UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: NOV 08 1990

SUBJECT: Review of Region 5 data for Sofigro Service Co.

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF7452
Sample Numbers: 91FF07548, 549, 049, 550, 91FF03R57
Parameter(s): ABN - Water
Laboratory: 5CRL

Results Status:

(✓) DATA ACCEPTABLE FOR USE*
( ) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator: Bis(2-ethylhexyl)phthalate was present in high concentration in all samples. This may indicate that its was induced during extraction process. This compd is a common laboratory contaminant
CMG

If there are any questions regarding the data, refer them to ~~Steve Parker~~, James H. Adams, the Quality Control Coordinator, at 353-3805.

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

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

TRANSMITTED BY
NOV 09 1990
U.S. EPA CENTRAL

RECEIVED BY/DATE:
Comments:

DATA SET	SITE	OU/ACT.
SF7452	Sohigro Service Co.	TFA302

SAMPLES	PARAMETER(S)
91FF27S48,49,D49,S50 91FF03R57	ABN - Water

SAMPLED	RECEIVED	DUE	LAB
10-17-90	10-18-90	10-31-90	SCRL

SHIPPED	DATA RECEIVED	CONTRACT

TEAM LEADER	SECTION CHIEF	QC COORD.	DATA COORD.
[illegible]		[illegible]	

Comments By Reviewer:

BIS(2-ETHYLHEXYL)PHTHALATE WAS DETECTED IN ALL THE SAMPLES INCLUDING THE LABORATORY METHOD BLANK AT AN ESTIMATED CONCENTRATION RANGE OF 260. PPB - 520. PPB. NONE OF THE SAMPLES WAS DILUTED AND REANALYZED EVEN THOUGH THE PHTHALATE CONCENTRATIONS WERE GREATER THAN 100 PPB. SINCE THE PHTHALATE WAS DETECTED AT AN ESTIMATED CONCENTRATION OF 520 PPB, BIS(2-ETHYLHEXYL) PHTHALATE DATA ARE UNACCEPTABLE FOR USE.

HIGHER RECOVERIES WERE OBSERVED FOR PENTACHLOROPHENOL (PCP) IN MATRIX SPIKE AND MATRIX SPIKE DUPLICATE SAMPLES; MATRIX PRECISION DATA ARE ACCEPTABLE. PCP WAS NOT DETECTED AT THE SITE.

EXCEPT FOR BIS(2-ETHYLHEXYL) PHTHALATE DATA, THE REST OF THE DATA ARE ACCEPTABLE FOR USE.

DATA MANAGEMENT COORDINATOR RECEIVED	TRANSMITTED		CLERICAL SUPPORT RECEIVED	COMPLETED
(✓) REVIEWED	( ) UNREVIEWED	TEAM LEADER/DATE Barbara Palachuz 11/5/90		
(✓) REVIEWED	( ) UNREVIEWED	SECTION CHIEF/DATE Eli Yang 11/7/90		
(✓) REVIEWED	( ) UNREVIEWED	QC COORDINATOR/DATE J.A. Adams, Jr 11/7/90		

REVIEWED BY CONTRACT COORDINATOR/DATE	TRANSMITTED	DATA MANAGEMENT COORDINATOR
11/7/90	11/8/90	Griffin

QUALIFIERS

PLEASE SAVE THIS INFO. FOR FUTURE USE. THANK YOU

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

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

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

and df = dilution factor

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

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

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

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

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

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

QUALIFIERS (CONTD.)

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

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

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

X - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the Case Narrative. If more than one is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B", and "D" flags for some sample.

The combination of flags "BU" or "UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are also detected in the sample.

If analyses at two different dilution factors are required (see Exhibit D), follow the data reporting instructions given in Exhibit D and with the "D" and "E" flags above.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

METH BLANK

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

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

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >RZ239

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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.

METH BLANK

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

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

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >RZ239

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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	520.	EJ
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[ ]

11/8/90

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

METH BLANK

Lab Name: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

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

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >RZ239

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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. 74381401	Propanoic acid, 2-methyl-, 1	13.60	7.	J
2.				
3.				
4.				
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

91FF27S4B

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FF27S4B

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >RZ240

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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.

91FF27S48

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FF27S48

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >RZ240

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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	340.	BEJ
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[✓]

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

91FF27S49

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FF27S49

Sample wt/vol: 970 (g/mL) mL Lab File ID: >RZ243

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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.

91FF27S49

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FF27S49

Sample wt/vol: 970 (g/mL) mL Lab File ID: >RZ243

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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	240.	BE
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[✓]

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

91FF27D49

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FF27D49

Sample wt/vol: 1040 (g/mL) mL Lab File ID: >RZ244

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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.

91FF27D49

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FF27D49

Sample wt/vol: 1040 (g/mL) mL Lab File ID: >RZ244

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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	340.	BEJ
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[✓]

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

91FF27S50

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FF27S50

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >RZ245

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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	2.	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	30.	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.

91FF27S50

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FF27S50

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >RZ245

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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	340.	BEJ
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[ ]

EC 11/5/90

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

90FF27S50

Lab Name: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FF27S50

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >RZ245

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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.	74381401	Propanoic acid, 2-methyl-, 1	13.58	6.	JB
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

11/5/90

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

91FF03R57

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FF03R57

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >RZ246

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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	2.	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

IC

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

91FF03R57

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FF03R57

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >RZ246

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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	260.	BEJ
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[✓]

11/5/90

ESAT CONTRACT TID NO: 10-11
TASK NO: 3778

DATASET CUSTODY TRANSFER FORM

Analytical testing was completed on Oct. 30, 1990 for:

DATASET NO: SF7452 SITE NAME: Sohigro Service Co.

PARAMETER : ABN

MATRIX : Water SF DU/ACT NO: TFA302 Y____ /C____

SAMPLE NUMBERS: 91FF27S48, S49, D49, S50 and 91FF27S51 NUMBER OF SAMPLES: 5

ESAT APPROVALS:

(ANALYST DATE) 11-1-90 (TEAM LEADER DATE) 11/2/90

(QC COORDINATOR DATE) 11/2/90 (ESAT TEAM MANAGER DATE) 11-3-90

COMMENTS:

The subject dataset was transferred to the custody of the U.S. EPA Region V Central Regional Laboratory in its entirety on the date indicated below.

(DELIVERED BY DATE) 11/2/90 (RECEIVED BY DATE) 11/2/90 3:00 pm

EPA APPROVALS:

(EPA TASK MONITOR DATE)

[✓] Reviewed
[ ] Unreviewed
[✓] Accepted
[ ] Rejected
[ ] Returned/_____ (Date)

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COMMENTS: Ratings: Tech. Quality: 3.0; compliance to schedule: 3.0
ESAT SHOULD EVALUATE THE PROBABLE SOURCES OF BIS(2-ETHYL HEXYL)-PHTHALATE CONTAMINATION ASAP.

(SECTION CHIEF DATE) 11/7/90 [✓] Reviewed [ ] Unreviewed

(ESAT DPO DATE) 11-7-90 (DATA COORD'R REC'D TRANSMTD) 11-7-90 / 11-8-90

DOC.NO.: ESAT-05-0003-FORM
REVISION NO.: 05 (04/05/89) FILE LOCATION NUMBER: 5.6.1

Date : November 1, 1990

To : Babu Paruchuri

From : Ziyad A. Rajabi ZR

Re : Dataset SF7452 Narrative

Five (5) low level water samples (91FF27S48, S49, D49, S50, and 91FF03R57) from dataset SF7452 were submitted for acid base neutral (ABN) analysis by GC/MS utilizing EPA method 625NS.

All Samples were extracted within the seven (7) days of sampling.

All DFTPP tune criteria were met.

One initial calibration is associated with the above data set. The calibration was analyzed on 10/30/90. All specified QC parameters were met.

No continuing calibration was needed. All samples were analyzed immediately following the initial calibration.

All internal standard areas are within the QC limits for all the samples analyzed.

All Surrogates are within the QC limits for all the samples.

Sample 91FF27S48 was used for matrix spike and matrix spike duplicate (Form 3C) analysis. All spike recoveries were within the QC limits except for high Pentachlorophenol in both spikes. All %RPD were within the QC limits.

One method blank was extracted with the samples (FORM 4B). 520 Ug/L of bis(2-ethylhexyl)phthalate were found. 1 TIC was reported.

One field blank 91FF03R57 was associated with this set, 260 Ug/L of bis(2-ethylhexyl)phthalate were found. No TICs were reported.

Sample 91FF27S49 and its duplicate 91FF27D49 correlated well with S48 reporting 240 Ug/L of bis(2-ethylhexyl)phthalate. D49 reported 340 Ug/L of bis(2-ethylhexyl)phthalate. No TICs were reported in either samples.

Sample 91FF27S50 reported 340 Ug/L of bis(2-ethylhexyl)phthalate. 1 TIC was reported.

Bis(2-ethylhexyl)phthalate was present in very high concentrations in all samples except for the spike solution analyses which reported only 3 Ug/L. This may indicate that it was induced during the extraction process. All concentrations reported which exceeds the calibration maximum of 100 Ug/L should be considered an estimate of the actual concentration. No dilution was made due to the fact that bis(2-ethylhexyl)phthalate was present in all samples including the method blank at approximately the same level.

51/22

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

TFA302

DIVISION/BRANCH FIT SUPERFUND SAMPLE DATE 10-17-90 LAB ARRIVAL DATE 10-18-90 DUE DATE 11-8-90

DU NUMBER TFA-~~102~~ DATA SET NUMBER 7452 STUDY Sottigo Service Co. PRIORITY — CONTRACTOR —

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
91FF27S48	MSD/RW1 5-133776-783	X			
49	RW2 5-133794-97	X			
50	RW3 5-133813-15	X			
D 49	Dup 5-133804-00	X			
91FF03R57	Blank 5-133822-4	X			
91FF27S48	RW1/MSD 5-133984-86		X		
91FF27S49	RW2 5-133798		X		
91FF27D49	DUPLICATE 5-133807		X		
91FF27S50	RW3 5-133816		X		
91FF03R57	BLANK 5-133825		X		

Shipment is complete

ANALYTICAL LABORATOTY
TIME TRACKING RECORD

Task Number: 3778
TID Number: 10-11
SF Number: 7452
Site Name: Sohigro Service Co.
Assigned To:

Date Assigned:
Date Due: 10-31
Estimated Hours: 37.5

VOA ____ BNA ____ Pest/PCBs ____ Other ____

Extraction Record

Person:	Date:	Hours: 14 (per DPL)
Person:	Date:	Hours:
Person:	Date:	Hours:
Person:	Date:	Hours:

Analysis Record

Person: ZAR	Date: 10-29	Hours: 4
Person: ZAR	Date: 10-30	Hours: 8
Person: ZAR	Date: 10-31	Hours: 4
Person: ZAR	Date: 11-1	Hours: 4
Person:	Date:	Hours:
Person:	Date:	Hours:

QA/QC Record

Person: DPL	Date: 11/1	Hours: 2
Person:	Date:	Hours:
Person:	Date:	Hours:

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LIMS Data Entry

Person:	Date:	Hours:
Person:	Date:	Hours:

Comments

Total Hours: ____ **ETM:** ____

ROY F. WESTON, INC.
C/O ESAT Project
Room 671
536 South Clark Street
Chicago IL 60605
(312)-353-2895

Dataset No: SF7452

Task No: 10-11

SEMIVOLATILE ORGANIC DELIVERABLES CHECK-OFF LIST

PRESENT	NOT REQD	
[✓]	[ ]	DATA USERS REPORT
[✓] (3 COPIES)	[ ]	DATASET CUSTODY TRANSFER FORM
[✓] (1 COPY)	[ ]	SAMPLE REPORT LOG
[✓]	[ ]	NARRATIVE
[✓]	[ ]	RUN SEQUENCE
[✓]	[ ]	ABN BENCH SHEET
		AOC
[✓] (1 COPY)	[ ]	SURROGATE RECOVERY (FORM II)
[✓] (1 COPY)	[ ]	MATRIX SPIKE/DUP (FORM III)
[✓]	[ ]	MS/MSD RAW DATA
[✓]	[ ]	METHOD BLANK (FORM IV)
[✓]	[ ]	MASS CAL/TUNING (FORM V)
[✓]	[ ]	MASS CAL RAW DAT
[✓]	[ ]	MDL RESULTS

PRESENT	NOT REQD	
		CALIBRATION DATA
[✓]	[ ]	INITIAL CAL RRF (FORM VI)
[✓]	[ ]	ICV RAW DATA
[ ]	[✓]	CONT CAL VERIFIC (FORM VII)
[ ]	[✓]	CCV RAW DATA
[✓] (1 COPY)	[ ]	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
[✓] (2 COPIES)	[ ]	ARCHIVE REFERENCE
[ ]	[✓]	CONTROL CHART SUMMARY

ROY F. WESTON, INC.
C, J ESAT Project
Room 962
536 South Clark Street
Chicago IL 60605
(312)-353-2895

RAW DATA ARCHIVING AND DATASET RECONSTRUCTION FORM

DISK OR TAPE NUMBERS: TAPE

RUN DATE(S): 10-30-90
INST.NO.: HP5996
ANALYST(S): ZAR

SAMPLE SUMMARY MATRIX

DATASET NUMBER:	SF7452				
TASK NUMBER:	3778				
DU/ACTIVITY NO:	IEA302				
PARAMETER:	ABN				
MATRIX:	Water				
NUMBER SAMPLES:	5				
DATE RECEIVED:	10-18-90				
DATE EXTRACTED:	10-23-90				
NOTBK NO/PG NO:					
DATE ASSAYED:					

FILE IDENTIFICATION SUMMARY

TUNING FILE: >RZ234
BLANK FILE: >RZ239
RUN SEQUENCE FILE: BARZ13

PRIMARY COLUMN

INITIAL CALIBRATION FILE: >RZ236 -238
CONTINUING CALIBRATION FILES: —
STANDARDS FILES:
SAMPLE FILES: >RZ39 - RZ246
ID/METHOD FILES: IDZR96

CONFIRMATORY COLUMN

INITIAL CALIBRATION FILE:
CONTINUING CALIBRATION FILES:
STANDARDS FILES:
SAMPLE FILES:
ID/METHOD FILES:

DOC.NO.: ESAT-05-15-FORM
REVISION NO.: NEW
CENTRAL FILE NO.: 5.5.1

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Site:SOHIGRO SERVICE CO. Contract:5SCRL

Lab Code: CHICAGOILCase No.: SF7452 SAS No.: ------- SDG No.: TFA302

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	METH BLANK	55	60	95	34	52	72		0
02	91FF27S48	63	72	97	27	41	76		0
03	91FF27S48MS	55	57	79	29	44	68		0
04	91FF27S48MD	60	53	86	35	59	96		0
05	91FF27S49	67	74	90	35	54	75		0
06	91FF27D49	52	54	111	25	36	64		0
07	91FF27S50	77	73	86	22	34	73		0
08	91FF03R57	68	67	109	31	47	85		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.

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Site:SOHIGRO SERVICE CO. Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix Spike - EPA Sample No.: 91FF27S48

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	#	QC LIMITS REC.
Phenol	70.00	0.00	26.00	38		12- 89
2-Chlorophenol	69.00	0.00	55.00	80		27-123
1,4-Dichlorobenzene	62.00	0.00	42.00	67		36- 97
N-Nitroso-di-n-prop.(1)	96.00	0.00	55.00	56		41-116
1,2,4-Trichlorobenzene	74.00	0.00	57.00	77		39- 98
4-Chloro-3-methylphenol	65.00	0.00	59.00	91		23- 97
Acenaphthene	100.00	0.00	53.00	52		46-118
4-Nitrophenol	84.00	0.00	34.00	40		10- 80
2,4-Dinitrotoluene	66.00	0.00	60.00	91		24- 96
Pentachlorophenol	66.00	0.00	69.00	104	*	9-103
Pyrene	71.00	0.00	65.00	92		26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	#	% RPD	#	QC LIMITS RPD	QC LIMITS REC.
Phenol	70.00	30.00	42		10		42	12- 89
2-Chlorophenol	69.00	66.00	95		17		40	27-123
1,4-Dichlorobenzene	62.00	41.00	65		3		28	36- 97
N-Nitroso-di-n-prop.(1)	96.00	57.00	58		3		38	41-116
1,2,4-Trichlorobenzene	74.00	57.00	78		1		28	39- 98
4-Chloro-3-methylphenol	65.00	62.00	95		4		42	23- 97
Acenaphthene	100.00	69.00	68		26		31	46-118
4-Nitrophenol	84.00	30.00	35		13		50	10- 80
2,4-Dinitrotoluene	66.00	52.00	78		15		38	24- 96
Pentachlorophenol	66.00	73.00	110	*	5		50	9-103
Pyrene	71.00	68.00	95		3		31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of qc limits

RPD: 0 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits

COMMENTS: _____

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Site:SOHIGRO SERVICE CO. Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Lab File ID: >RZ239 Lab Sample ID: METH BLANK

Date Extracted 10/23/90 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 10/30/90 Time Analyzed: 15:25

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	91FF27S48	91FF27S48	>RZ240	10/30/90
02	91FF27S48MS	91FF27S48MS	>RZ241	10/30/90
03	91FF27S48MS	91FF27S48MSD	>RZ242	10/30/90
04	91FF27S49	91FF27S49	>RZ243	10/30/90
05	91FF27D49	91FF27D49	>RZ244	10/30/90
06	91FF27S50	91FF27S50	>RZ245	10/30/90
07	91FF03R57	91FF03R57	>RZ246	10/30/90
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COMMENTS:

FORM IV SV 1/87 Rev.

5B

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

Site:SOHIGRO SERVICE CO. Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Lab File ID: >RZ234 DFTPP Injection Date:10/30/90

Instrument ID: 96 1 DFTPP Injection Time: 10:38

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	45.8
68	Less than 2.0% of mass 69	0.0(0.0)1
69	Mass 69 relative abundance	59.
70	Less than 2.0% of mass 69	0.0(0.0)1
127	40.0 - 60.0% of mass 198	55.3
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	6.1
275	10.0 - 30.0% of mass 198	16.2
365	Greater than 1.00% of mass 198	2.29
441	Present, but less than mass 443	6.6
442	Greater than 40.0% of mass 198	40.8
443	17.0 - 23.0% of mass 442	7.8(19.1)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	TOXSTD 100	TOXSTD 100	>RZ236	10/30/90	14:34
02	TOXSTD 50	TOXSTD 50	>RZ237	10/30/90	11:56
03	TOXSTD 25	TOXSTD 25	>RZ238	10/30/90	13:45
04	METH BLANK	METH BLANK	>RZ239	10/30/90	15:25
05	91FF27S48	91FF27S48	>RZ240	10/30/90	16:15
06	91FF27S48MS	91FF27S48MS	>RZ241	10/30/90	17:05
07	91FF27S48MS	91FF27S48MSD	>RZ242	10/30/90	17:54
08	91FF27S49	91FF27S49	>RZ243	10/30/90	18:44
09	91FF27D49	91FF27D49	>RZ244	10/30/90	19:34
10	91FF27S50	91FF27S50	>RZ245	10/30/90	20:24
11	91FF03R57	91FF03R57	>RZ246	10/30/90	21:14
12					
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22					

FORM V SV 1/87 Rev.

U. S. EPA - REGION V
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Site:SOHIGRO SERVICE CO. Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Instrument ID: 96 1 Calibration Date(s):10/30/90 10/30/90

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF25 =>RZ238 RRF50 =>RZ237
RRF100=>RZ236

COMPOUND	RRF25	RRF50	RRF100			RRF	% RSD
Phenol *	1.255	1.278	1.373	0.000	0.000	1.302	4.8*
bis(2-Chloroethyl)ether	1.090	.968	1.019	0.000	0.000	1.026	6.0
2-Chlorophenol	1.095	1.253	1.187	0.000	0.000	1.178	6.7
1,3-Dichlorobenzene	1.230	1.420	1.246	0.000	0.000	1.299	8.1
1,4-Dichlorobenzene *	1.284	1.650	1.757	0.000	0.000	1.564	15.9*
Benzyl alcohol	.651	.670	.740	0.000	0.000	.687	6.8
1,2-Dichlorobenzene	1.380	1.508	1.511	0.000	0.000	1.466	5.1
2-Methylphenol	.988	1.028	1.054	0.000	0.000	1.023	3.2
bis(2-chloroisopropyl)ether	.357	.359	.347	0.000	0.000	.354	1.8
4-Methylphenol	1.049	1.000	.876	0.000	0.000	.975	9.1
N-Nitroso-di-n-propylamine #	.773	.723	1.029	0.000	0.000	.842	19.5#
Hexachloroethane	.561	.663	.647	0.000	0.000	.624	8.8
Nitrobenzene	.677	.691	.698	0.000	0.000	.689	1.6
Isophorone	2.137	2.033	1.769	0.000	0.000	1.980	9.6
2-Nitrophenol *	.718	.803	.872	0.000	0.000	.798	9.7*
2,4-Dimethylphenol	.831	.889	.909	0.000	0.000	.876	4.7
Benzoic acid	.487	.509	.720	0.000	0.000	.572	22.5
bis(2-Chloroethoxy)methane	1.497	1.434	1.532	0.000	0.000	1.488	3.3
2,4-Dichlorophenol *	1.127	1.229	1.265	0.000	0.000	1.207	5.9*
1,2,4-Trichlorobenzene	1.307	1.489	1.411	0.000	0.000	1.402	6.5
Naphthalene	3.683	3.813	3.632	0.000	0.000	3.709	2.5
4-Chloroaniline	.565	.579	.564	0.000	0.000	.569	1.5
Hexachlorobutadiene *	.667	.795	.758	0.000	0.000	.740	8.9*
4-Chloro-3-methylphenol *	1.022	.915	.936	0.000	0.000	.958	5.9*
2-Methylnaphthalene	3.158	3.146	3.001	0.000	0.000	3.102	2.8
Hexachlorocyclopentadiene #	.590	.710	.668	0.000	0.000	.656	9.2#
2,4,6-Trichlorophenol *	.675	.723	.752	0.000	0.000	.717	5.4*
2,4,5-Trichlorophenol	.727	.736	.776	0.000	0.000	.747	3.5
2-Chloronaphthalene	2.330	2.425	2.330	0.000	0.000	2.361	2.3
2-Nitroaniline	.782	.748	.885	0.000	0.000	.805	8.9
Dimethylphthalate	2.480	2.424	2.586	0.000	0.000	2.497	3.3
Acenaphthylene	1.361	1.506	1.320	0.000	0.000	1.395	7.0
2,6-Dinitrotoluene	.228	.260	.256	0.000	0.000	.248	7.0
3-Nitroaniline	.203	.206	.196	0.000	0.000	.202	2.6
Acenaphthene *	.941	1.000	.824	0.000	0.000	.922	9.8*
2,4-Dinitrophenol #	.077	.101	.119	0.000	0.000	.099	21.5#
4-Nitrophenol #	.092	.097	.102	0.000	0.000	.097	4.8#

U. S. EPA - REGION V
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Site:SOHIGRO SERVICE CO. Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Instrument ID: 96 1 Calibration Date(s):10/30/90 10/30/90

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF25 =>RZ238 RRF50 =>RZ237
RRF100=>RZ236

COMPOUND	RRF25	RRF50	RRF100			RRF	% RSD
Dibenzofuran	1.312	1.397	1.301	0.000	0.000	1.337	3.9
2,4-Dinitrotoluene	.281	.301	.319	0.000	0.000	.300	6.3
Diethylphthalate	1.034	.994	.924	0.000	0.000	.984	5.7
4-Chlorophenyl-phenylether	.391	.433	.381	0.000	0.000	.401	6.9
Fluorene	.952	1.012	.913	0.000	0.000	.959	5.2
4-Nitroaniline	.171	.197	.167	0.000	0.000	.178	9.0
4,6-Dinitro-2-methylphenol	.092	.110	.125	0.000	0.000	.109	14.8
N-Nitrosodiphenylamine (1) *	.429	.405	.429	0.000	0.000	.421	3.3*
4-Bromophenyl-phenylether	.177	.200	.186	0.000	0.000	.188	6.2
Hexachlorobenzene	.195	.206	.191	0.000	0.000	.197	3.9
Pentachlorophenol *	.098	.109	.110	0.000	0.000	.106	6.6*
Phenanthrene	1.078	1.159	1.148	0.000	0.000	1.128	3.9
Anthracene	1.074	1.159	1.108	0.000	0.000	1.114	3.8
Di-n-butylphthalate	1.300	1.290	1.129	0.000	0.000	1.240	7.7
Fluoranthene *	.822	.771	.734	0.000	0.000	.775	5.7*
Pyrene	.799	.745	.721	0.000	0.000	.755	5.3
Butylbenzylphthalate	.401	.359	.334	0.000	0.000	.364	9.3
Benzo(a)anthracene	.432	.390	.397	0.000	0.000	.406	5.5
Chrysene	.427	.393	.376	0.000	0.000	.399	6.5
bis(2-Ethylhexyl)phthalate	.505	.430	.440	0.000	0.000	.458	8.8
Di-n-octylphthalate *	2.699	2.848	2.978	0.000	0.000	2.842	4.9*
Benzo(b)fluoranthene	1.110	1.206	1.113	0.000	0.000	1.143	4.8
Benzo(k)fluoranthene	1.135	1.222	1.213	0.000	0.000	1.190	4.0
Benzo(a)pyrene *	.945	1.031	.988	0.000	0.000	.988	4.4*
Indeno(1,2,3-cd)pyrene	.683	.777	.855	0.000	0.000	.771	11.1
Dibenzo(a,h)anthracene	.670	.781	.769	0.000	0.000	.740	8.3
Benzo(g,h,i)perylene	.692	.823	.879	0.000	0.000	.798	12.0
Nitrobenzene-d5	1.204	1.230	1.248	0.000	0.000	1.227	1.8
2-Fluorobiphenyl	2.896	3.037	2.897	0.000	0.000	2.944	2.8
Terphenyl-d14	.556	.513	.455	0.000	0.000	.508	10.0
Phenol-d5	1.281	1.317	1.539	0.000	0.000	1.379	10.2
2-Fluorophenol	1.033	1.106	1.127	0.000	0.000	1.089	4.5
2,4,6-Tribromophenol	.106	.116	.116	0.000	0.000	.113	4.9

(1) Cannot be separated from Diphenylamine

U. S. EPA - REGION V
SEMI-VOLATILE INTERNAL STANDARD AREA SUMMARY

Site:SOHIGRO SERVICE CO. Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Lab File ID (Standard): >RZ237 Date Analyzed:10/30/90

Instrument ID: 96 1 Time Analyzed: 11:56

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

		IS1(DCB) AREA #	RT	IS2(PHN) AREA #	RT	IS3(PYR) AREA #	RT
	12 HOUR STD	167803.	3.89	375583.	15.88	76258.	27.44
	UPPER LIMIT	335606.		751166.		152516.	
	LOWER LIMIT	83902.		187791.		38129.	
	EPA SAMPLE NO.						
01	TOXSTD 100	183657.	3.77	466417.	15.89	108053.	27.44
02	TOXSTD 25	184809.	3.80	449681.	15.86	113207.	27.43
03	METH BLANK	190228.	3.87	496889.	15.87	104322.	27.44
04	91FF27S48	174490.	3.86	460564.	15.88	90863.	27.45
05	91FF27S48MS	178335.	3.86	446169.	15.87	85589.	27.44
06	91FF27S48MSD	174104.	3.89	268500.	15.87	55686.	27.43
07	91FF27S49	170312.	3.83	428009.	15.88	101815.	27.43
08	91FF27D49	173539.	3.79	412020.	15.87	94332.	27.43
09	91FF27S50	172413.	3.89	345821.	15.86	52355.	27.42
10	91FF03R57	169398.	3.89	300296.	15.87	67318.	27.42
11							
12							
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IS1 (DCB) = 1,4 Dichlorobenzene-d4
IS2 (PHN) = d-10-Phenanthrene
IS3 (CBZ) = d-12-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

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

91FF27S48MS

Site:SOHIGRO SERVICE CO. Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FF27S48MS

Sample wt/vol: 1020 (g/mL) mL Lab File ID: >RZ241

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted:10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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	26.	
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	42.	
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	55.	
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	57.	
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	59.	
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.

91FF27S48MS

Site:SOHIGRO SERVICE CO. Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FF27S48MS

Sample wt/vol: 1020 (g/mL) mL Lab File ID: >RZ241

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted:10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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	53.	
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	34.	
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	60.	
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	69.	
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	2.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	65.	
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	600.	BE
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[✓]

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

91FF27S48MSD

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FF27S48MSD

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >RZ242

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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	30.	
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	66.	
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	41.	
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	57.	
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	57.	
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	62.	
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.

91FF27S48MSD

Site: SOHIGRO SERVICE CO. Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7452 SAS No.: ------- SDG No.: TFA302

ZR 11-1

Matrix: (soil/water) WATER Lab Sample ID: 91FF27S48MSD

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >RZ242

Level: (low/med) LOW Date Received: 10/18/90

% Moisture: not dec.____ dec. ____ Date Extracted: 10/23/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/30/90

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	69.	
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	30.	
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	52.	
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	73.	
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	68.	
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	480.	BE
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[✓]

A/BN BENCH SHEET

DATA SET: SF7452 SAMPLE TYPE: Water EXTRACTION METHOD: Sep. funnel

SAMPLE #	SAMPLE AMOUNT	FINAL VOL.	SOLVENT EXTRACT.	DILUTION w/HEXANE 1st	2nd	3rd	EXTR VOL.
91FF27S48	1L	1.0					
ABN-MS 91FF27S48	1020	1.0					
ABN-MSD 91FF27S48	1L	1.0					
91FF27S49	970	1.0					
91FF27S50	1040	1.0					
91FF27D49	1050	1.0					
91FF03R57	1050	1.0					
Method ll	1L	1.0					

DATE EXTRACTED: 10/23/90 PREP. CHEM.: AK(W)K.M
DATE CONCENTRATED: 10/26/90 PREP. CHEM.: AK(W)
DATE RECEIVED: ~~8/6/90~~ 8/6/90 GC/MS CHEM.:

REMARKS: 0.75ml of ABN (100µg/ml) Surrogate solution was added to all of the ABN samples. 8/15/90
0.75ml of ABN (100µg/ml) matrix spike solution was added to the ABN-MS/MSD.
20µl of ISTD (50µg/ml) was added to each ABN sample upon completion before submitting to GC/MS for analysis.

