UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: DEC 1 1990

SUBJECT: Review of Region 5 data for ALCO

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory
Chi Yang for Charles Elly

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF 7465
Sample Numbers: 90FH30S85, S86, S87, D85, and 91FH0[illegible]
Parameter(s): ABN / Waters
Laboratory: CRL / Waston ESAT

Results Status:

(✓) DATA ACCEPTABLE FOR USE* except items listed below
(✓) DATA QUALIFIED AS TO USE Concentration of phenols (phenol & substituted phenol compds) in sample 90FH30S86.
( ) DATA UNACCEPTABLE FOR USE

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

Comments by the Quality Control Coordinator:

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)

Sg

RECEIVED BY/DATE:
Comments:

DATA SET	SITE	OU/ACT.
SF 7465	Alco	TFA302

SAMPLES	PARAMETER(S)
*	ABN/waters

SAMPLED	RECEIVED	DUE	LAB
11/5/90	11/6/90	11/27	CRL/Weston ESAT

SHIPPED	DATA RECEIVED	CONTRACT

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

* 90FH30585, 586, 587, D85, and 91FH03R85

Comments By Reviewer:

- SEVERAL QUALITY CONTROL (QC) PROBLEMS WERE OBSERVED DURING THE ANALYSIS OF THE SITE SAMPLES. SOME OF THE QC PROBLEMS WERE UNACCEPTABLE ACID SURROGATE COMPOUND RECOVERIES & UNACCEPTABLE MATRIX PRECISION AND ACCURACY DATA FOR SOME OF THE MATRIX SPIKE COMPOUNDS IN THE MATRIX SPIKE AND MATRIX SPIKE DUPLICATES (91FH30586MS & 91FH30586MSD).
- EXCEPT FOR THE PROBLEM COMPOUNDS DATA SPECIFIED IN THE ATTACHMENT, THE SITE DATA ARE ACCEPTABLE FOR USE.

Recoveries of acid surrogates in samples (91FH30586, -586MS & -586MSD) were all low - indicating possibility of matrix effect. All reported acid concentrations (detected or undetected) in these 3 samples are estimated with low bias. emg

DATA MANAGEMENT COORDINATOR RECEIVED	TRANSMITTED		CLERICAL SUPPORT RECEIVED	COMPLETED
(✓) REVIEWED	( ) UNREVIEWED	TEAM LEADER/DATE	Barbara Pacelli 11/28/90	
(✓) REVIEWED	( ) UNREVIEWED	SECTION CHIEF/DATE	Eli Yang 12/10/90	
(✓) REVIEWED	( ) UNREVIEWED	QC COORDINATOR/DATE	J.H. Adams, Jr. 12/14/90	

REVIEWED BY CONTRACT COORDINATOR/DATE

Date : Nov 20, 1990

To : Babu Paruchuri

From : Robert Wenig

Re : Data set SF7465 Narrative

Five (5) low level water samples (91FH30S85, S86, S87, D85, and 91FH03R85 from data set SF7465) were submitted for acid base neutral (ABN) analysis by utilizing EPA method 625NS.

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

All DFTPP tune criteria were met.

Two initial calibrations (11/16/90 and 11/19/90) are associated with ~~the~~ the above data set. For the 11/16/90 calibration, 2-nitroanaline (%RSD = 37.1) and 2,4-dinitrophenol (%RSD = 39.2) were out of QC limits. Concentrations of these compounds are flagged as estimated for samples S85, S86 D85, and method blank. For the 11/19/90 calibration, all QC criteria were met.

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

On 11/16/90, all internal standard areas were within the QC limits except for S86MSD, R85, and S87 with IS#3 low. These samples (+S86MS) were repeated on 11/19/90 and all internal standard criteria were met.

On 11/16/90, surrogate standard #2 was slightly low for samples MB and S86. Also acid surrogates #4, #5, and #6 were low for sample S86 (injected 11/16/90). On 11/19/90, acid surrogates #4 and #5 were observed low for samples S86MS and S86MSD. Since S86, S86MS, and S86MSD each were observed with low acid surrogate recoveries (and spike recoveries) a matrix effect is believed responsible. The three acid surrogates in S86 are all <10% REC., Therefore the acid fraction of this sample is qualified as unusable (R).

Sample 91FH30S86 was used for matrix spike and matrix spike duplicate (Form 3C) analysis. The %REC were outside QC limits for phenol, 1,2,4-tri chlorobenzene, and 2,4-dinitrotoluene in the spike analysis. For the duplicate analysis, the %REC for phenol, 2-chlorophenol, 4-chloro-3-methyl phenol, and 2,4-dinitrotoluene were outside QC limits. The %RPD exceeded QC limits for phenol, 2-chlorophenol, and 4-chloro-3-methylphenol. Therefore, these base neutral compound results for S86 are qualified as estimated (J).

One method blank was extracted with the samples (FORM 4B). 65 Ug/L of bis (2-ethylhexyl)phthalate were found. No TIC compounds were observed.

One field blank 90FH03R85RE was associated with this set, 40 Ug/L of bis (2-ethylhexyl)phthalate was found. ~~Five TIC compounds at low concentration were observed.~~ No TIC compounds were observed. 11/28/90

Sample 90FH30S85 and its duplicate 90FH30D85 reported 19 Ug/L and 31 Ug/L of bis(2-ethylhexyl)phthalate, respectively. 1 Ug/L of diethylphthalate was observed in sample S85. No TIC compounds were observed in either sample.

Sample 90FH30S86 reported 57 Ug/L of bis(2-ethylhexyl)phthalate. No TIC compounds were observed. The qualifier flags for the acid surrogates and base neutral compounds are not reported on the FORM 1 of this sample.

Sample 90FH30S87RE reported 16 Ug/L of bis(2-ethylhexyl)phthalate and 5 Ug/L of di-n-butylphthalate. ~~Two TIC compounds were observed.~~ NO TICs were observed.

Bis(2-ethylhexyl)phthalate was present in all samples and may have been introduced during extraction, even though every possible precaution has been taken to avoid contamination.

LIST OF SURROGATE STANDARDS:

S1 (NBZ) = Nitrobenzene-d5
S2 (FBP) = 2-Fluorobiphenyl
S3 (TPH) = Terphenyl-d14
S4 (PHL) = Phenol-d5
S5 (2FP) = 2-Fluorophenol
S6 (TBP) = 2,4,6-Tribromophenol

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

METHOD BLK

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

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

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >RW101

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/16/90

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	3.	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 J
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.

METHOD BLK

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

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

Sample wt/vol: 1000 (g/mL) mL Lab File ID: >RW101

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/16/90

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.	IU
83-32-9	Acenaphthene	2.	IU
51-28-5	2,4-Dinitrophenol	15.	IUJ
100-02-7	4-Nitrophenol	2.	IU
132-64-9	Dibenzofuran	1.	IU
121-14-2	2,4-Dinitrotoluene	1.	IU
84-66-2	Diethylphthalate	1.	IU
7005-72-3	4-Chlorophenyl-phenylether	1.	IU
86-73-7	Fluorene	1.	IU
100-01-6	4-Nitroaniline	3.	IU
534-52-1	4,6-Dinitro-2-methylphenol	15.	IU
86-30-6	N-Nitrosodiphenylamine (1)	2.	IU
101-55-3	4-Bromophenyl-phenylether	2.	IU
118-74-1	Hexachlorobenzene	2.	IU
87-86-5	Pentachlorophenol	2.	IU
85-01-8	Phenanthrene	1.	IU
120-12-7	Anthracene	3.	IU
84-74-2	Di-n-butylphthalate	2.	IU
206-44-0	Fluoranthene	2.	IU
129-00-0	Pyrene	2.	IU
85-68-7	Butylbenzylphthalate	4.	IU
56-55-3	Benzo(a)anthracene	2.	IU
218-01-9	Chrysene	2.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	65.	~~B~~
117-84-0	Di-n-octylphthalate	2.	IU
205-99-2	Benzo(b)fluoranthene	2.	IU
207-08-9	Benzo(k)fluoranthene	2.	IU
50-32-8	Benzo(a)pyrene	2.	IU
193-39-5	Indeno(1,2,3-cd)pyrene	4.	IU
53-70-3	Dibenzo(a,h)anthracene	3.	IU
191-24-2	Benzo(g,h,i)perylene	4.	IU

RW

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[X]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FH03R85RE

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH03R85RE

Sample wt/vol: 1010 (g/mL) mL Lab File ID: >RW109

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/19/90

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	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.

90FH03R85RE

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH03R85RE

Sample wt/vol: 1010 (g/mL) mL Lab File ID: >RW109

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/19/90

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	15.	U
100-02-7	4-Nitrophenol	1.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	1.	U
101-55-3	4-Bromophenyl-phenylether	1.	U
118-74-1	Hexachlorobenzene	1.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	2.	U
84-74-2	Di-n-butylphthalate	4.	
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	40.	B
117-84-0	Di-n-octylphthalate	1.	U
205-99-2	Benzo(b)fluoranthene	1.	U
207-08-9	Benzo(k)fluoranthene	1.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	3.	U
53-70-3	Dibenzo(a,h)anthracene	2.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[X]

FORM I SV-2 1/87 Rev.

BB 11/28/90

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

91FH30S85

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FH30S85

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >RW094

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/16/90

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.	UJ
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.

91FH30S85

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 91FH30S85

Sample wt/vol: 1050 (g/mL) mL Lab File ID: >RW094

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/16/90

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	2.	U
51-28-5	2,4-Dinitrophenol	14.	UJ
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.	
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	19.	B
117-84-0	Di-n-octylphthalate	1.	U
205-99-2	Benzo(b)fluoranthene	1.	U
207-08-9	Benzo(k)fluoranthene	1.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	3.	U
53-70-3	Dibenzo(a,h)anthracene	2.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES [ ] NO [X]

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FH30D85

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH30D85

Sample wt/vol: 1045 (g/mL) mL Lab File ID: >RW099

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/16/90

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 J
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.

90FH30D85

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH30D85

Sample wt/vol: 1045 (g/mL) mL Lab File ID: >RW099

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/16/90

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	2.	U
51-28-5	2,4-Dinitrophenol	14.	UJ
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	31.	B
117-84-0	Di-n-octylphthalate	1.	U
205-99-2	Benzo(b)fluoranthene	1.	U
207-08-9	Benzo(k)fluoranthene	1.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	3.	U
53-70-3	Dibenzo(a,h)anthracene	2.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[X]

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FH30S86

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH30S86

Sample wt/vol: 1035 (g/mL) mL Lab File ID: >RW095

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/16/90

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

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FH30S86

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH30S86

Sample wt/vol: 1035 (g/mL) mL Lab File ID: >RW095

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/16/90

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 J
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	57.	B
117-84-0	Di-n-octylphthalate	1.	U
205-99-2	Benzo(b)fluoranthene	1.	U
207-08-9	Benzo(k)fluoranthene	1.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	3.	U
53-70-3	Dibenzo(a,h)anthracene	2.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[X]

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FH30S87RE

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH30S87RE

Sample wt/vol: 945 (g/mL) mL Lab File ID: >RW108

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/19/90

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	32.	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.

90FH30S87RE

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH30S87RE

Sample wt/vol: 945 (g/mL) mL Lab File ID: >RW108

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/19/90

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	16.	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	16.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	5.	
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	16.	B
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[X]

FORM I SV-2 1/87 Rev.

11/28/90

ESAT CONTRACT TID NO: 11-11
TASK NO: 3920

DATASET CUSTODY TRANSFER FORM

Analytical testing was completed on 11/21, 1990 for:

DATASET NO: SF 7465 SITE NAME: ALCO

PARAMETER : ABN

MATRIX : Water SF DU/ACT NO: TFA 302 Y____ /C_____

SAMPLE NUMBERS: 90F430585, 586, 587, 588, and 91F403885

NUMBER OF SAMPLES: 5

ESAT APPROVALS:

Robert W Weaving 11/21/90
(ANALYST DATE)

[illegible] 11/21/90
(TEAM LEADER DATE)

Kelly G. Head 11-23-90
(QC COORDINATOR DATE)

C Hensler 11-23-90
(ESAT TEAM MANAGER DATE)

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.

Kelly G. Head 11-23-90
(DELIVERED BY DATE)

Barbara Paszkowski 11/23/90
(RECEIVED BY DATE)

EPA APPROVALS:

Barbara Paszkowski
(EPA TASK MONITOR DATE)

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

COMMENTS: Ratings: Tech. Quality 3.0 ; compliance w/ Schedule: 3.0

Chi Yang 12/10/90
(SECTION CHIEF DATE)

[✓] Reviewed [ ] Unreviewed

Jay Thacker 12-10-90
(ESAT DPO DATE)

Sylvia Duffin 12/14/90 12/14/90
(DATA COORD'R REC'D TRANSMTD)

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

51/ZZ

TFA302

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH FIT SUPERFUND SAMPLE DATE 11/5/90 LAB ARRIVAL DATE 11/6/90 DUE DATE 11/~~26~~ 27/90

OU NUMBER TFA-~~102~~ DATA SET NUMBER 7465 STUDY A/CO PRIORITY — CONTRACTOR —

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17664	WATER ABN ORGANICS SCAN UG/L TOX 17674	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 215622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
91FH30S85	RW1 5-042829-31	X			
86	MSD/RW2 5-085716-72 5-085718-22	X			
87	RW3 5-042835-40	X			
✓ D 85	DUP 5-042847-9	X			
91FH03R85	BLANK 5-042854 857-58	X			
91FH30S85	RW1 5-042826		X		
91FH30D85	DUPLICATE 5-042844		X		
91FH30S86	RW2/MSD 5-085707 5-085713-14		X		
91FH30S87	RW3 5-042835		X		
91FH03R85	BLANK 5-042853		X		

Shipment is ~~is not~~ complete.

RWWang 11-21-90

ANALYTICAL LABORATOTY
TIME TRACKING RECORD

Task Number: 3920
TID Number: 11-11
SF Number: 7465
Site Name: Alco
Assigned To: Bob Wenig

Date Assigned: 11/6/90
Date Due: 11/19/90
Estimated Hours: 35

VOA ____ BNA X Pest/PCBs ____ Other ____

Extraction Record

Person: RW	Date: 11-8-90	Hours: 5
Person: RW	Date: 11-15-90	Hours: 2
Person: KCH	Date: 11-7-90	Hours: 2
Person: AK	Date: 11-16-90	Hours: 4

Analysis Record

Person: R Wenig	Date: 11/16	Hours: 8
Person: "	Date: 11/19 to 11/21	Hours: 12
Person:	Date:	Hours:
Person:	Date:	Hours:
Person:	Date:	Hours:
Person:	Date:	Hours:

QA/QC Record

Person: DPL	Date: 11/21	Hours: 2 (Including LIMS)
Person: KCH	Date: 11/23	Hours: 1
Person:	Date:	Hours:

LIMS Data Entry

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

Comments

Total Hours: 39.0 (2)

ETM:

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

Dataset No: SF7465

Task No: 3920

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) RWW
[✓]	[✓]	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/O 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:

RUN DATE(S): 11/19/90 11/16/90
INST.NO.: 5996
ANALYST(S): Bob Wing

SAMPLE SUMMARY MATRIX

DATASET NUMBER:	SF 7465				
TASK NUMBER:	3920				
DU/ACTIVITY NO:	TFA.302				
PARAMETER:	ABN				
MATRIX:	WATER				
NUMBER SAMPLES:	5				
DATE RECEIVED:	11/6/90				
DATE EXTRACTED:	11/7/90				
NOTBK NO/PG NO:					
DATE ASSAYED:					

FILE IDENTIFICATION SUMMARY

TUNING FILE: RW090, RW102
BLANK FILE:
RUN SEQUENCE FILE: BARW05 BARW06 BARW07 BARW08

PRIMARY COLUMN

INITIAL CALIBRATION FILE: RW091, 092, 093 / RW103, 104, 105
CONTINUING CALIBRATION FILES: N/A
STANDARDS FILES:
SAMPLE FILES:

ID/METHOD FILES: IDRW5 TOXIC6
IDRW6 TOXIC6

CONFIRMATORY COLUMN

INITIAL CALIBRATION FILE:
CONTINUING CALIBRATION FILES: N/A
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:ALCO Contract:5SCRL

Lab Code: CHICAGOILCase No.: SF7465 SAS No.: ------- SDG No.: TFA302

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT	
01	METHOD BLK	55	40 *	79	37	50	54		1	
02	91FH30S85	58	58	76	33	30	65		0	
03	90FH30S86	47	42 *	76	0 *	0 *	6 *		4	
~~04~~	~~90FH30S86M~~	~~79~~	~~75~~	~~96~~	~~9 *~~	~~13 *~~	~~39~~		~~2~~	
~~05~~	~~90FH30S86M~~	~~76~~	~~66~~	~~83~~	~~5 *~~	~~7 *~~	~~43~~		~~2~~	
~~06~~	~~90FH30S87~~	~~77~~	~~66~~	~~83~~	~~36~~	~~54~~	~~70~~		~~0~~	11-21-9
07	90FH30D85	79	69	83	37	52	80		0	RWW
~~08~~	~~90FH03R85~~	~~73~~	~~61~~	~~78~~	~~39~~	~~62~~	~~79~~		~~0~~	
09										
10										these
11										samples
12										were
13										ready
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

		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.

2C

WATER SEMIVOLATILE SURROGATE RECOVERY

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

KDH 11-21-90

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	90FH30S86MS RE	79	81	109	9 *	13 *	41		2
02	90FH30S86MSD RE	66	63	116	5 *	7 *	42		2
03	90FH30S87RE	74	69	94	38	53	71		0
04	90FH03R85RE	77	70	98	41	61	75		0
05									
06									
07									
08									
09									
10									
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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:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix Spike - EPA Sample No.: 90FH30S86RE

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	69.00	0.00	7.70	11 *	12- 89
2-Chlorophenol	68.00	0.00	30.00	43	27-123
1,4-Dichlorobenzene	61.00	0.00	54.00	87	36- 97
N-Nitroso-di-n-prop.(1)	95.00	0.00	90.00	94	41-116
1,2,4-Trichlorobenzene	73.00	0.00	72.00	99 *	39- 98
4-Chloro-3-methylphenol	64.00	0.00	19.00	29	23- 97
Acenaphthene	99.00	0.00	66.00	66	46-118
4-Nitrophenol	83.00	0.00	25.00	29	10- 80
2,4-Dinitrotoluene	65.00	0.00	76.00	117 *	24- 96
Pentachlorophenol	65.00	0.00	47.00	71	9-103
Pyrene	70.00	0.00	84.00	120	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	69.00	4.20	6 *	58 *	42	12- 89
2-Chlorophenol	68.00	18.00	26 *	49 *	40	27-123
1,4-Dichlorobenzene	61.00	50.00	81	7	28	36- 97
N-Nitroso-di-n-prop.(1)	95.00	75.00	78	18	38	41-116
1,2,4-Trichlorobenzene	73.00	61.00	83	17	28	39- 98
4-Chloro-3-methylphenol	64.00	8.70	13 *	76 *	42	23- 97
Acenaphthene	99.00	81.00	81	20	31	46-118
4-Nitrophenol	83.00	28.00	33	12	50	10- 80
2,4-Dinitrotoluene	65.00	83.00	128 *	8	38	24- 96
Pentachlorophenol	65.00	47.00	71	0	50	9-103
Pyrene	70.00	84.00	119	0	31	26-127

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

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

RPD: 3 out of 11 outside limits
Spike Recovery: 7 out of 22 outside limits

COMMENTS: _____

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Lab File ID: >RW101 Lab Sample ID: METHOD BLK

Date Extracted 11/07/90 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 11/16/90 Time Analyzed: 22:44

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	91FH30S85	91FH30S85	>RW094	11/16/90
02	90FH30S86	90FH30S86	>RW095	11/16/90
03	90FH30S86MS	90FH30S86MS	>RW096	11/16/90
04	90FH30S86MD	90FH30S86MD	>RW097	11/16/90
05	90FH30S87	90FH30S87	>RW098	11/16/90
06	90FH30D85	90FH30D85	>RW099	11/16/90
07	90FH03R85	90FH03R85	>RW100	11/16/90
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COMMENTS: _____

FORM IV SV 1/87 Rev.

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Lab File ID: >RW101 Lab Sample ID: METHOD BLK

Date Extracted 11/07/90 Extraction:(SepF/Cont/Sonc) SEPF

Date Analyzed: 11/16/90 Time Analyzed: 22:44

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	90FH30S86MS	90FH30S86MSRE	>RW106	11/19/90
02	90FH30S86MD	90FH30S86MDRE	>RW107	11/19/90
03	90FH30S87RE	90FH30S87RE	>RW108	11/19/90
04	90FH03R85RE	90FH03R85RE	>RW109	11/19/90
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COMMENTS: _____

FORM IV SV 1/87 Rev.

5B

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

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Lab File ID: >RW090 DFTPP Injection Date:11/16/90

Instrument ID: 96 1 DFTPP Injection Time: 10:27

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	43.7
68	Less than 2.0% of mass 69	.8(1.3)1
69	Mass 69 relative abundance	60.
70	Less than 2.0% of mass 69	.9(1.6)1
127	40.0 - 60.0% of mass 198	42.5
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	6.2
275	10.0 - 30.0% of mass 198	17.0
365	Greater than 1.00% of mass 198	2.47
441	Present, but less than mass 443	7.1
442	Greater than 40.0% of mass 198	44.9
443	17.0 - 23.0% of mass 442	9.1(20.3)2

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

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	100 STD	100 STD	>RW091	11/16/90	13:22
02	50 STD	50 STD	>RW092	11/16/90	14:17
03	25 STD	25 STD	>RW093	11/16/90	15:06
04	METHOD BLK	METHOD BLK	>RW101	11/16/90	22:44
05	91FH30S85	91FH30S85	>RW094	11/16/90	16:54
06	90FH30S86	90FH30S86	>RW095	11/16/90	17:44
07	90FH30S86MS	90FH30S86MS	>RW096	11/16/90	18:34
08	90FH30S86MD	90FH30S86MD	>RW097	11/16/90	19:24
09	90FH30S87	90FH30S87	>RW098	11/16/90	20:14
10	90FH30D85	90FH30D85	>RW099	11/16/90	21:04
11	90FH03R85	90FH03R85	>RW100	11/16/90	21:54
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FORM V SV 1/87 Rev.

5B

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

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Lab File ID: >RW102 DFTPP Injection Date:11/19/90

Instrument ID: 96 1 DFTPP Injection Time: 12:44

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	49.0
68	Less than 2.0% of mass 69	0.0(0.0)1
69	Mass 69 relative abundance	62.
70	Less than 2.0% of mass 69	.6(.9)1
127	40.0 - 60.0% of mass 198	44.6
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	6.7
275	10.0 - 30.0% of mass 198	17.8
365	Greater than 1.00% of mass 198	2.15
441	Present, but less than mass 443	5.9
442	Greater than 40.0% of mass 198	40.2
443	17.0 - 23.0% of mass 442	7.7(19.2)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	100 STD RE	100 STD RE	>RW103	11/19/90	13:21
02	50 STD RE	50 STD RE	>RW104	11/19/90	14:10
03	25 STD RE	25 STD RE	>RW105	11/19/90	15:00
04	90FH30S86MS	90FH30S86MSRE	>RW106	11/19/90	16:43
05	90FH30S86MSD	90FH30S86MSDRE	>RW107	11/19/90	17:33
06	90FH30S87RE	90FH30S87RE	>RW108	11/19/90	18:22
07	90FH03R85RE	90FH03R85RE	>RW109	11/19/90	19:12
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FORM V SV 1/87 Rev.

