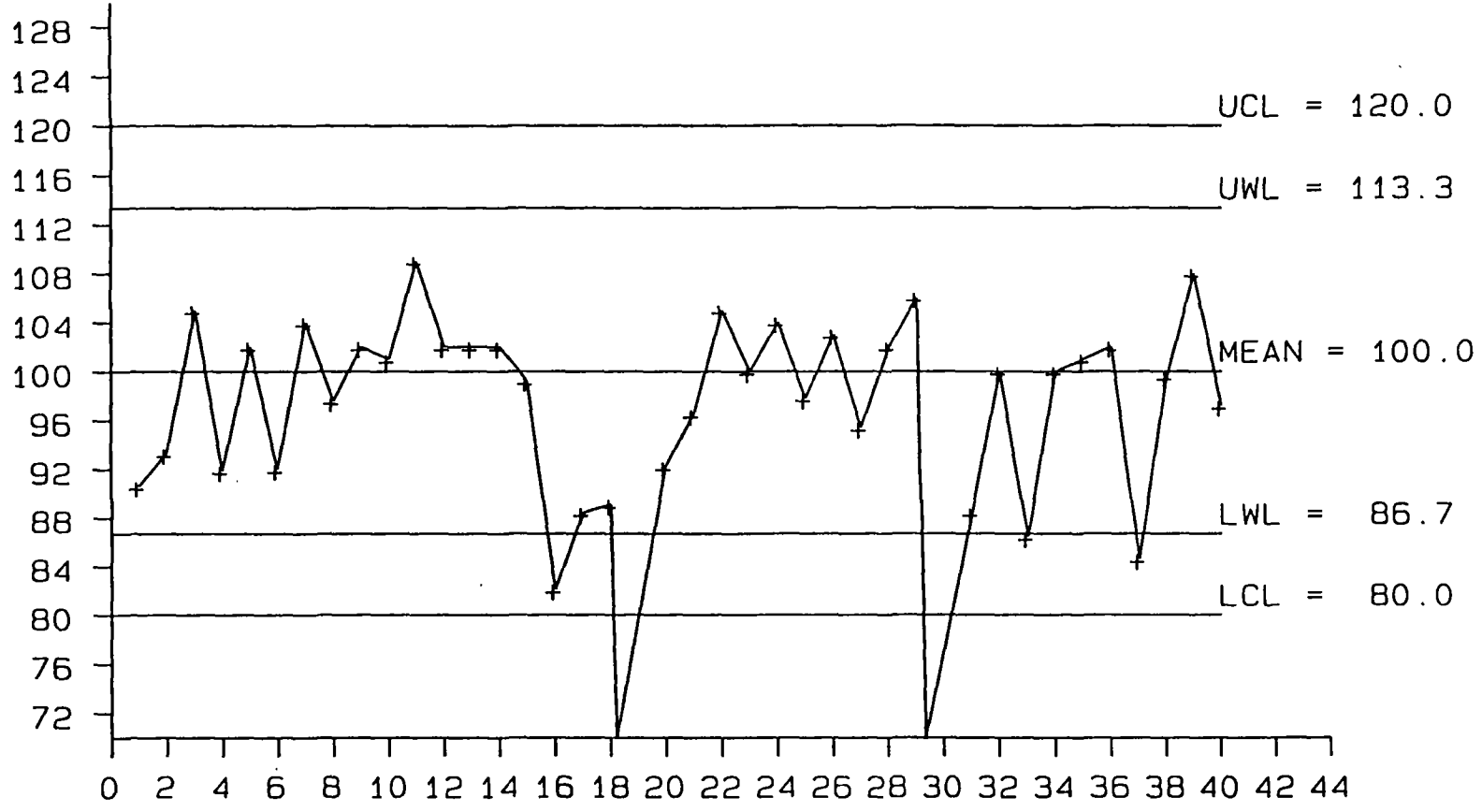


Data Points for: M_SW846_SOLID_GF Antimony
Chart Type: LCS RECOVERY
Generated on: 6-JUN-1996 11:50

Current Control Limits
(60.0 - 140.0)

Point	Batch Number	Date Analyzed	Value (%)
1	13402F	2-MAY-1996 0	CHECK LEVEL
2	13401F	2-MAY-1996 0	CHECK LEVEL
3	SOW-178	3-MAY-1996 0	CHECK LEVEL
4	13405F	3-MAY-1996 0	CHECK LEVEL
5	13416F	6-MAY-1996 0	CHECK LEVEL
6	13413F	6-MAY-1996 0	CHECK LEVEL
7	13410F	6-MAY-1996 0	CHECK LEVEL
8	13409F	6-MAY-1996 0	CHECK LEVEL
9	SOW-175	7-MAY-1996 0	CHECK LEVEL
10	13420F	8-MAY-1996 0	CHECK LEVEL
11	13422F	9-MAY-1996 0	CHECK LEVEL
12	13425F	10-MAY-1996 0	CHECK LEVEL
13	13427F	10-MAY-1996 0	CHECK LEVEL
14	13432F	13-MAY-1996 0	CHECK LEVEL
15	13436F	14-MAY-1996 0	CHECK LEVEL
16	13433F	14-MAY-1996 0	80.0
17	13434F	14-MAY-1996 0	87.0
18	13443F	15-MAY-1996 0	CHECK LEVEL
19	13442D	15-MAY-1996 0	CHECK LEVEL
20	13431F	15-MAY-1996 0	CHECK LEVEL
21	13444F	16-MAY-1996 0	CHECK LEVEL
22	13448F	17-MAY-1996 0	CHECK LEVEL
23	13457F	20-MAY-1996 0	CHECK LEVEL
24	13453F	20-MAY-1996 0	CHECK LEVEL
25	13455F	20-MAY-1996 0	CHECK LEVEL
26	13450F	20-MAY-1996 0	CHECK LEVEL
27	13458F	21-MAY-1996 0	CHECK LEVEL
28	13466F	22-MAY-1996 0	CHECK LEVEL
29	13461F	22-MAY-1996 0	CHECK LEVEL
30	13468F	24-MAY-1996 0	CHECK LEVEL
31	13470F	24-MAY-1996 0	CHECK LEVEL
32	13471F	28-MAY-1996 0	CHECK LEVEL
33	13477F	29-MAY-1996 0	CHECK LEVEL
34	13683D	30-MAY-1996 0	CHECK LEVEL
35	13684F	30-MAY-1996 0	CHECK LEVEL
36	13477D	30-MAY-1996 0	CHECK LEVEL
37	13685F	31-MAY-1996 0	CHECK LEVEL
38	13687F	3-JUN-1996 0	CHECK LEVEL
39	13689F	3-JUN-1996 0	CHECK LEVEL
40	13686F	4-JUN-1996 0	CHECK LEVEL

