UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JUL 0 8 1993

Subject: Review of Region 5 Data for H.O.D. Landfill 3TFA05WU2F

From: Charles T. Elly, Director Chuck E. Elly
Region 5 Central Regional Laboratory

To:

Attached are the results for H.O.D. Landfill 3TFA05WU2F
CRL request number SF1187
for analyses for ICP and Hardness
Results are reported for sample designations: 93ZE33S36, 93ZE33S37, 93ZE33D37, 93ZE33S38, 93ZE33D38, 93ZE33S39, 93ZE33D39, 93ZE33R60, 93ZE33R62 and 93ZE33R64

Results Status:
(x) Acceptable for Use
( ) Data Qualified, but Acceptable for use
( ) Data Unacceptable for Use

(x) Sewer Disposal Criteria Met; Exceptions: Acid preserved samples must be neutralized prior to disposal. Sample 93ZE33S39 exceeds the disposal criteria for iron and lead, and 93ZE33D39 exceeds the disposal criteria for iron, manganese and lead.

Comments on Data Quality by Reviewer

Hardness was calculated from the calcium and magnesium results from digested samples, and expressed as mg $CaCO_3$/L. These results may be higher than those that would be obtained by titration for samples with a large amount of particulate matter, such as 93ZE33S39 and 93ZE33D39. This duplicate pair was also noteworthy in that they did not agree very well. Lead results were reported for these two samples, but the GFAA was also run. These results confirm the ICP results.

Comments by Laboratory Director or Quality Control Coordinator

Review Record for H.O.D. Landfill 3TFA05WU2F

John V. Moore 6 July 93

Team Leader and Date (X) Reviewed ( ) Unreviewed

James H. Adams, Jr. 7/7/93

Section Chief and Date (✓) Reviewed ( ) Unreviewed

James H. Adams, Jr. 7/7/93

QC Coordinator and Date ( ) Reviewed ( ) Unreviewed

Sylvia Griffin 7-8-93

Data Management Coordinator and Date Received

Date Transmitted JUL 0 8 1993

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

ESAT-5-014.6

LOCKHEED ESAT CONTRACT
DATA SET CUSTODY TRANSFER FORM

DATA SET NUMBER SF 1187 CHARGE NUMBER 232-51-107

SITE NAME: H.O.D. LANDFILL TID NUMBER 05-93-05-06

PARAMETER: ICAP MATRIX: WATERS

SF DU/ACT NO: TFA 301 Y ____ /C ____

SAMPLE NUMBERS: 93ZE33S36, S37, D37, S39, D39, S38, D38
93ZE06R60, R62, R64

NUMBER OF SAMPLES: 10

ESAT APPROVALS:

[signature]	6-14-93	[signature]	6/24/93
Analyst	Date	Task Group Leader	Date
[signature]	6/25/93	[signature]	6/25/93
QA/QC Coordinator	Date	ESAT Team Manager	Date

COMMENTS: ____

The above identified data set was transferred from ESAT custody to the custody of the U.S. EPA Region V Central Regional Laboratory in its entirety on the indicated date relinquished.

[signature]	6/28/93	[signature]	29 June 93
Relinquished by	Date	Received by	Date

EPA APPROVALS:

[signature]	6 July 93
EPA Task Monitor	Date

[X] Reviewed
[ ] Unreviewed
[X] Accepted
[ ] Rejected
[ ] Returned: ____ Date

COMMENTS: ____

[ ] Reviewed [ ] Unreviewed

		[signature]	7-8-93 / 7-8-93
Section Chief	Date	DATA COORDINATOR/RECD/TRANSMTD	
ESAT DPO	Date		

A COPY OF THIS CUSTODY TRANSFER FORM WITH A RECEIVED BY EPA SIGNATURE IS TO BE FILED WITH THE AOC IN THE TID FILE. THE ORIGINAL CUSTODY TRANSFER ACCOMPANIES THE DATA SET TO BE APPROVED BY THE EPA AND A COMPLETED COPY RETURNED TO ESAT.

R. Dilg
6-15-93

ESAT-5-007.0

Method Number: 200.7 | Site Name: H.O.D. Landfill
Date Generated: June 14, 1993 | Charge Number: 232-51-107
Author:R. Dilg, LOCKHEED/ESAT | TID Number: 05-93-05-06

ICAP NARRATIVE for SF1187 - Waters

This ICAP narrative is intended for internal laboratory use only. The purpose for this narrative is to comment on the protocols used for the ICAP analysis of samples from the above named site. Comments deal with a number of the findings, problems, and possible variances that occurred or resulted because of the ICAP analysis. This ICAP narrative was not intended to be a final case review narrative.

WATERS: 93ZE33S36, S37, D37, S39, D39, S38, D38, 93ZE06R60, R62, and R64

This narrative covers the analysis of ten water samples for the analysis of ICAP metals. (Soil samples for this SF sample group will be analyzed and the resulting sample reports will be submitted as a separate deliverable.) The samples were prepared using microwave digestion and were analyzed using the ICAP TJA 61 spectrometer using analysis run method TJA61; the data was stored in file RUN105. The original raw data printout for the standardization of the ICAP TJA61 was already submitted as part of the deliverables for case SF1191; a copy of this standardization data is included with the raw data printout for RUN105.

During the course of the analysis it was noted that the response for the Ni channel for sample 93ZE33S36 gave a somewhat high RSD for the three sample burn exposures. At the time of analysis, the analyst decided to rerun the sample. The rerun data was used to report all ICAP for sample 93ZE33S36.

Out of control QC audits for the run were the mid-range checks for As (+5.1%R for the 2nd AQC and +5.0%R for the 3rd AQC) and for Pb1822 (+5.6%R for the 2nd AQC and +6.3%R for the 3rd AQC). Neither of these impact the sample data reported. Neither As nor Cd values were reported using ICAP data. Any ICAP Pb data reported was based on the Pb 2203 channel; QC audits for this Pb channel were in control.

ICAP NARRATIVE for SF1187 - Waters continued

Visual inspection of samples 93ZE33S39 and D39 support the differences found in the ICAP data for these two samples. Sample 93ZE33D39 appears to have a larger amount of settled suspended solids than S39 and the color of these appear darker than those for S39.

Four laboratory duplicates and matrix spike audits were conducted per sample label requests.

Per WUD instruction, the sample reports also included the reporting of "Hardness" as the sum of the calcium carbonate equivalents of Ca and Mg determined by ICAP analysis. The equivalents were calculated using the factors found in Standard Methods, method 314 A. The Enable software was used to include this information as part of the normal sample report documents. It should be pointed out that the concentration units for this parameter were reported as "milligrams per liter", the customary reporting units for hardness. By setting the hardness results off from the body of the other elements being reported on the sample report form, it was hoped that the units difference would be more readily discernable.

Narrative by: [signature] ESAT
Date: 6-15-93 and 6-25-93

R. Dilg
6-14-93

JVM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE33S36 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	98.0 U	micrograms/liter
Barium	70.5	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	35600.	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Chromium	12.0 U	micrograms/liter
Copper	7.0 U	micrograms/liter
Magnesium	21500.	micrograms/liter
Iron	98.0 U	micrograms/liter
Potassium	6100. U	micrograms/liter
Manganese	50.7	micrograms/liter
Sodium	55600.	micrograms/liter
Nickel	24.0 U	micrograms/liter
Vanadium	10.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter
Hardness as CaCO3	177.	milligrams/liter

L. Dily
6-14-93
JVM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE33S37 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	98.0 U	micrograms/liter
Barium	63.4	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	43600.	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Chromium	12.0 U	micrograms/liter
Copper	7.0 U	micrograms/liter
Magnesium	24400.	micrograms/liter
Iron	770.	micrograms/liter
Potassium	6100. U	micrograms/liter
Manganese	31.1	micrograms/liter
Sodium	48900.	micrograms/liter
Nickel	24.0 U	micrograms/liter
Vanadium	10.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter
Hardness as CaCO3	209.	milligrams/liter

R. Dilg
6-14-93
JVM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE33D37 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	98.0 U	micrograms/liter
Barium	66.3	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	43700.	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Chromium	12.0 U	micrograms/liter
Copper	7.0 U	micrograms/liter
Magnesium	24400.	micrograms/liter
Iron	780.	micrograms/liter
Potassium	6100. U	micrograms/liter
Manganese	30.8	micrograms/liter
Sodium	48800.	micrograms/liter
Nickel	24.0 U	micrograms/liter
Vanadium	10.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter
Hardness as CaCO3	210.	milligrams/liter

R. Dilg
6-14-93
JVM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE33S39 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	3470.	micrograms/liter
Barium	442.	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	291000.	micrograms/liter
Cobalt	8.6	micrograms/liter
Chromium	12.0 U	micrograms/liter
Copper	38.3	micrograms/liter
Iron	53100.	micrograms/liter
Magnesium	238000.	micrograms/liter
Potassium	73900.	micrograms/liter
Manganese	799.	micrograms/liter
Sodium	240000.	micrograms/liter
Nickel	27.6	micrograms/liter
Lead	211.	micrograms/liter
Vanadium	14.4	micrograms/liter
Zinc	487.	micrograms/liter
Hardness as $CaCO_3$	1710.	milligrams/liter

Q. Dig
6-14-93
JM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE33D39 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	10800.	micrograms/liter
Barium	767.	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	341000.	micrograms/liter
Cobalt	13.6	micrograms/liter
Chromium	39.5	micrograms/liter
Copper	112.	micrograms/liter
Magnesium	257000.	micrograms/liter
Iron	87500.	micrograms/liter
Potassium	76100.	micrograms/liter
Manganese	1340.	micrograms/liter
Sodium	243000.	micrograms/liter
Nickel	57.7	micrograms/liter
Lead	645.	micrograms/liter
Vanadium	24.4	micrograms/liter
Zinc	1350.	micrograms/liter
Hardness as CaCO3	1910.	milligrams/liter

R. Dily
6-14-93
JVM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE06R60 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	98.0 U	micrograms/liter
Barium	7.0 U	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	610. U	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Chromium	12.0 U	micrograms/liter
Copper	7.0 U	micrograms/liter
Magnesium	122. U	micrograms/liter
Iron	98.0 U	micrograms/liter
Potassium	6100. U	micrograms/liter
Manganese	6.0 U	micrograms/liter
Sodium	1220. U	micrograms/liter
Nickel	43.0	micrograms/liter
Vanadium	10.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter
Hardness as CaCO3	2.0 U	milligrams/liter

R. Dily
6-14-93

JVM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE06R64 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration		Units
Silver	7.0	U	micrograms/liter
Aluminum	98.0	U	micrograms/liter
Barium	7.0	U	micrograms/liter
Beryllium	2.0	U	micrograms/liter
Calcium	610.	U	micrograms/liter
Cobalt	7.0	U	micrograms/liter
Chromium	12.0	U	micrograms/liter
Copper	7.0	U	micrograms/liter
Magnesium	122.	U	micrograms/liter
Iron	98.0	U	micrograms/liter
Potassium	6100.	U	micrograms/liter
Manganese	6.0	U	micrograms/liter
Sodium	1220.	U	micrograms/liter
Nickel	24.0	U	micrograms/liter
Vanadium	10.0	U	micrograms/liter
Zinc	49.0	U	micrograms/liter
Hardness as CaCO3	2.0	U	milligrams/liter

Q. Dils
6-14-93
JVM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE06R62 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	98.0 U	micrograms/liter
Barium	7.0 U	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	610. U	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Chromium	12.0 U	micrograms/liter
Copper	7.0 U	micrograms/liter
Magnesium	122. U	micrograms/liter
Iron	98.0 U	micrograms/liter
Potassium	6100. U	micrograms/liter
Manganese	6.0 U	micrograms/liter
Sodium	1220. U	micrograms/liter
Nickel	24.0 U	micrograms/liter
Vanadium	10.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter
Hardness as CaCO3	2.0 U	milligrams/liter

R. Dilg
6-14-93

JVM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE33S38 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	98.0 U	micrograms/liter
Barium	21.7	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	46800.	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Chromium	12.0 U	micrograms/liter
Copper	7.0 U	micrograms/liter
Magnesium	25600.	micrograms/liter
Iron	377.	micrograms/liter
Potassium	6100. U	micrograms/liter
Manganese	58.8	micrograms/liter
Sodium	34200.	micrograms/liter
Nickel	24.0 U	micrograms/liter
Vanadium	10.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter
Hardness as CaCO3	222.	milligrams/liter

R. Dilg
6-14-93
JM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE33D38 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	98.0 U	micrograms/liter
Barium	22.1	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	47500.	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Chromium	12.0 U	micrograms/liter
Copper	7.0 U	micrograms/liter
Magnesium	26100.	micrograms/liter
Iron	362.	micrograms/liter
Potassium	6100. U	micrograms/liter
Manganese	60.9	micrograms/liter
Sodium	34900.	micrograms/liter
Nickel	24.0 U	micrograms/liter
Vanadium	10.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter
Hardness as CaCO3	226.	milligrams/liter

Q. Dilg
6-14-93

JVM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE33S36 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	98.0 U	micrograms/liter
Barium	70.5	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	35600.	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Chromium	12.0 U	micrograms/liter
Copper	7.0 U	micrograms/liter
Magnesium	21500.	micrograms/liter
Iron	98.0 U	micrograms/liter
Potassium	6100. U	micrograms/liter
Manganese	50.7	micrograms/liter
Sodium	55600.	micrograms/liter
Nickel	24.0 U	micrograms/liter
Vanadium	10.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter
Hardness as CaCO3	177.	milligrams/liter

R. Dilg
6-14-93

JVM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE33S37 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration		Units
Silver	7.0	U	micrograms/liter
Aluminum	98.0	U	micrograms/liter
Barium	63.4		micrograms/liter
Beryllium	2.0	U	micrograms/liter
Calcium	43600.		micrograms/liter
Cobalt	7.0	U	micrograms/liter
Chromium	12.0	U	micrograms/liter
Copper	7.0	U	micrograms/liter
Magnesium	24400.		micrograms/liter
Iron	770.		micrograms/liter
Potassium	6100.	U	micrograms/liter
Manganese	31.1		micrograms/liter
Sodium	48900.		micrograms/liter
Nickel	24.0	U	micrograms/liter
Vanadium	10.0	U	micrograms/liter
Zinc	49.0	U	micrograms/liter
Hardness as CaCO3	209.		milligrams/liter

6-14-93

SAMPLE REPORT

Sample SF1187 93ZE33D37 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration		Units
Silver	7.0	U	micrograms/liter
Aluminum	98.0	U	micrograms/liter
Barium	66.3		micrograms/liter
Beryllium	2.0	U	micrograms/liter
Calcium	43700.		micrograms/liter
Cobalt	7.0	U	micrograms/liter
Chromium	12.0	U	micrograms/liter
Copper	7.0	U	micrograms/liter
Magnesium	24400.		micrograms/liter
Iron	780.		micrograms/liter
Potassium	6100.	U	micrograms/liter
Manganese	30.8		micrograms/liter
Sodium	48800.		micrograms/liter
Nickel	24.0	U	micrograms/liter
Vanadium	10.0	U	micrograms/liter
Zinc	49.0	U	micrograms/liter
Hardness as CaCO3	210.		milligrams/liter

R. Dily
6-14-93

JVM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE33S39 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	3470.	micrograms/liter
Barium	442.	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	291000.	micrograms/liter
Cobalt	8.6	micrograms/liter
Chromium	12.0 U	micrograms/liter
Copper	38.3	micrograms/liter
Iron	53100.	micrograms/liter
Magnesium	238000.	micrograms/liter
Potassium	73900.	micrograms/liter
Manganese	799.	micrograms/liter
Sodium	240000.	micrograms/liter
Nickel	27.6	micrograms/liter
Lead	211.	micrograms/liter
Vanadium	14.4	micrograms/liter
Zinc	487.	micrograms/liter
Hardness as CaCO3	1710.	milligrams/liter

R. Dilg
6-14-93

SAMPLE REPORT

Sample SF1187 93ZE33D39 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	10800.	micrograms/liter
Barium	767.	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	341000.	micrograms/liter
Cobalt	13.6	micrograms/liter
Chromium	39.5	micrograms/liter
Copper	112.	micrograms/liter
Magnesium	257000.	micrograms/liter
Iron	87500.	micrograms/liter
Potassium	76100.	micrograms/liter
Manganese	1340.	micrograms/liter
Sodium	243000.	micrograms/liter
Nickel	57.7	micrograms/liter
Lead	645.	micrograms/liter
Vanadium	24.4	micrograms/liter
Zinc	1350.	micrograms/liter
Hardness as CaCO3	1910.	milligrams/liter

6-14-93

SAMPLE REPORT

Sample SF1187 93ZE06R60 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration		Units
Silver	7.0	U	micrograms/liter
Aluminum	98.0	U	micrograms/liter
Barium	7.0	U	micrograms/liter
Beryllium	2.0	U	micrograms/liter
Calcium	610.	U	micrograms/liter
Cobalt	7.0	U	micrograms/liter
Chromium	12.0	U	micrograms/liter
Copper	7.0	U	micrograms/liter
Magnesium	122.	U	micrograms/liter
Iron	98.0	U	micrograms/liter
Potassium	6100.	U	micrograms/liter
Manganese	6.0	U	micrograms/liter
Sodium	1220.	U	micrograms/liter
Nickel	43.0		micrograms/liter
Vanadium	10.0	U	micrograms/liter
Zinc	49.0	U	micrograms/liter
Hardness as CaCO3	2.0	U	milligrams/liter

6-14-93

MM 6 July 93

SAMPLE REPORT

Sample SF1187 93ZE06R64 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration		Units
Silver	7.0	U	micrograms/liter
Aluminum	98.0	U	micrograms/liter
Barium	7.0	U	micrograms/liter
Beryllium	2.0	U	micrograms/liter
Calcium	610.	U	micrograms/liter
Cobalt	7.0	U	micrograms/liter
Chromium	12.0	U	micrograms/liter
Copper	7.0	U	micrograms/liter
Magnesium	122.	U	micrograms/liter
Iron	98.0	U	micrograms/liter
Potassium	5100.	U	micrograms/liter
Manganese	6.0	U	micrograms/liter
Sodium	1220.	U	micrograms/liter
Nickel	24.0	U	micrograms/liter
Vanadium	10.0	U	micrograms/liter
Zinc	49.0	U	micrograms/liter
Hardness as CaCO3	2.0	U	milligrams/liter

6-14-93

6 July 93

SAMPLE REPORT

Sample SF1187 93ZE06R62 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	98.0 U	micrograms/liter
Barium	7.0 U	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	610. U	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Chromium	12.0 U	micrograms/liter
Copper	7.0 U	micrograms/liter
Magnesium	122. U	micrograms/liter
Iron	98.0 U	micrograms/liter
Potassium	6100. U	micrograms/liter
Manganese	6.0 U	micrograms/liter
Sodium	1220. U	micrograms/liter
Nickel	24.0 U	micrograms/liter
Vanadium	10.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter
Hardness as CaCO3	2.0 U	milligrams/liter

SAMPLE REPORT

Sample SF1187 93ZE33S38 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	98.0 U	micrograms/liter
Barium	21.7	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	46800.	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Chromium	12.0 U	micrograms/liter
Copper	7.0 U	micrograms/liter
Magnesium	25600.	micrograms/liter
Iron	377.	micrograms/liter
Potassium	6100. U	micrograms/liter
Manganese	58.8	micrograms/liter
Sodium	34200.	micrograms/liter
Nickel	24.0 U	micrograms/liter
Vanadium	10.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter
Hardness as CaCO3	222.	milligrams/liter

R. Dily
6-14-93

JVM
6 July 93

SAMPLE REPORT

Sample SF1187 93ZE33D38 Operator

Date analyzed 06/09/93 Correction 1.22000 File name RUN105

Element	Concentration	Units
Silver	7.0 U	micrograms/liter
Aluminum	98.0 U	micrograms/liter
Barium	22.1	micrograms/liter
Beryllium	2.0 U	micrograms/liter
Calcium	47500.	micrograms/liter
Cobalt	7.0 U	micrograms/liter
Chromium	12.0 U	micrograms/liter
Copper	7.0 U	micrograms/liter
Magnesium	26100.	micrograms/liter
Iron	362.	micrograms/liter
Potassium	6100. U	micrograms/liter
Manganese	60.9	micrograms/liter
Sodium	34900.	micrograms/liter
Nickel	24.0 U	micrograms/liter
Vanadium	10.0 U	micrograms/liter
Zinc	49.0 U	micrograms/liter
Hardness as CaCO3	226.	milligrams/liter

R. Dilg
6-14-93

Samples analyzed by TJA61 on 06/09/93 stored in file RUN105 .

Data set	Sample id	Correction Factor	Dig QC	Ins QC
	INSTR BLANK 1	1.00000		B
	AQC EV1&2 1	1.00000		Q
	HIGH AQC EV3 1	1.00000		Q
	INSTR BLANK 1A	1.00000		B
	AQC EV1&2 1A	1.00000		Q
SF1187	93ZE33S36	1.22000	SMP1	X
SF1187	93ZE33S36 DUP	1.22000	DUP1	S
SF1187	93ZE33S36 SPIKE	1.52000	SPK1	S
SF1187	93ZE33S37	1.22000	SMP2	S
SF1187	93ZE33S37 DUP	1.22000	DUP2	S
SF1187	93ZE33S37 SPIKE	1.52000	SPK2	S
SF1187	93ZE33D37	1.22000	SMP3	S
SF1187	93ZE33D37 DUP	1.22000	DUP3	S
SF1187	93ZE33D37 SPIKE	1.52000	SPK3	S
SF1187	93ZE33S36	1.22000	SMP1	S
SF1187	93ZE06R60	1.22000		S
RUN 105	DIGESTION BLANK A	1.22000		B
	INSTR BLANK 2	1.00000		B
	AQC EV1&2 2	1.00000		Q
	HIGH AQC EV3 2	1.00000		Q
SF1187	93ZE33S38	1.22000	SMP4	S
SF1187	93ZE33S38 DUP	1.22000	DUP4	S
SF1187	93ZE33S38 SPIKE	1.52000	SPK4	S
SF1187	93ZE33D38	1.22000		[illegible]
SF1187	93ZE06R62	1.22000		S
SF1187	93ZE33S39	1.22000		S
SF1187	93ZE33D39	1.22000		S
SF1187	93ZE33S39 1/5 DIL	6.10000		S
SF1187	93ZE33D39 1/5 DIL	6.10000		S
SF1187	93ZE06R64	1.22000		S
RUN 105	DIGESTION BLANK B	1.22000		B
	INSTR BLANK 3	1.00000		B
	AQC EV1&2 3	1.00000		Q
	HIGH AQC EV3 3	1.00000		Q

R. Dilg
6-14-93

DIGESTION RECORD

Prepared by R. D. Date 6-8-93 Run Number 105

Vessel Number	Data Set	Sample Number	Notes	Vessel Number	Data Set	Sample Number	Notes
65	SF1187	93ZE33S36		78	SF1187	DIGEST BLANK B	
64		S36	DUP				
63		S36	SPIKE +5ml A,B,C				
62		S37					
61		S37	DUP				
69		S37	SPIKE +5ml A,B,C				
68		D32					
67		D32	DUP				
54		D37	SPIKE +5ml A,B,C				
53		93ZE06R60					
52		DIGEST BLANK A					
51		93ZE33S38					
50		S38	DUP				
59		S38	SPIKE +5ml A,B,C				
58		D38					
57		93ZE06R62					
* 56		93ZE33S39					
* 55		D39					
79		93ZE06R64					

COMMENTS:

* FILTERED AFTER MICROWAVE DIGESTION

L. Dilg
6-14-93

BLANK REPORT

Blank name INSTR BLANK 1

Date analyzed 06/09/93 File name RUN105

Element	Blank Value	Detection limit	Units
Ag3280	-0.13	6.0	ug/L
Al3082	0.00	20000.0	ug/L
Al308L	0.01	80.0	ug/L
As1890	-20.72	80.0	ug/L
B_2496	62.82	80.0	ug/L
Ba4554	-0.72	6.0	ug/L
Be3130	-0.34	2.0	ug/L
Ca3179	-30.50	500.0	ug/L
Cd2144	-2.90	10.0	ug/L
Cd2288	-0.33	10.0	ug/L
Co2286	-1.65	6.0	ug/L
Cr2061	3.05	10.0	ug/L
Cr2677	-0.24	10.0	ug/L
Cu3247	-2.84	6.0	ug/L
Mg2795	-4.60	100.0	ug/L
Mg3832	-2.20	200.0	ug/L
Fe2599	-12.20	80.0	ug/L
Fe2714	-33.70	20000.0	ug/L
K_7664	-230.70	5000.0	ug/L
Mn2576	-0.22	5.0	ug/L
Mo2020	-2.13	15.0	ug/L
Na5895	18.20	1000.0	ug/L
Ni2316	-4.73	20.0	ug/L
Pb1822	-26.63	150.0	ug/L
Pb2203	5.22	80.0	ug/L
Sr4215	-0.31	10.0	ug/L
Ti3372	-0.74	25.0	ug/L
V_2908	-0.06	8.0	ug/L
Zn2138	-8.41	40.0	ug/L

All values for the blank are less than detection limit.

R. Dily
6-14-93

BLANK REPORT

Blank name INSTR BLANK 1A

Date analyzed 06/09/93 File name RUN105

Element	Blank Value	Detection limit	Units
Ag3280	-0.10	6.0	ug/L
Al3082	-23.90	20000.0	ug/L
Al308L	-24.02	80.0	ug/L
As1890	23.90	80.0	ug/L
B_2496	21.49	80.0	ug/L
Ba4554	-0.90	6.0	ug/L
Be3130	0.83	2.0	ug/L
Ca3179	-22.00	500.0	ug/L
Cd2144	-2.16	10.0	ug/L
Cd2288	3.64	10.0	ug/L
Co2286	0.68	6.0	ug/L
Cr2061	-0.08	10.0	ug/L
Cr2677	-1.66	10.0	ug/L
Cu3247	1.27	6.0	ug/L
Mg2795	-9.20	100.0	ug/L
Mg3832	-24.90	200.0	ug/L
Fe2599	-26.36	80.0	ug/L
Fe2714	-60.70	20000.0	ug/L
K_7664	-292.30	5000.0	ug/L
Mn2576	0.42	5.0	ug/L
Mo2020	0.37	15.0	ug/L
Na5895	-16.80	1000.0	ug/L
Ni2316	2.63	20.0	ug/L
Pb1822	-31.90	150.0	ug/L
Pb2203	0.97	80.0	ug/L
Sr4215	-0.25	10.0	ug/L
Ti3372	-1.01	25.0	ug/L
V_2908	0.42	8.0	ug/L
Zn2138	-15.11	40.0	ug/L

All values for the blank are less than detection limit.

R. Dilg
6-14-93

BLANK REPORT

Blank name INSTR BLANK 2

Date analyzed 06/09/93 File name RUN105

Element	Blank Value	Detection limit	Units
Ag3280	1.09	6.0	ug/L
Al3082	-20.20	20000.0	ug/L
Al308L	-20.36	80.0	ug/L
As1890	38.25	80.0	ug/L
B_2496	2.60	80.0	ug/L
Ba4554	-0.78	6.0	ug/L
Be3130	-0.35	2.0	ug/L
Ca3179	-21.80	500.0	ug/L
Cd2144	-1.44	10.0	ug/L
Cd2288	-1.84	10.0	ug/L
Co2286	0.22	6.0	ug/L
Cr2061	3.37	10.0	ug/L
Cr2677	-2.13	10.0	ug/L
Cu3247	0.46	6.0	ug/L
Mg2795	-8.70	100.0	ug/L
Mg3832	-15.20	200.0	ug/L
Fe2599	-27.24	80.0	ug/L
Fe2714	-40.40	20000.0	ug/L
K_7664	-258.50	5000.0	ug/L
Mn2576	-0.51	5.0	ug/L
Mo2020	2.50	15.0	ug/L
Na5895	-13.50	1000.0	ug/L
Ni2316	-12.09	20.0	ug/L
Pb1822	-26.61	150.0	ug/L
Pb2203	19.43	80.0	ug/L
Sr4215	-0.18	10.0	ug/L
Ti3372	-0.90	25.0	ug/L
V_2908	1.43	8.0	ug/L
Zn2138	-15.65	40.0	ug/L

All values for the blank are less than detection limit.

R. Dily
6-14-93

BLANK REPORT

Blank name INSTR BLANK 3

Date analyzed 06/09/93 File name RUN105

Element	Blank Value	Detection limit	Units
Ag3280	0.34	6.0	ug/L
Al3082	-28.80	20000.0	ug/L
Al308L	-28.96	80.0	ug/L
As1890	22.31	80.0	ug/L
B_2496	-1.42	80.0	ug/L
Ba4554	-0.88	6.0	ug/L
Be3130	-0.47	2.0	ug/L
Ca3179	-30.00	500.0	ug/L
Cd2144	-3.62	10.0	ug/L
Cd2288	-0.42	10.0	ug/L
Co2286	-0.97	6.0	ug/L
Cr2061	1.18	10.0	ug/L
Cr2677	-1.66	10.0	ug/L
Cu3247	-0.12	6.0	ug/L
Mg2795	-9.20	100.0	ug/L
Mg3832	-6.50	200.0	ug/L
Fe2599	-26.58	80.0	ug/L
Fe2714	-47.20	20000.0	ug/L
K_7664	-230.70	5000.0	ug/L
Mn2576	-0.51	5.0	ug/L
Mo2020	0.00	15.0	ug/L
Na5895	-16.80	1000.0	ug/L
Ni2316	-4.21	20.0	ug/L
Pb1822	-37.28	150.0	ug/L
Pb2203	22.73	80.0	ug/L
Sr4215	-0.06	10.0	ug/L
Ti3372	-0.58	25.0	ug/L
V_2908	1.08	8.0	ug/L
Zn2138	-18.84	40.0	ug/L

All values for the blank are less than detection limit.

R. Dily
6-14-93

BLANK REPORT

Blank name DIGESTION BLANK A RUN 105

Date analyzed 06/09/93 File name RUN105

Element	Blank Value	Detection limit	Units
Ag3280	-0.16	6.0	ug/L
Al3082	-60.50	20000.0	ug/L
Al308L	-60.83	80.0	ug/L
As1890	54.44	80.0	ug/L
B_2496	-9.51	80.0	ug/L
Ba4554	-1.21	6.0	ug/L
Be3130	-0.49	2.0	ug/L
Ca3179	-51.90	500.0	ug/L
Cd2144	-5.29	10.0	ug/L
Cd2288	-1.39	10.0	ug/L
Co2286	-1.70	6.0	ug/L
Cr2061	-2.27	10.0	ug/L
Cr2677	-2.60	10.0	ug/L
Cu3247	-0.63	6.0	ug/L
Mg2795	-8.40	100.0	ug/L
Mg3832	-23.80	200.0	ug/L
Fe2599	-30.31	80.0	ug/L
Fe2714	-65.80	20000.0	ug/L
K_7664	-467.10	5000.0	ug/L
Mn2576	-0.70	5.0	ug/L
Mo2020	3.62	15.0	ug/L
Na5895	-56.60	1000.0	ug/L
Ni2316	1.28	20.0	ug/L
Pb1822	-23.29	150.0	ug/L
Pb2203	6.87	80.0	ug/L
Sr4215	-0.56	10.0	ug/L
Ti3372	-1.75	25.0	ug/L
V_2908	-0.88	8.0	ug/L
Zn2138	-12.95	40.0	ug/L

All values for the blank are less than detection limit.

Q. Dily
6-14-93

BLANK REPORT

Blank name DIGESTION BLANK B RUN 105

Date analyzed 06/09/93 File name RUN105

Element	Blank Value	Detection limit	Units
Ag3280	0.54	6.0	ug/L
Al3082	-56.80	20000.0	ug/L
Al308L	-57.15	80.0	ug/L
As1890	0.00	80.0	ug/L
B_2496	-8.07	80.0	ug/L
Ba4554	-0.93	6.0	ug/L
Be3130	-0.48	2.0	ug/L
Ca3179	-25.10	500.0	ug/L
Cd2144	-3.53	10.0	ug/L
Cd2288	0.37	10.0	ug/L
Co2286	-0.62	6.0	ug/L
Cr2061	4.62	10.0	ug/L
Cr2677	-4.33	10.0	ug/L
Cu3247	1.05	6.0	ug/L
Mg2795	-6.50	100.0	ug/L
Mg3832	-11.90	200.0	ug/L
Fe2599	-20.47	80.0	ug/L
Fe2714	-49.30	20000.0	ug/L
K_7664	-194.50	5000.0	ug/L
Mn2576	-0.54	5.0	ug/L
Mo2020	1.92	15.0	ug/L
Na5895	-41.00	1000.0	ug/L
Ni2316	1.28	20.0	ug/L
Pb1822	-61.14	150.0	ug/L
Pb2203	12.67	80.0	ug/L
Sr4215	-0.49	10.0	ug/L
Ti3372	-1.10	25.0	ug/L
V_2908	2.55	8.0	ug/L
Zn2138	-15.13	40.0	ug/L

All values for the blank are less than detection limit.

R. Dily
6-14-93

QUALITY CONTROL SAMPLE REPORT

QC ID AQC EV1&2 1 Operator

Date analyzed 06/09/93 File name RUN105

Element	Found Value	True Value	Percent Deviation	Units
Ag3280	488.7	500.0	2.3%	ug/L
Al308L	4808.9	5000.0	3.8%	ug/L
As1890	5088.4	5000.0	1.8%	ug/L
B_2496	4885.3	5000.0	2.3%	ug/L
Ba4554	4822.9	5000.0	3.5%	ug/L
Be3130	4940.2	5000.0	1.2%	ug/L
Cd2144	4956.7	5000.0	0.9%	ug/L
Cd2288	5039.3	5000.0	0.8%	ug/L
Co2286	4887.3	5000.0	2.3%	ug/L
Cr2061	5122.6	5000.0	2.5%	ug/L
Cr2677	4942.3	5000.0	1.2%	ug/L
Cu3247	4786.0	5000.0	4.3%	ug/L
Mg2795	5136.9	5000.0	2.7%	ug/L
Fe2599	4945.0	5000.0	1.1%	ug/L
Mn2576	4877.9	5000.0	2.4%	ug/L
Mo2020	4862.6	5000.0	2.7%	ug/L
Ni2316	5046.4	5000.0	0.9%	ug/L
Pb1822	5075.0	5000.0	1.5%	ug/L
Pb2203	5067.5	5000.0	1.4%	ug/L
Sr4215	4849.3	5000.0	3.0%	ug/L
Ti3372	4939.7	5000.0	1.2%	ug/L
V_2908	4908.1	5000.0	1.8%	ug/L
Zn2138	4989.1	5000.0	0.2%	ug/L

All elements within 5 % of the true value.

L. Dilg
6-14-93

QUALITY CONTROL SAMPLE REPORT

QC ID AQC EV1&2 1A

Operator

Date analyzed 06/09/93

File name RUN105

Element	Found Value	True Value	Percent Deviation	Units
Ag3280	492.5	500.0	1.5%	ug/L
Al308L	4828.5	5000.0	3.4%	ug/L
As1890	5201.6	5000.0	4.0%	ug/L
B_2496	4915.8	5000.0	1.7%	ug/L
Ba4554	4859.2	5000.0	2.8%	ug/L
Be3130	4981.3	5000.0	0.4%	ug/L
Cd2144	4988.6	5000.0	0.2%	ug/L
Cd2288	5054.5	5000.0	1.1%	ug/L
Co2286	4907.2	5000.0	1.9%	ug/L
Cr2061	5157.4	5000.0	3.1%	ug/L
Cr2677	4974.9	5000.0	0.5%	ug/L
Cu3247	4968.9	5000.0	0.6%	ug/L
Mg2795	5163.9	5000.0	3.3%	ug/L
Fe2599	4976.3	5000.0	0.5%	ug/L
Mn2576	4901.4	5000.0	2.0%	ug/L
Mo2020	4901.3	5000.0	2.0%	ug/L
Ni2316	5095.3	5000.0	1.9%	ug/L
Pb1822	5139.0	5000.0	2.8%	ug/L
Pb2203	5115.5	5000.0	2.3%	ug/L
Sr4215	4883.5	5000.0	2.3%	ug/L
Ti3372	4979.4	5000.0	0.4%	ug/L
V_2908	4926.4	5000.0	1.5%	ug/L
Zn2138	5000.7	5000.0	0.0%	ug/L

All elements within 5 % of the true value.

L. Dily
6-14-93

QUALITY CONTROL SAMPLE REPORT

QC ID AQC EV1&2 2 Operator

Date analyzed 06/09/93 File name RUN105

Element	Found Value	True Value	Percent Deviation	Units
Ag3280	496.1	500.0	0.8%	ug/L
Al308L	4922.2	5000.0	1.6%	ug/L
As1890	5254.2	5000.0	5.1% *	ug/L
B_2496	5036.7	5000.0	0.7%	ug/L
Ba4554	4993.1	5000.0	0.1%	ug/L
Be3130	5096.6	5000.0	1.9%	ug/L
Cd2144	5036.5	5000.0	0.7%	ug/L
Cd2288	5067.7	5000.0	1.4%	ug/L
Co2286	4965.4	5000.0	0.7%	ug/L
Cr2061	5234.6	5000.0	4.7%	ug/L
Cr2677	5030.3	5000.0	0.6%	ug/L
Cu3247	5105.9	5000.0	2.1%	ug/L
Mg2795	5234.2	5000.0	4.7%	ug/L
Fe2599	5046.7	5000.0	0.9%	ug/L
Mn2576	4973.6	5000.0	0.5%	ug/L
Mo2020	4985.5	5000.0	0.3%	ug/L
Ni2316	5207.0	5000.0	4.1%	ug/L
Pb1822	5278.9	5000.0	5.6% *	ug/L
Pb2203	5220.8	5000.0	4.4%	ug/L
Sr4215	5004.6	5000.0	0.1%	ug/L
Ti3372	5087.3	5000.0	1.7%	ug/L
V_2908	5009.4	5000.0	0.2%	ug/L
Zn2138	5042.2	5000.0	0.8%	ug/L

Some elements are outside of 5 % limit. These elements are As, Pb1822.

These elements must be removed from the reported samples affected by this audit or some explaination of validity offered.

L. Dily
6-14-93

QUALITY CONTROL SAMPLE REPORT

QC ID AQC EV1&2 3 Operator

Date analyzed 06/09/93 File name RUN105

Element	Found Value	True Value	Percent Deviation	Units
Ag3280	495.2	500.0	1.0%	ug/L
Al308L	4869.2	5000.0	2.6%	ug/L
As1890	5251.0	5000.0	5.0% *	ug/L
B_2496	5013.8	5000.0	0.3%	ug/L
Ba4554	4929.8	5000.0	1.4%	ug/L
Be3130	5026.8	5000.0	0.5%	ug/L
Cd2144	5053.2	5000.0	1.1%	ug/L
Cd2288	5091.9	5000.0	1.8%	ug/L
Co2286	4951.4	5000.0	1.0%	ug/L
Cr2061	5229.0	5000.0	4.6%	ug/L
Cr2677	5007.3	5000.0	0.1%	ug/L
Cu3247	5045.1	5000.0	0.9%	ug/L
Mg2795	5216.9	5000.0	4.3%	ug/L
Fe2599	5029.9	5000.0	0.6%	ug/L
Mn2576	4952.6	5000.0	0.9%	ug/L
Mo2020	4986.9	5000.0	0.3%	ug/L
Ni2316	5104.0	5000.0	2.1%	ug/L
Pb1822	5316.2	5000.0	6.3% *	ug/L
Pb2203	5154.8	5000.0	3.1%	ug/L
Sr4215	4938.4	5000.0	1.2%	ug/L
Ti3372	5039.5	5000.0	0.8%	ug/L
V_2908	4981.6	5000.0	0.4%	ug/L
Zn2138	5064.6	5000.0	1.3%	ug/L

Some elements are outside of 5 % limit. These elements are As, Pb1822.

These elements must be removed from the reported samples affected by this audit or some explaination of validity offered.

R. Dily
6-14-93

QUALITY CONTROL SAMPLE REPORT

QC ID HIGH AQC EV3 1 Operator

Date analyzed 06/09/93 File name RUN105

Element	Found Value	True Value	Percent Deviation	Units
Al3082	92798.5	100000.0	7.2%	ug/L
Ca3179	95273.1	100000.0	4.7%	ug/L
Mg3832	57351.6	60000.0	4.4%	ug/L
Fe2714	93923.8	100000.0	6.1%	ug/L
K_7664	97173.6	100000.0	2.8%	ug/L
Na5895	96609.4	100000.0	3.4%	ug/L

All elements within 10 % of true value.

R. Dilg
6-14-93

QUALITY CONTROL SAMPLE REPORT

QC ID HIGH AQC EV3 2 Operator

Date analyzed 06/09/93 File name RUN105

Element	Found Value	True Value	Percent Deviation	Units
Al3082	94714.3	100000.0	5.3%	ug/L
Ca3179	96219.9	100000.0	3.8%	ug/L
Mg3832	58516.0	60000.0	2.5%	ug/L
Fe2714	94806.7	100000.0	5.2%	ug/L
K_7664	99617.1	100000.0	0.4%	ug/L
Na5895	98831.0	100000.0	1.2%	ug/L

All elements within 10 % of true value.

R. Dily
6-14-93

QUALITY CONTROL SAMPLE REPORT

QC ID HIGH AQC EV3 3 Operator

Date analyzed 06/09/93 File name RUN105

Element	Found Value	True Value	Percent Deviation	Units
Al3082	94159.8	100000.0	5.8%	ug/L
Ca3179	96184.2	100000.0	3.8%	ug/L
Mg3832	58173.7	60000.0	3.0%	ug/L
Fe2714	94907.8	100000.0	5.1%	ug/L
K_7664	98630.3	100000.0	1.4%	ug/L
Na5895	97156.9	100000.0	2.8%	ug/L

All elements within 10 % of true value.

L. Dilg
6-14-93

DUPLICATE

Sample SF1187 93ZE33S36 Operator

Date Analyzed 06/09/93 Correction 1.22000 File RUN105

Element	Units	Sample	Duplicate	Difference	Detect Limit	RPD
Ag3280	ug/L	0	0	0	6	0%
Al3082	ug/L	-32	-37	-5	20000	0%
Al308L	ug/L	-33	-38	-5	80	15%
As1890	ug/L	17	17	0	80	0%
B_2496	ug/L	460	456	-4	80	-1%
Ba4554	ug/L	71	71	0	6	0%
Be3130	ug/L	0	0	0	2	0%
Ca3179	ug/L	35618	36012	394	500	1%
Cd2144	ug/L	-1	-3	-2	10	89%
Cd2288	ug/L	2	4	2	10	58%
Co2286	ug/L	1	-1	-2	6	0%
Cr2061	ug/L	6	0	-6	10	-196%
Cr2677	ug/L	-3	-1	1	10	-72%
Cu3247	ug/L	2	1	-1	6	-46%
Mg2795	ug/L	21846	21942	96	100	0%
Mg3832	ug/L	21513	21639	127	200	1%
Fe2599	ug/L	16	19	3	80	16%
Fe2714	ug/L	567	576	8	20000	1%
K_7664	ug/L	809	1027	218	5000	22%
Mn2576	ug/L	51	51	1	5	1%
Mo2020	ug/L	58	59	1	15	1%
Na5895	ug/L	55558	55676	118	1000	0%
Ni2316	ug/L	17	24	6	20	31%
Pb1822	ug/L	-45	-63	-18	150	34%
Pb2203	ug/L	-8	24	32	80	402%
Sr4215	ug/L	574	574	0	10	0%
Ti3372	ug/L	0	0	0	25	0%
V_2908	ug/L	4	4	-1	8	-15%
Zn2138	ug/L	-17	-14	3	40	-20%

All duplicates values are within either 10% relative percent difference or the detection limit of each other.

R. Dily
6-14-93

DUPLICATE

Sample SF1187 93ZE33S37 Operator

Date Analyzed 06/09/93 Correction 1.22000 File RUN105

Element	Units	Sample	Duplicate	Difference	Detect Limit	RPD
Ag3280	ug/L	0	-1	-1	6	0%
Al3082	ug/L	-44	-52	-7	20000	0%
Al308L	ug/L	-45	-52	-7	80	16%
As1890	ug/L	37	14	-23	80	-93%
B_2496	ug/L	412	399	-13	80	-3%
Ba4554	ug/L	63	63	0	6	0%
Be3130	ug/L	0	0	0	2	0%
Ca3179	ug/L	43564	43810	246	500	1%
Cd2144	ug/L	-6	-6	0	10	0%
Cd2288	ug/L	-2	0	2	10	-181%
Co2286	ug/L	1	-2	-3	6	285%
Cr2061	ug/L	-2	0	2	10	-171%
Cr2677	ug/L	-3	-2	1	10	-38%
Cu3247	ug/L	3	2	-1	6	-21%
Mg2795	ug/L	24567	24685	117	100	0%
Mg3832	ug/L	24372	24407	34	200	0%
Fe2599	ug/L	770	768	-2	80	0%
Fe2714	ug/L	1398	1455	58	20000	6%
K_7664	ug/L	1095	1177	83	5000	8%
Mn2576	ug/L	31	31	0	5	-1%
Mo2020	ug/L	56	56	0	15	0%
Na5895	ug/L	48866	48774	-92	1000	0%
Ni2316	ug/L	4	1	-3	20	-86%
Pb1822	ug/L	-51	-35	15	150	-36%
Pb2203	ug/L	6	9	2	80	33%
Sr4215	ug/L	342	341	0	10	0%
Ti3372	ug/L	-1	-1	0	25	-26%
V_2908	ug/L	3	1	-2	8	-102%
Zn2138	ug/L	17	-9	-26	40	-656%

All duplicates values are within either 10% relative percent difference or the detection limit of each other.

R. Dilg
6-14-93

DUPLICATE

Sample SF1187 93ZE33D37 Operator

Date Analyzed 06/09/93 Correction 1.22000 File RUN105

Element	Units	Sample	Duplicate	Difference	Detect Limit	RPD
Ag3280	ug/L	-1	0	1	6	-118%
Al3082	ug/L	-42	-42	0	20000	0%
Al308L	ug/L	-42	-42	0	80	0%
As1890	ug/L	4	52	49	80	174%
B_2496	ug/L	408	405	-3	80	-1%
Ba4554	ug/L	66	66	0	6	0%
Be3130	ug/L	0	0	0	2	0%
Ca3179	ug/L	43701	43790	89	500	0%
Cd2144	ug/L	-5	-4	1	10	-22%
Cd2288	ug/L	0	-3	-3	10	303%
Co2286	ug/L	-1	2	3	6	0%
Cr2061	ug/L	0	0	0	10	0%
Cr2677	ug/L	-5	0	5	10	-231%
Cu3247	ug/L	2	1	-1	6	-63%
Mg2795	ug/L	24644	24690	46	100	0%
Mg3832	ug/L	24411	24453	42	200	0%
Fe2599	ug/L	780	777	-3	80	0%
Fe2714	ug/L	1414	1447	33	20000	3%
K_7664	ug/L	1090	1186	96	5000	10%
Mn2576	ug/L	31	30	0	5	-1%
Mo2020	ug/L	59	55	-4	15	-8%
Na5895	ug/L	48832	48638	-194	1000	0%
Ni2316	ug/L	-6	4	10	20	0%
Pb1822	ug/L	1	-34	-35	150	221%
Pb2203	ug/L	6	-1	-8	80	-391%
Sr4215	ug/L	343	343	0	10	0%
Ti3372	ug/L	-1	-1	0	25	-19%
V_2908	ug/L	1	3	1	8	66%
Zn2138	ug/L	-15	-17	-2	40	14%

All duplicates values are within either 10% relative percent difference or the detection limit of each other.

R. Dilg
6-14-93

DUPLICATE

Sample SF1187 93ZE33S38 Operator

Date Analyzed 06/09/93 Correction 1.22000 File RUN105

Element	Units	Sample	Duplicate	Difference	Detect Limit	RPD
Ag3280	ug/L	0	-1	0	6	0%
Al3082	ug/L	96	68	-28	20000	0%
Al308L	ug/L	97	68	-29	80	-35%
As1890	ug/L	2	33	31	80	183%
B_2496	ug/L	46	43	-3	80	-7%
Ba4554	ug/L	22	21	0	6	-2%
Be3130	ug/L	0	-1	0	2	0%
Ca3179	ug/L	46814	47230	416	500	1%
Cd2144	ug/L	-3	-4	-1	10	30%
Cd2288	ug/L	0	1	1	10	0%
Co2286	ug/L	1	1	0	6	-5%
Cr2061	ug/L	6	4	-2	10	-35%
Cr2677	ug/L	-3	0	2	10	-231%
Cu3247	ug/L	4	1	-2	6	-120%
Mg2795	ug/L	25802	25971	169	100	1%
Mg3832	ug/L	25630	25699	69	200	0%
Fe2599	ug/L	377	366	-11	80	-3%
Fe2714	ug/L	1085	1143	58	20000	6%
K_7664	ug/L	1618	1889	271	5000	14%
Mn2576	ug/L	59	60	1	5	1%
Mo2020	ug/L	0	7	7	15	167%
Na5895	ug/L	34160	34020	-140	1000	0%
Ni2316	ug/L	-6	2	8	20	-417%
Pb1822	ug/L	-33	-67	-34	150	68%
Pb2203	ug/L	18	0	-18	80	-198%
Sr4215	ug/L	92	91	0	10	0%
Ti3372	ug/L	5	4	-2	25	-35%
V_2908	ug/L	5	4	-1	8	-15%
Zn2138	ug/L	-2	-11	-9	40	144%

All duplicates values are within either 10% relative percent difference or the detection limit of each other.

R. Dilg
6-14-93

SPIKE COMPARISON

Sample SF1187 93ZE33S36 Analyzed by

Date Analyzed 06/09/93 Spike Correction 1.52000 File RUN105

Element	Units	Sample	Spike	Spike Added	Recovery
Ag3280	ug/L	0	52	50	104%
Al3082	ug/L	-32	1000	800	103%
Al308L	ug/L	-33	720	800	94%
B_2496	ug/L	460	1270	800	101%
Ba4554	ug/L	71	267	200	98%
Be3130	ug/L	0	10	10	103%
Ca3179	ug/L	35618	85000	50000	99%
Cd2144	ug/L	-1	44	50	90%
Cd2288	ug/L	2	53	50	102%
Co2286	ug/L	1	98	100	97%
Cr2061	ug/L	6	109	100	103%
Cr2677	ug/L	-3	103	100	106%
Cu3247	ug/L	2	53	50	102%
Mg2795	ug/L	21846	46000	25000	97%
Mg3832	ug/L	21513	47000	25000	102%
Fe2599	ug/L	16	824	800	101%
K_7664	ug/L	809	26000	25000	101%
Mn2576	ug/L	51	154	100	103%
Mo2020	ug/L	58	167	100	109%
Na5895	ug/L	55558	107000	50000	103%
Ni2316	ug/L	17	157	150	93%
Pb1822	ug/L	-45	788	800	104%
Pb2203	ug/L	-8	857	800	108%
Sr4215	ug/L	574	1569	1000	99%
Ti3372	ug/L	0	105	100	105%
V_2908	ug/L	4	54	50	99%
Zn2138	ug/L	-17	380	400	99%

All spike recoveries are within 15% of the expected value.

R. Dilg
6-14-93

SPIKE COMPARISON

Sample SF1187 93ZE33S37 Analyzed by

Date Analyzed 06/09/93 Spike Correction 1.52000 File RUN105

Element	Units	Sample	Spike	Spike Added	Recovery
Ag3280	ug/L	0	52	50	104%
Al3082	ug/L	-44	1000	800	104%
Al308L	ug/L	-45	699	800	93%
B_2496	ug/L	412	1189	800	97%
Ba4554	ug/L	63	256	200	96%
Be3130	ug/L	0	10	10	103%
Ca3179	ug/L	43564	92000	50000	97%
Cd2144	ug/L	-6	47	50	107%
Cd2288	ug/L	-2	49	50	101%
Co2286	ug/L	1	98	100	97%
Cr2061	ug/L	-2	104	100	106%
Cr2677	ug/L	-3	90	100	93%
Cu3247	ug/L	3	52	50	98%
Mg2795	ug/L	24567	49000	25000	98%
Mg3832	ug/L	24372	49000	25000	99%
Fe2599	ug/L	770	1550	800	98%
K_7664	ug/L	1095	27000	25000	104%
Mn2576	ug/L	31	132	100	101%
Mo2020	ug/L	56	163	100	107%
Na5895	ug/L	48866	98000	50000	98%
Ni2316	ug/L	4	143	150	93%
Pb1822	ug/L	-51	864	800	114%
Pb2203	ug/L	6	843	800	105%
Sr4215	ug/L	342	1322	1000	98%
Ti3372	ug/L	-1	102	100	103%
V_2908	ug/L	3	52	50	98%
Zn2138	ug/L	17	370	400	88%

All spike recoveries are within 15% of the expected value.

R. Dilg
6-14-93

SPIKE COMPARISON

Sample SF1187 93ZE33D37 Analyzed by

Date Analyzed 06/09/93 Spike Correction 1.52000 File RUN105

Element	Units	Sample	Spike	Spike Added	Recovery
Ag3280	ug/L	-1	53	50	109%
Al3082	ug/L	-42	1000	800	104%
Al308L	ug/L	-42	716	800	95%
B_2496	ug/L	408	1222	800	102%
Ba4554	ug/L	66	264	200	99%
Be3130	ug/L	0	10	10	103%
Ca3179	ug/L	43701	93000	50000	99%
Cd2144	ug/L	-5	46	50	101%
Cd2288	ug/L	0	51	50	101%
Co2286	ug/L	-1	99	100	100%
Cr2061	ug/L	0	110	100	110%
Cr2677	ug/L	-5	94	100	99%
Cu3247	ug/L	2	53	50	101%
Mg2795	ug/L	24644	49000	25000	97%
Mg3832	ug/L	24411	50000	25000	102%
Fe2599	ug/L	780	1585	800	101%
K_7664	ug/L	1090	27000	25000	104%
Mn2576	ug/L	31	133	100	102%
Mo2020	ug/L	59	166	100	107%
Na5895	ug/L	48832	100000	50000	102%
Ni2316	ug/L	-6	136	150	95%
Pb1822	ug/L	1	804	800	100%
Pb2203	ug/L	6	828	800	103%
Sr4215	ug/L	343	1347	1000	100%
Ti3372	ug/L	-1	105	100	106%
V_2908	ug/L	1	54	50	105%
Zn2138	ug/L	-15	375	400	98%

All spike recoveries are within 15% of the expected value.

R. Dily
6-14-93

SPIKE COMPARISON

Sample SF1187 93ZE33S38 Analyzed by

Date Analyzed 06/09/93 Spike Correction 1.52000 File RUN105

Element	Units	Sample	Spike	Spike Added	Recovery
Ag3280	ug/L	0	53	50	106%
Al3082	ug/L	96	1000	800	90%
Al308L	ug/L	97	830	800	92%
B_2496	ug/L	46	842	800	100%
Ba4554	ug/L	22	219	200	98%
Be3130	ug/L	0	10	10	103%
Ca3179	ug/L	46814	96000	50000	98%
Cd2144	ug/L	-3	46	50	98%
Cd2288	ug/L	0	53	50	106%
Co2286	ug/L	1	104	100	103%
Cr2061	ug/L	6	106	100	100%
Cr2677	ug/L	-3	93	100	96%
Cu3247	ug/L	4	54	50	101%
Mg2795	ug/L	25802	50000	25000	97%
Mg3832	ug/L	25630	51000	25000	101%
Fe2599	ug/L	377	1155	800	97%
K_7664	ug/L	1618	27000	25000	102%
Mn2576	ug/L	59	162	100	103%
Mo2020	ug/L	0	111	100	111%
Na5895	ug/L	34160	85000	50000	102%
Ni2316	ug/L	-6	153	150	106%
Pb1822	ug/L	-33	855	800	111%
Pb2203	ug/L	18	864	800	106%
Sr4215	ug/L	92	1088	1000	100%
Ti3372	ug/L	5	109	100	104%
V_2908	ug/L	5	52	50	94%
Zn2138	ug/L	-2	382	400	96%

All spike recoveries are within 15% of the expected value.

RUN 105
R. Dilg
6-14-93

Method: TJA61 Sample Name: INSTR BLANK 1 Operator:
Run Time: 06/09/93 15:23:11
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.13148	L.00000	L49.609	L.01498	L-20.717	L62.817	L-.7224
SDev	.36799	.0000	9.500	.02615	9.562	1.783	.0828
%RSD	-279.88	.00000	19.149	174.58	-46.154	2.8383	-11.46
#1	L-.50767	L.00000	L40.110	L.04444	L-30.279	L64.707	L-.7405
#2	L.22773	L.00000	L59.109	L.00599	L-20.717	L61.164	L-.7947
#3	L-.11452	L.00000	L49.609	L-.00549	L-11.155	L62.581	L-.6321

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.34189	L-.03051	L-2.8969	L-.32648	L-1.6515	L3.0483	L-.23655
SDev	.04196	.00325	2.1702	1.91402	2.0681	2.6651	1.08402

%RSD	-12.273	-10.657	-74.913	-586.25	-125.23	87.428	-458.26
#1	L-.38311	L-.03406	L-5.0671	L-1.7805	L-3.4728	L.01903	L.94621
#2	L-.34334	L-.02767	L-2.8969	L-1.0410	L.59678	L5.0323	L-1.1828
#3	L-.29923	L-.02980	L-.72676	L1.8420	L-2.0785	L4.0937	L-.47311

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-2.8431	L-.00459	L-.00217	L-12.197	L-.03370	L-.23070	L1.9200
SDev	.4824	.00000	.00818	.996	.04044	.05142	.8314
%RSD	-16.966	.00000	-377.50	-8.1662	-120.00	-22.287	43.301
#1	L-3.1219	L-.00459	L-.00975	L-13.285	L-.07414	L-.27660	L2.4000
#2	L-3.1213	L-.00459	L-.00325	L-11.977	L-.03370	L-.17514	L.96002
#3	L-2.2861	L-.00459	L.00650	L-11.329	L.00674	L-.24037	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.22212	L-2.1333	L.01816	L-4.7317	L-26.625	L5.2239	L-8.6260
SDev	.09383	1.6926	.00117	11.9427	21.800	11.137	13.5603
%RSD	-42.243	-79.340	6.4150	-252.40	-81.875	213.20	-157.21
#1	L-.31594	L-2.9681	L.01749	L8.9377	L-19.033	L17.861	L1.8601
#2	L-.22212	L-3.2464	L.01749	L-13.144	L-51.206	L.96970	L-23.934
#3	L-.12829	L-.18551	L.01951	L-9.9892	L-9.6370	L-3.1593	L-3.8240

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.30679	L-.74204	L-.05870	L.47829	L-8.4094
SDev	.09204	.71701	.95072	.00000	2.2415
%RSD	-30.000	-96.627	-1619.6	.00000	-26.655
#1	L-.39882	L-1.4841	L-1.1364	L.47829	L-10.827
#2	L-.30679	L-.05300	L.66143	L.47829	L-6.3998
#3	L-.21475	L-.68904	L.29883	L.47829	L-8.0015

Method: TJA61 Sample Name: AQC EV1&2 1 Operator:
Run Time: 06/09/93 15:26:19
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	488.75	Q4.9218	7131.1	4808.9	5088.4	4885.3	4823.
SDev	.63	.0074	23.3	7.3	34.6	26.8	6.
%RSD	.12850	.15078	.32732	.15088	.67969	.54845	.1177
#1	488.03	Q4.9138	7104.7	4801.1	5070.9	4870.2	4818.
#2	489.19	Q4.9230	7149.0	4810.2	5066.1	4869.5	4829.
#3	489.02	Q4.9285	7139.5	4815.4	5128.3	4916.3	4822.

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4940.2	4.8795	4956.7	5039.3	4887.3	5122.6	4942.3
SDev	4.9	.0112	8.8	30.7	6.9	7.1	4.7
%RSD	.09971	.23008	.17753	.61007	.14137	.13779	.09416

#1	4934.5	4.8918	4947.3	5012.3	4885.6	5115.3	4938.0
#2	4943.5	4.8769	4958.2	5032.9	4881.4	5123.1	4941.6
#3	4942.6	4.8698	4964.7	5072.8	4894.9	5129.3	4947.2
Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	4786.0	5.1369	4.9957	4945.0	Q10.252	-.24037	5063.1
SDev	7.5	.0027	.0068	6.2	.031	.15063	14.2
%RSD	.15737	.05227	.13540	.12455	.30129	-62.667	.28059
#1	4778.6	5.1343	4.9978	4938.1	Q10.258	-.15340	5072.7
#2	4793.6	5.1366	4.9881	4947.2	Q10.279	-.41430	5069.8
#3	4785.8	5.1397	5.0011	4949.8	Q10.218	-.15340	5046.8
Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	4877.9	4862.6	.03094	5046.4	5075.0	5067.5	5022.8
SDev	5.1	16.0	.00466	30.8	24.3	24.8	31.5
%RSD	.10518	.32944	15.061	.61054	.47947	.48914	.62662
#1	4873.4	4857.7	.03363	5078.2	5092.1	5048.4	4997.9
#2	4876.8	4849.6	.02556	5016.7	5047.1	5058.6	5012.3
#3	4883.5	4880.5	.03363	5044.3	5085.8	5095.5	5058.2
Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138		
Units	ug/L	ug/L	ug/L	ug/L	ug/L		
Avge	4849.3	4939.7	4908.1	Q-.47829	4989.1		
SDev	5.4	3.1	6.5	.41421	12.9		
%RSD	.11126	.06209	.13331	-86.603	.25942		
#1	4846.0	4936.2	4901.0	Q-.23914	4983.6		
#2	4855.5	4941.9	4909.3	Q-.23914	4979.9		
#3	4846.3	4941.0	4913.9	Q-.95657	5003.9		

Method: TJA61 Sample Name: HIGH AQC EV3 1 Operator:
Run Time: 06/09/93 15:29:40
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	-2.0234	Q92.798	119380.	Q93327.	Q.00001	Q48.412	Q1.337
SDev	.7453	.127	263.	127.	44.422	12.889	.438
%RSD	-36.832	.13656	.22059	.13652	776e6	26.625	32.77
#1	-1.7616	Q92.924	119100.	Q93453.	Q-20.717	Q55.497	Q1.806
#2	-2.8642	Q92.671	119620.	Q93198.	Q-30.279	Q56.205	Q1.264
#3	-1.4443	Q92.801	119430.	Q93330.	Q50.996	Q33.534	Q.9392
Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q1.0208	Q95.273	Q-7.5166	Q3.9806	Q2.7968	Q-21.974	Q-1.1828
SDev	.4069	.325	2.1860	2.7742	3.2575	4.796	1.4193
%RSD	39.859	.34158	-29.082	69.693	116.47	-21.825	-120.00

#1	Q1.4161	Q94.952	Q-5.3248	Q.79626	Q6.1174	Q-24.285	Q-2.6021
#2	Q1.0431	Q95.264	Q-9.6967	Q5.8746	Q-.39378	Q-16.460	Q.23655
#3	Q.60324	Q95.603	Q-7.5281	Q5.2711	Q2.6669	Q-25.177	Q-1.1828

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	Q-5.0749	55.436	57.352	92408.	Q93.924	97.174	Q2.4000
SDev	1.1120	.133	.068	140.	.153	.482	.0000
%RSD	-21.912	.23997	.11899	.15124	.16301	.49565	.00000
#1	Q-5.7998	55.309	57.303	92311.	Q93.749	97.489	Q2.4000
#2	Q-5.6303	55.425	57.322	92346.	Q94.032	96.619	Q2.4000
#3	Q-3.7946	55.574	57.430	92568.	Q93.991	97.413	Q2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q8.2831	Q8.8116	96.609	Q-1.0515	19.081	Q9.5538	Q1.2079
SDev	.3497	5.9961	.513	5.9714	9.424	11.375	9.9694
%RSD	4.2223	68.048	.53058	-567.89	49.388	119.06	825.35
#1	Q8.5754	Q9.2753	97.117	Q-3.6802	24.905	Q-2.0294	Q-4.6116
#2	Q8.3781	Q2.5971	96.092	Q5.7832	24.128	Q9.9825	Q-4.4840
#3	Q7.8956	Q14.562	96.619	Q-5.2575	8.2085	Q20.708	Q12.719

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5.2767	Q3.2862	Q1.8514	Q-.23914	Q91664.
SDev	.3232	.7950	1.3511	.00000	343.
%RSD	6.1254	24.194	72.977	.00000	.37447
#1	5.5835	Q3.2862	Q3.1681	Q-.23914	Q91313.
#2	5.3074	Q4.0812	Q1.9176	Q-.23914	Q91681.
#3	4.9392	Q2.4911	Q.46841	Q-.23914	Q91999.

Method: TJA61 Standard: blnk

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.01407	.03387	.00400	.03387	-.00220	.00773	.0008
SDev	.00397	.00114	.00053	.00114	.00173	.00103	.0006
%RSD	-28.234	3.3580	13.229	3.3580	-78.730	13.271	75.00
#1	-.01060	.03480	.00460	.03480	-.00420	.00860	.0014
#2	-.01320	.03260	.00360	.03260	-.00120	.00800	.0008
#3	-.01840	.03420	.00380	.03420	-.00120	.00660	.0002

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.19987	.01533	.00247	.00713	.02880	-.00340	.00507
SDev	.00221	.00133	.00012	.00252	.00389	.00193	.00042
%RSD	1.1068	8.6848	4.6812	35.280	13.519	-56.727	8.2171
#1	.20220	.01680	.00240	.00980	.02580	-.00120	.00540
#2	.19780	.01500	.00260	.00680	.02740	-.00420	.00520
#3	.19960	.01420	.00240	.00480	.03320	-.00480	.00460

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.01127	.00413	.07227	.03827	.03460	.71967	.01193

SDev	.00023	.00114	.00012	.00227	.00020	.00122	.00012
%RSD	2.0498	27.514	.15979	5.9438	.57803	.16981	.96762
#1	.01140	.00540	.07240	.04080	.03460	.71940	.01180
#2	.01140	.00380	.07220	.03760	.03440	.72100	.01200
#3	.01100	.00320	.07220	.03640	.03480	.71860	.01200

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.03927	.00373	.04293	-.01013	-.00100	.01419	.00113
SDev	.00031	.00121	.00092	.00061	.00275	.00562	.00061
%RSD	.77803	32.291	2.1516	-6.0297	-274.95	39.635	53.913
#1	.03920	.00260	.04400	-.01000	-.00340	.00877	.00180
#2	.03900	.00500	.04240	-.01080	.00200	.02000	.00060
#3	.03960	.00360	.04240	-.00960	-.00160	.01380	.00100

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01153	.00493	-.00120	.00000	.03993
SDev	.00023	.00023	.00191	.00000	.00824
%RSD	2.0024	4.6812	-158.99	.00000	20.628
#1	.01180	.00480	.00080	.00000	.04940
#2	.01140	.00480	-.00140	.00000	.03600
#3	.01140	.00520	-.00300	.00000	.03440

Method: TJA61 Standard: ten2

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.01080	.06160	.00480	.06160	-.00100	2.8026	.0042
SDev	.00421	.00069	.00040	.00069	.00140	.0210	.0005
%RSD	-39.021	1.1247	8.3333	1.1247	-140.00	.74923	12.60
#1	-.00640	.06120	.00480	.06120	.00060	2.7792	.0048
#2	-.01120	.06240	.00440	.06240	-.00200	2.8088	.0040
#3	-.01480	.06120	.00520	.06120	-.00160	2.8198	.0038

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	142.90	2.7669	.91040	6.5886	.03220	.01053	.00633
SDev	.49	.0116	.00346	.0248	.00125	.00241	.00031
%RSD	.34000	.42089	.38050	.37636	3.8789	22.890	4.8238
#1	142.38	2.7536	.90640	6.5622	.03360	.01080	.00600
#2	142.96	2.7754	.91240	6.6114	.03180	.01280	.00640
#3	143.35	2.7716	.91240	6.5922	.03120	.00800	.00660

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	11.589	.00327	.07993	.04480	.12733	6.2379	.01200
SDev	.025	.00012	.00031	.00072	.00023	.0208	.00000
%RSD	.21190	3.5348	.38220	1.6096	.18136	.33314	.00000
#1	11.566	.00340	.08020	.04540	.12720	6.2140	.01200
#2	11.587	.00320	.07960	.04500	.12760	6.2484	.01200
#3	11.615	.00320	.08000	.04400	.12720	6.2514	.01200

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	20.556	.00173	.04120	2.5397	-.00267	.01370	.00140

SDev	.063	.00129	.00053	.0046	.00042	.00239	.00040
%RSD	.30599	74.182	1.2843	.18254	-15.612	17.424	28.571
#1	20.483	.00120	.04180	2.5440	-.00280	.01117	.00180
#2	20.587	.00320	.04100	2.5404	-.00220	.01403	.00100
#3	20.597	.00080	.04080	2.5348	-.00300	.01591	.00140

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01120	.00593	10.827	-.00020	10.201
SDev	.00000	.00050	.033	.00000	.050
%RSD	.00000	8.4830	.30327	.00000	.49032
#1	.01120	.00640	10.792	-.00020	10.144
#2	.01120	.00600	10.832	-.00020	10.240
#3	.01120	.00540	10.857	-.00020	10.219

Method: TJA61

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Cu3247	324.765	ten2	blnk	863.717	-9.73121	06/09/93 03:36:21

Method: TJA61 Sample Name: INSTR BLANK 1A Operator:
Run Time: 06/09/93 15:41:14
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.10448	L-.02387	L7.3886	L-24.019	L23.904	L21.490	L-.9031
SDev	1.45446	.00551	12.798	5.562	41.770	1.874	.0938
%RSD	-1392.1	-23.077	173.21	-23.155	174.74	8.7223	-10.39
#1	L-.29214	L-.02387	L14.777	L-24.027	L70.120	L22.907	L-.9572
#2	L-1.4560	L-.02938	L-7.3886	L-29.577	L12.749	L22.199	L-.9572
#3	L1.4347	L-.01836	L14.777	L-18.454	L-11.155	L19.365	L-.7947

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.83192	L-.02200	L-2.1640	L3.6350	L.68479	L-.07805	L-1.6559
SDev	.44881	.00497	2.5181	.7613	2.1366	7.15911	2.6867
%RSD	53.949	-22.581	-116.36	20.943	312.00	-9172.2	-162.25
#1	L1.3168	L-.01987	L-.71050	L3.9943	L3.1474	L-4.3681	L-4.7310
#2	L.74782	L-.01845	L-.70987	L4.1502	L-.41682	8.1866	L.23655
#3	L.43111	L-.02767	L-5.0717	L2.7606	L-.67616	L-4.0526	L-.47311

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L1.2663	L-.00918	L-.02491	L-26.364	L-.06066	L-.29230	L2.4000
SDev	.1000	.00000	.01045	1.135	.02335	.18921	.0000
%RSD	7.8939	.00000	-41.929	-4.3051	-38.490	-64.729	.00000
#1	L1.3233	L-.00918	L-.03250	L-27.021	L-.07414	L-.50851	L2.4000
#2	L1.1508	L-.00918	L-.02925	L-27.017	L-.07414	L-.21138	L2.4000
#3	L1.3247	L-.00918	L-.01300	L-25.053	L-.03370	L-.15702	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.41986	L.37101	L-.01682	L2.6287	L-31.895	L.97008	L-6.7246
SDev	.24272	1.6696	.00350	5.4637	22.467	14.342	21.6797
%RSD	57.810	450.00	-20.785	207.85	-70.440	1478.4	-322.39
#1	L.64445	L2.0406	L-.01480	L5.7832	L-47.889	L17.079	L-26.823
#2	L.45275	L.37101	L-.02085	L-3.6802	L-6.2089	L-3.7604	L-9.6010
#3	L.16237	L-1.2985	L-.01480	L5.7832	L-41.588	L-10.409	L16.250

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.24543	L-1.0071	L.41776	L.47829	L-15.109
SDev	.05314	.7287	.72465	.00000	.625
%RSD	-21.651	-72.356	173.46	.00000	-4.1340
#1	L-.30679	L-1.1661	L.29636	L.47829	L-14.393
#2	L-.21475	L-1.6431	L1.1954	L.47829	L-15.546
#3	L-.21475	L-.21201	L-.23853	L.47829	L-15.387

Method: TJA61 Sample Name: AQC EV1&2 1A Operator:

Run Time: 06/09/93 15:44:29
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	492.49	Q4.9420	7312.6	4828.5	5201.6	4915.8	4859.
SDev	1.23	.0276	61.8	27.3	55.8	29.2	28.
%RSD	.25068	.55776	.84449	.56451	1.0732	.59358	.5763
#1	492.65	Q4.9689	7313.7	4855.1	5152.2	4935.4	4889.
#2	491.18	Q4.9432	7373.9	4829.8	5190.4	4929.7	4855.
#3	493.63	Q4.9138	7250.4	4800.6	Q5262.2	4882.3	4834.

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4981.3	4.9223	4988.6	5054.5	4907.2	5157.4	4974.9
SDev	26.4	.0095	7.5	18.9	12.4	7.4	8.6
%RSD	.53092	.19394	.15117	.37338	.25363	.14419	.17294
#1	5008.7	4.9195	4984.3	5034.4	4920.6	5159.5	4982.7
#2	4979.4	4.9330	4997.3	5057.2	4905.0	5163.5	4976.3
#3	4955.9	4.9145	4984.3	5071.8	4896.0	5149.1	4965.7

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	4968.9	5.1639	5.0325	4976.3	Q10.299	-.24278	5081.6
SDev	31.6	.0073	.0216	10.9	.061	.17515	49.4
%RSD	.63661	.14073	.42994	.21952	.58901	-72.143	.97229
#1	5003.8	5.1710	5.0563	4988.9	Q10.360	-.35632	5134.6
#2	4960.8	5.1641	5.0141	4970.0	Q10.299	-.33096	5074.2
#3	4942.2	5.1565	5.0271	4970.0	Q10.238	-.04107	5036.7

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	4901.4	4901.3	.03027	5095.3	5139.0	5115.5	5033.3
SDev	8.3	7.7	.00466	11.9	5.0	61.2	30.4
%RSD	.16874	.15747	15.396	.23285	.09641	1.1966	.60473
#1	4910.7	4907.8	.02758	5096.3	5139.9	5048.1	5038.2
#2	4898.7	4892.7	.02758	5082.9	5133.7	5167.6	5061.1
#3	4894.9	4903.3	.03565	5106.6	5143.4	5130.8	5000.8

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4883.5	4979.4	4926.4	Q-.71743	5000.7
SDev	29.0	19.4	20.2	.41421	12.6
%RSD	.59286	.38949	.41100	-57.735	.25185
#1	4914.2	4999.7	4947.2	Q-.23914	4987.7
#2	4879.7	4977.4	4925.3	Q-.95657	5012.8
#3	4856.7	4961.0	4906.7	Q-.95657	5001.5

Method: TJA61 Sample Name: 93ZE33S36 Operator:
Run Time: 06/09/93 15:48:14

Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.1880	L-.03808	L2.5755	L-38.786	L50.550	456.08	71.33
SDev	.6061	.00776	6.6913	7.866	30.307	2.00	.46
%RSD	-51.024	-20.377	259.81	-20.279	59.956	.43766	.6486
#1	L-.62913	L-.04256	L6.4387	L-43.370	L15.554	454.93	71.15
#2	L-1.1024	L-.02912	L6.4387	L-29.704	L68.048	458.38	71.88
#3	L-1.8323	L-.04256	L-5.1509	L-43.284	L68.048	454.93	71.02

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L1.0493	35.417	L-.09725	L4.1587	L-.54959	L.03088	L-1.4430
SDev	.4988	.117	1.53857	.5908	3.99894	4.2648	4.3289
%RSD	47.535	.33071	-1582.1	14.207	-727.63	13809.	-300.00
#1	L1.5653	35.283	L1.6793	L3.9425	L4.0600	L.79994	L2.8859
#2	L1.0130	35.495	L-.97806	L4.8272	L-2.6193	L3.8589	L-1.4430
#3	L.56969	35.475	L-.99300	L3.7065	L-3.0895	L-4.5662	L-5.7719

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L2.6524	21.687	21.421	L17.648	L.60850	L.97258	L8.7841
SDev	.7606	.109	.169	.461	.05697	.11980	1.0143
%RSD	28.677	.50481	.79048	2.6129	9.3625	12.318	11.547
#1	L3.4964	21.563	21.234	L17.919	L.57561	L1.0861	L8.1985
#2	L2.4412	21.769	21.563	L17.909	L.57561	L.84733	L9.9554
#3	L2.0197	21.730	21.468	L17.115	L.67428	L.98437	L8.1985

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	52.373	58.051	55.585	L32.712	L-82.508	L-14.055	L-.89288
SDev	.539	2.311	.610	13.652	12.673	46.071	10.5052
%RSD	1.0292	3.9806	1.0976	41.733	-15.359	-327.80	-1176.6
#1	52.492	55.448	54.896	47.465	L-87.633	L37.077	L9.5975
#2	52.843	59.861	55.800	L30.146	L-68.075	L-26.904	L-11.413
#3	51.784	58.843	56.058	L20.525	L-91.815	L-52.337	L-.86322

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	570.17	L.71130	L5.0617	L-.29175	L-17.573
SDev	5.56	.51325	3.9788	.00000	1.759
%RSD	.97561	72.157	78.606	.00000	-10.011
#1	564.07	L1.0993	9.3008	L-.29175	L-19.476
#2	574.97	L.90529	L1.4082	L-.29175	L-17.237
#3	571.48	L.12933	L4.4760	L-.29175	L-16.006

Method: TJA61 Sample Name: 93ZE33S36 DUP Operator:
Run Time: 06/09/93 15:51:16
Comment: SF1187

Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.10324	L-.03734	L-1.2877	L-38.008	L17.498	456.08	70.64
SDev	1.15442	.00684	3.8632	6.911	6.735	12.14	.36
%RSD	-1118.2	-18.330	-300.00	-18.182	38.490	2.6622	.5154
#1	L1.1605	L-.04480	L-1.2877	L-45.546	L21.386	444.55	70.22
#2	L-1.1024	L-.03584	L2.5755	L-36.510	L9.7211	454.93	70.82
#3	L-.36777	L-.03136	L-5.1509	L-31.970	L21.386	468.75	70.89

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.04112	36.012	L-2.7477	L3.9061	L-1.0125	L-.10388	L-1.1544
SDev	.13622	.055	1.5305	2.6535	1.1443	2.60499	4.7683
%RSD	331.26	.15264	-55.703	67.932	-113.02	-2507.8	-413.07
#1	L.00162	35.971	L-.98038	L5.3275	L-.13358	L1.9382	L-1.4430
#2	L.19273	36.075	L-3.6331	L5.5460	L-2.3065	L.78781	L3.7517
#3	L-.07098	35.992	L-3.6295	L.84470	L-.59758	L-3.0376	L-5.7719

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L1.1067	21.942	21.639	L19.243	L.57561	L1.0271	L8.1985
SDev	1.0600	.054	.080	.456	.02467	.1681	.0000
%RSD	95.787	.24754	.36839	2.3698	4.2857	16.369	.00000
#1	L2.2301	21.880	21.551	L19.505	L.60028	L1.1612	L8.1985
#2	L.96571	21.982	21.662	L19.507	L.57561	L1.0816	L8.1985
#3	L.12415	21.964	21.705	L18.716	L.55094	L.83848	L8.1985

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	51.438	58.503	55.676	L23.732	L-62.860	L23.994	L-6.7439
SDev	.234	2.376	.535	14.442	26.090	19.660	11.2461
%RSD	.45422	4.0619	.96057	60.856	-41.505	81.936	-166.76
#1	51.671	60.201	55.157	L24.374	L-91.612	L44.286	L-14.903
#2	51.204	59.522	55.647	L8.9798	L-40.695	L22.660	L-11.413
#3	51.439	55.787	56.225	L37.843	L-56.273	L5.0350	L6.0846

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	574.48	L.32332	L3.7461	L-.58351	L-13.509
SDev	3.92	.38798	.6675	.50533	.897
%RSD	.68306	120.00	17.819	-86.603	-6.6396
#1	570.14	L.32332	L4.4750	L-.29175	L-13.598
#2	575.53	L-.06466	L3.5987	L-.29175	L-12.570
#3	577.77	L.71130	L3.1646	L-1.1670	L-14.357

Method: TJA61 Sample Name: 93ZE33S36 SPIKE Operator:
Run Time: 06/09/93 15:55:18
Comment: SF1187
Mode: CONC Corr. Factor: 1.52

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	52.188	L.71825	1163.2	720.06	L36.335	1270.0	267.1
SDev	.640	.01319	16.7	13.22	87.606	12.9	1.4
%RSD	1.2259	1.8365	1.4334	1.8364	241.11	1.0175	.5134
#1	51.474	L.72290	1172.8	724.70	L26.645	1282.9	266.7
#2	52.709	L.70336	1172.8	705.15	L-46.024	1257.1	266.0
#3	52.381	L.72848	1143.9	730.34	128.38	1270.0	268.7

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	10.201	84.738	43.666	52.534	97.846	109.36	102.83
SDev	.214	.132	3.827	3.769	2.582	8.11	7.47
%RSD	2.0959	.15632	8.7647	7.1753	2.6393	7.4184	7.2673
#1	10.437	84.781	41.443	53.181	94.873	118.58	107.15
#2	10.020	84.590	41.471	55.938	99.139	106.19	107.15
#3	10.146	84.844	48.086	48.483	99.527	103.31	94.204

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	52.682	46.304	46.649	824.47	L2.2129	26.267	61.287
SDev	.454	.091	.149	.58	.0887	.436	1.264
%RSD	.86158	.19703	.31947	.07038	4.0094	1.6596	2.0620
#1	53.206	46.265	46.548	823.80	L2.3154	26.331	60.558
#2	52.420	46.238	46.578	824.80	L2.1617	26.667	62.747
#3	52.419	46.408	46.820	824.80	L2.1617	25.803	60.558

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	153.77	166.93	106.80	156.63	788.29	856.81	459.09
SDev	.37	3.29	.42	19.96	44.71	15.98	22.43
%RSD	.23805	1.9681	.39083	12.745	5.6720	1.8652	4.8850
#1	153.81	170.59	106.34	140.65	778.26	840.98	483.86
#2	153.39	164.25	107.16	150.24	837.16	856.51	440.16
#3	154.11	165.94	106.91	179.01	749.44	872.94	453.25

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	1569.0	105.14	53.920	48.709	380.09
SDev	6.7	.74	1.416	.000	3.15
%RSD	.42918	.70231	2.6260	.00000	.82784
#1	1563.3	105.30	54.736	48.709	381.33
#2	1567.3	105.78	52.285	48.709	376.51
#3	1576.4	104.33	54.739	48.709	382.42

Method: TJA61 Sample Name: 93ZE33S37 Operator:
Run Time: 06/09/93 15:59:13
Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554

Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.03285	L-.04406	L-12.877	L-44.731	L36.940	411.71	63.44
SDev	.55653	.00564	6.691	5.669	24.283	3.77	.10
%RSD	-1694.1	-12.796	-51.962	-12.673	65.737	.91509	.1592
#1	L.47498	L-.03808	L-16.741	L-38.708	L9.7211	409.98	63.35
#2	L.05427	L-.04480	L-16.741	L-45.525	L56.382	409.12	63.55
#3	L-.62781	L-.04929	L-5.1509	L-49.961	L44.717	416.03	63.42

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.25850	43.564	L-6.4254	L-1.5635	L.60088	L-1.9441	L-3.1745
SDev	.05180	.088	2.6562	2.6268	1.5300	2.6809	.8658
%RSD	-20.038	.20310	-41.340	-168.01	254.63	-137.90	-27.273
#1	L-.24927	43.523	L-9.0805	L.68960	L.13633	L-4.6259	L-4.0403
#2	L-.21193	43.504	L-3.7681	L-.93141	L2.3093	L.73579	L-3.1745
#3	L-.31429	43.666	L-6.4275	L-4.4486	L-.64301	L-1.9421	L-2.3087

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L2.9335	24.567	24.372	769.94	L1.3979	L1.0949	L8.7841
SDev	.8779	.056	.085	3.98	.0142	.0777	1.0143
%RSD	29.926	.22694	.35051	.51743	1.0189	7.0976	11.547
#1	L2.2311	24.521	24.290	765.95	L1.3897	L1.0065	L8.1985
#2	L2.6518	24.552	24.366	773.92	L1.3897	L1.1524	L9.9554
#3	L3.9177	24.629	24.461	769.94	L1.4143	L1.1258	L8.1985

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	31.066	55.674	48.866	L3.8485	L-50.774	L6.2397	L-14.544
SDev	.294	2.502	.162	2.9393	33.452	8.0723	6.068
%RSD	.94641	4.4946	.33197	76.376	-65.884	129.37	-41.725
#1	31.027	54.769	48.734	L3.2071	L-15.548	L-1.6140	L-11.046
#2	30.793	58.503	49.047	L7.0555	L-54.663	L5.8190	L-21.551
#3	31.378	53.750	48.816	L1.2828	L-82.111	L14.514	L-11.035

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	341.79	L-.84063	L2.9440	L-1.1670	L16.955
SDev	.95	.51325	.9532	.0000	1.089
%RSD	.27940	-61.056	32.377	.00000	6.4225
#1	340.85	L-1.4226	L2.5060	L-1.1670	L18.007
#2	341.75	L-.45264	L4.0375	L-1.1670	L17.026
#3	342.76	L-.64664	L2.2886	L-1.1670	L15.833

Method: TJA61 Sample Name: 93ZE33S37 DUP Operator:
Run Time: 06/09/93 16:02:43
Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L

Avge	L-.85305	L-.05153	L-12.877	L-52.195	L13.610	399.03	63.26
SDev	1.66605	.00388	3.863	3.904	66.332	11.80	.08
%RSD	-195.31	-7.5306	-30.000	-7.4793	487.39	2.9568	.1207
#1	L-2.6788	L-.05377	L-9.0141	L-54.406	L33.052	397.01	63.22
#2	L.58492	L-.05377	L-12.877	L-54.491	L-60.271	388.37	63.22
#3	L-.46528	L-.04705	L-16.741	L-47.687	L68.048	411.71	63.35

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.47534	43.810	L-6.4341	L.24321	L-2.2506	L-.23895	L-2.0202
SDev	.07700	.091	2.6517	1.7890	1.3235	1.76567	1.8023
%RSD	-16.198	.20745	-41.213	735.57	-58.806	-738.93	-89.214
#1	L-.49485	43.714	L-9.0828	L1.7469	L-.95208	L.77899	L-4.0403
#2	L-.39046	43.820	L-3.7794	L-1.7353	L-3.5977	L-2.2778	L-1.4430
#3	L-.54070	43.895	L-6.4401	L.71797	L-2.2019	L.78193	L-.57719

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L2.3014	24.685	24.407	767.81	L1.4555	L1.1774	L9.9554
SDev	.1203	.018	.020	3.23	.0377	.2984	.0000
%RSD	5.2276	.07114	.08176	.42119	2.5890	25.344	.00000
#1	L2.4403	24.676	24.409	764.35	L1.4143	L.87827	L9.9554
#2	L2.2298	24.673	24.385	768.33	L1.4637	L1.4751	L9.9554
#3	L2.2341	24.705	24.425	770.75	L1.4884	L1.1789	L9.9554

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	30.868	55.561	48.774	L1.2828	L-35.286	L8.5198	L-9.8489
SDev	.336	7.759	.257	15.273	44.420	9.6725	14.1649
%RSD	1.0894	13.964	.52608	1190.6	-125.89	113.53	-143.82
#1	30.675	59.522	49.020	L-4.4899	L-54.730	L18.057	L-25.042
#2	30.673	60.540	48.508	L18.601	L15.541	L8.7840	L2.9944
#3	31.257	46.621	48.793	L-10.263	L-66.668	L-1.2821	L-7.4996

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	341.49	L-.58197	L.89923	L-.29175	L-9.2669
SDev	1.24	.91676	2.7806	.00000	1.7336
%RSD	.36219	-157.53	309.22	.00000	-18.707
#1	342.76	L-1.6166	L-2.1001	L-.29175	L-7.5527
#2	340.29	L-.25865	L1.4064	L-.29175	L-11.019
#3	341.42	L.12933	L3.3914	L-.29175	L-9.2289

Method: TJA61 Sample Name: 93ZE33S37 SPIKE Operator:
Run Time: 06/09/93 16:06:08
Comment: SF1187
Mode: CONC Corr. Factor: 1.52

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	51.584	L.69685	1152.0	698.61	L55.713	1188.9	256.3

SDev	.344	.00322	21.7	3.21	58.135	9.7	.7
%RSD	.66780	.46250	1.8841	.45956	104.35	.81186	.2550
#1	51.457	L.69499	1129.5	696.81	L55.713	1182.8	255.8
#2	51.974	L.69499	1172.8	696.71	L-2.4223	1200.0	256.1
#3	51.321	L.70057	1153.6	702.32	113.85	1183.8	257.1

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	9.7459	92.319	46.844	48.913	97.616	104.45	89.530
SDev	.1494	.127	3.823	3.151	2.642	2.36	.623
%RSD	1.5329	.13794	8.1619	6.4417	2.7065	2.2550	.69560
#1	9.5738	92.247	44.627	46.120	96.387	107.15	89.890
#2	9.8216	92.244	44.647	52.329	95.811	103.34	88.811
#3	9.8422	92.466	51.259	48.289	100.65	102.85	89.890

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	52.069	48.721	49.145	1550.5	L3.0120	26.759	64.935
SDev	.803	.063	.067	2.9	.0640	.175	.000
%RSD	1.5424	.12983	.13646	.18419	2.1241	.65361	.00000
#1	52.946	48.673	49.082	1547.2	L3.0837	26.557	64.935
#2	51.370	48.697	49.137	1552.1	L2.9608	26.860	64.935
#3	51.892	48.793	49.216	1552.1	L2.9915	26.860	64.935

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	131.90	162.84	98.264	143.05	864.07	843.23	424.55
SDev	.67	7.68	.394	22.87	51.43	24.33	22.37
%RSD	.50649	4.7136	.40052	15.988	5.9523	2.8855	5.2697
#1	131.75	155.79	98.410	145.44	902.86	871.19	405.68
#2	131.32	161.71	97.818	119.07	805.73	826.83	418.71
#3	132.63	171.01	98.563	164.62	883.62	831.68	449.26

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	1322.4	102.32	51.919	48.709	370.22
SDev	1.2	.85	1.505	.000	2.19
%RSD	.08872	.82958	2.8980	.00000	.59241
#1	1321.7	101.43	50.923	48.709	368.90
#2	1321.8	103.12	53.650	48.709	369.02
#3	1323.8	102.40	51.183	48.709	372.76

Method: TJA61 Sample Name: 93ZE33D37 Operator:
Run Time: 06/09/93 16:10:12
Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.4692	L-.04182	L2.5755	L-42.466	L3.8885	407.96	66.32
SDev	1.9596	.00647	6.6913	6.433	45.555	19.72	.30

%RSD	-133.37	-15.465	259.81	-15.149	1171.5	4.8328	.4567
#1	L-2.9991	L-.04929	L6.4387	L-49.894	L-19.442	396.15	66.65
#2	L-2.1481	L-.03808	L-5.1509	L-38.745	L56.382	397.01	66.06
#3	L.73952	L-.03808	L6.4387	L-38.759	L-25.275	430.72	66.26

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.26855	43.701	L-4.6578	L.42527	L-.90327	L.02669	L-4.6175
SDev	.04262	.094	1.5219	1.5628	.58451	4.2627	3.9040
%RSD	-15.871	.21497	-32.674	367.49	-64.711	15969.	-84.548
#1	L-.29620	43.593	L-6.4151	L-1.3792	L-1.5726	L.79595	L-8.3692
#2	L-.28999	43.764	L-3.7853	L1.3100	L-.49327	L-4.5683	L-4.9061
#3	L-.21947	43.745	L-3.7730	L1.3450	L-.64396	L3.8524	L-.57719

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L2.4408	24.644	24.411	780.03	L1.4143	L1.0905	L9.3698
SDev	.7293	.009	.038	2.44	.0740	.2189	1.0143
%RSD	29.882	.03517	.15436	.31280	5.2326	20.071	10.825
#1	L2.0197	24.638	24.449	782.69	L1.3403	L1.0286	L8.1985
#2	L2.0197	24.654	24.374	779.50	L1.4884	L.90922	L9.9554
#3	L3.2830	24.640	24.409	777.90	L1.4143	L1.3336	L9.9554

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	30.753	58.843	48.832	L-6.4141	L1.3345	L6.3571	L-5.1985
SDev	.598	2.065	.307	3.8485	29.457	8.3675	5.3709
%RSD	1.9440	3.5093	.62837	-60.000	2207.3	131.63	-103.32
#1	30.094	57.824	49.182	L-2.5657	L-11.501	L1.3482	L-11.068
#2	30.905	57.485	48.702	L-6.4141	L35.031	L16.017	L-3.9979
#3	31.260	61.219	48.611	L-10.263	L-19.527	L1.7062	L-.52954

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	343.06	L-.96995	L1.4802	L-.29175	L-15.189
SDev	2.10	.29633	2.9171	.00000	1.849
%RSD	.61261	-30.550	197.07	.00000	-12.177
#1	345.46	L-.64664	L-1.8784	L-.29175	L-17.204
#2	342.20	L-1.0346	L3.3805	L-.29175	L-14.793
#3	341.53	L-1.2286	L2.9387	L-.29175	L-13.569

Method: TJA61 Sample Name: 93ZE33D37 DUP Operator:
Run Time: 06/09/93 16:13:51
Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.29263	L-.04182	L-12.877	L-42.468	L52.494	404.51	66.19
SDev	.74208	.00684	.000	6.877	17.819	5.75	.17
%RSD	-253.60	-16.366	.00000	-16.192	33.945	1.4227	.2642

#1	L.16262	L-.04929	L-12.877	L-49.982	L68.048	403.07	66.39
#2	L-1.1489	L-.04032	L-12.877	L-40.934	L56.382	399.61	66.13
#3	L.10844	L-.03584	L-12.877	L-36.488	L33.052	410.84	66.06

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.24058	43.790	L-3.7780	L-2.6019	L1.6316	L-.22452	L.00000
SDev	.14771	.078	2.6618	.9946	2.7123	1.76866	1.8023
%RSD	-61.396	.17793	-70.454	-38.225	166.24	-787.75	-185e6
#1	L-.37742	43.717	L-3.7758	L-1.5234	L-.64554	L-2.2668	L-.57719
#2	L-.26032	43.780	L-6.4409	L-2.7993	L4.6322	L.79600	L-1.4430
#3	L-.08399	43.872	L-1.1174	L-3.4830	L.90798	L.79723	L2.0202

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L1.1777	24.690	24.453	776.59	L1.4472	L1.1863	L8.1985
SDev	.2126	.022	.036	1.65	.0377	.0223	.0000
%RSD	18.053	.09070	.14859	.21195	2.6038	1.8757	.00000
#1	L1.1763	24.671	24.421	777.91	L1.4390	L1.1833	L8.1985
#2	L1.3909	24.685	24.445	774.74	L1.4884	L1.1656	L8.1985
#3	L.96573	24.715	24.493	777.11	L1.4143	L1.2098	L8.1985

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	30.478	54.543	48.638	L3.8485	L-33.959	L-1.4661	L-2.8492
SDev	.069	7.456	.079	8.0113	8.936	4.7970	11.2559
%RSD	.22608	13.669	.16198	208.17	-26.313	-327.19	-395.06
#1	30.440	58.503	48.560	L12.828	L-39.152	L2.2641	L9.9868
#2	30.437	45.943	48.636	L1.2828	L-23.641	L.21494	L-7.4996
#3	30.558	59.182	48.717	L-2.5657	L-39.084	L-6.8774	L-11.035

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	342.73	L-.77596	L2.7990	L-.29175	L-17.477
SDev	.17	.48820	.9941	.00000	.395
%RSD	.05004	-62.915	35.516	.00000	-2.2580
#1	342.76	L-1.2286	L1.8455	L-.29175	L-17.267
#2	342.54	L-.84063	L3.8292	L-.29175	L-17.232
#3	342.88	L-.25865	L2.7224	L-.29175	L-17.932

Method: TJA61 Sample Name: 93ZE33D37 SPIKE Operator:
Run Time: 06/09/93 16:17:18
Comment: SF1187
Mode: CONC Corr. Factor: 1.52

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	53.154	L.71453	1176.0	716.32	L4.8446	1221.9	264.2
SDev	.683	.01006	24.7	10.10	50.869	37.9	1.1
%RSD	1.2857	1.4084	2.1002	1.4095	1050.0	3.1038	.4088

#1	52.826	L.70336	1148.7	705.11	L4.8446	1178.5	263.1
#2	52.696	L.72290	1182.4	724.70	L-46.024	1238.8	264.4
#3	53.939	L.71732	1196.9	719.16	L55.713	1248.4	265.2

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	10.101	92.718	45.746	50.641	99.093	109.69	93.845
SDev	.163	.060	1.913	6.526	1.024	3.07	.623
%RSD	1.6128	.06503	4.1818	12.886	1.0334	2.7980	.66363
#1	10.289	92.700	47.955	56.847	99.868	111.92	94.204
#2	9.9999	92.669	44.639	43.837	99.479	110.96	94.204
#3	10.014	92.786	44.644	51.240	97.932	106.19	93.126

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	53.295	49.082	49.680	1585.2	L2.9711	26.838	64.206
SDev	.401	.042	.171	4.6	.0177	.125	1.264
%RSD	.75256	.08486	.34499	.28981	.59726	.46618	1.9682
#1	53.731	49.038	49.492	1579.9	L2.9608	26.750	64.935
#2	52.943	49.089	49.828	1587.9	L2.9915	26.783	62.747
#3	53.210	49.120	49.719	1587.9	L2.9608	26.981	64.935

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	133.41	165.52	99.875	135.85	804.07	827.56	425.99
SDev	.72	7.76	.534	17.29	39.42	21.92	26.66
%RSD	.53963	4.6910	.53452	12.725	4.9019	2.6485	6.2581
#1	133.07	168.90	99.296	150.24	849.59	825.27	449.25
#2	132.92	171.01	99.980	116.67	781.28	850.54	431.81
#3	134.24	156.63	100.35	140.65	781.36	806.88	396.90

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	1346.7	104.73	54.285	49.436	374.56
SDev	3.8	.28	1.556	.630	2.04
%RSD	.27931	.26647	2.8670	1.2736	.54585
#1	1342.4	105.06	52.553	49.799	372.20
#2	1348.7	104.57	54.735	48.709	375.63
#3	1349.1	104.57	55.567	49.799	375.85

Method: TJA61 Sample Name: 93ZE33836 Operator:
Run Time: 06/09/93 16:20:44
Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.12130	L-.03211	L5.1509	L-32.760	L17.498	460.40	70.51
SDev	1.41087	.00342	2.2304	3.439	44.164	19.64	.71
%RSD	-1163.2	-10.657	43.301	-10.497	252.40	4.2659	1.011
#1	L1.4729	L-.03136	L6.4387	L-31.940	L-13.610	463.57	71.02

#2	L-1.2092	L-.03584	L2.5755	L-36.535	L-1.9442	478.26	70.82
#3	L-.62754	L-.02912	L6.4387	L-29.806	L68.048	439.37	69.70

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.25337	35.618	L-.97635	L2.1628	L.69694	L5.7719	L-2.5973
SDev	.07648	.060	2.65132	2.2414	1.5077	5.5634	.4999
%RSD	-30.187	.16779	-271.56	103.64	216.33	96.387	-19.245
#1	L-.20854	35.557	L-.97369	L3.7415	L.33518	L6.1581	L-3.1745
#2	L-.20989	35.676	L-3.6290	L3.1495	L-.59695	L.02552	L-2.6087
#3	L-.34168	35.620	L1.6736	L-.40274	L2.3526	11.132	L-2.6087

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L2.0200	21.846	21.513	L16.320	L.56738	L.80901	L7.0273
SDev	.3654	.057	.096	2.107	.02849	.16311	1.0143
%RSD	18.088	.26243	.44586	12.910	5.0204	20.162	14.434
#1	L2.4419	21.854	21.547	L17.918	L.55094	L.76775	L6.4417
#2	L1.8100	21.899	21.587	L13.933	L.55094	L.67049	L8.1985
#3	L1.8082	21.785	21.404	L17.110	L.60028	L.98879	L6.4417

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	50.736	57.824	55.558	L17.318	L-44.583	L-8.1701	L2.5903
SDev	.818	2.959	.496	8.011	70.441	11.5670	6.0523
%RSD	1.6120	5.1181	.89350	46.259	-158.00	-141.58	233.65
#1	50.152	56.466	55.750	L26.298	L-64.096	L-21.526	L6.0846
#2	50.386	55.787	55.930	L14.753	L-103.21	L-1.6111	L6.0846
#3	51.671	61.219	54.995	L10.904	L33.556	L-1.3734	L-4.3988

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	574.22	L.12933	L4.3309	L-.58351	L-16.545
SDev	6.26	.19399	2.3421	.50533	1.957
%RSD	1.0898	150.00	54.079	-86.603	-11.825
#1	577.66	L.12933	L1.6295	L-.29175	L-18.428
#2	578.00	L.32332	L5.7937	L-1.1670	L-14.522
#3	566.99	L-.06466	L5.5693	L-.29175	L-16.686

Method: TJA61 Sample Name: 93ZE06R60 Operator:
Run Time: 06/09/93 16:24:54
Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.98272	L-.04854	L-15.453	L-48.848	L15.554	L.00000	L-.9475
SDev	.35180	.00259	2.230	2.645	44.036	3.4931	.0763
%RSD	35.799	-5.3294	-14.434	-5.4154	283.12	-195e6	-8.056
#1	L1.0667	L-.04705	L-12.877	L-47.394	L62.215	L-.57622	L-.9034
#2	L.59654	L-.05153	L-16.741	L-51.902	L-25.275	L-3.1692	L-1.036

#3	L1.2850	L-.04705	L-16.741	L-47.249	L9.7211	L3.7454	L-.9034

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.47133	L-.01847	L-4.4235	L.45585	L-.62004	L-.10274	L-.86578
SDev	.01763	.00786	3.0570	2.9664	.62458	1.54297	2.17883
%RSD	-3.7415	-42.533	-69.108	650.75	-100.73	-1501.9	-251.66
#1	L-.48908	L-.02164	L-6.1846	L-2.1613	L-1.2906	L.78826	L1.1544
#2	L-.45381	L-.02424	L-6.1924	L-.14927	L-.51458	L-1.8844	L-3.1745
#3	L-.47108	L-.00952	L-.89359	L3.6782	L-.05491	L.78794	L-.57719

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L.91306	L-.00093	L-.01454	L35.890	L.01645	L-.38461	L1.7568
SDev	.32058	.00162	.00998	2.005	.06208	.12937	1.0143
%RSD	35.111	-173.21	-68.635	5.5860	377.49	-33.636	57.735
#1	L1.1936	L.00000	L-.02379	L34.025	L-.04111	L-.35072	L1.1712
#2	L.98193	L.00000	L-.01586	L38.010	L.00822	L-.52755	L1.1712
#3	L.56364	L-.00280	L-.00396	L35.636	L.08223	L-.27556	L2.9280

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.50632	L-.90527	L-.02134	42.975	L-20.907	L8.7908	L-16.334
SDev	.11382	5.02380	.00569	9.874	6.145	9.0120	15.762
%RSD	-22.481	-554.95	-26.647	22.977	-29.392	102.52	-96.499
#1	L-.62041	L1.4711	L-.02790	L32.071	L-15.533	L17.036	L-1.1858
#2	L-.50577	L2.4895	L-.01805	51.313	L-19.580	L-.82999	L-15.170
#3	L-.39277	L-6.6764	L-.01805	45.540	L-27.606	L10.167	L-32.646

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.26199	L-1.0993	L1.7527	L.58351	L-14.158
SDev	.00000	.8076	2.3384	.00000	2.466
%RSD	.00000	-73.471	133.42	.00000	-17.415
#1	L-.26199	L-.45264	L3.2121	L.58351	L-12.826
#2	L-.26199	L-2.0046	L2.9905	L.58351	L-17.003
#3	L-.26199	L-.84063	L-.94440	L.58351	L-12.645

Method: TJA61 Sample Name: DIGESTION BLANK A Operator:
Run Time: 06/09/93 16:28:36
Comment: RUN 105
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.16200	L-.06049	L-33.481	L-60.834	L54.438	L-9.5076	L-1.212
SDev	.49009	.00000	5.901	.085	8.910	3.0354	.038
%RSD	-302.53	.00000	-17.625	-.13970	16.366	-31.926	-3.149
#1	L.17265	L-.06049	L-28.330	L-60.933	L44.717	L-9.2195	L-1.168
#2	L-.72453	L-.06049	L-39.920	L-60.784	L62.215	L-6.6265	L-1.234
#3	L.06589	L-.06049	L-32.193	L-60.787	L56.382	L-12.677	L-1.234

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.49389	L-.05194	L-5.2937	L-1.3931	L-1.7012	L-2.2744	L-2.5973
SDev	.09857	.00229	4.0528	1.7915	4.3532	5.3062	.9997
%RSD	-19.958	-4.4096	-76.559	-128.60	-255.89	-233.30	-38.490
#1	L-.48740	L-.04934	L-.87144	L-2.9544	L3.0599	L.78768	L-3.1745
#2	L-.59554	L-.05281	L-8.8307	L-1.7878	L-5.4781	L-8.4014	L-1.4430
#3	L-.39871	L-.05367	L-6.1790	L.56287	L-2.6854	L.79061	L-3.1745

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-.63403	L-.00840	L-.02379	L-30.307	L-.06578	L-.45713	L2.9280
SDev	.64383	.00000	.01373	.467	.02467	.12110	.0000
%RSD	-101.55	.00000	-57.735	-1.5417	-37.500	-25.923	.00000
#1	L-.49592	L-.00840	L-.01586	L-30.590	L-.04111	L-.35956	L2.9280
#2	L-1.3357	L-.00840	L-.01586	L-29.767	L-.09045	L-.59828	L2.9280
#3	L-.07045	L-.00840	L-.03964	L-30.563	L-.06578	L-.44356	L2.9280

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.69665	L3.6211	L-.05662	L1.2828	L-23.289	L6.8672	L-1.1969
SDev	.17797	7.5631	.00142	8.8180	60.237	15.443	3.4906
%RSD	-25.546	208.86	-2.5102	687.39	-258.65	224.89	-291.64
#1	L-.50285	L12.334	L-.05744	L8.9798	L-74.206	L14.614	L-4.6875
#2	L-.73438	L-.22632	L-.05498	L-8.3384	L-38.867	L-10.916	L2.2937
#3	L-.85273	L-1.2447	L-.05744	L3.2071	L43.207	L16.904	L-1.1969

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.56142	L-1.7459	L-.88148	L.58351	L-12.948
SDev	.06483	.7344	1.65307	.00000	1.064
%RSD	-11.547	-42.066	-187.53	.00000	-8.2210
#1	L-.48656	L-1.2286	L1.0103	L.58351	L-12.496
#2	L-.59884	L-2.5865	L-2.0475	L.58351	L-12.184
#3	L-.59884	L-1.4226	L-1.6072	L.58351	L-14.163

Method: TJA61 Sample Name: INSTR BLANK 2 Operator:
Run Time: 06/09/93 16:31:27
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L1.0894	L-.02020	L9.4997	L-20.362	L38.247	L2.5977	L-.7766
SDev	.7632	.00486	4.8370	4.934	36.514	8.2113	.0626
%RSD	70.057	-24.052	50.918	-24.233	95.470	316.10	-8.056
#1	L.39886	L-.02387	L8.4442	L-24.072	L46.215	L8.0293	L-.8489
#2	L.96053	L-.01469	L5.2776	L-14.762	L-1.5936	L-6.8485	L-.7405
#3	L1.9089	L-.02204	L14.777	L-22.253	L70.120	L6.6123	L-.7405

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.34522	L-.02176	L-1.4422	L-1.8390	L.21650	L3.3749	L-2.1290
SDev	.06701	.00574	3.3261	1.7728	.55321	2.6155	2.0486
%RSD	-19.409	-26.357	-230.63	-96.398	255.53	77.498	-96.225
#1	L-.41473	L-.02838	L-.71388	L.15516	L-.41787	L6.3070	L-3.3117
#2	L-.28103	L-.01845	L-5.0721	L-3.2363	L.59866	L1.2822	L-3.3117
#3	L-.33991	L-.01845	L1.4594	L-2.4359	L.46871	L2.5354	L.23655

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L.45954	L-.00867	L-.01516	L-27.239	L-.04044	L-.25848	L1.9200
SDev	.75341	.00044	.01045	1.650	.01167	.03096	.8314
%RSD	163.95	-5.0943	-68.883	-6.0567	-28.868	-11.978	43.301
#1	L.11250	L-.00841	L-.02275	L-28.989	L-.05392	L-.29110	L2.4000
#2	L-.05781	L-.00918	L-.01950	L-27.014	L-.03370	L-.25486	L.96002
#3	L1.3239	L-.00841	L-.00325	L-25.713	L-.03370	L-.22950	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.50886	L2.5043	L-.01345	L-12.092	L-26.607	L19.430	L-3.8453
SDev	.25317	3.7779	.00117	6.567	16.422	13.667	4.9741
%RSD	-49.752	150.85	-8.6602	-54.304	-61.721	70.336	-129.36
#1	L-.79587	L6.4927	L-.01480	L-19.453	L-44.738	L27.871	L-6.7216
#2	L-.41347	L-1.0203	L-.01278	L-6.8347	L-22.351	L26.757	L-6.7125
#3	L-.31725	L2.0406	L-.01278	L-9.9892	L-12.732	L3.6626	L1.8983

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.18407	L-.90105	L1.4337	L.47829	L-15.649
SDev	.05314	1.17207	1.9208	.00000	1.683
%RSD	-28.867	-130.08	133.97	.00000	-10.755
#1	L-.21475	L-1.8021	L1.0102	L.47829	L-17.466
#2	L-.21475	L-1.3251	L-.23989	L.47829	L-15.336
#3	L-.12271	L.42402	L3.5309	L.47829	L-14.143

Method: TJA61 Sample Name: AQC EV1&2 2 Operator:
Run Time: 06/09/93 16:35:02
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	496.08	Q5.0375	7879.5	4922.2	Q5254.2	5036.7	4993.
SDev	.32	.0321	16.2	31.7	131.1	64.2	52.
%RSD	.06455	.63696	.20622	.64338	2.4958	1.2740	1.035
#1	496.26	Q5.0020	7893.2	4887.1	Q5348.2	4986.4	4941.
#2	496.27	Q5.0460	7861.5	4930.7	5104.4	5014.8	4995.
#3	495.71	Q5.0644	7883.7	4948.7	Q5310.0	5109.0	5044.

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677

Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5096.6	4.9566	5036.5	5067.7	4965.4	5234.6	5030.3
SDev	44.6	.0134	15.1	6.7	17.2	42.2	13.1
%RSD	.87482	.27061	.29923	.13271	.34559	.80536	.26128
#1	5052.9	4.9415	5027.8	5069.6	4949.6	5187.7	5020.3
#2	5094.9	4.9670	5027.8	5073.2	4962.9	5247.0	5025.3
#3	5142.0	4.9613	5053.9	5060.2	4983.7	Q5269.2	5045.2

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	5105.9	5.2342	5.0942	5046.7	Q10.319	-.55079	5235.0
SDev	52.2	.0218	.0244	30.5	.088	.14008	90.9
%RSD	1.0221	.41737	.47877	.60476	.85413	-25.432	1.7368
#1	5053.2	5.2115	5.0693	5018.2	Q10.218	-.48677	5137.5
#2	5106.8	5.2360	5.0953	5042.9	Q10.360	-.45416	5249.8
#3	5157.6	5.2551	5.1181	5078.9	Q10.380	-.71144	Q5317.5

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	4973.6	4985.5	.02152	5207.0	5278.9	5220.8	5138.6
SDev	22.1	22.2	.00350	42.0	91.8	17.2	41.4
%RSD	.44491	.44527	16.238	.80575	1.7397	.32994	.80620
#1	4951.0	4962.3	.02556	5158.6	5384.0	5240.2	5104.1
#2	4974.5	5006.5	.01951	5233.6	5213.6	5215.0	5127.1
#3	4995.2	4987.6	.01951	5228.8	5239.2	5207.3	5184.5

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5004.6	5087.3	5009.4	Q.23914	5042.2
SDev	51.6	42.9	23.4	.41421	14.7
%RSD	1.0314	.84420	.46710	173.21	.29147
#1	4951.9	5043.7	4987.4	Q.47829	5035.3
#2	5006.6	5088.5	5006.8	Q-.23914	5032.1
#3	5055.1	5129.6	5034.0	Q.47829	5059.0

Method: TJA61 Sample Name: HIGH AQC EV3 2 Operator:
Run Time: 06/09/93 16:38:58
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	-2.3833	Q94.714	130240.	Q95254.	Q-31.873	Q49.593	Q.9934
SDev	.2753	.553	155.	556.	69.006	5.899	.3793
%RSD	-11.552	.58416	.11914	.58414	-216.51	11.895	38.18
#1	-2.6398	Q94.492	130080.	Q95030.	Q7.9681	Q56.205	Q1.373
#2	-2.0924	Q94.307	130390.	Q94844.	Q-111.55	Q47.703	Q.9934
#3	-2.4178	Q95.344	130240.	Q95887.	Q7.9681	Q44.870	Q.6141

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L

Avge	Q.76802	Q96.220	Q-5.7079	Q4.9858	Q.58065	Q-20.095	Q-3.0752
SDev	.37471	.195	.0869	1.1868	2.2124	1.371	1.4773
%RSD	48.788	.20316	-1.5217	23.803	381.02	-6.8226	-48.038
#1	Q1.1937	Q96.005	Q-5.6880	Q5.1583	Q-1.9692	Q-19.339	Q-2.6021
#2	Q.62214	Q96.269	Q-5.6328	Q3.7223	Q1.9916	Q-19.268	Q-1.8924
#3	Q.48820	Q96.386	Q-5.8030	Q6.0769	Q1.7195	Q-21.678	Q-4.7310

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	Q2.3035	56.117	58.516	94010.	Q94.807	99.617	Q2.4000
SDev	.8525	.135	.261	356.	.154	1.191	.0000
%RSD	37.009	.24072	.44567	.37828	.16290	1.1955	.00000
#1	Q2.7072	55.985	58.365	93744.	Q94.840	99.105	Q2.4000
#2	Q2.8791	56.110	58.365	93872.	Q94.638	98.759	Q2.4000
#3	Q1.3241	56.255	58.817	94414.	Q94.942	100.98	Q2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q8.0056	Q2.4116	98.831	Q1.0515	1.6959	Q7.1555	Q2.5628
SDev	.5463	1.0535	1.028	19.763	46.441	18.304	9.1581
%RSD	6.8235	43.684	1.0406	1879.5	2738.5	255.80	357.35
#1	Q8.5558	Q1.2058	98.374	Q21.556	-51.833	Q10.090	Q-1.2491
#2	Q7.9976	Q2.8753	98.110	Q-17.875	25.670	Q-12.438	Q13.011
#3	Q7.4633	Q3.1536	100.01	Q-.52575	31.250	Q23.815	Q-4.0737

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5.0620	Q2.3321	Q4.7898	Q.23914	Q92619.
SDev	.3832	.7287	2.4936	.41421	169.
%RSD	7.5697	31.245	52.062	173.21	.18224
#1	5.4915	Q3.1272	Q1.9179	Q.47829	Q92427.
#2	4.9392	Q2.1731	Q6.4057	Q.47829	Q92744.
#3	4.7552	Q1.6961	Q6.0458	Q-.23914	Q92686.

Method: TJA61 Sample Name: 93ZE33838 Operator:
Run Time: 06/09/93 16:43:15
Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.17564	L.09633	211.19	96.763	L1.9442	L45.521	21.68
SDev	.27738	.00448	6.69	4.437	55.128	10.562	.27
%RSD	-157.92	4.6512	3.1684	4.5857	2835.5	23.203	1.232
#1	L.13883	L.10081	207.33	101.19	L44.717	L54.741	21.44
#2	L-.28029	L.09185	218.91	92.316	L21.386	L47.826	21.64
#3	L-.38547	L.09633	207.33	96.782	L-60.271	L33.997	21.97

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.25437	46.814	L-2.8482	L-.03641	L1.1548	L6.2566	L-2.5973

SDev	.20706	.225	3.0674	2.99396	3.0482	2.1697	1.3225
%RSD	-81.398	.47981	-107.70	-8222.7	263.97	34.678	-50.918
#1	L-.01530	46.556	L-1.0754	L2.6492	L4.6745	8.0341	L-1.4430
#2	L-.37587	46.917	L-6.3902	L-3.2646	L-.60648	L6.8970	L-4.0403
#3	L-.37195	46.968	L-1.0791	L.50614	L-.60377	L3.8389	L-2.3087

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L3.5849	25.802	25.630	377.14	L1.0854	L1.6180	L2.9280
SDev	.3208	.173	.202	1.67	.0142	.1777	.0000
%RSD	8.9481	.67072	.78932	.44344	1.3122	10.985	.00000
#1	L3.9345	25.608	25.400	375.26	L1.0690	L1.7094	L2.9280
#2	L3.5160	25.860	25.710	378.47	L1.0937	L1.7315	L2.9280
#3	L3.3041	25.939	25.781	377.67	L1.0937	L1.4132	L2.9280

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	58.781	L.22632	34.160	L-6.4141	L-32.967	L18.252	L2.8239
SDev	.536	6.3902	.391	8.8180	21.510	16.698	3.5073
%RSD	.91157	2823.6	1.1443	-137.48	-65.248	91.485	124.20
#1	58.197	L7.5816	33.713	L-14.111	L-53.783	L37.033	L-.68526
#2	58.898	L-3.9606	34.331	L-8.3384	L-10.824	L12.636	L6.3293
#3	59.249	L-2.9421	34.437	L3.2071	L-34.293	L5.0859	L2.8276

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	91.586	L5.4964	L5.1182	L.00000	L-1.8817
SDev	.998	1.5680	1.4212	1.0107	4.7484
%RSD	1.0897	28.528	27.767	.00000	-252.35
#1	90.463	L6.9190	L6.5008	L.58351	L3.3758
#2	91.923	L5.7551	L3.6614	L.58351	L-3.1627
#3	92.372	L3.8151	L5.1924	L-1.1670	L-5.8582

Method: TJA61 Sample Name: 93ZE33S38 DUP Operator:
Run Time: 06/09/93 16:46:26
Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.50501	L.06795	202.17	L68.199	L33.052	L42.640	21.35
SDev	1.62737	.00720	2.23	7.251	15.432	2.287	.10
%RSD	-322.25	10.597	1.1032	10.633	46.690	5.3630	.4729
#1	L-2.3839	L.06497	203.46	L65.199	L27.219	L43.505	21.24
#2	L.46230	L.07617	203.46	L76.469	L21.386	L40.047	21.37
#3	L.40654	L.06273	199.60	L62.929	L50.550	L44.369	21.44

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.52668	47.230	L-3.7399	L.62623	L1.1023	L4.4852	L-.28859
SDev	.04273	.114	2.6647	5.9232	3.5296	1.1065	1.80227

%RSD	-8.1128	.24073	-71.252	945.85	320.20	24.671	-624.50
#1	L-.54652	47.152	L-1.0754	L1.4826	L2.6574	L5.7628	L.28859
#2	L-.55588	47.178	L-6.4049	L6.0747	L-2.9378	L3.8499	L-2.3087
#3	L-.47764	47.360	L-3.7393	L-5.6786	L3.5874	L3.6427	L1.1544

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L1.1937	25.971	25.699	366.49	L1.1430	L1.8892	L2.9280
SDev	.9195	.023	.051	.80	.0493	.2005	.0000
%RSD	77.031	.08975	.19896	.21847	4.3165	10.614	.00000
#1	L.77243	25.951	25.714	365.69	L1.0937	L1.8155	L2.9280
#2	L.56027	25.966	25.741	366.49	L1.1923	L1.7359	L2.9280
#3	L2.2484	25.997	25.642	367.29	L1.1430	L2.1161	L2.9280

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	59.638	L6.9027	34.020	L1.9242	L-67.024	L.43149	L-6.4881
SDev	.271	2.9005	.082	8.6769	15.942	3.9736	4.0242
%RSD	.45360	42.020	.24243	450.92	-23.786	920.91	-62.024
#1	59.484	L7.2422	34.109	L-6.4141	L-49.939	L2.0686	L-4.1759
#2	59.479	L9.6185	34.003	L1.2828	L-81.502	L-4.0991	L-11.135
#3	59.950	L3.8474	33.947	L10.904	L-69.632	L3.3250	L-4.1536

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	91.474	L3.7505	L4.3801	L-.29175	L-10.517
SDev	.515	.8748	1.3418	.00000	2.162
%RSD	.56251	23.324	30.634	.00000	-20.560
#1	92.035	L4.5911	L4.0884	L-.29175	L-11.365
#2	91.361	L2.8452	L3.2081	L-.29175	L-12.127
#3	91.024	L3.8151	L5.8437	L-.29175	L-8.0595

Method: TJA61 Sample Name: 93ZE33538 SPIKE Operator:
Run Time: 06/09/93 16:49:30
Comment: SF1187
Mode: CONC Corr. Factor: 1.52

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	53.090	L.82710	1397.4	829.94	92.048	842.11	218.9
SDev	1.443	.00702	2.8	7.07	56.757	7.56	.5
%RSD	2.7189	.84925	.19887	.85188	61.660	.89818	.2505
#1	51.430	L.82617	1399.0	829.13	128.38	834.93	218.8
#2	54.051	L.83454	1394.2	837.39	L26.645	841.39	219.5
#3	53.789	L.82059	1399.0	823.32	121.12	850.01	218.4

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	9.9836	96.308	45.786	52.731	104.30	105.86	92.766
SDev	.2284	.225	3.820	4.211	7.38	4.41	1.648
%RSD	2.2875	.23388	8.3435	7.9852	7.0751	4.1649	1.7762

#1	9.8642	96.247	47.992	53.602	102.23	110.95	90.968
#2	9.8397	96.557	47.991	56.439	112.49	103.31	94.204
#3	10.247	96.119	41.375	48.153	98.168	103.32	93.126
Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	53.925	50.356	50.902	1155.4	L2.6535	27.389	56.910
SDev	.607	.109	.068	2.5	.0000	.336	1.264
%RSD	1.1250	.21551	.13387	.21654	.00000	1.2272	2.2206
#1	54.275	50.307	50.851	1155.7	L2.6535	27.158	56.180
#2	54.276	50.480	50.979	1157.7	L2.6535	27.775	56.180
#3	53.225	50.280	50.875	1152.8	L2.6535	27.235	58.369
Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	162.20	111.10	84.700	152.64	855.30	864.08	446.20
SDev	.51	.88	.073	14.58	35.14	8.74	18.16
%RSD	.31583	.79251	.08653	9.5541	4.1087	1.0112	4.0708
#1	161.67	111.38	84.620	135.85	816.32	854.95	466.56
#2	162.25	110.11	84.715	162.22	865.05	872.37	440.39
#3	162.69	111.80	84.764	159.83	884.54	864.93	431.66
Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138		
Units	ug/L	ug/L	ug/L	ug/L	ug/L		
Avge	1088.3	109.25	51.699	49.436	381.55		
SDev	1.6	.56	4.917	.630	2.35		
%RSD	.14599	.51093	9.5109	1.2736	.61563		
#1	1087.2	108.92	46.056	49.799	379.80		
#2	1090.1	109.89	53.975	49.799	384.22		
#3	1087.6	108.92	55.065	48.709	380.62		

Method: TJA61 Sample Name: 93ZE33D38 Operator:
Run Time: 06/09/93 16:52:39
Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.4776	L.06945	177.71	L69.752	L48.606	L47.538	22.06
SDev	.9011	.00224	9.72	2.257	17.819	8.829	.28
%RSD	-60.985	3.2258	5.4709	3.2364	36.661	18.572	1.248
#1	L-.80619	L.06945	176.42	L69.664	L33.052	L37.454	21.84
#2	L-2.5017	L.07169	168.69	L72.052	L68.048	L51.284	22.37
#3	L-1.1249	L.06721	188.01	L67.540	L44.717	L53.876	21.97
Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.38513	47.470	L-4.6033	L-2.7781	L-1.4282	L-2.7789	L-4.3289
SDev	.06509	.131	3.0622	2.9839	.7751	1.5972	4.3577
%RSD	-16.900	.27539	-66.521	-107.41	-54.269	-57.475	-100.66

#1	L-.38471	47.346	L-6.3876	L-.12090	L-.60515	L-4.5688	L.28859
#2	L-.45042	47.606	L-6.3549	L-6.0063	L-2.1442	L-2.2688	L-8.3692
#3	L-.32025	47.457	L-1.0675	L-2.2072	L-1.5354	L-1.4991	L-4.9061

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L2.6706	26.198	26.094	362.25	L1.0114	L1.3380	L2.9280
SDev	1.2661	.175	.322	.46	.1027	.0378	.0000
%RSD	47.409	.66862	1.2332	.12821	10.154	2.8229	.00000
#1	L2.6700	26.044	25.785	361.71	L1.0937	L1.3778	L2.9280
#2	L1.4048	26.388	26.427	362.51	L.89630	L1.3027	L2.9280
#3	L3.9370	26.160	26.070	362.52	L1.0443	L1.3336	L2.9280

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	60.893	L2.2632	34.871	L-3.8485	L-71.879	L8.8291	L-.71121
SDev	.305	4.2174	.777	8.6769	34.178	25.753	12.6719
%RSD	.50072	186.35	2.2295	-225.46	-47.550	291.68	-1781.7
#1	61.006	L4.5264	34.203	L-4.4899	L-100.79	L38.367	L9.8310
#2	60.548	L4.8658	35.724	L-12.187	L-80.690	L-2.9601	L-14.770
#3	61.126	L-2.6027	34.685	L5.1313	L-34.158	L-8.9192	L2.8053

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	93.644	L4.4618	L3.4354	L-.58351	L-16.361
SDev	1.682	1.2916	3.0916	.50533	1.956
%RSD	1.7959	28.949	89.992	-86.603	-11.956
#1	92.260	L4.7851	L6.7205	L-.29175	L-14.517
#2	95.516	L3.0392	L.58301	L-1.1670	L-16.152
#3	93.158	L5.5611	L3.0026	L-.29175	L-18.412

Method: TJA61 Sample Name: 93ZE06R62 Operator:
Run Time: 06/09/93 16:56:15
Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.44406	L-.04406	L-6.4387	L-44.329	L11.665	L-1.1524	L-1.014
SDev	.75541	.00720	5.9011	7.302	38.836	6.4873	.076
%RSD	-170.11	-16.345	-91.652	-16.472	332.92	-562.92	-7.531
#1	L.11689	L-.03584	L-5.1509	L-36.005	L-31.108	L-1.4405	L-.9695
#2	L-1.3030	L-.04929	L-12.877	L-49.655	L21.386	L5.4741	L-1.102
#3	L-.14605	L-.04705	L-1.2877	L-47.326	L44.717	L-7.4909	L-.9695

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.38045	L.00693	L-5.2915	L-.84108	L-.45713	L.27966	L-5.4833
SDev	.12167	.00606	4.0560	.54890	2.12060	3.2557	1.8023
%RSD	-31.980	87.500	-76.652	-65.261	-463.89	1164.2	-32.868
#1	L-.42846	L.01299	L-.86604	L-.41360	L-1.9072	L2.7019	L-7.5034

#2	L-.24211	L.00087	L-8.8320	L-.64957	L1.9767	L1.5584	L-4.0403
#3	L-.47080	L.00693	L-6.1764	L-1.4601	L-1.4409	L-3.4213	L-4.9061

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L.63151	L.01741	L-.02643	L-25.781	L-.09045	L-.62628	L2.9280
SDev	.52993	.00215	.00998	1.379	.00000	.06939	.0000
%RSD	83.915	12.372	-37.749	-5.3504	.00000	-11.079	.00000
#1	L.56120	L.01866	L-.02775	L-26.580	L-.09045	L-.70438	L2.9280
#2	L1.1931	L.01866	L-.01586	L-24.189	L-.09045	L-.57176	L2.9280
#3	L.14024	L.01493	L-.03568	L-26.575	L-.09045	L-.60271	L2.9280

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.77401	L.00000	L-.01969	L-3.8485	L-2.3595	L1.7366	L-9.3787
SDev	.13534	1.4133	.01400	6.1856	4.5166	9.4479	5.3490
%RSD	-17.485	593e6	-71.078	-160.73	-191.42	544.04	-57.038
#1	L-.85235	L.45264	L-.01559	L3.2071	L.24819	L-7.4498	L-4.7097
#2	L-.61774	L1.1316	L-.00821	L-6.4141	L.24819	L1.2338	L-8.2115
#3	L-.85194	L-1.5842	L-.03529	L-8.3384	L-7.5748	L11.426	L-15.215

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.52399	L-1.8106	L.87470	L.58351	L-13.897
SDev	.06483	.1940	2.8510	.00000	1.432
%RSD	-12.372	-10.714	325.94	.00000	-10.306
#1	L-.48656	L-1.6166	L-2.0472	L.58351	L-12.474
#2	L-.48656	L-2.0046	L3.6491	L.58351	L-15.338
#3	L-.59884	L-1.8106	L1.0222	L.58351	L-13.879

Method: TJA61 Sample Name: 93ZE33S39 Operator:
Run Time: 06/09/93 16:59:21
Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-2.0409	L3.4470	5578.5	3466.3	116.65	4022.3	442.2
SDev	2.3516	.0242	82.9	24.3	65.04	34.0	4.2
%RSD	-115.23	.70099	1.4858	.70028	55.752	.84500	.9504
#1	L-4.3064	L3.4746	5673.8	3494.1	91.378	4034.1	446.9
#2	L-2.2045	L3.4365	5538.5	3455.8	L68.048	4048.8	440.8
#3	L.38827	L3.4298	5523.1	3449.1	190.53	3984.0	438.9

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.03037	290.50	L-1.2929	L5.5357	8.6451	23.137	7.5034
SDev	.13652	.37	1.5402	2.8533	2.7577	5.104	2.1788
%RSD	449.52	.12670	-119.13	51.542	31.899	22.058	29.038
#1	L-.10931	290.26	L.48551	L2.8960	L5.5408	17.517	L5.4833
#2	L.16350	290.31	L-2.1618	L8.5629	9.5830	24.412	7.2148

#3	L.03692	290.92	L-2.2022	L5.1483	10.812	27.482	9.8122

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	38.308	187.40	224.64	49531.	53.063	73.932	75.544
SDev	.365	.37	1.19	159.	.136	.705	2.684
%RSD	.95308	.19916	.53174	.32008	.25605	.95398	3.5524
#1	38.519	187.03	226.00	49713.	52.997	74.587	78.472
#2	38.519	187.39	224.12	49461.	52.972	74.025	74.958
#3	37.886	187.78	223.79	49420.	53.219	73.185	73.201

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	798.90	L-3.6211	239.75	L27.581	L138.64	210.81	175.67
SDev	1.61	.8982	3.23	29.955	52.70	16.87	8.86
%RSD	.20112	-24.804	1.3453	108.61	38.009	8.0027	5.0464
#1	800.31	L-4.3000	243.35	L24.374	L101.01	192.41	176.80
#2	797.15	L-3.9606	238.77	59.010	198.86	214.46	166.29
#3	799.25	L-2.6027	237.12	L-.64141	L116.04	225.55	183.91

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	1945.3	52.377	14.372	L2.6258	486.84
SDev	18.1	.734	1.864	.5053	3.14
%RSD	.92978	1.4022	12.969	19.245	.64478
#1	1965.1	51.537	15.759	L2.3340	489.67
#2	1940.9	52.701	15.103	L2.3340	487.38
#3	1929.8	52.895	12.253	L3.2093	483.46

Method: TJA61 Sample Name: 93ZE33D39 Operator:
Run Time: 06/09/93 17:02:45
Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-2.0705	L10.733	16925.	10794.	L56.382	4045.1	767.2
SDev	1.5199	.105	121.	105.	30.864	51.5	8.8
%RSD	-73.408	.97476	.71541	.97532	54.740	1.2721	1.150
#1	L-1.4186	L10.744	16893.	10805.	L21.386	4047.1	767.2
#2	L-3.8076	L10.832	17059.	10893.	L68.048	4095.5	776.1
#3	L-.98523	L10.623	16823.	10683.	L79.713	3992.6	758.4

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.40355	341.40	L3.6225	11.147	13.640	47.391	39.537
SDev	.06231	.44	1.5789	5.372	2.202	2.130	2.645
%RSD	15.440	.12968	43.586	48.189	16.143	4.4940	6.6899
#1	L.37954	340.92	L4.5436	L4.9540	15.728	49.689	40.114
#2	L.35682	341.80	L1.7994	14.540	11.340	45.483	36.851
#3	L.47429	341.47	L4.5246	13.948	13.853	47.001	41.846

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	112.24	199.67	242.61	83861.	87.509	76.076	80.814
SDev	.97	.33	1.93	432.	.235	.639	1.014
%RSD	.86668	.16309	.79663	.51547	.26891	.83975	1.2551
#1	113.36	199.35	242.36	83752.	87.287	76.015	80.228
#2	111.68	199.66	244.65	84338.	87.755	76.744	81.985
#3	111.68	200.00	240.81	83494.	87.484	75.471	80.228

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	1344.4	L6.3369	242.81	57.727	587.82	644.84	599.73
SDev	3.3	1.7421	3.54	11.757	40.45	17.65	7.32
%RSD	.24771	27.491	1.4587	20.367	6.8805	2.7368	1.2214
#1	1344.6	L5.8843	243.31	70.555	546.71	640.54	601.97
#2	1347.6	L4.8658	246.08	55.162	627.56	664.23	605.68
#3	1340.9	L8.2606	239.05	47.465	589.19	629.73	591.55

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2020.8	129.20	24.373	11.962	1354.5
SDev	24.3	1.91	2.111	.000	4.0
%RSD	1.2039	1.4813	8.6613	.00000	.29741
#1	2021.8	127.00	25.248	11.962	1354.0
#2	2044.5	130.49	21.965	11.962	1350.7
#3	1995.9	130.10	25.906	11.962	1358.7

Method: TJA61 Sample Name: 93ZE33S39 1/5 DIL Operator:
Run Time: 06/09/93 17:07:28
Comment: SF1187
Mode: CONC Corr. Factor: 6.1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-3.4238	L3.4164	6123.2	3435.1	L-77.769	4278.4	463.4
SDev	4.8302	.0513	44.6	51.4	248.031	28.1	.7
%RSD	-141.08	1.5025	.72852	1.4959	-318.93	.65722	.1485
#1	L-7.2112	L3.4612	6097.4	3480.0	106.93	4249.6	463.2
#2	L-5.0759	L3.3604	6097.4	3379.0	L19.442	4305.8	462.8
#3	L2.0157	L3.4276	6174.7	3446.3	L-359.68	4279.9	464.2

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.8809	309.11	L-19.026	L3.3243	13.942	19.600	54.833
SDev	.2336	1.04	7.691	7.5004	15.626	15.451	9.011
%RSD	-12.421	.33735	-40.424	225.62	112.08	78.831	16.434
#1	L-1.7099	307.98	L-14.556	L-5.1157	26.901	L3.0214	44.732
#2	L-1.7857	310.03	L-27.906	L5.8620	L-3.4105	22.181	57.719
#3	L-2.1471	309.33	L-14.614	L9.2266	18.335	33.599	62.048

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	34.795	H236.38	238.13	54035.	58.548	72.840	84.913
SDev	3.705	.56	.37	144.	.257	.565	.000
%RSD	10.649	.23880	.15624	.26657	.43855	.77506	.00000
#1	34.441	H235.78	237.73	53957.	58.260	73.423	84.913
#2	38.664	H236.91	238.46	54201.	58.753	72.804	84.913
#3	31.279	H236.44	238.21	53945.	58.630	72.295	84.913

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	872.21	L.56580	244.96	48.106	L80.561	198.67	154.79
SDev	4.64	20.650	.39	54.708	119.09	192.32	70.68
%RSD	.53197	3649.6	.16082	113.72	147.83	96.802	45.661
#1	870.47	L10.750	244.78	93.005	L-22.956	195.29	195.52
#2	877.47	L-23.198	244.68	L-12.828	L53.920	392.65	73.180
#3	868.69	L14.145	245.41	64.141	210.72	L8.0649	195.68

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2058.2	53.347	31.826	L2.9175	465.81
SDev	.9	2.800	5.612	.0000	20.02
%RSD	.04167	5.2486	17.633	.00000	4.2969
#1	2057.4	54.964	38.027	L2.9175	459.25
#2	2059.1	50.114	27.096	L2.9175	449.90
#3	2058.0	54.964	30.354	L2.9175	488.28

Method: TJA61 Sample Name: 93ZE33D39 1/5 DIL Operator:
Run Time: 06/09/93 17:10:42
Comment: SF1187
Mode: CONC Corr. Factor: 6.1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.7680	L10.802	18556.	10862.	L58.327	4249.6	807.9
SDev	2.2323	.052	33.	52.	385.06	65.4	5.1
%RSD	-126.26	.47896	.18029	.47963	660.18	1.5389	.6351
#1	L-4.1878	L10.832	18576.	10892.	398.57	4323.1	813.2
#2	L-1.3271	L10.832	18518.	10892.	136.10	4197.8	807.6
#3	L.21097	L10.742	18576.	10802.	L-359.68	4228.0	802.9

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.62675	362.07	L-8.5237	13.850	12.341	38.127	21.645
SDev	.71346	.26	13.3770	22.061	9.430	10.854	2.499
%RSD	-113.83	.07096	-156.94	159.28	76.408	28.468	11.547
#1	L-.07512	362.16	L-21.896	L-8.7096	L1.6913	26.034	23.087
#2	L-1.4325	362.27	L-8.5340	14.884	15.703	47.025	18.759
#3	L-.37266	361.78	L4.8585	35.376	19.629	41.321	23.087

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707

Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	119.47	H254.43	256.80	91511.	96.579	75.368	84.913
SDev	1.61	.47	.97	281.	.556	.423	.000
%RSD	1.3472	.18589	.37910	.30703	.57589	.56185	.00000
#1	120.88	H254.83	257.63	91772.	97.113	74.881	84.913
#2	117.72	H254.55	257.04	91549.	96.620	75.655	84.913
#3	119.82	H253.91	255.73	91214.	96.003	75.567	84.913

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	1470.8	L3.9606	247.98	80.177	328.24	802.04	673.86
SDev	3.8	1.6974	1.34	33.788	174.85	81.94	53.56
%RSD	.25813	42.857	.54116	42.143	53.270	10.217	7.9478
#1	1474.5	L2.2632	249.24	83.384	496.28	895.76	720.79
#2	1466.9	L3.9606	248.13	44.899	341.17	766.39	615.51
#3	1471.1	L5.6579	246.56	112.25	L147.29	743.95	685.27

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	2132.1	128.68	45.045	8.7526	1542.8
SDev	10.7	.97	9.123	2.5267	18.9
%RSD	.50238	.75377	20.252	28.868	1.2245
#1	2142.2	128.68	52.351	7.2939	1525.0
#2	2133.2	129.65	34.820	7.2939	1562.6
#3	2120.8	127.71	47.964	11.670	1540.7

Method: TJA61 Sample Name: 93ZE06R64 Operator:
Run Time: 06/09/93 17:14:51
Comment: SF1187
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.55188	L-.04555	L-15.453	L-45.851	L5.8327	L.00000	L-1.036
SDev	1.43229	.01105	5.901	11.115	35.638	3.4931	.000
%RSD	-259.53	-24.260	-38.188	-24.241	611.01	-195e6	.0000
#1	L-.73088	L-.03808	L-20.604	L-38.299	L-1.9442	L-.57622	L-1.036
#2	L-1.8863	L-.05825	L-16.741	L-58.614	L-25.275	L-3.1692	L-1.036
#3	L.96149	L-.04032	L-9.0141	L-40.641	L44.717	L3.7454	L-1.036

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.31055	L.01414	L-3.5139	L.13981	L-2.7874	L-3.4248	L-1.7316
SDev	.06052	.00400	.0136	.67209	.8508	3.7721	1.9994
%RSD	-19.488	28.278	-.38805	480.71	-30.522	-110.14	-115.47
#1	L-.24076	L.00952	L-3.5051	L.90807	L-2.8328	L-2.2744	L-4.0403
#2	L-.34851	L.01645	L-3.5069	L-.14927	L-3.6145	L-.36195	L-.57719
#3	L-.34239	L.01645	L-3.5296	L-.33937	L-1.9148	L-7.6382	L-.57719

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L

Avge	L1.1929	L.01182	L-.01718	L-22.335	L-.13157	L-.45387	L1.7568
SDev	1.0967	.00215	.02183	1.221	.07930	.27471	1.0143
%RSD	91.932	18.232	-127.10	-5.4661	-60.273	-60.526	57.735
#1	L1.8253	L.01306	L-.02775	L-23.392	L-.18913	L-.67786	L1.1712
#2	L-.07341	L.01306	L-.03172	L-22.613	L-.16446	L-.53639	L1.1712
#3	L1.8268	L.00933	L.00793	L-20.999	L-.04111	L-.14736	L2.9280

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.69376	L4.5264	L-.02626	L-3.2071	L-58.312	L-3.2264	L-11.732
SDev	.17468	5.8897	.00865	14.4425	13.887	19.1219	15.283
%RSD	-25.179	130.12	-32.924	-450.33	-23.816	-592.67	-130.27
#1	L-.84709	L1.4711	L-.01805	L5.1313	L-69.888	L-19.474	L-29.266
#2	L-.73058	L11.316	L-.03529	L-19.884	L-62.133	L-8.0513	L-1.2414
#3	L-.50360	L.79211	L-.02544	L5.1313	L-42.914	L17.846	L-4.6875

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.44913	L.06466	L.50730	L.29175	L-11.885
SDev	.06483	1.6949	2.7793	.50533	1.078
%RSD	-14.434	2621.1	547.86	173.21	-9.0691
#1	L-.48656	L-1.8106	L-.51441	L-.29175	L-12.957
#2	L-.48656	L.51731	L-1.6165	L.58351	L-11.897
#3	L-.37428	L1.4873	L3.6529	L.58351	L-10.801

Method: TJA61 Sample Name: DIGESTION BLANK B Operator:
Run Time: 06/09/93 17:18:08
Comment: RUN 105
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.54025	L-.05675	L-24.467	L-57.145	L.00001	L-8.0671	L-.9255
SDev	.60972	.00129	7.726	1.324	23.572	3.8975	.0382
%RSD	112.86	-2.2790	-31.579	-2.3164	309e6	-48.313	-4.124
#1	L.48660	L-.05601	L-32.193	L-56.368	L-13.610	L-11.812	L-.9034
#2	L-.04087	L-.05825	L-24.467	L-58.674	L-13.610	L-8.3552	L-.9695
#3	L1.1750	L-.05601	L-16.741	L-56.394	L27.219	L-4.0335	L-.9034

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.47801	L-.02510	L-3.5263	L.37357	L-.61608	L4.6209	L-4.3289
SDev	.18729	.00916	.0087	1.6223	2.81830	2.0287	.9997
%RSD	-39.180	-36.493	-.24619	434.28	-457.46	43.903	-23.094
#1	L-.26825	L-.01818	L-3.5237	L1.1265	L.26383	L3.8547	L-3.1745
#2	L-.53733	L-.03549	L-3.5193	L-1.4884	L-3.7694	L3.0868	L-4.9061
#3	L-.62846	L-.02164	L-3.5360	L1.4826	L1.6573	L6.9211	L-4.9061

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L1.0527	L-.00653	L-.01189	L-20.468	L-.04934	L-.19452	L2.9280

SDev	.7993	.00093	.01728	3.596	.05135	.22960	.0000
%RSD	75.924	-14.286	-145.30	-17.571	-104.08	-118.04	.00000
#1	L1.6165	L-.00560	L-.00396	L-20.193	L-.06578	L-.24462	L2.9280
#2	L.13803	L-.00653	L-.03172	L-24.195	L-.09045	L-.39493	L2.9280
#3	L1.4036	L-.00746	L.00000	L-17.018	L.00822	L.05600	L2.9280

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.54158	L1.9237	L-.04103	L1.2828	L-61.145	L12.673	L-9.3602
SDev	.35490	4.2174	.01137	15.029	46.534	5.779	8.7941
%RSD	-65.531	219.23	-27.713	1171.5	-76.105	45.606	-93.952
#1	L-.61878	L-2.9421	L-.04759	L-8.3384	L-93.696	L14.734	L-1.1969
#2	L-.85152	L4.5264	L-.04759	L-6.4141	L-81.894	L6.1450	L-8.2115
#3	L-.15443	L4.1869	L-.02790	L18.601	L-7.8456	L17.139	L-18.672

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.48656	L-1.0993	L2.5536	L.29175	L-15.128
SDev	.11228	1.4560	.5799	.50533	1.639
%RSD	-23.077	-132.45	22.709	173.21	-10.834
#1	L-.48656	L-.25865	L2.7780	L-.29175	L-14.852
#2	L-.59884	L-2.7805	L2.9879	L.58351	L-13.644
#3	L-.37428	L-.25865	L1.8951	L.58351	L-16.887

Method: TJA61 Sample Name: INSTR BLANK 3 Operator:
Run Time: 06/09/93 17:21:17
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.34181	L-.02877	L5.2776	L-28.956	L22.311	L-1.4169	L-.8850
SDev	.75317	.00424	8.3779	4.284	17.238	4.3288	.0626
%RSD	220.34	-14.741	158.75	-14.793	77.262	-305.50	-7.070
#1	L.35705	L-.03122	L8.4442	L-31.425	L41.434	L-6.1400	L-.8489
#2	L1.0873	L-.03122	L-4.2221	L-31.434	L7.9681	L2.3616	L-.8489
#3	L-.41886	L-.02387	L11.611	L-24.010	L17.530	L-.47231	L-.9672

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.47007	L-.03004	L-3.6170	L-.41784	L-.97180	L1.1838	L-1.6559
SDev	.10599	.00205	3.3212	.31507	1.54127	4.4637	1.0840
%RSD	-22.547	-6.8191	-91.823	-75.405	-158.60	377.07	-65.465
#1	L-.35999	L-.03122	L-2.8933	L-.06151	L.21630	L6.3096	L-2.6021
#2	L-.57143	L-.03122	L-7.2404	L-.65957	L-.41832	L-.91065	L-.47311
#3	L-.47878	L-.02767	L-.71726	L-.53244	L-2.7134	L-1.8476	L-1.8924

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-.11540	L-.00918	L-.00650	L-26.580	L-.04718	L-.23070	L2.4000
SDev	.85163	.00000	.00000	.755	.02335	.11518	.0000

%RSD	-738.00	.00000	.00000	-2.8395	-49.487	-49.925	.00000
#1	L.28714	L-.00918	L-.00650	L-27.018	L-.03370	L-.19326	L2.4000
#2	L.46034	L-.00918	L-.00650	L-25.708	L-.07414	L-.13890	L2.4000
#3	L-1.0937	L-.00918	L-.00650	L-27.013	L-.03370	L-.35995	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.50819	L.00000	L-.01682	L-4.2060	L-37.276	L22.735	L-20.113
SDev	.09610	1.2547	.00350	3.6425	67.630	9.944	7.214
%RSD	-18.909	601e6	-20.785	-86.603	-181.43	43.738	-35.866
#1	L-.41286	L1.2058	L-.01480	L-8.4120	L-112.12	L11.721	L-21.064
#2	L-.50668	L.09275	L-.01480	L-2.1030	L19.440	L31.052	L-12.471
#3	L-.60503	L-1.2985	L-.02085	L-2.1030	L-19.144	L25.431	L-26.804

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.06136	L-.58303	L1.0771	L.00000	L-18.839
SDev	.05314	.48578	.6299	.41421	1.286
%RSD	-86.602	-83.320	58.486	2085e6	-6.8266
#1	L-.03068	L-1.0071	L1.0157	L-.23914	L-18.893
#2	L-.03068	L-.68904	L1.7355	L.47829	L-17.527
#3	L-.12271	L-.05300	L.48007	L-.23914	L-20.098

Method: TJA61 Sample Name: AQC EV1&2 3 Operator:
Run Time: 06/09/93 17:24:41
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	495.22	Q4.9842	8263.7	4869.2	Q5251.0	5013.8	4930.
SDev	.54	.0148	30.2	14.8	67.2	40.1	31.
%RSD	.10847	.29779	.36554	.30297	1.2790	.80012	.6194
#1	494.98	Q5.0001	8279.5	4885.1	Q5257.4	5052.3	4964.
#2	494.85	Q4.9818	8282.7	4866.6	5180.9	5016.9	4919.
#3	495.84	Q4.9708	8228.8	4855.9	Q5314.7	4972.3	4906.