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

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Instrument ID: 96 1 Calibration Date(s):11/16/90 11/16/90

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF25 =>RW093 RRF50 =>RW092
RRF100=>RW091

COMPOUND	RRF25	RRF50	RRF100			$\overline{RRF}$	% RSD
Phenol *	1.485	1.699	1.788	0.000	0.000	1.657	9.4*
bis(2-Chloroethyl)ether	1.295	1.513	1.500	0.000	0.000	1.436	8.5
2-Chlorophenol	1.155	1.300	1.330	0.000	0.000	1.262	7.4
1,3-Dichlorobenzene	1.210	1.384	1.425	0.000	0.000	1.340	8.5
1,4-Dichlorobenzene *	1.377	1.657	1.698	0.000	0.000	1.578	11.1*
Benzyl alcohol	.701	.776	.901	0.000	0.000	.793	12.8
1,2-Dichlorobenzene	1.342	1.480	1.511	0.000	0.000	1.444	6.3
2-Methylphenol	1.042	1.218	1.259	0.000	0.000	1.173	9.8
bis(2-chloroisopropyl)ether	.371	.311	.289	0.000	0.000	.323	13.1
4-Methylphenol	1.076	1.145	1.204	0.000	0.000	1.142	5.6
N-Nitroso-di-n-propylamine #	1.108	1.223	1.324	0.000	0.000	1.218	8.9#
Hexachloroethane	.620	.661	.709	0.000	0.000	.663	6.7
Nitrobenzene	.648	.740	.796	0.000	0.000	.728	10.2
Isophorone	2.732	3.180	3.782	0.000	0.000	3.231	16.3
2-Nitrophenol *	.676	.825	.950	0.000	0.000	.817	16.7*
2,4-Dimethylphenol	.774	.972	1.162	0.000	0.000	.969	20.0
Benzoic acid	.479	.782	.993	0.000	0.000	.751	34.4
bis(2-Chloroethoxy)methane	1.790	2.088	2.372	0.000	0.000	2.083	14.0
2,4-Dichlorophenol *	1.034	1.252	1.389	0.000	0.000	1.225	14.6*
1,2,4-Trichlorobenzene	1.325	1.509	1.545	0.000	0.000	1.460	8.1
Naphthalene	3.751	4.037	4.225	0.000	0.000	4.004	6.0
4-Chloroaniline	.429	.545	.603	0.000	0.000	.526	16.9
Hexachlorobutadiene *	.867	.972	.981	0.000	0.000	.940	6.7*
4-Chloro-3-methylphenol *	.933	1.176	1.389	0.000	0.000	1.166	19.6*
2-Methylnaphthalene	2.228	2.846	3.075	0.000	0.000	2.716	16.1
Hexachlorocyclopentadiene #	.759	1.037	1.105	0.000	0.000	.967	18.9#
2,4,6-Trichlorophenol *	.702	.881	1.076	0.000	0.000	.886	21.2*
2,4,5-Trichlorophenol	.651	.855	1.089	0.000	0.000	.865	25.4
2-Chloronaphthalene	2.249	2.585	3.045	0.000	0.000	2.626	15.2
2-Nitroaniline	.550	.735	1.137	0.000	0.000	.808	37.1
Dimethylphthalate	1.960	2.458	2.955	0.000	0.000	2.458	20.2
Acenaphthylene	2.019	1.796	1.047	0.000	0.000	1.621	31.4
2,6-Dinitrotoluene	.267	.281	.167	0.000	0.000	.238	26.2
3-Nitroaniline	.189	.194	.187	0.000	0.000	.190	1.9
Acenaphthene *	1.321	1.170	.670	0.000	0.000	1.053	32.3*
2,4-Dinitrophenol #	.046	.097	.108	0.000	0.000	.084	39.2#
4-Nitrophenol #	.047	.078	.080	0.000	0.000	.068	27.0#

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

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Instrument ID: 96 1 Calibration Date(s):11/16/90 11/16/90

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF25 =>RW093 RRF50 =>RW092
RRF100=>RW091

COMPOUND	RRF25	RRF50	RRF100			RRF	% RSD
Dibenzofuran	1.728	1.584	1.027	0.000	0.000	1.446	25.6
2,4-Dinitrotoluene	.233	.276	.283	0.000	0.000	.264	10.3
Diethylphthalate	1.065	.991	.719	0.000	0.000	.925	19.7
4-Chlorophenyl-phenylether	.526	.497	.352	0.000	0.000	.458	20.3
Fluorene	1.175	1.083	.781	0.000	0.000	1.013	20.4
4-Nitroaniline	.122	.161	.153	0.000	0.000	.145	14.1
4,6-Dinitro-2-methylphenol	.068	.118	.118	0.000	0.000	.101	28.6
N-Nitrosodiphenylamine (1) *	.402	.299	.227	0.000	0.000	.309	28.5*
4-Bromophenyl-phenylether	.211	.229	.203	0.000	0.000	.214	6.3
Hexachlorobenzene	.228	.240	.218	0.000	0.000	.229	4.9
Pentachlorophenol *	.082	.119	.116	0.000	0.000	.106	19.5*
Phenanthrene	1.076	1.157	1.013	0.000	0.000	1.082	6.7
Anthracene	1.024	1.122	1.019	0.000	0.000	1.055	5.5
Di-n-butylphthalate	1.010	1.258	1.139	0.000	0.000	1.136	10.9
Fluoranthene *	.711	.865	.773	0.000	0.000	.783	9.8*
Pyrene	.685	.822	.762	0.000	0.000	.757	9.1
Butylbenzylphthalate	.330	.371	.382	0.000	0.000	.361	7.7
Benzo(a)anthracene	.379	.404	.499	0.000	0.000	.427	14.9
Chrysene	.374	.412	.447	0.000	0.000	.411	8.9
bis(2-Ethylhexyl)phthalate	.426	.468	.520	0.000	0.000	.471	10.0
Di-n-octylphthalate *	2.996	2.993	2.826	0.000	0.000	2.939	3.3*
Benzo(b)fluoranthene	1.278	1.286	1.292	0.000	0.000	1.286	.5
Benzo(k)fluoranthene	1.255	1.262	1.256	0.000	0.000	1.258	.3
Benzo(a)pyrene *	.986	1.070	1.063	0.000	0.000	1.039	4.5*
Indeno(1,2,3-cd)pyrene	.747	.956	1.006	0.000	0.000	.903	15.2
Dibenzo(a,h)anthracene	.686	.860	.992	0.000	0.000	.846	18.2
Benzo(g,h,i)perylene	.742	.921	1.092	0.000	0.000	.918	19.1
Nitrobenzene-d5	1.533	1.867	1.969	0.000	0.000	1.790	12.7
2-Fluorobiphenyl	2.930	3.280	3.787	0.000	0.000	3.332	12.9
Terphenyl-d14	.473	.566	.539	0.000	0.000	.526	9.0
Phenol-d5	1.537	1.595	1.728	0.000	0.000	1.620	6.1
2-Fluorophenol	1.023	1.201	1.381	0.000	0.000	1.201	14.9
2,4,6-Tribromophenol	.106	.119	.112	0.000	0.000	.112	5.6

(1) Cannot be separated from Diphenylamine

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

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Instrument ID: 96 1 Calibration Date(s):11/19/90 11/19/90

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF25 =>RW105 RRF50 =>RW104
RRF100=>RW103

COMPOUND	RRF25	RRF50	RRF100			RRF	% RSD
Phenol *	2.041	2.029	2.084	0.000	0.000	2.051	1.4*
bis(2-Chloroethyl)ether	1.677	1.632	1.461	0.000	0.000	1.590	7.2
2-Chlorophenol	1.384	1.446	.779	0.000	0.000	1.203	30.6
1,3-Dichlorobenzene	1.511	1.503	1.502	0.000	0.000	1.505	.3
1,4-Dichlorobenzene *	1.660	1.607	1.513	0.000	0.000	1.593	4.7*
Benzyl alcohol	.875	.942	.998	0.000	0.000	.939	6.6
1,2-Dichlorobenzene	1.556	1.530	1.525	0.000	0.000	1.537	1.1
2-Methylphenol	1.286	1.372	1.189	0.000	0.000	1.282	7.2
bis(2-chloroisopropyl)ether	.335	.432	.313	0.000	0.000	.360	17.6
4-Methylphenol	1.403	1.399	1.324	0.000	0.000	1.375	3.2
N-Nitroso-di-n-propylamine #	1.329	1.372	1.394	0.000	0.000	1.365	2.4#
Hexachloroethane	.636	.700	.646	0.000	0.000	.661	5.2
Nitrobenzene	.802	.825	.826	0.000	0.000	.817	1.7
Isophorone	3.168	3.189	3.620	0.000	0.000	3.326	7.7
2-Nitrophenol *	0.000	0.000	0.000	0.000	0.000	0.000	0.0*
2,4-Dimethylphenol	.952	1.043	1.200	0.000	0.000	1.065	11.8
Benzoic acid	.843	1.004	1.131	0.000	0.000	.993	14.6
bis(2-Chloroethoxy)methane	2.345	2.492	2.578	0.000	0.000	2.472	4.8
2,4-Dichlorophenol *	1.139	1.239	1.253	0.000	0.000	1.210	5.1*
1,2,4-Trichlorobenzene	1.307	1.399	1.407	0.000	0.000	1.371	4.0
Naphthalene	3.999	4.180	3.958	0.000	0.000	4.046	2.9
4-Chloroaniline	.643	.651	.616	0.000	0.000	.637	2.9
Hexachlorobutadiene *	.840	.908	.859	0.000	0.000	.869	4.0*
4-Chloro-3-methylphenol *	1.255	1.260	1.369	0.000	0.000	1.295	5.0*
2-Methylnaphthalene	2.269	2.421	2.711	0.000	0.000	2.467	9.1
Hexachlorocyclopentadiene #	.694	.851	.915	0.000	0.000	.820	13.9#
2,4,6-Trichlorophenol *	.747	.774	.809	0.000	0.000	.776	4.0*
2,4,5-Trichlorophenol	.697	.794	.775	0.000	0.000	.755	6.8
2-Chloronaphthalene	2.184	2.230	2.332	0.000	0.000	2.249	3.4
2-Nitroaniline	.857	.872	.909	0.000	0.000	.880	3.0
Dimethylphthalate	2.404	2.255	2.065	0.000	0.000	2.242	7.6
Acenaphthylene	1.526	1.856	2.023	0.000	0.000	1.802	14.0
2,6-Dinitrotoluene	.280	.327	.377	0.000	0.000	.328	14.9
3-Nitroaniline	.294	.336	.343	0.000	0.000	.324	8.2
Acenaphthene *	1.076	1.215	1.245	0.000	0.000	1.179	7.6*
2,4-Dinitrophenol #	.090	.127	.159	0.000	0.000	.125	27.3#
4-Nitrophenol #	.103	.128	.132	0.000	0.000	.121	13.1#

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

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Instrument ID: 96 1 Calibration Date(s):11/19/90 11/19/90

Max %RSD for CCC(*) = 35.0%

LAB FILE ID: RRF25 =>RW105 RRF50 =>RW104
RRF100=>RW103

COMPOUND	RRF25	RRF50	RRF100			RRF	% RSD
Dibenzofuran	1.373	1.589	1.721	0.000	0.000	1.561	11.2
2,4-Dinitrotoluene	.301	.338	.349	0.000	0.000	.329	7.6
Diethylphthalate	1.146	1.105	1.079	0.000	0.000	1.110	3.1
4-Chlorophenyl-phenylether	.461	.558	.564	0.000	0.000	.528	11.0
Fluorene	.978	1.128	1.153	0.000	0.000	1.086	8.7
4-Nitroaniline	.235	.251	.252	0.000	0.000	.246	3.9
4,6-Dinitro-2-methylphenol	.103	.128	.139	0.000	0.000	.123	14.9
N-Nitrosodiphenylamine (1) *	.457	.373	.323	0.000	0.000	.384	17.6*
4-Bromophenyl-phenylether	.212	.246	.256	0.000	0.000	.238	9.7
Hexachlorobenzene	.186	.213	.211	0.000	0.000	.204	7.4
Pentachlorophenol *	.106	.126	.127	0.000	0.000	.119	9.7*
Phenanthrene	1.092	1.174	1.155	0.000	0.000	1.140	3.8
Anthracene	1.066	1.124	1.125	0.000	0.000	1.105	3.1
Di-n-butylphthalate	1.275	1.242	1.124	0.000	0.000	1.213	6.6
Fluoranthene *	.668	.701	.625	0.000	0.000	.665	5.7*
Pyrene	.653	.645	.563	0.000	0.000	.620	8.0
Butylbenzylphthalate	.282	.299	.249	0.000	0.000	.277	9.1
Benzo(a)anthracene	.243	.287	.249	0.000	0.000	.260	9.2
Chrysene	.226	.266	.224	0.000	0.000	.239	9.8
bis(2-Ethylhexyl)phthalate	.355	.413	.351	0.000	0.000	.373	9.4
Di-n-octylphthalate *	4.297	4.714	4.720	0.000	0.000	4.577	5.3*
Benzo(b)fluoranthene	1.303	1.324	1.425	0.000	0.000	1.351	4.9
Benzo(k)fluoranthene	1.355	1.382	1.376	0.000	0.000	1.371	1.0
Benzo(a)pyrene *	1.016	1.106	1.136	0.000	0.000	1.086	5.7*
Indeno(1,2,3-cd)pyrene	.769	.807	.907	0.000	0.000	.828	8.6
Dibenzo(a,h)anthracene	.695	.816	.802	0.000	0.000	.771	8.6
Benzo(g,h,i)perylene	.801	.841	.865	0.000	0.000	.836	3.8
Nitrobenzene-d5	2.014	2.159	2.142	0.000	0.000	2.105	3.8
2-Fluorobiphenyl	2.897	2.878	2.999	0.000	0.000	2.925	2.2
Terphenyl-d14	.413	.430	.374	0.000	0.000	.406	7.1
Phenol-d5	1.897	1.942	2.014	0.000	0.000	1.951	3.0
2-Fluorophenol	1.400	1.465	1.448	0.000	0.000	1.438	2.3
2,4,6-Tribromophenol	.105	.128	.132	0.000	0.000	.122	12.1

(1) Cannot be separated from Diphenylamine

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

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Lab File ID (Standard): >RW092 Date Analyzed:11/16/90

Instrument ID: 96 1 Time Analyzed: 14:17

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	160492.	3.70	339685.	15.66	69817.	27.22
	UPPER LIMIT	320984.	4.20	679370.	16.16	139634.	27.72
	LOWER LIMIT	80246.	3.20	169843.	15.16	34909.	26.72
	EPA SAMPLE NO.						
01	91FH30S85	168694.	3.69	359355.	15.65	43776.	27.20
02	90FH30S86	189984.	3.73	402340.	15.67	42629.	27.22
~~03~~	~~90FH30S86MS~~	~~130684.~~	~~3.73~~	~~289521.~~	~~15.65~~	~~59055.~~	~~27.21~~
~~04~~	~~90FH30S86MD~~	~~138283.~~	~~3.64~~	~~249894.~~	~~15.65~~	~~34227.*~~	~~27.19~~
~~05~~	~~90FH30S87~~	~~141433.~~	~~3.73~~	~~294275.~~	~~15.64~~	~~32798.*~~	~~27.19~~
06	90FH30D85	155287.	3.61	271466.	15.63	42262.	27.19
~~07~~	~~90FH03R85~~	~~137448.~~	~~3.72~~	~~191949.~~	~~15.63~~	~~27204.*~~	~~27.19~~
08	METHOD BLK	163361.	3.64	242172.	15.64	54868.	27.20
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

11-21-90 RWW these samples were reanalyzed

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

FORM VIII SV-1 1/87 Rev.

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

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Lab File ID (Standard): >RW104 Date Analyzed:11/19/90

Instrument ID: 96 1 Time Analyzed: 14:10

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	152665.	3.59	276251.	15.64	34971.	27.17
UPPER LIMIT	305330.	4.09	552502.	16.14	69942.	27.67
LOWER LIMIT	76333.	3.09	138126.	15.14	17486.	26.67
EPA SAMPLE NO.						
01 90FH30S86MSR	168042.	3.73	289447.	15.64	25826.	27.15
02 90FH30S86MDR	162849.	3.57	169258.	15.62	17618.	27.15
03 90FH30S87RE	153697.	3.70	261060.	15.63	22709.	27.15
04 90FH03R85RE	128056.	3.58	225190.	15.63	24015.	27.14
05						
06						
07						
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20						
21						
22						

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

FORM VIII SV-1 1/87 Rev.

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FH30S86MSRE RW

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH30S86MS

Sample wt/vol: 1030 (g/mL) mL Lab File ID: >RW106

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/19/90

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	8.	
111-44-4	bis(2-Chloroethyl)Ether	1.	U
95-57-8	2-Chlorophenol	30.	
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	54.	
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	90.	
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	72.	
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	19.	
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.

90FH30S86MSRE RW

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH30S86MS

Sample wt/vol: 1030 (g/mL) mL Lab File ID: >RW106

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/19/90

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	66.	
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	25.	
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	76.	
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	47.	
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	2.	U
84-74-2	Di-n-butylphthalate	4.	
206-44-0	Fluoranthene	1.	U
129-00-0	Pyrene	84.	
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	25.	B
117-84-0	Di-n-octylphthalate	1.	U
205-99-2	Benzo(b)fluoranthene	1.	U
207-08-9	Benzo(k)fluoranthene	1.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	3.	U
53-70-3	Dibenzo(a,h)anthracene	2.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[X]

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FH30S86MDRE RW

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH30S86MD

Sample wt/vol: 1030 (g/mL) mL Lab File ID: >RW107

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/19/90

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	4.	
111-44-4	bis(2-Chloroethyl)Ether	1.	U
95-57-8	2-Chlorophenol	18.	
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	50.	
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	75.	
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	61.	
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	9.	
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.

90FH30S86MDRE RW

Site:ALCO Contract:5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH30S86MD

Sample wt/vol: 1030 (g/mL) mL Lab File ID: >RW107

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted:11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/19/90

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	81.	
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	28.	
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	83.	
84-66-2	Diethylphthalate	1.	
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	47.	
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	2.	U
84-74-2	Di-n-butylphthalate	5.	
206-44-0	Fluoranthene	1.	U
129-00-0	Pyrene	84.	
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	410.	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[X]

Sample 90FH30S87RE reported 16 Ug/L of bis(2-ethylhexyl)phthalate and 5 Ug/L of di-n-butylphthalate. Two TIC compounds were observed.

Bis(2-ethylhexyl)phthalate was present in all samples and may have been introduced during extraction, even though every possible precaution has been taken to avoid contamination.

MAIN REPORT IS WITH SAMPLE RES ONLY

S1 (NBZ) = Nitrobenzene-d5
S2 (FBP) = 2-Fluorobiphenyl
S3 (TPH) = Terphenyl-d14
S4 (PHL) = Phenol-d5
S5 (2FP) = 2-Fluorophenol
S6 (TBP) = 2,4,6-Tribromophenol

QUANT REPORT

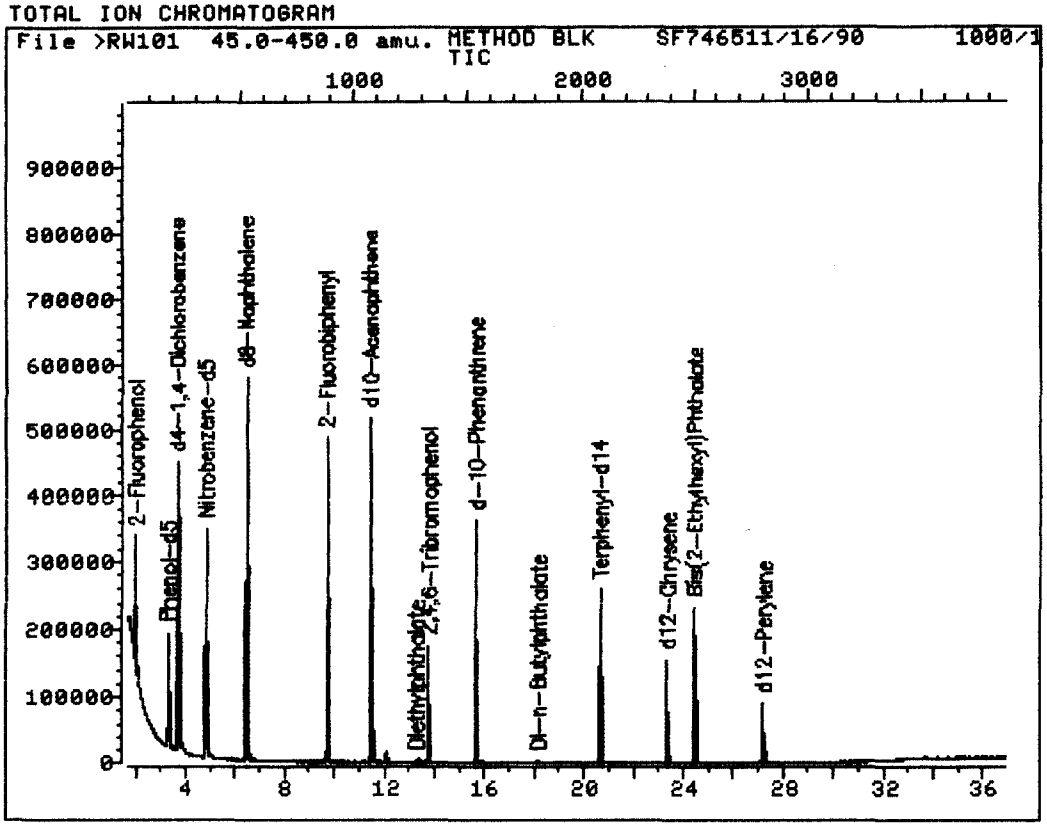
Operator ID: MANAGER Quant Rev: 6 Quant Time: 901116 23:23
Output File: ^RW101::D6 Injected at: 901116 22:44
Data File: >RW101::D6 Dilution Factor: 1.00000
Name: METHOD BLK SF7465
Misc: 11/16/90 1000/1

ID File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.64	152.0	163361	50.00	NG/UL	97
2)	2-Fluorophenol	1.96	112.0	147209	37.50	NG/UL	96
3)	Phenol-d5	3.24	99.0	145708	27.52	NG/UL	90
16)	d8-Naphthalene	6.44	136.0	611342	43.80	NG/UL	89
17)	Nitrobenzene-d5	4.80	82.0	239997	41.04	NG/UL	91
31)	d10-Acenaphthene	11.40	164.0	220838	33.33	NG/UL	97
36)	2-Fluorobiphenyl	9.65	172.0	327715	30.10	NG/UL	92
39)	*d-10-Phenanthrene	15.64	188.0	242172	50.00	NG/UL	96
~~48)~~	~~Diethylphthalate~~ 11-20-90 RWW	~~13.27~~	~~149.0~~	~~3980~~	~~.89~~	~~NG/UL~~	~~80~~
54)	2,4,6-Tribromophenol	13.74	329.8	22224	40.78	NG/UL	92
~~60)~~	~~Di-n-Butylphthalate~~ 11-20-90 RWW	~~18.13~~	~~149.0~~	~~4511~~	~~.82~~	~~NG/UL~~	~~98~~
62)	d12-Chrysene	23.34	240.0	93959	57.81	NG/UL	87
64)	Terphenyl-d14	20.60	244.0	150549	59.11	NG/UL	96
67)	Bis(2-Ethylhexyl)Phthalate	24.43	149.0	147777	64.76	NG/UL	85
69)	*d12-Perylene	27.20	264.0	54868	50.00	NG/UL	98

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >RW101::D6 Quant Output File: ^RW101::D6
Name: METHOD BLK SF7465
Misc: 11/16/90 1000/1

Id File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

Operator ID: MANAGER
Quant Time: 901116 23:23
Injected at: 901116 22:44

MS data file header from : >RW101

Sample: METHOD BLK SF7465 Operator: MANAGER SUPER GRP. 11/16/90 22:44
Misc : 11/16/90 1000/1
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

>RW101 METHOD BLK SF746511/16/90 1000/1
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 21165. Max Peaks: 1 Bunching: 1
Dnslope: 0.00 Results File IRW101 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~~	~~12.08~~	~~1138~~	~~1144~~	~~1148~~	~~16710~~	~~38981~~	~~31688~~	~~100.00~~	~~100.000~~

11-20-90 RWW

Sum of corrected areas: 31688.