METALS_SW846_LIQUID Thallium(LCS RECOVERY)
Produced by A_HUMASO on 22-JUL-1996 14:55:42.68



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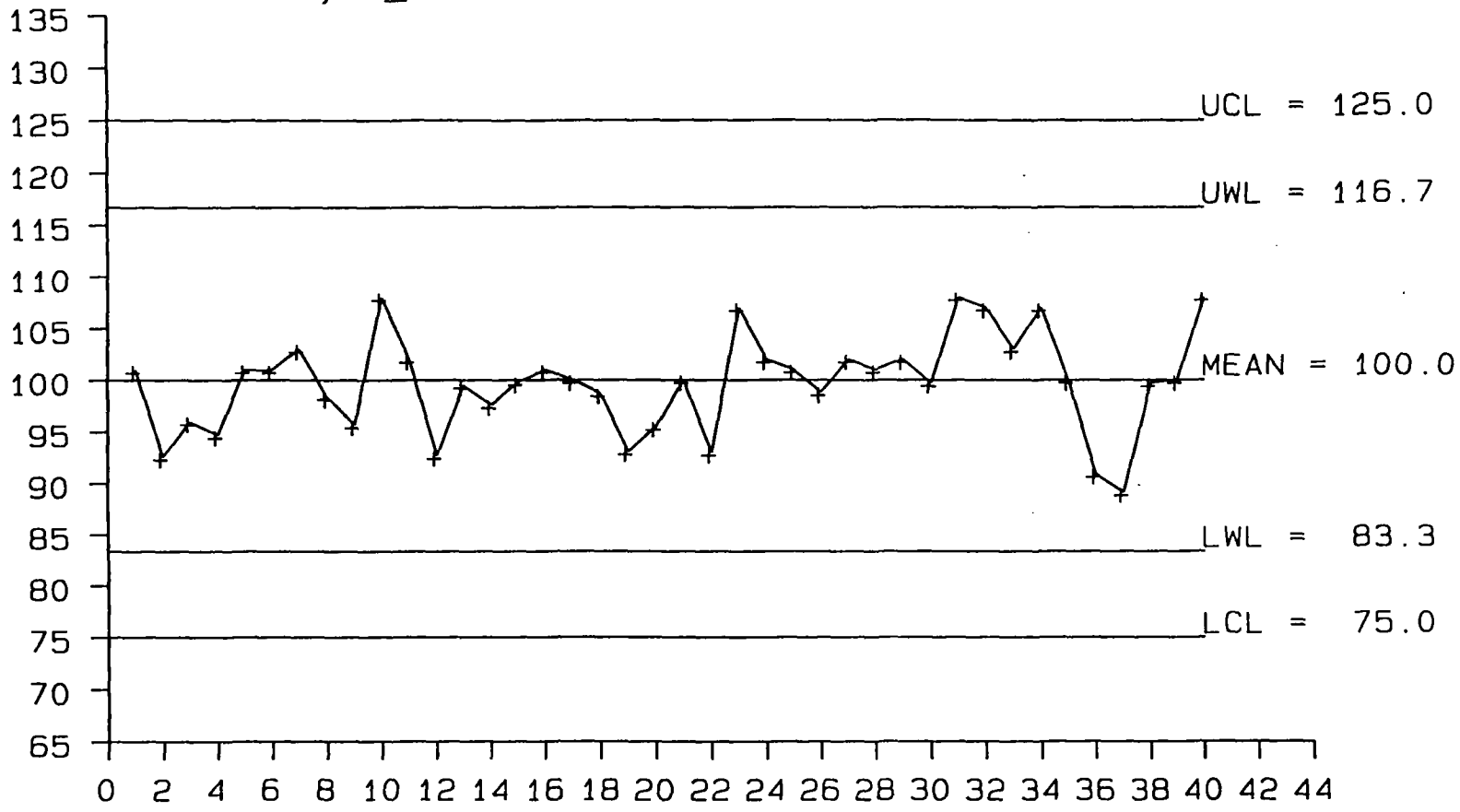
Data Points for: METALS_SW846_LIQUID Thallium
Chart Type: LCS RECOVERY
Generated on: 22-JUL-1996 14:55

Current Control Limits
(80.0 - 120.0)

Point	Batch Number	Date Analyzed	Value (%)
1	12855	29-FEB-1996 0	90.6
2	12999	6-MAR-1996 0	93.3
3	13047	17-MAR-1996 0	105
4	13058	20-MAR-1996 0	91.9
5	13109	30-MAR-1996 0	102
6	13195	1-APR-1996 0	92.0
7	13139	8-APR-1996 0	104
8	13118	8-APR-1996 0	97.6
9	0410601001	12-APR-1996 0	102
10	0410601002	13-APR-1996 0	101
11	13165	15-APR-1996 0	109
12	13170	16-APR-1996 0	102
13	0415601001	16-APR-1996 0	102
14	13287	24-APR-1996 0	102
15	13338E	1-MAY-1996 0	99.2
16	13325	1-MAY-1996 0	82.1
17	13350	4-MAY-1996 0	88.4
18	13367	12-MAY-1996 0	89.1
19	13596	14-MAY-1996 0	CHECK LEVEL
20	13627	21-MAY-1996 0	92.2
21	13584	21-MAY-1996 0	96.5
22	13597	29-MAY-1996 0	105
23	13673	29-MAY-1996 0	100
24	13794	4-JUN-1996 0	104
25	13800	5-JUN-1996 0	97.8
26	13846	13-JUN-1996 0	103
27	13863	14-JUN-1996 0	95.4
28	13885	18-JUN-1996 0	102
29	13879	20-JUN-1996 0	106
30	13900	21-JUN-1996 0	0.0
31	13897	22-JUN-1996 0	88.4
32	13914	24-JUN-1996 0	100
33	13920	24-JUN-1996 0	86.4
34	13916	25-JUN-1996 0	100
35	13927	26-JUN-1996 0	101
36	13939	1-JUL-1996 0	102
37	13978	8-JUL-1996 0	84.6
38	13966C	9-JUL-1996 0	99.6
39	14088	10-JUL-1996 0	108
40	14092	11-JUL-1996 0	97.2