Individual who performed spiking: Anthony Romagny
Individual who witness: [illegible]

QUANT REPORT

Operator ID: KELLY
Output File: ^RZ239::D5
Data File: >RZ239::D1
Name: SF7452 METHOD BLANK
Misc: 10/30/90 1L/1ML

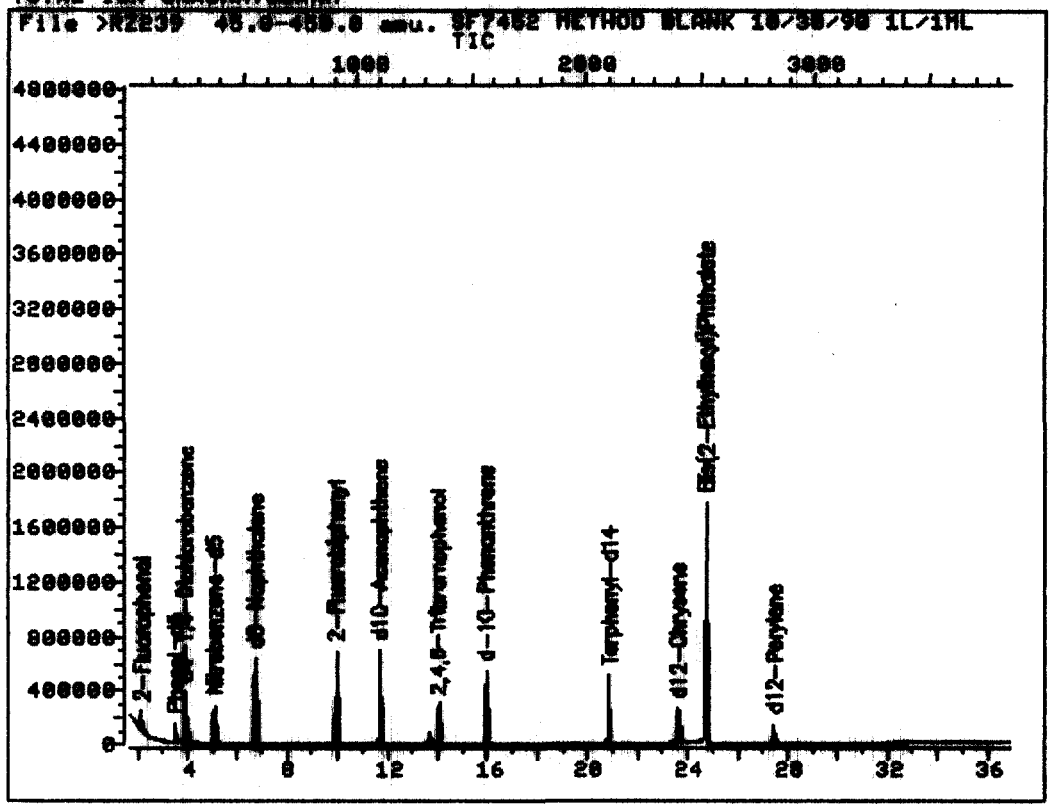
Quant Rev: 6
Quant Time: 901030 16:33
Injected at: 901030 15:25
Dilution Factor: 1.00000

ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.87	152.0	190228	50.00	NG/UL	93
2)	2-Fluorophenol	2.15	112.0	162255	39.17	NG/UL	88
3)	Phenol-d5	3.47	99.0	135726	25.87	NG/UL	84
16)	d8-Naphthalene	6.69	136.0	748542	49.88	NG/UL	86
17)	Nitrobenzene-d5	5.05	82.0	191673	41.05	NG/UL	82
31)	d10-Acenaphthene	11.64	164.0	362513	54.27	NG/UL	95
36)	2-Fluorobiphenyl	9.89	172.0	503144	44.93	NG/UL	93
39)	*d-10-Phenanthrene	15.87	188.0	496889	50.00	NG/UL	97
54)	2,4,6-Tribromophenol	13.98	329.8	60658	54.12	NG/UL	96
62)	d12-Chrysene	23.58	240.0	165292	51.55	NG/UL	85
64)	Terphenyl-d14	20.84	244.0	359317	71.16	NG/UL	96
67)	Bis(2-Ethylhexyl)Phthalate	24.70	149.0	2361128	518.32	NG/UL	90
69)	*d12-Perylene	27.43	264.0	104322	50.00	NG/UL	96

* Compound is ISTD

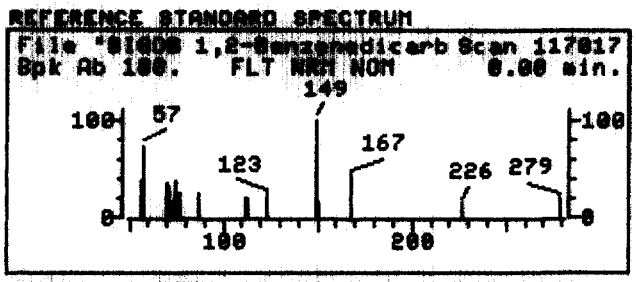
TOTAL ION CHROMATOGRAM

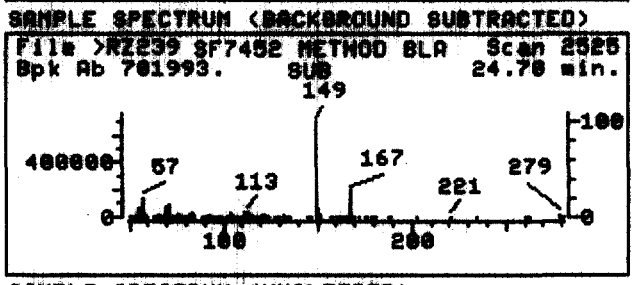


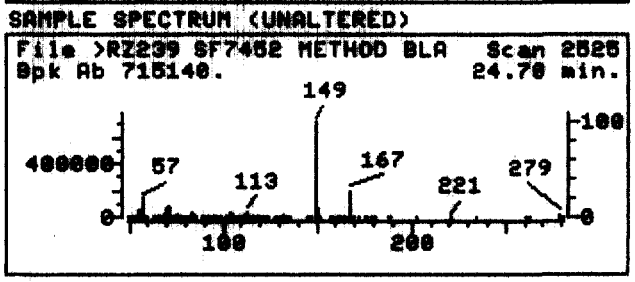
Data File: >RZ239::D1 Quant Output File: ^RZ239::D5
Name: SF7452 METHOD BLANK
Misc: 10/30/90 1L/1ML

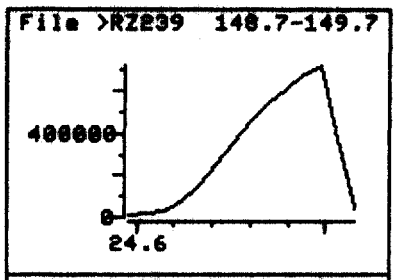
Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

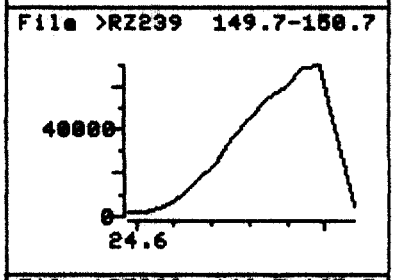
Operator ID: KELLY
Quant Time: 901030 16:33
Injected at: 901030 15:25

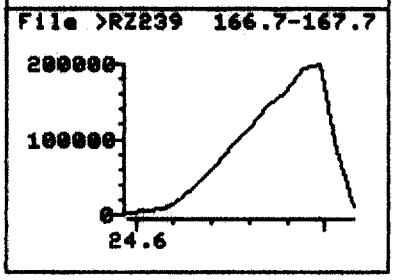












Data File: >RZ239::D1 Quant Output File: ^RZ239::D5
Name: SF7452 METHOD BLANK
Misc: 10/30/90 1L/1ML
Quant Time: 901030 16:33 Quant ID File: IDZR96::SC
Injected at: 901030 15:25 Last Calibration: 901030 16:31

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2525
Retention Time: 24.70 min.
Quant Ion: 149.0
Area: 2361128
Concentration: 518.32 NG/UL
q-value: 90

MS data file header from : >RZ239

Sample: SF7452 METHOD BLANK Operator: KELLY REG. GRP. 10/30/90 15:25
Misc : 10/30/90 1L/1ML
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

>RZ239 SF7452 METHOD BLANK 10/30/90 1L/1ML
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 38910. Max Peaks: 3 Bunching: 1
Dnslope: 0.00 Results File IRZ239 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	13.60	1300	1309	1314	87799	224316	190833	100.00	67.627
2	24.43	2492	2496	2500	15340	126179	43115	22.59	15.279
3	24.59	2508	2513	2514	20925	122605	48238	25.28	17.094

Sum of corrected areas: 282186.

Summary of Unknowns PBM Library Search and Quantitation

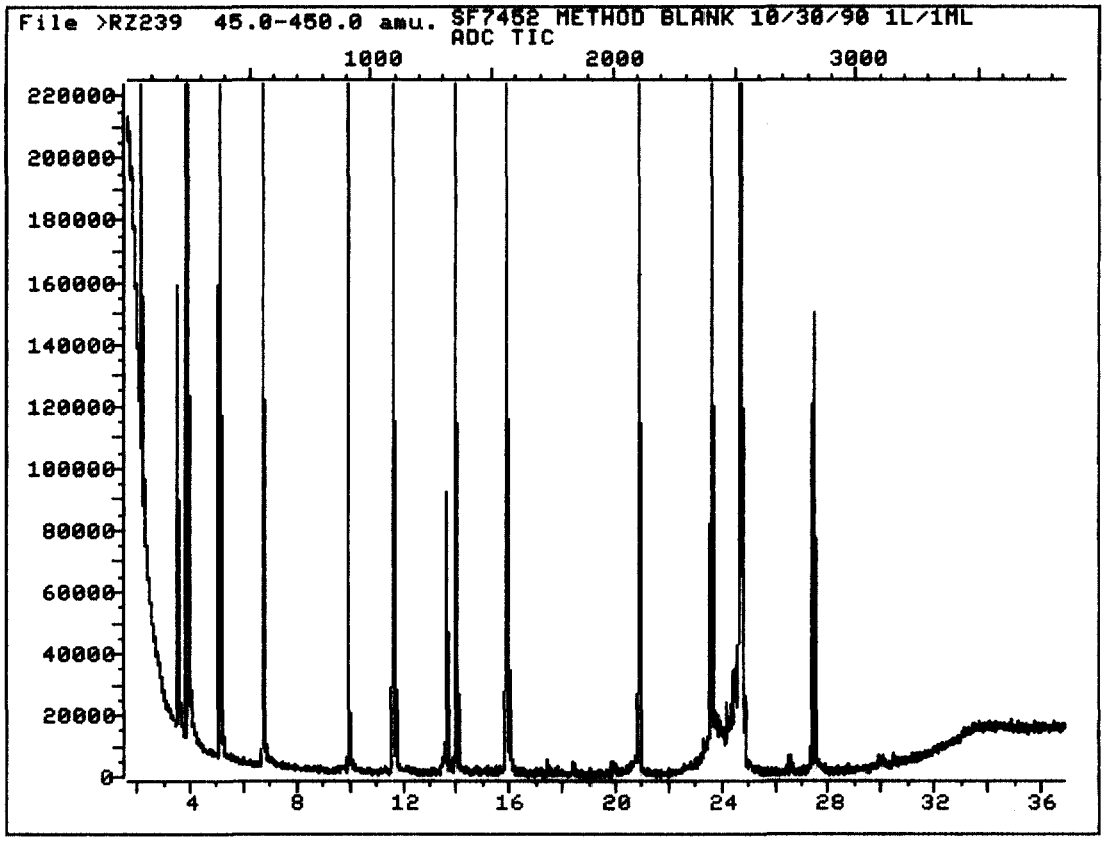
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	1036719.	3.87	1.68 - 9.87
2	50.0	1402698.	15.87	9.87 - 21.65
3	50.0	389103.	27.44	21.65 - 36.90

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)

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

5:26 PM WED., 31 OCT., 1990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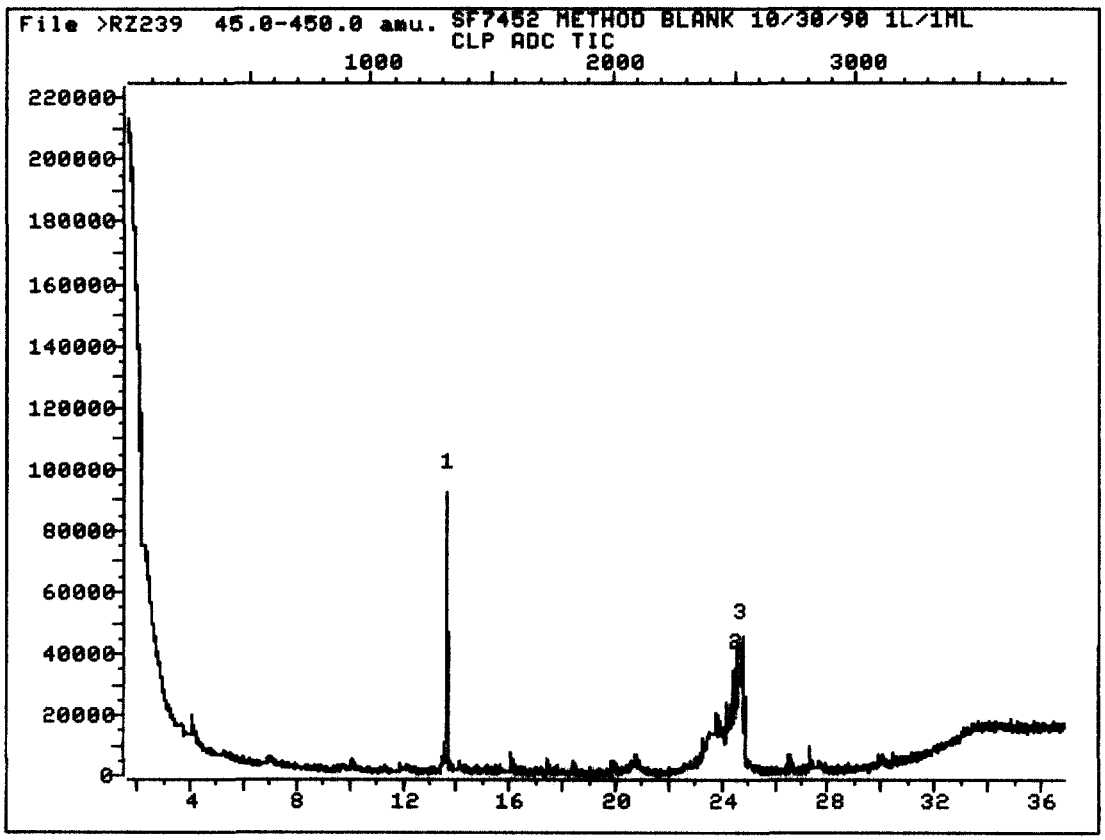
ADC TIC
1000
2000
3000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36


File >RZ239 45.0-450.0 amu. SF7452 METHOD BLANK 10/30/90 1L/1ML
CLP ADC TIC
1000
2000
3000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
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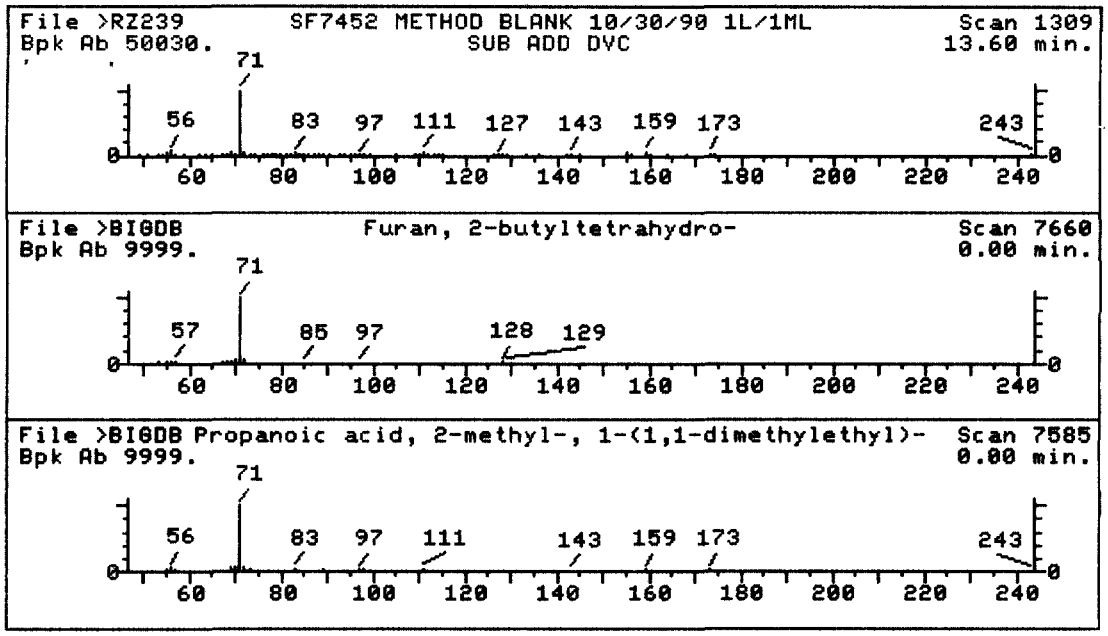
1
3
2
4
8
12
16
20
24
28
32
36



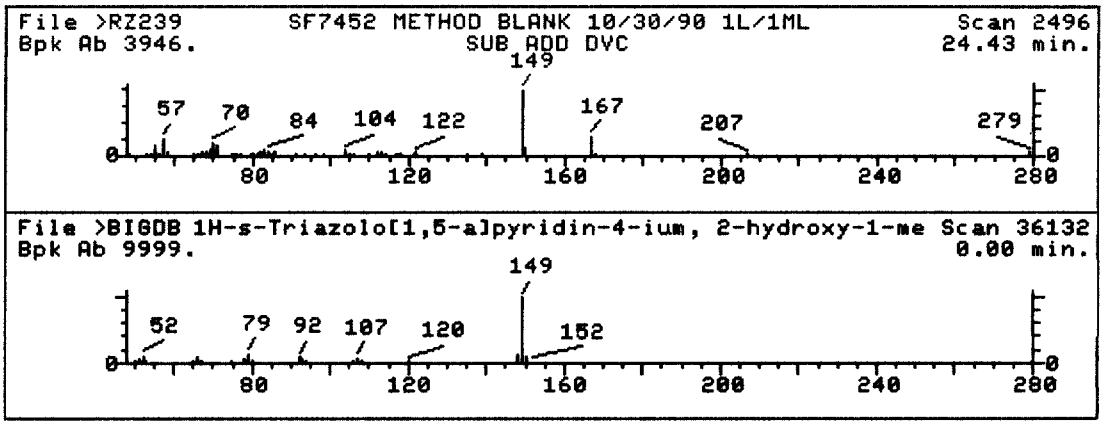
C Bleed ?
Also observed in SP-1000 (HR3)

UNKNOWN #,1
AREA = 190833.0 TENTATIVE CONCENTRATION IS 7.00

1. Furan, 2-butyltetrahydro- 128 C8H16O
2. Propanoic acid, 2-methyl-, 1-(1,1-dimethylethyl)-2-m 286 C16H30O4
ethyl-1,3-propanediyl ester

Sample file: >RZ239 Spectrum #: 1309
Search speed: 1 Tilting option: N No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	15*	1004291	7660	"BIGDB	20	37	1	0	46	59	3	14
2.	11	74381401	7585	"BIGDB	29	57	0	0	36	63	2	15



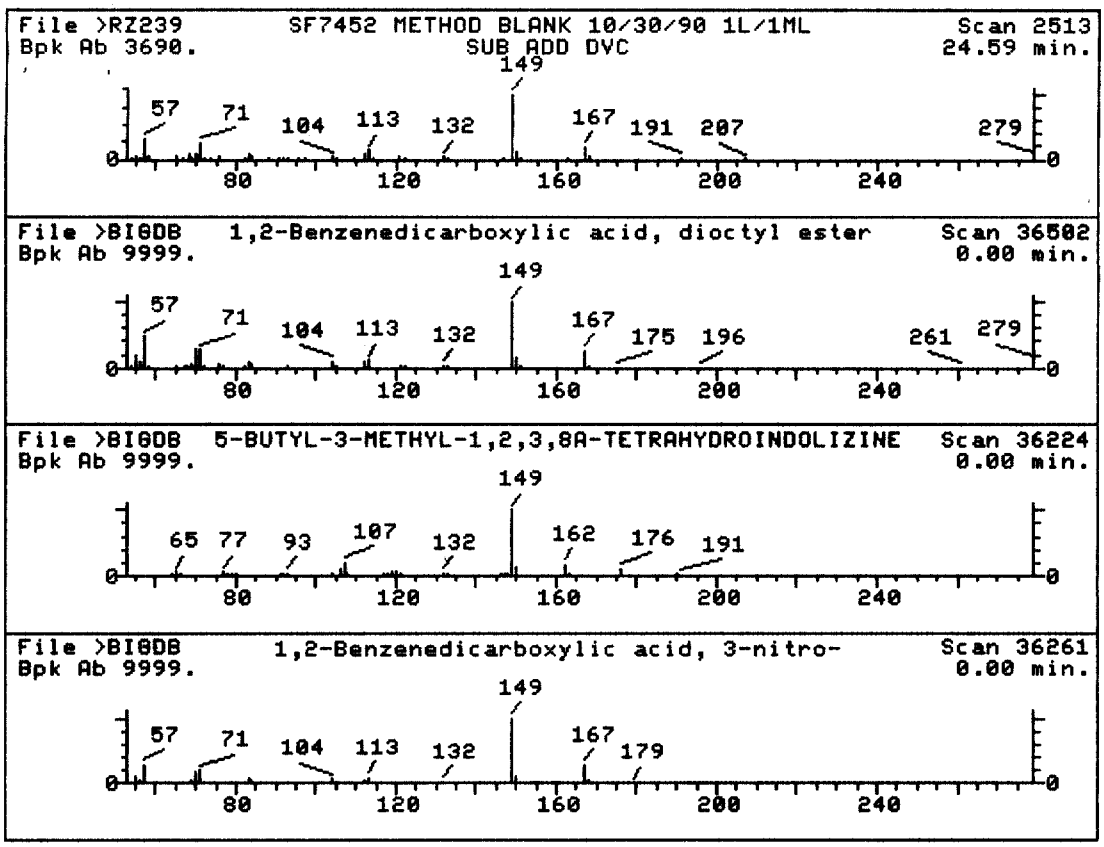
#67 Tail

. UNKNOWN #,2
AREA = 43115.00 TENTATIVE CONCENTRATION IS 6.00

1. 1H-s-Triazolo[1,5-a]pyridin-4-ium, 2-hydroxy-1-methy 149 C7H7N3O
1-, hydroxide, inner salt

Sample file: >RZ239 Spectrum #: 2496
Search speed: 1 Tilting option: N No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	26*	13980648	36132	"BIGDB	24	66	3	0	100	40	10	12



#67
Tail

UNKNOWN #,3
AREA = 48238.00 TENTATIVE CONCENTRATION IS 6.00

1. 1,2-Benzenedicarboxylic acid, dioctyl ester 390 C24H38O4
2. 5-BUTYL-3-METHYL-1,2,3,8A-TETRAHYDROINDOLIZINE 191 C13H21N
3. 1,2-Benzenedicarboxylic acid, 3-nitro- 211 C8H5NO6
4. Benzothiazole, 2-methyl- 149 C8H7NS

Sample file: >RZ239 Spectrum #: 2513
Search speed: 1 Tilting option: N No. of ion ranges searched: 57

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	83	117840	36502	"BIGDB	91	62	2	0	66	5	57	27
2.	29*	0	36224	"BIGDB	24	84	3	0	100	33	12	12
3.	27	603112	36261	"BIGDB	35	73	0	0	53	42	8	15
4.	27*	120752	36422	"BIGDB	25	65	3	0	100	36	10	13

QUANT REPORT

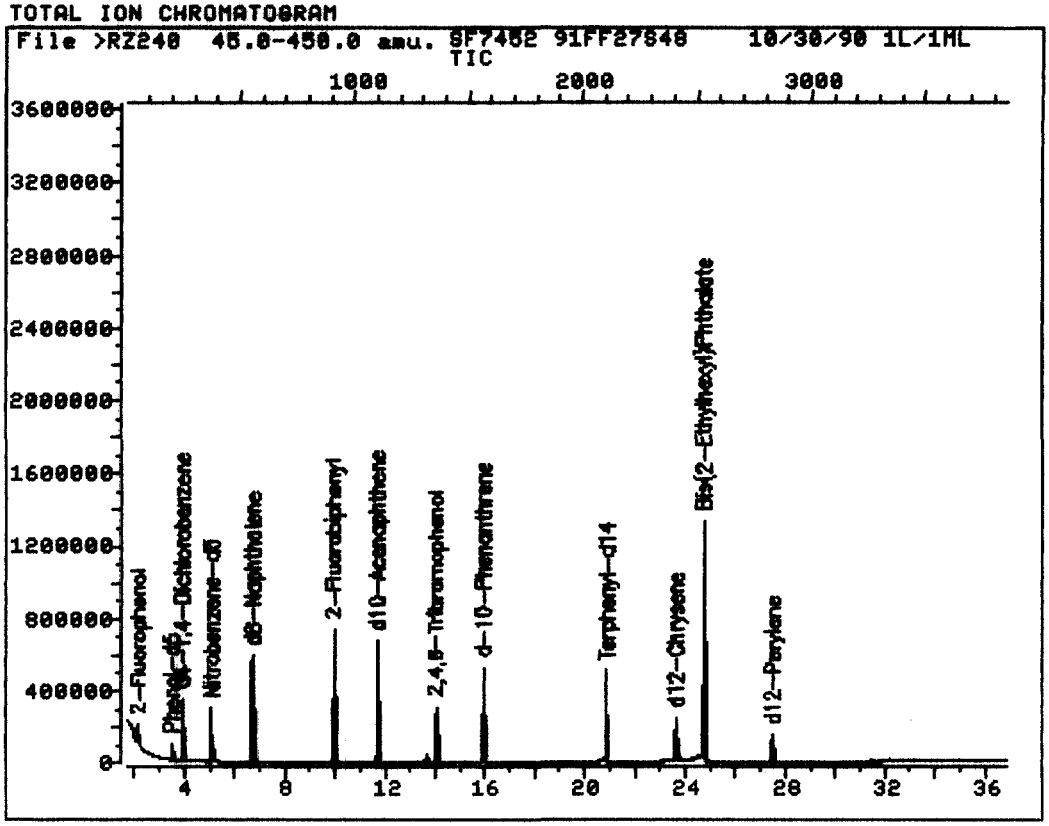
Operator ID: KELLY Quant Rev: 6 Quant Time: 901030 16:54
Output File: ^RZ240::D5 Injected at: 901030 16:15
Data File: >RZ240::D1 Dilution Factor: 1.00000
Name: SF7452 91FF27S48
Misc: 10/30/90 1L/1ML

ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.86	152.0	174490	50.00	NG/UL	95
2)	2-Fluorophenol	2.12	112.0	116320	30.61	NG/UL	89
3)	Phenol-d5	3.44	99.0	97950	20.36	NG/UL	83
16)	d8-Naphthalene	6.69	136.0	698170	50.72	NG/UL	85
17)	Nitrobenzene-d5	5.04	82.0	202917	47.38	NG/UL	85
31)	d10-Acenaphthene	11.64	164.0	341571	55.75	NG/UL	95
36)	2-Fluorobiphenyl	9.89	172.0	556062	54.13	NG/UL	93
39)	*d-10-Phenanthrene	15.88	188.0	460564	50.00	NG/UL	98
54)	2,4,6-Tribromophenol	13.99	329.8	59206	56.99	NG/UL	96
62)	d12-Chrysene	23.60	240.0	151232	50.89	NG/UL	86
64)	Terphenyl-d14	20.84	244.0	341116	72.88	NG/UL	97
67)	Bis(2-Ethylhexyl)Phthalate	24.69	149.0	1418684	335.99	NG/UL	87
69)	*d12-Perylene	27.45	264.0	90863	50.00	NG/UL	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM

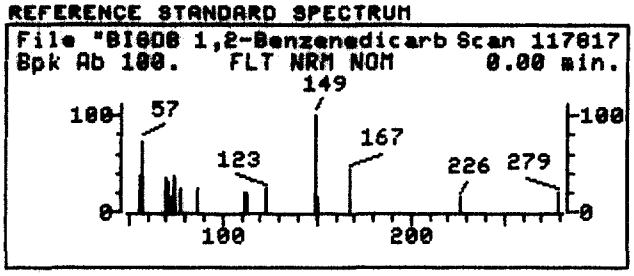


Data File: >RZ240::D1 Quant Output File: ^RZ240::D5
Name: SF7452 91FF27S48
Misc: 10/30/90 1L/1ML

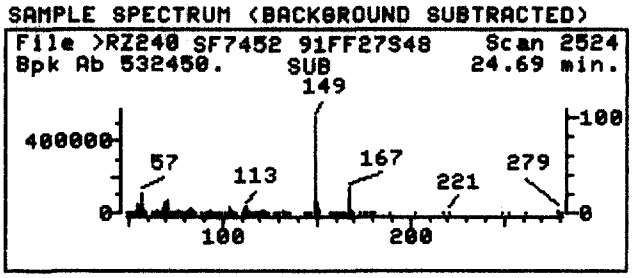
Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

Operator ID: KELLY
Quant Time: 901030 16:54
Injected at: 901030 16:15

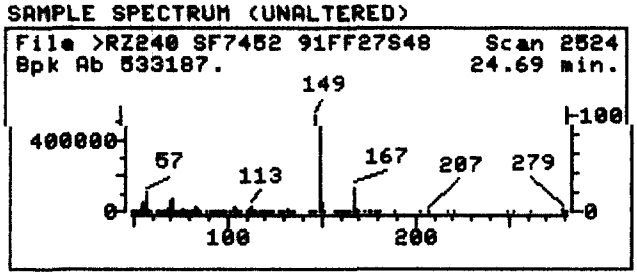
REFERENCE STANDARD SPECTRUM

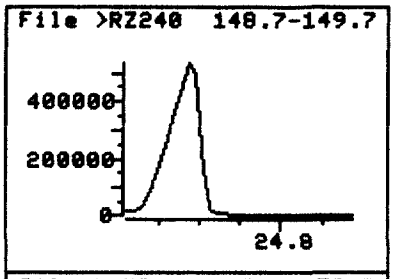


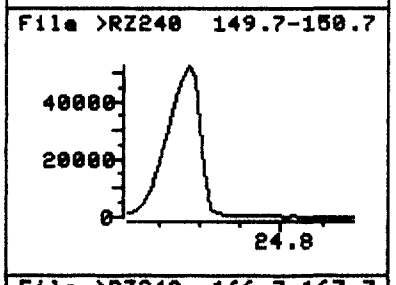
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

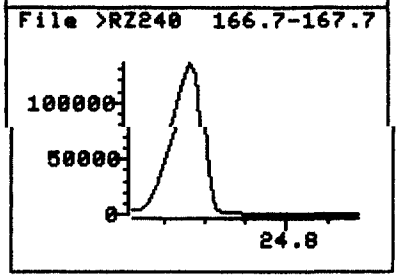


SAMPLE SPECTRUM (UNALTERED)









Data File: >RZ240::D1 Quant Output File: ^RZ240::D5
Name: SF7452 91FF27S48
Misc: 10/30/90 1L/1ML
Quant Time: 901030 16:54 Quant ID File: IDZR96::SC
Injected at: 901030 16:15 Last Calibration: 901030 16:31

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2524
Retention Time: 24.69 min.
Quant Ion: 149.0
Area: 1418684
Concentration: 335.99 NG/UL
q-value: 87

MS data file header from : >RZ240

Sample: SF7452 91FF27S48 Operator: KELLY REG. GRP. 10/30/90 16:15
Misc : 10/30/90 1L/1ML
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

>RZ240 SF7452 91FF27S48 10/30/90 1L/1ML
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 34750. Max Peaks: 3 Bunching: 1
Dnslope: 0.00 Results File IRZ240 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	9.94	906	907	915	15475	53888	40959	36.57	17.266
2	13.60	1301	1309	1317	45364	138329	111987	100.00	47.207
3	24.59	2511	2514	2516	40756	96426	84279	75.26	35.527

Sum of corrected areas: 237225.