Summary of Unknowns PBM Library Search and Quantitation

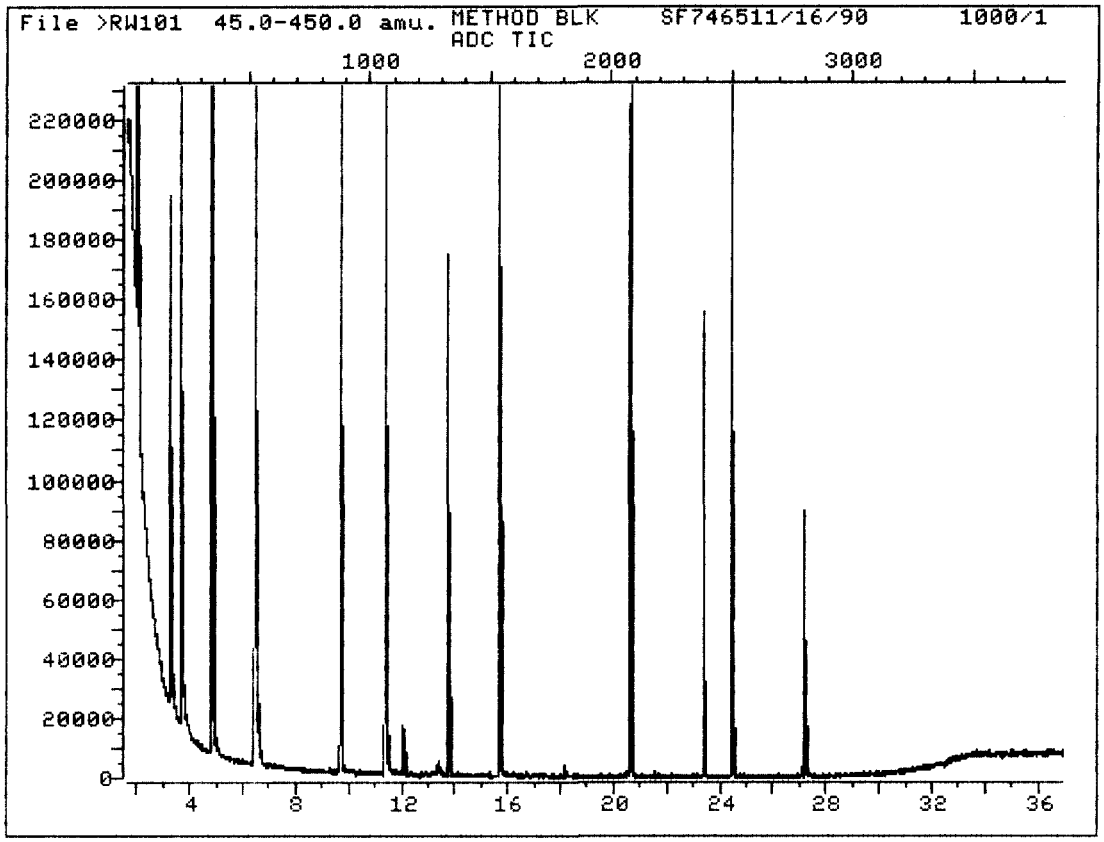
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	1046804.	3.64	1.68 - 9.64
2	50.0	749410.	15.64	9.64 - 21.42
3	50.0	211647.	27.20	21.42 - 36.92

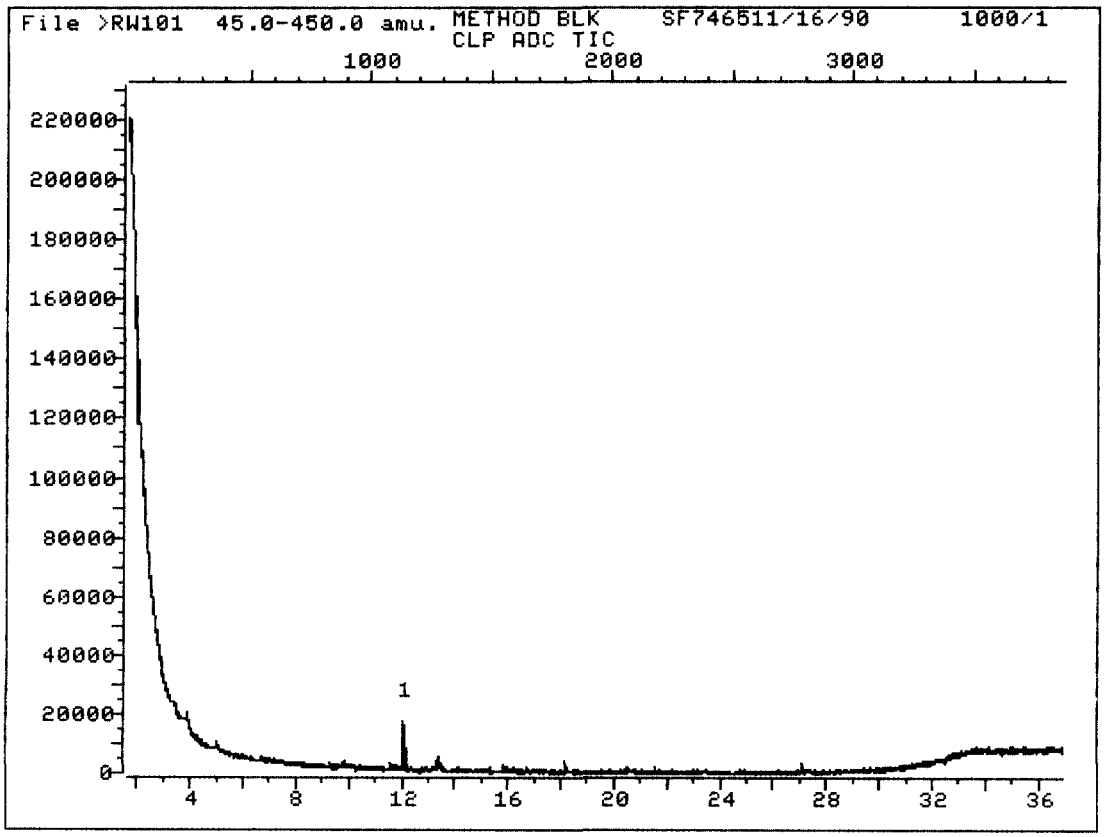
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1000.00

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

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

4:29 PM TUE., 20 NOV., 1990


File >RW101 45.0-450.0 amu. METHOD BLK SF746511/16/90 1000/1
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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CLP ADC TIC
1000
2000
3000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
1
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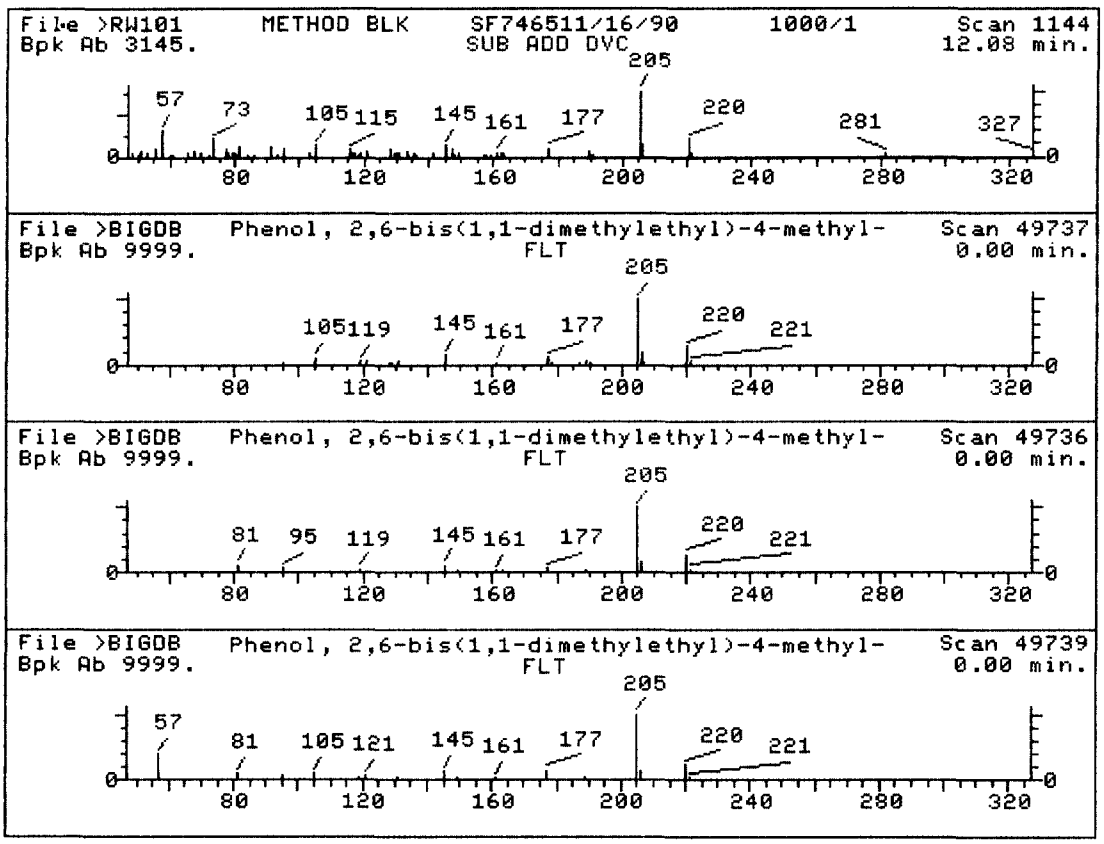
36



BDL 10-20-90 RNW

. UNKNOWN #,1
AREA = 31688.00 TENTATIVE CONCENTRATION IS 2.00

1. Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl- 220 C15H24O
2. Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl- 220 C15H24O
3. Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl- 220 C15H24O
4. Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl- 220 C15H24O
5. Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl- 220 C15H24O
6. 2-Propenoic acid, 3-phenyl-, trimethylsilyl ester 220 C12H16O2Si
7. Phenol, 2,6-bis(1,1-dimethylethyl)-4-methyl-, methyl carbamate 277 C17H27NO2

Sample file: >RW101 Spectrum #: 1144
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.	96*	128370	49737	"BIGDB	96	27	0	0	98	11	64	97
2.	94*	128370	49736	"BIGDB	83	34	0	0	100	20	60	95
3.	81*	128370	49739	"BIGDB	75	52	1	0	84	16	45	73
4.	79*	128370	49735	"BIGDB	83	40	2	0	100	15	43	65
5.	66*	128370	49738	"BIGDB	44	69	0	0	99	20	31	49
6.	43*	2078208	49734	"BIGDB	34	89	2	0	100	23	17	14
7.	41	1918112	52695	"BIGDB	89	48	3	0	100	30	14	18

QUANT REPORT

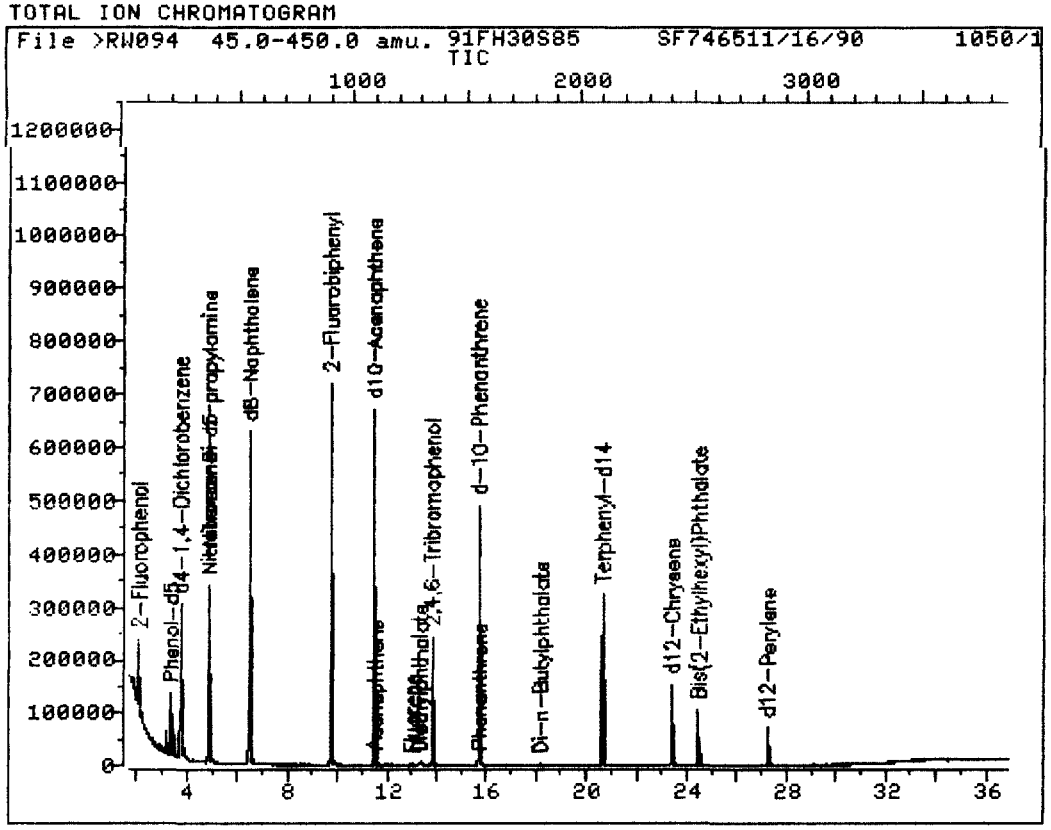
Operator ID: MANAGER Quant Rev: 6 Quant Time: 901116 17:34
Output File: ^RW094::D6 Injected at: 901116 16:54
Data File: >RW094::D6 Dilution Factor: 1.00000
Name: 91FH30S85 SF7465
Misc: 11/16/90 1050/1

ID File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.69	152.0	168694	50.00	NG/UL	96
2)	2-Fluorophenol	2.05	112.0	92091	22.72	NG/UL	94
3)	Phenol-d5 RWW 11-20	3.32	99.0	133767	24.47	NG/UL	90
~~14)~~	~~N-Nitroso-Di-n-propylamine~~	~~4.84~~	~~70.0~~	~~39291~~	~~9.56~~	~~NG/UL~~	~~61~~
16)	d8-Naphthalene	6.47	136.0	660415	45.82	NG/UL	88
17)	Nitrobenzene-d5	4.84	82.0	262651	43.50	NG/UL	92
31)	d10-Acenaphthene	11.42	164.0	310801	45.42	NG/UL	96
36)	2-Fluorobiphenyl	9.68	172.0	486789	43.30	NG/UL	93
39)	*d-10-Phenanthrene RWW 11-20	15.65	188.0	359355	50.00	NG/UL	99
~~42)~~	~~Acenaphthene~~	~~11.49~~	~~153.0~~	~~2285~~	~~.30~~	~~NG/UL~~	~~98~~
48)	Diethylphthalate RWW 11-20	13.28	149.0	7262	1.09	NG/UL	94
~~50)~~	~~Fluorene~~	~~12.99~~	~~166.0~~	~~1448~~	~~.20~~	~~NG/UL~~	~~97~~
54)	2,4,6-Tribromophenol RWW 11-20	13.76	329.8	39636	49.01	NG/UL	97
~~58)~~	~~Phenanthrene~~	~~15.70~~	~~178.0~~	~~1483~~	~~.19~~	~~NG/UL~~	~~90~~
~~60)~~	~~Di-n-Butylphthalate~~ RWW 11-20	~~18.16~~	~~149.0~~	~~2638~~	~~.32~~	~~NG/UL~~	~~96~~
62)	d12-Chrysene	23.36	240.0	88910	36.87	NG/UL	84
64)	Terphenyl-d14	20.61	244.0	216538	57.30	NG/UL	99
67)	Bis(2-Ethylhexyl)Phthalate	24.44	149.0	68034	20.09	NG/UL	89
69)	*d12-Perylene	27.20	264.0	43776	50.00	NG/UL	96

* Compound is ISTD

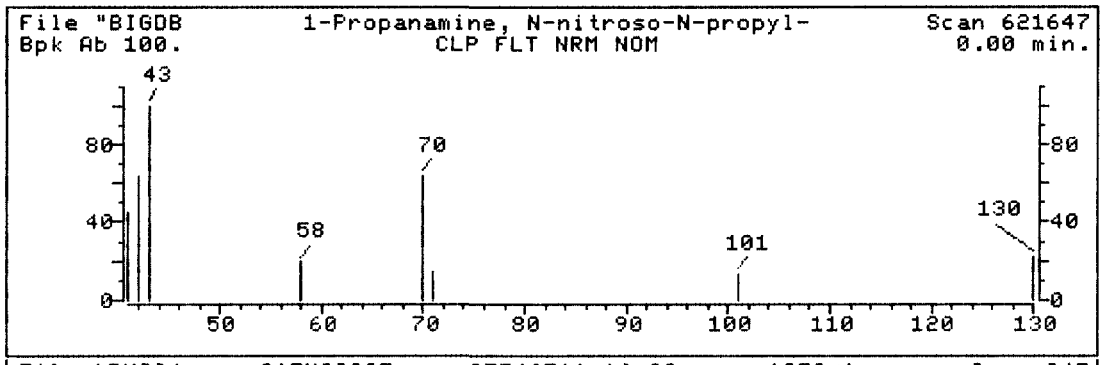
TOTAL ION CHROMATOGRAM

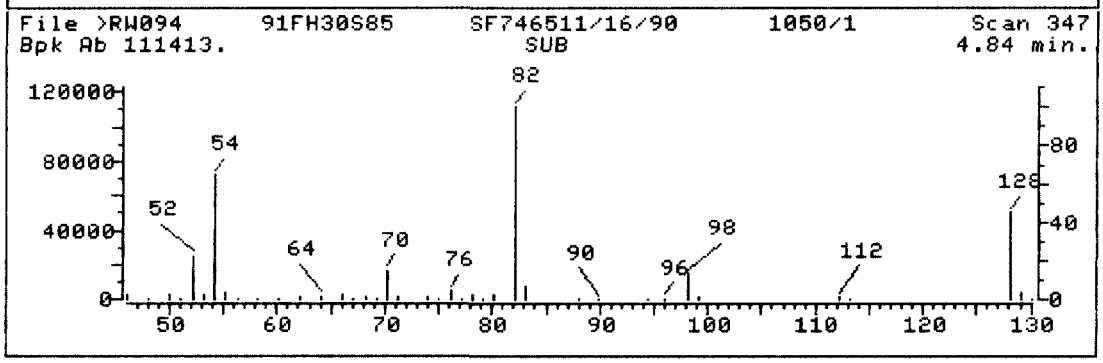


Data File: >RW094::D6 Quant Output File: ^RW094::D6
Name: 91FH30S85 SF7465
Misc: 11/16/90 1050/1

Id File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

Operator ID: MANAGER
Quant Time: 901116 17:34
Injected at: 901116 16:54


File "BIGDB
1-Propanamine, N-nitroso-N-propyl-
Scan 621647
Bpk Ab 100.
CLP FLT NRM NOM
0.00 min.
43
70
58
101
130
80
40
0
50
60
70
80
90
100
110
120
130


File >RW094
91FH30S85
SF746511/16/90
1050/1
Scan 347
Bpk Ab 111413.
SUB
4.84 min.
82
54
52
64
70
76
90
96
98
112
128
120000
80000
40000
0
80
40
50
60
70
80
90
100
110
120
130

MS data file header from : >RW094

Sample: 91FH30S85 SF7465 Operator: MANAGER SUPER GRP. 11/16/90 16:54
Misc : 11/16/90 1050/1
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

>RW094 91FH30S85 SF746511/16/90 1050/1
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 17322. Max Peaks: 3 Bunching: 1
Dnslope: 0.00 Results File IRW094 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~~	~~2.03~~ SS	~~35~~	~~38~~	~~39~~ 11-20-90	~~135260~~ RWW	~~340365~~	~~163046~~	~~100.00~~	~~48.748~~
~~2~~	~~2.87~~ BDL	~~127~~	~~131~~	~~138~~ 11-20-90	~~14221~~ RWW	~~213099~~	~~44572~~	~~27.34~~	~~13.326~~
~~3~~	~~3.15~~ MT BDL	~~155~~	~~161~~	~~170~~ 11-20-90	~~42107~~ RWW	~~300123~~	~~126847~~ 105497	~~77.80~~ 11-20-90 RWW	~~37.925~~

Sum of corrected areas: 334465.

Summary of Unknowns PBM Library Search and Quantitation

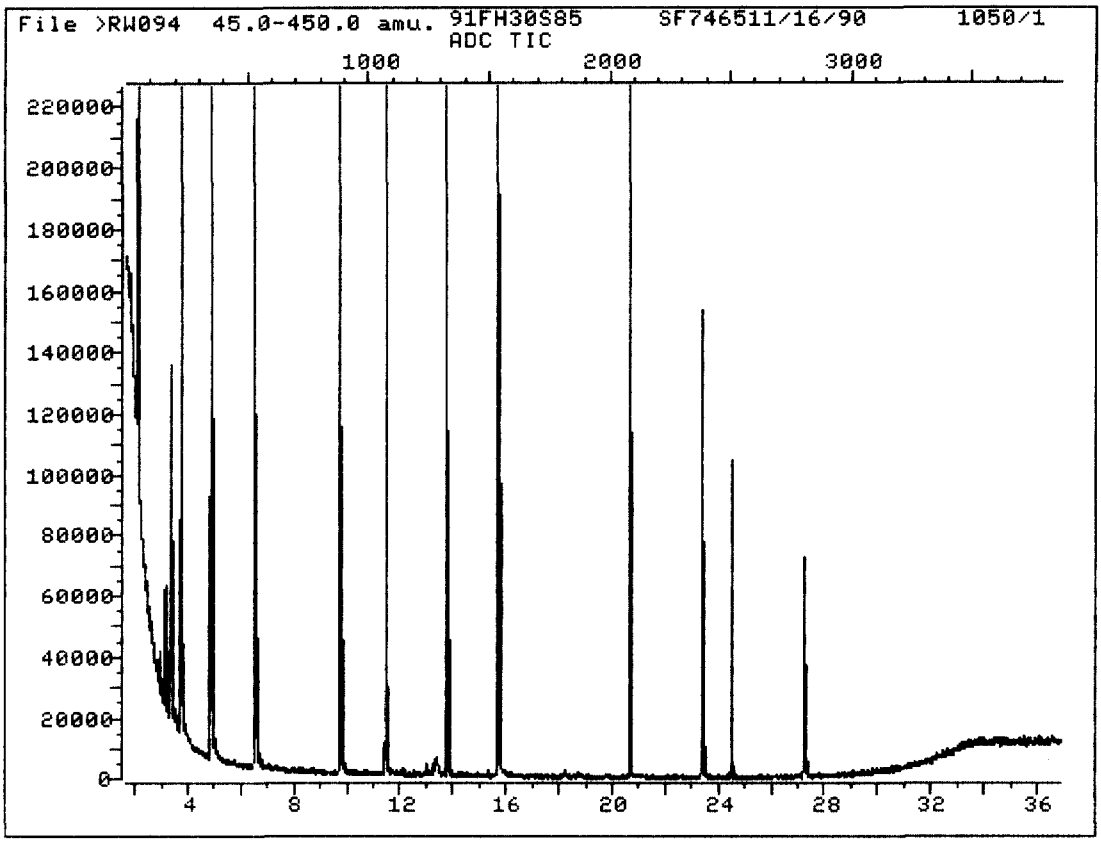
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	1040609.	3.69	1.69 - 9.67
2	50.0	1068471.	15.65	9.67 - 21.43
3	50.0	173224.	27.20	21.43 - 36.90

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)

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

4:39 PM TUE., 20 NOV., 1990


File >RW094 45.0-450.0 amu. 91FH30S85 SF746511/16/90 1050/1
ADC TIC
1000
2000
3000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
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24
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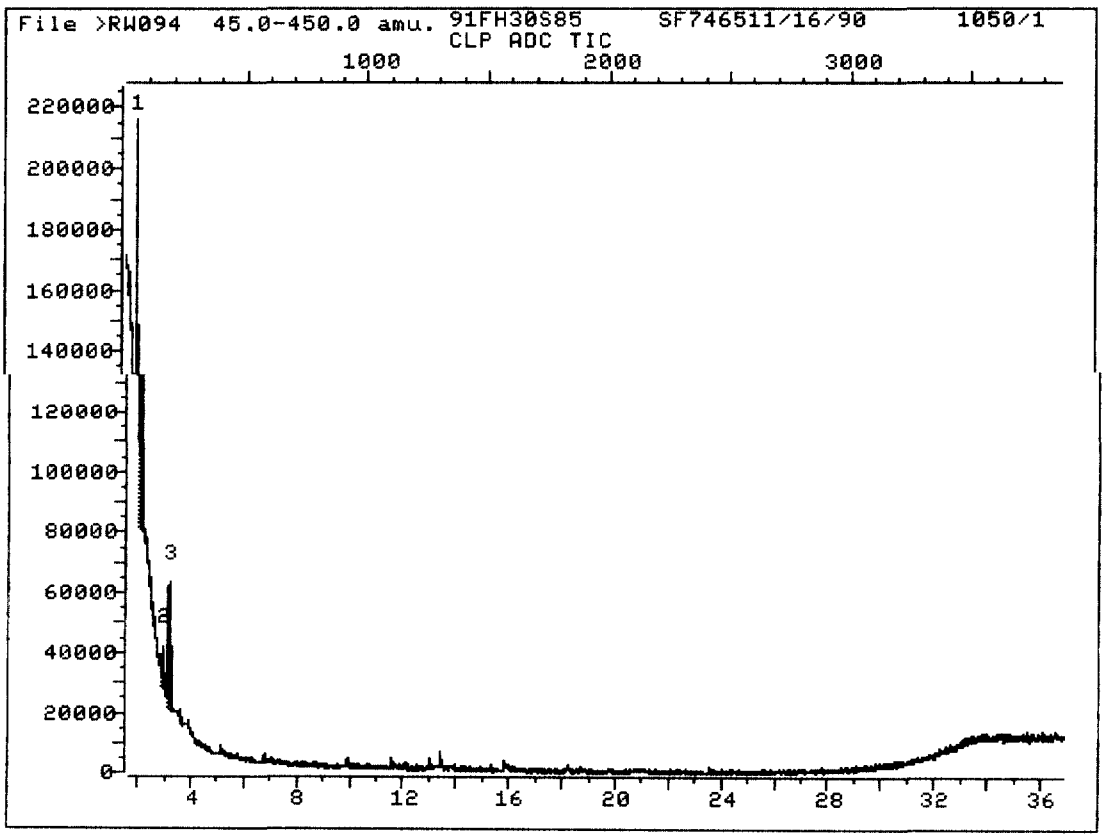
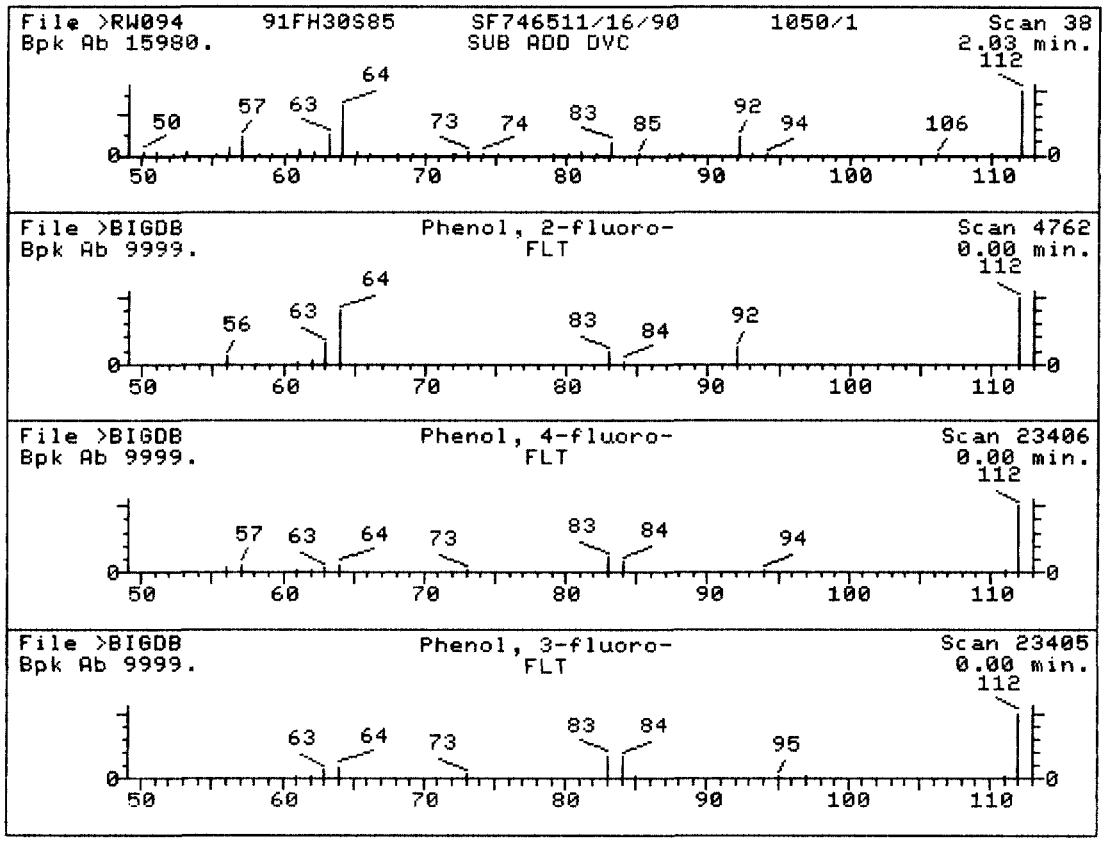
32
36