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5026.8	4.9448	5053.2	5091.9	4951.4	5229.0	5007.3
SDev	22.1	.0074	10.7	31.5	9.0	13.2	9.4
%RSD	.44018	.14936	.21245	.61810	.18135	.25174	.18713
#1	5051.5	4.9365	5040.9	5059.9	4946.2	5226.9	5017.5
#2	5020.1	4.9471	5060.4	5092.9	4961.8	5243.1	4999.1
#3	5008.8	4.9507	5058.3	5122.9	4946.2	5217.1	5005.4

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	5045.1	5.2169	5.0563	5029.9	Q10.387	-.29593	5139.9
SDev	27.3	.0047	.0065	9.8	.047	.09119	68.6
%RSD	.54133	.08915	.12853	.19412	.44959	-30.816	1.3349

#1	5076.2	5.2192	5.0563	5037.1	Q10.360	-.39256	5218.2
#2	5034.1	5.2200	5.0628	5033.8	Q10.440	-.21138	5111.6
#3	5025.1	5.2115	5.0498	5018.8	Q10.360	-.28385	5090.0

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	4952.6	4986.9	.03430	5104.0	5316.2	5154.8	5100.4
SDev	2.4	15.6	.00117	20.3	12.9	34.3	11.9
%RSD	.04810	.31249	3.3962	.39825	.24333	.66516	.23389
#1	4955.3	4971.2	.03565	5082.1	5329.1	5120.4	5104.2
#2	4951.9	5002.4	.03363	5122.4	5303.2	5189.0	5087.0
#3	4950.7	4987.1	.03363	5107.4	5316.2	5155.2	5109.9

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4938.4	5039.5	4981.6	Q-.23914	5064.6
SDev	30.7	16.9	10.9	.00000	20.6
%RSD	.62246	.33513	.21965	.00000	.40606
#1	4972.7	5058.6	4991.9	Q-.23914	5041.3
#2	4929.2	5032.9	4982.9	Q-.23914	5072.3
#3	4913.4	5026.8	4970.1	Q-.23914	5080.1

Method: TJA61 Sample Name: HIGH AQC EV3 3 Operator:
Run Time: 06/09/93 17:28:07
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	-3.0809	Q94.160	137200.	Q94696.	Q3.1873	Q56.913	Q2.203
SDev	1.0401	.411	773.	413.	17.238	3.542	.219
%RSD	-33.760	.43619	.56367	.43621	540.83	6.2241	9.938
#1	-3.8782	Q94.628	138080.	Q95167.	Q22.311	Q60.456	Q2.456
#2	-1.9044	Q93.991	136850.	Q94526.	Q-1.5936	Q56.913	Q2.077
#3	-3.4601	Q93.860	136660.	Q94395.	Q-11.155	Q53.371	Q2.077

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q1.8724	Q96.184	Q-6.3865	Q3.7168	Q.44468	Q-16.116	Q.00000
SDev	.1637	.109	2.4504	1.1806	2.2049	5.315	.8194
%RSD	8.7445	.11372	-38.368	31.764	495.84	-32.978	-9666
#1	Q2.0615	Q96.296	Q-3.5571	Q2.7463	Q1.5828	Q-10.054	Q.94621
#2	Q1.7757	Q96.178	Q-7.8138	Q5.0312	Q1.8479	Q-19.973	Q-.47311
#3	Q1.7801	Q96.078	Q-7.7887	Q3.3730	Q-2.0967	Q-18.322	Q-.47311

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	Q3.3386	56.159	58.174	93858.	Q94.908	98.630	Q3.8401
SDev	1.0113	.099	.200	275.	.104	.497	.0000
%RSD	30.291	.17617	.34348	.29265	.10933	.50434	.00000

#1	Q4.0867	56.268	58.404	94166.	Q95.022	99.203	Q3.8401
#2	Q2.1880	56.133	58.060	93769.	Q94.881	98.384	Q3.8401
#3	Q3.7411	56.075	58.057	93638.	Q94.820	98.304	Q3.8401

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q9.3002	Q8.4405	97.157	Q-6.3090	-26.368	Q42.300	Q-1.2187
SDev	.3745	3.8557	.613	6.3744	37.080	17.760	9.9772
%RSD	4.0266	45.680	.63106	-101.04	-140.62	41.986	-818.69
#1	Q9.5007	Q10.667	97.805	Q-13.144	-29.889	Q53.010	Q4.5735
#2	Q9.5318	Q3.9884	97.079	Q-.52575	-61.562	Q52.091	Q4.5097
#3	Q8.8682	Q10.667	96.587	Q-5.2575	12.346	Q21.799	Q-12.739

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	6.2584	Q3.4982	Q5.9231	Q.00000	Q93152.
SDev	.2125	.6020	1.5719	.41421	59.
%RSD	3.3962	17.209	26.539	2085e6	.06305
#1	6.5038	Q3.9222	Q4.6044	Q-.23914	Q93214.
#2	6.1357	Q2.8092	Q7.6626	Q.47829	Q93144.
#3	6.1357	Q3.7632	Q5.5023	Q-.23914	Q93098.

R. Dilg
6-14-93

COPY OF STANDARDIZATION
FOR RUN 105

RUN 104

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Method: TJA61 Standard: blnk

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.01107	.03520	.00227	.03520	-.00127	.00393	.0027
SDev	.00769	.00069	.00012	.00069	.00099	.00076	.0002
%RSD	-69.463	1.9682	5.0943	1.9682	-77.888	19.251	8.449
#1	-.00280	.03560	.00220	.03560	-.00060	.00480	.0030
#2	-.01800	.03560	.00240	.03560	-.00080	.00360	.0026
#3	-.01240	.03440	.00220	.03440	-.00240	.00340	.0026

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.20573	.01787	.00260	.00853	.02893	-.00140	.00607
SDev	.00081	.00110	.00020	.00012	.00250	.00262	.00058
%RSD	.39288	6.1652	7.6923	1.3532	8.6429	-186.61	9.5165
#1	.20660	.01900	.00280	.00840	.03180	-.00260	.00640
#2	.20560	.01780	.00260	.00860	.02720	.00160	.00640
#3	.20500	.01680	.00240	.00860	.02780	-.00320	.00540

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.01973	.00380	.07667	.04253	.03780	.73867	.01167
SDev	.00136	.00000	.00042	.00023	.00040	.00544	.00023
%RSD	6.8988	.00000	.54304	.54297	1.0582	.73671	1.9795
#1	.02080	.00380	.07680	.04240	.03820	.74220	.01180
#2	.02020	.00380	.07620	.04240	.03740	.73240	.01140
#3	.01820	.00380	.07700	.04280	.03780	.74140	.01180

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.04287	.00367	.04227	-.01280	.00020	.01920	.00233
SDev	.00012	.00182	.00042	.00106	.00040	.00343	.00076
%RSD	.26937	49.493	.98501	-8.2680	200.00	17.847	32.451
#1	.04280	.00340	.04240	-.01200	.00020	.02146	.00200
#2	.04280	.00200	.04180	-.01240	.00060	.02089	.00320
#3	.04300	.00560	.04260	-.01400	-.00020	.01526	.00180

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01127	.00593	-.00267	-.00013	.03927
SDev	.00012	.00023	.00247	.00012	.00163
%RSD	1.0249	3.8923	-92.568	-86.603	4.1483
#1	.01120	.00620	-.00200	.00000	.04040
#2	.01120	.00580	-.00540	-.00020	.04000
#3	.01140	.00580	-.00060	-.00020	.03740

Method: TJA61 Standard: ten1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	4.7597	.04453	.00347	.04453	.43100	.00880	.0003
SDev	.0367	.00061	.00081	.00061	.00183	.00139	.0006
%RSD	.77134	1.3720	23.316	1.3720	.42530	15.746	173.2
#1	4.7224	.04520	.00260	.04520	.42940	.00800	.0010
#2	4.7608	.04440	.00420	.04440	.43060	.00800	.0000
#3	4.7958	.04400	.00360	.04400	.43300	.01040	.0000

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.20647	.34973	.00233	.13300	16.632	6.8214	3.0243
SDev	.00129	.00329	.00012	.00447	.160	.0569	.0276
%RSD	.62277	.94025	4.9487	3.3591	.96056	.83393	.91227
#1	.20740	.34600	.00240	.12800	16.457	6.7664	2.9934
#2	.20500	.35100	.00240	.13660	16.670	6.8178	3.0332
#3	.20700	.35220	.00220	.13440	16.769	6.8800	3.0464

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.02687	2.7983	.70687	.04480	.05147	.73447	1.4005
SDev	.00083	.0290	.00749	.00020	.00012	.00530	.0256
%RSD	3.0993	1.0346	1.0595	.44643	.22436	.72166	1.8293
#1	.02780	2.7658	.69860	.04460	.05160	.74040	1.3710
#2	.02660	2.8076	.70880	.04480	.05140	.73280	1.4138
#3	.02620	2.8214	.71320	.04500	.05140	.73020	1.4168

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.04593	7.4365	9.9539	-.00960	.62400	3.2368	.73793
SDev	.00031	.0884	.1561	.00454	.00643	.0333	.00625
%RSD	.66510	1.1886	1.5682	-47.324	1.0301	1.0274	.84729
#1	.04560	7.3424	9.7742	-.00440	.61660	3.1984	.73220
#2	.04600	7.4492	10.032	-.01160	.62820	3.2560	.73700
#3	.04620	7.5178	10.056	-.01280	.62720	3.2560	.74460

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	21.742	.00540	.01020	2.7876	.04040
SDev	.329	.00140	.00365	.0400	.00069
%RSD	1.5123	25.926	35.781	1.4351	1.7149
#1	21.366	.00700	.01440	2.7420	.04000
#2	21.882	.00440	.00840	2.8040	.04000
#3	21.978	.00480	.00780	2.8168	.04120

Method: TJA61 Standard: ten2

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.01093	.06073	.00380	.06073	-.00093	2.9059	.0038
SDev	.00378	.00122	.00040	.00122	.00115	.0119	.0005
%RSD	-34.531	2.0121	10.526	2.0121	-123.72	.40951	13.93
#1	-.00680	.05940	.00420	.05940	-.00160	2.9024	.0044
#2	-.01420	.06100	.00380	.06100	-.00160	2.9192	.0036
#3	-.01180	.06180	.00340	.06180	.00040	2.8962	.0034

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	156.48	3.0582	1.0004	6.8591	.03593	.01087	.00767
SDev	.63	.0065	.0030	.0370	.00163	.00335	.00012
%RSD	.40568	.21161	.29586	.53984	4.5331	30.816	1.5061
#1	155.76	3.0508	.99700	6.8402	.03780	.01280	.00780
#2	156.98	3.0628	1.0024	6.9018	.03520	.00700	.00760
#3	156.68	3.0610	1.0018	6.8354	.03480	.01280	.00760

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	11.977	.00387	.08587	.04740	.13087	6.2580	.01207
SDev	.055	.00012	.00046	.00040	.00081	.0246	.00012
%RSD	.46236	2.9863	.53790	.84388	.61764	.39314	.95693
#1	11.915	.00400	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

#1	155.76	3.0508	.99700	6.8402	.03780	.01280	.00780
#2	156.98	3.0628	1.0024	6.9018	.03520	.00700	.00760
#3	156.68	3.0610	1.0018	6.8354	.03480	.01280	.00760

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	11.977	.00387	.08587	.04740	.13087	6.2580	.01207
SDev	.055	.00012	.00046	.00040	.00081	.0246	.00012
%RSD	.46236	2.9863	.53790	.84388	.61764	.39314	.95693
#1	11.915	.00400	.08640	.04740	.13040	6.2728	.01220
#2	12.021	.00380	.08560	.04780	.13160	6.2296	.01200
#3	11.996	.00380	.08560	.04700	.13040	6.2716	.01200

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	22.142	.00360	.04647	2.7099	-.00273	.01665	.00100
SDev	.062	.00271	.00081	.0091	.00136	.00182	.00020
%RSD	.28059	75.154	1.7395	.33614	-49.806	9.7607	20.000
#1	22.074	.00640	.04660	2.7142	-.00380	.01774	.00120
#2	22.196	.00340	.04720	2.7160	-.00120	.02074	.00080
#3	22.156	.00100	.04560	2.6994	-.00320	.01746	.00100

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01727	.00607	11.802	.00040	10.857
SDev	.00151	.00090	.038	.00035	.031
%RSD	8.7705	14.866	.31889	86.603	.28611
#1	.01900	.00700	11.759	.00080	10.823
#2	.01660	.00520	11.831	.00020	10.863
#3	.01620	.00600	11.814	.00020	10.866

Method: TJA61 Standard: ten3

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.01867	1.1182	.63387	1.1182	-.00053	.00580	36.91
SDev	.00353	.0068	.00623	.0068	.00129	.00347	.22
%RSD	-18.935	.60416	.98235	.60416	-241.09	59.825	.5895
#1	-.02040	1.1260	.62800	1.1260	.00040	.00760	37.16
#2	-.02100	1.1144	.63320	1.1144	.00000	.00800	36.82
#3	-.01460	1.1142	.64040	1.1142	-.00200	.00180	36.76

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.24780	.01373	.00300	.01173	.06440	.00093	.00733
SDev	.01010	.00162	.00035	.00129	.00106	.00359	.00151
%RSD	4.0741	11.771	11.547	10.959	1.6433	384.12	20.651
#1	.25700	.01280	.00320	.01320	.06560	.00320	.00880
#2	.24940	.01280	.00260	.01120	.06400	.00280	.00840
#3	.23700	.01560	.00320	.01080	.06360	-.00320	.00560

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.02100	14.105	3.2611	3.3007	.15673	.75633	.01193
SDev	.00080	.014	.0101	.0056	.00081	.00948	.00012
%RSD	3.8095	.09744	.30844	.17024	.51571	1.2527	.96762
#1	.02100	14.090	3.2724	3.3060	.15660	.75200	.01200
#2	.02180	14.106	3.2576	3.2948	.15600	.74980	.01180
#3	.02020	14.118	3.2532	3.3012	.15760	.76720	.01200

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.05607	-.00007	.04433	-.00867	.00207	.01231	.00307
SDev	.00147	.00070	.00081	.00321	.00163	.00325	.00083
%RSD	2.6294	-1053.6	1.8232	-37.019	78.818	26.365	27.152
#1	.05720	.00000	.04480	-.00840	.00020	.01486	.00280
#2	.05660	.00060	.04340	-.01200	.00320	.00866	.00400
#3	.05440	-.00080	.04480	-.00560	.00280	.01343	.00240

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01220	13.162	-.01200	-.00007	.04440
SDev	.00020	.050	.00122	.00012	.00211
%RSD	1.6393	.38095	-10.138	-173.21	4.7458
#1	.01220	13.220	-.01340	.00000	.04640
#2	.01240	13.130	-.01120	.00000	.04460
#3	.01200	13.136	-.01140	-.00020	.04220

Method: TJA61 Standard: Ca

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.04753	.03847	.00420	.03847	-.00307	.00933	.0291
SDev	.00447	.00031	.00040	.00031	.00189	.00076	.0019
%RSD	-9.4116	.79421	9.5238	.79421	-61.641	8.1127	6.525
#1	-.04240	.03820	.00380	.03820	-.00240	.01020	.0310
#2	-.04960	.03840	.00420	.03840	-.00160	.00880	.0292
#3	-.05060	.03880	.00460	.03880	-.00520	.00900	.0272

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.21613	122.87	.00033	.00853	.03020	.40393	.00313
SDev	.00250	.10	.00012	.00122	.00122	.00083	.00042
%RSD	1.1570	.08031	34.641	14.321	4.0283	.20614	13.287
#1	.21860	122.86	.00040	.00960	.02960	.40460	.00280
#2	.21620	122.97	.00040	.00720	.02940	.40420	.00360
#3	.21360	122.77	.00020	.00880	.03160	.40300	.00300

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.02207	.00673	.23140	.06500	.05960	.74627	.01200
SDev	.00046	.00101	.00072	.00040	.00035	.00740	.00000
%RSD	2.0931	14.950	.31163	.61538	.58122	.99173	.00000
#1	.02180	.00780	.23220	.06540	.05940	.75480	.01200
#2	.02180	.00660	.23120	.06500	.05940	.74240	.01200
#3	.02260	.00580	.23080	.06460	.06000	.74160	.01200

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.06853	.01393	.06413	-.01080	.00047	.02806	.00147
SDev	.00023	.00306	.00070	.00040	.00114	.00724	.00064
%RSD	.33697	21.973	1.0952	-3.7037	243.70	25.800	43.835
#1	.06880	.01740	.06480	-.01080	-.00080	.02003	.00120
#2	.06840	.01160	.06420	-.01040	.00140	.03006	.00220
#3	.06840	.01280	.06340	-.01120	.00080	.03409	.00100

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.02647	.01033	.00040	-.00020	S1599.3
SDev	.00012	.00083	.00144	.00000	.0
%RSD	.43628	8.0581	360.56	.00000	.00018

#1	.06880	.01740	.06480	-.01080	-.00080	.02003	.00120
#2	.06840	.01160	.06420	-.01040	.00140	.03006	.00220
#3	.06840	.01280	.06340	-.01120	.00080	.03409	.00100

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.02647	.01033	.00040	-.00020	S1599.3
SDev	.00012	.00083	.00144	.00000	.0
%RSD	.43628	8.0581	360.56	.00000	.00018
#1	.02640	.01060	.00080	-.00020	S1599.3
#2	.02640	.01100	.00160	-.00020	S1599.3
#3	.02660	.00940	-.00120	-.00020	S1599.3

Method: TJA61 Standard: al400

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.01447	43.602	15.494	43.602	.00007	.00280	.0015
SDev	.00380	.318	.037	.318	.00095	.00040	.0005
%RSD	-26.279	.72845	.23737	.72845	1417.7	14.286	34.32
#1	-.01460	43.241	15.477	43.241	-.00100	.00320	.0020
#2	-.01820	43.839	15.468	43.839	.00040	.00240	.0010
#3	-.01060	43.725	15.536	43.725	.00080	.00280	.0014

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.20747	.02660	.00693	.00833	.02567	.00313	.00587
SDev	.00064	.00765	.00012	.00081	.00411	.00872	.00023
%RSD	.30988	28.739	1.6654	9.6995	16.014	278.40	3.9365
#1	.20820	.03540	.00700	.00760	.03040	-.00160	.00560
#2	.20720	.02280	.00700	.00820	.02360	.01320	.00600
#3	.20700	.02160	.00680	.00920	.02300	-.00220	.00600

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.01580	.00240	.07920	.04660	.03907	.74607	.01200
SDev	.00069	.00020	.00072	.00020	.00050	.00392	.00000
%RSD	4.3849	8.3333	.91049	.42918	1.2884	.52554	.00000
#1	.01540	.00260	.07940	.04660	.03960	.75020	.01200
#2	.01540	.00240	.07840	.04680	.03860	.74560	.01200
#3	.01660	.00220	.07980	.04640	.03900	.74240	.01200

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.07527	.00847	.05160	-.01440	-.00460	-.14228	.00187
SDev	.00042	.00412	.00053	.00400	.00216	.00429	.00023
%RSD	.55314	48.660	1.0255	-27.778	-47.029	-3.0175	12.372
#1	.07480	.00460	.05140	-.01840	-.00280	-.13753	.00160
#2	.07540	.00800	.05120	-.01440	-.00400	-.14341	.00200
#3	.07560	.01280	.05220	-.01040	-.00700	-.14589	.00200

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01120	.00560	-.00413	-.00027	.08913
SDev	.00000	.00122	.00117	.00012	.02291
%RSD	.00000	21.724	-28.352	-43.301	25.703
#1	.01120	.00620	-.00280	-.00020	.11500
#2	.01120	.00420	-.00500	-.00040	.08100
#3	.01120	.00640	-.00460	-.00020	.07140

Method: TJA61 Standard: fe400

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.13547	.03247	.07273	.03247	-.00627	.00753	.0001
SDev	.00499	.00023	.00180	.00023	.00216	.00162	.0004
%RSD	-3.6831	.71131	2.4799	.71131	-34.423	21.459	312.2
#1	-.13740	.03260	.07260	.03260	-.00720	.00580	.0000
#2	-.13920	.03260	.07460	.03260	-.00780	.00900	-.0002
#3	-.12980	.03220	.07100	.03220	-.00380	.00780	.0006

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.20060	.01067	.00893	.00687	.07133	.00480	.00500
SDev	.00020	.00083	.00031	.00064	.00179	.00160	.00092
%RSD	.09970	7.8062	3.4198	9.3628	2.5130	33.333	18.330
#1	.20080	.01000	.00860	.00640	.07040	.00320	.00400
#2	.20060	.01040	.00920	.00760	.07020	.00640	.00580
#3	.20040	.01160	.00900	.00660	.07340	.00480	.00520

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.01407	.00240	.08440	126.85	4.4369	.74900	.01193
SDev	.00127	.00000	.00144	.02	.0062	.01041	.00012
%RSD	9.0296	.00000	1.7088	.01387	.13984	1.3893	.96762
#1	.01480	.00240	.08320	126.87	4.4308	.73840	.01180
#2	.01260	.00240	.08400	126.84	4.4366	.74940	.01200
#3	.01480	.00240	.08600	126.83	4.4432	.75920	.01200

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.08913	.01427	.04167	-.00733	.07107	.02526	-.00933
SDev	.00031	.00289	.00070	.00311	.00272	.00271	.00042
%RSD	.34275	20.283	1.6857	-42.368	3.8209	10.734	-4.4607
#1	.08920	.01760	.04160	-.00480	.07360	.02217	-.00900
#2	.08940	.01240	.04240	-.00640	.07140	.02634	-.00920
#3	.08880	.01280	.04100	-.01080	.06820	.02726	-.00980

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01193	.00687	-.00533	-.00007	.09240
SDev	.00012	.00167	.00281	.00023	.00360
%RSD	.96762	24.252	-52.678	-346.41	3.8961
#1	.01180	.00500	-.00800	-.00020	.09600
#2	.01200	.00740	-.00240	-.00020	.08880
#3	.01200	.00820	-.00560	.00020	.09240

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Method: TJA61

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag3280	328.068	ten1	blnk	209.611	2.31970	06/09/93 11:35:31
Al3082	308.215	al400	blnk	9.18130	-.323182	06/09/93 11:49:54
Al1670	167.081	ten3	blnk	15832.8	-35.8877	06/09/93 11:42:30

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Method: TJA61

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag3280	328.068	ten1	blnk	209.611	2.31970	06/09/93 11:35:31
Al3082	308.215	al400	blnk	9.18130	-.323182	06/09/93 11:49:54
Al1670	167.081	ten3	blnk	15832.8	-35.8877	06/09/93 11:42:30
Al308L	308.215	ten3	blnk	9233.61	-325.023	06/09/93 11:42:30
As1890	189.042	ten1	blnk	23133.9	29.3029	06/09/93 11:35:31
B_2496	249.678	ten2	blnk	3445.90	-13.5539	06/09/93 11:38:51
Ba4554	455.403	ten3	blnk	270.917	-.740507	06/09/93 11:42:30
Be3130	313.042	ten2	blnk	63.9911	-13.1651	06/09/93 11:38:51
Ca3179	317.933	Ca	blnk	3.25606	-.058175	06/09/93 11:45:48
Cd2144	214.438	ten2	blnk	10022.0	-26.0573	06/09/93 11:38:51
Cd2288	228.802	ten2	blnk	1459.73	-12.4563	06/09/93 11:38:51
Co2286	228.616	ten1	blnk	602.291	-17.4263	06/09/93 11:35:31
Cr2061	206.149	ten1	blnk	1465.67	2.05194	06/09/93 11:35:31
Cr2677	267.716	ten1	blnk	3313.16	-20.0998	06/09/93 11:35:31
Cu3247	324.765	ten2	blnk	836.307	-16.5031	06/09/93 11:38:51
Mg2795	279.553	ten1	blnk	3.57850	-.013598	06/09/93 11:35:31
Mg3832	383.231	ten3	blnk	15.7015	-1.20379	06/09/93 11:42:30
Fe2599	259.940	ten3	blnk	3069.24	-130.545	06/09/93 11:42:30
Fe2714	271.441	fe400	blnk	90.9284	-3.43709	06/09/93 11:54:10
K_7664	766.490	ten2	blnk	18.1181	-13.3833	06/09/93 11:38:51
Li6707	670.780	ten1	blnk	7200.12	-84.0013	06/09/93 11:35:31
Mn2576	257.610	ten2	blnk	452.502	-19.3973	06/09/93 11:38:51
Mo2020	202.030	ten1	blnk	1345.39	-4.93309	06/09/93 11:35:31
Na5895	589.590	ten1	blnk	10.0891	-.426433	06/09/93 11:35:31
Ni2316	231.604	ten2	blnk	3672.87	47.0127	06/09/93 11:38:51
Pb1822	182.203	ten1	blnk	16030.8	-3.20616	06/09/93 11:35:31
Pb2203	220.353	ten1	blnk	3107.93	-59.6724	06/09/93 11:35:31
Sn1899	189.989	ten1	blnk	13594.3	-31.7201	06/09/93 11:35:31
Sr4215	421.552	ten1	blnk	460.178	-5.18467	06/09/93 11:35:31
Ti3372	337.280	ten3	blnk	760.106	-4.50996	06/09/93 11:42:30
V_2908	290.882	ten2	blnk	847.156	2.25908	06/09/93 11:38:51
Y_3710	371.080	ten1	blnk	3587.14	.478286	06/09/93 11:35:31
Zn2138	213.856	ten2	blnk	924.380	-36.2973	06/09/93 11:38:51

Method: TJA61 Sample Name: MO IEC Operator:
Run Time: 06/09/93 11:59:52
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-3.6193	L.12731	L3.1666	128.04	L35.472	L-.68918	L-.6683
SDev	.0968	.00462	4.8370	4.65	7.068	2.60919	.0313
%RSD	-2.6750	3.6297	152.75	3.6297	19.924	-378.59	-4.681
#1	L-3.5075	L.12670	L-1.0555	127.42	L29.303	L2.2973	L-.6863
#2	L-3.6752	L.13221	L2.1110	132.96	L43.183	L-2.5270	L-.6321
#3	L-3.6752	L.12303	L8.4442	123.73	L33.930	L-1.8378	L-.6863

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.03840	L-.01259	L-8.6858	L-1.3624	L2.4895	L5.1787	L-35.561
SDev	.05771	.00172	2.3145	.5057	2.6565	1.3539	.765
%RSD	150.31	-13.685	-26.647	-37.115	106.71	26.144	-2.1516
#1	L.09385	L-.01194	L-10.022	L-.77852	L4.7380	L4.3970	L-36.003
#2	L.04266	L-.01129	L-6.0132	L-1.6544	L-.44168	L6.7421	L-36.003
#3	L-.02133	L-.01454	L-10.022	L-1.6544	L3.1721	L4.3970	L-34.678

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L5.9657	L-.00072	L.06699	L39.696	L.35159	L.28023	L1.9200
SDev	.9212	.00072	.01612	3.381	.04577	.05142	.8314
%RSD	15.442	-100.000	24.054	8.5169	13.017	18.348	43.301
#1	6.5789	L-.00072	L.07118	L43.174	L.34553	L.27056	L.96002
#2	L4.9063	L.00000	L.04920	L39.491	L.30916	L.23433	L2.4000
#3	6.4117	L-.00143	L.08060	L36.422	L.40008	L.33579	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.57317	20614.	L.06457	L3.9177	L-81.223	L27.172	L-25.376
SDev	.27648	165.	.00420	.8482	24.064	24.770	5.660
%RSD	48.238	.80237	6.5052	21.651	-29.627	91.160	-22.304
#1	L.33183	20524.	L.05986	L4.4074	L-57.711	L42.090	L-31.720
#2	L.87483	20805.	L.06592	L4.4074	L-105.80	L-1.4208	L-20.845
#3	L.51283	20513.	L.06793	L2.9383	L-80.154	L40.847	L-23.564

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.00000	L-.45606	17.903	L.00000	L-7.5183
SDev	.05314	.68550	1.978	.41421	1.2985
%RSD	178e6	-150.31	11.050	2085e6	-17.272
#1	L-.03068	L-.40539	20.049	L-.23914	L-7.6415
#2	L-.03068	L-1.1655	17.508	L.47829	L-6.1625
#3	L.06136	L.20270	16.152	L-.23914	L-8.7508

Method: TJA61 Sample Name: AL IEC Operator:

Run Time: 06/09/93 12:05:32
Comment: 400 ppm
Mode: CONC Corr. Factor: .0025

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.00115	L1.0177	648.50	1023.5	L.08868	L.02986	L-.0008

#3	L.06136	L.20270	16.152	L-.23914	L-8.7508

Method: TJA61 Sample Name: AL IEC Operator:

Run Time: 06/09/93 12:05:32
Comment: 400 ppm
Mode: CONC Corr. Factor: .0025

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.00115	L1.0177	648.50	1023.5	L.08868	L.02986	L-.0008
SDev	.00108	.0039	3.51	3.9	.06778	.00517	.0001
%RSD	-93.302	.37870	.54175	.37870	76.428	17.308	-17.65
#1	L-.00206	L1.0138	644.46	1019.6	L.03856	L.03503	L-.0008
#2	L.00003	L1.0215	650.23	1027.3	L.16579	L.02470	L-.0006
#3	L-.00143	L1.0176	650.81	1023.4	L.06169	L.02986	L-.0009

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.00013	L-.00002	L.11525	L-.00633	L.00703	L.03713	L.00442
SDev	.00047	.00002	.00000	.00406	.00211	.02167	.00438
%RSD	366.00	-101.04	.00000	-64.243	30.000	58.360	99.216
#1	L.00020	L-.00002	L.11525	L-.00560	L.00853	L.03884	L.00276
#2	L.00055	L-.00003	L.11525	L-.00268	L.00462	L.01466	L.00110
#3	L-.00037	L.00000	L.11525	L-.01070	L.00793	L.05789	L.00939

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L.00585	L.00001	L.00013	L.05115	L.00026	L.00076	L.00720
SDev	.00419	.00000	.00001	.00000	.00005	.00031	.00208
%RSD	71.548	15.746	3.6084	.00000	20.377	41.248	28.867
#1	L.00181	L.00001	L.00012	L.05115	L.00023	L.00107	L.00960
#2	L.01018	L.00001	L.00013	L.05115	L.00023	L.00077	L.00600
#3	L.00558	L.00001	L.00012	L.05115	L.00032	L.00044	L.00600

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.03718	L.03274	L.00032	L.03673	L-.00267	L-1.2952	L-.03172
SDev	.00057	.01674	.00003	.02294	.10430	.0214	.02451
%RSD	1.5314	51.123	8.8847	62.450	-3903.8	-1.6528	-77.262
#1	L.03726	L.03610	L.00029	L.04407	L-.10420	L-1.2831	L-.01133
#2	L.03658	L.04754	L.00035	L.05509	L-.00802	L-1.2825	L-.02492
#3	L.03771	L.01458	L.00031	L.01102	L.10420	L-1.3199	L-.05891

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.00031	L.00063	L-.00452	L.00000	L.01094
SDev	.00027	.00188	.00305	.00207	.00441
%RSD	86.602	295.97	-67.604	2669e6	40.307
#1	L.00015	L-.00063	L-.00791	L.00120	L.01371
#2	L.00015	L-.00025	L-.00198	L-.00239	L.01325
#3	L.00061	L.00279	L-.00367	L.00120	L.00585

Method: TJA61 Sample Name: FE IEC Operator:
Run Time: 06/09/93 12:10:09

Comment: 400 ppm
Mode: CONC Corr. Factor: .0025

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.06428	L-.00001	L3.0584	L-.01077	L-.25062	L-.00689	L-.0017
SDev	.00384	.00003	.0832	.02783	.17273	.02294	.0002
%RSD	-5.9691	-258.33	2.7189	-258.33	-68.922	-332.92	-12.39
#1	L-.06746	L.00002	L3.1402	L.01847	L-.12338	L-.00115	L-.0017
#2	L-.06536	L-.00001	L3.0610	L-.01385	L-.18122	L-.03216	L-.0019
#3	L-.06002	L-.00004	L2.9739	L-.03693	L-.44725	L.01263	L-.0014

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.00060	L-.00004	L.16703	L-.00219	L.06053	L.01832	L-.00773
SDev	.00019	.00000	.00289	.00731	.00524	.00481	.00191
%RSD	-32.586	-2.2494	1.7321	-333.89	8.6506	26.230	-24.744
#1	L-.00047	L-.00004	L.16536	L-.00268	L.05461	L.01319	L-.00552
#2	L-.00050	L-.00004	L.17037	L-.00924	L.06455	L.02272	L-.00884
#3	L-.00082	L-.00004	L.16536	L.00535	L.06244	L.01905	L-.00864

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-.00934	L-.00001	L.00027	975.04	L.99985	L.00076	L.00600
SDev	.00174	.00000	.00004	3.70	.00229	.00057	.00000
%RSD	-18.642	.00000	14.094	.37992	.22912	74.766	.00000
#1	L-.01073	L-.00001	L.00025	977.84	L1.0013	L.00028	L.00600
#2	L-.00990	L-.00001	L.00026	976.44	L1.0010	L.00061	L.00600
#3	L-.00739	L-.00001	L.00032	970.84	L.99721	L.00138	L.00600

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.05249	L.03363	L.00003	L.04407	L2.7439	L.08192	L-.45088
SDev	.00057	.00726	.00002	.04513	.1382	.03130	.01711
%RSD	1.0847	21.572	76.980	102.40	5.0370	38.209	-3.7939
#1	L.05196	L.03879	L.00000	L.01102	L2.8936	L.05539	L-.46674
#2	L.05241	L.03677	L.00004	L.02571	L2.6210	L.07392	L-.43275
#3	L.05309	L.02534	L.00004	L.09549	L2.7172	L.11644	L-.45314

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.00092	L.00114	L-.00113	L.00060	L.11170
SDev	.00013	.00079	.00587	.00207	.00455
%RSD	14.434	69.389	-519.62	346.41	4.0754
#1	L.00084	L.00089	L.00226	L-.00060	L.11308
#2	L.00084	L.00051	L-.00791	L-.00060	L.11539
#3	L.00107	L.00203	L.00226	L.00299	L.10661

Method: TJA61 Sample Name: AS IEC Operator:
Run Time: 06/09/93 12:14:57
Comment: 20 ppm

Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.57294	L-.03183	L-14.777	L-32.010	20305.	L-8.4999	L-.3432
SDev	.98851	.00382	4.837	3.844	202.	5.2184	.0828
%RSD	-172.53	-12.010	-32.733	-12.010	.99383	-61.394	-24.12

Method: TJA61 Sample Name: AS IEC Operator:
Run Time: 06/09/93 12:14:57
Comment: 20 ppm

Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.57294	L-.03183	L-14.777	L-32.010	20305.	L-8.4999	L-.3432
SDev	.98851	.00382	4.837	3.844	202.	5.2184	.0828
%RSD	-172.53	-12.010	-32.733	-12.010	.99383	-61.394	-24.12
#1	L-1.4114	L-.02754	L-13.722	L-27.701	20096.	L-10.797	L-.4154
#2	L.51704	L-.03305	L-20.055	L-33.241	20498.	L-2.5270	L-.2529
#3	L-.82447	L-.03489	L-10.555	L-35.088	20322.	L-12.176	L-.3612

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.34555	L-.02475	L.00000	374.57	L1.6864	L-.09771	L-3.5340
SDev	.03221	.00530	2.0044	4.47	1.5721	4.40028	.6626
%RSD	-9.3208	-21.433	-831e6	1.1931	93.223	-4503.3	-18.750
#1	L-.34129	L-.03082	L.00000	371.16	L1.8470	L-2.6382	L-4.1967
#2	L-.31569	L-.02106	L2.0044	372.91	L.04015	L-2.6382	L-3.5340
#3	L-.37968	L-.02236	L-2.0044	379.63	L3.1721	L4.9833	L-2.8714

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-6.5232	L-.00429	L.04187	L19.643	L.10911	L.47959	L2.4000
SDev	.3863	.00000	.01010	11.522	.01819	.13296	.0000
%RSD	-5.9215	.00000	24.109	58.658	16.667	27.727	.00000
#1	L-6.3002	L-.00429	L.03036	L32.125	L.09093	L.40826	L2.4000
#2	L-6.9692	L-.00429	L.04920	L17.392	L.12730	L.63293	L2.4000
#3	L-6.3002	L-.00429	L.04606	L9.4123	L.10911	L.39739	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.27150	L.26908	L-.01076	L2.4486	L-8.5498	L1.3912	L-17.220
SDev	.22775	3.1418	.00350	6.9429	31.1399	26.088	17.480
%RSD	83.887	1167.6	-32.476	283.55	-364.22	1875.2	-101.51
#1	L.24133	L-2.5114	L-.00673	L10.284	L25.649	L20.068	L-9.9692
#2	L.51283	L3.6774	L-.01278	L.00000	L-35.268	L-28.415	L-4.5314
#3	L.06033	L-.35877	L-.01278	L-2.9383	L-16.031	L12.520	L-37.158

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.03068	L-.30404	L-1.9767	L.00000	L-10.415
SDev	.05314	1.06776	1.7195	.41421	.667
%RSD	173.20	-351.19	-86.990	2085e6	-6.4004
#1	L-.03068	L-1.3175	L-.45182	L.47829	L-10.989
#2	L.06136	L-.40539	L-3.8404	L-.23914	L-9.6752
#3	L.06136	L.81078	L-1.6378	L-.23914	L-10.600

Method: TJA61 Sample Name: BA IEC Operator:
Run Time: 06/09/93 12:18:19
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.1878	L.01041	L26.388	L10.465	L-10.796	L-7.1215	19810.
SDev	.6777	.00382	3.656	3.844	5.343	6.2535	214.
%RSD	-57.056	36.735	13.856	36.735	-49.487	-87.811	1.076
#1	L-.57294	L.00735	L30.610	L7.3869	L-7.7113	L-4.5945	19570.
#2	L-1.0760	L.00918	L24.277	L9.2336	L-7.7113	L-2.5270	19940.
#3	L-1.9145	L.01469	L24.277	L14.774	L-16.965	L-14.243	19950.

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.20477	L-.02627	L-1.3363	L-1.2651	12.609	L-2.6382	L-3.9758
SDev	.08712	.00235	1.1572	.9385	1.656	2.3451	.7651
%RSD	-42.543	-8.9394	-86.603	-74.182	12.929	-88.889	-19.245
#1	L-.17491	L-.02431	L-2.0044	L-.19463	14.254	L-.29313	L-3.5340
#2	L-.13651	L-.02887	L-2.0044	L-1.6544	11.002	L-2.6382	L-4.8593
#3	L-.30289	L-.02561	L.00000	L-1.9463	13.170	L-4.9833	L-3.5340

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-.33452	L-.00429	L.04920	L-7.9800	L.09699	L.43725	L2.4000
SDev	.19314	.00000	.01369	2.4808	.05846	.10676	.0000
%RSD	-57.735	.00000	27.828	-31.088	60.273	24.416	.00000
#1	L-.44603	L-.00429	L.06490	L-5.3200	L.16367	L.53147	L2.4000
#2	L-.44603	L-.00429	L.03978	L-8.3893	L.05456	L.32130	L2.4000
#3	L-.11151	L-.00429	L.04292	L-10.231	L.07274	L.45899	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.09050	L-.44846	L.01345	L6.8560	L-10.687	L12.609	L-4.5314
SDev	.05225	3.23267	.01323	.8482	28.915	13.288	4.7092
%RSD	57.736	-720.83	98.352	12.372	-270.55	105.36	-103.92
#1	L.15083	L2.8702	L.02758	L7.3457	L-12.825	L16.960	L-7.2503
#2	L.06033	L-.62785	L.00135	L7.3457	L19.237	L23.176	L-7.2503
#3	L.06033	L-3.5877	L.01143	L5.8766	L-38.474	L-2.3087	L.90629

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.33746	L-1.0135	L-1.9767	L-.23914	L2.1569
SDev	.00000	.6966	.5869	.00000	2.1321
%RSD	.00000	-68.739	-29.692	.00000	98.850
#1	L.33746	L-.40539	L-1.6378	L-.23914	L3.8208
#2	L.33746	L-1.7736	L-2.6544	L-.23914	L2.8964
#3	L.33746	L-.86145	L-1.6378	L-.23914	L-.24650

Method: TJA61 Sample Name: CU IEC Operator:
Run Time: 06/09/93 12:21:56
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.67076	L-.01530	L4.2221	L-15.389	L-15.423	L-12.635	L4.732
SDev	1.85661	.00742	1.8282	7.463	35.338	3.257	1.669
%RSD	-276.79	-48.498	43.301	-48.498	-229.13	-25.777	35.27
#1	L-2.7948	L-.02387	L5.2776	L-24.007	L15.423	L-10.108	6.628

Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.67076	L-.01530	L4.2221	L-15.389	L-15.423	L-12.635	L4.732
SDev	1.85661	.00742	1.8282	7.463	35.338	3.257	1.669
%RSD	-276.79	-48.498	43.301	-48.498	-229.13	-25.777	35.27
#1	L-2.7948	L-.02387	L5.2776	L-24.007	L15.423	L-10.108	6.628
#2	L.64281	L-.01102	L2.1110	L-11.080	L-7.7113	L-11.486	L4.082
#3	L.13974	L-.01102	L5.2776	L-11.080	L-53.979	L-16.311	L3.486

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.05119	L-.04363	L-.66814	L-1.5570	L.28107	L.29313	L.00000
SDev	.08522	.00038	2.31449	2.6490	1.5660	1.0154	1.6676
%RSD	-166.46	-.86172	-346.41	-170.13	557.14	346.41	238e6
#1	L-.07252	L-.04385	L2.0044	L.38926	L.28107	L1.4657	L-1.5461
#2	L.04266	L-.04320	L-2.0044	L-.48658	L-1.2849	L-.29313	L1.7670
#3	L-.12372	L-.04385	L-2.0044	L-4.5738	L1.8470	L-.29313	L-.22088

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	20546.	L-.00787	L.04815	L-.81847	L.08487	L.66554	L2.4000
SDev	90.	.00000	.01450	.35441	.03786	.04179	.0000
%RSD	.43620	.00000	30.123	-43.301	44.607	6.2790	.00000
#1	20550.	L-.00787	L.03978	L-1.0231	L.05456	L.61843	L2.4000
#2	20455.	L-.00787	L.06490	L-1.0231	L.12730	L.69815	L2.4000
#3	20634.	L-.00787	L.03978	L-.40924	L.07274	L.68003	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.42233	L-2.2423	L.03229	L-5.3869	L-34.199	L-6.6375	L-7.2503
SDev	.15675	3.4980	.00420	1.6964	21.348	22.2648	2.7189
%RSD	37.116	-156.00	13.010	-31.492	-62.422	-325.63	-37.500
#1	L.24133	L1.7939	L.02758	L-4.4074	L-57.711	L-22.999	L-7.2503
#2	L.51283	L-4.3949	L.03363	L-4.4074	L-16.031	L18.559	L-9.9692
#3	L.51283	L-4.1259	L.03565	L-7.3457	L-28.855	L-16.073	L-4.5314

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.06136	L-1.2162	L-2.7109	L-.95657	75.491
SDev	.00000	.4644	.9332	.00000	2.675
%RSD	.00000	-38.188	-34.422	.00000	3.5433
#1	L.06136	L-1.6216	L-3.1627	L-.95657	72.410
#2	L.06136	L-.70943	L-1.6378	L-.95657	77.217
#3	L.06136	L-1.3175	L-3.3321	L-.95657	76.847

Method: TJA61 Sample Name: NI IEC Operator:
Run Time: 06/09/93 12:25:11
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L

Avge	L-.68473	L.01224	L11.611	L12.311	L-23.134	L-14.703	L.3973
SDev	.93772	.01166	3.167	11.728	23.288	4.484	.2816
%RSD	-136.95	95.263	27.273	95.263	-100.66	-30.499	70.86
#1	L-1.1179	L.00551	L14.777	L5.5402	L-44.725	L-19.067	L.5599
#2	L.39127	L.02571	L8.4442	L25.854	L-26.218	L-10.108	L.5599
#3	L-1.3275	L.00551	L11.611	L5.5402	L1.5423	L-14.932	L.0722

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.09385	L-.02692	L-2.6725	L-7.2013	9.7571	L-2.2474	L-4.6364
SDev	.12561	.00345	1.1572	2.2041	2.6646	2.0589	2.1301
%RSD	-133.84	-12.802	-43.301	-30.607	27.310	-91.614	-45.922
#1	L-.23890	L-.02301	L-2.0044	L-7.4933	7.2676	L-4.3970	L-5.5219
#2	L-.02133	L-.02822	L-4.0088	L-4.8658	9.4359	L-2.0519	L-2.2086
#3	L-.02133	L-.02952	L-2.0044	L-9.2449	12.568	L-.29313	L-6.1846

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	6.9135	L-.00573	L.03140	L-16.779	L.03637	L.29231	L2.4000
SDev	2.1936	.00000	.00654	.938	.01819	.07746	.0000
%RSD	31.730	.00000	20.817	-5.5885	50.000	26.501	.00000
#1	9.2551	L-.00573	L.02408	L-17.597	L.01819	L.23070	L2.4000
#2	6.5789	L-.00573	L.03350	L-15.755	L.03637	L.37927	L2.4000
#3	L4.9063	L-.00573	L.03664	L-16.983	L.05456	L.26694	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.03016	L-.08969	L.02354	20616.	L-42.749	L-3.6703	L-9.0629
SDev	.18839	7.37390	.00534	74.	18.511	23.7429	9.5484
%RSD	624.54	-8221.3	22.678	.36120	-43.301	-646.89	-105.36
#1	L-.03017	L-5.7403	L.02556	20641.	L-32.062	L-28.682	L-18.126
#2	L.24133	L8.2517	L.01749	20532.	L-64.123	L18.559	L-9.9692
#3	L-.12067	L-2.7805	L.02758	20675.	L-32.062	L-.88802	L.90629

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.03068	L-1.4189	L-1.7508	L.00000	71.732
SDev	.05314	.7801	1.4410	.82842	1.400
%RSD	173.20	-54.981	-82.305	4170e6	1.9515
#1	L.06136	L-1.6216	L-2.8239	L-.95657	71.116
#2	L.06136	L-.55741	L-.11295	L.47829	70.746
#3	L-.03068	L-2.0776	L-2.3156	L.47829	73.334

Method: TJA61 Sample Name: MN IEC Operator:
Run Time: 06/09/93 12:28:50
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L2.9905	L.00061	L-21.110	L.61558	L-35.472	L-6.6621	L-.7224
SDev	.9137	.00462	3.656	4.6475	25.761	1.8234	.0626
%RSD	30.553	754.99	-17.321	754.97	-72.623	-27.370	-8.660
#1	L1.9424	L.00000	L-23.221	L.00001	L-58.606	L-8.7296	L-.6863
#2	L3.4097	L-.00367	L-23.221	L-3.6934	L-40.099	L-5.2837	L-.7947
#3	L3.6193	L.00551	L-16.888	L5.5402	L-7.7113	L-5.9729	L-.6863

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L2.9905	L.00061	L-21.110	L.61558	L-35.472	L-6.6621	L-.7224
SDev	.9137	.00462	3.656	4.6475	25.761	1.8234	.0625
%RSD	30.553	754.99	-17.321	754.97	-72.623	-27.370	-8.660
#1	L1.9424	L.00000	L-23.221	L.00001	L-58.606	L-8.7296	L-.6863
#2	L3.4097	L-.00367	L-23.221	L-3.6934	L-40.099	L-5.2837	L-.7947
#3	L3.6193	L.00551	L-16.888	L5.5402	L-7.7113	L-5.9729	L-.6863

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.16211	L-.04645	L.66814	L-.97315	L-.96367	L-1.2703	L-2.4296
SDev	.05579	.00905	1.1572	3.06658	1.08635	2.4931	1.0122
%RSD	-34.412	-19.475	173.21	-315.12	-112.73	-196.27	-41.660
#1	L-.13651	L-.05687	L2.0044	L-3.9899	L.16061	L-.29313	L-3.5340
#2	L-.22610	L-.04189	L.00000	L-1.0705	L-2.0076	L-4.1039	L-2.2088
#3	L-.12372	L-.04059	L.00000	L2.1409	L-1.0440	L.58627	L-1.5461

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-5.4081	L-.01288	L.02617	L18.620	L.10911	L.28144	L2.4000
SDev	.4209	.00000	.01786	.614	.06300	.11925	.0000
%RSD	-7.7833	.00000	68.235	3.2967	57.735	42.372	.00000
#1	L-5.7984	L-.01288	L.01151	L18.620	L.07274	L.14736	L2.4000
#2	L-5.4639	L-.01288	L.02094	L18.006	L.07274	L.32130	L2.4000
#3	L-4.9621	L-.01288	L.04606	L19.234	L.18186	L.37565	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	20654.	L.98662	L.01547	L7.8355	L11.756	L-20.956	L-17.220
SDev	103.	2.1357	.01925	6.1165	32.115	25.899	4.153
%RSD	.49658	216.47	124.43	78.062	273.18	-123.59	-24.119
#1	20707.	L.17939	L-.00471	L5.8766	L-19.237	L1.8647	L-20.845
#2	20719.	L-.62785	L.01749	L14.691	L9.6185	L-49.105	L-12.688
#3	20535.	L3.4083	L.03363	L2.9383	L44.886	L-15.628	L-18.126

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.00000	L-1.3682	L-3.2192	L-.71743	L-13.619
SDev	.05314	.7499	1.3799	.41421	1.539
%RSD	178e6	-54.810	-42.866	-57.735	-11.303
#1	L-.03068	L-2.2296	L-3.8404	L-.95657	L-14.112
#2	L-.03068	L-1.0135	L-4.1793	L-.95657	L-14.852
#3	L.06136	L-.86145	L-1.6378	L-.23914	L-11.894

Method: TJA61 Sample Name: TI IEC Operator:
Run Time: 06/09/93 12:32:40
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.27948	L-.03979	L33.777	L-40.012	L-13.880	L-2.5270	L-.8128
SDev	1.3233	.00868	8.378	8.727	19.263	.0000	.1364

%RSD	473.47	-21.811	24.804	-21.811	-138.78	.00000	-16.78
#1	L.93626	L-.03673	L30.610	L-36.934	L1.5423	L-2.5270	L-.7947
#2	L1.1459	L-.03305	L27.444	L-33.241	L-35.472	L-2.5270	L-.6863
#3	L-1.2437	L-.04958	L43.276	L-49.861	L-7.7113	L-2.5270	L-.9572

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.04266	L.04710	L-8.0176	L.58389	30.115	L-4.0062	L-.22068
SDev	.18054	.00263	.0000	.89191	.556	2.8920	1.75316
%RSD	423.20	5.5873	.00000	152.75	1.8475	-72.189	-793.73
#1	L.23463	L.04862	L-8.0176	L-.19463	30.757	L-2.0519	L1.1044
#2	L.01706	L.04862	L-8.0176	L.38926	29.793	L-2.6382	L.44176
#3	L-.12372	L.04407	L-8.0176	L1.5570	29.793	L-7.3284	L-2.2088

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-8.0843	L.00191	L.06909	L-2.6600	L.20004	L.63534	L2.8800
SDev	.4828	.00083	.00725	1.2778	.04812	.09631	.8614
%RSD	-5.9726	43.301	10.497	-48.038	24.052	15.158	28.867
#1	L-7.8055	L.00143	L.06490	L-2.2508	L.25460	L.68728	L3.8401
#2	L-7.8055	L.00143	L.07746	L-1.6369	L.18186	L.69453	L2.4000
#3	L-8.6418	L.00286	L.06490	L-4.0923	L.16367	L.52422	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	5.4602	L-.08969	L.01816	L6.8560	L-30.993	L-8.0807	L20.845
SDev	1.2287	2.59489	.00117	9.7821	43.648	24.5393	12.849
%RSD	22.503	-2893.1	6.4150	142.68	-140.83	-303.68	61.641
#1	6.7574	L-1.1660	L.01749	L11.753	L-80.154	L-5.8607	L30.814
#2	5.3094	L2.8702	L.01951	L13.222	L3.2062	L15.273	L25.376
#3	L4.3139	L-1.9732	L.01749	L-4.4074	L-16.031	L-33.654	L6.3440

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.18407	20431.	L-19.936	L.00000	L8.6892
SDev	.10627	157.	1.323	.41421	.6999
%RSD	57.735	.76609	-6.6376	2085e6	8.0552
#1	L.24543	20373.	L-18.412	L.47829	L7.8880
#2	L.24543	20312.	L-20.614	L-.23914	L8.9973
#3	L.06136	20608.	L-20.784	L-.23914	L9.1822

Method: TJA61 Sample Name: ZN IEC Operator:
Run Time: 06/09/93 12:36:59
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al30BL	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.57294	L-.01469	L1.0555	L-14.774	L-18.507	L23.892	L-.6141
SDev	.45346	.00184	9.6740	1.847	37.683	2.215	.0313
%RSD	-79.146	-12.500	916.51	-12.500	-203.61	9.2727	-5.094
#1	L-.44717	L-.01285	L-1.0555	L-12.927	L24.676	L26.419	L-.5780
#2	L-.19564	L-.01653	L11.611	L-16.620	L-35.472	L22.283	L-.6321
#3	L-1.0760	L-.01469	L-7.3886	L-14.774	L-44.725	L22.973	L-.6321

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L

Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.57294	L-.01469	L1.0555	L-14.774	L-18.507	L23.892	L-.6141
SDev	.45346	.00184	9.6740	1.847	37.683	2.215	.0313
%RSD	-79.146	-12.500	916.51	-12.500	-203.61	9.2727	-5.094

#1	L-.44717	L-.01285	L-1.0555	L-12.927	L24.676	L26.419	L-.5780
#2	L-.19564	L-.01653	L11.611	L-16.620	L-35.472	L22.283	L-.6321
#3	L-1.0760	L-.01469	L-7.3886	L-14.774	L-44.725	L22.973	L-.6321

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.22610	L-.01129	L-1.3363	L.48658	L1.6061	33.515	L-3.3132
SDev	.06650	.00172	3.0618	1.9872	2.1106	3.334	.7651
%RSD	-29.412	-15.264	-229.13	408.41	131.41	9.9468	-23.094
#1	L-.26450	L-.00999	L-2.0044	L2.7248	L-.44168	37.228	L-2.8714
#2	L-.26450	L-.01324	L-4.0088	L-1.0705	L1.4857	32.538	L-4.1967
#3	L-.14931	L-.01064	L2.0044	L-.19463	L3.7744	30.779	L-2.8714

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-5.7426	L-.00286	L.02722	L-13.709	L.01212	L.25245	L2.4000
SDev	.8251	.00000	.00000	.938	.04577	.09864	.0000
%RSD	-14.368	.00000	.00000	-6.8397	377.49	39.074	.00000
#1	L-6.1329	L-.00286	L.02722	L-14.528	L.05456	L.34304	L2.4000
#2	L-6.3002	L-.00286	L.02722	L-12.686	L.01819	L.14736	L2.4000
#3	L-4.7948	L-.00286	L.02722	L-13.914	L-.03637	L.26694	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.39217	L-.44846	L.02959	L2.9383	L-12.825	L-3.4632	L-14.501
SDev	.27648	.67716	.01124	6.4039	23.120	21.2417	4.153
%RSD	70.501	-151.00	37.962	217.94	-180.28	-613.36	-28.641
#1	L.69383	L.17939	L.02758	L.00000	L-38.474	L16.161	L-15.407
#2	L.33183	L-.35877	L.01951	L-1.4691	L-6.4123	L-26.018	L-18.126
#3	L.15083	L-1.1660	L.04170	L10.284	L6.4123	L-.53283	L-9.9692

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.24543	L5.0674	L-1.2990	L.23914	21211.
SDev	.00000	2.1283	.6777	.41421	139.
%RSD	.00000	42.000	-52.174	173.21	.65680
#1	L.24543	L7.1957	L-1.2990	L.47829	21076.
#2	L.24543	L5.0674	L-1.9767	L.47829	21202.
#3	L.24543	L2.9391	L-.62125	L-.23914	21354.

Method: TJA61 Sample Name: V IEC Operator:
Run Time: 06/09/93 12:40:13
Comment: 20 ppm
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-2.2778	L.44499	L5.2776	447.52	L7.7113	L-2.5270	L.1445
SDev	.9870	.00742	11.417	7.46	29.746	7.2936	.1655
%RSD	-43.333	1.6677	216.33	1.6677	385.75	-288.63	114.6

#1	L-3.2979	L.43703	L-7.3886	439.52	L20.049	L2.9864	L-.0361
#2	L-1.3275	L.44621	L8.4442	448.75	L-26.218	L-10.797	L.2890
#3	L-2.2079	L.45172	L14.777	454.29	L29.303	L.22973	L.1806

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	167.00	L-.01889	L-6.0132	L2.2382	L-1.1243	L1.4657	L6.1846
SDev	1.12	.00229	2.0044	1.3797	.3872	4.7176	.3826
%RSD	.66768	-12.110	-33.333	61.641	-34.442	321.87	6.1859
#1	166.15	L-.01910	L-6.0132	L.68120	L-1.4053	L2.0519	L5.7428
#2	166.59	L-.02106	L-8.0176	L2.7248	L-1.2849	L5.8627	L6.4054
#3	168.26	L-.01650	L-4.0088	L3.3087	L-.68260	L-3.5176	L6.4054

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-1.8956	L-.00787	L.03350	L.20461	L17.616	L.48436	L2.4000
SDev	.6332	.00000	.02371	2.2133	.264	.17257	.0000
%RSD	-33.405	.00000	70.780	1081.7	1.4972	35.629	.00000
#1	L-1.4496	L-.00787	L.01151	L-1.6369	L17.349	L.35391	L2.4000
#2	L-2.6204	L-.00787	L.03036	L-.40924	L17.622	L.41913	L2.4000
#3	L-1.6169	L-.00787	L.05862	L2.6600	L17.877	L.68003	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L.57317	L.44846	L.00336	L-2.4486	L-34.199	L-16.428	L-11.782
SDev	.36575	.97017	.00807	14.7159	21.824	1.396	10.936
%RSD	63.813	216.33	240.00	-601.00	-63.814	-8.4952	-93.264
#1	L.24133	L-.35877	L-.00471	L11.753	L-9.6185	L-14.829	L-18.126
#2	L.51283	L1.5248	L.01143	L-17.630	L-51.298	L-17.404	L-18.126
#3	L.96534	L.17939	L.00336	L-1.4691	L-41.680	L-17.049	L.90629

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.06136	L.81078	20697.	L-.71743	L3.0196
SDev	.00000	.69665	143.	.41421	.4270
%RSD	.00000	85.923	.69180	-57.735	14.139
#1	L.06136	L.96280	20586.	L-.23914	L3.2661
#2	L.06136	L1.4189	20645.	L-.95657	L3.2661
#3	L.06136	L.05067	20859.	L-.95657	L2.5266

Method: TJA61 Element Information Wed 06-09-93 12:58:17 PM page 1

Element:	Ag	Al	Al	2Al	As
Wavelength:	328.068	308.215	167.081/2	308.215	189.042/2
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	1	0	2	2	0

Method: TJA61 Element Information Wed 06-09-93 12:58:17 PM page 1

Element:	Ag	Al	Al	2Al	As
Wavelength:	328.068	308.215	167.081/2	308.215	189.042/2
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	1	0	2	2	0
Affecting Element:	Fe2714	--n/a--	Fe2714	Mo2020	--n/a--
k1 factor:	-.06428	--n/a--	0	.006402	--n/a--
k2 factor:	0	--n/a--	0	0	--n/a--
use?:	YES	--n/a--	YES	YES	--n/a--
Affecting Element:	--n/a--	--n/a--	Be3130	V_2908	--n/a--
k1 factor:	--n/a--	--n/a--	0	.022376	--n/a--
k2 factor:	--n/a--	--n/a--	0	0	--n/a--
use?:	--n/a--	--n/a--	YES	YES	--n/a--

Element:	B	Ba	Be	Ca	Cd
Wavelength:	249.678/2	455.403	313.042	317.933	214.438
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	0	0	1	0	2
Affecting Element:	--n/a--	--n/a--	V_2908	--n/a--	Al3082
k1 factor:	--n/a--	--n/a--	.00835	--n/a--	.11525
k2 factor:	--n/a--	--n/a--	0	--n/a--	0
use?:	--n/a--	--n/a--	YES	--n/a--	YES
Affecting Element:	--n/a--	--n/a--	--n/a--	--n/a--	Fe2714
k1 factor:	--n/a--	--n/a--	--n/a--	--n/a--	.16703
k2 factor:	--n/a--	--n/a--	--n/a--	--n/a--	0
use?:	--n/a--	--n/a--	--n/a--	--n/a--	YES

Element:	Cd	Co	Cr	Cr	Cu
Wavelength:	228.802/2	228.616	206.149	267.716	324.765
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	1	3	1	1	2
Affecting Element:	As1890	Fe2714	Zn2138	Mo	Mo2020
k1 factor:	.018728	.06053	.001757	-.00173	.000298
k2 factor:	0	0	0	0	0
use?:	YES	YES	YES	NO	YES
Affecting Element:	--n/a--	Ba4554	--n/a--	--n/a--	Ti3372
k1 factor:	--n/a--	.00064	--n/a--	--n/a--	-.0004
k2 factor:	--n/a--	0	--n/a--	--n/a--	0
use?:	--n/a--	YES	--n/a--	--n/a--	YES

Affecting Element:	--n/a--	Ti3372	--n/a--	--n/a--	--n/a--
k1 factor:	--n/a--	.001506	--n/a--	--n/a--	--n/a--
k2 factor:	--n/a--	0	--n/a--	--n/a--	--n/a--
use?:	--n/a--	YES	--n/a--	--n/a--	--n/a--

Element:	Mg	Mg	Fe	Fe	K
Wavelength:	279.553	383.231	259.940	271.441	766.490
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	0	0	3	1	0
Affecting Element:	--n/a--	--n/a--	Al3082	V_2908	--n/a--
k1 factor:	--n/a--	--n/a--	.05115	0	--n/a--
k2 factor:	--n/a--	--n/a--	0	0	--n/a--
use?:	--n/a--	--n/a--	YES	YES	--n/a--
Affecting Element:	--n/a--	--n/a--	Mo2020	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	.001985	--n/a--	--n/a--
k2 factor:	--n/a--	--n/a--	0	--n/a--	--n/a--
use?:	--n/a--	--n/a--	YES	--n/a--	--n/a--
Affecting Element:	--n/a--	--n/a--	Mn2576	--n/a--	--n/a--
k1 factor:	--n/a--	--n/a--	.000931	--n/a--	--n/a--
k2 factor:	--n/a--	--n/a--	0	--n/a--	--n/a--
use?:	--n/a--	--n/a--	YES	--n/a--	--n/a--

Element:	Li	Mn	Mo	Na	Ni
Wavelength:	670.780	257.610	202.030	589.590	231.604/2
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	0	2	0	0	0
Affecting Element:	--n/a--	Al3082	--n/a--	--n/a--	--n/a--
k1 factor:	--n/a--	.03718	--n/a--	--n/a--	--n/a--
k2 factor:	--n/a--	0	--n/a--	--n/a--	--n/a--
use?:	--n/a--	YES	--n/a--	--n/a--	--n/a--
Affecting Element:	--n/a--	Fe2714	--n/a--	--n/a--	--n/a--
k1 factor:	--n/a--	.05249	--n/a--	--n/a--	--n/a--
k2 factor:	--n/a--	0	--n/a--	--n/a--	--n/a--
use?:	--n/a--	YES	--n/a--	--n/a--	--n/a--

Element:	Pb	Pb	Sn	Sr	Ti
Wavelength:	182.203	220:353	189.989	421.552	337.280
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	1	1	1	0	0
Affecting Element:	Fe2714	Al3082	Fe2714	--n/a--	--n/a--

Element:	Pb	Pb	Sn	Sr	Ti
Wavelength:	182.203	220.353	189.989	421.552	337.280
Use IECs:	YES	YES	YES	YES	YES
Number of IECs:	1	1	1	0	0
Affecting Element:	Fe2714	Al3082	Fe2714	--n/a--	--n/a--
k1 factor:	2.7439	-1.2952	-.45088	--n/a--	--n/a--
k2 factor:	0	0	0	--n/a--	--n/a--
use?:	YES	YES	YES	--n/a--	--n/a--

Element:	V	Y	Zn
Wavelength:	290.882	371.080	213.856/2
Use IECs:	YES	YES	YES
Number of IECs:	2	0	3
Affecting Element:	Mo2020	--n/a--	Fe2714
k1 factor:	.000895	--n/a--	.1117
k2 factor:	0	--n/a--	0
use?:	YES	--n/a--	YES
Affecting Element:	Ti3372	--n/a--	Cu3247
k1 factor:	-.0001	--n/a--	.003774
k2 factor:	0	--n/a--	0
use?:	YES	--n/a--	YES
Affecting Element:	--n/a--	--n/a--	Ni2316
k1 factor:	--n/a--	--n/a--	.003587
k2 factor:	--n/a--	--n/a--	0
use?:	--n/a--	--n/a--	YES

Method: TJA61 Sample Name: INSTR BLANK 1 Operator:
Run Time: 06/09/93 13:00:50
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.2523	L.00000	L30.610	L.00486	L-18.507	L35.378	L-.6683
SDev	.9214	.0018	3.167	1.8544	9.631	1.194	.0828
%RSD	-73.573	-63e6	10.345	38119.	-52.042	3.3741	-12.39
#1	L-.67899	L.00184	L33.777	L1.8558	L-21.592	L35.067	L-.5780
#2	L-.76284	L-.00184	L27.444	L-1.8530	L-7.7113	L34.000	L-.6863
#3	L-2.3151	L.00000	L30.610	L.01179	L-26.218	L36.067	L-.7405

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.35504	L-.02475	L-1.9457	L-2.7675	L-2.2658	L.69704	L-3.7549
SDev	.05561	.00150	.0018	1.6677	.8008	1.2218	1.3794
%RSD	-15.664	-6.0774	-.09079	-60.262	-35.341	175.28	-36.735
#1	L-.29202	L-.02561	L-1.9469	L-1.5419	L-1.8655	L2.0663	L-2.2088
#2	L-.37586	L-.02301	L-1.9465	L-2.0938	L-1.7441	L.30656	L-4.1967
#3	L-.39724	L-.02561	L-1.9437	L-4.6667	L-3.1877	L-.28174	L-4.8593

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-1.8404	L-.00525	L-.10258	L-20.052	L-.35159	L-.85276	L-2.4000
SDev	.6327	.00041	.00363	1.629	.01050	.06989	.8314
%RSD	-34.378	-7.8730	-3.5348	-8.1245	-2.9863	-8.1957	-34.641
#1	L-1.1161	L-.00573	L-.10468	L-21.898	L-.34553	L-.90349	L-3.3601
#2	L-2.2854	L-.00501	L-.10468	L-18.817	L-.34553	L-.77304	L-1.9200
#3	L-2.1196	L-.00501	L-.09840	L-19.440	L-.36371	L-.88175	L-1.9200

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.8821	L.62785	L-.00605	L5.3869	L-22.547	L3.9959	L-11.940
SDev	.1382	3.0601	.00815	5.9375	6.666	11.643	18.105
%RSD	-7.3433	487.39	-134.71	110.22	-29.566	291.37	-151.63
#1	L-2.0031	L3.1392	L-.01480	L4.4074	L-27.907	L11.546	L8.9071
#2	L-1.7315	L-2.7805	L.00135	L11.753	L-15.083	L9.8542	L-23.719
#3	L-1.9116	L1.5248	L-.00471	L.00000	L-24.651	L-9.4126	L-21.009

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.42950	L-.81078	L-.39671	L.00000	L-7.4298
SDev	.05314	.53388	1.28551	.41421	.8616
%RSD	-12.372	-65.848	-324.04	2085e6	-11.596
#1	L-.49086	L-.25337	L-1.3020	L-.23914	L-8.1692
#2	L-.39882	L-.86145	L1.0747	L.47829	L-7.6365
#3	L-.39882	L-1.3175	L-.96279	L-.23914	L-6.4837

Method: TJA61 Sample Name: AQC EV1&2 1 Operator:

Run Time: 06/09/93 13:04:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L

#2	L-.39882	L-.66145	L1.0747	L.47829	L-7.6383
#3	L-.39882	L-1.3175	L-.96279	L-.23914	L-6.4837

Method: TJA61 Sample Name: AQC EV1&2 1 Operator:

Run Time: 06/09/93 13:04:08
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	476.54	Q5.0081	5806.4	4899.8	Q4748.6	4773.7	4890.
SDev	1.27	.0206	43.5	20.5	33.4	22.3	24.
%RSD	.26559	.41212	.74974	.41848	.70261	.46655	.4981
#1	476.25	Q5.0258	5796.9	4917.5	4785.6	4799.0	4917.
#2	475.45	Q4.9854	5768.4	4877.4	Q4739.4	4756.9	4870.
#3	477.93	Q5.0130	5853.9	4904.6	Q4720.9	4765.2	4884.

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4785.6	Q4.5756	Q4606.7	Q4721.2	Q4698.7	4802.7	Q4733.4
SDev	22.3	.0100	13.3	15.5	7.3	2.4	12.5
%RSD	.46602	.21786	.28953	.32764	.15491	.05041	.26351
#1	4807.0	Q4.5719	Q4598.0	Q4703.3	Q4704.5	4801.9	Q4739.6
#2	4762.5	Q4.5680	Q4600.0	Q4729.0	Q4690.5	4800.7	Q4719.0
#3	4787.2	Q4.5869	Q4622.1	Q4731.1	Q4701.0	4805.4	Q4741.6

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	4893.5	4.8484	4.8298	4733.2	Q9.1110	-.71144	5160.1
SDev	18.3	.0077	.0101	13.3	.0481	.03766	34.2
%RSD	.37495	.15784	.20901	.28109	.52809	-5.2932	.66295
#1	4913.2	4.8532	4.8256	4726.4	Q9.0928	-.75492	5199.4
#2	4876.9	4.8396	4.8225	4724.6	Q9.0747	-.68970	5137.5
#3	4890.5	4.8524	4.8413	4748.5	Q9.1656	-.68970	5143.3

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q4672.3	Q4703.0	.01345	4796.8	5005.5	4828.0	4754.9
SDev	7.4	7.4	.00534	18.1	19.2	54.4	51.0
%RSD	.15917	.15735	39.686	.37729	.38383	1.1269	1.0716
#1	Q4676.0	Q4703.1	.00942	4777.7	5024.7	4824.6	4771.2
#2	Q4663.7	Q4695.6	.01951	4813.7	4986.3	4884.0	Q4697.8
#3	Q4677.1	Q4710.4	.01143	4799.0	5005.3	4775.3	4795.7

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4990.7	4803.2	4767.4	Q-.23914	Q4634.0
SDev	26.2	18.7	9.9	.00000	11.6
%RSD	.52564	.38991	.20782	.00000	.24936
#1	5020.0	4822.5	4775.1	Q-.23914	Q4628.8
#2	4969.6	4785.1	4756.2	Q-.23914	Q4626.0
#3	4982.3	4801.9	4771.0	Q-.23914	Q4647.3

Method: TJA61 Sample Name: HIGH AQC EV3 1 Operator:
Run Time: 06/09/93 13:08:28

Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	-3.3745	Q94.813	96909.	Q95354.	Q24.676	Q38.594	Q.4154
SDev	.7149	.271	589.	273.	45.568	13.245	.1903
%RSD	-21.185	.28624	.60823	.28620	184.67	34.318	45.81
#1	-4.0019	Q94.993	96487.	Q95534.	Q10.796	Q40.891	Q.6141
#2	-2.5962	Q94.501	96658.	Q95040.	Q75.571	Q50.540	Q.3973
#3	-3.5255	Q94.946	97583.	Q95487.	Q-12.338	Q24.351	Q.2348

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q.24949	Q89.169	Q-10.212	Q-1.3380	Q-1.6586	Q-19.451	Q-4.4175
SDev	.23813	.250	1.177	4.5893	.2370	4.764	1.3794
%RSD	95.448	.28021	-11.521	-343.01	-14.288	-24.492	-31.225
#1	Q.40649	Q88.895	Q-9.5325	Q-6.5277	Q-1.6469	Q-14.607	Q-5.5219
#2	Q.36649	Q89.384	Q-9.5335	Q2.1854	Q-1.4277	Q-19.614	Q-2.8714
#3	Q-.02451	Q89.228	Q-11.571	Q.32838	Q-1.9012	Q-24.131	Q-4.8593

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	Q-4.9078	52.466	56.385	88684.	Q87.722	98.665	Q1.4400
SDev	.3477	.089	.158	90.	.177	.748	.8314
%RSD	-7.0850	.17012	.27982	.10135	.20135	.75789	57.735
#1	Q-5.2976	52.363	56.493	88658.	Q87.528	98.982	Q.96002
#2	Q-4.7961	52.511	56.204	88609.	Q87.873	97.811	Q2.4000
#3	Q-4.6297	52.523	56.459	88784.	Q87.764	99.203	Q.96002

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q5.4152	Q7.0857	99.488	Q9.3046	8.3120	Q12.397	Q-24.795
SDev	.4006	1.4820	.787	2.2442	30.184	3.422	8.079
%RSD	7.3983	20.915	.79120	24.119	363.14	27.601	-32.583
#1	Q5.5997	Q5.5609	100.13	Q7.3457	29.150	Q12.260	Q-16.725
#2	Q5.6904	Q7.1754	98.608	Q8.8149	-26.303	Q15.885	Q-32.863
#3	Q4.9556	Q8.5208	99.730	Q11.753	22.089	Q9.0456	Q-24.776

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4.6018	Q1.6216	Q2.8191	Q.00000	Q85512.
SDev	.1916	.5339	2.3384	.41421	272.
%RSD	4.1633	32.924	82.948	2085e6	.31863
#1	4.7552	Q1.5709	Q5.4749	Q-.23914	Q85202.
#2	4.6631	Q2.1790	Q1.0688	Q-.23914	Q85715.
#3	4.3870	Q1.1148	Q1.9137	Q.47829	Q85617.

Method: TJA61 Standard: blnk

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.01587	.03473	.00360	.03473	-.00233	.00493	.0023
SDev	.00441	.00076	.00020	.00076	.00058	.00083	.0001
%RSD	-27.769	2.1800	5.5556	2.1800	-24.744	16.878	5.094
#1	-.01080	.03560	.00340	.03560	-.00200	.00560	.0024
#2	-.01800	.03420	.00380	.03420	-.00200	.00400	.0022

Method: TJA61 Standard: blnk

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.01587	.03473	.00360	.03473	-.00233	.00493	.0023
SDev	.00441	.00076	.00020	.00076	.00058	.00083	.0001
%RSD	-27.769	2.1800	5.5556	2.1800	-24.744	16.878	5.094
#1	-.01080	.03560	.00340	.03560	-.00200	.00560	.0024
#2	-.01800	.03420	.00380	.03420	-.00200	.00400	.0022
#3	-.01880	.03440	.00360	.03440	-.00300	.00520	.0022

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.19813	.01800	.00247	.00673	.02627	.00080	.00513
SDev	.00110	.00183	.00012	.00122	.00474	.00069	.00031
%RSD	.55594	10.183	4.6812	18.149	18.056	86.603	5.9514
#1	.19760	.01960	.00240	.00700	.02700	.00120	.00480
#2	.19940	.01840	.00260	.00780	.03060	.00120	.00540
#3	.19740	.01600	.00240	.00540	.02120	.00000	.00520

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.01727	.00413	.07240	.04107	.03513	.70507	.01153
SDev	.00058	.00031	.00159	.00081	.00031	.00411	.00023
%RSD	3.3437	7.3912	2.1926	1.9682	.86956	.58294	2.0024
#1	.01760	.00440	.07180	.04180	.03480	.70240	.01140
#2	.01760	.00420	.07420	.04120	.03540	.70980	.01180
#3	.01660	.00380	.07120	.04020	.03520	.70300	.01140

Elem	Mn2576	Mo2020	Na5895	Ni2316.	Pb1822	Pb2203	Sn1899
Avge	.03987	.00233	.04053	-.01213	-.00180	.02010	.00140
SDev	.00070	.00182	.00046	.00205	.00183	.00274	.00080
%RSD	1.7618	77.775	1.1395	-16.917	-101.84	13.653	57.143
#1	.03920	.00160	.04000	-.01040	-.00380	.02246	.00140
#2	.04060	.00100	.04080	-.01440	-.00140	.02074	.00220
#3	.03980	.00440	.04080	-.01160	-.00020	.01709	.00060

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01053	.00640	-.00413	.00000	.04033
SDev	.00023	.00131	.00083	.00000	.00239
%RSD	2.1925	20.492	-20.145	.00000	5.9159
#1	.01040	.00780	-.00440	.00000	.03960
#2	.01080	.00620	-.00320	.00000	.04300
#3	.01040	.00520	-.00480	.00000	.03840

Method: TJA61 Standard: ten1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	4.6239	.04373	.00440	.04373	.41600	.00833	.0011
SDev	.0098	.00101	.00035	.00101	.00178	.00162	.0004
%RSD	.21231	2.3018	7.8730	2.3018	.42732	19.399	39.03
#1	4.6144	.04480	.00480	.04480	.41660	.00660	.0006
#2	4.6232	.04280	.00420	.04280	.41400	.00860	.0012
#3	4.6340	.04360	.00420	.04360	.41740	.00980	.0014

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.20100	.32453	.00220	.12527	15.735	6.4817	2.8234

SDev	.00251	.00081	.00020	.00200	.013	.0134	.0034
%RSD	1.2468	.24906	9.0909	1.5993	.08197	.20677	.11916
#1	.20360	.32440	.00200	.12540	15.732	6.4814	2.8196
#2	.20080	.32380	.00240	.12320	15.749	6.4952	2.8246
#3	.19860	.32540	.00220	.12720	15.724	6.4684	2.8260

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.02573	2.6616	.68853	.04200	.04793	.70773	1.4177
SDev	.00046	.0029	.00012	.00040	.00023	.00050	.0038
%RSD	1.7949	.10915	.01677	.95238	.48179	.07112	.26556
#1	.02600	2.6586	.68840	.04200	.04780	.70720	1.4220
#2	.02520	2.6618	.68860	.04160	.04780	.70820	1.4158
#3	.02600	2.6644	.68860	.04240	.04820	.70780	1.4152

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.04247	7.1899	9.9133	-.01160	.62613	3.1040	.70707
SDev	.00012	.0097	.0168	.00106	.00738	.0075	.00242
%RSD	.27191	.13520	.16909	-9.1233	1.1790	.24273	.34217
#1	.04240	7.1822	9.9326	-.01080	.62740	3.1022	.70620
#2	.04240	7.1866	9.9028	-.01280	.63280	3.1123	.70980
#3	.04260	7.2008	9.9044	-.01120	.61820	3.0976	.70520

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	21.294	.00413	.00740	2.7245	.03887
SDev	.031	.00081	.00193	.0014	.00129
%RSD	.14544	19.555	26.064	.05156	3.3083
#1	21.330	.00500	.00680	2.7258	.03980
#2	21.278	.00340	.00820	2.7230	.03940
#3	21.275	.00400	.00520	2.7246	.03740

Method: TJA61 Standard: ten2

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.00780	.06207	.00420	.06207	-.00220	2.8279	.0041
SDev	.00365	.00042	.00060	.00042	.00120	.0156	.0001
%RSD	-46.790	.67078	14.286	.67078	-54.545	.55260	2.839
#1	-.00600	.06240	.00480	.06240	-.00340	2.8110	.0040
#2	-.01200	.06220	.00420	.06220	-.00100	2.8418	.0040
#3	-.00540	.06160	.00360	.06160	-.00220	2.8310	.0042

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	147.45	2.8227	.92120	6.5383	.03480	.00847	.00707
SDev	.38	.0022	.00280	.0119	.00208	.00099	.00031
%RSD	.25787	.07805	.30395	.18267	5.9726	11.652	4.3232
#1	147.02	2.8252	.91920	6.5276	.03720	.00960	.00740
#2	147.69	2.8216	.92000	6.5362	.03360	.00800	.00680
#3	147.65	2.8212	.92440	6.5512	.03360	.00780	.00700

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	11.805	.00347	.07933	.04340	.12640	6.2819	.01193
SDev	.032	.00031	.00050	.00040	.00040	.0266	.00012
%RSD	.26961	8.8126	.63444	.92166	.31646	.42296	.96762
#1	11.771	.00380	.07980	.04380	.12600	6.2946	.01200
#2	11.834	.00340	.07940	.04300	.12640	6.2998	.01200
#3	11.811	.00320	.07880	.04340	.12680	6.2514	.01180

#3	147.65	2.8212	.92440	6.5512	.03360	.00780	.00700

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	11.805	.00347	.07933	.04340	.12640	6.2819	.01193
SDev	.032	.00031	.00050	.00040	.00040	.0266	.00012
%RSD	.26961	8.8126	.63444	.92166	.31646	.42296	.96762
#1	11.771	.00380	.07980	.04380	.12600	6.2946	.01200
#2	11.834	.00340	.07940	.04300	.12640	6.2998	.01200
#3	11.811	.00320	.07880	.04340	.12680	6.2514	.01180

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	20.884	.00300	.04280	2.5809	-.00340	.01296	.00187
SDev	.013	.00220	.00125	.0051	.00223	.00255	.00031
%RSD	.06084	73.333	2.9182	.19625	-65.503	19.659	16.366
#1	20.873	.00520	.04420	2.5770	-.00580	.01003	.00220
#2	20.881	.00080	.04180	2.5790	-.00300	.01423	.00180
#3	20.898	.00300	.04240	2.5866	-.00140	.01463	.00160

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01600	.00467	11.131	.00053	10.224
SDev	.00164	.00099	.015	.00023	.020
%RSD	10.232	21.141	.13143	43.301	.19594
#1	.01780	.00580	11.117	.00080	10.205
#2	.01560	.00420	11.130	.00040	10.223
#3	.01460	.00400	11.146	.00040	10.245

Method: TJA61 Standard: ten3

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.01900	1.0871	.75473	1.0871	-.00200	.00587	36.44
SDev	.00069	.0037	.00141	.0037	.00069	.00190	.06
%RSD	-3.6464	.34187	.18613	.34187	-34.641	32.401	.1544
#1	-.01860	1.0830	.75460	1.0830	-.00240	.00780	36.37
#2	-.01980	1.0882	.75340	1.0882	-.00240	.00580	36.46
#3	-.01860	1.0902	.75620	1.0902	-.00120	.00400	36.48

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.22647	.01207	.00253	.00967	.06380	-.00267	.00513
SDev	.00655	.00081	.00042	.00210	.00178	.00092	.00012
%RSD	2.8919	6.6985	16.434	21.732	2.7863	-34.641	2.2494
#1	.23380	.01220	.00240	.00960	.06240	-.00160	.00520
#2	.22440	.01280	.00220	.00760	.06320	-.00320	.00520
#3	.22120	.01120	.00300	.01180	.06580	-.00420	.00500

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.01993	13.231	3.1497	3.1008	.14300	.71533	.01167
SDev	.00046	.034	.0062	.0060	.00035	.00424	.00023
%RSD	2.3171	.25371	.19677	.19382	.24224	.59332	1.9795
#1	.02020	13.196	3.1426	3.0946	.14320	.71660	.01180
#2	.01940	13.233	3.1538	3.1012	.14260	.71060	.01140
#3	.02020	13.263	3.1528	3.1066	.14320	.71880	.01180

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.05093	.00280	.04213	-.01293	.00100	.01505	.00287

SDev	.00081	.00111	.00122	.00083	.00183	.00059	.00050
%RSD	1.5870	39.770	2.9004	-6.4381	183.30	3.8974	17.558
#1	.05180	.00160	.04080	-.01360	.00260	.01520	.00280
#2	.05080	.00300	.04320	-.01320	-.00100	.01554	.00240
#3	.05020	.00380	.04240	-.01200	.00140	.01440	.00340

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01127	12.626	-.00920	-.00013	.04050
SDev	.00012	.020	.00160	.00012	.00197
%RSD	1.0249	.15463	-17.391	-86.603	4.8517
#1	.01140	12.605	-.00760	.00000	.04280
#2	.01120	12.629	-.00920	-.00020	.04000
#3	.01120	12.643	-.01080	-.00020	.03900

Method: TJA61 Standard: Ca

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.04800	.03727	.00553	.03727	-.00273	.01040	.0269
SDev	.00231	.00031	.00076	.00031	.00239	.00125	.0020
%RSD	-4.8052	.81978	13.684	.81978	-87.295	12.010	7.288
#1	-.04620	.03720	.00640	.03720	-.00380	.00940	.0292
#2	-.05060	.03760	.00520	.03760	.00000	.01000	.0258
#3	-.04720	.03700	.00500	.03700	-.00440	.01180	.0258

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.20167	112.76	.00033	.00760	.02427	.36153	.00453
SDev	.00042	.25	.00031	.00160	.00532	.00031	.00012
%RSD	.20645	.22069	91.652	21.053	21.904	.08450	2.5471
#1	.20120	113.01	.00040	.00600	.02140	.36120	.00440
#2	.20180	112.51	.00000	.00760	.02100	.36160	.00460
#3	.20200	112.77	.00060	.00920	.03040	.36180	.00460

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.01980	.00560	.22147	.06020	.05567	.70860	.01193
SDev	.00144	.00069	.00090	.00035	.00050	.00461	.00012
%RSD	7.2839	12.372	.40722	.57543	.90417	.65100	.96762
#1	.02140	.00640	.22240	.06000	.05560	.70900	.01180
#2	.01860	.00520	.22140	.06000	.05520	.70380	.01200
#3	.01940	.00520	.22060	.06060	.05620	.71300	.01200

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.06433	.01113	.06093	-.00987	.00213	.02441	.00060
SDev	.00031	.00182	.00012	.00289	.00255	.00537	.00072
%RSD	.47487	16.300	.18950	-29.328	119.45	22.018	120.19
#1	.06440	.01320	.06100	-.00800	-.00080	.02989	.00140
#2	.06460	.00980	.06080	-.01320	.00340	.01914	.00000
#3	.06400	.01040	.06100	-.00840	.00380	.02420	.00040

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.02533	.00720	.00160	-.00027	51599.3
SDev	.00012	.00144	.00100	.00012	.0
%RSD	.45580	20.031	62.500	-43.301	.00023
#1	.02520	.00880	.00160	-.00040	51599.3
#2	.02540	.00600	.00260	-.00020	51599.3

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.02533	.00720	.00160	-.00027	S1599.3

SDev	.00012	.00144	.00100	.00012	.0
%RSD	.45580	20.031	62.500	-43.301	.00023
#1	.02520	.00880	.00160	-.00040	S1599.3
#2	.02540	.00600	.00260	-.00020	S1599.3
#3	.02540	.00680	.00060	-.00020	S1599.3

Method: TJA61 Standard: fe400

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.13173	.02907	.08413	.02907	-.00313	.00560	.0014
SDev	.00114	.00050	.00162	.00050	.00136	.00139	.0005
%RSD	-.86330	1.7316	1.9215	1.7316	-43.448	24.744	37.80
#1	-.13300	.02900	.08440	.02900	-.00420	.00640	.0020
#2	-.13140	.02960	.08240	.02960	-.00360	.00640	.0012
#3	-.13080	.02860	.08560	.02860	-.00160	.00400	.0010

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.19620	.02613	.00840	.00787	.06740	.00460	.00533
SDev	.00072	.00881	.00000	.00142	.00340	.00269	.00081
%RSD	.36754	33.729	.00000	18.037	5.0445	58.494	15.155
#1	.19600	.03620	.00840	.00940	.07080	.00540	.00620
#2	.19700	.02240	.00840	.00760	.06740	.00150	.00480
#3	.19560	.01980	.00840	.00660	.06400	.00680	.00520

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.01447	.00247	.07767	117.47	3.9915	.71453	.01153
SDev	.00046	.00012	.00031	.42	.0130	.00740	.00023
%RSD	3.1927	4.6812	.39336	.35912	.32585	1.0361	2.0028
#1	.01420	.00260	.07800	117.14	3.9814	.72180	.01140
#2	.01420	.00240	.07760	117.33	3.9870	.71480	.01180
#3	.01500	.00240	.07740	117.95	4.0062	.70700	.01140

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pd2203	Sn1899
Avge	.08407	.01407	.03933	-.01280	.06580	.02699	-.00987
SDev	.00012	.00182	.00081	.00223	.00383	.00640	.00140
%RSD	.13736	12.901	2.0550	-17.399	5.8229	23.707	-14.237
#1	.08400	.01380	.03860	-.01520	.06400	.02911	-.00840
#2	.08400	.01600	.03920	-.01240	.07020	.03206	-.01000
#3	.08420	.01240	.04020	-.01080	.06320	.01980	-.01120

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01120	.00673	-.00133	.00000	.14833
SDev	.00000	.00070	.00081	.00000	.02611
%RSD	.00000	10.431	-60.622	.00000	17.605
#1	.01120	.00740	-.00220	.00000	.17820
#2	.01120	.00680	-.00060	.00000	.13700
#3	.01120	.00600	-.00120	.00000	.12980

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Method: TJA61

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Ag3280	328.068	ten1	blnk	215.530	3.41974	06/09/93 01:19:33
As1890	189.042	ten1	blnk	23904.4	55.7769	06/09/93 01:19:33
B_2496	249.678	ten2	blnk	3542.33	-17.4755	06/09/93 01:22:46
Be3130	313.042	ten2	blnk	68.4761	-13.5674	06/09/93 01:22:46
Ca3179	317.933	Ca	blnk	3.54787	-.063862	06/09/93 01:30:49
Cd2144	214.438	ten2	blnk	10884.6	-26.8486	06/09/93 01:22:46
Cd2288	228.802	ten2	blnk	1531.02	-10.3089	06/09/93 01:22:46
Co2286	228.616	ten1	blnk	636.589	-16.7211	06/09/93 01:19:33
Cr2677	267.716	ten1	blnk	3548.28	-18.2145	06/09/93 01:19:33
Mg3832	383.231	ten3	blnk	16.2478	-1.17634	06/09/93 01:26:55
Fe2599	259.940	ten3	blnk	3268.26	-134.216	06/09/93 01:26:55
Fe2714	271.441	fe400	blnk	101.102	-3.55205	06/09/93 01:34:06
Mn2576	257.610	ten2	blnk	479.751	-19.1261	06/09/93 01:22:46
Mo2020	202.030	ten1	blnk	1391.30	-3.24636	06/09/93 01:19:33
V_2908	290.882	ten2	blnk	898.053	3.71195	06/09/93 01:22:46
Zn2138	213.856	ten2	blnk	989.161	-39.8961	06/09/93 01:22:46

Wed 06-09-93 01:40:41 PM page 1

Method: TJA61 Sample Name: INSTR BLANK 1 Operator:
Run Time: 06/09/93 13:38:55
Comment:
Mode: CONC Corr. Factor: 1

Method: TJA61 Sample Name: INSTR BLANK 1 Operator:
Run Time: 06/09/93 13:38:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.22687	L-.01897	L30.610	L-19.107	L-1.5936	L43.689	L-.5960
SDev	1.2339	.00530	8.378	5.316	34.4754	10.323	.0626
%RSD	543.89	-27.936	27.370	-27.824	-2163.3	23.630	-10.50
#1	L.87562	L-.02204	L24.277	L-22.184	L-11.155	L55.497	L-.6321
#2	L1.0010	L-.01285	L40.110	L-12.968	L36.653	L36.368	L-.5238
#3	L-1.1961	L-.02204	L27.444	L-22.168	L-30.279	L39.202	L-.6321

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.02073	L-.02152	L-2.1668	L-.37843	L-2.6682	L2.8405	L-1.1828
SDev	.11083	.00269	1.2523	.65743	2.2760	.8932	1.3776
%RSD	-534.70	-12.481	-57.792	-173.73	-85.299	31.445	-158.75
#1	L.10563	L-.01845	L-.72085	L-.60762	L-.04015	L3.8156	L.94621
#2	L-.06636	L-.02342	L-2.8887	L-.89058	L-3.9820	L2.6441	L-2.6021
#3	L-.10146	L-.02271	L-2.8910	L.36293	L-3.9825	L2.0619	L-1.8924

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-2.0643	L-.00429	L-.02708	L23.310	L-.04718	L-.57012	L-1.9200
SDev	.5115	.00000	.00375	13.125	.03089	.11974	.0000
%RSD	-24.778	.00000	-13.856	56.306	-65.466	-21.003	.00000
#1	L-1.9517	L-.00429	L-.02925	L37.042	L-.01348	L-.44891	L-1.9200
#2	L-2.6227	L-.00429	L-.02925	L21.997	L-.07414	L-.68607	L-1.9200
#3	L-1.6185	L-.00429	L-.02275	L10.891	L-.05392	L-.57736	L-1.9200

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.57252	L2.6898	L-.00807	L11.753	L-27.657	L4.7113	L-11.803
SDev	.19849	2.6447	.00420	12.026	30.378	19.464	6.853
%RSD	-34.669	98.321	-52.042	102.32	-109.84	413.13	-58.058
#1	L-.41426	L.09275	L-.00471	L14.691	L-51.262	L21.283	L-4.5375
#2	L-.79522	L5.3797	L-.00673	L22.037	L6.6157	L9.5735	L-12.721
#3	L-.50809	L2.5971	L-.01278	L-1.4691	L-38.326	L-16.723	L-18.150

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.46018	L-1.4695	L.29546	L.47829	L-3.9198
SDev	.05314	.6966	.72025	.00000	1.5324
%RSD	-11.547	-47.406	243.76	.00000	-39.094
#1	L-.39982	L-.70943	L1.0170	L.47829	L-2.7475
#2	L-.49086	L-1.6216	L.29292	L.47829	L-3.3581
#3	L-.49086	L-2.0776	L-.42349	L.47829	L-5.6538

Method: TJA61 Sample Name: AQC EV1&2 1 Operator:

Run Time: 06/09/93 13:41:59
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	487.36	Q4.9634	6124.1	4850.0	4910.0	4852.5	4846.
SDev	.59	.0272	8.0	26.8	79.5	20.9	46.
%RSD	.12049	.54749	.13013	.55300	1.6186	.43014	.9506
#1	486.91	Q4.9946	6116.7	4880.7	4994.4	4870.9	4899.
#2	487.16	Q4.9506	6123.1	4837.6	4836.7	4829.9	4814.
#3	488.03	Q4.9451	6132.6	4831.6	4898.8	4856.8	4826.

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5002.4	4.8887	4906.7	4947.8	4894.1	Q4731.4	4965.5
SDev	42.4	.0106	19.0	45.1	5.9	16.3	1.8
%RSD	.84718	.21739	.38766	.91139	.12086	.34430	.03596
#1	5050.8	4.8769	4890.7	4900.1	4898.0	Q4720.8	4967.1
#2	4972.1	4.8918	4901.6	4953.3	4887.3	4750.1	4965.7
#3	4984.3	4.8975	4927.7	4989.8	4897.1	Q4723.1	4963.6

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	4834.3	4.7840	4.9957	4975.2	Q10.178	-.66433	5125.0
SDev	46.0	.0103	.0160	21.1	.053	.19457	58.3
%RSD	.95143	.21489	.32087	.42476	.52565	-29.287	1.1380
#1	4886.9	4.7916	5.0141	4999.5	Q10.218	-.87813	5183.6
#2	4801.6	4.7723	4.9881	4961.7	Q10.117	-.49764	5067.0
#3	4814.5	4.7880	4.9848	4964.3	Q10.198	-.61722	5124.6

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1622	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	4875.1	4818.8	.01816	Q4735.3	5014.3	4763.8	Q4672.0
SDev	12.4	14.7	.00816	18.3	24.9	29.6	12.8
%RSD	.25428	.30536	44.905	.38636	.49688	.62135	.27461
#1	4888.5	4835.7	.02556	4756.4	5034.5	4796.6	Q4657.5
#2	4864.0	4808.7	.01951	Q4723.3	5021.9	Q4739.0	Q4681.9
#3	4872.8	4812.0	.00942	Q4726.2	4986.4	4755.9	Q4676.5

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4912.6	Q4737.1	4954.8	Q.00000	4910.0
SDev	46.5	36.1	21.5	.41421	3.6
%RSD	.94650	.76140	.43427	2085e6	.07359
#1	4965.8	4778.2	4977.6	Q.47829	4906.8
#2	4880.1	Q4710.7	4934.8	Q-.23914	4909.3
#3	4891.8	Q4722.4	4952.2	Q-.23914	4914.0

Method: TJA61 Sample Name: HIGH AQC EV3 1 Operator:
Run Time: 06/09/93 13:46:25

Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	-1.4684	Q92.999	101320.	Q93529.	Q-12.749	Q32.826	Q.4515

Method: TJA61 Sample Name: HIGH AQC EV3 1 Operator:
Run Time: 06/09/93 13:46:25

Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	-1.4684	Q92.999	101320.	Q93529.	Q-12.749	Q32.826	Q.4515
SDev	.2377	.391	80.	393.	54.997	1.227	.2167
%RSD	-16.188	.42036	.07859	.42035	-431.39	3.7382	45.00
#1	-1.7094	Q92.595	101230.	Q93123.	Q41.434	Q31.409	Q.6683
#2	-1.4614	Q93.027	101350.	Q93557.	Q-68.526	Q33.534	Q.4515
#3	-1.2342	Q93.376	101380.	Q93907.	Q-11.155	Q33.534	Q.2348

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q.57686	Q94.002	Q-6.8749	Q1.4636	Q-.40499	Q-31.578	Q-1.6559
SDev	.21981	.432	1.1793	1.3987	2.68662	8.096	.8194
%RSD	38.104	.45933	-17.153	95.570	-663.39	-25.640	-49.487
#1	Q.81236	Q93.515	Q-7.4875	Q2.3881	Q.76526	Q-22.262	Q-1.1829
#2	Q.54107	Q94.154	Q-7.6217	Q-.14560	Q1.4980	Q-35.552	Q-1.1828
#3	Q.37714	Q94.337	Q-5.5154	Q2.1482	Q-3.4782	Q-36.918	Q-2.6021

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	Q-4.9062	51.109	57.245	91951.	Q94.288	97.029	Q1.4400
SDev	.5378	.172	.170	286.	.356	.479	.8314
%RSD	-10.962	.33566	.29672	.31131	.37779	.49377	57.735
#1	Q-5.2961	50.929	57.095	91736.	Q93.890	96.481	Q.96002
#2	Q-4.2926	51.129	57.212	91910.	Q94.396	97.232	Q2.4000
#3	Q-5.1298	51.270	57.430	92296.	Q94.578	97.373	Q.96002

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q6.9132	Q1.6696	97.649	Q.48972	-44.972	Q1.6703	Q-12.771
SDev	.1286	2.0511	.279	6.1165	25.992	8.3065	2.993
%RSD	1.8607	122.85	.28604	1249.0	-57.796	497.30	-31.266
#1	Q7.0450	Q.09275	97.327	Q7.3457	-55.637	Q-2.4344	Q-2.4191
#2	Q6.9065	Q.92753	97.832	Q-1.4691	-15.344	Q-3.7847	Q-13.629
#3	Q6.7880	Q3.9884	97.787	Q-4.4074	-63.936	Q11.230	Q-16.266

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4.3257	Q1.5709	Q5.2686	Q-.23914	Q89409.
SDev	.1063	.2633	1.3779	.00000	335.
%RSD	2.4568	16.762	37.540	.00000	.37482
#1	4.3870	Q1.2668	Q6.5869	Q-.23914	Q89057.
#2	4.3870	Q1.7229	Q2.9944	Q-.23914	Q89447.
#3	4.2030	Q1.7229	Q6.2246	Q-.23914	Q89724.

Method: TJA61 Standard: blnk

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.01613	.03380	.00340	.03380	-.00267	.00493	.0020

SDev	.00469	.00053	.00020	.00053	.00083	.00150	.0002
%RSD	-29.082	1.5655	5.8824	1.5655	-31.225	30.428	10.00
#1	-.01720	.03400	.00360	.03400	-.00360	.00340	.0020
#2	-.01100	.03420	.00320	.03420	-.00200	.00640	.0022
#3	-.02020	.03320	.00340	.03320	-.00240	.00500	.0018

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.19533	.01727	.00227	.00747	.02533	-.00200	.00527
SDev	.00230	.00031	.00012	.00212	.00439	.00240	.00031
%RSD	1.1778	1.7693	5.0943	28.389	17.338	-120.00	5.8007
#1	.19300	.01700	.00220	.00520	.02300	.00040	.00500
#2	.19760	.01760	.00220	.00780	.03040	-.00440	.00520
#3	.19540	.01720	.00240	.00940	.02260	-.00200	.00560

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.01687	.00380	.07033	.03947	.03427	.69953	.01140
SDev	.00081	.00000	.00050	.00023	.00042	.00432	.00000
%RSD	4.7922	.00000	.71563	.58515	1.2150	.61740	.00000
#1	.01700	.00380	.07040	.03960	.03440	.70360	.01140
#2	.01760	.00380	.07060	.03920	.03380	.69500	.01140
#3	.01600	.00380	.06980	.03960	.03460	.70000	.01140

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.03913	.00513	.03953	-.01067	-.00147	.01493	.00187
SDev	.00042	.00393	.00058	.00061	.00260	.00201	.00070
%RSD	1.0639	76.579	1.4604	-5.7282	-177.45	13.476	37.627
#1	.03960	.00220	.04020	-.01000	-.00400	.01263	.00180
#2	.03900	.00960	.03920	-.01120	-.00160	.01583	.00260
#3	.03880	.00360	.03920	-.01080	.00120	.01634	.00120

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01040	.00487	-.00340	.00000	.03587
SDev	.00000	.00058	.00191	.00000	.00197
%RSD	.00000	11.863	-56.114	.00000	5.5014
#1	.01040	.00420	-.00160	.00000	.03720
#2	.01040	.00520	-.00320	.00000	.03680
#3	.01040	.00520	-.00540	.00000	.03360

Method: TJA61 Standard: ten1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	4.5765	.04447	.00493	.04447	.41447	.00893	.0013
SDev	.0042	.00061	.00064	.00061	.00673	.00253	.0003
%RSD	.09181	1.3741	13.032	1.3741	1.6238	28.348	24.12
#1	4.5722	.04500	.00420	.04500	.40740	.00940	.0016
#2	4.5766	.04380	.00540	.04380	.41520	.01120	.0010
#3	4.5806	.04460	.00520	.04460	.42080	.00620	.0012

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.19760	.31860	.00193	.12193	15.494	6.3711	2.7609
SDev	.00072	.00111	.00012	.00114	.025	.0192	.0064
%RSD	.36494	.34951	5.9726	.93268	.16090	.30186	.23196
#1	.19740	.31840	.00200	.12100	15.470	6.3496	2.7544
#2	.19840	.31760	.00200	.12320	15.493	6.3866	2.7612
#3	.19700	.31980	.00180	.12160	15.520	6.3772	2.7672

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.19760	.31860	.00193	.12193	15.494	6.3711	2.7609
SDev	.00072	.00111	.00012	.00114	.025	.0192	.0064
%RSD	.36494	.34951	5.9726	.93268	.16090	.30186	.23196
#1	.19740	.31840	.00200	.12100	15.470	6.3496	2.7544
#2	.19840	.31760	.00200	.12320	15.493	6.3866	2.7612
#3	.19700	.31980	.00180	.12160	15.520	6.3772	2.7672

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.02547	2.6195	.68140	.04140	.04680	.69927	1.4217
SDev	.00101	.0062	.00183	.00020	.00035	.00430	.0055
%RSD	3.9528	.23660	.26901	.48309	.74019	.61499	.39020
#1	.02440	2.6128	.68180	.04140	.04640	.69560	1.4278
#2	.02640	2.6208	.67940	.04160	.04700	.70400	1.4170
#3	.02560	2.6250	.68300	.04120	.04700	.69820	1.4202

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.04160	7.1205	9.9199	-.00973	.62613	3.0596	.69867
SDev	.00035	.0067	.0438	.00321	.00393	.0060	.00238
%RSD	.83272	.09439	.44198	-32.962	.62784	.19679	.36247
#1	.04200	7.1220	9.9690	-.00640	.62820	3.0528	.70060
#2	.04140	7.1264	9.8846	-.01000	.62160	3.0644	.69960
#3	.04140	7.1132	9.9062	-.01280	.62860	3.0616	.69580

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	21.116	.00407	.00800	2.7004	.03887
SDev	.010	.00081	.00159	.0019	.00099
%RSD	.04941	19.876	19.843	.07065	2.5384
#1	21.113	.00480	.00620	2.6986	.04000
#2	21.107	.00320	.00920	2.7002	.03820
#3	21.127	.00420	.00860	2.7024	.03840

Method: TJA61 Standard: ten2

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.00887	.06113	.00453	.06113	-.00140	2.7741	.0039
SDev	.00397	.00117	.00031	.00117	.00125	.0134	.0004
%RSD	-44.792	1.9169	6.7391	1.9169	-89.214	.48183	10.58
#1	-.01020	.05980	.00460	.05980	-.00280	2.7866	.0038
#2	-.01200	.06160	.00420	.06160	-.00100	2.7600	.0036
#3	-.00440	.06200	.00480	.06200	-.00040	2.7756	.0044

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	144.12	2.7583	.90220	6.4725	.03613	.01080	.00596
SDev	.08	.0047	.00200	.0208	.00602	.00174	.00092
%RSD	.05629	.16886	.22168	.32138	16.654	16.144	6.0048
#1	144.21	2.7550	.90220	6.4518	.04000	.00960	.00740
#2	144.05	2.7636	.90420	6.4934	.02920	.01000	.00680
#3	144.11	2.7562	.90020	6.4722	.03920	.01280	.00660

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	11.672	.00347	.07820	.04293	.12493	6.2360	.01193

SDev	.008	.00012	.00035	.00046	.00070	.0202	.00012
%RSD	.06514	3.3309	.44298	1.0758	.56220	.32430	.96762
#1	11.680	.00360	.07860	.04240	.12420	6.2210	.01200
#2	11.665	.00340	.07800	.04320	.125	6.2280	.01200
#3	11.672	.00340	.07800	.04320	.12560	6.2590	.01180

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	20.504	.00153	.04273	2.5254	-.00100	.01554	.00227
SDev	.014	.00210	.00042	.0104	.00139	.00163	.00083
%RSD	.06786	137.01	.97426	.41205	-138.56	10.494	36.735
#1	20.505	.00360	.04260	2.5360	-.00180	.01369	.00200
#2	20.518	.00160	.04320	2.5250	-.00180	.01674	.00160
#3	20.490	-.00060	.04240	2.5152	.00060	.01620	.00320

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01560	.00533	10.893	.00053	10.067
SDev	.00087	.00031	.011	.00012	.008
%RSD	5.5883	5.7282	.10551	21.651	.07623
#1	.01660	.00560	10.900	.00060	10.073
#2	.01520	.00540	10.899	.00060	10.070
#3	.01500	.00500	10.879	.00040	10.058

Method: TJA61 Standard: ten3

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Avge	-.01987	1.0853	.79740	1.0853	-.00113	.00820	36.55
SDev	.00546	.0017	.00300	.0017	.00168	.00180	.10
%RSD	-27.484	.15672	.37623	.15672	-148.00	21.951	.2797
#1	-.01360	1.0836	.79440	1.0836	-.00220	.01000	36.44
#2	-.02360	1.0870	.80040	1.0870	.00080	.00820	36.64
#3	-.02240	1.0854	.79740	1.0854	-.00200	.00640	36.58

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Avge	.24600	.01160	.00253	.00833	.05873	-.00247	.00460
SDev	.01359	.00020	.00031	.00153	.00121	.00214	.00053
%RSD	5.5243	1.7241	12.059	18.330	2.0526	-86.697	11.503
#1	.26040	.01180	.00280	.01000	.05860	-.00060	.00440
#2	.24420	.01160	.00260	.00800	.05760	-.00480	.00420
#3	.23340	.01140	.00220	.00700	.06000	-.00200	.00520

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Avge	.02167	13.043	3.1380	3.0605	.13993	.70360	.01153
SDev	.00145	.030	.0086	.0055	.00070	.00191	.00023
%RSD	6.6777	.23108	.27362	.17925	.50193	.27116	2.0024
#1	.02260	13.008	3.1302	3.0542	.13920	.70540	.01140
#2	.02240	13.060	3.1472	3.0644	.14060	.70160	.01160
#3	.02000	13.061	3.1366	3.0628	.14000	.70380	.01140

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.05267	.00227	.04140	-.00907	.00127	.01789	.00240
SDev	.00247	.00204	.00087	.00129	.00129	.00248	.00080
%RSD	4.6870	90.127	2.1057	-14.182	101.51	13.867	33.333
#1	.05540	.00080	.04100	-.00760	-.00020	.01503	.00320
#2	.05200	.00460	.04080	-.00960	.00180	.01949	.00240
#3	.05060	.00140	.04240	-.01000	.00220	.01914	.00160

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Avge	.05267	.00227	.04140	-.00907	.00127	.01789	.00240
SDev	.00247	.00204	.00087	.00129	.00129	.00248	.00080
%RSD	4.6870	90.127	2.1057	-14.182	101.51	13.867	33.333
#1	.05540	.00080	.04100	-.00760	-.00020	.01503	.00320
#2	.05200	.00460	.04080	-.00960	.00180	.01949	.00240
#3	.05060	.00140	.04240	-.01000	.00220	.01914	.00160

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Avge	.01147	12.583	-.00733	.00000	.03927
SDev	.00031	.031	.00162	.00000	.00031
%RSD	2.6643	.24842	-22.044	.00000	.77803
#1	.01180	12.547	-.00560	.00000	.03960
#2	.01140	12.607	-.00760	.00000	.03900
#3	.01120	12.594	-.00880	.00000	.03920

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Method: TJA61

Element	Wavelen	High std	Low std	Slope	Y-intercept	Date Standardized
Cr2061	206.149	ten1	blnk	1569.09	3.13817	06/09/93 01:57:03
Mg2795	279.553	ten1	blnk	3.82302	-.014527	06/09/93 01:57:03
Ni2316	231.604	ten2	blnk	3943.11	42.0599	06/09/93 02:00:37
Pb2203	220.353	ten1	blnk	3284.44	-49.0476	06/09/93 01:57:03
Sn1899	189.989	ten1	blnk	14351.3	-26.7891	06/09/93 01:57:03
Ti3372	337.280	ten3	blnk	795.043	-3.86921	06/09/93 02:03:56

Wed 06-09-93 02:10:04 PM page 1

Method: TJA61 Sample Name: INSTR BLANK 1A Operator:
Run Time: 06/09/93 14:08:17
Comment:

Method: TJA61 Sample Name: INSTR BLANK 1A Operator:
Run Time: 06/09/93 14:08:17
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.17899	L-.01653	L42.221	L-16.620	L23.904	L50.301	[illegible]
SDev	.75744	.00184	3.656	1.872	19.904	8.801	.646
%RSD	423.17	-11.111	8.6602	-11.265	83.267	17.497	60.66
#1	L-.38355	L-.01469	L46.443	L-14.757	L46.215	L44.870	L1.806
#2	L-.11971	L-.01836	L40.110	L-18.501	L17.530	L60.456	L.7766
#3	L1.0402	L-.01653	L40.110	L-16.602	L7.9681	L45.578	L.6141

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L.07503	L-.02389	L-1.4291	L.06266	L-.54728	L3.4647	L-.70966
SDev	.13627	.00295	1.2635	1.3119	1.58822	3.8052	.81944
%RSD	181.61	-12.366	-88.411	2093.8	-290.20	109.83	-115.47
#1	L.23017	L-.02484	L-.69805	L.76757	L-.03772	L5.6610	L-1.1828
#2	L-.02530	L-.02058	L-2.8880	L-1.4510	L.72362	L5.6623	L-1.1828
#3	L.02024	L-.02625	L-.70122	L.87145	L-2.3277	L-.92915	L.23655

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-2.3413	L.00357	L-.02816	L-15.034	L-.12132	L-.75009	L-.48000
SDev	.3472	.00361	.00750	.382	.04209	.03841	1.44002
%RSD	-14.830	101.27	-26.647	-2.5432	-34.695	-5.1202	-300.00
#1	L-2.6195	L.00765	L-.03250	L-15.251	L-.15502	L-.74405	[illegible]
#2	L-1.9522	L.00229	L-.01950	L-15.259	L-.07414	L-.71506	L-1.5200
#3	L-2.4522	L.00076	L-.03250	L-14.593	L-.13480	L-.79115	L.96002

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.31285	L.74203	L.00000	L-.52575	L-34.935	L-3.1507	L-10.579
SDev	.00214	3.2490	.0100	17.9141	8.588	7.1593	4.395
%RSD	-.68528	437.86	-291e6	-3407.3	-24.582	-225.08	-41.548
#1	L-.31115	L.09275	L-.00673	L-13.144	L-31.636	L1.2322	L-9.6374
#2	L-.31526	L4.2666	L.01143	L19.978	L-44.683	L-11.441	L-6.7307
#3	L-.31214	L-2.1333	L-.00471	L-8.4120	L-28.486	L.66876	L-15.369

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.39882	L1.4841	L-.23867	L.23914	L-7.2296
SDev	.00000	.7514	.53641	.41421	.4123
%RSD	.00000	50.634	-224.75	173.21	-5.7029
#1	L-.39882	L2.3321	L-.77607	L-.23914	L-6.9817
#2	L-.39882	L1.2191	L.29675	L.47829	L-7.7055
#3	L-.39882	L.90105	L-.23667	L.47829	L-7.0015

Method: TJA61 Sample Name: AQC EV1&2 1A Operator:

Run Time: 06/09/93 14:11:24
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	488.26	Q4.9640	6471.4	4850.5	4976.5	4879.2	4862.
SDev	.46	.0122	84.3	12.0	26.3	27.6	18.
%RSD	.09404	.24630	1.3029	.24817	.52890	.56467	.3614
#1	488.68	Q4.9579	6382.7	4844.8	4951.4	4904.2	4843.
#2	487.77	Q4.9561	6550.6	4842.4	5004.0	4849.7	4864.
#3	488.33	Q4.9781	6480.9	4864.3	4980.1	4883.7	4878.

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	5010.8	4.9013	4931.3	4983.8	4892.3	5100.0	4983.0
SDev	18.1	.0203	6.7	20.8	13.8	9.2	11.8
%RSD	.36126	.41364	.13506	.41809	.28117	.18068	.23717
#1	4990.9	4.8819	4929.9	4960.0	4877.1	5095.0	4973.5
#2	5015.2	4.9223	4938.6	4998.9	4904.0	5110.6	4996.2
#3	5026.2	4.8996	4925.5	4992.6	4895.8	5094.3	4979.2

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	4836.3	5.1366	5.0195	4968.2	Q10.272	-.55200	5131.8
SDev	14.1	.0119	.0135	14.4	.051	.09477	18.7
%RSD	.29155	.23204	.26953	.28895	.49540	-17.169	.36479
#1	4821.6	5.1228	5.0043	4953.8	Q10.279	-.44329	5121.7
#2	4837.7	5.1435	5.0238	4982.5	Q10.218	-.59548	5120.2
#3	4849.7	5.1435	5.0303	4968.1	Q10.319	-.61722	5153.4

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	4888.9	4841.2	.02690	5031.7	5087.8	5069.9	4971.1
SDev	13.0	7.6	.00117	44.9	67.6	32.4	46.1
%RSD	.26515	.15650	4.3302	.89227	1.3292	.63942	.92763
#1	4873.9	4832.6	.02758	4999.3	5043.9	5088.0	4937.7
#2	4896.4	4847.1	.02758	5012.7	5053.7	5089.4	5023.7
#3	4896.4	4843.8	.02556	5082.9	5165.7	5032.5	4952.0

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4911.7	4972.4	4951.9	Q.00000	4932.4
SDev	16.2	10.8	17.3	.41421	18.5
%RSD	.32886	.21746	.34922	2085e6	.37525
#1	4895.4	4961.5	4932.7	Q-.23914	4917.7
#2	4911.8	4972.5	4957.1	Q-.23914	4953.2
#3	4927.7	4983.1	4966.1	Q.47829	4926.4

Method: TJA61 Sample Name: 93ZF53802 Operator:
Run Time: 06/09/93 14:17:47

Comment: SF1191
Mode: CONC Corr. Factor: 1.22

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-1.5090	L.11127	191.87	111.79	L1.9442	108.33	41.62
SDev	.9124	.00787	3.86	7.94	13.470	6.86	.33
%RSD	-60.463	7.0709	2.0134	7.1068	692.82	6.3329	.7994

#2	L-.25282	L-.07169	L-32.193	L-72.085	L-25.275	L2.0168	L-1.168
#3	L.43243	L-.06049	L-32.193	L-60.829	91.378	L-4.8979	L-1.234

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.30867	L-.05598	L-4.4012	L-.36411	L1.2010	L-2.2630	L-4.3289
SDev	.06724	.00507	1.5327	4.13732	4.6145	5.7428	1.8023
%RSD	-21.783	-9.0610	-34.824	-1136.3	384.21	-253.78	-41.633
#1	L-.34076	L-.05021	L-6.1710	L-3.4655	L-4.0789	L-2.2686	L-4.9061
#2	L-.23140	L-.05800	L-3.5136	L4.3336	L3.2205	L3.4827	L-5.7719
#3	L-.35386	L-.05973	L-3.5190	L-1.9604	L4.4614	L-8.0030	L-2.3087

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-8.9109	L-.00653	L-.02775	L-35.612	L-.10690	L-.72649	L.58561
SDev	1.2742	.00187	.01049	.467	.01424	.25179	2.6836
%RSD	-14.300	-28.571	-37.797	-1.3109	-13.323	-34.659	458.25
#1	L-8.5041	L-.00466	L-.03964	L-36.151	L-.11512	L-.94753	L-2.3424
#2	L-10.339	L-.00653	L-.02379	L-35.344	L-.11512	L-.77954	L1.1712
#3	L-7.8897	L-.00840	L-.01982	L-35.342	L-.09045	L-.45240	L2.9280

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.92850	L-1.5842	L-.05006	L-15.394	L-11.441	L3.7340	L-19.891
SDev	.24369	3.2738	.00426	6.186	31.034	2.1825	8.807
%RSD	-26.245	-206.65	-8.5183	-40.182	-271.25	58.449	-44.274
#1	L-1.2014	L2.1500	L-.05498	L-8.3384	L-46.622	L3.7408	L-18.725
#2	L-.73267	L-2.9421	L-.04759	L-19.884	L12.050	L1.5431	L-11.724
#3	L-.85144	L-3.9606	L-.04759	L-17.960	L.24819	L5.9131	L-29.222

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.59884	L-1.9399	L.94903	L.58351	L-19.449
SDev	.00000	.4038	.54915	.00000	2.764
%RSD	.00000	-20.817	57.864	.00000	-14.214
#1	L-.59884	L-2.3925	L1.4565	L.58351	L-16.257
#2	L-.59884	L-1.8106	L.36604	L.58351	L-21.036
#3	L-.59884	L-1.6166	L1.0245	L.58351	L-21.055

Method: TJA61 Sample Name: INSTR BLANK 2 Operator:
Run Time: 06/09/93 15:07:20
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.47460	L-.00735	L49.609	L-7.3602	L50.996	L46.286	L-.7044
SDev	.94945	.00551	3.167	5.5363	8.281	4.959	.0828
%RSD	-200.05	-75.000	6.3830	-75.219	16.238	10.714	-11.75
#1	L-.42146	L-.00735	L46.443	L-7.3367	L55.777	L44.161	L-.6321
#2	L.44716	L-.00184	L52.776	L-1.8357	L55.777	L51.954	L-.8863
#3	L-1.4495	L-.01285	L49.609	L-12.908	L41.434	L42.744	L-.7947

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677

Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.44444	L-.02933	L-2.9006	L-2.0778	L-1.1856	L-.19364	L-.47310
SDev	.02169	.00798	2.1850	1.7462	3.1881	.79003	1.87757
%RSD	-4.8806	-27.193	-75.331	-84.039	-268.90	-408.00	-396.66
#1	L-.46379	L-.02058	L-.71241	L-3.0859	L-4.2378	L.64407	L1.6559
#2	L-.42099	L-.03122	L-2.9068	L-3.0859	L2.1230	L-.92527	L-1.8924
#3	L-.44855	L-.03619	L-5.0825	L-.06151	L-1.4421	L-.29971	L-1.1828

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	L-2.9551	L-.00459	L-.01083	L-14.378	L-.00674	L-.32250	L1.4400
SDev	.0009	.00000	.00188	.372	.05837	.08234	.8314
%RSD	-.03202	.00000	-17.321	-2.5864	-866.04	-25.531	57.735
#1	L-2.9543	L-.00459	L-.00975	L-14.591	L-.07414	L-.30922	L.96002
#2	L-2.9549	L-.00459	L-.01300	L-14.594	L.02696	L-.24761	L.96002
#3	L-2.9562	L-.00459	L-.00975	L-13.948	L.02696	L-.41068	L2.4000

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.35119	L-1.0203	L.00135	L-7.8862	L-20.287	L4.8077	L-11.484
SDev	.23858	2.9448	.00000	7.4538	13.038	9.5941	10.851
%RSD	-67.934	-288.63	.00000	-94.516	-64.269	199.56	-94.484
#1	L-.60352	L-3.2464	L.00135	L-16.298	L-12.621	L-6.2656	L-3.8604
#2	L-.12928	L-2.1333	L.00135	L-5.2575	L-35.342	L10.633	L-6.6851
#3	L-.32077	L2.3188	L.00135	L-2.1030	L-12.899	L10.056	L-23.907

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	L-.36814	L-1.2191	L-.89835	L.00000	L-8.8623
SDev	.05314	.3310	.88691	.41421	.7249
%RSD	-14.434	-27.152	-98.726	2085e6	-8.1800
#1	L-.39882	L-.84805	L-1.3151	L-.23914	L-9.3521
#2	L-.30679	L-1.4841	L.12017	L.47629	L-9.2052
#3	L-.39882	L-1.3251	L-1.5002	L-.23914	L-8.0295

Method: TJA61 Sample Name: AQC EV1&2 2 Operator:
Run Time: 06/09/93 15:10:35
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	490.98	Q4.9353	7027.7	4821.6	5032.7	4897.9	4837.
SDev	.80	.0147	62.6	14.6	97.6	34.3	20.
%RSD	.16230	.29843	.89021	.30371	1.9399	.70076	.4159
#1	491.39	Q4.9506	7095.2	4837.0	4922.7	4927.6	4848.
#2	490.06	Q4.9212	6971.7	4807.8	5109.2	4860.3	4813.
#3	491.48	Q4.9340	7016.0	4819.9	5066.1	4905.7	4848.

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4962.5	4.9169	4988.6	5056.3	4910.5	5132.0	4975.4
SDev	20.5	.0231	10.9	12.0	20.4	12.0	22.4
%RSD	.41282	.46926	.21814	.23665	.41490	.23340	.45022
#1	4968.3	4.8918	4977.8	5060.4	4916.2	5131.0	4960.7

#3	491.48	Q4.9340	7016.0	4819.9	5066.1	4905.7	4848.

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4962.5	4.9169	4988.6	5056.3	4910.5	5132.0	4975.4
SDev	20.5	.0231	10.9	12.0	20.4	12.9	22.4
%RSD	.41282	.46926	.21814	.23665	.41490	.23340	.45022
#1	4968.3	4.8918	4977.8	5060.4	4916.2	5131.0	4960.7
#2	4939.7	4.9216	4988.6	5042.8	4887.9	5144.4	4964.3
#3	4979.4	4.9372	4999.5	5065.7	4927.4	5120.5	5001.2

Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	4809.1	5.1580	5.0314	4966.1	Q10.306	-.26211	5033.4
SDev	16.3	.0146	.0179	24.2	.023	.11881	21.7
%RSD	.33875	.28282	.35571	.48644	.22655	-45.328	.43041
#1	4819.2	5.1488	5.0303	4964.8	Q10.279	-.38894	5054.0
#2	4790.3	5.1504	5.0141	4942.6	Q10.319	-.15340	5010.8
#3	4817.7	5.1748	5.0498	4990.9	Q10.319	-.24399	5035.3

Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	4899.4	4882.8	.03161	5056.9	5080.2	5112.4	5049.6
SDev	18.1	18.9	.00880	41.2	78.3	14.6	44.7
%RSD	.36880	.38774	27.823	.81498	1.5422	.28556	.88517
#1	4894.4	4883.5	.02556	5018.3	5063.2	5102.8	5023.5
#2	4884.3	4863.5	.02758	5100.3	5135.7	5108.3	5022.9
#3	4919.4	4901.4	.04170	5052.2	5011.8	5129.2	5101.3

Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138
Units	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	4867.8	4957.5	4941.0	Q-.71743	4996.3
SDev	21.4	16.3	14.2	.41421	24.5
%RSD	.44017	.32927	.28790	-57.735	.48981
#1	4880.9	4964.2	4939.8	Q-.95657	4971.6
#2	4843.1	4938.9	4927.4	Q-.23914	4996.6
#3	4879.4	4969.4	4955.8	Q-.95657	5020.6

Method: TJA61 Sample Name: HIGH AQC EV3 2 Operator:
Run Time: 06/09/93 15:13:55
Comment:
Mode: CONC Corr. Factor: 1

Elem	Ag3280	Al3082	Al1670	Al308L	As1890	B_2496	Ba4554
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	-1.7618	Q92.938	117160.	Q93467.	Q31.873	Q46.286	Q1.373
SDev	.8804	.316	130.	317.	33.466	3.088	.488
%RSD	-49.973	.33947	.11086	.33952	105.00	6.6718	35.53
#1	-2.5861	Q92.974	117010.	Q93503.	Q31.873	Q44.161	Q1.650
#2	-.83433	Q92.606	117210.	Q93134.	Q-1.5936	Q44.670	Q1.373
#3	-1.8650	Q93.234	117260.	Q93765.	Q65.339	Q49.629	Q.6850

Elem	Be3130	Ca3179	Cd2144	Cd2288	Co2286	Cr2061	Cr2677
Units	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L	ug/L
Avge	Q1.2465	Q95.559	Q-6.1264	Q.32170	Q2.4841	Q-14.961	Q-2.1290

SDev	.7348	.047	3.2802	2.6177	1.4007	5.292	2.9545
%RSD	58.946	.04932	-53.541	613.71	56.387	-35.370	-138.78
#1	Q1.9325	Q95.553	Q-3.2516	Q1.3424	Q2.0079	Q-9.9984	Q-1.1828
#2	Q1.3360	Q95.609	Q-9.6995	Q2.2753	Q4.0608	Q-20.530	Q.23655
#3	Q.47111	Q95.515	Q-5.4282	Q-2.6526	Q1.3835	Q-14.356	Q-5.4407
Elem	Cu3247	Mg2795	Mg3832	Fe2599	Fe2714	K_7664	Li6707
Units	ug/L	Mg/L	Mg/L	ug/L	Mg/L	Mg/L	ug/L
Avge	Q-3.7366	55.564	57.455	92533.	Q94.193	97.420	Q2.8800
SDev	1.8032	.033	.255	159.	.126	.433	.8514
%RSD	-48.258	.05859	.44424	.17131	.13406	.44450	28.867
#1	Q-2.4561	55.572	57.420	92545.	Q94.335	97.416	Q3.8401
#2	Q-2.9549	55.528	57.218	92368.	Q94.092	98.989	Q2.4000
#3	Q-5.7987	55.591	57.725	92685.	Q94.153	97.855	Q2.4000
Elem	Mn2576	Mo2020	Na5895	Ni2316	Pb1822	Pb2203	Sn1899
Units	ug/L	ug/L	Mg/L	ug/L	ug/L	ug/L	ug/L
Avge	Q8.3277	Q7.4203	96.550	Q-4.7317	-48.988	Q1.1794	Q-1.5408
SDev	.6252	5.7455	.736	8.6868	20.795	17.388	15.2346
%RSD	7.5078	77.429	.76254	-183.59	-42.449	1474.3	-988.74
#1	Q8.9266	Q14.006	96.861	Q-14.721	-50.445	Q9.9526	Q10.004
#2	Q8.3773	Q3.4319	95.709	Q1.0515	-69.017	Q12.433	Q-18.808
#3	Q7.6791	Q4.8232	97.079	Q-.52575	-27.503	Q-18.847	Q4.1815
Elem	Sr4215	Ti3372	V_2908	Y_3710	Zn2138		
Units	ug/L	ug/L	ug/L	ug/L	ug/L		
Avge	5.4301	Q2.8622	Q5.9832	Q-.23914	Q91840.		
SDev	.5548	.2429	2.4768	.00000	167.		
%RSD	10.216	8.4862	41.396	.00000	.18191		
#1	5.9516	Q3.1272	Q6.9355	Q-.23914	Q91754.		
#2	5.4915	Q2.6501	Q7.8426	Q-.23914	Q92033.		
#3	4.8472	Q2.8092	Q3.1716	Q-.23914	Q91734.		

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JUL 0 8 1993

Subject: Review of Region 5 Data for **H. O. D. Landfill (SF1187 TFA301)**

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To:

Attached are the results for: **H. O. D. Landfill TFA301**
CRL request number: **SF1187**
Analyzed for: ABN Organics
Results are reported for sample designations: 93ZE33S36 - S39, -D37 - D39, -R60, -R62 and -R64 (Ten Water samples)

Results Status:
(X) Acceptable for Use except for acids in 93ZE33S37
(X) Data Qualified, but Acceptable for use for acid compounds in 93ZE33S37
( ) Data Unacceptable for Use

(X) Sewer Disposal Criteria Met; Exceptions: none
Comments on Data Quality by Reviewer:

93ZE33S37 yielded slightly lower surrogate spike recoveries for two of the three acid surrogates. The sample is free from acid compounds and therefore all acid compound quantitation limits (Method Detection Limits) are flagged as estimated (U J).

No other problems were observed.

Comments by Laboratory Director or Quality Control Coordinator

Review Record for **H. O. D. Landfill (SF1187 TFA301) ABN Organics**

Babu Parachuri 07/07/93

Team Leader Date (X) Reviewed ( ) Unreviewed

Chi Tang 7/7/93

Section Chief and Date (✓) Reviewed ( ) Unreviewed

James H. Adams, Jr. 7/8/93

QC Coordinator and Date (✓) Reviewed ( ) Unreviewed

Sylvia Griffin 7-8-93

Data Management Coordinator and Date Received

Date Transmitted JUL 0 8 1993

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: METH BLK

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR041

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/08/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	30.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: METH BLK

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR041

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/08/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	2.	J
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE06R60

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: FLD BLK

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >WR042

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/08/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	1.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	2.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	2.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	1.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	2.	U
78-59-1	Isophorone	2.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	29.	U
111-91-1	bis(2-Chloroethoxy)methane	2.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	2.	U
59-50-7	4-Chloro-3-methylphenol	1.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	1.	U
95-95-4	2,4,5-Trichlorophenol	1.	U
91-58-7	2-Chloronaphthalene	1.	U
88-74-4	2-Nitroaniline	2.	U
131-11-3	Dimethylphthalate	1.	U
208-96-8	Acenaphthylene	1.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE06R60

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: FLD BLK

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >WR042

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/08/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

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

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE06R64

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: FLD BLK

Sample wt/vol: 970 (g/mL) mL Lab File ID: >WR044

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	31.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE06R64

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: FLD BLK

Sample wt/vol: 970 (g/mL) mL Lab File ID: >WR044

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	2.	JB
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S36

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S36

Sample wt/vol: 970 (g/mL) mL Lab File ID: >WR045

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	31.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S36

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S36

Sample wt/vol: 970 (g/mL) mL Lab File ID: >WR045

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	5.	B
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[x] NO [ ]

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

93ZE33S36

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S36

Sample wt/vol: 970 (g/mL) mL Lab File ID: >WR045

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	26.73	9.	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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24.				
25.				
26.				
27.				
28.				
29.				
30.				

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S37

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S37

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR046

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U J
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U J
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U J
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U J
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U J
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	30.	U J
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U J
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	2.	U J
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U J
95-95-4	2,4,5-Trichlorophenol	2.	U J
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S37

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S37

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR046

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U J
100-02-7	4-Nitrophenol	2.	U J
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U J
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U J
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	.7	JB
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33D37

Site Name: HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33D37

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >WR047

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	1.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	2.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	2.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	1.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	2.	U
78-59-1	Isophorone	2.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	29.	U
111-91-1	bis(2-Chloroethoxy)methane	2.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	2.	U
59-50-7	4-Chloro-3-methylphenol	1.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	1.	U
95-95-4	2,4,5-Trichlorophenol	1.	U
91-58-7	2-Chloronaphthalene	1.	U
88-74-4	2-Nitroaniline	2.	U
131-11-3	Dimethylphthalate	1.	U
208-96-8	Acenaphthylene	1.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33D37

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33D37

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >WR047

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

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

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S38

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S38

Sample wt/vol: 980 (g/mL) mL Lab File ID: >WR048

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	31.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S38

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S38

Sample wt/vol: 980 (g/mL) mL Lab File ID: >WR048

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1.	JB
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33D38

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33D38

Sample wt/vol: 1020 (g/mL) mL Lab File ID: >WR049

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	1.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	2.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	2.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	1.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	2.	U
78-59-1	Isophorone	2.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	29.	U
111-91-1	bis(2-Chloroethoxy)methane	2.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	2.	U
59-50-7	4-Chloro-3-methylphenol	1.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	1.	U
95-95-4	2,4,5-Trichlorophenol	1.	U
91-58-7	2-Chloronaphthalene	1.	U
88-74-4	2-Nitroaniline	2.	U
131-11-3	Dimethylphthalate	1.	U
208-96-8	Acenaphthylene	1.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33D38

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33D38

Sample wt/vol: 1020 (g/mL) mL Lab File ID: >WR049

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	2.	U
83-32-9	Acenaphthene	1.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	1.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	1.	U
101-55-3	4-Bromophenyl-phenylether	1.	U
118-74-1	Hexachlorobenzene	1.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	2.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	1.	U
129-00-0	Pyrene	1.	U
85-68-7	Butylbenzylphthalate	3.	U
56-55-3	Benzo(a)anthracene	1.	U
218-01-9	Chrysene	1.	U
117-81-7	bis(2-Ethylhexyl)phthalate	2.	JB
117-84-0	Di-n-octylphthalate	1.	U
205-99-2	Benzo(b)fluoranthene	1.	U
207-08-9	Benzo(k)fluoranthene	1.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	3.	U
53-70-3	Dibenzo(a,h)anthracene	2.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S39

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.; SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S39

Sample wt/vol: 1030 (g/mL) mL Lab File ID: >WR050

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	4.	
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	11.	
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	2.	U
95-48-7	2-Methylphenol	4.	
39638-32-9	bis(2-chloroisopropyl)ether	2.	U
106-44-5	4-Methylphenol	29.	
621-64-7	N-Nitroso-Di-n-propylamine	1.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	2.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	29.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	16.	
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	2.	U
59-50-7	4-Chloro-3-methylphenol	2.	
91-57-6	2-Methylnaphthalene	2.	J
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	1.	U
95-95-4	2,4,5-Trichlorophenol	1.	U
91-58-7	2-Chloronaphthalene	1.	U
88-74-4	2-Nitroaniline	2.	U
131-11-3	Dimethylphthalate	1.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S39

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S39

Sample wt/vol: 1030 (g/mL) mL Lab File ID: >WR050

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	2.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	1.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	2.	
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	
101-55-3	4-Bromophenyl-phenylether	1.	U
118-74-1	Hexachlorobenzene	1.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	1.	J
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	
56-55-3	Benzo(a)anthracene	1.	U
218-01-9	Chrysene	1.	U
117-81-7	bis(2-Ethylhexyl)phthalate	130.	B D
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	1.	U
207-08-9	Benzo(k)fluoranthene	1.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	3.	U
53-70-3	Dibenzo(a,h)anthracene	2.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[X] NO [~~X~~]

BP 7/7/93

FORM I SV-2 1/87 Rev.

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

93ZE33S39

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S39

Sample wt/vol: 1030 (g/mL) mL Lab File ID: >WR050

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	470826	1,8-Cineole	5.49	34.	J
2.	1195795	Fenchone	6.56	27.	J
3.	76222	Camphor	7.67	34.	J
4.	501520	Benzenepropanoic acid	11.34	48.	J
5.		Unknown	16.56	36.	J
6.		Unknown	16.78	30.	J
7.		Unknown	18.22	40.	J
8.	57103	Hexadecanoic acid	20.40	150.	J
9.	10544500	Sulfur, mol. (S8)	21.61	520.	J
10.	112801	9-Octadecenoic acid (Z)-	22.42	46.	J
11.	57114	Octadecanoic acid	22.70	47.	J
12.	638675	Tricosane	24.21	48.	J
13.	629992	Pentacosane	25.26	73.	J
14.	7225641	Heptadecane, 9-octyl-	26.27	61.	J
15.	630013	Hexacosane	27.25	81.	J
16.	593497	Heptacosane	28.19	88.	J
17.	630024	Octacosane	29.10	73.	J
18.	638686	Triacontane	30.83	62.	J
19.	630046	Hentriacontanee	31.66	57.	J
20.	630068	Hexatriacontane	32.47	43.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33D39

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33D39

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR051

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	7.	
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	14.	
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	4.	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	37.	
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	4.	J
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	17.	
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	1.	J
91-57-6	2-Methylnaphthalene	2.	J
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33D39

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33D39

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR051

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	3.	
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	J
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	6.	
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	190.	B D
117-84-0	Di-n-octylphthalate	2.	
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[X] NO [~~X~~]

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BB
7/7/93

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

93ZE33D39

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33D39

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR051

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

Number TICs found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	470826	1,8-Cineole	5.52	46.	J
2.	1195795	Fenchone	6.58	32.	J
3.	501520	Benzenepropanoic acid	11.40	72.	J
4.		Unknown	16.60	35.	J
5.		Unknown	18.22	40.	J
6.	57103	Hexadecanoic acid	20.44	220.	J
7.	10544500	Sulfur, mol. (S8)	21.64	500.	J
8.	629947	Heneicosane	21.98	28.	J
9.	112801	9-Octadecenoic acid (Z)-	22.46	39.	J
10.	57114	Octadecanoic acid	22.73	62.	J
11.	638675	Tricosane	24.22	25.	J
12.	629992	Pentacosane	25.27	40.	J
13.	7225641	Heptadecane, 9-octyl-	26.28	36.	J
14.	630013	Hexacosane	27.26	44.	J
15.	593497	Heptacosane	28.20	51.	J
16.	630024	Octacosane	29.11	49.	J
17.	638686	Triacontane	30.84	50.	J
18.	630046	Hentriacontane	31.66	39.	J
19.	630068	Hexatriacontane	32.47	30.	J
20.		Unknown	33.25	26.	J
21.					
22.					
23.					
24.					
25.					
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28.					
29.					
30.					