Summary of Unknowns PBM Library Search and Quantitation

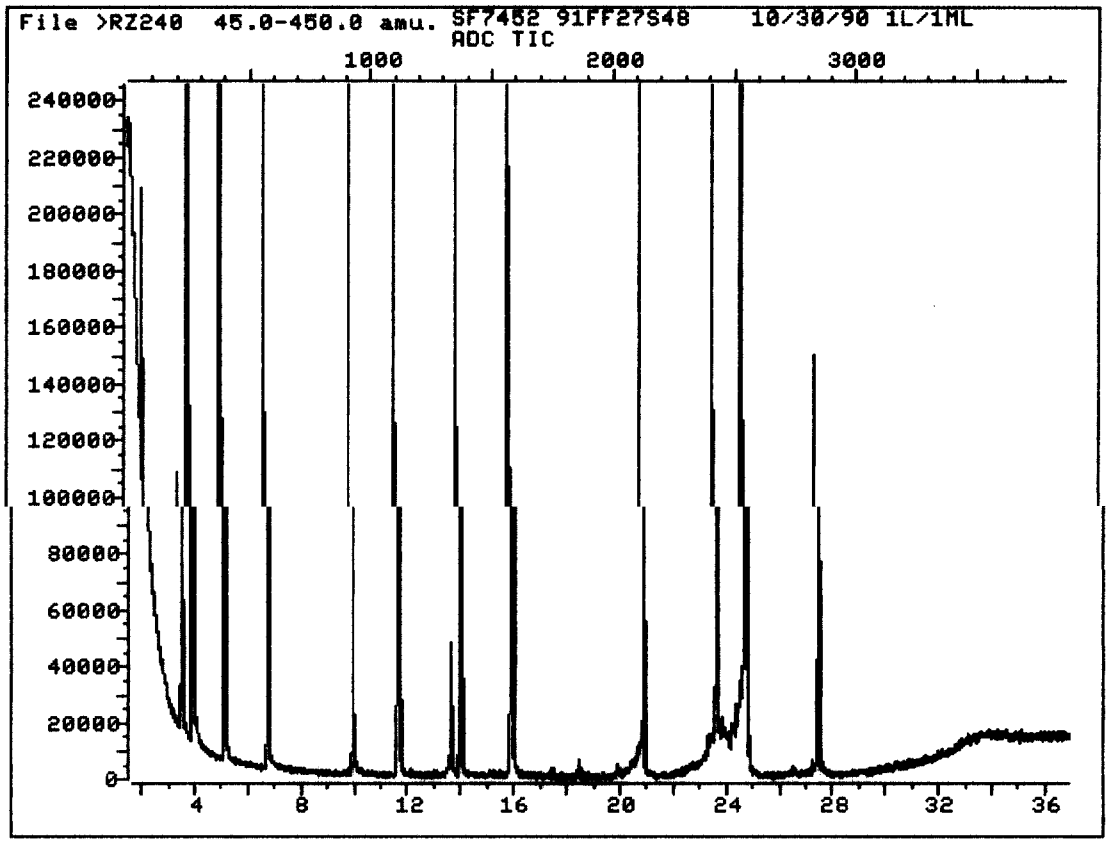
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	927204.	3.86	1.69 - 9.87
2	50.0	1308825.	15.88	9.87 - 21.67
3	50.0	347501.	27.45	21.67 - 36.90

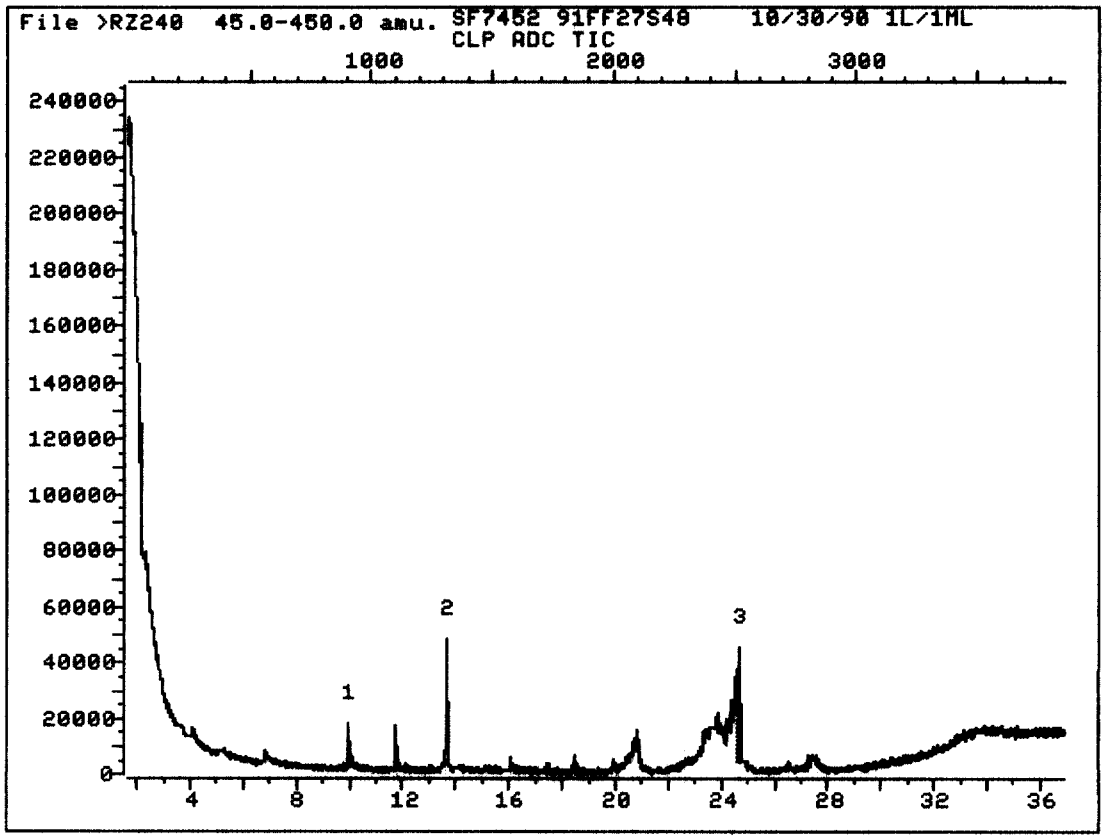
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

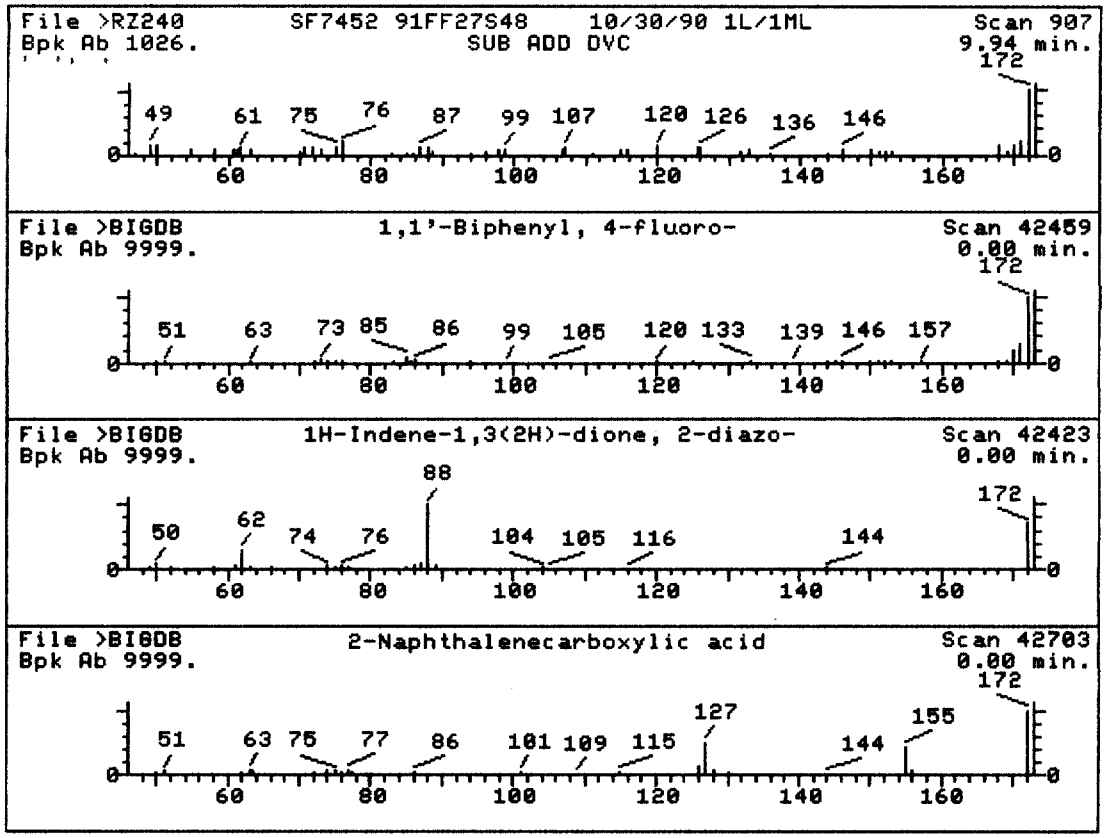
Correction Factor = 1.00 = (AM / AU) / (DF * FS)

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

5:40 PM WED., 31 OCT., 1990


File >RZ240 45.0-450.0 amu. SF7452 91FF27S48 10/30/90 1L/1ML
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 >RZ240 45.0-450.0 amu. SF7452 91FF27S48 10/30/90 1L/1ML
CLP ADC TIC
1000
2000
3000
240000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
1
2
3
4
8
12
16
20
24
28
32
36



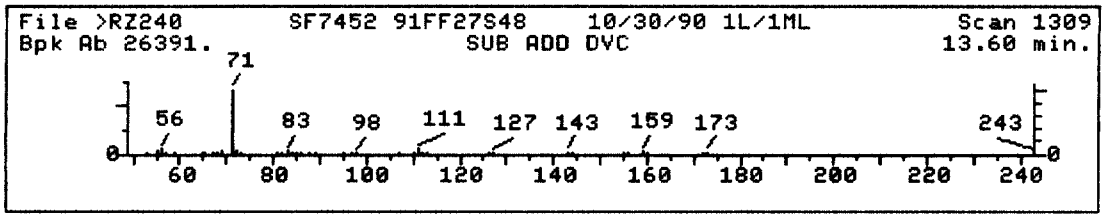
BDL

. UNKNOWN #,1
AREA = 40959.00 TENTATIVE CONCENTRATION IS 2.00

1.	1,1'-Biphenyl, 4-fluoro-	172	C12H9F
2.	1H-Indene-1,3(2H)-dione, 2-diazo-	172	C9H4N2O2
3.	2-Naphthalenecarboxylic acid	172	C11H8O2
4.	1-Naphthalenecarboxylic acid	172	C11H8O2
5.	1,3-DIMETHYL-2,4-(1H,3H)-PYRIMIDINEDITHIONE	172	C6H8N2S2
6.	1,1'-Biphenyl, 2-fluoro-	172	C12H9F

Sample file: >RZ240 Spectrum #: 907
Search speed: 1 Tilting option: N No. of ion ranges searched: 50

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	28*	324743	42459	"BIGDB	38	66	2	0	76	36	10	14
2.	25*	1807494	42423	"BIGDB	22	86	3	0	142	50	7	12
3.	25*	93094	42703	"BIGDB	22	86	2	0	93	47	7	13
4.	25*	86555	42447	"BIGDB	25	90	2	0	93	46	7	14
5.	20*	0	42396	"BIGDB	33	82	2	0	76	52	5	14
6.	15*	321608	42460	"BIGDB	26	78	2	0	62	58	3	14



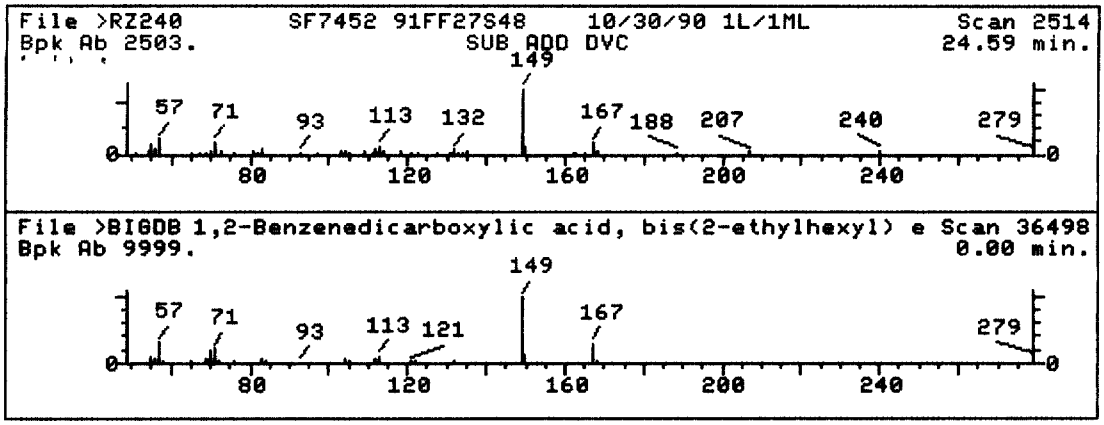
BDL

. UNKNOWN #,2
AREA = 111987.0 TENTATIVE CONCENTRATION IS 4.00

Sample file: >RZ240 Spectrum #: 1309

No data base entries were retrieved.

BDL



#67 Tail

UNKNOWN #,3
AREA = 84279.00 TENTATIVE CONCENTRATION IS 12.00

1. 1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) este 390 C24H3804

Sample file: >RZ240 Spectrum #: 2514
Search speed: 1 Tilting option: N No. of ion ranges searched: 53

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	26	117817	36498	"BIGDB	67	70	2	0	58	43	8	14

QUANT REPORT

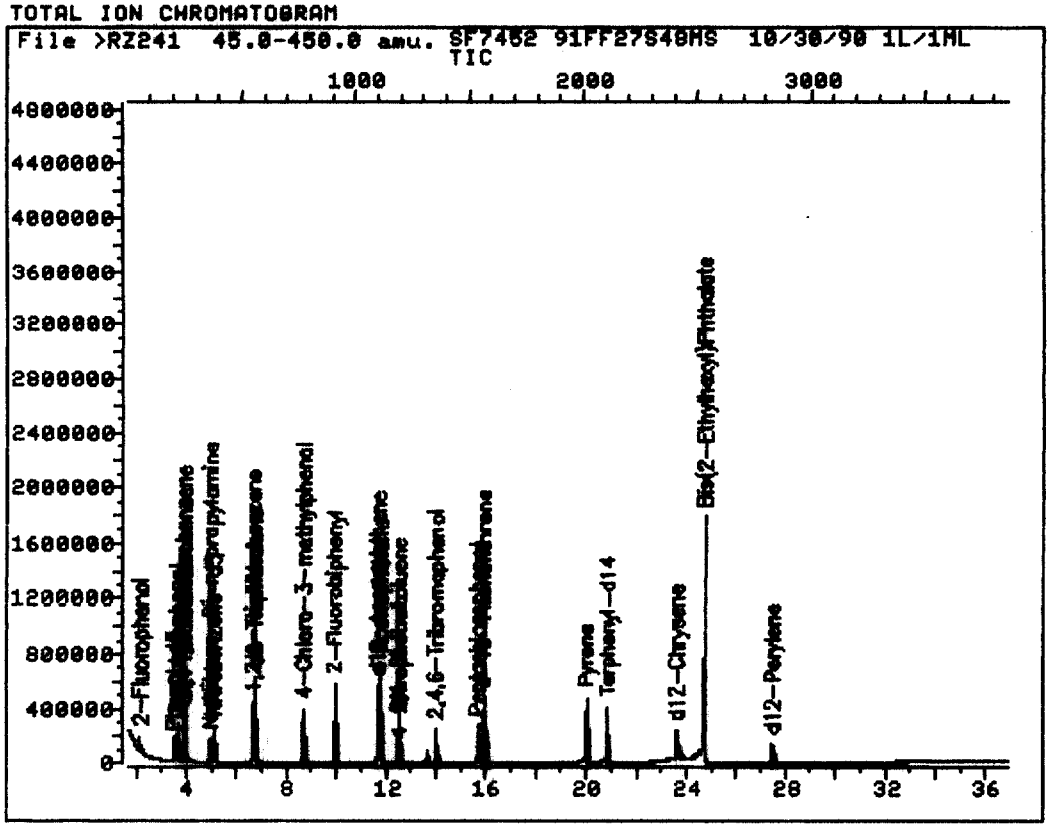
Operator ID: KELLY Quant Rev: 6 Quant Time: 901030 17:44
Output File: ^RZ241::D5 Injected at: 901030 17:05
Data File: >RZ241::D1 Dilution Factor: 1.00000
Name: SF7452 91FF27S48MS
Misc: 10/30/90 1L/1ML

ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.86	152.0	178335	50.00	NG/UL	95
2)	2-Fluorophenol	2.15	112.0	127533	32.84	NG/UL	90
3)	Phenol-d5	3.46	99.0	107215	21.80	NG/UL	85
4)	Phenol	3.49	94.0	125365	27.00	NG/UL	75
6)	2-Chlorophenol	3.57	128.0	237002	56.40	NG/UL	98
8)	1,4-Dichlorobenzene	3.90	146.0	237677	42.62	NG/UL	92
14)	N-Nitroso-Di-n-propylamine	4.92	70.0	167444	55.78	NG/UL	80
16)	d8-Naphthalene	6.69	136.0	688529	48.94	NG/UL	84
17)	Nitrobenzene-d5	5.05	82.0	181406	41.44	NG/UL	84
25)	1,2,4-Trichlorobenzene	6.63	180.0	291773	58.33	NG/UL	93
29)	4-Chloro-3-methylphenol	8.65	107.0	206066M	60.31	NG/UL	
31)	d10-Acenaphthene	11.64	164.0	308089	49.20	NG/UL	94
36)	2-Fluorobiphenyl	9.89	172.0	452421	43.09	NG/UL	93
39)	*d-10-Phenanthrene	15.87	188.0	446169	50.00	NG/UL	96
42)	Acenaphthene	11.73	153.0	444176	54.00	NG/UL	93
44)	4-Nitrophenol	12.53	109.0	30154	34.86	NG/UL	79
46)	2,4-Dinitrotoluene	12.50	165.0	164206	61.30	NG/UL	91
54)	2,4,6-Tribromophenol	13.96	329.8	51205	50.88	NG/UL	95
57)	Pentachlorophenol	15.65	265.8	66154	70.21	NG/UL	98
62)	d12-Chrysene	23.58	240.0	126335	43.88	NG/UL	88
63)	Pyrene	19.97	202.0	446573	66.27	NG/UL	92
64)	Terphenyl-d14	20.83	244.0	268212	59.16	NG/UL	94
67)	Bis(2-Ethylhexyl)Phthalate	24.70	149.0	2489779	608.69	NG/UL	90
69)	*d12-Perylene	27.44	264.0	85589	50.00	NG/UL	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM

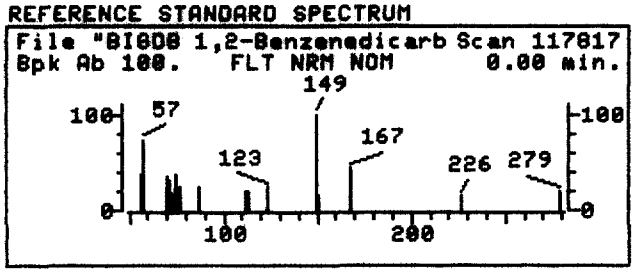


Data File: >RZ241::D1 Quant Output File: ^RZ241::D5
Name: SF7452 91FF27S48MS
Misc: 10/30/90 1L/1ML

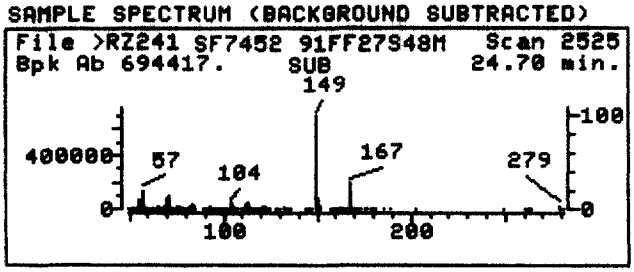
Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

Operator ID: KELLY
Quant Time: 901030 17:44
Injected at: 901030 17:05

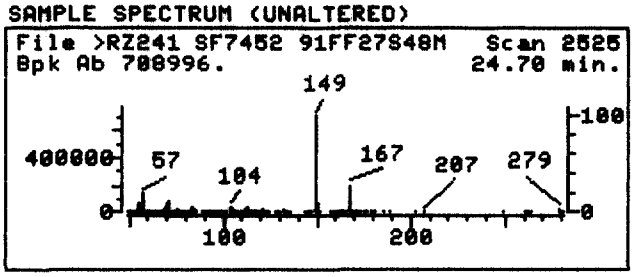
REFERENCE STANDARD SPECTRUM

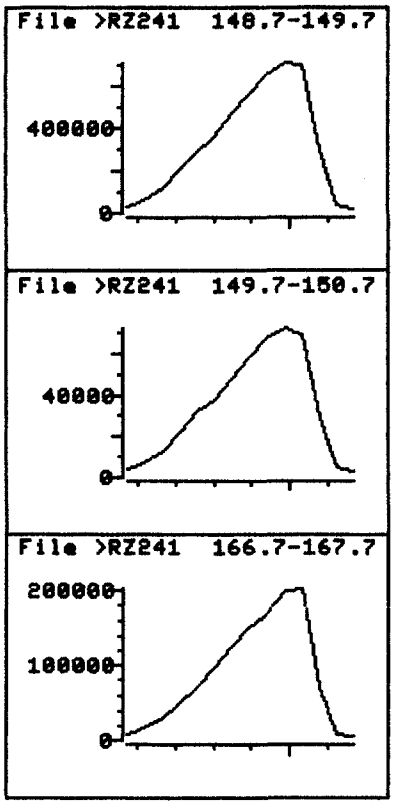


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >RZ241::D1 Quant Output File: ^RZ241::D5
Name: SF7452 91FF27S48MS
Misc: 10/30/90 1L/1ML
Quant Time: 901030 17:44 Quant ID File: IDZR96::SC
Injected at: 901030 17:05 Last Calibration: 901030 16:31

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2525
Retention Time: 24.70 min.
Quant Ion: 149.0
Area: 2489779
Concentration: 608.69 NG/UL
q-value: 90

QUANT REPORT

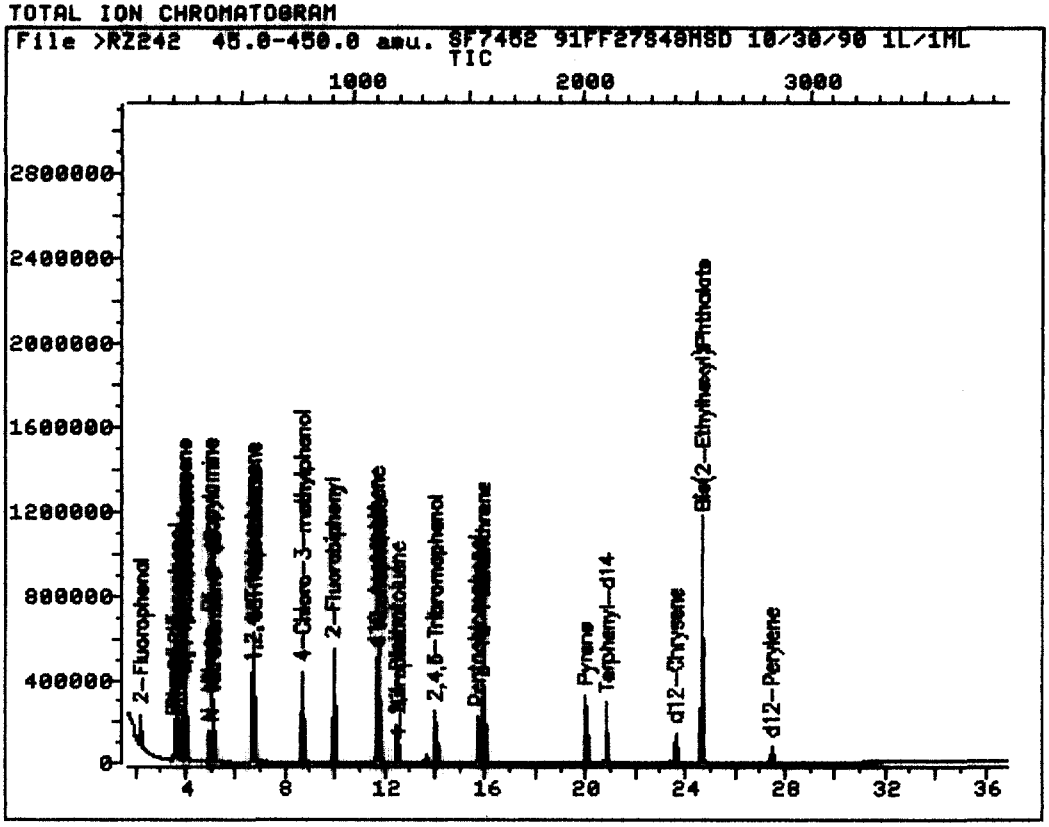
Operator ID: KELLY Quant Rev: 6 Quant Time: 901030 18:34
Output File: ^RZ242::D5 Injected at: 901030 17:54
Data File: >RZ242::D1 Dilution Factor: 1.00000
Name: SF7452 91FF27S48MSD
Misc: 10/30/90 1L/1ML

ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.89	152.0	174104	50.00	NG/UL	95
2)	2-Fluorophenol	2.20	112.0	166930	44.03	NG/UL	90
3)	Phenol-d5	3.50	99.0	126710	26.39	NG/UL	85
4)	Phenol	3.52	94.0	133923	29.54	NG/UL	74
6)	2-Chlorophenol	3.60	128.0	269653	65.72	NG/UL	98
8)	1,4-Dichlorobenzene	3.93	146.0	221313	40.65	NG/UL	92
14)	N-Nitroso-Di-n-propylamine	4.95	70.0	165735	56.55	NG/UL	88
16)	d8-Naphthalene	6.71	136.0	670910	48.85	NG/UL	85
17)	Nitrobenzene-d5	5.07	82.0	192909	45.14	NG/UL	83
25)	1,2,4-Trichlorobenzene	6.65	180.0	280341	57.40	NG/UL	92
29)	4-Chloro-3-methylphenol	8.66	107.0	205401M	61.58	NG/UL	
31)	d10-Acenaphthene	11.64	164.0	263206	43.05	NG/UL	93
36)	2-Fluorobiphenyl	9.89	172.0	409510	39.95	NG/UL	94
39)	*d-10-Phenanthrene	15.87	188.0	268500	50.00	NG/UL	98
42)	Acenaphthene	11.73	153.0	340507	68.79	NG/UL	94
44)	4-Nitrophenol	12.53	109.0	15707	30.17	NG/UL	83
46)	2,4-Dinitrotoluene	12.49	165.0	83093	51.54	NG/UL	88
54)	2,4,6-Tribromophenol	13.97	329.8	43458	71.75	NG/UL	96
57)	Pentachlorophenol	15.65	265.8	41276	72.79	NG/UL	97
62)	d12-Chrysene	23.57	240.0	91802	52.99	NG/UL	89
63)	Pyrene	19.96	202.0	273990	67.57	NG/UL	87
64)	Terphenyl-d14	20.82	244.0	176278	64.61	NG/UL	98
67)	Bis(2-Ethylhexyl)Phthalate	24.67	149.0	1169678	475.18	NG/UL	87
69)	*d12-Perylene	27.43	264.0	55686	50.00	NG/UL	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM

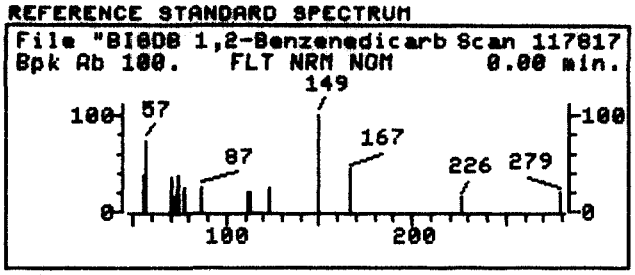


Data File: >RZ242::D1 Quant Output File: ^RZ242::D5
Name: SF7452 91FF27S48MSD
Misc: 10/30/90 1L/1ML

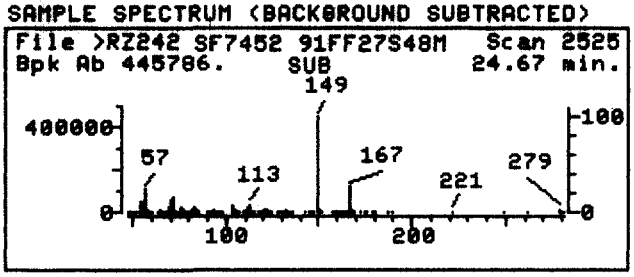
Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

Operator ID: KELLY
Quant Time: 901030 18:34
Injected at: 901030 17:54

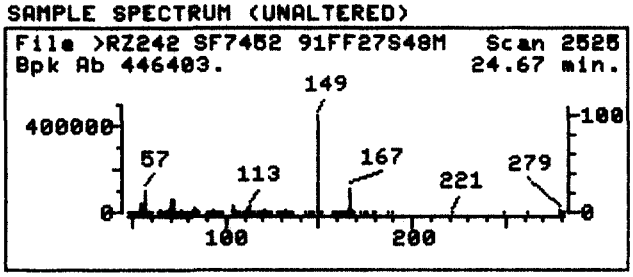
REFERENCE STANDARD SPECTRUM

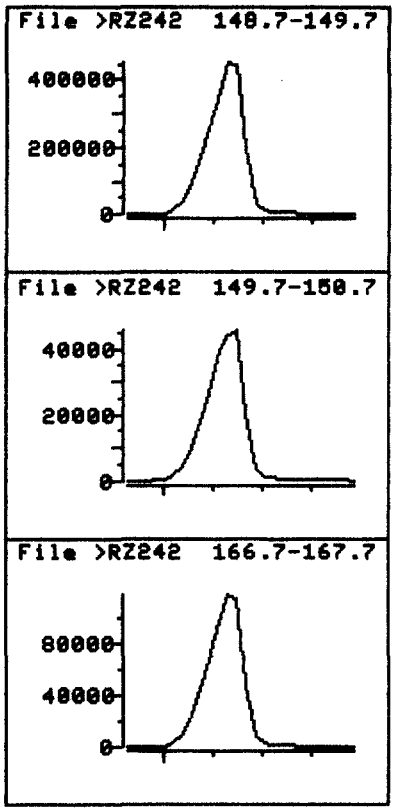


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >RZ242::D1
Name: SF7452 91FF27S48MSD
Misc: 10/30/90 1L/1ML
Quant Time: 901030 18:34
Injected at: 901030 17:54

Quant Output File: ^RZ242::D5

Quant ID File: IDZR96::SC
Last Calibration: 901030 16:31

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2524
Retention Time: 24.67 min.
Quant Ion: 149.0
Area: 1169678
Concentration: 475.18 NG/UL
q-value: 87

QUANT REPORT

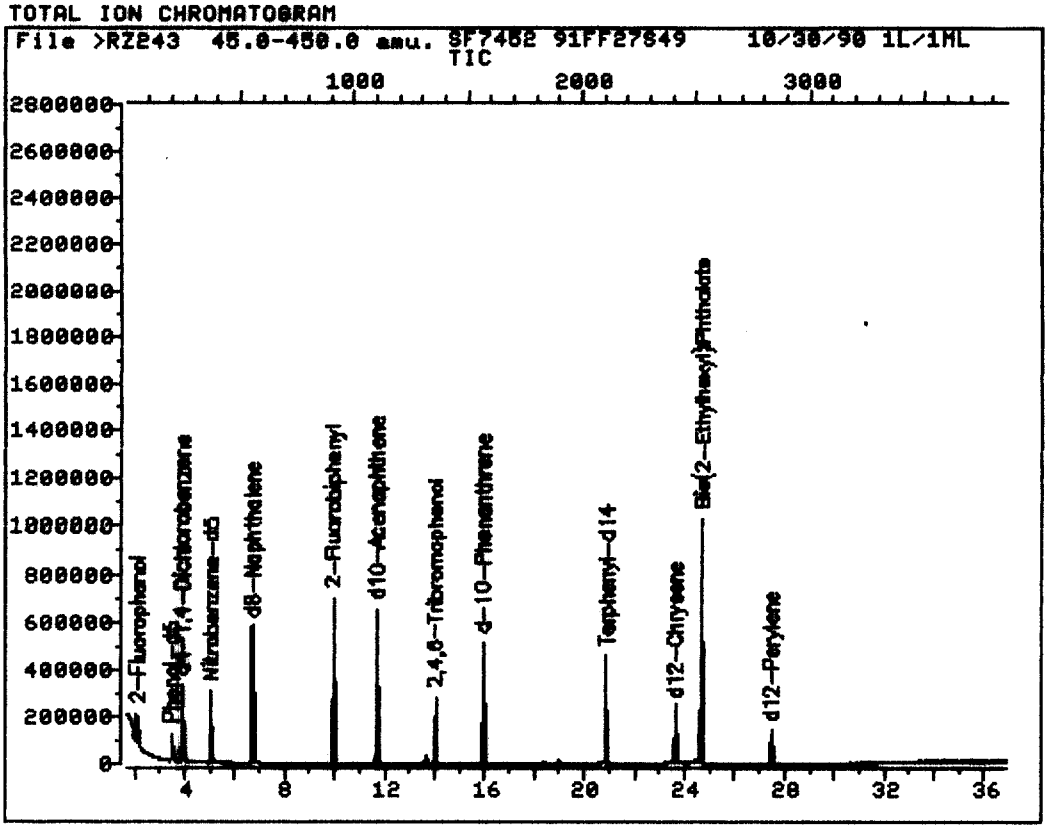
Operator ID: KELLY Quant Rev: 6 Quant Time: 901030 19:24
Output File: ^RZ243::D5 Injected at: 901030 18:44
Data File: >RZ243::D1 Dilution Factor: 1.00000
Name: SF7452 91FF27S49
Misc: 10/30/90 1L/1ML

ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.83	152.0	170312	50.00	NG/UL	95
2)	2-Fluorophenol	2.08	112.0	148872	40.14	NG/UL	92
3)	Phenol-d5	3.42	99.0	122904	26.17	NG/UL	83
16)	d8-Naphthalene	6.67	136.0	711293	52.94	NG/UL	85
17)	Nitrobenzene-d5	5.02	82.0	209945	50.22	NG/UL	86
31)	d10-Acenaphthene	11.64	164.0	341822	57.15	NG/UL	95
36)	2-Fluorobiphenyl	9.89	172.0	553520	55.21	NG/UL	93
39)	*d-10-Phenanthrene	15.88	188.0	428009	50.00	NG/UL	98
54)	2,4,6-Tribromophenol	13.97	329.8	54189	56.13	NG/UL	96
62)	d12-Chrysene	23.58	240.0	149995	54.31	NG/UL	86
64)	Terphenyl-d14	20.84	244.0	295019	67.83	NG/UL	98
67)	Bis(2-Ethylhexyl)Phthalate	24.67	149.0	899986	229.36	NG/UL	87
69)	*d12-Perylene	27.43	264.0	101815	50.00	NG/UL	95

* Compound is ISTD

TOTAL ION CHROMATOGRAM

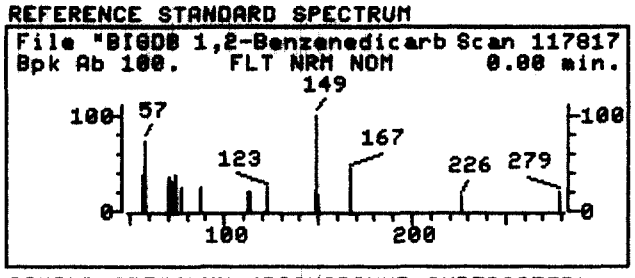


Data File: >RZ243::D1 Quant Output File: ^RZ243::D5
Name: SF7452 91FF27S49
Misc: 10/30/90 1L/1ML

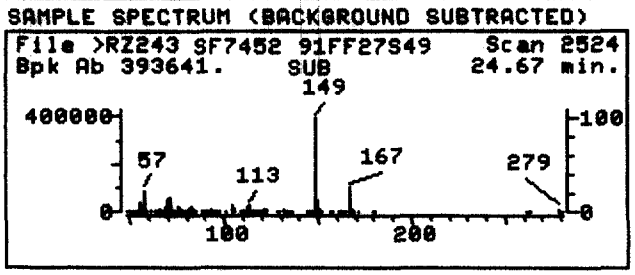
Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

Operator ID: KELLY
Quant Time: 901030 19:24
Injected at: 901030 18:44

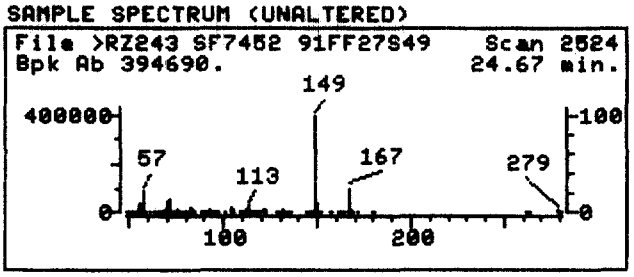
REFERENCE STANDARD SPECTRUM

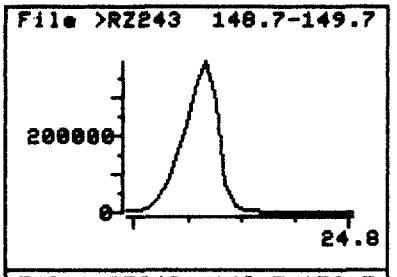


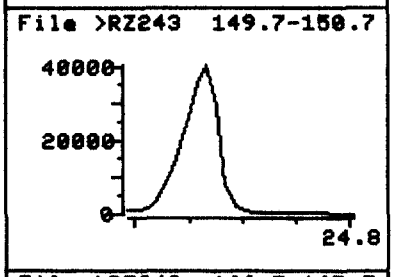
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

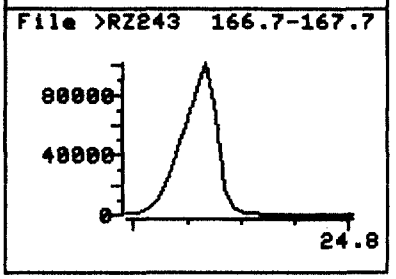


SAMPLE SPECTRUM (UNALTERED)









Data File: >RZ243::D1
Name: SF7452 91FF27S49
Misc: 10/30/90 1L/1ML
Quant Time: 901030 19:24
Injected at: 901030 18:44

Quant Output File: ^RZ243::D5

Quant ID File: IDZR96::SC
Last Calibration: 901030 16:31

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2524
Retention Time: 24.67 min.
Quant Ion: 149.0
Area: 899986
Concentration: 229.36 NG/UL
q-value: 87

MS data file header from : >RZ243

Sample: SF7452 91FF27S49 Operator: KELLY REG. GRP. 10/30/90 18:44
Misc : 10/30/90 1L/1ML
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

>RZ243 SF7452 91FF27S49 10/30/90 1L/1ML
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 35940. Max Peaks: 1 Bunching: 1
Dnslope: 0.00 Results File IRZ243 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	13.59	1301	1309	1314	33947	96056	77463	100.00	100.000

Sum of corrected areas: 77463.

Summary of Unknowns PBM Library Search and Quantitation

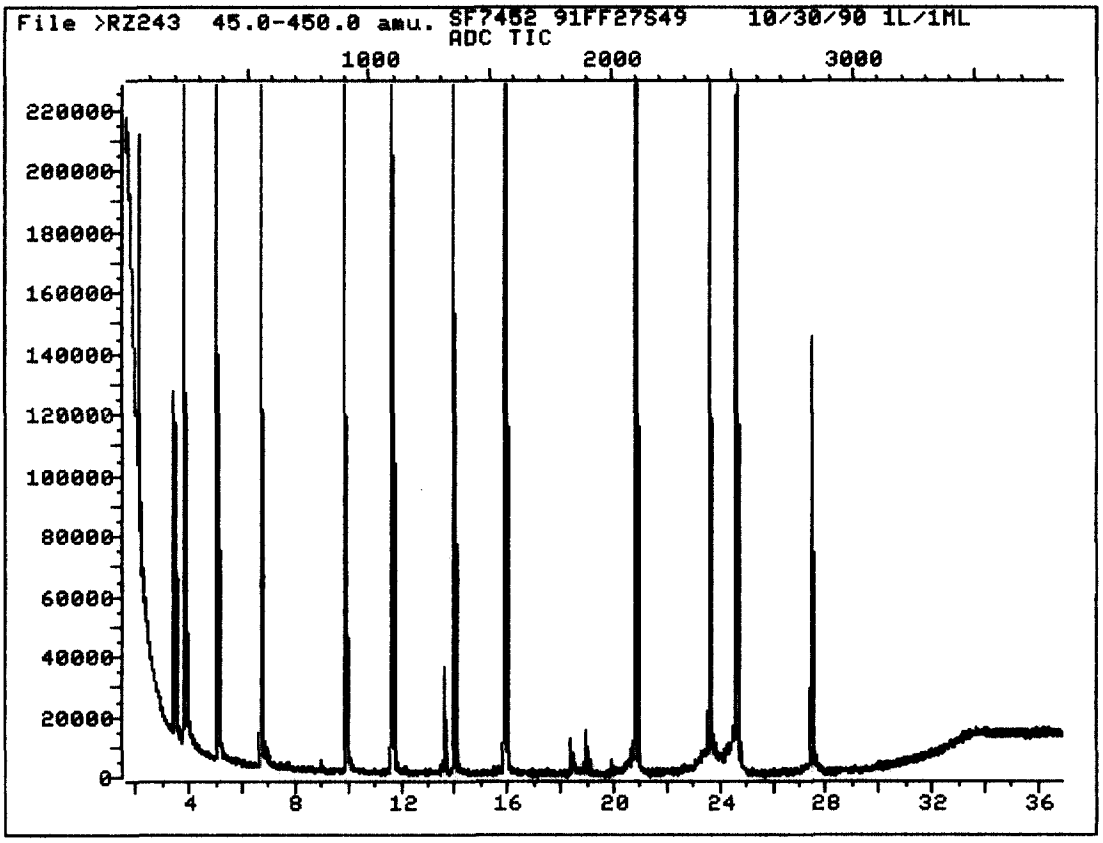
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	937685.	3.83	1.68 - 9.85
2	50.0	1289193.	15.88	9.85 - 21.65
3	50.0	359401.	27.43	21.65 - 36.91

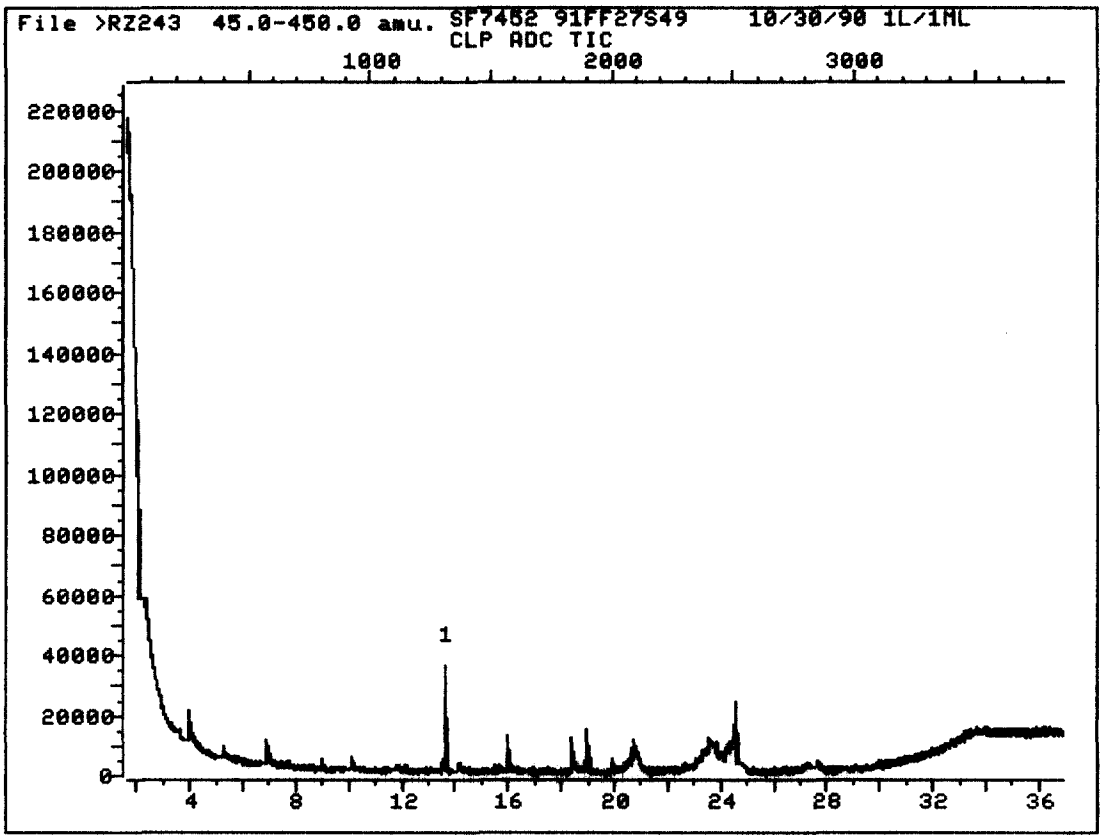
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 970.00

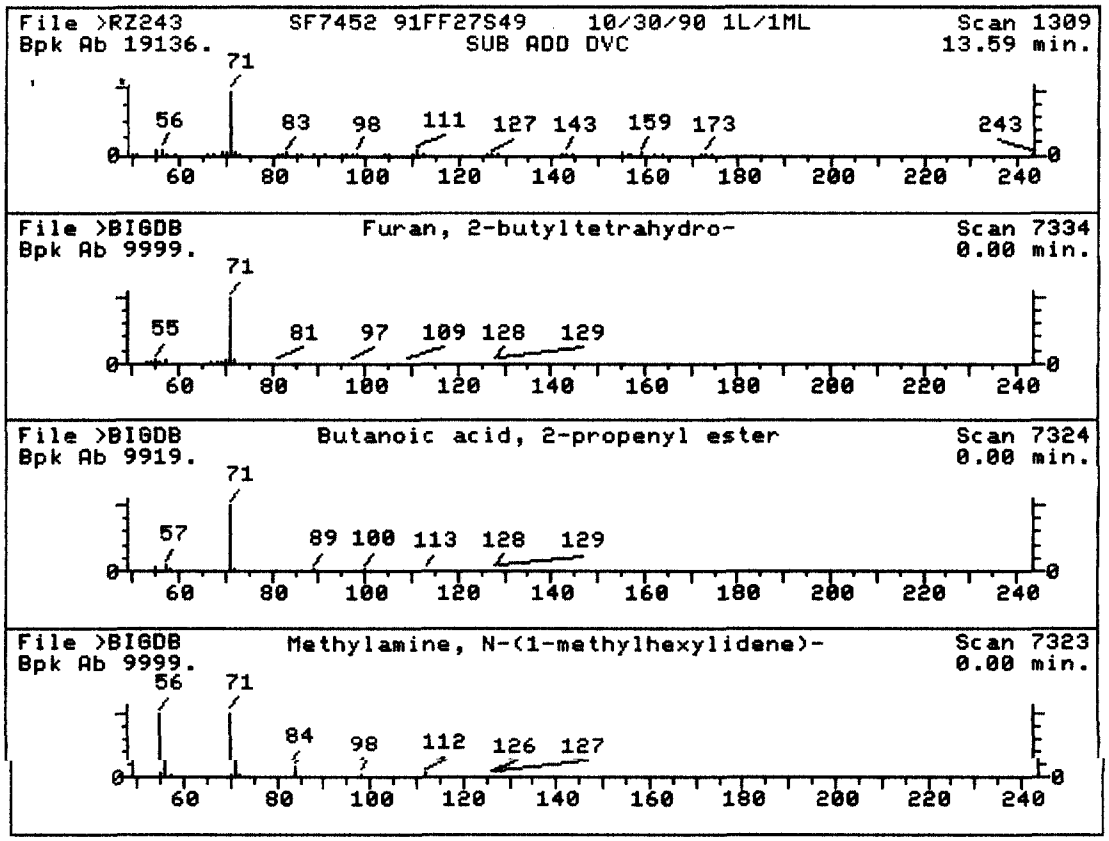
Correction Factor = 1.03 = (AM / AU) / (DF * FS)

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

5:53 PM WED., 31 OCT., 1990


File >RZ243 45.0-450.0 amu. SF7452 91FF27S49 10/30/90 1L/1ML
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 >RZ243 45.0-450.0 amu. SF7452 91FF27S49 10/30/90 1L/1ML
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



BDL

. UNKNOWN #,1
AREA = 77463.00 TENTATIVE CONCENTRATION IS 3.00

1.	Furan, 2-butyltetrahydro-	128	C8H16O
2.	Butanoic acid, 2-propenyl ester	128	C7H12O2
3.	Methylamine, N-(1-methylhexylidene)-	127	C8H17N
4.	Propanoic acid, 2-methyl-, 1-(1,1-dimethylethyl)-2-methyl-1,3-propanediyl ester	286	C16H30O4

Sample file: >RZ243 Spectrum #: 1309
Search speed: 1 Tilting option: N No. of ion ranges searched: 53

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	52*	1004291	7334	"BIGDB	26	50	2	0	100	20	20	14
2.	52*	2051787	7324	"BIGDB	26	60	2	0	100	20	20	14
3.	52*	22058715	7323	"BIGDB	27	61	3	0	100	20	20	13
4.	30	74381401	7585	"BIGDB	44	42	0	0	47	48	10	25

QUANT REPORT

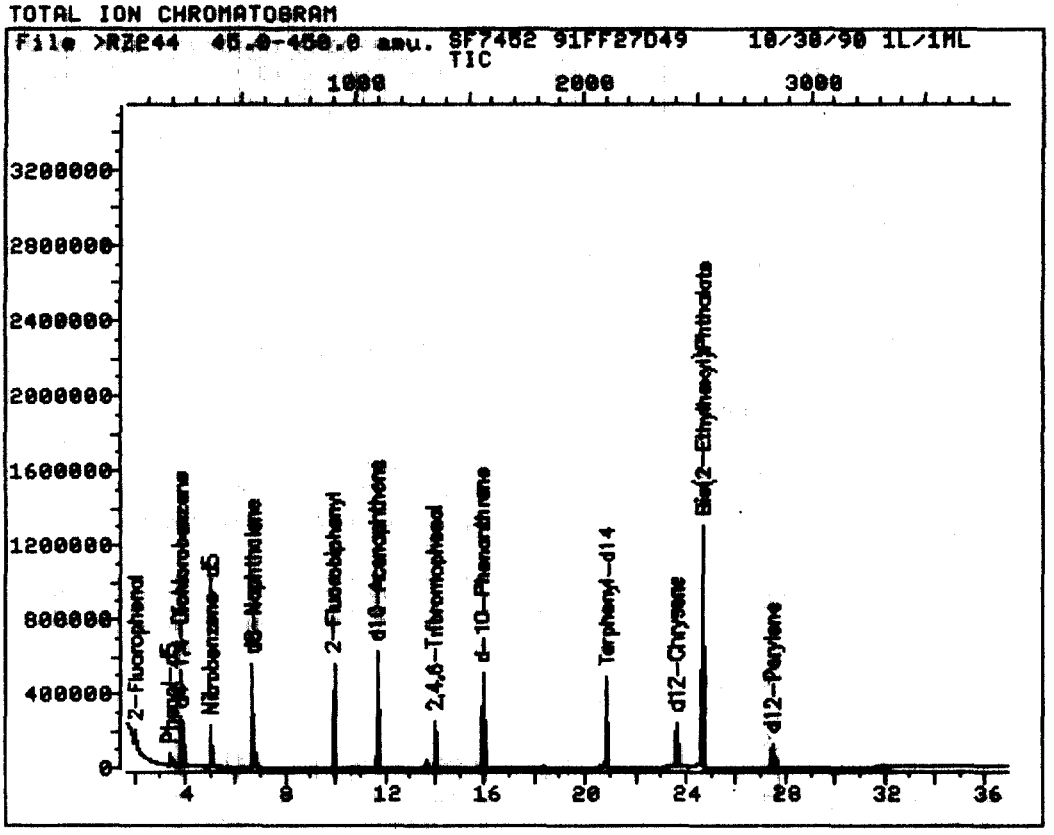
Operator ID: KELLY Quant Rev: 6 Quant Time: 901030 20:14
Output File: ^RZ244::D5 Injected at: 901030 19:34
Data File: >RZ244::D1 Dilution Factor: 1.00000
Name: SF7452 91FF27D49
Misc: 10/30/90 1L/1ML

ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.79	152.0	173539	50.00	NG/UL	95
2)	2-Fluorophenol	2.01	112.0	100885	26.70	NG/UL	92
3)	Phenol-d5	3.37	99.0	91446	19.11	NG/UL	83
16)	d8-Naphthalene	6.66	136.0	693051	50.63	NG/UL	85
17)	Nitrobenzene-d5	4.99	82.0	165151	38.77	NG/UL	84
31)	d10-Acenaphthene	11.63	164.0	313637	51.47	NG/UL	95
36)	2-Fluorobiphenyl	9.87	172.0	417469	40.86	NG/UL	93
39)	*d-10-Phenanthrene	15.87	188.0	412020	50.00	NG/UL	99
54)	2,4,6-Tribromophenol	13.96	329.8	44842	48.25	NG/UL	98
62)	d12-Chrysene	23.57	240.0	149097	56.08	NG/UL	89
64)	Terphenyl-d14	20.82	244.0	349985	83.59	NG/UL	95
67)	Bis(2-Ethylhexyl)Phthalate	24.66	149.0	1332480	352.76	NG/UL	87
69)	*d12-Perylene	27.43	264.0	94332	50.00	NG/UL	96

* Compound is ISTD

TOTAL ION CHROMATOGRAM

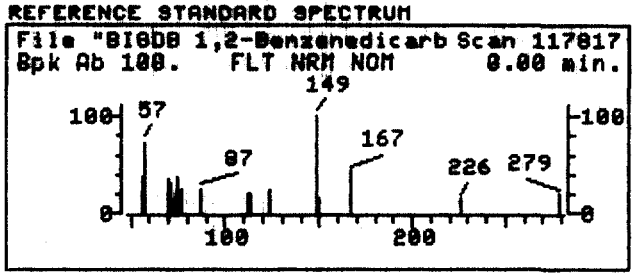


Data File: >RZ244::D1 Quant Output File: ^RZ244::D5
Name: SF7452 91FF27D49
Misc: 10/30/90 1L/1ML

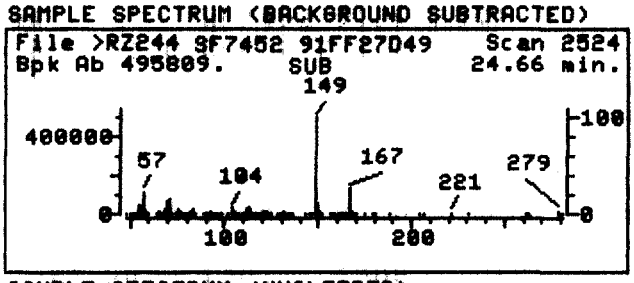
Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

Operator ID: KELLY
Quant Time: 901030 20:14
Injected at: 901030 19:34

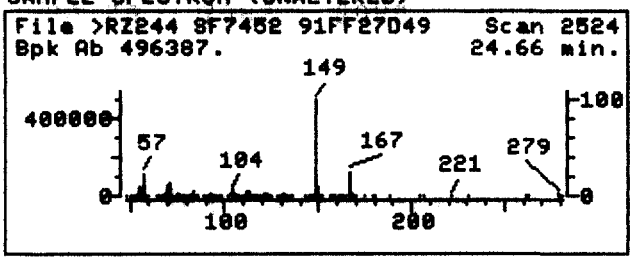
REFERENCE STANDARD SPECTRUM

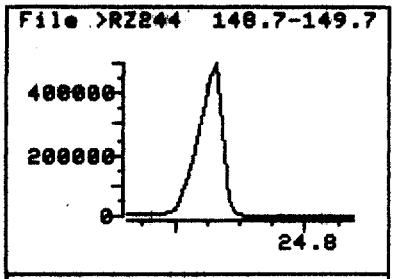


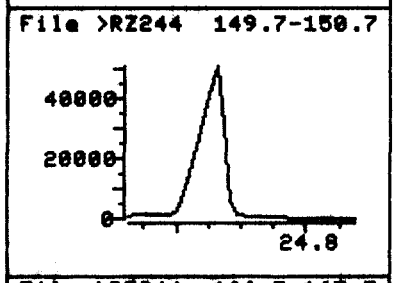
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

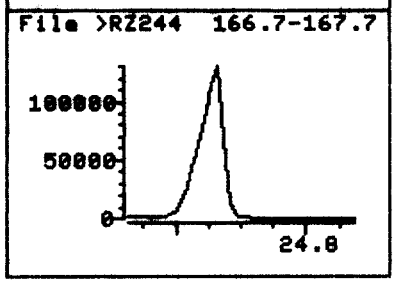


SAMPLE SPECTRUM (UNALTERED)









Data File: >RZ244::D1
Name: SF7452 91FF27D49
Misc: 10/30/90 1L/1ML
Quant Time: 901030 20:14
Injected at: 901030 19:34

Quant Output File: ^RZ244::D5

Quant ID File: IDZR96::SC
Last Calibration: 901030 16:31

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2524
Retention Time: 24.66 min.
Quant Ion: 149.0
Area: 1332480
Concentration: 352.76 NG/UL
q-value: 87

MS data file header from : >RZ244

Sample: SF7452 91FF27D49 Operator: KELLY REG. GRP. 10/30/90 19:34
Misc : 10/30/90 1L/1ML
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

>RZ244 SF7452 91FF27D49 10/30/90 1L/1ML
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 35089. Max Peaks: 2 Bunching: 1
Dnslope: 0.00 Results File IRZ244 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	13.58	1301	1308	1313	44599	110888	87907	100.00	50.961
2	20.73	2082	2093	2095	19573	106308	84592	96.23	49.039

Sum of corrected areas: 172499.

Summary of Unknowns PBM Library Search and Quantitation

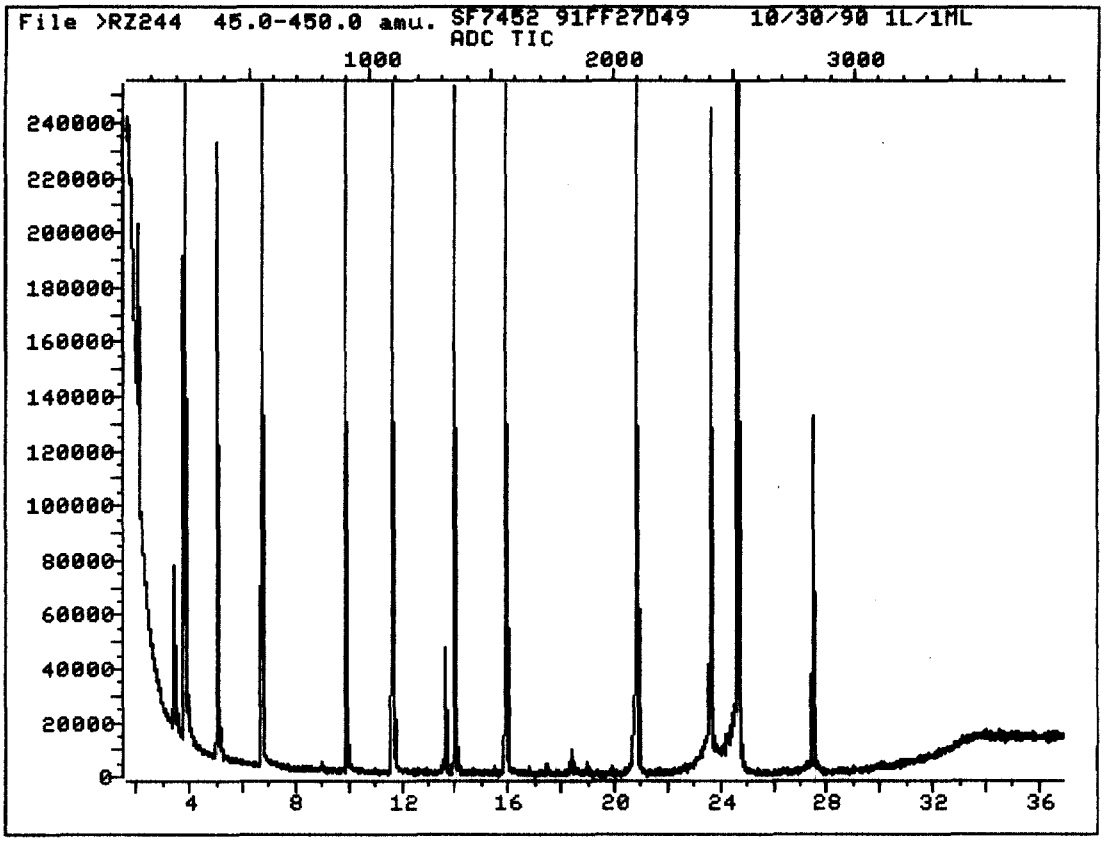
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	922714.	3.79	1.68 - 9.83
2	50.0	1229124.	15.87	9.83 - 21.65
3	50.0	350888.	27.43	21.65 - 36.91

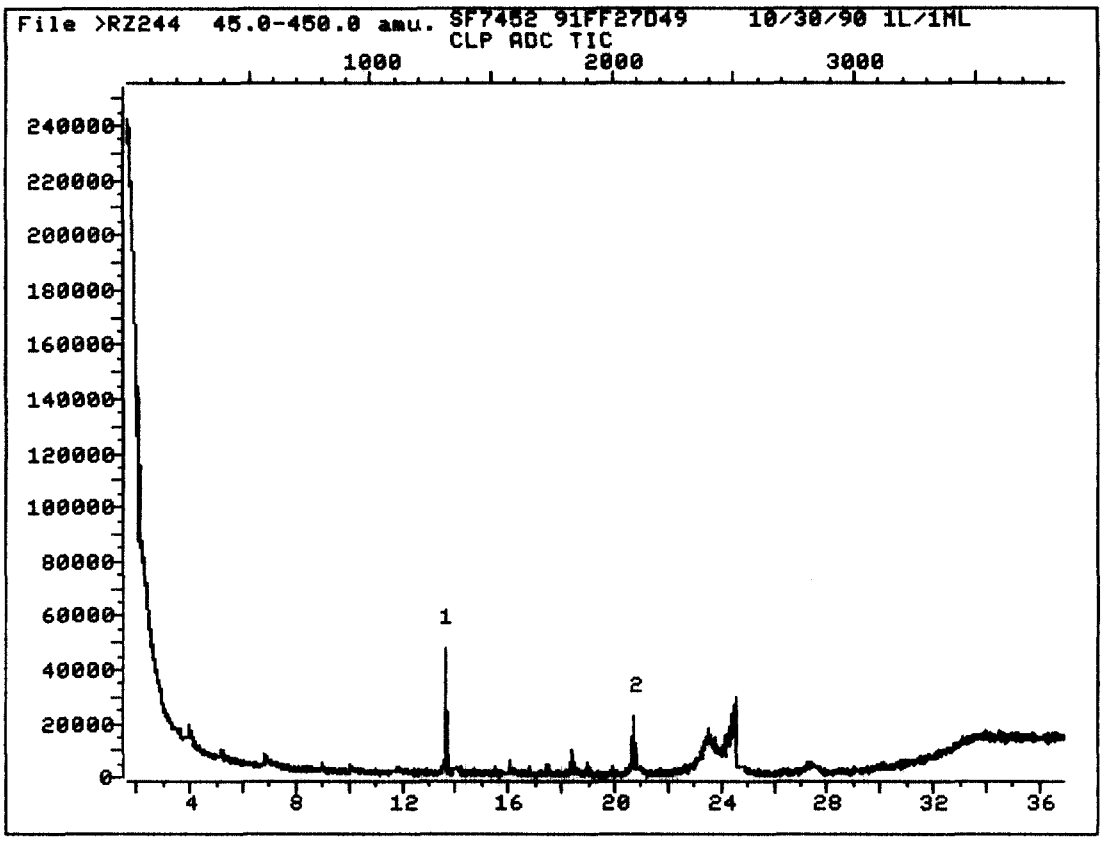
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1040.00

Correction Factor = .96 = (AM / AU) / (DF * FS)

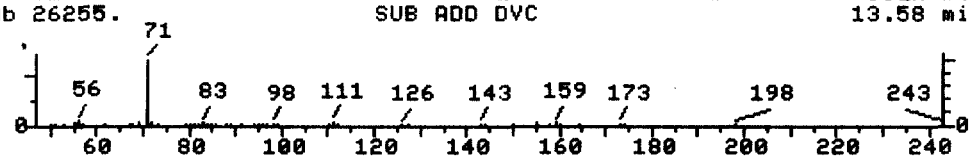
$$\text{Unknown Concentration} = \frac{\text{Conc Int Std}}{\text{Area Int Std}} * \text{Area Unk} * \text{Correction Factor}$$

6:05 PM WED., 31 OCT., 1990


File >RZ244 45.0-450.0 amu. SF7452 91FF27D49 10/30/90 1L/1ML
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 >RZ244 45.0-450.0 amu. SF7452 91FF27D49 10/30/90 1L/1ML
CLP ADC TIC
1000
2000
3000
240000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
1
2
4
8
12
16
20
24
28
32
36

File >RZ244 SF7452 91FF27D49 10/30/90 1L/1ML Scan 1308
Bpk Ab 26255. SUB ADD DVC 13.58 min.