File >RW094 45.0-450.0 amu. 91FH30S85 SF746511/16/90 1050/1
CLP ADC TIC
1000
2000
3000
1
2
3
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36



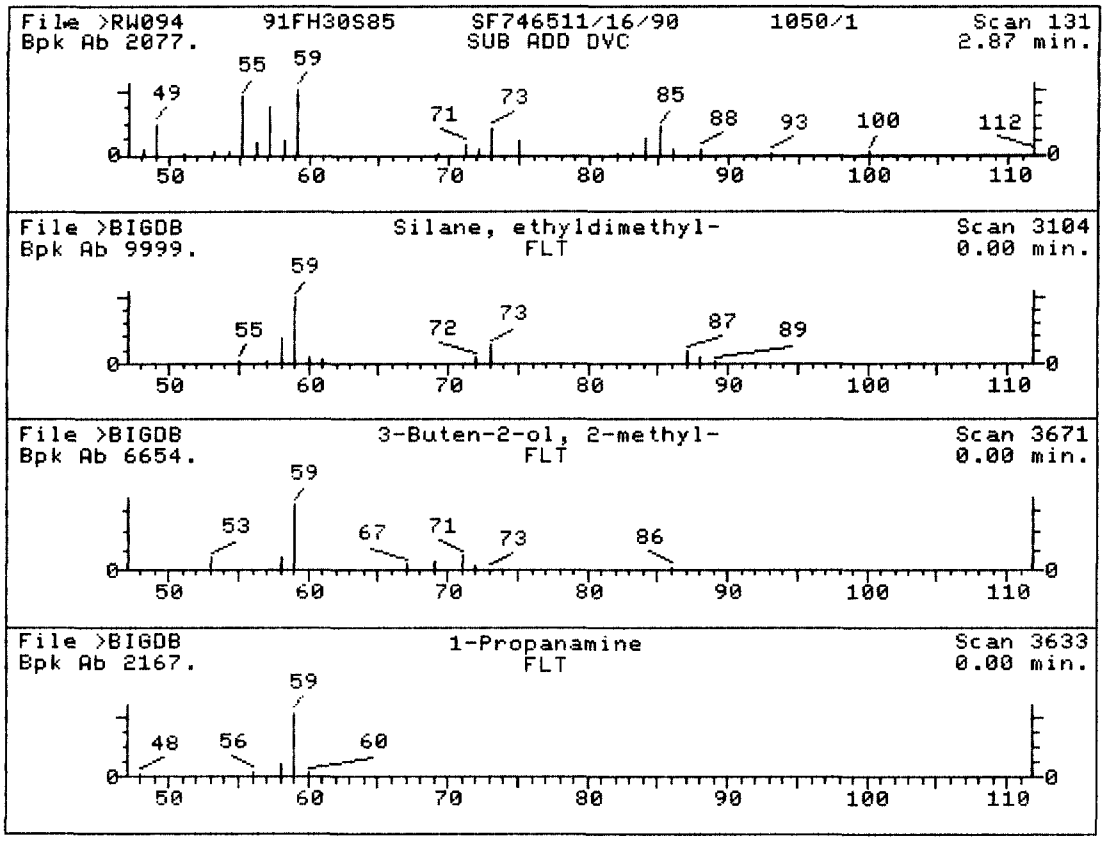
S,S 11-20-90 RWW

. UNKNOWN #,1
AREA = 163046.0 TENTATIVE CONCENTRATION IS 7.00

1. Phenol, 2-fluoro- 112 C6H5FO
2. Phenol, 4-fluoro- 112 C6H5FO
3. Phenol, 3-fluoro- 112 C6H5FO
4. 1H-Tetrazaborole, 4,5-dihydro-1,4,5-trimethyl- 112 C3H9BN4
5. 2-Thiophenecarboxaldehyde 112 C5H4OS

Sample file: >RW094 Spectrum #: 38
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.	89*	367124	4762	"BIGDB	76	33	1	0	90	1	66	74
2.	25*	371415	23406	"BIGDB	27	63	2	0	85	50	7	14
3.	25*	372203	23405	"BIGDB	26	74	3	0	100	42	8	13
4.	15*	20546183	23379	"BIGDB	23	74	3	0	100	56	3	12
5.	15*	98033	23390	"BIGDB	25	83	3	0	100	56	3	13



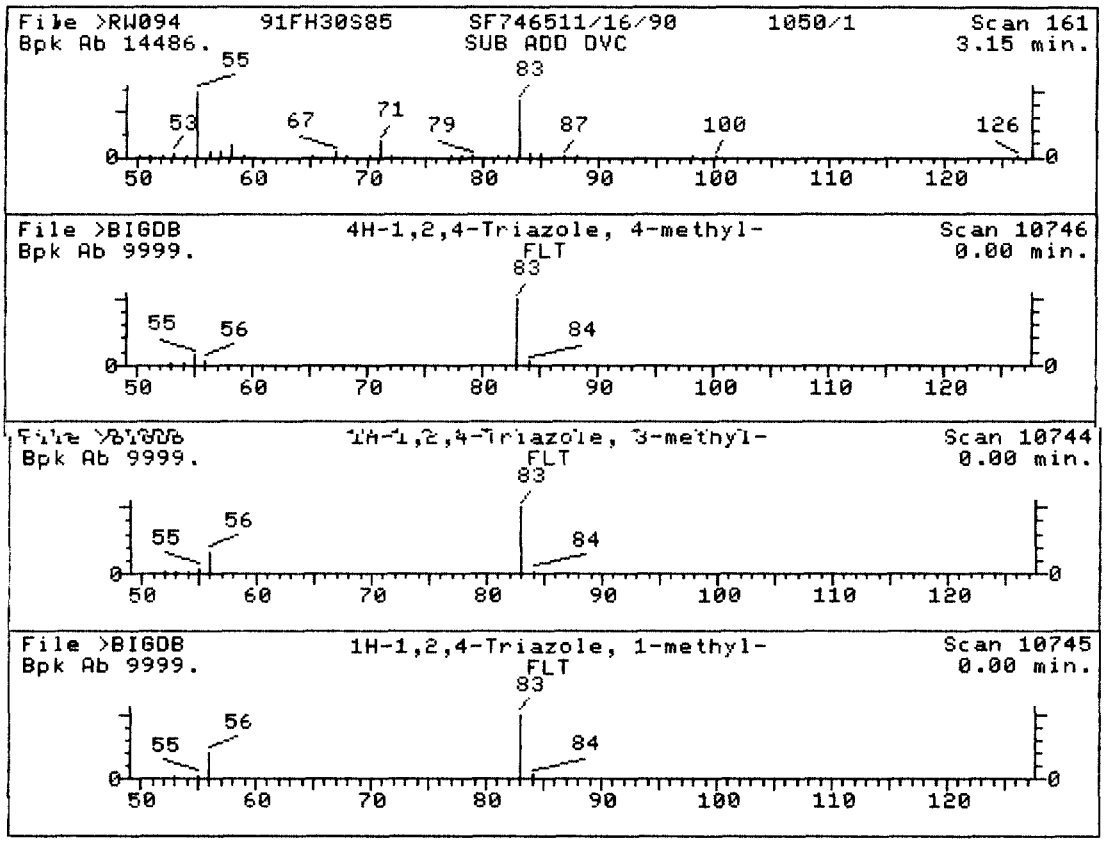
BDL 11-20-90 RAW

UNKNOWN #2
AREA = 44572.00 TENTATIVE CONCENTRATION IS 2.00

1. Silane, ethyldimethyl-	88	C4H12Si
2. 3-Buten-2-ol, 2-methyl-	86	C5H10O
3. 1-Propanamine	59	C3H9N
4. Oxirane, 2,3-diethyl-	100	C6H12O
5. Silane, ethenyltrimethyl-	100	C5H12Si
6. Formic acid, propyl ester	88	C4H8O2

Sample file: >RW094 Spectrum #: 131
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.	20*	758214	3104	"BIGDB	29	69	3	0	100	53	5	13
2.	20*	115184	3671	"BIGDB	25	73	3	0	150	54	5	13
3.	15*	107108	3633	"BIGDB	25	53	1	0	387	57	3	14
4.	15*	4468660	3126	"BIGDB	24	66	3	0	166	56	3	12
5.	11*	754052	3705	"BIGDB	20	32	1	0	74	61	2	14
6.	11*	110747	419	"BIGDB	23	74	3	0	789	65	2	12



. UNKNOWN #,3 NZ , BDL 1-20-90 RWW

AREA = 126847.0 TENTATIVE CONCENTRATION IS 6.00

1. 4H-1,2,4-Triazole, 4-methyl- 83 C3H5N3
2. 1H-1,2,4-Triazole, 3-methyl- 83 C3H5N3
3. 1H-1,2,4-Triazole, 1-methyl- 83 C3H5N3

Sample file: >RW094 Spectrum #: 161
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.	20*	10570408	10746	"BIGDB	26	49	0	0	85	54	5	18
2.	15*	7170016	10744	"BIGDB	21	34	2	0	85	57	3	13
3.	15*	6086211	10745	"BIGDB	21	53	1	0	85	57	3	14

QUANT REPORT

Operator ID: MANAGER
Output File: ^RW099::D6
Data File: >RW099::D6
Name: 91FH30D85 SF7465
Misc: 11/16/90 1045/1

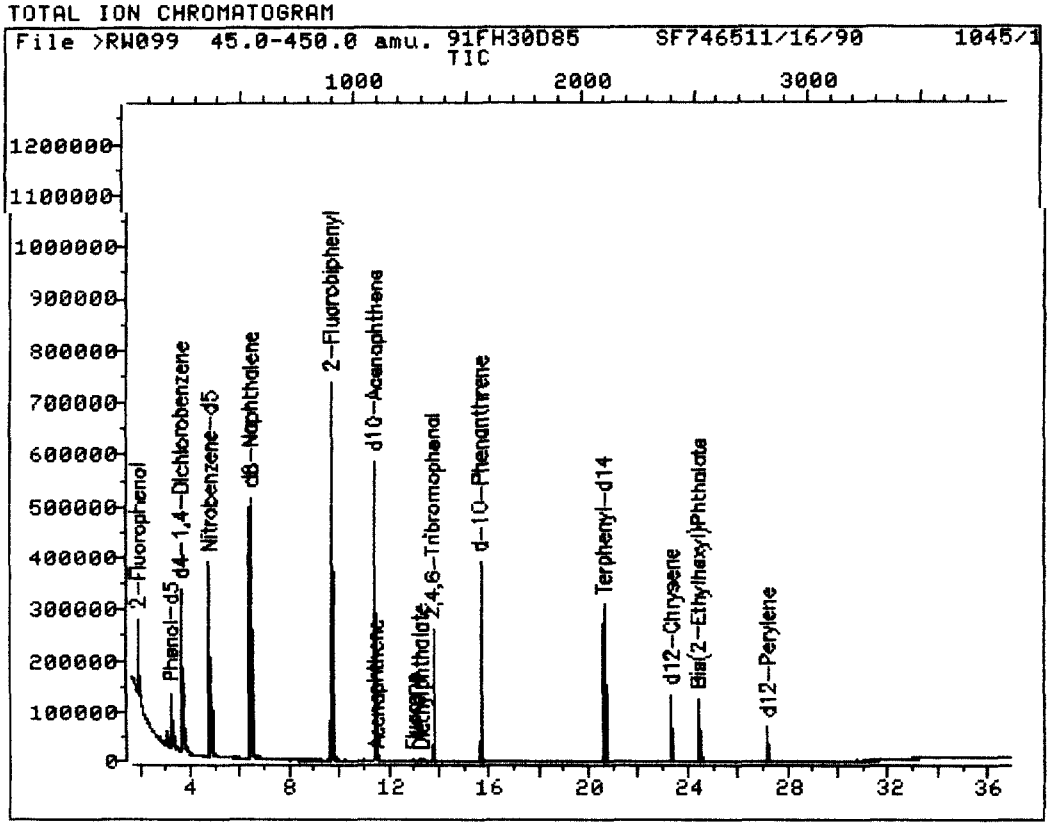
Quant Rev: 6
Quant Time: 901116 21:44
Injected at: 901116 21:04
Dilution Factor: 1.00000

ID File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.61	152.0	155287	50.00	NG/UL	98
2)	2-Fluorophenol	1.91	112.0	146908	39.37	NG/UL	95
3)	Phenol-d5	3.21	99.0	138066	27.44	NG/UL	88
16)	d8-Naphthalene	6.43	136.0	595268	44.87	NG/UL	89
17)	Nitrobenzene-d5	4.79	82.0	328848	59.16	NG/UL	87
31)	d10-Acenaphthene	11.40	164.0	251971	40.01	NG/UL	98
36)	2-Fluorobiphenyl	9.65	172.0	534928	51.69	NG/UL	93
39)	*d-10-Phenanthrene	15.63	188.0	271466	50.00	NG/UL	98
~~42)~~	~~Acenaphthene~~ 11-20-90 RWW	~~11.47~~	~~153.0~~	~~1790~~	~~.31~~	~~NG/UL~~	~~87~~
~~48)~~	~~Diethylphthalate~~ 11-20-90 RWW	~~13.27~~	~~149.0~~	~~2710~~	~~.54~~	~~NG/UL~~	~~87~~
~~50)~~	~~Fluorene~~ 11-20-90 RWW	~~12.97~~	~~166.0~~	~~991~~	~~.18~~	~~NG/UL~~	~~86~~
54)	2,4,6-Tribromophenol	13.74	329.8	36640	59.98	NG/UL	96
62)	d12-Chrysene	23.33	240.0	75009	41.17	NG/UL	84
64)	Terphenyl-d14	20.60	244.0	176647	61.88	NG/UL	96
67)	Bis(2-Ethylhexyl)Phthalate	24.42	149.0	82275	32.16	NG/UL	87
69)	*d12-Perylene	27.19	264.0	42262	50.00	NG/UL	98

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >RW099::D6 Quant Output File: ^RW099::D6
Name: 91FH30D85 SF7465
Misc: 11/16/90 1045/1

Id File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

Operator ID: MANAGER
Quant Time: 901116 21:44
Injected at: 901116 21:04

MS data file header from : >RW099

Sample: 91FH30D85 SF7465 Operator: MANAGER SUPER GRP. 11/16/90 21:04
Misc : 11/16/90 1045/1
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

>RW099 91FH30D85 SF746511/16/90 1045/1
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 16363. Max Peaks: 2 Bunching: 1
Dnslope: 0.00 Results File IRW099 Sorted by Time/Area INT

Peak #	R.T. min.	first scan	max scan	last scan	peak height	raw area	corr. area	corr. % max.	% of total
~~1~~	~~3.04~~	~~147~~	~~150~~	~~155~~	~~29880~~	~~194477~~	~~50498~~	~~100.00~~	~~69.115~~
~~2~~	~~9.70~~	~~881~~	~~882~~	~~887~~	~~11523~~	~~30420~~	~~22566~~	~~44.69~~	~~30.885~~

11-20-90 RWW

Sum of corrected areas: 73064.

Summary of Unknowns PBM Library Search and Quantitation

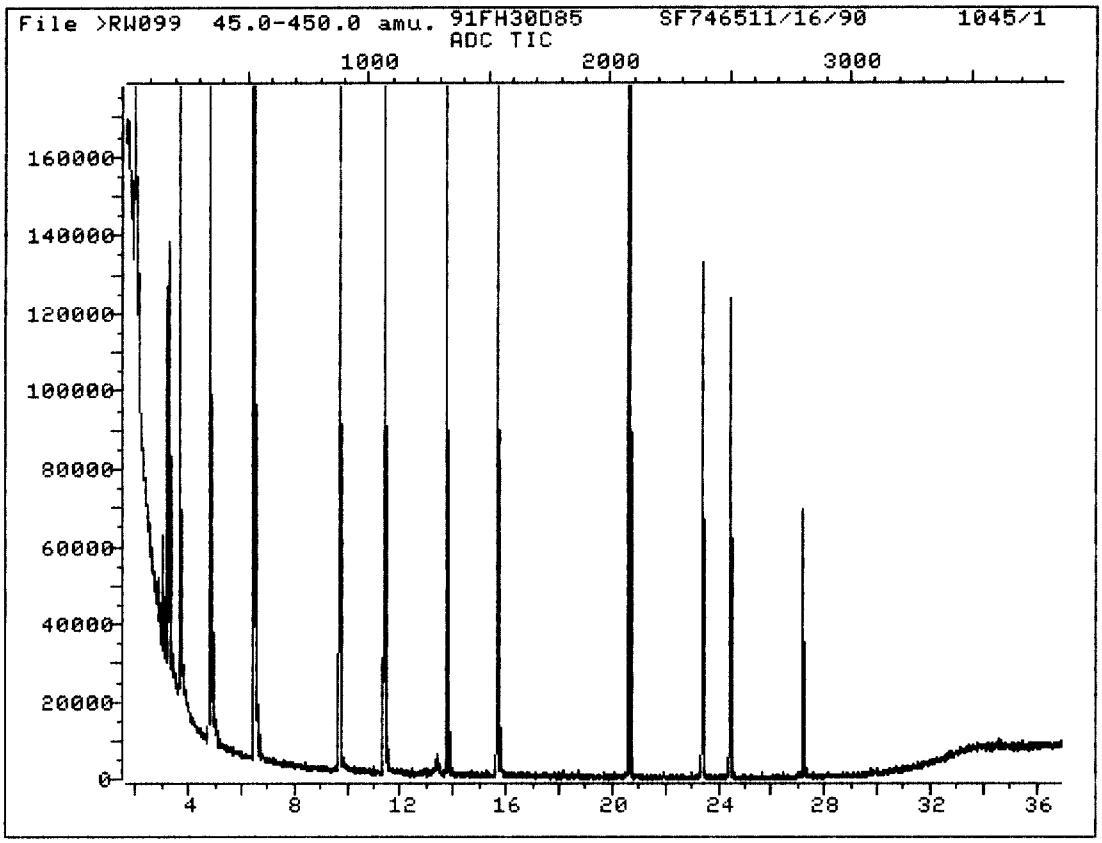
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	981724.	3.61	1.68 - 9.62
2	50.0	843358.	15.63	9.62 - 21.41
3	50.0	163632.	27.19	21.41 - 36.93

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1045.00

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

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

5:37 PM TUE., 20 NOV., 1990


File >RW099 45.0-450.0 amu. 91FH30D85 SF746511/16/90 1045/1
ADC TIC
1000
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120000
100000
80000
60000
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0
4
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12
16
20
24
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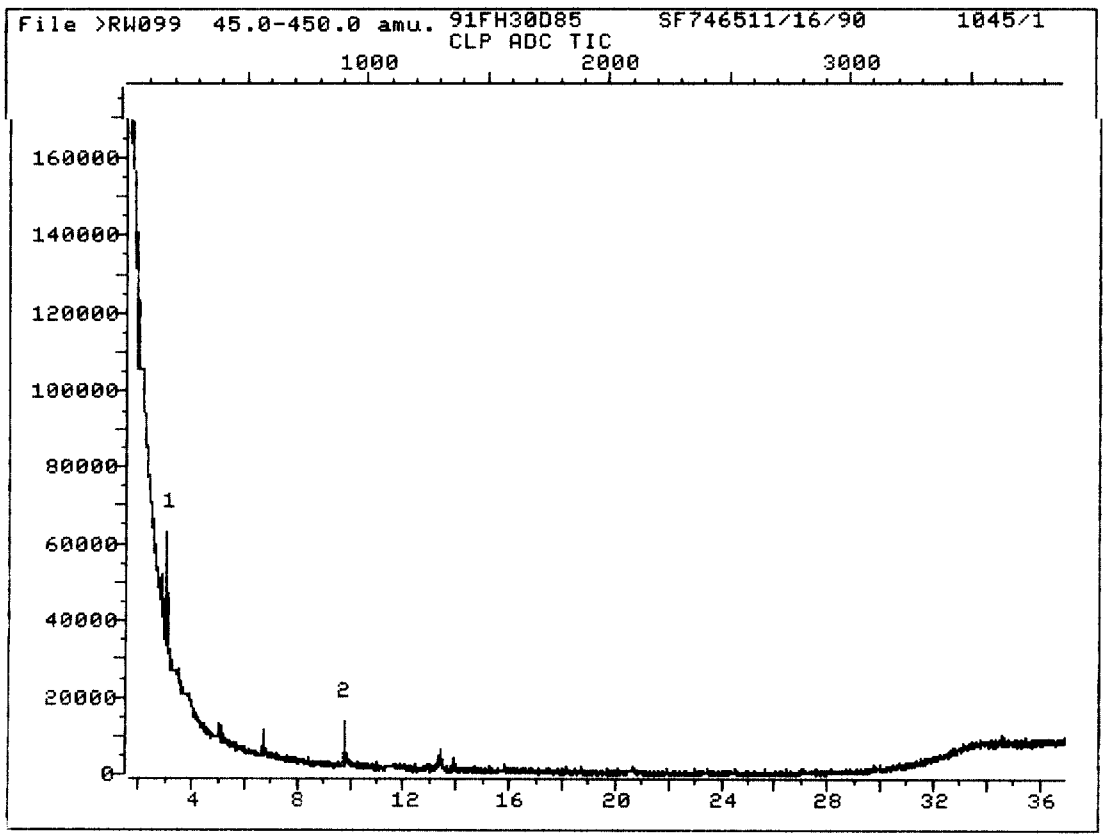
32
36


File >RW099 45.0-450.0 amu. 91FH30D85 SF746511/16/90 1045/1
CLP ADC TIC
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2000
3000
160000
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120000
100000
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0
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12
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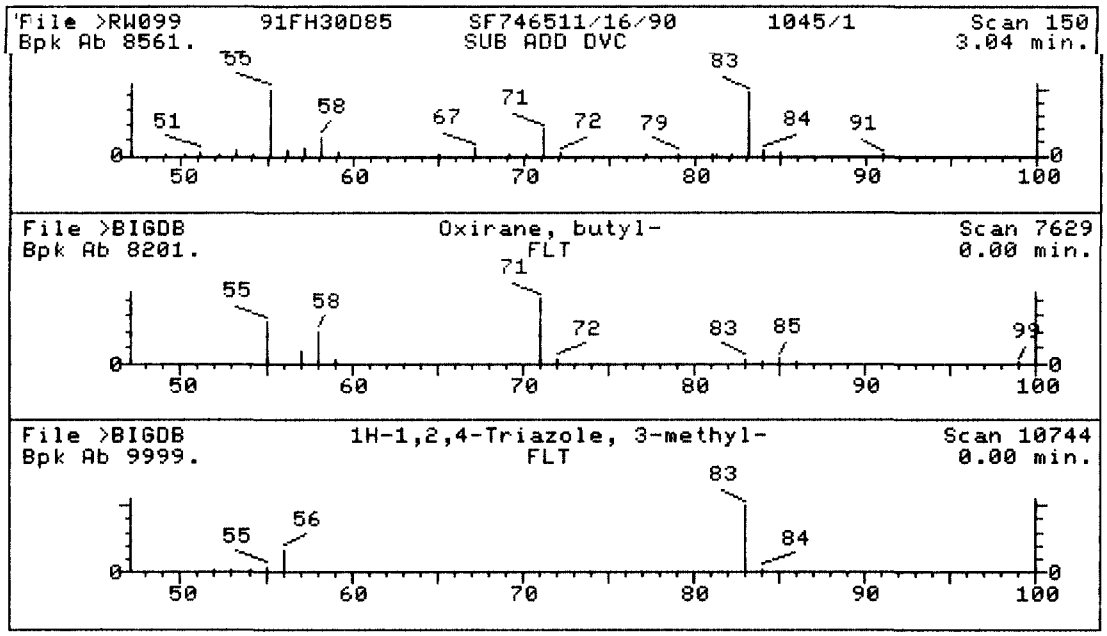
24
28
32
36

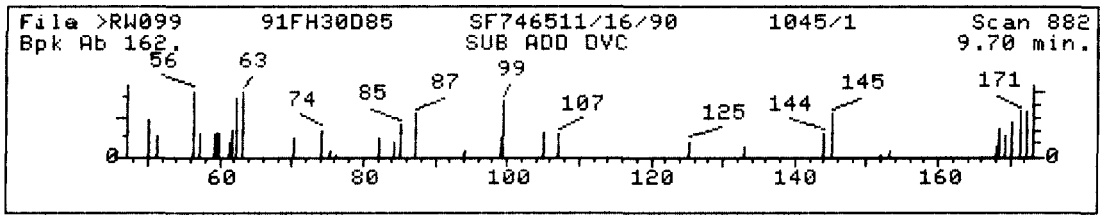


. UNKNOWN #,1
AREA = 50498.00 TENTATIVE CONCENTRATION IS 2.00

1. Oxirane, butyl- 100 C6H12O
2. 1H-1,2,4-Triazole, 3-methyl- 83 C3H5N3

Sample file: >RW099 Spectrum #: 150
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*	1436346	7629	"BIGDB	38	44	2	0	48	58	3	19
2.	11*	7170016	10744	"BIGDB	21	34	1	0	94	65	2	14



. UNKNOWN #,2
AREA = 22566.00 TENTATIVE CONCENTRATION IS 1.000

Sample file: >RW099 Spectrum #: 882

No data base entries were retrieved.