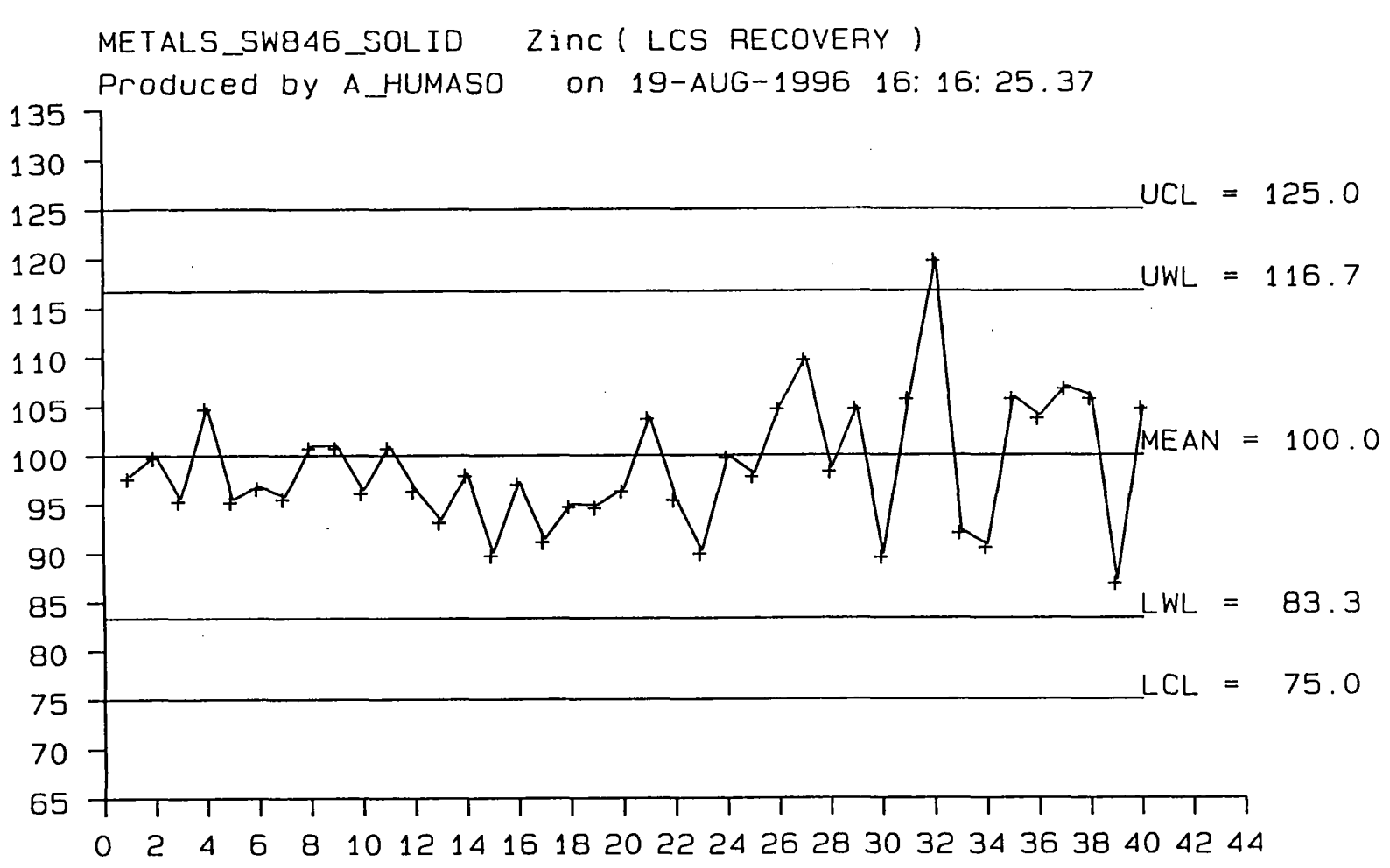
METALS_SW846_SOLID Vanadium(LCS RECOVERY)
Produced by A_HUMASO on 30-SEP-1996 18: 10: 36.52



Data Points for: METALS_SW846_SOLID Vanadium
Chart Type: LCS RECOVERY
Generated on: 30-SEP-1996 18:10

Current Control Limits
(75.0 - 125.0)