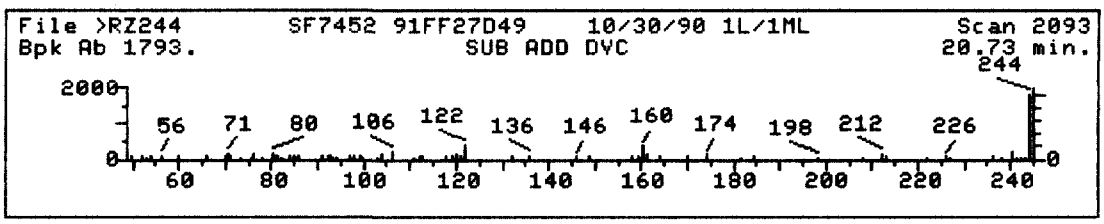


UNKNOWN #,1
AREA = 87907.00 TENTATIVE CONCENTRATION IS 3.00

Sample file: >RZ244 Spectrum #: 1308

No data base entries were retrieved.

BDL



UNKNOWN #,2
AREA = 84592.00 TENTATIVE CONCENTRATION IS 3.00

Sample file: >RZ244 Spectrum #: 2093

BDL

No data base entries were retrieved.

QUANT REPORT

Operator ID: KELLY
Output File: ^RZ245::D5
Data File: >RZ245::D1
Name: SF7452 91FF27S50
Misc: 10/30/90 1L/1ML

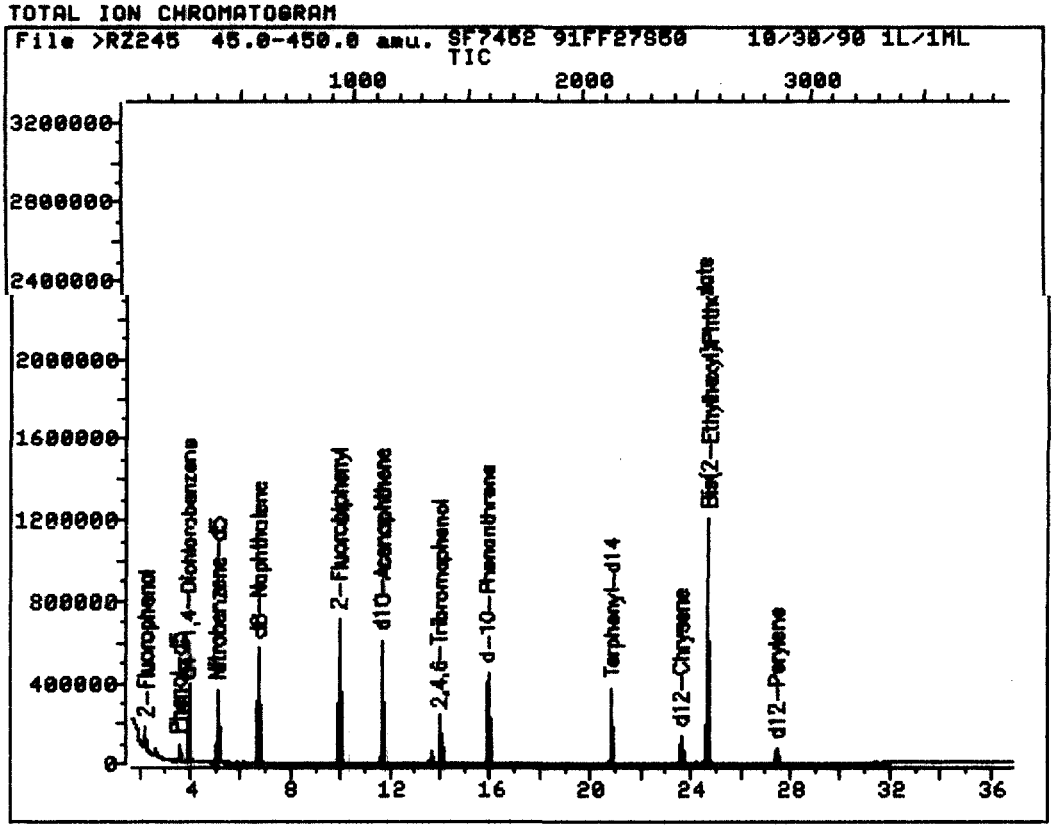
Quant Rev: 6
Quant Time: 901030 21:04
Injected at: 901030 20:24
Dilution Factor: 1.00000

ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.89	152.0	172413	50.00	NG/UL	93
2)	2-Fluorophenol	2.21	112.0	95182	25.35	NG/UL	90
3)	Phenol-d5	3.49	99.0	77077	16.21	NG/UL	84
16)	d8-Naphthalene	6.69	136.0	666619	49.01	NG/UL	87
17)	Nitrobenzene-d5	5.06	82.0	245574	58.03	NG/UL	86
31)	d10-Acenaphthene	11.63	164.0	282736	46.70	NG/UL	94
36)	2-Fluorobiphenyl	9.89	172.0	555746	54.75	NG/UL	92
39)	*d-10-Phenanthrene	15.86	188.0	345821	50.00	NG/UL	99
54)	2,4,6-Tribromophenol	13.95	329.8	42973	55.09	NG/UL	97
62)	d12-Chrysene	23.56	240.0	88260	39.55	NG/UL	89
64)	Terphenyl-d14	20.81	244.0	225642	64.21	NG/UL	99
67)	Bis(2-Ethylhexyl)Phthalate	24.67	149.0	1131156	356.78	NG/UL	87
69)	*d12-Perylene	27.42	264.0	52355	50.00	NG/UL	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM

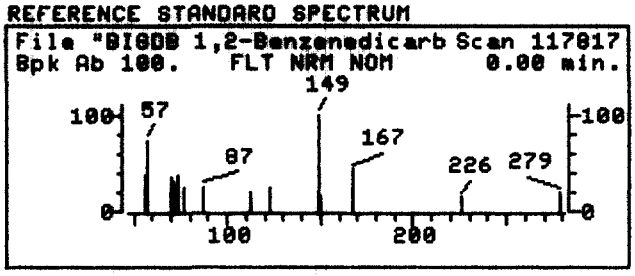


Data File: >RZ245::D1 Quant Output File: ^RZ245::D5
Name: SF7452 91FF27S50
Misc: 10/30/90 1L/1ML

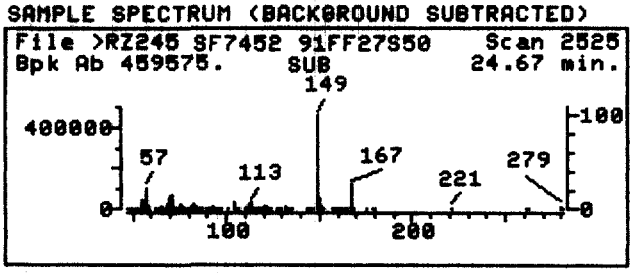
Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

Operator ID: KELLY
Quant Time: 901030 21:04
Injected at: 901030 20:24

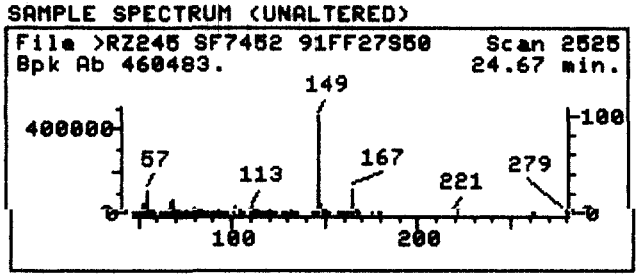
REFERENCE STANDARD SPECTRUM

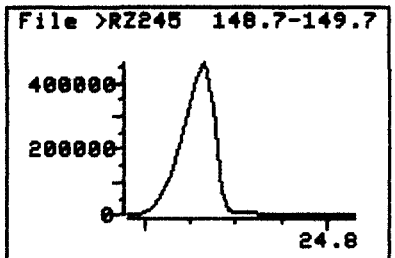


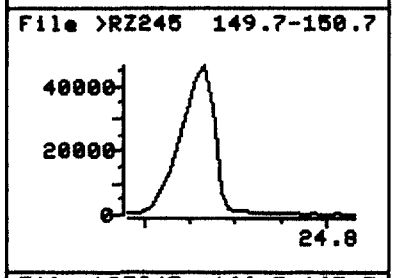
SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)

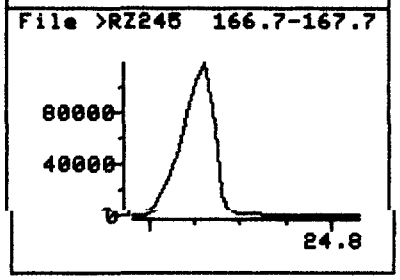


SAMPLE SPECTRUM (UNALTERED)









Data File: >RZ245::D1
Name: SF7452 91FF27S50
Misc: 10/30/90 1L/1ML
Quant Time: 901030 21:04
Injected at: 901030 20:24

Quant Output File: ^RZ245::D5

Quant ID File: IDZR96::SC
Last Calibration: 901030 16:31

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2525
Retention Time: 24.67 min.
Quant Ion: 149.0
Area: 1131156
Concentration: 356.78 NG/UL
q-value: 87

MS data file header from : >RZ245

Sample: SF7452 91FF27S50 Operator: KELLY REG. GRP. 10/30/90 20:24
Misc : 10/30/90 1L/1ML
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

>RZ245 SF7452 91FF27S50 10/30/90 1L/1ML
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 19805. Max Peaks: 2 Bunching: 1
Dnslope: 0.00 Results File IRZ245 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	2.63	103	106	116	38145	328527	76912	61.86	38.217
2	13.58	1301	1308	1314	58618	147455	124338	100.00	61.783

Sum of corrected areas: 201250.

Summary of Unknowns PBM Library Search and Quantitation

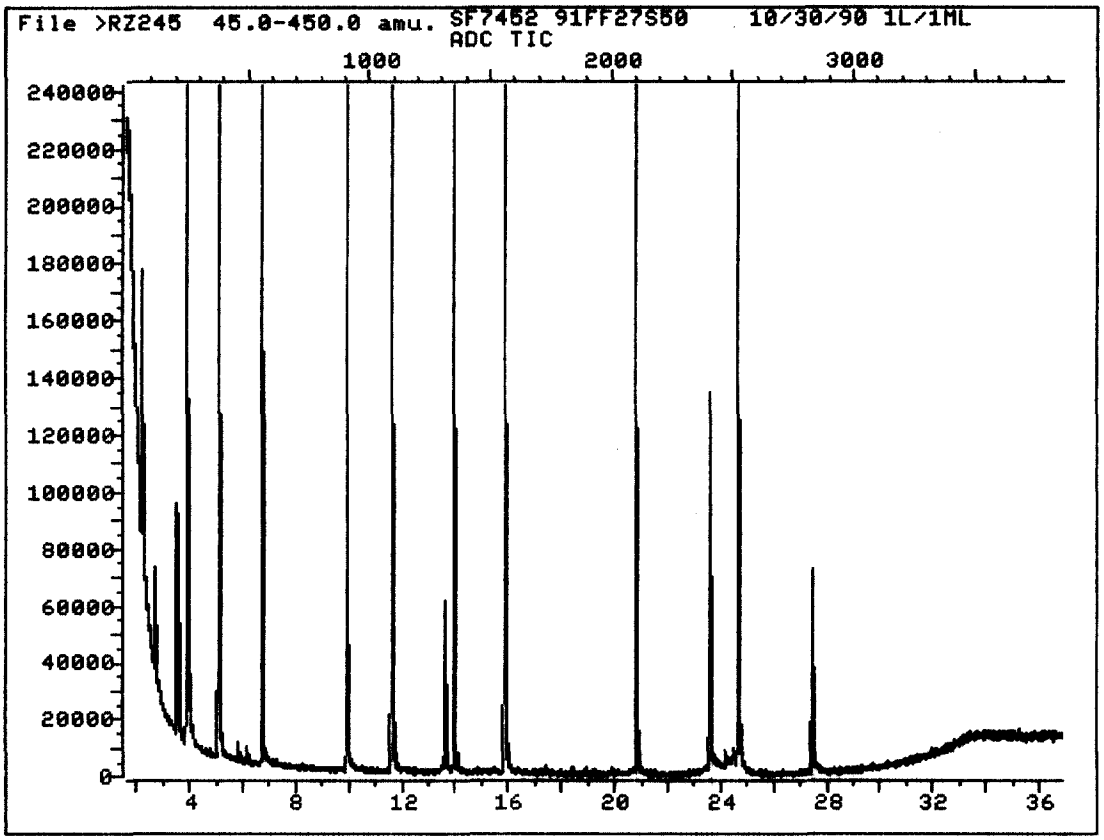
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	939808.	3.89	1.68 - 9.87
2	50.0	1002052.	15.86	9.87 - 21.64
3	50.0	198048.	27.42	21.64 - 36.89

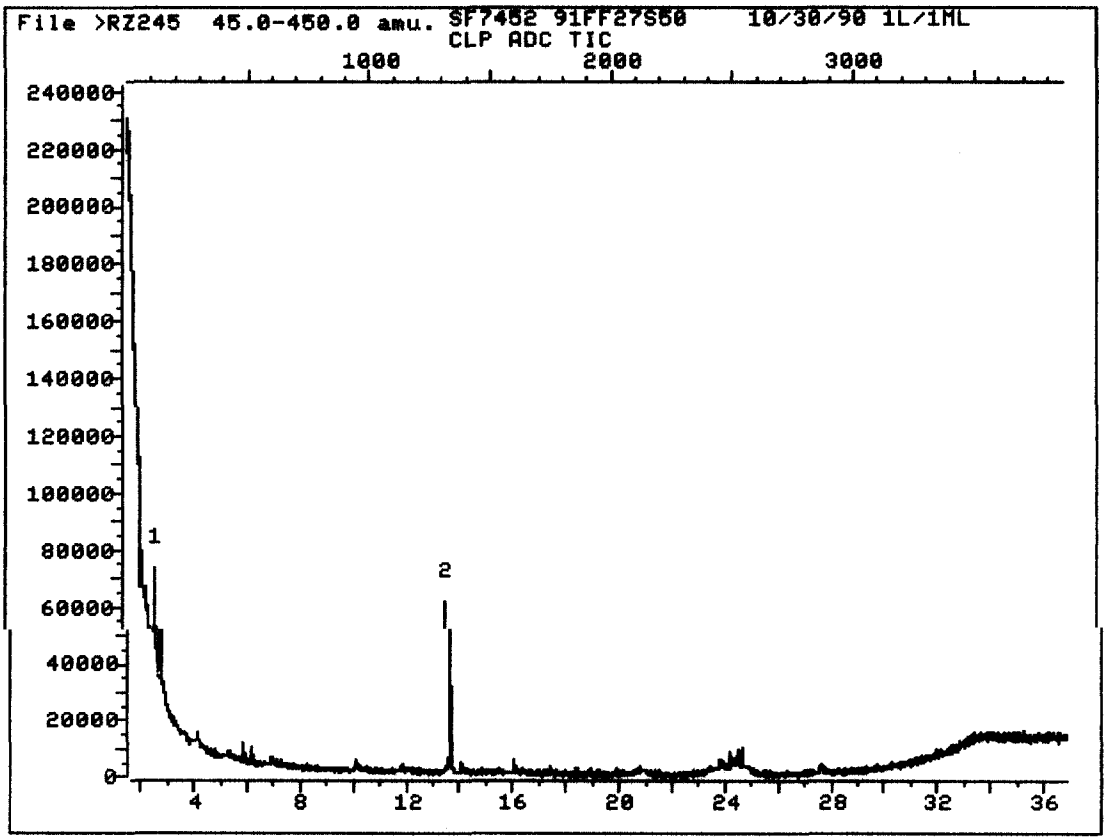
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1050.00

Correction Factor = .95 = (AM / AU) / (DF * FS)

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

6:17 PM WED., 31 OCT., 1990


File >RZ245 45.0-450.0 amu. SF7452 91FF27S50 10/30/90 1L/1ML
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 >RZ245 45.0-450.0 amu. SF7452 91FF27S50 10/30/90 1L/1ML
CLP ADC TIC
1000
2000
3000
240000
220000
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160000
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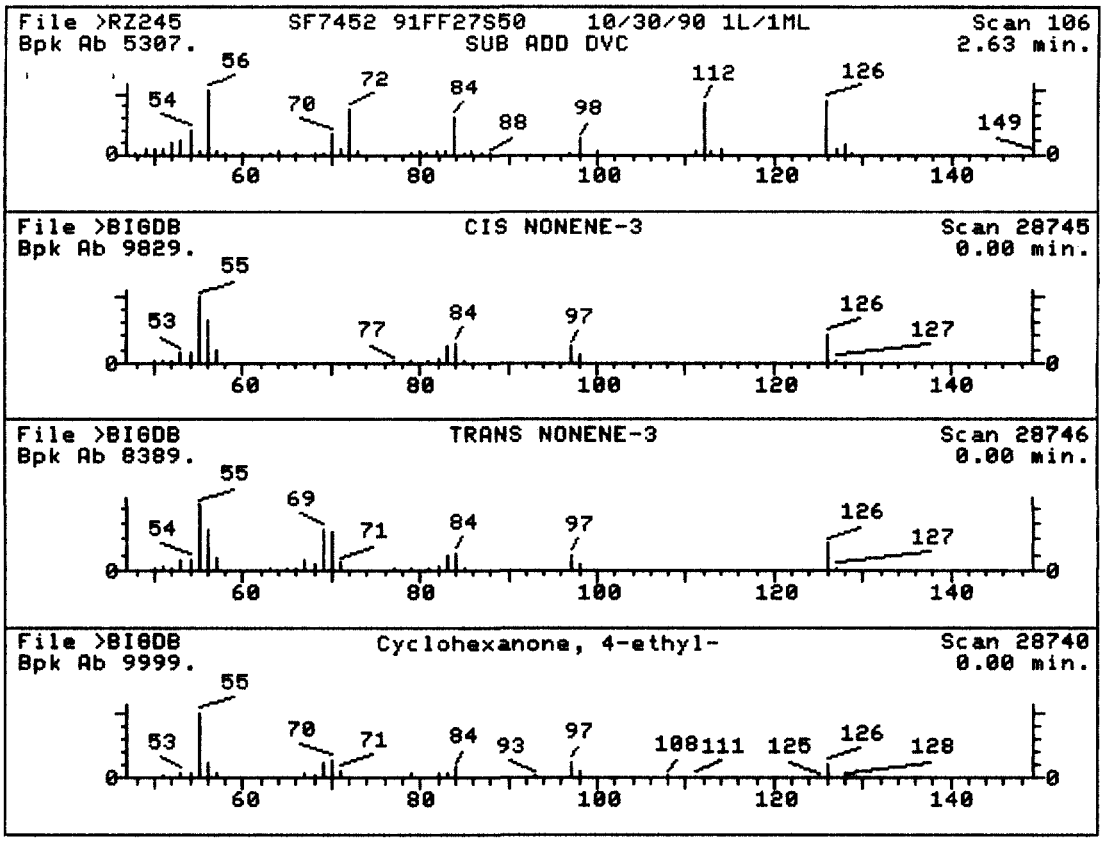
16
20
24
28
32
36



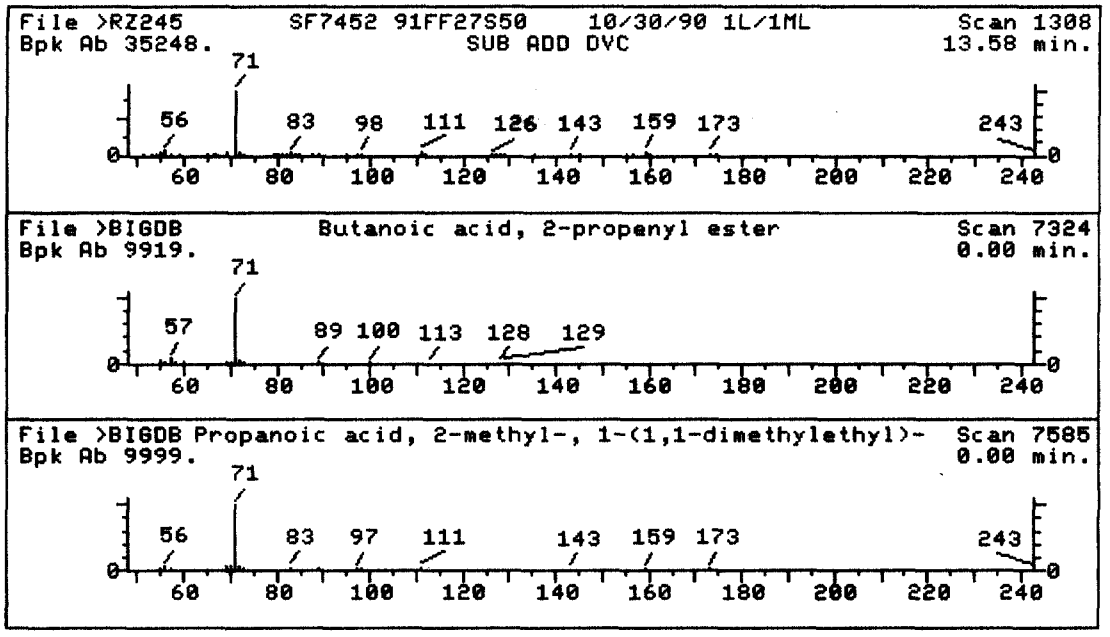
BDL

. UNKNOWN #,1
AREA = 76912.00 TENTATIVE CONCENTRATION IS 4.00

1.	CIS NONENE-3	126 C9H18
2.	TRANS NONENE-3	126 C9H18
3.	Cyclohexanone, 4-ethyl-	126 C8H14O
4.	.DELTA.2-Tetrazaboroline, 1,4-diethyl-	126 C4H11BN4
5.	Cyclohexanone, 3-methyl-, (R)-	112 C7H12O
6.	Cyclohexanone, 4-methyl-	112 C7H12O
7.	Cyclooctane	112 C8H16

Sample file: >RZ245 Spectrum #: 106
Search speed: 1 Tilting option: N No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	26*	0	28745	"BIGDB	29	85	2	0	137	42	8	14
2.	25*	0	28746	"BIGDB	37	76	3	0	188	45	8	13
3.	25*	5441510	28740	"BIGDB	27	78	3	0	370	45	8	13
4.	25*	19258823	28671	"BIGDB	33	85	2	0	82	48	7	14
5.	20*	13368655	23682	"BIGDB	23	57	3	0	185	55	5	12
6.	20*	589924	23685	"BIGDB	22	80	2	0	224	55	5	13
7.	20*	292648	23695	"BIGDB	23	93	3	0	128	55	5	12



UNKNOWN #,2
AREA = 124338.0 TENTATIVE CONCENTRATION IS 6.00

1. Butanoic acid, 2-propenyl ester 128 C7H12O2
2. Propanoic acid, 2-methyl-, 1-(1,1-dimethylethyl)-2-m 286 C16H30O4
ethyl-1,3-propanediyl ester

Sample file: >RZ245 Spectrum #: 1308
Search speed: 1 Tilting option: N No. of ion ranges searched: 52

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	52*	2051787	7324	"BIGDB	22	64	2	0	100	20	20	13
2.	34	74381401	7585	"BIGDB	63	44	1	0	64	40	14	21

QUANT REPORT

Operator ID: KELLY
Output File: ^RZ246::D5
Data File: >RZ246::D1
Name: SF7452 91FF03R57
Misc: 10/30/90 1L/1ML

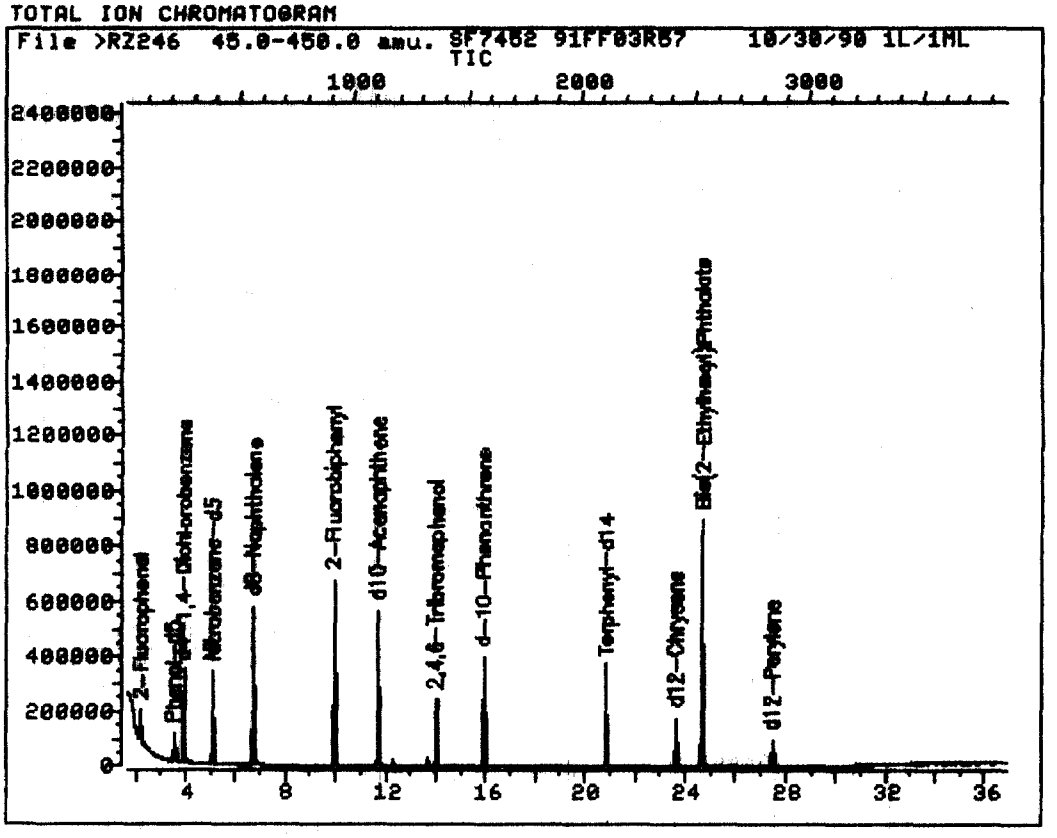
Quant Rev: 6
Quant Time: 901030 21:53
Injected at: 901030 21:14
Dilution Factor: 1.00000

ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.89	152.0	169398	50.00	NG/UL	96
2)	2-Fluorophenol	2.20	112.0	131020	35.52	NG/UL	88
3)	Phenol-d5	3.49	99.0	107890	23.10	NG/UL	85
16)	d8-Naphthalene	6.70	136.0	647687	48.47	NG/UL	87
17)	Nitrobenzene-d5	5.07	82.0	211490	50.87	NG/UL	86
31)	d10-Acenaphthene	11.63	164.0	266742	44.84	NG/UL	95
36)	2-Fluorobiphenyl	9.89	172.0	503721	50.51	NG/UL	93
39)	*d-10-Phenanthrene	15.87	188.0	300296	50.00	NG/UL	97
54)	2,4,6-Tribromophenol	13.96	329.8	43101	63.63	NG/UL	95
62)	d12-Chrysene	23.58	240.0	103787	53.56	NG/UL	85
64)	Terphenyl-d14	20.82	244.0	248702	81.50	NG/UL	95
67)	Bis(2-Ethylhexyl)Phthalate	24.66	149.0	742513	269.71	NG/UL	84
69)	*d12-Perylene	27.42	264.0	67318	50.00	NG/UL	97

* Compound is ISTD

TOTAL ION CHROMATOGRAM

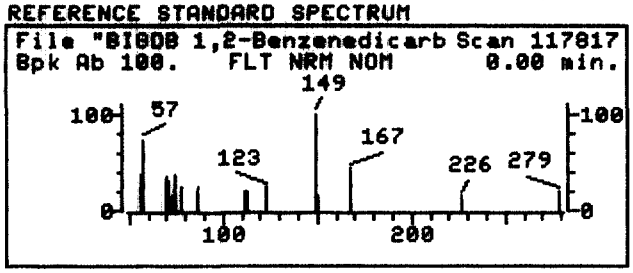


Data File: >RZ246::D1 Quant Output File: ^RZ246::D5
Name: SF7452 91FF03R57
Misc: 10/30/90 1L/1ML

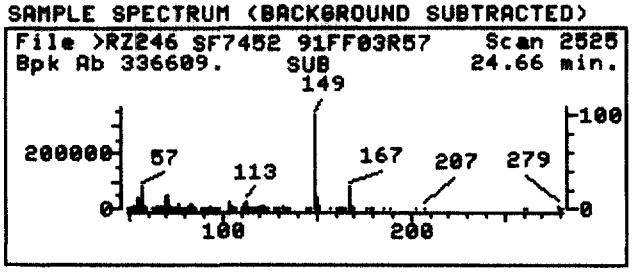
Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

Operator ID: KELLY
Quant Time: 901030 21:53
Injected at: 901030 21:14

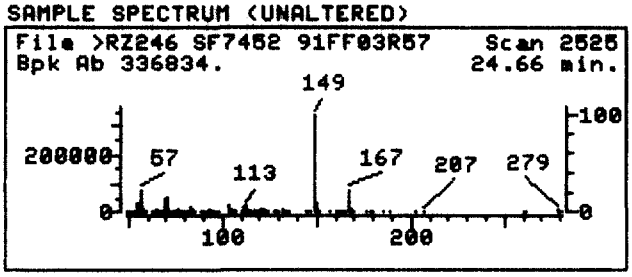
REFERENCE STANDARD SPECTRUM

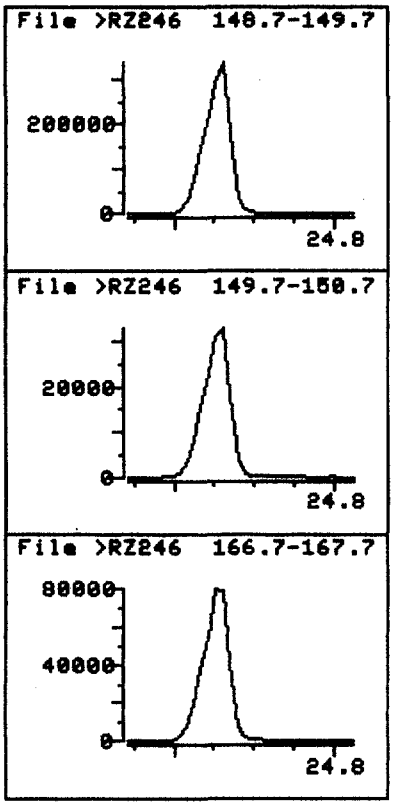


SAMPLE SPECTRUM (BACKGROUND SUBTRACTED)



SAMPLE SPECTRUM (UNALTERED)





Data File: >RZ246::D1
Name: SF7452 91FF03R57
Misc: 10/30/90 1L/1ML
Quant Time: 901030 21:53
Injected at: 901030 21:14

Quant Output File: ^RZ246::D5

Quant ID File: IDZR96::SC
Last Calibration: 901030 16:31

Compound No: 67
Compound Name: Bis(2-Ethylhexyl)Phthalate
Scan Number: 2525
Retention Time: 24.66 min.
Quant Ion: 149.0
Area: 742513
Concentration: 269.71 NG/UL
q-value: 84

MS data file header from : >RZ246

Sample: SF7452 91FF03R57 Operator: KELLY REG. GRP. 10/30/90 21:14
Misc : 10/30/90 1L/1ML
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

>RZ246 SF7452 91FF03R57 10/30/90 1L/1ML
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 23638. Max Peaks: 3 Bunching: 1
Dnslope: 0.00 Results File IRZ246 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	4.02	257	258	267	7743	104174	28677	47.61	21.742
2	12.29	1162	1166	1173	24360	53063	42988	71.37	32.592
3	13.59	1300	1309	1314	29136	81228	60231	100.00	45.666

Sum of corrected areas: 131896.