QUANT REPORT

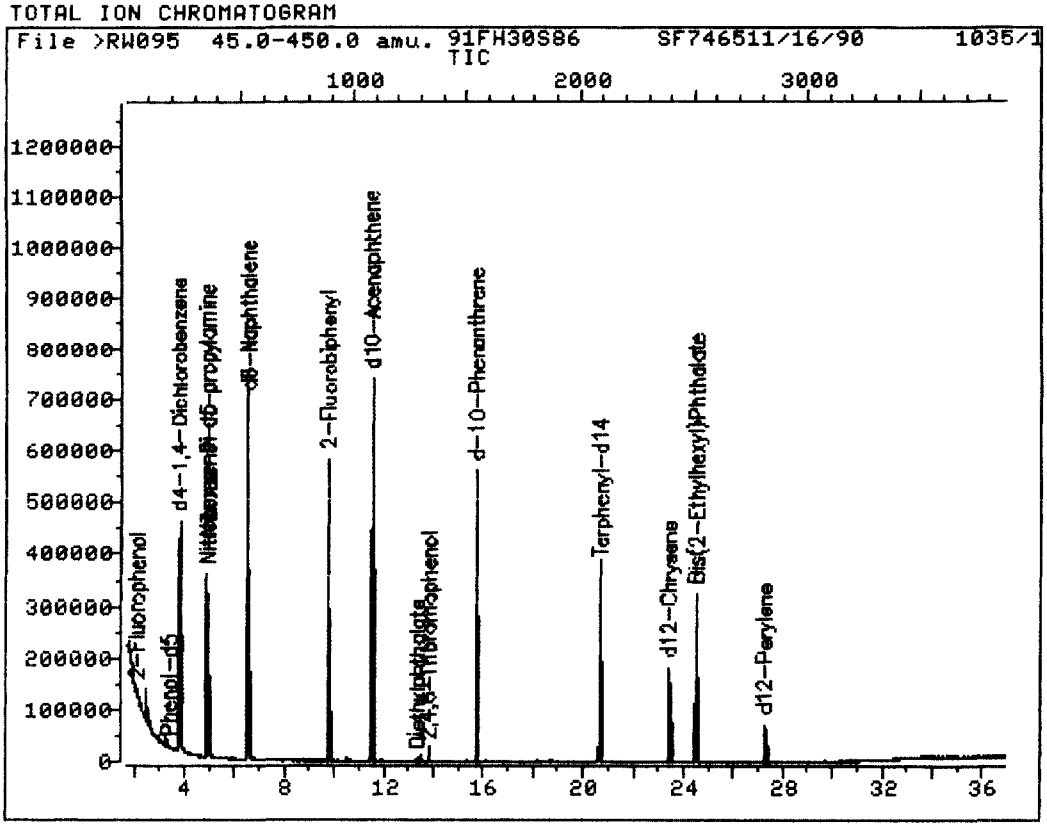
Operator ID: MANAGER Quant Rev: 6 Quant Time: 901116 18:24
Output File: ^RW095::D6 Injected at: 901116 17:44
Data File: >RW095::D6 Dilution Factor: 1.00000
Name: 91FH30S86 SF7465
Misc: 11/16/90 1035/1

ID File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.73	152.0	189984	50.00	NG/UL	96
2)	2-Fluorophenol	2.07	112.0	1398	.31	NG/UL	96
3)	Phenol-d5 11-20-90 RWW	3.35	99.0	1849	.30	NG/UL	92
~~14)~~	~~N-Nitroso-Di-n-propylamine~~	~~4.87~~	~~70.0~~	~~35865~~	~~7.75~~	~~NG/UL~~	~~59~~
16)	d8-Naphthalene	6.50	136.0	729409	44.94	NG/UL	89
17)	Nitrobenzene-d5	4.87	82.0	239368	35.20	NG/UL	91
31)	d10-Acenaphthene	11.44	164.0	332172	43.11	NG/UL	99
36)	2-Fluorobiphenyl	9.69	172.0	396311	31.30	NG/UL	93
39)	*d-10-Phenanthrene 11-20-90 RWW	15.67	188.0	402340	50.00	NG/UL	98
~~48)~~	~~Diethylphthalate~~	~~13.29~~	~~149.0~~	~~4457~~	~~.60~~	~~NG/UL~~	~~90~~
54)	2,4,6-Tribromophenol	13.76	329.8	3892	4.30	NG/UL	91
62)	d12-Chrysene	23.37	240.0	105403	39.04	NG/UL	84
64)	Terphenyl-d14	20.63	244.0	240998	56.96	NG/UL	97
67)	Bis(2-Ethylhexyl)Phthalate	24.45	149.0	222473	58.68	NG/UL	86
69)	*d12-Perylene	27.22	264.0	42629	50.00	NG/UL	95

* Compound is ISTD

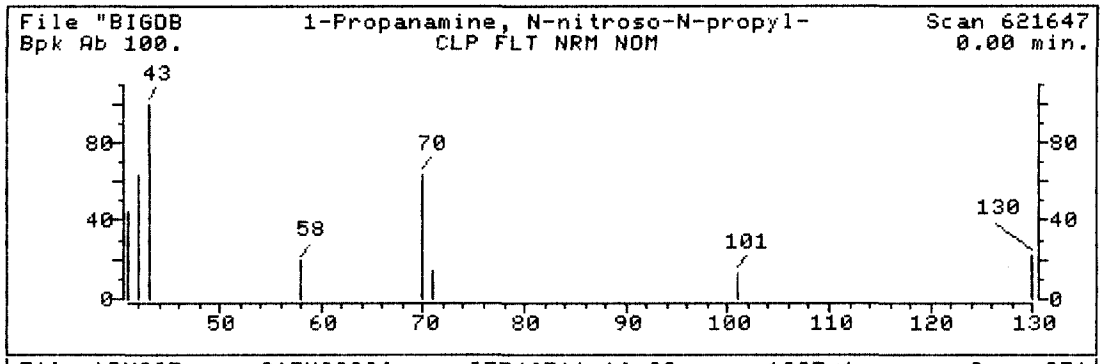
TOTAL ION CHROMATOGRAM

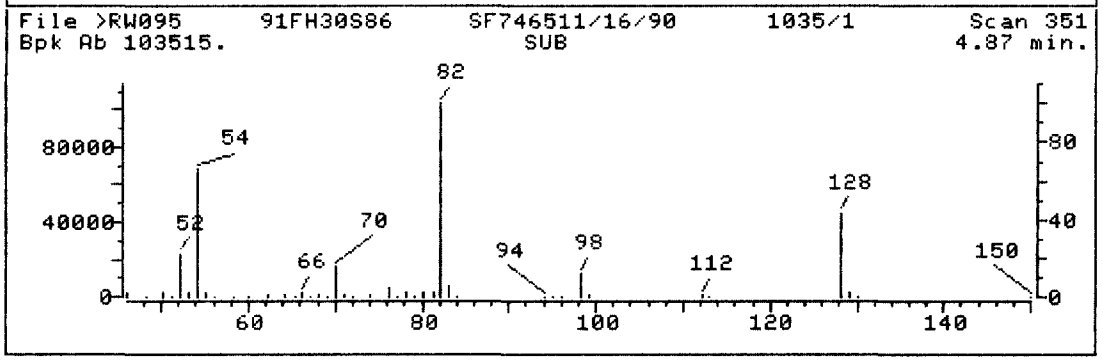


Data File: >RW095::D6 Quant Output File: ^RW095::D6
Name: 91FH30S86 SF7465
Misc: 11/16/90 1035/1

Id File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

Operator ID: MANAGER
Quant Time: 901116 18:24
Injected at: 901116 17:44


File "BIGDB
Bpk Ab 100.
1-Propanamine, N-nitroso-N-propyl-
CLP FLT NRM NOM
Scan 621647
0.00 min.
43
70
58
101
130
80
40
0
50
60
70
80
90
100
110
120
130


File >RW095
91FH30S86
SF746511/16/90
1035/1
Scan 351
Bpk Ab 103515.
SUB
4.87 min.
82
54
52
70
66
94
98
112
128
150
80000
40000
0
60
80
100
120
140

MS data file header from : >RW095

Sample: 91FH30S86 SF7465 Operator: MANAGER SUPER GRP. 11/16/90 17:44
Misc : 11/16/90 1035/1
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

>RW095 91FH30S86 SF746511/16/90 1035/1
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 16951. Max Peaks: 4 Bunching: 1
Dnslope: 0.00 Results File IRW095 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
					2.44 to 2.52		120487		
~~1~~	~~2.47~~	~~85~~	~~88~~	~~101~~	~~72849~~	~~784882~~	~~202529~~	~~100.00~~	~~66.969~~
~~2~~	~~3.16~~	~~161~~	~~164~~	~~174~~	~~23133~~	~~268497~~	~~55103~~	~~27.21~~	~~18.221~~
~~3~~	~~11.48~~	~~1077~~	~~1078~~	~~1085~~	~~8978~~	~~31087~~	~~21127~~	~~10.43~~	~~6.986~~
~~4~~	~~13.40~~	~~1281~~	~~1289~~	~~1293~~	~~10613~~	~~39862~~	~~23662~~	~~11.68~~	~~7.824~~

1-20-90 RWN

Sum of corrected areas: 302421.

Summary of Unknowns PBM Library Search and Quantitation

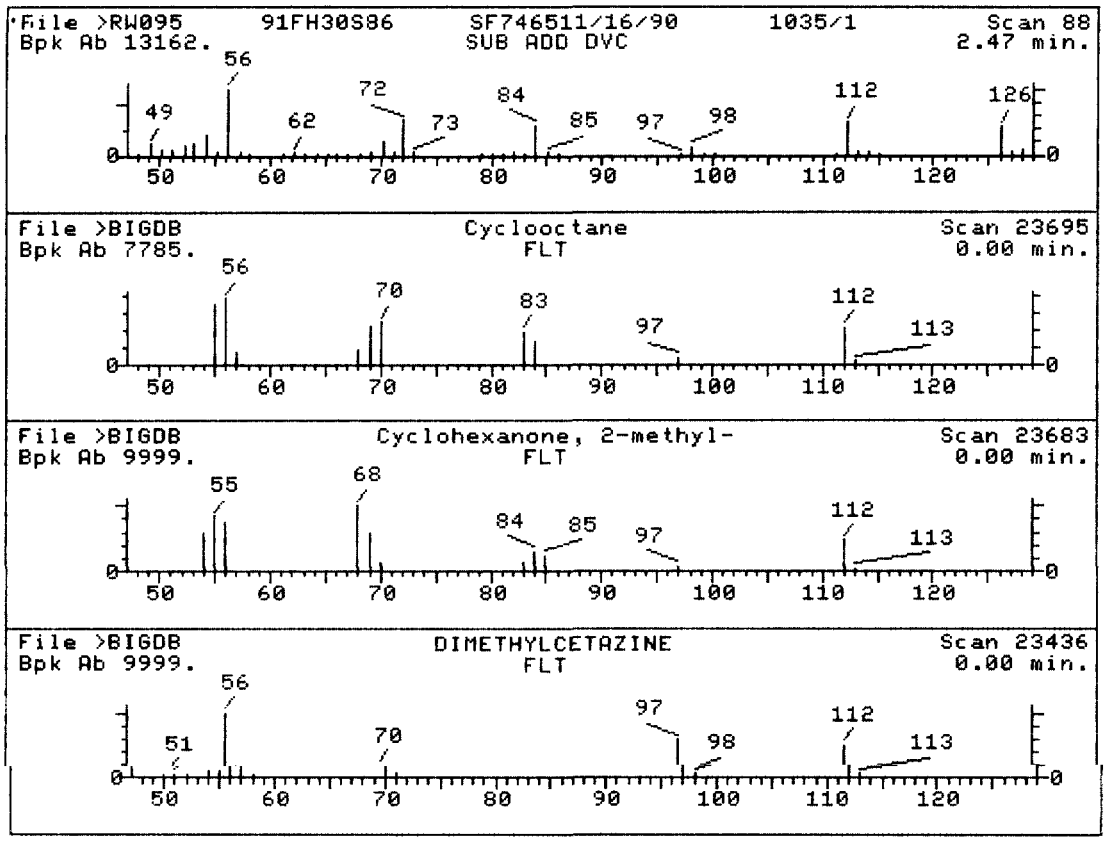
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	1139876.	3.73	1.68 - 9.70
2	50.0	1227673.	15.67	9.70 - 21.44
3	50.0	169510.	27.22	21.44 - 36.92

Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1035.00

Correction Factor = .97 = (AM / AU) / (DF * FS)

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

5:18 PM TUE., 20 NOV., 1990



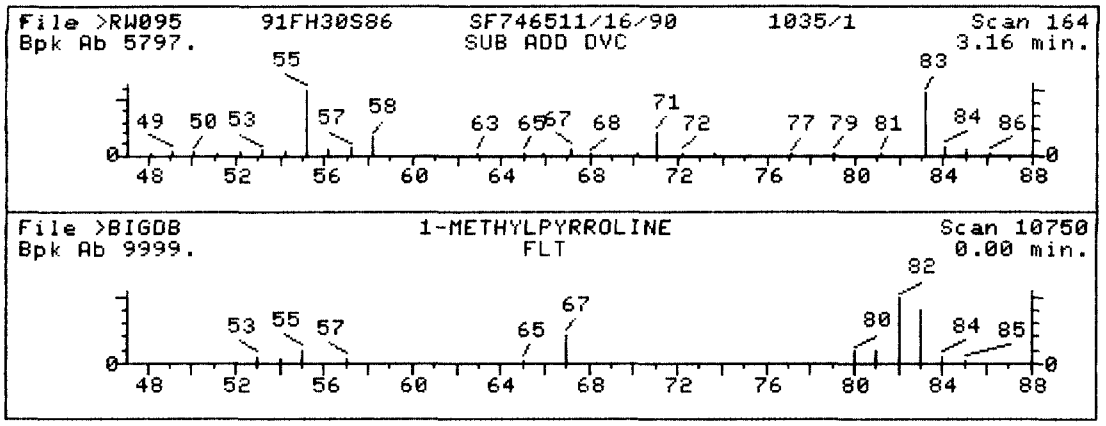
11-20-90 RWW

. UNKNOWN #,1
AREA = 202529.0 TENTATIVE CONCENTRATION IS ~~9.00~~ 5

1. Cyclooctane	112	C8H16
2. Cyclohexanone, 2-methyl-	112	C7H12O
3. DIMETHYLCETAZINE	112	C6H12N2
4. Cyclooctane	112	C8H16
5. CIS NONENE-3	126	C9H18
6. Cycloheptanone	112	C7H12O
7. TRANS NONENE-3	126	C9H18

Sample file: >RW095 Spectrum #: 88
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.	27*	292648	23695	"BIGDB	26	90	3	0	115	40	10	13
2.	27*	583608	23683	"BIGDB	26	95	3	0	105	36	10	13
3.	25*	0	23436	"BIGDB	35	62	2	0	99	50	7	14
4.	25*	292648	23452	"BIGDB	40	69	3	0	163	46	7	13
5.	25*	0	28745	"BIGDB	40	74	3	0	106	43	8	13
6.	25*	502421	11740	"BIGDB	31	75	3	0	185	46	7	13
7.	25*	0	28746	"BIGDB	22	91	3	0	126	46	7	12



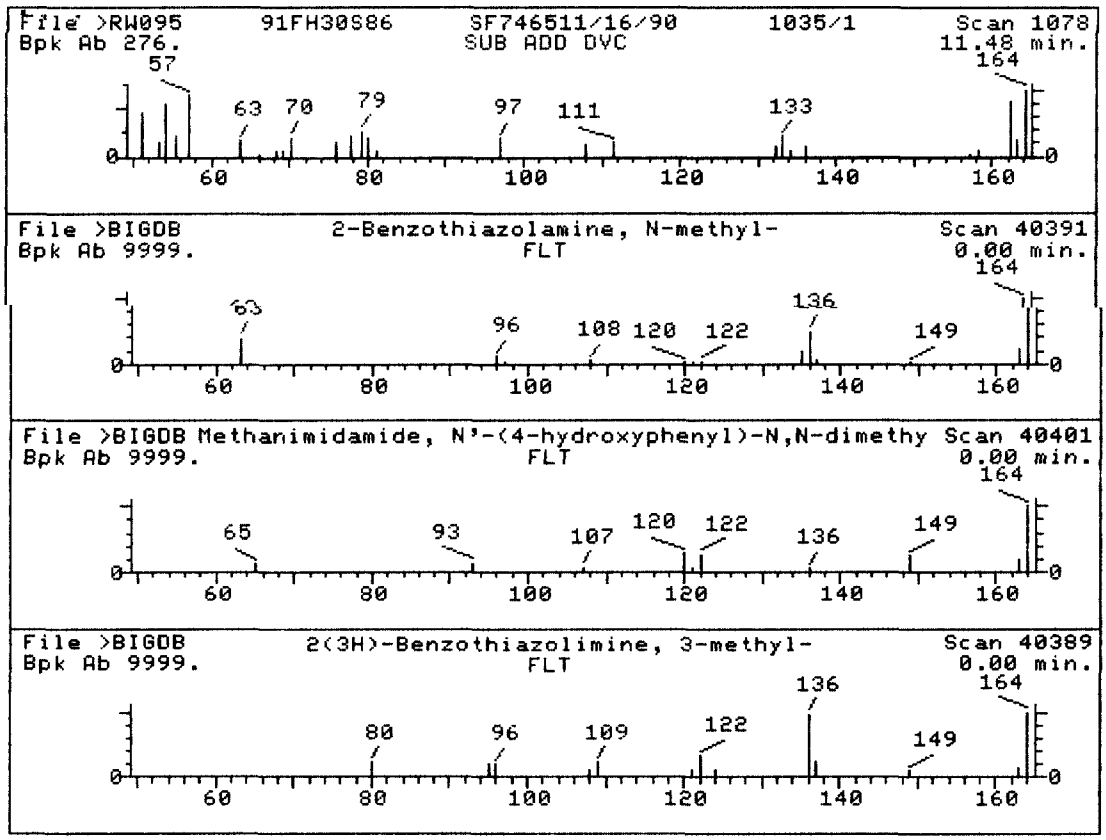
11-20-90 RWW

. UNKNOWN #,2
AREA = 55103.00 TENTATIVE CONCENTRATION IS 2.00

1. 1-METHYLPYRROLINE 83 C5H9N

Sample file: >RW095 Spectrum #: 164
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.	27*	0	10750	"BIGDB	26	77	3	0	116	36	10	13



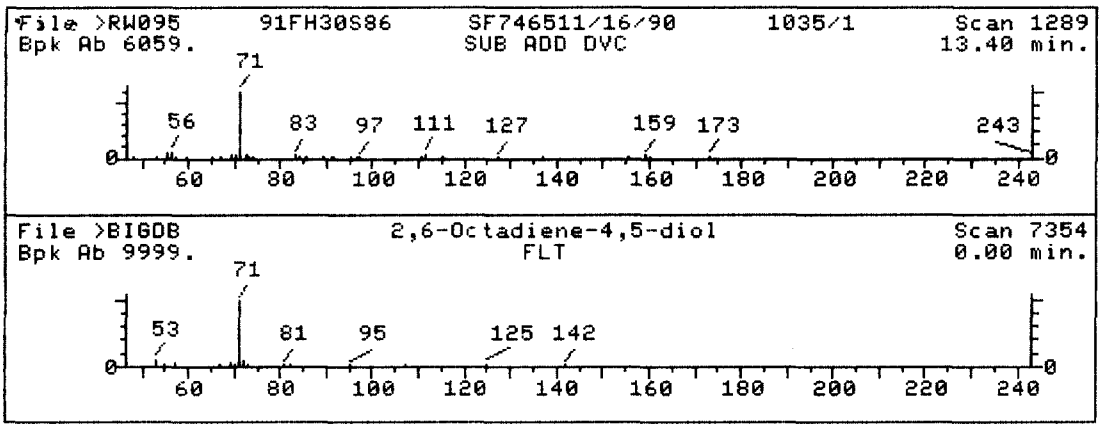
11-30-90
RWJ

. UNKNOWN #,3
AREA = 21127.00 TENTATIVE CONCENTRATION IS .800

1. 2-Benzothiazolamine, N-methyl- 164 C8H8N2S
2. Methanimidamide, N'-(4-hydroxyphenyl)-N,N-dimethyl- 164 C9H12N2O
3. 2(3H)-Benzothiazolimine, 3-methyl- 164 C8H8N2S

Sample file: >RW095 Spectrum #: 1078
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.	11*	16954691	40391	"BIGDB	25	80	3	0	100	62	2	13
2.	11*	2350518	40401	"BIGDB	22	91	3	0	100	65	2	12
3.	11*	14779169	40389	"BIGDB	26	106	3	0	100	65	2	13



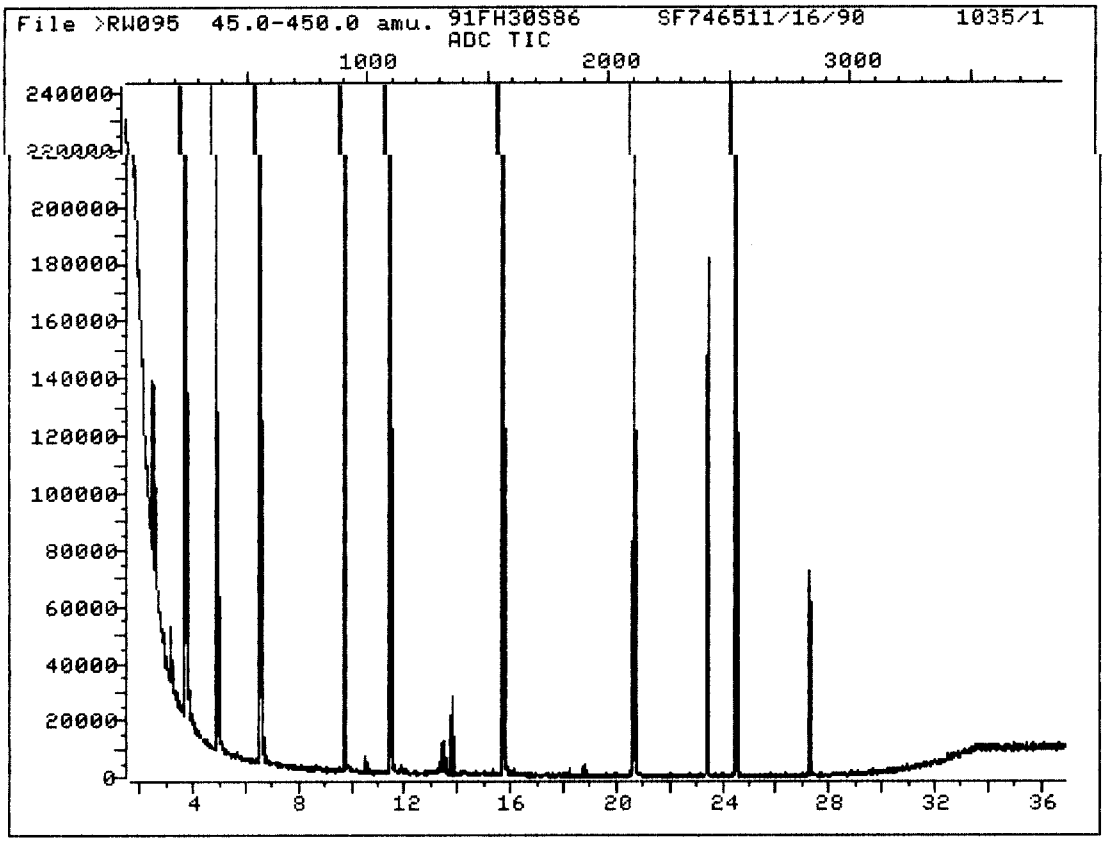
1/-20-90
RWW

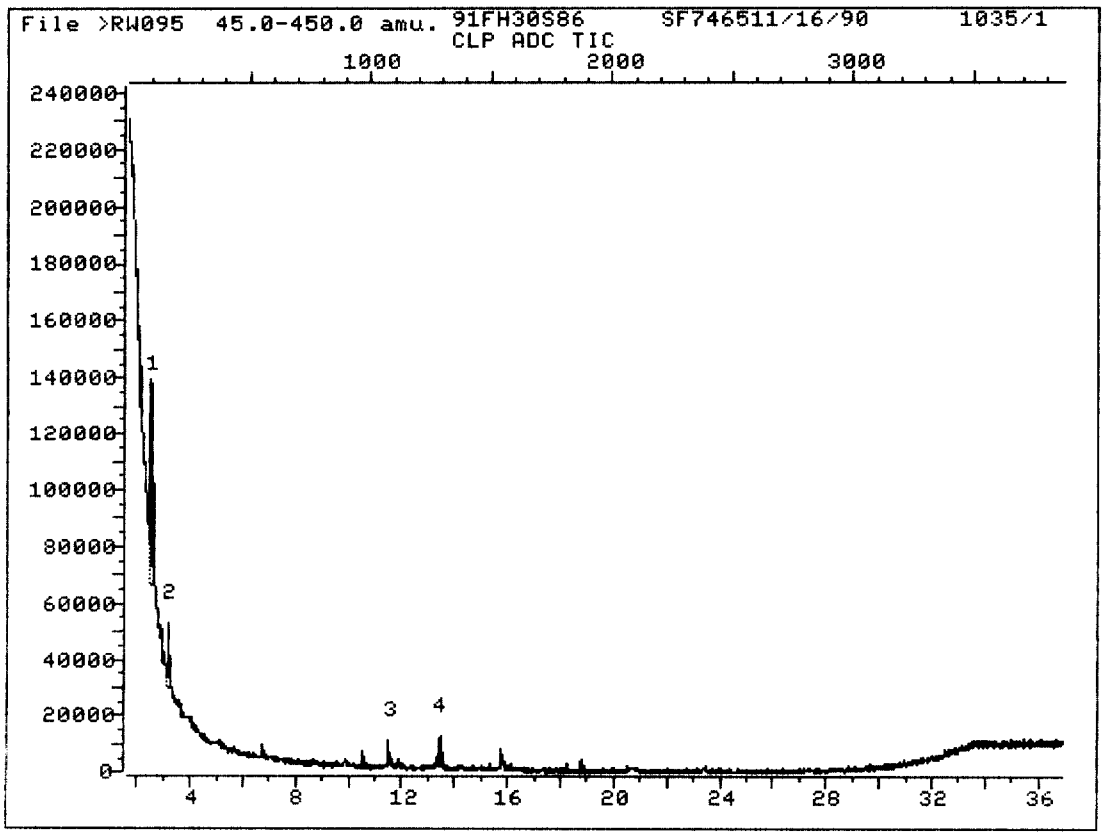
. UNKNOWN #,4
AREA = 23662.00 TENTATIVE CONCENTRATION IS .900