Point	Batch Number	Date Analyzed	Value (%)
1	13477	28-MAY-1996 0	101
2	13696	6-JUN-1996 0	92.6
3	13703	11-JUN-1996 0	96.0
4	13717	18-JUN-1996 0	94.7
5	13709	19-JUN-1996 0	101
6	13738	22-JUN-1996 0	101
7	13724	23-JUN-1996 0	103
8	13728	24-JUN-1996 0	98.4
9	13748	25-JUN-1996 0	95.7
10	13764	28-JUN-1996 0	108
11	13772	29-JUN-1996 0	102
12	13984	2-JUL-1996 0	92.7
13	13777	2-JUL-1996 0	99.5
14	13988	5-JUL-1996 0	97.6
15	14002	5-JUL-1996 0	99.8
16	14014	11-JUL-1996 0	101
17	14033	18-JUL-1996 0	100
18	14052	22-JUL-1996 0	98.7
19	14059	25-JUL-1996 0	93.1
20	14062	30-JUL-1996 0	95.5
21	14281	5-AUG-1996 0	100
22	14313	12-AUG-1996 0	93.0
23	14318	14-AUG-1996 0	107
24	14328	23-AUG-1996 0	102
25	14337	24-AUG-1996 0	101
26	14371	27-AUG-1996 0	98.8
27	14580	30-AUG-1996 0	102
28	14596	5-SEP-1996 0	101
29	14595	5-SEP-1996 0	102
30	14602	6-SEP-1996 0	99.7
31	14615	9-SEP-1996 0	108
32	14608	9-SEP-1996 0	107
33	14637	11-SEP-1996 0	103
34	14635	11-SEP-1996 0	107
35	14647	12-SEP-1996 0	100
36	14791	20-SEP-1996 0	90.9
37	14792	21-SEP-1996 0	89.1
38	14677P	26-SEP-1996 0	99.7
39	14811	26-SEP-1996 0	100
40	14815	26-SEP-1996 0	108


METALS_SW846_SOLID Zinc (LCS RECOVERY)
Produced by A_HUMASO on 19-AUG-1996 16: 16: 25.37
135
130
125
120
115
110
105
100
95
90
85
80
75
70
65
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44
UCL = 125.0
UWL = 116.7
MEAN = 100.0
LWL = 83.3
LCL = 75.0

Inchcape Testing Services
Environmental Laboratories

1089 E. Collins Blvd
Richardson, TX 75081
Tel. 214-238-5591
Fax. 214-238-5592

Data Points for: METALS_SW846_SOLID Zinc
Chart Type: LCS RECOVERY
Generated on: 19-AUG-1996 16:16

Current Control Limits
(75.0 - 125.0)

Point	Batch Number	Date Analyzed	Value (%)
1	13992	3-JUL-1996 0	97.9
2	13777	4-JUL-1996 0	100
3	14002	5-JUL-1996 0	95.6
4	13986	5-JUL-1996 0	105
5	13984	5-JUL-1996 0	95.5
6	13993	5-JUL-1996 0	96.9
7	14006	8-JUL-1996 0	95.8
8	14012	9-JUL-1996 0	101
9	13776	9-JUL-1996 0	101
10	14016	10-JUL-1996 0	96.4
11	14014	11-JUL-1996 0	101
12	13770	11-JUL-1996 0	96.6
13	14019	12-JUL-1996 0	93.4
14	14008	13-JUL-1996 0	98.2
15	14026	15-JUL-1996 0	90.0
16	14022	17-JUL-1996 0	97.3
17	14037	18-JUL-1996 0	91.4
18	14033	18-JUL-1996 0	95.0
19	14038	19-JUL-1996 0	94.9
20	14052	22-JUL-1996 0	96.6
21	14057	24-JUL-1996 0	104
22	14059	25-JUL-1996 0	95.7
23	14062	30-JUL-1996 0	90.2
24	14073	31-JUL-1996 0	100
25	14075	31-JUL-1996 0	98.1
26	14070	31-JUL-1996 0	105
27	14077	1-AUG-1996 0	110
28	14072	1-AUG-1996 0	98.6
29	14079	2-AUG-1996 0	105
30	14074	2-AUG-1996 0	89.8
31	14281	7-AUG-1996 0	106
32	14290	7-AUG-1996 0	120
33	14294	8-AUG-1996 0	92.3
34	14313	12-AUG-1996 0	90.8
35	14299	12-AUG-1996 0	106
36	14305	12-AUG-1996 0	104
37	14295	12-AUG-1996 0	107
38	14318	14-AUG-1996 0	106
39	14321	14-AUG-1996 0	87.1
40	14322	16-AUG-1996 0	105

Inchcape Testing Services
Environmental Laboratories

GENERAL CHEMISTRY PARAMETERS

Inchcape Testing Services
Environmental Laboratories

SAMPLE DATA

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 22-AUG-1996

REPORT NUMBER : D96-9653-1
REPORT DATE : 17-SEP-1996

SAMPLE SUBMITTED BY : AT Kearney, Inc.
ADDRESS : Third Floor, One Wall Street Court
: New York, NY 10005
ATTENTION : Ms. Julie Shanahan

SAMPLE MATRIX : Soil
ID MARKS : SS001SWMUG-5
PROJECT : G200-R05-020 QA-BA
DATE SAMPLED : 20-AUG-1996

MISCELLANEOUS ANALYSES			
TEST REQUESTED		DETECTION LIMIT	RESULTS
Cyanide, Total	/1	0.5 mg/Kg	< 0.5 mg/Kg
Dilution Factor : 1 Analyzed using EPA 9010 on 3-SEP-1996 by ADG QC Batch No : 865007			
Total Solids	/1	0.01 %	90.3 %
Analyzed using ASTM D2216 mod. on 6-SEP-1996 by SAB QC Batch No : 836073E			
Sulfide, Total	/1	10.0 mg/Kg	< 10.0 mg/Kg
Dilution Factor : 1 Analyzed using EPA 9030 on 9-SEP-1996 by DAB QC Batch No : 720064			

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 22-AUG-1996

REPORT NUMBER : D96-9653-2
REPORT DATE : 17-SEP-1996

SAMPLE SUBMITTED BY : AT Kearney, Inc.
ADDRESS : Third Floor, One Wall Street Court
: New York, NY 10005
ATTENTION : Ms. Julie Shanahan

SAMPLE MATRIX : Soil
ID MARKS : SS001SWMUG-105
PROJECT : G200-R05-020 QA-BA
DATE SAMPLED : 20-AUG-1996

MISCELLANEOUS ANALYSES			
TEST REQUESTED		DETECTION LIMIT	RESULTS
Cyanide, Total	/1	0.5 mg/Kg	< 0.5 mg/Kg
Dilution Factor : 1 Analyzed using EPA 9010 on 3-SEP-1996 by ADG QC Batch No : 865007			
Total Solids	/1	0.01 %	88.8 %
Analyzed using ASTM D2216 mod. on 6-SEP-1996 by SAB QC Batch No : 836073E			
Sulfide, Total	/1	10.0 mg/Kg	< 10.0 mg/Kg
Dilution Factor : 1 Analyzed using EPA 9030 on 9-SEP-1996 by DAB QC Batch No : 720064			