Summary of Unknowns PBM Library Search and Quantitation

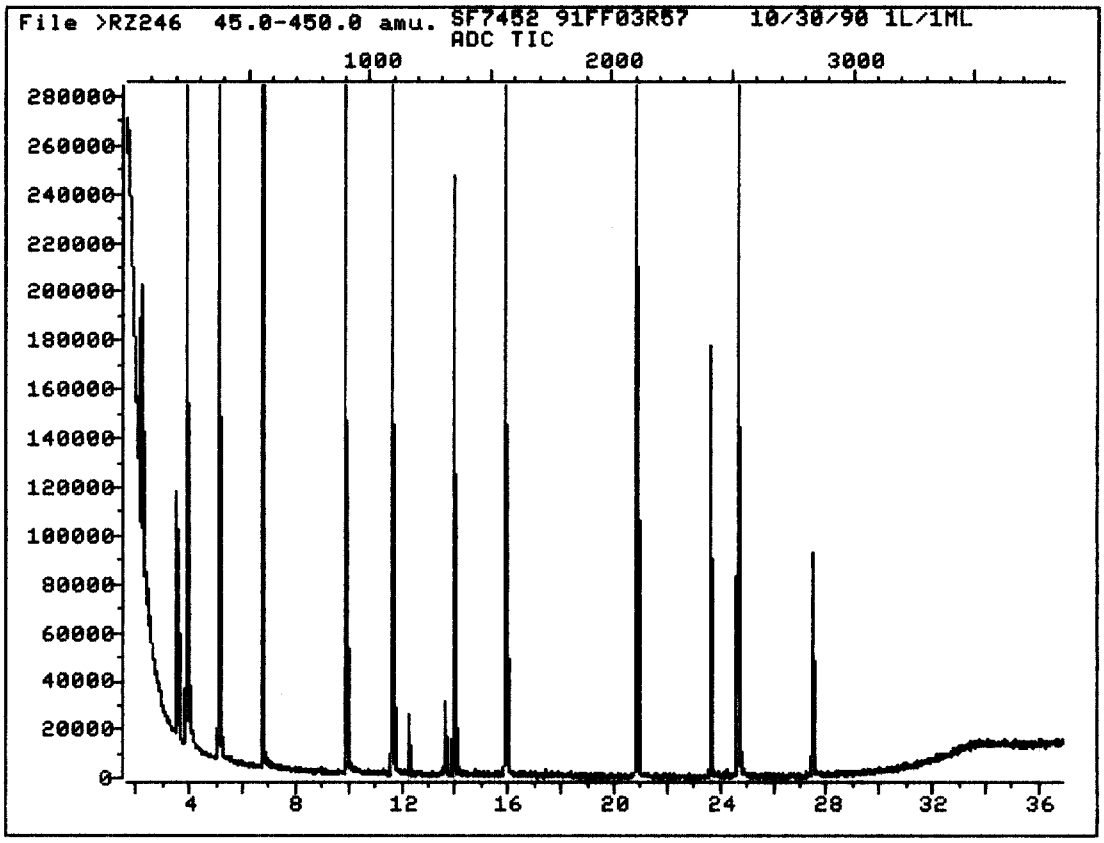
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	962671.	3.89	1.68 - 9.88
2	50.0	926009.	15.87	9.88 - 21.64
3	50.0	236377.	27.42	21.64 - 36.91

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)

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

6:29 PM WED., 31 OCT., 1990


File >RZ246 45.0-450.0 amu. SF7452 91FF03R57 10/30/90 1L/1ML
ADC TIC
1000
2000
3000
280000
260000
240000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
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16
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24
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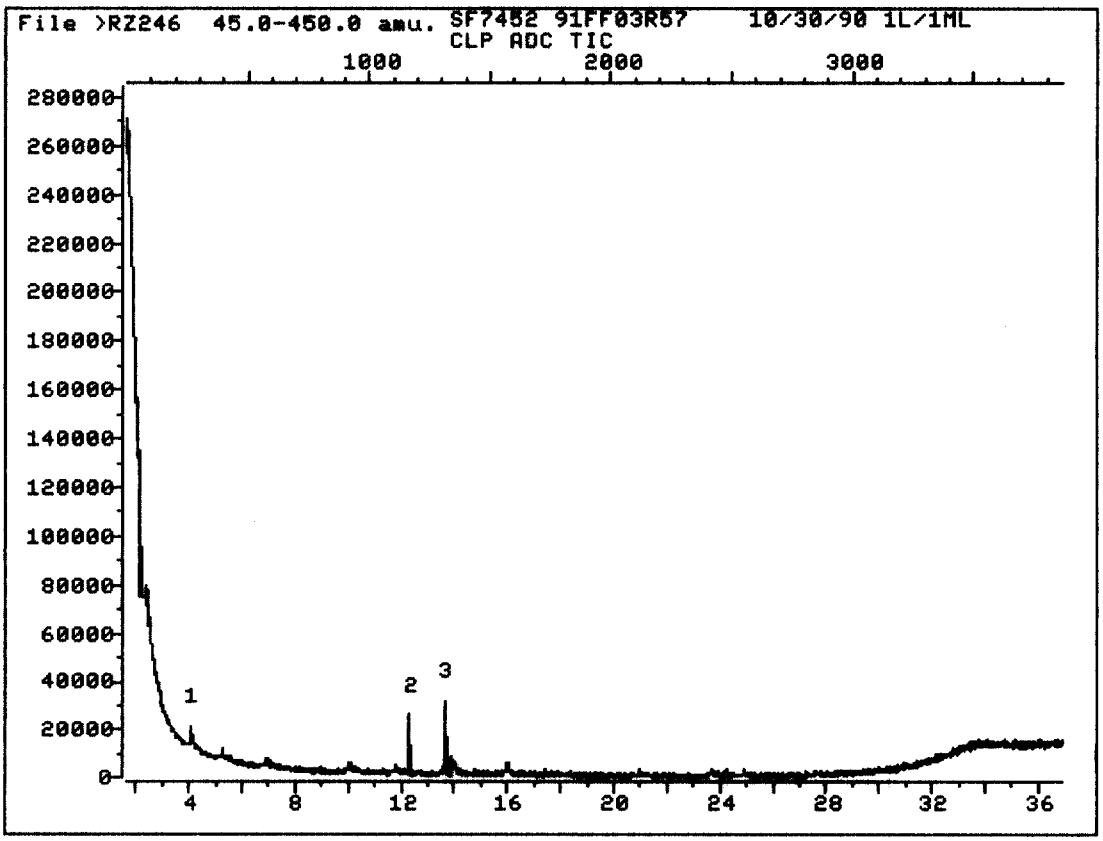
32
36


File >RZ246 45.0-450.0 amu. SF7452 91FF03R57 10/30/90 1L/1ML
CLP ADC TIC
1000
2000
3000
280000
260000
240000
220000
200000
180000
160000
140000
120000
100000
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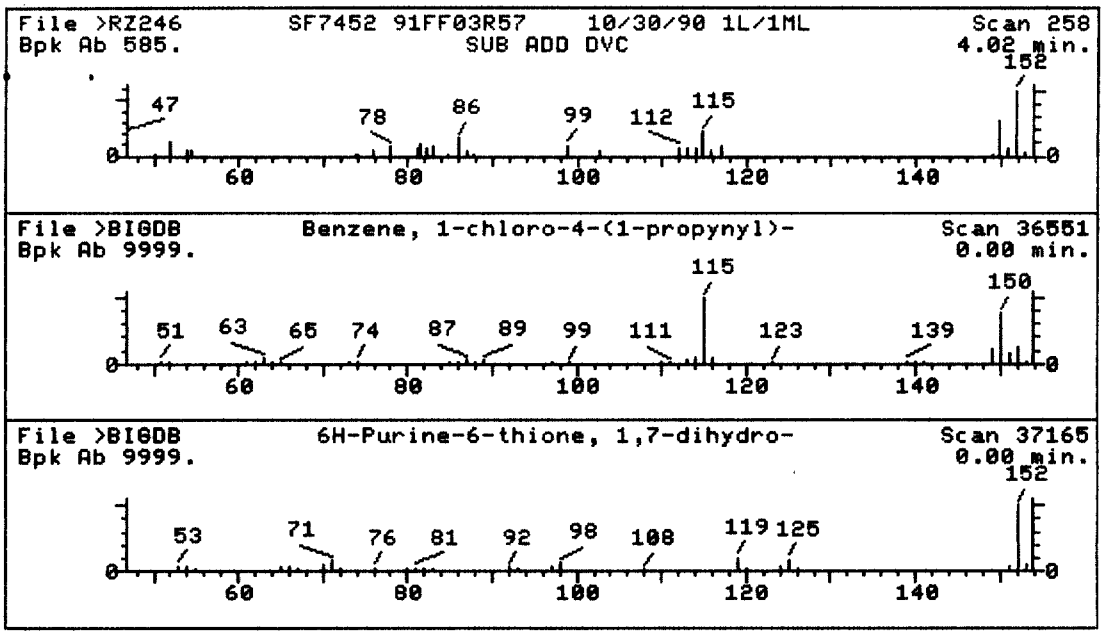


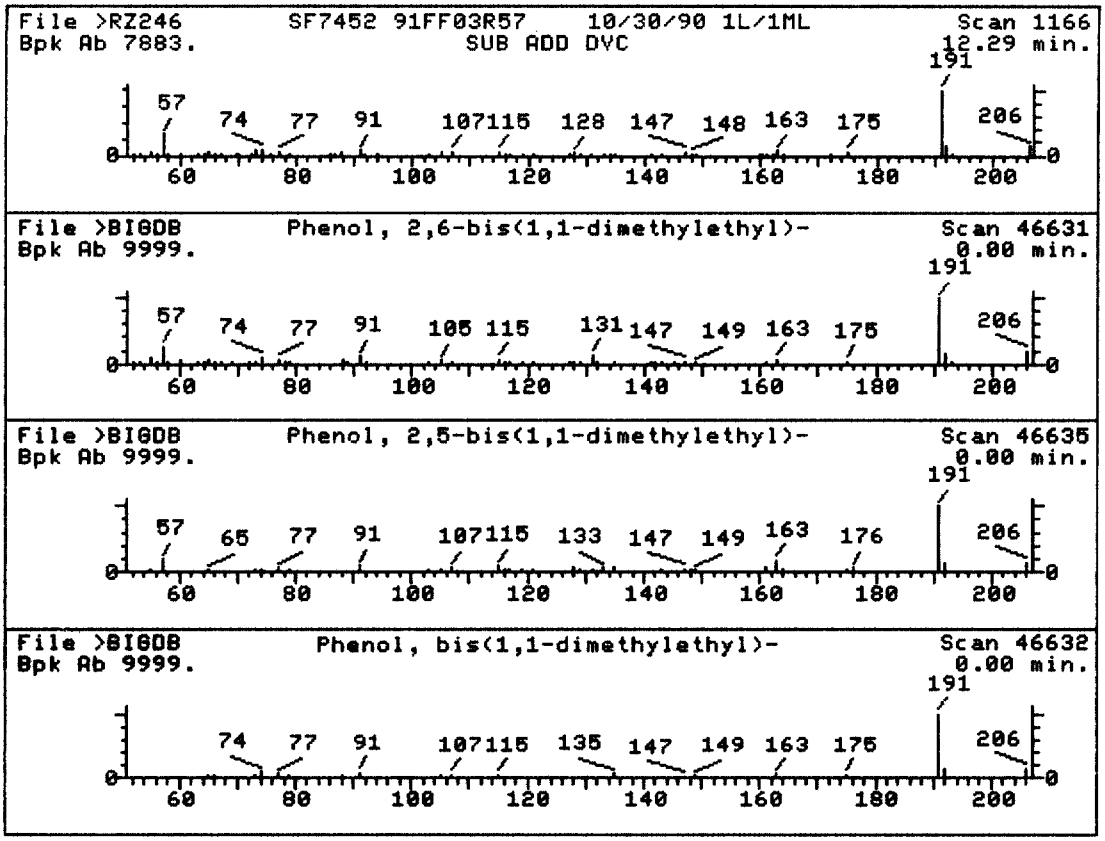
BDL

UNKNOWN #,1
AREA = 28677.00 TENTATIVE CONCENTRATION IS 1.000

1. Benzene, 1-chloro-4-(1-propynyl)- 150 C9H7Cl
2. 6H-Purine-6-thione, 1,7-dihydro- 152 C5H4N4S

Sample file: >RZ246 Spectrum #: 258
Search speed: 1 Tilting option: N No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	15*	2809656	36551	"BIGDB	31	73	3	0	69	60	3	13
2.	11*	50442	37165	"BIGDB	26	77	3	0	100	62	2	13



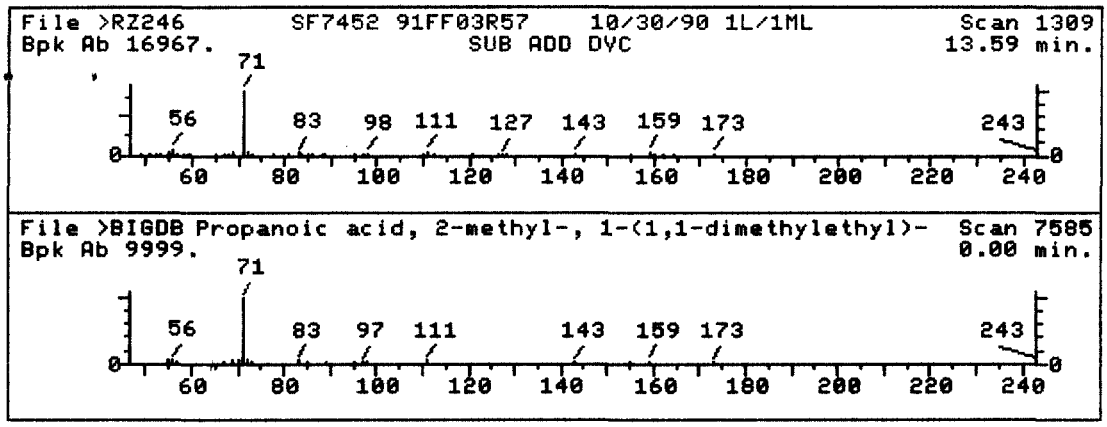
BDC

. UNKNOWN #,2
AREA = 42988.00 TENTATIVE CONCENTRATION IS 2.00

1.	Phenol, 2,6-bis(1,1-dimethylethyl)-	206	C14H22O
2.	Phenol, 2,5-bis(1,1-dimethylethyl)-	206	C14H22O
3.	Phenol, bis(1,1-dimethylethyl)-	206	C14H22O
4.	Phenol, 2,4-bis(1,1-dimethylethyl)-	206	C14H22O
5.	METHYL-P-TERT-BUTYL PHENYL ACETATE	206	C13H18O2
6.	6-Hepten-4-yn-2-one, 7-(1-piperidinyl)-	191	C12H17NO
7.	Pyrido[3,4-d]pyrimidine-2,4(1H,3H)-dione, 1,3-dimethyl-	191	C9H9N3O2

Sample file: >RZ246 Spectrum #: 1166
Search speed: 1 Tilting option: N No. of ion ranges searched: 55

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	88*	128392	46631	"BIGDB	72	43	2	0	69	4	65	54
2.	86*	5875456	46635	"BIGDB	59	55	2	0	89	4	60	36
3.	83*	26746383	46632	"BIGDB	76	34	2	0	88	8	54	59
4.	81*	96764	46630	"BIGDB	58	47	1	0	83	6	53	49
5.	52*	0	46626	"BIGDB	37	36	2	0	73	16	20	18
6.	41*	54798946	46609	"BIGDB	22	46	3	0	126	24	17	12
7.	41*	22389839	46591	"BIGDB	23	90	3	0	100	24	17	12



BDL

UNKNOWN #,3
AREA = 60231.00 TENTATIVE CONCENTRATION IS 3.00

1. Propanoic acid, 2-methyl-, 1-(1,1-dimethylethyl)-2-m 286 C16H3004
ethyl-1,3-propanediyl ester

Sample file: >RZ246 Spectrum #: 1309
Search speed: 1 Tilting option: N No. of ion ranges searched: 51

	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	24	74381401	7585	"BIGDB	33	53	1	0	45	45	8	12

QUANT REPORT

Operator ID: KELLY
Output File: ^RZ247::D5
Data File: >RZ247::D1
Name: SF7452 SPIKE SOLN
Misc: 10/30/90 1L/1ML

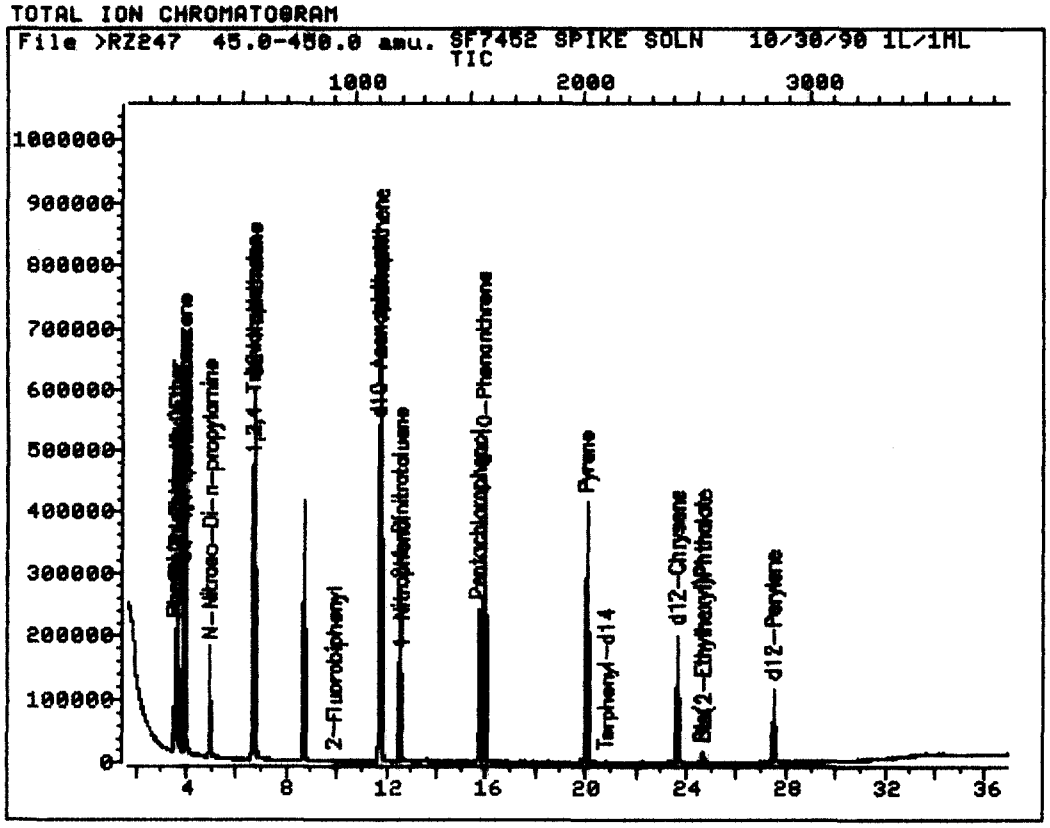
Quant Rev: 6
Quant Time: 901030 22:43
Injected at: 901030 22:04
Dilution Factor: 1.00000

ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.87	152.0	150928	50.00	NG/UL	94
4)	Phenol	3.50	94.0	221348	56.32	NG/UL	75
5)	bis(2-Chloroethyl)Ether	3.58	93.0	4681	1.51	NG/UL	64
6)	2-Chlorophenol	3.58	128.0	209786	58.98	NG/UL	97
8)	1,4-Dichlorobenzene	3.91	146.0	255630	54.16	NG/UL	94
14)	N-Nitroso-Di-n-propylamine	4.93	70.0	187819	73.93	NG/UL	93
16)	d8-Naphthalene	6.70	136.0	601726	50.54	NG/UL	86
25)	1,2,4-Trichlorobenzene	6.64	180.0	292672	69.13	NG/UL	96
31)	d10-Acenaphthene	11.63	164.0	277874	52.43	NG/UL	95
36)	2-Fluorobiphenyl	9.88	172.0	1209	.14	NG/UL	91
39)	*d-10-Phenanthrene	15.87	188.0	361808	50.00	NG/UL	99
42)	Acenaphthene	11.72	153.0	409239	61.36	NG/UL	98
44)	4-Nitrophenol	12.54	109.0	44467	63.39	NG/UL	86
46)	2,4-Dinitrotoluene	12.51	165.0	111785	51.46	NG/UL	94
57)	Pentachlorophenol	15.65	265.8	44374	58.08	NG/UL	99
62)	d12-Chrysene	23.57	240.0	125399	53.71	NG/UL	84
63)	Pyrene	19.97	202.0	362023	66.25	NG/UL	90
64)	Terphenyl-d14	20.80	244.0	2693	.73	NG/UL	98
67)	Bis(2-Ethylhexyl)Phthalate	24.63	149.0	11538	3.48	NG/UL	87
69)	*d12-Perylene	27.42	264.0	73937	50.00	NG/UL	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >RZ247::D1 Quant Output File: ^RZ247::D5
Name: SF7452 SPIKE SOLN
Misc: 10/30/90 1L/1ML

Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

Operator ID: KELLY
Quant Time: 901030 22:43
Injected at: 901030 22:04

Sequence File: BARZ12::SC

>RZ234 DFTPP

Tune File: MT5996

CR List: D1,D3,D4,D6
CR Cut-off: 5000 blocks.

Number of samples: 24

Samp No.	Data File / Method File	Sample Name / Misc Data	Bottle	Sample Size	Quant	Report	Data	Archive	ID	Archive	Output	Archive	Quant ID / Quant Output
001)	>RZ236	TOXSTD 100 PPM	-1	3	Y	M	N	N	N				IDZR96::SC
	TOXIC6	10/30/90					Dil=1.00000						^RZ236::D5
	REPRT OPTIONS: BG Sub, Scale time: 3.000, Qion replaces Scan#												
002)	>RZ237	TOXSTD 50 PPM	-1	3	Y	M	N	N	N				IDZR96::SC
	TOXIC6	10/30/90					Dil=1.00000						^RZ237::D5
	REPRT OPTIONS: BG Sub, Scale time: 3.000, Qion replaces Scan#												
003)	>RZ238	TOXSTD 25 PPM	-1	3	Y	M	N	N	N				IDZR96::SC
	TOXIC6	10/30/90					Dil=1.00000						^RZ238::D5
	REPRT OPTIONS: BG Sub, Scale time: 3.000, Qion replaces Scan#												
004)	>RZ239	SF7452 METHOD BLANK	-1	3	Y	M	N	N	N				IDZR96::SC
	TOXIC6	10/30/90 1L/1ML					Dil=1.00000						^RZ239::D5
	REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 3.000												
	REPRT OPTIONS: Qion replaces Scan#												
005)	>RZ240	SF7452 91FF27S48	-1	3	Y	M	N	N	N				IDZR96::SC
	TOXIC6	10/30/90 1L/1ML					Dil=1.00000						^RZ240::D5
	REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 3.000												
	REPRT OPTIONS: Qion replaces Scan#												
006)	>RZ241	SF7452 91FF27S48MS	-1	3	Y	M	N	N	N				IDZR96::SC
	TOXIC6	10/30/90 1L/1ML					Dil=1.00000						^RZ241::D5
	REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 3.000												
	REPRT OPTIONS: Qion replaces Scan#												
007)	>RZ242	SF7452 91FF27S48MSD	-1	3	Y	M	N	N	N				IDZR96::SC
	TOXIC6	10/30/90 1L/1ML					Dil=1.00000						^RZ242::D5
	REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 3.000												
	REPRT OPTIONS: Qion replaces Scan#												
008)	>RZ243	SF7452 91FF27S49	-1	3	Y	M	N	N	N				IDZR96::SC
	TOXIC6	10/30/90 1L/1ML					Dil=1.00000						^RZ243::D5
	REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 3.000												
	REPRT OPTIONS: Qion replaces Scan#												
009)	>RZ244	SF7452 91FF27D49	-1	3	Y	M	N	N	N				IDZR96::SC
	TOXIC6	10/30/90 1L/1ML					Dil=1.00000						^RZ244::D5
	REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 3.000												
	REPRT OPTIONS: Qion replaces Scan#												
010)	>RZ245	SF7452 91FF27S50	-1	3	Y	M	N	N	N				IDZR96::SC
	TOXIC6	10/30/90 1L/1ML					Dil=1.00000						^RZ245::D5
	REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 3.000												
	REPRT OPTIONS: Qion replaces Scan#												
011)	>RZ246	SF7452 91FF03R57	-1	3	Y	M	N	N	N				IDZR96::SC
	TOXIC6	10/30/90 1L/1ML					Dil=1.00000						^RZ246::D5
	REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 3.000												
	REPRT OPTIONS: Qion replaces Scan#												
012)	>RZ247	SF7452 SPIKE SOLN	-1	3	Y	M	N	N	N				IDZR96::SC
	TOXIC6	10/30/90 1L/1ML					Dil=1.00000						^RZ247::D5
	REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 3.000												
	REPRT OPTIONS: Qion replaces Scan#												

```
     REPRT OPTIONS: Qion replaces Scan#
013) >FN028        CD07455 METHODBLANK       -1 3 Y M N N N    IDBP96::D2
     TOXIC6        10/30/90 CD07457 1L/1ML      Dil=1.00000    ^FN028::D5
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
014) >FN029        CD07455 91CM01S02         -1 3 Y M N N N    IDBP96::D2
     TOXIC6        10/30/90  .97L/1ML           Dil=1.00000    ^FN029::D5
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
015) >FN030        CD07455 91CM01R01         -1 3 Y M N N N    IDBP96::D2
     TOXIC6        10/30/90 1.050L/1ML          Dil=1.00000    ^FN030::D5
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
016) >FN031        CD07455 91CM01S02MS       -1 3 Y M N N N    IDBP96::D2
     TOXIC6        10/30/90 1.050L/1ML          Dil=1.00000    ^FN031::D5
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
017) >FN032        CD07455 91CM01S02MD       -1 3 Y M N N N    IDBP96::D2
     TOXIC6        10/30/90   .97L/1ML          Dil=1.00000    ^FN032::D5
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
018) >FN033        CD07457 91CW01S01         -1 3 Y M N N N    IDBP96::D2
     TOXIC6        10/30/90 1.050L/1ML          Dil=1.00000    ^FN033::D5
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
019) >FN034        CD07457 91CW01R01         -1 3 Y M N N N    IDBP96::D2
     TOXIC6        10/30/90 1.010L/1ML          Dil=1.00000    ^FN034::D5
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
020) >FN035        CD07457 91CW01M01MS       -1 3 Y M N N N    IDBP96::D2
     TOXIC6        10/30/90 1.050L/1ML          Dil=1.00000    ^FN035::D5
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
021) >FN036        CD07457 91CW01M01MD       -1 3 Y M N N N    IDBP96::D2
     TOXIC6        10/30/90 1.050L/1ML          Dil=1.00000    ^FN036::D5
     REPRT OPTIONS: Label Meth:1, BG Sub, Qion replaces Scan#
022) >RZ248        SF7451 91FT27S46MSRE      -1 3 Y M N N N    IDZR96::SC
     TOXIC6        10/30/90 1L/1ML              Dil=1.00000    ^RZ248::D5
     REPRT OPTIONS: BG Sub, Scale time: 3.000, Qion replaces Scan#
023) >RZ249        SF7452 10 PPM MDL         -1 3 Y M N N N    IDZR96::SC
     TOXIC6        10/30/90                     Dil=1.00000    ^RZ249::D5
     REPRT OPTIONS: BG Sub, Scale time: 3.000, Qion replaces Scan#
024) >RZ250        SF7452 5 PPM MDL          -1 3 Y M N N N    IDZR96::SC
     TOXIC6        10/30/90                     Dil=1.00000    ^RZ250::D5
     REPRT OPTIONS: BG Sub, Scale time: 3.000, Qion replaces Scan#

End of sequence file.
```

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

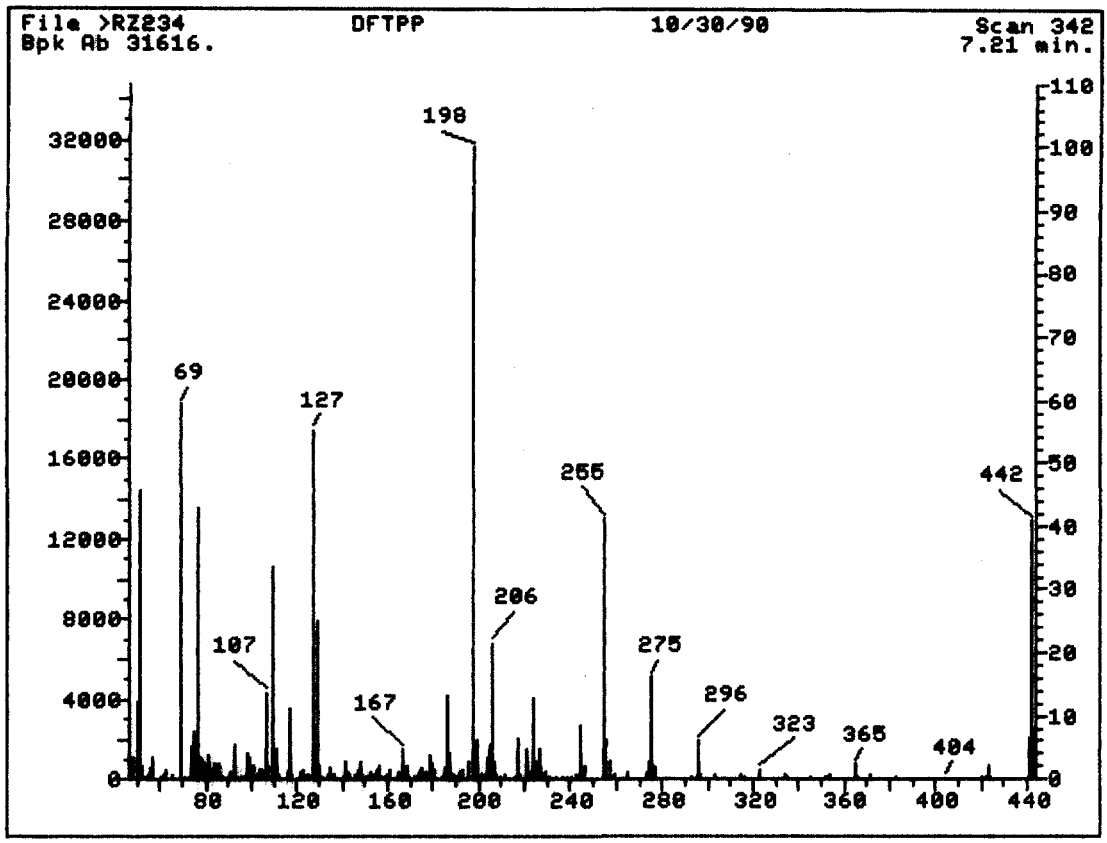
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	45.79	45.79	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	59.46	59.46	Ok
70	Less than 2% of mass 69	0.00	0.00	Ok
127	40-60% of mass 198	55.26	55.26	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.08	6.08	Ok
275	10-30% of mass 198	16.24	16.24	Ok
365	Greater than 1% of mass 198	2.29	2.29	Ok
441	0-100% of mass 443	6.58	84.27	Ok
442	Greater than 40% of mass 198	40.82	40.82	Ok
443	17-23% of mass 442	7.80	19.12	Ok

Injection Date: 10/30/90
Injection Time: 10:38
Data File: >RZ234
Scan: 342

MS data file header from : >RZ234

Sample: DFTPP Operator: KELLY REG. GRP. 10/30/90 10:38
Misc : 10/30/90
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	1.0	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 : >RZ234

Sample: DFTPP Operator: KELLY REG. GRP. 10/30/90 10:38
Misc : 10/30/90
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	1.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