ESAT-5-014.6

LOCKHEED ESAT CONTRACT
DATA SET CUSTODY TRANSFER FORM

DATA SET NUMBER SF 1187 CHARGE NUMBER 232-51-105

SITE NAME: H.O.D. Landfill TID NUMBER 05-93-05-11

PARAMETER: ABN MATRIX: Water

SF DU/ACT NO: TFA 301 Y ____ /C ____

SAMPLE NUMBERS: 93ZE33S39, D39, S36, S37, D37, S38, D38, and 93ZE06R60, R62, R64.

NUMBER OF SAMPLES: 10 Samples

ESAT APPROVALS:

R W Wenig	6-24-93	Kelly D Hand	6-29-93
Analyst	Date	Task Group Leader	Date
Lewis Kranz	6/29/93	Denise Miller	6-29-93
QA/QC Coordinator	Date	ESAT Team Manager	Date

COMMENTS:

The above identified data set was transferred from ESAT custody to the custody of the U.S. EPA Region V Central Regional Laboratory in its entirety on the indicated date relinquished.

Robert W Wenig	6-29-93	Midia Fuentes	6/28/93 6/29/93 4:30 pm
Relinquished by	Date	Received by	Date

EPA APPROVALS:

Baber Pakrachuzi	7/7/93
EPA Task Monitor	Date

[✓] Reviewed
[ ] Unreviewed
[✓] Accepted
[ ] Rejected
[ ] Returned: _____ Date

COMMENTS: Tech Quality: 3.5 Compliance w Schedule: 3.0

Chi Yang	7/7/93	[✓] Reviewed [ ] Unreviewed
Section Chief	Date	
Jay Thinkley	7-8-93	Sylvia Griffin / 7-8-93 / 7-8-93
ESAT DPO	Date	DATA COORDINATOR/RECD/TRANSMTD

A COPY OF THIS CUSTODY TRANSFER FORM WITH A RECEIVED BY EPA SIGNATURE IS TO BE FILED WITH THE AOC IN THE TID FILE. THE ORIGINAL CUSTODY TRANSFER ACCOMPANIES THE DATA SET TO BE APPROVED BY THE EPA AND A COMPLETED COPY RETURNED TO ESAT.

ESAT-5-007.0

To: Jay Thakkar, EPA DPO

For: Transmittal to: Babu Paruchuri, EPA Task Monitor

Thru: Dennis Miller, ESAT Team Manager

From: Robert W. Wenig, ESAT Chemist RWW

Copies: Ira Wilson, ESAT Assistant Team Manager
Kelly Head, ESAT Organic Group Leader

Date: June 23, 1993

SUBJECT: Data Set SF1187

Semivolatile Organic Analysis (SVOA) of H.O.D. Landfill Sample Set (SF1187) by EPA Method 625NS.

CASE NARRATIVE

Method Number: EPA CRL 625NS

Site Name: H.O.D. Landfill

Date Generated: June 23, 1993

Charge Number: 232-51-105

Author: Robert W. Wenig

TID Number: 05-93-05-11

1. Case Description.

A total of ten (10) low level water samples (93ZE33S39, D39, S36, S37, D37, S38, D38, and 93ZE06R60, R62, R64) from data set SF1187 were submitted for semivolatile organic analysis (SVOA) by GC/MS utilizing EPA CRL Method 625NS.

Samples 93ZE33S36, S37, D37, S39, D39, and 93ZE06R60 were collected on May 12, 1993 and were received by the laboratory on 5/13/93. The ESAT work unit document (WUD) for these samples incorrectly requests the analysis of four samples on a 28 hour budget, when six samples at a budget of 42 hours would be correct.

Samples 93ZE06R62, 93ZE06R64, 93ZE33S38, and 93ZE33D38 were collected on May 13, 1993 and were received by the laboratory on 5/14/93. The ESAT work unit document (WUD) correctly listed four samples on a 28 hour budget.

Both ESAT WUDs were issued on May 19, 1993 with: (i) a scheduled start date of May 18, 1993 without prior ESAT notification, **(ii)** the expiration of seven day extraction holding time on May 19, 1993 which would have required qualification of the data as estimated, **(iii)** a grossly contaminated analytical system requiring injection port disassembly and cleaning, column replacement, and source bake out at 250 C. **(iv)** a scheduled completion date of June 1, 1993 when other cases were being concurrently processed and the ABN calibration standards were out of date and could not be used.

Immediately upon notification, ESAT began extraction of the SF1187 case samples at 3 PM May 19, 1993. All extractions, including the associated pesticide samples, were completed by 10 PM that evening. As a result, the seven day extraction holding time criterion was met and no qualification of the data was required.

Prior to extraction, approximately one liter of sample was poured from a marked one-liter sample bottle and placed in a separatory funnel. The samples were extracted using the liquid-liquid separatory funnel technique. 750 µL (100 µg/mL) of surrogates were added to all samples and 750 µL (100 µg/mL) of matrix spikes were added to the MS/MSD pair. The samples were first taken to a basic pH (>11) with 10N NaOH, then extracted three (3) times with a 60 mL aliquot of methylene chloride. Then, the samples were acidified to a pH less than 2.0 with 6N H_2SO_4, and extracted three (3) times with a 60 mL aliquot of methylene chloride. All samples were concentrated to 1.0 mL using a Kuderna-Danish (K-D) concentrator and the nitrogen blow-down technique. The method blank sample was extracted using distilled and carbon filtered water since supplies of reagent-grade water were exhausted several weeks earlier and not replaced. Prior to analysis, a 25 µL aliquot of internal standard (2000 µg/mL) was added to all concentrated samples, blanks and spikes to yield a concentration of the internal standard in all samples at 50 ng/µl. A 1 µL injection was used for the analysis of all samples. Analyzed samples were immediately recapped and stored in the freezer for possible reanalysis.

All standards, samples, blanks, spikes were analyzed on June 8, 1993. Seven samples were reanalyzed on June 11, 1993 because dilutions were needed to bring the analyte concentration into the linear range, or due to low surrogate recoveries or a poor response for the internal standard perylene-d12. The reanalyzed samples are designated as 93ZF53S39D, D39D, S37R, D37R, D38R, S38MS, and 93ZE06R60R. Results for the analyte bis(2-ethylhexyl)phthalate from samples S39D and D39D were within the calibration range and should be reported.

2. Instrument Tuning.

The DFTPP (50 ng) tune criteria were met on June 8 and June 11, 1993 for the initial calibrations. The DFTPP (50 ng) tune criteria were met on June 11, 1993 for the continuing calibration (Form V)

3. Calibrations.

An initial calibration of the ABN target compounds and surrogates was performed at 25, 50, and 100 µg/mL concentrations on June 8, 1993. All analytes met the requirements for percent relative standard deviation (%RSD < 35%). (Form VI)

An initial calibration of the ABN target compounds and surrogates was performed at 25, 50, and 100 µg/mL concentrations on June 11, 1993. All the analytes met the requirements for percent relative standard deviation less than 35%, except for 2,4-dinitrophenol with a %RSD of 44%. (Form VI)

A continuing calibration of the ABN target compounds and surrogates was performed at 50 µg/mL concentrations on June 11, 1993. All the analytes met the requirements for percent difference less than 20%.

The calibrations for 2,4-dinitrotoluene and 2,6-dinitrotoluene switched the RRF for these compounds due to an error in the ID file. Rather than requanting all of the associated sample files, the error has been corrected manually on the Form VI and Form VII. This change has no affect on the sample results since neither compound was identified in this dataset.

4. Quality Control.

a. Extraction Summary

All samples (93ZE33S39, D39, S36, S37, D37, S38, D38, and 93ZE06R60, R62, R64) were extracted within the seven day holding time. The analysis holding time of forty (40) days after sample extraction was met.

b. Analysis Summary

All standards, samples, dilutions, method blanks, field blanks, and matrix spike samples were analyzed within a 24 hour period from the injection of DFTPP (50ng), on June 8, 1993. Samples 93ZF53S39D, D39D, S37R, D37R, D38R, S38MS, and 93ZE06R60R were analyzed on June 11, 1993 under a continuing calibration within a 24 hour period from the injection of DFTPP (50ng)

c. Surrogate Recovery Summary

Prior to extraction, all the samples, the method blank, the matrix spike and the matrix spike duplicate were spiked with 0.75 mL of ABN surrogate spike at 100 µg/mL. Recoveries were low for two acid surrogates in sample S37 and for one surrogate each for samples D37, D38, and S38MS. To clarify these results, samples with one or more low surrogate recoveries were reanalyzed and the same surrogates were again found to have low recoveries. Since both samples and their duplicates were affected, these low recoveries are attributed to matrix effects. (Form II)

Only sample 93ZE33S37 will need to qualified on the basis of low surrogate recoveries. Results for the acid fraction analytes in this sample will need to be qualified estimated "J" for positives and nondetects will be qualified with an estimated quantitation limit" UJ". The reason for this qualification is a matrix effect.

d. Matrix Spike Recovery Summary

Matrix spike and matrix spike duplicate samples were performed on sample 93ZE33S38 are designated as S38MS and S38MSD. Prior to extraction, the matrix spike and duplicate samples were spiked with 0.75 mL of both the acid matrix spike and the base-neutral matrix spike solutions at 100 µg/ml. (Form III)

Recoveries (REC) were within the Q.C. limits in the matrix spike and matrix spike duplicate samples except for 1,4-dichlorobenzene, 1,2,4-trichlorobenzene, and acenaphthene which were slightly low in the matrix sample. The relative percent difference (RPD) between the matrix spike and duplicate recoveries exceeded the required Q.C. limits for phenol, 1,4-dichlorobenzene, and 1,2,4-trichlorobenzene. Therefore, results for these four compounds in the unspiked sample 93ZE33S38 are qualified estimated "J" for positives and estimated quantitation limits "UJ" for nondetects.

e. Internal Standard Area and Retention Time Summary

The internal standards areas and retention times in all the samples were all within the Q.C. limits. (Form VIII)

f. Instrument Sensitivity Summary

Analysis of a 10 µg/mL and a 5 µg/mL standard spike to verify instrument sensitivity was performed as per the method requirements. The results indicate that the HP5996 GC/MS is capable of detecting the ABN compounds at both 5 and 10 µg/mL concentrations. The results are included as part of the Q.C. results section.

5. Sample Results.

a. Method Blank Results

The method blank sample was extracted using distilled and carbon filtered water. Upon analysis, only the the TCL compound bis(2-ethylhexyl) phthalate at 2 µg/L was detected. Since bis (2-ethyl-hexyl) phthalate is a common laboratory contaminant, results are qualified as nondetected "U" if the sample concentration is less than 10X the blank result. No TIcs were observed in the method blank.

b. Field Blank Results

Samples 93ZE06R60, R62, and R64 are field blanks. Only bis(2-ethyl-hexyl) phthalate was observed in these samples at or below 2 µg/L. TICs were not observed.

b. Sample Results

Prior to analysis, the analytical system was found to be grossly contaminated: injection port, column, and source maintenance were performed on June 2, 1993 to June 4, 1993. Despite this corrective action, some contamination remained. Results are reported only for compounds whose concentration exceeds one-half the Method 625NS lower calibration limit which is typically 2 µg/L. The following samples showed a positive result for TCL and TIC compounds above the method detection limit.

Sample	TCL Result	TIC Result
93ZE33S36	1	1
93ZE33S37	0	0
93ZE33D37	0	0
93ZE33S38	0	0
93ZE38D38	0	0
93ZE33S39	10	20
93ZE33D39	11	20

Both samples 93ZE33S39 and 93ZE33D39 were found to have strong background interfences between about 20 and 30 minutes. Within this region, all positive results for analytes eluting will be qualified estimated "J" and all nondetects will be qualified with estimated quantitation limits "UJ". Results for these samples are tabulated below:

	93ZE33S39 (µg/L)	93ZE33D39 (µg/L)
Phenol	4.	7.
1,4-Dichlorobenzene	11.	14.
2-Methylphenol	4.	4.
4-Methylphenol	29.	37.
Naphthalene	16.	17.
4-Chloro-3-Methylphenol	2.	1. "J"
Diethylpthalate	2.	3.
N-Nitrisodiphenylamine	2.	2.
Phenanthrene	"U"	1. "J"
Butylbenzylphthalate	4.	6.
* Bis(2-ethylhexyl)phthalate	129.	190.

* Value taken from reanalysis with 1:2 dilution.

6. Conclusions.

A new set of ABN standards were prepared from Supelco stock on May 25, 1993. The 50 µg/mL ABN standard from the previous set of standards was analyzed and is designated as the CAL CHK 50 sample in the Q.C. section. The results exhibited a low concentration for 4-chloroaniline which indicates degradation in the old standards.

The results between duplicates S37 and D37, S38 and D38, S39 and D39 were comparable.

All supporting data is included as part of the Q.C. section of this data package. All QC criteria were met.

All samples were analyzed under calibrations with acceptable %RSD and %D requirements. Therefore, results are not qualified.

Sample 93ZE33S37 will need to qualified on the basis of low surrogate recoveries. Results for the acid fraction analytes in this sample will need to be qualified estimated "J" for positives and nondetects will be qualified with an estimated quantitation limit "UJ". The reason for this qualification is given as a matrix effect.

D93000 1187 TFA 301 DAY 2

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH ARCS/SUPERFUND SAMPLE DATE 5/13/93 LAB ARRIVAL DATE 5/14/93 DUE DATE 6/~~18~~ 4/93

NUMBER TFA DATA SET NUMBER 1187 STUDY H.O.D. Landfill PRIORITY — CONTRACTOR — E&E

RL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17664	WATER ABN ORGANICS SCAN UG/L TOX 17674	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 215622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
93ZE33539	L1 + MSD	X	X		
↓ 039	L1D	X	X		
93ZE06R64	LFB01 5-031715 716-717	X	X		
~~93ZE06R65~~	~~LTB01~~				
93ZE06R64	LFB01 5-031718		X		
			RWVeny	6-29-93	

LK

LK

D930001187 TFA 301 DAY 2

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH ARCS/SUPERFUND SAMPLE DATE 5/13/93 LAB ARRIVAL DATE 5/14/93 DUE DATE 6/24/93

OU NUMBER TFA DATA SET NUMBER 1187 STUDY H.O.D. Landfill PRIORITY — CONTRACTOR — E&E

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17564	WATER ABN ORGANICS SCAN UG/L TOX 17574	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 215622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
93ZE33S38	5-031-7-34-5-6-7-38-9-40-41 SW1+MSD	X			
↓ D38	SW1D 5-031753-754-755	X			
93ZE06R62	SWFB01 5-031762-763-764	X			
93ZE06R63	SWTB01 5-148211 5-148212	X			
93ZE33S38	SW1+MSD 5-031742-3-4		X		
93ZE33D38	SW1 DUPLICATE 5-031756		X		
93ZE06R62	SWFB01 5-031765		X		
			R W Wenig	6-29-93	
			Shipment		
			complete		

D930001187

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

TFA301 DAY 1

DIVISION/BRANCH ARCS/SUPERFUND SAMPLE DATE 5/12/93 LAB ARRIVAL DATE 5/13/93 DUE DATE 6/~~2~~3/93

DU NUMBER TFA DATA SET NUMBER 1187 STUDY H.O.D. Landfill PRIORITY — CONTRACTOR — E&E

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17564	WATER ABN ORGANICS SCAN UG/L TOX 17574	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 215622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
93ZE33S39	5-031691 5-031637-8 L1 + MSD		X		
↓ D39	5-031704 L1D		X		
~~93ZE06R64~~	~~LFB01~~	X	X		
~~93ZE06R65~~	~~LFB01~~				
93ZE33S36	W7D 5-031609 5-031612-613		X		
93ZE33S37	US6D 5-031634		X		
93ZE33D37	DUS6D 5-031658		X		
93ZE06R60	MWFB01 5-031677		X		

LK

RWWenig 6-26-93

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	ABNBL10519	72	75	111	27	36	44		0
02	93ZE06R60	80	79	115	27	35	53		0
03	93ZE06R62	81	83	105	23	33	50		0
04	93ZE06R64	100	78	117	27	36	65		0
05	93ZE33S36	71	71	92	32	46	83		0
06	93ZE33S37	65	68	96	20	12 *	3 *		2
07	93ZE33D37	65	67	95	22	27	5 *		1
08	93ZE33S38	66	63	79	38	51	102		0
09	93ZE33D38	48	38 *	53	29	36	51		1
10	93ZE33S39	57	63	63	42	46	90		0
11	93ZE33D39	55	58	59	61	59	87		0
12	93ZE33S38M	50	36 *	51	32	42	93		1
13	93ZE33S38M	53	49	57	40	54	76		0
14									
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		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl-d14	(33-141)
S4 (PHL)	= Phenol-d5	(10-94)
S5 (2FP)	= 2-Fluorophenol	(21-100)
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)

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

FORM II SV-1 1/87 Rev.

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Site Name: HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix Spike - EPA Sample No.: 93ZE33S38

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	78.00	0.00	24.00	30	12- 89
2-Chlorophenol	78.00	0.00	55.00	70	27-123
1,4-Dichlorobenzene	78.00	0.00	25.00	32 *	36- 97
N-Nitroso-di-n-prop.(1)	78.00	0.00	48.00	60	41-116
1,2,4-Trichlorobenzene	78.00	0.00	26.00	32 *	39- 98
4-Chloro-3-methylphenol	78.00	0.00	59.00	75	23- 97
Acenaphthene	78.00	0.00	32.00	41 *	46-118
4-Nitrophenol	78.00	0.00	20.00	26	10- 80
2,4-Dinitrotoluene	78.00	0.00	34.00	44	24- 96
Pentachlorophenol	78.00	0.00	51.00	64	9-103
Pyrene	78.00	0.00	41.00	52	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	77.00	14.00	17	55 *	42	12- 89
2-Chlorophenol	77.00	55.00	70	0	40	27-123
1,4-Dichlorobenzene	77.00	38.00	49	41 *	28	36- 97
N-Nitroso-di-n-prop.(1)	77.00	47.00	60	0	38	41-116
1,2,4-Trichlorobenzene	77.00	40.00	51	45 *	28	39- 98
4-Chloro-3-methylphenol	77.00	53.00	67	11	42	23- 97
Acenaphthene	77.00	43.00	54	27	31	46-118
4-Nitrophenol	77.00	24.00	31	17	50	10- 80
2,4-Dinitrotoluene	77.00	38.00	49	11	38	24- 96
Pentachlorophenol	77.00	41.00	52	20	50	9-103
Pyrene	77.00	48.00	61	15	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of qc limits

RPD: 3 out of 11 outside limits
Spike Recovery: 3 out of 22 outside limits

COMMENTS: MSD RESULTS ARE OK & THEREFORE THE DATA ARE NOT FLAGGED. BP 7/7/93

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Lab File ID: >WR041 Lab Sample ID: METH BLK

Date Extracted 05/19/93 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 6/08/93 Time Analyzed: 22:18

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

Instrument ID: 96 1

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	93ZE06R60	FLD BLK	>WR042	6/08/93
02	93ZE06R62	FLD BLK	>WR043	6/08/93
03	93ZE06R64	FLD BLK	>WR044	6/09/93
04	93ZE33S36	93ZE33S36	>WR045	6/09/93
05	93ZE33S37	93ZE33S37	>WR046	6/09/93
06	93ZE33D37	93ZE33D37	>WR047	6/09/93
07	93ZE33S38	93ZE33S38	>WR048	6/09/93
08	93ZE33D38	93ZE33D38	>WR049	6/09/93
09	93ZE33S39	93ZE33S39	>WR050	6/09/93
10	93ZE33D39	93ZE33D39	>WR051	6/09/93
11	93ZE33S38MS	93ZE33S38MS	>WR052	6/09/93
12	93ZE33S38MD	93ZE33S38MD	>WR053	6/09/93
13				
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COMMENTS:

FORM IV SV 1/87 Rev.

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Site Name: HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Lab File ID: >WR036 DFTPP Injection Date: 6/08/93

Instrument ID: 96 1 DFTPP Injection Time: 17:57

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	43.0
68	Less than 2.0% of mass 69	0.0(0.0)1
69	Mass 69 relative abundance	50.
70	Less than 2.0% of mass 69	.6(1.3)1
127	40.0 - 60.0% of mass 198	40.3
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.
199	5.0 - 9.0% of mass 198	6.4
275	10.0 - 30.0% of mass 198	20.6
365	Greater than 1.00% of mass 198	2.13
441	Present, but less than mass 443	9.9
442	Greater than 40.0% of mass 198	63.5
443	17.0 - 23.0% of mass 442	11.7(18.5)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	ABNST10525	100 STD	>WR037	6/08/93	19:12
02	ABNST20525	50 STD	>WR038	6/08/93	19:58
03	ABNST30525	25 STD	>WR039	6/08/93	20:45
04	CAL CHK 50	50 STD 11-92	>WR040	6/08/93	21:31
05	ABNBL10519	METH BLK	>WR041	6/08/93	22:18
06	93ZE06R60	FLD BLK	>WR042	6/08/93	23:05
07	93ZE06R62	FLD BLK	>WR043	6/08/93	23:51
08	93ZE06R64	FLD BLK	>WR044	6/09/93	0:38
09	93ZE33S36	93ZE33S36	>WR045	6/09/93	1:24
10	93ZE33S37	93ZE33S37	>WR046	6/09/93	2:11
11	93ZE33D37	93ZE33D37	>WR047	6/09/93	2:57
12	93ZE33S38	93ZE33S38	>WR048	6/09/93	3:44
13	93ZE33D38	93ZE33D38	>WR049	6/09/93	4:31
14	93ZE33S39	93ZE33S39	>WR050	6/09/93	5:17
15	93ZE33D39	93ZE33D39	>WR051	6/09/93	6:04
16	93ZE33S38MS	93ZE33S38MS	>WR052	6/09/93	6:51
17	93ZE33S38MD	93ZE33S38MD	>WR053	6/09/93	7:38
18					
19					
20					
21					
22					

FORM V SV 1/87 Rev.

6B

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Site Name: HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Instrument ID: 96 1 Calibration Date(s):06/08/93 --/--/--

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF25 =>WR039 RRF50 =>WR038
RRF100=>WR037

COMPOUND	RRF25	RRF50	RRF100			$\overline{RRF}$	% RSD
Phenol *	1.390	1.360	1.557	0.000	0.000	1.436	7.4*
bis(2-Chloroethyl)ether	1.083	1.304	1.552	0.000	0.000	1.313	17.9
2-Chlorophenol	1.272	1.299	1.303	0.000	0.000	1.292	1.3
1,3-Dichlorobenzene	1.444	1.351	1.390	0.000	0.000	1.395	3.4
1,4-Dichlorobenzene *	1.464	1.575	1.618	0.000	0.000	1.552	5.1*
Benzyl alcohol	.769	.787	.823	0.000	0.000	.793	3.4
1,2-Dichlorobenzene	1.483	1.515	1.514	0.000	0.000	1.504	1.2
2-Methylphenol	1.124	1.102	1.161	0.000	0.000	1.129	2.6
bis(2-chloroisopropyl)ether	.200	.176	.142	0.000	0.000	.173	16.8
4-Methylphenol	1.144	1.138	1.119	0.000	0.000	1.134	1.2
N-Nitroso-di-n-propylamine #	.919	.870	.798	0.000	0.000	.862	7.1#
Hexachloroethane	.632	.642	.620	0.000	0.000	.632	1.8
Nitrobenzene	.669	.700	.722	0.000	0.000	.697	3.9
Isophorone	2.316	2.305	2.407	0.000	0.000	2.342	2.4
2-Nitrophenol *	.779	.798	.849	0.000	0.000	.809	4.5*
2,4-Dimethylphenol	1.032	1.077	1.119	0.000	0.000	1.076	4.1
Benzoic acid	.670	.810	.918	0.000	0.000	.799	15.6
bis(2-Chloroethoxy)methane	1.532	1.574	1.622	0.000	0.000	1.576	2.9
2,4-Dichlorophenol *	1.107	1.178	1.234	0.000	0.000	1.173	5.4*
1,2,4-Trichlorobenzene	1.372	1.409	1.406	0.000	0.000	1.396	1.4
Naphthalene	3.854	3.914	4.005	0.000	0.000	3.924	1.9
4-Chloroaniline	1.495	1.572	1.688	0.000	0.000	1.585	6.1
Hexachlorobutadiene *	.887	.892	.859	0.000	0.000	.879	2.0*
4-Chloro-3-methylphenol *	.997	1.036	1.083	0.000	0.000	1.039	4.1*
2-Methylnaphthalene	2.567	2.566	2.644	0.000	0.000	2.592	1.7
Hexachlorocyclopentadiene #	.883	.947	1.001	0.000	0.000	.944	6.2#
2,4,6-Trichlorophenol *	.758	.810	.878	0.000	0.000	.815	7.4*
2,4,5-Trichlorophenol	.911	.884	.901	0.000	0.000	.899	1.5
2-Chloronaphthalene	2.433	2.436	2.458	0.000	0.000	2.442	.6
2-Nitroaniline	.651	.770	.890	0.000	0.000	.770	15.5
Dimethylphthalate	2.755	2.743	2.758	0.000	0.000	2.752	.3
Acenaphthylene	1.309	1.311	1.206	0.000	0.000	1.276	4.7
2,6-Dinitrotoluene	.246	.268	.281	0.000	0.000	.265	6.7
3-Nitroaniline	.136	.158	.188	0.000	0.000	.160	16.3
Acenaphthene *	.855	.844	.802	0.000	0.000	.834	3.4*
2,4-Dinitrophenol #	.068	.097	.114	0.000	0.000	.093	25.0#
4-Nitrophenol #	.040	.037	.049	0.000	0.000	.042	14.7#

6C

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Site Name: HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Instrument ID: 96 1 Calibration Date(s):06/08/93 --/--/--

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF25 =>WR039 RRF50 =>WR038
RRF100=>WR037

COMPOUND	RRF25	RRF50	RRF100			$\overline{RRF}$	% RSD
Dibenzofuran	1.090	1.154	1.151	0.000	0.000	1.132	3.2
2,4-Dinitrotoluene	.205	.227	.223	0.000	0.000	.218	5.4
Diethylphthalate	.908	.910	.869	0.000	0.000	.896	2.6
4-Chlorophenyl-phenylether	.439	.461	.445	0.000	0.000	.448	2.6
Fluorene	.836	.873	.850	0.000	0.000	.853	2.2
4-Nitroaniline	.115	.124	.151	0.000	0.000	.130	14.3
4,6-Dinitro-2-methylphenol	.131	.163	.185	0.000	0.000	.160	16.9
N-Nitrosodiphenylamine (1) *	.504	.567	.561	0.000	0.000	.544	6.4*
4-Bromophenyl-phenylether	.291	.290	.279	0.000	0.000	.287	2.3
Hexachlorobenzene	.370	.356	.327	0.000	0.000	.351	6.2
Pentachlorophenol *	.167	.187	.191	0.000	0.000	.182	7.0*
Phenanthrene	1.127	1.148	1.135	0.000	0.000	1.136	.9
Anthracene	1.150	1.175	1.170	0.000	0.000	1.165	1.1
Di-n-butylphthalate	1.405	1.401	1.352	0.000	0.000	1.386	2.1
Fluoranthene *	1.214	1.185	1.185	0.000	0.000	1.194	1.4*
Pyrene	1.264	1.221	1.183	0.000	0.000	1.222	3.3
Butylbenzylphthalate	.536	.516	.503	0.000	0.000	.518	3.3
Benzo(a)anthracene	.878	.857	.885	0.000	0.000	.873	1.7
Chrysene	1.037	1.033	1.001	0.000	0.000	1.024	2.0
bis(2-Ethylhexyl)phthalate	.741	.690	.668	0.000	0.000	.699	5.3
Di-n-octylphthalate *	1.627	1.860	1.872	0.000	0.000	1.786	7.7*
Benzo(b)fluoranthene	1.046	1.204	1.245	0.000	0.000	1.165	9.0
Benzo(k)fluoranthene	1.395	1.591	1.559	0.000	0.000	1.515	6.9
Benzo(a)pyrene *	1.141	1.276	1.296	0.000	0.000	1.238	6.8*
Indeno(1,2,3-cd)pyrene	.751	.768	.816	0.000	0.000	.778	4.3
Dibenzo(a,h)anthracene	.759	.843	.927	0.000	0.000	.843	10.0
Benzo(g,h,i)perylene	.908	.871	.908	0.000	0.000	.895	2.4
Nitrobenzene-d5	1.111	1.125	1.209	0.000	0.000	1.148	4.6
2-Fluorobiphenyl	2.939	2.898	2.925	0.000	0.000	2.921	.7
Terphenyl-d14	.961	.948	.921	0.000	0.000	.943	2.1
Phenol-d5	1.365	1.371	1.437	0.000	0.000	1.391	2.9
2-Fluorophenol	1.156	1.117	1.325	0.000	0.000	1.199	9.2
2,4,6-Tribromophenol	.197	.210	.199	0.000	0.000	.202	3.3

(1) Cannot be separated from Diphenylamine

8A
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Site Name: HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Lab File ID (Standard): >WR038 Date Analyzed: 6/08/93

Instrument ID: 96 1 Time Analyzed: 19:58

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

		IS1(DCB) AREA #	RT	IS2(PHN) AREA #	RT	IS3(PRY) AREA #	RT
	12 HOUR STD	172951.	5.11	520628.	17.94	311342.	29.84
	UPPER LIMIT	345902.	5.61	1041256.	18.44	622684.	30.34
	LOWER LIMIT	86475.	4.61	260314.	17.44	155671.	29.34
	EPA SAMPLE NO.						
01	CAL CHK 50	167837.	5.13	608228.	17.95	334668.	29.84
02	ABNBL10519	151957.	5.11	359205.	17.93	222151.	29.83
03	93ZE06R60	141001.	5.10	310139.	17.93	177511.	29.83
04	93ZE06R62	153033.	5.16	356171.	17.93	193078.	29.83
05	93ZE06R64	145439.	5.14	362959.	17.94	231169.	29.84
06	93ZE33S36	155767.	5.15	368501.	17.94	242440.	29.83
07	93ZE33S37	145551.	5.15	358057.	17.93	245176.	29.83
08	93ZE33D37	145407.	5.15	351090.	17.94	243830.	29.82
09	93ZE33S38	144663.	5.12	390080.	17.94	228535.	29.85
10	93ZE33D38	153883.	5.14	383137.	17.94	239124.	29.84
11	93ZE33S39	161560.	5.11	454279.	17.95	321795.	29.86
12	93ZE33D39	158446.	5.13	440589.	17.96	307695.	29.87
13	93ZE33S38MS	181583.	5.15	498169.	17.94	336259.	29.85
14	93ZE33S38MD	162482.	5.15	435587.	17.96	290805.	29.86
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (DCB) = d4-1,4-Dichlorobenzene
IS2 (PHN) = d-10-Phenanthrene
IS3 (PRY) = d12-Perylene

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

Column used to flag internal standard area values with an asterisk

FORM VIII SV 1/87 Rev.

LOCKHEED ENGINEERING & SCIENCES COMPANY

ORGANIC DELIVERABLES CHECK-OFF LIST

DATA SET NUMBER: SF1117 CHARGE NUMBER: 232-51-105

PRESENT	NOT REQD	ITEM
		REPORTING INFORMATION
[✓]	[ ]	SAMPLE REPORT LOG
[✓]	[ ]	DATA SET CUSTODY TRANSFER FORM
[✓]	[ ]	NARRATIVE
[✓]	[ ]	RUN SEQUENCE
[✓]	[ ]	ABN BENCH SHEET
		AQC
[✓]	[ ]	SURROGATE RECOVERY (FORM II)
[✓]	[ ]	MATRIX SPIKE/DUP (FORM III)
[✓]	[ ]	MS/MSD RAW DATA
[✓]	[ ]	METHOD BLANK (FORM VI)
[✓]	[ ]	MASS CAL/TUNING (FORM V)
[✓]	[ ]	MASS CAL RAW DATA
[✓]	[ ]	MDL RESULTS

PRESENT	NOT REQD	ITEM
		CALIBRATION DATA
[✓]	[ ]	INITIAL CAL RRF (FORM VI)
[✓]	[ ]	ICV RAW DATA
[✓]	[✓]	CONT CAL VERIFI (FORM VII)
[✓]	[ ]	CCV RAW DATA
[✓]	[ ]	INT STD AREA & RT (FORM VIII)
		SAMPLE DATA
[ ]	[✓]	ID FILE (SHORT) (HP ONLY)
[✓]	[ ]	TCL RESULTS (FORM I)
[✓]	[ ]	TIC RESULTS (FORM I-TIC)
[✓]	[ ]	SAMPLE RAW DATA
[ ]	[✓]	SAMPLE TAGS
[✓]	[ ]	ARCHIVE REFERENCE
[✓]	[ ]	QC SUMMARY PACKAGE (FORMS 2-8)

SEMI-VOLATILE EXTRACTION

DATA SET(S) SF1187 DATE EXTRACTED 5-19-93

SAMPLE TYPE(S) WATER DATE CONCENTRATED 5-20-93,

EXTRACTION SYSTEM SEPF FUNNEL DATE COMPLETED 5-26-93

SOLVENT SYSTEM CH_2Cl_2 VOLUMES USED 3X60mL Base
3X60mL Acid

SAMPLE NUMBER	SAMPLE AMOUNT	SURROGATE VOLUME	MS VOL	pH 1ST	pH 2ND	pH 3RD	FINAL VOLUME	INTRNL STD ADDED
932E33539	1030	0.75	0.75	>11	<2		1.0	50µg/mL
D39	1000							
S36	970							
S37	1000							
D37	1050							
S38	980							
D38	1020							
932E06R60	1050							
R62	1050							
R64	970							

SAMPLE DESCRIPTION	CONCENTRATION OF SOLUTION	VOLUME OF SPIKE	PREPARATION DATE	COMMENTS
SURROGATE SPIKE SOLN	100 µg/mL	0.750	5-25-93	
MATRIX SPIKE SOLUTION	100 µg/mL	0.750	5-25-93	
INTERNAL STANDARD	2000 µg/mL	0.025	5-25-93	

PREP. CHEMIST KM + RW ANALYST RW

DATE 5-19-93 DATE 6-8-93
6-11-93

LOCKHEED ENGINEERING AND SCIENCE COMPANY
REGION 5
ESAT PROJECT
536 SOUTH CLARK STREET
CHICAGO, IL 60605

RAW DATA ARCHIVING AND DATA SET RECONSTRUCTION FORM

DISK OR TAPE NUMBER

RUN DATE(S): 6/8/93, 6/11/93
INSTRUMENT NO: 5996
ANALYST(S): RWW

SAMPLE SUMMARY MATRIX

DATA SET NUMBER:	SF1187				
TASK NUMBER:	1105				
DU/ACTIVITY NUMBER:	301				
PARAMETER:	ABN				
MATRIX:	WATER				
NUMBER OF SAMPLES:	10				
DATE RECEIVED:	5/19/93				
DATE EXTRACTED:	5/19/93				
NOTEBOOK/PAGE NO:	54-55				
DATE ASSAYED:	6/8/93				

FILE IDENTIFICATION SUMMARY

	6/8/93	6/10/93	6/11/93		
TUNING FILE:	>WR036	>WR059	>WR083		
BLANK FILE:	>WR041				

PRIMARY COLUMN

INITIAL CALIBRATION FILE: 6/8/93 : >WR037 — 39
6/10/93 : >WR060 — 62
CONTINUING CALIBRATION FILES: 6/11/93 : >WR074
STANDARDS FILES:
SAMPLE FILES: 6/8/93 : >WR041 — >WR055
6/11/93 : >WR078 — >WR082 + >WR087, >WR088
ID/METHOD FILES: 1DRW37 — 38
TOXIX6

SECONDARY COLUMN

N/A

INITIAL CALIBRATION FILE:
CONTINUING CALIBRATION FILES:
STANDARDS FILES:
SAMPLE FILES:
ID/METHOD FILES:

ESAT-5-010.1

ESAT-5-018.1

LOCKHEED
ANALYTICAL LABORATORY
TIME TRACKING RECORD

Task Number: 1105 Date Assigned: 5/19/93
TID Number: 05-93-05-11 Date Due: 6/1/93
SF Number: 1187 Estimated Hours: 56 → 70
Site Name: HOD LANDFILL
Assigned To: RWW

VOA _____ BNA ✓ Pest/PCBs _____ Other _____

****

Extraction Record

Person: K Minczuk Date: 5/19 — 5/26 Hours: _____
Person: R Wenig Date: 5/19 — 5/26 Hours: _____
Person: _____ Date: _____ Hours: _____
Person: _____ Date: _____ Hours: _____

****

Analysis Record

Person: R Wenig Date: 6/8 — 6/23 Hours: _____ Σ = 65
~~Person: _____ Date: _____ Hours: _____~~
Person: _____ Date: _____ Hours: _____
Person: _____ Date: _____ Hours: _____
Person: _____ Date: _____ Hours: _____
Person: _____ Date: _____ Hours: _____

****

QA/QC Record

Person: KDH Date: 6-28-93 Hours: 1
Person: [illegible] Date: 6/28/93 Hours: 1
Person: _____ Date: _____ Hours: _____ EPA 1 / 68

****

LIMS Data Entry

Person: _____ Date: _____ Hours: _____
Person: _____ Date: _____ Hours: _____

****

Comments:
Due date extended
Est hrs increased to 70.

****

Total Hours: _____ EMT: _____

Calibration Check Report

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 930610 13:35

Check Standard Data File: >WR084
Injection Time: 930611 10:32

Compound	RF	RF	%Diff	Calib Meth	
2-Fluorophenol	1.14396	1.19156	4.16	Average	
Phenol-d5	1.38275	1.46245	5.76	Average	
Phenol	1.34407	1.42911	6.33	Average	
bis(2-Chloroethyl)Ether	1.51689	1.58511	4.50	Average	
2-Chlorophenol	1.30354	1.37655	5.60	Average	
1,3-Dichlorobenzene	1.45313	1.44792	.36	Average	
1,4-Dichlorobenzene	1.58382	1.68696	6.51	Average	
Benzyl Alcohol	.80000	.84603	5.75	Average	
1,2-Dichlorobenzene	1.53426	1.60925	4.89	Average	
2-Methylphenol	1.14636	1.20394	5.02	Average	
bis(2-Chloroisopropyl)ether	.20831	.20010	3.94	Average	
4-Methylphenol	1.15309	1.29714	12.49	Average	
N-Nitroso-Di-n-propylamine	.70791	.78731	11.22	Average	
Hexachloroethane	.59393	.62034	4.45	Average	
d8-Naphthalene	4.02650	4.38505	8.90	Average	(Conc=50.00)
Nitrobenzene-d5	1.16650	1.25004	7.16	Average	
Nitrobenzene	.71737	.76941	7.25	Average	
Isophorone	2.48817	2.69884	8.47	Average	
2-Nitrophenol	.84603	.89810	6.15	Average	
2,4-Dimethylphenol	1.11325	1.17944	5.95	Average	
Benzoic Acid	.69397	.77806	12.12	Average	
bis(2-Chloroethoxy)Methane	1.60069	1.72271	7.62	Average	
2,4-Dichlorophenol	1.20456	1.28298	6.51	Average	
1,2,4-Trichlorobenzene	1.40095	1.51851	8.39	Average	
Naphthalene	4.11287	4.48638	9.10	Average	
4-Chloroaniline	1.60142	1.71924	7.36	Average	
Hexachlorobutadiene	.85196	.91535	7.44	Average	
4-Chloro-3-methylphenol	1.07079	1.21481	13.45	Average	
2-Methylnaphthalene	2.81156	3.04659	8.36	Average	
d10-Acenaphthene	2.15676	2.38950	10.79	Average	(Conc=50.00)
Hexachlorocyclopentadiene	.85954	.85774	.21	Average	
2,4,6-Trichlorophenol	.84444	.95186	12.72	Average	
2,4,5-Trichlorophenol	.86656	.98854	14.08	Average	
2-Chloronaphthalene	2.63110	2.90395	10.37	Average	
2-Fluorobiphenyl	3.15538	3.48002	10.29	Average	
2-Nitroaniline	.79748	.92632	16.17	Average	
Dimethylphthalate	2.92165	3.41065	14.77	Average	
Acenaphthylene	1.27258	1.26381	.69	Average	
3-Nitroaniline	.14619	.15784	7.97	Average	
Acenaphthene	.83018	.81089	2.32	Average	

RF - Response Factor from daily standard file at 50.00 NG/UL

RF - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

Calibration Check Report

Title: HP BNA SID REV E KELLY 06\23\89
Calibrated: 930610 13:35

Check Standard Data File: >WR084
Injection Time: 930611 10:32

Compound	RF	RF	%Diff	Calib Meth	
2,4-Dinitrophenol	.06632	.07119	7.34	Average	
4-Nitrophenol	.03565	.03585	.56	Average	
Dibenzofuran	1.12725	1.11604	.99	Average	
2,4-Dinitrotoluene	.20721	.21065	1.66	Average	
2,6-Dinitrotoluene	.25048	.25730	2.72	Average	
Diethylphthalate	.87059	.87495	.50	Average	
4-Chlorophenyl-phenylether	.42225	.40657	3.71	Average	
Fluorene	.85672	.84199	1.72	Average	
4-Nitroaniline	.11856	.11951	.80	Average	
4,6-Dinitro-2-methylphenol	.13552	.13589	.27	Average	
N-Nitrosodiphenylamine	.54265	.53578	1.27	Average	
2,4,6-Tribromophenol	.14520	.13274	8.58	Average	
4-Bromophenyl-phenylether	.25343	.23812	6.04	Average	
Hexachlorobenzene	.30797	.28259	8.24	Average	
Pentachlorophenol	.09453	.08129	14.00	Average	
Phenanthrene	1.14239	1.14869	.55	Average	
Anthracene	1.17708	1.17712	.00	Average	
Di-n-Butylphthalate	1.35222	1.45042	7.26	Average	
Fluoranthene	1.19187	1.19419	.19	Average	
d12-Chrysene	.75624	.74520	1.46	Average	(Conc=50.00)
Pyrene	1.18930	1.18204	.61	Average	
Terphenyl-d14	.81609	.80434	1.44	Average	
Butylbenzylphthalate	.48993	.50848	3.79	Average	
Benzo(a)Anthracene	.77060	.75259	2.34	Average	
Bis(2-Ethylhexyl)Phthalate	.65089	.68770	5.65	Average	
Chrysene	.92436	.93545	1.20	Average	
Di-n-octylphthalate	2.04542	2.40372	17.52	Average	
Benzo(b)fluoranthene	1.19479	1.21205	1.45	Average	
Benzo(k)Fluoranthene	1.64175	1.73816	5.87	Average	
Benzo(a)Pyrene	1.28840	1.37903	7.03	Average	
Indeno(1,2,3-cd)Pyrene	.79971	.84739	5.96	Average	
Dibenzo(a,h)Anthracene	.87808	.87986	.20	Average	
Benzo(g,h,i)Perylene	.99864	1.10416	10.57	Average	

RF - Response Factor from daily standard file at 50.00 NG/UL

RF - Average Response Factor from Initial Calibration

%Diff - % Difference from original average or curve

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930611 11:11
Output File: ^WF084::D3 Injected at: 930611 10:32
Data File: >WF084::D6 Dilution Factor: 1.00000
Name: ABNST20525 50 STD
Misc: 06-11-93 CONT CALIB BTL# 1

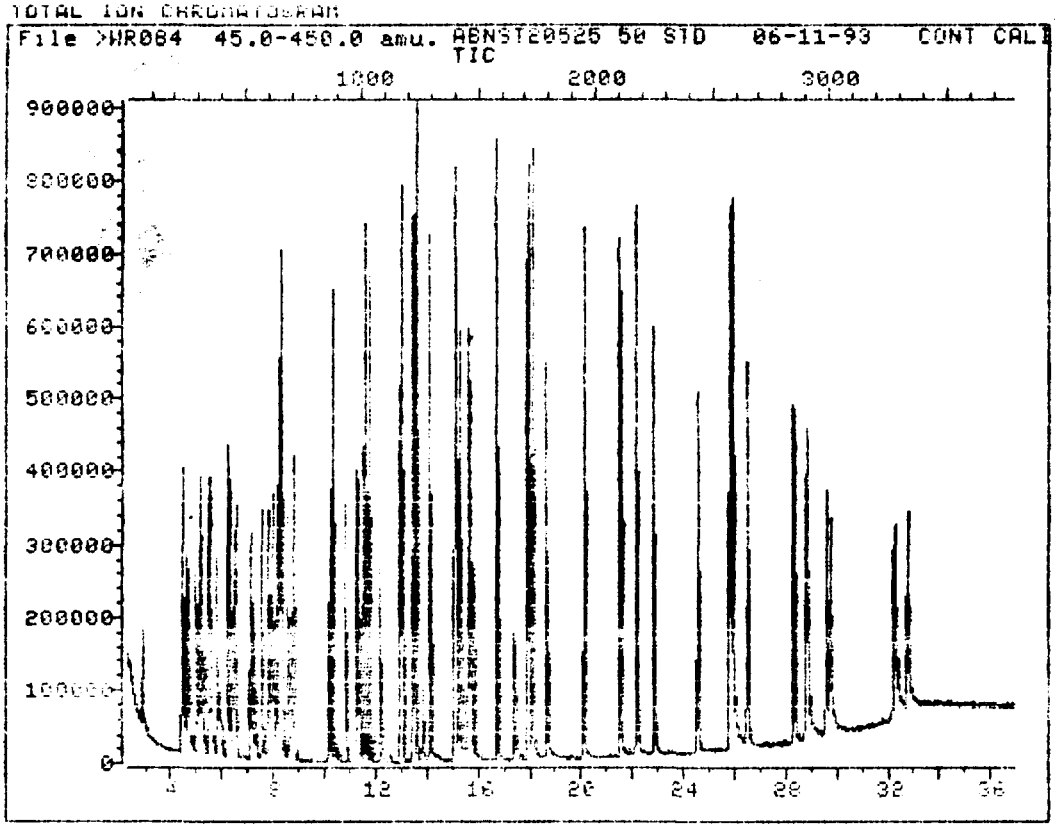
ID File: IDRU39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930610 13:39

	Compound	P.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.08	152.0	182700	50.00	NG/UL	94
2)	2-Fluorophenol	2.87	112.0	217698	52.03	NG/UL	86
3)	Phenol-d5	4.42	99.0	267190	52.88	NG/UL	78
4)	Phenol	4.45	94.0	261098	53.16	NG/UL	80
5)	bis(2-Chloroethyl)Ether	4.45	93.0	289600	52.25	NG/UL	94
6)	2-Chlorophenol	4.65	128.0	251496	52.80	NG/UL	97
7)	1,3-Dichlorobenzene	4.96	146.0	264535	49.82	NG/UL	94
8)	1,4-Dichlorobenzene	5.12	146.0	308207	53.26	NG/UL	94
9)	Benzyl Alcohol	5.46	108.0	154569	52.88	NG/UL	72
10)	1,2-Dichlorobenzene	5.43	146.0	294010	52.44	NG/UL	94
11)	2-Methylphenol	5.76	108.0	219959	52.51	NG/UL	99
12)	bis(2-Chloroisopropyl)ether	5.88	121.0	36558	48.03	NG/UL	98
13)	4-Methylphenol	6.15	108.0	236987	52.25	NG/UL	99
14)	N-Nitroso-Di-n-propylamine	6.15	70.0	143842	55.61	NG/UL	88
15)	Hexachloroethane	6.21	201.0	113337	52.22	NG/UL	97
16)	d8-Naphthalene	8.24	136.0	801148	54.45	NG/UL	84
17)	Nitrobenzene-d5	6.40	82.0	228383	53.58	NG/UL	84
18)	Nitrobenzene	6.45	123.0	140571	53.63	NG/UL	91
19)	Isophorone	7.12	82.0	493079	54.23	NG/UL	92
20)	2-Nitrophenol	7.26	139.0	164083	53.08	NG/UL	80
21)	2,4-Dimethylphenol	7.55	122.0	215484	52.97	NG/UL	91
22)	Benzoic Acid	8.05	105.0	142152	56.06	NG/UL	89
23)	bis(2-Chloroethoxy)Methane	7.82	93.0	314740	53.81	NG/UL	99
24)	2,4-Dichlorophenol	7.93	162.0	234400	53.26	NG/UL	96
25)	1,2,4-Trichlorobenzene	8.12	180.0	277431	54.20	NG/UL	92
26)	Naphthalene	8.30	128.0	819662	54.55	NG/UL	95
27)	4-Chloroaniline	8.56	127.0	314106	53.68	NG/UL	86
28)	Hexachlorobutadiene	8.75	225.0	167234	53.72	NG/UL	98
29)	4-Chloro-3-methylphenol	10.14	107.0	221945	56.72	NG/UL	53
30)	2-Methylnaphthalene	10.33	142.0	556612	54.18	NG/UL	93
31)	d10-Acenaphthene	13.41	164.0	436562	55.40	NG/UL	93
32)	Hexachlorocyclopentadiene	10.84	237.0	156709	49.90	NG/UL	97
33)	2,4,6-Trichlorophenol	11.25	196.0	173905M	56.36	NG/UL	
34)	2,4,5-Trichlorophenol	11.32	196.0	180607M	57.04	NG/UL	91
35)	2-Chloronaphthalene	11.75	162.0	530552	55.19	NG/UL	96
36)	2-Fluorobiphenyl	11.54	172.0	635799	55.14	NG/UL	92
37)	2-Nitroaniline	12.17	138.0	169238	58.08	NG/UL	81
38)	Dimethylphthalate	12.92	163.0	623126	57.39	NG/UL	93
39)	*d-10-Phenanthrene	17.84	188.0	708680	50.00	NG/UL	97
40)	Acenaphthylene	12.95	152.0	895634	49.66	NG/UL	92
41)	3-Nitroaniline	13.43	138.0	111857	53.98	NG/UL	76
42)	Acenaphthene	13.51	153.0	574660	48.84	NG/UL	97
43)	2,4-Dinitrophenol	13.76	184.0	50451	53.67	NG/UL	77

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	4-Nitrophenol	14.15	109.0	25406	50.28	NG/UL	68
45)	Dibenzofuran	14.04	168.0	790918	49.50	NG/UL	76
46)	2,4-Dinitrotoluene	13.01	165.0	149284	50.83	NG/UL	65
47)	2,6-Dinitrotoluene	14.18	165.0	182343	51.36	NG/UL	88
48)	Diethylphthalate	15.11	149.0	620058	50.25	NG/UL	93
49)	4-Chlorophenyl-phenylether	15.23	204.0	288130	48.14	NG/UL	97
50)	Fluorene	15.07	166.0	596704	49.14	NG/UL	95
51)	4-Nitroaniline	15.26	138.0	84696M	50.40	NG/UL	
52)	4,6-Dinitro-2-methylphenol	15.38	198.0	96301	50.14	NG/UL	94
53)	N-Nitrosodiphenylamine	15.62	169.0	379700	49.37	NG/UL	95
54)	2,4,6-Tribromophenol	15.80	329.9	94067	45.71	NG/UL	92
55)	4-Bromophenyl-phenylether	16.67	248.0	168752	48.98	NG/UL	89
56)	Hexachlorobenzene	16.68	283.9	200264	45.88	NG/UL	96
57)	Pentachlorophenol	17.35	265.8	57612	43.00	NG/UL	94
58)	Phenanthrene	17.91	178.0	814051	50.28	NG/UL	98
59)	Anthracene	18.06	178.0	834205	50.00	NG/UL	98
60)	Di-n-Butylphthalate	20.09	149.0	1027886	53.63	NG/UL	94
61)	Fluoranthene	21.47	202.0	846301	50.10	NG/UL	97
62)	d12-Chrysene	25.76	240.0	528110	49.27	NG/UL	98
63)	Pyrene	22.08	202.0	837690	49.69	NG/UL	98
64)	Terphenyl-d14	22.93	244.0	570019	49.28	NG/UL	93
65)	Butylbenzylphthalate	24.52	149.0	360350	51.89	NG/UL	81
66)	Benzo(a)Anthracene	25.74	228.0	533349	48.83	NG/UL	98
67)	Bis(2-Ethylhexyl)Phthalate	24.42	149.0	487356	52.83	NG/UL	91
68)	Chrysene	25.84	228.0	662972	50.60	NG/UL	96
69)	*d12-Perylene	29.71	264.0	329722	50.00	NG/UL	95
70)	Di-n-octylphthalate	28.28	149.0	792559	58.76	NG/UL	85
71)	Benzo(b)Fluoranthene	28.75	252.0	399640	50.72	NG/UL	94
72)	Benzo(k)Fluoranthene	28.82	252.0	573111	52.94	NG/UL	94
73)	Benzo(a)Pyrene	29.56	252.0	454696	53.52	NG/UL	97
74)	Indeno(1,2,3-cd)Pyrene	32.22	276.0	279403M	52.98	NG/UL	96
75)	Dibenzo(a,h)Anthracene	32.31	278.0	290108	50.10	NG/UL	85
76)	Benzo(g,h,i)Perylene	32.76	276.0	364066	55.28	NG/UL	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: [illegible]084::D6 Quant Output File: ^WR084::D3
Name: ABNST20525 50 STD
Misc: 06-11-93 CONT CALIB BTL# 1

Id File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930610 13:39

Operator ID: MANAGER
Quant Time: 930611 11:11
Injected at: 930611 10:32

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1191

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	93ZE06R60R	73	68	123	26	39	44		0
02	93ZE33S37R	60	54	86	17	12 *	1 *		2
03	93ZE33D37R	59	53	98	19	25	3 *		1
04	93ZE33D38R	42	29 *	54	26	36	44		1
05	93ZE33S38MS	44	29 *	50	29	42	99		1
06	93ZF53S39D	52	55	65	45	46	96		0
07	93ZF53D39D	50	47	57	53	59	91		0
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		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(35-114)
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)
S3 (TPH)	= Terphenyl-d14	(33-141)
S4 (PHL)	= Phenol-d5	(10-94)
S5 (2FP)	= 2-Fluorophenol	(21-100)
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)

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

FORM II SV-1 1/87 Rev.

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Lab File ID: >WR041 Lab Sample ID: METH BLK

Date Extracted 05/19/93 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 6/08/93 Time Analyzed: 22:18

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

Instrument ID: 96 1

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	93ZE06R60R	R60 RE	>WR078	6/11/93
02	93ZE33S37R	S37 RE	>WR079	6/11/93
03	93ZE33D37R	D37 RE	>WR080	6/11/93
04	93ZE33D38R	D38 RE	>WR081	6/11/93
05	93ZE33S38MS	S38MS RE	>WR082	6/11/93
06	93ZF53S39D	S39 2:1 DIL	>WR087	6/11/93
07	93ZF53D39D	D39 2:1 DIL	>WR088	6/11/93
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COMMENTS:

FORM IV SV 1/87 Rev.

5B
SEMIVOLATILE ORGANIC GC/MS TUNING AND MASS
CALIBRATION - DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Site Name: HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: -------

Lab File ID: >WR083 DFTPP Injection Date: 6/11/93

Instrument ID: 96 1 DFTPP Injection Time: 10:08

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	41.1
68	Less than 2.0% of mass 69	0.0(0.0)1
69	Mass 69 relative abundance	48.
70	Less than 2.0% of mass 69	.7(1.5)1
127	40.0 - 60.0% of mass 198	43.0
197	Less than 1.0% of mass 198	0.0
198	Base Peak, 100% relative abundance	100.
199	5.0 - 9.0% of mass 198	6.3
275	10.0 - 30.0% of mass 198	21.1
365	Greater than 1.00% of mass 198	2.25
441	Present, but less than mass 443	9.3
442	Greater than 40.0% of mass 198	57.7
443	17.0 - 23.0% of mass 442	10.9(18.9)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	ABNST20525	50 STD CC	>WR084	6/11/93	10:32
02	93ZE06R60R	R60 RE	>WR078	6/11/93	15:45
03	93ZE33S37R	S37 RE	>WR079	6/11/93	16:31
04	93ZE33D37R	D37 RE	>WR080	6/11/93	17:17
05	93ZE33D38R	D38 RE	>WR081	6/11/93	18:03
06	93ZE33S38MS	S38MS RE	>WR082	6/11/93	18:49
07	93ZF53S39D	S39 2:1 DIL	>WR087	6/11/93	21:08
08	93ZF53D39D	D39 2:1 DIL	>WR088	6/11/93	21:54
09					
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FORM V SV 1/87 Rev.

7B
SEMIVOLATILE CONTINUING CALIBRATION CHECK

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: -------

Instrument ID: 96 1 Calibration Date: 6/11/93 Time: 10:32

Lab File ID: >WR084 Init. Calib. Date(s):06/10/93 --/--/--

Max %D for CCC(*) = 20.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Phenol	*	1.344	1.429	6.3	*
bis(2-Chloroethyl)ether		1.517	1.585	4.5	
2-Chlorophenol		1.303	1.377	5.6	
1,3-Dichlorobenzene		1.453	1.448	.4	
1,4-Dichlorobenzene	*	1.584	1.687	6.5	*
Benzyl alcohol		.800	.846	5.8	
1,2-Dichlorobenzene		1.534	1.609	4.9	
2-Methylphenol		1.146	1.204	5.0	
bis(2-chloroisopropyl)ether		.208	.200	3.9	
4-Methylphenol		1.153	1.297	12.5	
N-Nitroso-di-n-propylamine	#	.708	.787	11.2	#
Hexachloroethane		.594	.620	4.5	
Nitrobenzene		.717	.769	7.2	
Isophorone		2.488	2.699	8.5	
2-Nitrophenol	*	.846	.898	6.2	*
2,4-Dimethylphenol		1.113	1.179	5.9	
Benzoic acid		.694	.778	12.1	
bis(2-Chloroethoxy)methane		1.601	1.723	7.6	
2,4-Dichlorophenol	*	1.205	1.283	6.5	*
1,2,4-Trichlorobenzene		1.401	1.519	8.4	
Naphthalene		4.112	4.486	9.1	
4-Chloroaniline		1.601	1.719	7.4	
Hexachlorobutadiene	*	.852	.915	7.4	*
4-Chloro-3-methylphenol	*	1.071	1.215	13.4	*
2-Methylnaphthalene		2.812	3.047	8.4	
Hexachlorocyclopentadiene	#	.860	.858	.2	#
2,4,6-Trichlorophenol	*	.844	.952	12.7	*
2,4,5-Trichlorophenol		.867	.989	14.1	
2-Chloronaphthalene		2.631	2.904	10.4	
2-Nitroaniline		.797	.926	16.2	
Dimethylphthalate		2.972	3.411	14.8	
Acenaphthylene		1.273	1.264	.7	
2,6-Dinitrotoluene		.207	.211	1.7	
3-Nitroaniline		.146	.158	8.0	
Acenaphthene	*	.830	.811	2.3	*
2,4-Dinitrophenol	#	.066	.071	7.4	#
4-Nitrophenol	#	.036	.036	.7	#

7C

SEMIVOLATILE CONTINUING CALIBRATION CHECK

Site Name: HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: -------

Instrument ID: 96 1 Calibration Date: 6/11/93 Time: 10:32

Lab File ID: >WR084 Init. Calib. Date(s):06/10/93 --/--/--

Max %D for CCC(*) = 20.0%

COMPOUND		$\overline{RRF}$	RRF50	%D	
Dibenzofuran		1.127	1.116	1.0	
2,4-Dinitrotoluene		.251	.257	2.7	
Diethylphthalate		.871	.875	.5	
4-Chlorophenyl-phenylether		.422	.407	3.7	
Fluorene		.857	.842	1.7	
4-Nitroaniline		.119	.120	.8	
4,6-Dinitro-2-methylphenol		.136	.136	.3	
N-Nitrosodiphenylamine (1)	*	.543	.536	1.3	*
4-Bromophenyl-phenylether		.253	.238	6.0	
Hexachlorobenzene		.308	.283	8.3	
Pentachlorophenol	*	.095	.081	14.0	*
Phenanthrene		1.142	1.149	.6	
Anthracene		1.177	1.177	0.0	
Di-n-butylphthalate		1.352	1.450	7.3	
Fluoranthene	*	1.192	1.194	.2	*
Pyrene		1.189	1.182	.6	
Butylbenzylphthalate		.490	.508	3.8	
Benzo(a)anthracene		.771	.753	2.3	
Chrysene		.924	.935	1.2	
bis(2-Ethylhexyl)phthalate		.651	.688	5.7	
Di-n-octylphthalate	*	2.045	2.404	17.5	*
Benzo(b)fluoranthene		1.195	1.212	1.4	
Benzo(k)fluoranthene		1.642	1.738	5.9	
Benzo(a)pyrene	*	1.288	1.379	7.0	*
Indeno(1,2,3-cd)pyrene		.800	.847	6.0	
Dibenzo(a,h)anthracene		.878	.880	.2	
Benzo(g,h,i)perylene		.999	1.104	10.6	
Nitrobenzene-d5		1.167	1.250	7.2	
2-Fluorobiphenyl		3.155	3.480	10.3	
Terphenyl-d14		.816	.804	1.4	
Phenol-d5		1.383	1.463	5.8	
2-Fluorophenol		1.144	1.192	4.2	
2,4,6-Tribromophenol		.145	.133	8.6	

(1) Cannot be separated from Diphenylamine

8A
SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Site Name: HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: -------

Lab File ID (Standard): >WR084 Date Analyzed: 6/11/93

Instrument ID: 96 1 Time Analyzed: 10:32

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

		IS1(DCB) AREA #	RT	IS2(PHN) AREA #	RT	IS3(PRY) AREA #	RT
	12 HOUR STD	182700.	5.08	708680.	17.84	329722.	29.71
	UPPER LIMIT	365400.	5.58	1417360.	18.34	659444.	30.31
	LOWER LIMIT	91350.	4.58	354340.	17.34	164861.	29.31
	EPA SAMPLE NO.						
01	93ZE06R60R	150884.	5.19	404122.	17.87	235580.	29.75
02	93ZE33S37R	156003.	5.05	374047.	17.85	204281.	29.73
03	93ZE33D37R	166842.	5.02	373877.	17.86	213692.	29.74
04	93ZE33D38R	164418.	5.03	385121.	17.81	249085.	29.68
05	93ZE33S38MSR	186706.	5.11	523275.	17.83	278523.	29.69
06	93ZF53S39D	169042.	5.04	457556.	17.85	255716.	29.71
07	93ZF53D39D	164017.	5.08	463497.	17.81	282328.	29.71
08							
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IS1 (DCB) = d4-1,4-Dichlorobenzene
IS2 (PHN) = d-10-Phenanthrene
IS3 (PRY) = d12-Perylene

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

Column used to flag internal standard area values with an asterisk

FORM VIII SV 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ABNBL10519

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: METH BLK

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR041

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/08/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	30.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ABNBL10519

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: METH BLK

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR041

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/08/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	2.	J
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 10:43
Output File: ^WR041::D3 Injected at: 930608 22:18
Data File: >WR041::D6 Dilution Factor: 1.00000
Name: ABNBL10519 MB
Misc: 06-08-93 BTL# 5

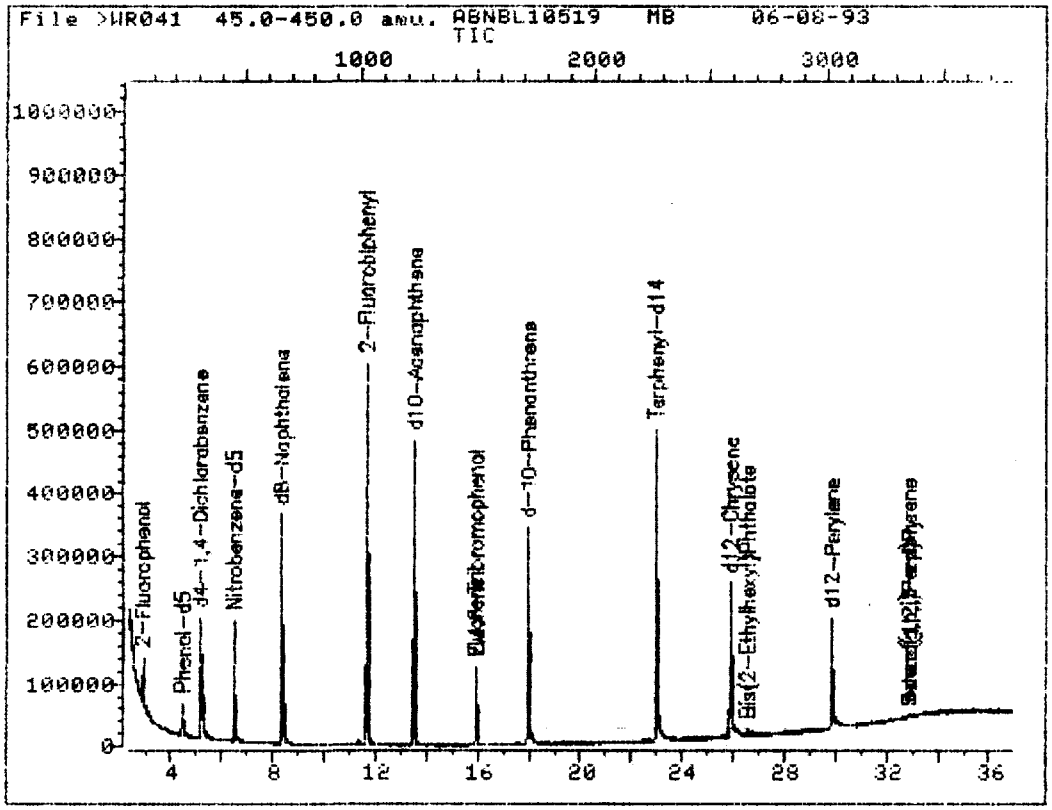
ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q	
~~1)~~	*d4-1,4-Dichlorobenzene	5.11	152.0	151957	50.00	NG/UL	94	
~~2)~~	2-Fluorophenol · 21-100	2.84	112.0	97568	26.77	NG/UL	91	36
~~3)~~	Phenol-d5 · 10-94	4.41	99.0	85612	20.25	NG/UL	84	27
~~16)~~	d8-Naphthalene	8.30	136.0	547675	47.93	NG/UL	85	
~~17)~~	Nitrobenzene-d5 · 35-114	6.43	82.0	188398	53.98	NG/UL	85	72
~~31)~~	d10-Acenaphthene	13.49	164.0	273401	45.66	NG/UL	92	
~~36)~~	2-Fluorobiphenyl · 43-114	11.61	172.0	501266	56.47	NG/UL	95	75
~~39)~~	*d-10-Phenanthrene	17.93	188.0	359205	50.00	NG/UL	98	
~~50)~~	~~Fluorene~~	~~15.87~~	~~166.0~~	~~1573~~	~~.26~~	~~NG/UL~~	~~90~~	X
~~54)~~	2,4,6-Tribromophenol · 10-123	15.87	329.9	48383	33.37	NG/UL	98	44
~~62)~~	d12-Chrysene	25.86	240.0	291565	47.36	NG/UL	96	
~~64)~~	Terphenyl-d14 · 33-141	22.94	244.0	564031	83.22	NG/UL	96	111
67)	Bis(2-Ethylhexyl)Phthalate	26.54	149.0	7904	1.57	NG/UL	97	
~~69)~~	*d12-Perylene	29.84	264.0	222151	50.00	NG/UL	96	
~~74)~~	~~Indeno(1,2,3-cd)Pyrene~~	~~32.84~~	~~276.0~~	~~3194~~	~~.92~~	~~NG/UL~~	~~96~~	X
~~76)~~	~~Benzo(g,h,i)Perylene~~	~~32.84~~	~~276.0~~	~~3194~~	~~.80~~	~~NG/UL~~	~~96~~	<

* Compound is ISTD

RWN
6-16-93

TOTAL ION CHROMATOGRAM

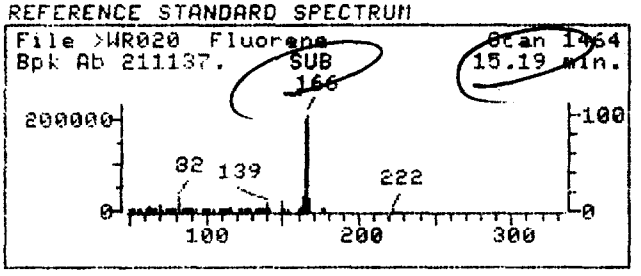


Data File: >WR041::D6 Quant Output File: ^WR041::D3
Name: ABNBL10519 MB
Misc: 06-08-93 BTL# 5

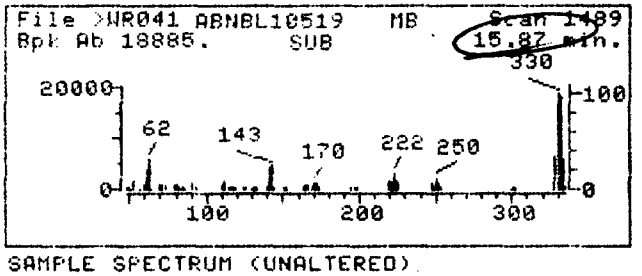
Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 10:43
Injected at: 930608 22:18

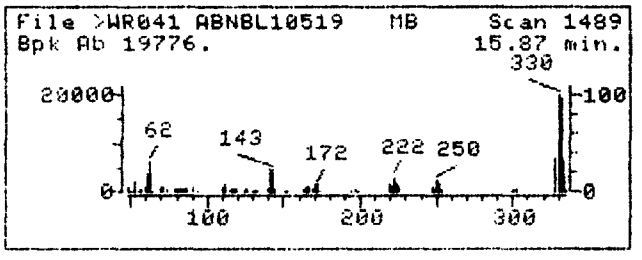
REFERENCE STANDARD SPECTRUM

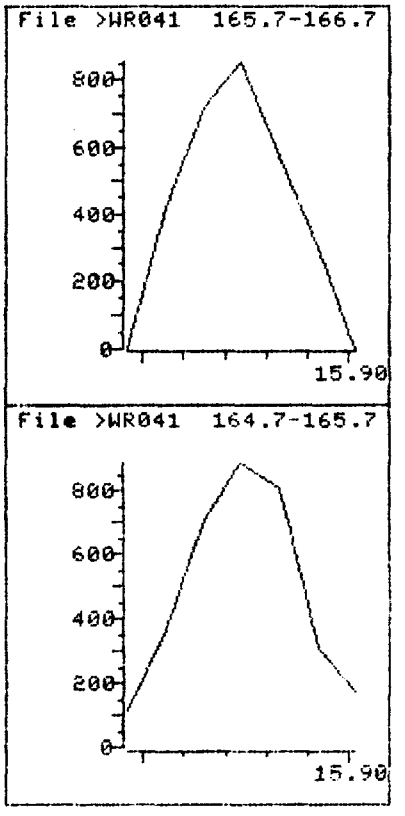


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





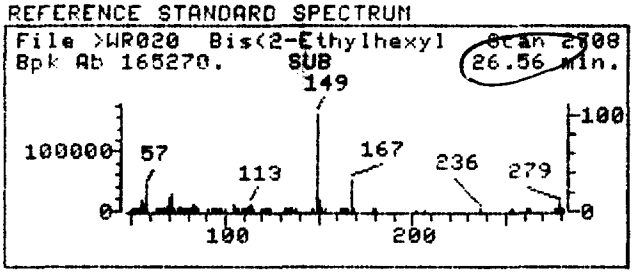
Data File: >WR041::D6
Name: ABNBL10519 MB
Misc: 06-08-93
Quant Time: 930609 10:43
Injected at: 930608 22:18

Quant Output File: ^WR041::D3

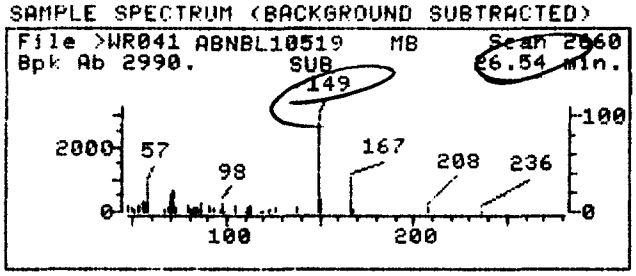
BTL# 5
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 50
Compound Name: Fluorene
Scan Number: 1489
Retention Time: 15.87 min.
Quant Ion: 166.0
Area: 1573
Concentration: .26 NG/UL
q-value: 90

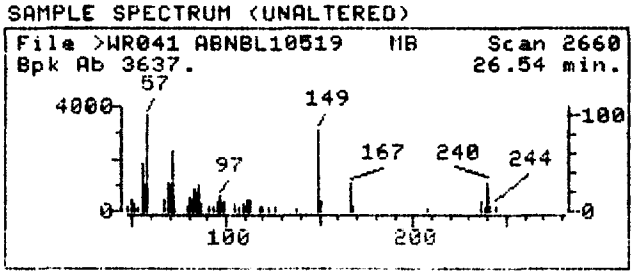
REFERENCE STANDARD SPECTRUM

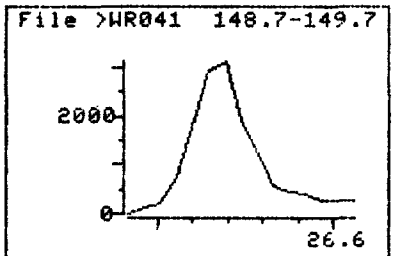


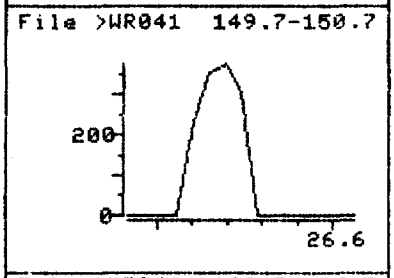
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

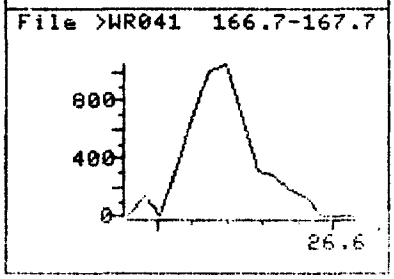


SAMPLE SPECTRUM (UNALTERED)







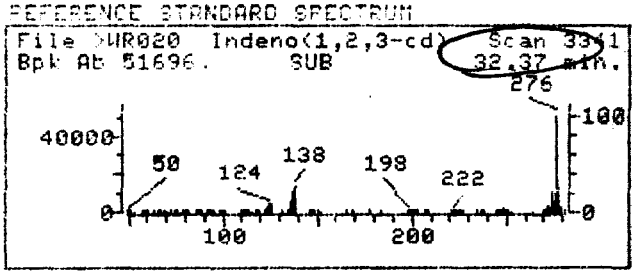


Data File: >WR041::D6
Name: ABNBL10519 MB
Misc: 06-08-93
Quant Time: 930609 10:43
Injected at: 930608 22:13

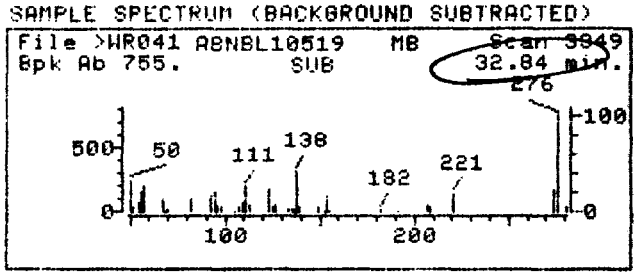
Quant Output File: >WR041::D3
BTL# 5
Quant ID File: ILPW37::SD
Last Calibration: 930609 10:36

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2660
Retention Time: 26.54 min.
Quant Ion: 149.0
Area: [illegible]
Concentration: 1.97 NG/UL
q-value: 97

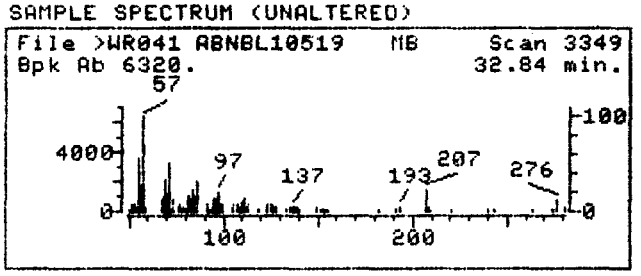
REFERENCE STANDARD SPECTRUM

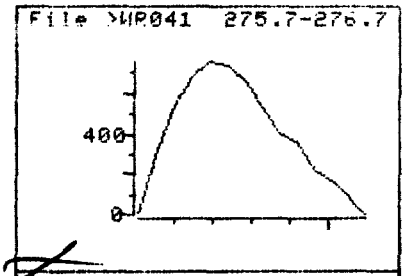


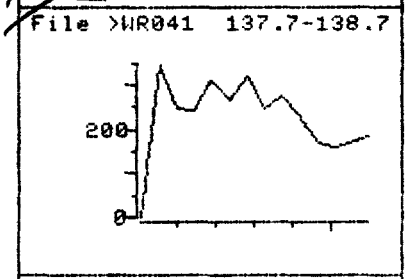
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

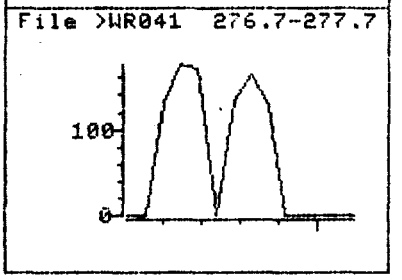


SAMPLE SPECTRUM (UNALTERED)





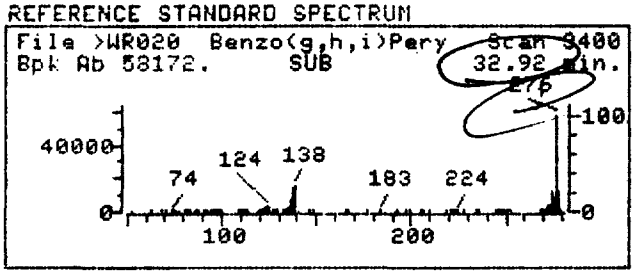




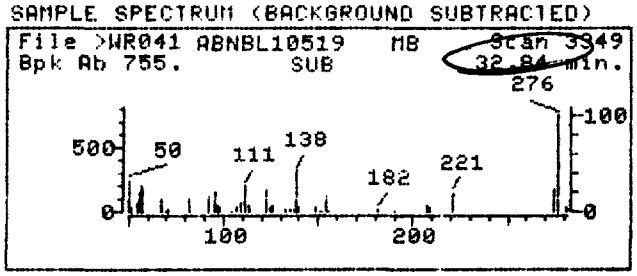
Data File: >WR041::D6 Quant Output File: ^WR041::D3
Name: ABNBL10519 MB
Misc: 06-08-93 BTL# 5
Quant Time: 930609 10:43 Quant ID File: IDRW37::SC
Injected at: 930608 22:18 Last Calibration: 930609 10:36

Compound No: 74
Compound Name: Indeno(1,2,3-cd)Pyrene
Scan Number: 3349
Retention Time: 32.84 min.
Quant Ion: 276.0
Area: 3194
Concentration: .92 NG/UL
q-value: 96

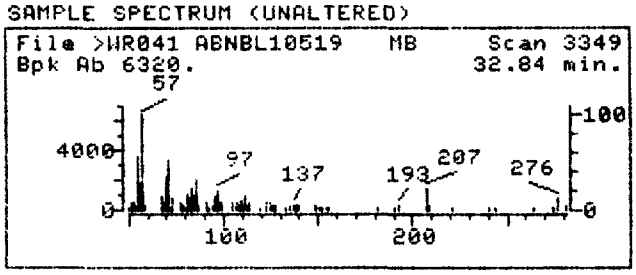
REFERENCE STANDARD SPECTRUM

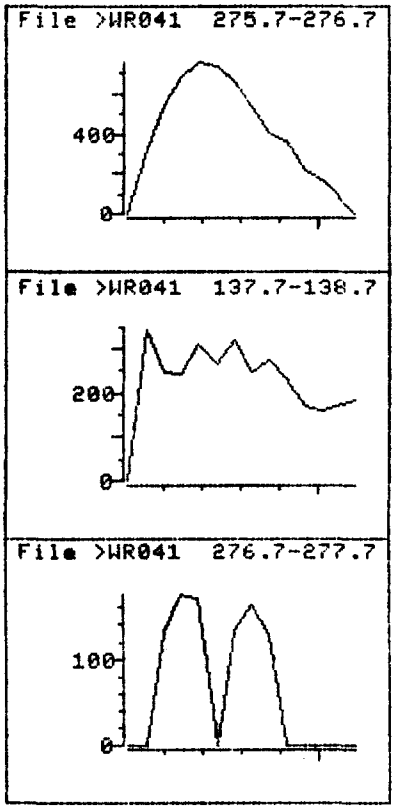


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR041::D6
Name: ABNBL10519 MB
Misc: 06-08-93
Quant Time: 930609 10:43
Injected at: 930608 22:18

Quant Output File: ^WR041::D3

BTL# 5

Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 76
Compound Name: Benzo(g,h,i)Perylene
Scan Number: 3349
Retention Time: 32.84 min.
Quant Ion: 276 0
Area: 3194
Concentration: .80 NG/UL
q-value: 96

MS data file header from : >WR041

Sample: ABNBL10519 MB Operator: MANAGER SUPER GRP. 6/08/93 22:18
Misc : 06-08-93 BTL# 5
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: TOXIC6 Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	65.	320.	321.	0.	0.
Chromatographic times, min. :	1.0	1.0	2.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	1.0	0.0	0.0	0.0

No peaks found. RWW 6-24-93

Summary of Unknowns PBM Library Search and Quantitation

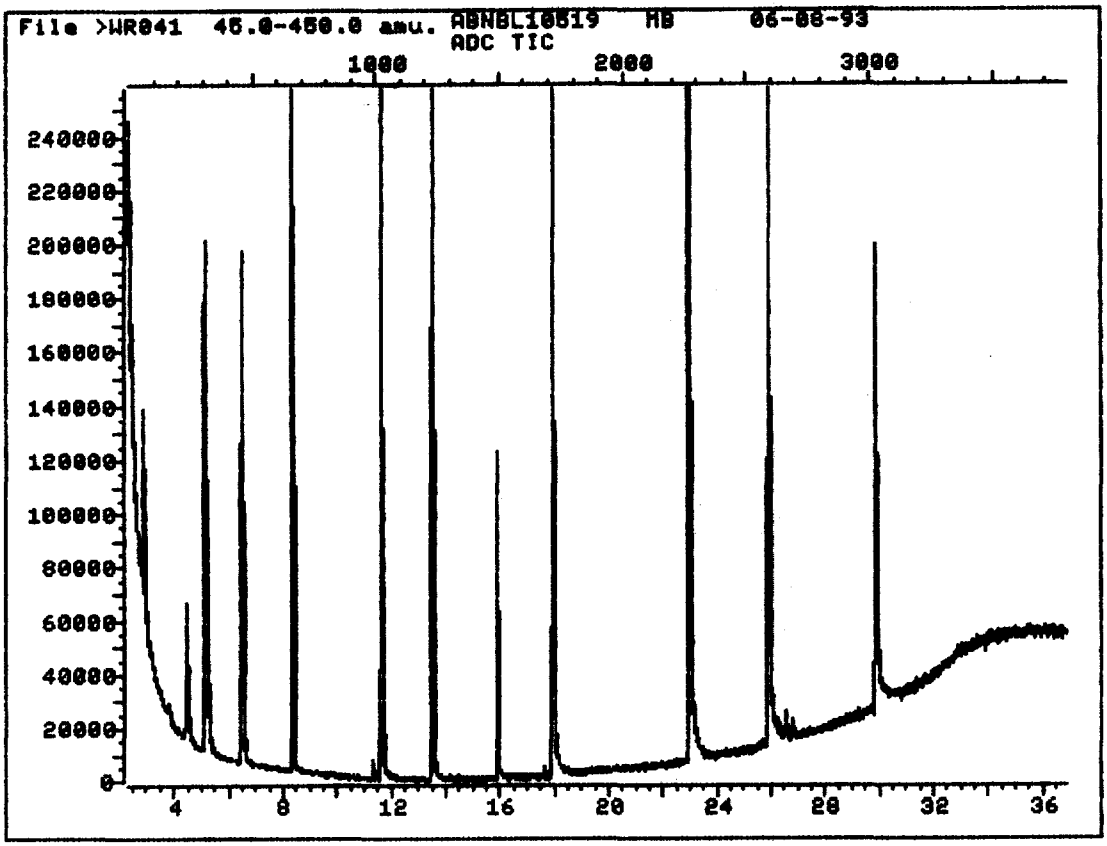
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	796797.	5.11	2.35 - 11.52
2	50.0	866332.	17.93	11.52 - 23.88
3	50.0	529282.	29.83	23.88 - 36.89

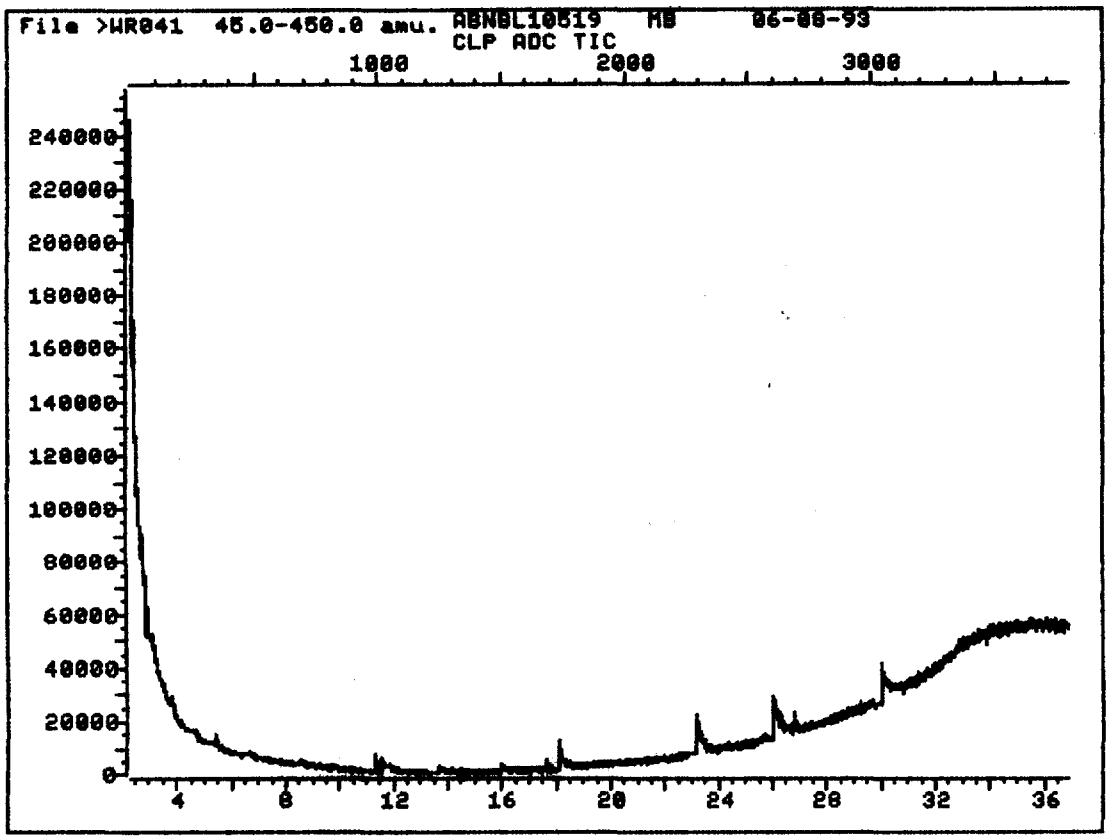
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

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

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

2:29 PM WED., 16 JUNE, 1993


File >WR041 45.0-450.0 amu. ABNBL10519 MB 06-08-93
ADC TIC
1000
2000
3000
240000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36


File >WR041 45.0-450.0 amu. ABNBL10519 MB 06-08-93
CLP ADC TIC
1000
2000
3000
240000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36

```
working...
draw complete...
```

```
working...
.   THERE WERE NO UNKNOWNS
.   CREATING THE .RR FILE
.QN  WR041                                                                0016DE2
                 96010608932218R   45  450  .547  9                      0020057
                 d4-1,4-Dichlorobenzene                                   0036CB8
                   1 152  305   5.1139  1  151957. NG/UL  50.0000        0043FCB
                 2-Fluorophenol                                           0052939
                   2 112   55   2.8408  1   97568. NG/UL  26.7685        00652BE
                 Phenol-d5                                                0074B86
                   3  99  228   4.4138  1   85612. NG/UL  20.2542        0082DD2
                 d8-Naphthalene                                           0092215
                   4 136  655   8.2950  1  547675. NG/UL  47.9337        01069D5
                 Nitrobenzene-d5                                          0114659
                   5  82  450   6.4321  1  188398. NG/UL  53.9779        0124FDB
                 d10-Acenaphthene                                         0133F3D
                   6 164 1227  13.4929  1  273401. NG/UL  45.6577        01402CF
                 2-Fluorobiphenyl                                         0157582
                   7 172 1020  11.6116  1  501266. NG/UL  56.4707        01675C5
                 d-10-Phenanthrene                                        0177E27
                   8 188 1715  17.9296  8  359205. NG/UL  50.0000        01872E0
                 2,4,6-Tribromophenol                                     0192299
                   9 330 1489  15.8740  8   48383. NG/UL  33.3744        02071DB
                 d12-Chrysene                                             02151A9
                  10 240 2586  25.8625  8  291565. NG/UL  47.3646        0227AF4
                 Terphenyl-d14                                            02325B1
                  11 244 2265  22.9356  8  564031. NG/UL  83.2236        02478E5
                 Bis(2-Ethylhexyl)Phthalate                               0257EA2
                  12 149 2660  26.5387  8    7904. NG/UL   1.5730        0266AC4
                 d12-Perylene                                             02757A6
                  13 264 3021  29.8351 13  222151. NG/UL  50.0000        02878D4
 PBM results file is for MS data file >BP999 not >WR041
ENDFILE                                                                   0297BE0

 Reduced results file: RWR041 summary
      QUANT data from: ^WR041
```

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 10:52
Output File: ^WR043::D3 Injected at: 930608 23:51
Data File: >WR043::D6 Dilution Factor: 1.00000
Name: 93ZE06R62 FB
Misc: 06-08-93 BTL# 7

ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q	
~~1)~~	*d4-1,4-Dichlorobenzene	5.16	152.0	153033	50.00	NG/UL	96	
~~2)~~	2-Fluorophenol	2.91	112.0	90169	24.56	NG/UL	91	32
~~3)~~	Phenol-d5	4.47	99.0	74393	17.48	NG/UL	82	23
~~16)~~	d8-Naphthalene	8.31	136.0	555710	48.29	NG/UL	86	
~~17)~~	Nitrobenzene-d5	6.46	82.0	212672	60.50	NG/UL	83	81
~~31)~~	d10-Acenaphthene	13.49	164.0	286245	47.47	NG/UL	90	
~~38)~~	2-Fluorobiphenyl	11.61	172.0	553253	61.89	NG/UL	94	82
~~39)~~	*d-10-Phenanthrene	17.93	188.0	356171	50.00	NG/UL	99	
~~50)~~	~~Fluorene~~	~~15.89~~	~~166.0~~	~~1923~~	~~.32~~	~~NG/UL~~	~~95~~	<
~~54)~~	2,4,6-Tribromophenol	15.88	329.9	53811	37.43	NG/UL	97	50
~~62)~~	d12-Chrysene	25.87	240.0	300334	49.20	NG/UL	97	
64)	Terphenyl-d14	22.95	244.0	529036	78.73	NG/UL	97	105
~~67)~~	~~Bis(2-Ethylhexyl)Phthalate~~	~~26.54~~	~~149.0~~	~~2776~~	~~.56~~	~~NG/UL~~	~~89~~	<
~~69)~~	*d12-Perylene	29.83	264.0	193078	50.00	NG/UL	96	

* Compound is ISTD

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE06R62

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: FLD BLK

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >WR043

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/08/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	1.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	2.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	2.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	1.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	2.	U
78-59-1	Isophorone	2.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	29.	U
111-91-1	bis(2-Chloroethoxy)methane	2.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	2.	U
59-50-7	4-Chloro-3-methylphenol	1.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	1.	U
95-95-4	2,4,5-Trichlorophenol	1.	U
91-58-7	2-Chloronaphthalene	1.	U
88-74-4	2-Nitroaniline	2.	U
131-11-3	Dimethylphthalate	1.	U
208-96-8	Acenaphthylene	1.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE06R62

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: FLD BLK

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >WR043

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/08/93

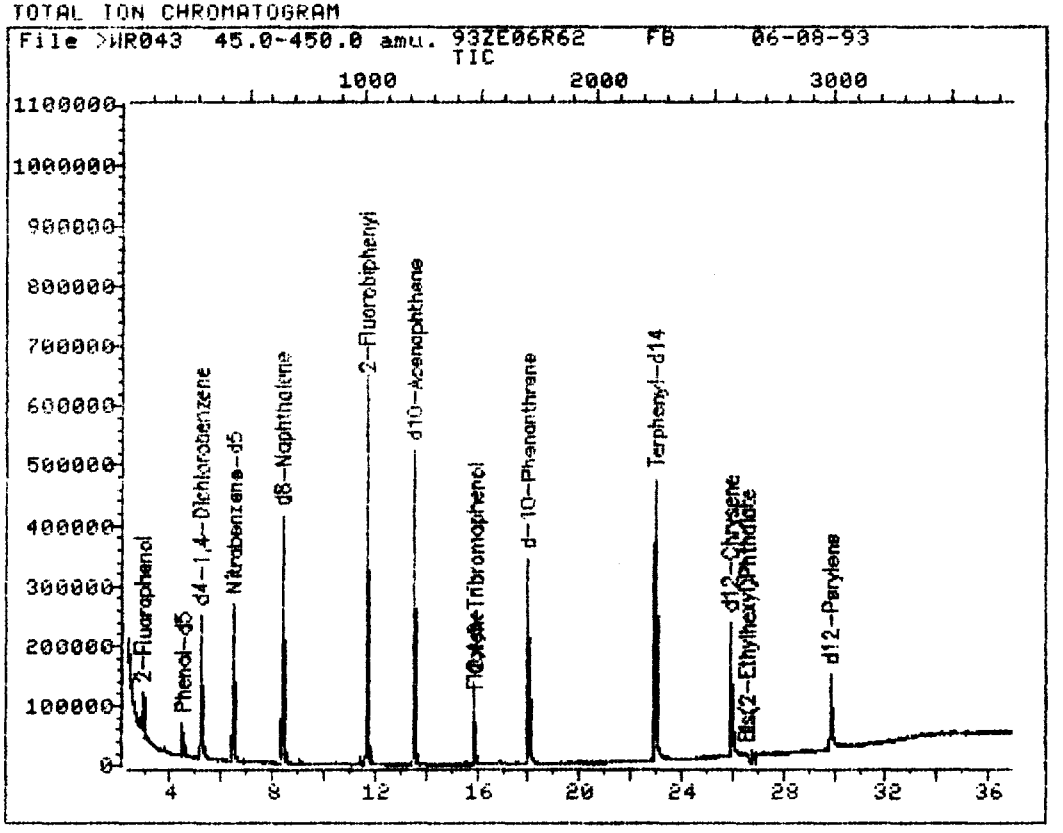
GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

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

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

TOTAL ION CHROMATOGRAM

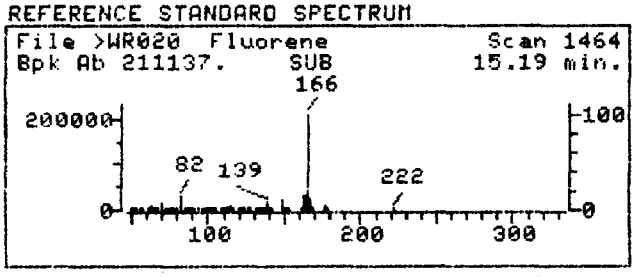


Data File: >WR043::D6 Quant Output File: ^WR043::D3
Name: 93ZE06R62 FB
Misc: 06-08-93 BTL# 7

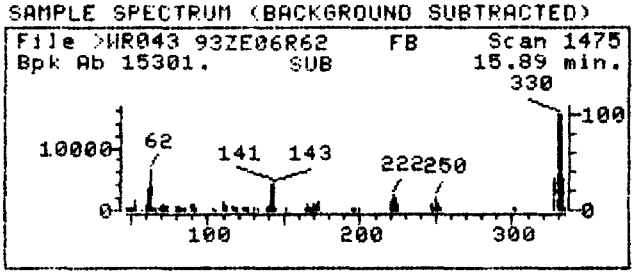
Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 10:52
Injected at: 930608 23:51

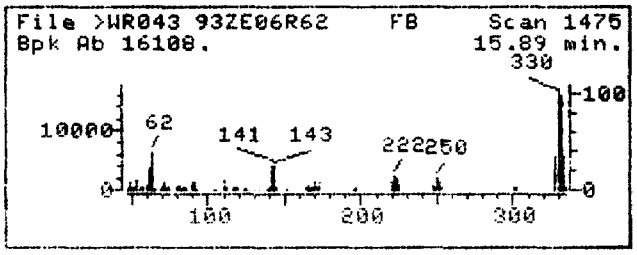
REFERENCE STANDARD SPECTRUM

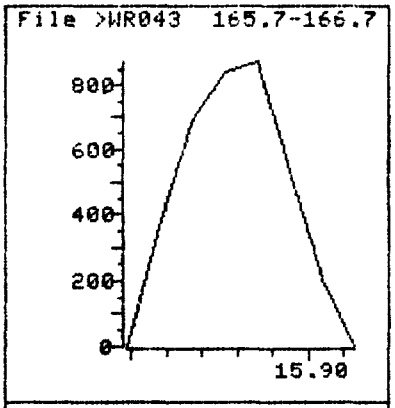


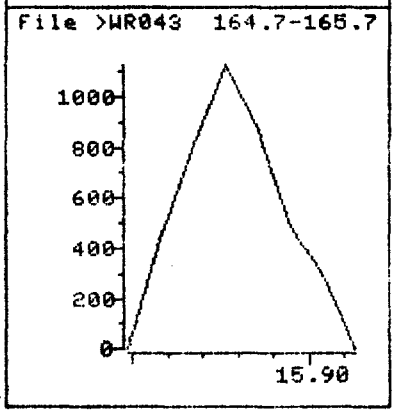
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







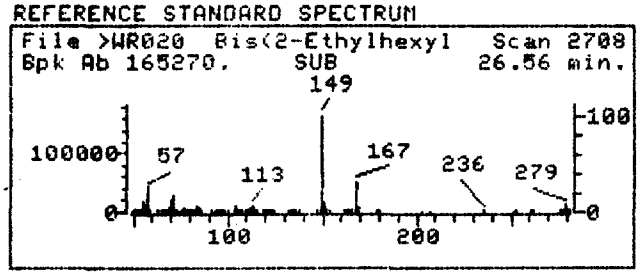
Data File: >WR043::D6
Name: 93ZE06R62 FB
Misc: 06-08-93
Quant Time: 930609 10:52
Injected at: 930608 23:51

Quant Output File: ^WR043::D3

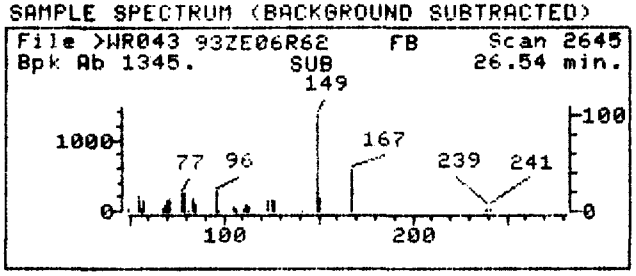
BTL# 7
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 50
Compound Name: Fluorene
Scan Number: 1475
Retention Time: 15.89 min.
Quant Ion: 166.0
Area: 1929
Concentration: .32 NG/UL
q-value: 95

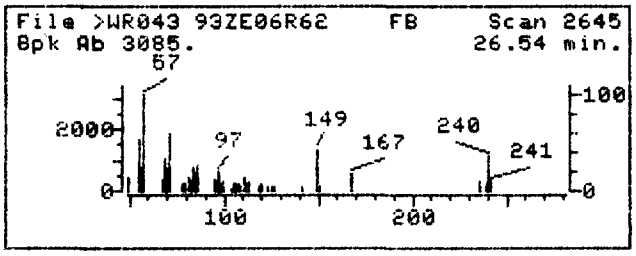
REFERENCE STANDARD SPECTRUM

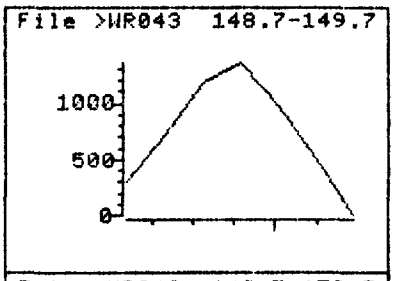


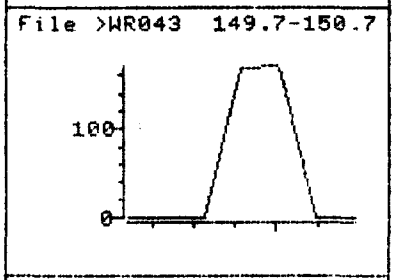
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

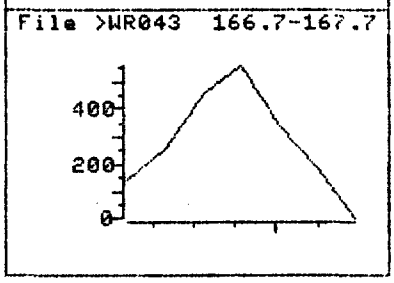


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR043::D6 Quant Output File: ^WR043::D3
Name: 93ZE06R62 FB
Misc: 06-08-93 BTL# 7
Quant Time: 930609 10:52 Quant ID File: IDRW37::SC
Injected at: 930608 23:51 Last Calibration: 930609 10:36

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2645
Retention Time: 26.54 min.
Quant Ion: 149.0
Area: 2775
Concentration: .56 NG/UL
q-value: 89

MS data file header from : >WR043

Sample: 93ZE06R62 FB Operator: MANAGER SUPER GRP. 6/08/93 23:51
Misc : 06-08-93 BTL# 7
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: TOXIC6 Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	65.	320.	321.	0.	0.
Chromatographic times, min. :	1.0	1.0	2.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	1.0	0.0	0.0	0.0

>WR043 93ZE06R62 FB 06-08-93
45.01 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 44760. Max Peaks: 1 Bunching: 1
Dnslope: 0.00 Results File IWR043 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
~~1~~	~~26.73~~	~~2648~~	~~2651~~	~~2654~~	~~10206~~	~~209894~~	~~156596~~	~~100.00~~	~~100.000~~

RWW 6-24-93

Sum of corrected areas: 156596.

Summary of Unknowns PBM Library Search and Quantitation

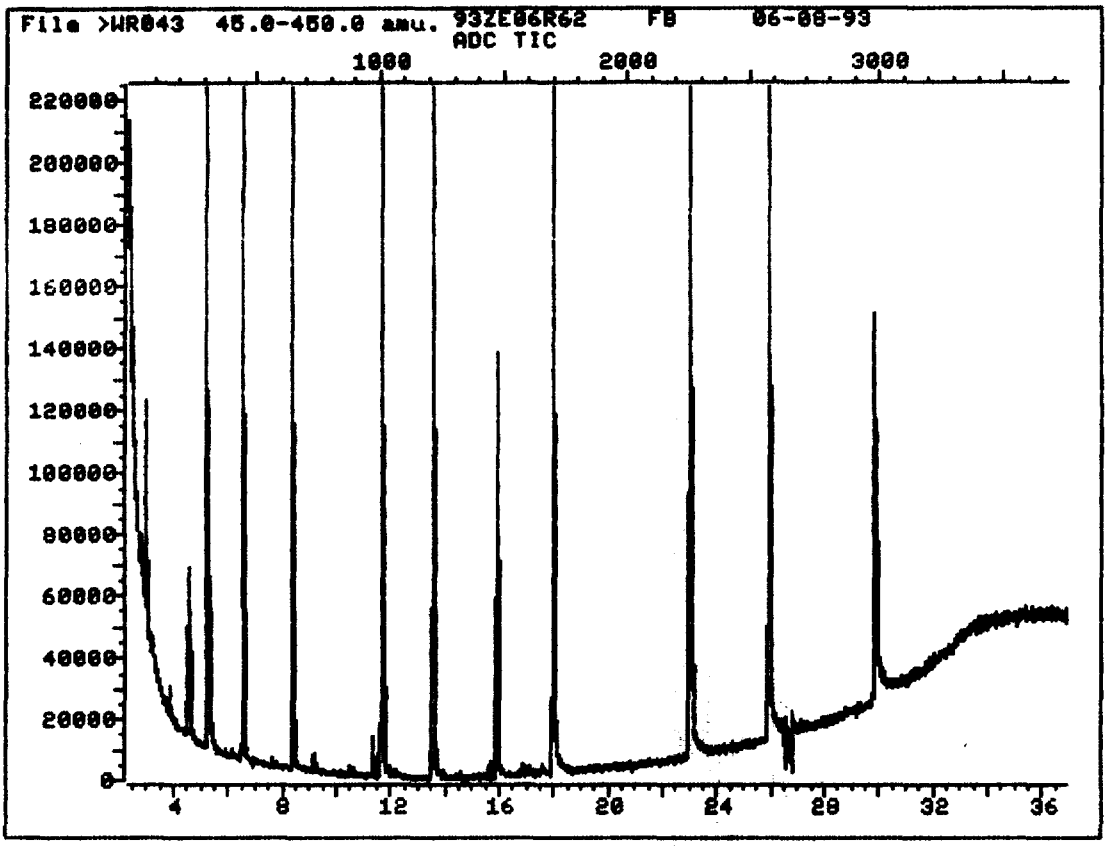
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	774473.	5.16	2.35 - 11.55
2	50.0	880919.	17.93	11.55 - 23.88
3	50.0	447596.	29.83	23.88 - 36.92

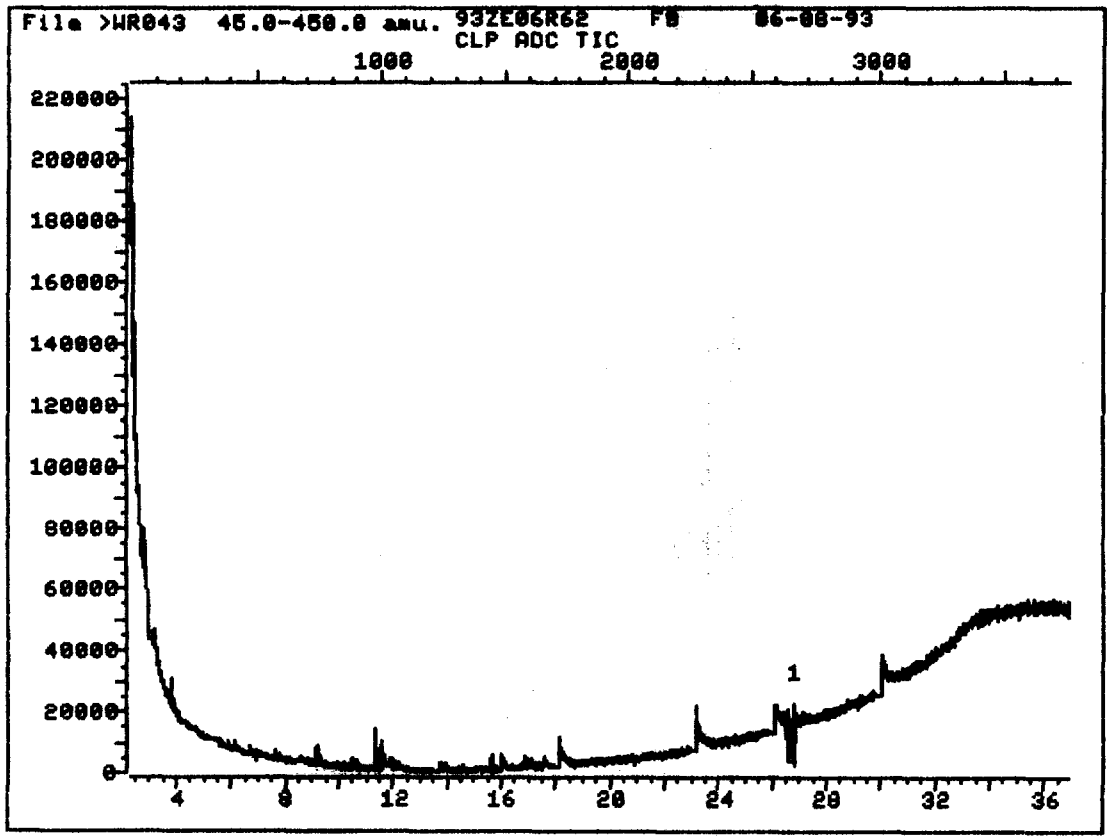
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1050.00

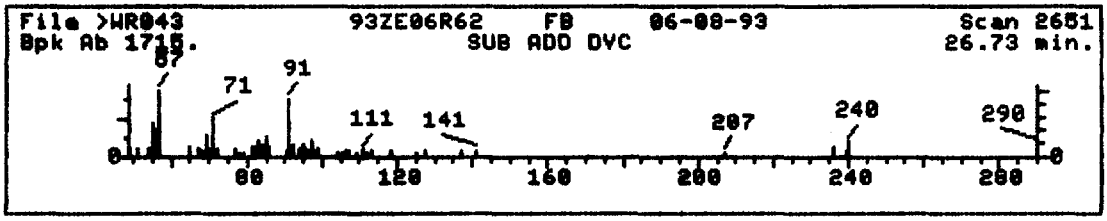
Correction Factor = .95 = (AM / AU) / (DF * FS)

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

2:54 PM WED., 16 JUNE, 1993


File >WR043 45.0-450.0 amu. 93ZE06R62 FB 06-08-93
ADC TIC
1000
2000
3000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36


File >WR043 45.0-450.0 amu. 93ZE06R62 FB 06-08-93
CLP ADC TIC
1000
2000
3000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
1
4
8
12
16
20
24
28
32
36



. UNKNOWN #,1
AREA = 156596.0 TENTATIVE CONCENTRATION IS 17.00

Sample file: >WR043 Spectrum #: 2651

No data base entries were retrieved.

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 10:47
Output File: ^WR042::D3 Injected at: 930608 23:05
Data File: >WR042::D6 Dilution Factor: 1.00000
Name: 93ZE06R60 FB
Misc: 06-08-93 BTL# 6

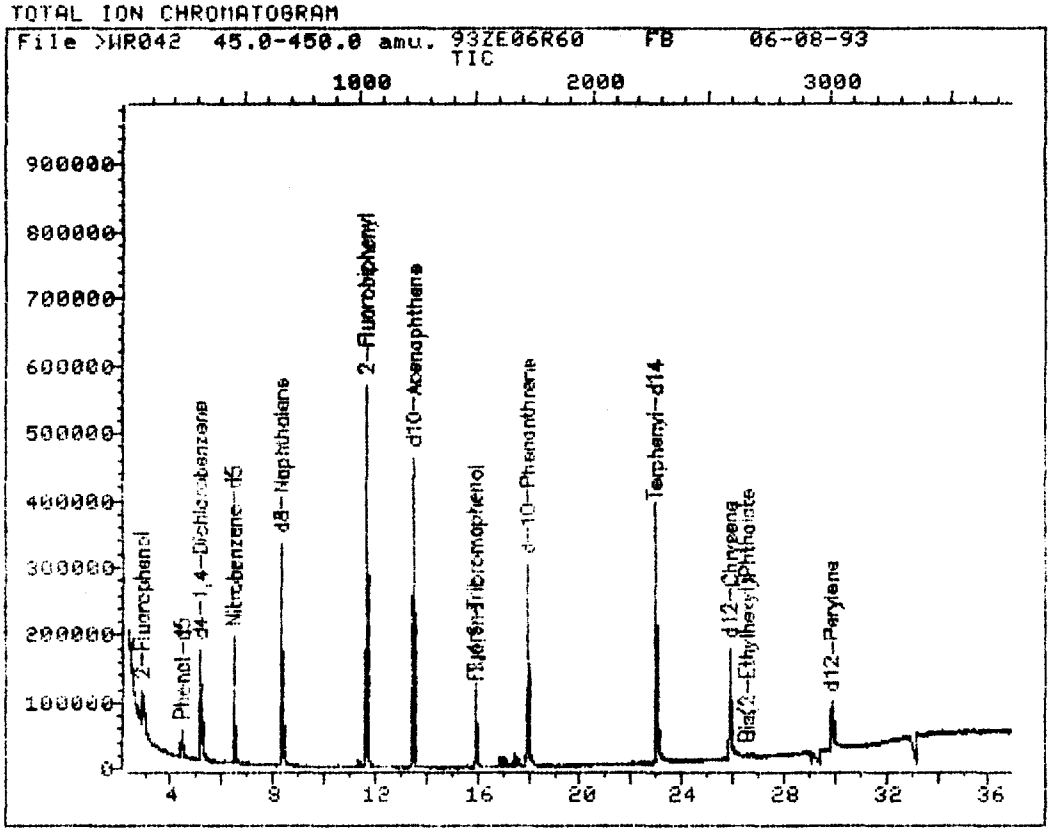
ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q	
~~17~~	*d4-1,4-Dichlorobenzene	5.11	152.0	141001	50.00	NG/UL	93	
~~27~~	2-Fluorophenol	2.83	112.0	88233	26.09	NG/UL	98	35
~~37~~	Phenol-d5	4.41	99.0	80073	20.42	NG/UL	83	27
~~167~~	d8-Naphthalene	8.30	136.0	504849	47.62	NG/UL	85	
~~27~~	Nitrobenzene-d5	6.42	82.0	193929	59.88	NG/UL	88	80
~~317~~	d10-Acenaphthene	13.48	164.0	251799	45.32	NG/UL	96	
~~367~~	2-Fluorobiphenyl	11.60	172.0	486484	59.06	NG/UL	95	79
~~39~~	*d-10-Phenanthrene	17.93	188.0	310139	50.00	NG/UL	99	
~~50)~~	~~Fluorene~~	~~15.87~~	~~166.0~~	~~1965~~	~~.37~~	~~NG/UL~~	~~91~~	✓
~~54~~	2,4,6-Tribromophenol	15.87	329.9	49523	39.57	NG/UL	97	53
~~62~~	d12-Chrysene	25.87	240.0	244169	45.94	NG/UL	97	
64).	Terphenyl-d14	22.94	244.0	505788	86.44	NG/UL	96	115
67)	Bis(2-Ethylhexyl)Phthalate	26.54	149.0	5561	1.28	NG/UL	92	
~~69~~	*d12-Perylene	29.83	264.0	135826	50.00	NG/UL	96	

* Compound is ISTD

low IS #3

TOTAL ION CHROMATOGRAM

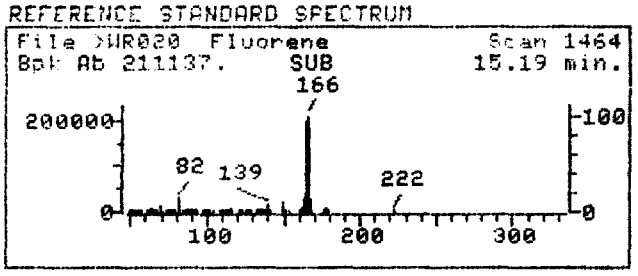


Data File: >WR042::D6 Quant Output File: ^WR042::D3
Name: 93ZE06R60 FB
Misc: 06-08-93 BTL# 6

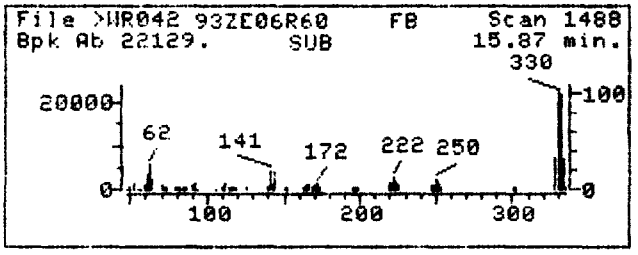
Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 10:47
Injected at: 930608 23:05

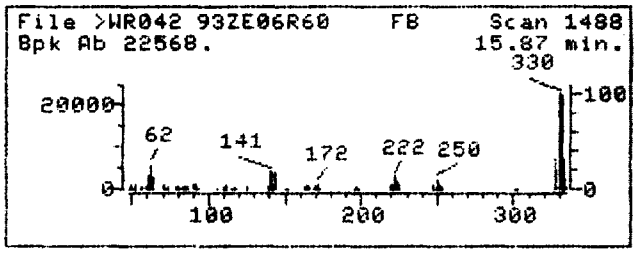
REFERENCE STANDARD SPECTRUM

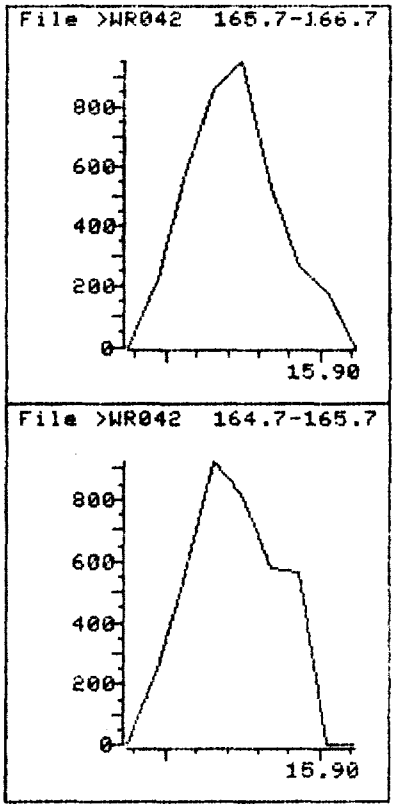


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR042::D6
Name: 93ZE06R60 FB
Misc: 06-08-93
Quant Time: 930609 10:47
Injected at: 930608 23:05

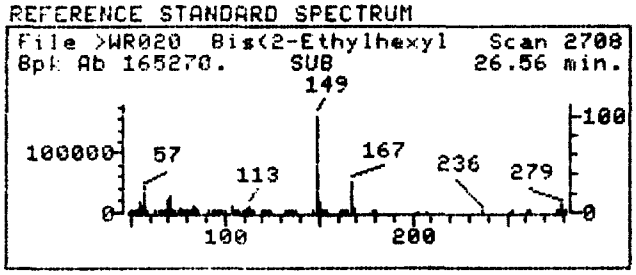
Quant Output File: ^WR042::D3

BTL# 6

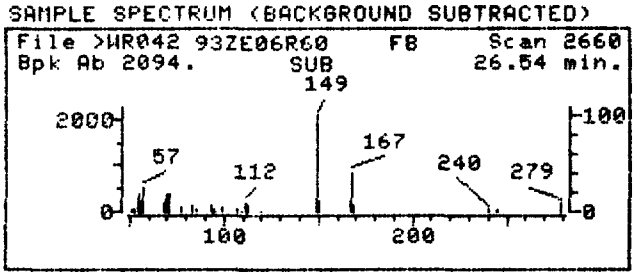
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 50
Compound Name: Fluorene
Scan Number: 1489
Retention Time: 15.87 min.
Quant Ion: 166.0
Area: 1965
Concentration: .37 NG/UL
q-value: 91

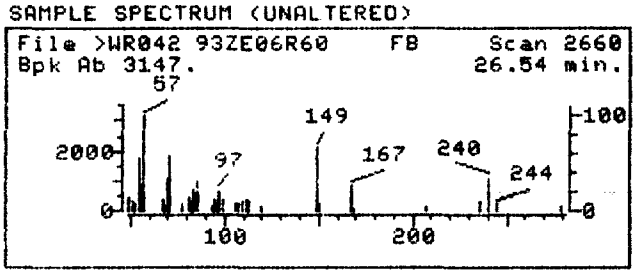
REFERENCE STANDARD SPECTRUM

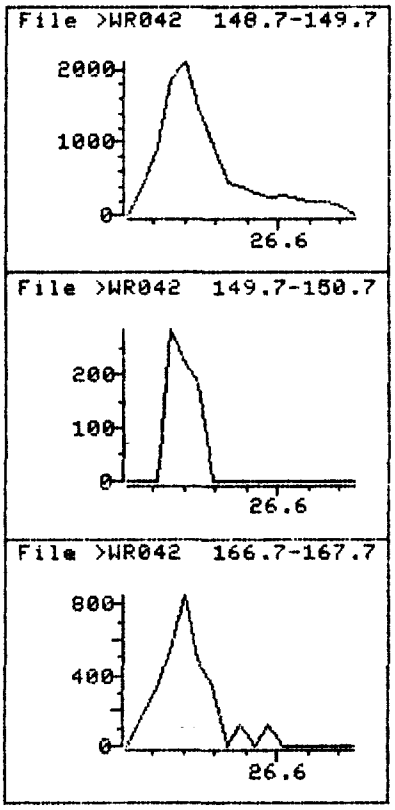


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR042::D6 Quant Output File: ^WR042::D3
Name: 93ZE06R60 FB
Misc: 06-08-93 BTL# 6
Quant Time: 930609 10:47 Quant ID File: IDRW37::SC
Injected at: 930608 23:05 Last Calibration: 930609 10:36

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2660
Retention Time: 26.54 min.
Quant Ion: 149.0
Area: 5561
Concentration: 1.28 NG/UL
q-value: 92

MS data file header from : >WR042

Sample: 93ZE06R60 FB Operator: MANAGER SUPER GRP. 6/08/93 23:05
Misc : 06-08-93 BTL# 6
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: TOXIC6 Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	65.	320.	321.	0.	0.
Chromatographic times, min. :	1.0	1.0	2.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	1.0	0.0	0.0	0.0

>WR042 93ZE06R60 FB 06-08-93
45.01 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 30359. Max Peaks: 4 Bunching: 1
Dnslope: 0.00 Results File IWR042 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
~~1~~	~~16.81~~	~~1588~~	~~1592~~	~~1601~~	~~13575~~	~~41023~~	~~30640~~	~~6.80~~	~~5.538~~
~~2~~	~~17.06~~	~~1615~~	~~1619~~	~~1625~~	~~13301~~	~~43278~~	~~33284~~	~~7.39~~	~~6.016~~
~~3~~	~~17.48~~	~~1659~~	~~1665~~	~~1671~~	~~18216~~	~~51672~~	~~39047~~	~~8.67~~	~~7.057~~
~~4~~	~~33.13~~	~~3341~~	~~3343~~	~~3347~~	~~49207~~	~~497711~~	~~450318~~	~~100.00~~	~~81.389~~

RWM 6-24-93

Sum of corrected areas: 553289.

Summary of Unknowns PBM Library Search and Quantitation

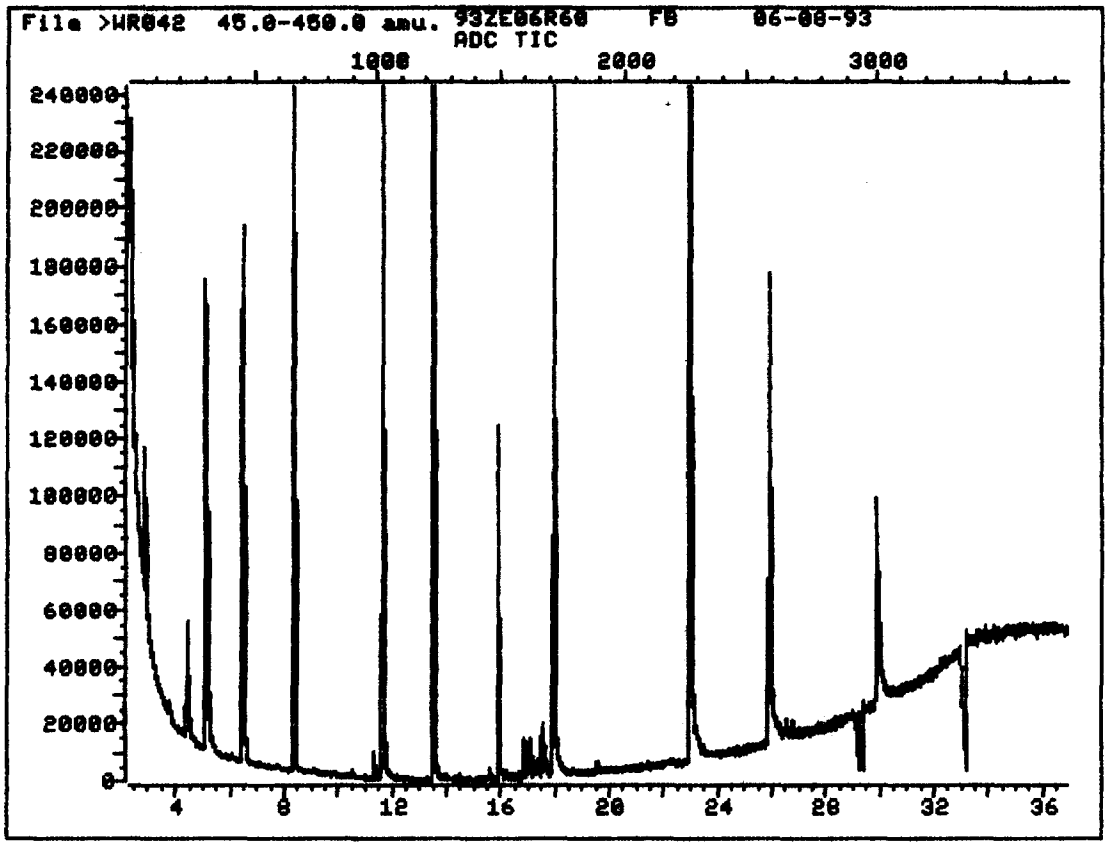
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	690070.	5.10	2.35 - 11.52
2	50.0	748489.	17.93	11.52 - 23.88
3	50.0	303595.	29.83	23.88 - 36.89

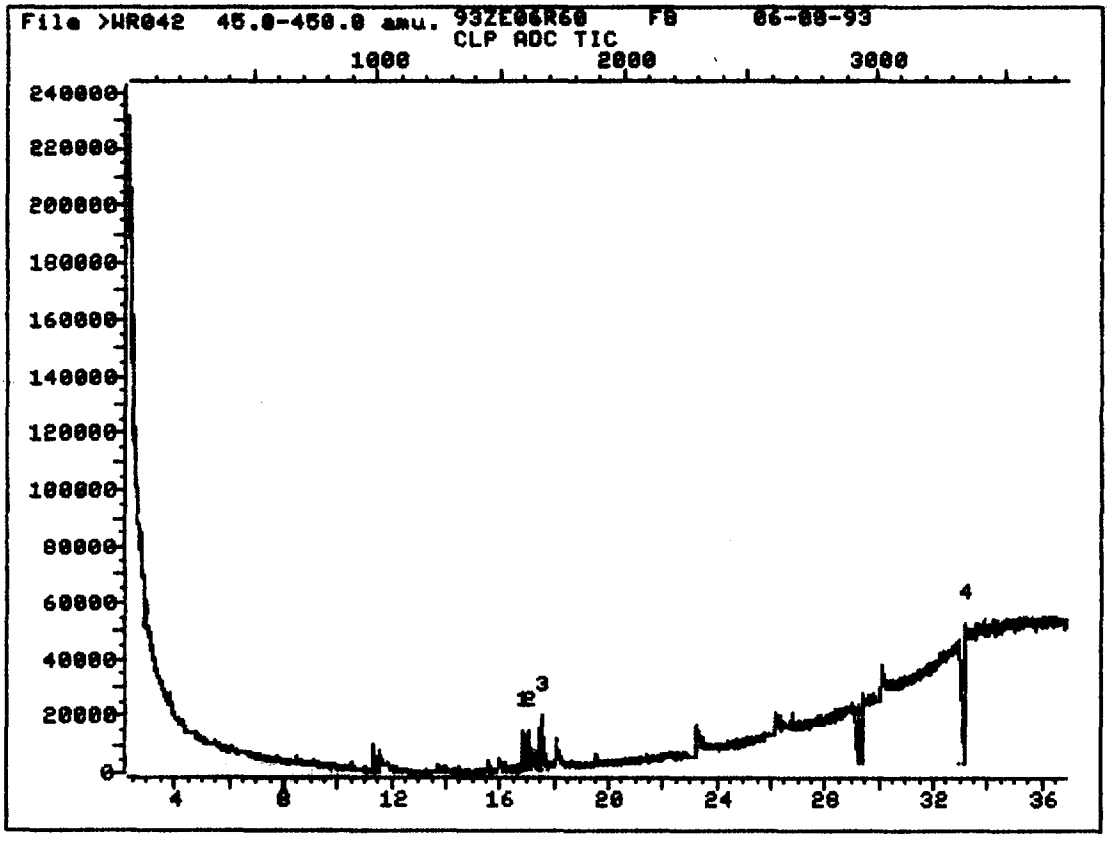
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1050.00

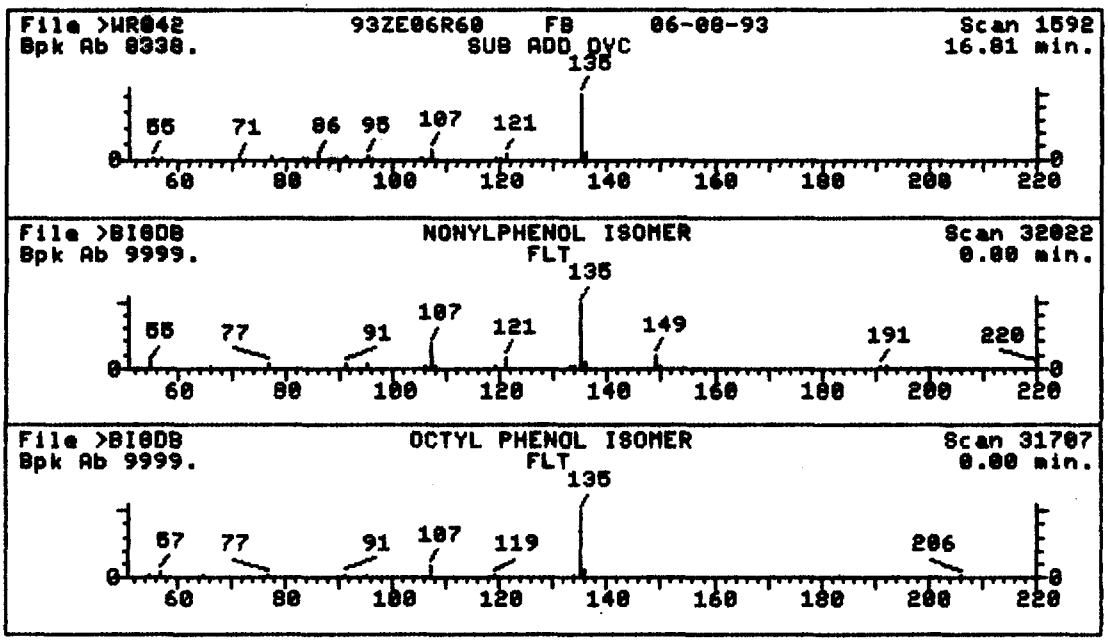
Correction Factor = .95 = (AM / AU) / (DF * FS)

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

2:35 PM WED., 16 JUNE, 1993


File >WR042 45.0-450.0 amu. 93ZE06R60 FB 06-08-93
ADC TIC
1000
2000
3000
240000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36


File >WR042 45.0-450.0 amu. 93ZE06R60 FB 06-08-93
CLP ADC TIC
1000
2000
3000
240000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
1
2
3
4
4
8
12
16
20
24
28
32
36

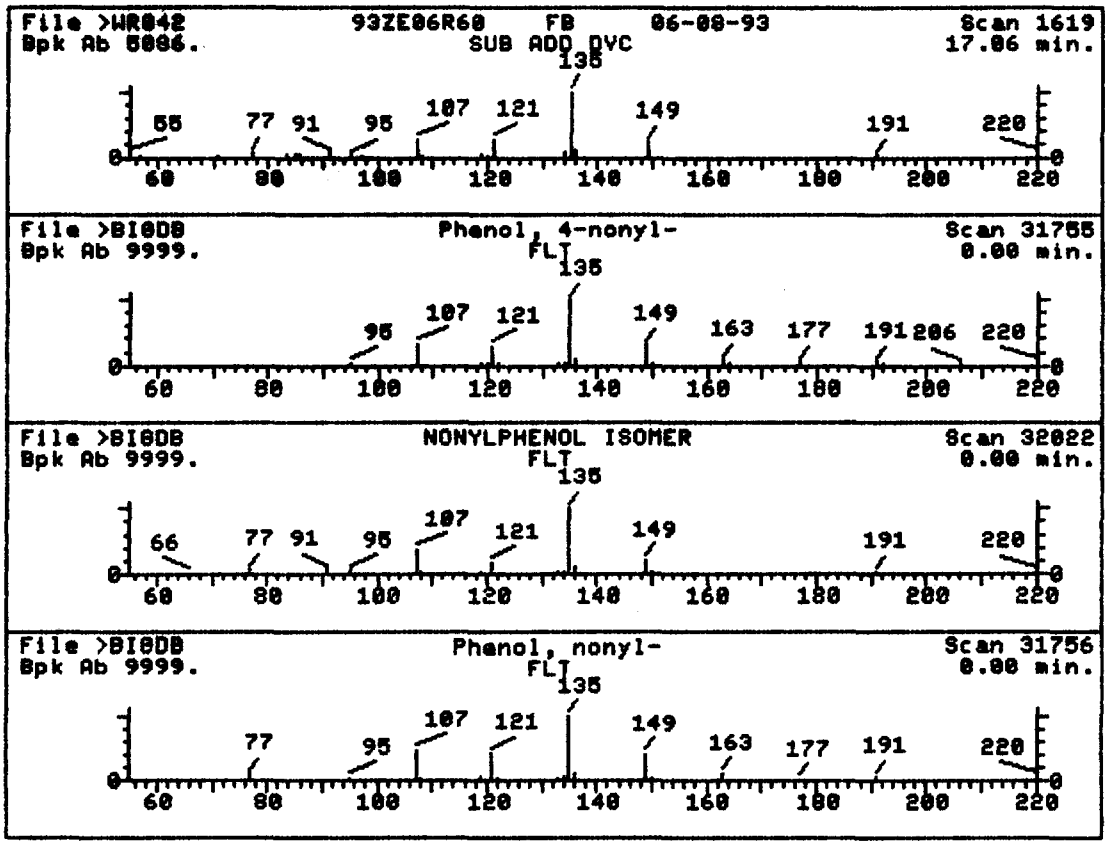


UNKNOWN #,1
AREA = 30640.00 TENTATIVE CONCENTRATION IS 2.00

1. NONYLPHENOL ISOMER 220 C15H24O
2. OCTYL PHENOL ISOMER 206 C14H22O

Sample file: >WR042 Spectrum #: 1592
Search speed: 1 Tilting option: S No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	78*	0	32022	"BIGDB	27	88	3	0	100	5	55	13
2.	60	0	31707	"BIGDB	47	30	2	0	89	13	30	16

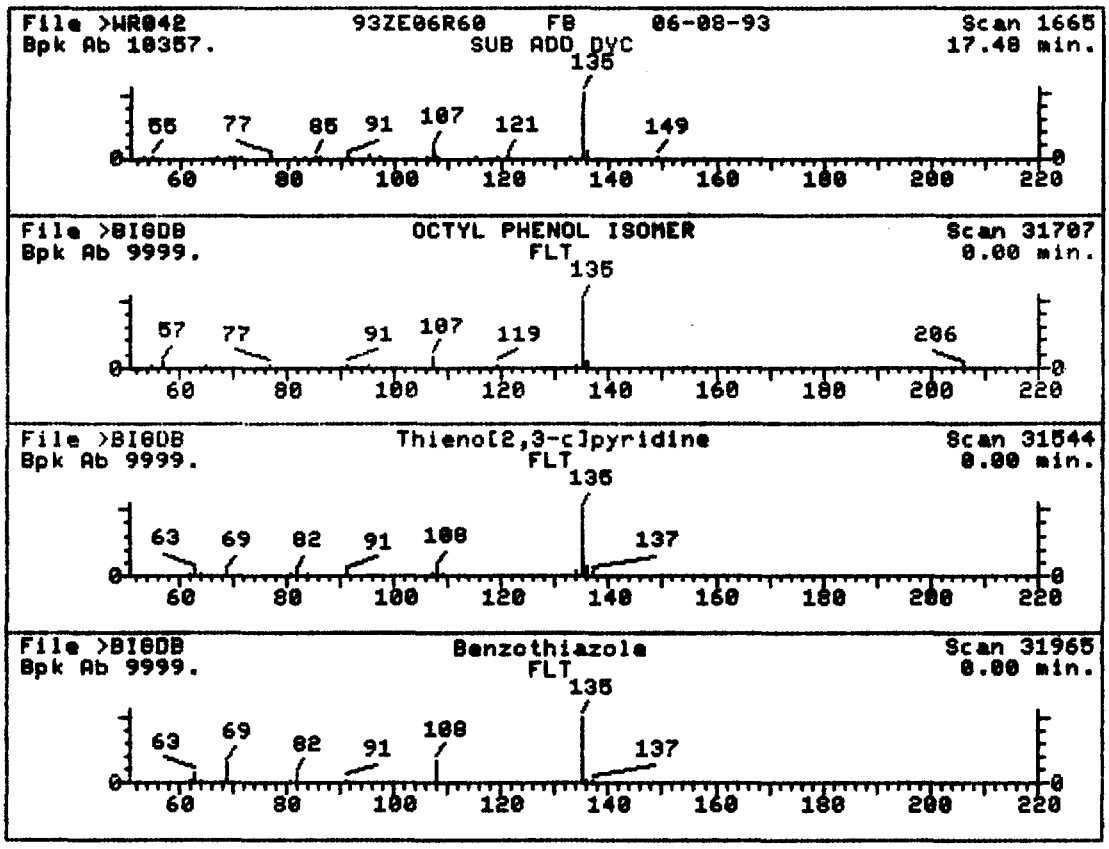


UNKNOWN #,2
AREA = 33284.00 TENTATIVE CONCENTRATION IS 2.00

1.	Phenol, 4-nonyl-	220	C15H24O
2.	NONYLPHENOL ISOMER	220	C15H24O
3.	Phenol, nonyl-	220	C15H24O
4.	2H-Imidazo[4,5-b]pyridin-2-one, 1,3-dihydro-	135	C6H5N3O
5.	6-METHYL-TRIAZOLO[2,3-B]-1,2,4-TRIAZINE	135	C5H5N5
6.	Benzothiazole	135	C7H5NS
7.	Thieno[2,3-c]pyridine	135	C7H5NS

Sample file: >WR042 Spectrum #: 1619
Search speed: 1 Tilting option: S No. of ion ranges searched: 59

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	86*	104405	31755	"BIGDB	59	61	2	0	75	5	60	36
2.	83*	0	32022	"BIGDB	81	34	2	-2	91	8	54	50
3.	78*	25154523	31756	"BIGDB	29	101	3	0	100	2	55	13
4.	27*	16328624	31536	"BIGDB	28	65	3	0	100	37	10	13
5.	27*	0	31531	"BIGDB	25	86	3	0	100	37	10	13
6.	26*	95169	31964	"BIGDB	24	58	2	0	100	45	8	14

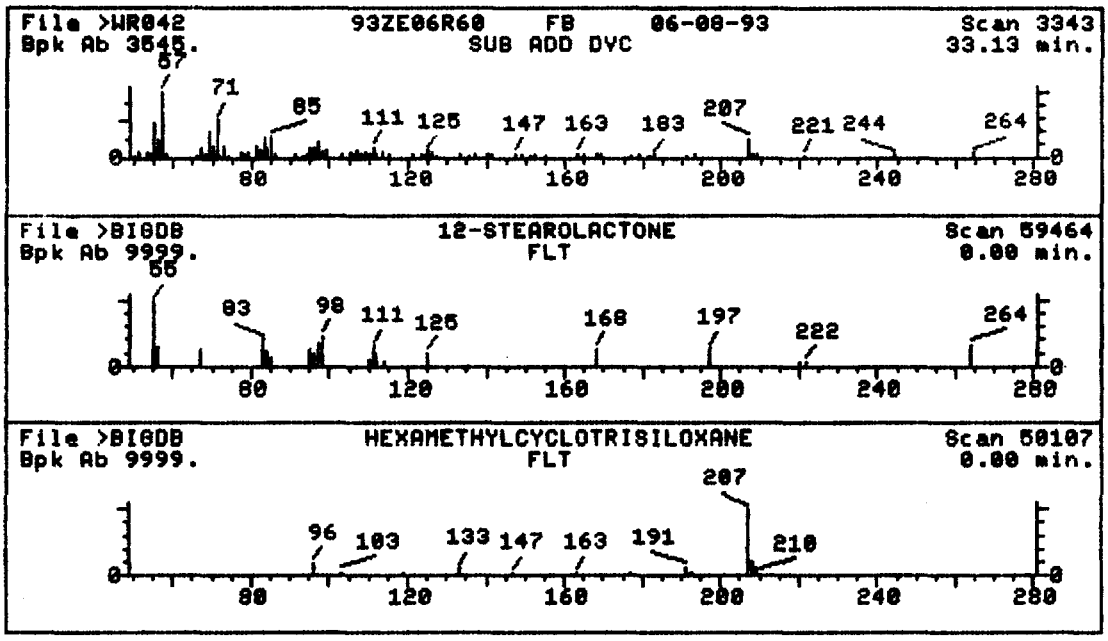


UNKNOWN #,3
AREA = 39047.00 TENTATIVE CONCENTRATION IS 2.00

1.	OCTYL PHENOL ISOMER	206	C14H22O
2.	Thieno[2,3-c]pyridine	135	C7H5NS
3.	Benzothiazole	135	C7H5NS
4.	NONYLPHENOL ISOMER	220	C15H24O

Sample file: >WR042 Spectrum #: 1665
Search speed: 1 Tilting option: S No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60	0	31707	"BIGDB	42	35	2	0	100	14	30	14
2.	42*	272128	31544	"BIGDB	21	68	2	0	72	22	17	13
3.	41*	95169	31965	"BIGDB	23	64	3	0	100	25	17	12
4.	31*	0	32022	"BIGDB	39	57	2	0	46	39	10	17



UNKNOWN #,4
AREA = 450318.0 TENTATIVE CONCENTRATION IS ~~71.00~~

1. 12-STEAROLACTONE 282 C18H3402
2. HEXAMETHYLCYCLOTRISILOXANE 222 C6H18O3Si3

Sample file: >WR042 Spectrum #: 3343
Search speed: 1 Tilting option: S No. of ion ranges searched: 53

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	11	0	59464	"BIGDB	65	89	2	0	49	61	2	14
2.	11	0	50107	"BIGDB	38	62	0	0	28	63	2	16

QUANT REPORT

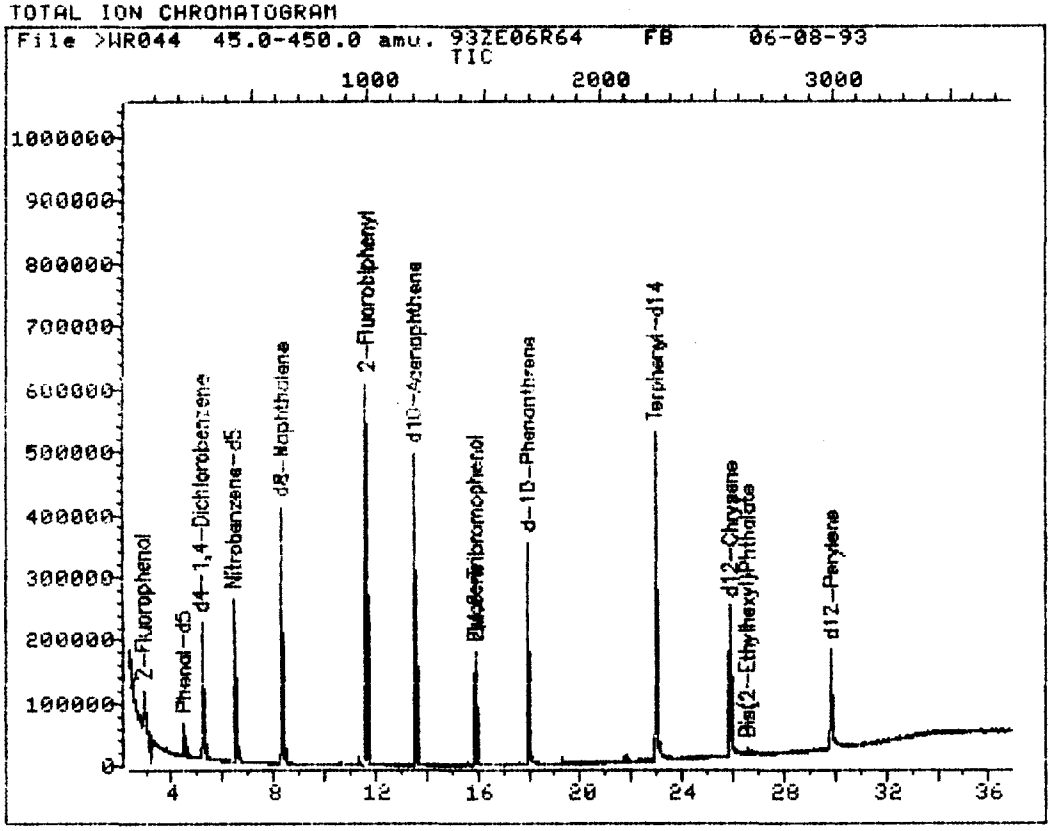
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 10:57
Output File: ^WR044::D3 Injected at: 930609 00:38
Data File: >WR044::D6 Dilution Factor: 1.00000
Name: 93ZE06R64 FB
Misc: 06-08-93 BTL# 8

ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q	
~~17~~	*d4-1,4-Dichlorobenzene	5.14	152.0	145439	50.00	NG/UL	92	
~~21~~	2-Fluorophenol	2.87	112.0	93076	26.68	NG/UL	87	35
~~31~~	Phenol-d5	4.43	99.0	80537	19.91	NG/UL	84	27
~~16~~	d8-Naphthalene	8.30	136.0	539092	49.30	NG/UL	86	
~~17~~	Nitrobenzene-d5	6.44	82.0	250808	75.08	NG/UL	86	100
~~31~~	d10-Acenaphthene	13.49	164.0	271262	47.33	NG/UL	94	
~~36~~	2-Fluorobiphenyl	11.61	172.0	498921	58.73	NG/UL	95	78
~~39~~	*d-10-Phenanthrene	17.94	188.0	362959	50.00	NG/UL	97	
~~50~~	~~Fluorene~~	~~15.88~~	~~166.0~~	~~2689~~	~~.43~~	~~NG/UL~~	~~98~~	
~~54~~	2,4,6-Tribromophenol	15.88	329.9	71264	48.65	NG/UL	98	65
~~62~~	d12-Chrysene	25.87	240.0	319595	51.38	NG/UL	98	
~~64~~	Terphenyl-d14	22.95	244.0	598493	87.40	NG/UL	97	116
67)	Bis(2-Ethylhexyl)Phthalate	26.54	149.0	7896	1.56	NG/UL	92	
~~69~~	*d12-Perylene	29.84	264.0	231169	50.00	NG/UL	95	

* Compound is ISTD

TOTAL ION CHROMATOGRAM

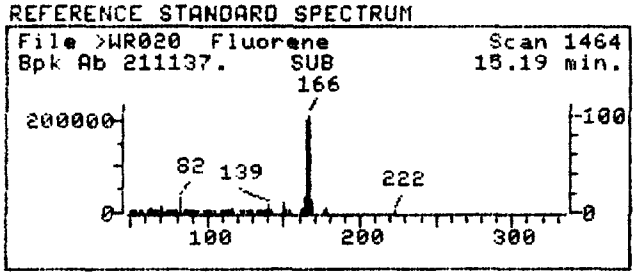


Data File: >WR044::D6 Quant Output File: ^WR044::D3
Name: 93ZE06R64 FB
Misc: 06-08-93 BTL# 8

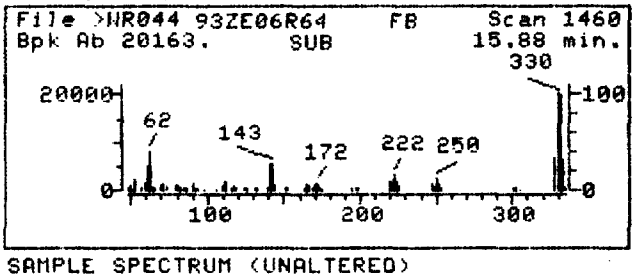
Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 10:57
Injected at: 930609 00:38

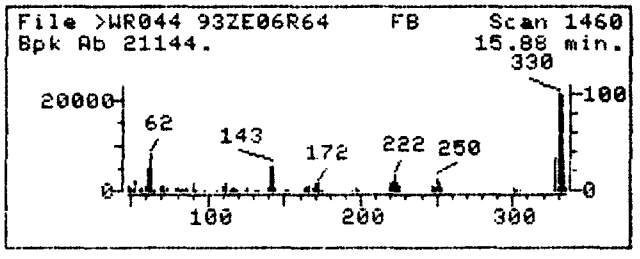
REFERENCE STANDARD SPECTRUM

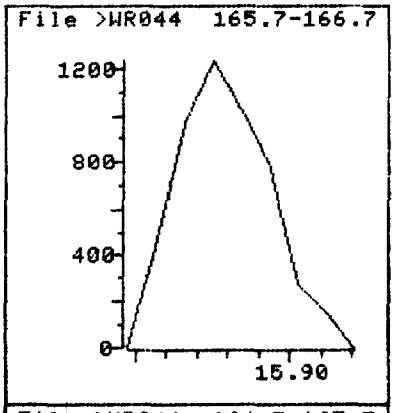


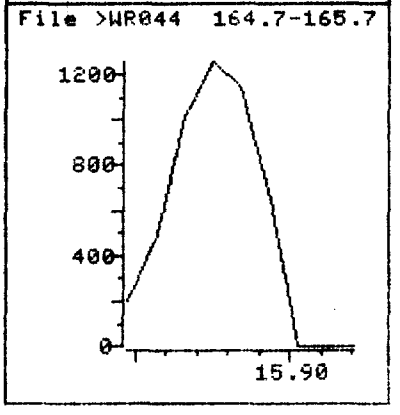
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR044::D6
Name: 93ZE06R64 FB
Misc: 06-08-93
Quant Time: 930609 10:57
Injected at: 930609 00:38

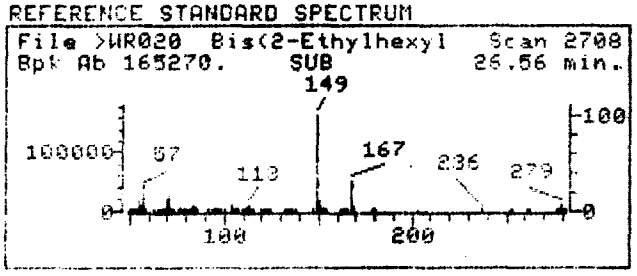
Quant Output File: ^WR044::D3

BTL# 8

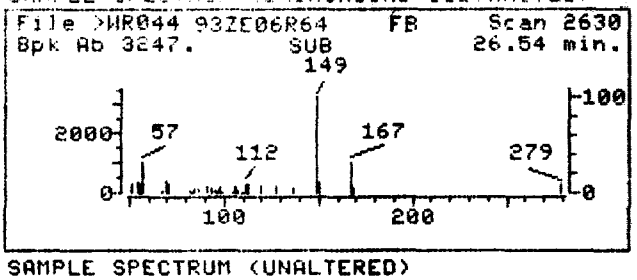
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 50
Compound Name: Fluorene
Scan Number: 1459
Retention Time: 15.88 min.
Quant Ion: 166.0
Area: 2689
Concentration: .43 NG/UL
q-value: 98

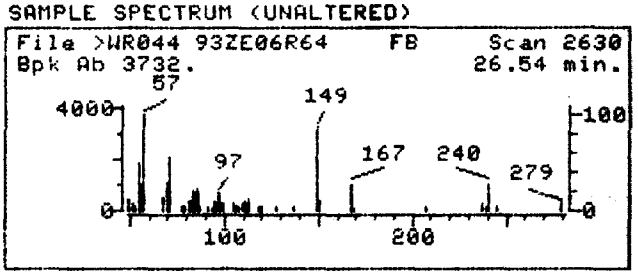
REFERENCE STANDARD SPECTRUM

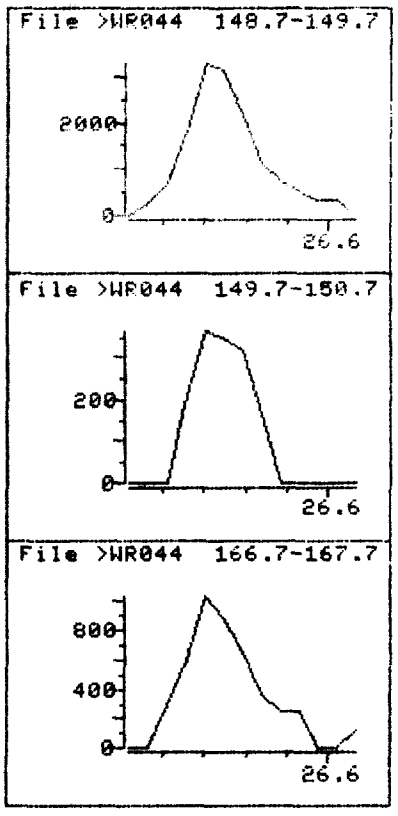


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR044::D6 Quant Output File: ^WR044::D3
Name: 93ZE06R64 FB
Misc: 06-08-93 BTL# 8
Quant Time: 930609 10:57 Quant ID File: IDRW37::SC
Injected at: 930609 00:38 Last Calibration: 930609 10:36

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2630
Retention Time: 26.54 min.
Quant Ion: 149.0
Area: 7896
Concentration: 1.56 NG/UL
q-value: 92

MS data file header from : >WR044

Sample: 93ZE06R64 FB Operator: MANAGER SUPER GRP. 6/09/93 0:38
Misc : 06-08-93 BTL# 8
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: TOXIC6 Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	65.	320.	321.	0.	0.
Chromatographic times, min. :	1.0	1.0	2.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	1.0	0.0	0.0	0.0

>WR044 93ZE06R64 FB 06-08-93
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 51248. Max Peaks: 1 Bunching: 1
Dnslope: 0.00 Results File IWR044 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
~~1~~	~~9.21~~	~~78~~	~~80~~	~~91~~	~~40806~~	~~944049~~	~~479050~~	~~100.00~~	~~100.000~~

RWW 6-24-93

Sum of corrected areas: 479050.