1. 2,6-Octadiene-4,5-diol 142 C8H14O2

Sample file: >RW095 Spectrum #: 1289
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.	52	4486593	7354	"BIGDB	35	44	2	0	100	20	20	12


File >RW095 45.0-450.0 amu. 91FH30S86 SF746511/16/90 1035/1
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 >RW095 45.0-450.0 amu. 91FH30S86 SF746511/16/90 1035/1
CLP ADC TIC
1000
2000
3000
240000
220000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
1
2
3
4
4
8
12
16
20
24
28
32
36

QUANT REPORT

Operator ID: KELLY
Output File: ^RW109::D6
Data File: >RW109::D6
Name: 90FH03R85 RE SF7465
Misc: 11/19/90 1010/1

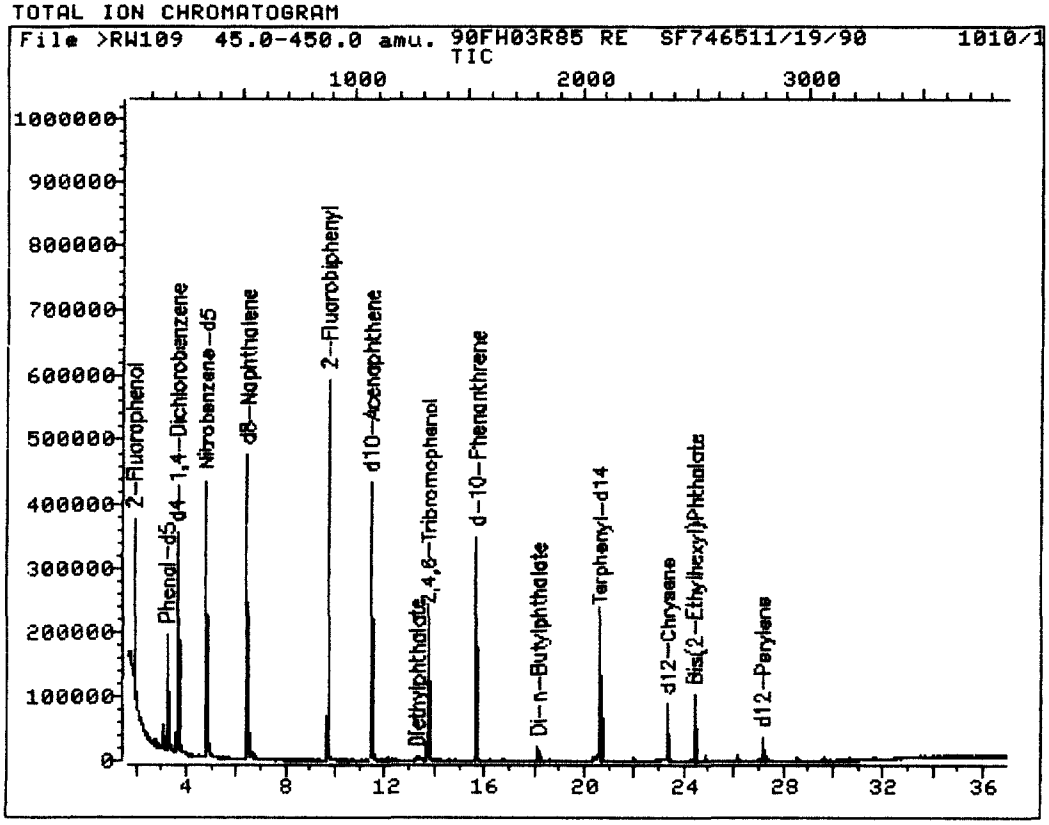
Quant Rev: 6
Quant Time: 901119 19:52
Injected at: 901119 19:12
Dilution Factor: 1.00000

ID File: IDRW6::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901119 17:01

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.58	152.0	128056	50.00	NG/UL	97
2)	2-Fluorophenol	1.87	112.0	168718	45.82	NG/UL	94
3)	Phenol-d5	3.19	99.0	155435	31.11	NG/UL	92
16)	d8-Naphthalene	6.40	136.0	492217	45.29	NG/UL	89
17)	Nitrobenzene-d5	4.77	82.0	313028	58.07	NG/UL	87
31)	d10-Acenaphthene	11.39	164.0	175485	40.52	NG/UL	97
36)	2-Fluorobiphenyl	9.65	172.0	393348	52.51	NG/UL	91
39)	*d-10-Phenanthrene	15.63	188.0	225190	50.00	NG/UL	96
~~48)~~	~~Diethylphthalate~~ 11-20-90 RWW	~~13.27~~	~~149.0~~	~~2360~~	~~.47~~	~~NG/UL~~	~~89~~
54)	2,4,6-Tribromophenol	13.74	329.8	30631	55.98	NG/UL	97
60)	Di-n-Butylphthalate	18.13	149.0	24678	4.52	NG/UL	99
62)	d12-Chrysene	23.31	240.0	48906	53.32	NG/UL	81
64)	Terphenyl-d14	20.58	244.0	134638	73.69	NG/UL	96
67)	Bis(2-Ethylhexyl)Phthalate	24.39	149.0	67428	40.15	NG/UL	88
69)	*d12-Perylene	27.14	264.0	24015	50.00	NG/UL	94

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >RW109::D6 Quant Output File: ^RW109::D6
Name: 90FH03R85 RE SF7465
Misc: 11/19/90 1010/1

Id File: IDRW6::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901119 17:01

Operator ID: KELLY
Quant Time: 901119 19:52
Injected at: 901119 19:12

MS data file header from : >RW109

Sample: 90FH03R85 RE SF7465 Operator: KELLY REG. GRP. 11/19/90 19:12
Misc : 11/19/90 1010/1
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

>RW109 90FH03R85 RE SF746511/19/90 1010/1
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 9200. Max Peaks: 10 Bunching: 1
Dnslope: 0.00 Results File IRW109 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~~	~~2.73~~	~~115~~	~~117~~	~~122~~	~~10903~~	~~107575~~	~~20476~~	~~32.15~~	~~8.601~~
~~2~~	~~3.02~~	~~144~~	~~148~~	~~151~~	~~37240~~	~~138201~~	~~63686~~	~~100.00~~	~~26.750~~
~~3~~	~~3.73~~	~~225~~	~~226~~	~~236~~	~~5359~~	~~97426~~	~~16469~~	~~25.86~~	~~6.917~~
~~4~~	~~6.67~~	~~545~~	~~549~~	~~553~~	~~7921~~	~~38984~~	~~16284~~	~~25.57~~	~~6.840~~
~~5~~	~~20.52~~	~~2066~~	~~2071~~	~~2072~~	~~8766~~	~~22234~~	~~17722~~	~~27.83~~	~~7.444~~
1 ~~6~~	21.95	2221	2228	2232	7545	18679	16637	26.12	6.988
2 ~~7~~	23.42	2388	2390	2398	10079	23924	18487	29.03	7.765
3 ~~8~~	24.82	2538	2544	2549	11158	28950	25146	39.48	10.562
4 ~~9~~	26.13	2682	2688	2700	9586	31461	25699	40.35	10.794
5 ~~10~~	27.37	2819	2824	2831	7381	22821	17472	27.43	7.339

Sum of corrected areas: 238078.

Summary of Unknowns PBM Library Search and Quantitation

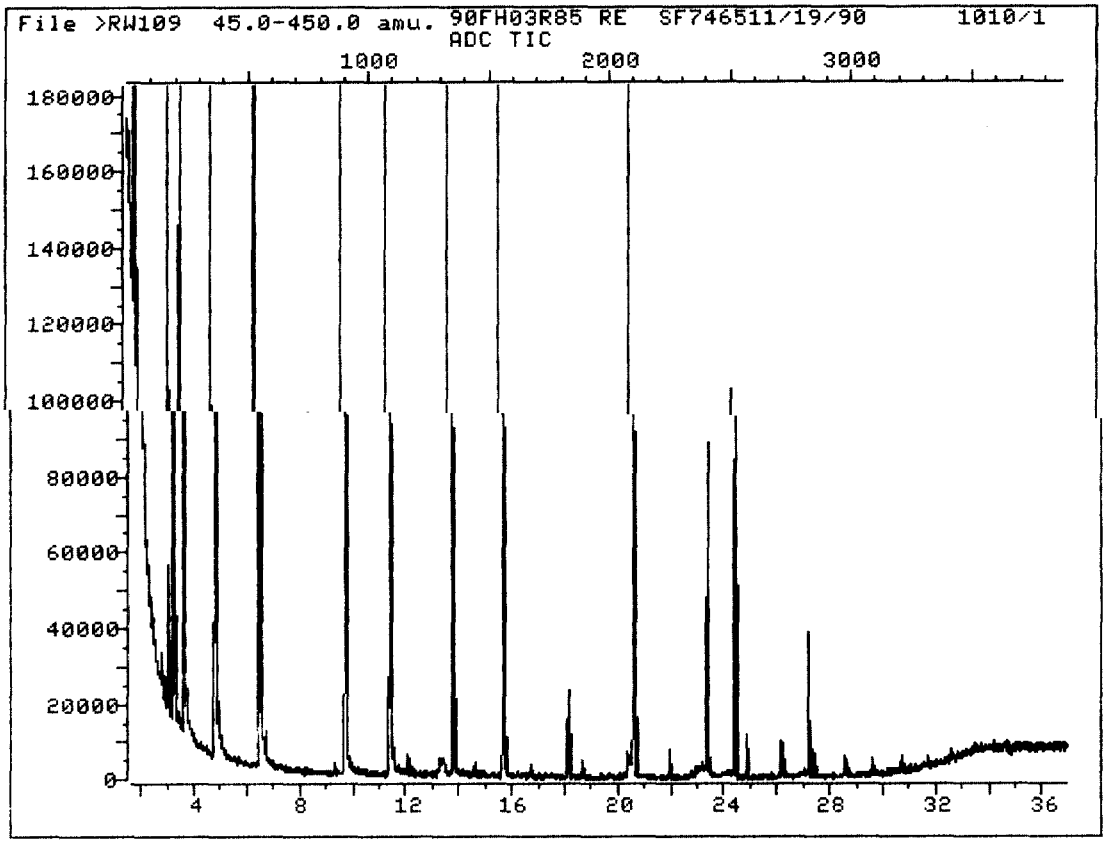
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	865365.	3.58	1.68 - 9.61
2	50.0	740422.	15.63	9.61 - 21.39
3	50.0	91995.	27.14	21.39 - 36.94

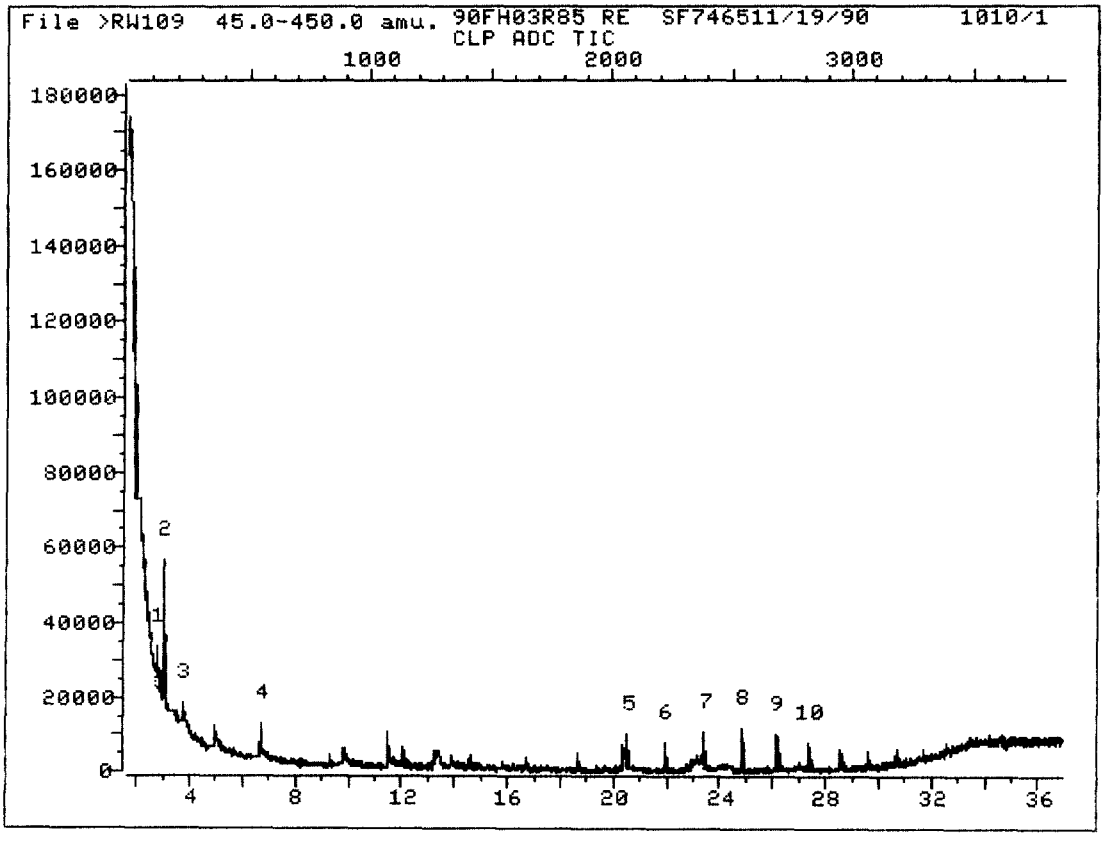
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 1010.00

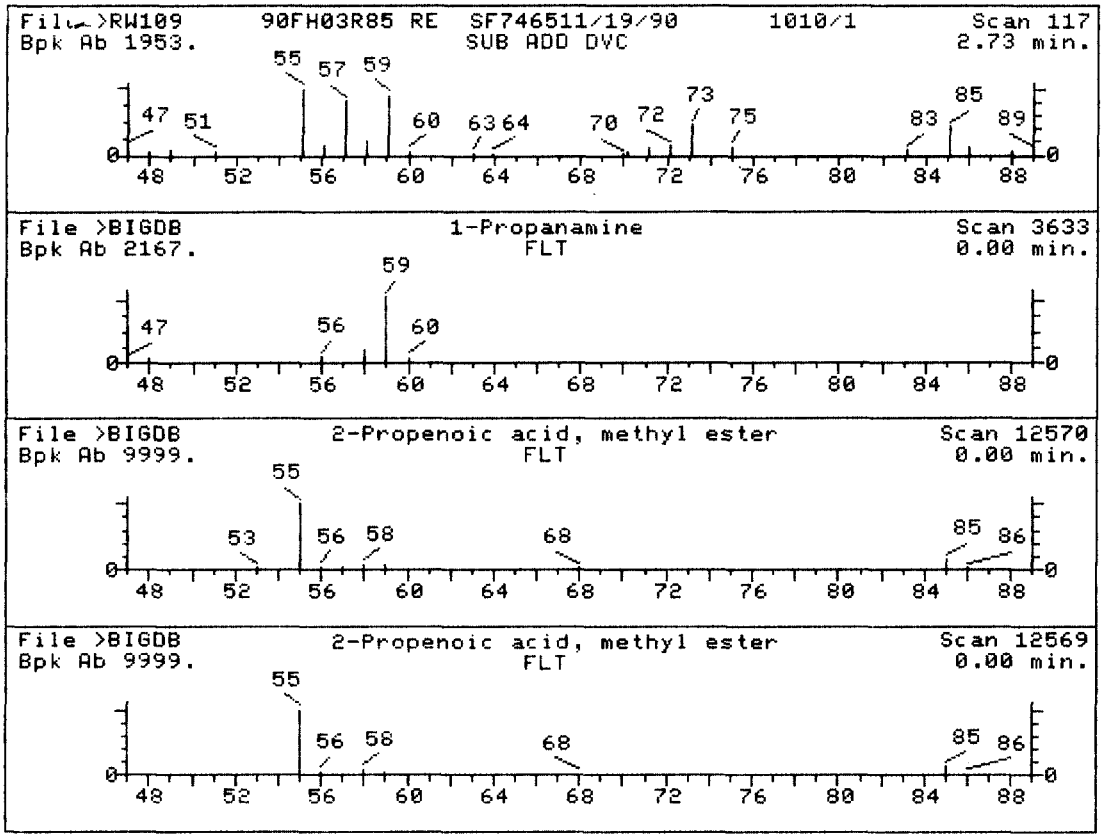
Correction Factor = .99 = (AM / AU) / (DF * FS)

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

7:04 PM TUE., 20 NOV., 1990


File >RW109 45.0-450.0 amu. 90FH03R85 RE SF746511/19/90 1010/1
ADC TIC
1000
2000
3000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36


File >RW109 45.0-450.0 amu. 90FH03R85 RE SF746511/19/90 1010/1
CLP ADC TIC
1000
2000
3000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
1
2
3
4
5
6
7
8
9
10
4
8
12
16
20
24
28
32
36

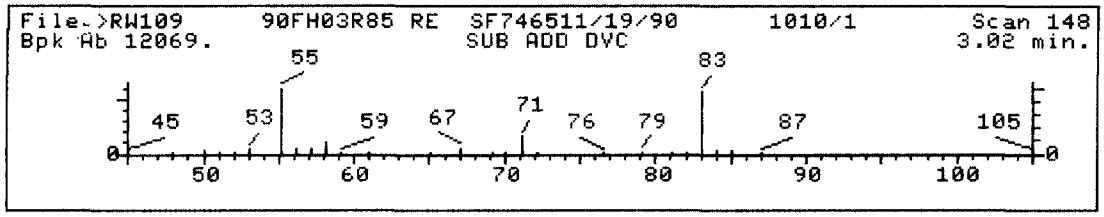


. UNKNOWN #,1
AREA = 20476.00 TENTATIVE CONCENTRATION IS 1.000

1. 1-Propanamine	59	C3H9N
2. 2-Propenoic acid, methyl ester	86	C4H6O2
3. 2-Propenoic acid, methyl ester	86	C4H6O2
4. 2,2'-Bioxirane	86	C4H6O2

Sample file: >RW109 Spectrum #: 117
Search speed: 1 Tilting option: N No. of ion ranges searched: 51

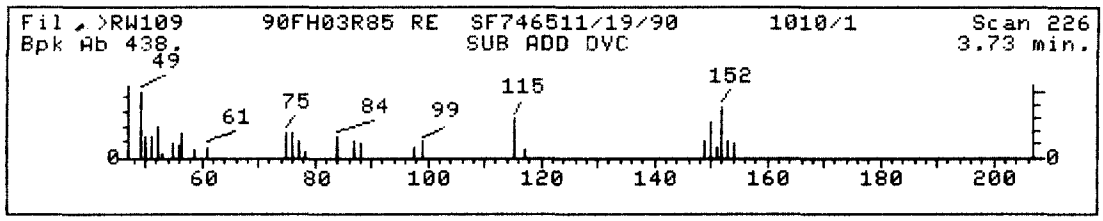
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	31*	107108	3633	"BIGDB	28	50	0	0	415	42	8	19
2.	15*	96333	12570	"BIGDB	22	56	3	0	283	57	3	12
3.	15*	96333	12569	"BIGDB	22	68	2	0	266	57	3	13
4.	15*	1464535	12573	"BIGDB	26	87	3	0	166	59	3	13



. UNKNOWN #,2
AREA = 63686.00 TENTATIVE CONCENTRATION IS 4.00

Sample file: >RW109 Spectrum #: 148

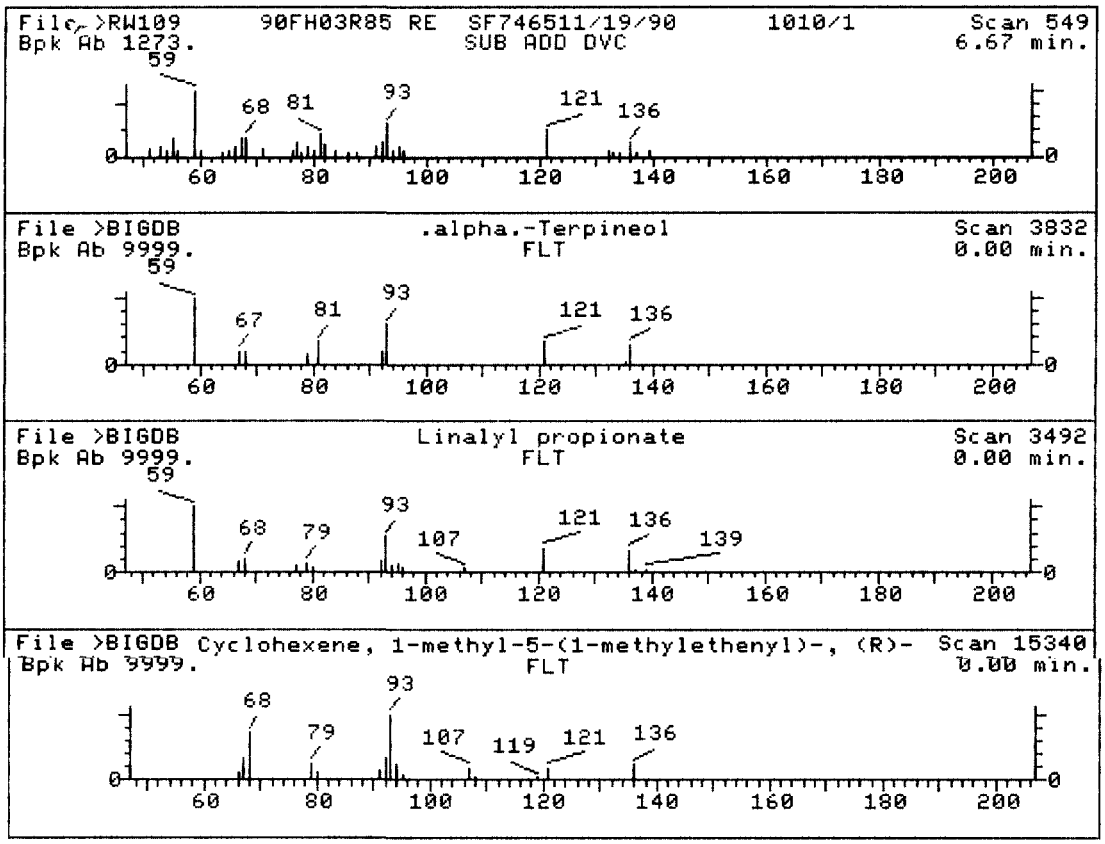
No data base entries were retrieved.



. UNKNOWN #,3
AREA = 16469.00 TENTATIVE CONCENTRATION IS .900

Sample file: >RW109 Spectrum #: 226

No data base entries were retrieved.