Inchcape Testing Services
Environmental Laboratories

DATE RECEIVED : 22-AUG-1996

REPORT NUMBER : D96-9653-3
REPORT DATE : 17-SEP-1996

SAMPLE SUBMITTED BY : AT Kearney, Inc.
ADDRESS : Third Floor, One Wall Street Court
: New York, NY 10005
ATTENTION : Ms. Julie Shanahan

SAMPLE MATRIX : Soil
ID MARKS : SG002AOC2-5
PROJECT : G200-R05-020 QA-BA
DATE SAMPLED : 21-AUG-1996

MISCELLANEOUS ANALYSES			
TEST REQUESTED		DETECTION LIMIT	RESULTS
Cyanide, Total	/1	0.5 mg/Kg	7.8 mg/Kg
Dilution Factor : 1 Analyzed using EPA 9010 on 3-SEP-1996 by ADG QC Batch No : 865007			
Total Solids	/1	0.01 %	81.1 %
Analyzed using ASTM D2216 mod. on 6-SEP-1996 by SAB QC Batch No : 836073E			
Sulfide, Total	/1	10.0 mg/Kg	< 10.0 mg/Kg
Dilution Factor : 1 Analyzed using EPA 9030 on 9-SEP-1996 by DAB QC Batch No : 720064			

QUALITY CONTROL DATA

Inchcape Testing Services
Environmental Laboratories

REPORT DATE : 17-SEP-1996 REPORT NUMBER : D96-9653

SAMPLE SUBMITTED BY : AT Kearney, Inc.
ATTENTION : Ms. Julie Shanahan
PROJECT : G200-R05-020 QA-BA

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Cyanide, Total	Sulfide, Total
BATCH NO.	865007	720064
LCS LOT NO.	725059E	853034A
PREP METHOD	---	---
PREPARED BY	---	---
ANALYSIS METHOD	EPA 9010	EPA 9030
ANALYZED BY	ADG	DAB
UNITS	mg/Kg	mg/Kg
METHOD BLANK	< 0.50	<10.0
SPIKE LEVEL	10.0	9.00
MS RESULT	9.19	8.60
MS RECOVERY %	91.9	95.6
MSD RESULT	9.02	8.60
MSD RECOVERY %	90.2	95.6
MS/MSD RPD %	1.87	0.00
BS RESULT	NA	NA
BS RECOVERY %	NA	NA
BSD RESULT	NA	NA
BSD RECOVERY %	NA	NA
BS/BSD RPD %	NA	NA
DUPLICATE RPD %	NC	0.00
LCS LEVEL	10.0	10.0
LCS RESULT	9.10	9.20
LCS RECOVERY %	91.0	92.0
SPIKE SAMPLE ID	9636-1	9653-2
DUP SAMPLE ID	9636-1	9653-2

NA Not applicable
NC Not calculable

Inchcape Testing Services
Environmental Laboratories

PREPARATION AND ANALYSIS LOGS

CYANIDE (EPA 9010 or 335.2)

Batch No. 865007 Book No. AB865 Page 007

INCHCAPE TESTING SERVICES

Distillation Date	9/3/96	Assay Date	9/3/96
Interm. Std ID	725040C	Working Std ID	725059E
LCS ID	725059E	Pyridine-BBA ID	725058F

ALICIA GARRIOTTE 9/3/96
Analyst Date

HMA 9/30/96
Reviewer Date

Standards (µg CN/250mL)	Absorbance (578 nm)
0.00	0.000
10	0.046
20	0.110
50	0.251
100	0.497
150	0.768
200	1.002

$$A_{\mu gCN} = M(X) + R$$

$$Result = \frac{A}{B} \times \frac{50}{C}$$

Correlation	0.9998
Slope "M"	198.6
Intercept "R"	-0.146

1302

Sample ID	Distillation Position	NOTE*	Sample Amount "B" (ml or g)	Distillate Volume (mls)	Distillate Assayed "C" (mls)	Absorbance "X"	µg CN "A"	Result (mg/L or mg/Kg)	Comments
Blank	16		10.0	250	50	0.000	<0.5	<0.5	
LCS (TV = 10.0)	19			250		0.459	91.0	9.10	
Dup (Sx # 9636-1)	15			250		0.000	<0.5	<0.5	
MS (Spike = 10.0)	18			250		0.464	91.9	9.19	
MSD (Sx # 9636-1)	17			250		0.455	90.2	9.02	
1. 9636-1	14			250		0.002	<0.5	<0.5	
2. 9653-1	13			250		0.014	2.63	<0.5	
3. " -2	12			250		0.005	<0.5	<0.5	
4. " -3	11			250		0.392	77.7	7.77	
5. 9682-1	8			250		0.005	<0.5	<0.5	
6. " -2	7			250		0.015	<0.5	<0.5	
7. " -3	5			250		0.000	<0.5	<0.5	
8.				250					
9.				250					
10.				250					
10 µg Std (optional)	3		10.0	250		0.047	9.19	91.9 %	
200 µg Std (optional)	1		10.0	250		0.950	188.5	94.3 %	

* A = Pre chlorinated for Amenable Determination S = Sulfamic Acid Added Cl = Chlorine Demand in Distillate B = Bismuth Nitrate Added (9010) PBA = Lead Acetate Scrubber Used (335.2) *NOTE: B and PBA require that the Standard Curve be Distilled*