Summary of Unknowns PBM Library Search and Quantitation

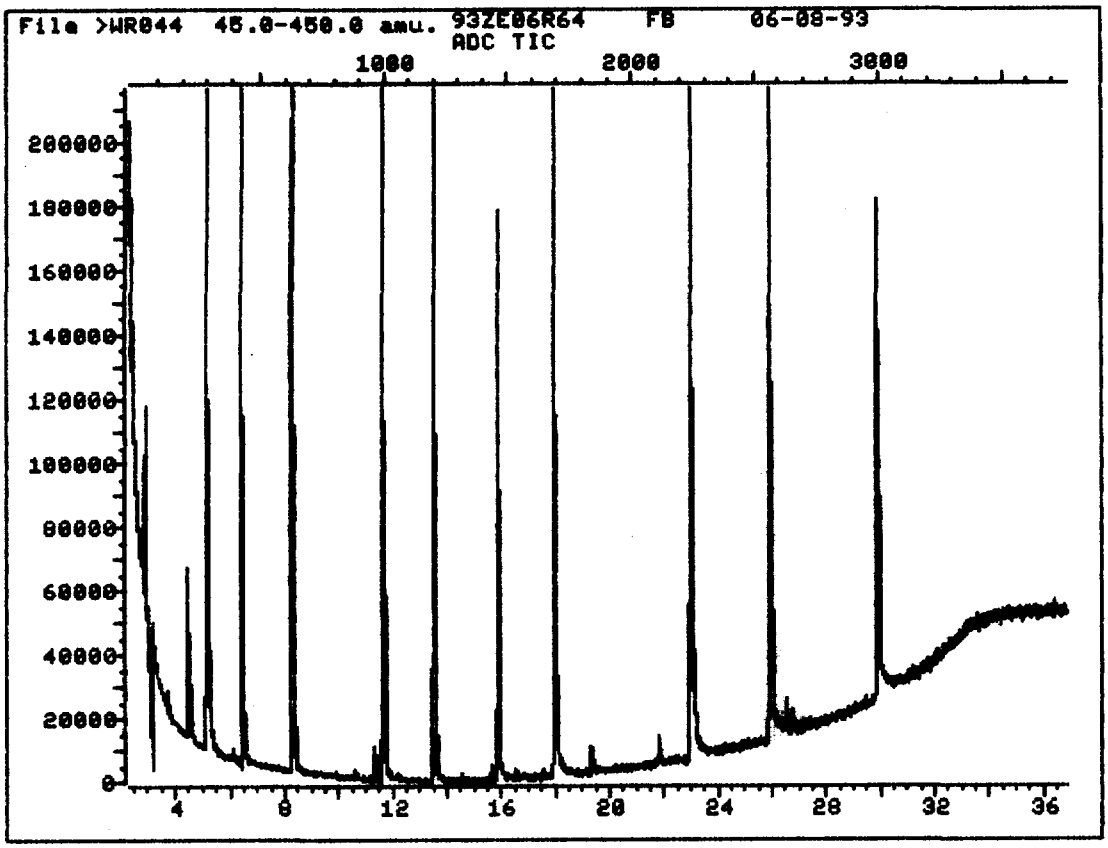
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	755655.	5.14	2.35 - 11.54
2	50.0	890781.	17.94	11.54 - 23.89
3	50.0	512477.	29.84	23.89 - 36.90

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 970.00

Correction Factor = 1.03 = (AM / AU) / (DF * FS)

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

3:02 PM WED., 16 JUNE, 1993


File >WR044 45.0-450.0 amu. 93ZE06R64 FB 06-08-93
ADC TIC
1000
2000
3000
200000
180000
160000
140000
120000
100000
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60000
40000
20000
0
4
8
12
16
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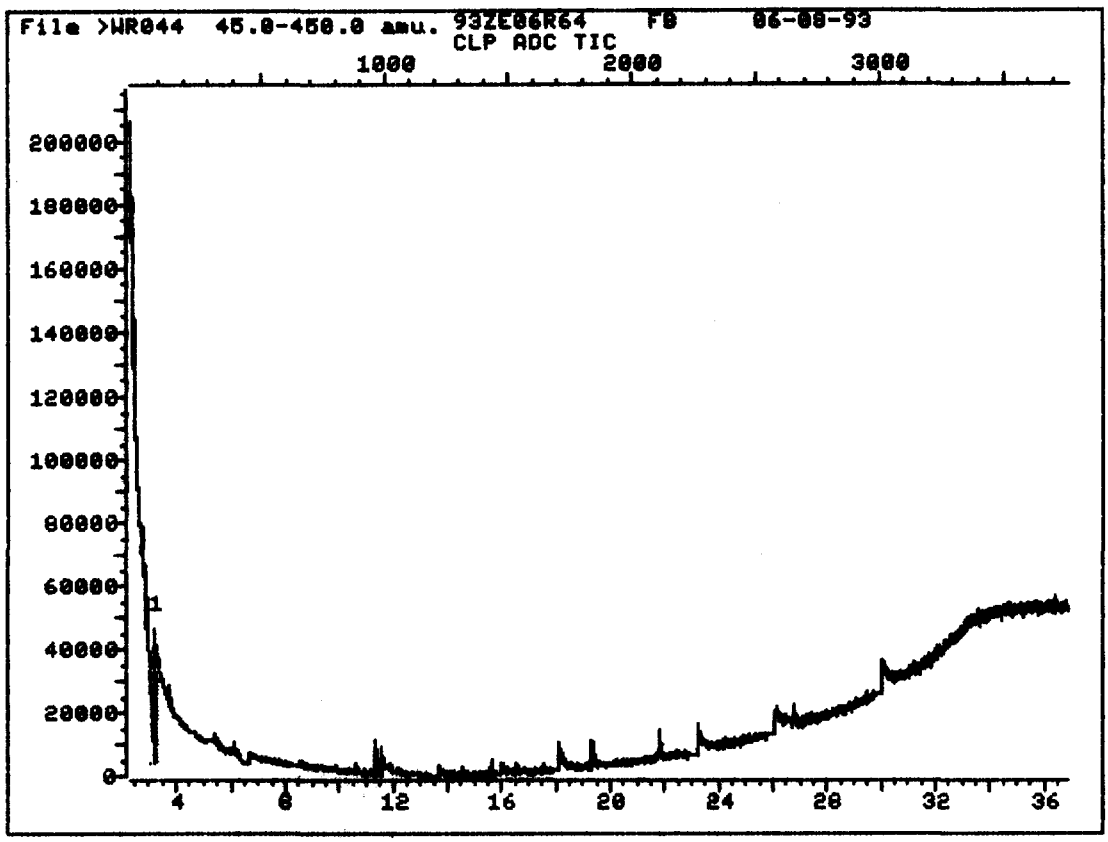
32
36


File >WR044 45.0-450.0 amu. 93ZE06R64 FB 06-08-93
CLP ADC TIC
1000
2000
3000
200000
180000
160000
140000
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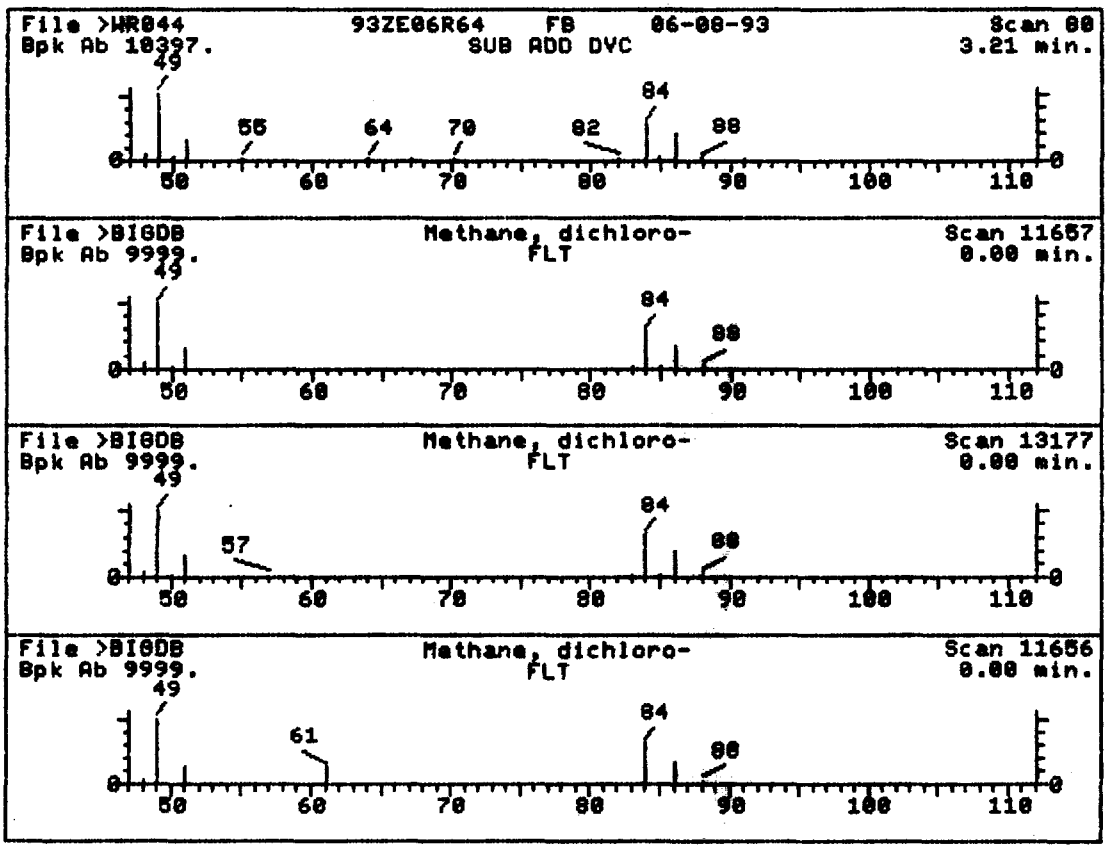


. UNKNOWN #,1
AREA = 479050.0 TENTATIVE CONCENTRATION IS 33.00

1. Methane, dichloro- 84 CH2Cl2
2. Methane, dichloro- 84 CH2Cl2
3. Methane, dichloro- 84 CH2Cl2
4. Methane, dichloro- 84 CH2Cl2
5. Methane, dichloro- 84 CH2Cl2

Sample file: >WR044 Spectrum #: 80
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	89*	75092	11657	"BIGDB	66	37	1	0	81	3	66	66
2.	86*	75092	13177	"BIGDB	61	38	2	2	98	4	60	35
3.	83*	75092	11656	"BIGDB	52	68	2	0	92	3	57	27
4.	83*	75092	11123	"BIGDB	57	44	2	2	84	3	57	27
5.	79*	75092	13178	"BIGDB	49	31	1	0	71	9	48	37

QUANT REPORT

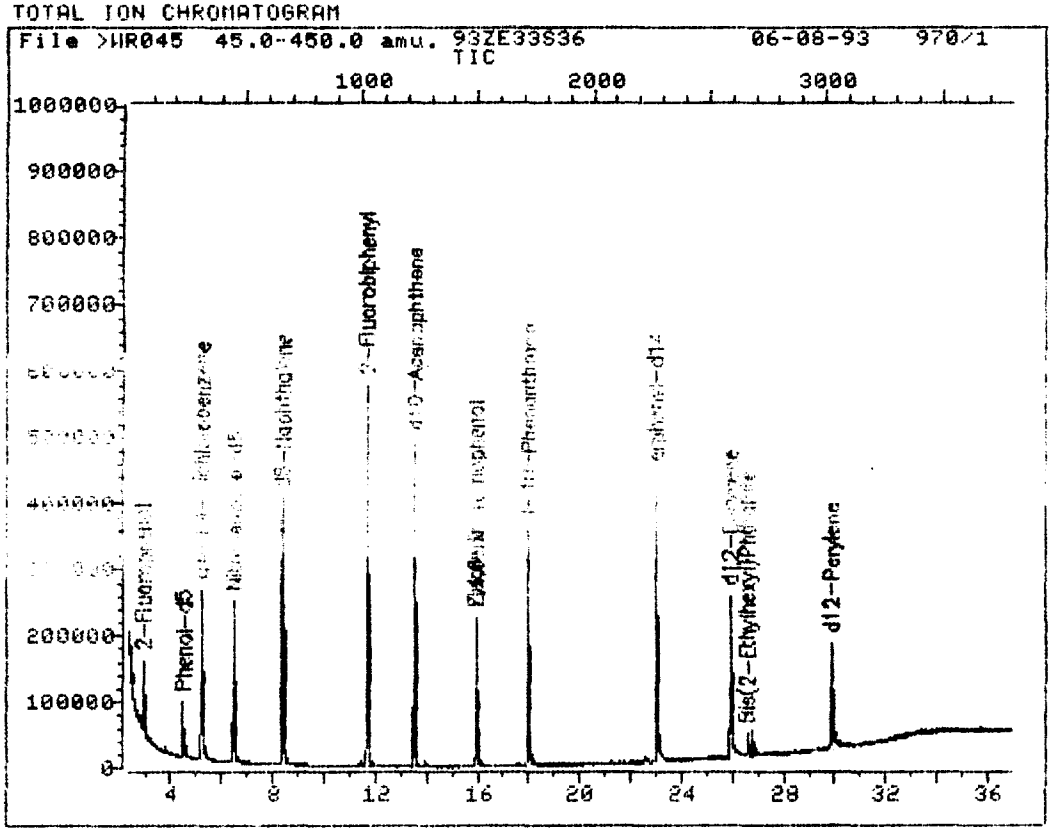
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 11:01
Output File: ^WR045::D3 Injected at: 930609 01:24
Data File: >WR045::D6 Dilution Factor: 1.00000
Name: 93ZE33S36
Misc: 06-08-93 970/1 BTL# 9

ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q	
~~17~~	*d4-1,4-Dichlorobenzene	5.15	152.0	155767	50.00	NG/UL	95	
~~27~~.	2-Fluorophenol	2.90	112.0	128288	34.34	NG/UL	91	46
~~31~~.	Phenol-d5	4.46	99.0	104305	24.07	NG/UL	83	32
~~16~~	d8-Naphthalene	8.32	136.0	559498	47.77	NG/UL	87	
~~17~~.	Nitrobenzene-d5	6.46	82.0	191479	53.52	NG/UL	89	71
~~31~~	d10-Acenaphthene	13.49	164.0	282159	45.97	NG/UL	94	
~~36~~).	2-Fluorobiphenyl	11.62	172.0	485430	53.35	NG/UL	94	71
~~39~~)	*d-10-Phenanthrene	17.94	188.0	368501	50.00	NG/UL	95	
~~50~~)	~~Fluorene~~	~~15.88~~	~~166.0~~	~~3732~~	~~.59~~	~~NG/UL~~	94	
~~54~~.	2,4,6-Tribromophenol	15.88	329.9	92577	62.25	NG/UL	96	15
~~62~~)	d12-Chrysene	25.88	240.0	331496	52.49	NG/UL	98	
~~64~~	Terphenyl-d14	22.94	244.0	477775	68.72	NG/UL	97	92
67)	Bis(2-Ethylhexyl)Phthalate	26.53	149.0	24379	4.73	NG/UL	97	
~~69~~	*d12-Perylene	29.83	264.0	242440	50.00	NG/UL	94	

* Compound is ISTD

TOTAL ION CHROMATOGRAM

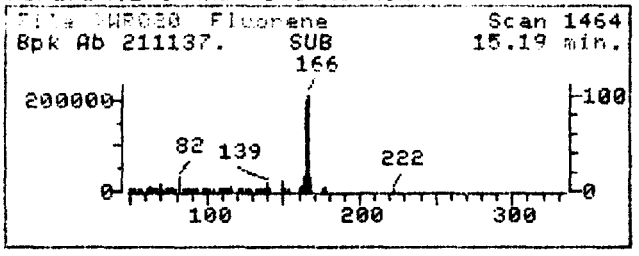


Data File: >WR045::D6 Quant Output File: ^WR045::D3
Name: 93ZE33S36
Misc: 06-08-93 970/1 BTL# 9

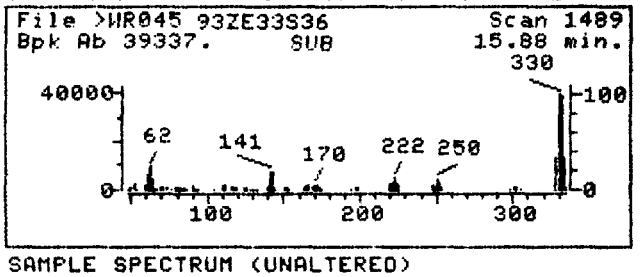
Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 11:01
Injected at: 930609 01:24

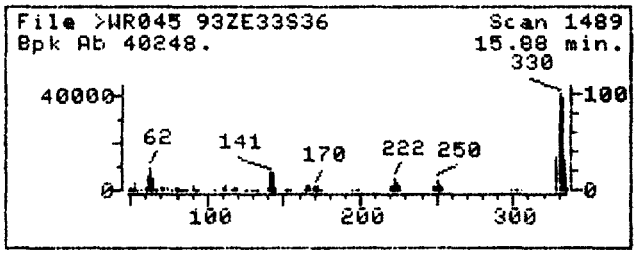
REFERENCE STANDARD SPECTRUM

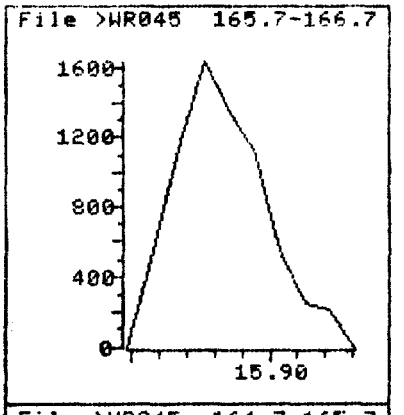


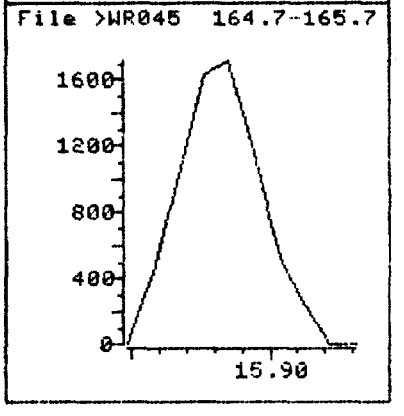
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







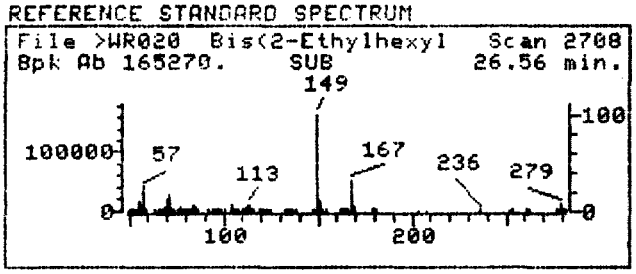
Data File: >WR045::D6
Name: 93ZE33S36
Misc: 06-08-93 970/1
Quant Time: 930609 11:01
Injected at: 930609 01:24

Quant Output File: ^WR045::D3

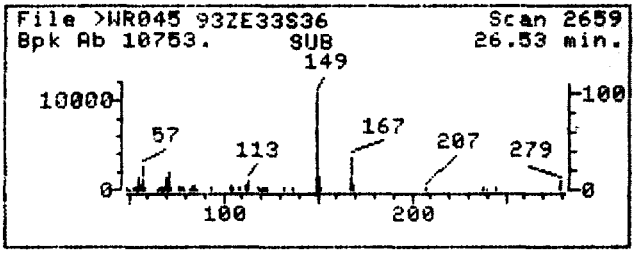
BTL# 9
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 50
Compound Name: Fluorene
Scan Number: 1489
Retention Time: 15.88 min.
Quant Ion: 166.0
Area: 3732
Concentration: .59 NG/UL
q-value: 94

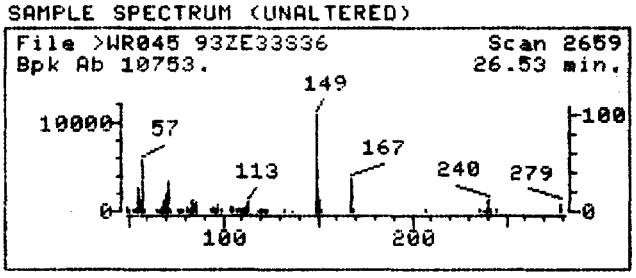
REFERENCE STANDARD SPECTRUM

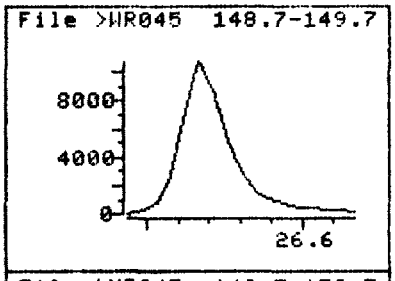


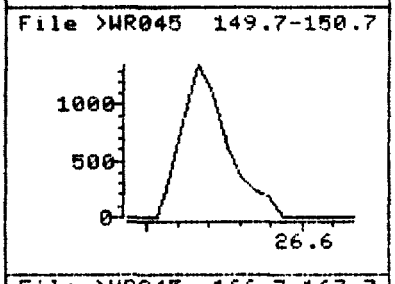
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

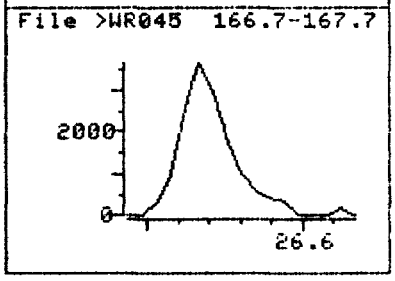


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR045::D6 Quant Output File: ^WR045::D3
Name: 93ZE33S36
Misc: 06-08-93 970/1 BTL# 9
Quant Time: 930609 11:01 Quant ID File: IDRW37::SC
Injected at: 930609 01:24 Last Calibration: 930609 10:36

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2659
Retention Time: 26.53 min.
Quant Ion: 149.0
Area: 24379
Concentration: 4.73 NG/UL
q-value: 97

MS data file header from : >WR045

Sample: 93ZE33S36 Operator: MANAGER SUPER GRP. 6/09/93 1:24
Misc : 06-08-93 970/1 BTL# 9
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: TOXIC6 Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	65.	320.	321.	0.	0.
Chromatographic times, min. :	1.0	1.0	2.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	1.0	0.0	0.0	0.0

>WR045 93ZE33S36 06-08-93 970/1
45.01 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 49043. Max Peaks: 1 Bunching: 1
Dnslope: 0.00 Results File IWR045 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
✓1	26.73	2677	2681	2688	38497	197428	85966	100.00	100.000

RWW 6-24-93 Sum of corrected areas: 85966.

Summary of Unknowns PBM Library Search and Quantitation

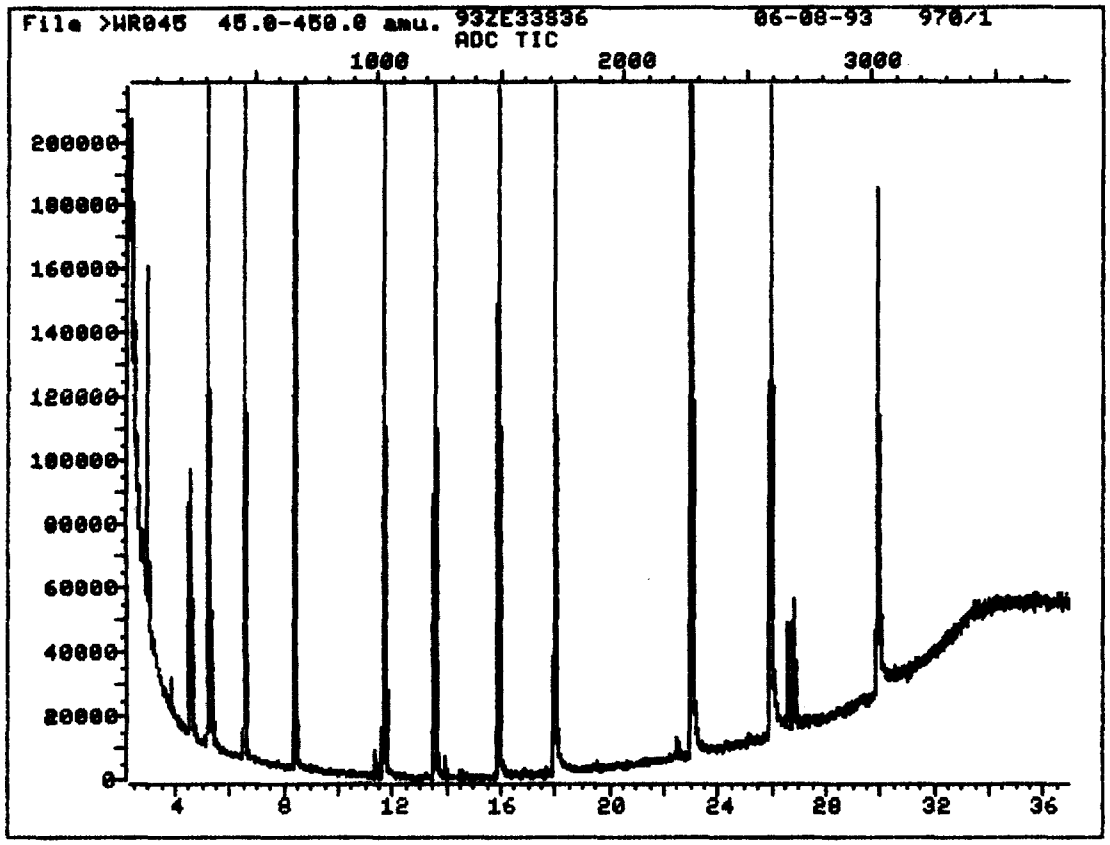
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	777843.	5.15	2.35 - 11.55
2	50.0	900037.	17.94	11.55 - 23.89
3	50.0	490428.	29.83	23.89 - 36.93

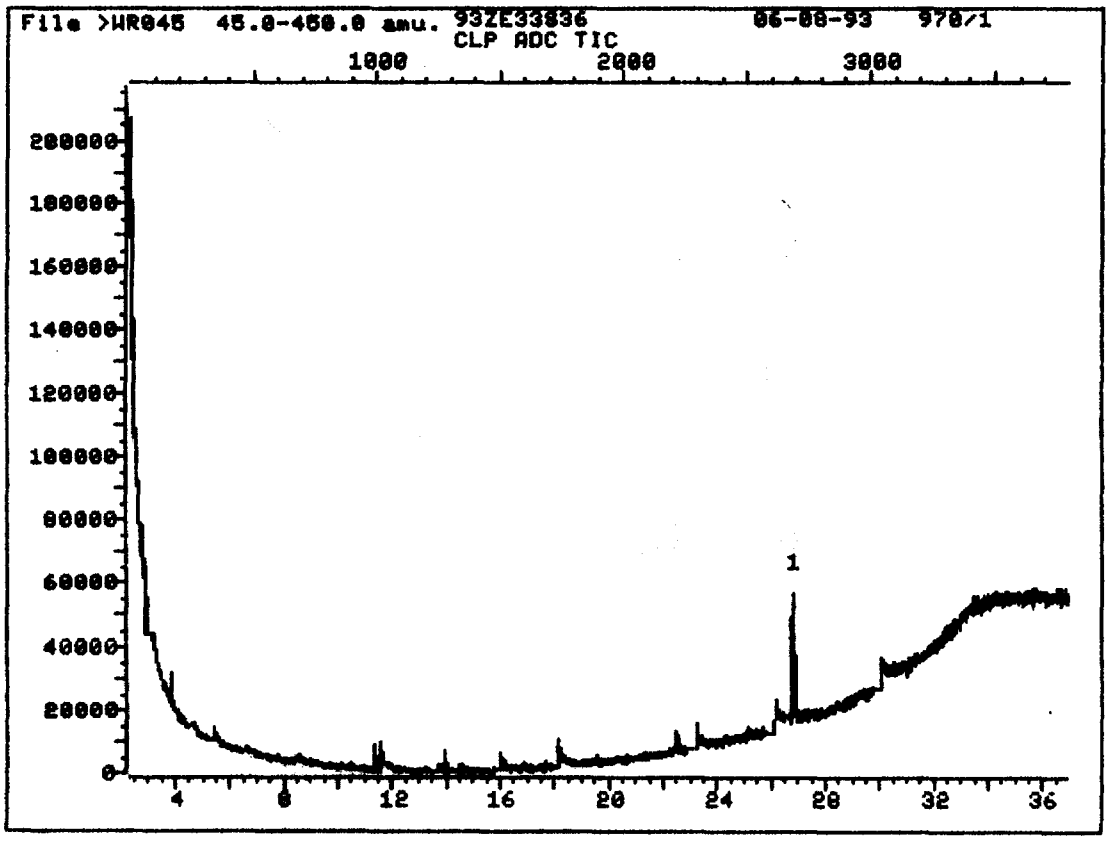
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 970.00

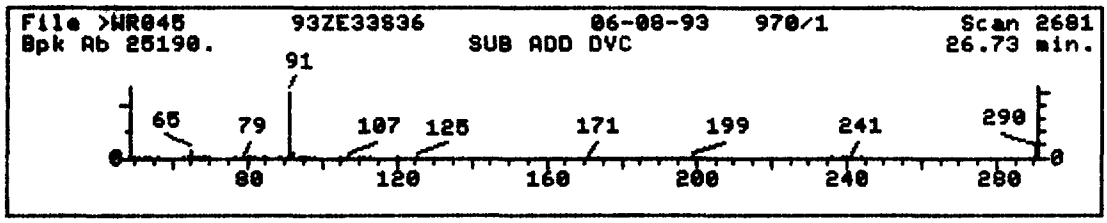
Correction Factor = 1.03 = (AM / AU) / (DF * FS)

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

3:12 PM WED., 16 JUNE, 1993


File >WR045 45.0-450.0 amu. 93ZE33836 06-08-93 970/1
ADC TIC
1000
2000
3000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36


File >WR045 45.0-450.0 amu. 93ZE33836 06-08-93 970/1
CLP ADC TIC
1000
2000
3000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
1
4
8
12
16
20
24
28
32
36



. UNKNOWN #,1
AREA = 85966.00 TENTATIVE CONCENTRATION IS 9.00

Sample file: >WR045 Spectrum #: 2681

No data base entries were retrieved.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S37

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S37

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR046

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U J
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U J
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	30.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S37

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S37

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR046

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	.7	JB
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 11:06
Output File: ^WR046::D3 Injected at: 930609 02:11
Data File: >WR046::D6 Dilution Factor: 1.00000
Name: 93ZE33S37
Misc: 06-08-93 1000/1 BTL#10

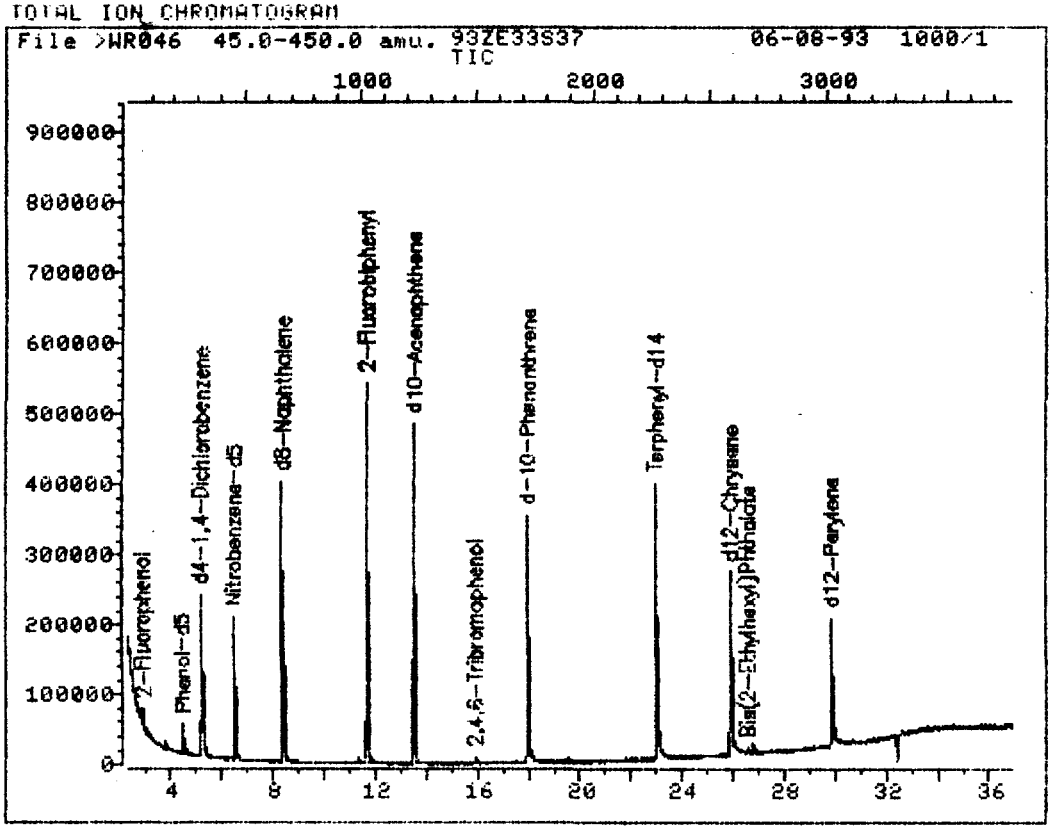
ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q	
~~11~~	*d4-1,4-Dichlorobenzene	5.15	152.0	145551	50.00	NG/UL	95	
~~27.~~	2-Fluorophenol	2.89	112.0	31986	9.16	NG/UL	87	12
~~37.~~	Phenol-d5	4.44	99.0	60701	14.99	NG/UL	80	20
~~16T~~	d8-Naphthalene	8.31	136.0	531548	48.57	NG/UL	86	
~~17T.~~	Nitrobenzene-d5	6.45	82.0	164104	49.09	NG/UL	87	65
~~31)~~	d10-Acenaphthene	13.49	164.0	277931	48.46	NG/UL	95	
~~36T.~~	2-Fluorobiphenyl	11.61	172.0	432211	50.83	NG/UL	95	68
~~39T~~	*d-10-Phenanthrene	17.93	188.0	358057	50.00	NG/UL	98	
~~54T.~~	2,4,6-Tribromophenol	15.87	329.9	3152	2.18	NG/UL	90	3
~~62)~~	d12-Chrysene	25.87	240.0	313087	51.02	NG/UL	98	
~~64T~~	Terphenyl-d14	22.94	244.0	486915	72.08	NG/UL	94	96
67)	Bis(2-Ethylhexyl)Phthalate	26.54	149.0	3600	.72	NG/UL	97	
~~69T~~	*d12-Perylene	29.83	264.0	245176	50.00	NG/UL	94	

* Compound is ISTD

Two SS out

TOTAL ION CHROMATOGRAM

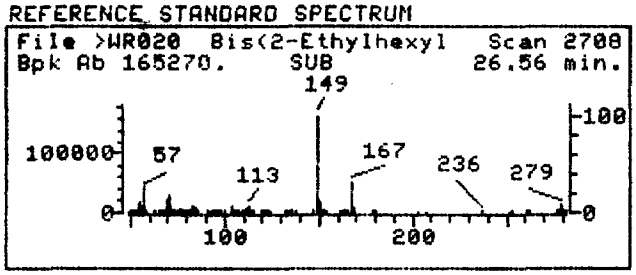


Data File: >WR046::D6 Quant Output File: ^WR046::D3
Name: 93ZE33S37
Misc: 06-08-93 1000/1 BTL#10

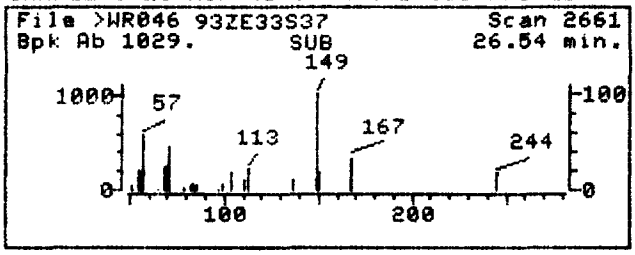
Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 11:06
Injected at: 930609 02:11

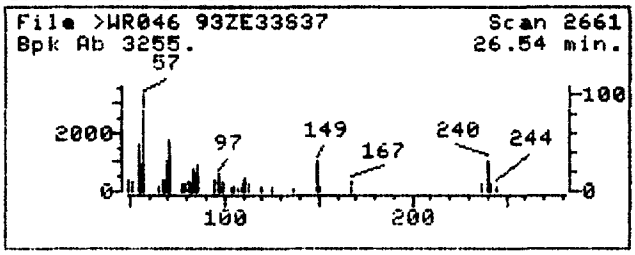
REFERENCE STANDARD SPECTRUM

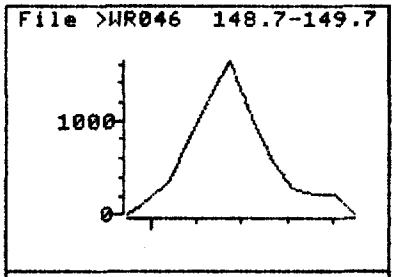


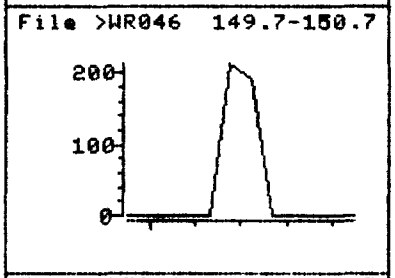
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

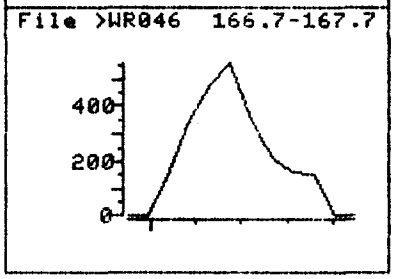


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR046::D6 Quant Output File: ^WR046::D3
Name: 93ZE33S37
Misc: 06-08-93 1000/1 BTL#10
Quant Time: 930609 11:06 Quant ID File: IDRW37::SC
Injected at: 930609 02:11 Last Calibration: 930609 10:36

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2660
Retention Time: 26.54 min.
Quant Ion: 149.0
Area: 3600
Concentration: .72 NG/UL
q-value: 97

MS data file header from : >WR046

Sample: 93ZE33S37 Operator: MANAGER SUPER GRP. 6/09/93 2:11
Misc : 06-08-93 1000/1 BTL#10
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: TOXIC6 Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	65.	320.	321.	0.	0.
Chromatographic times, min. :	1.0	1.0	2.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	1.0	0.0	0.0	0.0

>WR046 93ZE33S37 06-08-93 1000/1
45.01 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 56964. Max Peaks: 1 Bunching: 1
Dnslope: 0.00 Results File IWR046 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
~~1~~	~~32.56~~	~~3302~~	~~3304~~	~~3306~~	~~42590~~	~~368717~~	~~324099~~	~~100.00~~	~~100.000~~

RWW 6-24-93

Sum of corrected areas: 324099.

Summary of Unknowns PBM Library Search and Quantitation

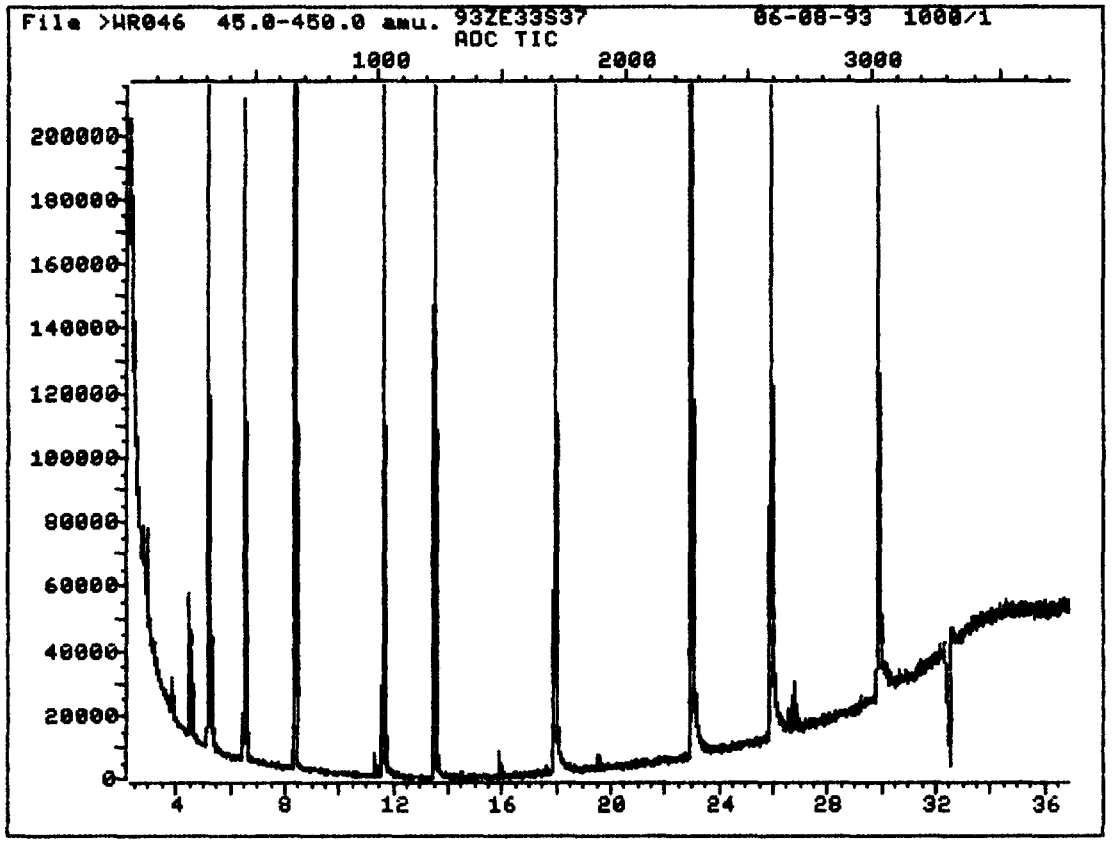
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	750656.	5.15	2.35 - 11.54
2	50.0	885992.	17.93	11.54 - 23.88
3	50.0	569642.	29.83	23.88 - 36.89

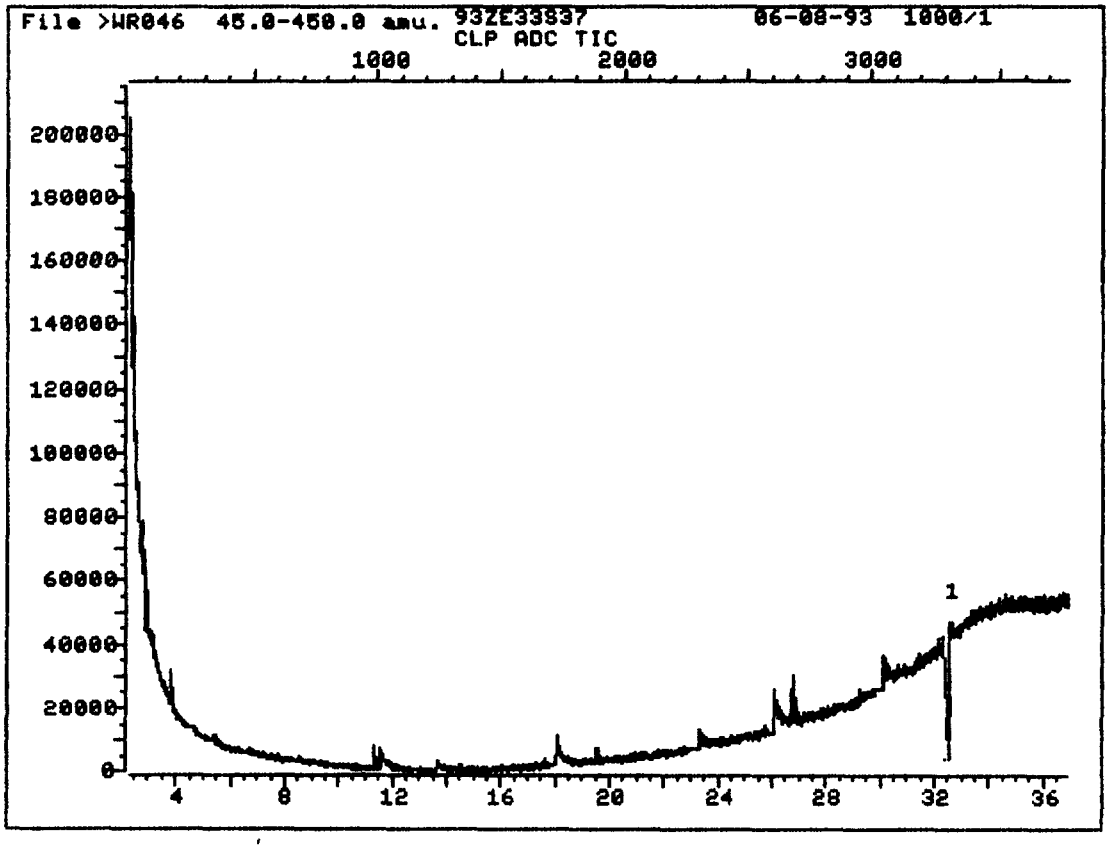
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

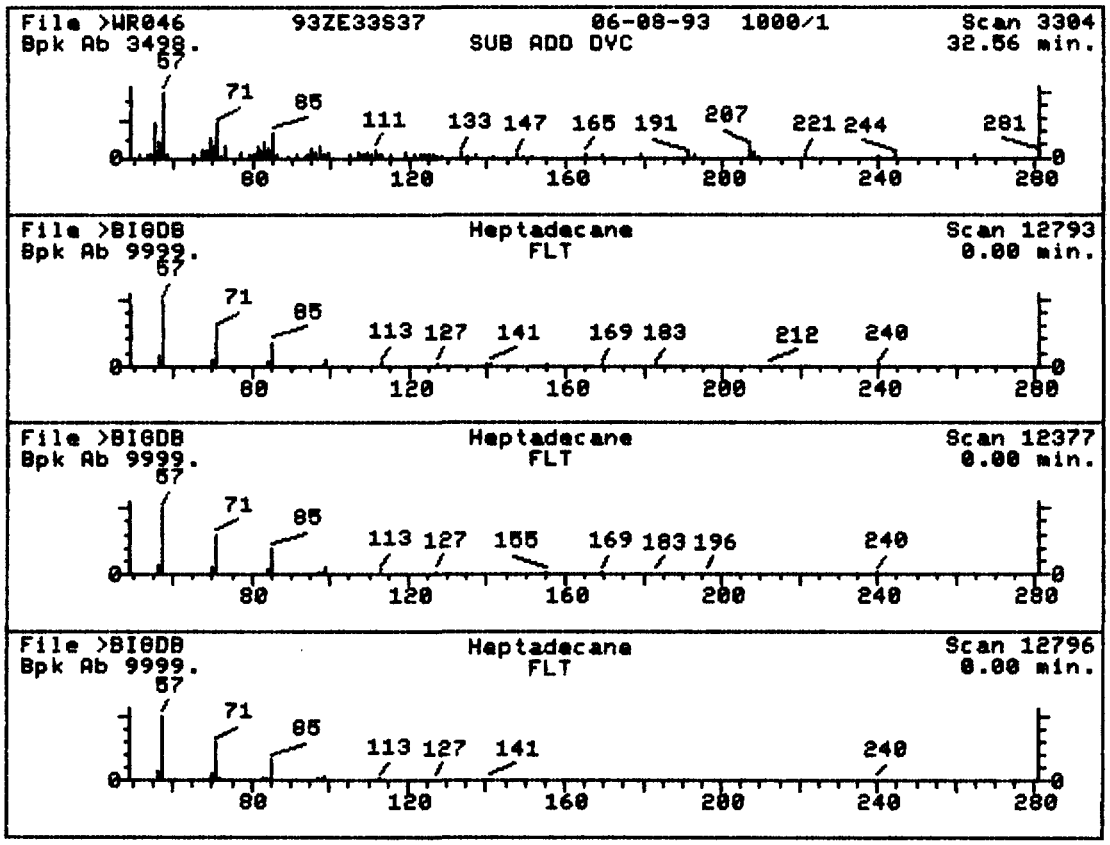
Correction Factor = 1.00 = (AM / AU) / (DF * FS)

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

3:20 PM WED., 16 JUNE, 1993


File >WR046 45.0-450.0 amu. 93ZE33S37 06-08-93 1000/1
ADC TIC
1000
2000
3000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36


File >WR046 45.0-450.0 amu. 93ZE33S37 06-08-93 1000/1
CLP ADC TIC
1000
2000
3000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
1
4
8
12
16
20
24
28
32
36



UNKNOWN #,1
AREA = 324099.0 TENTATIVE CONCENTRATION IS ~~28.00~~

1.	Heptadecane	240	C17H36
2.	Heptadecane	240	C17H36
3.	Heptadecane	240	C17H36
4.	Dodecane	170	C12H26
5.	Decane	142	C10H22
6.	Eicosane	282	C20H42
7.	Tetradecane, 2,6,10-trimethyl-	240	C17H36

Sample file: >WR046 Spectrum #: 3304
Search speed: 1 Tilting option: S No. of ion ranges searched: 53

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	69*	629787	12793	"BIGDB	52	63	0	0	85	34	26	63
2.	65*	629787	12377	"BIGDB	48	74	0	0	70	34	24	57
3.	54*	629787	12796	"BIGDB	39	72	0	0	89	34	20	38
4.	51	112403	12729	"BIGDB	65	32	0	0	105	36	19	42
5.	47	124185	12021	"BIGDB	59	38	0	0	124	36	17	36
6.	45	112958	12815	"BIGDB	59	80	0	0	59	34	16	28

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 11:11
Output File: ^WR047::D3 Injected at: 930609 02:57
Data File: >WR047::D6 Dilution Factor: 1.00000
Name: 93ZE33D37
Misc: 06-08-93 1050/1 BTL#11

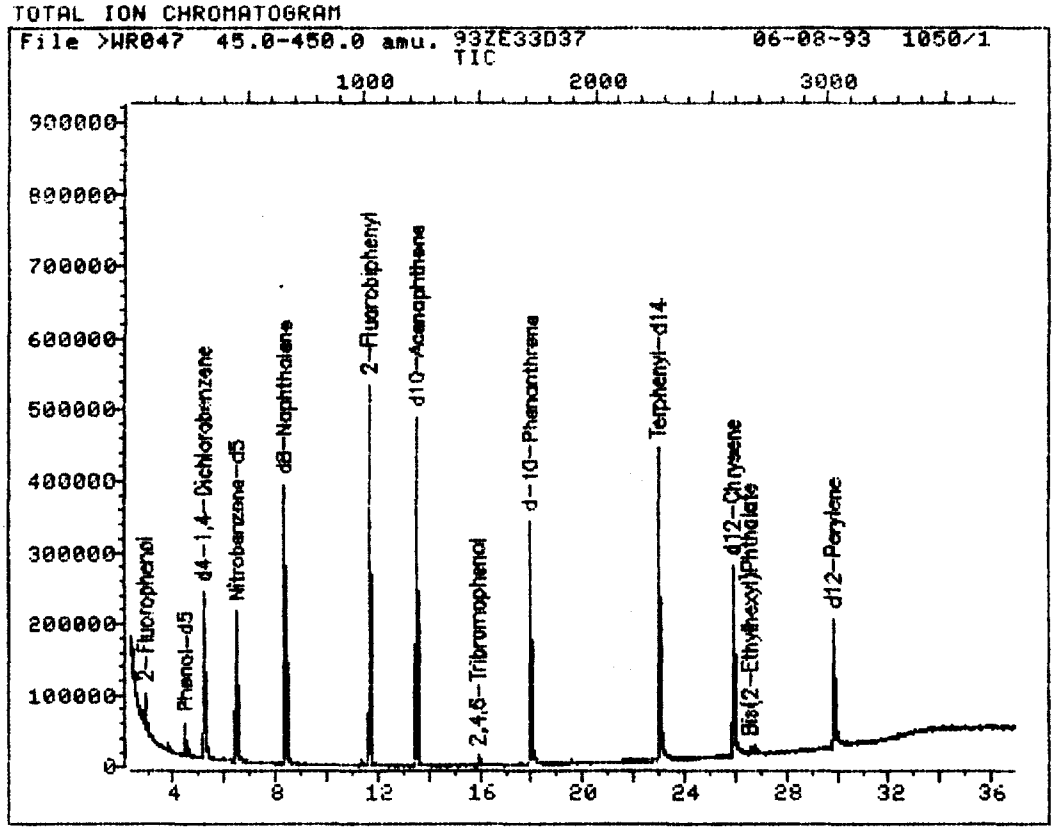
ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q	
1)	*d4-1,4-Dichlorobenzene	5.15	152.0	145407	50.00	NG/UL	96	
2)	2-Fluorophenol •	2.90	112.0	70984	20.35	NG/UL	92	38
3)	Phenol-d5 •	4.45	99.0	66663	16.48	NG/UL	84	
16)	d8-Naphthalene	8.30	136.0	539524	49.35	NG/UL	85	
17)	Nitrobenzene-d5 •	6.45	82.0	163965	49.09	NG/UL	83	65
31)	d10-Acenaphthene	13.49	164.0	270023	47.12	NG/UL	94	
36)	2-Fluorobiphenyl•	11.61	172.0	426888	50.26	NG/UL	96	67
39)	*d-10-Phenanthrene	17.94	188.0	351090	50.00	NG/UL	98	
54)	2,4,6-Tribromophenol •	15.86	329.9	5100	3.60	NG/UL	94	5
62)	d12-Chrysene.	25.86	240.0	343356	57.07	NG/UL	97	
64)	Terphenyl-d14	22.93	244.0	470989	71.10	NG/UL	97	95
67)	Bis(2-Ethylhexyl)Phthalate	26.53	149.0	7327	1.49	NG/UL	94	
69)	*d12-Perylene	29.82	264.0	243830	50.00	NG/UL	96	

* Compound is ISTD

/ SS out

TOTAL ION CHROMATOGRAM

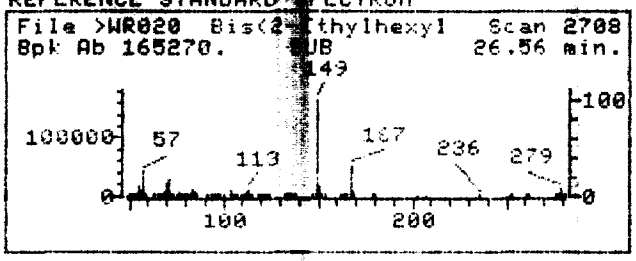


Data File: >WR047::D6 Quant Output File: ^WR047::D3
Name: 93ZE33D37
Misc: 06-08-93 1050/1 BTL#11

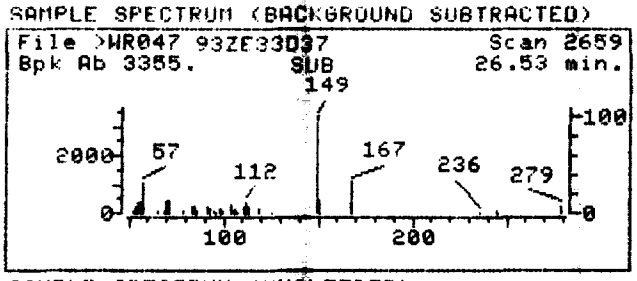
Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 11:11
Injected at: 930609 02:57

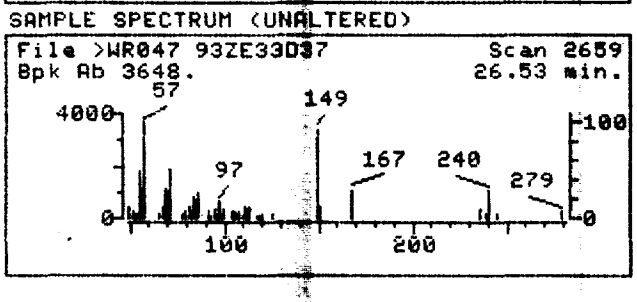
REFERENCE STANDARD SPECTRUM

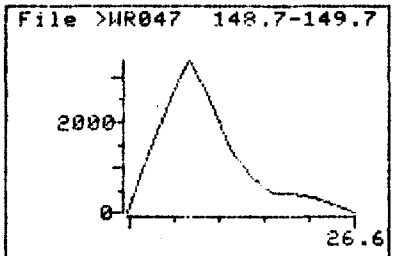


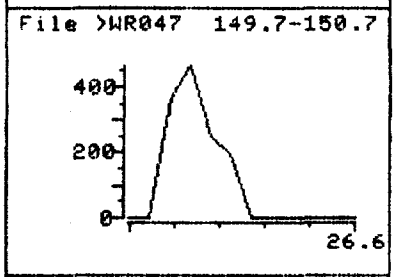
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

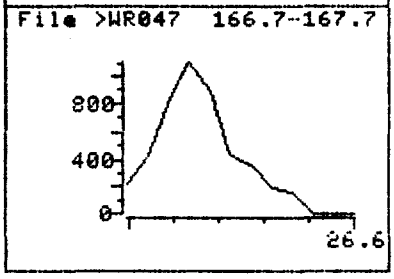


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR047::D6
Name: 93ZE33D37
Misc: 06-08-93 1050/1
Quant Time: 930609 11:11
Injected at: 930609 02:57

Quant Output File: ^WR047::D3

BTL#11

Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2659
Retention Time: 26.53 min.
Quant Ion: 149.0
Area: 7327
Concentration: 1.49 NG/UL
q-value: 94

MS data file header from : >WR047

Sample: 93ZE33D37 Operator: MANAGER SUPER GRP. 6/09/93 2:57
Misc : 06-08-93 1050/1 BTL#11
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: TOXIC6 Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	65.	320.	321.	0.	0.
Chromatographic times, min. :	1.0	1.0	2.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	1.0	0.0	0.0	0.0

Rww 6-24-93

No peaks found.

Summary of Unknowns PBM Library Search and Quantitation

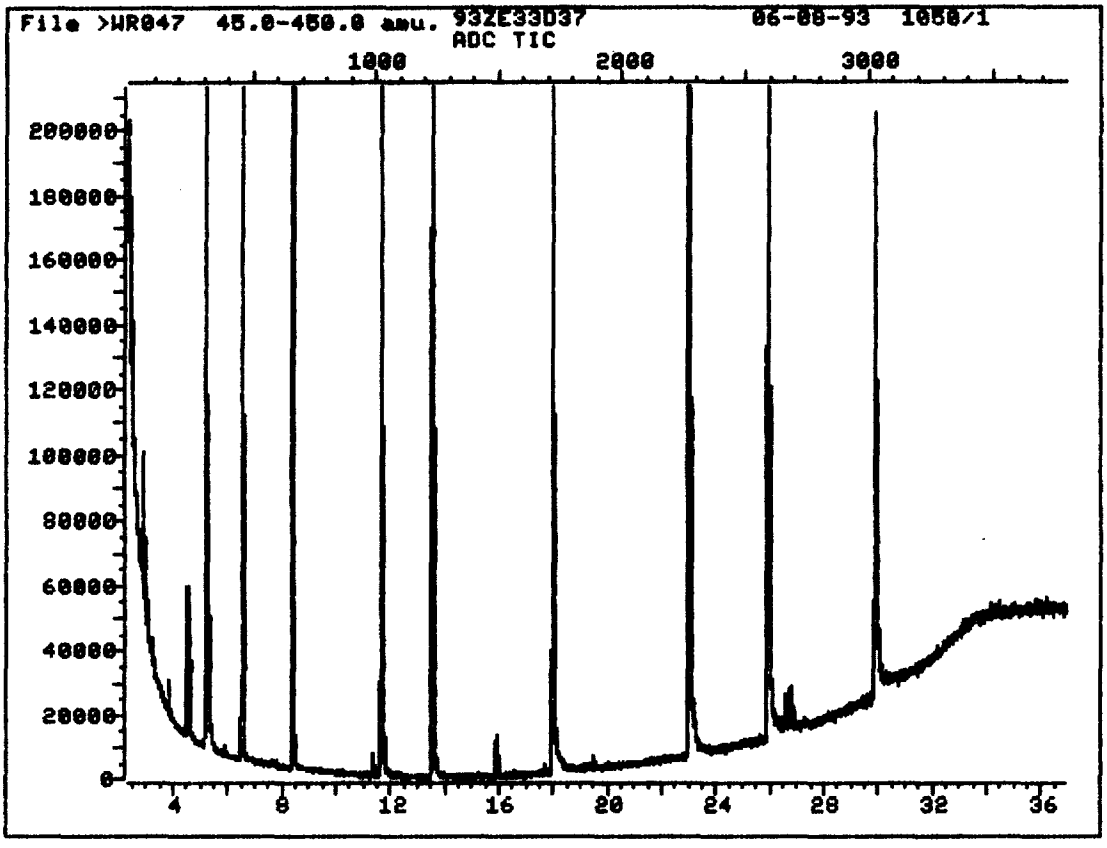
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	760925.	5.15	2.35 - 11.54
2	50.0	876597.	17.94	11.54 - 23.88
3	50.0	577772.	29.82	23.88 - 36.92

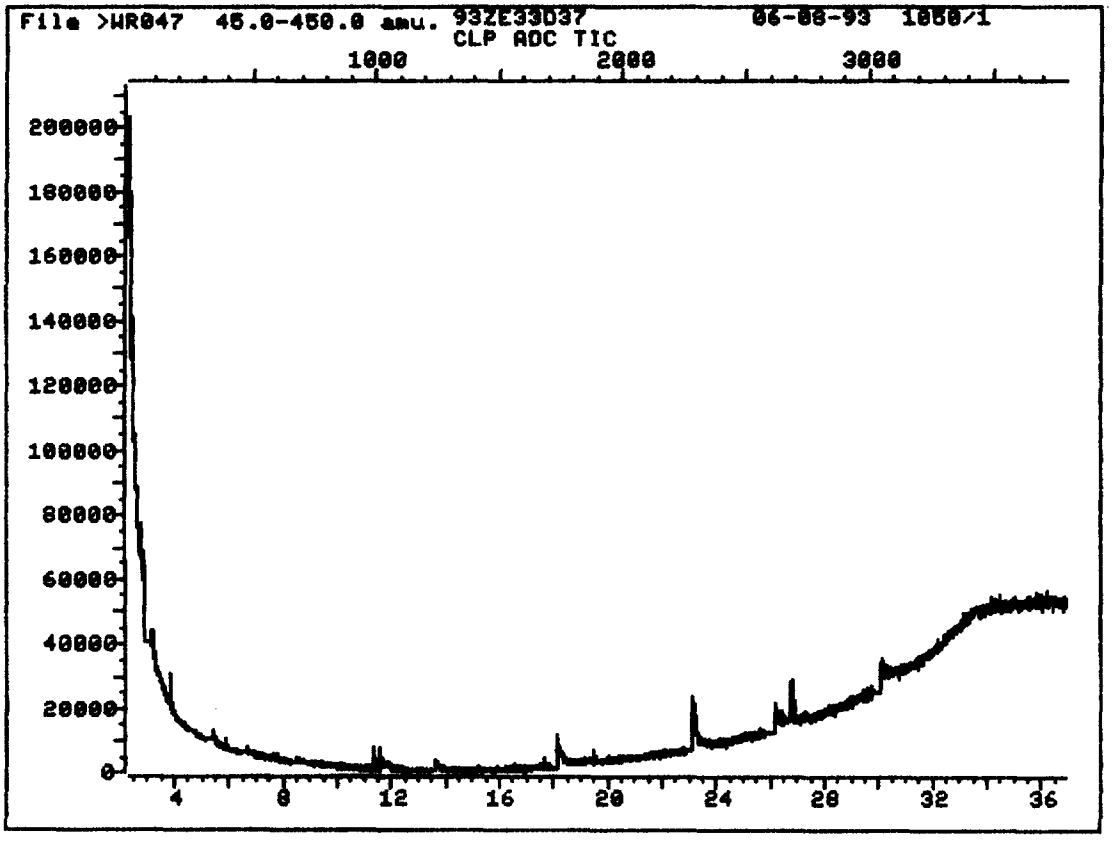
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1050.00

Correction Factor = .95 = (AM / AU) / (DF * FS)

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

3:30 PM WED., 16 JUNE, 1993


File >WR047 45.0-450.0 amu. 93ZE33D37 06-08-93 1050/1
ADC TIC
1000
2000
3000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36


File >WR047 45.0-450.0 amu. 93ZE33D37 06-08-93 1050/1
CLP ADC TIC
1000
2000
3000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36

```
.    .

 working...
 draw complete...
```

```
 working...
.   THERE WERE NO UNKNOWNS
.   CREATING THE .RR FILE
 Quant output file was not QDELed.  Will use the first hit of each compound.
.QN  WR047                                                          00173E2
                 96010609930257R   45  450  .547  9                  0020257
                 d4-1,4-Dichlorobenzene                              0036CB8
                   1 152  309   5.1504  1  145407. NG/UL  50.0000    0043DC6
                 2-Fluorophenol                                      0052939
                   2 112   61   2.8958  1   70984. NG/UL  20.3523    00643BA
                 Phenol-d5                                           0074B86
                   3  99  232   4.4504  1   66663. NG/UL  16.4816    00839CE
                 d8-Naphthalene                                      0092215
                   4 136  656   8.3039  1  539524. NG/UL  49.3474    01066D0
                 Nitrobenzene-d5                                     0114659
                   5  82  452   6.4502  1  163965. NG/UL  49.0938    01243DC
                 d10-Acenaphthene                                    0133F3D
                   6 164 1227  13.4924  1  270023. NG/UL  47.1249    01476CC
                 2-Fluorobiphenyl                                    0157582
                   7 172 1020  11.6112  1  426888. NG/UL  50.2579    01676CF
                 d-10-Phenanthrene                                   0177E27
                   8 188 1716  17.9371  8  351090. NG/UL  50.0000    0186FD8
                 2,4,6-Tribromophenol                                0192299
                   9 330 1488  15.8643  8    5100. NG/UL   3.5993    0206FAF
                 d12-Chrysene                                        02151A9
                  10 240 2586  25.8602  8  343356. NG/UL  57.0672    02279E9
                 Terphenyl-d14                                       02325B1
                  11 244 2265  22.9339  8  470989. NG/UL  71.1014    02476F0
                 Bis(2-Ethylhexyl)Phthalate                          0257EA2
                  12 149 2659  26.5272  8    7327. NG/UL   1.4918    02662D3
                 d12-Perylene                                        02757A6
                  13 264 3020  29.8222 13  243830. NG/UL  50.0000    02877D8
 PBM results file is for MS data file >BP999 not >WR047
ENDFILE                                                             0297BE0

 Reduced results file: RWR047 summary
      QUANT data from: ^WR047
```

QUANT REPORT

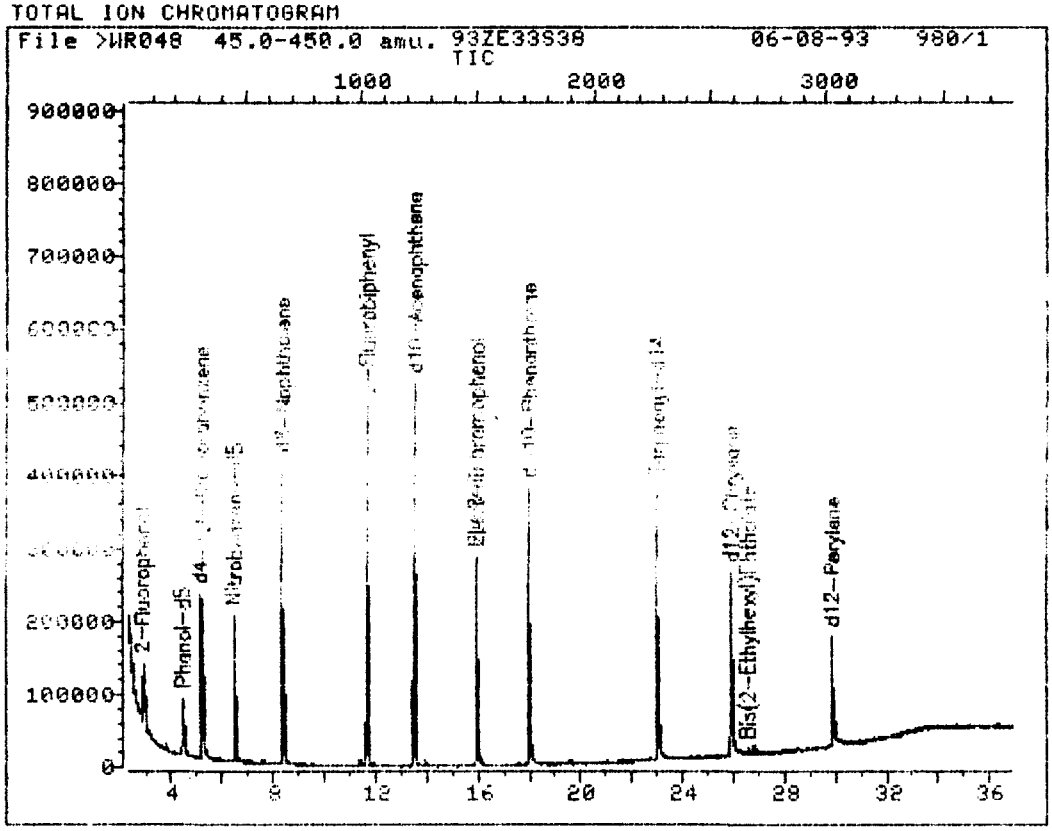
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 11:19
Output File: ^WR048::D3 Injected at: 930609 03:44
Data File: >WR048::D6 Dilution Factor: 1.00000
Name: 93ZE33S38
Misc: 06-08-93 980/1 BTL#12

ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q	
~~1)~~	*d4-1,4-Dichlorobenzene	5.12	152.0	144663	50.00	NG/UL	93	
~~2)~~	2-Fluorophenol	2.85	112.0	133790	38.56	NG/UL	91	51
~~3)~~	Phenol-d5	4.42	99.0	114010	28.33	NG/UL	84	38
~~16)~~	d8-Naphthalene	8.31	136.0	566238	52.06	NG/UL	85	
~~17)~~	Nitrobenzene-d5	6.43	82.0	164829	49.61	NG/UL	85	66
~~34)~~	d10-Acenaphthene	13.49	164.0	295241	51.79	NG/UL	95	
~~36)~~	2-Fluorobiphenyl	11.61	172.0	402098	47.58	NG/UL	94	63
~~39)~~	*d-10-Phenanthrene	17.94	188.0	390080	50.00	NG/UL	97	
~~50)~~	~~Fluorene~~	~~15.88~~	~~166.0~~	~~4505~~	~~.68~~	~~NG/UL~~	~~99~~	
~~54)~~	2,4,6-Tribromophenol	15.88	329.9	120604	76.61	NG/UL	97	102
~~62)~~	d12-Chrysene	25.88	240.0	325309	48.66	NG/UL	97	
~~64)~~	Terphenyl-d14	22.95	244.0	438301	59.55	NG/UL	95	79
67)	Bis(2-Ethylhexyl)Phthalate	26.54	149.0	5748	1.05	NG/UL	96	
~~69)~~	*d12-Perylene	29.85	264.0	228535	50.00	NG/UL	96	

* Compound is ISTD

TOTAL ION CHROMATOGRAM

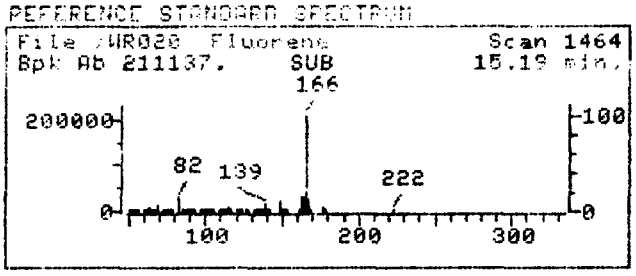


Data File: >WR048::D6 Quant Output File: ^WR048::D3
Name: 93ZE33S38
Misc: 06-08-93 980/1 BTL#12

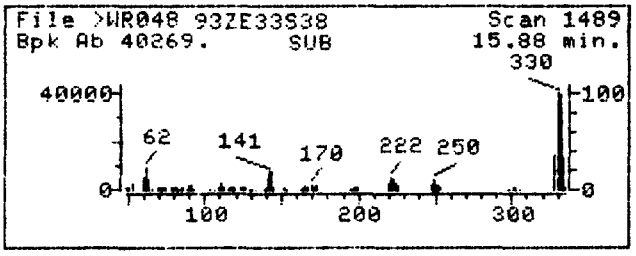
Id File: IDRW37::SC
Title: HP BNA STD REV A ' ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 11:19
Injected at: 930609 03:44

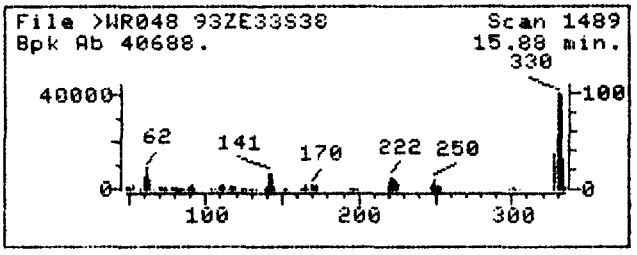
REFERENCE STANDARD SPECTRUM

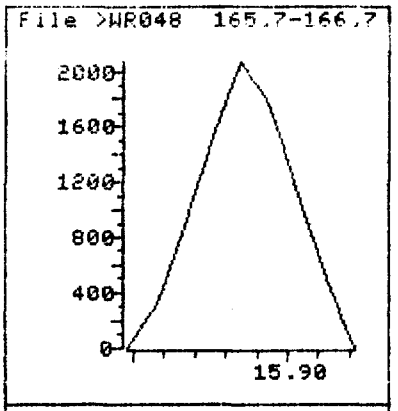


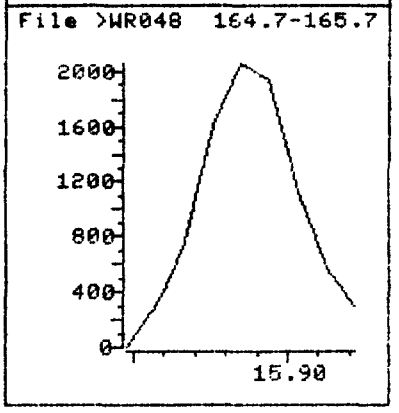
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR048::D6
Name: 93ZE33S38
Misc: 06-08-93 980/1
Quant Time: 930609 11:19
Injected at: 930609 03:44

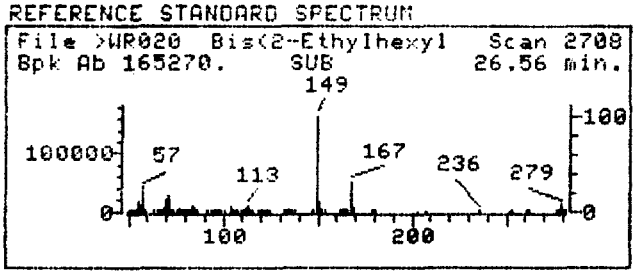
Quant Output File: ^WR048::D3

BTL#12

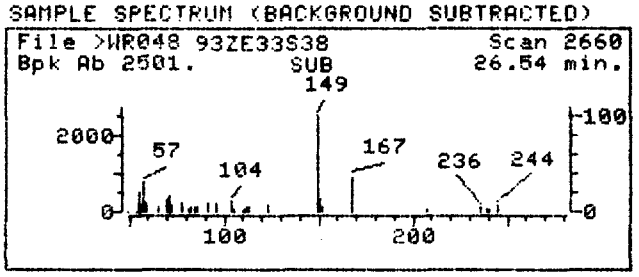
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 50
Compound Name: Fluorene
Scan Number: 1490
Retention Time: 15.88 min.
Quant Ion: 166.0
Area: 4505
Concentration: .68 NG/UL
q-value: 99

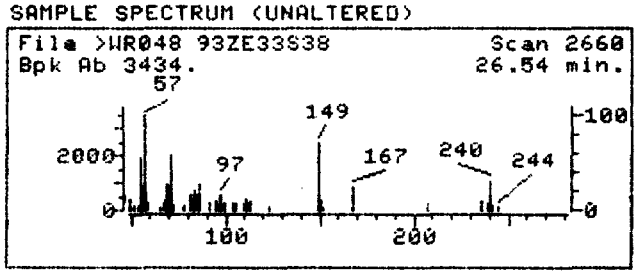
REFERENCE STANDARD SPECTRUM

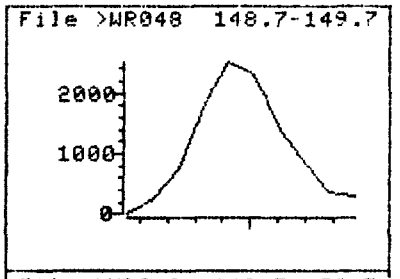


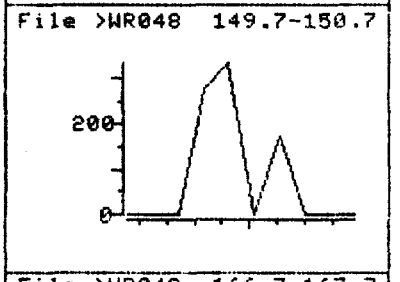
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

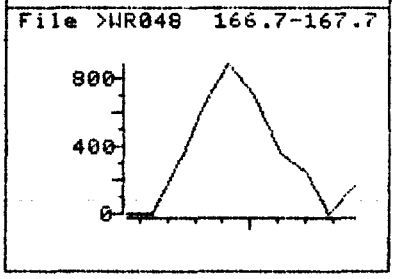


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR048::D6
Name: 93ZE33S38
Misc: 06-08-93 980/1
Quant Time: 930609 11:19
Injected at: 930609 03:44

Quant Output File: ^WR048::D3
BTL#12
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2660
Retention Time: 26.54 min.
Quant Ion: 149.0
Area: 5748
Concentration: 1.05 NG/UL
q-value: 96

MS data file header from : >WR048

Sample: 93ZE33S38 Operator: MANAGER SUPER GRP. 6/09/93 3:44
Misc : 06-08-93 980/1 BTL#12
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: TOXIC6 Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	65.	320.	321.	0.	0.
Chromatographic times, min. :	1.0	1.0	2.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	1.0	0.0	0.0	0.0

No peaks found. RWW 6-24-93

Summary of Unknowns PBM Library Search and Quantitation

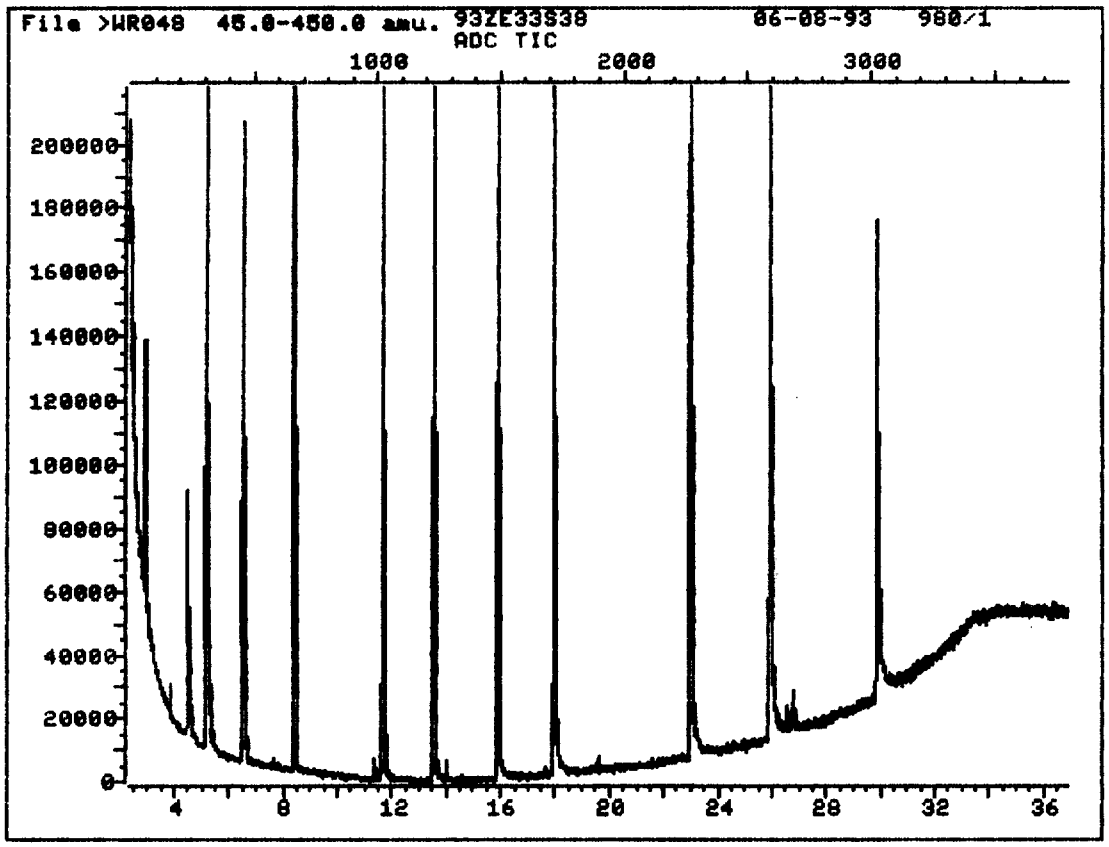
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	775910.	5.12	2.35 - 11.53
2	50.0	955118.	17.94	11.53 - 23.90
3	50.0	517298.	29.85	23.90 - 36.91

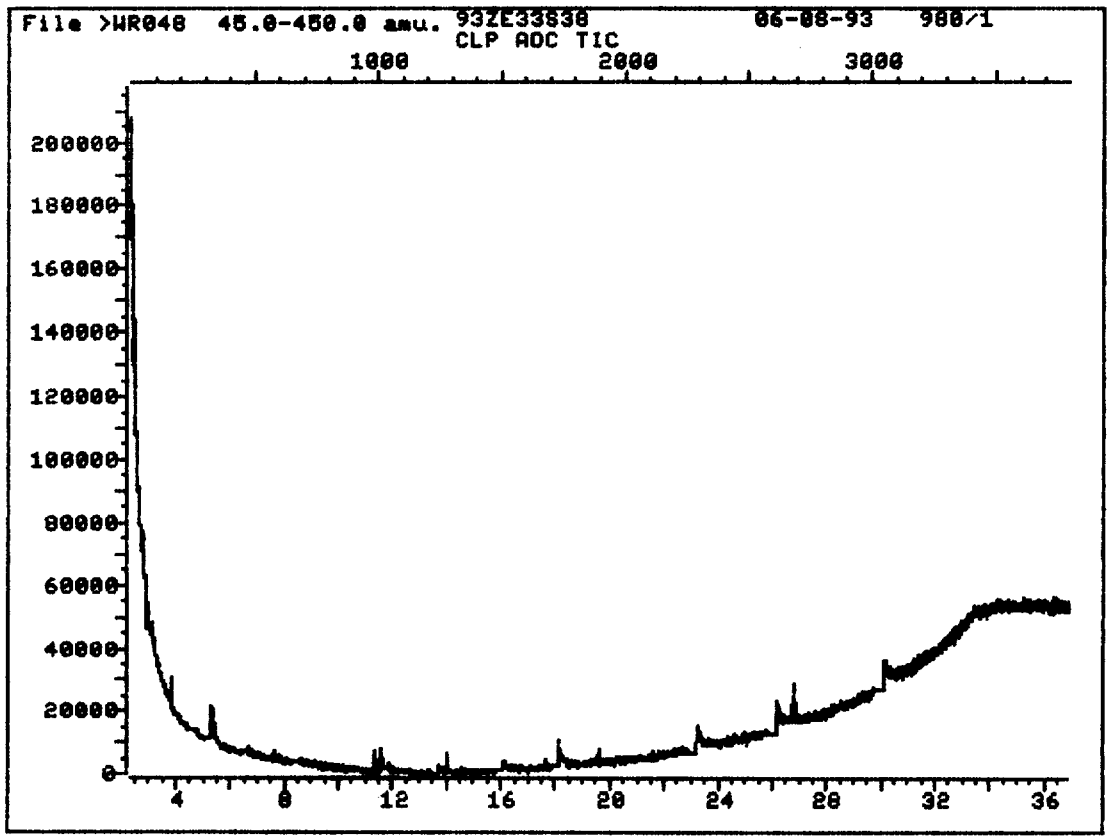
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 980.00

Correction Factor = 1.02 = (AM / AU) / (DF * FS)

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

3:36 PM WED., 16 JUNE, 1993


File >WR048 45.0-450.0 amu. 93ZE33S38 06-08-93 980/1
ADC TIC
1000
2000
3000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36


File >WR048 45.0-450.0 amu. 93ZE33S38 06-08-93 980/1
CLP ADC TIC
1000
2000
3000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36

```
working...
draw complete...
```

```
working...
.   THERE WERE NO UNKNOWNS
.   CREATING THE .RR FILE
.QN  WR048                                                                  00174E2
                 96010609930344R   45  450  .547  9                         0020155
                 d4-1,4-Dichlorobenzene                                      0036CB8
                   1 152  306   5.1243  1  144663. NG/UL  50.0000           0043EC5
                 2-Fluorophenol                                              0052939
                   2 112   56   2.8510  1  133790. NG/UL  38.5570           0065AAF
                 Phenol-d5                                                   0074B86
                   3  99  229   4.4242  1  114010. NG/UL  28.3326           0083FC7
                 d8-Naphthalene                                              0092215
                   4 136  656   8.3054  1  566238. NG/UL  52.0571           01055D5
                 Nitrobenzene-d5                                             0114659
                   5  82  450   6.4334  1  164829. NG/UL  49.6063           01249D2
                 d10-Acenaphthene                                            0133F3D
                   6 164 1227  13.4941  1  295241. NG/UL  51.7909           01476D8
                 2-Fluorobiphenyl                                            0157582
                   7 172 1020  11.6129  1  402098. NG/UL  47.5828           0167FC7
                 d-10-Phenanthrene                                           0177E27
                   8 188 1716  17.9419  8  390080. NG/UL  50.0000           01876D6
                 2,4,6-Tribromophenol                                        0192299
                   9 330 1490  15.8849  8  120604. NG/UL  76.6075           02006D2
                 d12-Chrysene                                                02151A9
                  10 240 2588  25.8846  8  325309. NG/UL  48.6635           0227FF2
                 Terphenyl-d14                                               02325B1
                  11 244 2266  22.9483  8  438301. NG/UL  59.5532           0247FE5
                 Bis(2-Ethylhexyl)Phthalate                                  0257EA2
                  12 149 2660  26.5423  8    5748. NG/UL   1.0534           02664C2
                 d12-Perylene                                                02757A6
                  13 264 3022  29.8480 13  228535. NG/UL  50.0000           0287CE0
 PBM results file is for MS data file >BP999 not >WR048
ENDFILE                                                                      0297BE0

 Reduced results file: RWR048 summary
      QUANT data from: ^WR048
```

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 11:24
Output File: ^WR049::D3 Injected at: 930609 04:31
Data File: >WR049::D6 Dilution Factor: 1.00000
Name: 93ZE33D38
Misc: 06-08-93 1020/1 BTL#13

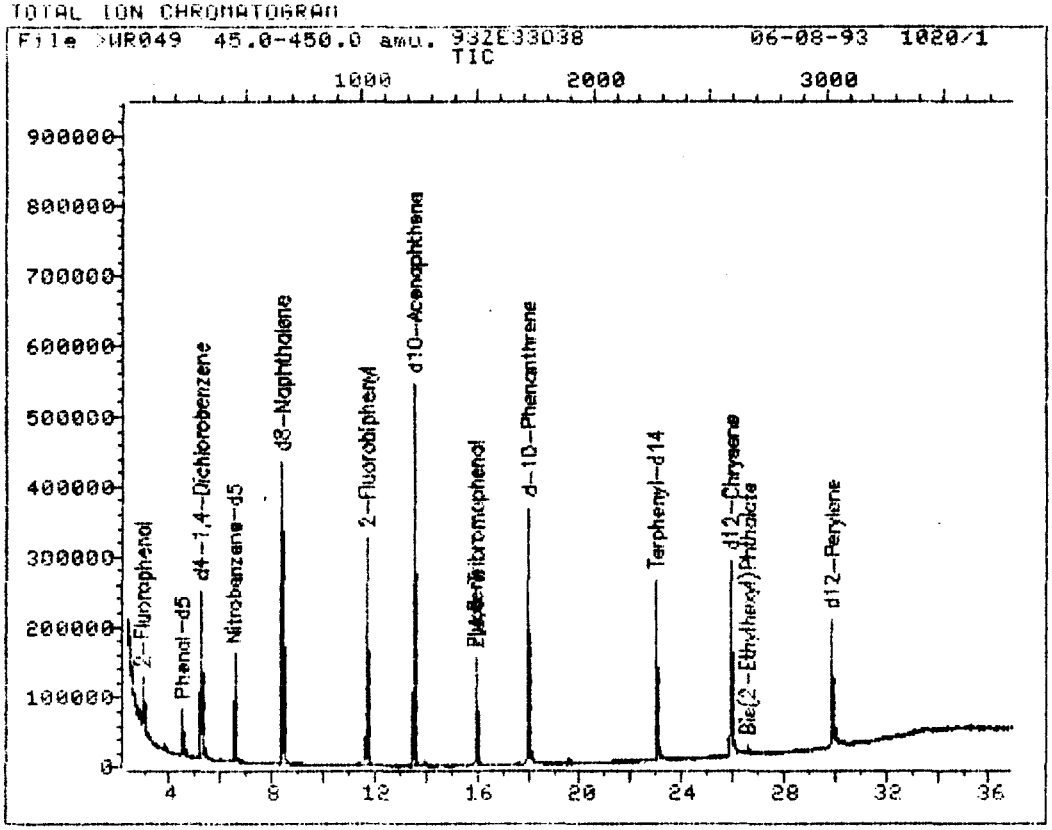
ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q	
~~1~~	*d4-1,4-Dichlorobenzene	5.14	152.0	153883	50.00	NG/UL	96	
~~2~~	2-Fluorophenol	2.89	112.0	100443	27.21	NG/UL	94	36
~~3~~	Phenol-d5	4.44	99.0	91506	21.38	NG/UL	84	29
~~16~~	d8-Naphthalene	8.31	136.0	567153	49.02	NG/UL	85	
~~17~~	Nitrobenzene-d5	6.45	82.0	126691	35.84	NG/UL	90	48
~~31~~	d10-Acenaphthene	13.49	164.0	292640	48.26	NG/UL	93	
~~36~~	2-Fluorobiphenyl	11.61	172.0	255944	28.47	NG/UL	95	38 X
~~39~~	*d-10-Phenanthrene	17.94	188.0	383137	50.00	NG/UL	97	
~~50~~	~~Fluorene~~	~~15.87~~	~~166.0~~	~~2111~~	~~.32~~	~~NG/UL~~	~~87~~	
~~54~~	2,4,6-Tribromophenol	15.87	329.9	58916	38.10	NG/UL	96	51
~~62~~	d12-Chrysene	25.87	240.0	328589	50.04	NG/UL	97	
~~64~~	Terphenyl-d14	22.94	244.0	288791	39.95	NG/UL	99	53
67	Bis(2-Ethylhexyl)Phthalate	26.54	149.0	8269	1.94	NG/UL	97	
~~69~~	*d12-Perylene	29.84	264.0	239124	50.00	NG/UL	93	

* Compound is ISTD

1 SS out

TOTAL ION CHROMATOGRAM

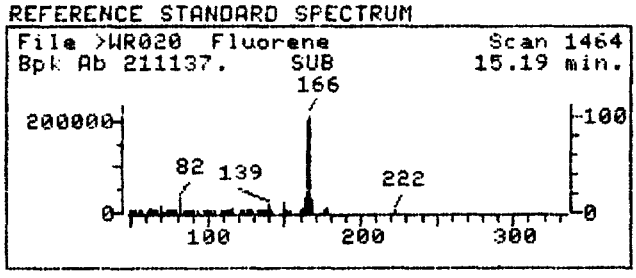


Data File: >WR049::D6 Quant Output File: ^WR049::D3
Name: 93ZE33D38
Misc: 06-08-93 1020/1 BTL#13

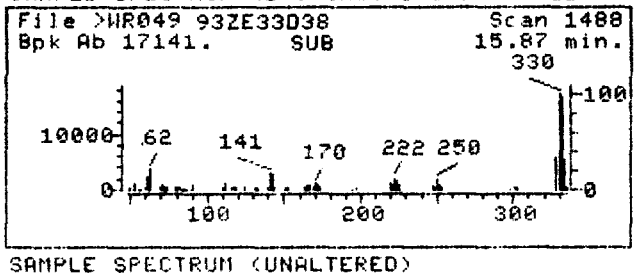
Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 11:24
Injected at: 930609 04:31

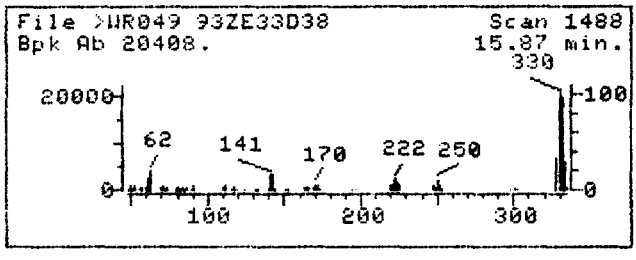
REFERENCE STANDARD SPECTRUM

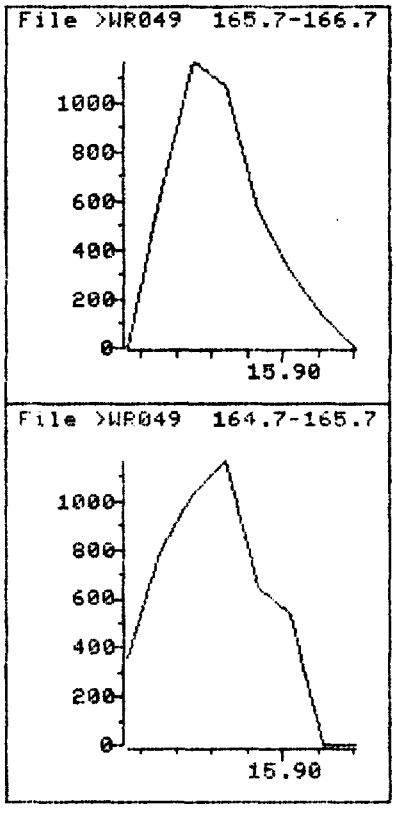


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR049::D6
Name: 93ZE33D38
Misc: 06-08-93 1020/1
Quant Time: 930609 11:24
Injected at: 930609 04:31

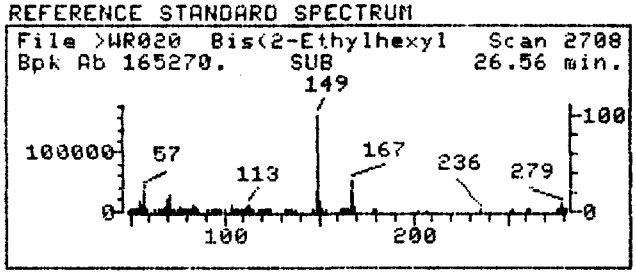
Quant Output File: ^WR049::D3

BTL#13

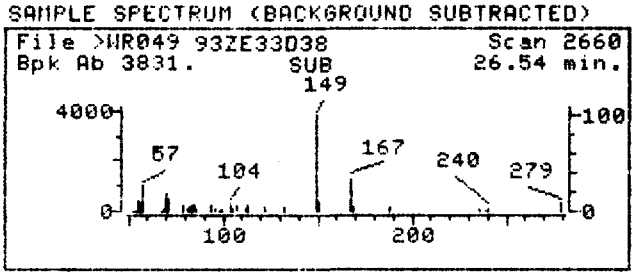
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 50
Compound Name: Fluorene
Scan Number: 1489
Retention Time: 15.87 min.
Quant Ion: 166.0
Area: 2111
Concentration: .32 NG/UL
q-value: 87

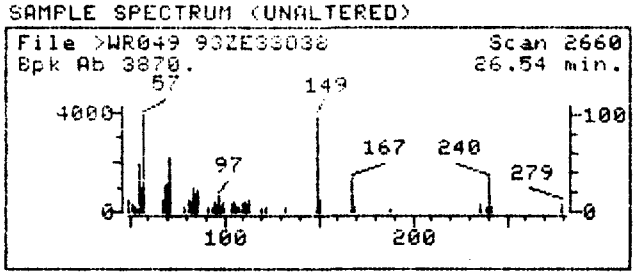
REFERENCE STANDARD SPECTRUM

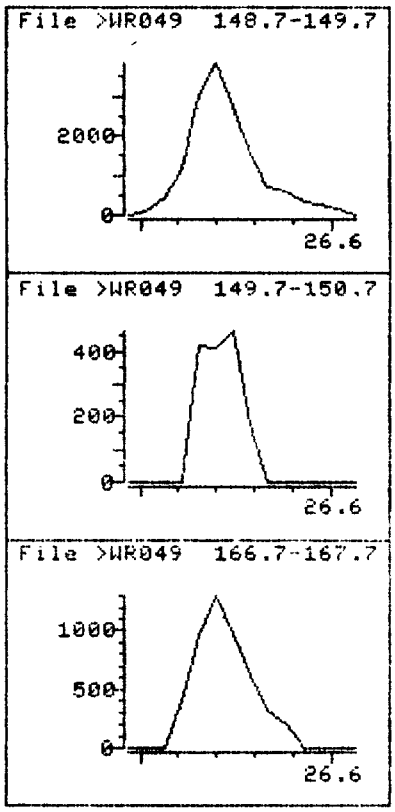


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR049::D6 Quant Output File: ^WR049::D3
Name: 93ZE33D38
Misc: 06-08-93 1020/1 BTL#13
Quant Time: 930609 11:24 Quant ID File: IDRW37::SC
Injected at: 930609 04:31 Last Calibration: 930609 10:36

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2660
Retention Time: 26.54 min.
Quant Ion: 149.0
Area: 8269
Concentration: 1.54 NG/UL
q-value: 97

MS data file header from : >WR049

Sample: 93ZE33D38 Operator: MANAGER SUPER GRP. 6/09/93 4:31
Misc : 06-08-93 1020/1 BTL#13
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: TOXIC6 Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	65.	320.	321.	0.	0.
Chromatographic times, min. :	1.0	1.0	2.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	1.0	0.0	0.0	0.0

~~No peaks found.~~ RWW 6-21-93

Summary of Unknowns PBM Library Search and Quantitation

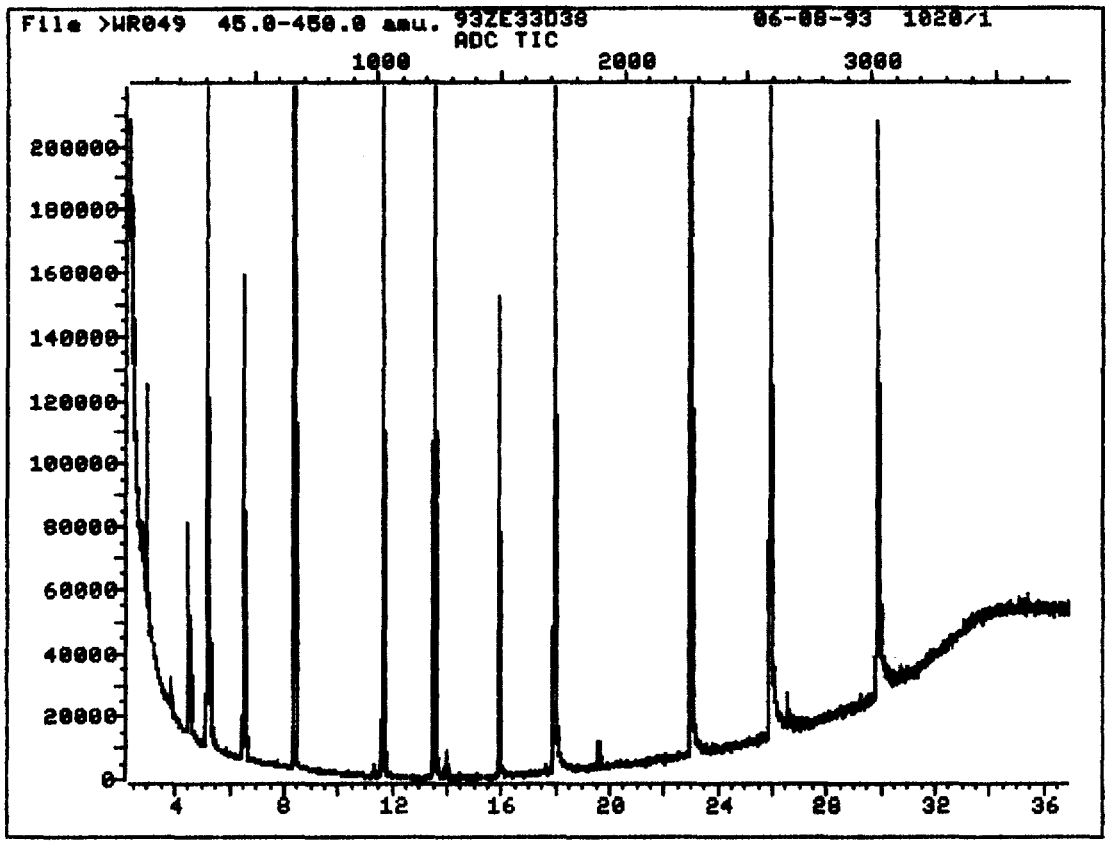
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	792347.	5.14	2.35 - 11.54
2	50.0	952349.	17.94	11.54 - 23.89
3	50.0	583933.	29.84	23.89 - 36.89

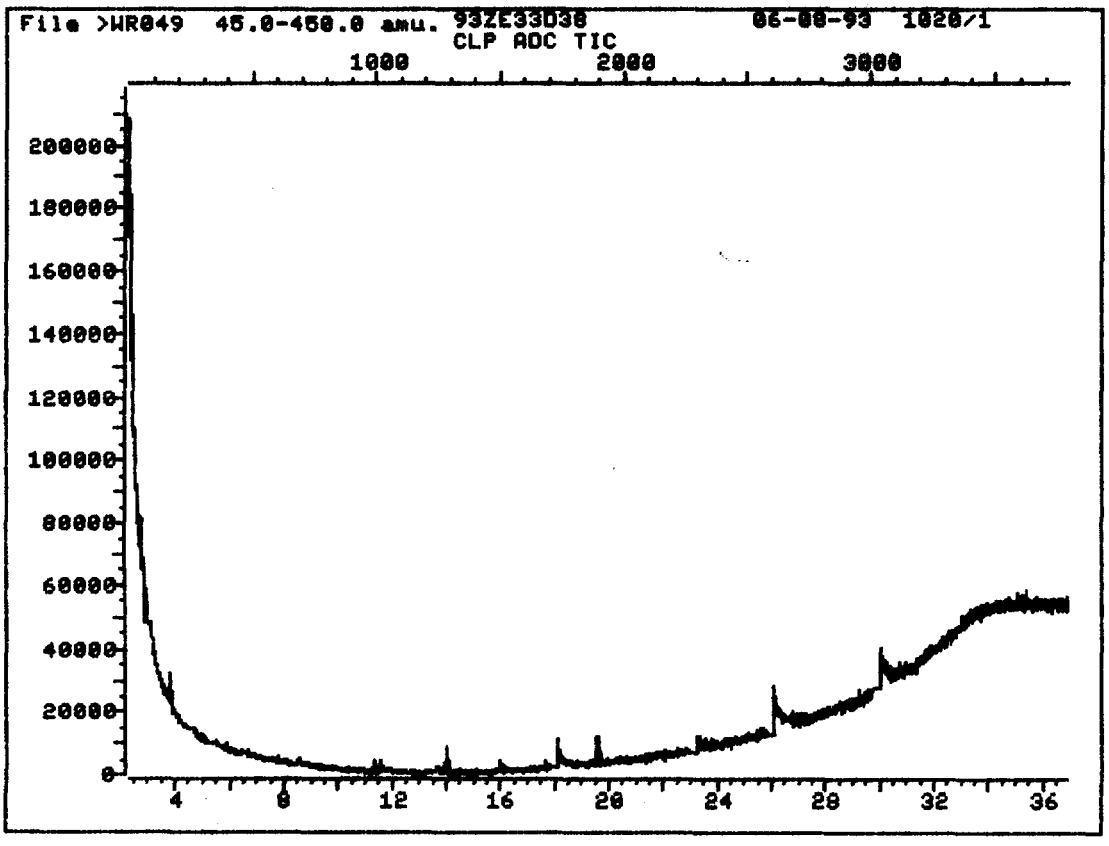
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1020.00

Correction Factor = .98 = (AM / AU) / (DF * FS)

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

3:43 PM WED., 16 JUNE, 1993


File >WR049 45.0-450.0 amu. 93ZE33D38 06-08-93 1020/1
ADC TIC
1000
2000
3000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36