>RZ234 DFTPP 10/30/90
342

File: >RZ234 Scan #: 342 Retn. time: 7.21

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
46.90	259.0	95.85	142.0	150.15	82.0	198.85	1922.0	257.80	905.0
47.80	135.0	96.95	108.0	150.95	118.0	199.85	106.0	258.80	194.0
48.20	105.0	97.95	1343.0	151.25	141.0	201.25	197.0	264.80	330.0
49.00	1045.0	98.85	1079.0	151.95	114.0	202.95	287.0	272.80	374.0
50.00	3838.0	99.95	139.0	152.85	385.0	203.95	1064.0	273.90	911.0
51.00	14476.0	100.95	701.0	153.95	246.0	204.95	1739.0	274.90	5136.0
52.00	680.0	102.95	282.0	154.95	476.0	205.95	6798.0	275.90	701.0
53.10	100.0	103.85	465.0	155.85	644.0	206.95	860.0	276.80	545.0
54.90	238.0	104.85	431.0	156.85	155.0	207.95	274.0	277.70	52.0
55.90	552.0	105.75	151.0	157.95	164.0	210.05	112.0	292.90	83.0
57.00	1047.0	106.95	4351.0	158.85	120.0	211.05	194.0	295.90	1899.0
60.80	157.0	107.85	661.0	159.95	292.0	215.95	166.0	296.80	267.0
61.00	157.0	109.85	10638.0	160.85	448.0	216.85	2049.0	302.80	229.0
62.00	239.0	110.85	1560.0	164.85	381.0	217.95	262.0	314.20	69.0
63.00	497.0	111.95	199.0	165.85	288.0	220.95	1470.0	314.90	215.0
65.10	239.0	115.85	312.0	166.95	1517.0	221.65	380.0	315.90	115.0
68.90	18800.1	116.85	3589.0	167.95	714.0	222.85	337.0	322.90	459.0
71.00	106.0	117.85	243.0	168.95	139.0	223.90	4138.0	323.80	61.0
73.00	106.0	121.85	310.0	169.75	71.0	224.90	925.0	334.00	259.0
74.00	1577.0	122.85	478.0	171.95	183.0	225.90	146.0	334.80	87.0
74.95	2426.0	123.95	216.0	172.85	149.0	226.80	1513.0	345.80	129.0
76.05	692.0	124.95	255.0	174.05	300.0	227.90	264.0	351.90	148.0
76.95	13605.0	126.85	17472.1	174.95	550.0	228.90	302.0	353.00	139.0
77.95	1095.0	127.85	1352.0	176.05	201.0	230.90	164.0	353.90	230.0
78.85	983.0	128.85	7913.0	176.95	357.0	233.70	99.0	364.90	723.0
79.85	727.0	129.85	715.0	178.85	1181.0	234.00	76.0	365.90	113.0
80.95	1218.0	130.95	82.0	179.95	742.0	236.90	124.0	371.90	271.0
81.95	335.0	133.85	257.0	180.95	434.0	238.70	94.0	382.85	82.0
82.85	411.0	134.95	566.0	183.95	91.0	240.80	128.0	403.95	67.0
83.85	760.0	135.85	243.0	184.95	603.0	242.00	199.0	420.65	108.0
84.85	171.0	136.95	223.0	185.95	4177.0	242.80	129.0	421.95	111.0
85.85	807.0	140.85	870.0	186.85	1349.0	243.90	2739.0	422.95	656.0
86.85	144.0	141.85	397.0	188.95	284.0	244.90	421.0	423.85	175.0
87.85	136.0	142.95	223.0	190.95	101.0	245.80	624.0	440.95	2079.0
90.95	361.0	145.95	206.0	191.85	327.0	248.50	53.0	441.85	12905.0
91.95	292.0	146.85	457.0	192.95	410.0	254.90	13014.0	442.95	2467.0
92.85	1707.0	147.85	868.0	195.95	918.0	255.90	1897.0	443.95	189.0
93.75	114.0	148.85	216.0	197.85	31616.1	256.90	162.0		

MS data file header from : >RZ234

Sample: DFTPP Operator: KELLY REG. GRP. 10/30/90 10:38
Misc : 10/30/90
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	1.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

Calibration Report

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 901030 16:26

Compound	Files: >RZ238 RF 25.00	>RZ237 RF 50.00	>RZ236 RF 100.00	$\overline{RRT}$	$\overline{RF}$	% RSD	
2-Fluorophenol	1.03345	1.10581	1.12726	.540	1.08884	4.514	
Phenol-d5	1.28055	1.31679	1.53911	.892	1.37882	10.153	
Phenol	1.25467	1.27814	1.37292	.898	1.30191	4.809	
bis(2-Chloroethyl)Ether	1.09036	.96771	1.01853	.918	1.02553	6.009	
2-Chlorophenol	1.09481	1.25262	1.18738	.922	1.17827	6.730	
1,3-Dichlorobenzene	1.22985	1.41966	1.24592	.980	1.29848	8.106	
1,4-Dichlorobenzene	1.28364	1.65020	1.75706	1.008	1.56363	15.880	
Benzyl Alcohol	.65138	.67010	.73995	1.105	.68714	6.793	
1,2-Dichlorobenzene	1.37971	1.50792	1.51094	1.098	1.46619	5.109	
2-Methylphenol	.98838	1.02825	1.05358	1.200	1.02340	3.212	
bis(2-Chloroisopropyl)ether	.35705	.35893	.34716	1.204	.35438	1.785	
4-Methylphenol	1.04848	.99964	.87623	1.300	.97478	9.107	
N-Nitroso-Di-n-propylamine	.77328	.72314	1.02856	1.289	.84166	19.460	
Hexachloroethane	.56088	.66355	.64682	1.263	.62375	8.831	
d8-Naphthalene	3.93399	4.02994	3.86853	1.751	3.94415	2.058	(Conc=50.0,50.0,50.0)
Nitrobenzene-d5	1.20400	1.22963	1.24803	1.317	1.22722	1.802	
Nitrobenzene	.67656	.69101	.69807	1.329	.68854	1.592	
Isophorone	2.13742	2.03335	1.76872	1.490	1.97983	9.601	
2-Nitrophenol	.71809	.80280	.87185	1.524	.79758	9.656	
2,4-Dimethylphenol	.83048	.88928	.90917	1.623	.87631	4.669	
Benzoic Acid	.48656	.50886	.72021	1.786	.57188	22.547	
bis(2-Chloroethoxy)Methane	1.49655	1.43411	1.53244	1.678	1.48770	3.345	
2,4-Dichlorophenol	1.12676	1.22924	1.26491	1.694	1.20697	5.942	
1,2,4-Trichlorobenzene	1.30707	1.48920	1.41123	1.734	1.40250	6.516	
Naphthalene	3.68321	3.81264	3.63190	1.763	3.70925	2.511	
4-Chloroaniline	.56489	.57867	.56379	1.845	.56912	1.458	
Hexachlorobutadiene	.66690	.79475	.75843	1.929	.74003	8.902	
4-Chloro-3-methylphenol	1.02206	.91521	.93650	2.265	.95792	5.904	
2-Methylnaphthalene	3.15834	3.14582	3.00132	2.263	3.10183	2.813	
d10-Acenaphthene	1.77166	1.73604	1.75966	3.051	1.75579	1.032	(Conc=50.0,50.0,50.0)
Hexachlorocyclopentadiene	.59054	.70998	.66792	2.457	.65615	9.233	
2,4,6-Trichlorophenol	.67514	.72271	.75163	2.525	.71649	5.391	
2,4,5-Trichlorophenol	.72750	.73602	.77653	2.546	.74668	3.509	
2-Chloronaphthalene	2.33031	2.42468	2.32963	2.616	2.36154	2.316	
2-Fluorobiphenyl	2.89592	3.03725	2.89728	2.594	2.94349	2.759	
2-Nitroaniline	.78179	.74767	.88506	2.751	.80484	8.888	
Dimethylphthalate	2.47966	2.42412	2.58572	2.981	2.49650	3.289	
Acenaphthylene	1.36056	1.50626	1.31972	.702	1.39551	7.027	
3-Nitroaniline	.20320	.20605	.19580	.740	.20168	2.622	

RF - Response Factor (Subscript is amount in NG/UL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

Calibration Report

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 901030 16:26

Compound	Files: >RZ238 RF 25.00	>RZ237 RF 50.00	>RZ236 RF 100.00	$\overline{RRT}$	$\overline{RF}$	% RSD	
Acenaphthene	.94093	1.00051	.82384	.739	.92176	9.751	
2,4-Dinitrophenol	.07691	.10075	.11942	.757	.09903	21.516	
4-Nitrophenol	.09211	.09722	.10150	.791	.09694	4.850	
Dibenzofuran	1.31241	1.39646	1.30088	.770	1.33658	3.904	
2,4-Dinitrotoluene	.28071	.30113	.31878	.788	.30021	6.346	
2,6-Dinitrotoluene	.22795	.25959	.25634	.721	.24796	7.020	
Diethylphthalate	1.03440	.99404	.92362	.853	.98402	5.697	
4-Chlorophenyl-phenylether	.39045	.43289	.38086	.846	.40140	6.898	
Fluorene	.95151	1.01237	.91312	.832	.95900	5.219	
4-Nitroaniline	.17137	.19674	.16690	.853	.17834	9.024	
4,6-Dinitro-2-methylphenol	.09241	.11021	.12454	.862	.10905	14.758	
N-Nitrosodiphenylamine	.42949	.40548	.42917	.871	.42138	3.267	
2,4,6-Tribromophenol	.10640	.11604	.11592	.880	.11278	4.906	
4-Bromophenyl-phenylether	.17688	.19989	.18590	.933	.18756	6.182	
Hexachlorobenzene	.19519	.20566	.19087	.949	.19724	3.857	
Pentachlorophenol	.09757	.10875	.11045	.987	.10559	6.626	
Phenanthrene	1.07828	1.15891	1.14842	1.004	1.12854	3.884	
Anthracene	1.07443	1.15926	1.10792	1.012	1.11387	3.836	
Di-n-Butylphthalate	1.30021	1.29053	1.12925	1.156	1.24000	7.745	
Fluoranthene	.82165	.77097	.73357	1.221	.77540	5.701	
d12-Chrysene	.36053	.31002	.29735	1.486	.32263	10.360	(Conc=50.0,50.0,50.0)
Pyrene	.79899	.74532	.72111	1.257	.75514	5.278	
Terphenyl-d14	.55632	.51313	.45487	1.311	.50811	10.020	
Butylbenzylphthalate	.40098	.35882	.33366	1.425	.36449	9.332	
Benzo(a)Anthracene	.43200	.39020	.38482	1.483	.40638	5.524	
Bis(2-Ethylhexyl)Phthalate	.50461	.43025	.44031	1.552	.45839	8.800	
Chrysene	.42730	.39327	.37626	1.490	.39894	6.514	
Di-n-octylphthalate	2.69884	2.84823	2.97777	.961	2.84161	4.912	
Benzo(b)fluoranthene	1.11032	1.20593	1.11319	.967	1.14315	4.758	
Benzo(k)Fluoranthene	1.13535	1.22192	1.21286	.969	1.19004	3.998	
Benzo(a)Pyrene	.94484	1.03143	.98847	.995	.98825	4.381	
Indeno(1,2,3-cd)Pyrene	.68289	.77664	.85451	1.090	.77135	11.140	
Dibenzo(a,h)Anthracene	.66994	.78105	.76940	1.094	.74013	8.250	
Benzo(g,h,i)Perylene	.69254	.82302	.87875	1.109	.79810	11.975	

RF - Response Factor (Subscript is amount in NG/UL)

$\overline{RRT}$ - Average Relative Retention Time (RT Std/RT Istd)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

```
Calib File: CBZR96::SC
     Title: HP BNA STD  REV E   KELLY 06\23\89
     Units:  NG/UL
 Last Edit: 891025 10:33
Last Calib: 901030 16:26

   ID File: IDZR96:KH:SC
     Title: HP BNA STD  REV A   ZIYAD 06\19\90
     Units:  NG/UL
 Last Edit: 901030 15:48
Last Calib: 901030 16:18

Correct Files ? Y

Calibrating...

  1) 2-Fluorophenol                    Avg RF:  1.08884
  2) Phenol-d5                         Avg RF:  1.37882
  3) Phenol                            Avg RF:  1.30191
  4) bis(2-Chloroethyl)Ether           Avg RF:  1.02553
  5) 2-Chlorophenol                    Avg RF:  1.17827
  6) 1,3-Dichlorobenzene               Avg RF:  1.29848
  7) 1,4-Dichlorobenzene               Avg RF:  1.56363
  8) Benzyl Alcohol                    Avg RF:   .68714
  9) 1,2-Dichlorobenzene               Avg RF:  1.46619
 10) 2-Methylphenol                    Avg RF:  1.02340
 11) bis(2-Chloroisopropyl)ether       Avg RF:   .35438
 12) 4-Methylphenol                    Avg RF:   .97478
 13) N-Nitroso-Di-n-propylamine        Avg RF:   .84166
 14) Hexachloroethane                  Avg RF:   .62375
 15) d8-Naphthalene                    Avg RF:  3.94415
 16) Nitrobenzene-d5                   Avg RF:  1.22722
 17) Nitrobenzene                      Avg RF:   .68854
 18) Isophorone                        Avg RF:  1.97983
 19) 2-Nitrophenol                     Avg RF:   .79758
 20) 2,4-Dimethylphenol                Avg RF:   .87631
 21) Benzoic Acid                      Avg RF:   .57188
 22) bis(2-Chloroethoxy)Methane        Avg RF:  1.48770
 23) 2,4-Dichlorophenol                Avg RF:  1.20697
 24) 1,2,4-Trichlorobenzene            Avg RF:  1.40250
 25) Naphthalene                       Avg RF:  3.70925
 26) 4-Chloroaniline                   Avg RF:   .56912
 27) Hexachlorobutadiene               Avg RF:   .74003
 28) 4-Chloro-3-methylphenol           Avg RF:   .95792
 29) 2-Methylnaphthalene               Avg RF:  3.10183
 30) d10-Acenaphthene                  Avg RF:  1.75579
 31) Hexachlorocyclopentadiene         Avg RF:   .65615
 32) 2,4,6-Trichlorophenol             Avg RF:   .71649
 33) 2,4,5-Trichlorophenol             Avg RF:   .74668
 34) 2-Chloronaphthalene               Avg RF:  2.36154
 35) 2-Fluorobiphenyl                  Avg RF:  2.94349
 36) 2-Nitroaniline                    Avg RF:   .80484
 37) Dimethylphthalate                 Avg RF:  2.49650
 38) Acenaphthylene                    Avg RF:  1.39551
 39) 3-Nitroaniline                    Avg RF:   .20168
 40) Acenaphthene                      Avg RF:   .92176
 41) 2,4-Dinitrophenol                 Avg RF:   .09903
 42) 4-Nitrophenol                     Avg RF:   .09694
 43) Dibenzofuran                      Avg RF:  1.33658
 44) 2,4-Dinitrotoluene                Avg RF:   .30021
 45) 2,6-Dinitrotoluene                Avg RF:   .24796
 46) Diethylphthalate                  Avg RF:   .98402
 47) 4-Chlorophenyl-phenylether        Avg RF:   .40140
 48) Fluorene                          Avg RF:   .95900
 49) 4-Nitroaniline                    Avg RF:   .17834
 50) 4,6-Dinitro-2-methylphenol        Avg RF:   .10805
```

50)	4,6-Dinitro-2-methylphenol	Avg RF:	[illegible]
51)	N-Nitrosodiphenylamine	Avg RF:	.42138
52)	2,4,6-Tribromophenol	Avg RF:	.11278
53)	4-Bromophenyl-phenylether	Avg RF:	.18756
54)	Hexachlorobenzene	Avg RF:	.19724
55)	Pentachlorophenol	Avg RF:	.10559
56)	Phenanthrene	Avg RF:	1.12854
57)	Anthracene	Avg RF:	1.11387
58)	Di-n-Butylphthalate	Avg RF:	1.24000
59)	Fluoranthene	Avg RF:	.77540
60)	d12-Chrysene	Avg RF:	.32263
61)	Pyrene	Avg RF:	.75514
62)	Terphenyl-d14	Avg RF:	.50811
63)	Butylbenzylphthalate	Avg RF:	.36449
64)	Benzo(a)Anthracene	Avg RF:	.40638
65)	Bis(2-Ethylhexyl)Phthalate	Avg RF:	.45839
66)	Chrysene	Avg RF:	.39894
67)	Di-n-octylphthalate	Avg RF:	2.84161
68)	Benzo(b)fluoranthene	Avg RF:	1.14315
69)	Benzo(k)Fluoranthene	Avg RF:	1.19004
70)	Benzo(a)Pyrene	Avg RF:	.98825
71)	Indeno(1,2,3-cd)Pyrene	Avg RF:	.77135
72)	Dibenzo(a,h)Anthracene	Avg RF:	.74013
73)	Benzo(g,h,i)Perylene	Avg RF:	.79810

Calibration Time Stamp Updated: 901030 16:31

QUANT REPORT

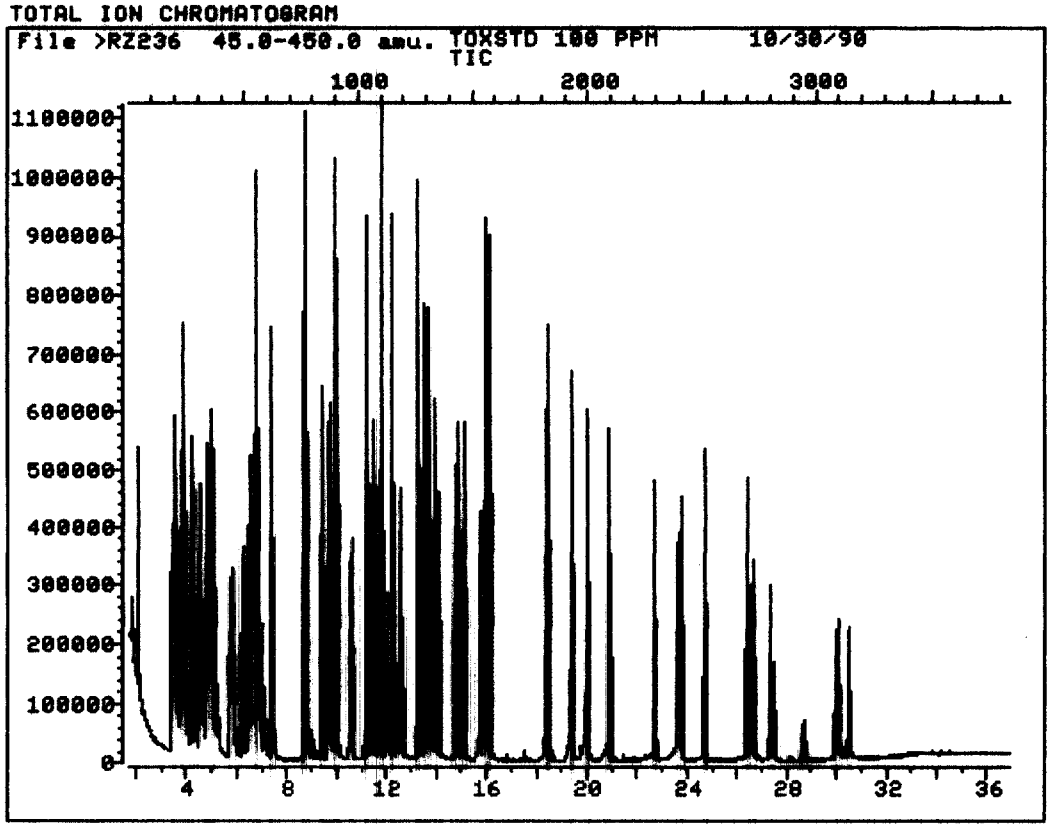
Operator ID: KELLY Quant Rev: 6 Quant Time: 901030 15:48
Output File: ^RZ236::D5 Injected at: 901030 14:34
Data File: >RZ236::D1 Dilution Factor: 1.00000
Name: TOXSTD 100 PPM
Misc: 10/30/90

ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 14:41

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.77	152.0	183657	50.00	NG/UL	93
2)	2-Fluorophenol	1.99	112.0	414058	66.54	NG/UL	90
3)	Phenol-d5	3.35	99.0	565336	78.11	NG/UL	84
4)	Phenol	3.37	94.0	504292M	73.94	NG/UL	78
5)	bis(2-Chloroethyl)Ether	3.46	93.0	374121	61.14	NG/UL	98
6)	2-Chlorophenol	3.47	128.0	436141	82.28	NG/UL	97
7)	1,3-Dichlorobenzene	3.69	146.0	457643	85.04	NG/UL	92
8)	1,4-Dichlorobenzene	3.80	146.0	645392	109.14	NG/UL	90
9)	Benzyl Alcohol	4.18	108.0	271793M	80.96	NG/UL	80
10)	1,2-Dichlorobenzene	4.14	146.0	554990	99.64	NG/UL	93
11)	2-Methylphenol	4.54	108.0	386995	78.42	NG/UL	97
12)	bis(2-Chloroisopropyl)ether	4.57	121.0	127515	97.60	NG/UL	98
13)	4-Methylphenol	4.97	108.0	321850	65.01	NG/UL	99
14)	N-Nitroso-Di-n-propylamine	4.93	70.0	377804M	91.15	NG/UL	
15)	Hexachloroethane	4.78	201.0	237586	125.91	NG/UL	99
16)	d8-Naphthalene	6.68	136.0	710482	47.96	NG/UL	87
17)	Nitrobenzene-d5	5.02	82.0	458418	69.20	NG/UL	79
18)	Nitrobenzene	5.07	123.0	256410	91.47	NG/UL	81
19)	Isophorone	5.70	82.0	649676	59.27	NG/UL	90
20)	2-Nitrophenol	5.81	139.0	320242	114.35	NG/UL	80
21)	2,4-Dimethylphenol	6.20	122.0	333950	90.00	NG/UL	94
22)	Benzoic Acid	6.97	105.0	264543M	134.68	NG/UL	
23)	bis(2-Chloroethoxy)Methane	6.41	93.0	562885	77.50	NG/UL	97
24)	2,4-Dichlorophenol	6.48	162.0	464620	116.61	NG/UL	94
25)	1,2,4-Trichlorobenzene	6.61	180.0	518364	121.16	NG/UL	97
26)	Naphthalene	6.73	128.0	1334047	93.26	NG/UL	96
27)	4-Chloroaniline	7.04	127.0	207087	97.10	NG/UL	88
28)	Hexachlorobutadiene	7.36	225.0	278583	120.09	NG/UL	93
29)	4-Chloro-3-methylphenol	8.66	107.0	343991M	80.30	NG/UL	
30)	2-Methylnaphthalene	8.64	142.0	1102427	137.58	NG/UL	77
31)	d10-Acenaphthene	11.66	164.0	323174	55.73	NG/UL	90
32)	Hexachlorocyclopentadiene	9.39	237.0	245336	103.14	NG/UL	98
33)	2,4,6-Trichlorophenol	9.65	196.0	276085M	110.68	NG/UL	
34)	2,4,5-Trichlorophenol	9.73	196.0	285232M	109.79	NG/UL	
35)	2-Chloronaphthalene	10.01	162.0	855706M	108.52	NG/UL	68
36)	2-Fluorobiphenyl	9.93	172.0	1064213M	107.87	NG/UL	
37)	2-Nitroaniline	10.53	138.0	325095M	113.88	NG/UL	
38)	Dimethylphthalate	11.42	163.0	949773M	115.14	NG/UL	
39)	*d-10-Phenanthrene	15.88	188.0	466417	50.00	NG/UL	98
40)	Acenaphthylene	11.17	152.0	1231080	84.49	NG/UL	91
41)	3-Nitroaniline	11.79	138.0	182652	74.59	NG/UL	79
42)	Acenaphthene	11.77	153.0	768506	83.00	NG/UL	95
43)	2,4-Dinitrophenol	12.06	184.0	111400	101.59	NG/UL	88

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	4-Nitrophenol	12.60	109.0	94683	88.53	NG/UL	82
45)	Dibenzofuran	12.25	168.0	1213509	98.77	NG/UL	87
46)	2,4-Dinitrotoluene	12.56	165.0	297371	110.72	NG/UL	89
47)	2,6-Dinitrotoluene	11.48	165.0	239126	105.02	NG/UL	94
48)	Diethylphthalate	13.59	149.0	861587	90.24	NG/UL	90
49)	4-Chlorophenyl-phenylether	13.45	204.0	355281	87.90	NG/UL	98
50)	Fluorene	13.24	166.0	851790	96.56	NG/UL	97
51)	4-Nitroaniline	13.62	138.0	155689	72.07	NG/UL	85
52)	4,6-Dinitro-2-methylphenol	13.73	198.0	116172	99.10	NG/UL	87
53)	N-Nitrosodiphenylamine	13.86	169.0	400347	185.94	NG/UL	96
54)	2,4,6-Tribromophenol	14.00	329.8	108130	71.67	NG/UL	96
55)	4-Bromophenyl-phenylether	14.83	248.0	173414	79.05	NG/UL	90
56)	Hexachlorobenzene	15.09	284.0	178048	73.55	NG/UL	93
57)	Pentachlorophenol	15.69	265.8	103032	78.40	NG/UL	96
58)	Phenanthrene	15.97	178.0	1071284	102.72	NG/UL	96
59)	Anthracene	16.10	178.0	1033510	100.48	NG/UL	98
60)	Di-n-Butylphthalate	18.37	149.0	1053402	88.43	NG/UL	95
61)	Fluoranthene	19.40	202.0	684303	81.75	NG/UL	98
62)	d12-Chrysene	23.60	240.0	138687	37.51	NG/UL	90
63)	Pyrene	19.97	202.0	672677	82.21	NG/UL	95
64)	Terphenyl-d14	20.83	244.0	424319	66.05	NG/UL	95
65)	Butylbenzylphthalate	22.63	149.0	311252	89.37	NG/UL	78
66)	Benzo(a)Anthracene	23.55	228.0	370264	78.53	NG/UL	94
67)	Bis(2-Ethylhexyl)Phthalate	24.65	149.0	410739	95.28	NG/UL	87
68)	Chrysene	23.67	228.0	350988M	80.88	NG/UL	90

TOTAL ION CHROMATOGRAM



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Name: TOXSTD 100 PPM
Misc: 10/30/90

Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 14:41

Operator ID: KELLY
Quant Time: 901030 15:48
Injected at: 901030 14:34

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 901030 15:33
Output File: ^RZ237::D5 Injected at: 901030 11:56
Data File: >RZ237::D1 Dilution Factor: 1.00000
Name: TOXSTD 50 PPM
Misc: 10/30/90

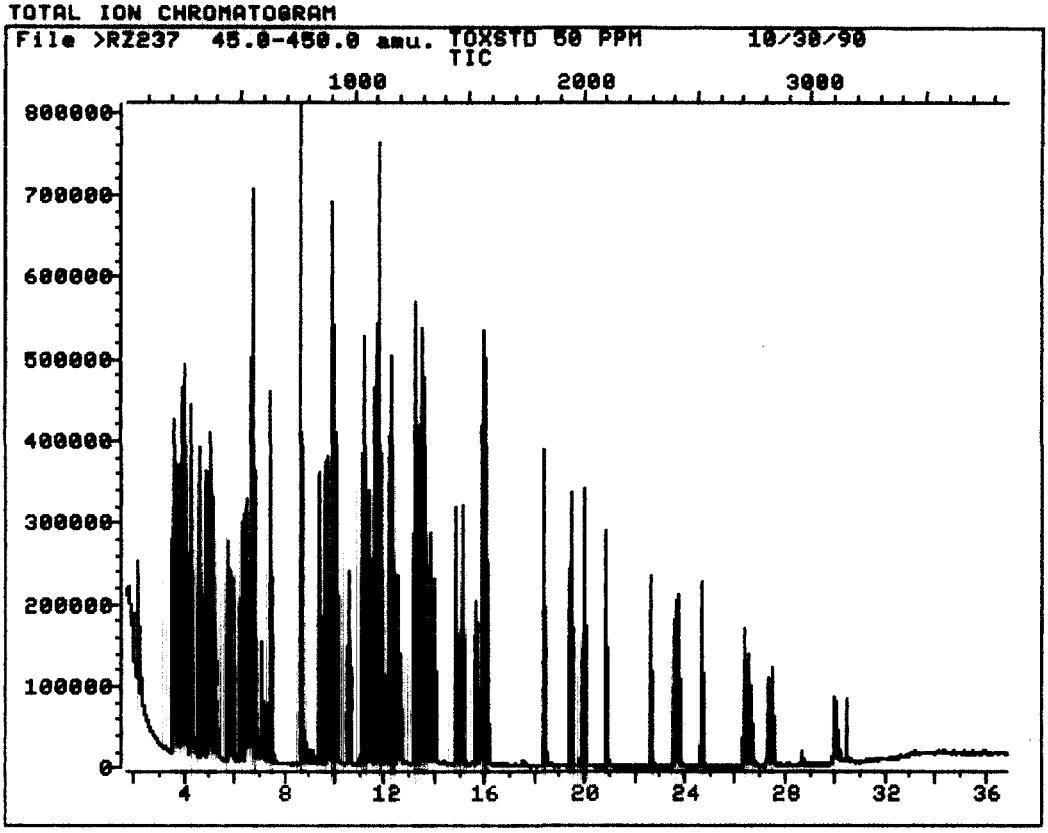
ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 14:41

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.89	152.0	167803	50.00	NG/UL	93
2)	2-Fluorophenol	2.16	112.0	185558	32.64	NG/UL	91
3)	Phenol-d5	3.48	99.0	220962	33.42	NG/UL	83
4)	Phenol	3.51	94.0	214476	34.42	NG/UL	81
5)	bis(2-Chloroethyl)Ether	3.58	93.0	162385	29.04	NG/UL	99
6)	2-Chlorophenol	3.59	128.0	210193	43.40	NG/UL	96
7)	1,3-Dichlorobenzene	3.81	146.0	238224	48.45	NG/UL	94
8)	1,4-Dichlorobenzene	3.91	146.0	276909	51.25	NG/UL	91
9)	Benzyl Alcohol	4.28	108.0	112445	36.66	NG/UL	78
10)	1,2-Dichlorobenzene	4.25	146.0	253033	49.72	NG/UL	93
11)	2-Methylphenol	4.64	108.0	172543	38.27	NG/UL	99
12)	bis(2-Chloroisopropyl)ether	4.64	121.0	60230	50.46	NG/UL	98
13)	4-Methylphenol	5.00	108.0	167742	37.08	NG/UL	98
14)	N-Nitroso-Di-n-propylamine	4.96	70.0	121345	32.04	NG/UL	82
15)	Hexachloroethane	4.87	201.0	111345	64.58	NG/UL	97
16)	d8-Naphthalene	6.71	136.0	676236	49.96	NG/UL	85
17)	Nitrobenzene-d5	5.07	82.0	206336	34.09	NG/UL	81
18)	Nitrobenzene	5.11	123.0	115953	45.27	NG/UL	86
19)	Isophorone	5.71	82.0	341202	34.07	NG/UL	88
20)	2-Nitrophenol	5.85	139.0	134713	52.65	NG/UL	77
21)	2,4-Dimethylphenol	6.22	122.0	149224	44.01	NG/UL	93
22)	Benzoic Acid	6.80	105.0	85389M	47.58	NG/UL	87
23)	bis(2-Chloroethoxy)Methane	6.43	93.0	240648	36.27	NG/UL	99
24)	2,4-Dichlorophenol	6.49	162.0	206270	56.66	NG/UL	94
25)	1,2,4-Trichlorobenzene	6.65	180.0	249893	63.93	NG/UL	94
26)	Naphthalene	6.76	128.0	639773	48.95	NG/UL	96
27)	4-Chloroaniline	7.07	127.0	97103	49.83	NG/UL	89
28)	Hexachlorobutadiene	7.39	225.0	133362	62.92	NG/UL	94
29)	4-Chloro-3-methylphenol	8.65	107.0	153575	39.24	NG/UL	84
30)	2-Methylnaphthalene	8.65	142.0	527878	72.10	NG/UL	70
31)	d10-Acenaphthene	11.64	164.0	291313	54.98	NG/UL	96
32)	Hexachlorocyclopentadiene	9.38	237.0	119136	54.82	NG/UL	98
33)	2,4,6-Trichlorophenol	9.64	196.0	121273M	53.21	NG/UL	87
34)	2,4,5-Trichlorophenol	9.72	196.0	123506	52.03	NG/UL	91
35)	2-Chloronaphthalene	9.99	162.0	406869	56.48	NG/UL	97
36)	2-Fluorobiphenyl	9.91	172.0	509660	56.54	NG/UL	95
37)	2-Nitroaniline	10.50	138.0	125462	48.10	NG/UL	81
38)	Dimethylphthalate	11.37	163.0	406775	53.97	NG/UL	94
39)	*d-10-Phenanthrene	15.88	188.0	375583	50.00	NG/UL	98
40)	Acenaphthylene	11.15	152.0	565725	48.22	NG/UL	92
41)	3-Nitroaniline	11.74	138.0	77388	39.25	NG/UL	71
42)	Acenaphthene	11.74	153.0	375775	50.40	NG/UL	94
43)	2,4-Dinitrophenol	12.02	184.0	37841	42.85	NG/UL	87