T:\DIFORMN\QCFORMS\CN_1.FRM

PROJECT 720064 Notebook No. 720

Continued From Page

9-9-96 Sulfide – S DB

Std ID # 809006F
Std ID # 809006E (spike)
LCS ID # 853034A
MS/MSD # 853034B

Blk 10 - 10 = 0.00
Std I 10 - 7.75 = 2.25
Std II 10 - 7.75 = 2.25

$$\frac{2.25 \times 0.025 \times 16{,}000}{100} = 9.0\,ppm$$

SX #	Dil/conc./mls used	Titration	[conc.]
Blk	100	10-10=0.00	<10.0
LCS (10ppm)	100	10-7.70= 2.3	9.2/92%
9653-1	10/100	10-10= 0.00	<10.0
-2	10/100	10-10=0.00	<10.0
-3	10/100	10-10=0.00	<10.0
9653-2 Dup	10/100	10-10= 0.00	<10.0
-2 MS } (9.0ppm)	10/100	10-7.85= 2.15	8.6/95.5%
-2 MSD }	10/100	10-7.85 = 2.15	8.6/95.5%

DB 9-9-96

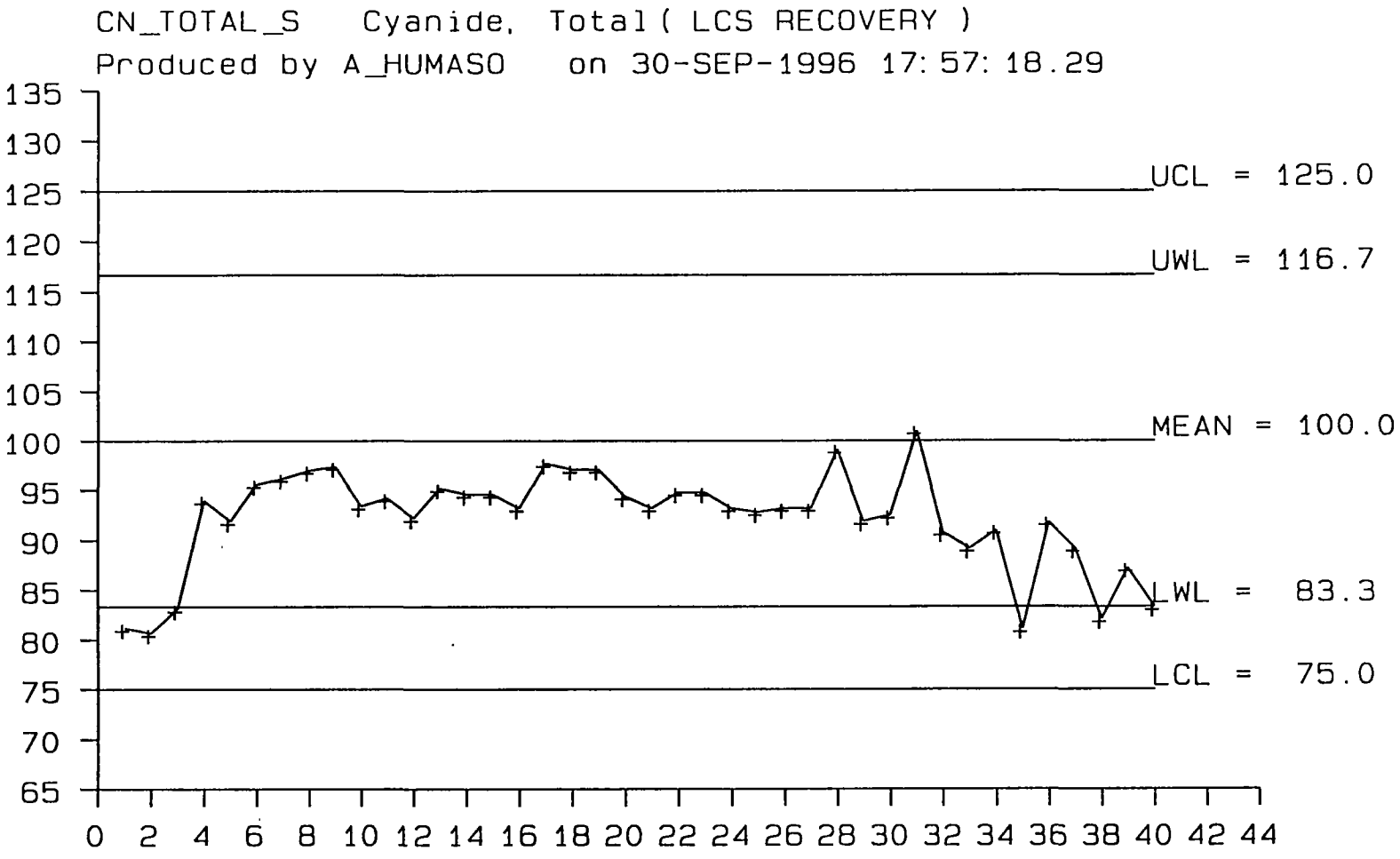
Continued on Page

Read and Understood By

1303

DB	9-9-96	HMA	9/30/96
Signed	Date	Signed	Date

CONTROL CHARTS

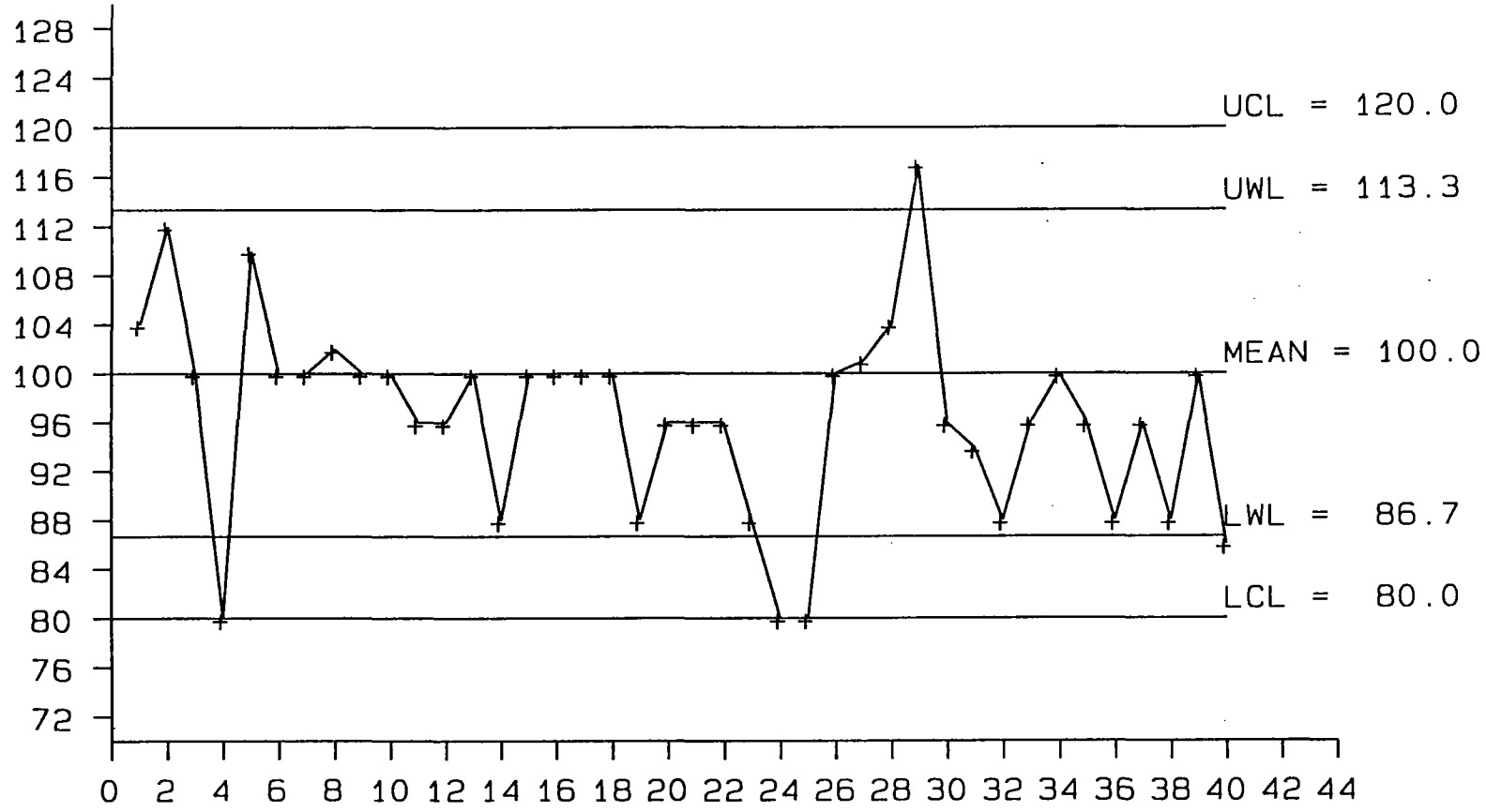

CN_TOTAL_S Cyanide, Total (LCS RECOVERY)
Produced by A_HUMASO on 30-SEP-1996 17:57:18.29
135
130
125
120
115
110
105
100
95
90
85
80
75
70
65
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44
UCL = 125.0
UWL = 116.7
MEAN = 100.0
LWL = 83.3
LCL = 75.0

Data Points for: CN_TOTAL_S Cyanide, Total
Chart Type: LCS RECOVERY
Generated on: 30-SEP-1996 17:57

Current Control Limits
(75.0 - 125.0)

Point	Batch Number	Date Analyzed	Value (%)
1	775012A	31-MAY-1996 0	81.2
2	725014	5-JUN-1996 0	80.7