File >WR049 45.0-450.0 amu. 93ZE33D38 06-08-93 1020/1
CLP ADC TIC
1000
2000
3000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36

```
working...
draw complete...
```

```
working...
.   THERE WERE NO UNKNOWNS
.   CREATING THE .RR FILE
.QN  WR049                                                                  00175E2
                 96010609930431R   45  450  .547  9                         0020053
                 d4-1,4-Dichlorobenzene                                      0036CB8
                   1 152  308   5.1425  1  153883. NG/UL  50.0000           00443C8
                 2-Fluorophenol                                              0052939
                   2 112   60   2.8876  1  100443. NG/UL  27.2124           00653AB
                 Phenol-d5                                                   0074B86
                   3  99  231   4.4424  1   91506. NG/UL  21.3776           0082DD4
                 d8-Naphthalene                                              0092215
                   4 136  657   8.3142  1  567153. NG/UL  49.0172           0105ECB
                 Nitrobenzene-d5                                             0114659
                   5  82  452   6.4515  1  126691. NG/UL  35.8439           01250CD
                 d10-Acenaphthene                                            0133F3D
                   6 164 1227  13.4933  1  292640. NG/UL  48.2589           0147FD5
                 2-Fluorobiphenyl                                            0157582
                   7 172 1020  11.6123  1  255944. NG/UL  28.4728           01675CE
                 d-10-Phenanthrene                                           0177E27
                   8 188 1716  17.9400  8  383137. NG/UL  50.0000           0186BDC
                 2,4,6-Tribromophenol                                        0192299
                   9 330 1489  15.8748  8   58916. NG/UL  38.1016           02072E0
                 d12-Chrysene                                                02151A9
                  10 240 2587  25.8727  8  328589. NG/UL  50.0449           0227DF4
                 Terphenyl-d14                                               02325B1
                  11 244 2265  22.9370  8  288791. NG/UL  39.9499           0240CF0
                 Bis(2-Ethylhexyl)Phthalate                                  0257EA2
                  12 149 2660  26.5398  8    8269. NG/UL   1.5428           02671C8
                 d12-Perylene                                                02757A6
                  13 264 3021  29.8356 13  239124. NG/UL  50.0000           02801D8
 PBM results file is for MS data file >BP999 not >WR049
ENDFILE                                                                     0297BE0

 Reduced results file: RWR049 summary
      QUANT data from: ^WR049
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S39

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S39

Sample wt/vol: 1030 (g/mL) mL Lab File ID: >WR050

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	4.	
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	11.	
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	2.	U
95-48-7	2-Methylphenol	4.	
39638-32-9	bis(2-chloroisopropyl)ether	2.	U
106-44-5	4-Methylphenol	29.	
621-64-7	N-Nitroso-Di-n-propylamine	1.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	2.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	29.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	16.	
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	2.	U
59-50-7	4-Chloro-3-methylphenol	2.	
91-57-6	2-Methylnaphthalene	2.	J
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	1.	U
95-95-4	2,4,5-Trichlorophenol	1.	U
91-58-7	2-Chloronaphthalene	1.	U
88-74-4	2-Nitroaniline	2.	U
131-11-3	Dimethylphthalate	1.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S39

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S39

Sample wt/vol: 1030 (g/mL) mL Lab File ID: >WR050

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	2.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	1.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	2.	
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	
101-55-3	4-Bromophenyl-phenylether	1.	U
118-74-1	Hexachlorobenzene	1.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	1.	J
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	
56-55-3	Benzo(a)anthracene	1.	U
218-01-9	Chrysene	1.	U
117-81-7	bis(2-Ethylhexyl)phthalate	129 ~~110.~~	BE
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	1.	U
207-08-9	Benzo(k)fluoranthene	1.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	3.	U
53-70-3	Dibenzo(a,h)anthracene	2.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[x] NO [ ]

FORM I SV-2

1/87 Rev.

QUANT REPORT

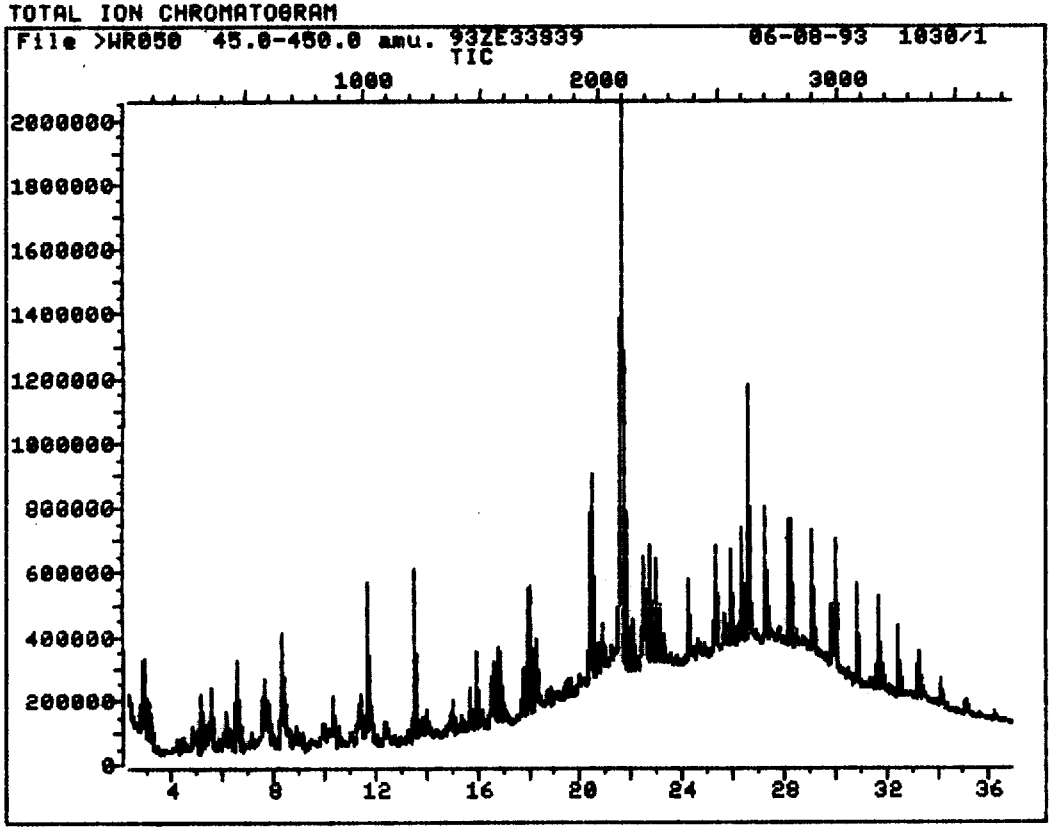
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 11:29
Output File: ^WR050::D3 Injected at: 930609 05:17
Data File: >WR050::D6 Dilution Factor: 1.00000
Name: 93ZE33S39
Misc: 06-08-93 1030/1 BTL#14

ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.11	152.0	161560	50.00	NG/UL	93
2)	2-Fluorophenol	2.82	112.0	133272	34.39	NG/UL	87
3)	Phenol-d5	4.40	99.0	140205	31.20	NG/UL	81
4)	Phenol	4.43	94.0	20410	4.40	NG/UL	85
8)	1,4-Dichlorobenzene	5.14	146.0	59075	11.78	NG/UL	96
11)	2-Methylphenol	5.78	108.0	15421	4.23	NG/UL	90
13)	4-Methylphenol	6.20	108.0	109402	29.86	NG/UL	92
16)	d8-Naphthalene	8.30	136.0	589683	48.54	NG/UL	85
17)	Nitrobenzene-d5	6.42	82.0	157793	42.52	NG/UL	85
26)	Naphthalene	8.35	128.0	202567	15.97	NG/UL	96
29)	4-Chloro-3-methylphenol	10.23	107.0	5861	1.75	NG/UL	97
30)	2-Methylnaphthalene	10.40	142.0	13448	1.61	NG/UL	89
31)	d10-Acenaphthene	13.50	164.0	305074	47.92	NG/UL	93
36)	2-Fluorobiphenyl	11.62	172.0	448275	47.50	NG/UL	96
39)	*d-10-Phenanthrene	17.95	188.0	454279	50.00	NG/UL	98
48)	Diethylphthalate	15.20	149.0	18698	2.30	NG/UL	94
53)	N-Nitrosodiphenylamine	15.71	169.0	9894	2.00	NG/UL	92
54)	2,4,6-Tribromophenol	15.91	329.9	123289	67.25	NG/UL	95
60)	Di-n-Butylphthalate	20.21	149.0	14572	1.16	NG/UL	95
62)	d12-Chrysene	25.89	240.0	402792	51.74	NG/UL	97
64)	Terphenyl-d14	22.96	244.0	403257	47.05	NG/UL	98
65)	Butylbenzylphthalate	24.65	149.0	18396	3.91	NG/UL	91
67)	Bis(2-Ethylhexyl)Phthalate	26.56	149.0	746483	117.47	NG/UL	94
69)	*d12-Perylene	29.86	264.0	321795	50.00	NG/UL	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >WR050::D6 Quant Output File: ^WR050::D3
Name: 93ZE33S39
Misc: 06-08-93 1030/1 BTL#14

Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 11:29
Injected at: 930609 05:17

QUANT REPORT

Operator ID: MANAGER
Output File: ^WR050::D3
Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1

Quant Rev: 6
Quant Time: 930609 11:29
Injected at: 930609 05:17
Dilution Factor: 1.00000

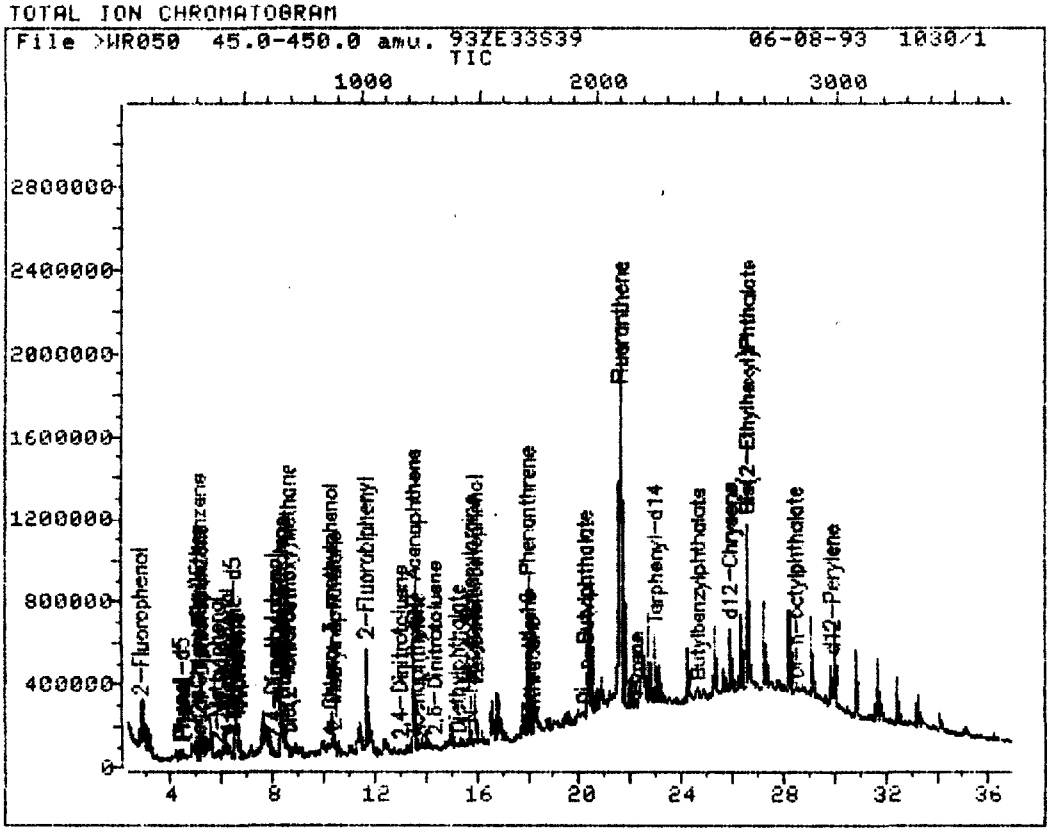
BTL#14

ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q	
1)	*d4-1,4-Dichlorobenzene	5.11	152.0	161560	50.00	NG/UL	93	
2)	2-Fluorophenol	2.82	112.0	133272	34.39	NG/UL	87	4/4
3)	Phenol-d5	4.40	99.0	140205	31.20	NG/UL	81	42
4)	Phenol	4.43	94.0	20410	4.40	NG/UL	85	
~~5)~~	~~bis(2-Chloroethyl)Ether~~	~~5.05~~	~~93.0~~	~~3640~~	~~.86~~	~~NG/UL~~	~~95~~	
8)	1,4-Dichlorobenzene	5.14	146.0	59075	11.78	NG/UL	96	
11)	2-Methylphenol	5.78	108.0	15421	4.23	NG/UL	90	
13)	4-Methylphenol	6.20	108.0	109402	29.86	NG/UL	92	
16)	d8-Naphthalene	8.30	136.0	589683	48.54	NG/UL	89	
17)	Nitrobenzene-d5	6.42	82.0	157793	42.52	NG/UL	85	57
~~19)~~	~~Isophorone~~	~~6.56~~	~~82.0~~	~~13462~~	~~1.78~~	~~NG/UL~~	~~66~~	X
~~21)~~	~~2,4-Dimethylphenol~~ → Isomer	~~8.02~~	~~122.0~~	~~17082~~	~~4.91~~	~~NG/UL~~	~~89~~	
~~23)~~	~~bis(2-Chloroethoxy)Methane~~	~~8.57~~	~~93.0~~	~~14646~~	~~2.88~~	~~NG/UL~~	~~85~~	X
26)	Naphthalene	8.35	128.0	2[illegible]	[illegible]	NG/UL	96	
29)	4-Chloro-3-methylphenol	10.23	107.0	5361	1.7[illegible]	NG/UL	97	
30)	2-Methylnaphthalene	10.40	142.0	13448	1.61	NG/UL	89	
31)	d10-Acenaphthene	13.50	164.0	305074	47.92	NG/UL	97	
36)	2-Fluorobiphenyl	11.62	172.0	448277	47.8[illegible]	NG/UL	96	63
39)	*d-10-Phenanthrene	17.95	188.0	474278	50.00	NG/UL	92	
~~40)~~	~~Acenaphthylene~~	~~13.59~~	~~152.0~~	~~2364~~	~~.50~~	~~NG/UL~~	~~91~~	
~~42)~~	~~Acenaphthene~~	~~13.59~~	~~153.0~~	~~3335~~	~~.4[illegible]~~	~~NG/UL~~	~~9[illegible]~~	
~~46)~~	~~2,6-Dinitrotoluene~~	~~12.97~~	~~165.0~~	~~1041~~	~~.52~~	~~NG/UL~~	~~[illegible]~~	
~~47)~~	~~2,4-Dinitrotoluene~~	~~14.32~~	~~165.0~~	~~1824~~	~~.76~~	~~NG/UL~~	~~91~~	
48)	Diethylphthalate	15.20	149.0	19693	2.30	NG/UL	91	
~~49)~~	~~Fluorene~~	~~15.91~~	~~166.0~~	~~5396~~	~~.76~~	~~NG/UL~~	~~93~~	
50)	4-Chlorophenylphenylether	15.71	169.0	9894	2.00	NG/UL	92	
54)	2,4,6-Tribromophenol	15.91	329.9	123289	67.25	NG/UL	95	90
~~58)~~	~~Phenanthrene~~	~~18.01~~	~~178.0~~	~~9965~~	~~.97~~	~~NG/UL~~	~~96~~	
~~59)~~	~~Anthracene~~	~~18.16~~	~~178.0~~	~~1401~~	~~.13~~	~~NG/UL~~	~~72~~	
60)	Di-n-Butylphthalate	20.21	149.0	14572	1.16	NG/UL	95	
~~61)~~	~~Fluoranthene~~	~~21.59~~	~~202.0~~	~~3744~~	~~.34~~	~~NG/UL~~	~~71~~	
62)	d12-Chrysene	25.89	240.0	402792	51.74	NG/UL	97	
~~63)~~	~~Pyrene~~	~~22.21~~	~~202.0~~	~~2423~~	~~.22~~	~~NG/UL~~	~~91~~	
64)	Terphenyl-d14	22.96	244.0	403257	47.05	NG/UL	98	63
65)	Butylbenzylphthalate	24.65	149.0	18396	3.91	NG/UL	91	
67)	Bis(2-Ethylhexyl)Phthalate	26.56	149.0	746483	117.47	NG/UL	94	E
69)	*d12-Perylene	29.86	264.0	321795	50.00	NG/UL	96	
~~70)~~	~~Di-n-octylphthalate~~	~~28.44~~	~~149.0~~	~~10179~~	~~.89~~	~~NG/UL~~	~~83~~	

* Compound is ISTD

TOTAL ION CHROMATOGRAM

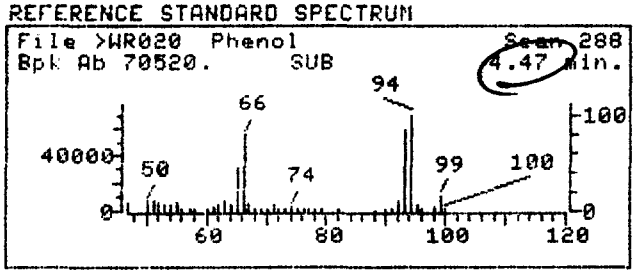


Data File: >WR050::D6 Quant Output File: ^WR050::D3
Name: 93ZE33S39
Misc: 06-08-93 1030/1 BTL#14

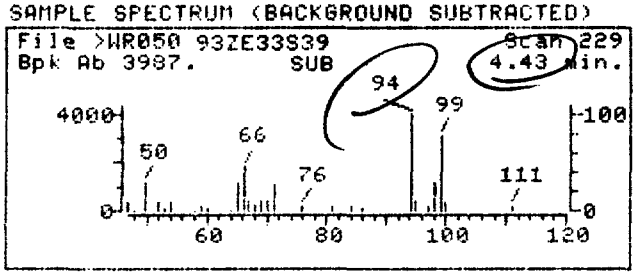
Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 11:29
Injected at: 930609 05:17

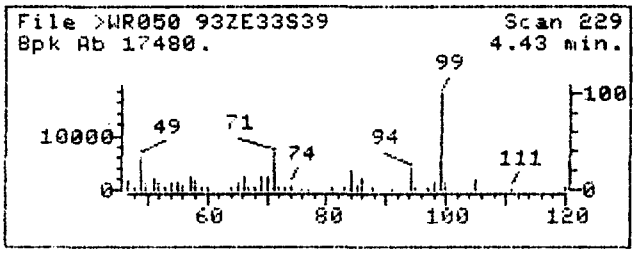
REFERENCE STANDARD SPECTRUM

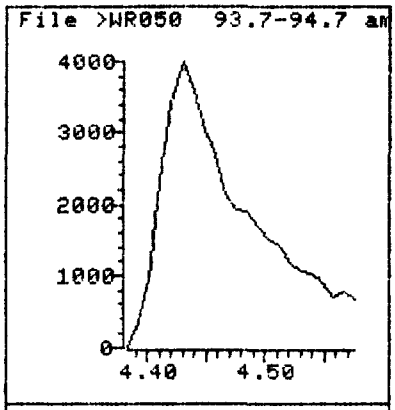


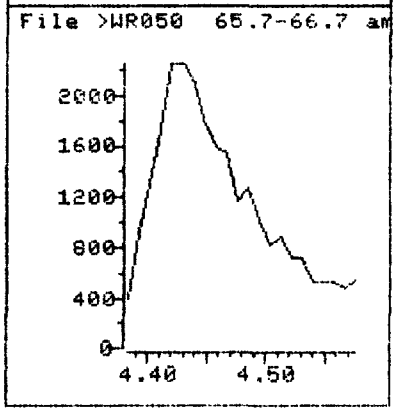
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

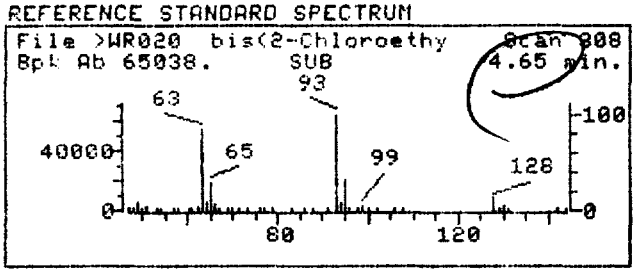
Quant Output File: ^WR050::D3

BTL#14

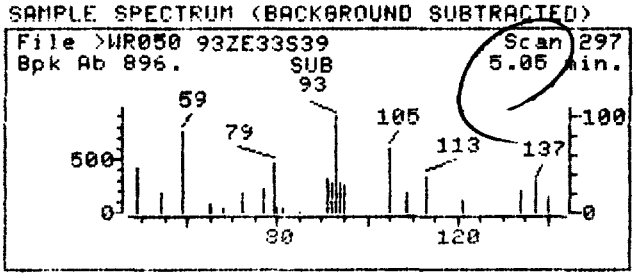
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 4
Compound Name: Phenol
Scan Number: 229
Retention Time: 4.43 min.
Quant Ion: 94.0
Area: 20410
Concentration: 4.40 NG/UL
q-value: 85

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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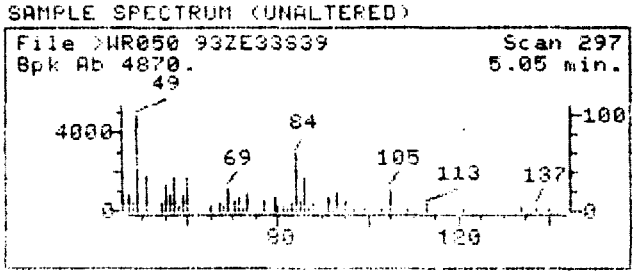
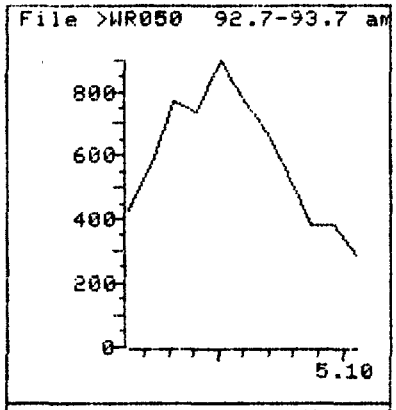
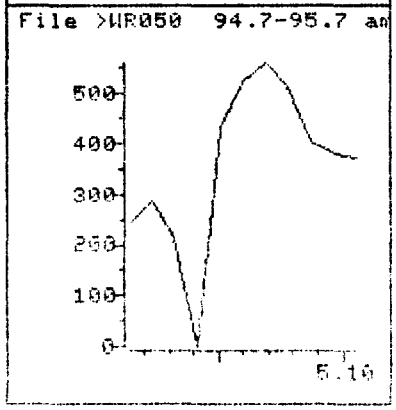






Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

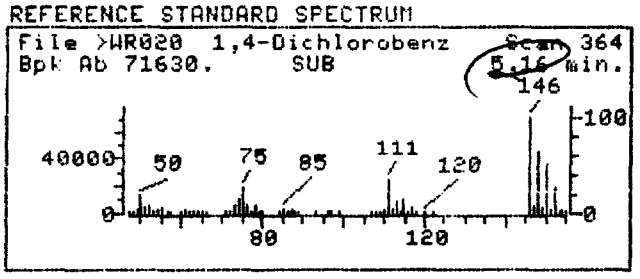
Quant Output File: ^WR050::D3

BTL#14

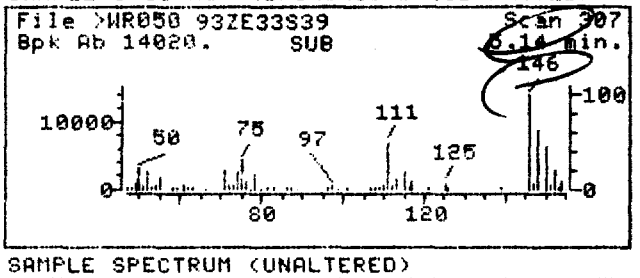
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 5
Compound Name: bis(2-Chloroethyl)Ether
Scan Number: 297
Retention Time: 5.05 min.
Quant Ion: 93.0
Area: 3640
Concentration: .86 NG/UL
q-value: 95

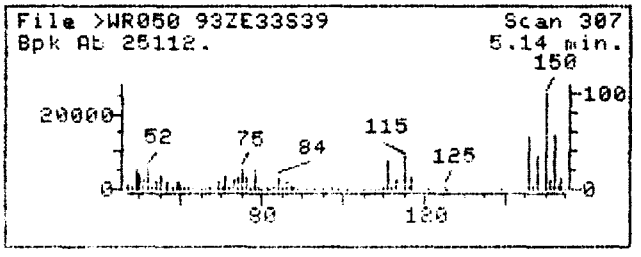
REFERENCE STANDARD SPECTRUM

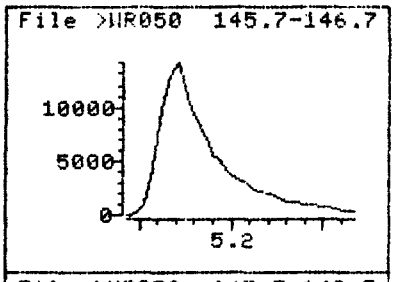


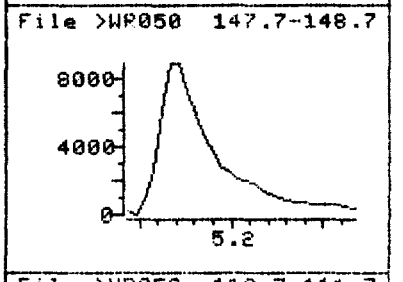
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

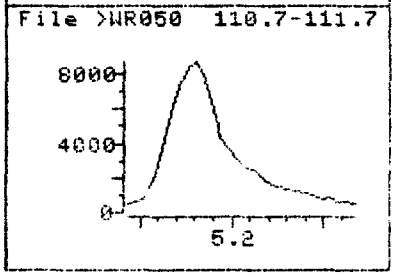


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

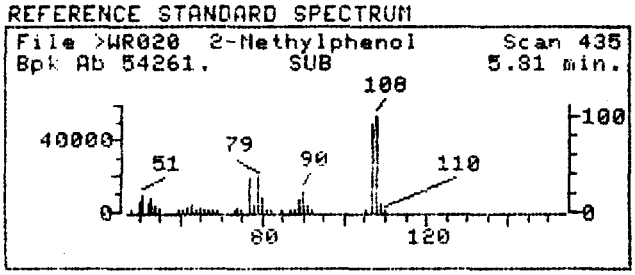
Quant Output File: ^WR050::D3

BTL#14

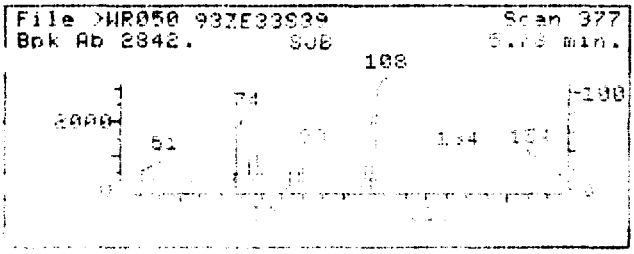
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 8
Compound Name: 1,4-Dichlorobenzene
Scan Number: 307
Retention Time: 5.14 min.
Quant Ion: 146.0
Area: 59075
Concentration: 11.78 NG/UL
q-value: 96

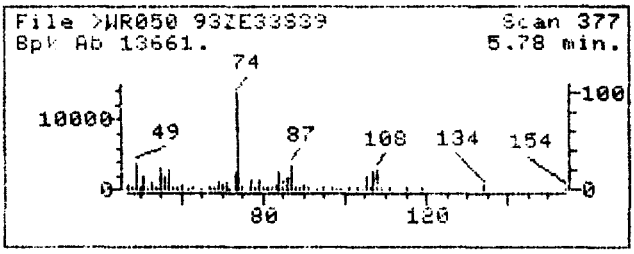
REFERENCE STANDARD SPECTRUM

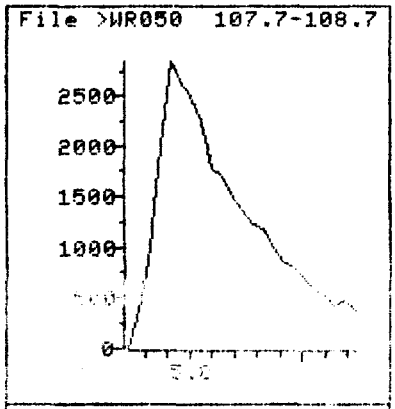


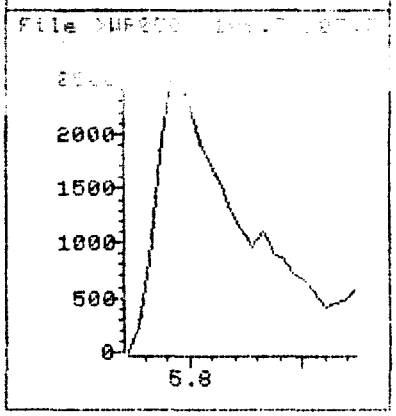
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

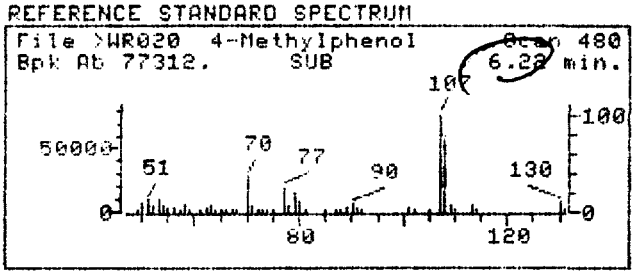
Quant Output File: ^WR050::D3

BTL#14

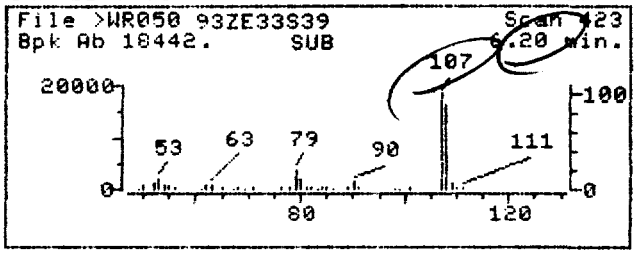
Quant ID File: IDRW37::SC
Last Calibration: 930609 10.3e

Compound No: 11
Compound Name: 2-Methylphenol
Scan Number: 377
Retention Time: 5.78 min.
Quant Ion: 108.0
Area: 15421
Concentration: 4.23 NG/UL
q-value: 90

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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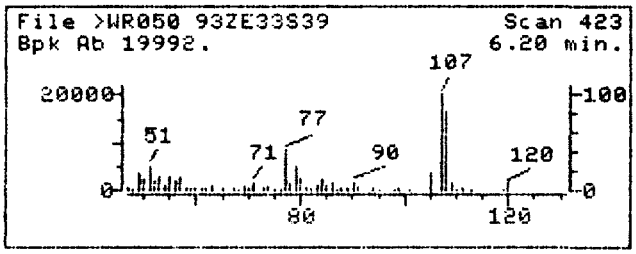

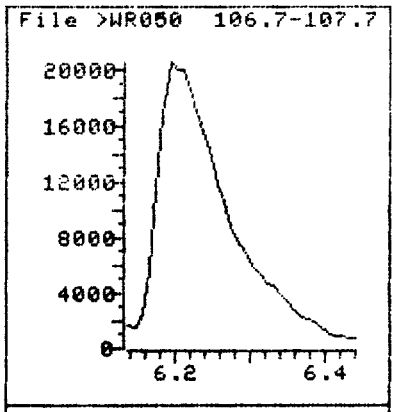

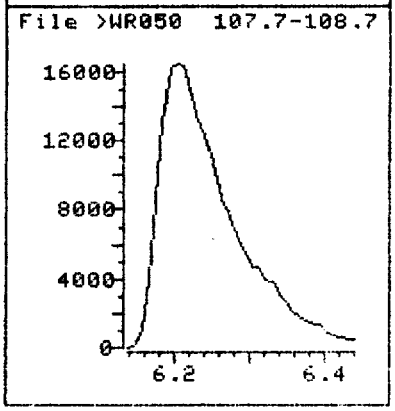

Data File: >WR050::D6
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Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

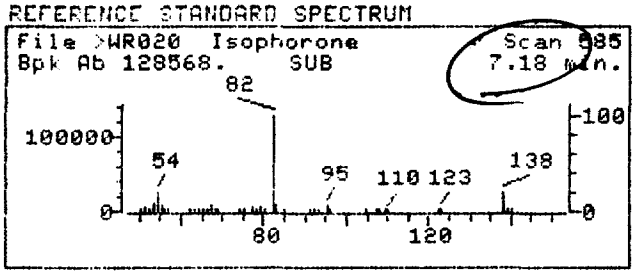
Quant Output File: ^WR050::D3

BTL#14

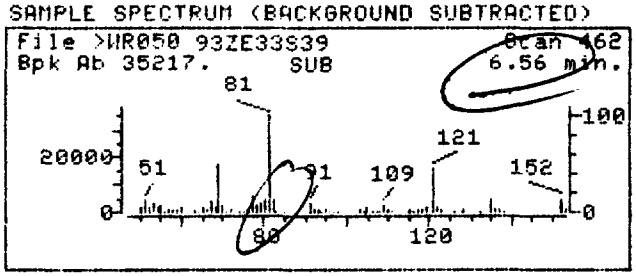
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 13
Compound Name: 4-Methylphenol
Scan Number: 423
Retention Time: 6.20 min.
Quant Ion: 108.0
Area: 109402
Concentration: 29.86 NG/UL
q-value: 92

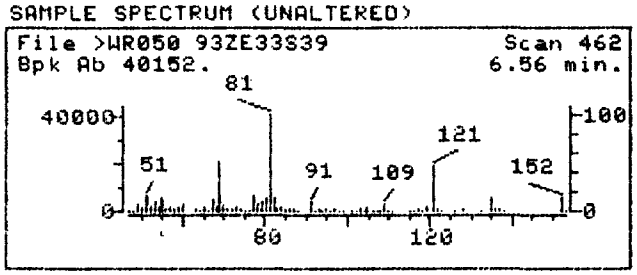
REFERENCE STANDARD SPECTRUM

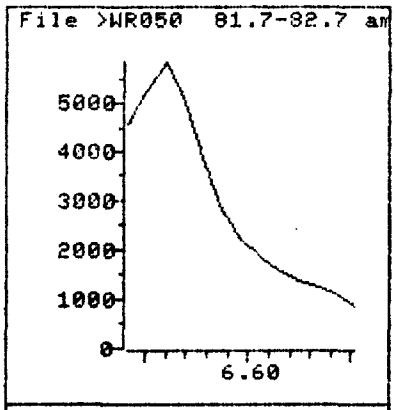


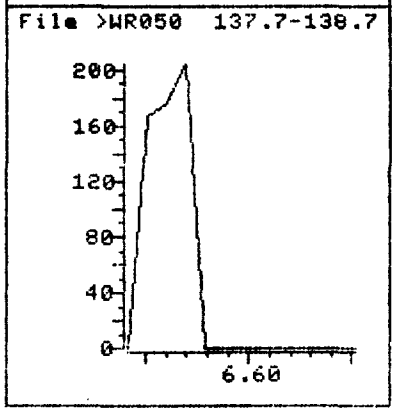
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

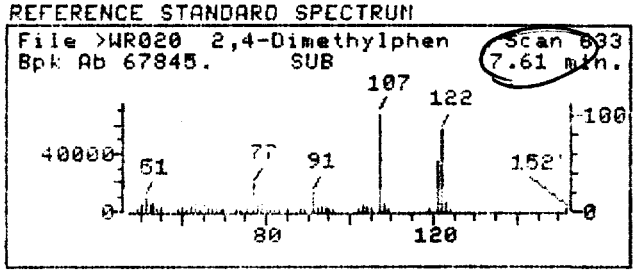
Quant Output File: ^WR050::D3

BTL#14

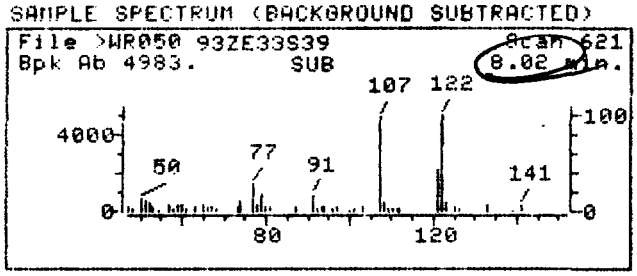
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 19
Compound Name: Isophorone
Scan Number: 462
Retention Time: 6.56 min.
Quant Ion: 82.0
Area: 13462
Concentration: 1.78 NG/UL
q-value: 66

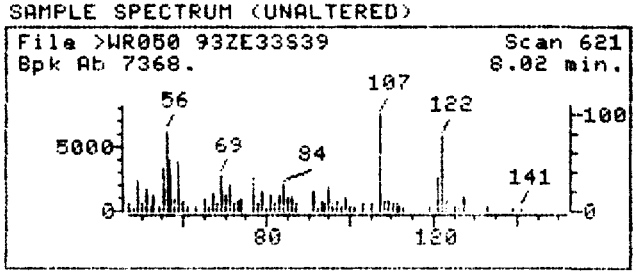
REFERENCE STANDARD SPECTRUM

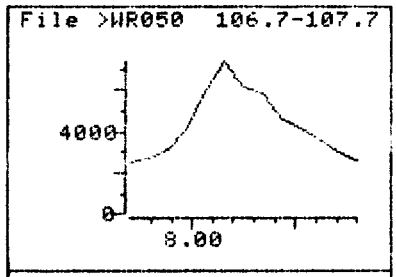


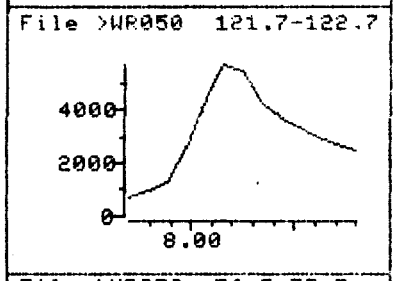
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

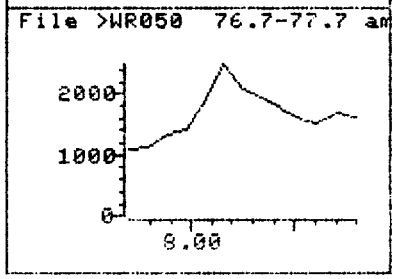


SAMPLE SPECTRUM (UNALTERED)









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Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

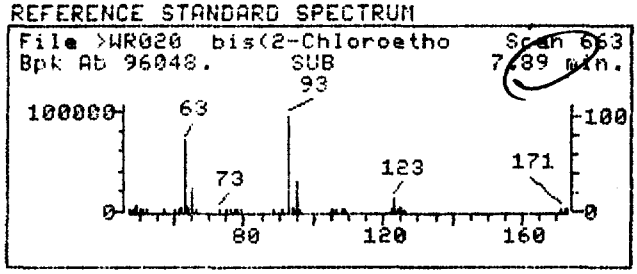
Quant Output File: ^WR050::D3

BTL#14

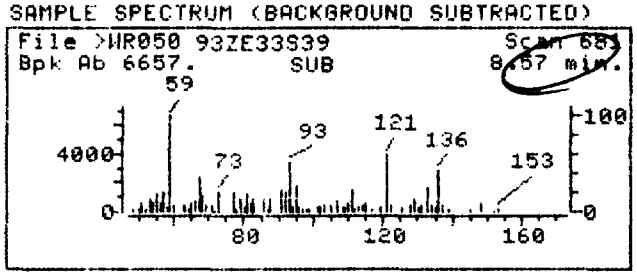
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 21
Compound Name: 2,4-Dimethylphenol
Scan Number: 621
Retention Time: 8.02 min.
Quant Ion: 122.0
Area: 17082
Concentration: 4.91 NG/UL
q-value: 89

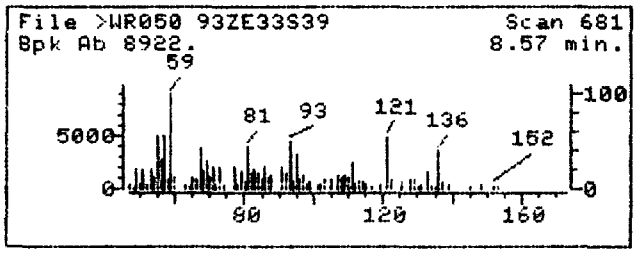
REFERENCE STANDARD SPECTRUM

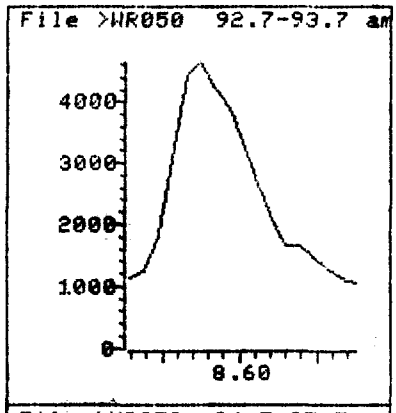


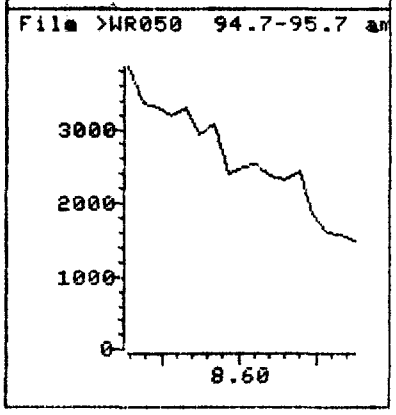
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





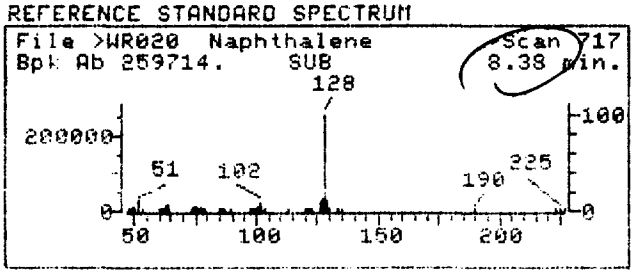


Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

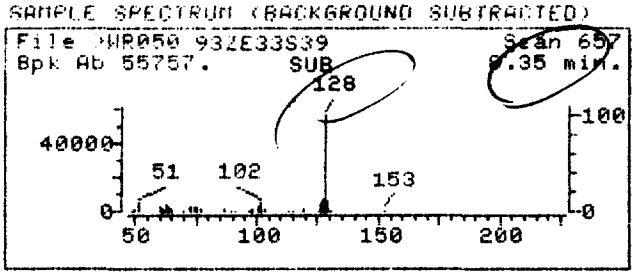
Quant Output File: ^WR050::D3
BTL#14
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 23
Compound Name: bis(2-Chloroethoxy)Methane
Scan Number: 682
Retention Time: 8.57 min.
Quant Ion: 93.0
Area: 14648
Concentration: 2.88 NG/UL
q-value: 55

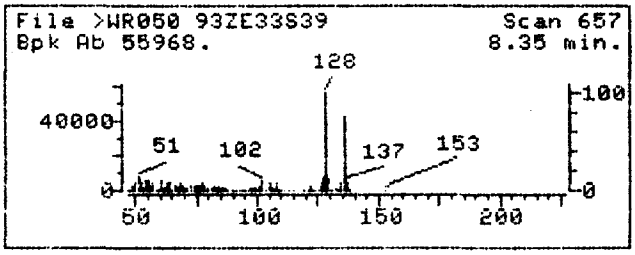
REFERENCE STANDARD SPECTRUM

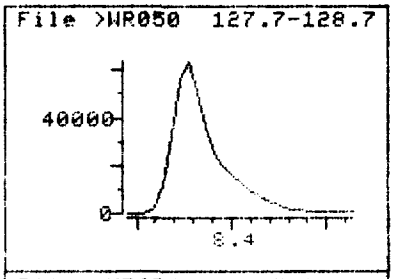


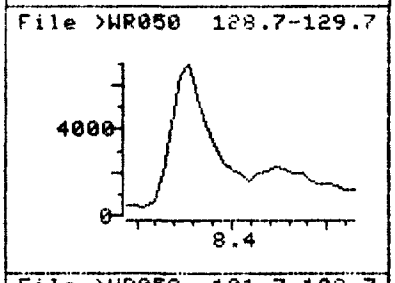
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

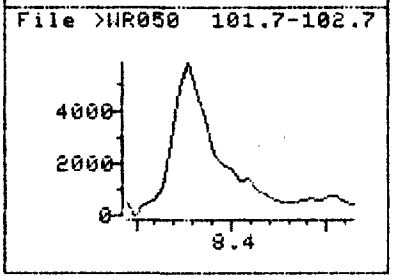


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

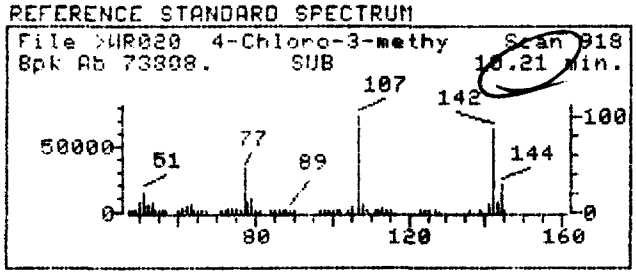
Quant Output File: ^WR050::D3

BTL#14

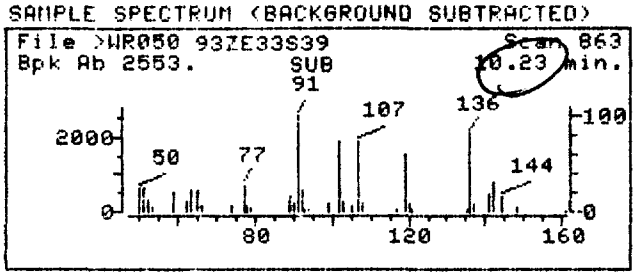
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 26
Compound Name: Naphthalene
Scan Number: 658
Retention Time: 8.35 min.
Quant Ion: 128.0
Area: 202567
Concentration: 15.97 NG/UL
q-value: 96

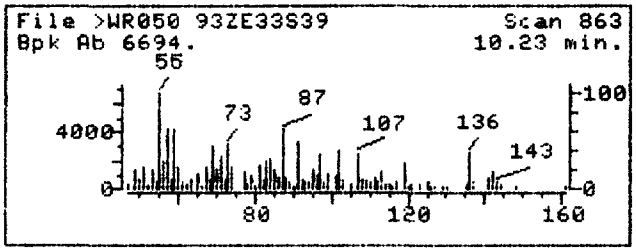
REFERENCE STANDARD SPECTRUM

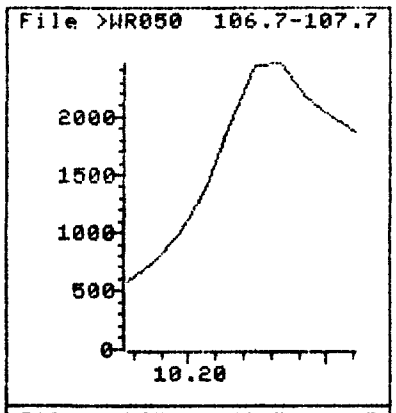


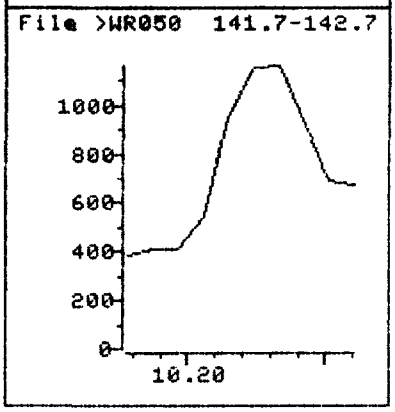
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





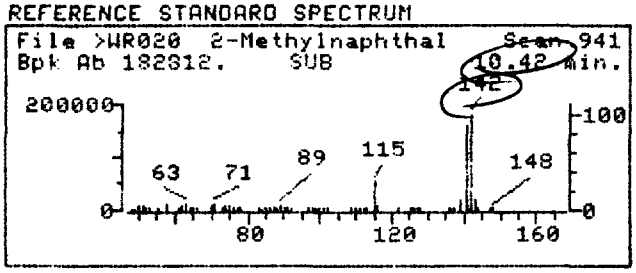


Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

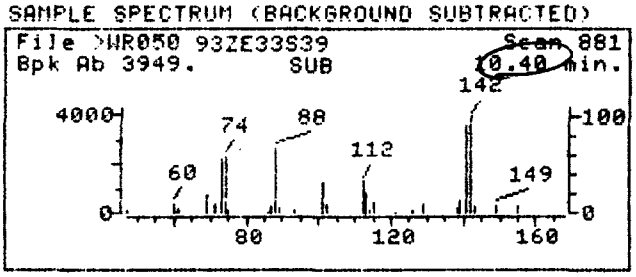
Quant Output File: ^WR050::D3
BTL#14
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 29
Compound Name: 4-Chloro-3-methylphenol
Scan Number: 863
Retention Time: 10.23 min.
Quant Ion: 107.0
Area: 5861
Concentration: 1.75 NG/UL
q-value: 97

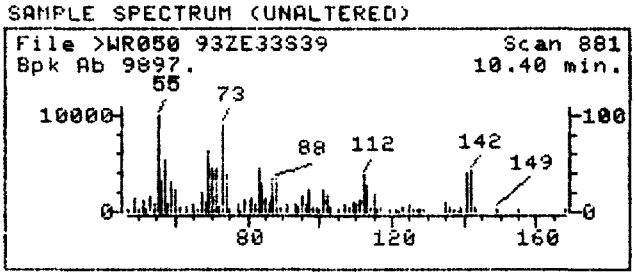
REFERENCE STANDARD SPECTRUM

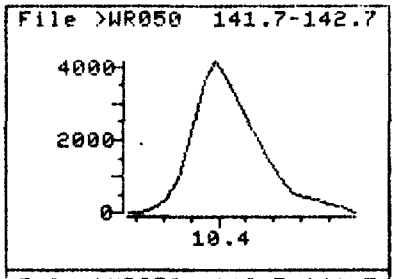


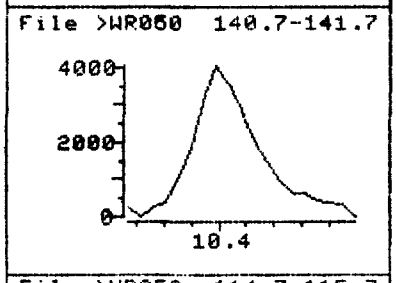
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

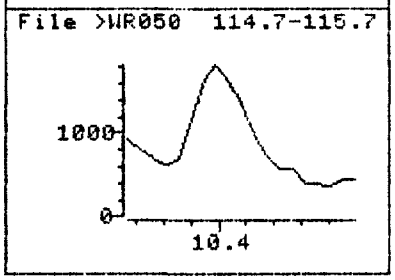


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

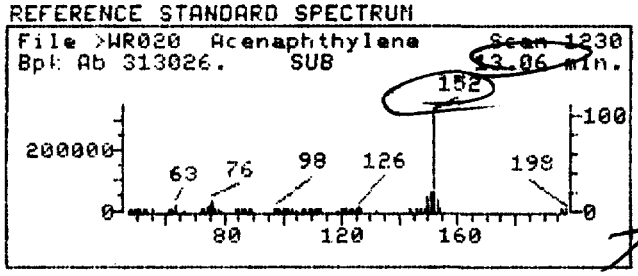
Quant Output File: ^WR050::D3

BTL#14

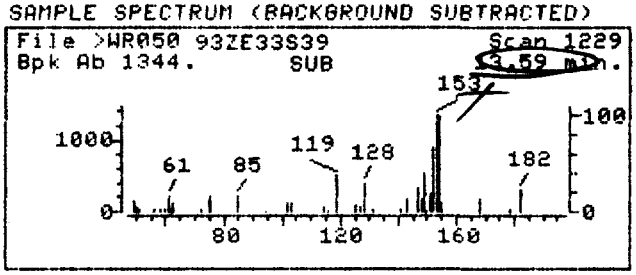
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 30
Compound Name: 2-Methylnaphthalene
Scan Number: 881
Retention Time: 10.40 min.
Quant Ion: 142.0
Area: 13468
Concentration: 1.61 NG/UL
q-value: 89

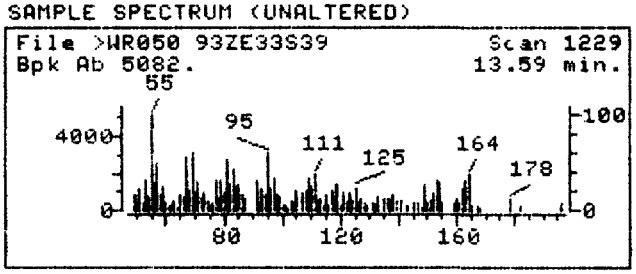
REFERENCE STANDARD SPECTRUM

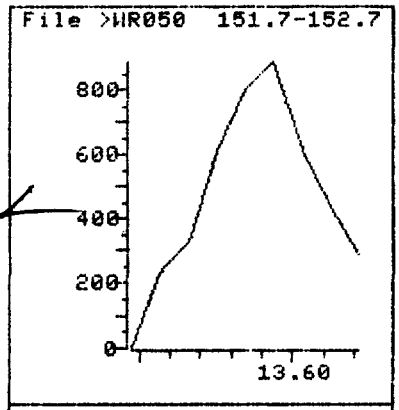


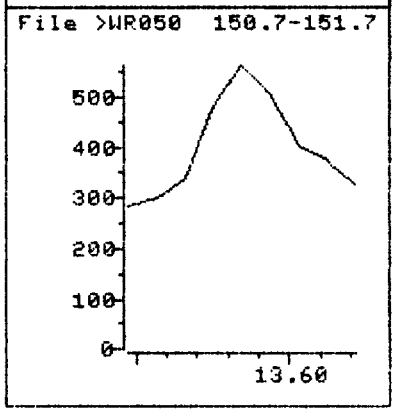
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

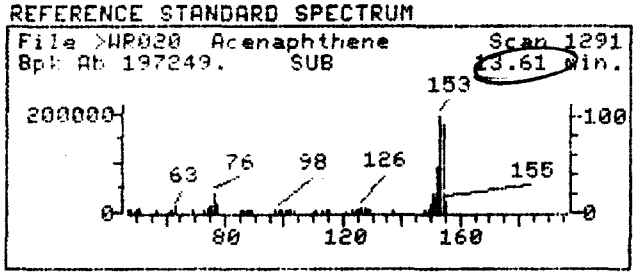
Quant Output File: ^WR050::D3

BTL#14

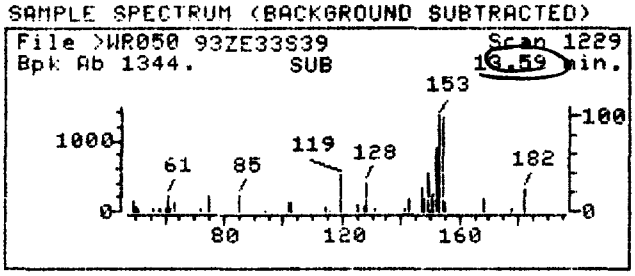
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 40
Compound Name: Acenaphthylene
Scan Number: 1229
Retention Time: 13.59 min.
Quant Ion: 152.0
Area: 2326
Concentration: .20 NG/UL
q-value: 91

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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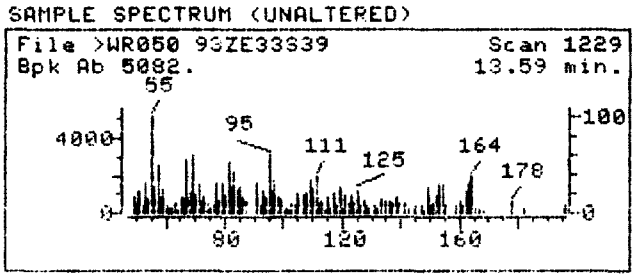
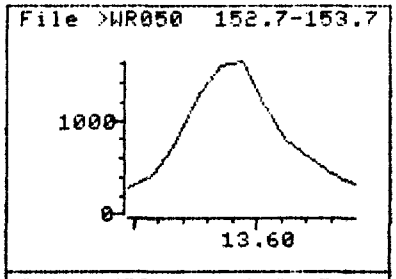
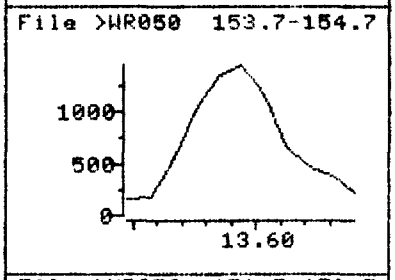
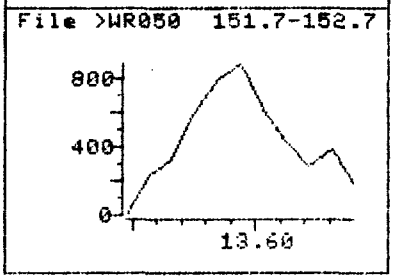








Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

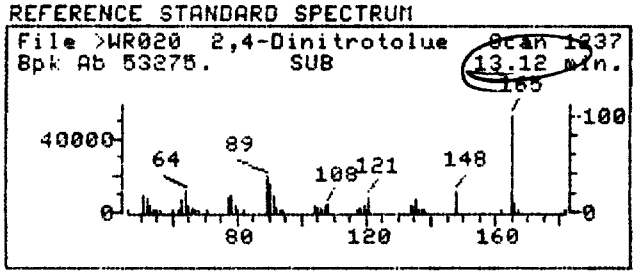
Quant Output File: ^WR050::D3

BTL#14

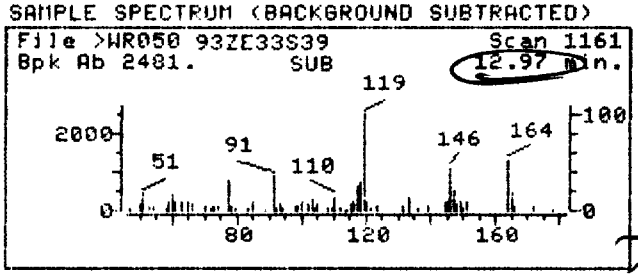
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 42
Compound Name: Acenaphthene
Scan Number: 1229
Retention Time: 13.59 min.
Quant Ion: 153.0
Area: 3335
Concentration: .44 NG/UL
q-value: 88

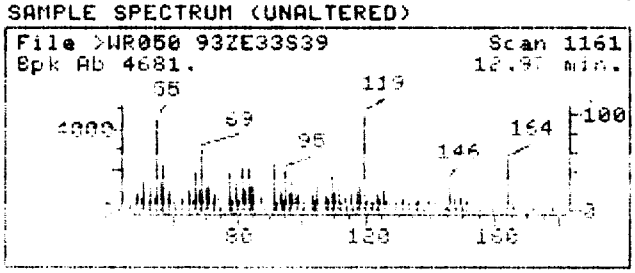
REFERENCE STANDARD SPECTRUM

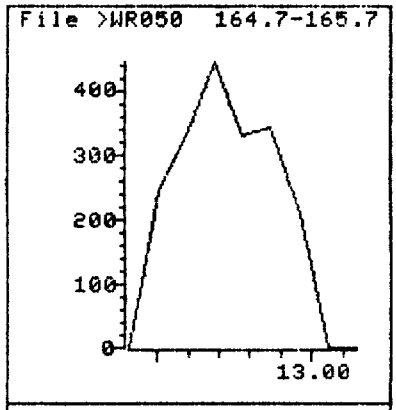


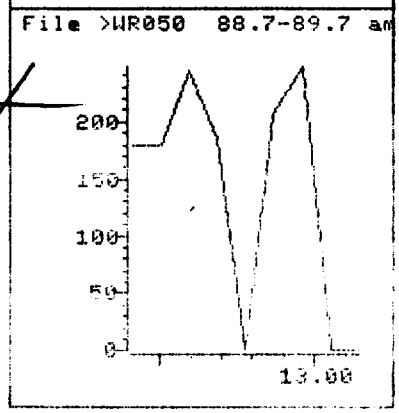
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

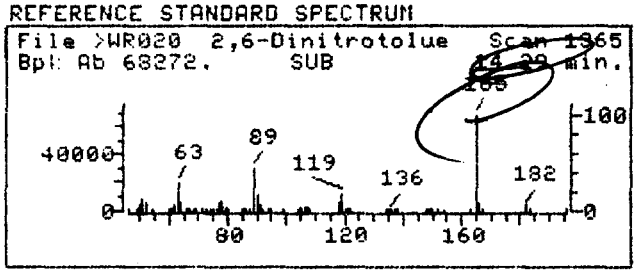
Quant Output File: ^WR050::D3

BTL#14

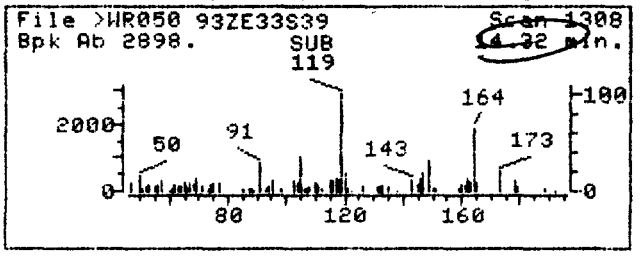
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 46
Compound Name: 2,4-Dinitrotoluene
Scan Number: 1161
Retention Time: 12.97 min.
Quant Ion: 165.0
Area: 1041
Concentration: .52 NG/UL
q-value: 49

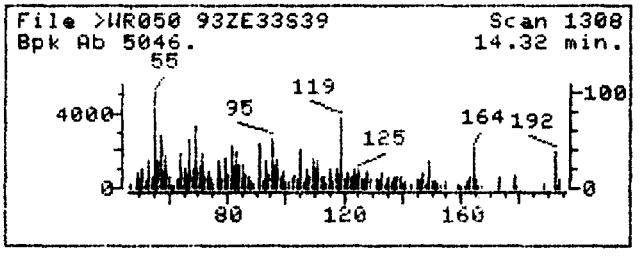
REFERENCE STANDARD SPECTRUM

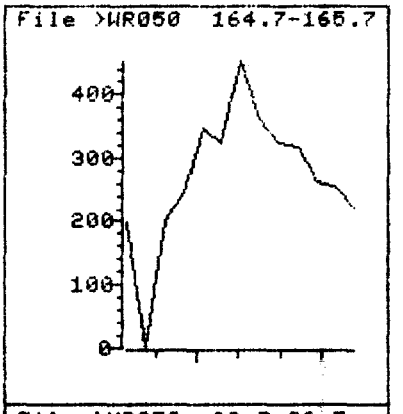


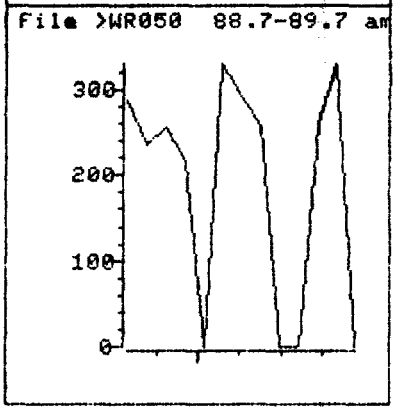
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR050::D6
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Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

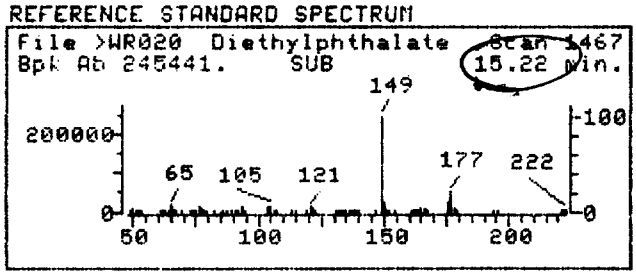
Quant Output File: ^WR050::D3

BTL#14

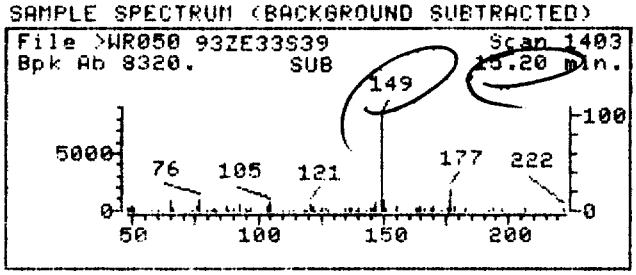
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 47
Compound Name: 2,6-Dinitrotoluene
Scan Number: 1308
Retention Time: 14.32 min.
Quant Ion: 165.0
Area: 1826
Concentration: .76 NG/UL
q-value: 81

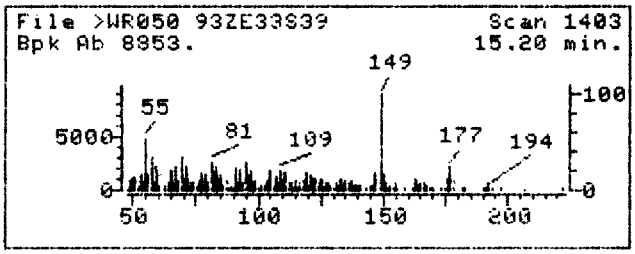
REFERENCE STANDARD SPECTRUM

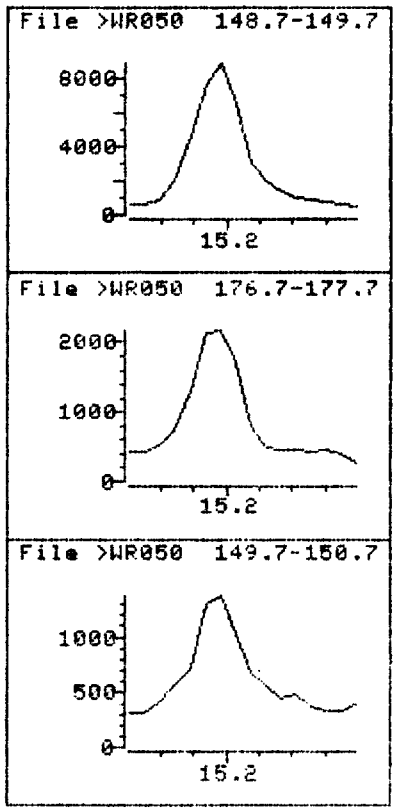


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 09:17

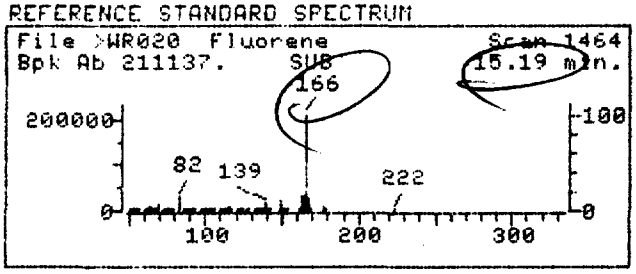
Quant Output File: ^WR050::D3

BTL#14

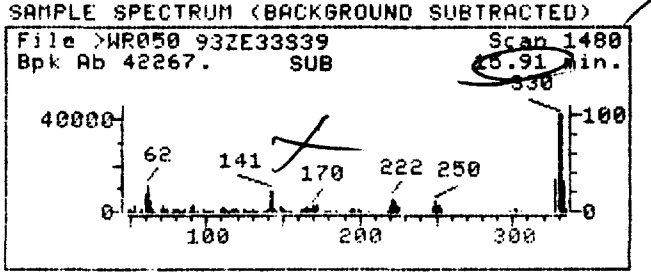
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 48
Compound Name: Diethylphthalate
Scan Number: 1403
Retention Time: 15.20 min.
Quant Ion: 149.0
Area: 18698
Concentration: 2.30 NG/UL
q-value: 94

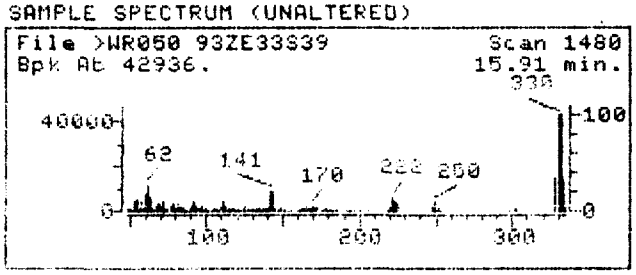
REFERENCE STANDARD SPECTRUM

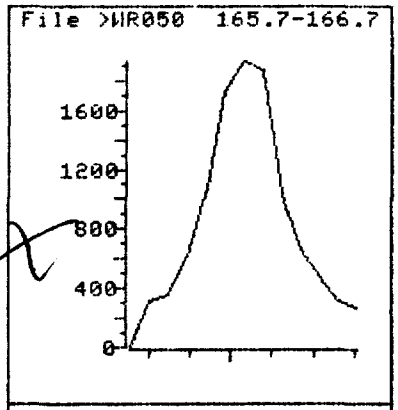


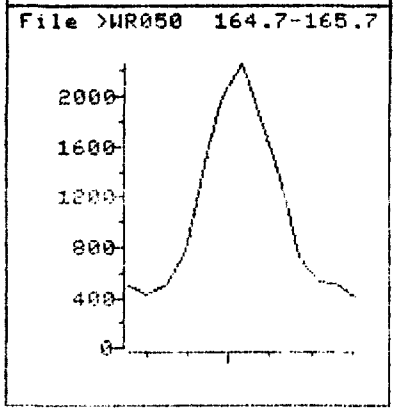
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

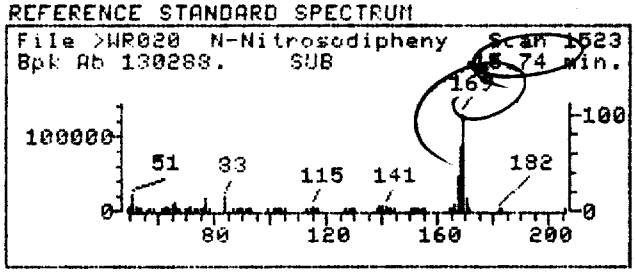
Quant Output File: ^WR050::D3

BTL#14

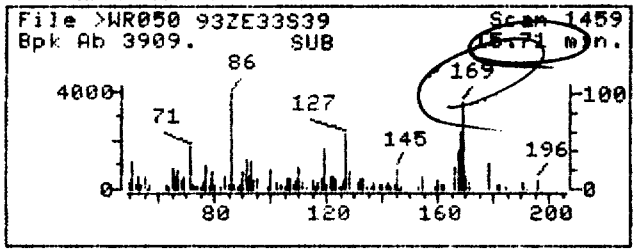
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 50
Compound Name: Fluorene
Scan Number: 1480
Retention Time: 15.91 min.
Quant Ion: 166.0
Area: 5896
Concentration: .76 NG/UL
q-value: 93

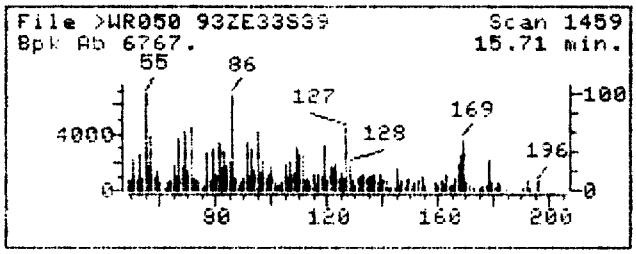
REFERENCE STANDARD SPECTRUM

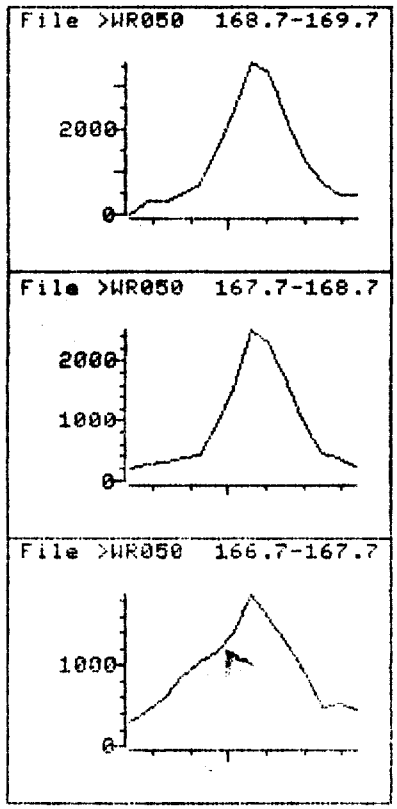


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

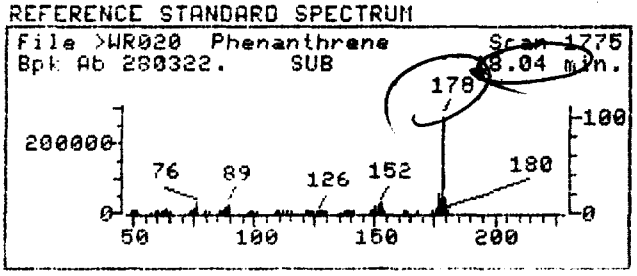
Quant Output File: ^WR050::D3

BTL#14

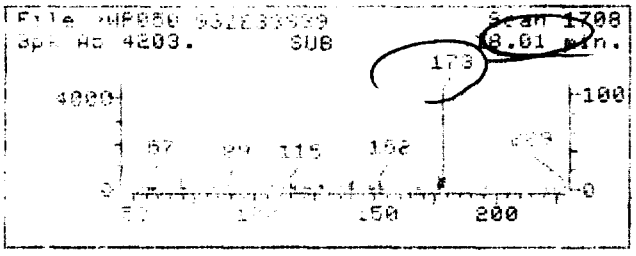
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 53
Compound Name: N-Nitrosodiphenylamine
Scan Number: 1459
Retention Time: 15.71 min.
Quant Ion: 169.0
Area: 9894
Concentration: 2.00 NG/UL
q-value: 92

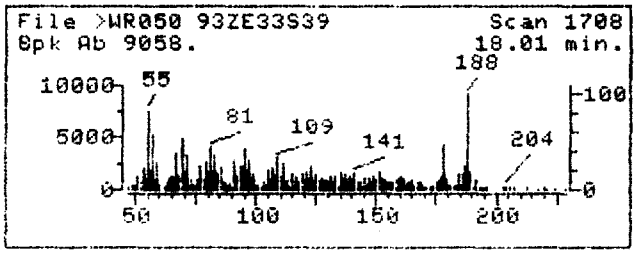
REFERENCE STANDARD SPECTRUM

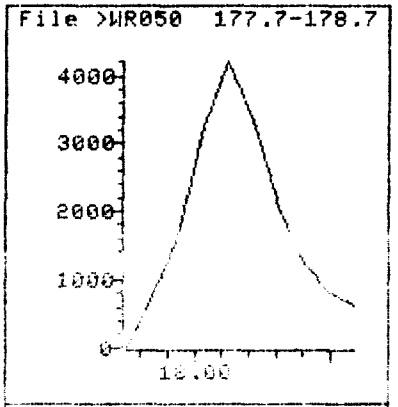


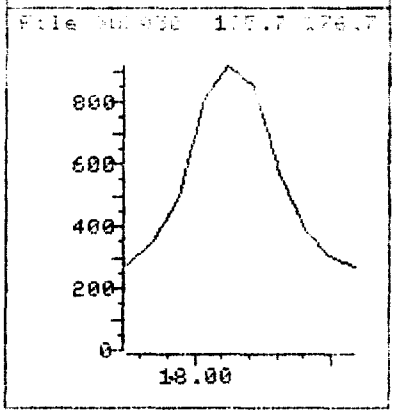
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

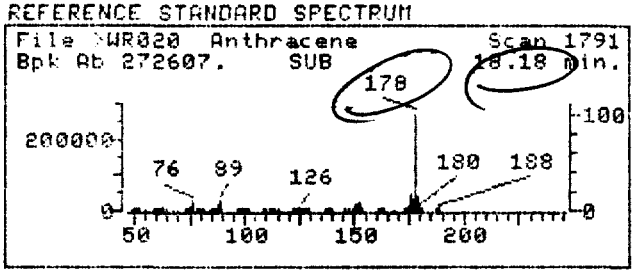
Quant Output File: ^WR050::D3

BTL#14

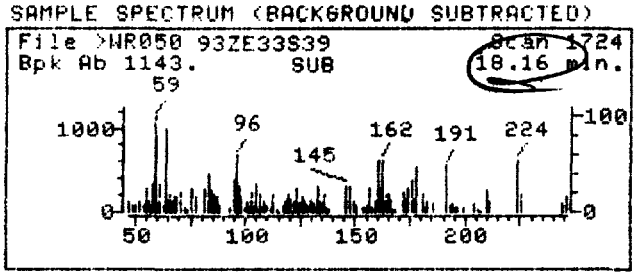
Quant ID File: 1D[illegible]::SC
Last Calibration: 930609 10:36

Compound No: 58
Compound Name: Phenanthrene
Scan Number: 1708
Retention Time: 18.01 min.
Quant Ion: 178.0
Area: 9965
Concentration: .97 NG/UL
q-value: 96

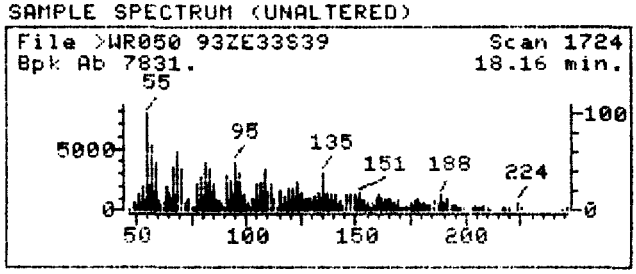
REFERENCE STANDARD SPECTRUM

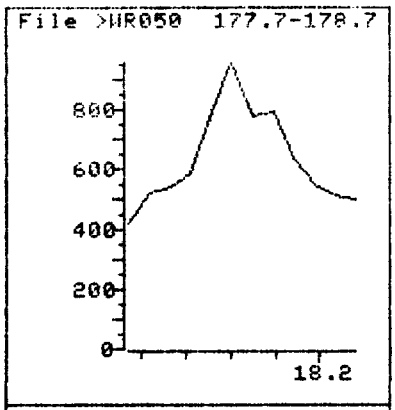


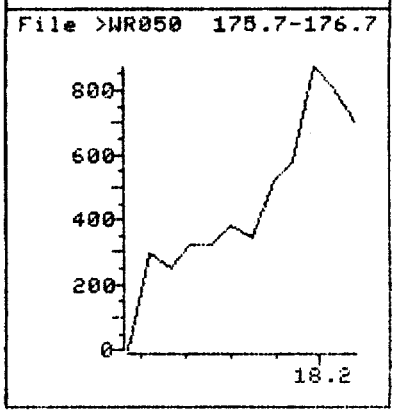
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







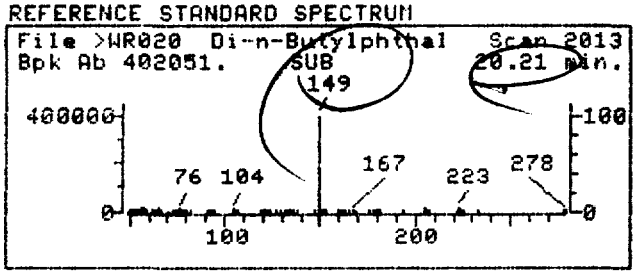
Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

Quant Output File: ^WR050::D3

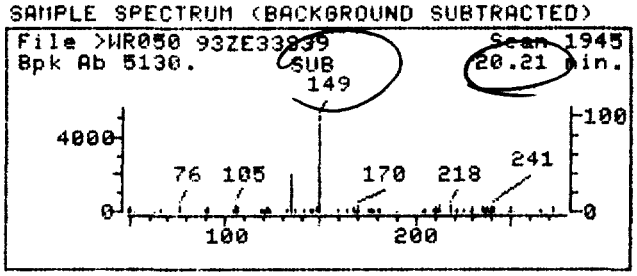
BTL#14
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 59
Compound Name: Anthracene
Scan Number: 1724
Retention Time: 18.16 min.
Quant Ion: 178.0
Area: 1401
Concentration: .13 NG/UL
q-value: 72

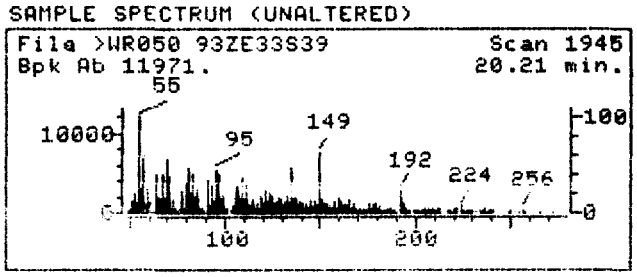
REFERENCE STANDARD SPECTRUM

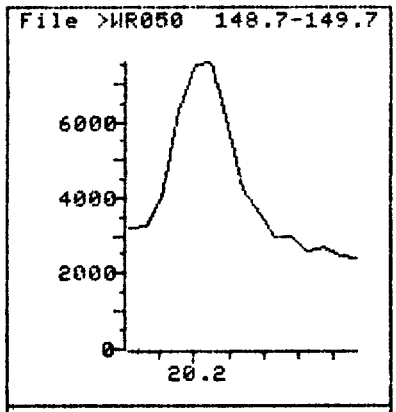


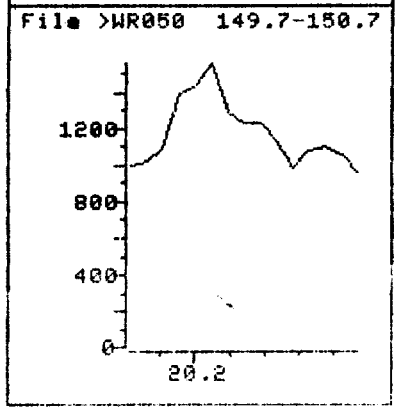
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-09-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 09:17

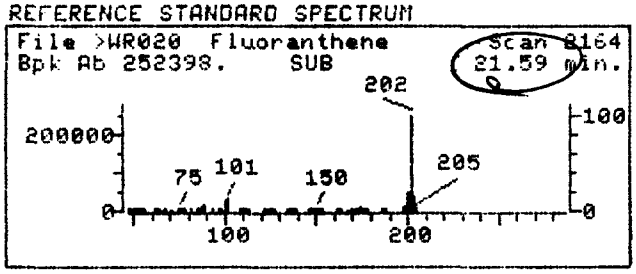
Quant Output File: >WR050::D3

BTL#14

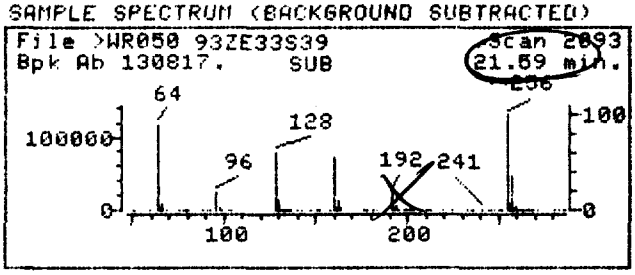
Quant ID File: IDAW27::SC
Last Calibration: 930609 10:36

Compound No: 60
Compound Name: Di-n-Butylphthalate
Scan Number: 1945
Retention Time: 20.21 min.
Quant Ion: 149.0
Area: 14572
Concentration: 1.16 NG/UL
q-value: 95

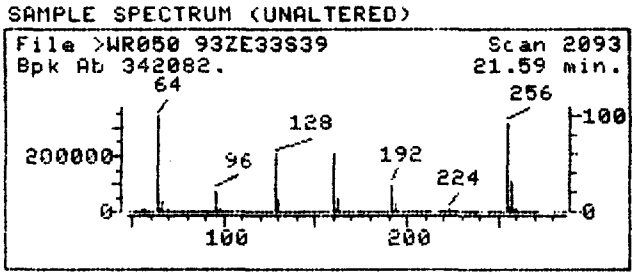
REFERENCE STANDARD SPECTRUM

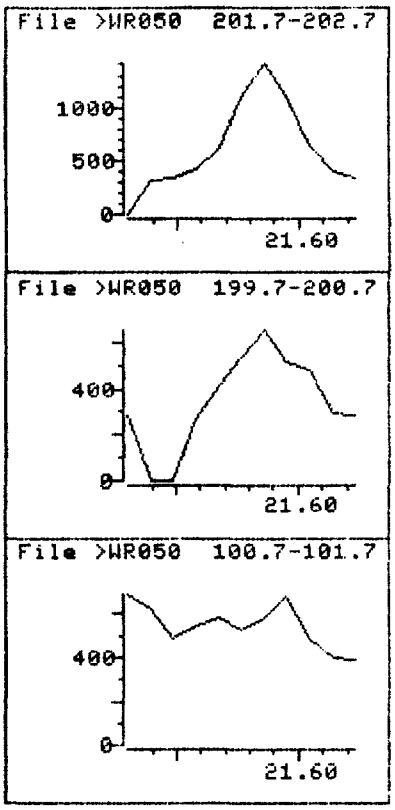


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





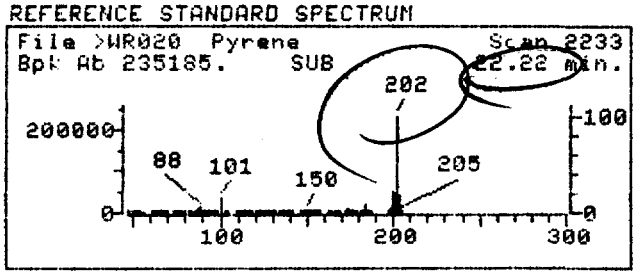
Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

Quant Output File: ^WR050::D3

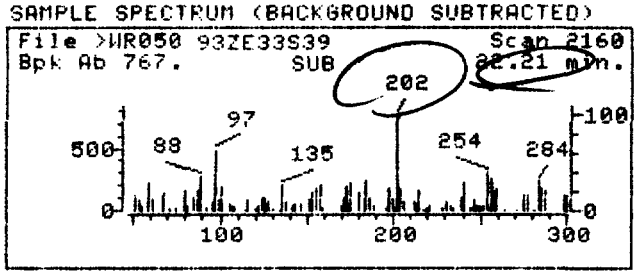
BTL#14
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 61
Compound Name: Fluoranthene
Scan Number: 2093
Retention Time: 21.59 min.
Quant Ion: 202.0
Area: 3744
Concentration: .34 NG/UL
q-value: 71

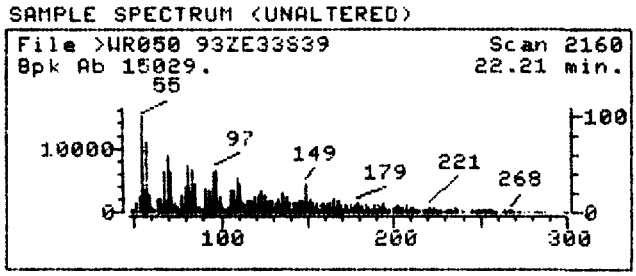
REFERENCE STANDARD SPECTRUM

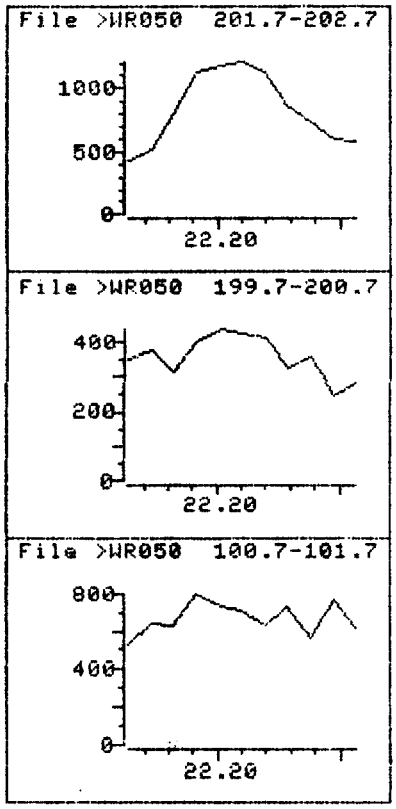


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





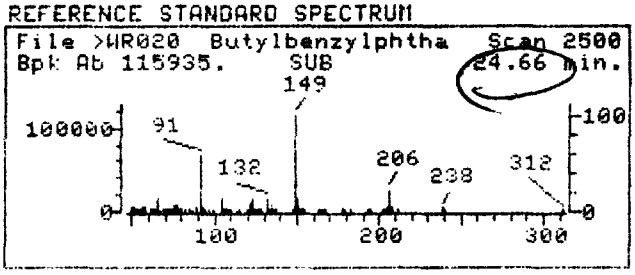
Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

Quant Output File: ^WR050::D3

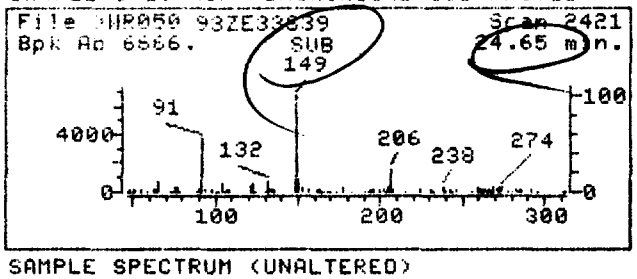
BTL#14
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 63
Compound Name: Pyrene
Scan Number: 2160
Retention Time: 22.21 min.
Quant Ion: 202.0
Area: 2423
Concentration: .22 NG/UL
q-value: 91

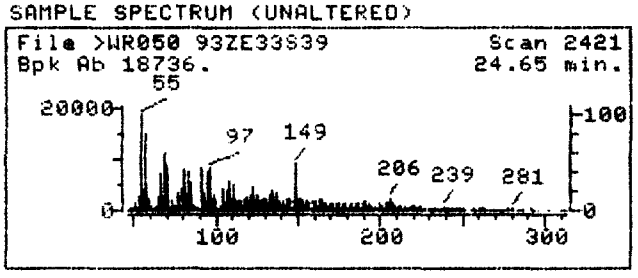
REFERENCE STANDARD SPECTRUM

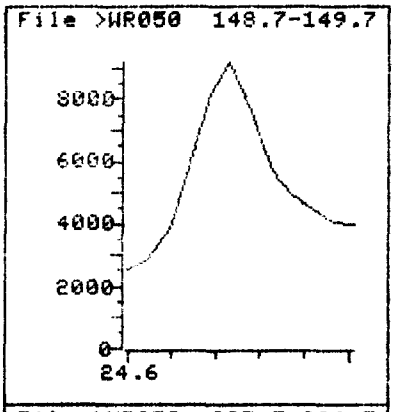


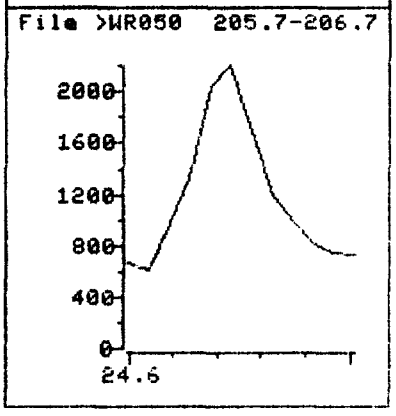
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



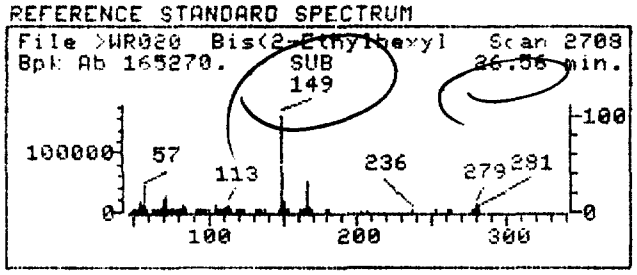




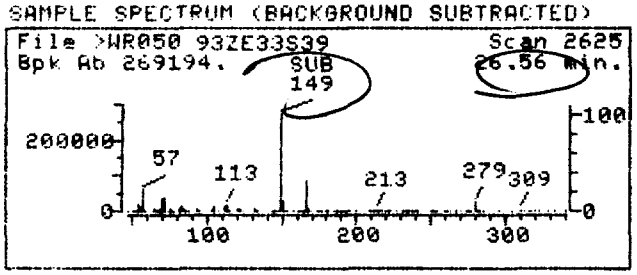
Data File: >WR050::D6 Quant Output File: ^WR050::D3
Name: 93ZE33S39
Misc: 06-08-93 1030/1 BTL#14
Quant Time: 930609 11:29 Quant ID File: IDRW37::SC
Injected at: 930609 05:17 Last Calibration: 930609 10:36

Compound No: 65
Compound Name: Butylbenzylphthalate
Scan Number: 2421
Retention Time: 24.65 min.
Quant Ion: 149.0
Area: 18396
Concentration: 3.91 NG/UL
q-value: 91

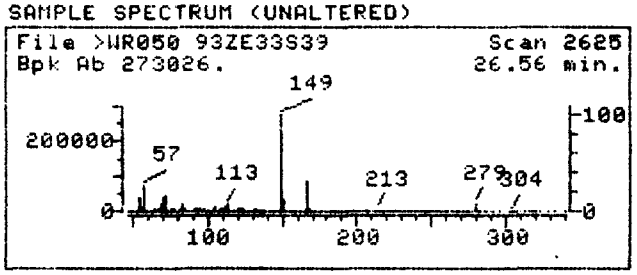
REFERENCE STANDARD SPECTRUM

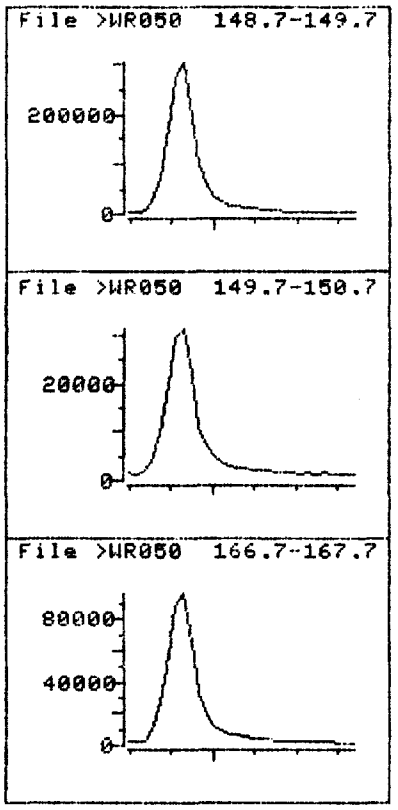


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



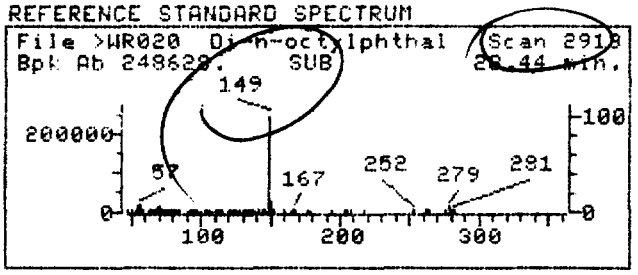


Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

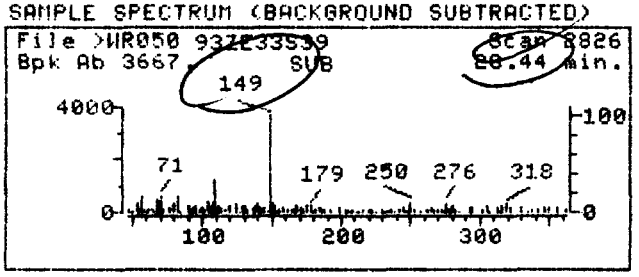
Quant Output File: ^WR050::D3
BTL#14
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2626
Retention Time: 26.56 min.
Quant Ion: 149.0
Area: 746483
Concentration: 117.47 NG/UL
q-value: 94

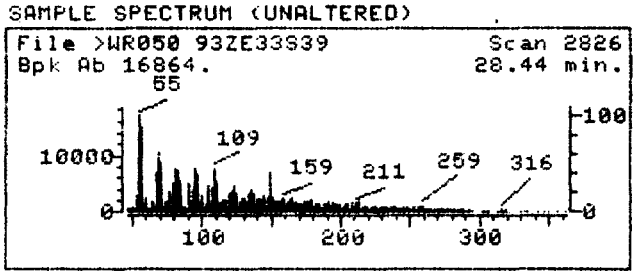
REFERENCE STANDARD SPECTRUM

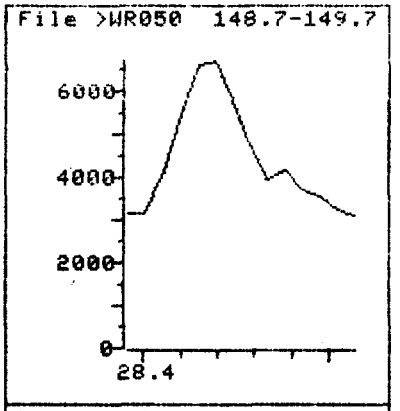


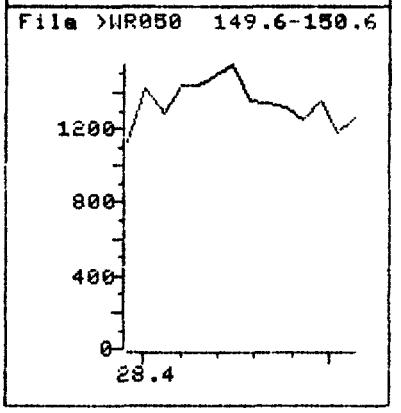
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR050::D6
Name: 93ZE33S39
Misc: 06-08-93 1030/1
Quant Time: 930609 11:29
Injected at: 930609 05:17

Quant Output File: ^WR050::D3
BTL#14
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 70
Compound Name: Di-n-octylphthalate
Scan Number: 2826
Retention Time: 28.44 min.
Quant Ion: 149.0
Area: 10179
Concentration: .89 NG/UL
q-value: 83

MS data file header from : >WR050

Sample: 93ZE33S39 Operator: MANAGER SUPER GRP. 6/09/93 5:17
Misc : 06-08-93 1030/1 BTL#14
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: TOXIC6 Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	65.	320.	321.	0.	0.
Chromatographic times, min. :	1.0	1.0	2.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	1.0	0.0	0.0	0.0

>WR050 93ZE33S39 06-08-93 1030/1
45.01 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 60654. Max Peaks: 20 Bunching: 1
Dnslope: 0.00 Results File IWR050 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.49	340	345	360	198584	890141	720503	6.69	2.542
2	6.56	459	462	478	159309	685885	565654	5.26	1.995
3	7.67	579	583	591	191989	1043525	726013	6.75	2.561
4	11.34	961	984	988	159536	1449083	1013629	9.42	3.576
5	16.56	1540	1551	1556	163884	1861278	749761	6.97	2.645
6	16.78	1570	1575	1581	223860	1270577	619393	5.76	2.185
7	18.22	1724	1730	1737	215451	1849604	814241	7.57	2.872
8	20.40	1954	1965	1969	651061	4936649	3138646	29.16	11.072
9	21.61	2078	2096	2100	1703320	14609570	10762486	100.00	37.966
10	22.42	2177	2183	2187	282466	2825447	940573	8.74	3.318
11	22.70	2207	2213	2219	362782	2896158	972793	9.04	3.432
12	24.21	2370	2374	2380	250401	2244206	601823	5.59	2.123
13	25.26	2482	2487	2499	318811	4091354	906196	8.42	3.197
14	26.27	2591	2595	2602	348470	2964364	759666	7.06	2.680
15	27.25	2695	2699	2711	411153	4262066	1013875	9.42	3.577
16	28.19	2795	2799	2812	388598	4358134	1093525	10.16	3.858
17	29.10	2892	2897	2905	363455	3346390	916112	8.51	3.232
18	30.83	3077	3081	3089	305346	2306710	777475	7.22	2.743
19	31.66	3166	3170	3180	287132	2318996	715260	6.65	2.523
20	32.47	3253	3257	3267	214315	1978966	539760	5.02	1.904

Sum of corrected areas: 28347388.

Summary of Unknowns PBM Library Search and Quantitation

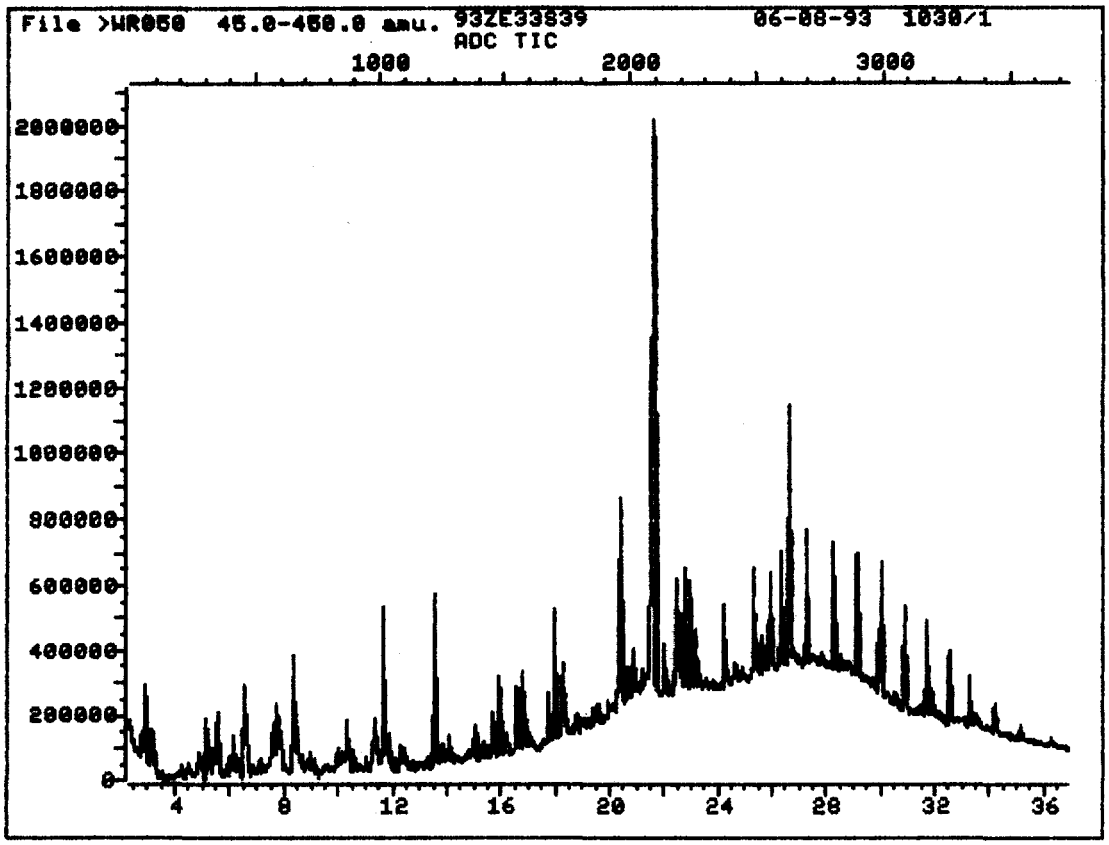
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	1025585.	5.11	2.35 - 11.53
2	50.0	999158.	17.95	11.53 - 23.91
3	50.0	606536.	29.86	23.91 - 36.90

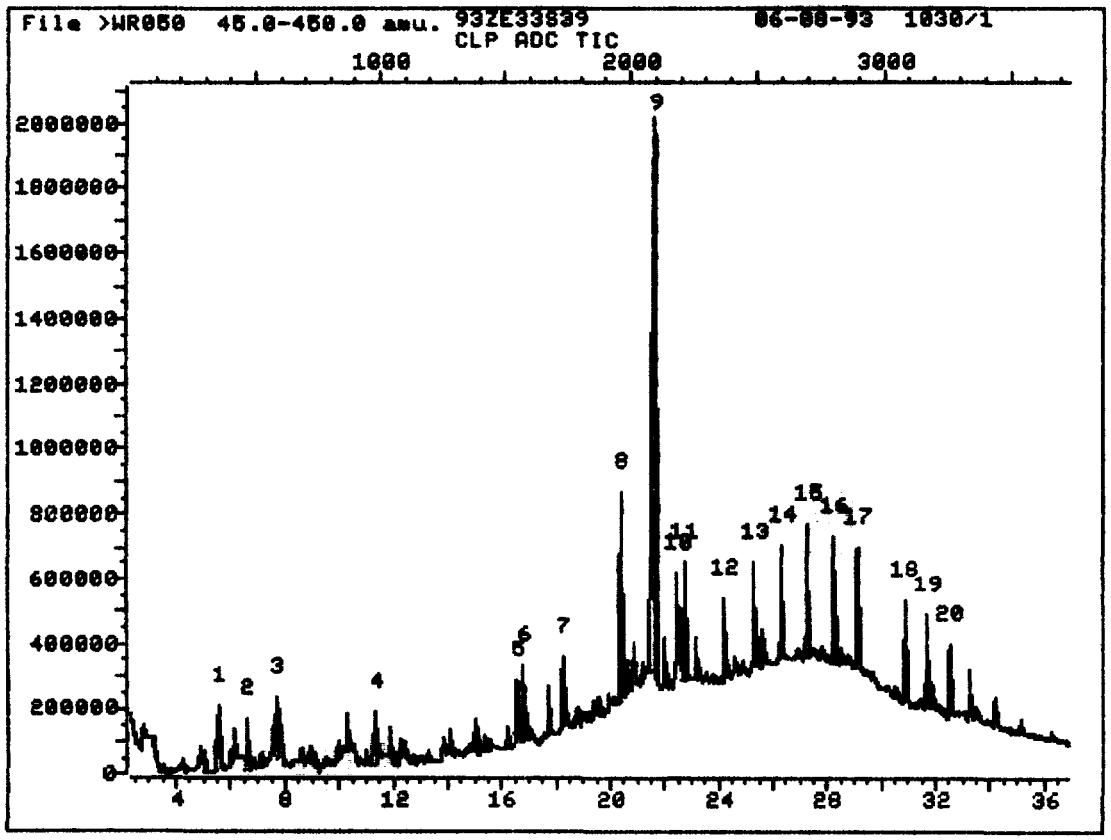
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1030.00

Correction Factor = .97 = (AM / AU) / (DF * FS)

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

3:50 PM WED., 16 JUNE, 1993


File >WR050 45.0-450.0 amu. 93ZE33S39 06-08-93 1030/1
ADC TIC
1000
2000
3000
2000000
1800000
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
4
8
12
16
20
24
28
32
36


File >WR050 45.0-450.0 amu. 93ZE33S39 06-08-93 1030/1
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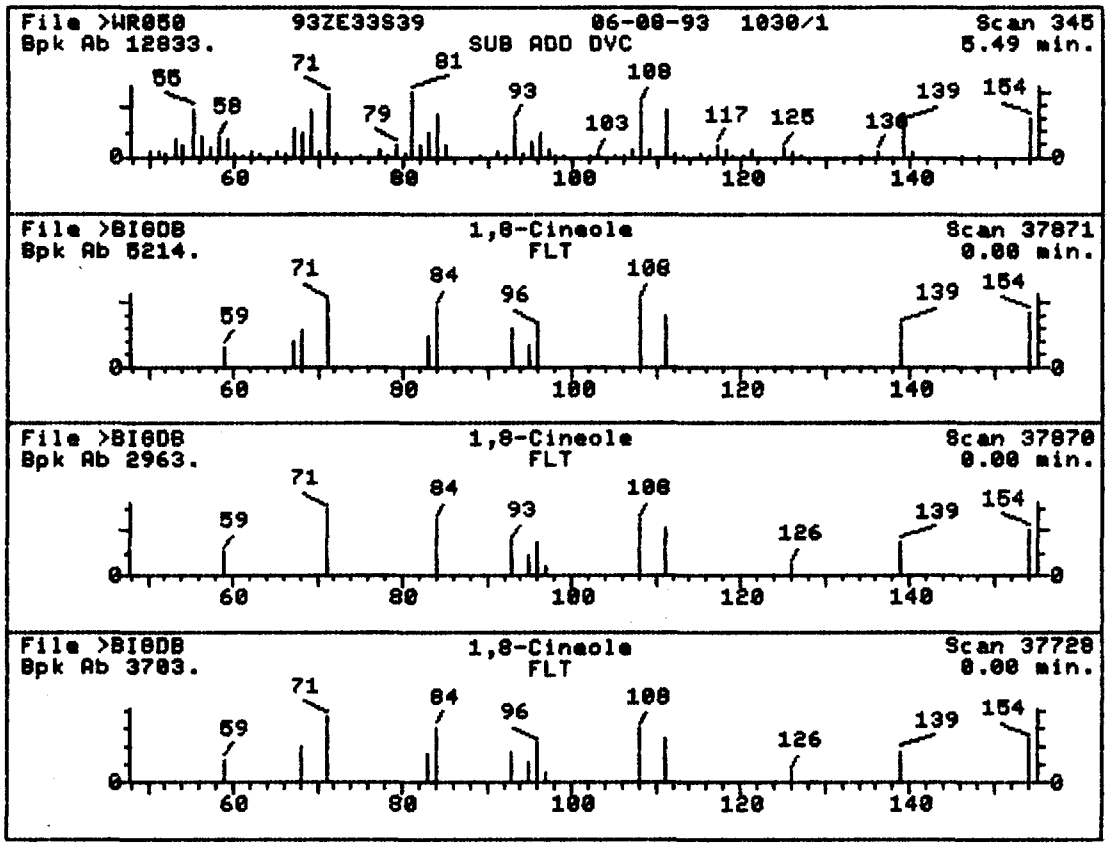
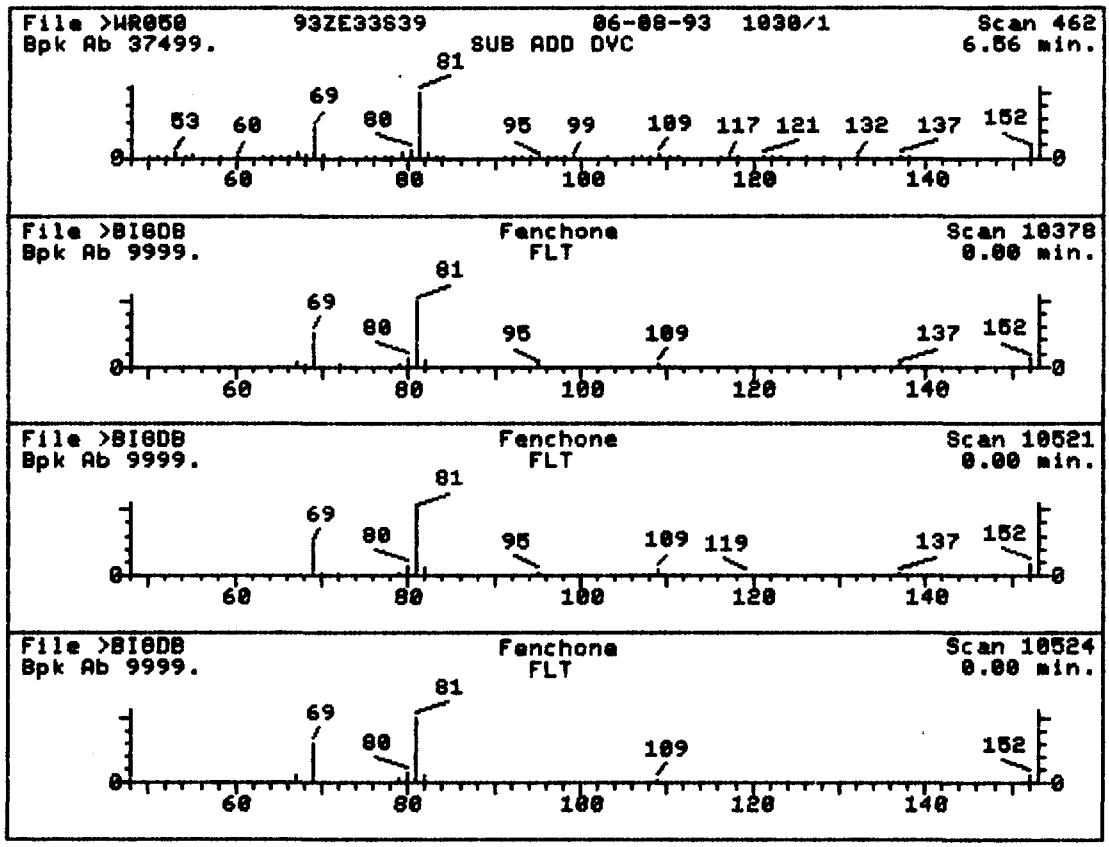


UNKNOWN #,1
AREA = 720503.0 TENTATIVE CONCENTRATION IS 34.00

1.	1,8-Cineole	154	C10H18O
2.	1,8-Cineole	154	C10H18O
3.	1,8-Cineole	154	C10H18O
4.	1,8-Cineole	154	C10H18O
5.	1,8-Cineole	154	C10H18O
6.	Benzene, 1-methoxy-4-(methylthio)-	154	C8H10OS
7.	2,4(1H,3H)-Pyrimidinedione, 1,3,5-trimethyl-	154	C7H10N2O2

Sample file: >WR050 Spectrum #: 345
Search speed: 1 Tilting option: S No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	93*	470826	37871	"BIGDB	101	24	1	0	127	21	53	94
2.	79*	470826	37870	"BIGDB	80	37	1	0	244	30	37	77
3.	67*	470826	37728	"BIGDB	70	45	2	0	192	26	27	50
4.	59*	470826	21993	"BIGDB	40	30	0	0	258	39	21	50
5.	25*	470826	23341	"BIGDB	47	71	2	0	181	47	7	19
6.	20*	1879169	37694	"BIGDB	48	57	2	2	100	51	5	14

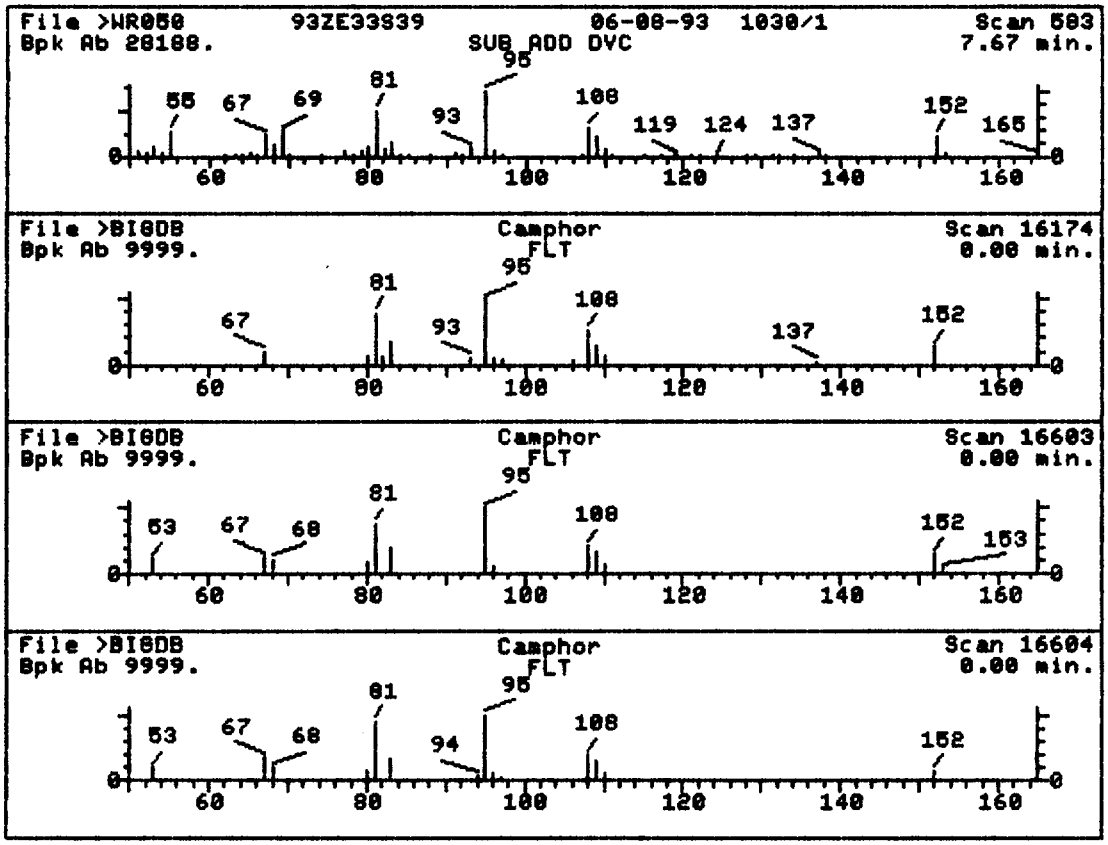


UNKNOWN #,2
AREA = 565654.0 TENTATIVE CONCENTRATION IS 27.00

1.	Fenchone	152	C10H16O
2.	Fenchone	152	C10H16O
3.	Fenchone	152	C10H16O
4.	Fenchone	152	C10H16O
5.	Fenchone	152	C10H16O
6.	N-HEXYL FURAN	152	C10H16O
7.	2,4-Decadienal, (E,Z)-	152	C10H16O

Sample file: >WR050 Spectrum #: 462
Search speed: 1 Tilting option: S No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	89*	1195795	10378	"BIGDB	71	16	1	0	89	8	62	83
2.	87*	1195795	10521	"BIGDB	56	31	2	0	79	2	63	42
3.	83*	1195795	10524	"BIGDB	52	13	0	0	79	12	51	76
4.	79*	1195795	10523	"BIGDB	50	43	2	0	83	10	48	31
5.	76*	1195795	10522	"BIGDB	45	47	2	0	89	8	45	24
6.	52*	0	10379	"BIGDB	25	60	2	0	100	20	20	14



UNKNOWN #,3

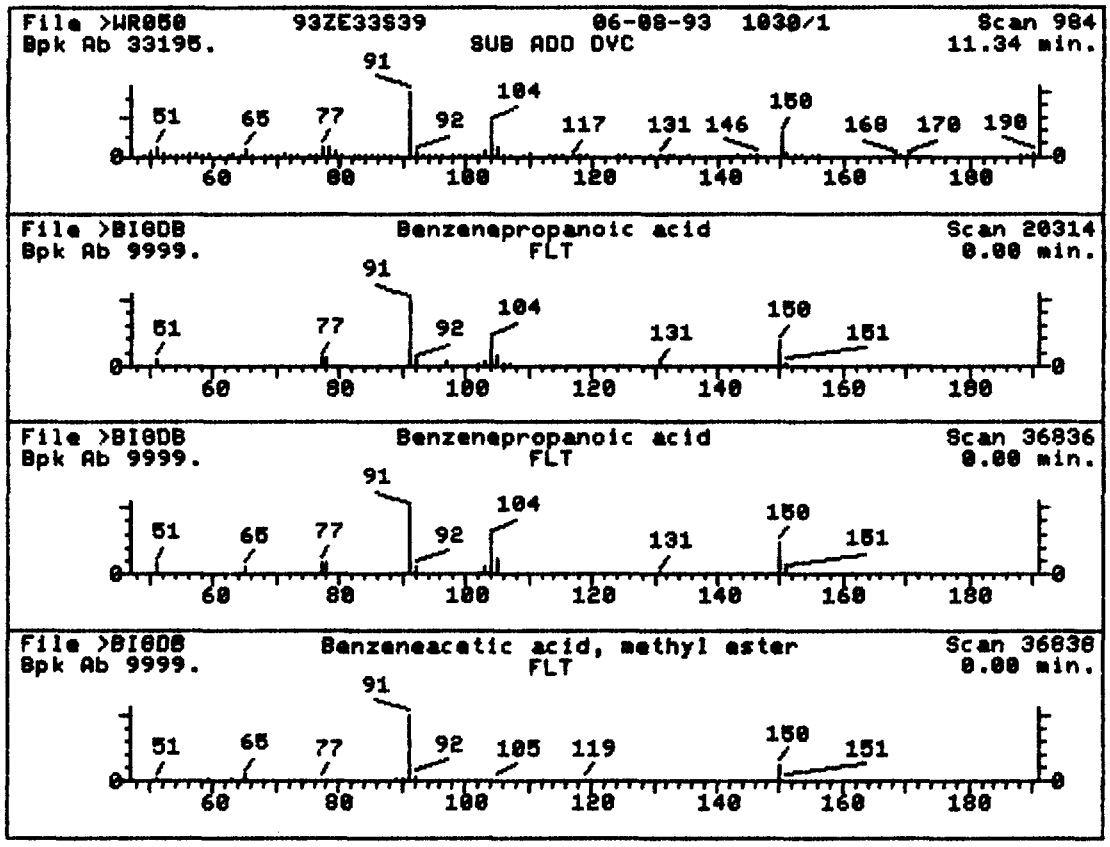
AREA = 726013.0 TENTATIVE CONCENTRATION IS 34.00

1.	Camphor	152	C10H16O
2.	Camphor	152	C10H16O
3.	Camphor	152	C10H16O
4.	Camphor	152	C10H16O
5.	Camphor	152	C10H16O
6.	EXO-ISOCAMPHONONE	152	C10H16O
7.	2-Butanone, 4-(5-methyl-2-furanyl)-	152	C9H12O2

Sample file: >WR050 Spectrum #: 583

Search speed: 1 Tilting option: S No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	79*	76222	16174	"BIGDB	88	30	2	0	84	11	43	67
2.	75*	76222	16603	"BIGDB	72	54	1	0	69	25	41	71
3.	73*	76222	16604	"BIGDB	83	38	2	0	78	22	32	65
4.	73*	76222	16605	"BIGDB	65	49	1	0	64	22	32	65
5.	65*	76222	16602	"BIGDB	61	54	1	0	59	34	24	57
6.	52*	3649863	16175	"BIGDB	32	85	3	0	100	20	20	13

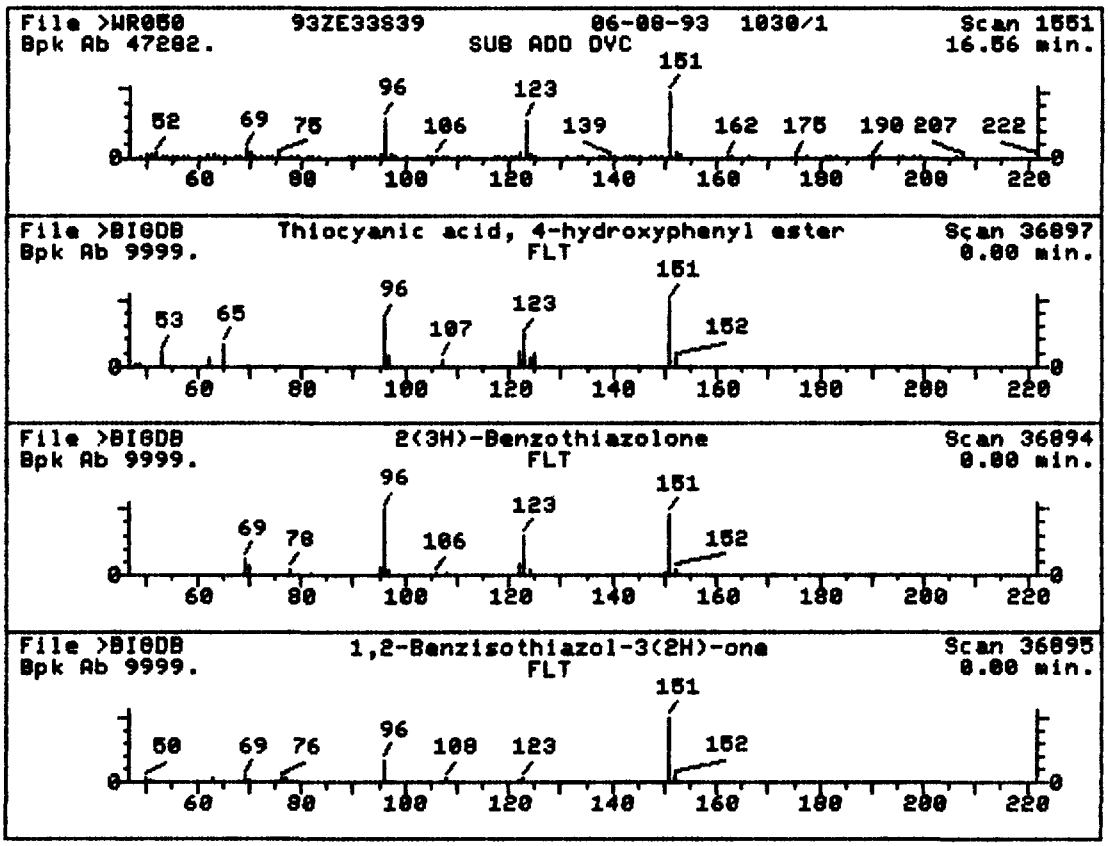


UNKNOWN #,4
AREA = 1013629. TENTATIVE CONCENTRATION IS 48.00

1.	Benzenepropanoic acid	150	C9H10O2
2.	Benzenepropanoic acid	150	C9H10O2
3.	Benzeneacetic acid, methyl ester	150	C9H10O2
4.	Benzeneacetic acid, methyl ester	150	C9H10O2
5.	Styrene	104	C8H8
6.	Bicyclo[4.2.0]octa-1,3,5-triene	104	C8H8
7.	Formic acid, 2-phenylethyl ester	150	C9H10O2

Sample file: >WR050 Spectrum #: 984
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	501520	20314	"BIGDB	89	7	1	0	91	7	68	96
2.	71*	501520	36836	"BIGDB	69	33	1	0	64	29	29	67
3.	34*	101417	36838	"BIGDB	41	41	2	0	100	39	14	21
4.	33*	101417	36840	"BIGDB	39	39	2	0	100	39	10	19
5.	31*	100425	20600	"BIGDB	44	41	1	2	25	45	8	19
6.	28*	694871	20267	"BIGDB	41	32	1	3	22	43	8	16



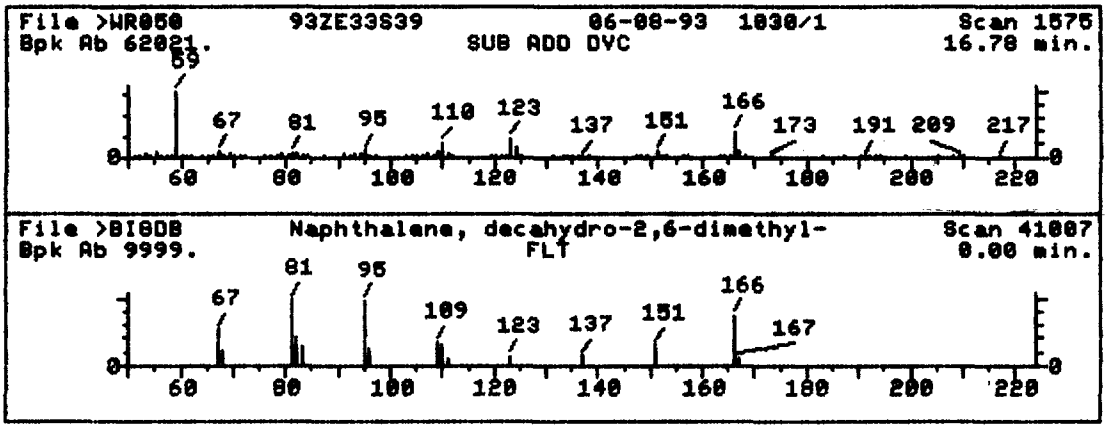
UNKNOWN #,5

AREA = 749761.0 TENTATIVE CONCENTRATION IS 36.00

1.	Thiocyanic acid, 4-hydroxyphenyl ester	151	C7H5NOS
2.	2(3H)-Benzothiazolone	151	C7H5NOS
3.	1,2-Benzisothiazol-3(2H)-one	151	C7H5NOS
4.	2(3H)-Benzoxazolethione	151	C7H5NOS
5.	Benzaldehyde, 3-methoxy-, oxime	151	C8H9NO2

Sample file: >WR050 Spectrum #: 1551
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	70*	3774525	36897	"BIGDB	28	98	3	0	86	10	42	13
2.	55*	934349	36894	"BIGDB	62	39	2	0	54	34	22	40
3.	45*	2634335	36895	"BIGDB	48	42	2	0	94	34	16	28
4.	25*	2382969	36896	"BIGDB	22	74	2	0	100	45	8	13
5.	20*	38489804	36906	"BIGDB	20	56	2	0	85	54	5	13



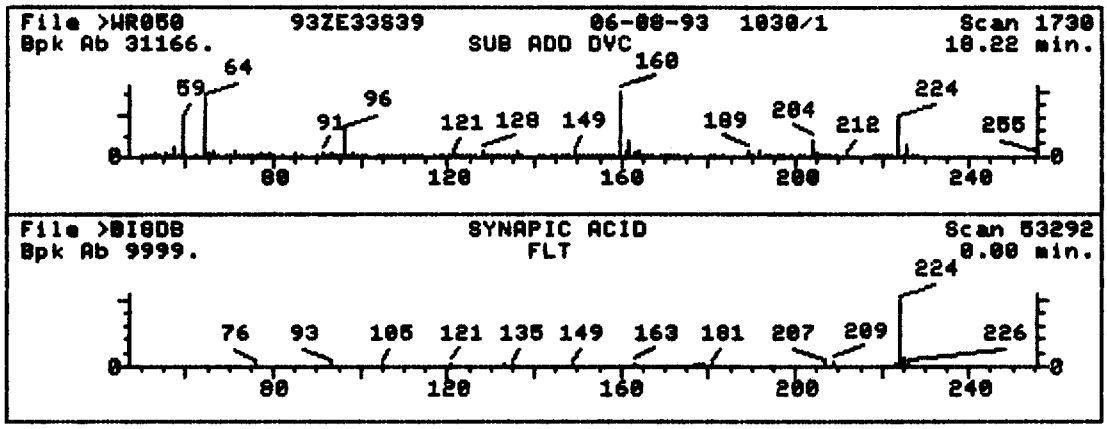
UNKNOWN #,6

AREA = 619593.0 TENTATIVE CONCENTRATION IS 30.00

1. Naphthalene, decahydro-2,6-dimethyl- 166 C12H22

Sample file: >WR050 Spectrum #: 1575
Search speed: 1 Tilting option: S No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	15*	1618220	41007	"BIGDB	24	107	3	0	51	58	3	12



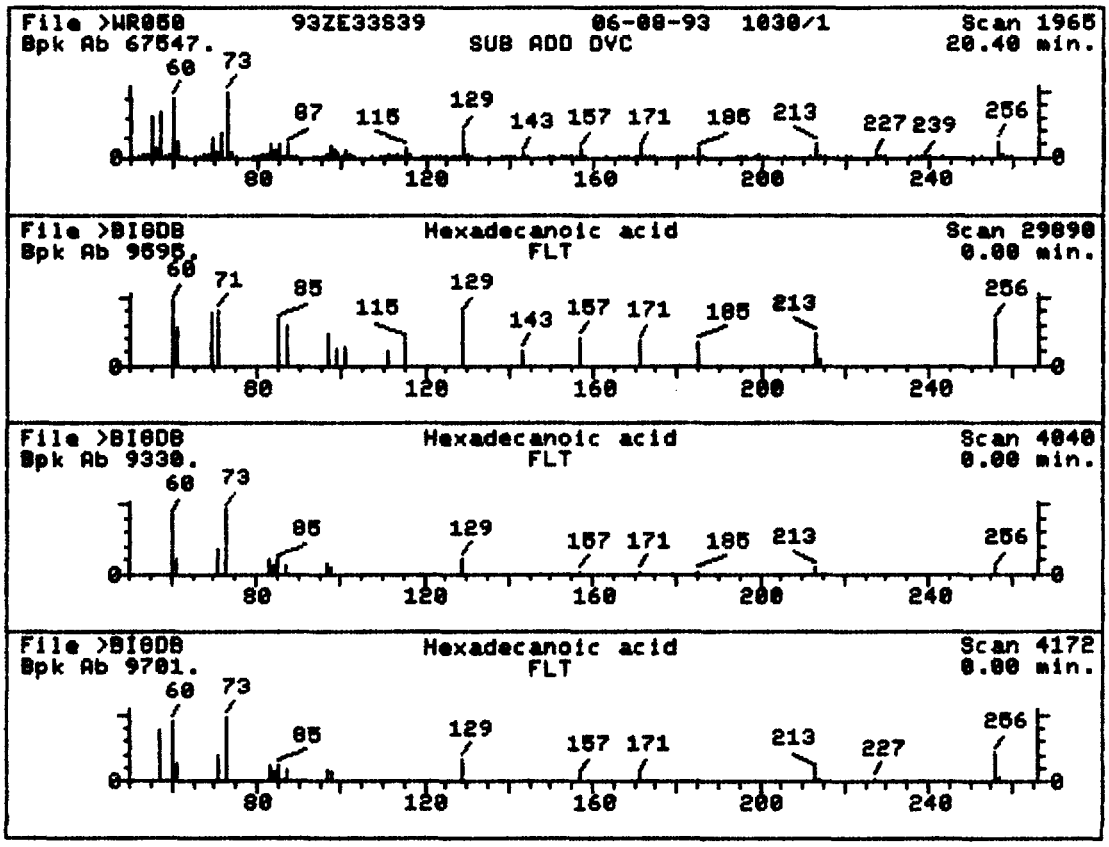
UNKNOWN #,7

AREA = 814241.0 TENTATIVE CONCENTRATION IS 40.00

1. SYNAPIC ACID 224 C11H12O5

Sample file: >WR050 Spectrum #: 1730
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	24*	0	53292	"BIGDB	38	64	2	2	88	45	8	12

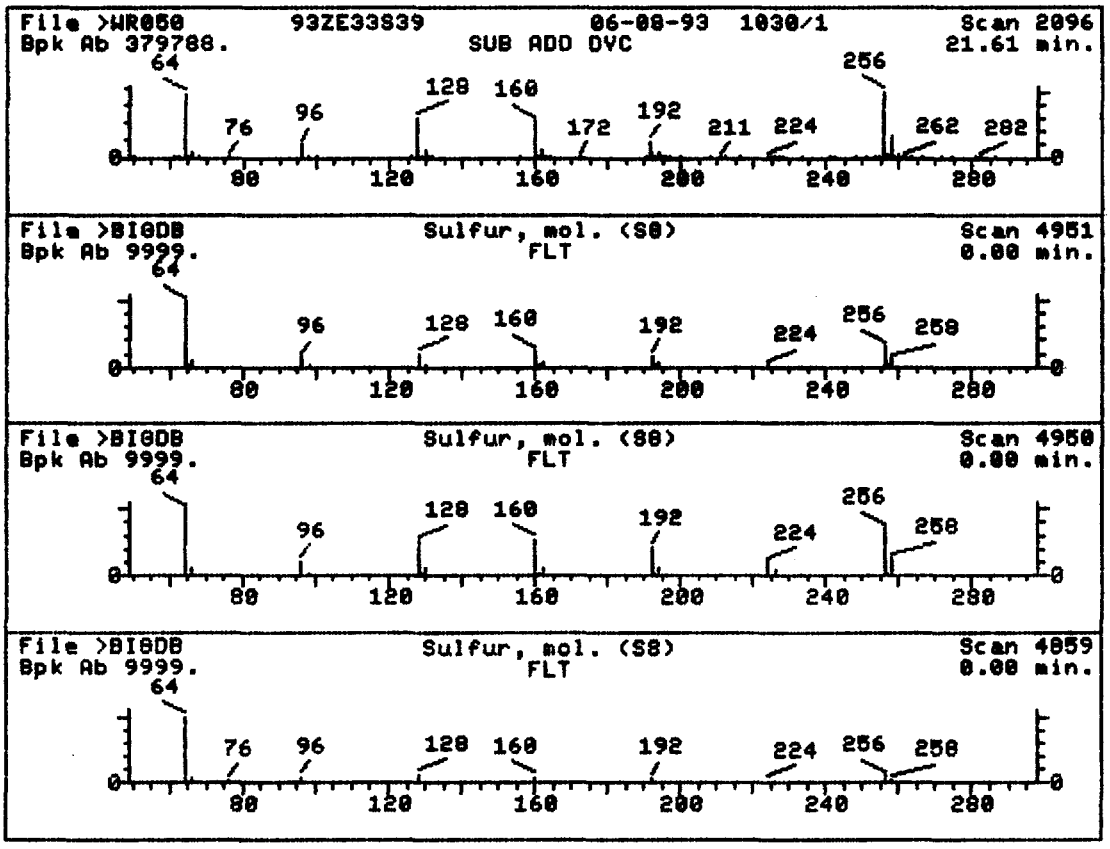


UNKNOWN #,8
AREA = 3138646. TENTATIVE CONCENTRATION IS 150.00

1.	Hexadecanoic acid	256	C16H32O2
2.	Hexadecanoic acid	256	C16H32O2
3.	Hexadecanoic acid	256	C16H32O2
4.	Tetradecanoic acid	228	C14H28O2
5.	Hexadecanoic acid	256	C16H32O2
6.	Decanoic acid	172	C10H20O2
7.	Tridecanoic acid	214	C13H26O2

Sample file: >WR050 Spectrum #: 1965
Search speed: 1 Tilting option: S No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	89*	57103	29890	"BIGDB	118	48	0	0	29	46	40	99
2.	89*	57103	4040	"BIGDB	79	72	0	0	81	40	47	94
3.	76*	57103	4172	"BIGDB	100	60	1	1	81	32	32	77
4.	55	544638	4170	"BIGDB	112	30	1	1	99	44	18	60
5.	55	57103	58376	"BIGDB	92	49	2	0	159	24	22	27
6.	42	334485	4161	"BIGDB	50	26	0	0	89	37	14	29

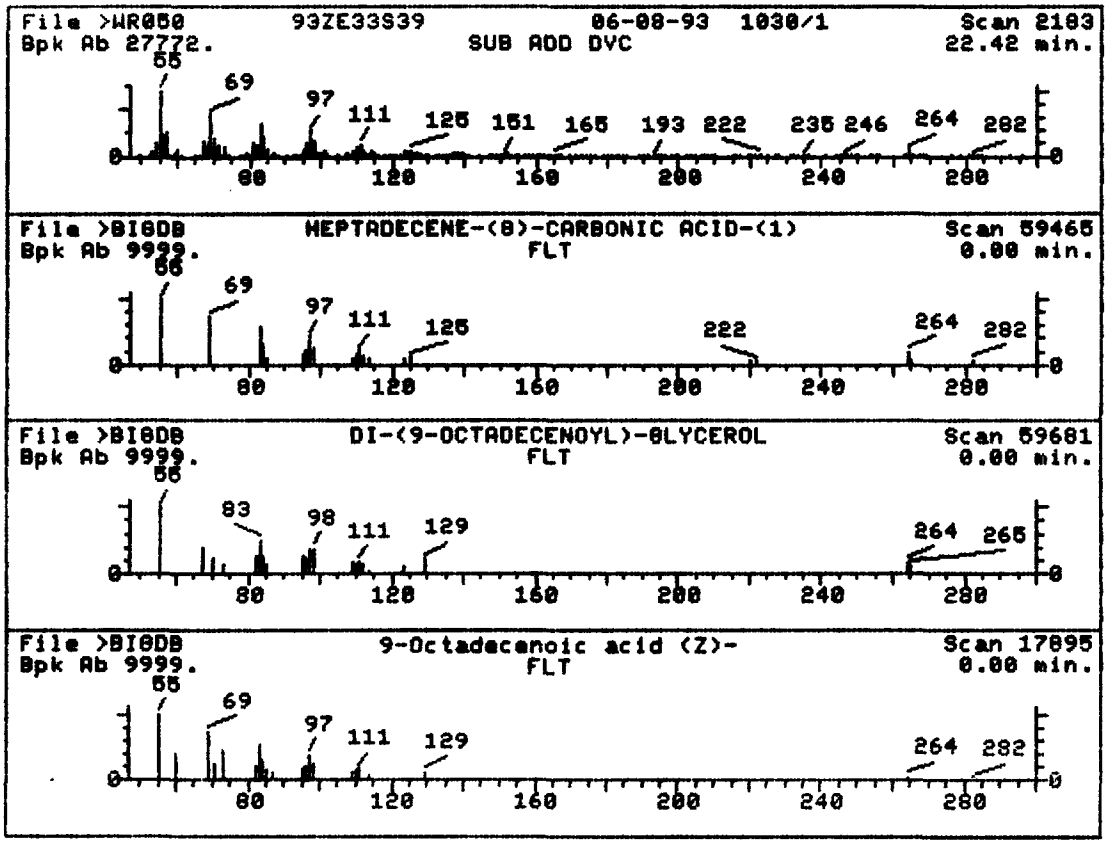


UNKNOWN #,9
AREA = .11E+08 TENTATIVE CONCENTRATION IS 520.00

1. Sulfur, mol. (S8) 0
2. Sulfur, mol. (S8) 0
3. Sulfur, mol. (S8) 0

Sample file: >WR050 Spectrum #: 2096
Search speed: 1 Tilting option: S No. of ion ranges searched: 53

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	67*	10544500	4951	"BIGDB	64	60	2	-2	68	15	34	26
2.	45*	10544500	4950	"BIGDB	73	85	2	0	62	46	13	55
3.	11*	10544500	4859	"BIGDB	29	88	1	0	77	63	2	16

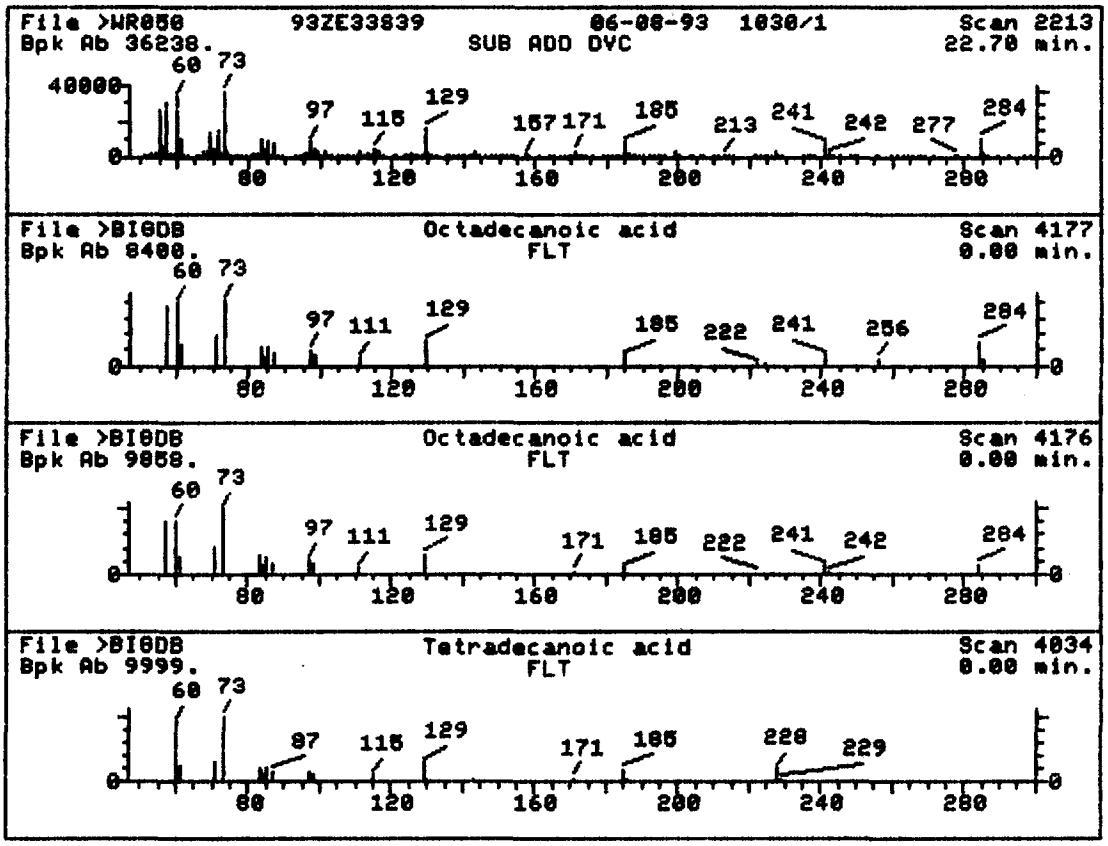


UNKNOWN #,10
AREA = 940573.0 TENTATIVE CONCENTRATION IS 46.00

1.	HEPTADECENE-(8)-CARBONIC ACID-(1)	282	C18H3402
2.	DI-(9-OCTADECENOYL)-GLYCEROL	620	C39H7205
3.	9-Octadecenoic acid (Z)-	282	C18H3402
4.	14-Pentadecenoic acid	240	C15H2802
5.	1-Hexadecanol	242	C16H340
6.	15-Tetracosenoic acid, methyl ester, (Z)-	380	C25H4802
7.	2-Octadecenal	266	C18H340

Sample file: >WR050 Spectrum #: 2183
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	89*	0	59465	"BIGDB	132	41	0	2	97	25	47	89
2.	78	0	59681	"BIGDB	105	106	3	1	100	1	55	18
3.	76*	112801	17895	"BIGDB	92	78	3	0	91	15	40	57
4.	70	17351347	17568	"BIGDB	113	45	2	0	60	19	32	52
5.	69	36653824	17572	"BIGDB	100	55	1	0	60	33	26	60
6.	60	2733882	17733	"BIGDB	89	90	3	0	96	13	30	18

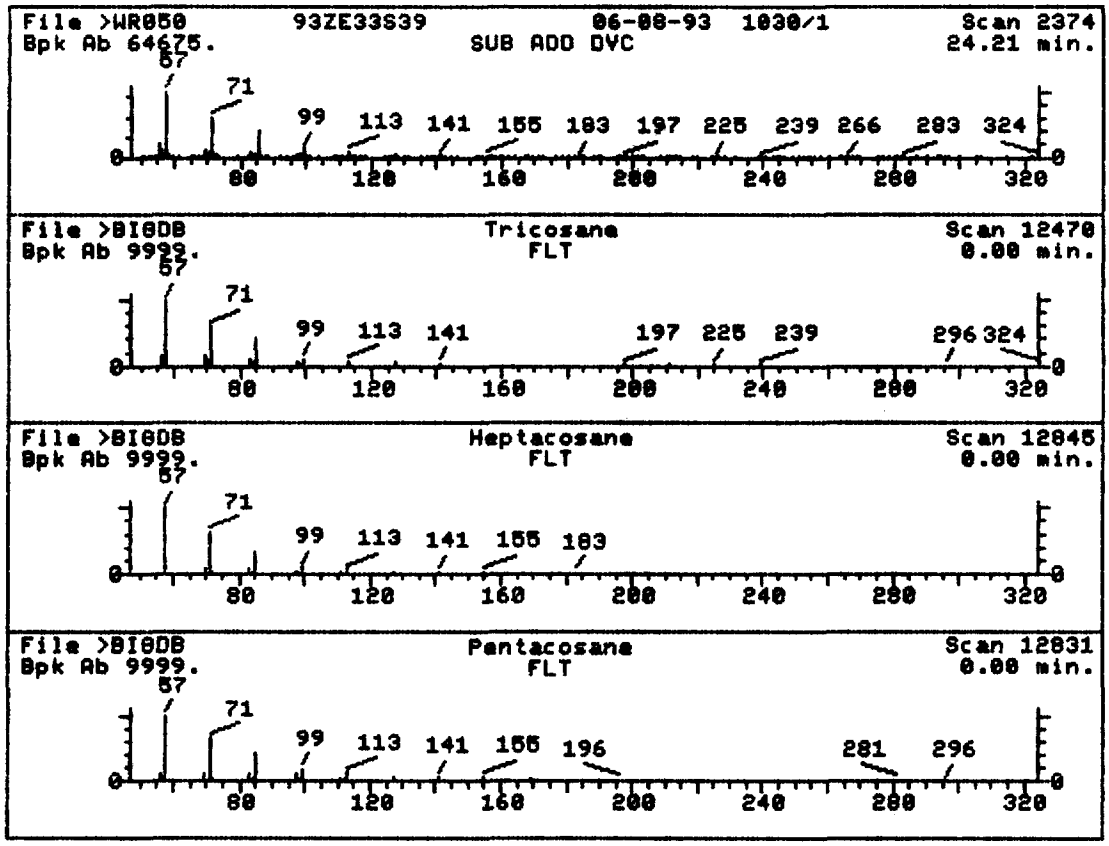


UNKNOWN #,11
AREA = 972793.0 TENTATIVE CONCENTRATION IS 47.00

1.	Octadecanoic acid	284	C18H36O2
2.	Octadecanoic acid	284	C18H36O2
3.	Tetradecanoic acid	228	C14H28O2
4.	Tetradecanoic acid	228	C14H28O2
5.	Hexadecanoic acid	256	C16H32O2
6.	Decanoic acid	172	C10H20O2
7.	Octadecanoic acid	284	C18H36O2

Sample file: >WR050 Spectrum #: 2213
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	94*	57114	4177	"BIGDB	112	53	1	0	87	24	53	96
2.	93*	57114	4176	"BIGDB	98	67	0	0	80	32	50	97
3.	73	544638	4034	"BIGDB	123	23	2	0	100	22	32	60
4.	69	544638	4170	"BIGDB	110	32	1	0	100	31	26	67
5.	65	57103	4172	"BIGDB	114	46	2	0	91	31	24	54
6.	65*	334485	4158	"BIGDB	50	47	0	3	31	35	24	52

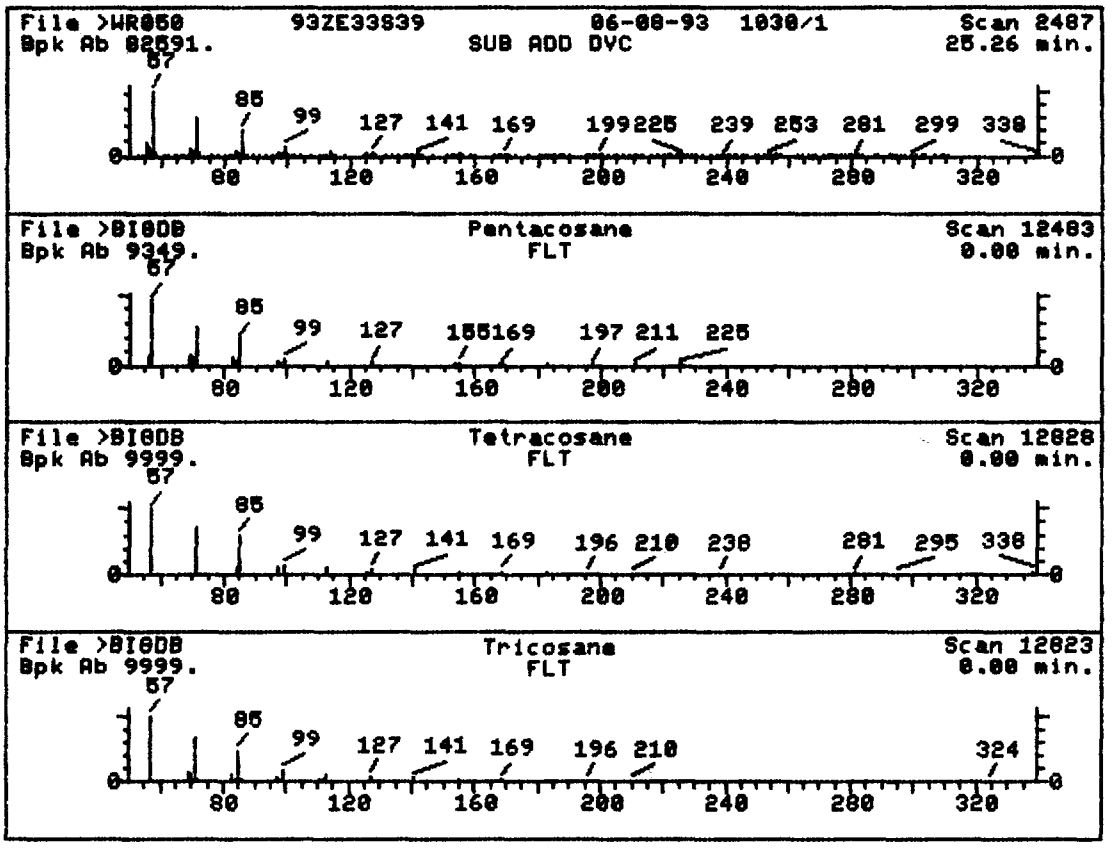


UNKNOWN #,12
AREA = 601823.0 TENTATIVE CONCENTRATION IS 48.00

1.	Tricosane	324	C23H48
2.	Heptacosane	380	C27H56
3.	Pentacosane	352	C25H52
4.	Nonacosane	408	C29H60
5.	Heptadecane, 9-hexyl-	324	C23H48
6.	Hexatriacontane	506	C36H74
7.	Docosane	310	C22H46

Sample file: >WR050 Spectrum #: 2374
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	94*	638675	12470	"BIGDB	103	35	1	0	78	13	64	95
2.	81	593497	12845	"BIGDB	119	8	1	0	98	16	45	77
3.	79	629992	12831	"BIGDB	125	27	1	2	78	13	43	66
4.	79	630035	12850	"BIGDB	115	25	1	1	74	13	43	60
5.	76*	55124793	12469	"BIGDB	70	75	2	0	67	13	40	50
6.	76	630068	12864	"BIGDB	127	35	2	2	78	13	40	55

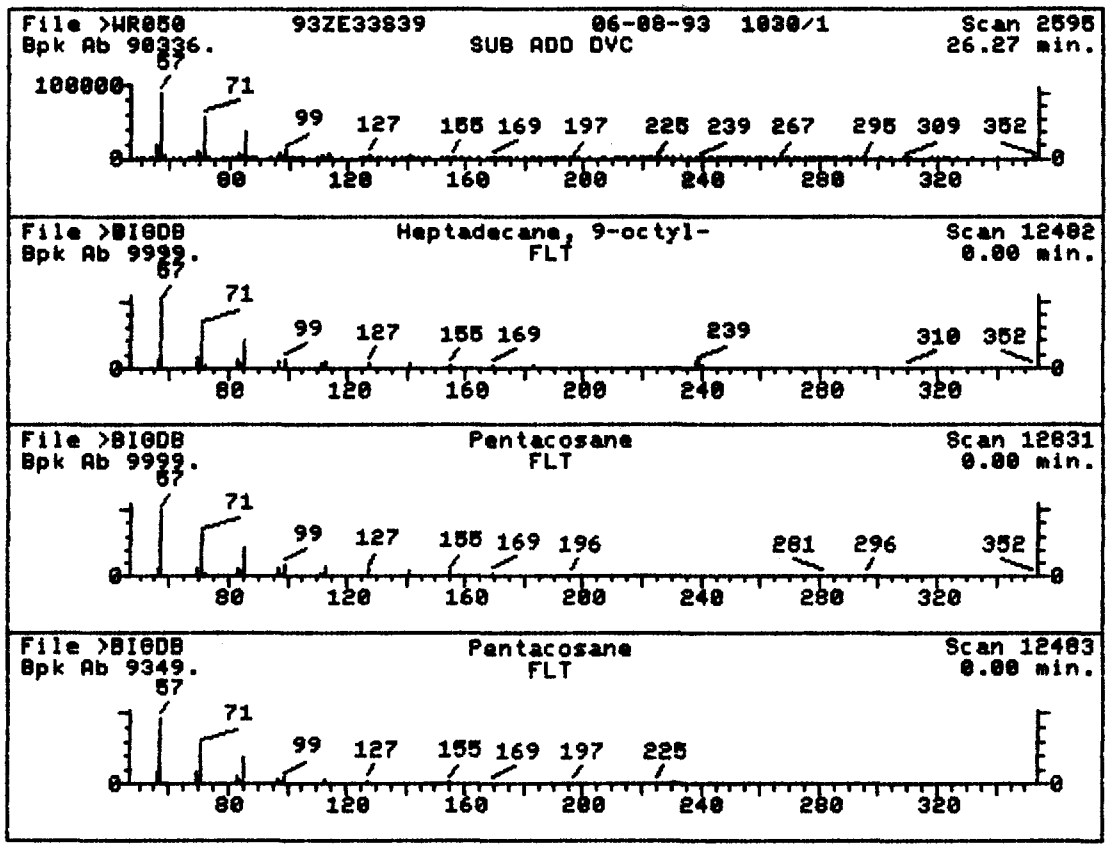


. UNKNOWN #,13
AREA = 906196.0 TENTATIVE CONCENTRATION IS 73.00

1.	Pentacosane	352	C25H52
2.	Tetracosane	338	C24H50
3.	Tricosane	324	C23H48
4.	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
5.	Eicosane	282	C20H42
6.	Tetracosane	338	C24H50
7.	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42

Sample file: >WR050 Spectrum #: 2487
Search speed: 1 Tilting option: S No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	86	629992	12483	"BIGDB	120	24	0	0	75	20	50	83
2.	83*	646311	12828	"BIGDB	100	44	1	1	53	11	51	77
3.	81	638675	12823	"BIGDB	137	8	1	2	85	16	45	73
4.	81	74764117	12520	"BIGDB	129	8	1	0	70	16	45	78
5.	81	112958	12814	"BIGDB	114	13	1	0	70	16	45	71
6.	76*	646311	12476	"BIGDB	106	36	0	2	81	41	33	83

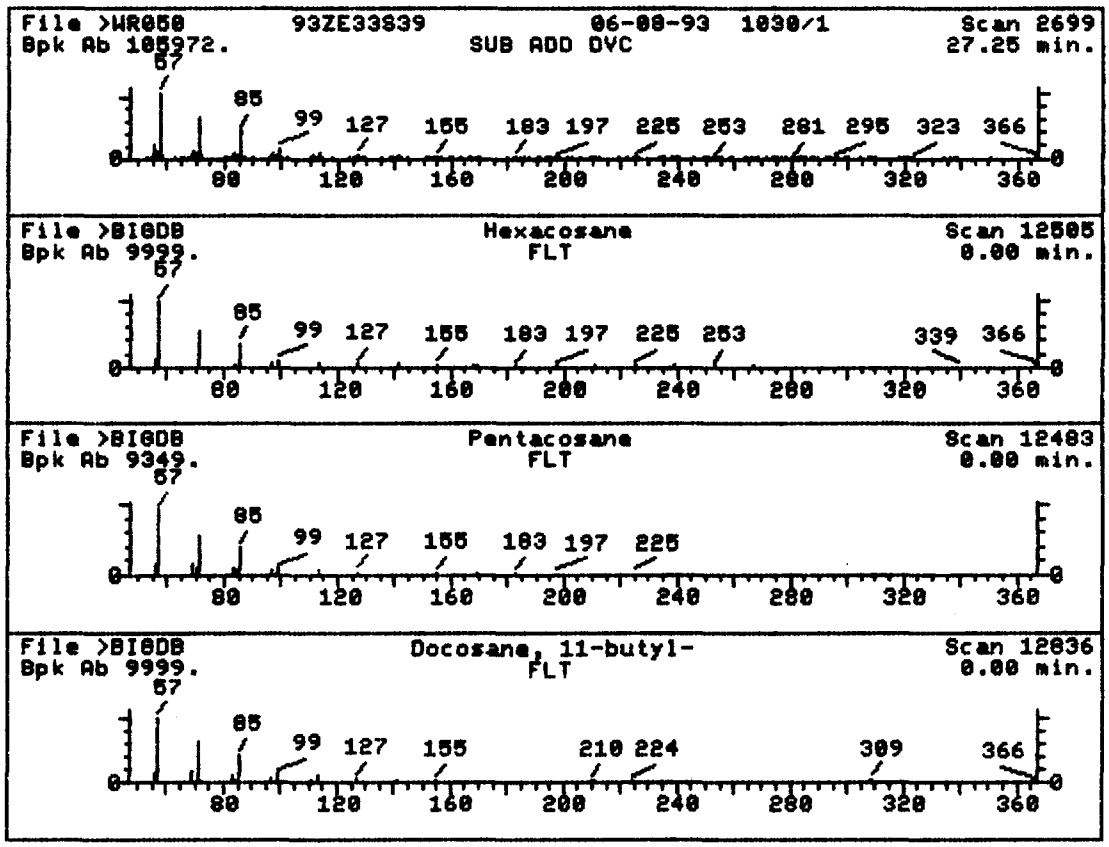


UNKNOWN #,14
AREA = 759666.0 TENTATIVE CONCENTRATION IS 61.00

1.	Heptadecane, 9-octyl-	352	C25H52
2.	Pentacosane	352	C25H52
3.	Pentacosane	352	C25H52
4.	Tetracosane	338	C24H50
5.	Tricosane	324	C23H48
6.	Octacosane	394	C28H58
7.	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3

Sample file: >WR050 Spectrum #: 2595
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	7225641	12482	"BIGDB	113	30	1	0	74	10	68	96
2.	89*	629992	12831	"BIGDB	140	12	1	2	91	10	62	89
3.	87	629992	12483	"BIGDB	127	17	0	0	80	13	55	89
4.	84	646311	12827	"BIGDB	111	26	1	0	70	10	55	69
5.	83	638675	12823	"BIGDB	137	8	1	2	88	13	51	73
6.	83	630024	12848	"BIGDB	129	15	1	0	73	13	51	78

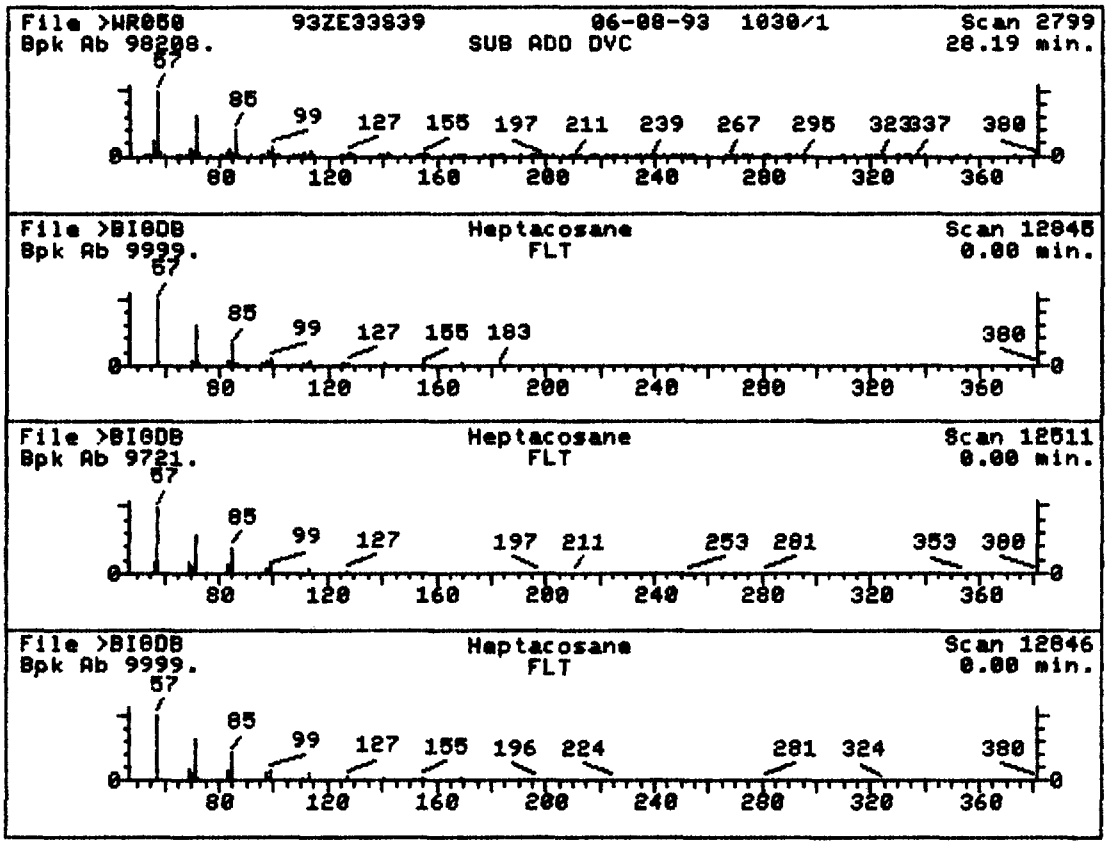


UNKNOWN #,15
AREA = 1013875. TENTATIVE CONCENTRATION IS 81.00

1. Hexacosane	366	C26H54
2. Pentacosane	352	C25H52
3. Docosane, 11-butyl-	366	C26H54
4. Docosane, 9-butyl-	366	C26H54
5. Tetracosane	338	C24H50
6. Tricosane	324	C23H48
7. Octacosane	394	C28H58

Sample file: >WR050 Spectrum #: 2699
Search speed: 1 Tilting option: S No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	88*	630013	12505	"BIGDB	89	45	1	0	70	28	43	89
2.	87	629992	12483	"BIGDB	127	17	0	0	81	13	55	89
3.	86*	13475768	12836	"BIGDB	101	50	2	0	74	6	59	77
4.	86*	55282149	12837	"BIGDB	95	56	2	0	73	6	59	73
5.	84	646311	12827	"BIGDB	109	28	1	0	87	10	55	67
6.	83	638675	12823	"BIGDB	137	8	1	1	83	13	51	73

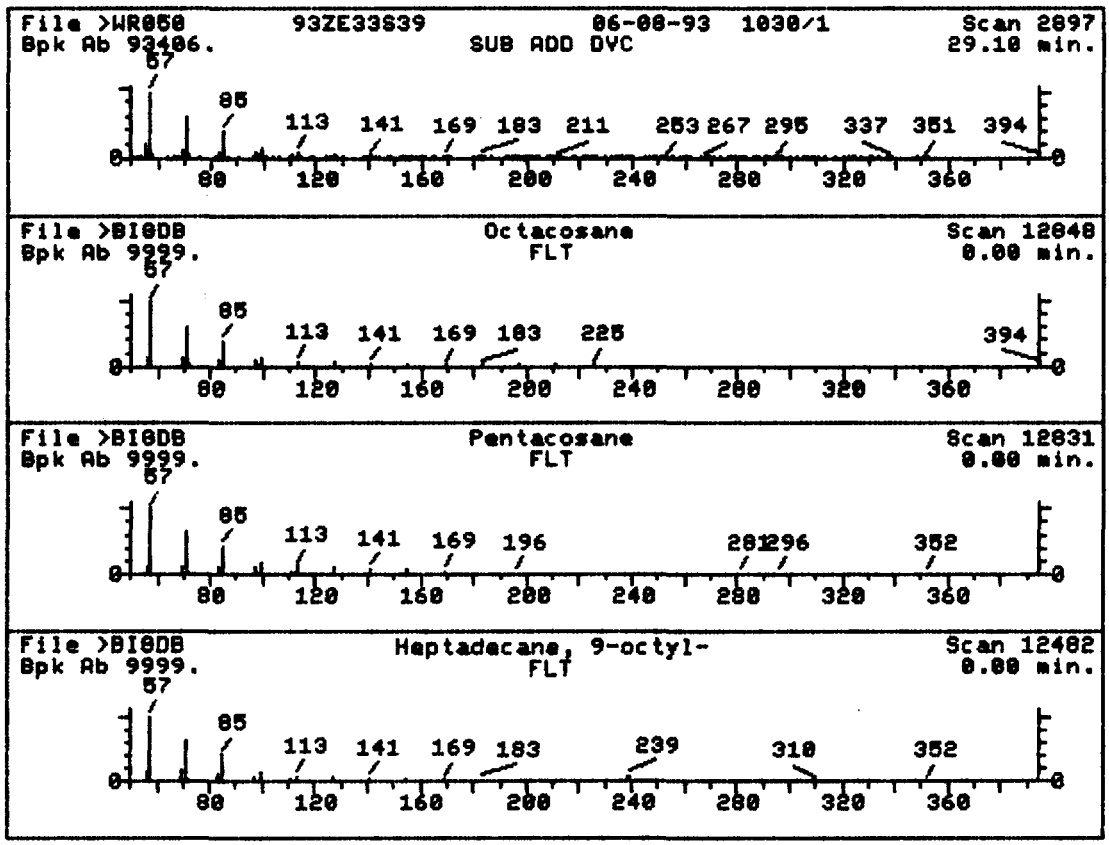


. UNKNOWN #,16
AREA = 1093525. TENTATIVE CONCENTRATION IS 88.00

1.	Heptacosane	380	C27H56
2.	Heptacosane	380	C27H56
3.	Heptacosane	380	C27H56
4.	Tricosane	324	C23H48
5.	Hexatriacontane	506	C36H74
6.	Nonacosane	408	C29H60
7.	Hentriacontane	436	C31H64

Sample file: >WR050 Spectrum #: 2799
Search speed: 1 Tilting option: S No. of ion ranges searched: 53

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	99*	593497	12845	"BIGDB	116	11	0	0	100	10	68	99
2.	95*	593497	12511	"BIGDB	103	41	1	0	80	10	68	95
3.	94*	593497	12846	"BIGDB	142	11	0	1	76	10	68	93
4.	87	638675	12823	"BIGDB	135	10	1	0	68	13	55	83
5.	87	630068	12862	"BIGDB	136	17	1	0	74	13	55	86
6.	84	630035	12850	"BIGDB	129	11	1	1	90	10	55	69

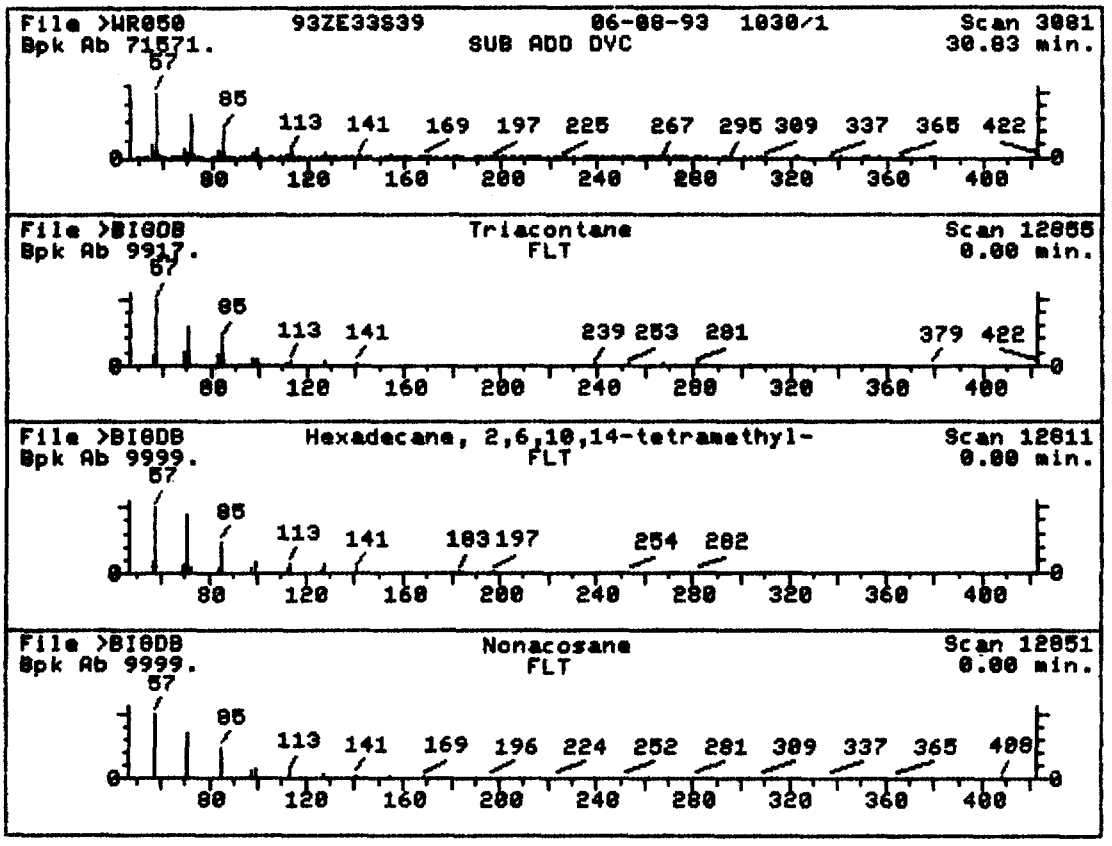


UNKNOWN #,17
AREA = 916112.0 TENTATIVE CONCENTRATION IS 73.00

1.	Octacosane	394	C28H58
2.	Pentacosane	352	C25H52
3.	Heptadecane, 9-octyl-	352	C25H52
4.	Docosane, 7-hexyl-	394	C28H58
5.	Eicosane	282	C20H42
6.	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
7.	Heptacosane	380	C27H56

Sample file: >WR050 Spectrum #: 2897
Search speed: 1 Tilting option: S No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	99*	630024	12848	"BIGDB	122	22	1	0	86	10	68	99
2.	94*	629992	12831	"BIGDB	151	1	0	2	91	17	60	94
3.	87*	7225641	12482	"BIGDB	105	38	2	0	70	13	55	83
4.	86*	55373869	12847	"BIGDB	96	56	2	0	70	10	59	74
5.	83	112958	12814	"BIGDB	121	6	1	1	98	13	51	74
6.	83	74764117	12520	"BIGDB	125	12	1	0	80	13	51	77

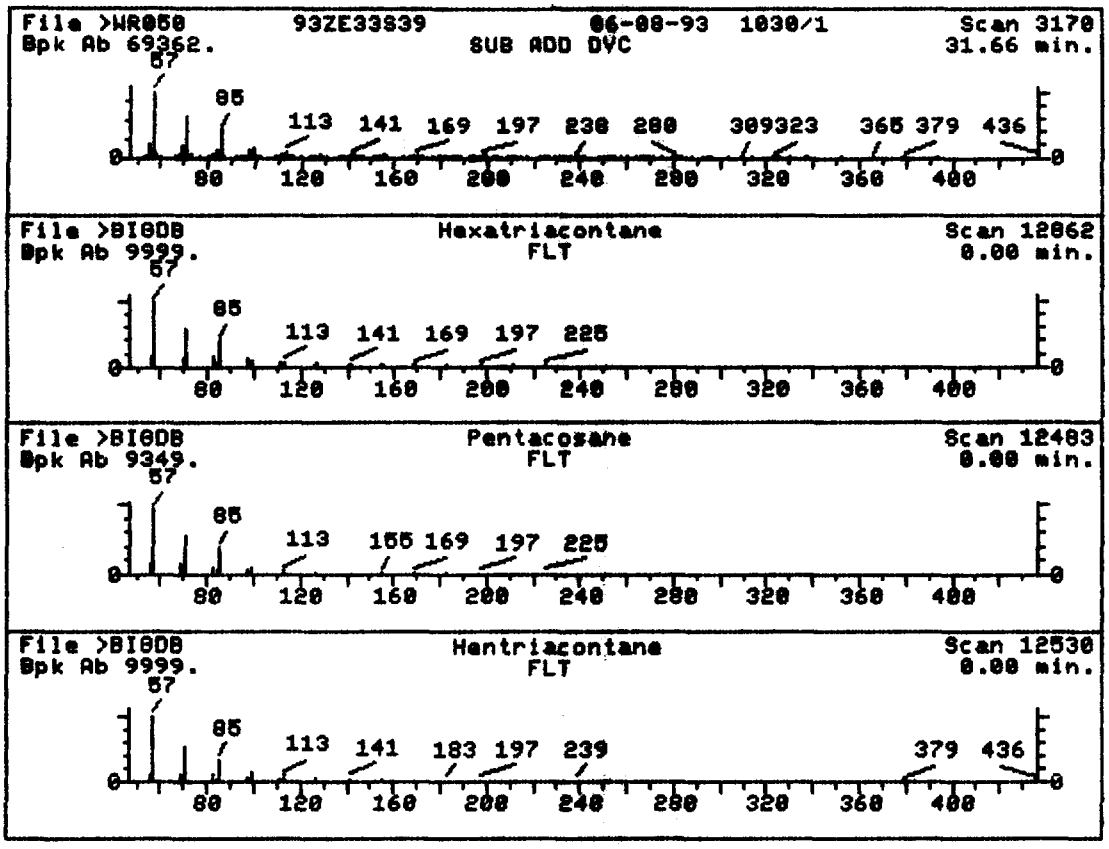


. UNKNOWN #,18
AREA = 777475.0 TENTATIVE CONCENTRATION IS 62.00

1.	Triacontane	422	C30H62
2.	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42
3.	Nonacosane	408	C29H60
4.	Hexatriacontane	506	C36H74
5.	Pentacosane	352	C25H52
6.	Heptadecane, 9-octyl-	352	C25H52
7.	Triacontane	422	C30H62

Sample file: >WR050 Spectrum #: 3081
Search speed: 1 Tilting option: S No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	99*	638686	12855	"BIGDB	123	31	1	0	76	8	68	99
2.	92*	638368	12811	"BIGDB	86	47	0	0	50	30	57	95
3.	88	630035	12851	"BIGDB	125	27	2	1	96	4	65	53
4.	87	630068	12862	"BIGDB	136	17	1	0	75	13	55	86
5.	87	629992	12483	"BIGDB	127	17	0	0	82	13	55	89
6.	87*	7225641	12482	"BIGDB	111	32	2	0	85	13	55	89

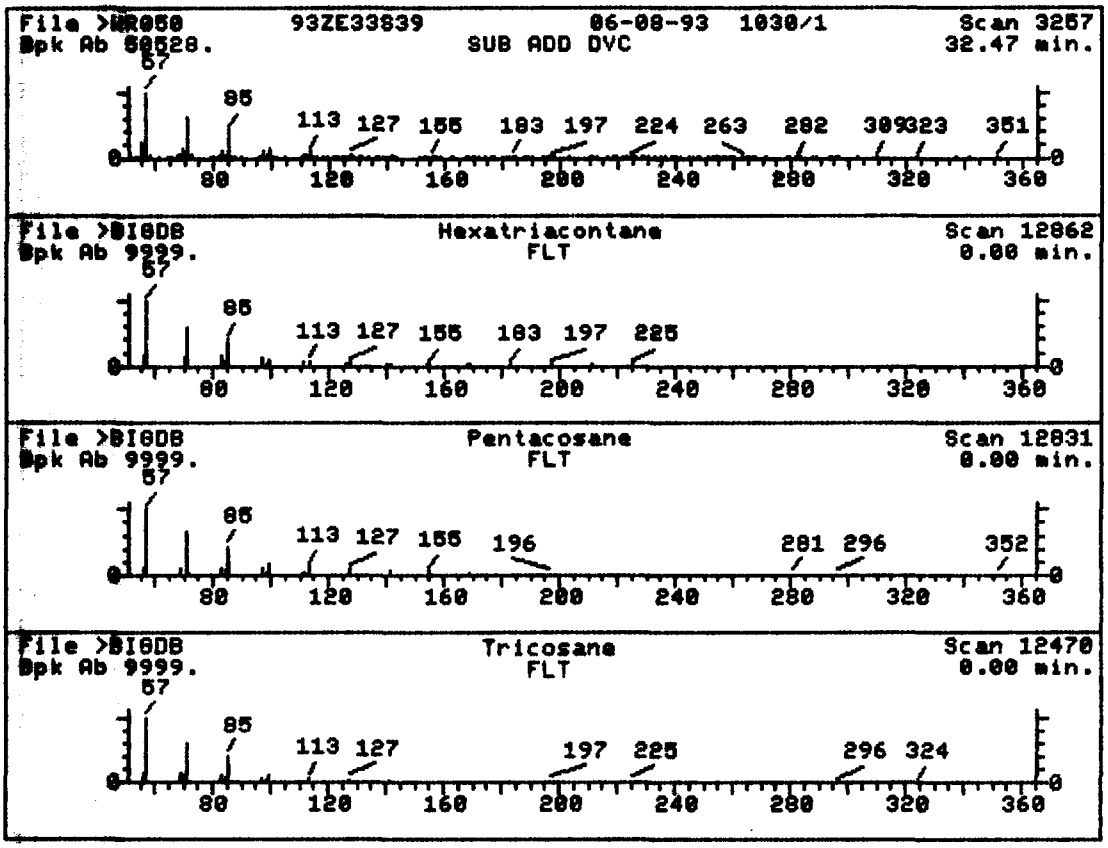


. UNKNOWN #,19
AREA = 715260.0 TENTATIVE CONCENTRATION IS 57.00

1.	Hexatriacontane	506	C36H74
2.	Pentacosane	352	C25H52
3.	Hentriacontane	436	C31H64
4.	Nonacosane	408	C29H60
5.	Hexatriacontane	506	C36H74
6.	Triacontane	422	C30H62
7.	Pentacosane	352	C25H52

Sample file: >WR050 Spectrum #: 3170
Search speed: 1 Tilting option: S No. of ion ranges searched: 56

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	94	630068	12862	"BIGDB	143	10	0	0	75	13	64	94
2.	87	629992	12483	"BIGDB	127	17	0	0	85	13	55	89
3.	85*	630046	12530	"BIGDB	96	51	1	0	61	43	43	93
4.	84	630035	12522	"BIGDB	105	40	1	0	85	10	55	65
5.	84	630068	12861	"BIGDB	108	53	1	0	95	10	55	66
6.	84	638686	12855	"BIGDB	102	52	1	0	82	10	55	61



UNKNOWN #,20
AREA = 539760.0 TENTATIVE CONCENTRATION IS 43.00

1.	Hexatriacontane	506	C36H74
2.	Pentacosane	352	C25H52
3.	Tricosane	324	C23H48
4.	Eicosane, 10-methyl-	296	C21H44
5.	Pentadecane, 8-hexyl-	296	C21H44
6.	Docosane	310	C22H46
7.	Pentatriacontane	492	C35H72

Sample file: >WR050 Spectrum #: 3257
Search speed: 1 Tilting option: S No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	94	630068	12862	"BIGDB	143	10	0	0	76	13	64	94
2.	84	629992	12831	"BIGDB	120	32	1	2	92	10	55	65
3.	84	638675	12470	"BIGDB	102	36	1	0	83	10	55	61
4.	84*	54833237	12445	"BIGDB	88	45	2	0	85	10	55	67
5.	84*	13475757	12448	"BIGDB	78	59	2	0	94	10	55	60
6.	83	629970	12821	"BIGDB	138	9	1	1	73	13	51	73

3 of 5

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33D39

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33D39

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR051

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	7.	
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	14.	
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	4.	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	37.	
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	4.	J
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	17.	
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	1.	J
91-57-6	2-Methylnaphthalene	2.	J
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33D39

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33D39

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR051

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	3.	
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	J
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	6.	
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	190 ~~200.~~	~~BE~~ BR
117-84-0	Di-n-octylphthalate	2.	
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[X] NO [ ]

FORM I SV-2 1/87 Rev.

QUANT REPORT

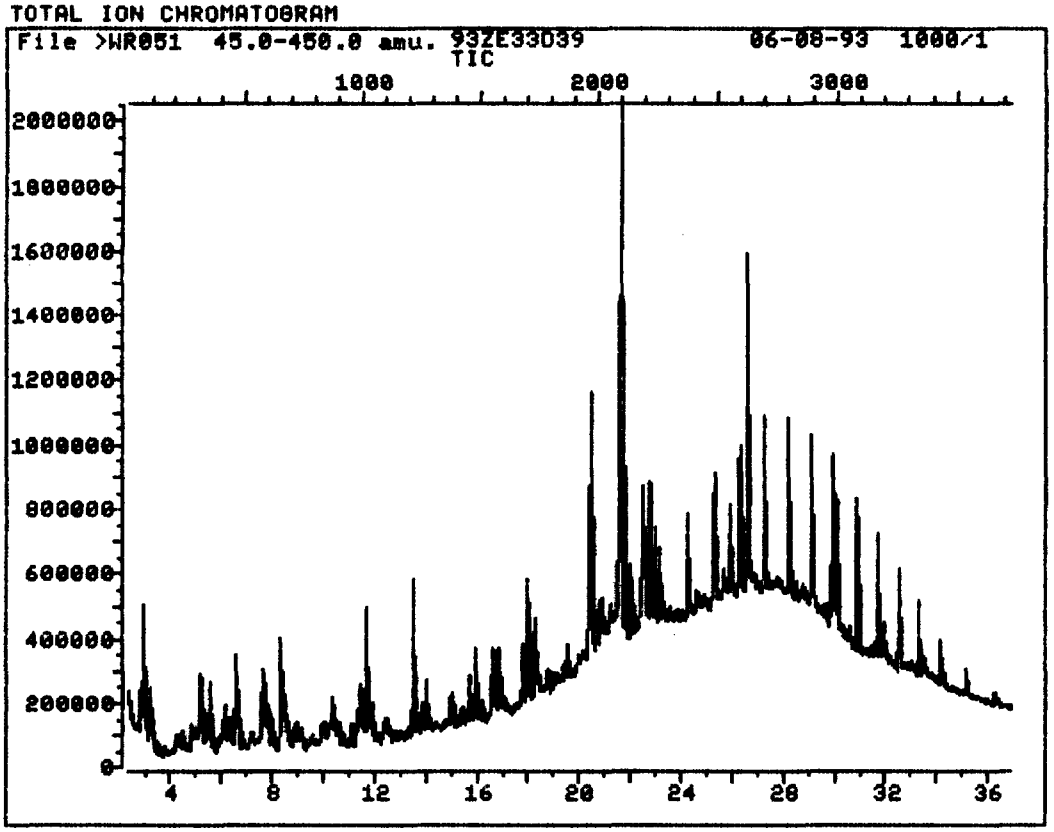
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 11:38
Output File: ^WR051::D3 Injected at: 930609 06:04
Data File: >WR051::D6 Dilution Factor: 1.00000
Name: 93ZE33D39
Misc: 06-08-93 1000/1 BTL#15

ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.13	152.0	158446	50.00	NG/UL	96
2)	2-Fluorophenol	2.87	112.0	168824	44.42	NG/UL	75
3)	Phenol-d5	4.45	99.0	201615	45.74	NG/UL	80
4)	Phenol	4.48	94.0	32724	7.19	NG/UL	77
8)	1,4-Dichlorobenzene	5.16	146.0	70266	14.28	NG/UL	95
11)	2-Methylphenol	5.81	108.0	14848	4.15	NG/UL	88
13)	4-Methylphenol	6.24	108.0	133944	37.27	NG/UL	94
16)	d8-Naphthalene	8.31	136.0	595006	49.94	NG/UL	86
17)	Nitrobenzene-d5	6.44	82.0	150958	41.48	NG/UL	91
22)	Benzoic Acid	8.21	105.0	9616	3.80	NG/UL	99
26)	Naphthalene	8.37	128.0	214867	17.28	NG/UL	95
29)	4-Chloro-3-methylphenol	10.26	107.0	4558	1.39	NG/UL	35
30)	2-Methylnaphthalene	10.41	142.0	16091	1.96	NG/UL	95
31)	d10-Acenaphthene	13.51	164.0	292021	46.77	NG/UL	93
36)	2-Fluorobiphenyl	11.62	172.0	400168	43.24	NG/UL	94
39)	*d-10-Phenanthrene	17.96	188.0	440589	50.00	NG/UL	97
48)	Diethylphthalate	15.20	149.0	22917	2.90	NG/UL	97
53)	N-Nitrosodiphenylamine	15.73	169.0	9382	1.96	NG/UL	91
54)	2,4,6-Tribromophenol	15.92	329.9	115668	65.05	NG/UL	97
58)	Phenanthrene	18.02	178.0	11146	1.11	NG/UL	91
60)	Di-n-Butylphthalate	20.21	149.0	19989	1.64	NG/UL	89
62)	d12-Chrysene	25.91	240.0	391406	51.84	NG/UL	98
64)	Terphenyl-d14	22.97	244.0	366329	44.07	NG/UL	95
65)	Butylbenzylphthalate	24.66	149.0	25371	5.55	NG/UL	90
67)	Bis(2-Ethylhexyl)Phthalate	26.57	149.0	1203009	195.19	NG/UL	95
69)	*d12-Perylene	29.87	264.0	307695	50.00	NG/UL	94
70)	Di-n-octylphthalate	28.44	149.0	19739	1.80	NG/UL	88

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >WR051::D6 Quant Output File: ^WR051::D3
Name: 93ZE33D39
Misc: 06-08-93 1000/1 BTL#15

Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 11:38
Injected at: 930609 06:04

QUANT REPORT

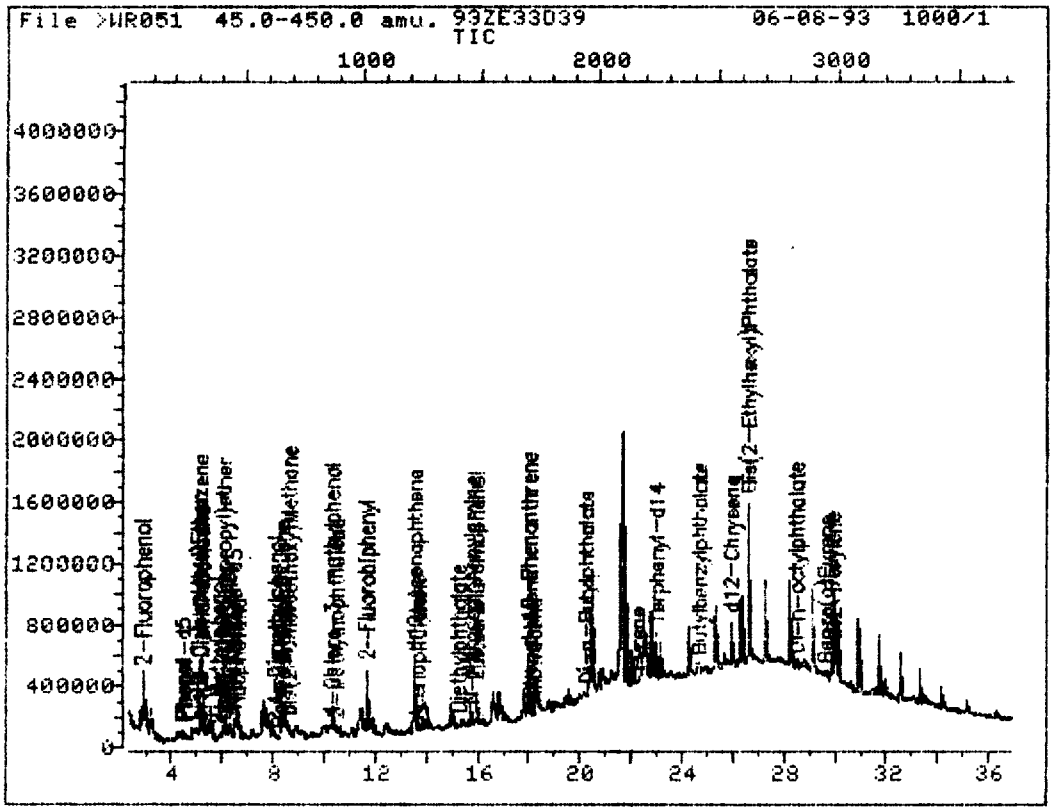
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 11:38
Output File: ^WR051::D3 Injected at: 930609 06:04
Data File: >WR051::D6 Dilution Factor: 1.00000
Name: 93ZE33D39
Misc: 06-08-93 1000/1 BTL#15

ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.13	152.0	158446	50.00	NG/UL	96
2)	2-Fluorophenol	2.87	112.0	168824	44.42	NG/UL	75 59
3)	Phenol-d5	4.45	99.0	201615	45.74	NG/UL	80 61
4)	Phenol	4.48	94.0	32724	7.19	NG/UL	77
~~5)~~	~~bis(2-Chloroethyl)Ether~~	~~5.06~~	~~93.0~~	~~3361~~	~~.81~~	~~NG/UL~~	~~89~~
8)	1,4-Dichlorobenzene	5.16	146.0	70266	14.28	NG/UL	95
11)	2-Methylphenol	5.81	108.0	14848	4.15	NG/UL	88
~~12)~~	~~bis(2-Chloroisopropyl)ether~~	~~6.03~~	~~121.0~~	~~2781~~	~~5.08~~	~~NG/UL~~	~~99~~ X
13)	4-Methylphenol	6.24	108.0	133944	37.27	NG/UL	94
16)	d8-Naphthalene	8.31	136.0	595006	49.94	NG/UL	86
17)	Nitrobenzene-d5	6.44	82.0	150958	41.48	NG/UL	91 55
~~19)~~	~~Isophorone~~	~~6.58~~	~~82.0~~	~~16968~~	~~2.29~~	~~NG/UL~~	~~83~~ X
~~21)~~	~~2,4-Dimethylphenol~~ Bonc	~~8.05~~	~~122.0~~	~~23043~~	~~6.76~~	~~NG/UL~~	~~90~~
22)	Benzoic Acid	8.21	105.0	9616	3.80	NG/UL	99
~~23)~~	~~bis(2-Chloroethoxy)Methane~~	~~8.59~~	~~93.0~~	~~15463~~	~~3.10~~	~~NG/UL~~	~~95~~ X
26)	Naphthalene	8.37	128.0	214867	17.28	NG/UL	95
29)	4-Chloro-3-methylphenol	10.26	107.0	4558	1.39	NG/UL	35
30)	2-Methylnaphthalene	10.41	142.0	16091	1.96	NG/UL	95
31)	d10-Acenaphthene	13.51	164.0	292021	46.77	NG/UL	93
36)	2-Fluorobiphenyl	11.62	172.0	400168	43.24	NG/UL	94 54
39)	*d-10-Phenanthrene	17.96	188.0	440589	50.00	NG/UL	97
~~40)~~	~~Acenaphthylene~~	~~13.60~~	~~152.0~~	~~2936~~	~~.26~~	~~NG/UL~~	~~98~~
~~42)~~	~~Acenaphthene~~	~~13.60~~	~~153.0~~	~~4168~~	~~.57~~	~~NG/UL~~	~~92~~
48)	Diethylphthalate	15.20	149.0	22917	2.90	NG/UL	97
~~50)~~	~~Fluorene~~	~~15.99~~	~~166.0~~	~~7726~~	~~1.03~~	~~NG/UL~~	~~86~~
53)	N-Nitrosodiphenylamine	15.73	169.0	9382	1.96	NG/UL	91
54)	2,4,6-Tribromophenol	15.92	329.9	115668	65.05	NG/UL	97 67
58)	Phenanthrene	18.02	178.0	11146	1.11	NG/UL	91
~~59)~~	~~Anthracene~~	~~18.16~~	~~178.0~~	~~1180~~	~~.11~~	~~NG/UL~~	~~90~~
60)	Di-n-Butylphthalate	20.21	149.0	19989	1.64	NG/UL	89
62)	d12-Chrysene	25.91	240.0	391406	51.84	NG/UL	98
~~63)~~	~~Pyrene~~	~~22.22~~	~~202.0~~	~~3964~~	~~.32~~	~~NG/UL~~	~~86~~
64)	Terphenyl-d14	22.97	244.0	366329	44.07	NG/UL	95 59
65)	Butylbenzylphthalate	24.66	149.0	25371	5.55	NG/UL	90
67)	Bis(2-Ethylhexyl)Phthalate	26.57	149.0	1203009	195.19	NG/UL	95 E
69)	*d12-Perylene	29.87	264.0	307695	50.00	NG/UL	94
70)	Di-n-octylphthalate	28.44	149.0	19739	1.80	NG/UL	88
~~73)~~	~~Benzo(a)Pyrene~~	~~29.60~~	~~252.0~~	~~1365~~	~~.18~~	~~NG/UL~~	~~76~~

* Compound is ISTD

TOTAL ION CHROMATOGRAM

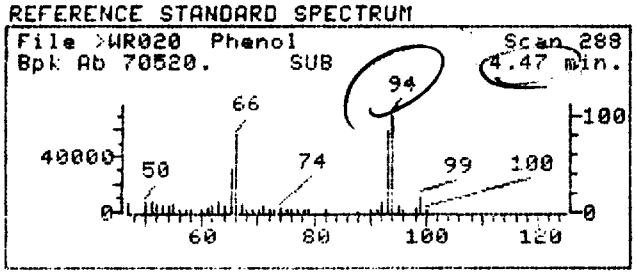


Data File: >WR051::D6 Quant Output File: ^WR051::D3
Name: 93ZE33D39
Misc: 06-08-93 1000/1 BTL#15

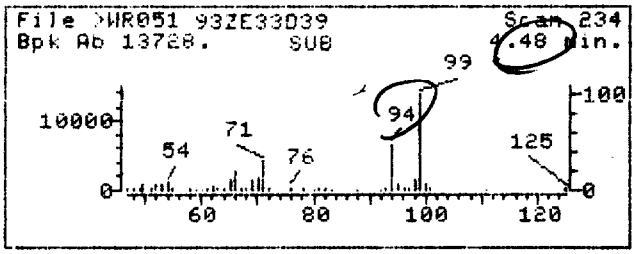
Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 11:38
Injected at: 930609 06:04

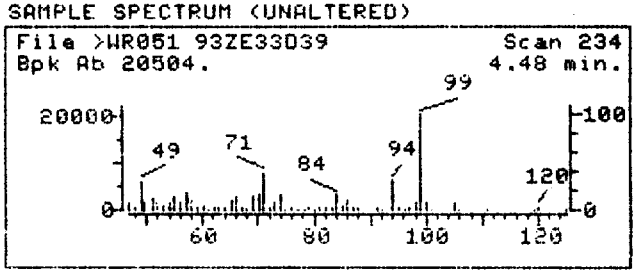
REFERENCE STANDARD SPECTRUM

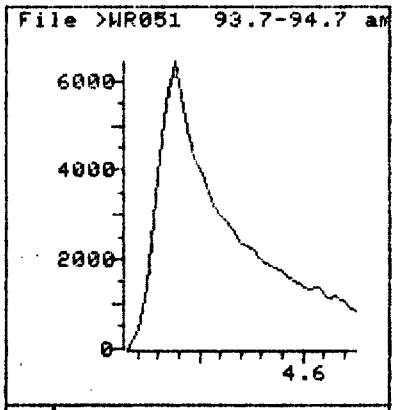


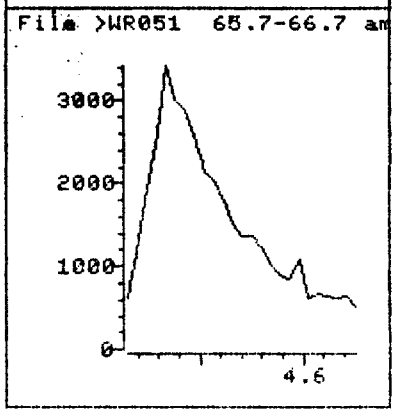
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

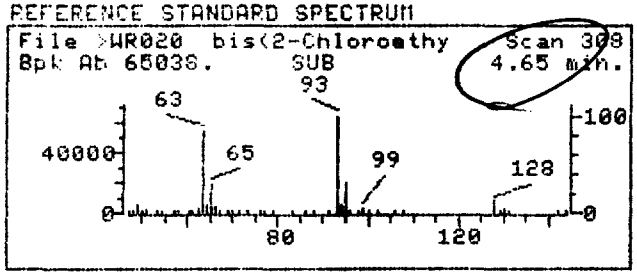
Quant Output File: ^WR051::D3

BTL#15

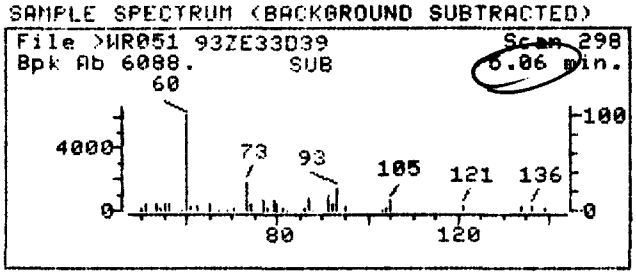
Quant ID File: IDRW3?::SC
Last Calibration: 930609 10:36

Compound No: 4
Compound Name: Phenol
Scan Number: 234
Retention Time: 4.48 min.
Quant Ion: 94.0
Area: 32724
Concentration: 7.19 NG/UL
q-value: 77

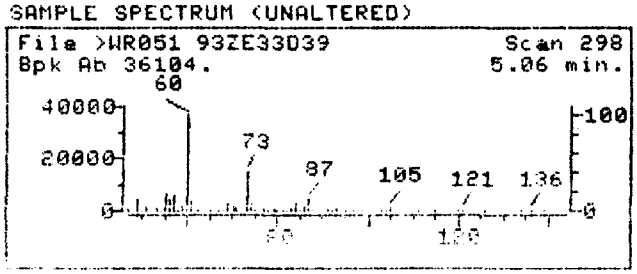
REFERENCE STANDARD SPECTRUM

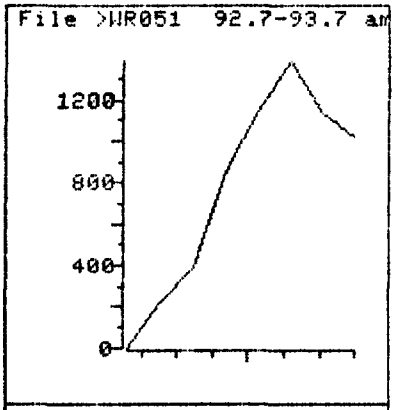


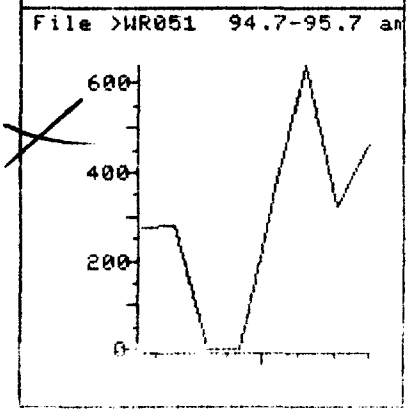
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





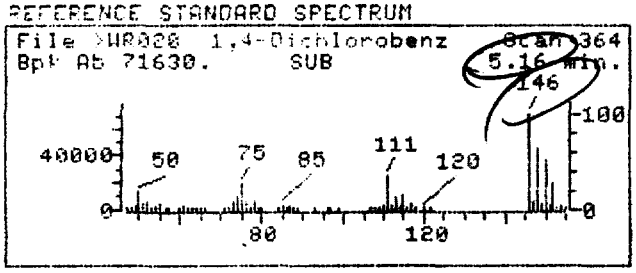


Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

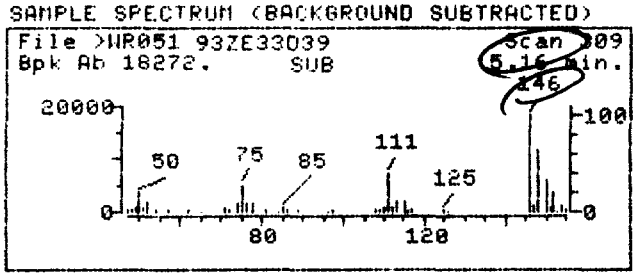
Quant Output File: >WR051::D7
Quant ID File: [illegible]
Last Calibration: [illegible]

Compound No: [illegible]
Compound Name: bis(2-Chloroethyl)Ether
Scan Number: [illegible]
Retention Time: 5.06 min.
Quant Ion: [illegible]
Area: [illegible]
Concentration: .81 NG/UL
q-value: 89

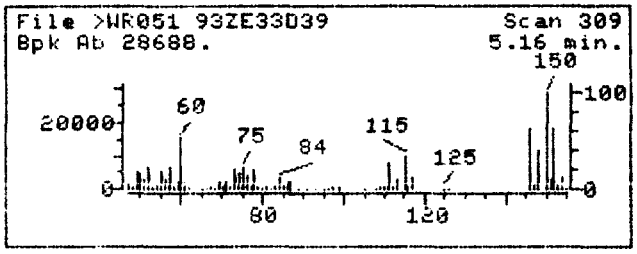
REFERENCE STANDARD SPECTRUM

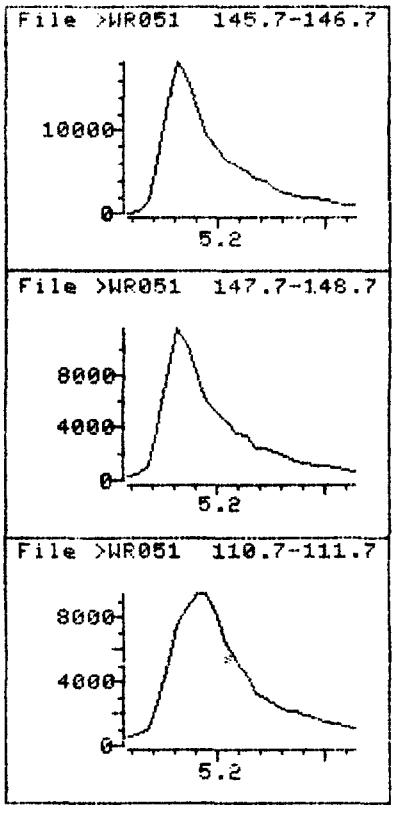


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)



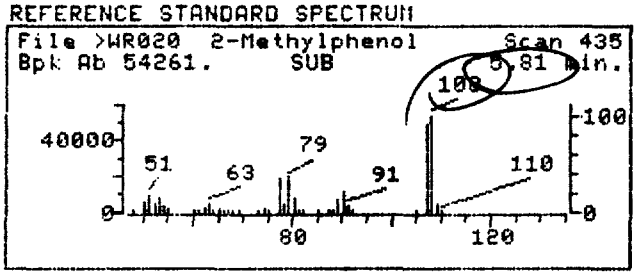


Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

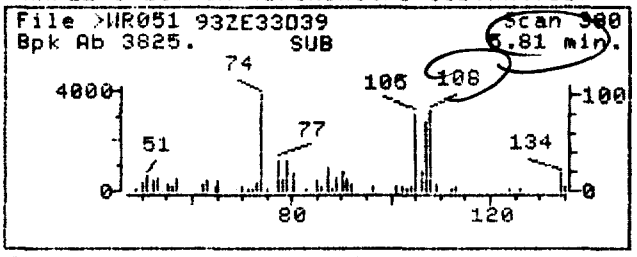
Quant Output File: ^WR051::D3
BTL#15
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 8
Compound Name: 1,4-Dichlorobenzene
Scan Number: 309
Retention Time: 5.16 min.
Quant Ion: 146.0
Area: 70266
Concentration: 14.28 NG/UL
q-value: 95

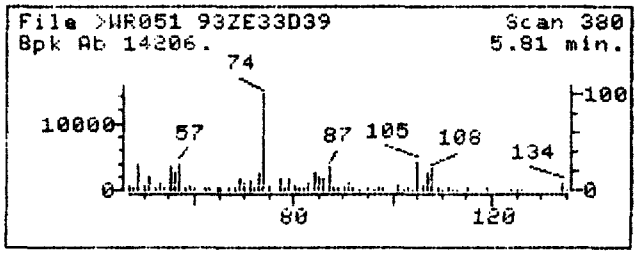
REFERENCE STANDARD SPECTRUM

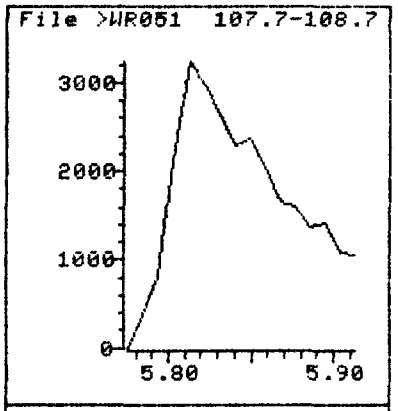


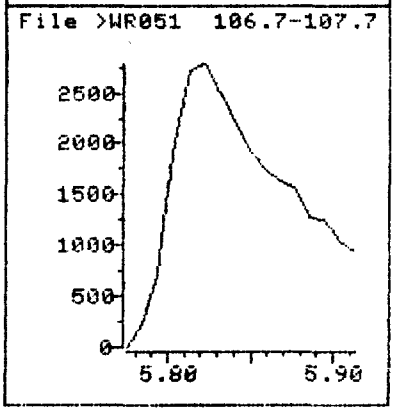
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

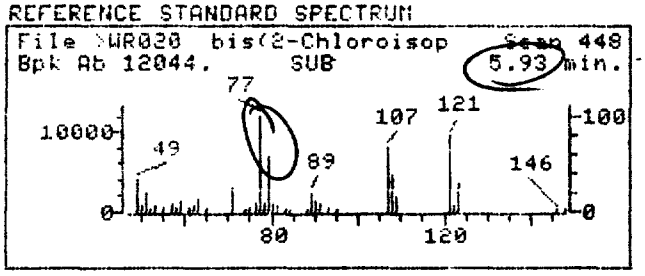
Quant Output File: ^WR051::D3

BTL#15

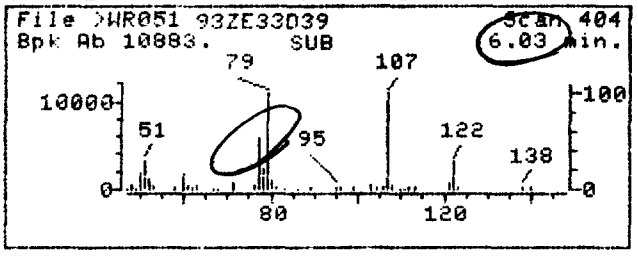
Quant ID File: 1DRW32::SC
Last Calibration: 930609 10:36

Compound No: 11
Compound Name: 2-Methylphenol
Scan Number: 380
Retention Time: 5.81 min.
Quant Ion: 108.0
Area: 14848
Concentration: 4.15 NG/UL
q-value: 88

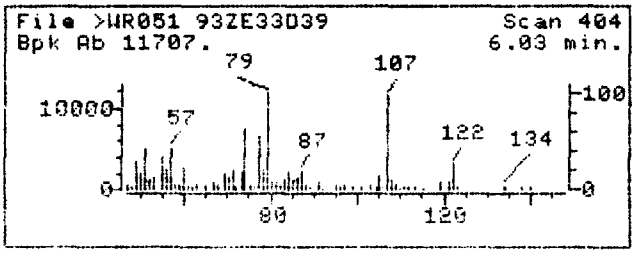
REFERENCE STANDARD SPECTRUM

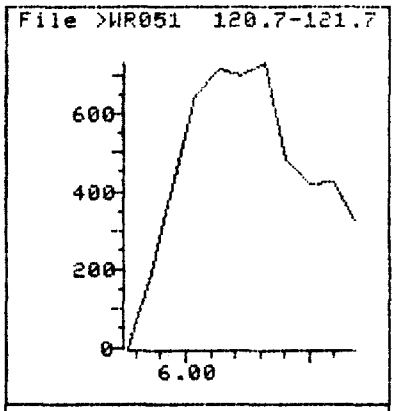


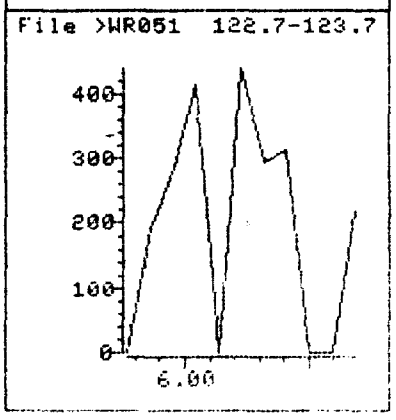
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





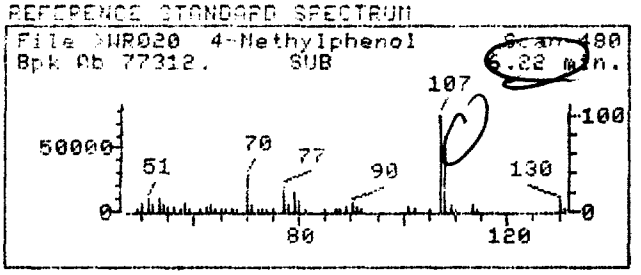


Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

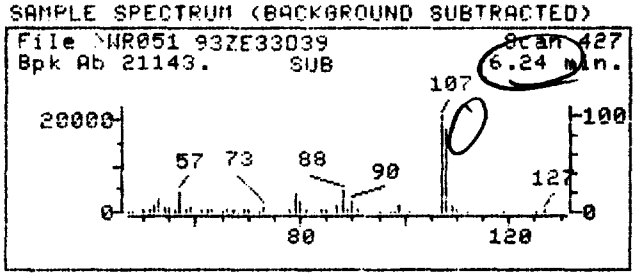
Quant Output File: >WR051::D3
STL#15
Quant ID File: 1DRW37::SD
Last Calibration: 930609 10:36

Compound No: 12
Compound Name: bis(2-Chloroisopropyl)ether
Scan Number: 404
Retention Time: 6.03 min.
Quant Ion: 121.0
Area: 2781
Concentration: 5.08 NG/UL
q-value: 99

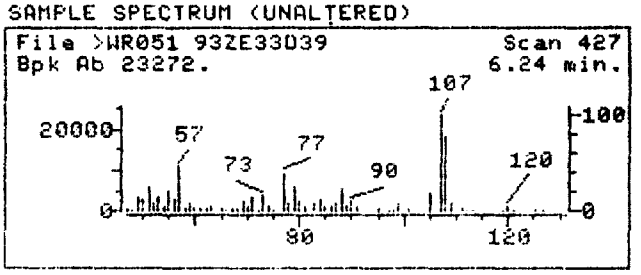
REFERENCE STANDARD SPECTRUM

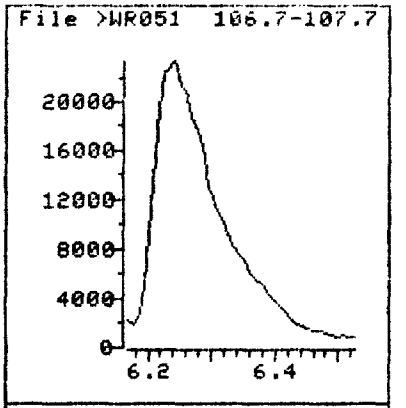


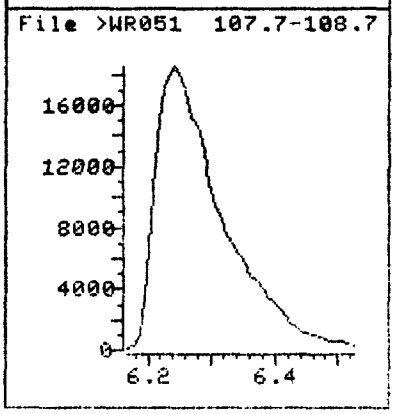
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

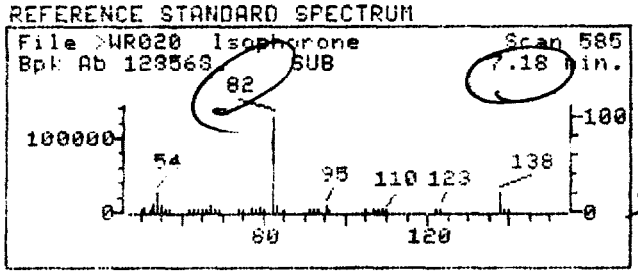
Quant Output File: ^WR051::D3

BTL#29

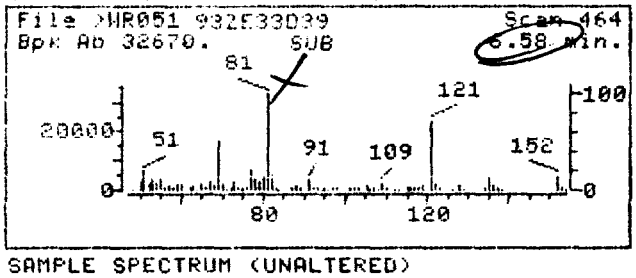
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 13
Compound Name: 4-Methylphenol
Scan Number: 427
Retention Time: 6.24 min.
Quant Ion: 108.0
Area: 133944
Concentration: 37.27 NG/UL
q-value: 94

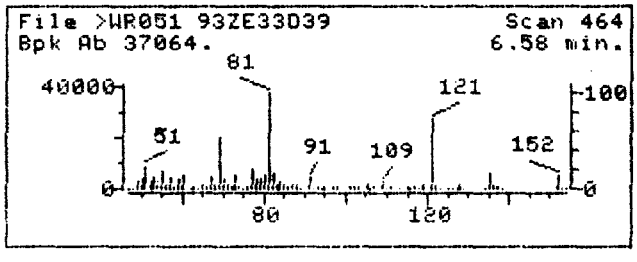
REFERENCE STANDARD SPECTRUM

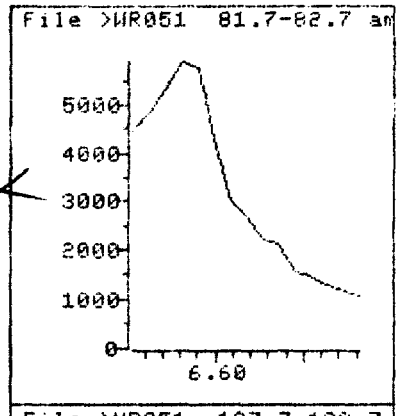


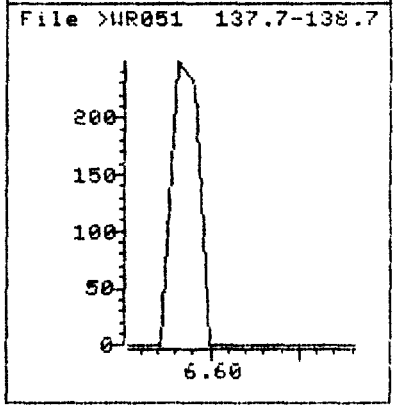
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