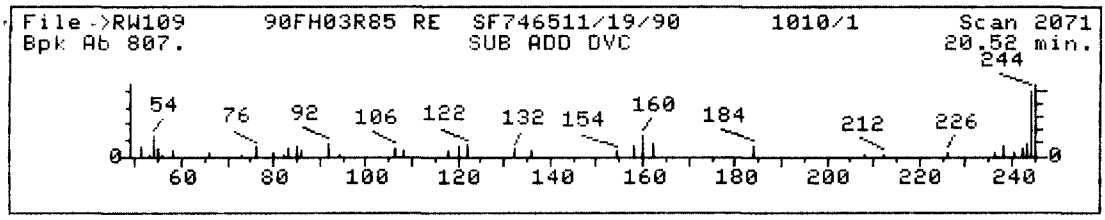


. UNKNOWN #,4
AREA = 16284.00 TENTATIVE CONCENTRATION IS .900

1.	.alpha.-Terpineol	154	C10H18O
2.	Linalyl propionate	210	C13H22O2
3.	Cyclohexene, 1-methyl-5-(1-methylethenyl)-, (R)-	136	C10H16
4.	.gamma.-Terpinene	136	C10H16
5.	l-Phellandrene	136	C10H16
6.	Butanoic acid, 2-hydroxy-, ethyl ester	132	C6H12O3
7.	TERPINYL ACETATE	196	C12H20O2

Sample file: >RW109 Spectrum #: 549
Search speed: 1 Tilting option: N No. of ion ranges searched: 51

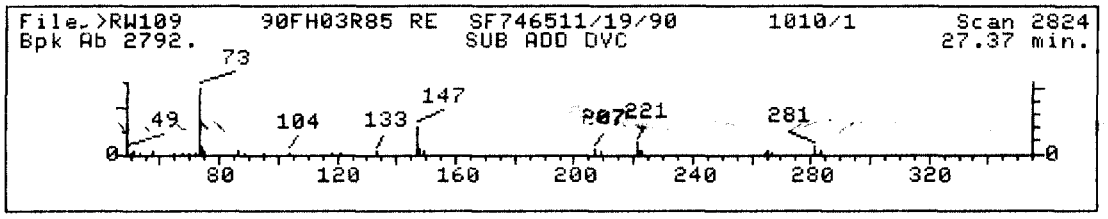
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	52	98555	3832	"BIGDB	48	33	1	0	69	20	20	18
2.	40	144398	3492	"BIGDB	71	57	2	0	90	30	14	17
3.	20*	1461274	15340	"BIGDB	32	69	3	0	49	55	5	13
4.	11*	99854	15514	"BIGDB	37	58	3	0	49	65	2	13
5.	11*	99832	32383	"BIGDB	32	56	3	0	49	62	2	13
6.	11*	52089540	3264	"BIGDB	20	62	2	0	100	61	2	13
7.	11	0	32209	"BIGDB	35	33	0	0	94	65	2	18



. UNKNOWN #,5
AREA = 17722.00 TENTATIVE CONCENTRATION IS 1.000

Sample file: >RW109 Spectrum #: 2071

No data base entries were retrieved.

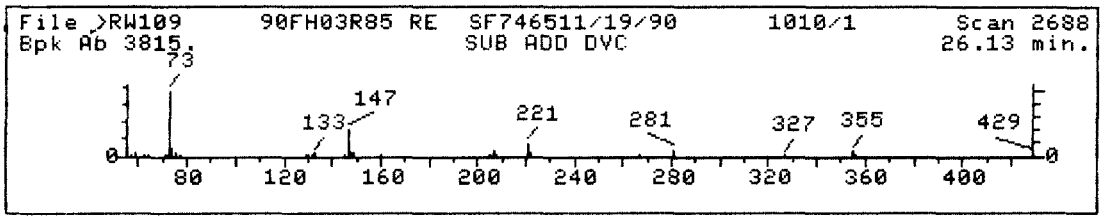


conc is correct
11-21-90
RWW

. UNKNOWN # ~~10~~ 5
AREA = 17472.00 TENTATIVE CONCENTRATION IS 9.00

Sample file: >RW109 Spectrum #: 2824

No data base entries were retrieved.

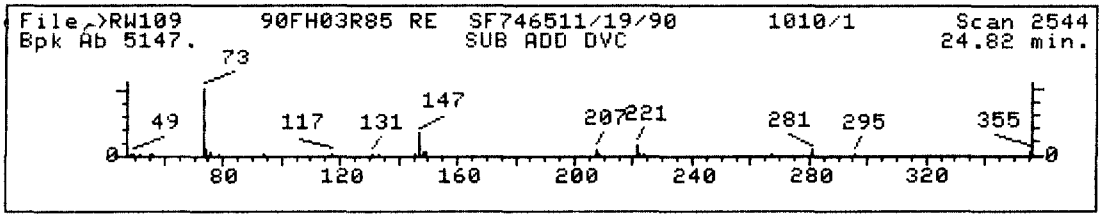


conc is correct
11-21-90
RWW

. UNKNOWN # ~~9~~ 4
AREA = 25699.00 TENTATIVE CONCENTRATION IS 14.00

Sample file: >RW109 Spectrum #: 2688

No data base entries were retrieved.

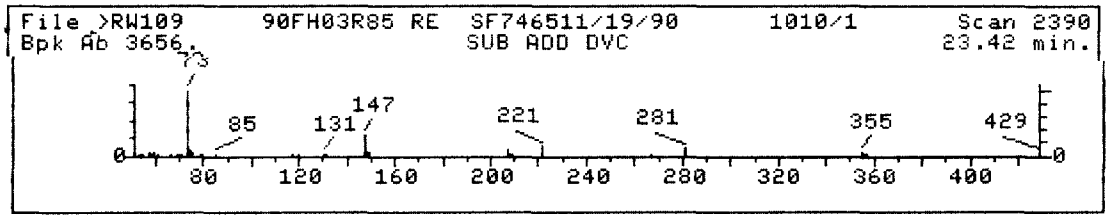


Conc is correct
11-21-90
RWW

. UNKNOWN # ~~8~~ 3
AREA = 25146.00 TENTATIVE CONCENTRATION IS 14.00

Sample file: >RW109 Spectrum #: 2544

No data base entries were retrieved.

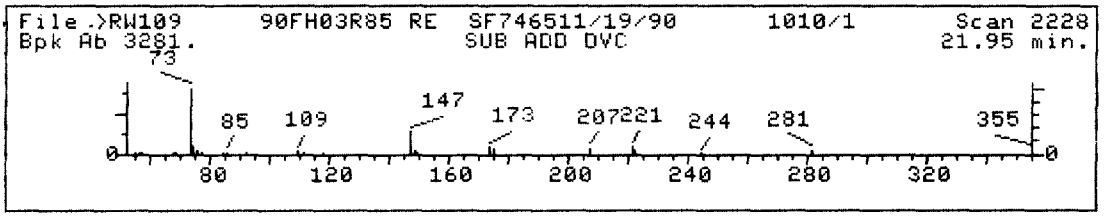


conc is correct
11-21-90
RWW

. UNKNOWN #~~7~~ 2
AREA = 18487.00 TENTATIVE CONCENTRATION IS 10.00

Sample file: >RW109 Spectrum #: 2390

No data base entries were retrieved.



Conc is correct
11-21-90
RWW

. UNKNOWN # ~~6~~ 1
AREA = 16637.00 TENTATIVE CONCENTRATION IS 9.00

Sample file: >RW109 Spectrum #: 2228

No data base entries were retrieved.

QUANT REPORT

Operator ID: KELLY
Output File: ^RW108::D6
Data File: >RW108::D6
Name: 90FH30S87 RE SF7465
Misc: 11/19/90 945/1

Quant Rev: 6
Quant Time: 901119 19:02
Injected at: 901119 18:22
Dilution Factor: 1.00000

ID File: IDRW6::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901119 17:01

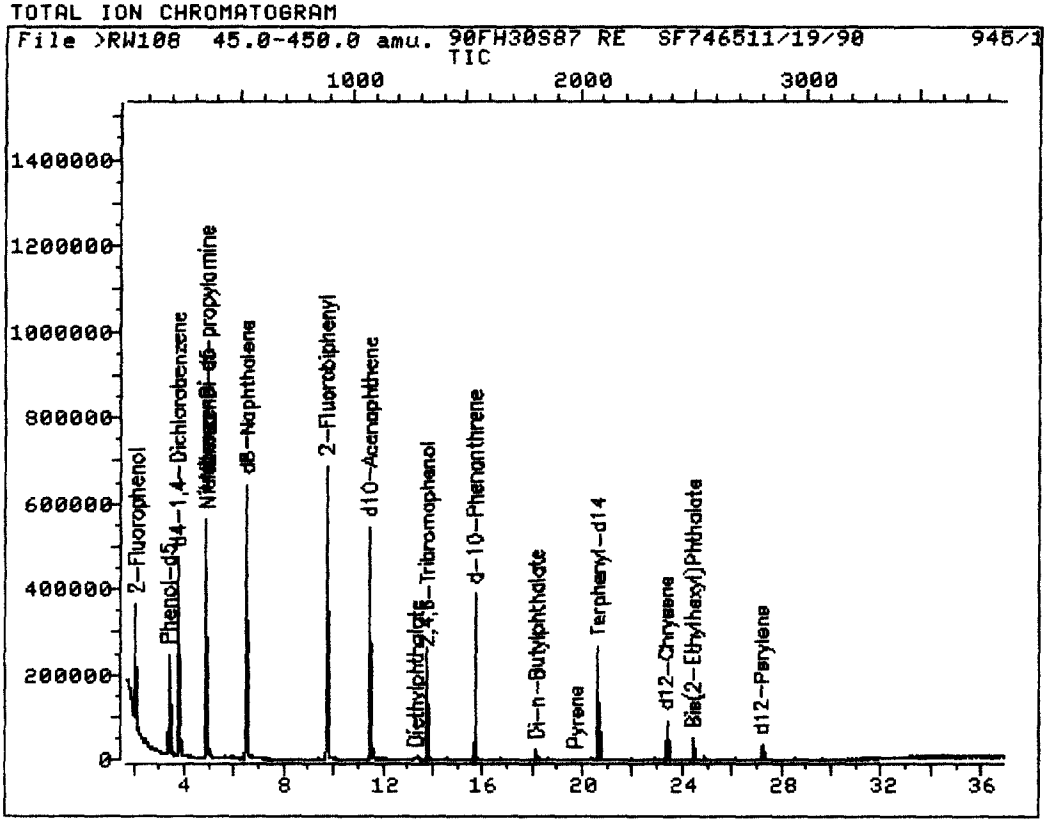
	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.70	152.0	153697	50.00	NG/UL	98
2)	2-Fluorophenol	2.04	112.0	175203	39.64	NG/UL	94
3)	Phenol-d5 11-20-90 RWW	3.33	99.0	170729	28.47	NG/UL	91
~~14)~~	~~N-Nitroso-Di-n-propylamine~~	~~4.86~~	~~70.0~~	~~54388~~	~~12.96~~	~~NG/UL~~	~~59~~
16)	d8-Naphthalene	6.47	136.0	594548	45.58	NG/UL	91
17)	Nitrobenzene-d5	4.86	82.0	357390	55.24	NG/UL	87
31)	d10-Acenaphthene	11.40	164.0	229614	44.17	NG/UL	97
36)	2-Fluorobiphenyl	9.66	172.0	465461	51.77	NG/UL	92
39)	*d-10-Phenanthrene 11-20-90 RWW	15.63	188.0	261060	50.00	NG/UL	97
~~48)~~	~~Diethylphthalate~~	~~13.27~~	~~149.0~~	~~3484~~	~~.60~~	~~NG/UL~~	~~88~~
54)	2,4,6-Tribromophenol	13.74	329.8	33924	53.48	NG/UL	97
60)	Di-n-Butylphthalate	18.13	149.0	26958	4.25	NG/UL	97
62)	d12-Chrysene 11-20-90 RWW	23.31	240.0	51518	48.45	NG/UL	84
~~63)~~	~~Pyrene~~	~~19.70~~	~~202.0~~	~~2010~~	~~.62~~	~~NG/UL~~	~~76~~
64)	Terphenyl-d14	20.58	244.0	150107	70.87	NG/UL	98
67)	Bis(2-Ethylhexyl)Phthalate	24.40	149.0	28707	14.75	NG/UL	88
69)	*d12-Perylene	27.15	264.0	22709	50.00	NG/UL	94

* Compound is ISTD

NO TICs - Col. labeled only

BB 11/28/90

TOTAL ION CHROMATOGRAM



Data File: >RW108::D6 Quant Output File: ^RW108::D6
Name: 90FH30S87 RE SF7465
Misc: 11/19/90 945/1

Id File: IDRW6::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901119 17:01

Operator ID: KELLY
Quant Time: 901119 19:02
Injected at: 901119 18:22

MS data file header from : >RW108

Sample: 90FH30S87 RE SF7465 Operator: KELLY REG. GRP. 11/19/90 18:22
Misc : 11/19/90 945/1
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

>RW108 90FH30S87 RE SF746511/19/90 945/1
45.0| 450.0 CLP ADC TIC
Upslope: .20 Area Reject: 8450. Max Peaks: 10 Bunching: 1
Dnslope: 0.00 Results File IRW108 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~~	~~2.46~~	~~85~~	~~87~~	~~95~~	~~15338~~	~~216299~~	~~36254~~	~~59.85~~	~~13.500~~
~~2~~	~~3.82~~	~~235~~	~~236~~	~~243~~	~~6228~~	~~67430~~	~~18200~~	~~30.05~~	~~6.777~~
~~3~~	~~4.89~~	~~353~~	~~354~~	~~362~~	~~20254~~	~~91149~~	~~60573~~	~~100.00~~	~~22.556~~
~~4~~	~~5.59~~	~~427~~	~~431~~	~~437~~	~~8387~~	~~44551~~	~~18253~~	~~30.13~~	~~6.797~~
~~5~~	~~6.60~~	~~541~~	~~542~~	~~548~~	~~5254~~	~~29847~~	~~17442~~	~~28.80~~	~~6.495~~
~~6~~	~~9.71~~	~~882~~	~~883~~	~~894~~	~~14657~~	~~70935~~	~~57405~~	~~94.77~~	~~21.376~~
~~7~~	~~20.35~~	~~2048~~	~~2053~~	~~2058~~	~~5645~~	~~16883~~	~~12989~~	~~21.44~~	~~4.837~~
#1 ~~8~~	21.95	2224	2228	2232	6344	16513	14124	23.32	5.259
#2 ~~9~~	24.82	2539	2544	2548	8410	20649	17041	28.13	6.346
~~10~~	~~26.13~~	~~2684~~	~~2688~~	~~2696~~	~~6492~~	~~19947~~	~~16264~~ 5825	~~26.85~~	~~6.056~~

Sum of corrected areas: 268545.

Summary of Unknowns PBM Library Search and Quantitation

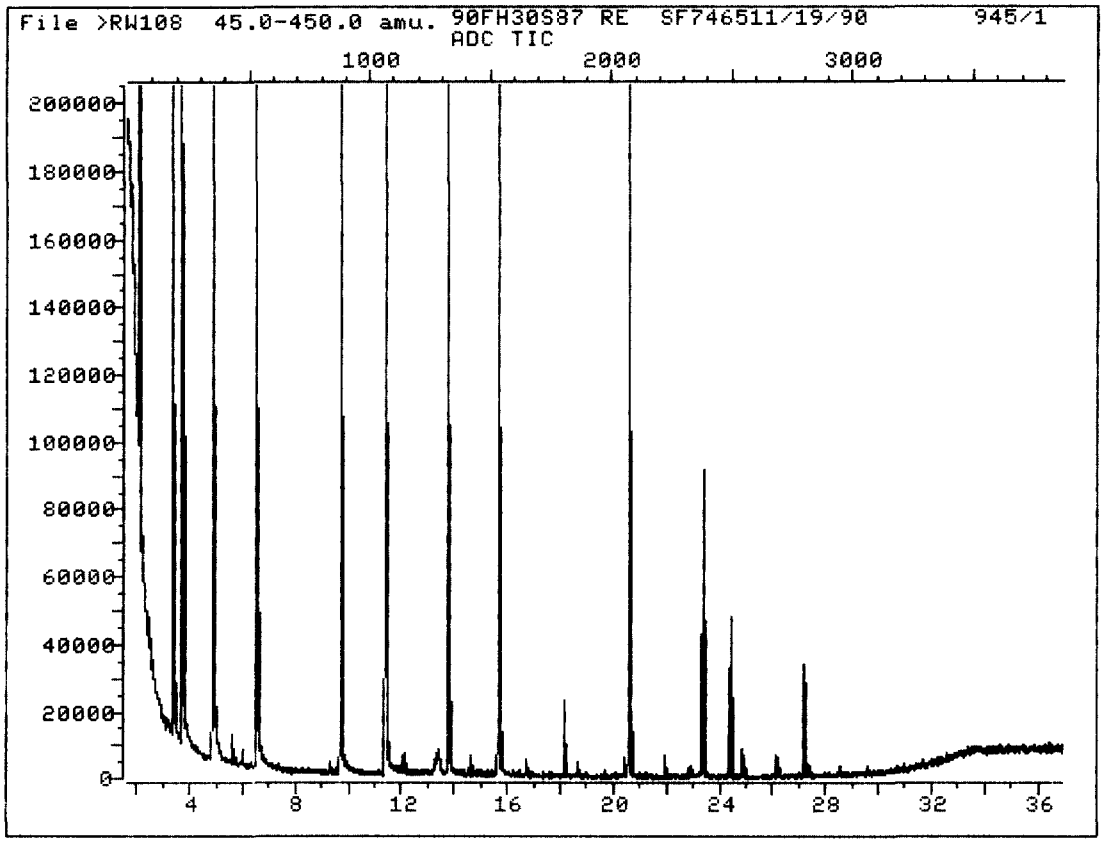
Standard	Concentration	Area	Retention Time	Unknown Window
1	50.0	1046209.	3.70	1.68 - 9.67
2	50.0	852863.	15.63	9.67 - 21.39
3	50.0	84495.	27.15	21.39 - 36.93

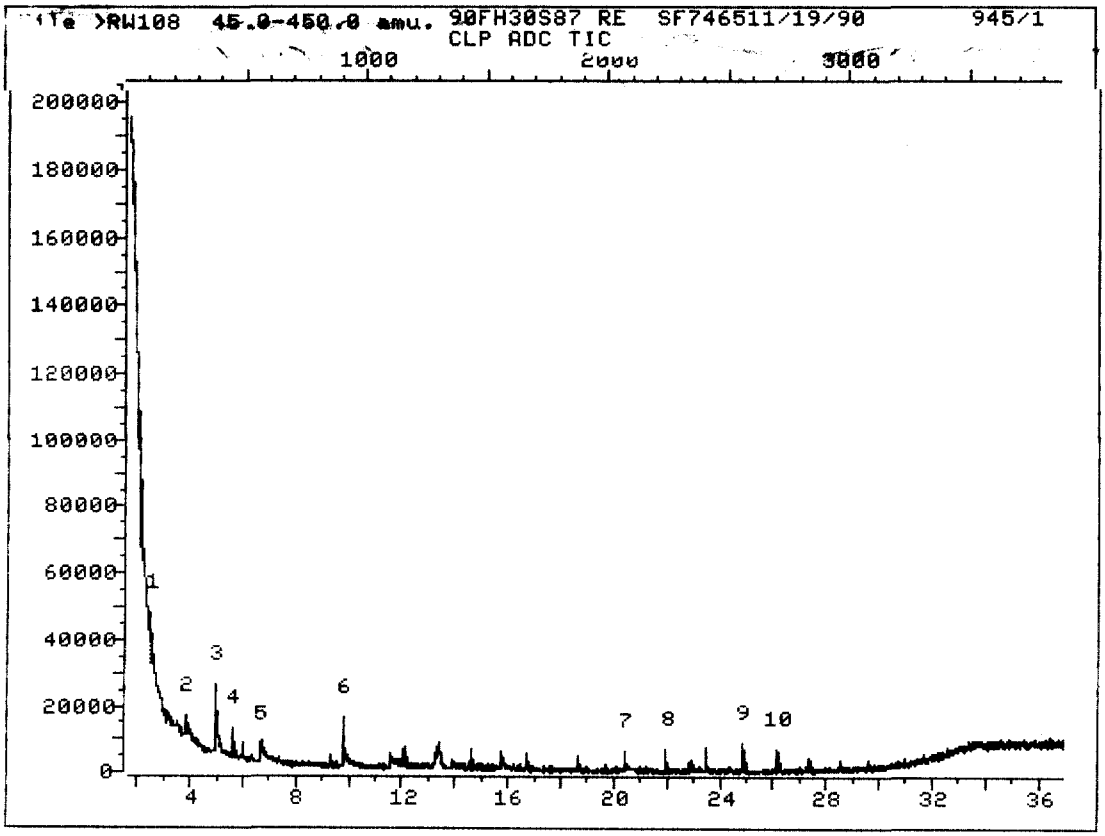
Dilution Factor (DF) = 1.00 Fractional Solids (FS) = 1.00
Amount Method (AM) = 1000.00 Amount Used (AU) = 945.00

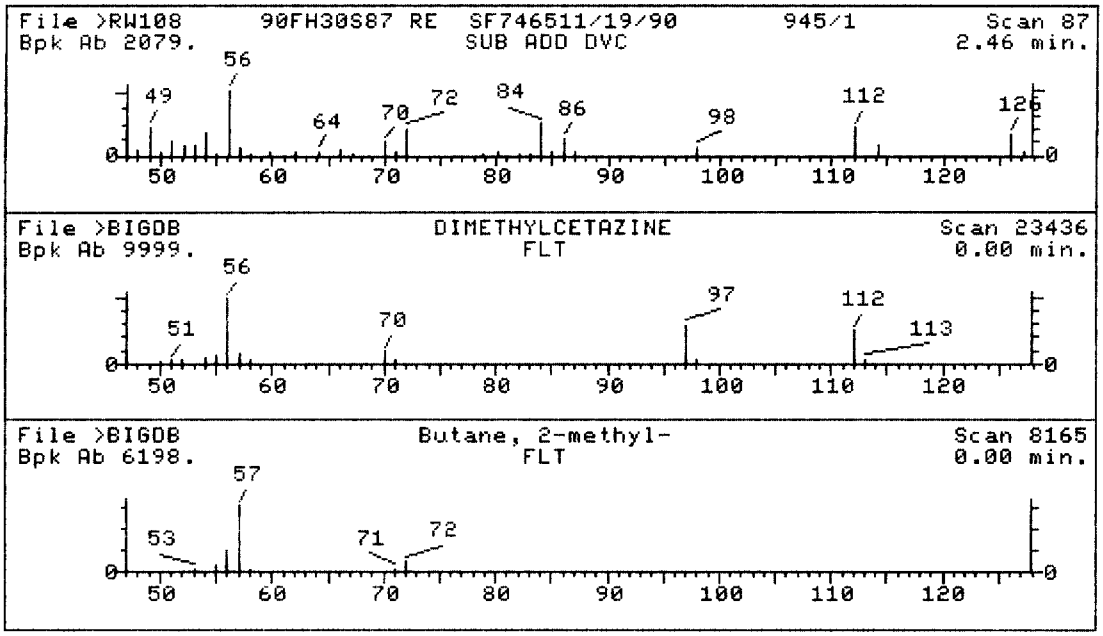
Correction Factor = 1.06 = (AM / AU) / (DF * FS)

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

6:36 PM TUE., 20 NOV., 1990


File >RW108 45.0-450.0 amu. 90FH30S87 RE SF746511/19/90 945/1
ADC TIC
1000
2000
3000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
4
8
12
16
20
24
28
32
36


File >RW108 45.0-450.0 amu. 90FH30S87 RE SF746511/19/90 945/1
CLP ADC TIC
1000
2000
3000
200000
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
1
2
3
4
5
6
7
8
9
10
4
8
12
16
20
24
28
32
36

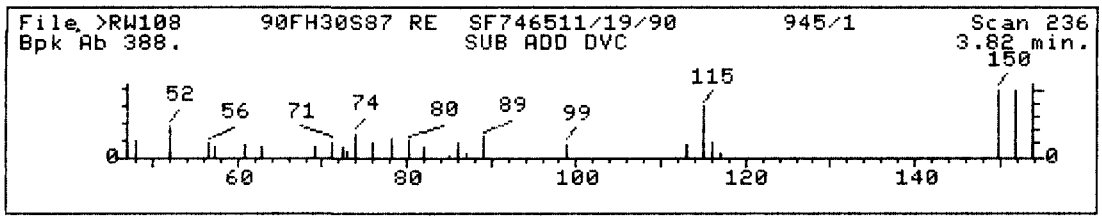


. UNKNOWN #,1
AREA = 36254.00 TENTATIVE CONCENTRATION IS 2.00

1. DIMETHYLCETAZINE 112 C6H12N2
2. Butane, 2-methyl- 72 C5H12

Sample file: >RW108 Spectrum #: 87
Search speed: 1 Tilting option: N No. of ion ranges searched: 51

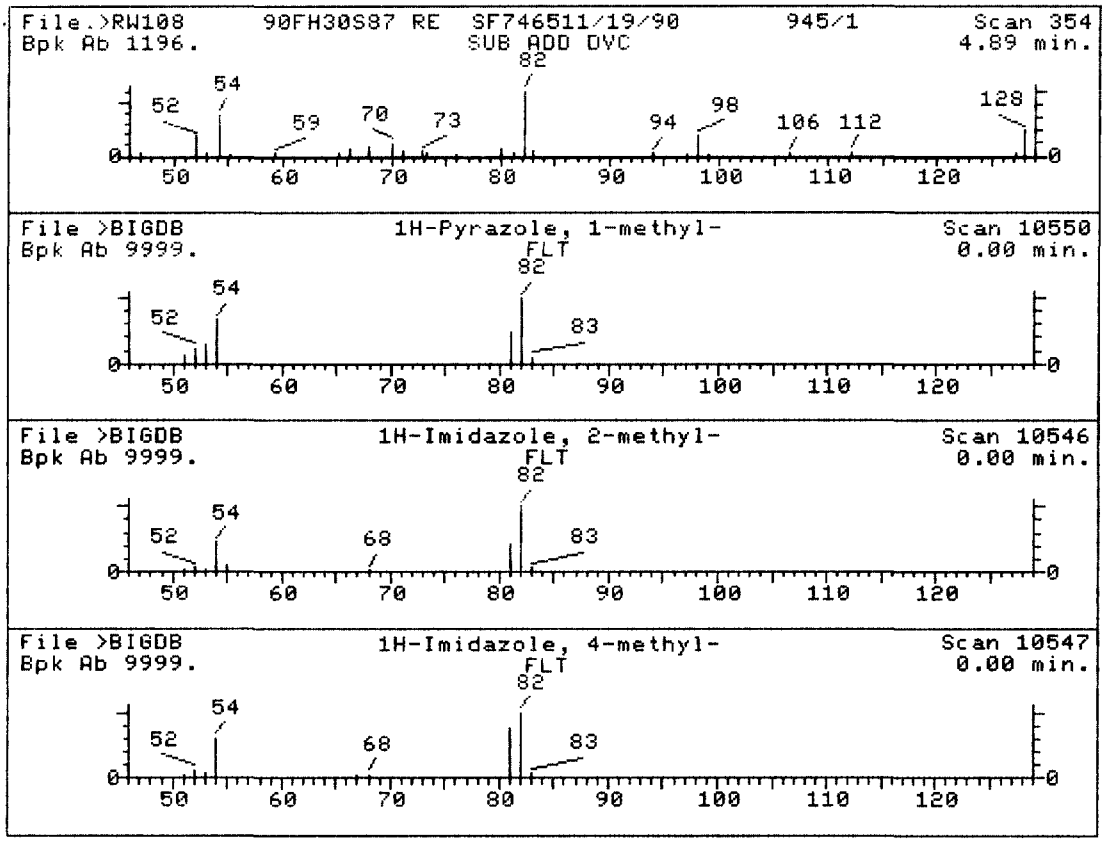
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	11*	0	23436	"BIGDB	29	68	3	0	87	61	2	13
2.	11*	78784	8165	"BIGDB	21	63	2	0	439	61	2	13



. UNKNOWN #,2
AREA = 18200.00 TENTATIVE CONCENTRATION IS .900

Sample file: >RW108 Spectrum #: 236

No data base entries were retrieved.