3	775019	10-JUN-1996 0	83.1
4	775021	12-JUN-1996 0	94.0
5	775023	13-JUN-1996 0	91.9
6	775028	18-JUN-1996 0	95.6
7	775031	21-JUN-1996 0	96.2
8	775034	25-JUN-1996 0	97.0
9	775036	27-JUN-1996 0	97.4
10	775038	1-JUL-1996 0	93.4
11	775040	3-JUL-1996 0	94.2
12	775041	3-JUL-1996 0	92.2
13	775045	8-JUL-1996 0	95.2
14	775043	8-JUL-1996 0	94.6
15	775044	8-JUL-1996 0	94.6
16	775047	9-JUL-1996 0	93.2
17	775048	10-JUL-1996 0	97.7
18	775051	12-JUL-1996 0	97.1
19	775052	12-JUL-1996 0	97.1
20	775054	16-JUL-1996 0	94.4
21	775056	16-JUL-1996 0	93.2
22	775057	18-JUL-1996 0	94.8
23	775058	18-JUL-1996 0	94.8
24	775062	23-JUL-1996 0	93.2
25	775068	29-JUL-1996 0	92.8
26	775067	29-JUL-1996 0	93.2
27	775070	30-JUL-1996 0	93.2
28	775080	8-AUG-1996 0	99.1
29	775086	15-AUG-1996 0	91.9
30	775093	21-AUG-1996 0	92.5
31	775094	22-AUG-1996 0	101
32	865001	27-AUG-1996 0	90.8
33	865006	30-AUG-1996 0	89.2
34	865007	3-SEP-1996 0	91.0
35	865010	7-SEP-1996 0	81.1
36	865011	7-SEP-1996 0	91.8
37	865012	9-SEP-1996 0	89.2
38	865013	9-SEP-1996 0	82.1
39	865015	10-SEP-1996 0	87.2
40	865019	12-SEP-1996 0	83.3

SULFIDE_S Sulfide, Total (LCS RECOVERY)
Produced by A_HUMASO on 30-SEP-1996 17:59:13.24



Data Points for: SULFIDE_S Sulfide, Total
Chart Type: LCS RECOVERY
Generated on: 30-SEP-1996 17:59

Current Control Limits
(80.0 - 120.0)