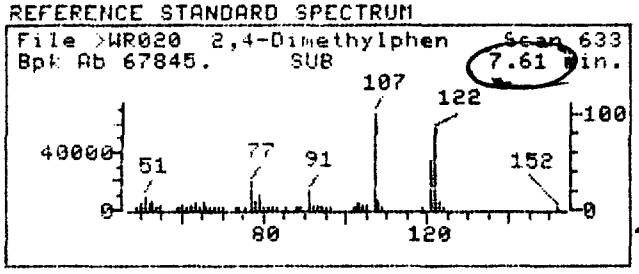
Quant Output File: ^WR051::D3

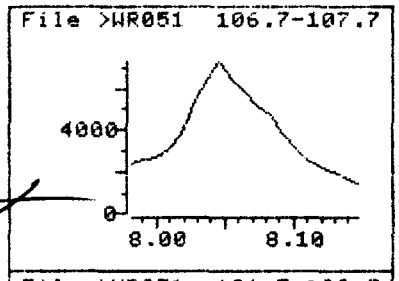
BTL#15

Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

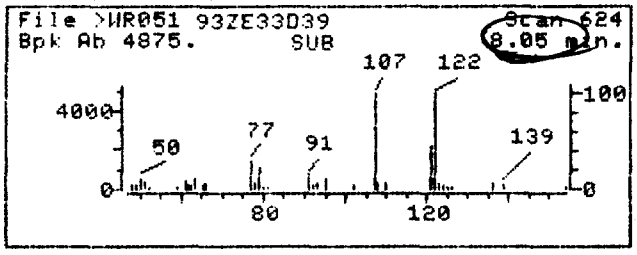
Compound No: 19
Compound Name: Isophorone
Scan Number: 464
Retention Time: 6.58 min.
Quant Ion: 82.0
Area: 16968
Concentration: 2.29 NG/UL
q-value: 83

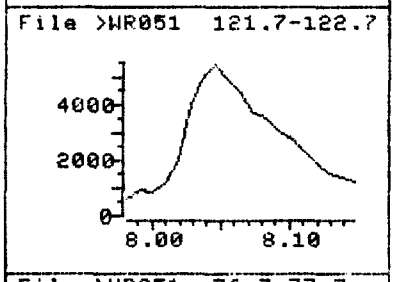
REFERENCE STANDARD SPECTRUM



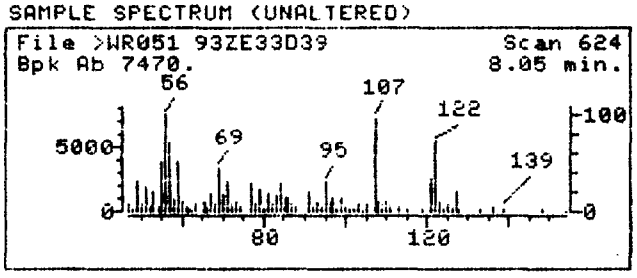


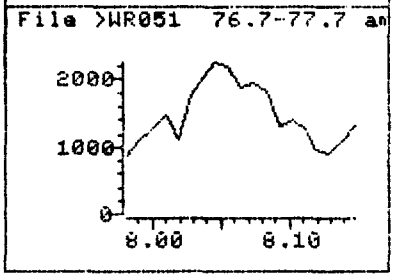
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

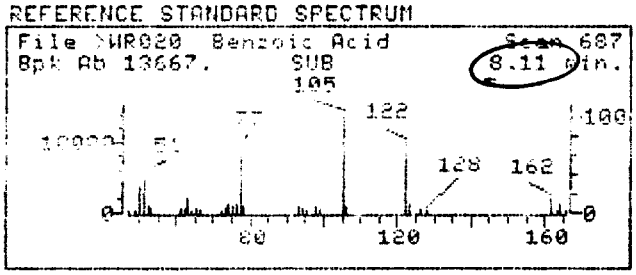
Quant Output File: ^WR051::D3

BTL#15

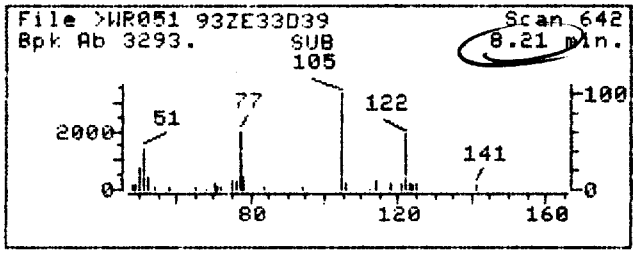
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 21
Compound Name: 2,4-Dimethylphenol
Scan Number: 624
Retention Time: 8.05 min.
Quant Ion: 122.0
Area: 23043
Concentration: 6.76 NG/UL
q-value: 90

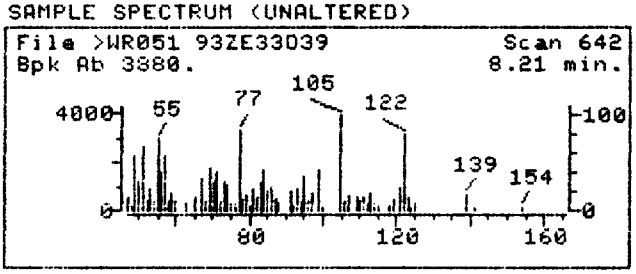
REFERENCE STANDARD SPECTRUM

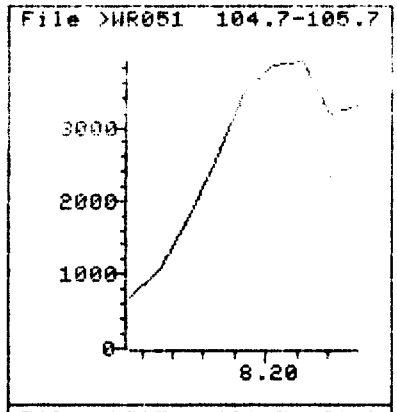


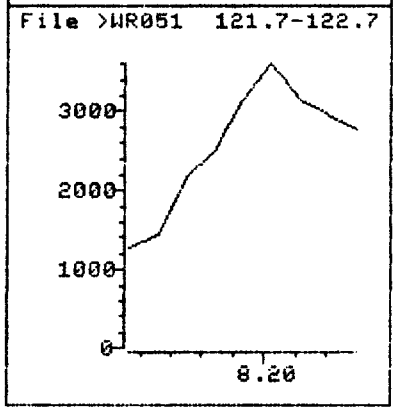
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

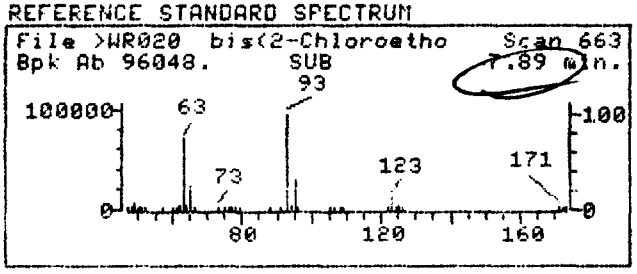
Quant Output File: ^WR051::D3

BTL#15

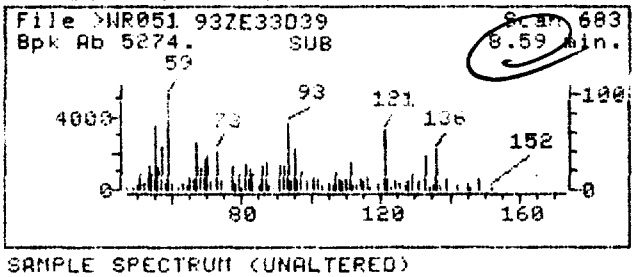
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 22
Compound Name: Benzoic Acid
Scan Number: 642
Retention Time: 8.21 min.
Quant Ion: 105.0
Area: 9616
Concentration: 3.80 NG/UL
q-value: 99

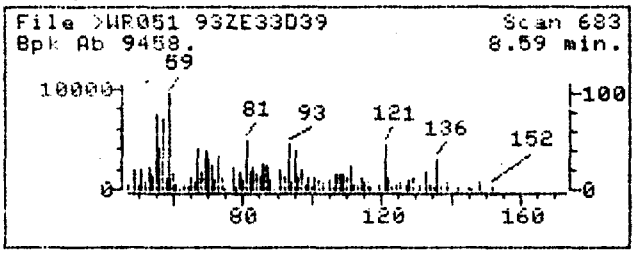
REFERENCE STANDARD SPECTRUM

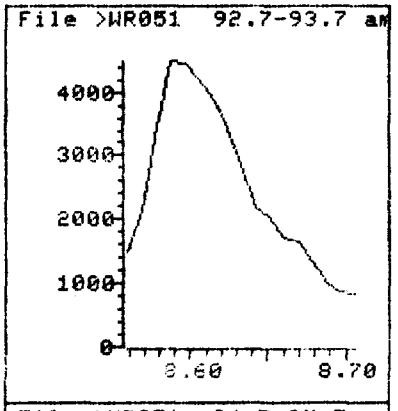


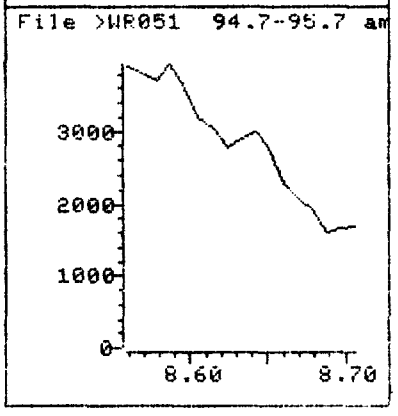
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

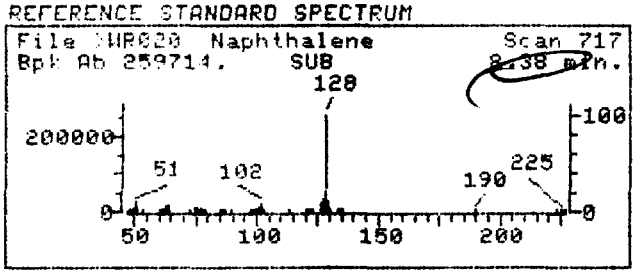
Quant Output File: ^WR051::D3

BTL#15

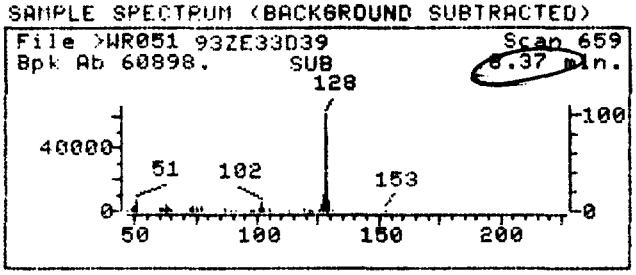
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 23
Compound Name: bis(2-Chloroethoxy)Methane
Scan Number: 683
Retention Time: 8.59 min.
Quant Ion: 93.0
Area: 15463
Concentration: 3.10 NG/UL
q-value: 95

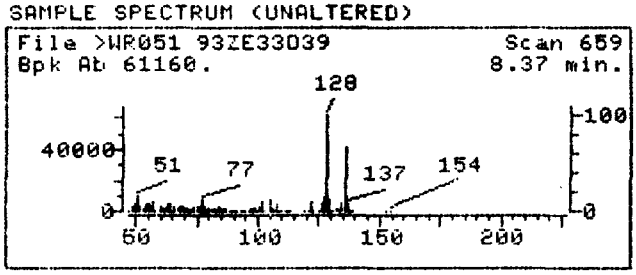
REFERENCE STANDARD SPECTRUM

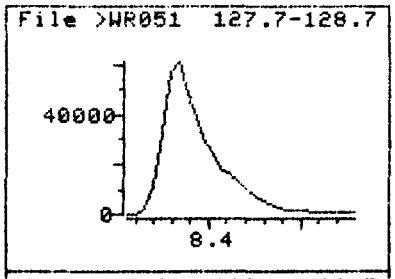


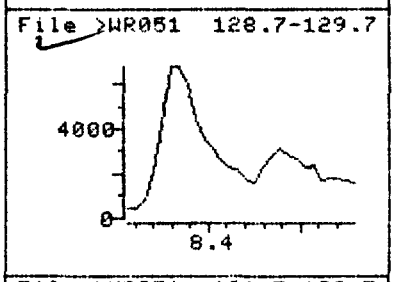
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

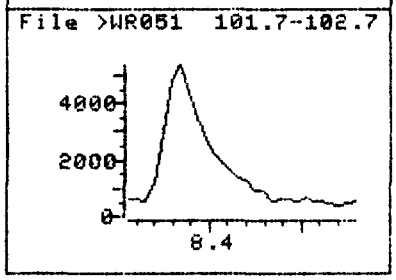


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

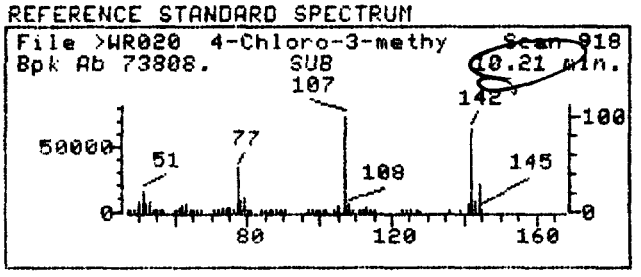
Quant Output File: ^WR051::D3

BTL#15

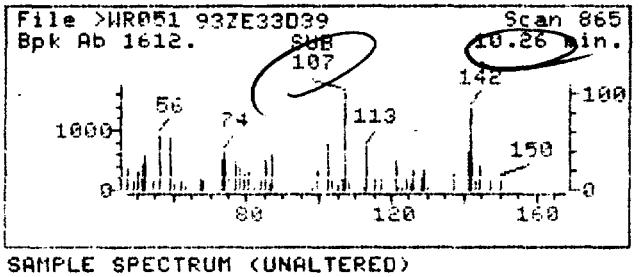
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 26
Compound Name: Naphthalene
Scan Number: 659
Retention Time: 8.37 min.
Quant Ion: 128.0
Area: 214862
Concentration: 17.28 NG/UL
q-value: 95

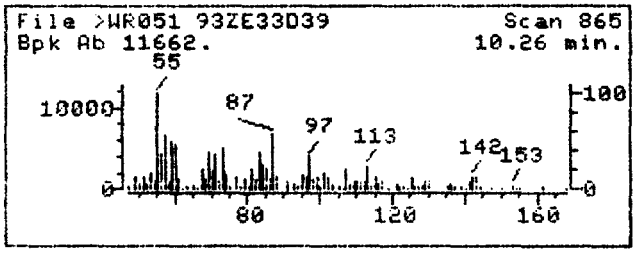
REFERENCE STANDARD SPECTRUM

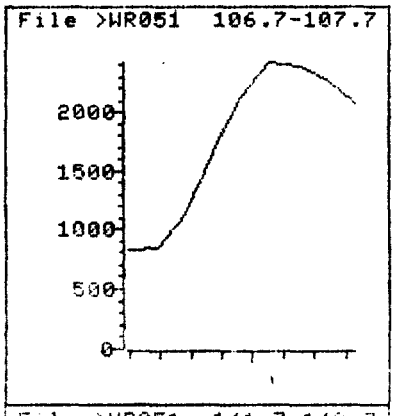


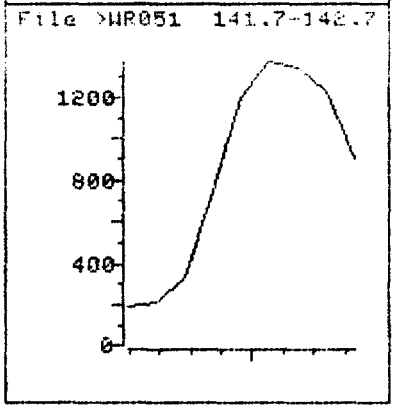
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

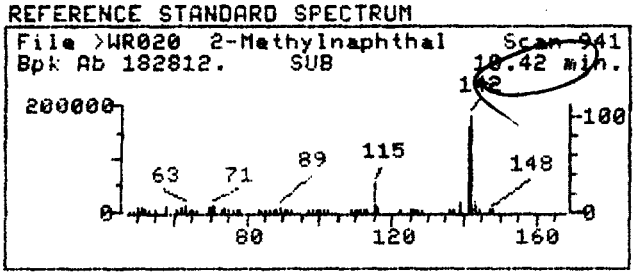
Quant Output File: ^WR051::D3

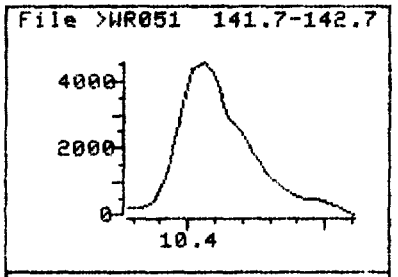
BTL#15

Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

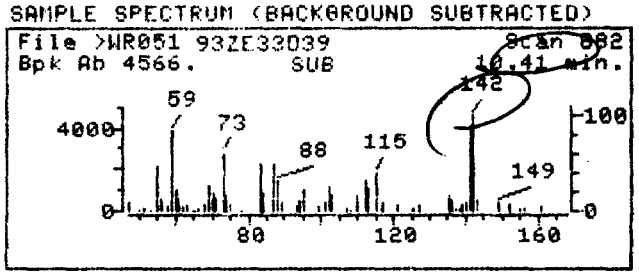
Compound No: 29
Compound Name: 4-Chloro-3-methylphenol
Scan Number: 865
Retention Time: 10.26 min.
Quant Ion: 107.0
Area: 4958
Concentration: 1.39 NG/UL
q-value: 35

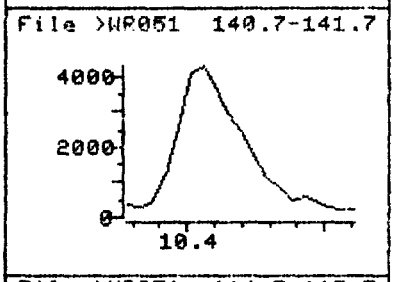
REFERENCE STANDARD SPECTRUM



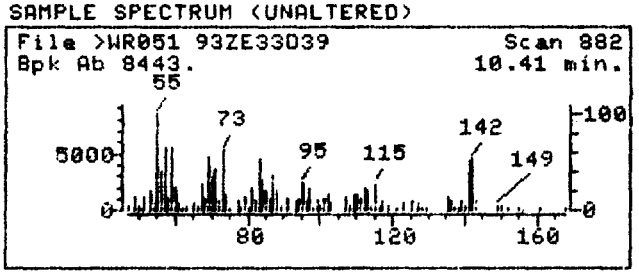


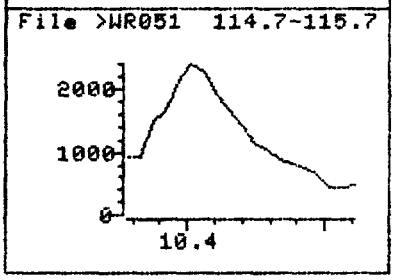
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)

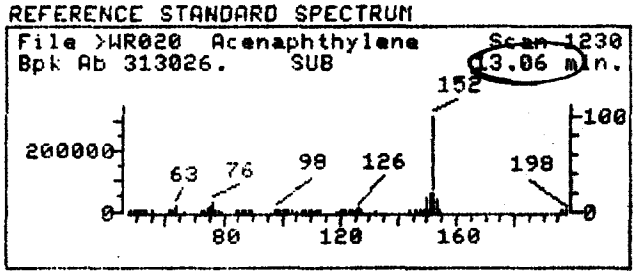




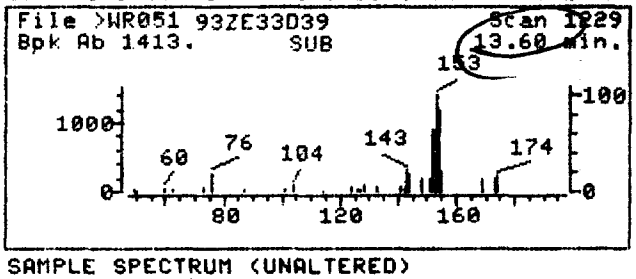
Data File: >WR051::D6 Quant Output File: ^WR051::D3
Name: 93ZE33D39
Misc: 06-08-93 1000/1 BTL#15
Quant Time: 930609 11:38 Quant ID File: IDRW37::SC
Injected at: 930609 06:04 Last Calibration: 930609 10:36

Compound No: 30
Compound Name: 2-Methylnaphthalene
Scan Number: 882
Retention Time: 10.41 min.
Quant Ion: 142.0
Area: 16091
Concentration: 1.96 NG/UL
q-value: 95

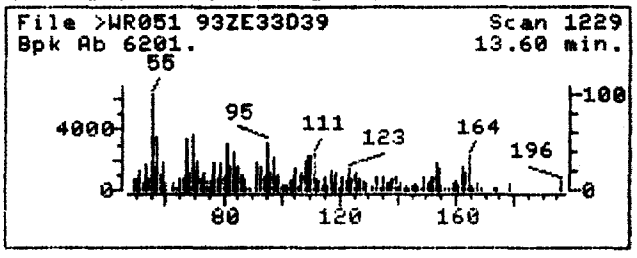
REFERENCE STANDARD SPECTRUM

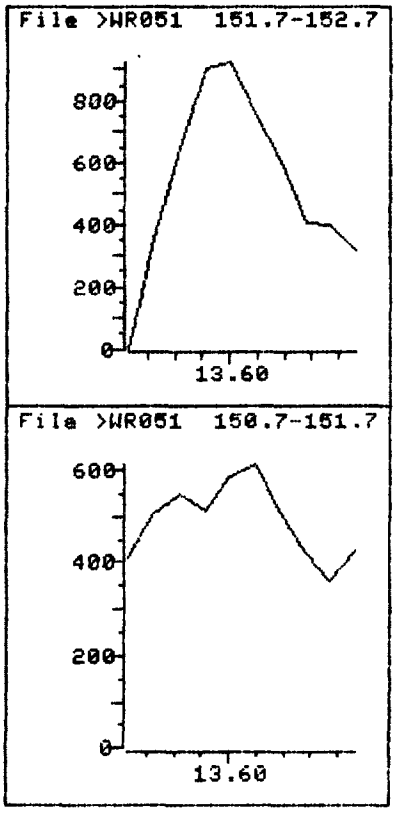


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

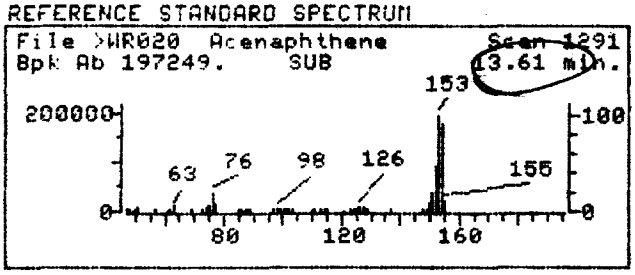
Quant Output File: ^WR051::D3

BTL#15

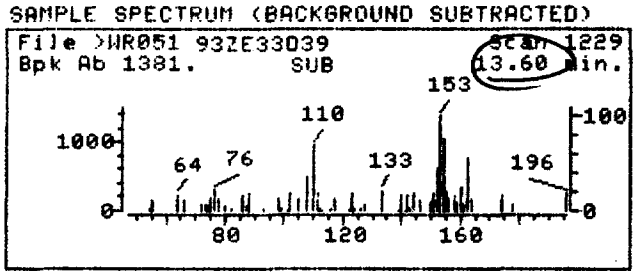
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 40
Compound Name: Acenaphthylene
Scan Number: 1229
Retention Time: 13.60 min.
Quant Ion: 152.0
Area: 2936
Concentration: .26 NG/UL
q-value: 98

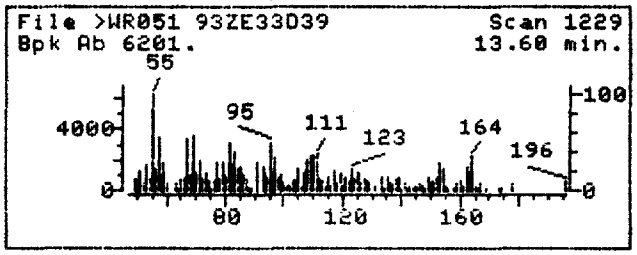
REFERENCE STANDARD SPECTRUM

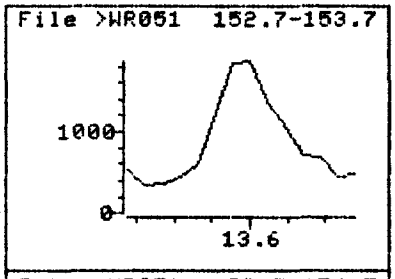


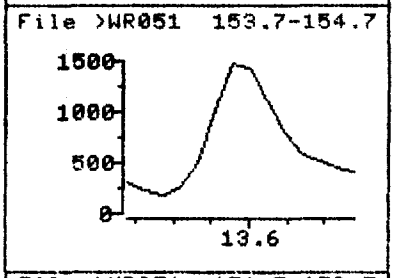
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

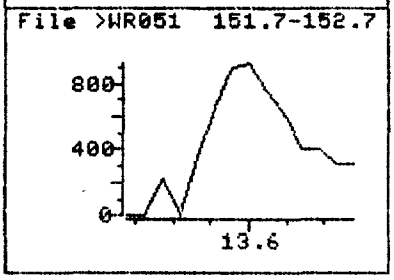


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

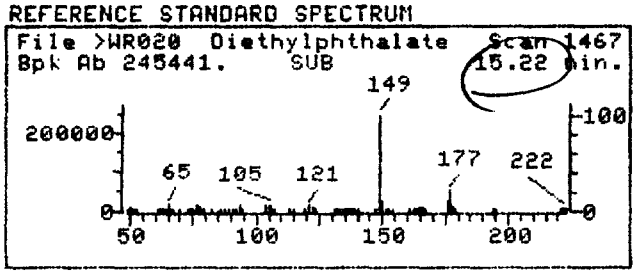
Quant Output File: ^WR051::D3

BTL#15

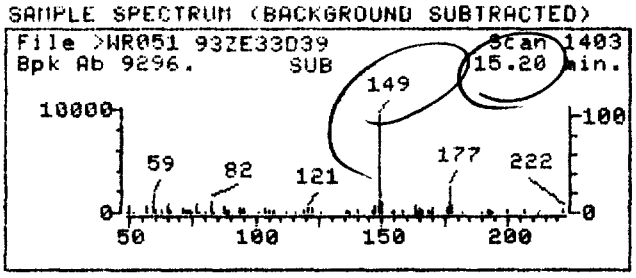
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 42
Compound Name: Acenaphthene
Scan Number: 1229
Retention Time: 13.60 min.
Quant Ion: 153.0
Area: 4168
Concentration: .57 NG/UL
q-value: 92

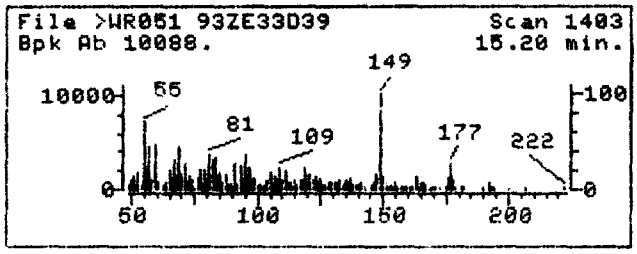
REFERENCE STANDARD SPECTRUM

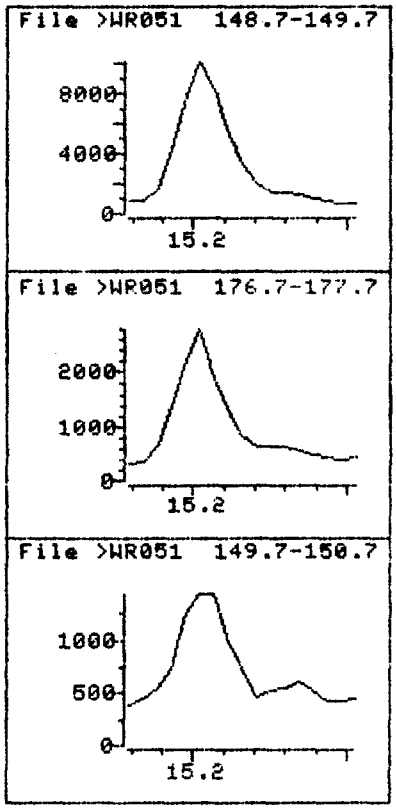


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

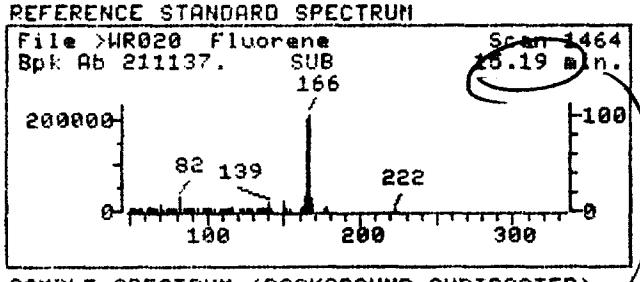
Quant Output File: ^WR051::D3

BTL#15

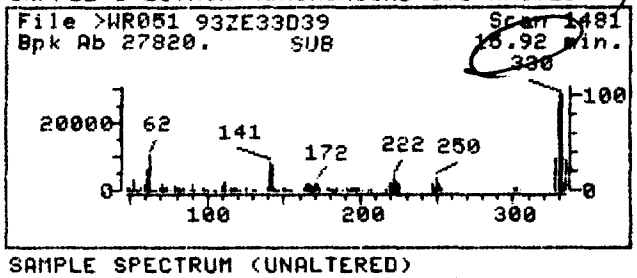
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 48
Compound Name: Diethylphthalate
Scan Number: 1403
Retention Time: 15.20 min.
Quant Ion: 149.0
Area: 2291
Concentration: 2.90 NG/UL
q-value: 97

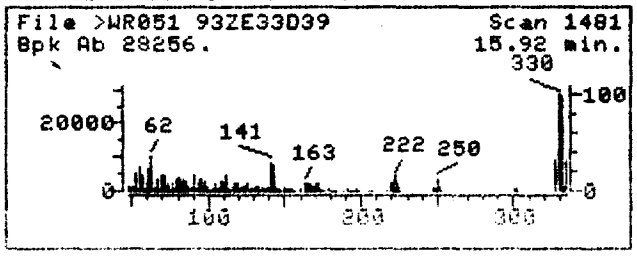
REFERENCE STANDARD SPECTRUM

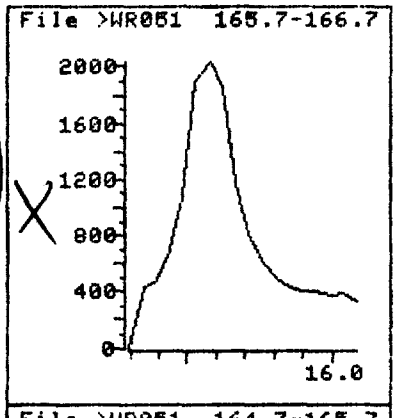


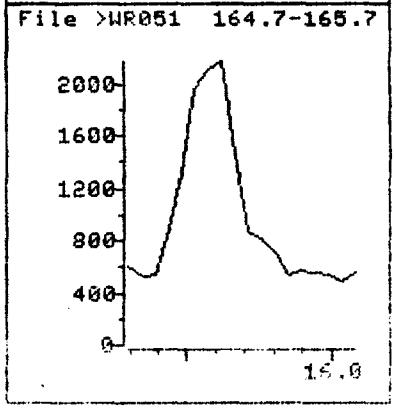
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

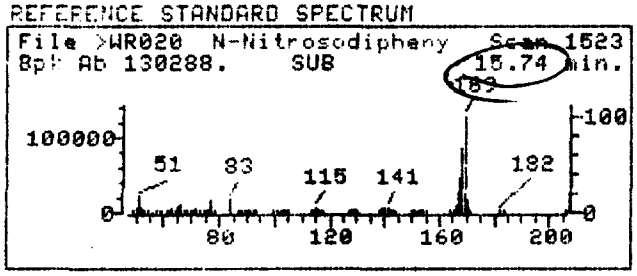
Quant Output File: >WR051::D3

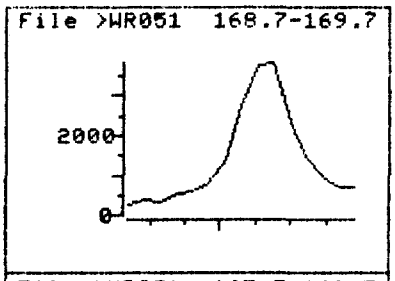
BTL#19

Quant ID File: 1DRW37::SC
Last Calibration: 930609 10:36

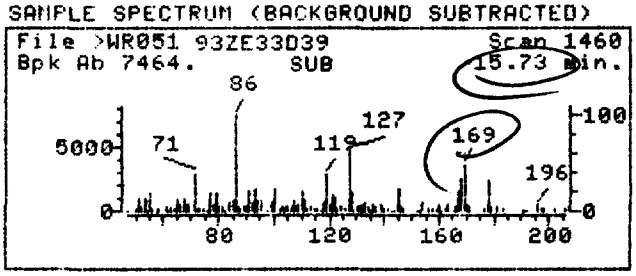
Compound No: 50
Compound Name: Fluorene
Scan Number: 1480
Retention Time: 15.92 min.
Quant Ion: 166.0
Area: 7726
Concentration: 1.03 NG/UL
q-value: 86

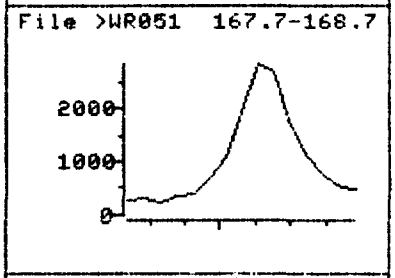
REFERENCE STANDARD SPECTRUM



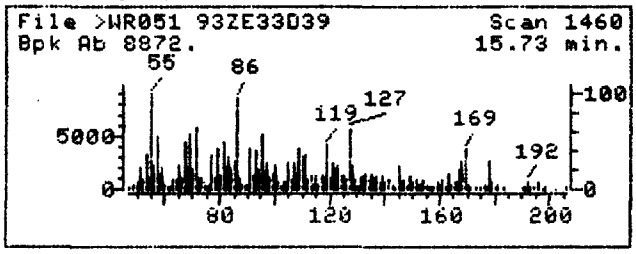


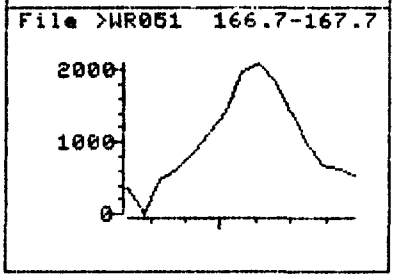
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)





SAMPLE SPECTRUM (UNALTERED)





Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

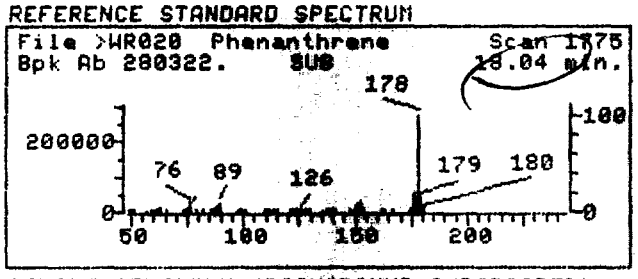
Quant Output File: ^WR051::D3

BTL#15

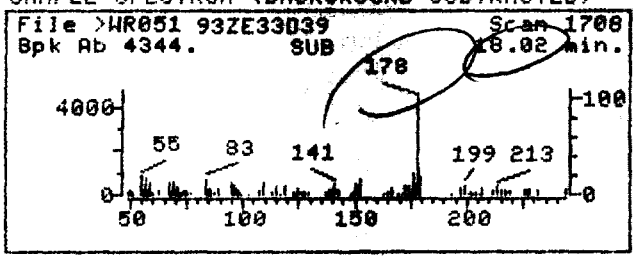
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 53
Compound Name: N-Nitrosodiphenylamine
Scan Number: 1460
Retention Time: 15.73 min.
Quant Ion: 169.0
Area: 9982
Concentration: 1.96 NG/UL
q-value: 91

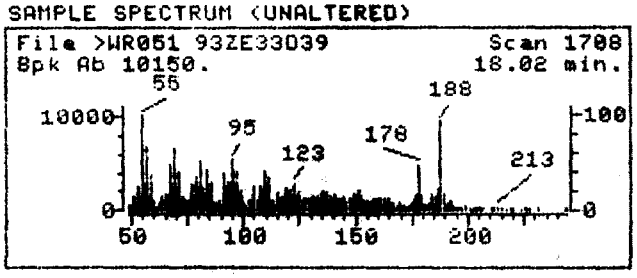
REFERENCE STANDARD SPECTRUM

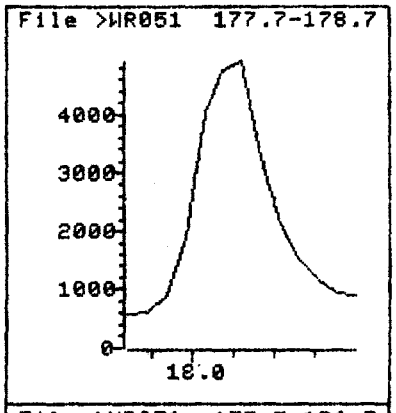


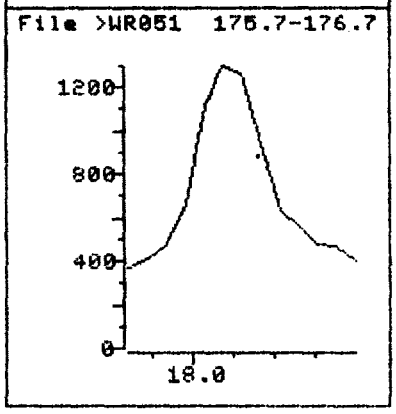
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







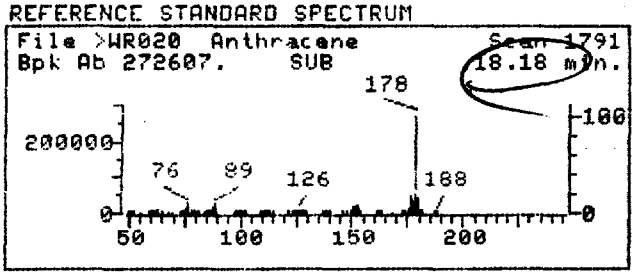
Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

Quant Output File: ^WR051::D3

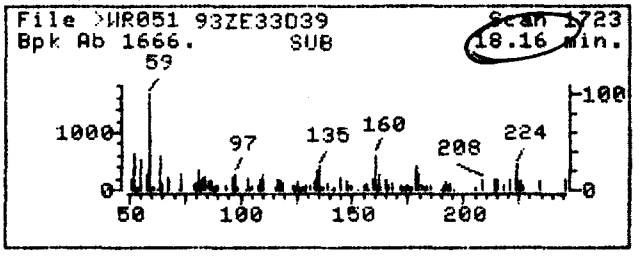
BTL#15
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 58
Compound Name: Phenanthrene
Scan Number: 1708
Retention Time: 18.02 min.
Quant Ion: 178.0
Area: 11146
Concentration: 1.11 NG/UL
q-value: 91

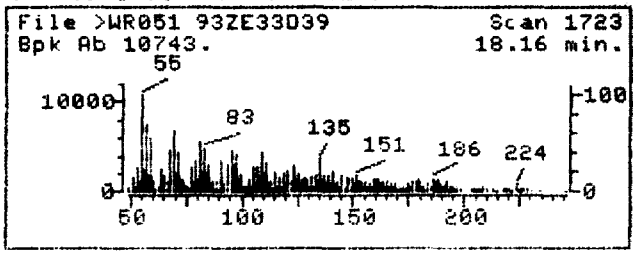
REFERENCE STANDARD SPECTRUM

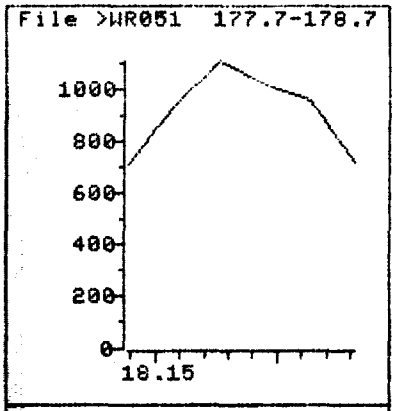


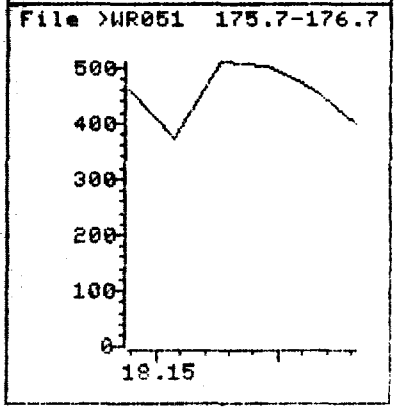
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

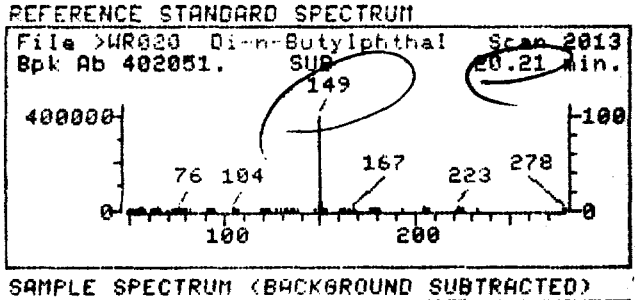
Quant Output File: >WR051::D3

BTL#15

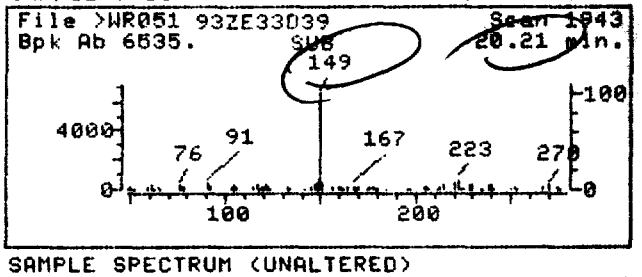
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 59
Compound Name: Anthracene
Scan Number: 1723
Retention Time: 18.16 min.
Quant Ion: 178.0
Area: 1180
Concentration: .11 NG/UL
q-value: 90

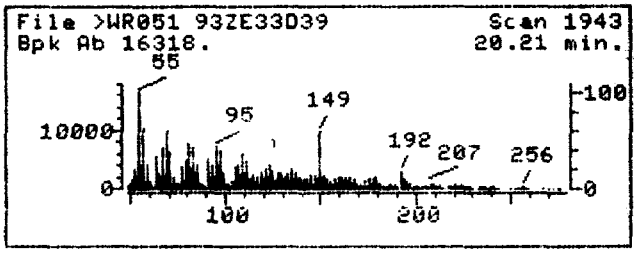
REFERENCE STANDARD SPECTRUM

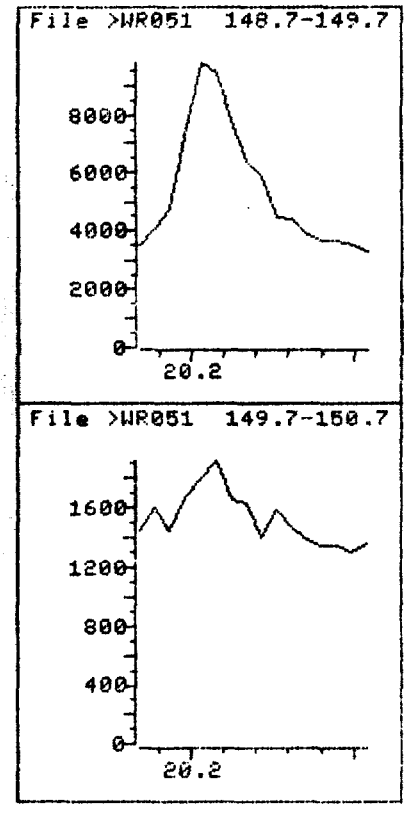


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

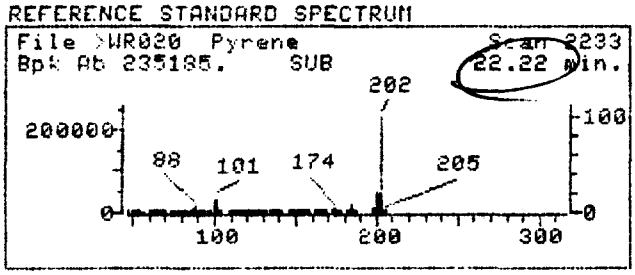
Quant Output File: ^WR051::D3

BTL#15

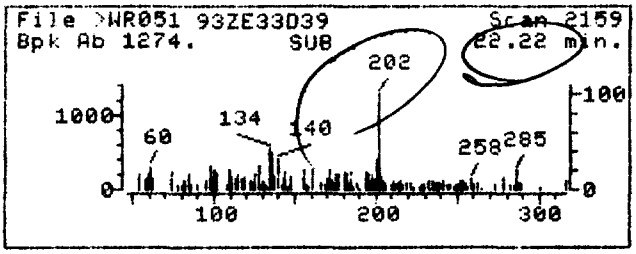
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 60
Compound Name: Di-n-Butylphthalate
Scan Number: 1943
Retention Time: 20.21 min.
Quant Ion: 149.0
Area: 19989
Concentration: 1.64 NG/UL
q-value: 89

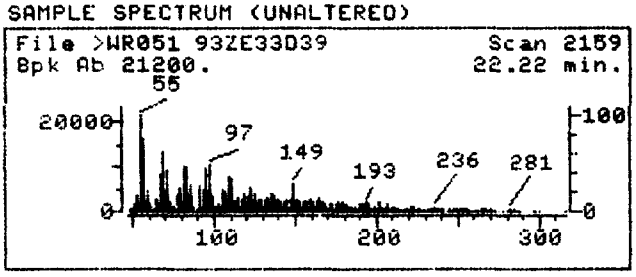
REFERENCE STANDARD SPECTRUM

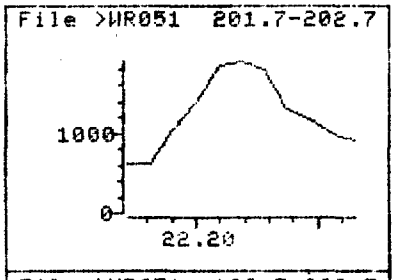


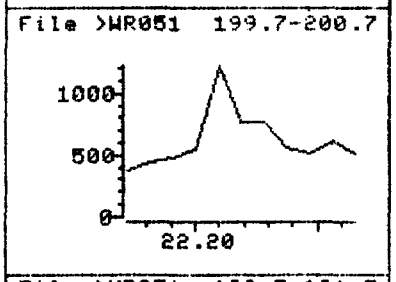
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

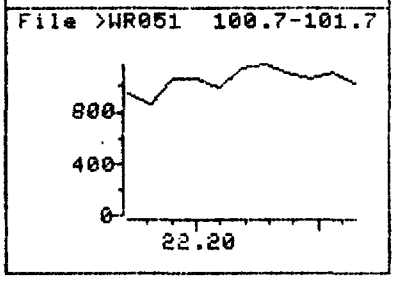


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

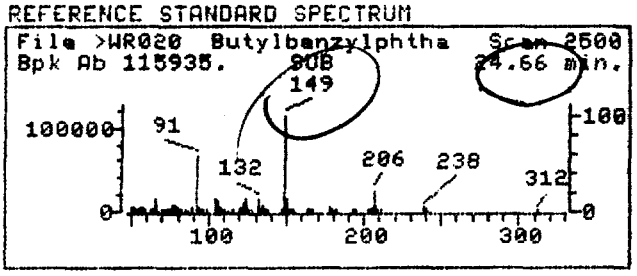
Quant Output File: ^WR051::D3

BTL#15

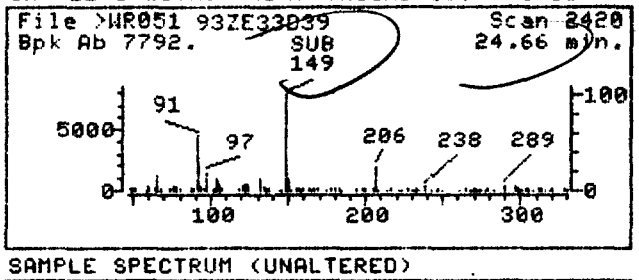
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 63
Compound Name: Pyrene
Scan Number: 2159
Retention Time: 22.22 min.
Quant Ion: 202.0
Area: 3964
Concentration: .37 NG/UL
q-value: 86

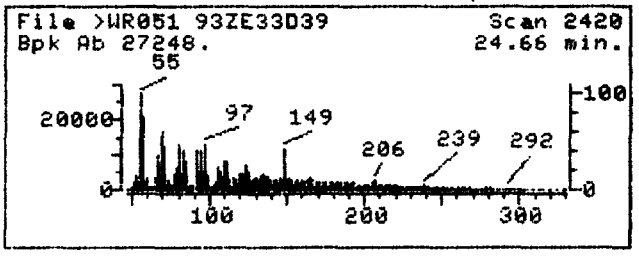
REFERENCE STANDARD SPECTRUM

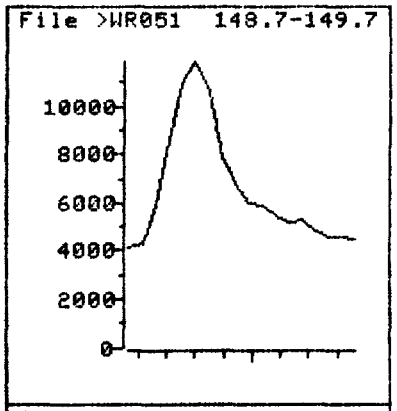


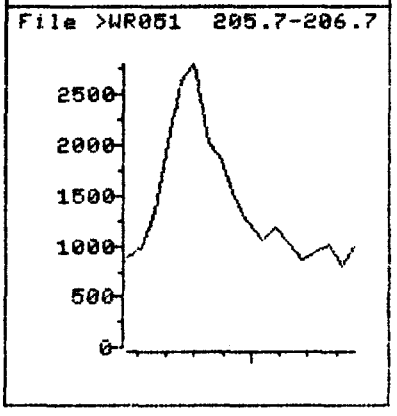
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

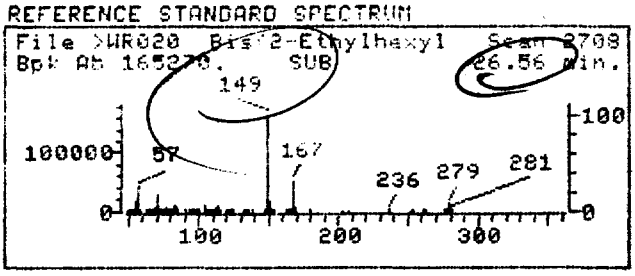
Quant Output File: >WR051::D3

BTL#15

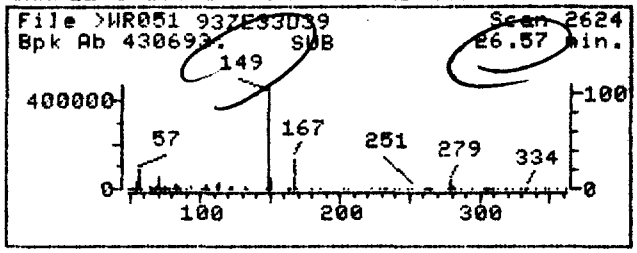
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 65
Compound Name: Butylbenzylphthalate
Scan Number: 2420
Retention Time: 24.66 min.
Quant Ion: 149.0
Area: 25371
Concentration: 5.55 NG/UL
q-value: 90

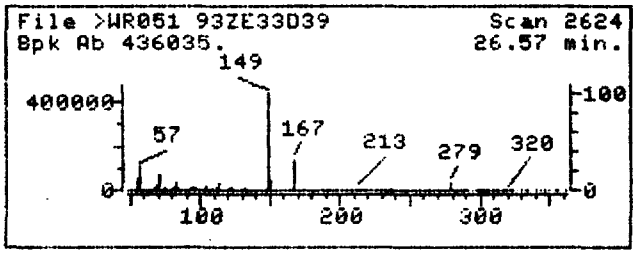
REFERENCE STANDARD SPECTRUM

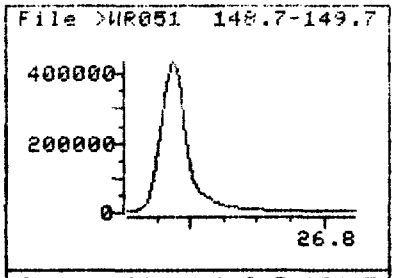


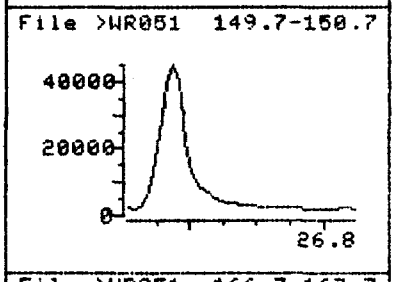
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

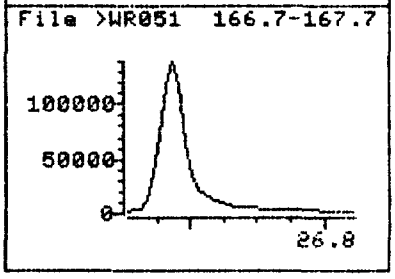


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

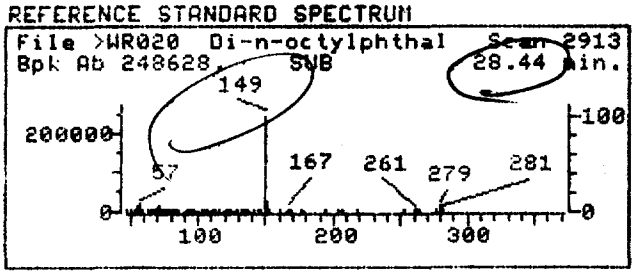
Quant Output File: ^WR051::D3

BTL#15

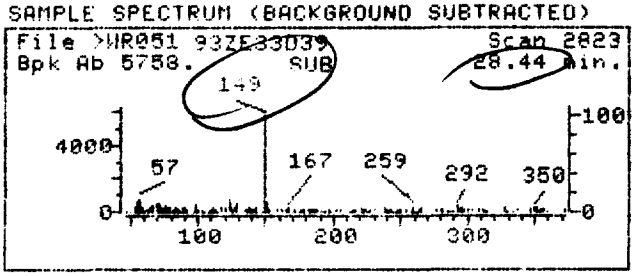
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2624
Retention Time: 26.57 min.
Quant Ion: 149.0
Area: 1203009
Concentration: 195.19 NG/UL
q-value: 95

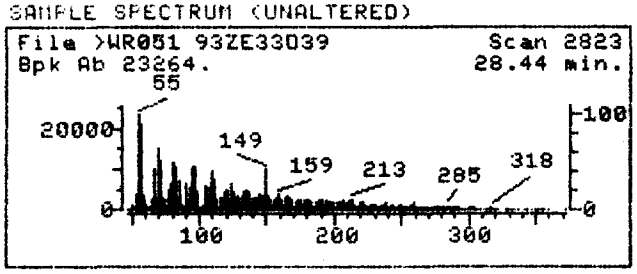
REFERENCE STANDARD SPECTRUM

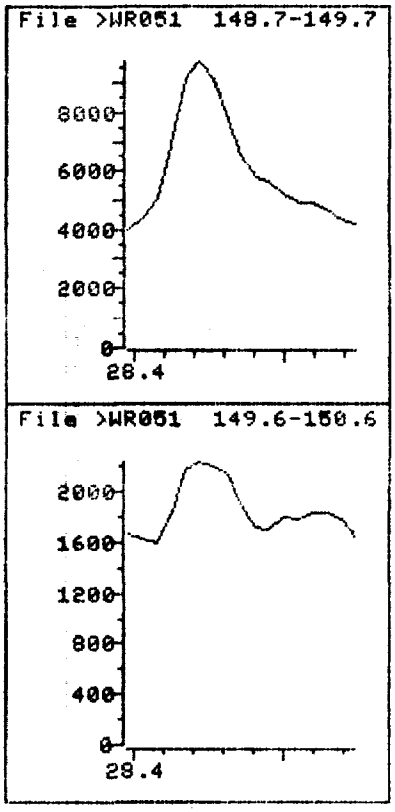


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

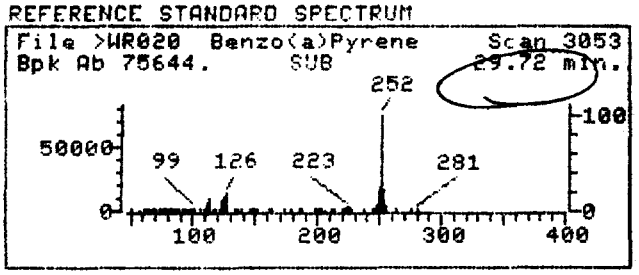
Quant Output File: ^WR051::D3

BTL#15

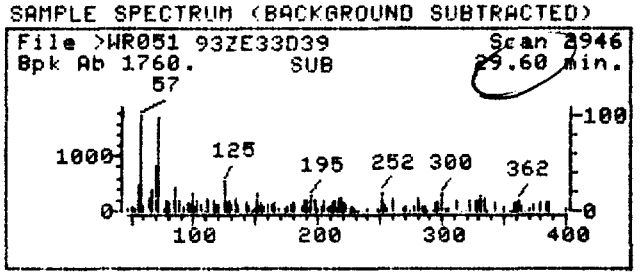
Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 70
Compound Name: Di-n-octylphthalate
Scan Number: 2823
Retention Time: 28.44 min.
Quant Ion: 149.0
Area: 19739
Concentration: 1.80 NG/UL
q-value: 88

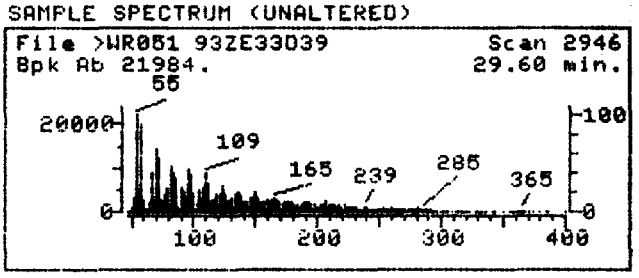
REFERENCE STANDARD SPECTRUM

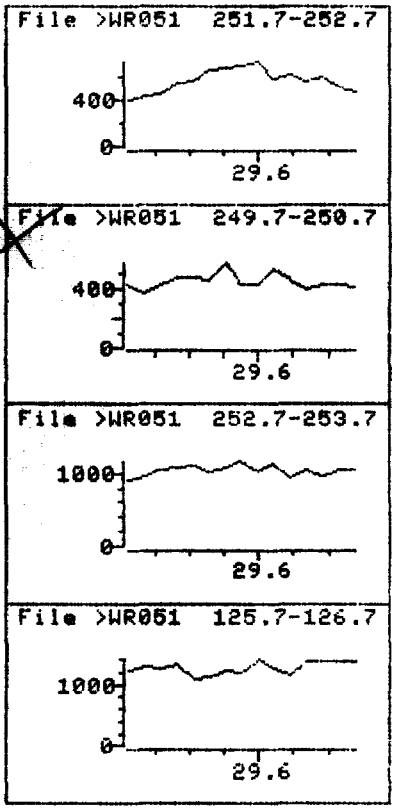


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR051::D6
Name: 93ZE33D39
Misc: 06-08-93 1000/1
Quant Time: 930609 11:38
Injected at: 930609 06:04

Quant Output File: ^WR051::D3

BTL#15

Quant ID File: IDRW37::SC
Last Calibration: 930609 10:36

Compound No: 73
Compound Name: Benzo(a)Pyrene
Scan Number: 2946
Retention Time: 29.60 min.
Quant Ion: 252.0
Area: 1365
Concentration: .18 NG/UL
q-value: 76

MS data file header from : >WR051

Sample: 93ZE33D39 Operator: MANAGER SUPER GRP. 6/09/93 6:04
Misc : 06-08-93 1000/1 BTL#15
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: TOXIC6 Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	65.	320.	321.	0.	0.
Chromatographic times, min. :	1.0	1.0	2.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	1.0	0.0	0.0	0.0

>WR051 93ZE33D39 06-08-93 1000/1
45.01 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 94438. Max Peaks: 20 Bunching: 1
Dnslope: 0.00 Results File IWR051 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
1	5.52	343	348	367	217109	1056672	866913	8.62	2.661
2	6.58	461	464	479	176850	856926	613830	6.10	1.884
3	11.40	968	990	994	183341	1896811	1359289	13.51	4.173
4	16.60	1544	1554	1558	158562	2054984	700741	6.96	2.151
5	18.22	1724	1729	1736	228747	2117537	813751	8.09	2.498
6	20.44	1954	1968	1975	815427	8136970	4521956	44.94	13.881
7	21.64	2078	2097	2100	1572357	15436254	10062704	100.00	30.890
8	21.98	2128	2133	2142	209445	3580052	575037	5.71	1.765
9	22.46	2179	2185	2188	265374	3656968	789792	7.85	2.424
10	22.73	2208	2214	2221	414504	4404682	1256362	12.49	3.857
11	24.22	2369	2373	2378	294213	3003615	698804	6.94	2.145
12	25.27	2481	2485	2496	388706	5246630	1127302	11.20	3.460
13	26.28	2589	2593	2600	425169	4336214	1024933	10.19	3.146
14	27.26	2693	2697	2706	515707	5186681	1245857	12.38	3.824
15	28.20	2793	2797	2809	537471	6025487	1432793	14.24	4.398
16	29.11	2889	2894	2902	520334	4881042	1390925	13.82	4.270
17	30.84	3074	3078	3095	473053	5245353	1418570	14.10	4.355
18	31.66	3162	3166	3176	382028	3529898	1090152	10.83	3.346
19	32.47	3248	3252	3264	305389	3318738	849960	8.45	2.609
20	33.25	3331	3335	3348	229595	3118045	736681	7.32	2.261

Sum of corrected areas: 32576352.

Summary of Unknowns PBM Library Search and Quantitation

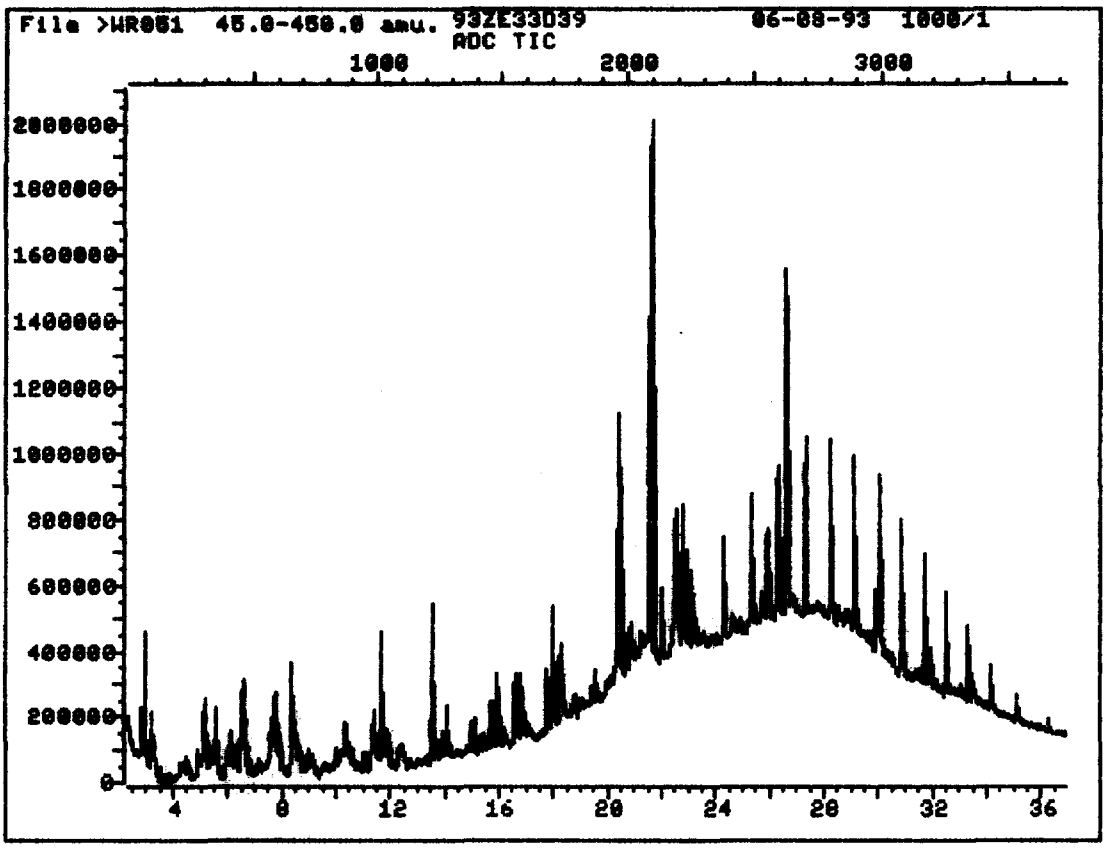
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	944385.	5.13	2.35 - 11.54
2	50.0	1011601.	17.96	11.54 - 23.92
3	50.0	1409699.	29.87	23.92 - 36.92

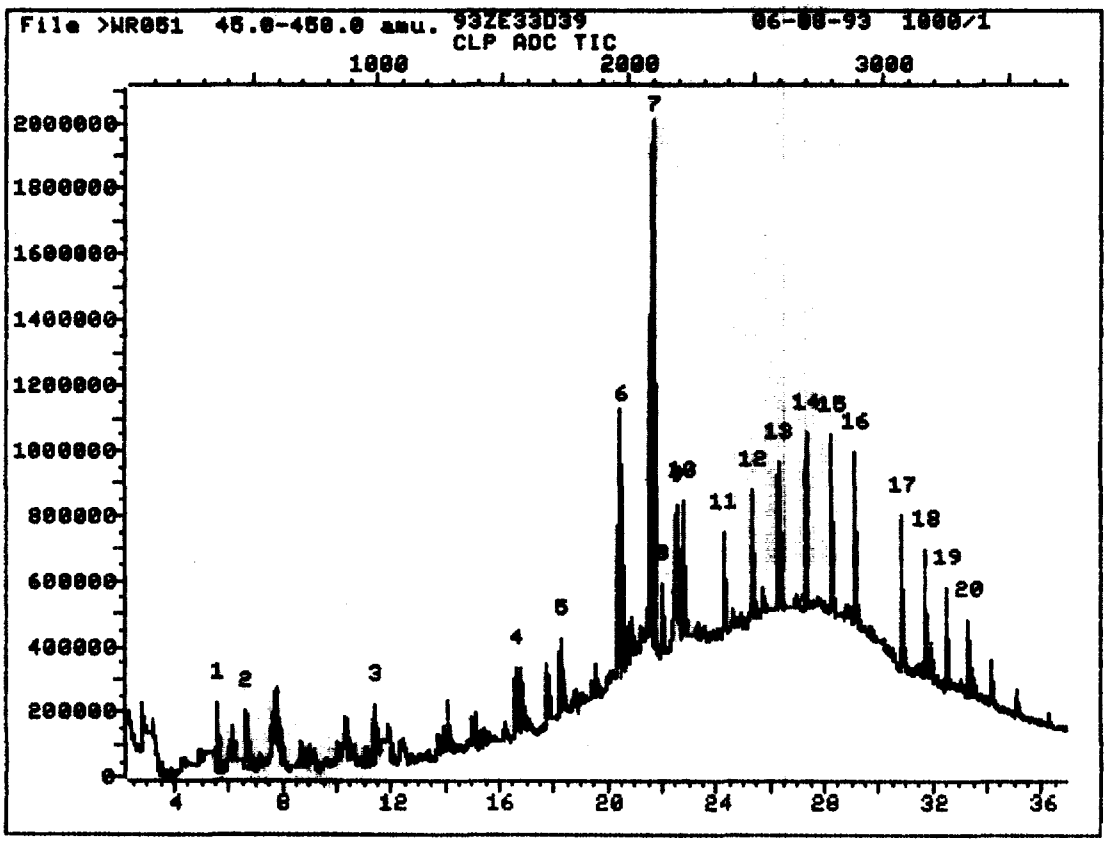
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

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

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

12:49 PM THU., 17 JUNE, 1993


File >WR051 45.0-450.0 amu. 93ZE33D39 06-08-93 1000/1
RDC TIC
1000
2000
3000
2000000
1800000
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
4
8
12
16
20
24
28
32
36


File >WR051 45.0-450.0 amu. 93ZE33D39 06-08-93 1000/1
CLP RDC TIC
1000
2000
3000
2000000
1800000
1600000
1400000
1200000
1000000
800000
600000
400000
200000
0
1
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3
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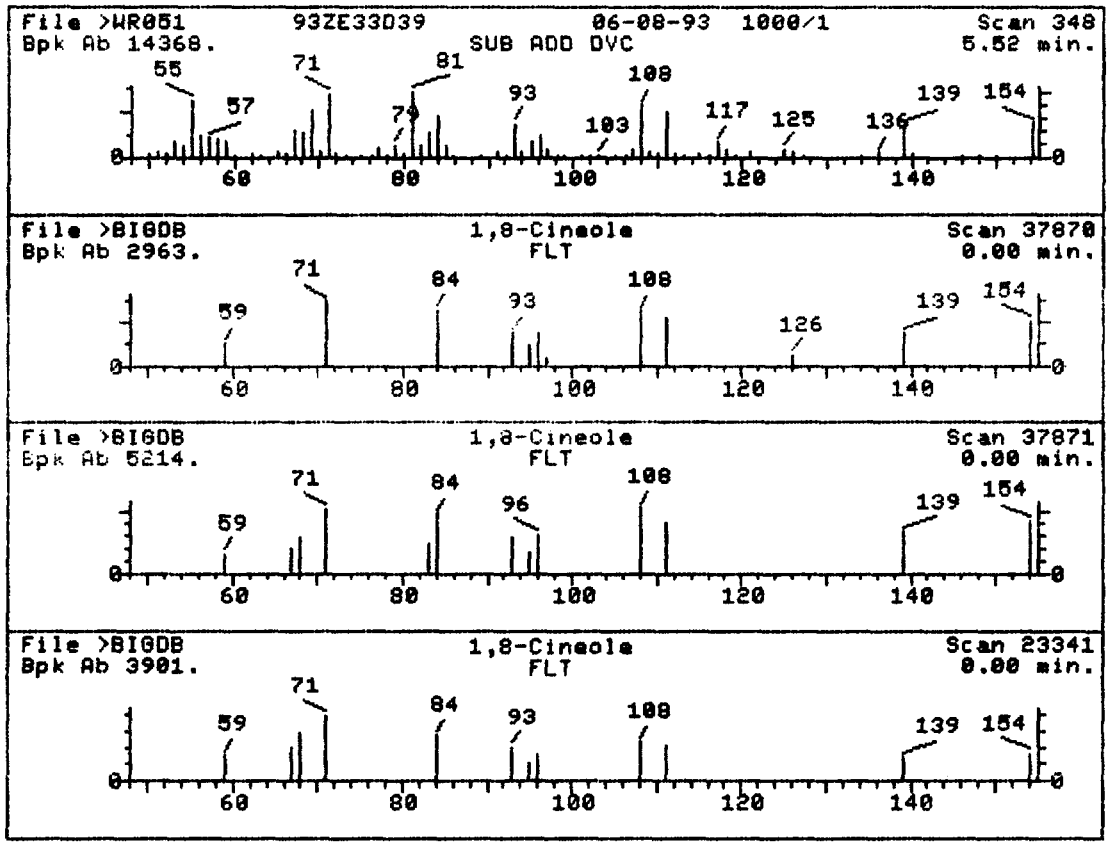
32
36

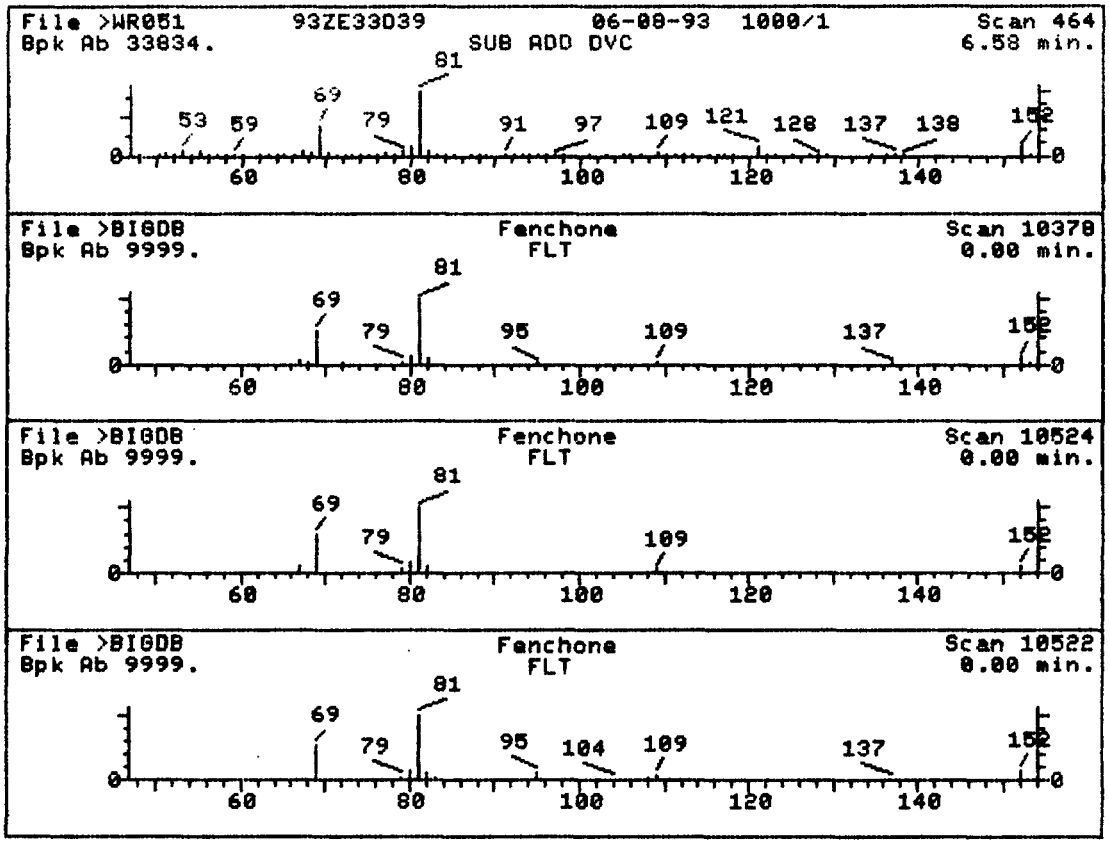


UNKNOWN #,1
AREA = 866913.0 TENTATIVE CONCENTRATION IS 46.00

1. 1,8-Cineole	154	C10H18O
2. 1,8-Cineole	154	C10H18O
3. 1,8-Cineole	154	C10H18O
4. 1,8-Cineole	154	C10H18O
5. 1,8-Cineole	154	C10H18O
6. .alpha.-Terpineol	154	C10H18O
7. Phenol, 2,6-dimethoxy-	154	C8H10O3

Sample file: >WR051 Spectrum #: 348
Search speed: 1 Tilting option: S No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	85*	470826	37870	"BIGDB	87	30	1	0	237	27	43	86
2.	70*	470826	37871	"BIGDB	77	48	1	0	113	36	28	74
3.	59*	470826	23341	"BIGDB	81	37	3	-2	193	22	27	37
4.	59*	470826	21993	"BIGDB	40	30	0	0	249	36	21	50
5.	41*	470826	37728	"BIGDB	52	63	0	0	151	54	11	63
6.	25*	98555	23345	"BIGDB	50	55	2	1	93	50	7	16

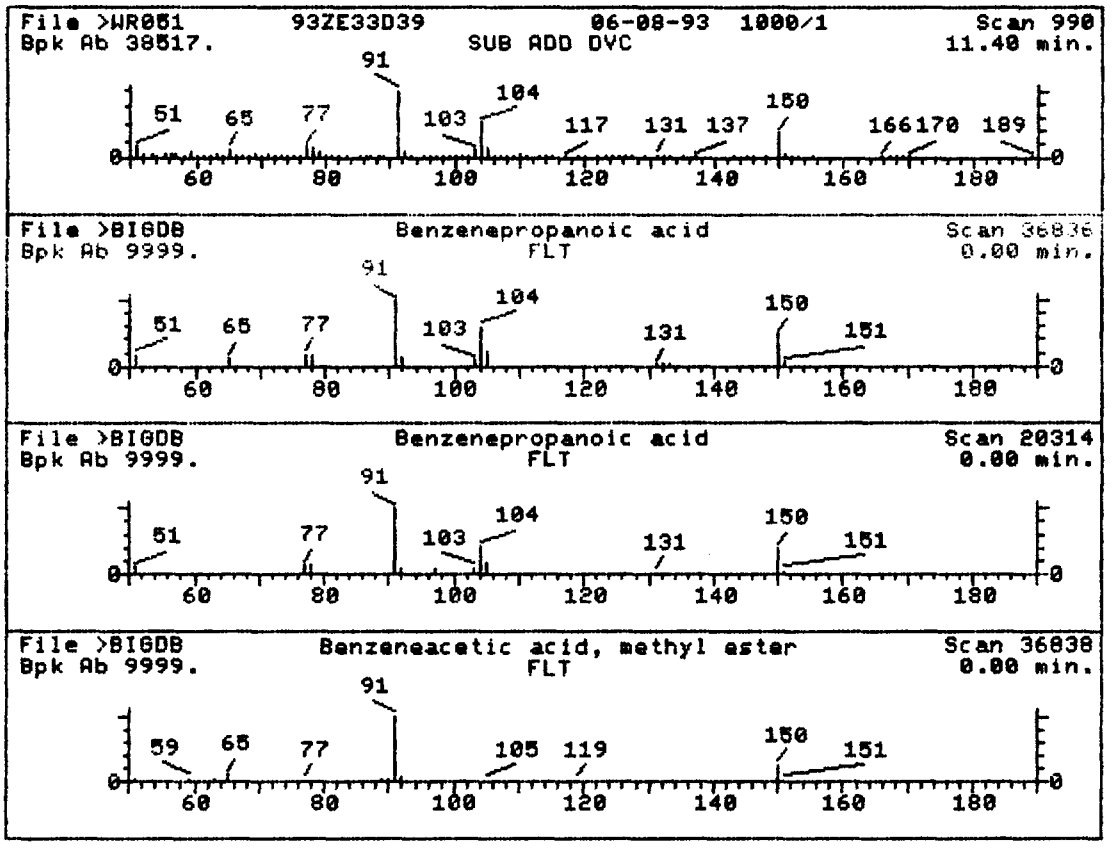


UNKNOWN #,2
AREA = 613830.0 TENTATIVE CONCENTRATION IS 32.00

1. Fenchone	152	C10H16O
2. Fenchone	152	C10H16O
3. Fenchone	152	C10H16O
4. Fenchone	152	C10H16O
5. Fenchone	152	C10H16O
6. Cyclohexane, 1,2-dichloro-, trans-	152	C6H10Cl2
7. 2,4-Decadienal, (E,Z)-	152	C10H16O

Sample file: >WR051 Spectrum #: 464
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	1195795	10378	"BIGDB	80	7	0	0	90	13	64	97
2.	81*	1195795	10524	"BIGDB	52	13	0	0	78	16	45	76
3.	71*	1195795	10522	"BIGDB	52	40	2	0	90	13	38	35
4.	71*	1195795	10523	"BIGDB	50	43	2	0	84	15	38	31
5.	66*	1195795	10521	"BIGDB	66	21	2	1	97	20	31	48
6.	52*	822866	10514	"BIGDB	23	67	3	0	100	20	20	12

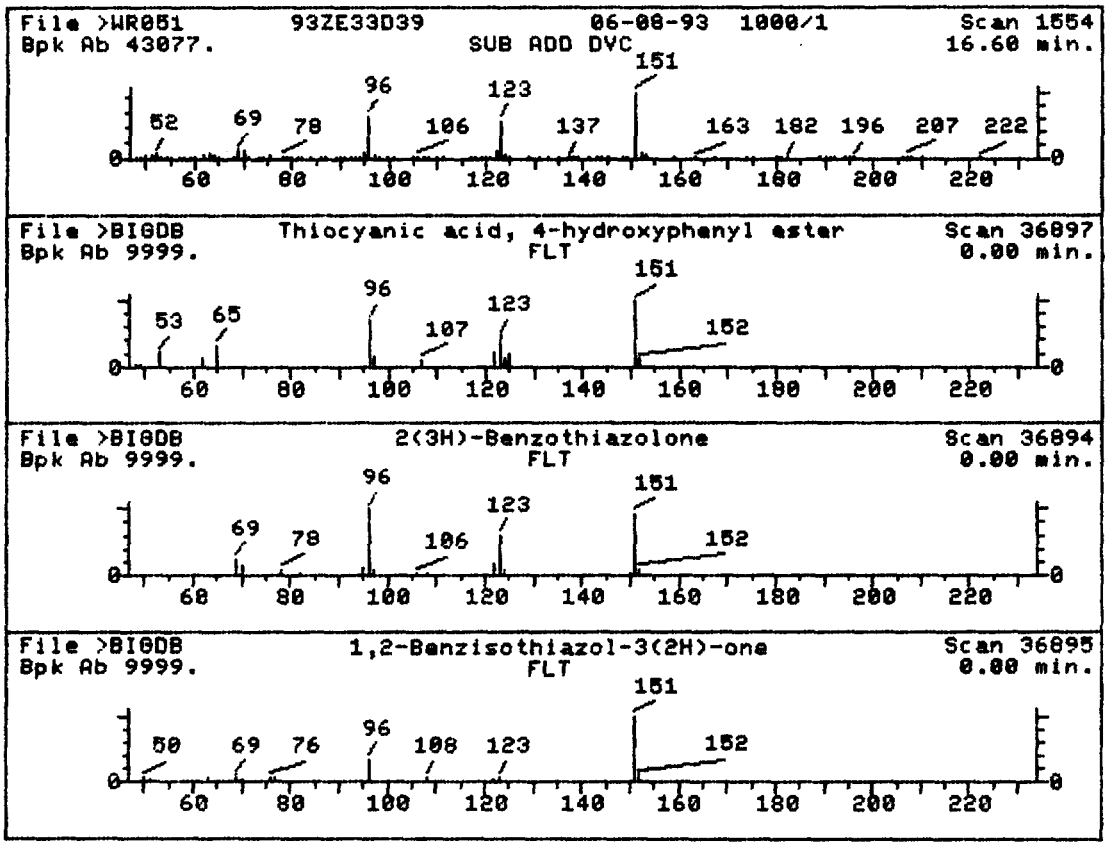


UNKNOWN #,3
AREA = 1359289. TENTATIVE CONCENTRATION IS 72.00

1.	Benzenepropanoic acid	150	C9H10O2
2.	Benzenepropanoic acid	150	C9H10O2
3.	Benzeneacetic acid, methyl ester	150	C9H10O2
4.	Benzenepropanoic acid, silver(1+) salt	0	
5.	Benzeneacetic acid, methyl ester	150	C9H10O2
6.	ISOPROPYLIDENMALONITRILE, PHENYL-	196	C13H12N2
7.	Benzeneacetic acid, methyl ester	150	C9H10O2

Sample file: >WR051 Spectrum #: 990
Search speed: 1 Tilting option: S No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	93*	501520	36836	"BIGDB	89	13	1	1	69	5	68	86
2.	75*	501520	20314	"BIGDB	76	20	1	3	96	17	35	69
3.	40*	101417	36838	"BIGDB	47	35	2	0	100	38	14	27
4.	37	75112797	20496	"BIGDB	74	55	1	0	51	45	12	28
5.	36*	101417	36840	"BIGDB	43	35	2	0	100	38	14	23
6.	30	0	14932	"BIGDB	56	34	1	0	73	50	10	23



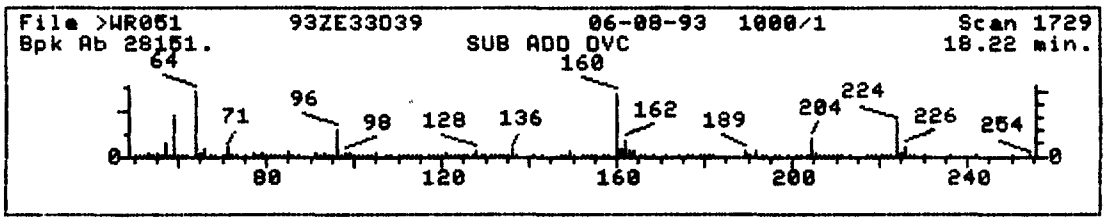
UNKNOWN #,4

AREA = 700741.0 TENTATIVE CONCENTRATION IS 35.00

1.	Thiocyanic acid, 4-hydroxyphenyl ester	151	C7H5NOS
2.	2(3H)-Benzothiazolone	151	C7H5NOS
3.	1,2-Benzisothiazol-3(2H)-one	151	C7H5NOS
4.	2,6-DIAMINO-8-AZAPURINE	151	C4H5N7
5.	4H-1,3,2-Dioxaborin, 6-ethenyl-2-ethyl-4-methyl-4-(2-methylpropyl)-	208	C12H21BO2
6.	Benzoic acid, 2-amino-, methyl ester	151	C8H9NO2

Sample file: >WR051 Spectrum #: 1554
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

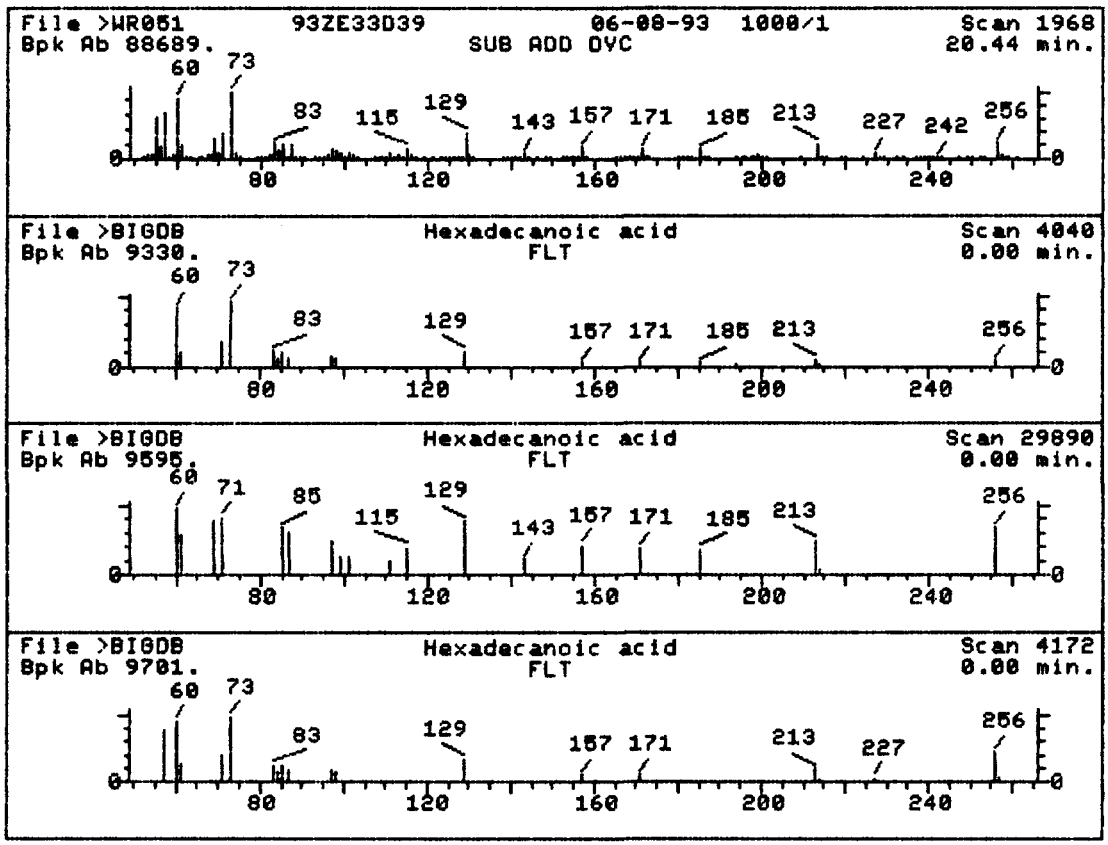
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	60*	3774525	36897	"BIGDB	28	98	3	0	92	11	30	13
2.	55*	934349	36894	"BIGDB	62	39	2	0	57	35	22	40
3.	34*	2634335	36895	"BIGDB	34	56	2	0	100	35	12	17
4.	25*	0	36878	"BIGDB	29	64	3	0	102	44	8	13
5.	20*	74630050	37002	"BIGDB	23	81	3	0	100	54	5	12
6.	15*	134203	37123	"BIGDB	22	32	3	0	108	58	3	12



UNKNOWN #,5
AREA = 813751.0 TENTATIVE CONCENTRATION IS 40.00

Sample file: >WR051 Spectrum #: 1729

No data base entries were retrieved.

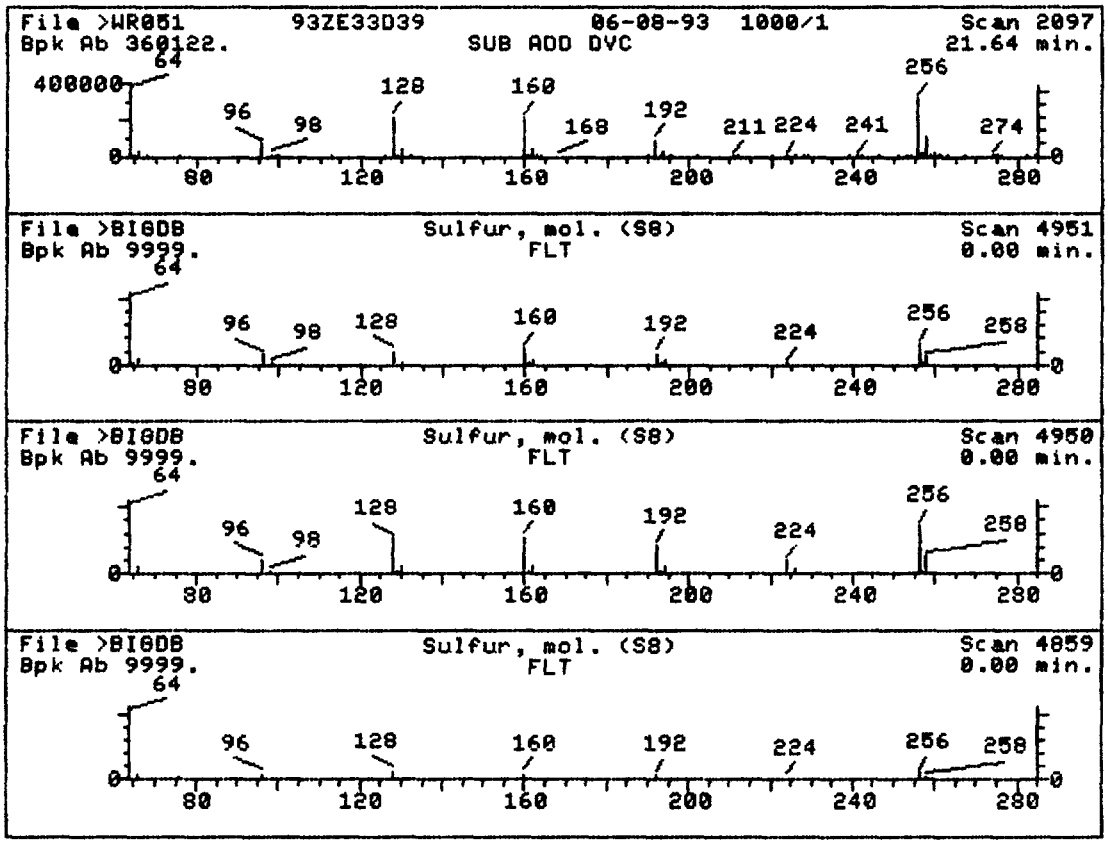


UNKNOWN #,6
AREA = 4521956. TENTATIVE CONCENTRATION IS 220.00

1.	Hexadecanoic acid	256	C16H32O2
2.	Hexadecanoic acid	256	C16H32O2
3.	Hexadecanoic acid	256	C16H32O2
4.	Hexadecanoic acid	256	C16H32O2
5.	Tridecanoic acid	214	C13H26O2
6.	Octadecanoic acid	284	C18H36O2
7.	Decanoic acid	172	C10H20O2

Sample file: >WR051 Spectrum #: 1968
Search speed: 1 Tilting option: S No. of ion ranges searched: 53

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	91*	57103	4040	"BIGDB	81	70	0	0	92	35	50	94
2.	90*	57103	29890	"BIGDB	129	37	1	0	31	42	43	99
3.	78*	57103	4172	"BIGDB	106	54	1	1	80	34	40	80
4.	57	57103	58376	"BIGDB	95	46	2	0	158	21	22	29
5.	43	638539	4169	"BIGDB	95	46	3	0	92	26	19	21
6.	42	57114	4177	"BIGDB	74	91	3	0	93	22	17	13



UNKNOWN #,7

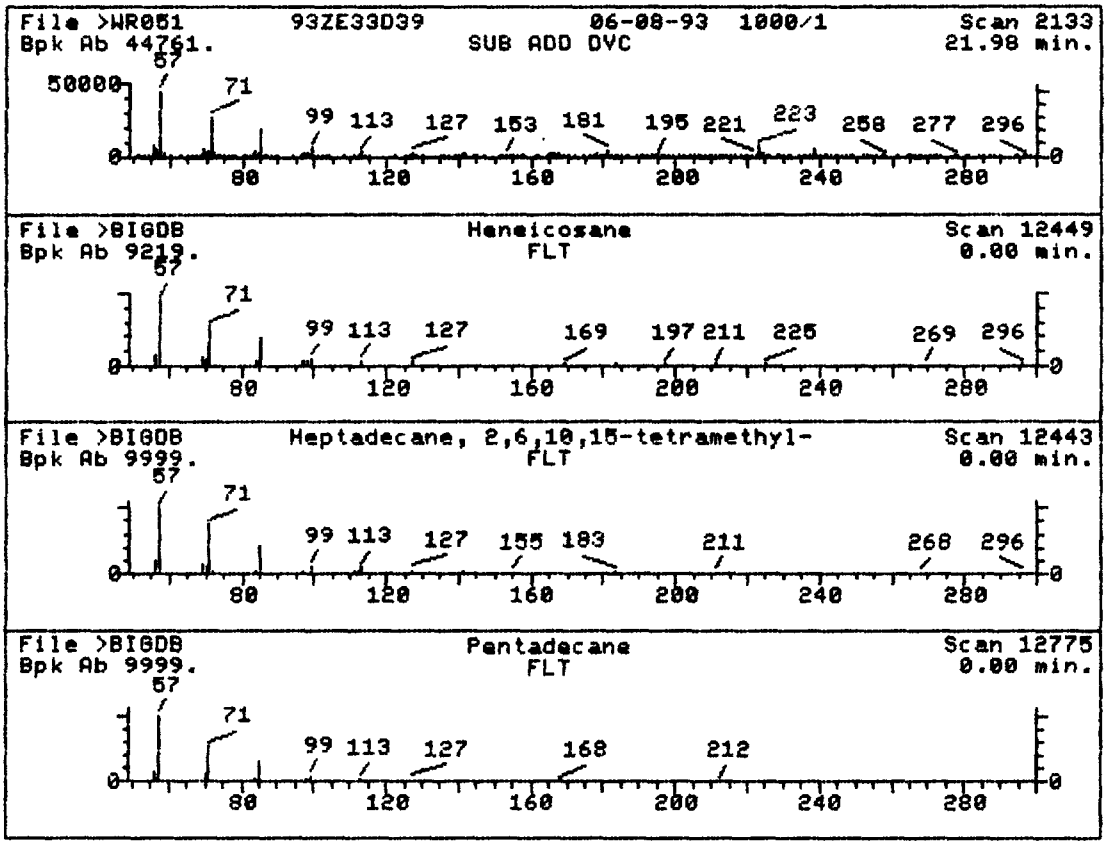
AREA = .10E+08 TENTATIVE CONCENTRATION IS 500.00

1. Sulfur, mol. (S8) 0
2. Sulfur, mol. (S8) 0
3. Sulfur, mol. (S8) 0

Sample file: >WR051 Spectrum #: 2097

Search speed: 1 Tilting option: S No. of ion ranges searched: 68

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	62*	10544500	4951	"BIGDB	71	53	1	-1	69	28	25	48
2.	40*	10544500	4950	"BIGDB	69	89	2	0	63	46	12	49
3.	15*	10544500	4859	"BIGDB	29	88	1	0	86	60	3	16



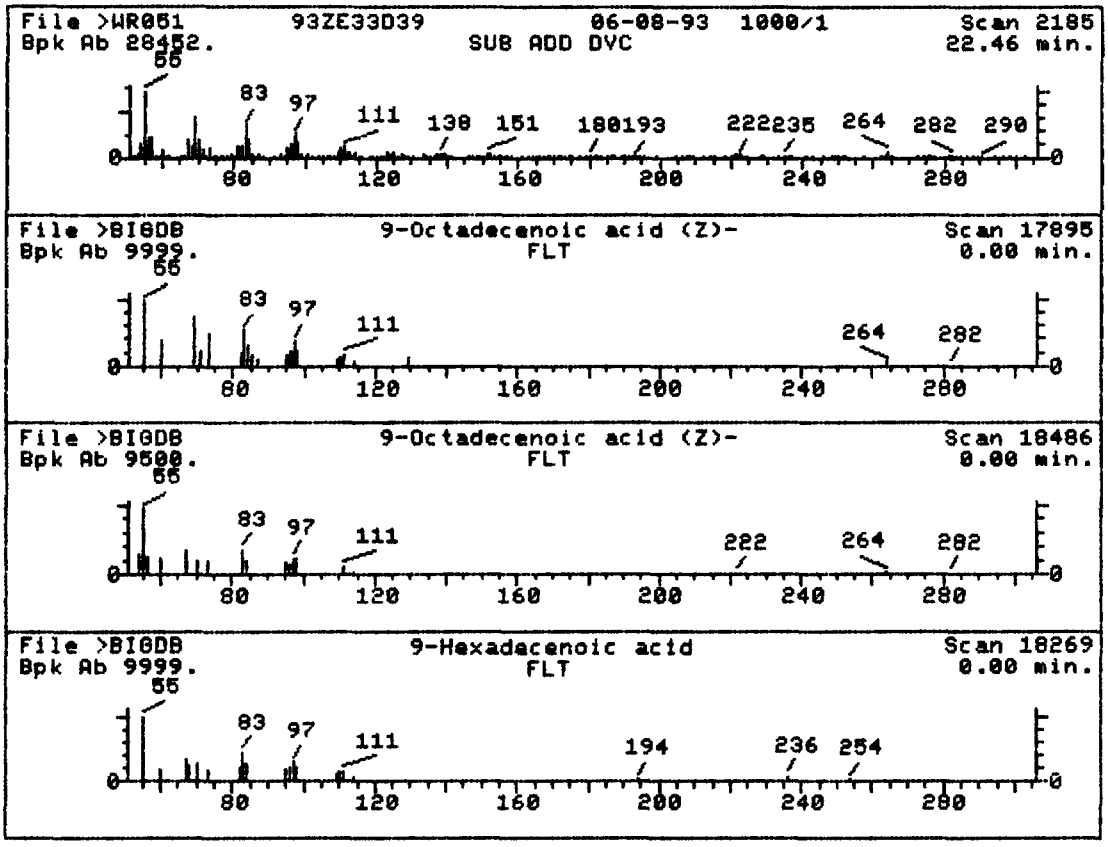
UNKNOWN #,8

AREA = 575037.0 TENTATIVE CONCENTRATION IS 28.00

1.	Heneicosane	296	C21H44
2.	Heptadecane, 2,6,10,15-tetramethyl-	296	C21H44
3.	Pentadecane	212	C15H32
4.	Heptacosane	380	C27H56
5.	Hexatriacontane	506	C36H74
6.	Eicosane	282	C20H42
7.	Nonadecane	268	C19H40

Sample file: >WR051 Spectrum #: 2133
Search speed: 1 Tilting option: S No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	629947	12449	"BIGDB	112	15	0	0	84	26	57	99
2.	94*	54833486	12443	"BIGDB	98	35	0	0	65	26	57	97
3.	92*	629629	12775	"BIGDB	79	27	0	0	98	28	57	94
4.	79	593497	12845	"BIGDB	123	4	1	0	92	28	43	80
5.	71	630068	12862	"BIGDB	123	30	2	0	77	28	29	60
6.	71	112958	12426	"BIGDB	109	19	1	0	89	28	29	67

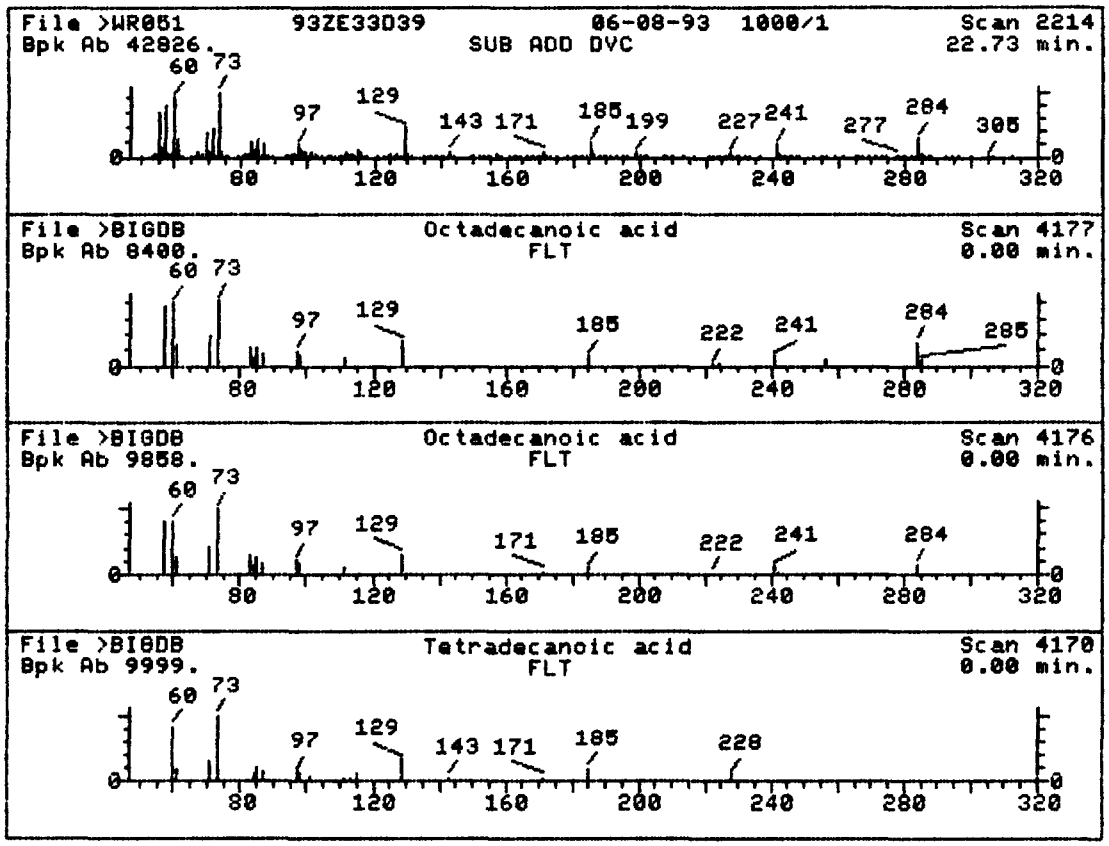


UNKNOWN #,9
AREA = 789792.0 TENTATIVE CONCENTRATION IS 39.00

1.	9-Octadecenoic acid (Z)-	282	C18H3402
2.	9-Octadecenoic acid (Z)-	282	C18H3402
3.	9-Hexadecenoic acid	254	C16H3002
4.	14-Pentadecenoic acid	240	C15H2802
5.	12-Octadecenoic acid, methyl ester	296	C19H3602
6.	11-Octadecenoic acid, methyl ester, (Z)-	296	C19H3602
7.	Oxacyclotetradecane-2,11-dione, 13-methyl-	240	C14H2403

Sample file: >WR051 Spectrum #: 2185
Search speed: 1 Tilting option: S No. of ion ranges searched: 65

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	75*	112801	17895	"BIGDB	99	71	3	0	88	17	35	63
2.	71*	112801	18486	"BIGDB	68	88	3	0	105	14	38	35
3.	68	2091294	18269	"BIGDB	126	31	2	-2	62	25	30	52
4.	68	17351347	17568	"BIGDB	124	34	2	2	92	25	30	53
5.	67	56554462	59482	"BIGDB	84	87	2	0	67	14	34	23
6.	60	1937639	59484	"BIGDB	77	96	2	0	63	14	30	19

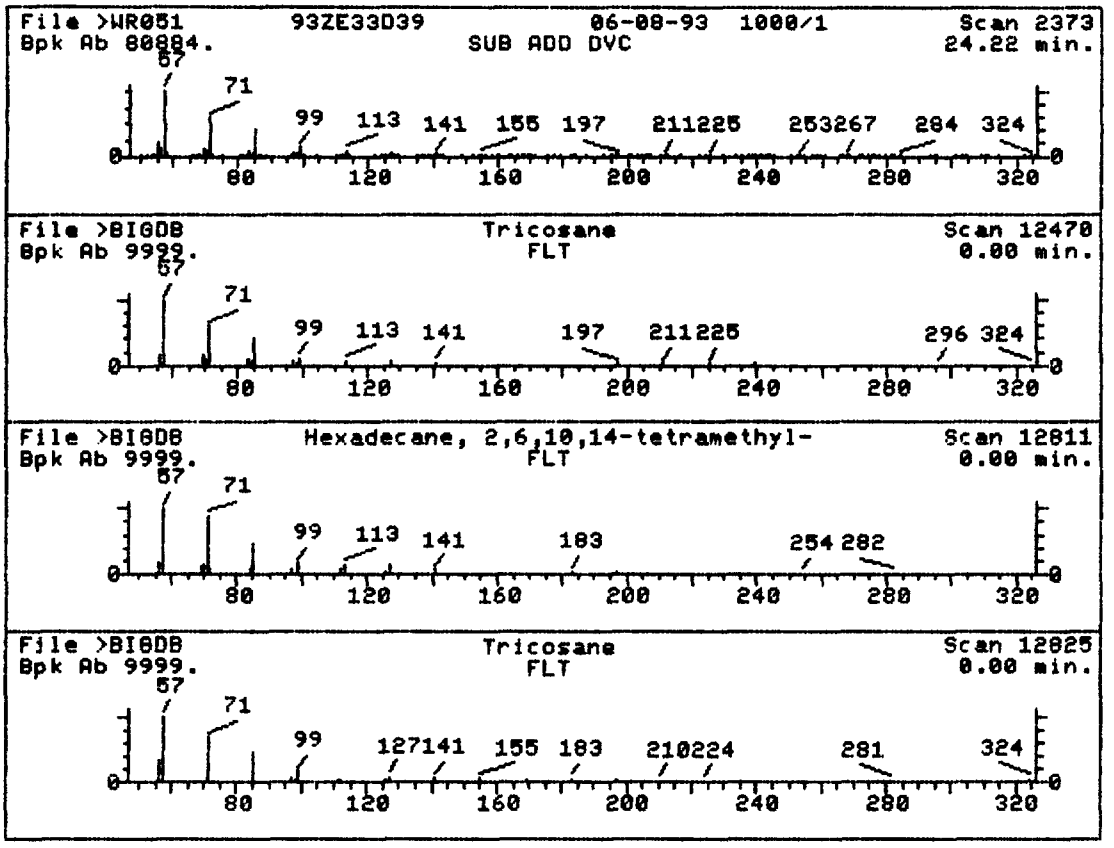


UNKNOWN #,10
AREA = 1256362. TENTATIVE CONCENTRATION IS 62.00

1. Octadecanoic acid	284	C18H36O2
2. Octadecanoic acid	284	C18H36O2
3. Tetradecanoic acid	228	C14H28O2
4. Octadecanoic acid	284	C18H36O2
5. Tetradecanoic acid	228	C14H28O2
6. Decanoic acid, silver(1+) salt	0	
7. Pentadecanoic acid	242	C15H30O2

Sample file: >WR051 Spectrum #: 2214
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	94*	57114	4177	"BIGDB	112	53	1	0	86	24	53	96
2.	93*	57114	4176	"BIGDB	98	67	0	0	78	32	50	97
3.	75	544638	4170	"BIGDB	118	24	1	0	100	26	37	73
4.	66*	57114	62077	"BIGDB	67	83	2	0	140	20	31	46
5.	65	544638	4034	"BIGDB	114	32	2	0	100	31	24	54
6.	57*	13126675	4046	"BIGDB	77	80	3	0	74	35	22	42

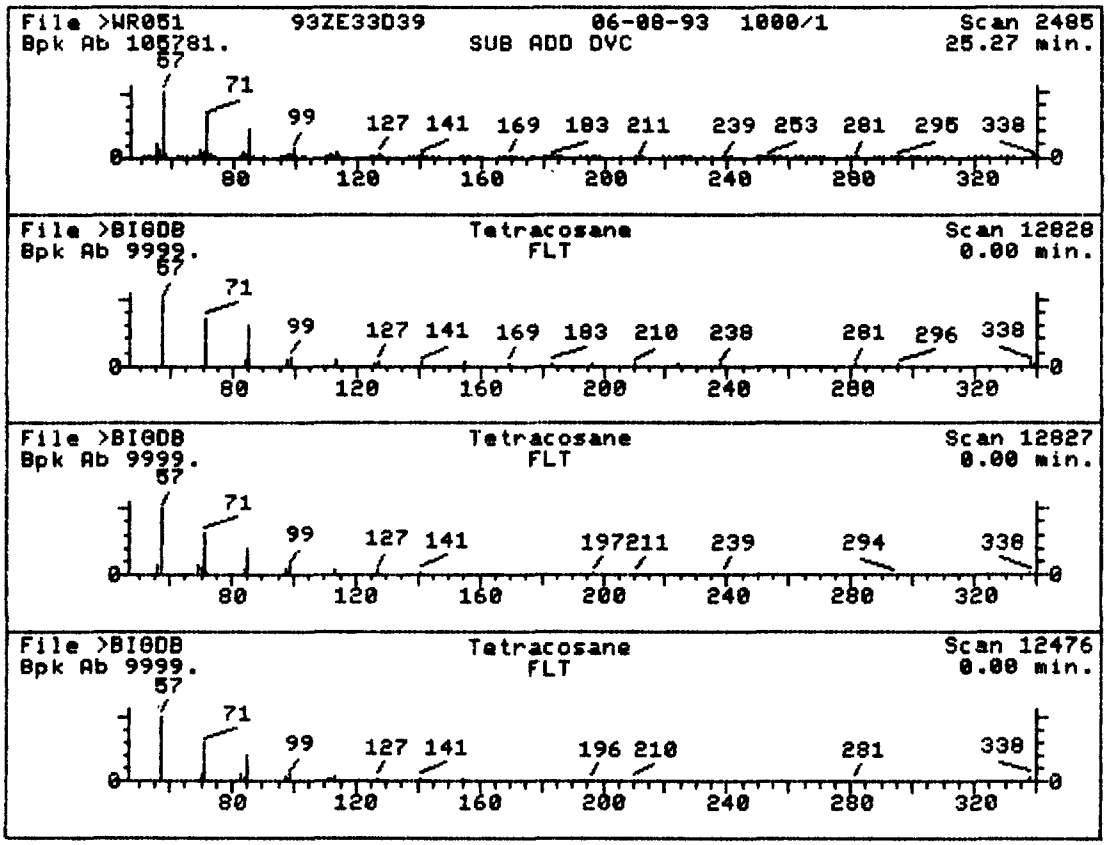


UNKNOWN #,11
AREA = 698804.0 TENTATIVE CONCENTRATION IS 25.00

1.	Tricosane	324	C23H48
2.	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42
3.	Tricosane	324	C23H48
4.	Nonacosane	408	C29H60
5.	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
6.	Heptacosane	380	C27H56
7.	Eicosane	282	C20H42

Sample file: >WR051 Spectrum #: 2373
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	638675	12470	"BIGDB	113	25	1	0	71	9	68	96
2.	89*	638368	12811	"BIGDB	73	39	0	0	43	32	50	92
3.	87*	638675	12825	"BIGDB	117	26	1	2	76	11	55	83
4.	84	630035	12850	"BIGDB	119	21	1	1	62	9	55	63
5.	83	74764117	12520	"BIGDB	131	6	1	1	89	11	51	74
6.	81	593497	12845	"BIGDB	118	9	1	0	92	16	45	76

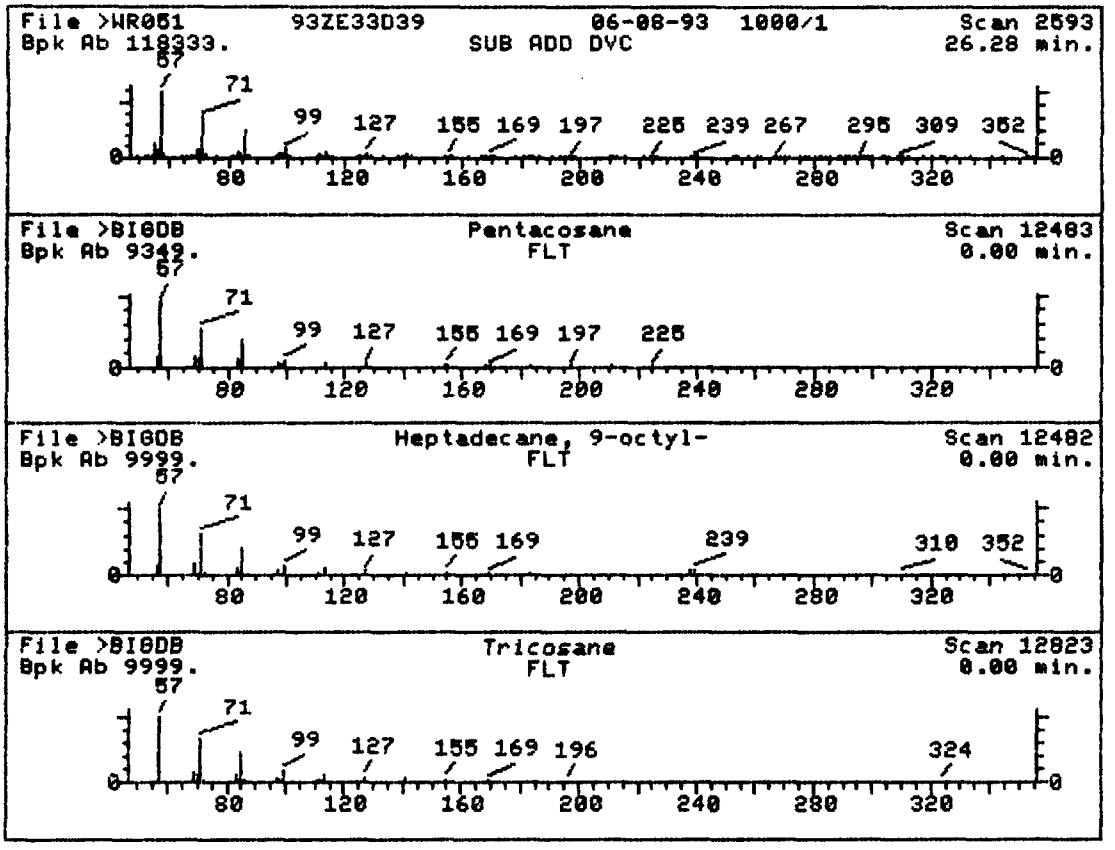


. UNKNOWN #,12
AREA = 1127302. TENTATIVE CONCENTRATION IS 40.00

1.	Tetracosane	338	C24H50
2.	Tetracosane	338	C24H50
3.	Tetracosane	338	C24H50
4.	Pentacosane	352	C25H52
5.	Pentacosane	352	C25H52
6.	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
7.	Heptacosane	380	C27H56

Sample file: >WR051 Spectrum #: 2485
Search speed: 1 Tilting option: S No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	93*	646311	12828	"BIGDB	113	31	1	1	58	4	68	80
2.	93*	646311	12827	"BIGDB	90	47	0	0	61	28	57	96
3.	89*	646311	12476	"BIGDB	124	18	0	2	87	8	62	86
4.	87	629992	12483	"BIGDB	118	26	0	0	74	13	55	80
5.	84	629992	12831	"BIGDB	133	19	1	2	89	10	55	69
6.	83	74764117	12520	"BIGDB	131	6	1	1	96	13	51	74

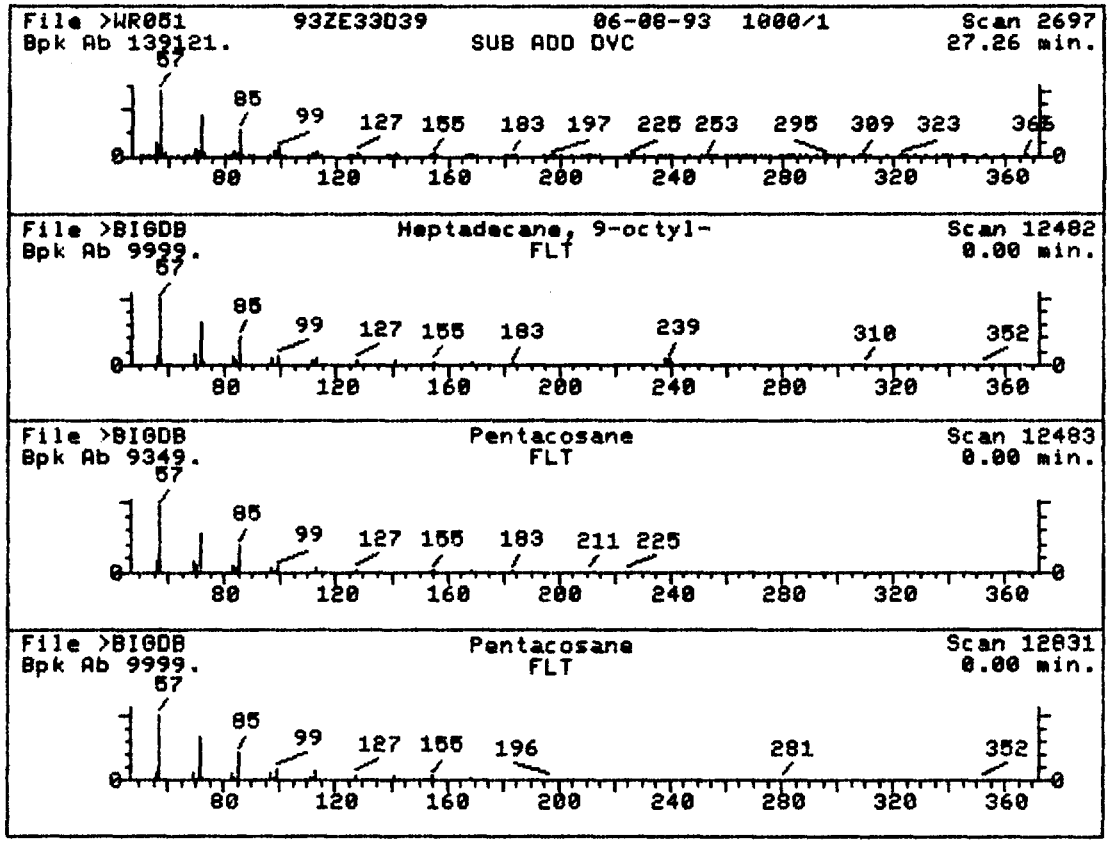


UNKNOWN #,13
AREA = 1024933. TENTATIVE CONCENTRATION IS 36.00

1.	Pentacosane	352	C25H52
2.	Heptadecane, 9-octyl-	352	C25H52
3.	Tricosane	324	C23H48
4.	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
5.	Heptacosane	380	C27H56
6.	Octacosane	394	C28H58
7.	Docosane	310	C22H46

Sample file: >WR051 Spectrum #: 2593
Search speed: 1 Tilting option: S No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	87	629992	12483	"BIGDB	127	17	0	0	76	13	55	89
2.	86*	7225641	12482	"BIGDB	102	41	2	0	67	10	59	78
3.	83	638675	12823	"BIGDB	137	8	1	1	80	13	51	73
4.	83	74764117	12520	"BIGDB	131	6	1	1	94	13	51	74
5.	83	593497	12845	"BIGDB	116	11	1	0	100	13	51	73
6.	83	630024	12848	"BIGDB	124	20	1	0	75	13	51	76



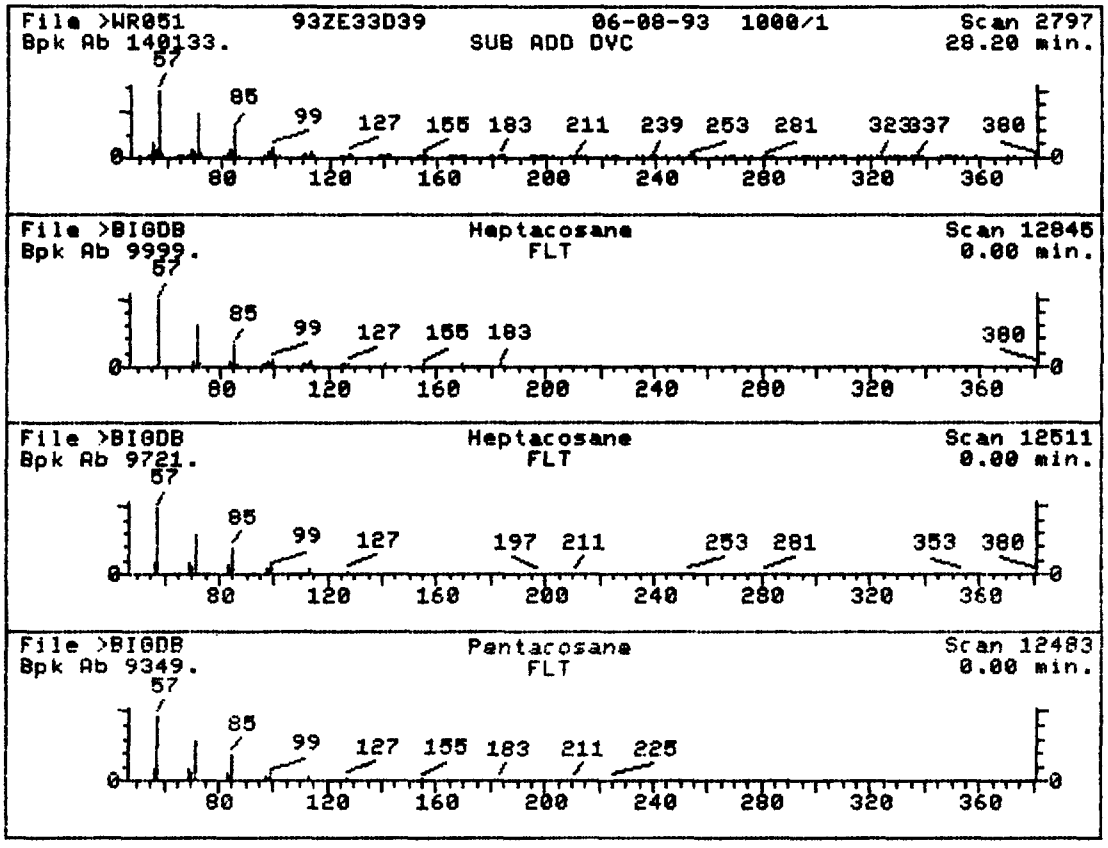
Hexacosane

UNKNOWN #,14
AREA = 1245857. TENTATIVE CONCENTRATION IS 44.00

1.	Heptadecane, 9-octyl-	352	C25H52
2.	Pentacosane	352	C25H52
3.	Pentacosane	352	C25H52
4.	Docosane, 11-butyl-	366	C26H54
5.	Docosane, 9-butyl-	366	C26H54
6.	Eicosane	282	C20H42
7.	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3

Sample file: >WR051 Spectrum #: 2697
Search speed: 1 Tilting option: S No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	93*	7225641	12482	"BIGDB	96	47	1	0	67	16	60	93
2.	86	629992	12483	"BIGDB	118	26	0	0	75	16	50	80
3.	83	629992	12831	"BIGDB	142	10	1	1	74	13	51	74
4.	83*	13475768	12836	"BIGDB	101	50	2	0	69	11	51	77
5.	83*	55282149	12837	"BIGDB	95	56	2	0	68	11	51	73
6.	81	112958	12814	"BIGDB	121	6	1	1	92	16	45	74

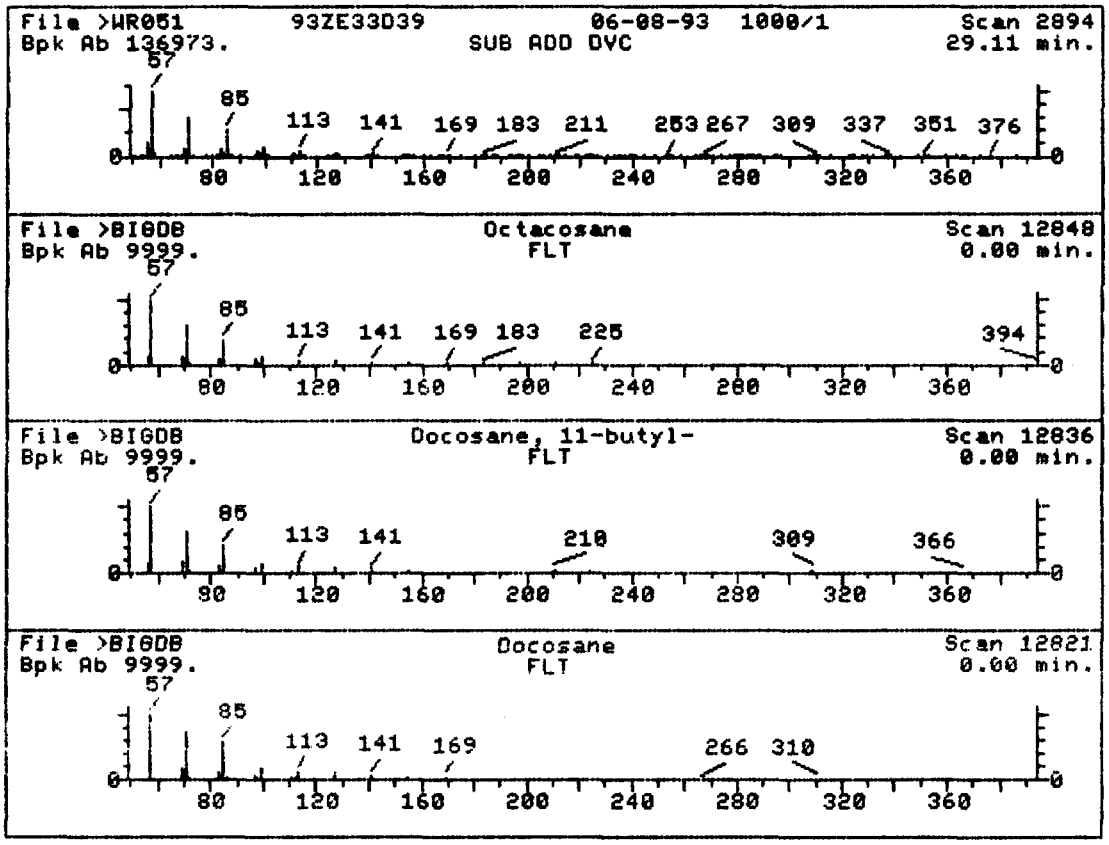


UNKNOWN #,15
AREA = 1432793. TENTATIVE CONCENTRATION IS 51.00

1.	Heptacosane	380	C27H56
2.	Heptacosane	380	C27H56
3.	Pentacosane	352	C25H52
4.	Nonacosane	408	C29H60
5.	Hentriacontane	436	C31H64
6.	Pentacosane	352	C25H52
7.	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3

Sample file: >WR051 Spectrum #: 2797
Search speed: 1 Tilting option: S No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	99*	593497	12845	"BIGDB	116	11	0	0	100	10	68	99
2.	95*	593497	12511	"BIGDB	102	42	1	0	75	10	68	95
3.	87	629992	12483	"BIGDB	127	17	0	0	80	13	55	89
4.	84	630035	12850	"BIGDB	129	11	1	1	95	10	55	69
5.	84	630046	12530	"BIGDB	130	17	1	1	93	10	55	67
6.	83	629992	12831	"BIGDB	142	10	1	1	76	13	51	74

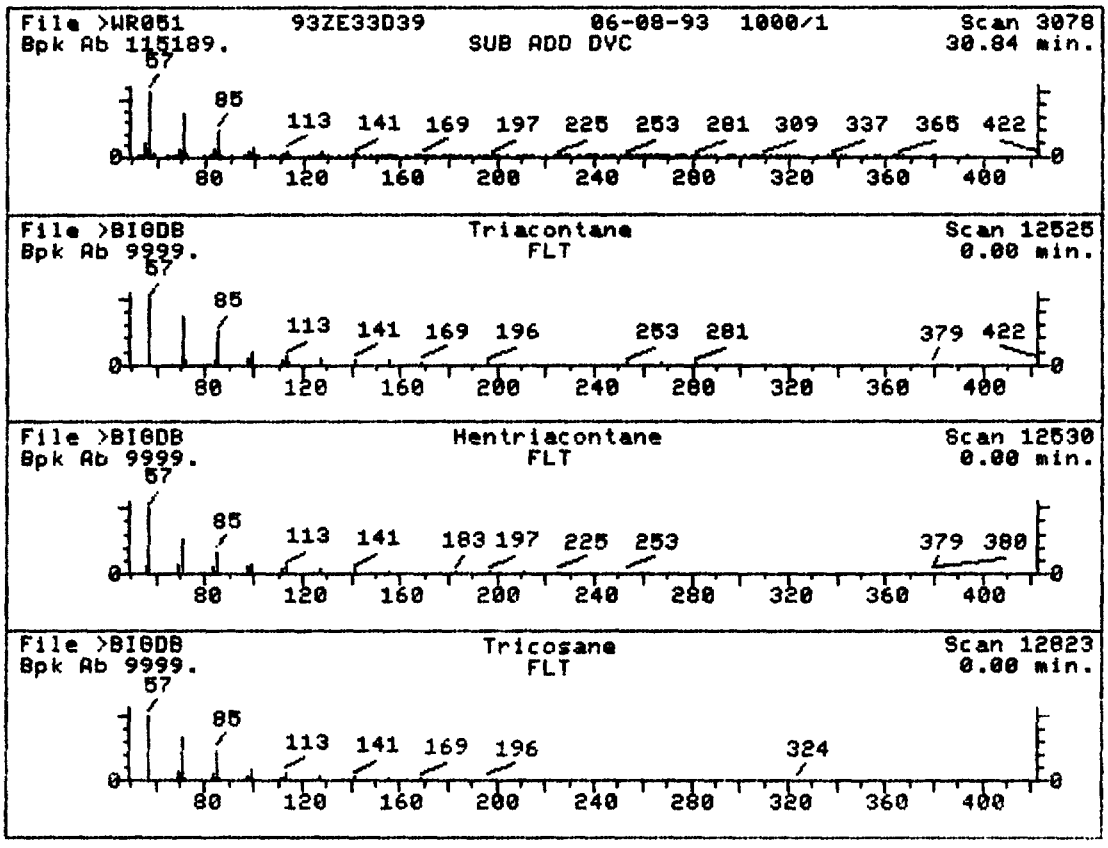


UNKNOWN #,16
AREA = 1390925. TENTATIVE CONCENTRATION IS 49.00

1.	Octacosane	394	C28H58
2.	Docosane, 11-butyl-	366	C26H54
3.	Docosane	310	C22H46
4.	Heptadecane, 9-octyl-	352	C25H52
5.	Docosane, 9-butyl-	366	C26H54
6.	Docosane, 7-hexyl-	394	C28H58
7.	Pentacosane	352	C25H52

Sample file: >WR051 Spectrum #: 2894
Search speed: 1 Tilting option: S No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	96*	630024	12848	"BIGDB	117	27	1	0	86	13	64	97
2.	94*	13475768	12836	"BIGDB	104	47	1	0	72	13	64	95
3.	86	629970	12821	"BIGDB	129	18	0	0	57	16	50	89
4.	86*	7225641	12482	"BIGDB	105	38	2	0	70	16	50	83
5.	83*	55282149	12837	"BIGDB	98	53	2	0	71	13	51	76
6.	83*	55373869	12847	"BIGDB	96	56	2	0	71	13	51	74

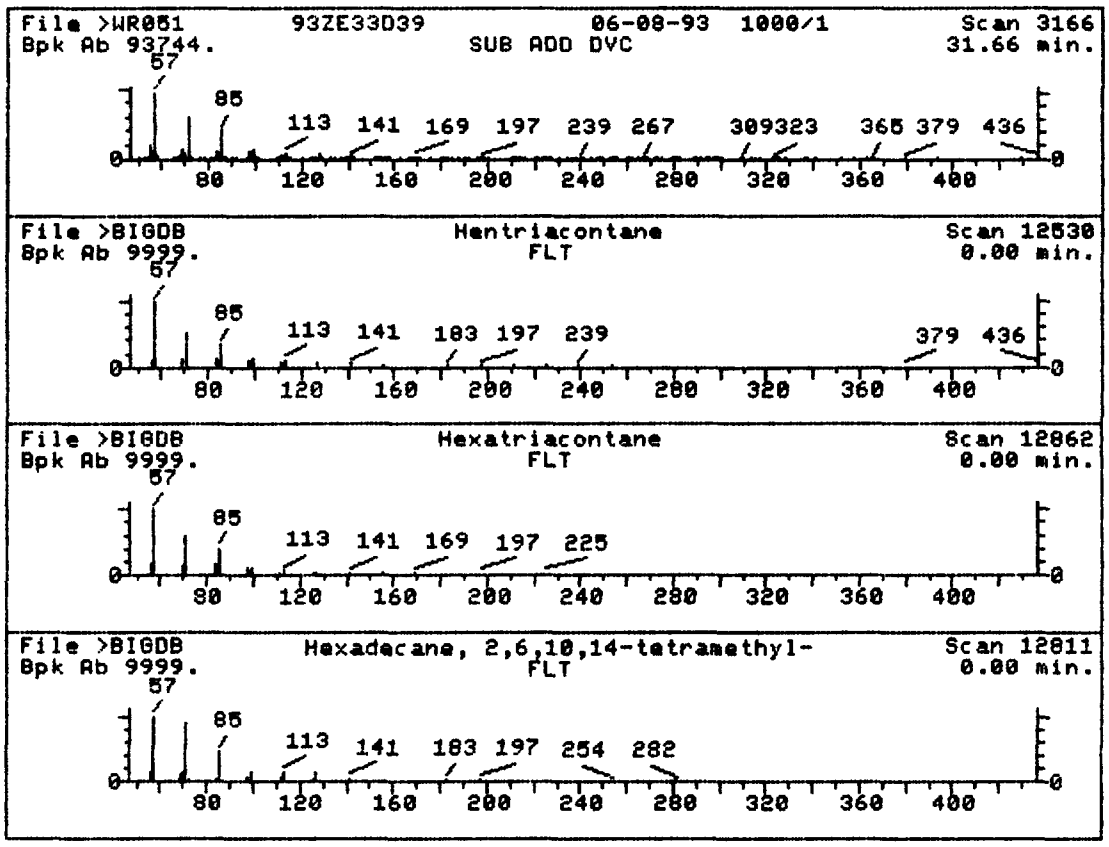


UNKNOWN #,17
AREA = 1418570. TENTATIVE CONCENTRATION IS 50.00

1.	Triacontane	422	C30H62
2.	Hentriacontane	436	C31H64
3.	Tricosane	324	C23H48
4.	Docosane	310	C22H46
5.	Pentacosane	352	C25H52
6.	Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
7.	Octacosane	394	C28H58

Sample file: >WR051 Spectrum #: 3078
Search speed: 1 Tilting option: S No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	86*	638686	12525	"BIGDB	130	22	1	2	94	17	50	86
2.	84	630046	12530	"BIGDB	132	15	1	1	100	10	55	69
3.	83	638675	12823	"BIGDB	138	7	1	2	93	13	51	73
4.	83	629970	12821	"BIGDB	138	9	1	1	73	13	51	73
5.	83	629992	12831	"BIGDB	140	12	1	2	99	13	51	74
6.	83	74764117	12520	"BIGDB	117	20	1	0	80	13	51	72

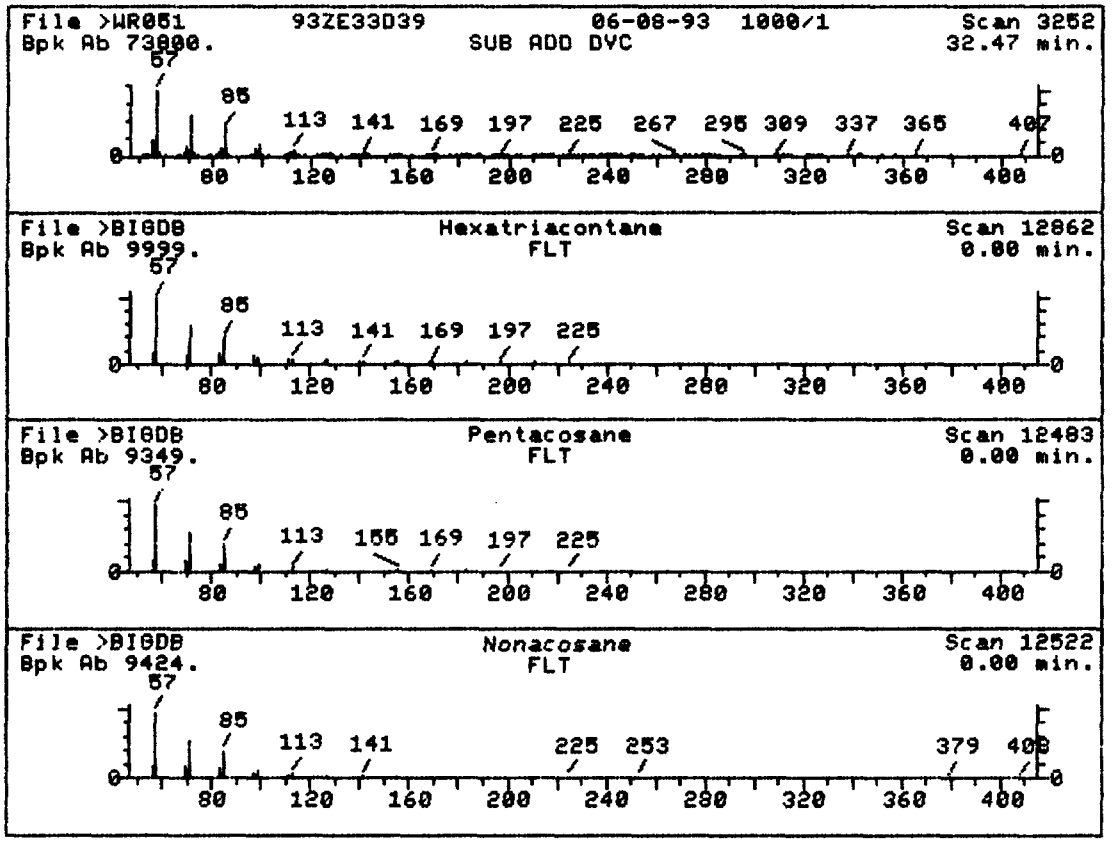


UNKNOWN #,18
AREA = 1090152. TENTATIVE CONCENTRATION IS 39.00

1.	Hentriacontane	436	C31H64
2.	Hexatriacontane	506	C36H74
3.	Hexadecane, 2,6,10,14-tetramethyl-	282	C20H42
4.	Docosane, 11-decyl-	450	C32H66
5.	Pentacosane	352	C25H52
6.	Nonacosane	408	C29H60
7.	Triacontane	422	C30H62

Sample file: >WR051 Spectrum #: 3166
Search speed: 1 Tilting option: S No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	93*	630046	12530	"BIGDB	111	36	1	0	76	26	57	96
2.	92	630068	12862	"BIGDB	132	21	0	0	74	13	64	92
3.	91*	638368	12811	"BIGDB	76	36	0	0	49	30	57	93
4.	87	55401553	12858	"BIGDB	134	14	1	0	74	13	55	83
5.	87	629992	12483	"BIGDB	127	17	0	0	82	13	55	89
6.	84	630035	12522	"BIGDB	110	35	1	0	81	10	55	67

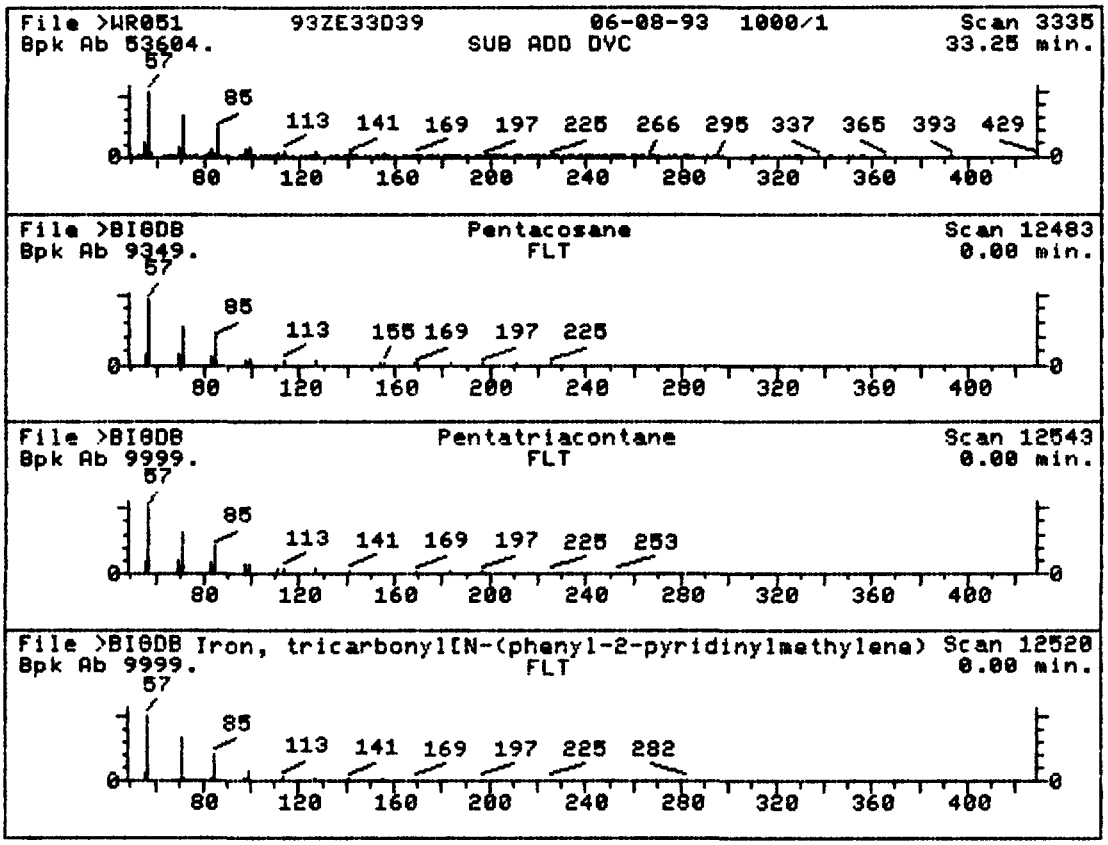


UNKNOWN #,19
AREA = 849960.0 TENTATIVE CONCENTRATION IS 30.00

1.	Hexatriacontane	506	C36H74
2.	Pentacosane	352	C25H52
3.	Nonacosane	408	C29H60
4.	Hexatriacontane	506	C36H74
5.	Hentriacontane	436	C31H64
6.	Hexatriacontane	506	C36H74
7.	Docosane	310	C22H46

Sample file: >WR051 Spectrum #: 3252
Search speed: 1 Tilting option: S No. of ion ranges searched: 54

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	86	630068	12862	"BIGDB	127	26	0	0	73	17	50	89
2.	86	629992	12483	"BIGDB	120	24	0	0	81	17	50	83
3.	86	630035	12522	"BIGDB	115	30	1	0	83	10	59	71
4.	86	630068	12547	"BIGDB	106	67	2	1	71	2	60	35
5.	84	630046	12530	"BIGDB	127	20	1	1	100	10	55	66
6.	84	630068	12861	"BIGDB	100	61	1	0	93	10	55	60



UNKNOWN #,20
AREA = 736681.0 TENTATIVE CONCENTRATION IS 26.00

1. Pentacosane	352	C25H52
2. Pentatriacontane	492	C35H72
3. Iron, tricarbonyl[N-(phenyl-2-pyridinylmethylene)benzenamine-N,N']-	398	C21H14FeN2O3
4. Eicosane	282	C20H42
5. Tricosane	324	C23H48
6. Octacosane	394	C28H58
7. Octadecane	254	C18H38

Sample file: >WR051 Spectrum #: 3335
Search speed: 1 Tilting option: S No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	87	629992	12483	"BIGDB	127	17	0	0	86	13	55	89
2.	83	630079	12543	"BIGDB	142	9	1	1	78	13	51	74
3.	83	74764117	12520	"BIGDB	125	12	1	0	82	13	51	77
4.	83	112958	12814	"BIGDB	115	12	1	0	82	13	51	71
5.	83	638675	12823	"BIGDB	123	22	1	0	69	13	51	76
6.	83	630024	12848	"BIGDB	122	22	1	0	85	13	51	74

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZF53S39D

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1191

Matrix: (soil/water) WATER Lab Sample ID: S39 2:1 DIL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR087

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: .50000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	J D
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	4.	U D
541-73-1	1,3-Dichlorobenzene	4.	U D
106-46-7	1,4-Dichlorobenzene	12.	D
100-51-6	Benzyl alcohol	4.	U D
95-50-1	1,2-Dichlorobenzene	5.	U D
95-48-7	2-Methylphenol	3.	D
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	26.	D
621-64-7	N-Nitroso-Di-n-propylamine	3.	U D
67-72-1	Hexachloroethane	4.	U D
98-95-3	Nitrobenzene	5.	U D
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	4.	U D
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	60.	U D
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	4.	U D
120-82-1	1,2,4-Trichlorobenzene	4.	U D
91-20-3	Naphthalene	15.	D
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	5.	U D
59-50-7	4-Chloro-3-methylphenol	2.	J D
91-57-6	2-Methylnaphthalene	1.	J D
77-47-4	Hexachlorocyclopentadiene	4.	U D
88-06-2	2,4,6-Trichlorophenol	3.	U D
95-95-4	2,4,5-Trichlorophenol	3.	U D
91-58-7	2-Chloronaphthalene	3.	U D
88-74-4	2-Nitroaniline	5.	U D
131-11-3	Dimethylphthalate	3.	U D
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	2.	U D

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZF53S39D

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1191

Matrix: (soil/water) WATER Lab Sample ID: S39 2:1 DIL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR087

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: .50000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	5.	U D
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	30.	U D
100-02-7	4-Nitrophenol	3.	U D
132-64-9	Dibenzofuran	2.	U D
121-14-2	2,4-Dinitrotoluene	2.	U D
84-66-2	Diethylphthalate	3.	D
7005-72-3	4-Chlorophenyl-phenylether	2.	U D
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	6.	U D
534-52-1	4,6-Dinitro-2-methylphenol	30.	U D
86-30-6	N-Nitrosodiphenylamine (1)	2.	J D
101-55-3	4-Bromophenyl-phenylether	3.	U D
118-74-1	Hexachlorobenzene	3.	U D
87-86-5	Pentachlorophenol	4.	U D
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	5.	U D
84-74-2	Di-n-butylphthalate	1.	J D
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	J D
56-55-3	Benzo(a)anthracene	3.	U D
218-01-9	Chrysene	3.	U D
117-81-7	bis(2-Ethylhexyl)phthalate	130.	BD
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	3.	U D
207-08-9	Benzo(k)fluoranthene	3.	U D
50-32-8	Benzo(a)pyrene	4.	U D
193-39-5	Indeno(1,2,3-cd)pyrene	7.	U D
53-70-3	Dibenzo(a,h)anthracene	5.	U D
191-24-2	Benzo(g,h,i)perylene	8.	U D

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

QUANT REPORT

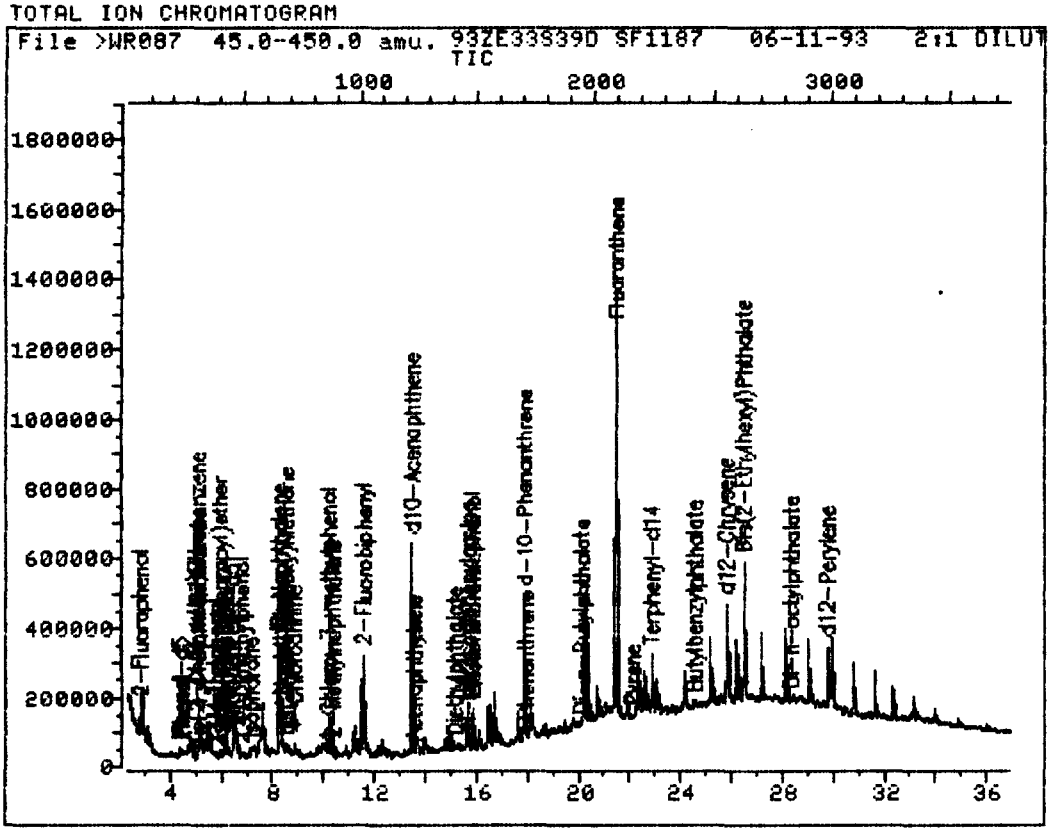
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930611 21:48
Output File: ^WR087::D3 Injected at: 930611 21:08
Data File: >WR087::D6 Dilution Factor: 2.00000
Name: 93ZE33S39D SF1187
Misc: 06-11-93 2:1 DILUTION BTL#26

ID File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.04	152.0	169042	50.00	NG/UL	95
2)	2-Fluorophenol	2.79	112.0	69395	34.45	NG/UL	94
3)	Phenol-d5	4.36	99.0	82821	33.50	NG/UL	78
4)	Phenol	4.39	94.0	5178	2.14	NG/UL	66
5)	~~bis(2-Chloroethyl)Ether~~	~~4.99~~	~~93.0~~	~~1101~~	~~.41~~	~~NG/UL~~	~~98~~
8)	1,4-Dichlorobenzene	5.08	146.0	33073	11.60	NG/UL	90
11)	2-Methylphenol	5.73	108.0	6248	3.07	NG/UL	97
12)	~~bis(2-Chloroisopropyl)ether~~	~~5.93~~	~~121.0~~	~~1075~~	~~3.18~~	~~NG/UL~~	~~66~~
13)	4-Methylphenol	6.14	108.0	57490	26.22	NG/UL	96
16)	d8-Naphthalene	8.22	136.0	632339	85.31	NG/UL	85
17)	Nitrobenzene-d5	6.36	82.0	81698	38.66	NG/UL	90
19)	~~Isophorone~~	~~7.14~~	~~82.0~~	~~6999~~	~~1.53~~	~~NG/UL~~	~~81~~
21)	~~2,4-Dimethylphenol~~	~~6.77~~	~~122.0~~	~~1534~~	~~.77~~	~~NG/UL~~	~~74~~
23)	~~bis(2-Chloroethoxy)Methane~~	~~8.58~~	~~93.0~~	~~2933~~	~~1.01~~	~~NG/UL~~	~~95~~
26)	Naphthalene	8.29	128.0	115487	15.23	NG/UL	94
27)	~~4-Chloroaniline~~	~~8.83~~	~~127.0~~	~~3358~~	~~1.16~~	~~NG/UL~~	~~70~~
29)	4-Chloro-3-methylphenol	10.15	107.0	3459	1.68	NG/UL	95
30)	2-Methylnaphthalene	10.32	142.0	7033	1.37	NG/UL	96
31)	d10-Acenaphthene	13.41	164.0	307218	76.06	NG/UL	96
36)	2-Fluorobiphenyl	11.53	172.0	242774	41.27	NG/UL	96
39)	*d-10-Phenanthrene	17.85	188.0	457556	50.00	NG/UL	98
40)	~~Acenaphthylene~~	~~13.49~~	~~152.0~~	~~1218~~	~~.21~~	~~NG/UL~~	~~86~~
42)	~~Acenaphthene~~	~~13.49~~	~~153.0~~	~~2964~~	~~.80~~	~~NG/UL~~	~~85~~
48)	Diethylphthalate	15.10	149.0	10211	2.55	NG/UL	96
50)	~~Fluorene~~	~~15.80~~	~~166.0~~	~~2976~~	~~.77~~	~~NG/UL~~	~~82~~
53)	N-Nitrosodiphenylamine	15.62	169.0	4888	1.99	NG/UL	90
54)	2,4,6-Tribromophenol	15.80	329.9	43712	71.97	NG/UL	96
58)	~~Phenanthrene~~	~~17.90~~	~~178.0~~	~~5312~~	~~1.01~~	~~NG/UL~~	~~86~~
60)	Di-n-Butylphthalate	20.08	149.0	6398	.96	NG/UL	88
61)	~~Fluoranthene~~	~~21.45~~	~~202.0~~	~~2074~~	~~.38~~	~~NG/UL~~	~~72~~
62)	d12-Chrysene	25.75	240.0	353188	103.58	NG/UL	98
63)	~~Pyrene~~	~~22.07~~	~~202.0~~	~~2481~~	~~.44~~	~~NG/UL~~	~~88~~
64)	Terphenyl-d14	22.82	244.0	178870	48.60	NG/UL	97
65)	Butylbenzylphthalate	24.51	149.0	10382	4.46	NG/UL	77
67)	Bis(2-Ethylhexyl)Phthalate	26.42	149.0	405538	128.88	NG/UL	92
69)	*d12-Perylene	29.71	264.0	255716	50.00	NG/UL	97
70)	~~Di-n-octylphthalate~~	~~28.50~~	~~149.0~~	~~6917~~	~~1.13~~	~~NG/UL~~	~~94~~

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >WR087::D6 Quant Output File: ^WR087::D3
Name: 93ZE33S39D SF1187
Misc: 06-11-93 2:1 DILUTION BTL#26

Id File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

Operator ID: MANAGER
Quant Time: 930611 21:48
Injected at: 930611 21:08

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZF53D39D

Site Name: HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1191

Matrix: (soil/water) WATER Lab Sample ID: D39 2:1 DIL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR088

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: .50000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	7.	D
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	4.	U D
541-73-1	1,3-Dichlorobenzene	4.	U D
106-46-7	1,4-Dichlorobenzene	13.	D
100-51-6	Benzyl alcohol	4.	U D
95-50-1	1,2-Dichlorobenzene	5.	U D
95-48-7	2-Methylphenol	4.	D
39638-32-9	bis(2-chloroisopropyl)ether	5.	U D
106-44-5	4-Methylphenol	33.	D
621-64-7	N-Nitroso-Di-n-propylamine	3.	U D
67-72-1	Hexachloroethane	4.	U D
98-95-3	Nitrobenzene	5.	U D
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	4.	U D
65-85-0	Benzoic acid	60.	U D
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	4.	U D
120-82-1	1,2,4-Trichlorobenzene	4.	U D
91-20-3	Naphthalene	16.	D
106-47-8	4-Chloroaniline	4.	U D
87-68-3	Hexachlorobutadiene	5.	U D
59-50-7	4-Chloro-3-methylphenol	2.	J D
91-57-6	2-Methylnaphthalene	2.	J D
77-47-4	Hexachlorocyclopentadiene	4.	U D
88-06-2	2,4,6-Trichlorophenol	3.	U D
95-95-4	2,4,5-Trichlorophenol	3.	U D
91-58-7	2-Chloronaphthalene	3.	U D
88-74-4	2-Nitroaniline	5.	U D
131-11-3	Dimethylphthalate	3.	U D
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	2.	U D

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZF53D39D

Site Name: HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1191

Matrix: (soil/water) WATER Lab Sample ID: D39 2:1 DIL

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR088

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: .50000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	5.	U D
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	30.	U D
100-02-7	4-Nitrophenol	3.	U D
132-64-9	Dibenzofuran	2.	U D
121-14-2	2,4-Dinitrotoluene	2.	U D
84-66-2	Diethylphthalate	3.	D
7005-72-3	4-Chlorophenyl-phenylether	2.	U D
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	6.	U D
534-52-1	4,6-Dinitro-2-methylphenol	30.	U D
86-30-6	N-Nitrosodiphenylamine (1)	2.	J D
101-55-3	4-Bromophenyl-phenylether	3.	U D
118-74-1	Hexachlorobenzene	3.	U D
87-86-5	Pentachlorophenol	4.	U D
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	5.	U D
84-74-2	Di-n-butylphthalate	1.	J D
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	5.	J D
56-55-3	Benzo(a)anthracene	3.	U D
218-01-9	Chrysene	3.	U D
117-81-7	bis(2-Ethylhexyl)phthalate	190.	BD
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	3.	U D
207-08-9	Benzo(k)fluoranthene	3.	U D
50-32-8	Benzo(a)pyrene	4.	U D
193-39-5	Indeno(1,2,3-cd)pyrene	7.	U D
53-70-3	Dibenzo(a,h)anthracene	5.	U D
191-24-2	Benzo(g,h,i)perylene	8.	U D

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

QUANT REPORT

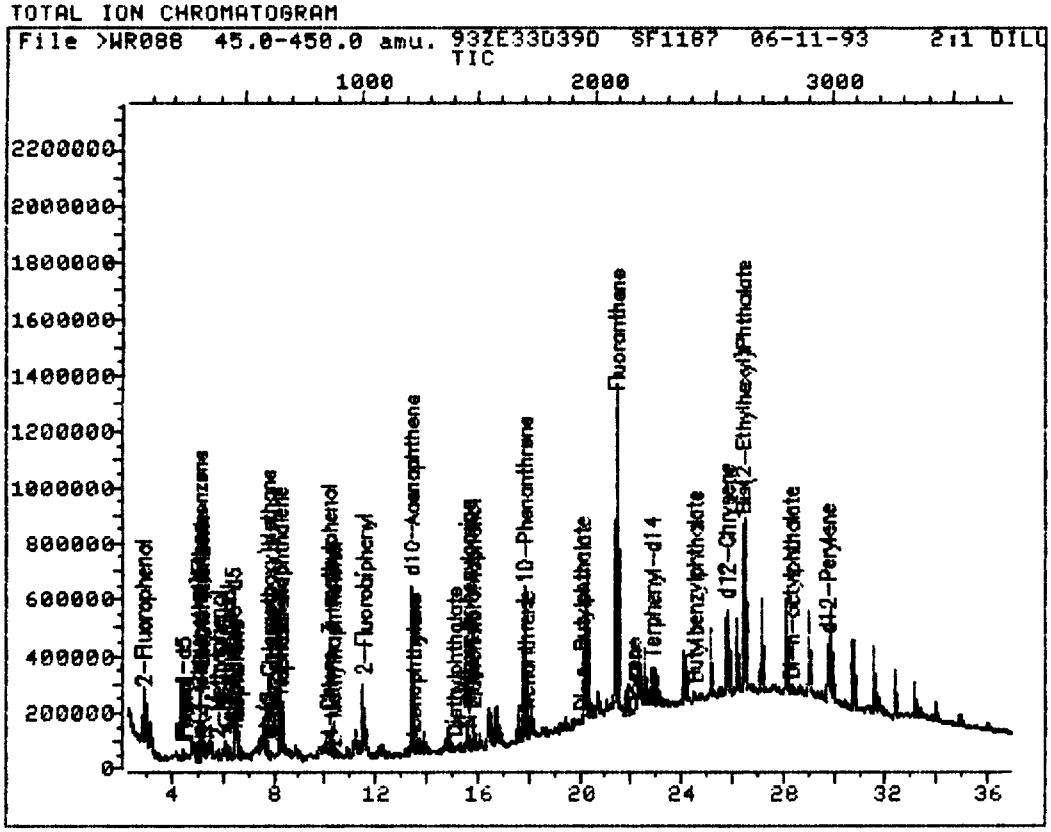
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930611 22:34
Output File: ^WR088::D3 Injected at: 930611 21:54
Data File: >WR088::D6 Dilution Factor: 2.00000
Name: 93ZE33D39D SF1187
Misc: 06-11-93 2:1 DILUTION BTL#27

ID File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.08	152.0	164017	50.00	NG/UL	96
2)	2-Fluorophenol	2.85	112.0	86170	44.09	NG/UL	78
3)	Phenol-d5	4.41	99.0	94682	39.47	NG/UL	77
4)	Phenol	4.43	94.0	16930	7.22	NG/UL	81
5)	bis(2-Chloroethyl)Ether	5.01	93.0	1411	.54	NG/UL	89
8)	1,4-Dichlorobenzene	5.10	146.0	34608	12.51	NG/UL	93
11)	2-Methylphenol	5.76	108.0	8527	4.32	NG/UL	95
13)	4-Methylphenol	6.16	108.0	69866	32.84	NG/UL	92
16)	d8-Naphthalene	8.22	136.0	634049	88.16	NG/UL	85
17)	Nitrobenzene-d5	6.36	82.0	77633	37.86	NG/UL	90
19)	Isophorone	6.50	82.0	9239	2.09	NG/UL	82
20)	2-Nitrophenol	7.95	139.0	3497	2.37	NG/UL	74
23)	bis(2-Chloroethoxy)Methane	7.75	93.0	3357	1.19	NG/UL	86
26)	Naphthalene	8.28	128.0	116109	15.78	NG/UL	94
29)	4-Chloro-3-methylphenol	10.15	107.0	4211	2.11	NG/UL	86
30)	2-Methylnaphthalene	10.31	142.0	8223	1.65	NG/UL	89
31)	d10-Acenaphthene	13.39	164.0	319364	81.49	NG/UL	96
36)	2-Fluorobiphenyl	11.52	172.0	201751	35.35	NG/UL	96
39)	*d-10-Phenanthrene	17.81	188.0	463497	50.00	NG/UL	97
40)	Acenaphthylene	13.47	152.0	1744	.30	NG/UL	63
42)	Acenaphthene	13.47	153.0	2943	.78	NG/UL	98
48)	Diethylphthalate	15.07	149.0	11712	2.89	NG/UL	92
50)	Fluorene	15.78	166.0	3607	.92	NG/UL	85
53)	N-Nitrosodiphenylamine	15.58	169.0	5135	2.07	NG/UL	93
54)	2,4,6-Tribromophenol	15.77	329.9	41847	68.02	NG/UL	96
58)	Phenanthrene	17.88	178.0	5792	1.09	NG/UL	95
60)	Di-n-Butylphthalate	20.07	149.0	8902	1.32	NG/UL	96
61)	Fluoranthene	21.43	202.0	3087	.56	NG/UL	84
62)	d12-Chrysene	25.75	240.0	350819	101.57	NG/UL	96
63)	Pyrene	22.07	202.0	1942	.35	NG/UL	47
64)	Terphenyl-d14	22.81	244.0	158761	42.59	NG/UL	98
65)	Butylbenzylphthalate	24.50	149.0	12307	5.22	NG/UL	82
67)	Bis(2-Ethylhexyl)Phthalate	26.41	149.0	613621M	192.51	NG/UL	92
69)	*d12-Perylene	29.71	264.0	282328	50.00	NG/UL	94
70)	Di-n-octylphthalate	28.30	149.0	9265	1.37	NG/UL	92

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >WR088::D6 Quant Output File: ^WR088::D3
Name: 93ZE33D39D SF1187
Misc: 06-11-93 2:1 DILUTION BTL#27

Id File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

Operator ID: MANAGER
Quant Time: 930611 22:34
Injected at: 930611 21:54

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S38MS

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S38MS

Sample wt/vol: 960 (g/mL) mL Lab File ID: >WR052

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	24.	
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	55.	
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	25.	
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	48.	
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	31.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	26.	
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	59.	
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S38MS

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S38MS

Sample wt/vol: 960 (g/mL) mL Lab File ID: >WR052

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	32.	
51-28-5	2,4-Dinitrophenol	16.	U
100-02-7	4-Nitrophenol	20.	
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	35.	
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	16.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	51.	
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	41.	
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1.	JB
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 11:50
Output File: ^WR052::D3 Injected at: 930609 06:51
Data File: >WR052::D6 Dilution Factor: 1.00000
Name: 93ZE33S38MS
Misc: 06-08-93 960/1 BTL#16

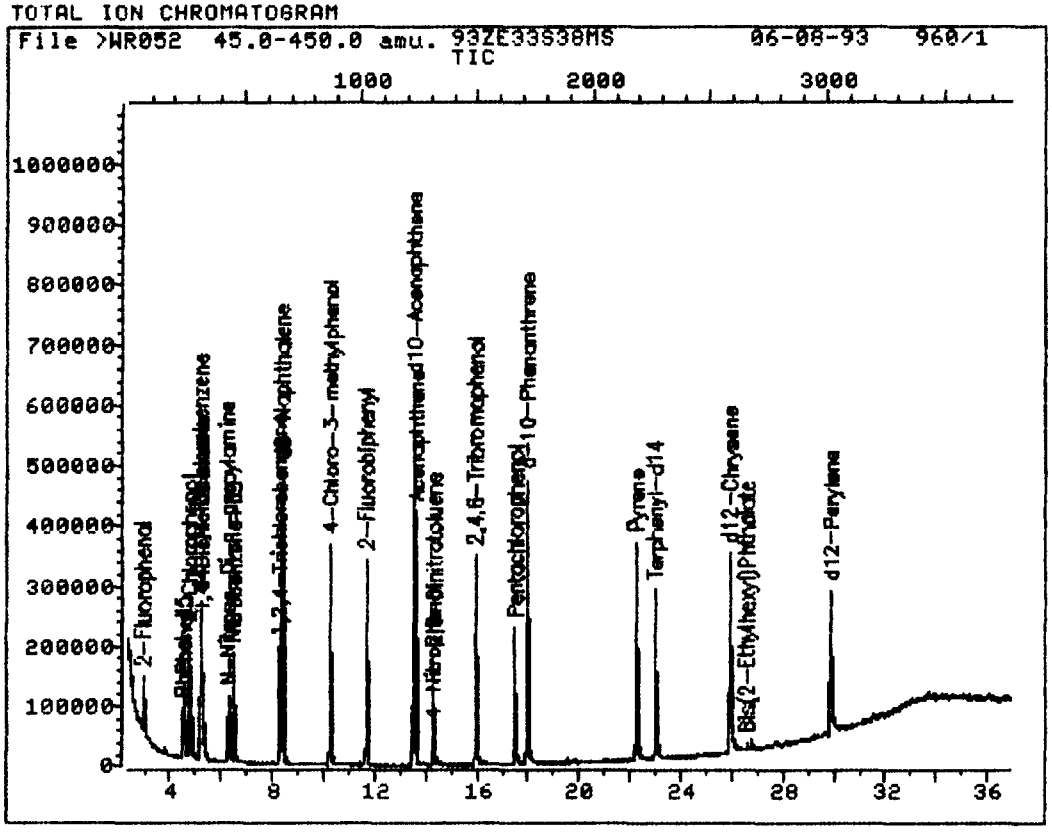
ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.15	152.0	181583	50.00	NG/UL	95
2)	2-Fluorophenol	2.90	112.0	137290	31.52	NG/UL	92
3)	Phenol-d5	4.47	99.0	120298	23.82	NG/UL	82
4)	Phenol	4.50	94.0	118094	22.65	NG/UL	73
6)	2-Chlorophenol	4.71	128.0	249290	53.14	NG/UL	97
8)	1,4-Dichlorobenzene	5.19	146.0	137732	24.43	NG/UL	94
14)	N-Nitroso-Di-n-propylamine	6.21	70.0	143279	45.75	NG/UL	92
16)	d8-Naphthalene	8.33	136.0	702322	51.44	NG/UL	86
17)	Nitrobenzene-d5	6.46	82.0	156014	37.41	NG/UL	91
25)	1,2,4-Trichlorobenzene	8.21	180.0	125356	24.73	NG/UL	92
29)	4-Chloro-3-methylphenol	10.23	107.0	214710	56.93	NG/UL	46
31)	d10-Acenaphthene	13.51	164.0	356208	49.78	NG/UL	95
36)	2-Fluorobiphenyl	11.62	172.0	285584	26.92	NG/UL	95
39)	*d-10-Phenanthrene	17.94	188.0	498169	50.00	NG/UL	98
42)	Acenaphthene	13.59	153.0	258239	31.09	NG/UL	96
44)	4-Nitrophenol	14.24	109.0	8232	19.62	NG/UL	74
~~47)~~ 44	2,~~4~~-Dinitrotoluene	14.27	165.0	88873	33.68	NG/UL	83
54)	2,4,6-Tribromophenol	15.89	329.9	139707	69.49	NG/UL	98
57)	Pentachlorophenol	17.46	265.8	87850	48.55	NG/UL	97
62)	d12-Chrysene	25.88	240.0	406910	47.66	NG/UL	98
63)	Pyrene	22.20	202.0	478355	39.28	NG/UL	97
64)	Terphenyl-d14	22.95	244.0	357618	38.05	NG/UL	95
67)	Bis(2-Ethylhexyl)Phthalate	26.54	149.0	9594	1.38	NG/UL	95
69)	*d12-Perylene	29.85	264.0	336259	50.00	NG/UL	96

* Compound is ISTD

RWW 6-28-93

TOTAL ION CHROMATOGRAM



Data File: >WR052::D6 Quant Output File: ^WR052::D3
Name: 93ZE33S38MS
Misc: 06-08-93 960/1 BTL#16

Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 11:50
Injected at: 930609 06:51

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S38MD

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S38MD

Sample wt/vol: 980 (g/mL) mL Lab File ID: >WR053

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	14.	
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	55.	
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	38.	
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	47.	
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	31.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	40.	
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	53.	
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S38MD

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: SF1187 SAS No.: ------- SDG No.: -------

Matrix: (soil/water) WATER Lab Sample ID: 93ZE33S38MD

Sample wt/vol: 980 (g/mL) mL Lab File ID: >WR053

Level: (low/med) LOW Date Received: 05/14/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/19/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/09/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	43.	
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	24.	
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	39.	
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	41.	
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	48.	
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	3.	B
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

QUANT REPORT

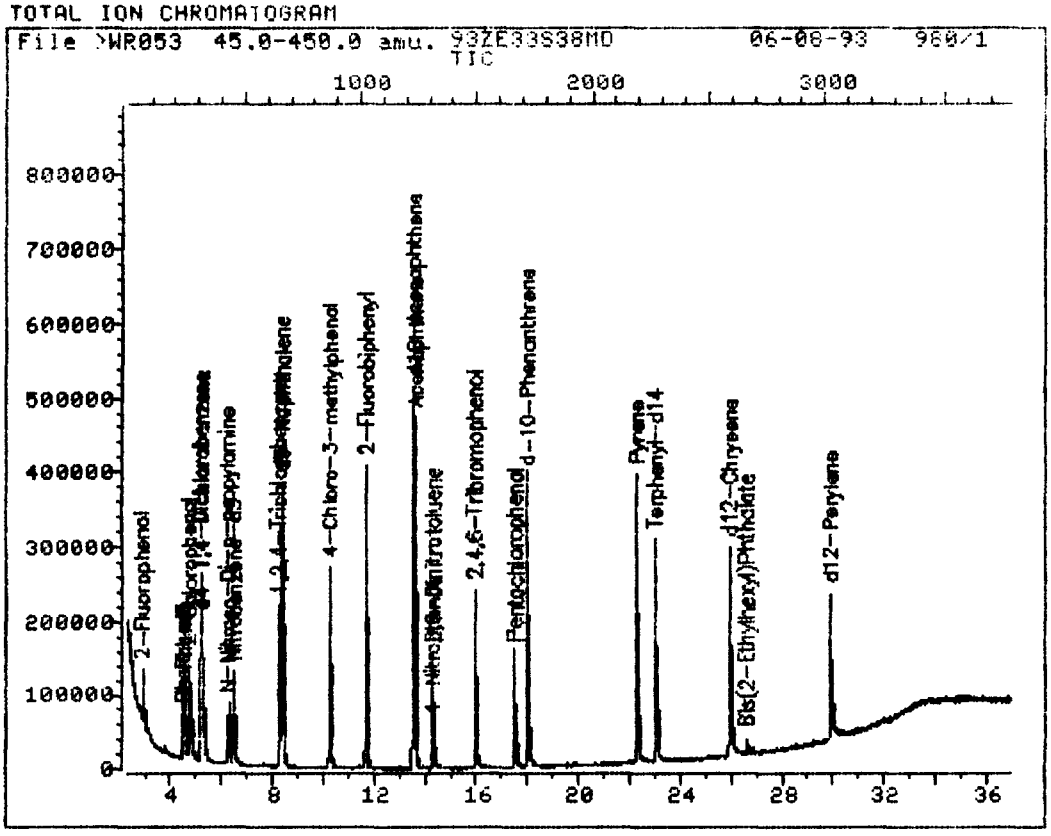
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 11:55
Output File: ^WR053::D3 Injected at: 930609 07:38
Data File: >WR053::D6 Dilution Factor: 1.00000
Name: 93ZE33S38MD
Misc: 06-08-93 980/1 BTL#17

ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.15	152.0	162482	50.00	NG/UL	95
2)	2-Fluorophenol	2.86	112.0	157312	40.36	NG/UL	88
3)	Phenol-d5	4.45	99.0	134029	29.65	NG/UL	83
4)	Phenol	4.48	94.0	62618	13.42	NG/UL	79
6)	2-Chlorophenol	4.69	128.0	226138	53.88	NG/UL	95
8)	1,4-Dichlorobenzene	5.17	146.0	189430	37.55	NG/UL	94
14)	N-Nitroso-Di-n-propylamine	6.20	70.0	130350	46.51	NG/UL	88
16)	d8-Naphthalene	8.33	136.0	605403	49.55	NG/UL	85
17)	Nitrobenzene-d5	6.45	82.0	148567	39.81	NG/UL	92
25)	1,2,4-Trichlorobenzene	8.21	180.0	177137	39.06	NG/UL	94
29)	4-Chloro-3-methylphenol	10.23	107.0	174499	51.71	NG/UL	52
31)	d10-Acenaphthene	13.51	164.0	301551	47.10	NG/UL	95
36)	2-Fluorobiphenyl	11.63	172.0	352223	37.11	NG/UL	95
39)	*d-10-Phenanthrene	17.96	188.0	435587	50.00	NG/UL	98
42)	Acenaphthene	13.60	153.0	303762	41.83	NG/UL	95
44)	4-Nitrophenol	14.25	109.0	8790	23.96	NG/UL	82
47)	2,4-Dinitrotoluene	14.28	165.0	88350	38.29	NG/UL	84
54)	2,4,6-Tribromophenol	15.90	329.9	100141	56.96	NG/UL	96
57)	Pentachlorophenol	17.47	265.8	63507	40.14	NG/UL	99
62)	d12-Chrysene	25.90	240.0	398932	53.44	NG/UL	96
63)	Pyrene	22.22	202.0	503071	47.24	NG/UL	97
64)	Terphenyl-d14	22.97	244.0	352723	42.92	NG/UL	96
67)	Bis(2-Ethylhexyl)Phthalate	26.56	149.0	15496	2.54	NG/UL	96
69)	*d12-Perylene	29.86	264.0	290805	50.00	NG/UL	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: 93ZE33S38MD
Misc: 06-08-93 980/1 BTL#17

Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 11:55
Injected at: 930609 07:38

MGR : BLIST,BARW37

4 & 5
5 of 5. Results

Sequence File: BARW37::SC

Tune File: MT5996

CR List: D6,D4
CR Cut-off: 5000 blocks.

Number of samples: 22

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                                                  Report Data Archive
                                                 Quant | | ID Archive
                                       Sample Size | | | | Output Archive
                                          Bottle | | | | | |
Samp Data File     Sample Name                  | | | | | | |     Quant ID
 No. Method File   Misc Data                    | | | | | | |     Quant Output
---- ------------ ------------------------- ---------------- ------------
001) >WR037        ABNST10525  100 STD       01 1 Y M N N N     IDRW37::SC
     TOXIC6        06-08-93                     Dil=1.00000     ^WR037::D3
     REPRT OPTIONS: BG Sub, Scale time: 2.500, Qion replaces Scan#
     REPRT OPTIONS: Omit types:IS
002) >WR038        ABNST20525   50 STD       02 1 Y M N N N     IDRW37::SC
     TOXIC6        06-08-93                     Dil=1.00000     ^WR038::D3
     REPRT OPTIONS: BG Sub, Scale time: 2.500, Qion replaces Scan#
     REPRT OPTIONS: Omit types:IS
003) >WR039        ABNST30525   25 STD       03 1 Y M N N N     IDRW37::SC
     TOXIC6        06-08-93                     Dil=1.00000     ^WR039::D3
     REPRT OPTIONS: BG Sub, Scale time: 2.500, Qion replaces Scan#
     REPRT OPTIONS: Omit types:IS
004) >WR040        CAL CHK 50   12-92        04 1 Y M N N N     IDRW37::SC
     TOXIC6        06-08-93                     Dil=1.00000     ^WR040::D3
     REPRT OPTIONS: BG Sub, Scale time: 2.500, Qion replaces Scan#
     REPRT OPTIONS: Omit types:IS
005) >WR041        ABNBL10519   MB           05 1 Y E N N N     IDRW37::SC
     TOXIC6        06-08-93                     Dil=1.00000     ^WR041::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
006) >WR042        93ZE06R60    FB           06 1 Y E N N N     IDRW37::SC
     TOXIC6        06-08-93                     Dil=1.00000     ^WR042::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
007) >WR043        93ZE06R62    FB           07 1 Y E N N N     IDRW37::SC
     TOXIC6        06-08-93                     Dil=1.00000     ^WR043::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
008) >WR044        93ZE06R64    FB           08 1 Y E N N N     IDRW37::SC
     TOXIC6        06-08-93                     Dil=1.00000     ^WR044::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
009) >WR045        93ZE33S36                 09 1 Y E N N N     IDRW37::SC
     TOXIC6        06-08-93   970/1             Dil=1.00000     ^WR045::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
010) >WR046        93ZE33S37                 10 1 Y E N N N     IDRW37::SC
     TOXIC6        06-08-93  1000/1             Dil=1.00000     ^WR046::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
011) >WR047        93ZE33D37                 11 1 Y E N N N     IDRW37::SC
     TOXIC6        06-08-93  1050/1             Dil=1.00000     ^WR047::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
012) >WR048        93ZE33S38                 12 1 Y E N N N     IDRW37::SC
     TOXIC6        06-08-93   980/1             Dil=1.00000     ^WR048::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
013) >WR049        93ZE33D38                 13 1 Y E N N N     IDRW37::SC
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     TOXIC6        06-08-93  1020/1              Dil=1.00000     ^WR049::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
014) >WR050        93ZE33S39                  14 1 Y E N N N     IDRW37::SC
     TOXIC6        06-08-93  1030/1              Dil=1.00000     ^WR050::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
015) >WR051        93ZE33D39                  15 1 Y E N N N     IDRW37::SC
     TOXIC6        06-08-93  1000/1              Dil=1.00000     ^WR051::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
016) >WR052        93ZE33S38MS                16 1 Y M N N N     IDRW37::SC
     TOXIC6        06-08-93   960/1              Dil=1.00000     ^WR052::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
017) >WR053        93ZE33S38MD                17 1 Y M N N N     IDRW37::SC
     TOXIC6        06-08-93   980/1              Dil=1.00000     ^WR053::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
018) >WR054        ABNST40525  10 STD         18 1 Y M N N N     IDRW37::SC
     TOXIC6        06-08-93                      Dil=1.00000     ^WR054::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
019) >WR055        ABNST50525   5 STD         19 1 Y M N N N     IDRW37::SC
     TOXIC6        06-08-93                      Dil=1.00000     ^WR055::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
020) >WR056        93005S01R   QB3FY93        20 1 Y E N N N     IDRW37::SC
     TOXIC6        06-08-93                      Dil=1.00000     ^WR056::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
021) >WR057        93005D01R   QB3FY93        21 1 Y E N N N     IDRW37::SC
     TOXIC6        06-08-93                      Dil=1.00000     ^WR057::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS
022) >WR058        93005MBR    QB3FY93        22 1 Y E N N N     IDRW37::SC
     TOXIC6        06-08-93                      Dil=1.00000     ^WR058::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:IS

End of sequence file.
```