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	4-Nitrophenol	12.55	109.0	36513	42.40	NG/UL	79
45)	Dibenzofuran	12.22	168.0	524488	53.02	NG/UL	97
46)	2,4-Dinitrotoluene	12.51	165.0	113101	52.30	NG/UL	84
47)	2,6-Dinitrotoluene	11.43	165.0	97496	53.18	NG/UL	98
48)	Diethylphthalate	13.53	149.0	373344	48.56	NG/UL	90
49)	4-Chlorophenyl-phenylether	13.44	204.0	162586	49.96	NG/UL	98
50)	Fluorene	13.22	166.0	380230	53.53	NG/UL	98
51)	4-Nitroaniline	13.54	138.0	73891	42.48	NG/UL	86
52)	4,6-Dinitro-2-methylphenol	13.67	198.0	41392	43.85	NG/UL	82
53)	N-Nitrosodiphenylamine	13.83	169.0	152293	87.84	NG/UL	98
54)	2,4,6-Tribromophenol	13.98	329.8	43583	35.87	NG/UL	98
55)	4-Bromophenyl-phenylether	14.82	248.0	75076	42.50	NG/UL	94
56)	Hexachlorobenzene	15.07	284.0	77244	39.62	NG/UL	98
57)	Pentachlorophenol	15.67	265.8	40845	38.60	NG/UL	96
58)	Phenanthrene	15.94	178.0	435268	51.83	NG/UL	99
59)	Anthracene	16.07	178.0	435397	52.57	NG/UL	98
60)	Di-n-Butylphthalate	18.36	149.0	484703	50.53	NG/UL	95
61)	Fluoranthene	19.38	202.0	289565	42.96	NG/UL	98
62)	d12-Chrysene	23.59	240.0	116440	39.11	NG/UL	87
63)	Pyrene	19.96	202.0	279928	42.48	NG/UL	93
64)	Terphenyl-d14	20.81	244.0	192722	37.26	NG/UL	98
65)	Butylbenzylphthalate	22.62	149.0	134766	48.05	NG/UL	77
66)	Benzo(a)Anthracene	23.55	228.0	146552	38.60	NG/UL	93
67)	Bis(2-Ethylhexyl)Phthalate	24.64	149.0	161595	46.55	NG/UL	89
68)	Chrysene	23.65	228.0	147705M	42.27	NG/UL	89
69)	*d12-Perylene	27.44	264.0	76258	50.00	NG/UL	96
70)	Di-n-octylphthalate	26.37	149.0	217200	73.68	NG/UL	86
71)	Benzo(b)fluoranthene	26.51	252.0	91962	52.70	NG/UL	89
72)	Benzo(k)Fluoranthene	26.58	252.0	93181	55.03	NG/UL	88
73)	Benzo(a)Pyrene	27.28	252.0	78655	51.13	NG/UL	89
74)	Indeno(1,2,3-cd)Pyrene	29.91	276.0	59225	38.22	NG/UL	93
75)	Dibenzo(a,h)Anthracene	30.02	278.0	59561	42.41	NG/UL	77
76)	Benzo(g,h,i)Perylene	30.41	276.0	62762	39.81	NG/UL	92

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >RZ237::D1 Quant Output File: ^RZ237::D5
Name: TOXSTD 50 PPM
Misc: 10/30/90

Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 14:41

Operator ID: KELLY
Quant Time: 901030 15:33
Injected at: 901030 11:56

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 901030 15:28
Output File: ^RZ238::D5 Injected at: 901030 13:45
Data File: >RZ238::D1 Dilution Factor: 1.00000
Name: TOXSTD 25 PPM
Misc: 10/30/90

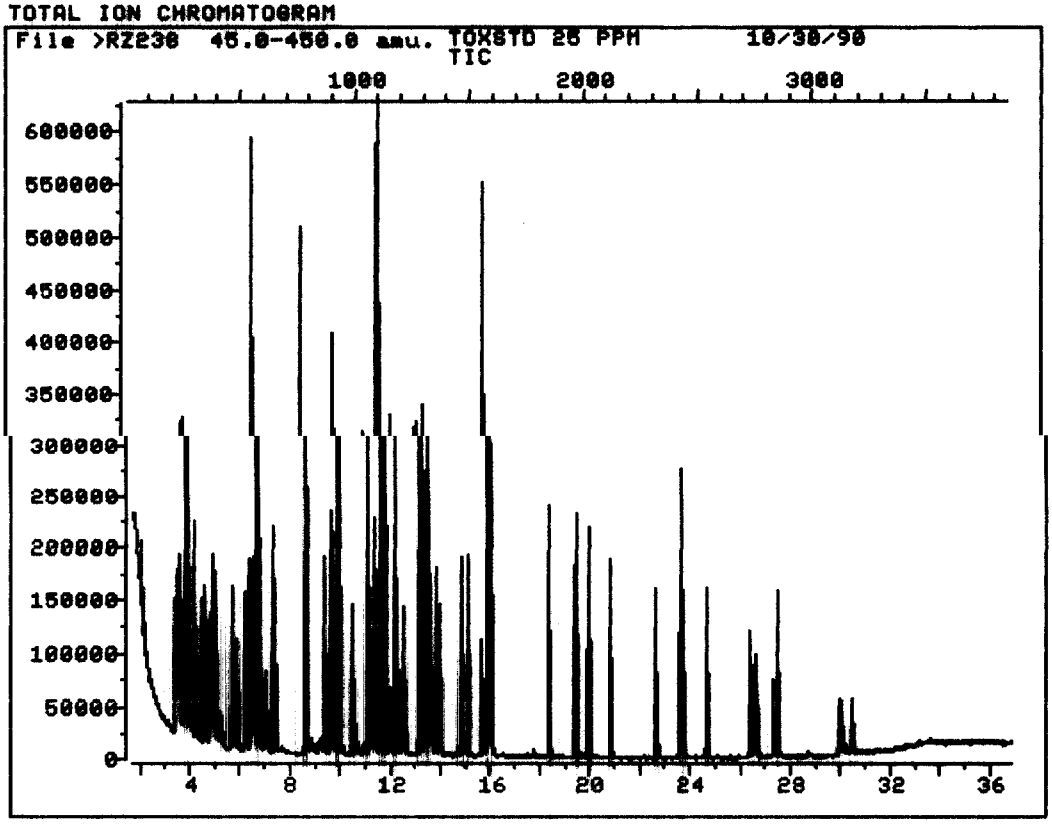
ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 14:41

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.80	152.0	184809	50.00	NG/UL	96
2)	2-Fluorophenol	2.03	112.0	95495	15.25	NG/UL	87
3)	Phenol-d5	3.38	99.0	118329	16.25	NG/UL	86
4)	Phenol	3.39	94.0	115937	16.89	NG/UL	78
5)	bis(2-Chloroethyl)Ether	3.48	93.0	100754	16.36	NG/UL	99
6)	2-Chlorophenol	3.48	128.0	101165	18.97	NG/UL	96
7)	1,3-Dichlorobenzene	3.71	146.0	113644	20.99	NG/UL	94
8)	1,4-Dichlorobenzene	3.82	146.0	118614	19.93	NG/UL	92
9)	Benzyl Alcohol	4.19	108.0	60190	17.82	NG/UL	81
10)	1,2-Dichlorobenzene	4.17	146.0	127491	22.75	NG/UL	95
11)	2-Methylphenol	4.55	108.0	91331	18.39	NG/UL	97
12)	bis(2-Chloroisopropyl)ether	4.56	121.0	32993	25.10	NG/UL	99
13)	4-Methylphenol	4.91	108.0	96884	19.45	NG/UL	98
14)	N-Nitroso-Di-n-propylamine	4.87	70.0	71455	17.13	NG/UL	82
15)	Hexachloroethane	4.80	201.0	51828	27.30	NG/UL	95
16)	d8-Naphthalene	6.66	136.0	727037	48.77	NG/UL	87
17)	Nitrobenzene-d5	4.99	82.0	111255	16.69	NG/UL	87
18)	Nitrobenzene	5.03	123.0	62517	22.16	NG/UL	90
19)	Isophorone	5.64	82.0	197507	17.91	NG/UL	87
20)	2-Nitrophenol	5.79	139.0	66355	23.55	NG/UL	83
21)	2,4-Dimethylphenol	6.15	122.0	76740	20.55	NG/UL	96
22)	Benzoic Acid	6.66	105.0	44960M	22.75	NG/UL	99
23)	bis(2-Chloroethoxy)Methane	6.36	93.0	138288	18.92	NG/UL	99
24)	2,4-Dichlorophenol	6.43	162.0	104118	25.97	NG/UL	98
25)	1,2,4-Trichlorobenzene	6.59	180.0	120779	28.05	NG/UL	92
26)	Naphthalene	6.69	128.0	340345	23.65	NG/UL	97
27)	4-Chloroaniline	7.02	127.0	52198	24.32	NG/UL	89
28)	Hexachlorobutadiene	7.34	225.0	61625	26.40	NG/UL	92
29)	4-Chloro-3-methylphenol	8.61	107.0	94443	21.91	NG/UL	89
30)	2-Methylnaphthalene	8.61	142.0	291845	36.19	NG/UL	70
31)	d10-Acenaphthene	11.63	164.0	327418	56.11	NG/UL	96
32)	Hexachlorocyclopentadiene	9.35	237.0	54569	22.80	NG/UL	97
33)	2,4,6-Trichlorophenol	9.61	196.0	62386M	24.85	NG/UL	
34)	2,4,5-Trichlorophenol	9.68	196.0	67224M	25.72	NG/UL	
35)	2-Chloronaphthalene	9.94	162.0	215331	27.14	NG/UL	97
36)	2-Fluorobiphenyl	9.86	172.0	267596	26.95	NG/UL	94
37)	2-Nitroaniline	10.46	138.0	72241	25.15	NG/UL	86
38)	Dimethylphthalate	11.33	163.0	229132M	27.60	NG/UL	
39)	*d-10-Phenanthrene	15.86	188.0	449681	50.00	NG/UL	94
40)	Acenaphthylene	11.12	152.0	305909	21.78	NG/UL	91
41)	3-Nitroaniline	11.70	138.0	45687	19.35	NG/UL	82
42)	Acenaphthene	11.70	153.0	211559	23.70	NG/UL	97
43)	2,4-Dinitrophenol	11.98	184.0	17293	16.36	NG/UL	91

	Compound	R.T.	Q ion	Area	Conc	Units	q
44)	4-Nitrophenol	12.51	109.0	20710	20.08	NG/UL	87
45)	Dibenzofuran	12.19	168.0	295082	24.91	NG/UL	94
46)	2,4-Dinitrotoluene	12.48	165.0	63116	24.38	NG/UL	98
47)	2,6-Dinitrotoluene	11.40	165.0	51252	23.35	NG/UL	93
48)	Diethylphthalate	13.49	149.0	232574	25.27	NG/UL	87
49)	4-Chlorophenyl-phenylether	13.40	204.0	87789	22.53	NG/UL	97
50)	Fluorene	13.18	166.0	213939	25.15	NG/UL	98
51)	4-Nitroaniline	13.48	138.0	38531	18.50	NG/UL	85
52)	4,6-Dinitro-2-methylphenol	13.64	198.0	20778	18.38	NG/UL	75
53)	N-Nitrosodiphenylamine	13.79	169.0	96566	46.52	NG/UL	98
54)	2,4,6-Tribromophenol	13.95	329.8	23922	16.45	NG/UL	92
55)	4-Bromophenyl-phenylether	14.78	248.0	39770	18.80	NG/UL	80
56)	Hexachlorobenzene	15.03	284.0	43887	18.80	NG/UL	93
57)	Pentachlorophenol	15.64	265.8	21938	17.31	NG/UL	95
58)	Phenanthrene	15.91	178.0	242442	24.11	NG/UL	96
59)	Anthracene	16.04	178.0	241575	24.36	NG/UL	98
60)	Di-n-Butylphthalate	18.34	149.0	292339	25.45	NG/UL	96
61)	Fluoranthene	19.35	202.0	184740	22.89	NG/UL	97
62)	d12-Chrysene	23.58	240.0	162122	45.48	NG/UL	88
63)	Pyrene	19.94	202.0	179645	22.77	NG/UL	91
64)	Terphenyl-d14	20.79	244.0	125083	20.20	NG/UL	96
65)	Butylbenzylphthalate	22.61	149.0	90156	26.85	NG/UL	71
66)	Benzo(a)Anthracene	23.54	228.0	97132	21.37	NG/UL	92
67)	Bis(2-Ethylhexyl)Phthalate	24.62	149.0	113456	27.30	NG/UL	89
68)	Chrysene	23.64	228.0	96074M	22.96	NG/UL	90
69)	*d12-Perylene	27.43	264.0	113207	50.00	NG/UL	96
70)	Di-n-octylphthalate	26.35	149.0	152764	34.91	NG/UL	86
71)	Benzo(b)fluoranthene	26.51	252.0	62848	24.26	NG/UL	86
72)	Benzo(k)Fluoranthene	26.57	252.0	64265	25.57	NG/UL	86
73)	Benzo(a)Pyrene	27.27	252.0	53481	23.42	NG/UL	87
74)	Indeno(1,2,3-cd)Pyrene	29.90	276.0	38654	16.80	NG/UL	93
75)	Dibenzo(a,h)Anthracene	30.01	278.0	37921	18.19	NG/UL	76
76)	Benzo(g,h,i)Perylene	30.40	276.0	39200	16.75	NG/UL	90

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >RZ238::D1 Quant Output File: ^RZ238::D5
Name: TOXSTD 25 PPM
Misc: 10/30/90

Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 14:41

Operator ID: KELLY
Quant Time: 901030 15:28
Injected at: 901030 13:45

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 901031 08:37
Output File: ^RZ249::D5 Injected at: 901031 07:12
Data File: >RZ249::D3 Dilution Factor: 1.00000
Name: SF7452 10 PPM MDL
Misc: 10/30/90

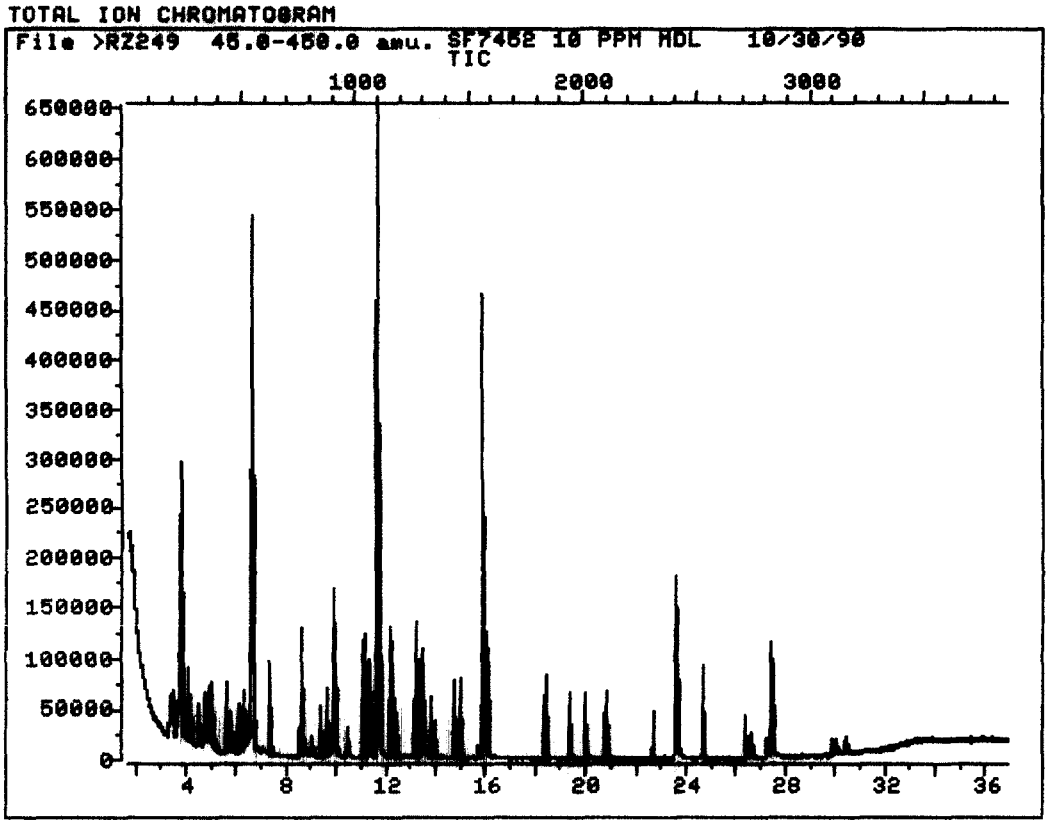
ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.73	152.0	191693	50.00	NG/UL	93
2)	2-Fluorophenol	1.98	112.0	34045	8.16	NG/UL	84
3)	Phenol-d5	3.33	99.0	32434	6.14	NG/UL	85
4)	Phenol	3.35	94.0	33302	6.67	NG/UL	78
5)	bis(2-Chloroethyl)Ether	3.40	93.0	34765	8.84	NG/UL	94
6)	2-Chlorophenol	3.44	128.0	34969	7.74	NG/UL	94
7)	1,3-Dichlorobenzene	3.66	146.0	46752	9.39	NG/UL	95
8)	1,4-Dichlorobenzene	3.77	146.0	46508	7.76	NG/UL	95
9)	Benzyl Alcohol	4.13	108.0	19420	7.37	NG/UL	84
10)	1,2-Dichlorobenzene	4.10	146.0	51940	9.24	NG/UL	95
11)	2-Methylphenol	4.51	108.0	24533	6.25	NG/UL	97
12)	bis(2-Chloroisopropyl)ether	4.50	121.0	12705	9.35	NG/UL	92
13)	4-Methylphenol	4.87	108.0	27987	7.49	NG/UL	94
14)	N-Nitroso-Di-n-propylamine	4.79	70.0	30936	9.59	NG/UL	86
15)	Hexachloroethane	4.74	201.0	22634	9.46	NG/UL	97
16)	d8-Naphthalene	6.61	136.0	781297	51.67	NG/UL	85
17)	Nitrobenzene-d5	4.93	82.0	40641	8.64	NG/UL	83
18)	Nitrobenzene	4.96	123.0	24379	9.24	NG/UL	85
19)	Isophorone	5.58	82.0	80104	10.55	NG/UL	90
20)	2-Nitrophenol	5.74	139.0	25911	8.47	NG/UL	82
21)	2,4-Dimethylphenol	6.13	122.0	26825	7.98	NG/UL	95
22)	Benzoic Acid	6.50	105.0	10378	4.73	NG/UL	88
23)	bis(2-Chloroethoxy)Methane	6.32	93.0	54045	9.48	NG/UL	97
24)	2,4-Dichlorophenol	6.42	162.0	31608	6.83	NG/UL	96
25)	1,2,4-Trichlorobenzene	6.56	180.0	55608	10.34	NG/UL	95
26)	Naphthalene	6.66	128.0	147712	10.39	NG/UL	97
27)	4-Chloroaniline	7.02	127.0	7288	3.34	NG/UL	83
28)	Hexachlorobutadiene	7.31	225.0	29017	10.23	NG/UL	93
30)	2-Methylnaphthalene	8.58	142.0	89686	7.54	NG/UL	94
31)	d10-Acenaphthene	11.62	164.0	354133	52.61	NG/UL	90
32)	Hexachlorocyclopentadiene	9.34	237.0	14205	5.65	NG/UL	97
35)	2-Chloronaphthalene	9.93	162.0	96247	10.63	NG/UL	97
36)	2-Fluorobiphenyl	9.85	172.0	124986	11.08	NG/UL	94
37)	2-Nitroaniline	10.48	138.0	21374	6.93	NG/UL	82
38)	Dimethylphthalate	11.32	163.0	96622	10.10	NG/UL	96
39)	*d-10-Phenanthrene	15.86	188.0	410379	50.00	NG/UL	98
40)	Acenaphthylene	11.12	152.0	138663	12.11	NG/UL	92
42)	Acenaphthene	11.69	153.0	96843	12.80	NG/UL	95
45)	Dibenzofuran	12.18	168.0	119191	10.87	NG/UL	97
46)	2,4-Dinitrotoluene	12.47	165.0	22939	9.31	NG/UL	91
47)	2,6-Dinitrotoluene	11.39	165.0	20350	10.00	NG/UL	91
48)	Diethylphthalate	13.47	149.0	94843	11.74	NG/UL	90
49)	4-Chlorophenyl-phenylether	13.40	204.0	35906	10.90	NG/UL	97

	Compound	R.T.	Q ion	Area	Conc	Units	q
50)	Fluorene	13.18	166.0	89109	11.32	NG/UL	96
51)	4-Nitroaniline	13.61	138.0	6434	4.40	NG/UL	81
53)	N-Nitrosodiphenylamine	13.80	169.0	33809	9.78	NG/UL	94
54)	2,4,6-Tribromophenol	13.96	329.8	6861	7.41	NG/UL	93
55)	4-Bromophenyl-phenylether	14.78	248.0	15379	9.99	NG/UL	90
56)	Hexachlorobenzene	15.02	284.0	19076	11.78	NG/UL	93
57)	Pentachlorophenol	15.66	265.8	3079	3.55	NG/UL	97
58)	Phenanthrene	15.92	178.0	91691	9.90	NG/UL	98
59)	Anthracene	16.04	178.0	95095	10.40	NG/UL	98
60)	Di-n-Butylphthalate	18.34	149.0	109481	10.76	NG/UL	98
61)	Fluoranthene	19.35	202.0	58704	9.22	NG/UL	95
62)	d12-Chrysene	23.58	240.0	114869	43.38	NG/UL	83
63)	Pyrene	19.93	202.0	59020	9.52	NG/UL	93
64)	Terphenyl-d14	20.80	244.0	40239	9.65	NG/UL	98
65)	Butylbenzylphthalate	22.61	149.0	27899	9.33	NG/UL	75
66)	Benzo(a)Anthracene	23.54	228.0	27078	8.12	NG/UL	91
67)	Bis(2-Ethylhexyl)Phthalate	24.64	149.0	64063	17.03	NG/UL	87
68)	Chrysene	23.54	228.0	27078	8.27	NG/UL	89
69)	*d12-Perylene	27.43	264.0	91233	50.00	NG/UL	96
70)	Di-n-octylphthalate	26.35	149.0	53539	10.33	NG/UL	85
71)	Benzo(b)fluoranthene	26.57	252.0	20115	9.64	NG/UL	84
72)	Benzo(k)Fluoranthene	26.57	252.0	20115	9.26	NG/UL	84
73)	Benzo(a)Pyrene	27.28	252.0	18203	10.09	NG/UL	88
74)	Indeno(1,2,3-cd)Pyrene	29.90	276.0	14920	10.60	NG/UL	92
75)	Dibenzo(a,h)Anthracene	30.01	278.0	15062	11.15	NG/UL	80
76)	Benzo(g,h,i)Perylene	30.40	276.0	15558	10.68	NG/UL	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: SF7452 10 PPM MDL
Misc: 10/30/90

Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

Operator ID: KELLY
Quant Time: 901031 08:37
Injected at: 901031 07:12

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 901031 08:47
Output File: ^RZ250::D5 Injected at: 901031 08:02
Data File: >RZ250::D3 Dilution Factor: 1.00000
Name: SF7452 5 PPM MDL
Misc: 10/30/90

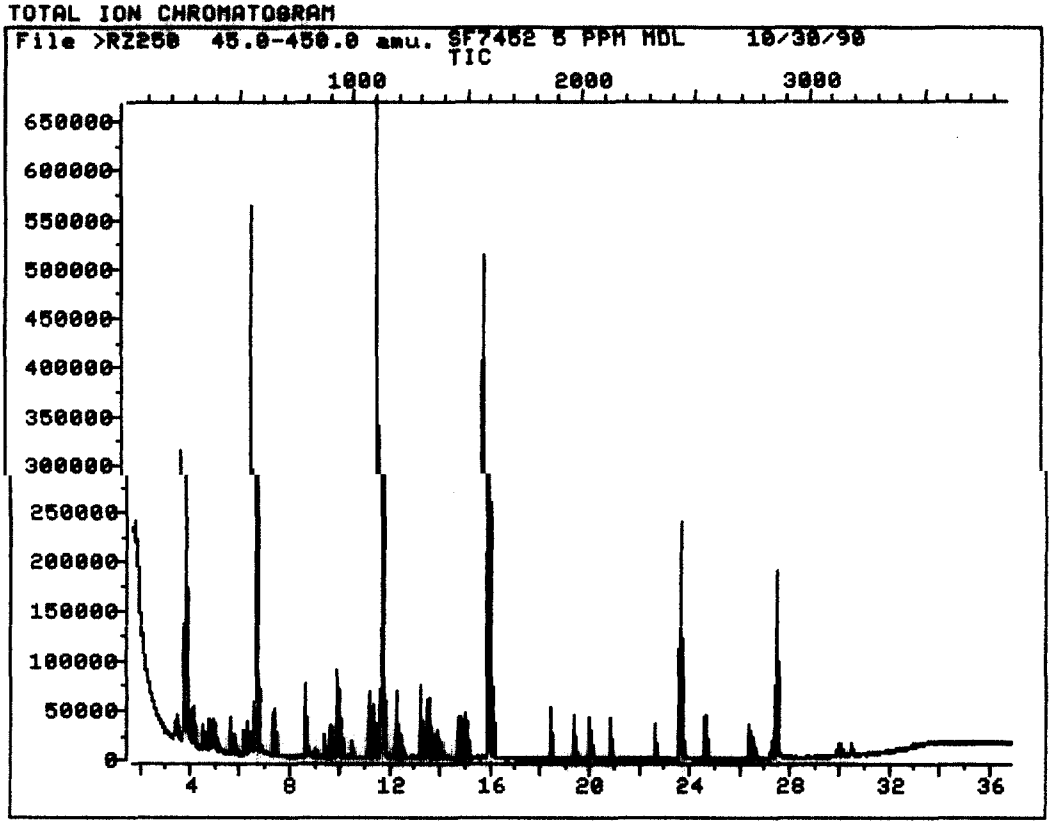
ID File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.74	152.0	183895	50.00	NG/UL	95
2)	2-Fluorophenol	1.97	112.0	16427	4.10	NG/UL	86
3)	Phenol-d5	3.33	99.0	15613	3.08	NG/UL	83
4)	Phenol	3.35	94.0	17054	3.56	NG/UL	74
5)	bis(2-Chloroethyl)Ether	3.41	93.0	18572	4.92	NG/UL	98
6)	2-Chlorophenol	3.44	128.0	18000	4.15	NG/UL	99
7)	1,3-Dichlorobenzene	3.65	146.0	24489	5.13	NG/UL	88
8)	1,4-Dichlorobenzene	3.76	146.0	30179	5.25	NG/UL	93
9)	Benzyl Alcohol	4.14	108.0	10714	4.24	NG/UL	89
10)	1,2-Dichlorobenzene	4.11	146.0	27146	5.03	NG/UL	92
11)	2-Methylphenol	4.52	108.0	15520	4.12	NG/UL	98
12)	bis(2-Chloroisopropyl)ether	4.50	121.0	4335	3.33	NG/UL	96
13)	4-Methylphenol	4.88	108.0	14310	3.99	NG/UL	93
14)	N-Nitroso-Di-n-propylamine	4.80	70.0	15434	4.99	NG/UL	92
15)	Hexachloroethane	4.76	201.0	11497	5.01	NG/UL	93
16)	d8-Naphthalene	6.63	136.0	777163	53.57	NG/UL	85
17)	Nitrobenzene-d5	4.93	82.0	22039	4.88	NG/UL	83
18)	Nitrobenzene	4.97	123.0	11733	4.63	NG/UL	93
19)	Isophorone	5.59	82.0	41736	5.73	NG/UL	88
20)	2-Nitrophenol	5.75	139.0	11947	4.07	NG/UL	83
21)	2,4-Dimethylphenol	6.14	122.0	14962	4.64	NG/UL	91
22)	Benzoic Acid	6.47	105.0	4439	2.11	NG/UL	90
23)	bis(2-Chloroethoxy)Methane	6.34	93.0	26905	4.92	NG/UL	98
24)	2,4-Dichlorophenol	6.44	162.0	15462	3.48	NG/UL	98
25)	1,2,4-Trichlorobenzene	6.56	180.0	26151	5.07	NG/UL	95
26)	Naphthalene	6.66	128.0	75732	5.55	NG/UL	97
27)	4-Chloroaniline	7.05	127.0	2759	1.32	NG/UL	79
28)	Hexachlorobutadiene	7.33	225.0	14162	5.20	NG/UL	91
30)	2-Methylnaphthalene	8.60	142.0	47713	4.18	NG/UL	88
31)	d10-Acenaphthene	11.62	164.0	354302	54.87	NG/UL	96
32)	Hexachlorocyclopentadiene	9.34	237.0	5972	2.47	NG/UL	97
35)	2-Chloronaphthalene	9.94	162.0	49091	5.65	NG/UL	97
36)	2-Fluorobiphenyl	9.86	172.0	62339	5.76	NG/UL	95
37)	2-Nitroaniline	10.49	138.0	11350	3.83	NG/UL	83
38)	Dimethylphthalate	11.32	163.0	51498	5.61	NG/UL	93
39)	*d-10-Phenanthrene	15.86	188.0	446725	50.00	NG/UL	98
40)	Acenaphthylene	11.12	152.0	68311	5.48	NG/UL	95
42)	Acenaphthene	11.70	153.0	50865	6.18	NG/UL	96
45)	Dibenzofuran	12.19	168.0	62535	5.24	NG/UL	99
46)	2,4-Dinitrotoluene	12.48	165.0	10939	4.08	NG/UL	97
47)	2,6-Dinitrotoluene	11.40	165.0	10540	4.76	NG/UL	82
48)	Diethylphthalate	13.48	149.0	49467	5.63	NG/UL	88
49)	4-Chlorophenyl-phenylether	13.41	204.0	18691	5.21	NG/UL	99

	Compound	R.T.	Q ion	Area	Conc	Units	q
50)	Fluorene	13.18	166.0	47208	5.51	NG/UL	98
51)	4-Nitroaniline	13.61	138.0	3346	2.10	NG/UL	91
53)	N-Nitrosodiphenylamine	13.81	169.0	16018	4.25	NG/UL	97
54)	2,4,6-Tribromophenol	13.97	329.8	3686	3.66	NG/UL	94
55)	4-Bromophenyl-phenylether	14.79	248.0	8615	5.14	NG/UL	96
56)	Hexachlorobenzene	15.03	284.0	10004	5.68	NG/UL	98
57)	Pentachlorophenol	15.67	265.8	1169	1.24	NG/UL	88
58)	Phenanthrene	15.92	178.0	51127	5.07	NG/UL	96
59)	Anthracene	16.04	178.0	50590	5.08	NG/UL	95
60)	Di-n-Butylphthalate	18.35	149.0	65748	5.93	NG/UL	97
61)	Fluoranthene	19.37	202.0	37162	5.36	NG/UL	97
62)	d12-Chrysene	23.58	240.0	165379	57.37	NG/UL	91
63)	Pyrene	19.94	202.0	35645	5.28	NG/UL	93
64)	Terphenyl-d14	20.81	244.0	25798	5.68	NG/UL	98
65)	Butylbenzylphthalate	22.62	149.0	19490	5.98	NG/UL	74
66)	Benzo(a)Anthracene	23.54	228.0	20143	5.55	NG/UL	90
67)	Bis(2-Ethylhexyl)Phthalate	24.64	149.0	32659	7.97	NG/UL	83
68)	Chrysene	23.54	228.0	20143	5.65	NG/UL	93
69)	*d12-Perylene	27.44	264.0	143486	50.00	NG/UL	97
70)	Di-n-octylphthalate	26.35	149.0	39960	4.90	NG/UL	87
71)	Benzo(b)fluoranthene	26.50	252.0	15594	4.75	NG/UL	94
72)	Benzo(k)Fluoranthene	26.57	252.0	14071	4.12	NG/UL	86
73)	Benzo(a)Pyrene	27.27	252.0	14672	5.17	NG/UL	90
74)	Indeno(1,2,3-cd)Pyrene	29.90	276.0	12618	5.70	NG/UL	97
75)	Dibenzo(a,h)Anthracene	30.02	278.0	12467	5.87	NG/UL	78
76)	Benzo(g,h,i)Perylene	30.41	276.0	13160	5.75	NG/UL	91

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: SF7452 5 PPM MDL
Misc: 10/30/90

Id File: IDZR96::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901030 16:31

Operator ID: KELLY
Quant Time: 901031 08:47
Injected at: 901031 08:02