Point	Batch Number	Date Analyzed	Value (%)
1	336046A	16-MAR-1995 0	104
2	336047A	17-MAR-1995 0	112
3	336063B	21-APR-1995 0	100
4	336073A	10-MAY-1995 0	80.0
5	471008C	10-JUL-1995 0	110
6	471011B	12-JUL-1995 0	100
7	471015A	20-JUL-1995 0	100
8	471017A	25-JUL-1995 0	102
9	471043A	7-SEP-1995 0	100
10	471059A	17-OCT-1995 0	100
11	471070B	9-NOV-1995 0	96.0
12	471074A	21-NOV-1995 0	96.0
13	471077A	8-DEC-1995 0	100
14	471085A	19-JAN-1996 0	88.0
15	471088A	1-FEB-1996 0	100
16	471093	15-FEB-1996 0	100
17	471094	20-FEB-1996 0	100
18	471095	22-FEB-1996 0	100
19	471097	27-FEB-1996 0	88.0
20	471098	4-MAR-1996 0	96.0
21	471100	7-MAR-1996 0	96.0
22	720001C	8-MAR-1996 0	96.0
23	720006B	21-MAR-1996 0	88.0
24	720008	2-APR-1996 0	80.0
25	720009B	4-APR-1996 0	80.0
26	720011	8-APR-1996 0	100
27	720015	18-APR-1996 0	101
28	720018A	23-APR-1996 0	104
29	720019	25-APR-1996 0	117
30	720021A	2-MAY-1996 0	96.0
31	720027	29-MAY-1996 0	93.9
32	720032A	10-JUN-1996 0	88.0
33	720037B	18-JUN-1996 0	96.0
34	720041B	27-JUN-1996 0	100
35	720045	8-JUL-1996 0	96.0
36	720051	16-JUL-1996 0	88.0
37	720050	16-JUL-1996 0	96.0
38	720053	23-JUL-1996 0	88.0
39	720054	26-JUL-1996 0	100
40	720063	3-SEP-1996 0	86.0

CHAINS OF CUSTODY, SHIPPING DOCUMENTS, INVENTORY SHEETS

ATKEARNEY

A.T. Kearney Inc.
222 West Adams
Chicago, IL 60606
312/648-0111

Chain of Custody Record

11017

1310

Project Code: G200 ROS-020	Samples Shipped To: INCHCAPE TESTING SERVICES 1089 EAST COLLINS BLVD. #100 RICHARDSON, TX 75081 ATTN: JANICE McKITTRICK	Samplers Names: JOHN KOEHNEN	1) Sample description (Enter in column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil 7. Waste 8. Other (specify)
Project (site) Name: QA-BA			2) Preservatives (Enter in column B): 1. HCl 2. HNO_3 3. $NaHSO_4$ 4. H_2SO_4 5. NaOH 6. Other (specify) 7. Ice only N. Not preserved
City, State, Zip Code: WYANDOTTE, MI	Carrier: FEDEX	Samplers Signatures: John Koehnen	
Date Shipped: 8/21/96	Air Bill Number: 6518269472		

Sample Identification Numbers	A. Matrix enter from Box 1	B. Preser. enter from Box 2	Grab or Comp	Number of Sample Containers	MM/DD/YY Time sample collection	Analysis: VOCs	SVOCs	METALS	CYANIDE	SULFIDE	HERBS	PEST/PCB	9/6853	Remarks/ Tag Numbers
SS001SWMUG-5	5	7	G	1	8/20/96 1012	X							1	001000
SS001SWMUG-5	5	7	C	1	" "		X				X	X		001001
SS001SWMUG-5	5	7	C	1	" "			X	X	X				001002
SS001SWMUG-105	5	7	G	1	" "	X								001003
SS001SWMUG-105	5	7	C	1	" "		X				X	X	2	001004
SS001SWMUG-105	5	7	C	1	" "			X	X	X				001005
SG002AOC2-5	5	7	G	1	8/21/96 0829	X								001006 *
SG002AOC2-5	5	7	G	1	" "		X							001007 *
SG002AOC2-5	5	7	G	1	" "			X	X	X			3	001008 *

ORIGINAL

COOLER TEMPERATURE WHEN RECEIVED: 4 °C

Relinquished By	Time	Date	Received By	Time	Date	Received By	Time	Date	Received By	Time	Date
John Koehnen	1400	8/21/96		1000	8/22/96						
Relinquished By	Time	Date	Received By	Time	Date	Received By	Time	Date	Received By	Time	Date

Remarks: *ATTEMPT MS/MSD FROM VOL RECOVERED / ■ SEE SET ANALYSIS REQ & METHOD #'S

Split Samples — Accepted — Declined (Signature)

Distribution: Original — A.T. Kearney, Inc.
Carbon copies — Laboratory, work assignment manager, client (as appropriate)

Page 1 of 1

A.T. Kearney 1/3907/1 TR

COOLER RECEIPT FORM

Date Received: 8/22/96 Project: G200 R05-020

Date Logged-in: 8/22/96 Received by: Laura Arney

1	Shipping slip. If yes, carrier and bill number: FED EX 6518269472	Yes	No
2	Custody seals on cooler. If yes, how many and where: 1 on Left Side 1 on Right Front	Yes	No
3	Custody seals intact.	Yes	No
4	Chain of Custody in plastic.	Yes	No
5	Chain of Custody filled out properly.	Yes	No
6	Client signed Chain of Custody.	Yes	No
7	Samples shipped on ice. If no, temperature of cooler:	Yes	~~No~~ 3pm
8	All bottles sealed. JOM	~~Yes~~	No
9	All bottles received intact.	Yes	No
10	Labels in good condition and complete.	Yes	No
11	Sample labels agree with Chain of Custody.	Yes	No
12	Correct containers used.	Yes	No
13	Correct preservative used.	Yes	No
14	Sufficient sample provided.	Yes	No
15	Bubbles absent from VOA. N/A	~~Yes~~	~~No~~
16	Comments (use corrective action form if necessary):		

Inchcape Testing Services
Environmental Laboratories

1312

6518269472

387 1000 43677394 51861

8/21/16 1593-0750-6

JOHN KOEHNEN 312 223-6253

A T KEARNEY/GOS ACCT

222 W ADAMS 25TH FL

CHICAGO IL 60606

G200 R05-020

JANICE McKITTRICK 214 238-5591

INCHCAPE TESTING SERVICES #100

1089 EAST COLLINS, BLVD

RICHARDSON TX 75081

1 on Left Side
1 on Right Front

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