GC/MS Top Level. Select softkey...

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

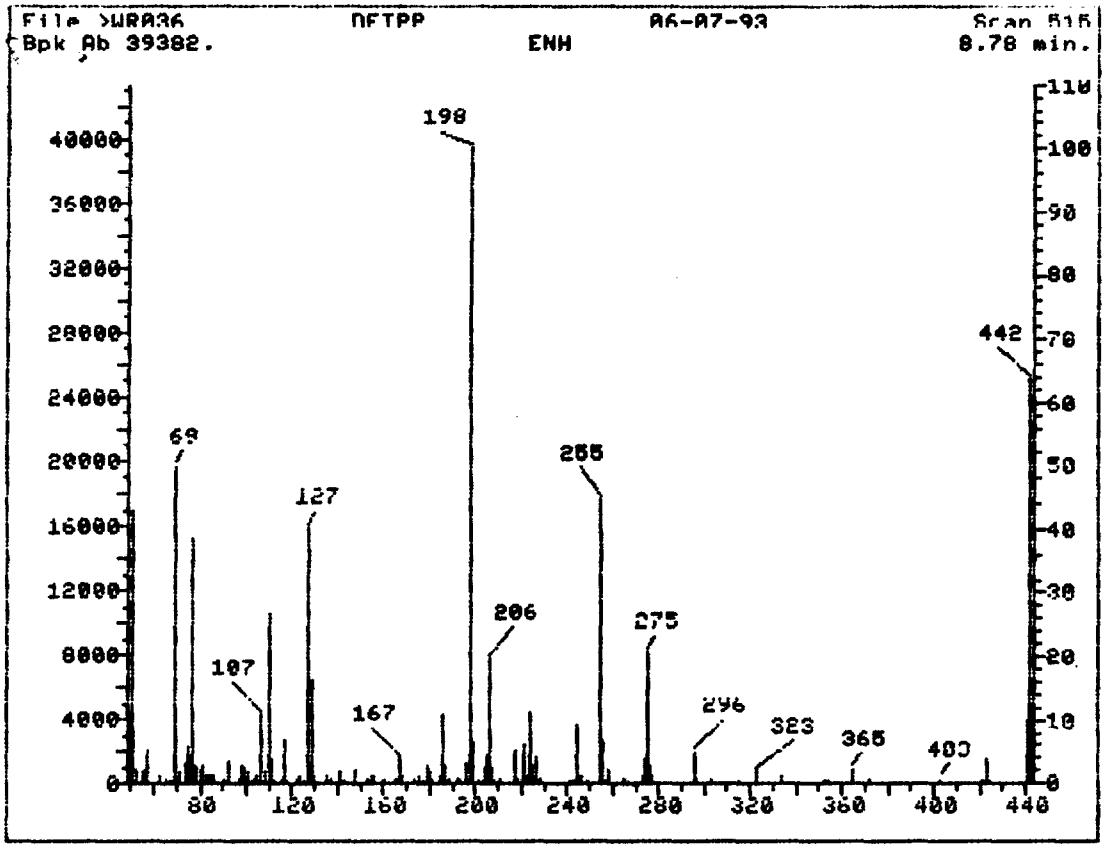
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	42.96	42.96	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	49.82	49.82	Ok
70	Less than 2% of mass 69	.65	1.30	Ok
127	40-60% of mass 198	40.27	40.27	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.45	6.45	Ok
275	10-30% of mass 198	20.62	20.62	Ok
365	Greater than 1% of mass 198	2.13	2.13	Ok
441	0-100% of mass 443	9.93	84.63	Ok
442	Greater than 40% of mass 198	63.50	63.50	Ok
443	17-23% of mass 442	11.73	18.48	Ok

Injection Date: 06/08/93
Injection Time: 17:57
Data File: >WR036
Scan: 515

MS data file header from : >WR036

Sample: DFTPP Operator: MANAGER SUPER GRP. 6/08/93 17:57
Misc : 06-07-93 BTL# 1
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: DFTPP Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	150.	250.	0.	0.	0.
Chromatographic times, min. :	1.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0



MS data file header from : >WR036

Sample: DFTPP Operator: MANAGER SUPER GRP. 6/08/93 17:57
Misc : 06-07-93 BTL# 1
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: DFTPP Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	150.	250.	0.	0.	0.
Chromatographic times, min. :	1.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

>WR036 DFTPP 06-07-93
515 ENH

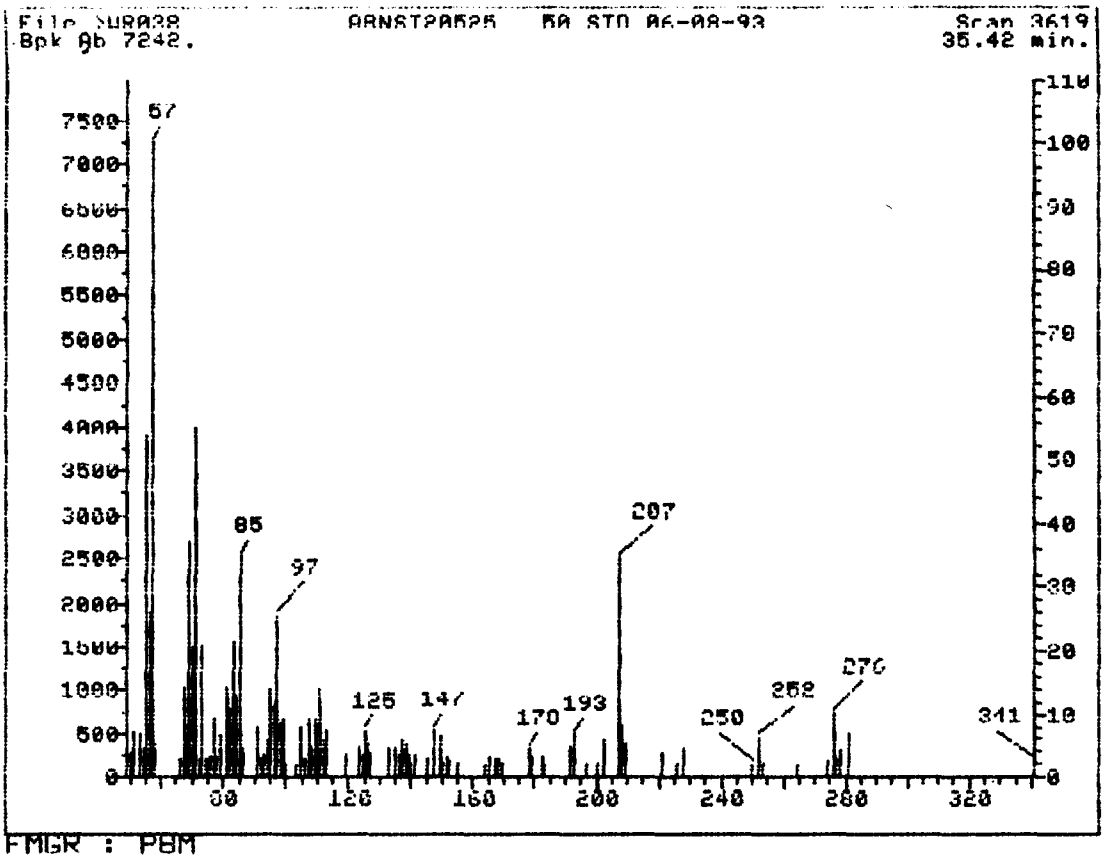
File: >WR036 Scan #: 515 Retn. time: 8.78

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
49.00	775.5	97.05	297.0	155.00	436.0	205.00	1822.3	265.85	32.3
50.00	4121.8	97.85	1095.0	156.00	570.0	206.00	7705.3	272.95	564.5
51.00	16919.3	99.05	1013.5	157.00	42.3	207.00	937.8	274.05	1449.3
52.10	881.8	100.05	210.5	157.90	40.8	208.00	226.3	275.05	8119.3
55.10	654.8	100.95	645.0	160.00	164.3	210.60	184.8	276.05	1038.5
56.00	769.3	103.05	217.5	161.00	352.0	211.10	238.8	276.95	578.8
57.00	2228.0	103.95	269.0	164.90	248.3	216.00	97.3	292.90	74.5
61.00	98.8	104.95	438.8	166.00	255.5	216.95	1988.8	295.90	1928.8
63.10	546.3	106.95	4239.8	167.00	1490.5	217.95	271.8	296.90	241.0
65.10	337.0	107.95	667.8	168.00	586.8	221.05	2382.3	303.00	233.5
67.00	128.0	109.95	10567.8	171.90	43.3	222.95	482.0	314.90	186.3
69.00	19620.8	111.05	1481.5	174.00	343.5	224.05	4364.5	316.00	89.8
70.10	254.8	111.95	159.8	175.00	524.5	224.95	1102.8	323.00	680.0
71.10	666.3	116.05	258.8	177.00	207.5	226.05	99.0	326.90	77.0
74.00	1259.0	116.95	2636.5	178.90	1078.8	226.95	1615.0	334.00	425.3
75.00	2243.8	117.95	110.8	180.00	739.8	227.95	228.3	335.00	81.5
76.10	714.8	121.95	247.8	181.00	358.0	228.95	348.0	345.85	91.0
77.00	15224.3	123.05	489.3	185.00	565.0	230.95	100.5	352.05	175.3
78.00	1057.3	125.05	214.0	186.00	4328.0	236.95	35.3	352.95	131.3
79.00	984.8	127.05	15858.5	187.00	1155.8	241.85	188.5	354.05	151.8
80.00	773.0	128.05	1219.8	188.00	39.3	242.85	219.0	364.95	837.0
81.00	1150.8	128.95	6378.0	188.90	233.5	243.95	3609.8	365.95	45.5
82.10	407.0	129.95	565.5	192.00	243.0	245.05	479.0	372.05	335.5
83.10	560.3	134.95	489.3	193.00	355.8	246.05	592.3	402.05	77.3
84.00	513.8	137.05	271.3	195.90	1194.0	246.95	75.0	402.90	206.5
85.10	549.3	141.05	707.8	198.00	39382.1	248.95	113.3	421.10	116.5
85.90	539.8	142.05	203.5	198.90	2538.3	255.05	17575.5	423.00	1456.5
87.10	86.8	142.95	166.8	200.00	95.8	255.95	2561.8	424.00	197.3
91.00	276.3	147.05	380.0	201.30	181.3	256.95	194.5	441.00	3910.5
92.00	230.8	147.95	782.0	201.50	112.3	257.95	861.5	442.00	25008.6
93.00	1406.3	152.95	239.8	203.00	165.3	259.05	42.5	443.00	4620.5
94.95	89.8	154.05	112.3	204.10	1012.3	264.95	280.8	444.00	434.5
95.95	86.3								

MS data file header from : >WR036

Sample: DFTPP Operator: MANAGER SUPER GRP. 6/08/93 17:57
Misc : 06-07-93 BTL# 1
Sys. #: 1 MS model: 96 SW/HW rev.: 1A ALS # : 0
Method file: DFTPP Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	150.	250.	0.	0.	0.
Chromatographic times, min. :	1.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0



Sample file: >WR038 Spectrum #: 3619

No data base entries were retrieved.

Calibration Report

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 930609 10:33

Compound	Files: >WR039 RF 25.00	>WR038 RF 50.00	>WR037 RF 100.00	RRT	RF	% RSD	
2-Fluorophenol	1.15600	1.11723	1.32471	.555	1.19931	9.198	
Phenol-d5	1.36487	1.37080	1.43677	.866	1.39082	2.869	
Phenol	1.39007	1.36041	1.55702	.871	1.43583	7.382	
bis(2-Chloroethyl)Ether	1.08279	1.30363	1.55177	.897	1.31273	17.873	
2-Chlorophenol	1.27240	1.29913	1.30348	.912	1.29167	1.303	
1,3-Dichlorobenzene	1.44444	1.35068	1.38960	.973	1.39491	3.377	
1,4-Dichlorobenzene	1.46403	1.57539	1.61757	1.007	1.55233	5.110	
Benzyl Alcohol	.76914	.78666	.82262	1.073	.79281	3.439	
1,2-Dichlorobenzene	1.48256	1.51527	1.51396	1.070	1.50393	1.231	
2-Methylphenol	1.12350	1.10201	1.16056	1.132	1.12869	2.624	
bis(2-Chloroisopropyl)ether	.19994	.17548	.14233	1.146	.17258	16.754	
4-Methylphenol	1.14433	1.13839	1.11923	1.215	1.13398	1.157	
N-Nitroso-Di-n-propylamine	.91944	.86967	.79801	1.209	.86237	7.079	
Hexachloroethane	.63242	.64238	.62001	1.222	.63161	1.775	
d8-Naphthalene	3.76254	3.75098	3.76501	1.623	3.75951	.199	(Conc=50.0,50.0,50.0)
Nitrobenzene-d5	1.11099	1.12549	1.20885	1.259	1.14844	4.598	
Nitrobenzene	.66891	.70039	.72254	1.268	.69728	3.865	
Isophorone	2.31597	2.30458	2.40675	1.400	2.34243	2.390	
2-Nitrophenol	.77902	.79785	.84896	1.428	.80861	4.476	
2,4-Dimethylphenol	1.03146	1.07664	1.11946	1.486	1.07585	4.091	
Benzoic Acid	.66966	.80996	.91828	1.586	.79930	15.595	
bis(2-Chloroethoxy)Methane	1.53190	1.57395	1.62246	1.540	1.57610	2.875	
2,4-Dichlorophenol	1.10722	1.17834	1.23432	1.560	1.17329	5.429	
1,2,4-Trichlorobenzene	1.37250	1.40893	1.40567	1.600	1.39570	1.444	
Naphthalene	3.85433	3.91366	4.00539	1.634	3.92446	1.939	
4-Chloroaniline	1.49528	1.57172	1.68840	1.687	1.58513	6.136	
Hexachlorobutadiene	.88674	.89186	.85900	1.724	.87920	2.011	
4-Chloro-3-methylphenol	.99694	1.03591	1.08262	1.994	1.03849	4.130	
2-Methylnaphthalene	2.56680	2.56637	2.64364	2.033	2.59227	1.716	
d10-Acenaphthene	1.95325	1.94593	2.01177	2.637	1.97031	1.831	(Conc=50.0,50.0,50.0)
Hexachlorocyclopentadiene	.88304	.94710	1.00078	2.133	.94364	6.247	
2,4,6-Trichlorophenol	.75765	.81004	.87758	2.212	.81509	7.377	
2,4,5-Trichlorophenol	.91086	.88421	.90132	2.226	.89880	1.503	
2-Chloronaphthalene	2.43316	2.43568	2.45788	2.311	2.44224	.557	
2-Fluorobiphenyl	2.93922	2.89791	2.92512	2.269	2.92075	.719	
2-Nitroaniline	.65095	.76980	.88989	2.392	.77021	15.512	
Dimethylphthalate	2.75475	2.74341	2.75806	2.540	2.75208	.279	
Acenaphthylene	1.30902	1.31137	1.20597	.727	1.27545	4.719	
3-Nitroaniline	.13546	.15848	.18764	.753	.16052	16.290	

RF - Response Factor (Subscript is amount in NG/UL)

RRT - Average Relative Retention Time (RT Std/RT Istd)

RF - Average Response Factor

%RSD - Percent Relative Standard Deviation

Calibration Report

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 930609 10:33

Compound	Files: >WR039 RF 25.00	>WR038 RF 50.00	>WR037 RF 100.00	RRT	RF	% RSD	
Acenaphthene	.85546	.84362	.80191	.758	.83366	3.374	
2,4-Dinitrophenol	.06794	.09717	.11395	.772	.09302	25.028	
4-Nitrophenol	.03994	.03731	.04908	.792	.04211	14.664	
Dibenzofuran	1.09041	1.15407	1.15132	.788	1.13193	3.179	
2,4-Dinitrotoluene	.20510	.22744	.22289	.730	.21848	5.405	
2,6-Dinitrotoluene	.24561	.26823	.28067	.795	.26483	6.711	
Diethylphthalate	.90792	.91015	.86898	.847	.89568	2.585	
4-Chlorophenyl-phenylether	.43906	.46154	.44477	.854	.44846	2.606	
Fluorene	.83627	.87289	.85020	.845	.85312	2.166	
4-Nitroaniline	.11478	.12387	.15057	.855	.12974	14.341	
4,6-Dinitro-2-methylphenol	.13111	.16341	.18480	.862	.15977	16.917	
N-Nitrosodiphenylamine	.50358	.56677	.56128	.876	.54388	6.436	
2,4,6-Tribromophenol	.19689	.20945	.19903	.886	.20179	3.331	
4-Bromophenyl-phenylether	.29133	.29012	.27929	.935	.28691	2.311	
Hexachlorobenzene	.37033	.35623	.32736	.936	.35130	6.235	
Pentachlorophenol	.16712	.18664	.19110	.972	.18162	7.023	
Phenanthrene	1.12682	1.14798	1.13471	1.004	1.13651	.941	
Anthracene	1.14962	1.17462	1.17019	1.013	1.16481	1.145	
Di-n-Butylphthalate	1.40547	1.40074	1.35207	1.125	1.38609	2.133	
Fluoranthene	1.21392	1.18508	1.18460	1.202	1.19453	1.406	
d12-Chrysene	.88562	.87041	.81455	1.442	.85686	4.368	(Conc=50.0,50.0,50.0)
Pyrene	1.26381	1.22078	1.18263	1.237	1.22240	3.323	
Terphenyl-d14	.96078	.94796	.92137	1.279	.94337	2.131	
Butylbenzylphthalate	.53651	.51619	.50247	1.373	.51839	3.304	
Benzo(a)Anthracene	.87829	.85667	.88452	1.441	.87316	1.674	
Bis(2-Ethylhexyl)Phthalate	.74056	.69013	.66764	1.479	.69944	5.338	
Chrysene	1.03734	1.03337	1.00090	1.447	1.02387	1.953	
Di-n-octylphthalate	1.62682	1.86043	1.87186	.952	1.78637	7.741	
Benzo(b)fluoranthene	1.04614	1.20366	1.24499	.968	1.16493	9.007	
Benzo(k)Fluoranthene	1.39502	1.59060	1.55872	.970	1.51478	6.927	
Benzo(a)Pyrene	1.14144	1.27580	1.29546	.995	1.23757	6.774	
Indeno(1,2,3-cd)Pyrene	.75090	.76759	.81550	1.084	.77800	4.310	
Dibenzo(a,h)Anthracene	.75874	.84283	.92686	1.087	.84281	9.974	
Benzo(g,h,i)Perylene	.90769	.87065	.90773	1.102	.89535	2.390	

RF - Response Factor (Subscript is amount in NG/UL)

RRT - Average Relative Retention Time (RT Std/RT Istd)

RF - Average Response Factor

%RSD - Percent Relative Standard Deviation

```
FMGR : CBCAL,CBRW37,IDRW37:KH,,A

Calib File: CBRW37::SC
     Title: HP BNA STD  REV E   KELLY 06\23\89
     Units:  NG/UL
 Last Edit: 891025 10:33
Last Calib: 930609 10:33

   ID File: IDRW37:KH:SC
     Title: HP BNA STD  REV A   ZIYAD 06\19\90
     Units:  NG/UL
 Last Edit: 930607 14:20
Last Calib: 930608 10:43

Correct Files ? Y

Calibrating...

  1) 2-Fluorophenol                    Avg RF:  1.19931
  2) Phenol-d5                         Avg RF:  1.39082
  3) Phenol                            Avg RF:  1.43583
  4) bis(2-Chloroethyl)Ether           Avg RF:  1.31273
  5) 2-Chlorophenol                    Avg RF:  1.29167
  6) 1,3-Dichlorobenzene               Avg RF:  1.39491
  7) 1,4-Dichlorobenzene               Avg RF:  1.55233
  8) Benzyl Alcohol                    Avg RF:   .79281
  9) 1,2-Dichlorobenzene               Avg RF:  1.50393
 10) 2-Methylphenol                    Avg RF:  1.12869
 11) bis(2-Chloroisopropyl)ether       Avg RF:   .17258
 12) 4-Methylphenol                    Avg RF:  1.13398
 13) N-Nitroso-Di-n-propylamine        Avg RF:   .86237
 14) Hexachloroethane                  Avg RF:   .63161
 15) d8-Naphthalene                    Avg RF:  3.75951
 16) Nitrobenzene-d5                   Avg RF:  1.14844
 17) Nitrobenzene                      Avg RF:   .69728
 18) Isophorone                        Avg RF:  2.34243
 19) 2-Nitrophenol                     Avg RF:   .80861
 20) 2,4-Dimethylphenol                Avg RF:  1.07585
 21) Benzoic Acid                      Avg RF:   .79930
 22) bis(2-Chloroethoxy)Methane        Avg RF:  1.57610
 23) 2,4-Dichlorophenol                Avg RF:  1.17329
 24) 1,2,4-Trichlorobenzene            Avg RF:  1.39570
 25) Naphthalene                       Avg RF:  3.92446
 26) 4-Chloroaniline                   Avg RF:  1.58513
 27) Hexachlorobutadiene               Avg RF:   .87920
 28) 4-Chloro-3-methylphenol           Avg RF:  1.03849
 29) 2-Methylnaphthalene               Avg RF:  2.59227
 30) d10-Acenaphthene                  Avg RF:  1.97031
 31) Hexachlorocyclopentadiene         Avg RF:   .94364
 32) 2,4,6-Trichlorophenol             Avg RF:   .81509
 33) 2,4,5-Trichlorophenol             Avg RF:   .89880
 34) 2-Chloronaphthalene               Avg RF:  2.44224
 35) 2-Fluorobiphenyl                  Avg RF:  2.92075
 36) 2-Nitroaniline                    Avg RF:   .77021
 37) Dimethylphthalate                 Avg RF:  2.75208
 38) Acenaphthylene                    Avg RF:  1.27545
 39) 3-Nitroaniline                    Avg RF:   .16052
 40) Acenaphthene                      Avg RF:   .83366
 41) 2,4-Dinitrophenol                 Avg RF:   .09302
 42) 4-Nitrophenol                     Avg RF:   .04211
 43) Dibenzofuran                      Avg RF:  1.13193
 44) 2,4-Dinitrotoluene                Avg RF:   .21848
 45) 2,6-Dinitrotoluene                Avg RF:   .26483
 46) Diethylphthalate                  Avg RF:   .89568
 47) 4-Chlorophenyl-phenylether        Avg RF:   .44846
```

48)	Fluorene	Avg RF:	.85312
49)	4-Nitroaniline	Avg RF:	.12974
50)	4,6-Dinitro-2-methylphenol	Avg RF:	.15977
51)	N-Nitrosodiphenylamine	Avg RF:	.54388
52)	2,4,6-Tribromophenol	Avg RF:	.20179
53)	4-Bromophenyl-phenylether	Avg RF:	.28691
54)	Hexachlorobenzene	Avg RF:	.35130
55)	Pentachlorophenol	Avg RF:	.18162
56)	Phenanthrene	Avg RF:	1.13651
57)	Anthracene	Avg RF:	1.16481
58)	Di-n-Butylphthalate	Avg RF:	1.38609
59)	Fluoranthene	Avg RF:	1.19453
60)	d12-Chrysene	Avg RF:	.85686
61)	Pyrene	Avg RF:	1.22240
62)	Terphenyl-d14	Avg RF:	.94337
63)	Butylbenzylphthalate	Avg RF:	.51839
64)	Benzo(a)Anthracene	Avg RF:	.87316
65)	Bis(2-Ethylhexyl)Phthalate	Avg RF:	.69944
66)	Chrysene	Avg RF:	1.02387
67)	Di-n-octylphthalate	Avg RF:	1.78637
68)	Benzo(b)fluoranthene	Avg RF:	1.16493
69)	Benzo(k)Fluoranthene	Avg RF:	1.51478
70)	Benzo(a)Pyrene	Avg RF:	1.23757
71)	Indeno(1,2,3-cd)Pyrene	Avg RF:	.77800
72)	Dibenzo(a,h)Anthracene	Avg RF:	.84281
73)	Benzo(g,h,i)Perylene	Avg RF:	.89535

Calibration Time Stamp Updated: 930609 10:36

FMGR : QUMON

QUMON - Quant ID Status Monitor Program
Program QUANT is temporarily SHUT DOWN.

Requests pending: 0014

Rec#	Data File	ID File	Output File	Results Reprt	Results Arch	Dil. Factor	Status
0007	>WR040::D6	IDRW37::SC	^WR040::D3	Medium	No	1.00000	Wait
0008	>WR041::D6	IDRW37::SC	^WR041::D3	Extend	No	1.00000	Wait
0009	>WR042::D6	IDRW37::SC	^WR042::D3	Extend	No	1.00000	Wait
0010	>WR043::D6	IDRW37::SC	^WR043::D3	Extend	No	1.00000	Wait
0011	>WR044::D6	IDRW37::SC	^WR044::D3	Extend	No	1.00000	Wait
0012	>WR045::D6	IDRW37::SC	^WR045::D3	Extend	No	1.00000	Wait
0013	>WR046::D6	IDRW37::SC	^WR046::D3	Extend	No	1.00000	Wait
0014	>WR047::D6	IDRW37::SC	^WR047::D3	Extend	No	1.00000	Wait

FMGR : BLIST,BARW38::D3

Sequence File: BARW38::D3

Tune File: MT5996

CR List: D6,D4,D1
CR Cut-off: 5000 blocks.

Number of samples: 31

```
                                                  Report Data Archive
                                                 Quant | | ID Archive
                                          Sample Size | | | | Output Archive
                                             Bottle | | | | | |
Samp Data File     Sample Name                   | | | | | | |     Quant ID
 No. Method File   Misc Data                     | | | | | | |     Quant Output
---- ------------ ------------------------ ---------------- ------------
001) >WR060        ABNST10525 100 STD        01 1 Y M N N N     IDRW38::SC
     TOXIC6        06-10-93                     Dil=1.00000     ^WR060::D3
     REPRT OPTIONS: Scale time: 2.500, Qion replaces Scan#
     REPRT OPTIONS: Omit types:I-S
002) >WR061        ABNST20525  50 STD        02 1 Y M N N N     IDRW38::SC
     TOXIC6        06-10-93                     Dil=1.00000     ^WR061::D3
     REPRT OPTIONS: Scale time: 2.500, Qion replaces Scan#
     REPRT OPTIONS: Omit types:I-S
003) >WR062        ABNST30525  25 STD        03 1 Y M N N N     IDRW38::SC
     TOXIC6        06-10-93                     Dil=1.00000     ^WR062::D3
     REPRT OPTIONS: Scale time: 2.500, Qion replaces Scan#
     REPRT OPTIONS: Omit types:I-S
004) >WR063        CAL CHK 50  11-92         04 1 Y M N N N     IDRW38::SC
     TOXIC6        06-10-93                     Dil=1.00000     ^WR063::D3
     REPRT OPTIONS: Scale time: 2.500, Qion replaces Scan#
     REPRT OPTIONS: Omit types:I-S
005) >WR064        93ZF53R01  SF1191         05 1 Y E N N N     IDRW38::SC
     TOXIC6        06-10-93   1000/1            Dil=1.00000     ^WR064::D3
     REPRT OPTIONS: Scale time: 2.500, Qion replaces Scan#
     REPRT OPTIONS: Omit types:I-S
006) >WR065        93ZF53R03  SF1191         06 1 Y E N N N     IDRW38::SC
     TOXIC6        06-10-93   1000/1            Dil=1.00000     ^WR065::D3
     REPRT OPTIONS: Scale time: 2.500, Qion replaces Scan#
     REPRT OPTIONS: Omit types:I-S
007) >WR066        93ZF53MB   SF1191         07 1 Y E N N N     IDRW38::SC
     TOXIC6        06-10-93   1000/1            Dil=1.00000     ^WR066::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
008) >WR067        93ZF53S02  SF1191         08 1 Y E N N N     IDRW38::SC
     TOXIC6        06-10-93   1000/1            Dil=1.00000     ^WR067::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
009) >WR068        93ZF53D02  SF1191         09 1 Y E N N N     IDRW38::SC
     TOXIC6        06-10-93   1000/1            Dil=1.00000     ^WR068::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
010) >WR069        93ZF53S03  SF1191         10 1 Y E N N N     IDRW38::SC
     TOXIC6        06-10-93   1000/1            Dil=1.00000     ^WR069::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
011) >WR070        93ZF53S11  SF1191         11 1 Y E N N N     IDRW38::SC
     TOXIC6        06-10-93   1000/1            Dil=1.00000     ^WR070::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
012) >WR071        93ZF53S12  SF1191         12 1 Y E N N N     IDRW38::SC
     TOXIC6        06-10-93   1000/1            Dil=1.00000     ^WR071::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
013) >WR072        93ZF53S13  SF1191         13 1 Y E N N N     IDRW38::SC
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     TOXIC6          06-10-93    1000/1              Dil=1.00000     ^WR072::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
014) >WR073          93ZF53D13  SF1191          14 1 Y E N N N     IDRW39::SC
     TOXIC6          06-11-93    1000/1              Dil=1.00000     ^WR073::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
015) >WR074          93ZF53S03MS SF1191         15 1 Y M N N N     IDRW39::SC
     TOXIC6          06-11-93    1000/1              Dil=1.00000     ^WR074::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
016) >WR075          93ZF53S03MD SF1191         16 1 Y M N N N     IDRW39::SC
     TOXIC6          06-11-93    1000/1              Dil=1.00000     ^WR075::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
017) >WR076          ABNST40525  10 STD         17 1 Y M N N N     IDRW39::SC
     TOXIC6          06-11-93                        Dil=1.00000     ^WR076::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
018) >WR077          ABNST40525   5 STD         18 1 Y M N N N     IDRW39::SC
     TOXIC6          06-11-93                        Dil=1.00000     ^WR077::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
019) >WR078          93ZE06R60R  SF1187         19 1 Y E N N N     IDRW39::SC
     TOXIC6          06-11-93                        Dil=1.00000     ^WR078::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
020) >WR079          93ZE33S37R SF1187          20 1 Y E N N N     IDRW39::SC
     TOXIC6          06-11-93                        Dil=1.00000     ^WR079::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
021) >WR080          93ZE33D37R  SF1187         21 1 Y E N N N     IDRW39::SC
     TOXIC6          06-11-93                        Dil=1.00000     ^WR080::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
022) >WR081          93ZE33D38R SF1187          22 1 Y E N N N     IDRW39::SC
     TOXIC6          06-11-93                        Dil=1.00000     ^WR081::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
023) >WR082          93ZE33S38MSR SF1187        23 1 Y E N N N     IDRW39::SC
     TOXIC6          06-11-93                        Dil=1.00000     ^WR082::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
024) >WR085          93ZF53MBR   SF1191        24 1 Y E N N N     IDRW39::SC
     TOXIC6          06-11-93    1000/1              Dil=1.00000     ^WR085::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
025) >WR086          93ZF53S03MDR SF1191        25 1 Y E N N N     IDRW39::SC
     TOXIC6          06-11-93    1000/1              Dil=1.00000     ^WR086::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
026) >WR087          93ZE33S39D SF1187          26 1 Y E N N N     IDRW39::SC
     TOXIC6          06-11-93    2:1 DILUTION        Dil=2.00000     ^WR087::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
027) >WR088          93ZE33D39D  SF1187         27 1 Y E N N N     IDRW39::SC
     TOXIC6          06-11-93    2:1 DILUTION        Dil=2.00000     ^WR088::D3
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 2.500
     REPRT OPTIONS: Qion replaces Scan#, Omit types:I-S
028) >PB900          TEST CHACKO'S GPCABN       28 1 Y M N N N     IDRW39::SC
     TOXIC6          06-11-93                        Dil=1.00000     ^PB900::D3
     REPRT OPTIONS: BG Sub, Scale time: 2.500, Qion replaces Scan#
     REPRT OPTIONS: Omit types:I-S
029) >PB901          TEST AMBERINA GPCABN       29 1 Y M N N N     IDRW39::SC
     TOXIC6          06-11-93                        Dil=1.00000     ^PB901::D3
     REPRT OPTIONS: BG Sub, Scale time: 2.500, Qion replaces Scan#
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     REPRT OPTIONS: Omit types:I-S
030) >PB902        TEST AMBERINA SILICA     30 1 Y M N N N    IDRW39::SC
     TOXIC6        06-11-93   GEL ABN          Dil=1.00000    ^PB902::D3
     REPRT OPTIONS: BG Sub, Scale time: 2.500, Qion replaces Scan#
     REPRT OPTIONS: Omit types:I-S
031) >PB903        TEST AMBERINA SILICA     31 1 Y M N N N    IDRW39::SC
     TOXIC6        06-11-93   GEL ABNLAB BL    Dil=1.00000    ^PB903::D3
     REPRT OPTIONS: BG Sub, Scale time: 2.500, Qion replaces Scan#
     REPRT OPTIONS: Omit types:I-S

End of sequence file.
```
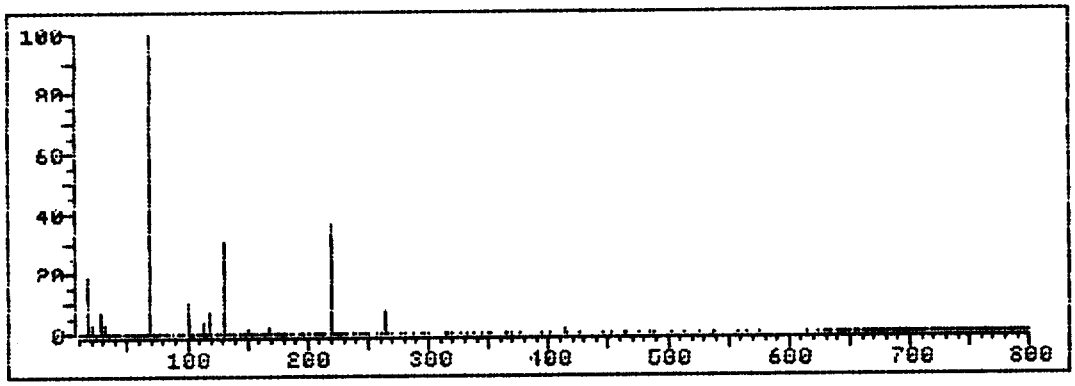

INST # 1: 5996 TYPE: 5996 DATE: 6/10/93 9:05

Mass Range	10- 800			Peaks detected	472
Base Peak	69.00	Abundance	192449	Total Ab.	521889
Samples / A.D.	16	Integration	50	Threshold	10



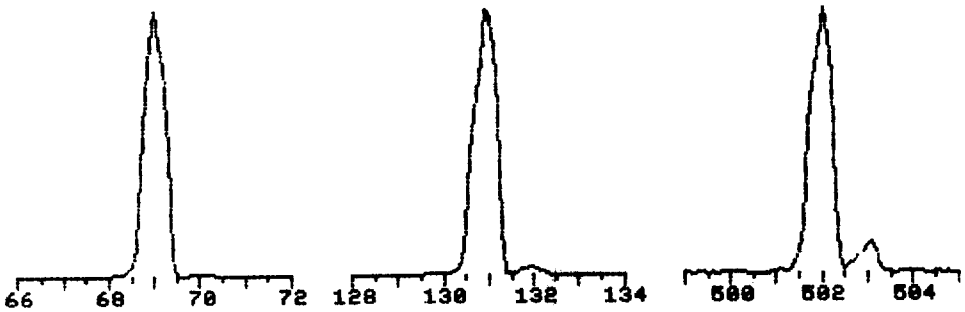
Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	192449	100.00	70.00	2085	1.08
130.95	58784	30.55	131.95	1917	3.26
502.00	1614	.84	503.00	169	10.47

PROFILE SCAN ver 870605

INST # 1: 5996 TYPE: 5996 DATE: 6/10/93 9:06

Repeller (V)	8.5	X - Ray (V)	10.4	AMU Offset	55
Ion Focus (V)	66.4	EM Volts (V)	2291	Mass Gain	-16
Ent Lens (mV)	89	AMU Gain	122	Mass Offset	10

Integration (uS) 50 Source Temp 200



MASS	ABUND	REL. ABUND	FWHM	ISO FWHM
69.00	205925.	100.00	.550	.550
130.90	60003.	29.14	.600	.580
502.00	1002.	.00	.560	.530

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

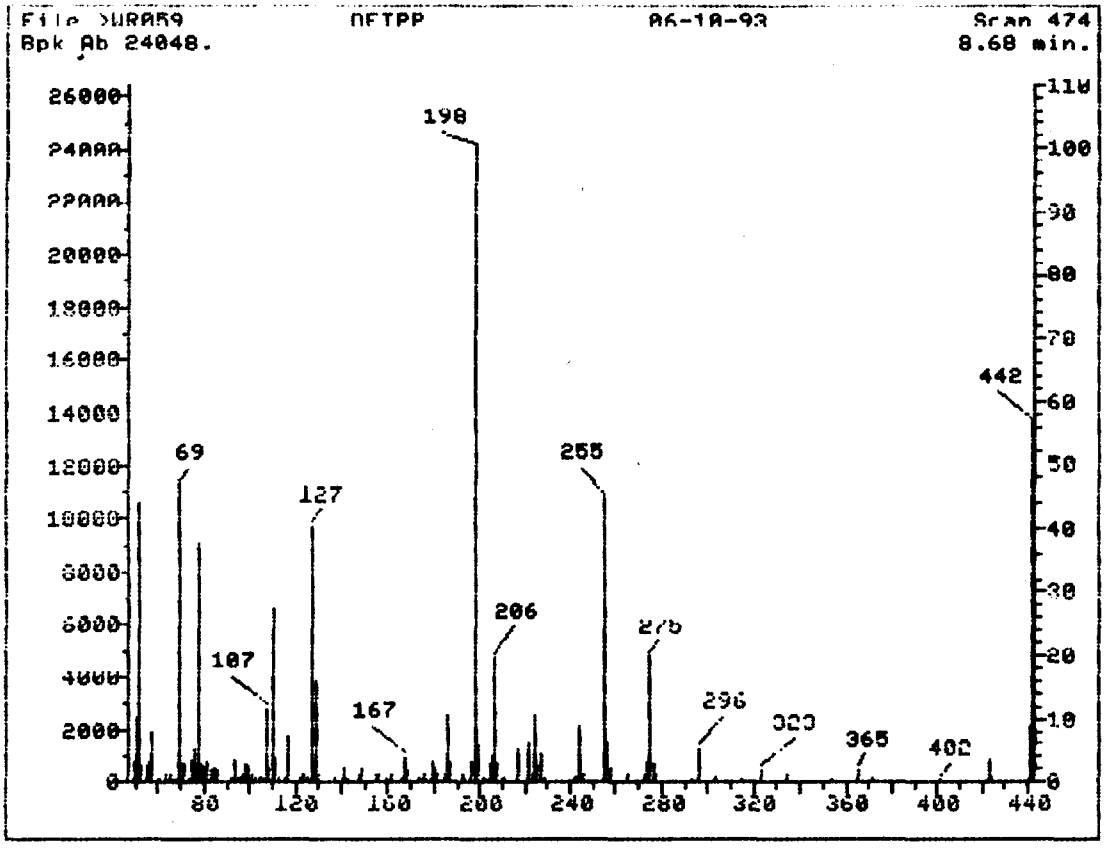
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	% Relative Abundance Appropriate Peak	Status
51	30-60% of mass 198	44.08	44.08	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	46.95	46.95	Ok
70	Less than 2% of mass 69	.72	1.52	Ok
127	40-60% of mass 198	40.32	40.32	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	5.84	5.84	Ok
275	10-30% of mass 198	19.86	19.86	Ok
365	Greater than 1% of mass 198	1.85	1.85	Ok
441	0-100% of mass 443	8.82	80.73	Ok
442	Greater than 40% of mass 198	56.45	56.45	Ok
443	17-23% of mass 442	10.92	19.34	Ok

Injection Date: 06/10/93
Injection Time: 09:15
Data File: >WR059
Scan: 474

MS data file header from : >WR059

Sample: DFTPP Operator: MANAGER SUPER GRP. 6/10/93 9:15
Misc : 06-10-93 BTL# 1
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: DFTPP Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	150.	250.	0.	0.	0.
Chromatographic times, min. :	1.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0



MS data file header from : >WR059

Sample: DFTPP Operator: MANAGER SUPER GRP. 6/10/93 9:15
Misc : 06-10-93 BTL# 1
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: DFTPP Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	150.	250.	0.	0.	0.
Chromatographic times, min. :	1.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

>WR059 DFTPP 06-10-93
474

File: >WR059 Scan #: 474 Retn. time: 8.68

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
46.70	104.0	85.10	495.0	125.05	183.0	187.05	736.0	254.95	10707.0
49.00	731.0	86.00	423.0	126.95	9695.0	191.85	254.0	255.95	1488.0
50.10	2442.0	91.90	179.0	128.05	746.0	192.95	220.0	256.95	104.0
51.00	10600.0	92.90	798.0	128.95	3874.0	195.95	784.0	258.05	528.0
52.10	605.0	94.00	141.0	129.95	362.0	197.95	24048.1	264.95	263.0
55.00	627.0	94.90	193.0	137.05	214.0	198.95	1404.0	272.95	310.0
56.00	758.0	96.00	205.0	141.05	497.0	201.45	162.0	273.95	771.0
57.10	1873.0	97.10	343.0	142.05	192.0	202.95	130.0	274.95	4775.0
60.90	117.0	98.00	697.0	142.75	140.0	204.05	658.0	275.95	662.0
63.10	352.0	99.00	622.0	147.05	279.0	205.05	980.0	277.05	337.0
65.00	266.0	100.10	222.0	148.05	529.0	206.05	4707.0	292.95	108.0
67.10	141.0	101.00	379.0	154.95	285.0	206.95	670.0	296.05	1263.0
69.00	11290.0	102.95	179.0	155.95	355.0	210.25	117.0	303.05	192.0
70.20	172.0	103.95	221.0	159.95	168.0	211.15	174.0	314.90	120.0
71.10	690.0	105.05	205.0	160.95	232.0	216.85	1240.0	323.00	436.0
73.20	132.0	106.05	170.0	166.05	163.0	220.95	1479.0	333.90	243.0
74.10	849.0	106.95	2808.0	167.05	946.0	222.85	296.0	354.00	114.0
75.10	1348.0	107.95	509.0	168.05	445.0	223.95	2514.0	365.00	446.0
76.10	473.0	109.95	6629.0	173.85	149.0	225.05	573.0	372.00	189.0
77.10	9157.0	110.95	936.0	175.05	346.0	227.05	1056.0	401.90	100.0
78.10	643.0	113.15	149.0	175.95	122.0	228.85	153.0	423.10	829.0
79.00	612.0	116.05	168.0	178.95	749.0	241.95	148.0	424.00	158.0
79.90	420.0	116.95	1762.0	179.95	477.0	243.05	209.0	441.00	2120.0
81.10	786.0	122.05	187.0	180.95	278.0	244.05	2173.0	442.10	13576.0
83.10	444.0	122.85	281.0	185.15	363.0	245.05	323.0	443.00	2626.0
84.10	511.0	123.05	287.0	186.05	2539.0	245.95	337.0		

MS data file header from : >WR059

Sample: DFTPP Operator: MANAGER SUPER GRP. 6/10/93 9:15
Misc : 06-10-93 BTL# 1
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: DFTPP Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	150.	250.	0.	0.	0.
Chromatographic times, min. :	1.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

FMGR : LMETH

LIST METHOD ver. 870824

LIST METHOD ver. 870824

Enter the name of the method file: DFTPP

M E T H O D F I L E L I S T

Method file: DFTPP GC type: 5996 Run Type: SCAN, GC, EI
Column: Cap Splitless: Yes

Temperature:	Inj.P	Xfer L	Source	Analyzer	FID
	260.0	280.0	200.0	180.0	0.0

GC/DIP	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	POST RUN
Temp 1	150.0	250.0	0.0	0.0	150.0
Time 1	1.0	0.0	0.0	0.0	0.0
Rate	8.0	0.0	0.0	0.0	
Temp 2	250.0	0.0	0.0	0.0	
Time 2	0.0	0.0	0.0	0.0	

Run time: 13.50
Scan Start time: 4.00
Splitless valve time: .60

	ON	OFF	ON	OFF
Solvent Divertor Valve:	327.0	327.0	327.0	327.0
Relay #1:	327.0	327.0	327.0	327.0
Relay #2:	327.0	327.0	327.0	327.0
Triac #0:	327.0	327.0	327.0	327.0
Triac #1:	327.0	327.0	327.0	327.0

ALS operating conditions

Number of sample washes 4 Number of sample Pumps 6
Solvent A washes 4 Solvent B washes 0
Sample viscosity wait 0 Injection mode is FAST

Scan Parameters: Mass Range 45 to 450
Multiplier voltage: 2267 Number of A/D samples: 2
GC Peak threshold: 20000 counts
Threshold: 100 counts

LIST METHOD ver. 870824

LIST METHOD ver. 870824

Enter the name of the method file: TOXIC6

M E T H O D F I L E L I S T

Method file: TOXIC6 GC type: 5996 Run Type: SCAN, GC, EI
Column: Cap Splitless: Yes

Temperature:	Inj.P	Xfer L	Source	Analyzer	FID
	260.0	280.0	200.0	180.0	0.0

GC/DIP	LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	POST RUN
Temp 1	65.0	320.0	321.0	0.0	65.0
Time 1	1.0	1.0	2.0	0.0	2.0
Rate	8.0	1.0	0.0	0.0	
Temp 2	320.0	321.0	0.0	0.0	
Time 2	1.0	2.0	0.0	0.0	

Run time: 36.88
Scan Start time: 2.25
Splitless valve time: .60

	ON	OFF	ON	OFF
Solvent Divertor Valve:	327.0	327.0	327.0	327.0
Relay #1:	327.0	327.0	327.0	327.0
Relay #2:	327.0	327.0	327.0	327.0
Triac #0:	327.0	327.0	327.0	327.0
Triac #1:	327.0	327.0	327.0	327.0

ALS operating conditions

Number of sample washes 4 Number of sample Pumps 6
Solvent A washes 4 Solvent B washes 4
Sample viscosity wait 0 Injection mode is FAST

Scan Parameters: Mass Range 45 to 450
Multiplier voltage: 2267 Number of A/D samples: 2
GC Peak threshold: 20000 counts
Threshold: 100 counts

```
FMGR : CBCAL,CBRW38,IDRW38:KH,,A

Calib File: CBRW38::SC
     Title: HP BNA STD  REV E   KELLY 06\23\89
     Units:  NG/UL
 Last Edit: 891025 10:33
Last Calib: 930610 13:35

   ID File: IDRW38:KH:SC
     Title: HP BNA STD  REV A   ZIYAD 06\19\90
     Units:  NG/UL
 Last Edit: 930607 14:20
Last Calib: 930609 10:36

Correct Files ? Y

Calibrating...

  1) 2-Fluorophenol                    Avg RF:  1.14396
  2) Phenol-d5                         Avg RF:  1.38275
  3) Phenol                            Avg RF:  1.34407
  4) bis(2-Chloroethyl)Ether           Avg RF:  1.51689
  5) 2-Chlorophenol                    Avg RF:  1.30354
  6) 1,3-Dichlorobenzene               Avg RF:  1.45313
  7) 1,4-Dichlorobenzene               Avg RF:  1.58382
  8) Benzyl Alcohol                    Avg RF:   .80000
  9) 1,2-Dichlorobenzene               Avg RF:  1.53426
 10) 2-Methylphenol                    Avg RF:  1.14636
 11) bis(2-Chloroisopropyl)ether       Avg RF:   .20831
 12) 4-Methylphenol                    Avg RF:  1.15309
 13) N-Nitroso-Di-n-propylamine        Avg RF:   .70791
 14) Hexachloroethane                  Avg RF:   .59393
 15) d8-Naphthalene                    Avg RF:  4.02650
 16) Nitrobenzene-d5                   Avg RF:  1.16650
 17) Nitrobenzene                      Avg RF:   .71737
 18) Isophorone                        Avg RF:  2.48817
 19) 2-Nitrophenol                     Avg RF:   .84603
 20) 2,4-Dimethylphenol                Avg RF:  1.11325
 21) Benzoic Acid                      Avg RF:   .69397
 22) bis(2-Chloroethoxy)Methane        Avg RF:  1.60069
 23) 2,4-Dichlorophenol                Avg RF:  1.20456
 24) 1,2,4-Trichlorobenzene            Avg RF:  1.40095
 25) Naphthalene                       Avg RF:  4.11207
 26) 4-Chloroaniline                   Avg RF:  1.60142
 27) Hexachlorobutadiene               Avg RF:   .85196
 28) 4-Chloro-3-methylphenol           Avg RF:  1.07079
 29) 2-Methylnaphthalene               Avg RF:  2.81156
 30) d10-Acenaphthene                  Avg RF:  2.15676
 31) Hexachlorocyclopentadiene         Avg RF:   .85954
 32) 2,4,6-Trichlorophenol             Avg RF:   .84444
 33) 2,4,5-Trichlorophenol             Avg RF:   .86656
 34) 2-Chloronaphthalene               Avg RF:  2.63110
 35) 2-Fluorobiphenyl                  Avg RF:  3.15538
 36) 2-Nitroaniline                    Avg RF:   .79740
 37) Dimethylphthalate                 Avg RF:  2.97165
 38) Acenaphthylene                    Avg RF:  1.27258
 39) 3-Nitroaniline                    Avg RF:   .14619
 40) Acenaphthene                      Avg RF:   .83018
 41) 2,4-Dinitrophenol                 Avg RF:   .06632
 42) 4-Nitrophenol                     Avg RF:   .03565
 43) Dibenzofuran                      Avg RF:  1.12725
 44) 2,4-Dinitrotoluene                Avg RF:   .20721
 45) 2,6-Dinitrotoluene                Avg RF:   .25048
 46) Diethylphthalate                  Avg RF:   .87059
```

48)	Fluorene	Avg RF:	.85672
49)	4-Nitroaniline	Avg RF:	.11856
50)	4,6-Dinitro-2-methylphenol	Avg RF:	.13552
51)	N-Nitrosodiphenylamine	Avg RF:	.54265
52)	2,4,6-Tribromophenol	Avg RF:	.14520
53)	4-Bromophenyl-phenylether	Avg RF:	.25343
54)	Hexachlorobenzene	Avg RF:	.30797
55)	Pentachlorophenol	Avg RF:	.09453
56)	Phenanthrene	Avg RF:	1.14239
57)	Anthracene	Avg RF:	1.17708
58)	Di-n-Butylphthalate	Avg RF:	1.35222
59)	Fluoranthene	Avg RF:	1.19187
60)	d12-Chrysene	Avg RF:	.75624
61)	Pyrene	Avg RF:	1.18930
62)	Terphenyl-d14	Avg RF:	.81609
63)	Butylbenzylphthalate	Avg RF:	.48993
64)	Benzo(a)Anthracene	Avg RF:	.77060
65)	Bis(2-Ethylhexyl)Phthalate	Avg RF:	.65089
66)	Chrysene	Avg RF:	.92436
67)	Di-n-octylphthalate	Avg RF:	2.04542
68)	Benzo(b)fluoranthene	Avg RF:	1.19479
69)	Benzo(k)Fluoranthene	Avg RF:	1.64175
70)	Benzo(a)Pyrene	Avg RF:	1.28840
71)	Indeno(1,2,3-cd)Pyrene	Avg RF:	.79971
72)	Dibenzo(a,h)Anthracene	Avg RF:	.87808
73)	Benzo(g,h,i)Perylene	Avg RF:	.99864

Calibration Time Stamp Updated: 930610 13:39

Calibration Report

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 930610 13:35

Compound	Files: >WR062 RF 25.00	>WR061 RF 50.00	>WR060 RF 100.00	RRT	RF	% RSD	
2-Fluorophenol	1.07327	1.14822	1.21039	.577	1.14396	6.002	
Phenol-d5	1.39609	1.35959	1.39256	.874	1.38275	1.456	
Phenol	1.36208	1.32592	1.34420	.879	1.34407	1.345	
bis(2-Chloroethyl)Ether	1.54496	1.48138	1.52431	.878	1.51689	2.138	
2-Chlorophenol	1.28387	1.29961	1.32713	.918	1.30354	1.680	
1,3-Dichlorobenzene	1.44590	1.43101	1.48248	.974	1.45313	1.823	
1,4-Dichlorobenzene	1.55172	1.59571	1.60403	1.007	1.58382	1.775	
Benzyl Alcohol	.78315	.78918	.82768	1.072	.80000	3.019	
1,2-Dichlorobenzene	1.57405	1.51222	1.51649	1.067	1.53426	2.251	
2-Methylphenol	1.13874	1.13504	1.16530	1.129	1.14636	1.448	
bis(2-Chloroisopropyl)ether	.19732	.21279	.21483	1.141	.20831	4.597	
4-Methylphenol	1.18422	1.15616	1.11889	1.210	1.15309	2.842	
N-Nitroso-Di-n-propylamine	.75997	.73412	.62965	1.202	.70791	9.747	
Hexachloroethane	.59716	.59735	.58727	1.215	.59393	.971	
d8-Naphthalene	3.91829	4.00372	4.15749	1.612	4.02650	3.010	(Conc=50.0,50.0,50.0)
Nitrobenzene-d5	1.11426	1.15334	1.23190	1.251	1.16650	5.136	
Nitrobenzene	.69804	.70866	.74541	1.262	.71737	3.465	
Isophorone	2.39407	2.46530	2.60514	1.392	2.48817	4.316	
2-Nitrophenol	.80182	.81991	.91636	1.420	.84603	7.278	
2,4-Dimethylphenol	1.05950	1.10304	1.17722	1.477	1.11325	5.347	
Benzoic Acid	.52555	.69294	.86341	1.574	.69397	24.344	
bis(2-Chloroethoxy)Methane	1.55494	1.57256	1.67457	1.530	1.60869	4.035	
2,4-Dichlorophenol	1.11711	1.21863	1.27792	1.552	1.20456	6.751	
1,2,4-Trichlorobenzene	1.37026	1.40455	1.42804	1.590	1.40095	2.074	
Naphthalene	4.04705	4.14412	4.14502	1.624	4.11207	1.369	
4-Chloroaniline	1.46252	1.58101	1.76072	1.676	1.60142	9.376	
Hexachlorobutadiene	.85816	.83831	.85940	1.711	.85196	1.389	
4-Chloro-3-methylphenol	.98128	1.06397	1.16711	1.982	1.07079	8.695	
2-Methylnaphthalene	2.72896	2.81939	2.88632	2.019	2.81156	2.809	
d10-Acenaphthene	2.10604	2.13310	2.23114	2.617	2.15676	3.052	(Conc=50.0,50.0,50.0)
Hexachlorocyclopentadiene	.76305	.83523	.98034	2.116	.85954	12.875	
2,4,6-Trichlorophenol	.77147	.85918	.90266	2.196	.84444	7.914	
2,4,5-Trichlorophenol	.79791	.88916	.91261	2.211	.86656	6.993	
2-Chloronaphthalene	2.57381	2.62690	2.69258	2.294	2.63110	2.261	
2-Fluorobiphenyl	3.09271	3.15245	3.22098	2.253	3.15538	2.034	
2-Nitroaniline	.65425	.80263	.93532	2.376	.79740	17.633	
Dimethylphthalate	2.92343	2.94828	3.04325	2.523	2.97165	2.128	
Acenaphthylene	1.36401	1.29401	1.15973	.727	1.27258	8.157	
3-Nitroaniline	.11979	.15251	.16626	.754	.14619	16.328	

RF - Response Factor (Subscript is amount in NG/UL)

RRT - Average Relative Retention Time (RT Std/RT Istd)

RF - Average Response Factor

%RSD - Percent Relative Standard Deviation

Calibration Report

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 930610 13:35

Compound	Files: >WR062 RF 25.00	>WR061 RF 50.00	>WR060 RF 100.00	RRT	RF	% RSD	
Acenaphthene	.89102	.82868	.77083	.758	.83018	7.241	
2,4-Dinitrophenol	.03728	.06642	.09527	.772	.06632	43.722	
4-Nitrophenol	.03247	.03136	.04311	.794	.03565	18.192	
Dibenzofuran	1.15943	1.13717	1.08516	.788	1.12725	3.381	
2,4-Dinitrotoluene	.20679	.20433	.21051	.730	.20721	1.501	
2,6-Dinitrotoluene	.22735	.25569	.26841	.796	.25048	8.392	
Diethylphthalate	.89808	.86268	.85102	.847	.87059	2.815	
4-Chlorophenyl-phenylether	.42997	.41728	.41948	.854	.42225	1.606	
Fluorene	.89009	.85427	.82579	.845	.85672	3.761	
4-Nitroaniline	.09079	.11890	.14599	.856	.11856	23.282	
4,6-Dinitro-2-methylphenol	.09940	.13745	.16970	.863	.13552	25.967	
N-Nitrosodiphenylamine	.52255	.54585	.55955	.876	.54265	3.447	
2,4,6-Tribromophenol	.13684	.15111	.14764	.886	.14520	5.123	
4-Bromophenyl-phenylether	.26046	.25540	.24443	.935	.25343	3.234	
Hexachlorobenzene	.33264	.31019	.28110	.935	.30797	8.391	
Pentachlorophenol	.06693	.09634	.12033	.973	.09453	28.294	
Phenanthrene	1.13212	1.14461	1.15044	1.004	1.14239	.819	
Anthracene	1.13117	1.20999	1.19009	1.013	1.17708	3.482	
Di-n-Butylphthalate	1.34434	1.37970	1.33262	1.125	1.35222	1.812	
Fluoranthene	1.15948	1.18624	1.22989	1.202	1.19187	2.982	
d12-Chrysene	.76568	.72120	.78182	1.445	.75624	4.151	(Conc=50.0,50.0,50.0)
Pyrene	1.17618	1.17947	1.21227	1.238	1.18930	1.678	
Terphenyl-d14	.77963	.81741	.85123	1.280	.81609	4.389	
Butylbenzylphthalate	.47202	.47249	.52528	1.374	.48993	6.249	
Benzo(a)Anthracene	.66443	.75816	.88921	1.443	.77060	14.651	
Bis(2-Ethylhexyl)Phthalate	.63145	.63720	.68402	1.481	.65089	4.430	
Chrysene	.95103	.89068	.93137	1.449	.92436	3.330	
Di-n-octylphthalate	1.91178	2.10712	2.11736	.952	2.04542	5.664	
Benzo(b)fluoranthene	1.07836	1.16999	1.33601	.968	1.19479	10.931	
Benzo(k)Fluoranthene	1.47858	1.65060	1.79607	.970	1.64175	9.680	
Benzo(a)Pyrene	1.16788	1.32225	1.37507	.995	1.28840	8.356	
Indeno(1,2,3-cd)Pyrene	.70832	.79346	.89734	1.084	.79971	11.837	
Dibenzo(a,h)Anthracene	.79086	.85676	.98663	1.087	.87808	11.344	
Benzo(g,h,i)Perylene	.98589	1.01919	.99085	1.103	.99864	1.799	

RF - Response Factor (Subscript is amount in NG/UL)

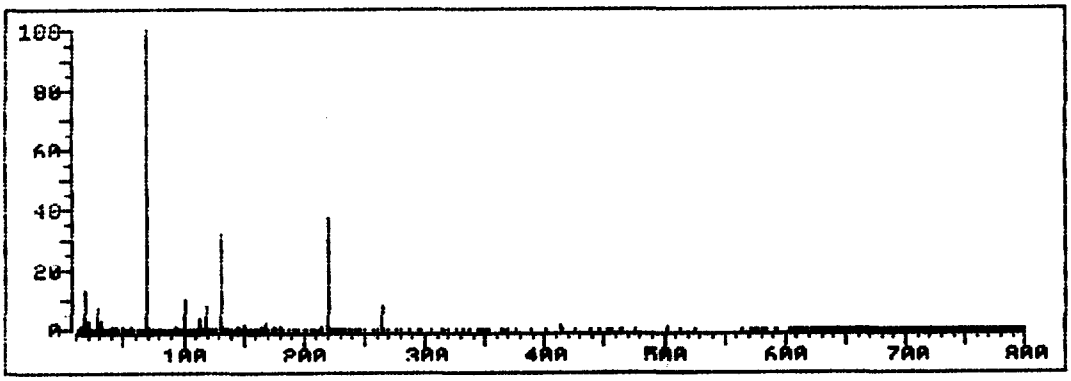
RRT - Average Relative Retention Time (RT Std/RT Istd)

RF - Average Response Factor

%RSD - Percent Relative Standard Deviation

INST # 1: 5996 TYPE: 5996 DATE: 6/11/93 9:57

Mass Range	10- 800			Peaks detected	563
Base Peak	69.10	Abundance	178561	Total Ab.	477780
Samples / A.D.	10	Integration	50	Threshold	10



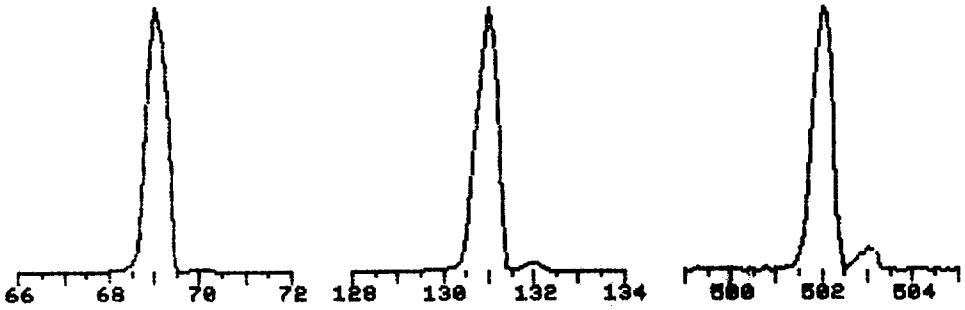
Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.10	178561	100.00	70.10	1925	1.08
130.95	57320	32.10	131.95	1774	3.09
501.90	1315	.74	503.00	134	10.19

PROFILE SCAN ver 870605

INST # 1: 5996 TYPE: 5996 DATE: 6/11/93 9:59

Repeller (V)	8.5	X - Ray (V)	10.4	AMU Offset	55
Ion Focus (V)	66.4	EM Volts (V)	2291	Mass Gain	-23
Ent Lens (mV)	95	AMU Gain	122	Mass Offset	10

Integration (uS) 50 Source Temp 200



MASS	ABUND	REL. ABUND	FHHM	ISO FHHM
69.00	182187.	100.00	.520	.550
131.00	57600.	31.62	.560	.520
502.00	1500.	.04	.400	.520

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

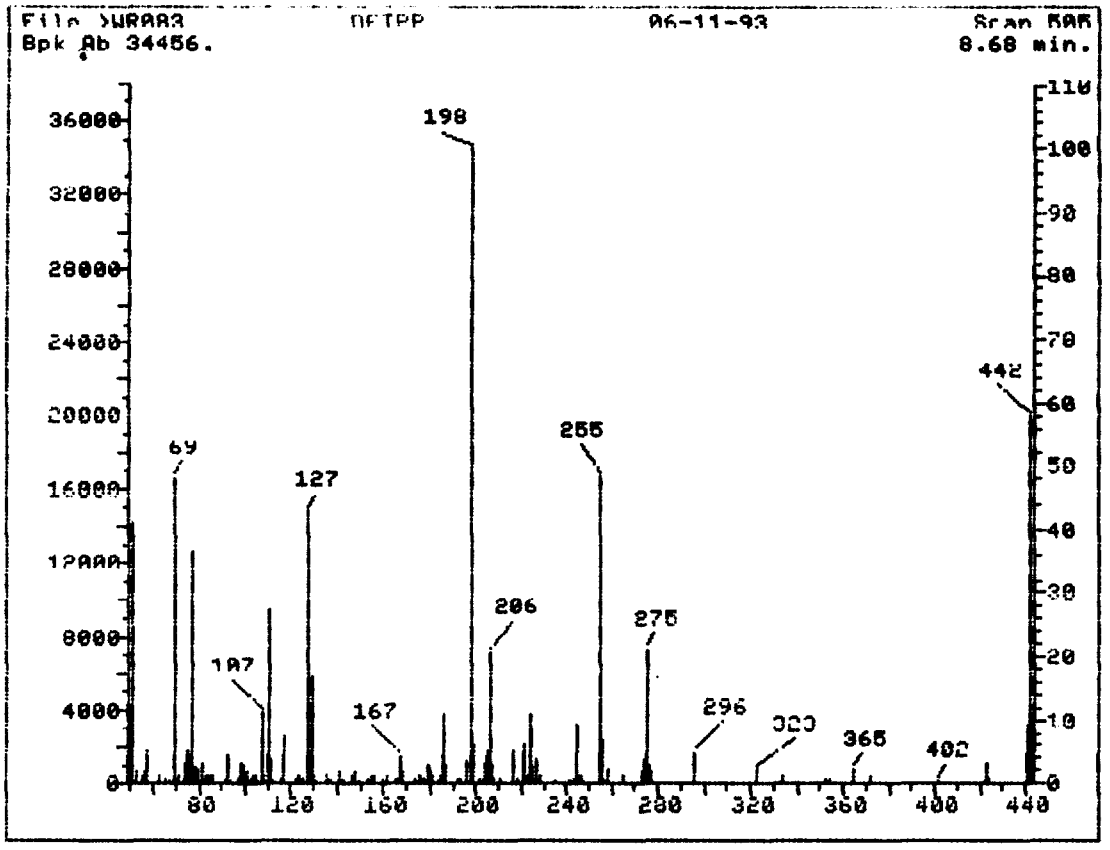
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	41.14	41.14	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	48.08	48.08	Ok
70	Less than 2% of mass 69	.71	1.47	Ok
127	40-60% of mass 198	42.98	42.98	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.28	6.28	Ok
275	10-30% of mass 198	21.08	21.08	Ok
365	Greater than 1% of mass 198	2.25	2.25	Ok
441	0-100% of mass 443	9.30	85.39	Ok
442	Greater than 40% of mass 198	57.72	57.72	Ok
443	17-23% of mass 442	10.89	18.87	Ok

Injection Date: 06/11/93
Injection Time: 10:08
Data File: >WR083
Scan: 505

MS data file header from : >WR083

Sample: DFTPP Operator: MANAGER SUPER GRP. 6/11/93 10:08
Misc : 06-11-93 BTL# 1
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: DFTPP Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	150.	250.	0.	0.	0.
Chromatographic times, min. :	1.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0



MS data file header from : >WR083

Sample: DFTPP Operator: MANAGER SUPER GRP. 6/11/93 10:08
Misc : 06-11-93 BTL# 1
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: DFTPP Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	150.	250.	0.	0.	0.
Chromatographic times, min. :	1.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

>WR083 DFTPP 06-11-93
505

File: >WR083 Scan #: 505 Retn. time: 8.68

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
49.00	523.0	97.15	217.0	141.95	256.0	191.95	316.0	245.00	412.0
50.10	3788.0	98.05	1041.0	142.95	183.0	193.05	245.0	246.00	508.0
51.10	14176.0	99.05	974.0	147.05	328.0	196.05	1231.0	246.90	103.0
52.10	643.0	100.15	249.0	147.95	632.0	197.95	34456.1	255.00	16632.0
55.10	437.0	101.05	590.0	149.05	183.0	199.05	2163.0	256.00	2368.0
56.10	659.0	102.95	237.0	152.85	208.0	201.35	227.0	256.90	225.0
57.10	1905.0	103.95	328.0	153.95	227.0	202.95	229.0	257.90	683.0
63.10	543.0	105.05	366.0	155.05	359.0	204.05	1111.0	264.90	356.0
65.10	283.0	105.95	151.0	155.95	520.0	205.05	1832.0	273.00	554.0
67.10	178.0	107.05	3870.0	159.95	217.0	206.05	7122.0	274.00	1320.0
69.00	16568.0	107.95	503.0	161.05	334.0	207.15	943.0	275.00	7263.0
70.20	244.0	109.95	9456.0	164.95	314.0	208.05	266.0	276.00	987.0
71.10	423.0	111.05	1281.0	166.05	260.0	210.85	293.0	277.00	587.0
73.95	1104.0	111.95	188.0	167.05	1410.0	216.00	181.0	296.00	1658.0
74.95	1850.0	116.05	226.0	168.05	594.0	216.90	1746.0	323.00	726.0
76.15	693.0	116.95	2574.0	174.05	291.0	218.00	213.0	334.10	425.0
77.05	12634.0	121.95	316.0	175.05	447.0	220.90	2071.0	352.00	221.0
78.05	826.0	123.05	492.0	176.15	220.0	222.90	448.0	354.00	226.0
78.95	841.0	123.95	211.0	177.05	264.0	224.00	3760.0	364.95	774.0
79.95	678.0	125.05	214.0	177.75	136.0	225.00	889.0	372.05	332.0
80.95	1053.0	126.95	14810.0	177.95	141.0	226.00	135.0	401.85	135.0
82.05	289.0	128.05	1174.0	178.95	996.0	227.00	1311.0	421.95	159.0
83.05	442.0	128.95	5901.0	179.95	591.0	227.90	235.0	423.05	1097.0
83.95	385.0	129.95	545.0	181.05	424.0	228.90	324.0	424.05	231.0
84.95	422.0	131.05	155.0	183.85	100.0	235.00	174.0	441.05	3204.0
85.95	475.0	135.05	421.0	185.15	461.0	242.00	178.0	442.05	19888.1
92.05	261.0	135.95	206.0	186.05	3804.0	243.00	268.0	443.05	3752.0
92.95	1491.0	137.05	262.0	187.05	991.0	244.00	3235.0	444.05	330.0
93.85	137.0	140.95	620.0						

MS data file header from : >WR083

Sample: DFTPP Operator: MANAGER SUPER GRP. 6/11/93 10:08
Misc : 06-11-93 BTL# 1
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: DFTPP Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	150.	250.	0.	0.	0.
Chromatographic times, min. :	1.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

-FMGR. : QCAL,^WR084,IDRW39:KH,C

Quant Output File: ^WR084::D3
From ID File: IDRW39::SC
Quant Time: 930611 11:11

Quant ID File: IDRW39:KH:SC
Title: HP BNA STD REV A ZIYAD 06\19\90

Clearing previous calibration...
Recalibrating.....

1)	d4-1,4-Dichlorobenzene	RT:	5.08	Scan:	301	(ISTD)
2)	2-Fluorophenol	RT:	2.87	Scan:	58	(New Rf =1.191560)
3)	Phenol-d5	RT:	4.42	Scan:	229	(New Rf =1.462452)
4)	Phenol	RT:	4.45	Scan:	232	(New Rf =1.429108)
5)	bis(2-Chloroethyl)Ether	RT:	4.45	Scan:	232	(New Rf =1.585112)
6)	2-Chlorophenol	RT:	4.65	Scan:	254	(New Rf =1.376552)
7)	1,3-Dichlorobenzene	RT:	4.96	Scan:	288	(New Rf =1.447920)
8)	1,4-Dichlorobenzene	RT:	5.12	Scan:	306	(New Rf =1.686957)
9)	Benzyl Alcohol	RT:	5.46	Scan:	343	(New Rf = .846026)
10)	1,2-Dichlorobenzene	RT:	5.43	Scan:	340	(New Rf =1.609250)
11)	2-Methylphenol	RT:	5.76	Scan:	376	(New Rf =1.203935)
12)	bis(2-Chloroisopropyl)ether	RT:	5.88	Scan:	389	(New Rf = .200099)
13)	4-Methylphenol	RT:	6.18	Scan:	422	(New Rf =1.297137)
14)	N-Nitroso-Di-n-propylamine	RT:	6.15	Scan:	418	(New Rf = .787313)
15)	Hexachloroethane	RT:	6.21	Scan:	425	(New Rf = .620345)
16)	d8-Naphthalene	RT:	8.24	Scan:	648	(New Rf =4.385047)
17)	Nitrobenzene-d5	RT:	6.40	Scan:	446	(New Rf =1.250044)
18)	Nitrobenzene	RT:	6.45	Scan:	451	(New Rf = .769409)
19)	Isophorone	RT:	7.12	Scan:	525	(New Rf =2.698845)
20)	2-Nitrophenol	RT:	7.26	Scan:	540	(New Rf = .898101)
21)	2,4-Dimethylphenol	RT:	7.55	Scan:	572	(New Rf =1.179442)
22)	Benzoic Acid	RT:	8.05	Scan:	627	(New Rf = .778062)
23)	bis(2-Chloroethoxy)Methane	RT:	7.82	Scan:	602	(New Rf =1.722715)
24)	2,4-Dichlorophenol	RT:	7.93	Scan:	614	(New Rf =1.282978)
25)	1,2,4-Trichlorobenzene	RT:	8.12	Scan:	635	(New Rf =1.518506)
26)	Naphthalene	RT:	8.30	Scan:	654	(New Rf =4.486382)
27)	4-Chloroaniline	RT:	8.56	Scan:	683	(New Rf =1.719245)
28)	Hexachlorobutadiene	RT:	8.75	Scan:	704	(New Rf = .915348)
29)	4-Chloro-3-methylphenol	RT:	10.14	Scan:	857	(New Rf =1.214806)
30)	2-Methylnaphthalene	RT:	10.33	Scan:	877	(New Rf =3.046590)
31)	d10-Acenaphthene	RT:	13.41	Scan:	1215	(New Rf =2.389502)
32)	Hexachlorocyclopentadiene	RT:	10.84	Scan:	933	(New Rf = .857739)
33)	2,4,6-Trichlorophenol	RT:	11.25	Scan:	978	(New Rf = .951861)
34)	2,4,5-Trichlorophenol	RT:	11.32	Scan:	986	(New Rf = .988544)
35)	2-Chloronaphthalene	RT:	11.75	Scan:	1033	(New Rf =2.903952)
36)	2-Fluorobiphenyl	RT:	11.54	Scan:	1010	(New Rf =3.480017)
37)	2-Nitroaniline	RT:	12.17	Scan:	1079	(New Rf = .926316)
38)	Dimethylphthalate	RT:	12.92	Scan:	1162	(New Rf =3.410651)
39)	d-10-Phenanthrene	RT:	17.84	Scan:	1701	(ISTD)
40)	Acenaphthylene	RT:	12.95	Scan:	1165	(New Rf =1.263806)
41)	3-Nitroaniline	RT:	13.43	Scan:	1218	(New Rf = .157839)
42)	Acenaphthene	RT:	13.51	Scan:	1226	(New Rf = .810888)
43)	2,4-Dinitrophenol	RT:	13.76	Scan:	1254	(New Rf = .071190)
44)	4-Nitrophenol	RT:	14.15	Scan:	1296	(New Rf = .035850)
45)	Dibenzofuran	RT:	14.04	Scan:	1285	(New Rf =1.116044)
46)	2,4-Dinitrotoluene	RT:	13.01	Scan:	1172	(New Rf = .210651)
47)	2,6-Dinitrotoluene	RT:	14.18	Scan:	1300	(New Rf = .257299)
48)	Diethylphthalate	RT:	15.11	Scan:	1402	(New Rf = .874948)
49)	4-Chlorophenyl-phenylether	RT:	15.23	Scan:	1415	(New Rf = .406573)
50)	Fluorene	RT:	15.07	Scan:	1398	(New Rf = .841994)
51)	4-Nitroaniline	RT:	15.26	Scan:	1418	(New Rf = .119512)
52)	4,6-Dinitro-2-methylphenol	RT:	15.38	Scan:	1431	(New Rf = .135888)

53)	N-Nitrosodiphenylamine	RT: 15.62	Scan: 1458	(New Rf	[illegible]
54)	2,4,6-Tribromophenol	RT: 15.80	Scan: 1477	(New Rf	= .132736)
55)	4-Bromophenyl-phenylether	RT: 16.67	Scan: 1573	(New Rf	= .238122)
56)	Hexachlorobenzene	RT: 16.68	Scan: 1574	(New Rf	= .282587)
57)	Pentachlorophenol	RT: 17.35	Scan: 1647	(New Rf	= .081295)
58)	Phenanthrene	RT: 17.91	Scan: 1708	(New Rf	=1.148686)
59)	Anthracene	RT: 18.06	Scan: 1725	(New Rf	=1.177125)
60)	Di-n-Butylphthalate	RT: 20.09	Scan: 1947	(New Rf	=1.450423)
61)	Fluoranthene	RT: 21.45	Scan: 2097	(New Rf	=1.194193)
62)	d12-Chrysene	RT: 25.76	Scan: 2569	(New Rf	= .745202)
63)	Pyrene	RT: 22.08	Scan: 2166	(New Rf	=1.182043)
64)	Terphenyl-d14	RT: 22.83	Scan: 2248	(New Rf	= .804339)
65)	Butylbenzylphthalate	RT: 24.52	Scan: 2433	(New Rf	= .508481)
66)	Benzo(a)Anthracene	RT: 25.74	Scan: 2567	(New Rf	= .752595)
67)	Bis(2-Ethylhexyl)Phthalate	RT: 26.42	Scan: 2641	(New Rf	= .687695)
68)	Chrysene	RT: 25.84	Scan: 2577	(New Rf	= .935446)
69)	d12-Perylene	RT: 29.71	Scan: 3000	(ISTD)	
70)	Di-n-octylphthalate	RT: 28.28	Scan: 2844	(New Rf	=2.403719)
71)	Benzo(b)fluoranthene	RT: 28.75	Scan: 2895	(New Rf	=1.212051)
72)	Benzo(k)Fluoranthene	RT: 28.82	Scan: 2903	(New Rf	=1.738164)
73)	Benzo(a)Pyrene	RT: 29.56	Scan: 2984	(New Rf	=1.379028)
74)	Indeno(1,2,3-cd)Pyrene	RT: 32.22	Scan: 3273	(New Rf	= .847390)
75)	Dibenzo(a,h)Anthracene	RT: 32.31	Scan: 3283	(New Rf	= .879856)
76)	Benzo(g,h,i)Perylene	RT: 32.76	Scan: 3332	(New Rf	=1.104161)

Title: HP BNA STD REV A ZIYAD 06\19\90

Last EDIT Date: 930607 14:20 Last Calib Date: 930610 13:39

RT Window (+/- min): .25
Max Hits/Compound: 1
Minimum Area: 1000
Peak/Base Peak Ratio: 30.00 %
Slope Sensitivity: .200
Subtraction Method: 1
Ignore max check: NO
Auto Qdel Method: 5
Units of Conc: NG/UL

Number of Compounds: 76

Comp No.	Compound Name	(Type)	Retention Time Min.	(Rel)	R.F.	Conc.	
1)	*d4-1,4-Dichlorobenzene	(I)	5.12	(1.000)	1.00000	50.00	**
2)	2-Fluorophenol	(S)	2.96	(.577)	1.14396	50.00	
3)	Phenol-d5	(S)	4.48	(.874)	1.38275	50.00	
4)	Phenol	(M)	4.50	(.879)	1.34407	50.00	
5)	bis(2-Chloroethyl)Ether	(T)	4.50	(.878)	1.51689	50.00	**
6)	2-Chlorophenol	(M)	4.70	(.918)	1.30354	50.00	
7)	1,3-Dichlorobenzene	(T)	4.99	(.974)	1.45313	50.00	**
8)	1,4-Dichlorobenzene	(M)	5.16	(1.007)	1.58382	50.00	**
9)	Benzyl Alcohol	(T)	5.50	(1.072)	.80000	50.00	
10)	1,2-Dichlorobenzene	(T)	5.47	(1.067)	1.53426	50.00	**
11)	2-Methylphenol	(T)	5.79	(1.129)	1.14636	50.00	**
12)	bis(2-Chloroisopropyl)ether	(T)	5.85	(1.141)	.20831	50.00	
13)	4-Methylphenol	(T)	6.20	(1.210)	1.15309	50.00	**
14)	N-Nitroso-Di-n-propylamine	(M)	6.16	(1.202)	.70791	50.00	**
15)	Hexachloroethane	(T)	6.22	(1.215)	.59393	50.00	
16)	d8-Naphthalene	(T)	8.26	(1.612)	4.02650	50.00	**
17)	Nitrobenzene-d5	(S)	6.41	(1.251)	1.16650	50.00	
18)	Nitrobenzene	(T)	6.47	(1.262)	.71737	50.00	
19)	Isophorone	(T)	7.13	(1.392)	2.48817	50.00	
20)	2-Nitrophenol	(T)	7.28	(1.420)	.84603	50.00	
21)	2,4-Dimethylphenol	(T)	7.57	(1.477)	1.11325	50.00	
22)	Benzoic Acid	(T)	8.07	(1.574)	.69397	50.00	**
23)	bis(2-Chloroethoxy)Methane	(T)	7.84	(1.530)	1.60069	50.00	
24)	2,4-Dichlorophenol	(T)	7.96	(1.552)	1.20456	50.00	
25)	1,2,4-Trichlorobenzene	(M)	8.15	(1.590)	1.40095	50.00	
26)	Naphthalene	(T)	8.32	(1.624)	4.11207	50.00	
27)	4-Chloroaniline	(T)	8.59	(1.676)	1.60142	50.00	
28)	Hexachlorobutadiene	(T)	8.77	(1.711)	.85196	50.00	
29)	4-Chloro-3-methylphenol	(M)	10.16	(1.982)	1.07079	50.00	**
30)	2-Methylnaphthalene	(T)	10.35	(2.019)	2.81156	50.00	
31)	d10-Acenaphthene	(T)	13.41	(2.617)	2.15676	50.00	**
32)	Hexachlorocyclopentadiene	(T)	10.85	(2.116)	.85954	50.00	
33)	2,4,6-Trichlorophenol	(T)	11.26	(2.196)	.84444	50.00	**
34)	2,4,5-Trichlorophenol	(T)	11.33	(2.211)	.86656	50.00	**
35)	2-Chloronaphthalene	(T)	11.76	(2.294)	2.63110	50.00	
36)	2-Fluorobiphenyl	(S)	11.55	(2.253)	3.15538	50.00	
37)	2-Nitroaniline	(T)	12.18	(2.376)	.79740	50.00	**
38)	Dimethylphthalate	(T)	12.93	(2.523)	2.97165	50.00	
39)	*d-10-Phenanthrene	(I)	17.96	(1.000)	1.00000	50.00	**
40)	Acenaphthylene	(T)	13.05	(.727)	1.27258	50.00	
41)	3-Nitroaniline	(T)	13.54	(.754)	.14619	50.00	
42)	Acenaphthene	(M)	13.61	(.758)	.83018	50.00	
43)	2,4-Dinitrophenol	(T)	13.87	(.772)	.06632	50.00	**
44)	4-Nitrophenol	(M)	14.26	(.794)	.03565	50.00	**
45)	Dibenzofuran	(T)	14.15	(.788)	1.12725	50.00	

46)	2,4-Dinitrotoluene	(M)	13.12(	.798)	.20721	50.00	**
47)	2,6-Dinitrotoluene	(T)	14.29(	.796)	.25048	50.00	**
48)	Diethylphthalate	(T)	15.22(	.847)	.87059	50.00	
49)	4-Chlorophenyl-phenylether	(T)	15.35(	.854)	.42225	50.00	
50)	Fluorene	(T)	15.19(	.845)	.85672	50.00	
51)	4-Nitroaniline	(T)	15.38(	.856)	.11856	50.00	**
52)	4,6-Dinitro-2-methylphenol	(T)	15.50(	.863)	.13552	50.00	**
53)	N-Nitrosodiphenylamine	(T)	15.74(	.876)	.54265	50.00	
54)	2,4,6-Tribromophenol	(S)	15.91(	.886)	.14520	50.00	
55)	4-Bromophenyl-phenylether	(T)	16.79(	.935)	.25343	50.00	
56)	Hexachlorobenzene	(T)	16.81(	.935)	.30797	50.00	
57)	Pentachlorophenol	(M)	17.47(	.973)	.09453	50.00	
58)	Phenanthrene	(T)	18.04(	1.004)	1.14239	50.00	**
59)	Anthracene	(T)	18.19(	1.013)	1.17708	50.00	**
60)	Di-n-Butylphthalate	(T)	20.22(	1.125)	1.35222	50.00	
61)	Fluoranthene	(T)	21.60(	1.202)	1.19187	50.00	**
62)	d12-Chrysene	(T)	25.95(	1.445)	.75624	50.00	**
63)	Pyrene	(M)	22.24(	1.238)	1.18930	50.00	**
64)	Terphenyl-d14	(S)	22.99(	1.280)	.81609	50.00	
65)	Butylbenzylphthalate	(T)	24.69(	1.374)	.48993	50.00	**
66)	Benzo(a)Anthracene	(T)	25.93(	1.443)	.77060	50.00	**
67)	Bis(2-Ethylhexyl)Phthalate	(T)	26.61(	1.481)	.65089	50.00	
68)	Chrysene	(T)	26.02(	1.449)	.92436	50.00	**
69)	*d12-Perylene	(I)	29.86(	1.000)	1.00000	50.00	**
70)	Di-n-octylphthalate	(T)	28.42(	.952)	2.04542	50.00	
71)	Benzo(b)fluoranthene	(T)	28.90(	.968)	1.19479	50.00	**
72)	Benzo(k)Fluoranthene	(T)	28.97(	.970)	1.64175	50.00	**
73)	Benzo(a)Pyrene	(T)	29.71(	.995)	1.28840	50.00	**
74)	Indeno(1,2,3-cd)Pyrene	(T)	32.37(	1.084)	.79971	50.00	
75)	Dibenzo(a,h)Anthracene	(T)	32.47(	1.087)	.87808	50.00	
76)	Benzo(g,h,i)Perylene	(T)	32.93(	1.103)	.99864	50.00	**

* Compound is ISTD
** Compound uses different Quant parameters

Quant DB File: DRW37::SC

Title: HP BNA STD REV A ZIYAD 06\19\90

Last EDIT Date: 930607 14:20 Last Calib Date: 930609 10:36

RT Window (+/- min):	.75
Max Hits/Compound:	1
Minimum Area:	1000
Peak/Base Peak Ratio:	30.00 %
Slope Sensitivity:	.200
Subtraction Method:	1
Ignore max check:	NO
Auto Qdel Method:	5
Units of Conc:	NG/UL

Number of Compounds: 76

Comp No.	Compound Name	(Type)	Retention Time Min.	(Rel)	R.F.	Conc.	
1)	*d4-1,4-Dichlorobenzene	(I)	5.12	(1.000)	1.00000	50.00	**
2)	2-Fluorophenol	(S)	2.85	(.555)	1.19931	50.00	
3)	Phenol-d5	(S)	4.44	(.866)	1.39082	50.00	
4)	Phenol	(M)	4.46	(.871)	1.43583	50.00	
5)	bis(2-Chloroethyl)Ether	(T)	4.60	(.897)	1.31273	50.00	**
6)	2-Chlorophenol	(M)	4.67	(.912)	1.29167	50.00	
7)	1,3-Dichlorobenzene	(T)	4.99	(.973)	1.39491	50.00	**
8)	1,4-Dichlorobenzene	(M)	5.16	(1.007)	1.55233	50.00	**
9)	Benzyl Alcohol	(T)	5.50	(1.073)	.79281	50.00	
10)	1,2-Dichlorobenzene	(T)	5.48	(1.070)	1.50393	50.00	**
11)	2-Methylphenol	(T)	5.80	(1.132)	1.12869	50.00	**
12)	bis(2-Chloroisopropyl)ether	(T)	5.87	(1.146)	.17258	50.00	
13)	4-Methylphenol	(T)	6.23	(1.215)	1.13398	50.00	**
14)	N-Nitroso-Di-n-propylamine	(M)	6.20	(1.209)	.86237	50.00	**
15)	Hexachloroethane	(T)	6.26	(1.222)	.63161	50.00	
16)	d8-Naphthalene	(T)	8.32	(1.623)	3.75951	50.00	**
17)	Nitrobenzene-d5	(S)	6.45	(1.259)	1.14844	50.00	
18)	Nitrobenzene	(T)	6.50	(1.268)	.69728	50.00	
19)	Isophorone	(T)	7.18	(1.400)	2.34243	50.00	
20)	2-Nitrophenol	(T)	7.32	(1.428)	.80861	50.00	
21)	2,4-Dimethylphenol	(T)	7.61	(1.486)	1.07585	50.00	
22)	Benzoic Acid	(T)	8.13	(1.586)	.79930	50.00	**
23)	bis(2-Chloroethoxy)Methane	(T)	7.89	(1.540)	1.57610	50.00	
24)	2,4-Dichlorophenol	(T)	7.99	(1.560)	1.17329	50.00	
25)	1,2,4-Trichlorobenzene	(M)	8.20	(1.600)	1.39570	50.00	
26)	Naphthalene	(T)	8.37	(1.634)	3.92446	50.00	
27)	4-Chloroaniline	(T)	8.64	(1.687)	1.58513	50.00	
28)	Hexachlorobutadiene	(T)	8.84	(1.724)	.87920	50.00	
29)	4-Chloro-3-methylphenol	(M)	10.22	(1.994)	1.03849	50.00	**
30)	2-Methylnaphthalene	(T)	10.42	(2.033)	2.59227	50.00	
31)	d10-Acenaphthene	(T)	13.51	(2.637)	1.97031	50.00	**
32)	Hexachlorocyclopentadiene	(T)	10.93	(2.133)	.94364	50.00	
33)	2,4,6-Trichlorophenol	(T)	11.34	(2.212)	.81509	50.00	**
34)	2,4,5-Trichlorophenol	(T)	11.41	(2.226)	.89880	50.00	**
35)	2-Chloronaphthalene	(T)	11.84	(2.311)	2.44224	50.00	
36)	2-Fluorobiphenyl	(S)	11.63	(2.269)	2.92075	50.00	
37)	2-Nitroaniline	(T)	12.26	(2.392)	.77021	50.00	**
38)	Dimethylphthalate	(T)	13.02	(2.540)	2.75208	50.00	
39)	*d-10-Phenanthrene	(I)	17.96	(1.000)	1.00000	50.00	**
40)	Acenaphthylene	(T)	13.06	(.727)	1.27545	50.00	
41)	3-Nitroaniline	(T)	13.53	(.753)	.16052	50.00	
42)	Acenaphthene	(M)	13.62	(.758)	.83366	50.00	
43)	2,4-Dinitrophenol	(T)	13.86	(.772)	.09302	50.00	**
44)	4-Nitrophenol	(M)	14.22	(.792)	.04211	50.00	**
45)	Dibenzofuran	(T)	14.15	(.788)	1.13193	50.00	

46)	2,4-Dinitrotoluene	(M)	13.11(	.730)	.21848	50.00	**
47)	2,6-Dinitrotoluene	(T)	14.29(	.795)	.26483	50.00	**
48)	Diethylphthalate	(T)	15.22(	.847)	.89568	50.00	
49)	4-Chlorophenyl-phenylether	(T)	15.35(	.854)	.44846	50.00	
50)	Fluorene	(T)	15.19(	.845)	.85312	50.00	
51)	4-Nitroaniline	(T)	15.37(	.855)	.12974	50.00	**
52)	4,6-Dinitro-2-methylphenol	(T)	15.49(	.862)	.15977	50.00	**
53)	N-Nitrosodiphenylamine	(T)	15.74(	.876)	.54388	50.00	
54)	2,4,6-Tribromophenol	(S)	15.91(	.886)	.20179	50.00	
55)	4-Bromophenyl-phenylether	(T)	16.79(	.935)	.28691	50.00	
56)	Hexachlorobenzene	(T)	16.81(	.936)	.35130	50.00	
57)	Pentachlorophenol	(M)	17.46(	.972)	.18162	50.00	
58)	Phenanthrene	(T)	18.04(	1.004)	1.13651	50.00	**
59)	Anthracene	(T)	18.19(	1.013)	1.16481	50.00	**
60)	Di-n-Butylphthalate	(T)	20.21(	1.125)	1.38609	50.00	
61)	Fluoranthene	(T)	21.59(	1.202)	1.19453	50.00	**
62)	d12-Chrysene	(T)	25.91(	1.442)	.85686	50.00	**
63)	Pyrene	(M)	22.23(	1.237)	1.22240	50.00	**
64)	Terphenyl-d14	(S)	22.97(	1.279)	.94337	50.00	
65)	Butylbenzylphthalate	(T)	24.66(	1.373)	.51839	50.00	**
66)	Benzo(a)Anthracene	(T)	25.90(	1.441)	.87316	50.00	**
67)	Bis(2-Ethylhexyl)Phthalate	(T)	26.57(	1.479)	.69944	50.00	
68)	Chrysene	(T)	25.99(	1.447)	1.02387	50.00	**
69)	*d12-Perylene	(I)	29.86(	1.000)	1.00000	50.00	**
70)	Di-n-octylphthalate	(T)	28.43(	.952)	1.78637	50.00	
71)	Benzo(b)fluoranthene	(T)	28.90(	.968)	1.16493	50.00	**
72)	Benzo(k)Fluoranthene	(T)	28.98(	.970)	1.51478	50.00	**
73)	Benzo(a)Pyrene	(T)	29.71(	.995)	1.23757	50.00	**
74)	Indeno(1,2,3-cd)Pyrene	(T)	32.37(	1.084)	.77800	50.00	
75)	Dibenzo(a,h)Anthracene	(T)	32.46(	1.087)	.84281	50.00	
76)	Benzo(g,h,i)Perylene	(T)	32.91(	1.102)	.89535	50.00	**

* Compound is ISTD
** Compound uses different Quant parameters

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 08:10
Output File: ^WR037::D3 Injected at: 930608 19:12
Data File: >WR037::D6 Dilution Factor: 1.00000
Name: ABNST10525 100 STD
Misc: 06-08-93 BTL# 1

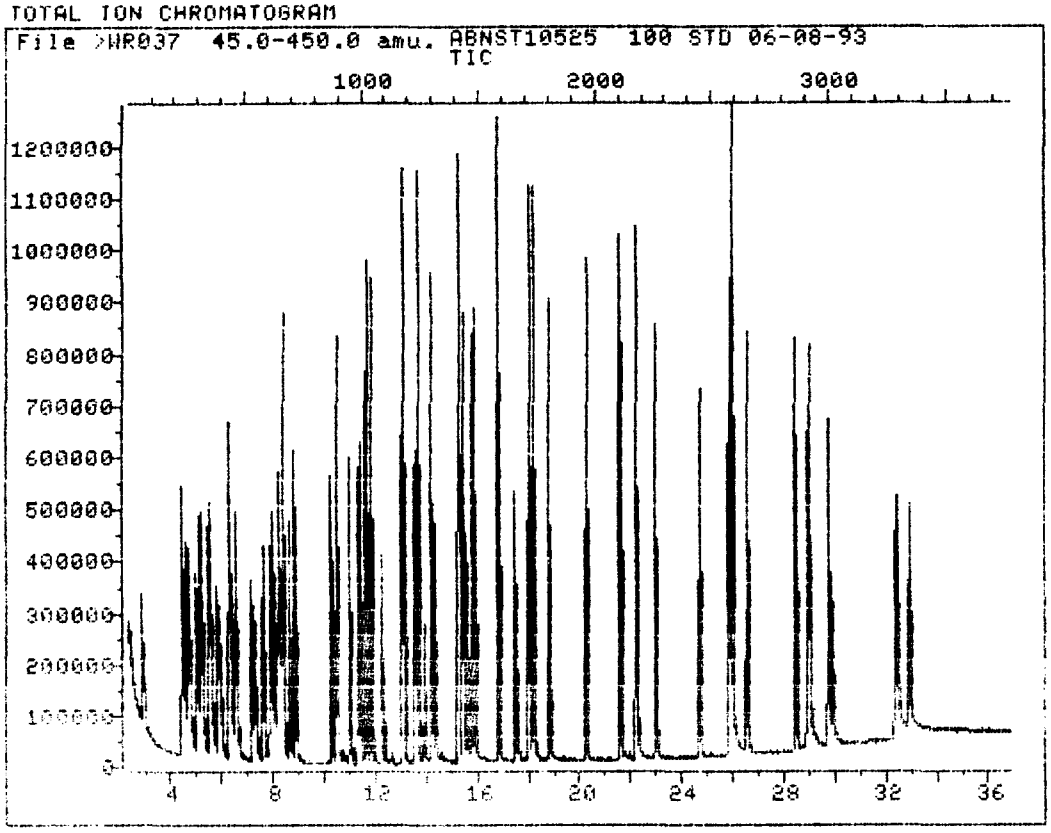
ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930608 10:43

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.10	152.0	164810	50.00	NG/UL	89
2)	2-Fluorophenol	2.81	112.0	436651	115.54	NG/UL	90
3)	Phenol-d5	4.43	99.0	473587	102.32	NG/UL	81
4)	Phenol	4.44	94.0	513224	112.73	NG/UL	83
5)	bis(2-Chloroethyl)Ether	4.47	93.0	511493	119.97	NG/UL	48
6)	2-Chlorophenol	4.65	128.0	429653	103.67	NG/UL	99
7)	1,3-Dichlorobenzene	4.96	146.0	458040	98.70	NG/UL	93
8)	1,4-Dichlorobenzene	5.14	146.0	533183	102.51	NG/UL	91
9)	Benzyl Alcohol	5.48	108.0	271152	101.97	NG/UL	78
10)	1,2-Dichlorobenzene	5.46	146.0	499032	100.00	NG/UL	93
11)	2-Methylphenol	5.79	108.0	382543	102.73	NG/UL	96
12)	bis(2-Chloroisopropyl)ether	5.86	121.0	46914M	73.06	NG/UL	98
13)	4-Methylphenol	6.23	108.0	368921	98.08	NG/UL	99
14)	N-Nitroso-Di-n-propylamine	6.21	70.0	263039M	94.98	NG/UL	84
15)	Hexachloroethane	6.24	201.0	204368	97.84	NG/UL	99
16)	d8-Naphthalene	8.31	136.0	620512	49.38	NG/UL	85
17)	Nitrobenzene-d5	6.45	82.0	398460	101.40	NG/UL	90
18)	Nitrobenzene	6.50	123.0	238164	102.87	NG/UL	90
19)	Isophorone	7.18	82.0	793314	101.24	NG/UL	91
20)	2-Nitrophenol	7.31	139.0	279834	104.52	NG/UL	81
21)	2,4-Dimethylphenol	7.61	122.0	368998	104.35	NG/UL	87
22)	Benzoic Acid	8.28	105.0	302683M	116.31	NG/UL	
23)	bis(2-Chloroethoxy)Methane	7.89	93.0	534794	102.12	NG/UL	98
24)	2,4-Dichlorophenol	7.99	162.0	406857	104.32	NG/UL	92
25)	1,2,4-Trichlorobenzene	8.20	180.0	463336	101.54	NG/UL	96
26)	Naphthalene	8.37	128.0	1320255	103.38	NG/UL	95
27)	4-Chloroaniline	8.64	127.0	556530	105.65	NG/UL	88
28)	Hexachlorobutadiene	8.83	225.0	283144	96.78	NG/UL	98
29)	4-Chloro-3-methylphenol	10.22	107.0	356852M	103.45	NG/UL	
30)	2-Methylnaphthalene	10.41	142.0	871395	101.00	NG/UL	91
31)	d10-Acenaphthene	13.51	164.0	331559	51.47	NG/UL	95
32)	Hexachlorocyclopentadiene	10.92	237.0	329877	106.01	NG/UL	98
33)	2,4,6-Trichlorophenol	11.33	196.0	289268	106.65	NG/UL	97
34)	2,4,5-Trichlorophenol	11.41	196.0	297094	101.44	NG/UL	89
35)	2-Chloronaphthalene	11.85	162.0	810166	97.79	NG/UL	93
36)	2-Fluorobiphenyl	11.63	172.0	964177	99.05	NG/UL	95
37)	2-Nitroaniline	12.27	138.0	293326	113.14	NG/UL	85
38)	Dimethylphthalate	13.02	163.0	909112	98.88	NG/UL	92
39)	*d-10-Phenanthrene	17.95	188.0	529485	50.00	NG/UL	96
40)	Acenaphthylene	13.06	152.0	1277085	92.87	NG/UL	92
41)	3-Nitroaniline	13.54	138.0	198702	110.67	NG/UL	73
42)	Acenaphthene	13.62	153.0	849194	94.63	NG/UL	93
43)	2,4-Dinitrophenol	13.86	184.0	120667M	119.67	NG/UL	78

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	4-Nitrophenol	14.23	109.0	51971	107.33	NG/UL	70
45)	Dibenzofuran	14.15	168.0	1219209	99.39	NG/UL	84
46)	2,4-Dinitrotoluene	13.12	165.0	236037	97.73	NG/UL	66
47)	2,6-Dinitrotoluene	14.29	165.0	297216	103.34	NG/UL	91
48)	Diethylphthalate	15.23	149.0	920227	93.99	NG/UL	93
49)	4-Chlorophenyl-phenylether	15.34	204.0	470994	97.84	NG/UL	95
50)	Fluorene	15.18	166.0	900334	97.78	NG/UL	98
51)	4-Nitroaniline	15.39	138.0	159451M	106.31	NG/UL	
52)	4,6-Dinitro-2-methylphenol	15.50	198.0	195693	113.87	NG/UL	96
53)	N-Nitrosodiphenylamine	15.74	169.0	594374	101.92	NG/UL	99
54)	2,4,6-Tribromophenol	15.90	329.9	210770	107.33	NG/UL	96
55)	4-Bromophenyl-phenylether	16.78	248.0	295758	98.92	NG/UL	87
56)	Hexachlorobenzene	16.80	283.9	346661	96.37	NG/UL	98
57)	Pentachlorophenol	17.45	265.8	202373	114.56	NG/UL	98
58)	Phenanthrene	18.03	178.0	1201621	99.95	NG/UL	99
59)	Anthracene	18.18	178.0	1239193	99.99	NG/UL	97
60)	Di-n-Butylphthalate	20.19	149.0	1431797	95.11	NG/UL	95
61)	Fluoranthene	21.57	202.0	1254457	103.24	NG/UL	90
62)	d12-Chrysene	25.89	240.0	431290	53.08	NG/UL	94
63)	Pyrene	22.20	202.0	1252366	102.65	NG/UL	95
64)	Terphenyl-d14	22.96	244.0	975707	103.90	NG/UL	95
65)	Butylbenzylphthalate	24.64	149.0	532103	96.59	NG/UL	85
66)	Benzo(a)Anthracene	25.87	228.0	936675	111.01	NG/UL	97
67)	Bis(2-Ethylhexyl)Phthalate	26.55	149.0	707014	93.25	NG/UL	94
68)	Chrysene	25.97	228.0	1059921	107.67	NG/UL	91
69)	*d12-Perylene	29.84	264.0	317313	50.00	NG/UL	95
70)	Di-n-octylphthalate	28.41	149.0	1187931	87.13	NG/UL	84
71)	Benzo(b)fluoranthene	28.89	252.0	790100	114.90	NG/UL	90
72)	Benzo(k)Fluoranthene	28.97	252.0	989207	102.01	NG/UL	88
73)	Benzo(a)Pyrene	29.70	252.0	822135	111.86	NG/UL	94
74)	Indeno(1,2,3-cd)Pyrene	32.35	276.0	517535M	127.76	NG/UL	81
75)	Dibenzo(a,h)Anthracene	32.45	278.0	588212	130.22	NG/UL	92
76)	Benzo(g,h,i)Perylene	32.90	276.0	576067	125.28	NG/UL	81

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >WR037::D6 Quant Output File: ^WR037::D3
Name: ABNST10525 100 STD
Misc: 06-08-93 BTL# 1

Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930608 10:43

Operator ID: MANAGER
Quant Time: 930609 08:10
Injected at: 930608 19:12

QUANT REPORT

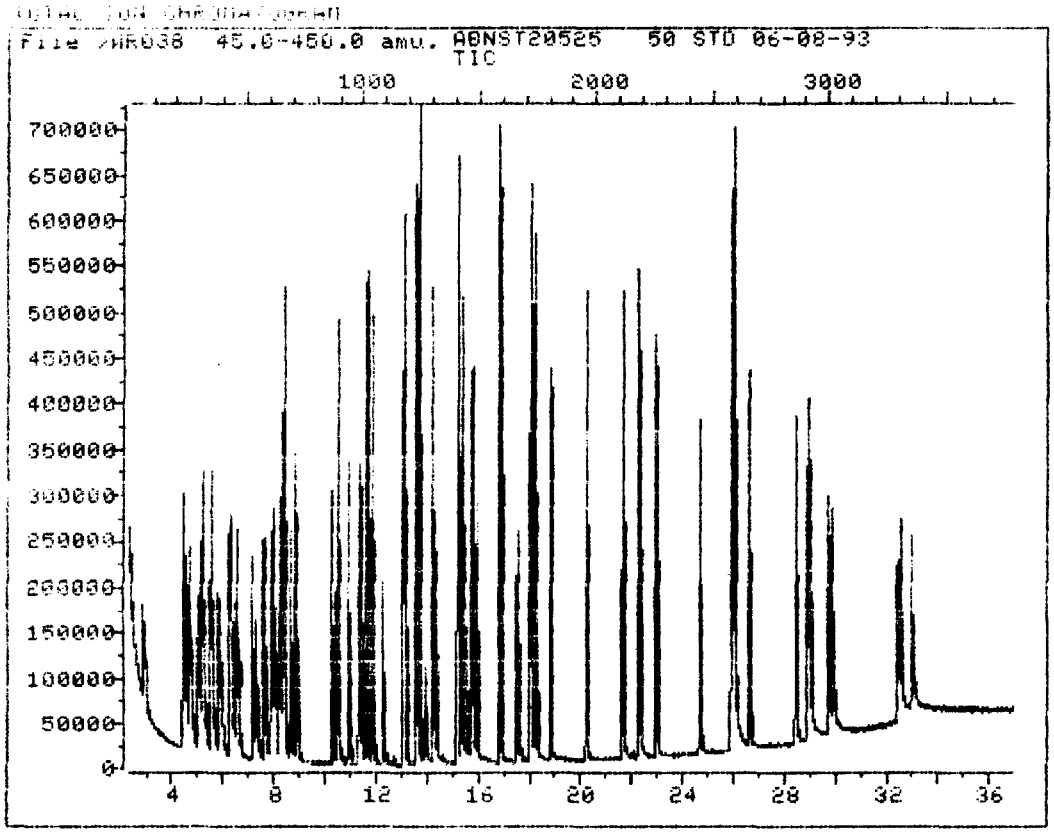
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 08:15
Output File: ^WR038::D3 Injected at: 930608 19:58
Data File: >WR038::D6 Dilution Factor: 1.00000
Name: ABNST20525 50 STD
Misc: 06-08-93 BTL# 2

ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930608 10:43

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.11	152.0	172951	50.00	NG/UL	95
2)	2-Fluorophenol	2.83	112.0	193226	48.72	NG/UL	91
3)	Phenol-d5	4.43	99.0	237082	48.81	NG/UL	81
4)	Phenol	4.44	94.0	235284	49.25	NG/UL	89
5)	bis(2-Chloroethyl)Ether	4.63	93.0	225464	50.39	NG/UL	95
6)	2-Chlorophenol	4.66	128.0	224685	51.66	NG/UL	97
7)	1,3-Dichlorobenzene	4.97	146.0	233602	47.97	NG/UL	94
8)	1,4-Dichlorobenzene	5.15	146.0	272465	49.92	NG/UL	93
9)	Benzyl Alcohol	5.48	108.0	136054	48.75	NG/UL	75
10)	1,2-Dichlorobenzene	5.47	146.0	262067	50.04	NG/UL	93
11)	2-Methylphenol	5.78	108.0	190593	48.77	NG/UL	98
12)	bis(2-Chloroisopropyl)ether	5.86	121.0	30350M	45.04	NG/UL	99
13)	4-Methylphenol	6.20	108.0	196886	49.88	NG/UL	97
14)	N-Nitroso-Di-n-propylamine	6.18	70.0	150410	51.76	NG/UL	89
15)	Hexachloroethane	6.25	201.0	111101	50.69	NG/UL	98
16)	d8-Naphthalene	8.30	136.0	648736	49.19	NG/UL	86
17)	Nitrobenzene-d5	6.43	82.0	194654	47.21	NG/UL	85
18)	Nitrobenzene	6.48	123.0	121134	49.86	NG/UL	92
19)	Isophorone	7.16	82.0	398580	48.47	NG/UL	90
20)	2-Nitrophenol	7.31	139.0	137989	49.11	NG/UL	81
21)	2,4-Dimethylphenol	7.60	122.0	186206	50.18	NG/UL	90
22)	Benzoic Acid	8.09	105.0	140083	51.30	NG/UL	88
23)	bis(2-Chloroethoxy)Methane	7.87	93.0	272217	49.53	NG/UL	99
24)	2,4-Dichlorophenol	7.98	162.0	203795	49.79	NG/UL	94
25)	1,2,4-Trichlorobenzene	8.19	180.0	243675	50.89	NG/UL	98
26)	Naphthalene	8.36	128.0	676872	50.51	NG/UL	95
27)	4-Chloroaniline	8.63	127.0	271830	49.18	NG/UL	90
28)	Hexachlorobutadiene	8.82	225.0	154248	50.24	NG/UL	97
29)	4-Chloro-3-methylphenol	10.20	107.0	179161	49.49	NG/UL	48
30)	2-Methylnaphthalene	10.40	142.0	443857	49.02	NG/UL	93
31)	d10-Acenaphthene	13.50	164.0	336550	49.79	NG/UL	93
32)	Hexachlorocyclopentadiene	10.92	237.0	163802	50.16	NG/UL	99
33)	2,4,6-Trichlorophenol	11.32	196.0	140097	49.22	NG/UL	94
34)	2,4,5-Trichlorophenol	11.39	196.0	152925	49.76	NG/UL	89
35)	2-Chloronaphthalene	11.83	162.0	421253	48.46	NG/UL	94
36)	2-Fluorobiphenyl	11.61	172.0	501197	49.06	NG/UL	96
37)	2-Nitroaniline	12.24	138.0	133138	48.94	NG/UL	88
38)	Dimethylphthalate	13.00	163.0	474476	49.18	NG/UL	94
39)	*d-10-Phenanthrene	17.94	188.0	520628	50.00	NG/UL	99
40)	Acenaphthylene	13.04	152.0	682735	50.49	NG/UL	94
41)	3-Nitroaniline	13.51	138.0	82509	46.74	NG/UL	71
42)	Acenaphthene	13.60	153.0	439211	49.78	NG/UL	95
43)	2,4-Dinitrophenol	13.84	184.0	50589	51.03	NG/UL	85

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	4-Nitrophenol	14.20	109.0	19426	40.80	NG/UL	71
45)	Dibenzofuran	14.13	168.0	600843	49.81	NG/UL	85
46)	2,4-Dinitrotoluene	13.09	165.0	118413	49.86	NG/UL	63
47)	2,6-Dinitrotoluene	14.26	165.0	139648	49.38	NG/UL	96
48)	Diethylphthalate	15.20	149.0	473848	49.22	NG/UL	92
49)	4-Chlorophenyl-phenylether	15.33	204.0	240291	50.76	NG/UL	99
50)	Fluorene	15.17	166.0	454450	50.20	NG/UL	96
51)	4-Nitroaniline	15.34	138.0	64488	43.73	NG/UL	50
52)	4,6-Dinitro-2-methylphenol	15.47	198.0	85075	50.34	NG/UL	95
53)	N-Nitrosodiphenylamine	15.71	169.0	295078	51.46	NG/UL	98
54)	2,4,6-Tribromophenol	15.89	329.9	109048	56.47	NG/UL	96
55)	4-Bromophenyl-phenylether	16.77	248.0	151046	51.38	NG/UL	86
56)	Hexachlorobenzene	16.79	283.9	185462	52.43	NG/UL	94
57)	Pentachlorophenol	17.45	265.8	97168	55.94	NG/UL	97
58)	Phenanthrene	18.02	178.0	597673	50.56	NG/UL	98
59)	Anthracene	18.17	178.0	611540	50.18	NG/UL	99
60)	Di-n-Butylphthalate	20.20	149.0	729265	49.26	NG/UL	95
61)	Fluoranthene	21.57	202.0	616986	51.64	NG/UL	[illegible]
62)	d12-Chrysene	25.89	240.0	453162	56.72	[illegible]	[illegible]
63)	Pyrene	22.20	202.0	[illegible]	[illegible]	NG/UL	97
64)	Terphenyl-d14	[illegible]	[illegible]	[illegible]	53.45	NG/UL	96
65)	Butylbenzylphthalate	24.63	149.0	268745	49.61	NG/UL	[illegible]
[illegible]	[illegible]thracene	25.87	228.0	446004	[illegible]	NG/UL	[illegible]
[illegible]	[illegible]-Ethylhexyl)Phthalate	26.54	149.0	[illegible]	[illegible]	[illegible]	[illegible]
68)	Chrysene	25.96	228.0	[illegible]	[illegible]	NG/UL	[illegible]
69)	*d12-Perylene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	28.41	149.0	[illegible]	[illegible]	NG/UL	[illegible]
[illegible]	Benzo(b)Fluoranthene	28.88	[illegible]	[illegible]	[illegible]	NG/UL	[illegible]
[illegible]	Benzo(k)Fluoranthene	[illegible]	[illegible]	[illegible]	[illegible]	NG/UL	[illegible]
[illegible]	Benzo(a)Pyrene	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	32.35	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	NG/UL	92
[illegible]	[illegible]	32.89	[illegible]	[illegible]	60.08	NG/UL	82

* [illegible]



Data File: >WR038::D6 Quant Output File: ^WR038::D3
Name: ABNST20525 50 STD
Misc: 06-08-93 BTL# 2

Id File: IDRW3?::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930608 10:43

Operator ID: MANAGER
Quant Time: 930609 08:15
Injected at: 930608 19:58

QUANT REPORT

Operator ID: MANAGER
Output File: ^WR039::D3
Data File: >WR039::D6
Name: ABNST30525 25 STD
Misc: 06-08-93

Quant Rev: 6
Quant Time: 930609 08:24
Injected at: 930608 20:45
Dilution Factor: 1.00000

BTL# 3

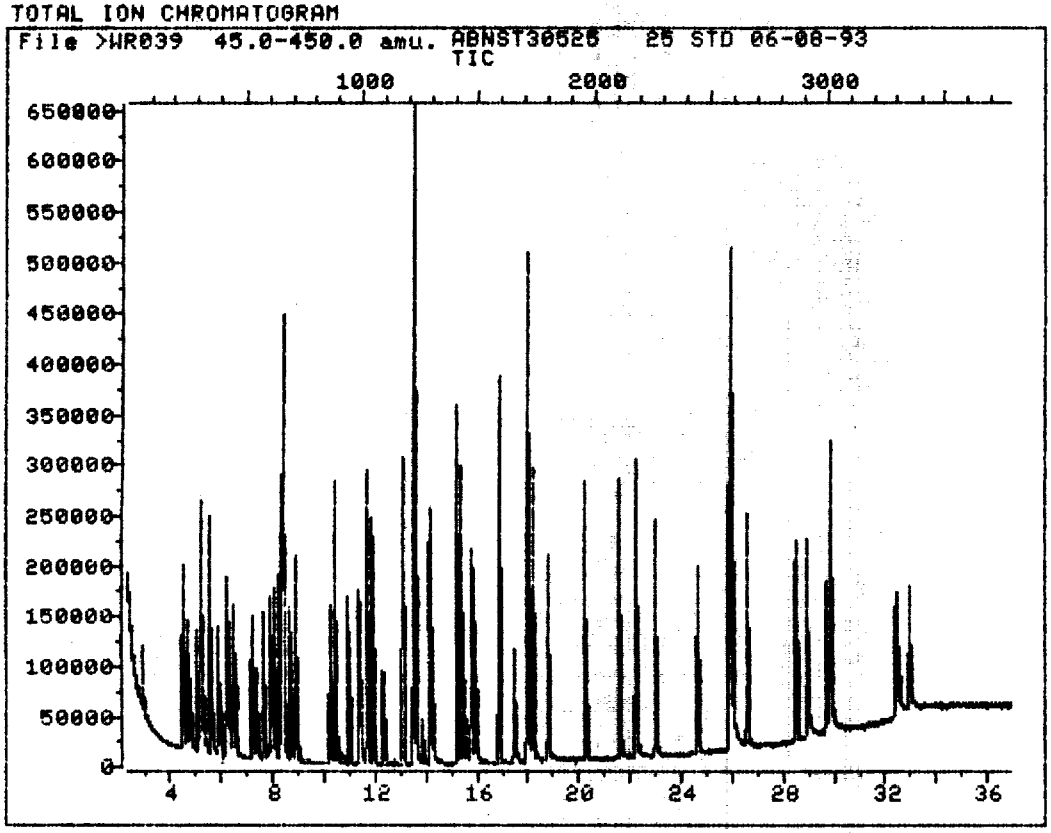
ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930608 10:43

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.15	152.0	167891	50.00	NG/UL	94
2)	2-Fluorophenol	2.89	112.0	97041	25.21	NG/UL	91
3)	Phenol-d5	4.46	99.0	114575	24.30	NG/UL	81
4)	Phenol	4.49	94.0	116690	25.16	NG/UL	82
5)	bis(2-Chloroethyl)Ether	4.68	93.0	90895	20.93	NG/UL	99
6)	2-Chlorophenol	4.70	128.0	106812	25.30	NG/UL	98
7)	1,3-Dichlorobenzene	5.02	146.0	121254	25.65	NG/UL	91
8)	1,4-Dichlorobenzene	5.19	146.0	122899	23.19	NG/UL	93
9)	Benzyl Alcohol	5.52	108.0	64566	23.83	NG/UL	76
10)	1,2-Dichlorobenzene	5.51	146.0	124454	24.48	NG/UL	94
11)	2-Methylphenol	5.82	108.0	94313	24.86	NG/UL	96
12)	bis(2-Chloroisopropyl)ether	5.89	121.0	16784M	25.66	NG/UL	56
13)	4-Methylphenol	6.22	108.0	96061	25.07	NG/UL	98
14)	N-Nitroso-Di-n-propylamine	6.20	70.0	77183	27.36	NG/UL	86
15)	Hexachloroethane	6.29	201.0	53089	24.95	NG/UL	95
16)	d8-Naphthalene	8.33	136.0	631696	49.35	NG/UL	86
17)	Nitrobenzene-d5	6.46	82.0	93263	23.30	NG/UL	86
18)	Nitrobenzene	6.51	123.0	56152	23.81	NG/UL	93
19)	Isophorone	7.17	82.0	194415	24.36	NG/UL	89
20)	2-Nitrophenol	7.32	139.0	65395	23.98	NG/UL	80
21)	2,4-Dimethylphenol	7.62	122.0	86586	24.04	NG/UL	92
22)	Benzoic Acid	7.99	105.0	56215	21.21	NG/UL	84
23)	bis(2-Chloroethoxy)Methane	7.89	93.0	128596	24.10	NG/UL	99
24)	2,4-Dichlorophenol	7.99	162.0	92946	23.39	NG/UL	97
25)	1,2,4-Trichlorobenzene	8.20	180.0	115215	24.79	NG/UL	93
26)	Naphthalene	8.37	128.0	323554	24.87	NG/UL	96
27)	4-Chloroaniline	8.64	127.0	125522	23.39	NG/UL	88
28)	Hexachlorobutadiene	8.84	225.0	74438	24.98	NG/UL	98
29)	4-Chloro-3-methylphenol	10.21	107.0	83689	23.82	NG/UL	46
30)	2-Methylnaphthalene	10.42	142.0	215471	24.52	NG/UL	94
31)	d10-Acenaphthene	13.51	164.0	327933	49.98	NG/UL	93
32)	Hexachlorocyclopentadiene	10.93	237.0	74127	23.39	NG/UL	97
33)	2,4,6-Trichlorophenol	11.33	196.0	63601M	23.02	NG/UL	84
34)	2,4,5-Trichlorophenol	11.39	196.0	76463M	25.63	NG/UL	
35)	2-Chloronaphthalene	11.83	162.0	204253	24.20	NG/UL	94
36)	2-Fluorobiphenyl	11.62	172.0	246734	24.88	NG/UL	96
37)	2-Nitroaniline	12.24	138.0	54644	20.69	NG/UL	90
38)	Dimethylphthalate	13.00	163.0	231249	24.69	NG/UL	97
39)	*d-10-Phenanthrene	17.94	188.0	516162	50.00	NG/UL	96
40)	Acenaphthylene	13.04	152.0	337832	25.20	NG/UL	94
41)	3-Nitroaniline	13.51	138.0	34959	19.97	NG/UL	76
42)	Acenaphthene	13.60	153.0	220778	25.24	NG/UL	96
43)	2,4-Dinitrophenol	13.84	184.0	17535	17.84	NG/UL	85

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	4-Nitrophenol	14.20	109.0	10308	21.84	NG/UL	72
45)	Dibenzofuran	14.13	168.0	281415	23.53	NG/UL	89
46)	2,4-Dinitrotoluene	13.09	165.0	52932	22.48	NG/UL	65
47)	2,6-Dinitrotoluene	14.26	165.0	63387	22.61	NG/UL	96
48)	Diethylphthalate	15.19	149.0	234318	24.55	NG/UL	94
49)	4-Chlorophenyl-phenylether	15.33	204.0	113313	24.15	NG/UL	99
50)	Fluorene	15.16	166.0	215826	24.05	NG/UL	98
51)	4-Nitroaniline	15.33	138.0	29622M	20.26	NG/UL	
52)	4,6-Dinitro-2-methylphenol	15.46	198.0	33836	20.20	NG/UL	94
53)	N-Nitrosodiphenylamine	15.71	169.0	129965	22.86	NG/UL	94
54)	2,4,6-Tribromophenol	15.89	329.9	50814	26.54	NG/UL	97
55)	4-Bromophenyl-phenylether	16.78	248.0	75187	25.80	NG/UL	87
56)	Hexachlorobenzene	16.79	283.9	95575	27.26	NG/UL	98
57)	Pentachlorophenol	17.44	265.8	43130	25.05	NG/UL	96
58)	Phenanthrene	18.01	178.0	290812	24.81	NG/UL	96
59)	Anthracene	18.16	178.0	296695	24.56	NG/UL	98
60)	Di-n-Butylphthalate	20.19	149.0	362724	24.72	NG/UL	96
61)	Fluoranthene	21.56	202.0	313290	26.45	NG/UL	90
62)	d12-Chrysene	25.89	240.0	457122	57.71	NG/UL	96
63)	Pyrene	22.20	202.0	326165	27.42	NG/UL	96
64)	Terphenyl-d14	22.95	244.0	247960	27.09	NG/UL	95
65)	Butylbenzylphthalate	24.64	149.0	138464	25.78	NG/UL	87
66)	Benzo(a)Anthracene	25.87	228.0	226670	27.56	NG/UL	97
67)	Bis(2-Ethylhexyl)Phthalate	26.55	149.0	191124	25.86	NG/UL	98
68)	Chrysene	25.96	228.0	267718	27.90	NG/UL	94
69)	*d12-Perylene	29.85	264.0	364098	50.00	NG/UL	93
70)	Di-n-octylphthalate	28.42	149.0	296161	18.93	NG/UL	86
71)	Benzo(b)fluoranthene	28.88	252.0	190449	24.14	NG/UL	88
72)	Benzo(k)Fluoranthene	28.96	252.0	253962	22.82	NG/UL	91
73)	Benzo(a)Pyrene	29.69	252.0	207798	24.64	NG/UL	95
74)	Indeno(1,2,3-cd)Pyrene	32.34	276.0	136701M	29.41	NG/UL	82
75)	Dibenzo(a,h)Anthracene	32.43	278.0	138128	26.65	NG/UL	91
76)	Benzo(g,h,i)Perylene	32.88	276.0	165244	31.32	NG/UL	82

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: ABNST30525 25 STD
Misc: 06-08-93 BTL# 3

Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930608 10:43

Operator ID: MANAGER
Quant Time: 930609 08:24
Injected at: 930608 20:45

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 10:36
Output File: ^WR040::D3 Injected at: 930608 21:31
Data File: >WR040::D6 Dilution Factor: 1.00000
Name: CAL CHK 50 12-92
Misc: 06-08-93 BTL# 4

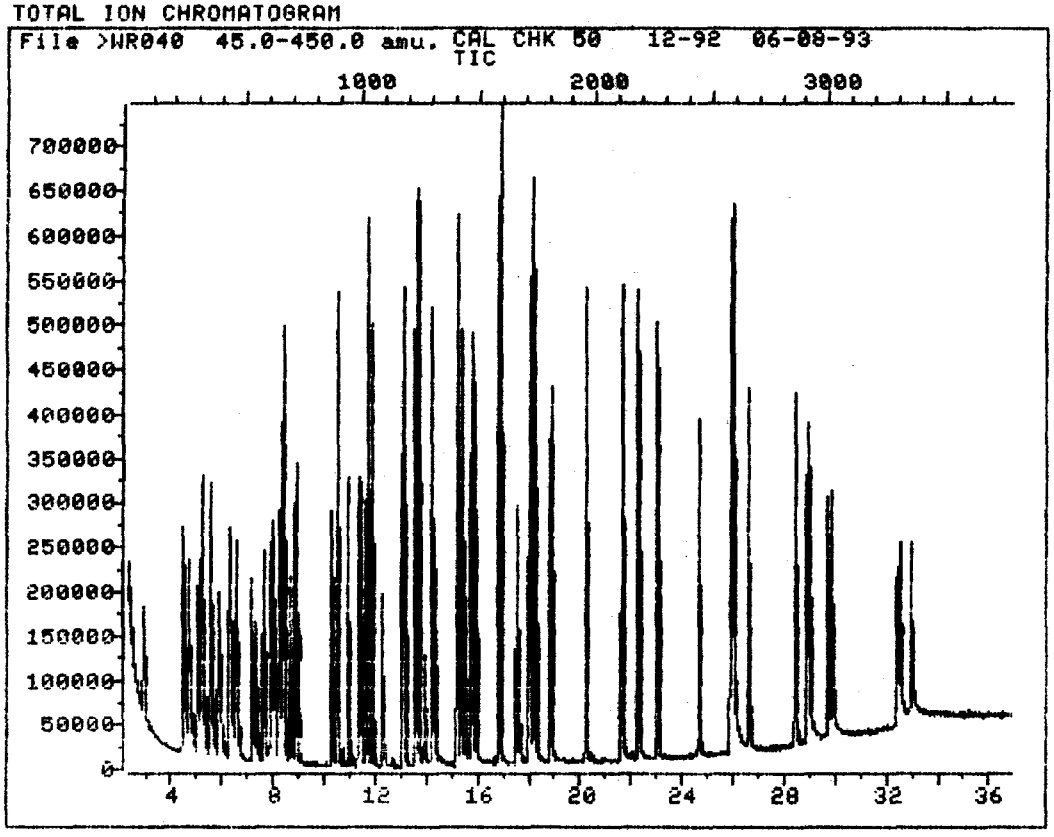
ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.13	152.0	167837	50.00	NG/UL	93
2)	2-Fluorophenol	2.85	112.0	182351	45.30	NG/UL	90
3)	Phenol-d5	4.43	99.0	217890	46.67	NG/UL	80
4)	Phenol	4.46	94.0	217010	45.03	NG/UL	98
5)	bis(2-Chloroethyl)Ether	4.64	93.0	189571	43.02	NG/UL	98
6)	2-Chlorophenol	4.68	128.0	216937	50.03	NG/UL	96
7)	1,3-Dichlorobenzene	4.99	146.0	229132	48.94	NG/UL	94
8)	1,4-Dichlorobenzene	5.16	146.0	265694	50.99	NG/UL	91
9)	Benzyl Alcohol	5.50	108.0	121853	45.79	NG/UL	75
10)	1,2-Dichlorobenzene	5.48	146.0	250268	49.57	NG/UL	94
11)	2-Methylphenol	5.80	108.0	171319	45.22	NG/UL	95
12)	bis(2-Chloroisopropyl)ether	5.93	121.0	33773	58.30	NG/UL	92
13)	4-Methylphenol	6.22	108.0	177988	46.76	NG/UL	98
14)	N-Nitroso-Di-n-propylamine	6.19	70.0	146775	50.70	NG/UL	87
15)	Hexachloroethane	6.26	201.0	108045	50.96	NG/UL	91
16)	d8-Naphthalene	8.31	136.0	646994	51.27	NG/UL	85
17)	Nitrobenzene-d5	6.45	82.0	189014	49.03	NG/UL	83
18)	Nitrobenzene	6.50	123.0	113436	48.46	NG/UL	91
19)	Isophorone	7.17	82.0	354670	45.11	NG/UL	87
20)	2-Nitrophenol	7.31	139.0	142625	52.55	NG/UL	82
21)	2,4-Dimethylphenol	7.61	122.0	165462	45.82	NG/UL	90
22)	Benzoic Acid	8.10	105.0	133696	49.83	NG/UL	93
23)	bis(2-Chloroethoxy)Methane	7.89	93.0	254266	48.06	NG/UL	99
24)	2,4-Dichlorophenol	7.99	162.0	194754	49.45	NG/UL	93
25)	1,2,4-Trichlorobenzene	8.20	180.0	233748	49.89	NG/UL	91
26)	Naphthalene	8.36	128.0	627171	47.61	NG/UL	95
27)	4-Chloroaniline	8.63	127.0	219628	41.28	NG/UL	88
28)	Hexachlorobutadiene	8.83	225.0	153386	51.97	NG/UL	97
30)	2-Methylnaphthalene	10.41	142.0	452500	52.00	NG/UL	91
31)	d10-Acenaphthene	13.50	164.0	358418	54.19	NG/UL	94
32)	Hexachlorocyclopentadiene	10.92	237.0	161327	50.93	NG/UL	98
33)	2,4,6-Trichlorophenol	11.40	196.0	149922	54.80	NG/UL	83
34)	2,4,5-Trichlorophenol	11.40	196.0	149922	49.69	NG/UL	88
35)	2-Chloronaphthalene	11.84	162.0	414505	50.56	NG/UL	95
36)	2-Fluorobiphenyl	11.83	172.0	510522	52.07	NG/UL	96
37)	2-Nitroaniline	12.25	138.0	124891	48.31	NG/UL	91
38)	Dimethylphthalate	13.01	163.0	479091	51.86	NG/UL	94
39)	*d-10-Phenanthrene	17.95	188.0	608228	50.00	NG/UL	96
40)	Acenaphthylene	13.05	152.0	647288	41.72	NG/UL	92
41)	3-Nitroaniline	13.52	138.0	78107	40.00	NG/UL	71
42)	Acenaphthene	13.60	153.0	409078	40.34	NG/UL	96
43)	2,4-Dinitrophenol	13.85	184.0	53693	47.45	NG/UL	81
44)	4-Nitrophenol	14.22	109.0	21118	41.23	NG/UL	71

	Compound	R.T.	Q ion	Area	Conc	Units	q
45)	Dibenzofuran	14.14	168.0	582230	42.28	NG/UL	84
46)	2,4-Dinitrotoluene	13.10	165.0	111762	42.05	NG/UL	65
47)	2,6-Dinitrotoluene	14.27	165.0	136990	42.52	NG/UL	93
48)	Diethylphthalate	15.21	149.0	474572	43.56	NG/UL	95
49)	4-Chlorophenyl-phenylether	15.34	204.0	241344	44.24	NG/UL	97
50)	Fluorene	15.17	166.0	434452	41.86	NG/UL	98
52)	4,6-Dinitro-2-methylphenol	15.47	198.0	85033	43.75	NG/UL	96
53)	N-Nitrosodiphenylamine	15.72	169.0	308838	46.68	NG/UL	99
54)	2,4,6-Tribromophenol	15.90	329.9	112392	45.79	NG/UL	95
55)	4-Bromophenyl-phenylether	16.78	248.0	156692	44.90	NG/UL	90
56)	Hexachlorobenzene	16.80	283.9	190360	44.54	NG/UL	94
57)	Pentachlorophenol	17.46	265.8	107680	48.74	NG/UL	97
58)	Phenanthrene	18.02	178.0	603745	43.67	NG/UL	99
59)	Anthracene	18.18	178.0	606190	42.78	NG/UL	98
60)	Di-n-Butylphthalate	20.20	149.0	748883	44.41	NG/UL	94
61)	Fluoranthene	21.57	202.0	618777	42.58	NG/UL	91
62)	d12-Chrysene	25.88	240.0	442733	42.48	NG/UL	97
63)	Pyrene	22.20	202.0	642216	43.19	NG/UL	96
64)	Terphenyl-d14	22.94	244.0	512821	44.69	NG/UL	97
65)	Butylbenzylphthalate	24.63	149.0	275598	43.70	NG/UL	85
66)	Benzo(a)Anthracene	25.86	228.0	429015	40.39	NG/UL	96
67)	Bis(2-Ethylhexyl)Phthalate	26.54	149.0	367928	43.24	NG/UL	98
68)	Chrysene	25.96	228.0	478365	38.41	NG/UL	93
69)	*d12-Perylene	29.84	264.0	334668	50.00	NG/UL	95
70)	Di-n-octylphthalate	28.41	149.0	606851	50.75	NG/UL	84
71)	Benzo(b)fluoranthene	28.87	252.0	351760	45.11	NG/UL	90
72)	Benzo(k)Fluoranthene	28.95	252.0	442435	43.64	NG/UL	92
73)	Benzo(a)Pyrene	29.68	252.0	372703	44.99	NG/UL	95
74)	Indeno(1,2,3-cd)Pyrene	32.89	276.0	279165	53.61	NG/UL	81
75)	Dibenzo(a,h)Anthracene	32.44	278.0	243064	43.09	NG/UL	92
76)	Benzo(g,h,i)Perylene	32.89	276.0	279165	46.58	NG/UL	81

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: CAL CHK 50 12-92
Misc: 06-08-93 BTL# 4

Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 10:36
Injected at: 930608 21:31

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 12:00
Output File: ^WR054::D3 Injected at: 930609 10:13
Data File: >WR054::D6 Dilution Factor: 1.00000
Name: ABNST40525 10 STD
Misc: 06-08-93 BTL#18

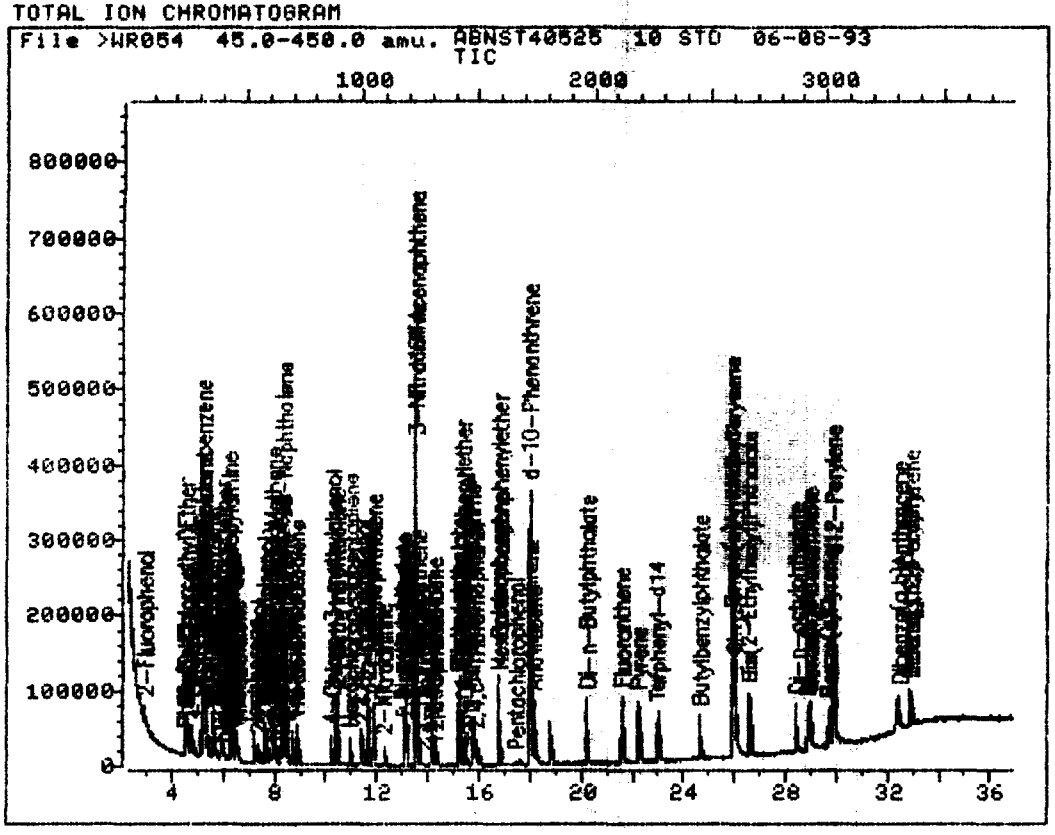
ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.18	152.0	136079	50.00	NG/UL	95
2)	2-Fluorophenol	2.94	112.0	23759	7.28	NG/UL	92
3)	Phenol-d5	4.50	99.0	33213	8.77	NG/UL	81
4)	Phenol	4.52	94.0	36581	9.36	NG/UL	83
5)	bis(2-Chloroethyl)Ether	4.53	93.0	36647	10.26	NG/UL	52
6)	2-Chlorophenol	4.73	128.0	32601	9.27	NG/UL	97
7)	1,3-Dichlorobenzene	5.05	146.0	37764	9.95	NG/UL	95
8)	1,4-Dichlorobenzene	5.21	146.0	39347	9.31	NG/UL	92
9)	Benzyl Alcohol	5.55	108.0	16687	7.73	NG/UL	83
10)	1,2-Dichlorobenzene	5.53	146.0	40704	9.94	NG/UL	96
11)	2-Methylphenol	5.85	108.0	28522	9.29	NG/UL	91
12)	bis(2-Chloroisopropyl)ether	5.97	121.0	5338	11.36	NG/UL	91
13)	4-Methylphenol	6.25	108.0	28720	9.31	NG/UL	96
14)	N-Nitroso-Di-n-propylamine	6.21	70.0	24154	10.29	NG/UL	90
15)	Hexachloroethane	6.30	201.0	14716	8.56	NG/UL	94
16)	d8-Naphthalene	8.33	136.0	515720	50.40	NG/UL	86
17)	Nitrobenzene-d5	6.48	82.0	30212	9.67	NG/UL	94
18)	Nitrobenzene	6.52	123.0	17214	9.07	NG/UL	94
19)	Isophorone	7.20	82.0	66962	10.50	NG/UL	93
20)	2-Nitrophenol	7.34	139.0	18545	8.43	NG/UL	86
21)	2,4-Dimethylphenol	7.63	122.0	24883	8.50	NG/UL	87
22)	Benzoic Acid	7.88	105.0	8979	4.13	NG/UL	99
23)	bis(2-Chloroethoxy)Methane	7.91	93.0	41116	9.59	NG/UL	98
24)	2,4-Dichlorophenol	8.02	162.0	25060	7.85	NG/UL	99
25)	1,2,4-Trichlorobenzene	8.22	180.0	34902	9.19	NG/UL	90
26)	Naphthalene	8.39	128.0	106436	9.97	NG/UL	96
27)	4-Chloroaniline	8.65	127.0	32675	7.57	NG/UL	92
28)	Hexachlorobutadiene	8.84	225.0	22420	9.37	NG/UL	97
29)	4-Chloro-3-methylphenol	10.24	107.0	21797	7.71	NG/UL	57
30)	2-Methylnaphthalene	10.42	142.0	70558	10.00	NG/UL	93
31)	d10-Acenaphthene	13.51	164.0	270916	50.52	NG/UL	93
32)	Hexachlorocyclopentadiene	10.94	237.0	13556	5.28	NG/UL	91
33)	2,4,6-Trichlorophenol	11.42	196.0	16427	7.41	NG/UL	92
35)	2-Chloronaphthalene	11.84	162.0	61677	9.28	NG/UL	96
36)	2-Fluorobiphenyl	11.69	172.0	75857	9.54	NG/UL	96
37)	2-Nitroaniline	12.26	138.0	12666	6.04	NG/UL	93
38)	Dimethylphthalate	13.00	163.0	68188	9.10	NG/UL	91
39)	*d-10-Phenanthrene	17.95	188.0	388714	50.00	NG/UL	98
40)	Acenaphthylene	13.05	152.0	105039	10.59	NG/UL	97
41)	3-Nitroaniline	13.52	138.0	7835	6.28	NG/UL	96
42)	Acenaphthene	13.59	153.0	69949	10.79	NG/UL	95
43)	2,4-Dinitrophenol	13.85	184.0	1014	1.40	NG/UL	99
44)	4-Nitrophenol	14.24	109.0	1821	5.56	NG/UL	95

	Compound	R.T.	Q ion	Area	Conc	Units	q
45)	Dibenzofuran	14.14	168.0	85122	9.67	NG/UL	94
46)	2,4-Dinitrotoluene	13.09	165.0	14208	8.36	NG/UL	74
47)	2,6-Dinitrotoluene	14.27	165.0	14622	7.10	NG/UL	76
48)	Diethylphthalate	15.18	149.0	70661	10.15	NG/UL	94
49)	4-Chlorophenyl-phenylether	15.33	204.0	32214	9.24	NG/UL	96
50)	Fluorene	15.17	166.0	68508	10.33	NG/UL	99
51)	4-Nitroaniline	15.33	138.0	5949	5.90	NG/UL	52
52)	4,6-Dinitro-2-methylphenol	15.46	198.0	4515	3.63	NG/UL	89
53)	N-Nitrosodiphenylamine	15.71	169.0	34810	8.23	NG/UL	96
54)	2,4,6-Tribromophenol	15.89	329.9	11270	7.18	NG/UL	95
55)	4-Bromophenyl-phenylether	16.78	248.0	19810	8.88	NG/UL	84
56)	Hexachlorobenzene	16.79	283.9	29910	10.95	NG/UL	95
57)	Pentachlorophenol	17.45	265.8	2144	1.52	NG/UL	94
58)	Phenanthrene	18.01	178.0	86137	9.75	NG/UL	94
59)	Anthracene	18.16	178.0	79726	8.80	NG/UL	97
60)	Di-n-Butylphthalate	20.19	149.0	113503	10.53	NG/UL	96
61)	Fluoranthene	21.57	202.0	100581	10.83	NG/UL	93
62)	d12-Chrysene	25.89	240.0	393758	59.11	NG/UL	96
63)	Pyrene	22.20	202.0	106356	11.19	NG/UL	96
64)	Terphenyl-d14	22.95	244.0	74276	10.13	NG/UL	98
65)	Butylbenzylphthalate	24.64	149.0	43888	10.89	NG/UL	86
66)	Benzo(a)Anthracene	25.87	228.0	73453	10.82	NG/UL	96
67)	Bis(2-Ethylhexyl)Phthalate	26.55	149.0	65513	12.05	NG/UL	96
68)	Chrysene	25.97	228.0	83083	10.44	NG/UL	92
69)	*d12-Perylene	29.85	264.0	336796	50.00	NG/UL	94
70)	Di-n-octylphthalate	28.42	149.0	96273	8.00	NG/UL	85
71)	Benzo(b)fluoranthene	28.88	252.0	65054	8.29	NG/UL	96
72)	Benzo(k)Fluoranthene	28.95	252.0	78293	7.67	NG/UL	92
73)	Benzo(a)Pyrene	29.69	252.0	66265	7.95	NG/UL	95
74)	Indeno(1,2,3-cd)Pyrene	32.89	276.0	68376	13.05	NG/UL	84
75)	Dibenzo(a,h)Anthracene	32.44	278.0	59977	10.56	NG/UL	92
76)	Benzo(g,h,i)Perylene	32.89	276.0	68376	11.34	NG/UL	84

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Misc: 06-08-93 BTL#18

Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 12:00
Injected at: 930609 10:13

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930609 12:04
Output File: ^WR055::D3 Injected at: 930609 11:00
Data File: >WR055::D6 Dilution Factor: 1.00000
Name: ABNST50525 5 STD
Misc: 06-08-93 BTL#19

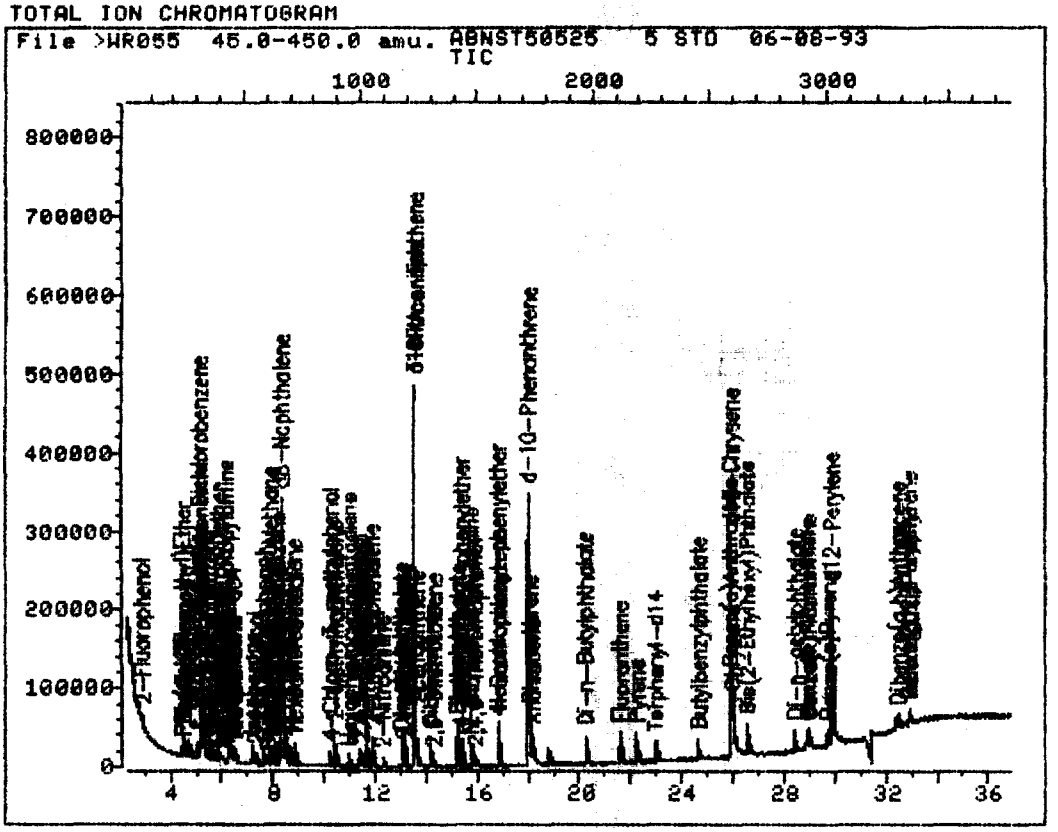
ID File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.15	152.0	148082	50.00	NG/UL	96
2)	2-Fluorophenol	2.88	112.0	14607	4.11	NG/UL	91
3)	Phenol-d5	4.46	99.0	17661	4.29	NG/UL	86
4)	Phenol	4.48	94.0	18478	4.35	NG/UL	68
5)	bis(2-Chloroethyl)Ether	4.49	93.0	17935	4.61	NG/UL	54
6)	2-Chlorophenol	4.69	128.0	16616	4.34	NG/UL	92
7)	1,3-Dichlorobenzene	5.01	146.0	20287	4.91	NG/UL	94
8)	1,4-Dichlorobenzene	5.19	146.0	19642	4.27	NG/UL	93
9)	Benzyl Alcohol	5.52	108.0	8306	3.54	NG/UL	79
10)	1,2-Dichlorobenzene	5.50	146.0	20995	4.71	NG/UL	95
11)	2-Methylphenol	5.83	108.0	14081	4.21	NG/UL	86
12)	bis(2-Chloroisopropyl)ether	5.90	121.0	2182	4.27	NG/UL	69
13)	4-Methylphenol	6.23	108.0	13349	3.97	NG/UL	95
14)	N-Nitroso-Di-n-propylamine	6.21	70.0	13112	5.13	NG/UL	99
15)	Hexachloroethane	6.28	201.0	8054	4.31	NG/UL	99
16)	d8-Naphthalene	8.33	136.0	553905	49.75	NG/UL	86
17)	Nitrobenzene-d5	6.46	82.0	14820	4.36	NG/UL	99
18)	Nitrobenzene	6.51	123.0	7549	3.66	NG/UL	90
19)	Isophorone	7.18	82.0	34339	4.95	NG/UL	88
20)	2-Nitrophenol	7.33	139.0	8621	3.60	NG/UL	83
21)	2,4-Dimethylphenol	7.63	122.0	12844	4.03	NG/UL	92
22)	Benzoic Acid	7.82	105.0	2534	1.07	NG/UL	97
23)	bis(2-Chloroethoxy)Methane	7.91	93.0	20571	4.41	NG/UL	98
24)	2,4-Dichlorophenol	8.01	162.0	12325	3.55	NG/UL	97
25)	1,2,4-Trichlorobenzene	8.21	180.0	18604	4.50	NG/UL	95
26)	Naphthalene	8.39	128.0	54577	4.70	NG/UL	97
27)	4-Chloroaniline	8.65	127.0	16332	3.48	NG/UL	88
28)	Hexachlorobutadiene	8.84	225.0	10131	3.89	NG/UL	90
29)	4-Chloro-3-methylphenol	10.23	107.0	9971	3.24	NG/UL	44
30)	2-Methylnaphthalene	10.42	142.0	35422	4.61	NG/UL	93
31)	d10-Acenaphthene	13.53	164.0	272577	46.71	NG/UL	94
32)	Hexachlorocyclopentadiene	10.95	237.0	5140	1.84	NG/UL	87
33)	2,4,6-Trichlorophenol	11.35	196.0	7640	3.16	NG/UL	91
34)	2,4,5-Trichlorophenol	11.42	196.0	7091	2.66	NG/UL	90
35)	2-Chloronaphthalene	11.84	162.0	30086	4.16	NG/UL	96
36)	2-Fluorobiphenyl	11.63	172.0	38223	4.42	NG/UL	94
37)	2-Nitroaniline	12.26	138.0	4454	1.95	NG/UL	81
38)	Dimethylphthalate	13.01	163.0	34266	4.20	NG/UL	97
39)	*d-10-Phenanthrene	17.97	188.0	401217	50.00	NG/UL	96
40)	Acenaphthylene	13.06	152.0	52431	5.12	NG/UL	98
41)	3-Nitroaniline	13.53	138.0	3120	2.42	NG/UL	92
42)	Acenaphthene	13.61	153.0	36479	5.45	NG/UL	94
45)	Dibenzofuran	14.15	168.0	39877	4.39	NG/UL	87

	Compound	R.T.	Q ion	Area	Conc	Units	q
46)	2,4-Dinitrotoluene	13.10	165.0	5385	3.07	NG/UL	69
47)	2,6-Dinitrotoluene	14.28	165.0	5004	2.35	NG/UL	79
48)	Diethylphthalate	15.21	149.0	35044	4.88	NG/UL	95
49)	4-Chlorophenyl-phenylether	15.35	204.0	14294	4.14	NG/UL	99
50)	Fluorene	15.19	166.0	33219	4.87	NG/UL	98
51)	4-Nitroaniline	15.35	138.0	2190	2.11	NG/UL	52
53)	N-Nitrosodiphenylamine	15.74	169.0	14812	3.39	NG/UL	91
54)	2,4,6-Tribromophenol	15.91	329.9	4133	2.55	NG/UL	97
55)	4-Bromophenyl-phenylether	16.80	248.0	9319	4.05	NG/UL	88
56)	Hexachlorobenzene	16.81	283.9	14451	5.13	NG/UL	98
58)	Phenanthrene	18.04	178.0	41865	4.59	NG/UL	93
59)	Anthracene	18.18	178.0	36421	3.90	NG/UL	91
60)	Di-n-Butylphthalate	20.21	149.0	51528	4.63	NG/UL	98
61)	Fluoranthene	21.59	202.0	46384	4.84	NG/UL	93
62)	d12-Chrysene	25.91	240.0	362938	52.79	NG/UL	96
63)	Pyrene	22.23	202.0	46396	4.73	NG/UL	98
64)	Terphenyl-d14	22.97	244.0	33179	4.38	NG/UL	97
65)	Butylbenzylphthalate	24.66	149.0	18816	4.52	NG/UL	86
66)	Benzo(a)Anthracene	25.88	228.0	30649	4.37	NG/UL	96
67)	Bis(2-Ethylhexyl)Phthalate	26.57	149.0	31514	5.61	NG/UL	97
68)	Chrysene	25.97	228.0	38010	4.63	NG/UL	96
69)	*d12-Perylene	29.87	264.0	284563	50.00	NG/UL	96
70)	Di-n-octylphthalate	28.44	149.0	40193	3.95	NG/UL	85
71)	Benzo(b)fluoranthene	28.90	252.0	28495	4.30	NG/UL	92
72)	Benzo(k)Fluoranthene	28.98	252.0	33952	3.94	NG/UL	96
73)	Benzo(a)Pyrene	29.72	252.0	27189	3.86	NG/UL	98
74)	Indeno(1,2,3-cd)Pyrene	32.91	276.0	23040	5.20	NG/UL	79
75)	Dibenzo(a,h)Anthracene	32.47	278.0	24556	5.12	NG/UL	94
76)	Benzo(g,h,i)Perylene	32.91	276.0	23040	4.52	NG/UL	79

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >WR055::D6 Quant Output File: ^WR055::D3
Name: ABNST50525 5 STD
Misc: 06-08-93 BTL#19

Id File: IDRW37::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930609 10:36

Operator ID: MANAGER
Quant Time: 930609 12:04
Injected at: 930609 11:00

Repeat Results

1B

ILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S38MSR

ILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1187

Matrix: (soil/water) WATER Lab Sample ID: S38MS RE

Sample wt/vol: 960 (g/mL) mL Lab File ID: >WR082

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	24.	
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	51.	
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	23.	
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	48.	
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	31.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	23.	
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	49.	
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	34.	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S38MSR

Site Name: HOD LANDFILL Contract: LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1187

Matrix: (soil/water) WATER Lab Sample ID: S38MS RE

Sample wt/vol: 960 (g/mL) mL Lab File ID: >WR082

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted: 05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	33.	
51-28-5	2,4-Dinitrophenol	16.	U
100-02-7	4-Nitrophenol	19.	
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	16.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	110.	E
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	43.	
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	1.	JB
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

QUANT REPORT

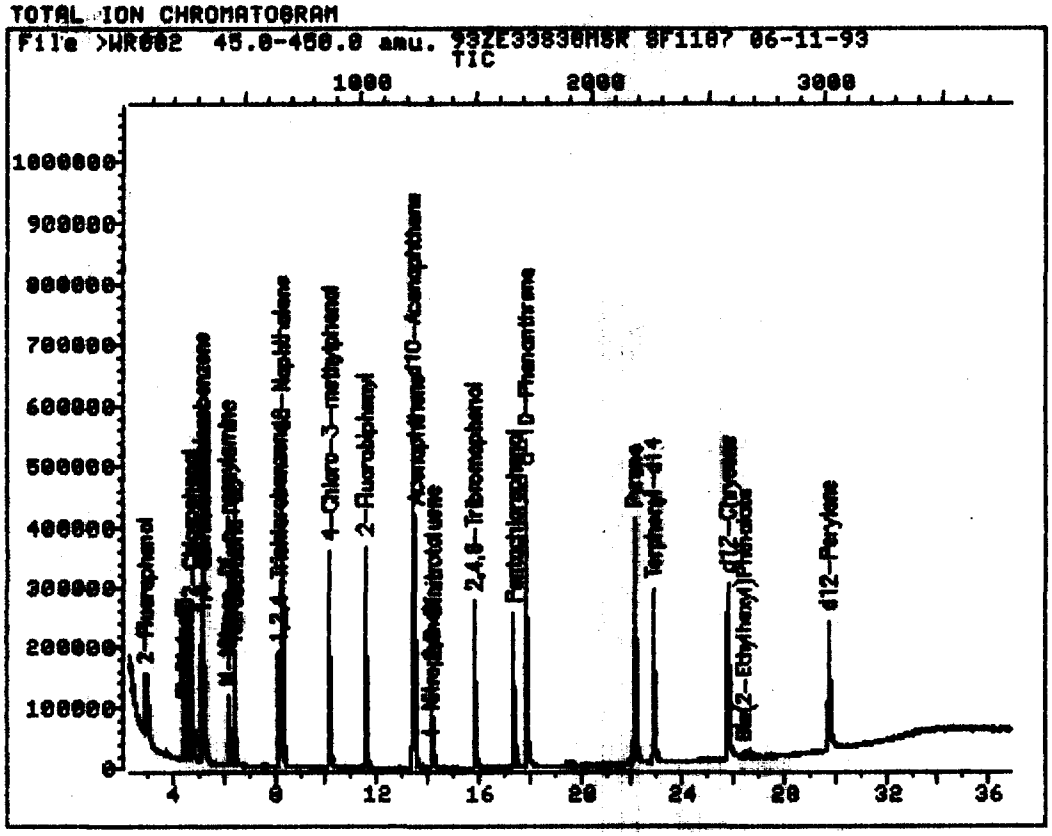
Operator ID: MANAGER Quant Rev: 6 Quant Time: 930611 19:29
Output File: ^WR082::D3 Injected at: 930611 18:49
Data File: >WR082::D6 Dilution Factor: 1.00000
Name: 93ZE33S38MSR SF1187
Misc: 06-11-93 BTL#23

ID File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.11	152.0	186706	50.00	NG/UL	96
2)	2-Fluorophenol	2.89	112.0	140327	31.54	NG/UL	89
3)	Phenol-d5	4.42	99.0	120725	22.11	NG/UL	77
4)	Phenol	4.45	94.0	121401	22.75	NG/UL	70
6)	2-Chlorophenol	4.66	128.0	251827	48.99	NG/UL	98
8)	1,4-Dichlorobenzene	5.14	146.0	138899	22.05	NG/UL	94
14)	N-Nitroso-Di-n-propylamine	6.13	70.0	135704	46.16	NG/UL	85
16)	d8-Naphthalene	8.24	136.0	709124	43.31	NG/UL	86
17)	Nitrobenzene-d5	6.39	82.0	152575	32.69	NG/UL	85
25)	1,2,4-Trichlorobenzene	8.12	180.0	126274	22.27	NG/UL	95
29)	4-Chloro-3-methylphenol	10.13	107.0	213414	47.05	NG/UL	48
31)	d10-Acenaphthene	13.40	164.0	366380	41.06	NG/UL	93
36)	2-Fluorobiphenyl	11.51	172.0	280411	21.58	NG/UL	95
39)	*d-10-Phenanthrene	17.83	188.0	523275	50.00	NG/UL	99
42)	Acenaphthene	13.49	153.0	265544	31.29	NG/UL	97
44)	4-Nitrophenol	14.12	109.0	6870	18.31	NG/UL	71
47)	2,6-Dinitrotoluene	14.16	165.0	86663	32.18	NG/UL	85
54)	2,4,6-Tribromophenol	15.77	329.9	103349	74.40	NG/UL	97
57)	Pentachlorophenol	17.34	265.8	89289	104.95	NG/UL	98
62)	d12-Chrysene	25.74	240.0	370283	47.48	NG/UL	97
63)	Pyrene	22.07	202.0	506820	40.97	NG/UL	98
64)	Terphenyl-d14	22.81	244.0	317384	37.70	NG/UL	97
67)	Bis(2-Ethylhexyl)Phthalate	26.40	149.0	7143	.99	NG/UL	89
69)	*d12-Perylene	29.69	264.0	278523	50.00	NG/UL	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >WR082::D6 Quant Output File: ^WR082::D3
Name: 93ZE33S38MSR SF1187
Misc: 06-11-93 BTL#23

Id File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

Operator ID: MANAGER
Quant Time: 930611 19:29
Injected at: 930611 18:49

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE06R60R

Site Name: HOD LANDFILL Contract: LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1187

Matrix: (soil/water) WATER Lab Sample ID: R60 RE

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >WR078

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted: 05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	1.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	2.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	2.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	1.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	2.	U
78-59-1	Isophorone	2.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	29.	U
111-91-1	bis(2-Chloroethoxy)methane	2.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	2.	U
59-50-7	4-Chloro-3-methylphenol	1.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	1.	U
95-95-4	2,4,5-Trichlorophenol	1.	U
91-58-7	2-Chloronaphthalene	1.	U
88-74-4	2-Nitroaniline	2.	U
131-11-3	Dimethylphthalate	1.	U
208-96-8	Acenaphthylene	1.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE06R60R

Site Name: HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1187

Matrix: (soil/water) WATER Lab Sample ID: R60 RE

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >WR078

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

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

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

QUANT REPORT

Operator ID: MANAGER
Output File: ^WR078::D3
Data File: >WR078::D6
Name: 93ZE06R60R SF1187
Misc: 06-11-93

Quant Rev: 6
Quant Time: 930611 16:24
Injected at: 930611 15:45
Dilution Factor: 1.00000

BTL#19

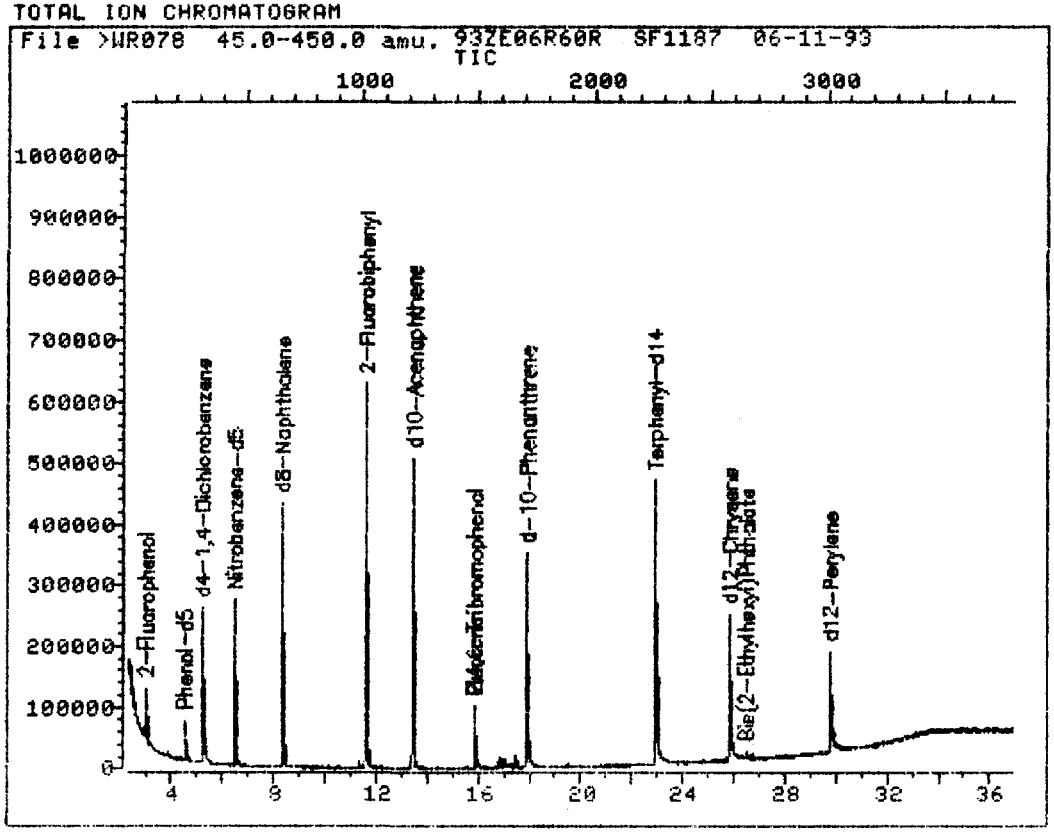
ID File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

	Compound	R.T.	Q ion	Area	Conc	Units	q
~~17~~	*d4-1,4-Dichlorobenzene	5.19	152.0	150884	50.00	NG/UL	94
~~27~~.	2-Fluorophenol	3.00	112.0	105234	29.27	NG/UL	89
~~31~~.	Phenol-d5	4.51	99.0	85841	19.45	NG/UL	77
~~16~~)	d8-Naphthalene	8.29	136.0	574150	43.39	NG/UL	86
~~17~~).	Nitrobenzene-d5	6.46	82.0	207397	54.98	NG/UL	85
~~31~~)	d10-Acenaphthene	13.42	164.0	287344	39.85	NG/UL	95
~~36~~).	2-Fluorobiphenyl	11.56	172.0	532951	50.75	NG/UL	94
~~39~~)	*d-10-Phenanthrene	17.87	188.0	404122	50.00	NG/UL	98
~~50~~)	~~Fluorene~~	~~15.81~~	~~166.0~~	~~1828~~	~~.27~~	~~NG/UL~~	~~99~~
~~54~~)	2,4,6-Tribromophenol	15.81	329.9	35557	33.14	NG/UL	96
~~62~~)	d12-Chrysene	25.80	240.0	298126	49.50	NG/UL	95
~~64~~).	Terphenyl-d14	22.88	244.0	597714	91.94	NG/UL	97
67)	Bis(2-Ethylhexyl)Phthalate	26.47	149.0	7625	1.37	NG/UL	97
~~69~~)	*d12-Perylene	29.75	264.0	235580	50.00	NG/UL	97

* Compound is ISTD

RWW 6-18-93

TOTAL ION CHROMATOGRAM

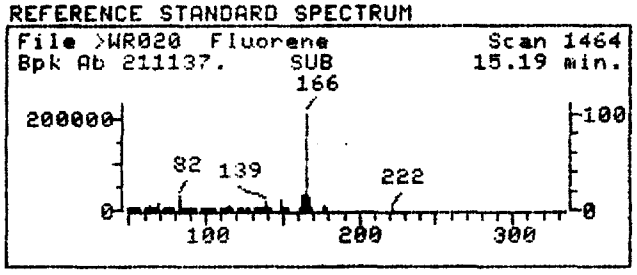


Data File: >WR078::D6 Quant Output File: ^WR078::D3
Name: 93ZE06R60R SF1187
Misc: 06-11-93 BTL#19

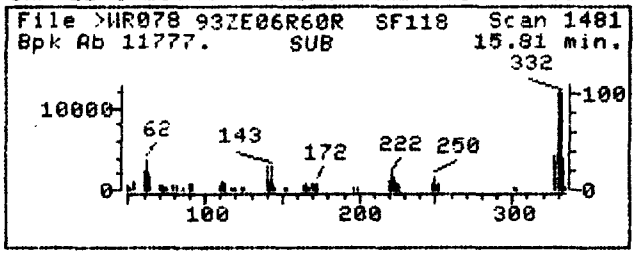
Id File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

Operator ID: MANAGER
Quant Time: 930611 16:24
Injected at: 930611 15:45

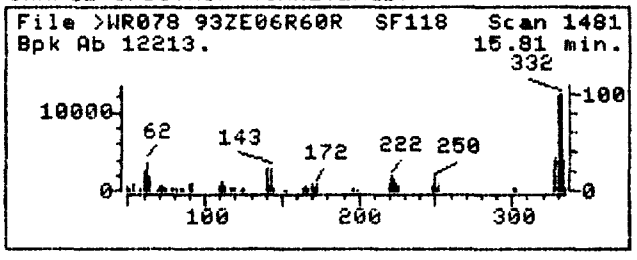
REFERENCE STANDARD SPECTRUM

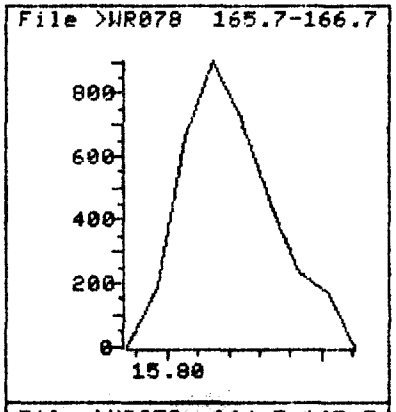


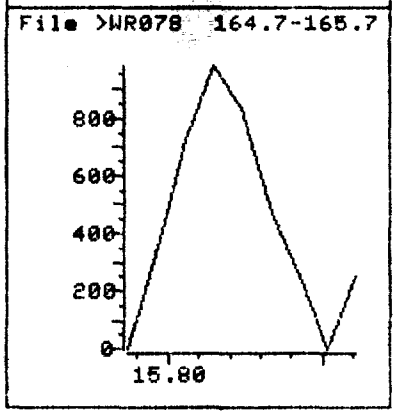
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







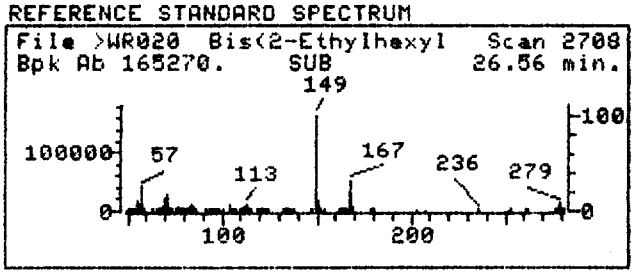
Data File: >WR078::D6
Name: 93ZE06R60R SF1187
Misc: 06-11-93
Quant Time: 930611 16:24
Injected at: 930611 15:45

Quant Output File: ^WR078::D3

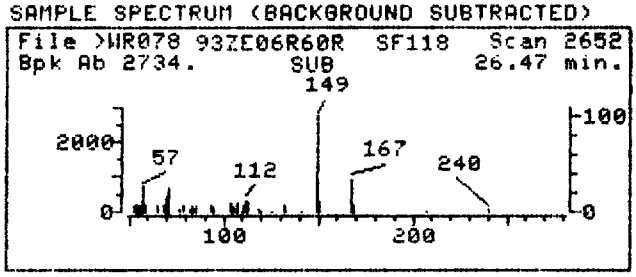
BTL#19
Quant ID File: IDRW39::SC
Last Calibration: 930611 11:33

Compound No: 50
Compound Name: Fluorene
Scan Number: 1482
Retention Time: 15.81 min.
Quant Ion: 166.0
Area: 1828
Concentration: .27 NG/UL
q-value: 99

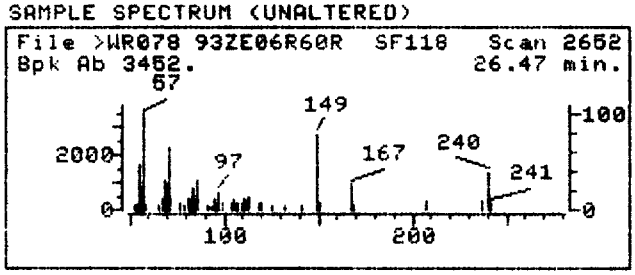
REFERENCE STANDARD SPECTRUM

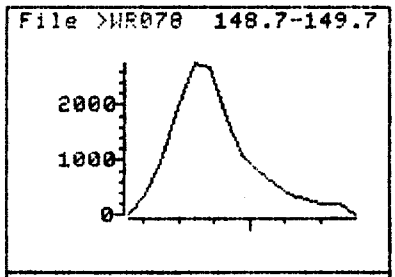


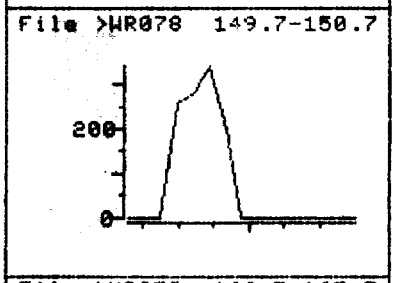
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

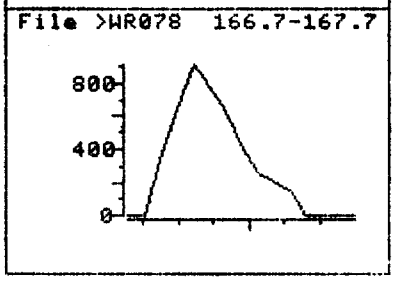


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR078::D6 Quant Output File: ^WR078::D3
Name: 93ZE06R60R SF1187
Misc: 06-11-93 BTL#19
Quant Time: 930611 16:24 Quant ID File: IDRW39::SC
Injected at: 930611 15:45 Last Calibration: 930611 11:33

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2652
Retention Time: 26.47 min.
Quant Ion: 149.0
Area: 7625
Concentration: 1.37 NG/UL
q-value: 97

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S37R

Site Name: HOD LANDFILL Contract: LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1187

Matrix: (soil/water) WATER Lab Sample ID: S37 RE

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR079

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted: 05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	30.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	3.	U
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33S37R

Site Name: HOD LANDFILL Contract: LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1187

Matrix: (soil/water) WATER Lab Sample ID: S37 RE

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >WR079

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted: 05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	2.	U
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

QUANT REPORT

Operator ID: MANAGER
Output File: ^WR079::D3
Data File: >WR079::D6
Name: 93ZE33S37R SF1187
Misc: 06-11-93

Quant Rev: 6
Quant Time: 930611 17:10
Injected at: 930611 16:31
Dilution Factor: 1.00000

BTL#20

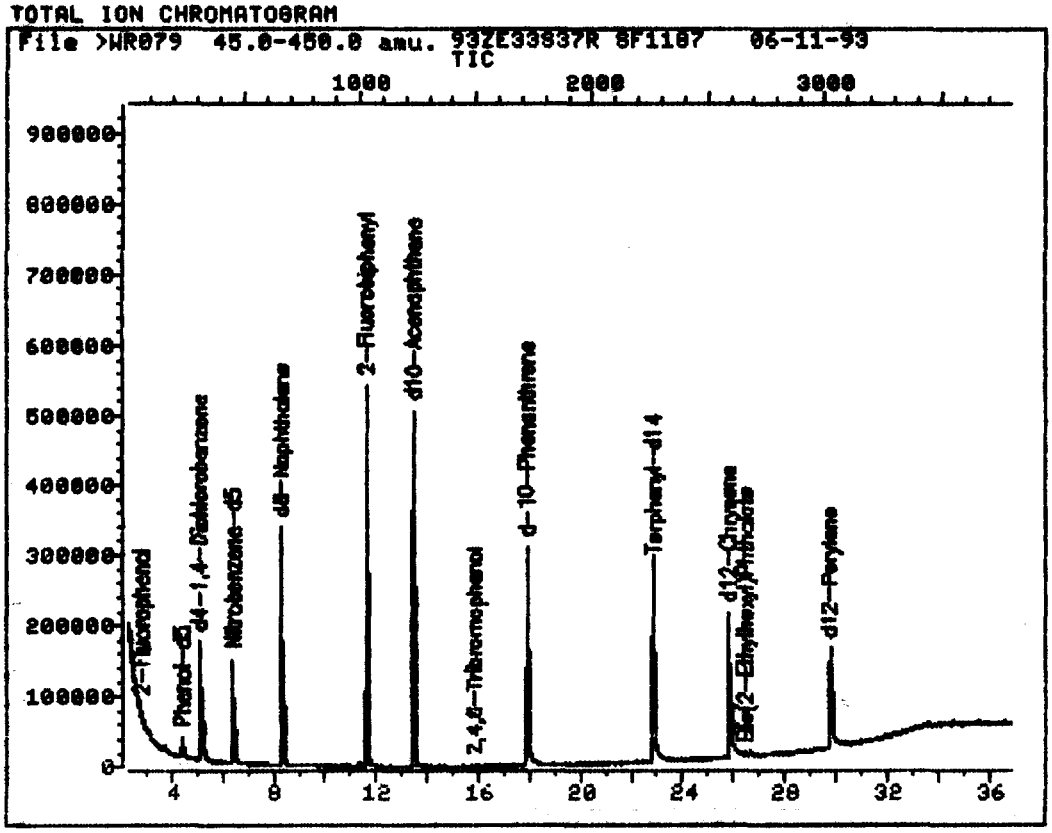
ID File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.05	152.0	156003	50.00	NG/UL	96
2)	2-Fluorophenol	2.78	112.0	33260M	8.95	NG/UL	95
3)	Phenol-d5	4.36	99.0	59142	12.96	NG/UL	79
16)	d8-Naphthalene	8.25	136.0	596214	43.58	NG/UL	85
17)	Nitrobenzene-d5	6.38	82.0	175667	45.04	NG/UL	86
31)	d10-Acenaphthene	13.43	164.0	296712	39.80	NG/UL	93
36)	2-Fluorobiphenyl	11.57	172.0	437859	40.33	NG/UL	96
39)	*d-10-Phenanthrene	17.86	188.0	374047	50.00	NG/UL	99
54)	2,4,6-Tribromophenol	15.81	329.9	819M	.82	NG/UL	
62)	d12-Chrysene	25.77	240.0	276928	49.67	NG/UL	98
64)	Terphenyl-d14	22.84	244.0	389589	64.75	NG/UL	98
67)	~~Bis(2-Ethylhexyl)Phthalate~~	~~26.44~~	~~149.0~~	~~3904~~	~~.76~~	~~NG/UL~~	~~94~~
69)	*d12-Perylene	29.73	264.0	204281	50.00	NG/UL	94

* Compound is ISTD

RWW 6-18-93

TOTAL ION CHROMATOGRAM

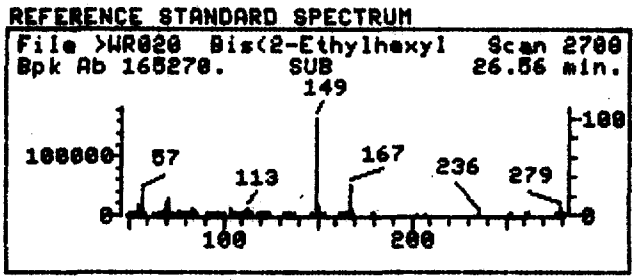


Data File: >WR079::D6 Quant Output File: ^WR079::D3
Name: 93ZE33S37R SF1187
Misc: 06-11-93 BTL#20

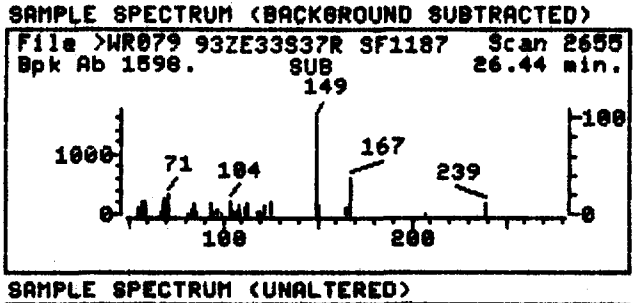
Id File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

Operator ID: MANAGER
Quant Time: 930611 17:10
Injected at: 930611 16:31

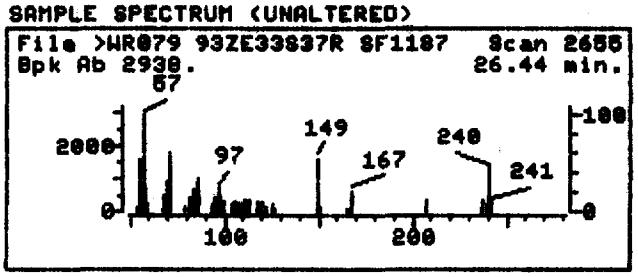
REFERENCE STANDARD SPECTRUM

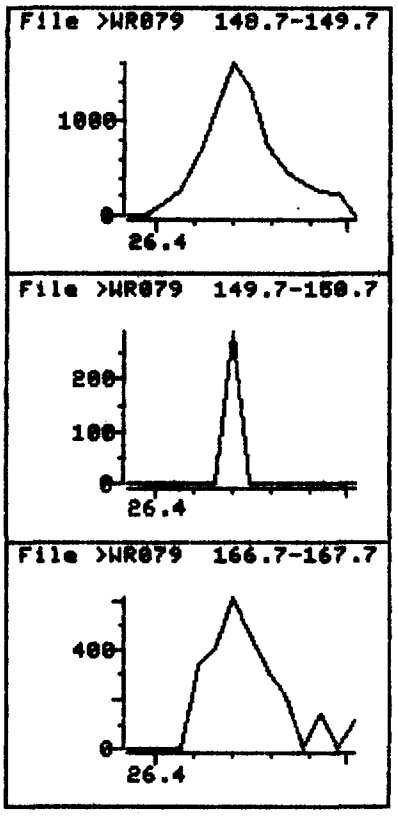


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >WR079::D6 Quant Output File: ^WR079::D3
Name: 93ZE33S37R SF1187
Misc: 06-11-93 BTL#20
Quant Time: 930611 17:10 Quant ID File: IDRW39::SC
Injected at: 930611 16:31 Last Calibration: 930611 11:33

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2655
Retention Time: 26.44 min.
Quant Ion: 149.0
Area: 3904
Concentration: .76 NG/UL
q-value: 94

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33D37R

Site Name: HOD LANDFILL Contract: LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1187

Matrix: (soil/water) WATER Lab Sample ID: D37 RE

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >WR080

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted: 05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	1.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	2.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	2.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	1.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	2.	U
78-59-1	Isophorone	2.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	29.	U
111-91-1	bis(2-Chloroethoxy)methane	2.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	2.	U
59-50-7	4-Chloro-3-methylphenol	1.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	1.	U
95-95-4	2,4,5-Trichlorophenol	1.	U
91-58-7	2-Chloronaphthalene	1.	U
88-74-4	2-Nitroaniline	2.	U
131-11-3	Dimethylphthalate	1.	U
208-96-8	Acenaphthylene	1.	U
606-20-2	2,6-Dinitrotoluene	1.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33D37R

Site Name: HOD LANDFILL Contract: LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1187

Matrix: (soil/water) WATER Lab Sample ID: D37 RE

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >WR080

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted: 05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

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

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 930611 17:57
Output File: ^WR080::D3 Injected at: 930611 17:17
Data File: >WR080::D6 Dilution Factor: 1.00000
Name: 93ZE33D37R SF1187
Misc: 06-11-93 BTL#21

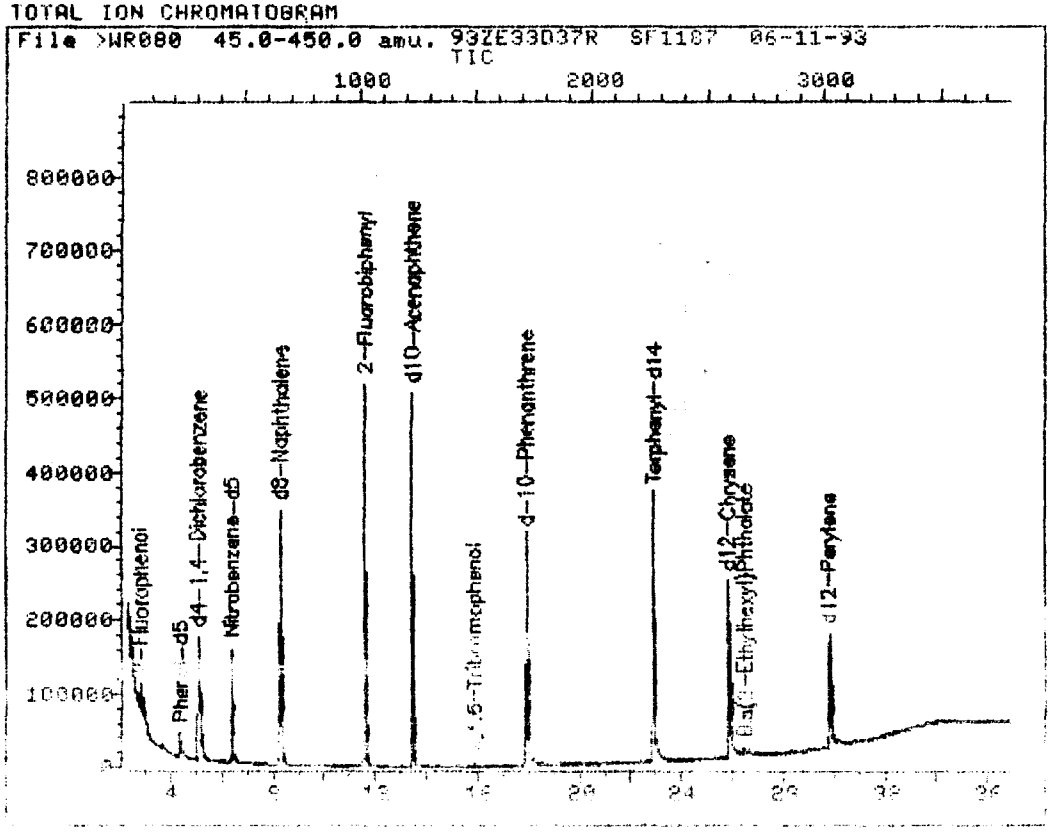
ID File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

	Compound	R.T.	Q ion	Area	Conc	Units	q
~~27~~	*d4-1,4-Dichlorobenzene	5.02	152.0	166842	50.00	NG/UL	95
~~29~~	2-Fluorophenol	2.77	112.0	75296	18.94	NG/UL	90
~~37~~	Phenol-d5	4.33	99.0	70068	14.36	NG/UL	80
~~151~~	d8-Naphthalene	8.21	136.0	617108	42.17	NG/UL	86
~~177~~	Nitrobenzene-d5	6.34	82.0	183664	44.03	NG/UL	88
~~317~~	d10-Acenaphthene	13.41	164.0	304683	38.21	NG/UL	92
~~369~~	2-Fluorobiphenyl	11.53	172.0	464814	40.03	NG/UL	95
~~397~~	*d-10-Phenanthrene	17.86	188.0	373877	50.00	NG/UL	98
~~549~~	2,4,6-Tribromophenol	15.81	329.9	2083	2.10	NG/UL	89
~~621~~	d12-Chrysene	25.79	240.0	304263	54.60	NG/UL	97
~~647~~	Terphenyl-d14	22.87	244.0	443948	73.81	NG/UL	96
67)	Bis(2-Ethylhexyl)Phthalate	26.45	149.0	8596	1.67	NG/UL	94
~~691~~	*d12-Perylene	29.74	264.0	213692	50.00	NG/UL	94

* Compound is ISTD

RMW 6-18-93

TOTAL ION CHROMATOGRAM



Data File: [illegible]

Name: 93ZE33D37R SF1187

Disc: 06-11-93

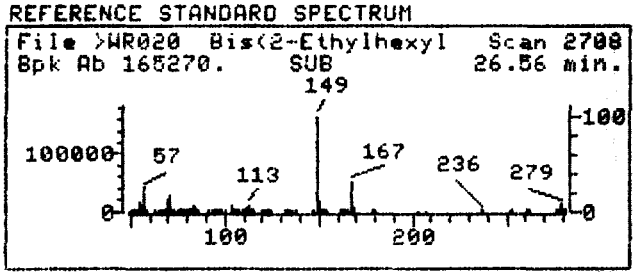
Quant Output File: ^WR080::D3

BTL#21

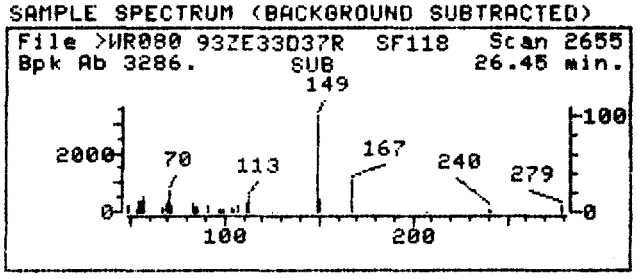
Id File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

Operator ID: MANAGER
Quant Time: 930611 17:57
Injected at: 930611 17:17

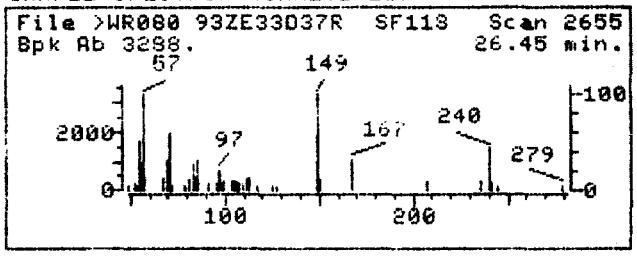
REFERENCE STANDARD SPECTRUM

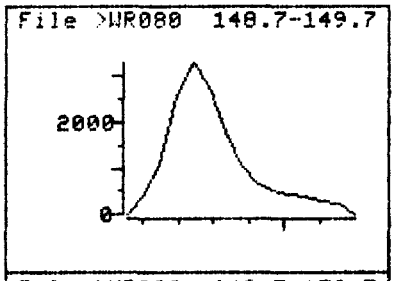


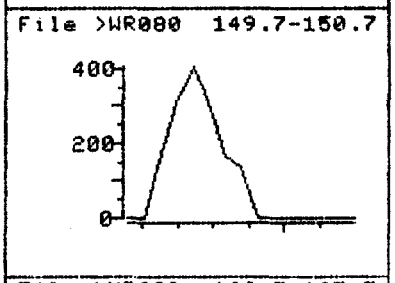
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

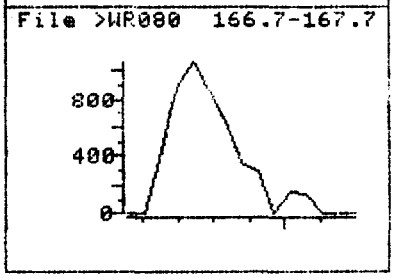


SAMPLE SPECTRUM (UNALTERED)









Data File: >WR080::D6 Quant Output File: ^WR080::D3
Name: 93ZE33D37R SF1187
Misc: 06-11-93 BTL#21
Quant Time: 930611 17:57 Quant ID File: IDRW39::SC
Injected at: 930611 17:17 Last Calibration: 930611 11:33

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2655
Retention Time: 26.45 min.
Quant Ion: 149.0
Area: 8596
Concentration: 1.67 NG/UL
q-value: 94

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33D38R

Site Name:HOD LANDFILL Contract:LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1187

Matrix: (soil/water) WATER Lab Sample ID: D38 RE

Sample wt/vol: 1020 (g/mL) mL Lab File ID: >WR081

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted:05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH:NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
108-95-2	Phenol	2.	IU
111-44-4	bis(2-Chloroethyl)Ether	1.	IU
95-57-8	2-Chlorophenol	2.	IU
541-73-1	1,3-Dichlorobenzene	2.	IU
106-46-7	1,4-Dichlorobenzene	2.	IU
100-51-6	Benzyl alcohol	2.	IU
95-50-1	1,2-Dichlorobenzene	2.	IU
95-48-7	2-Methylphenol	1.	IU
39638-32-9	bis(2-chloroisopropyl)ether	2.	IU
106-44-5	4-Methylphenol	1.	IU
621-64-7	N-Nitroso-Di-n-propylamine	1.	IU
67-72-1	Hexachloroethane	2.	IU
98-95-3	Nitrobenzene	2.	IU
78-59-1	Isophorone	2.	IU
88-75-5	2-Nitrophenol	2.	IU
105-67-9	2,4-Dimethylphenol	2.	IU
65-85-0	Benzoic acid	29.	IU
111-91-1	bis(2-Chloroethoxy)methane	2.	IU
120-83-2	2,4-Dichlorophenol	2.	IU
120-82-1	1,2,4-Trichlorobenzene	2.	IU
91-20-3	Naphthalene	2.	IU
106-47-8	4-Chloroaniline	2.	IU
87-68-3	Hexachlorobutadiene	2.	IU
59-50-7	4-Chloro-3-methylphenol	1.	IU
91-57-6	2-Methylnaphthalene	2.	IU
77-47-4	Hexachlorocyclopentadiene	2.	IU
88-06-2	2,4,6-Trichlorophenol	1.	IU
95-95-4	2,4,5-Trichlorophenol	1.	IU
91-58-7	2-Chloronaphthalene	1.	IU
88-74-4	2-Nitroaniline	2.	IU
131-11-3	Dimethylphthalate	1.	IU
208-96-8	Acenaphthylene	1.	IU
606-20-2	2,6-Dinitrotoluene	1.	IU

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

93ZE33D38R

Site Name: HOD LANDFILL Contract: LOCKHEED/ESAT

Lab Code: CRL Case No.: ------- SAS No.: ------- SDG No.: SF1187

Matrix: (soil/water) WATER Lab Sample ID: D38 RE

Sample wt/vol: 1020 (g/mL) mL Lab File ID: >WR081

Level: (low/med) LOW Date Received: 05/20/93

% Moisture: not dec.---- dec. ---- Date Extracted: 05/25/93

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 6/11/93

GPC Cleanup: (Y/N) N pH: NA Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	2.	U
83-32-9	Acenaphthene	1.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	1.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	1.	U
101-55-3	4-Bromophenyl-phenylether	1.	U
118-74-1	Hexachlorobenzene	1.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	2.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	1.	U
129-00-0	Pyrene	1.	U
85-68-7	Butylbenzylphthalate	3.	U
56-55-3	Benzo(a)anthracene	1.	U
218-01-9	Chrysene	1.	U
117-81-7	bis(2-Ethylhexyl)phthalate	2.	JB
117-84-0	Di-n-octylphthalate	1.	U
205-99-2	Benzo(b)fluoranthene	1.	U
207-08-9	Benzo(k)fluoranthene	1.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	3.	U
53-70-3	Dibenzo(a,h)anthracene	2.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO [X]

QUANT REPORT

Operator ID: MANAGER
Output File: ^WR081::D3
Data File: >WR081::D6
Name: 93ZE33D38R SF1187
Misc: 06-11-93

Quant Rev: 6
Quant Time: 930611 18:43
Injected at: 930611 18:03
Dilution Factor: 1.00000

BTL#22

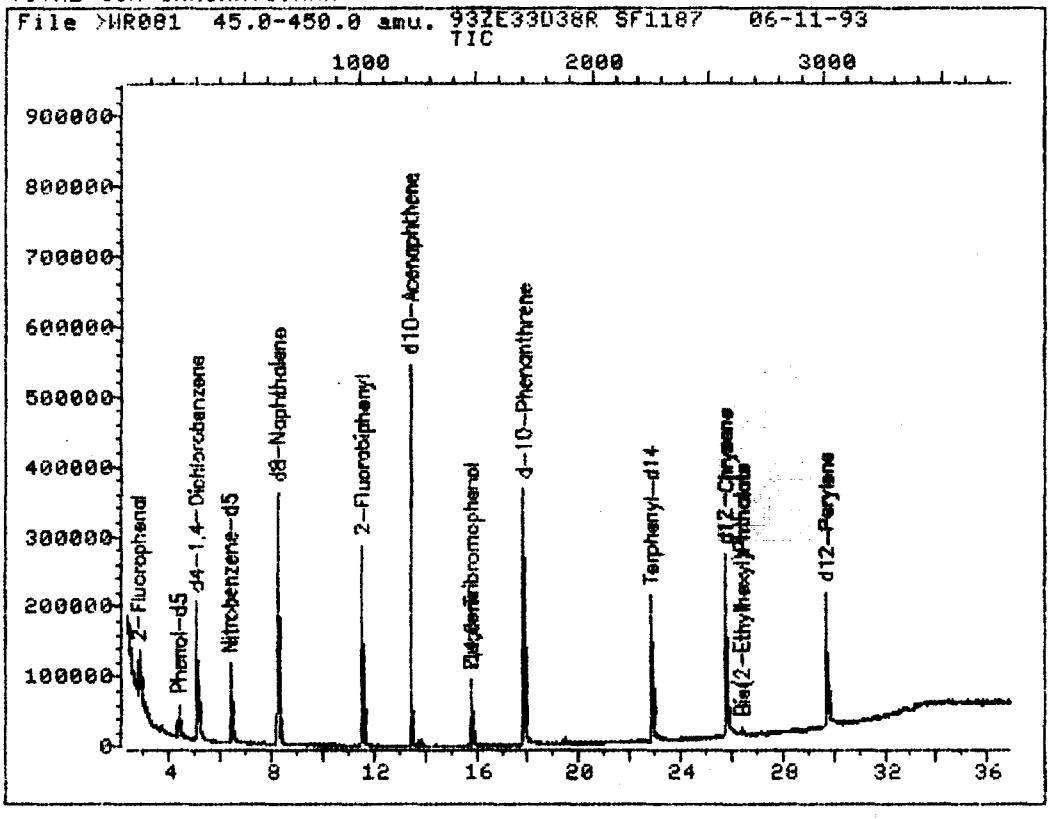
ID File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.03	152.0	164418	50.00	NG/UL	96
2)	2-Fluorophenol	2.77	112.0	106203	27.10	NG/UL	90
3)	Phenol-d5	4.34	99.0	94062	19.56	NG/UL	80
16)	d8-Naphthalene	8.20	136.0	618875	42.92	NG/UL	86
17)	Nitrobenzene-d5	6.33	82.0	128838	31.34	NG/UL	88
31)	d10-Acenaphthene	13.38	164.0	303135	38.58	NG/UL	96
36)	2-Fluorobiphenyl	11.50	172.0	248258	21.69	NG/UL	96
39)	*d-10-Phenanthrene	17.81	188.0	385121	50.00	NG/UL	98
~~50)~~	~~Fluorene~~	~~15.76~~	~~166.0~~	~~1956~~	~~.30~~	~~NG/UL~~	~~91~~
54)	2,4,6-Tribromophenol	15.76	329.9	33712	32.97	NG/UL	96
62)	d12-Chrysene	25.73	240.0	318586	55.50	NG/UL	97
64)	Terphenyl-d14	22.81	244.0	251349	40.57	NG/UL	95
67)	Bis(2-Ethylhexyl)Phthalate	26.39	149.0	9896	1.87	NG/UL	93
69)	*d12-Perylene	29.68	264.0	249085	50.00	NG/UL	95

* Compound is ISTD

RWN 6-18-93

TOTAL ION CHROMATOGRAM

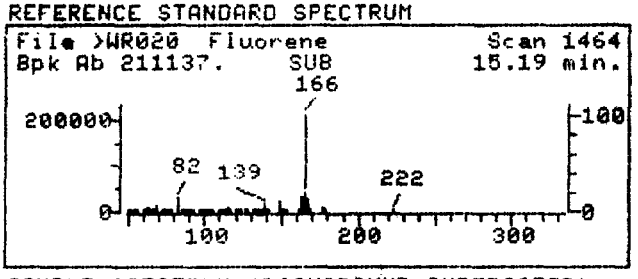


Data File: >WR081::D6 Quant Output File: ^WR081::D3
Name: 93ZE33D38R SF1187
Misc: 06-11-93 BTL#22

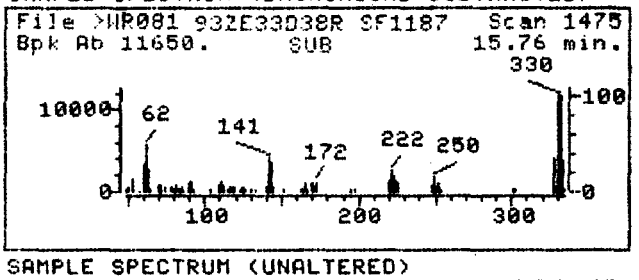
Id File: IDRW39::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 930611 11:33

Operator ID: MANAGER
Quant Time: 930611 18:43
Injected at: 930611 18:03

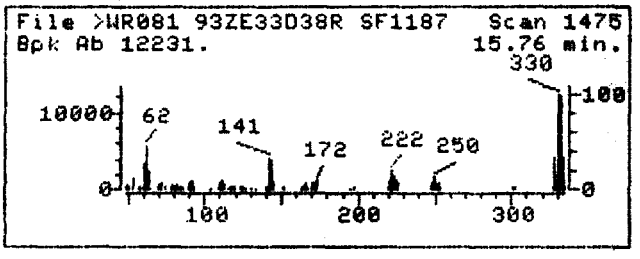
REFERENCE STANDARD SPECTRUM

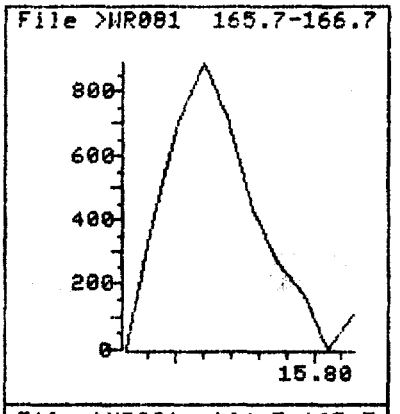


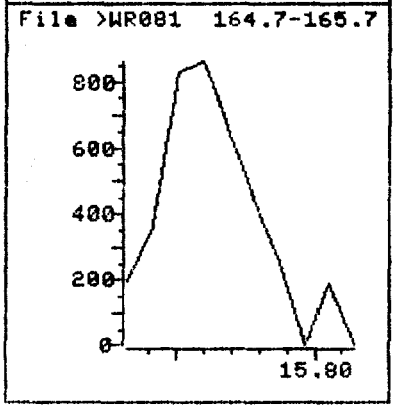
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)







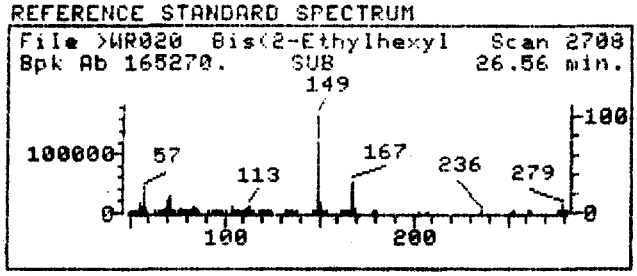
Data File: >WR081::D6
Name: 93ZE33D38R SF1187
Misc: 06-11-93
Quant Time: 930611 18:43
Injected at: 930611 18:03

Quant Output File: ^WR081::D3

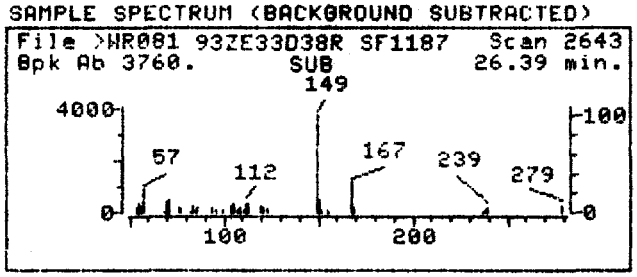
BTL#22
Quant ID File: IDRW39::SC
Last Calibration: 930611 11:33

Compound No: 50
Compound Name: Fluorene
Scan Number: 1475
Retention Time: 15.76 min.
Quant Ion: 166.0
Area: 1956
Concentration: .30 NG/UL
q-value: 91

REFERENCE STANDARD SPECTRUM



SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



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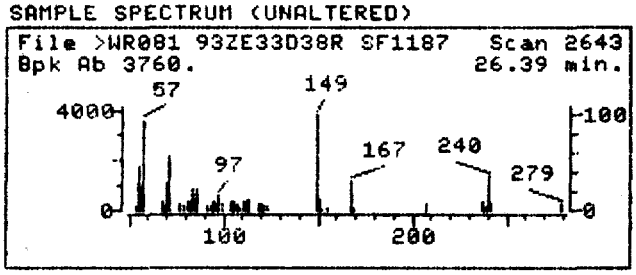

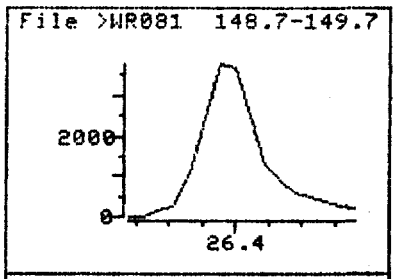

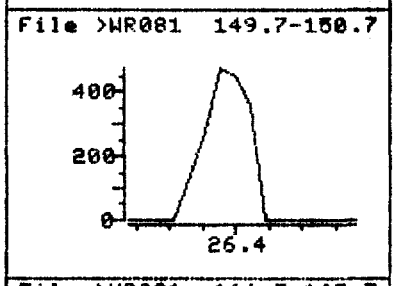

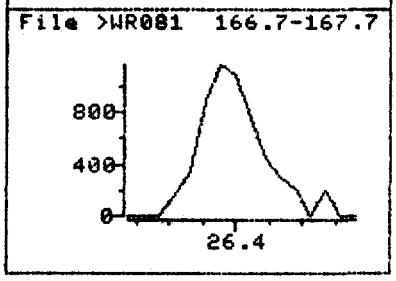

Data File: >WR081::D6 Quant Output File: ^WR081::D3
Name: 93ZE33D38R SF1187
Misc: 06-11-93 BTL#22
Quant Time: 930611 18:43 Quant ID File: IDRW39::SC
Injected at: 930611 18:03 Last Calibration: 930611 11:33

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2643
Retention Time: 26.39 min.
Quant Ion: 149.0
Area: 9896
Concentration: 1.87 NG/UL
q-value: 93