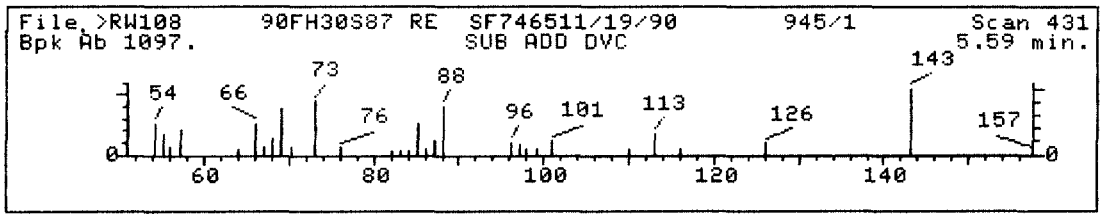


. UNKNOWN #,3
AREA = 60573.00 TENTATIVE CONCENTRATION IS 3.00

1.	1H-Pyrazole, 1-methyl-	82	C4H6N2
2.	1H-Imidazole, 2-methyl-	82	C4H6N2
3.	1H-Imidazole, 4-methyl-	82	C4H6N2
4.	1H-Pyrazole, 4-methyl-	82	C4H6N2
5.	3-Hexyne	82	C6H10
6.	Cyclohexene	82	C6H10

Sample file: >RW108 Spectrum #: 354
Search speed: 1 Tilting option: N No. of ion ranges searched: 50

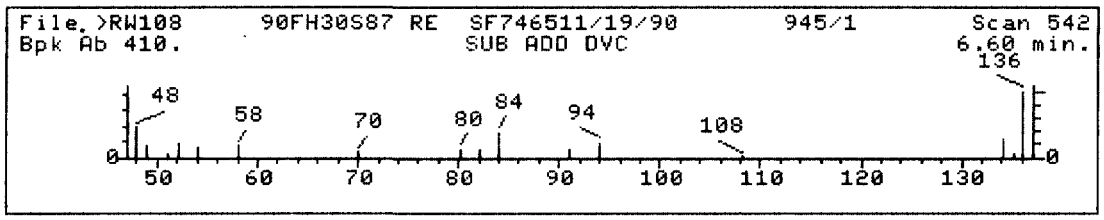
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	26*	930369	10550	"BIGDB	32	89	2	0	95	41	8	14
2.	25*	693981	10546	"BIGDB	26	61	2	0	100	46	7	14
3.	25*	822366	10547	"BIGDB	26	65	3	0	100	44	8	13
4.	25*	7554656	1394	"BIGDB	25	66	3	0	80	44	8	13
5.	25*	928494	10686	"BIGDB	25	76	3	0	128	47	7	13
6.	11*	110838	1633	"BIGDB	26	77	3	0	67	63	2	13



. UNKNOWN #,4
AREA = 18253.00 TENTATIVE CONCENTRATION IS .900

Sample file: >RW108 Spectrum #: 431

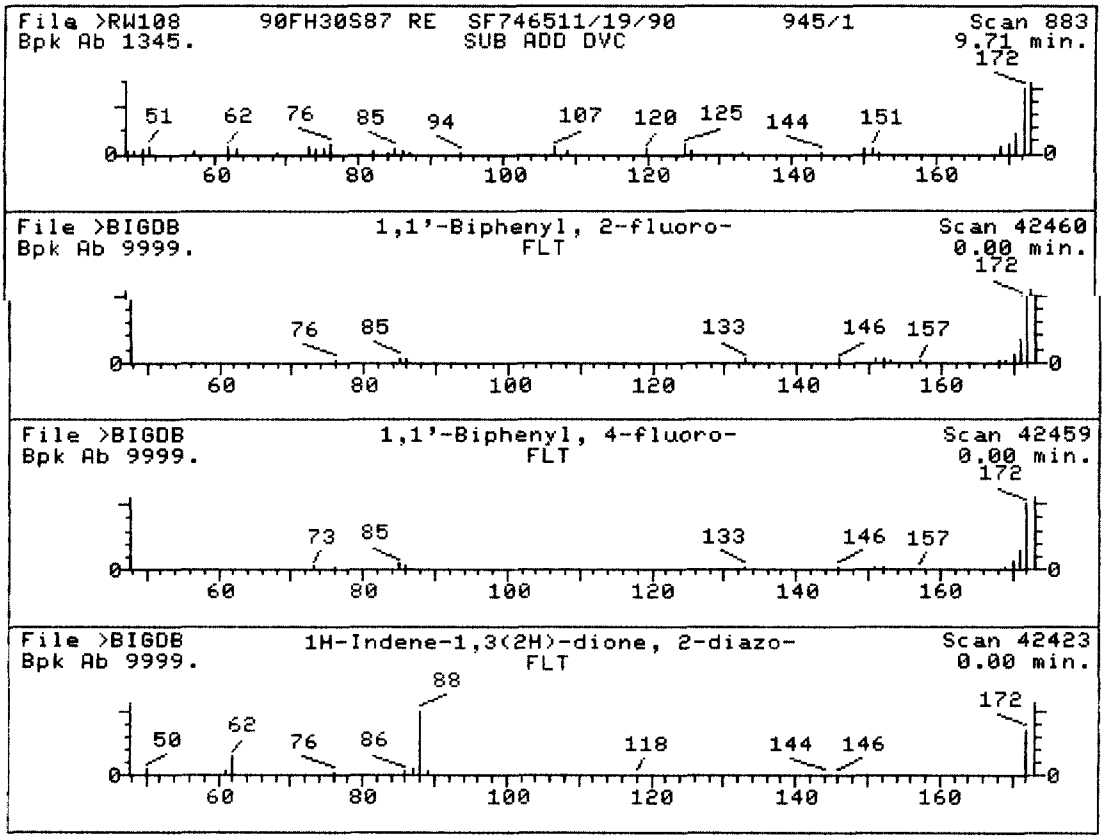
No data base entries were retrieved.



. UNKNOWN #,5
AREA = 17442.00 TENTATIVE CONCENTRATION IS .900

Sample file: >RW108 Spectrum #: 542

No data base entries were retrieved.

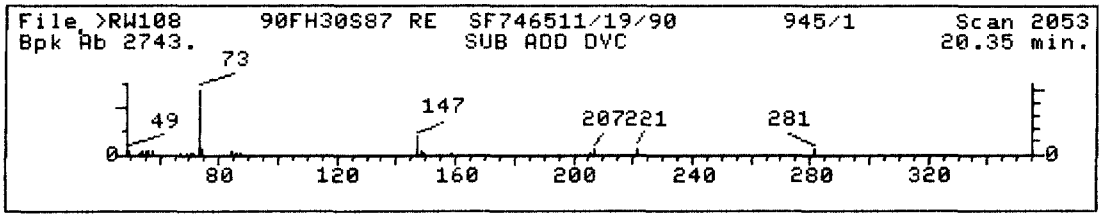


. UNKNOWN #,6
AREA = 57405.00 TENTATIVE CONCENTRATION IS 4.00

1. 1,1'-Biphenyl, 2-fluoro- 172 C12H9F
2. 1,1'-Biphenyl, 4-fluoro- 172 C12H9F
3. 1H-Indene-1,3(2H)-dione, 2-diazo- 172 C9H4N2O2

Sample file: >RW108 Spectrum #: 883
Search speed: 1 Tilting option: N No. of ion ranges searched: 52

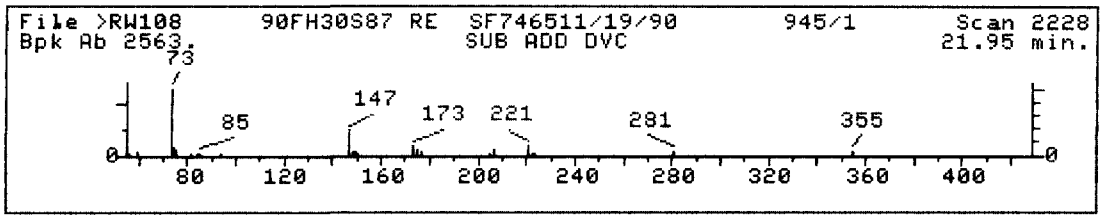
	Prob.	CAS #	CON #	ROOT	K	DK	#FLG	TILT	%	CON	C_I	R_IV
1.	42*	321608	42460	"BIGDB	47	57	2	0	79	26	14	19
2.	37*	324743	42459	"BIGDB	42	62	2	0	77	26	14	14
3.	36*	1807494	42423	"BIGDB	27	81	3	0	142	30	14	13



. UNKNOWN #,7
AREA = 12989.00 TENTATIVE CONCENTRATION IS .800

Sample file: >RW108 Spectrum #: 2053

No data base entries were retrieved.

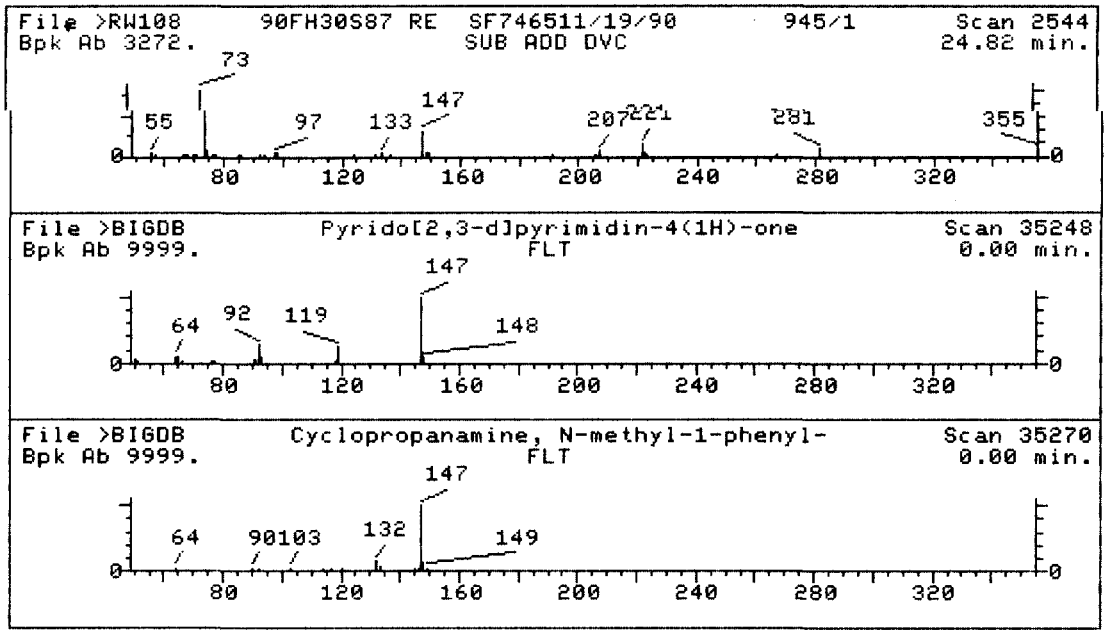


Conc is correct
11-21-90 RWW

. UNKNOWN # ~~8~~ 1
AREA = 14124.00 TENTATIVE CONCENTRATION IS 9.00

Sample file: >RW108 Spectrum #: 2228

No data base entries were retrieved.



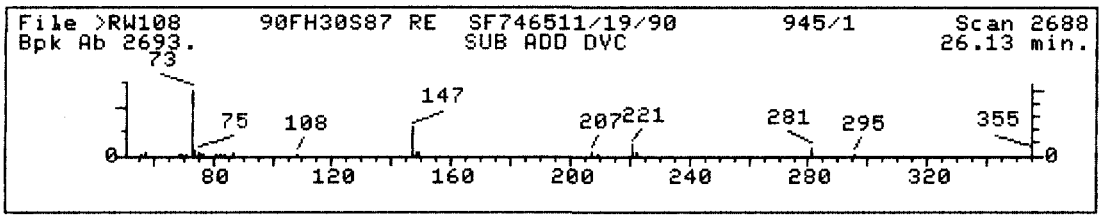
Conc is correct
1-21-90
RWW

. UNKNOWN # ~~9~~ 2
AREA = 17041.00 TENTATIVE CONCENTRATION IS 11.00

1. Pyrido[2,3-d]pyrimidin-4(1H)-one 147 C7H5N3O
2. Cyclopropanamine, N-methyl-1-phenyl- 147 C10H13N

Sample file: >RW108 Spectrum #: 2544
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.	20*	24410193	35248	"BIGDB	25	56	3	0	38	52	5	13
2.	20*	56771483	35270	"BIGDB	23	58	3	0	38	52	5	12



. UNKNOWN #,10
AREA = 16264.00 TENTATIVE CONCENTRATION IS 10.00

manual integ.
BDL
11-21-90
RWW

Sample file: >RW108 Spectrum #: 2688

No data base entries were retrieved.

FMGR : QREP,^RW106

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 901119 17:22
Output File: ^RW106::D6 Injected at: 901119 16:43
Data File: >RW106::D6 Dilution Factor: 1.00000
Name: 90FH30S86MSRE SF7465
Misc: 11/19/90 1030/1

ID File: IDRW6::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901119 17:01

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.73	224	168042	50.00	NG/UL	98
2)	2-Fluorophenol	2.10	45	45938	9.51	NG/UL	98
3)	Phenol-d5	3.35	183	46555	7.10	NG/UL	87
4)	Phenol	3.37	185	54416	7.89	NG/UL	75
6)	2-Chlorophenol	3.44	192	122892	30.39	NG/UL	99
8)	1,4-Dichlorobenzene	3.76	227	296181	55.31	NG/UL	94
14)	N-Nitroso-Di-n-propylamine	4.77	338	425204	92.69	NG/UL	95
16)	d8-Naphthalene	6.49	527	644024	45.15	NG/UL	89
17)	Nitrobenzene-d5	4.89	351	417587	59.03	NG/UL	88
25)	1,2,4-Trichlorobenzene	6.45	522	342198	74.25	NG/UL	94
29)	4-Chloro-3-methylphenol	8.45	742	85706	19.70	NG/UL	75
31)	d10-Acenaphthene	11.41	1067	270809	47.65	NG/UL	97
36)	2-Fluorobiphenyl	9.67	876	596663M	60.70	NG/UL	
39)	*d-10-Phenanthrene	15.64	1530	289447	50.00	NG/UL	99
42)	Acenaphthene	11.50	1077	460915	67.55	NG/UL	94
44)	4-Nitrophenol	12.37	1172	17752	25.36	NG/UL	83
46)	2,4-Dinitrotoluene	12.29	1163	150017	78.68	NG/UL	85
54)	2,4,6-Tribromophenol	13.74	1322	21433	30.48	NG/UL	99
57)	Pentachlorophenol	15.43	1508	33268	48.11	NG/UL	98
60)	Di-n-Butylphthalate	18.13	1804	30114	4.29	NG/UL	98
62)	d12-Chrysene	23.30	2372	61578	52.23	NG/UL	86
63)	Pyrene	19.72	1978	312128	86.92	NG/UL	87
64)	Terphenyl-d14	20.58	2073	191543	81.57	NG/UL	97
67)	Bis(2-Ethylhexyl)Phthalate	24.40	2492	55571	25.75	NG/UL	87
69)	*d12-Perylene	27.16	2795	25826	50.00	NG/UL	99

* Compound is ISTD

20) QDEL 0.38
48) QDEL 0.84

R Wwenig 11-20-90

QUANT REPORT

Operator ID: KELLY
Output File: ^RW106::D6
Data File: >RW106::D6
Name: 90FH30S86MSRE SF7465
Misc: 11/19/90 1030/1

Quant Rev: 6
Quant Time: 901119 17:22
Injected at: 901119 16:43
Dilution Factor: 1.00000

ID File: IDRW6::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901119 17:01

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.73	152.0	168042	50.00	NG/UL	98
2)	2-Fluorophenol	2.10	112.0	45938	9.51	NG/UL	98
3)	Phenol-d5	3.35	99.0	46555	7.10	NG/UL	87
4)	Phenol	3.37	94.0	54416	7.89	NG/UL	75
6)	2-Chlorophenol	3.44	128.0	122892	30.39	NG/UL	99
8)	1,4-Dichlorobenzene	3.76	146.0	296181	55.31	NG/UL	94
14)	N-Nitroso-Di-n-propylamine	4.77	70.0	425204	92.69	NG/UL	95
16)	d8-Naphthalene	6.49	136.0	644024	45.15	NG/UL	89
17)	Nitrobenzene-d5	4.89	82.0	417587	59.03	NG/UL	88
~~20)~~	~~2-Nitrophenol~~	~~5.64~~	~~139.0~~	~~1128~~	~~.38~~	~~NG/UL~~	~~97~~
25)	1,2,4-Trichlorobenzene	6.45	180.0	342198	74.25	NG/UL	94
29)	4-Chloro-3-methylphenol	8.45	107.0	85706	19.70	NG/UL	75
31)	d10-Acenaphthene	11.41	164.0	270809	47.65	NG/UL	97
39)	*d-10-Phenanthrene	15.64	188.0	289447	50.00	NG/UL	99
42)	Acenaphthene	11.50	153.0	460915	67.55	NG/UL	94
44)	4-Nitrophenol	12.37	109.0	17752	25.36	NG/UL	83
46)	2,4-Dinitrotoluene	12.29	165.0	150017	78.68	NG/UL	85
~~48)~~	~~Diethylphthalate~~	~~13.19~~	~~149.0~~	~~5388~~	~~.84~~	~~NG/UL~~	~~82~~
54)	2,4,6-Tribromophenol	13.74	329.8	21433	30.48	NG/UL	99
57)	Pentachlorophenol	15.43	265.8	33268	48.11	NG/UL	98
60)	Di-n-Butylphthalate	18.13	149.0	30114	4.29	NG/UL	98
62)	d12-Chrysene	23.30	240.0	61578	52.23	NG/UL	86
63)	Pyrene	19.72	202.0	312128	86.92	NG/UL	87
64)	Terphenyl-d14	20.58	244.0	191543	81.57	NG/UL	97
67)	Bis(2-Ethylhexyl)Phthalate	24.40	149.0	55571	25.75	NG/UL	87
69)	*d12-Perylene	27.16	264.0	25826	50.00	NG/UL	99

* Compound is ISTD

36)

QUANT REPORT

Operator ID: KELLY
Output File: ^RW107::D6
Data File: >RW107::D6
Name: 90FH30S86MDRE SF7465
Misc: 11/19/90 1030/1

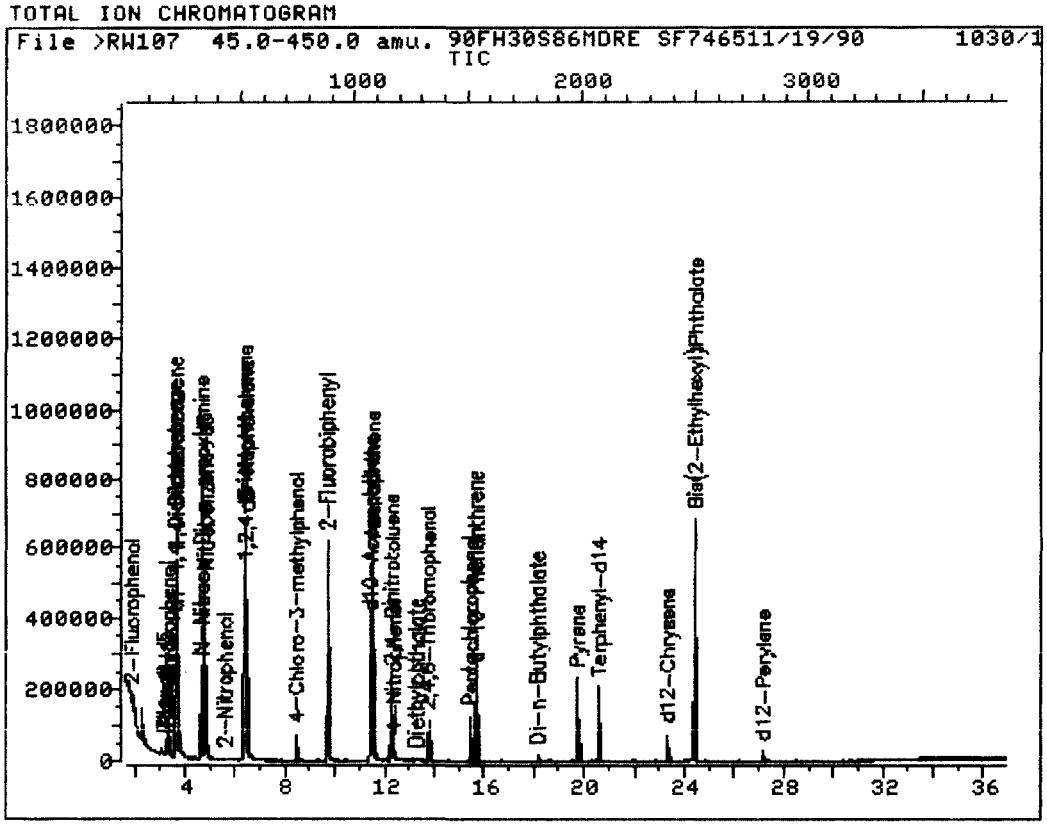
Quant Rev: 6
Quant Time: 901119 18:12
Injected at: 901119 17:33
Dilution Factor: 1.00000

ID File: IDRW6::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901119 17:01

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.57	152.0	162849	50.00	NG/UL	99
2)	2-Fluorophenol	1.86	112.0	25422	5.43	NG/UL	99
3)	Phenol-d5	3.18	99.0	24223	3.81	NG/UL	88
4)	Phenol	3.20	94.0	28572	4.28	NG/UL	80
6)	2-Chlorophenol	3.27	128.0	71644	18.28	NG/UL	98
8)	1,4-Dichlorobenzene	3.60	146.0	265590	51.18	NG/UL	97
14)	N-Nitroso-Di-n-propylamine	4.65	70.0	343866	77.35	NG/UL	93
16)	d8-Naphthalene	6.43	136.0	589569	42.65	NG/UL	90
17)	Nitrobenzene-d5	4.78	82.0	338525	49.38	NG/UL	90
~~20)~~	~~2-Nitrophenol~~	~~5.56~~	~~139.0~~	~~675~~	~~.23~~	~~NG/UL~~	89
25)	1,2,4-Trichlorobenzene	6.37	180.0	281023	62.92	NG/UL	97
29)	4-Chloro-3-methylphenol	8.43	107.0	37833	8.97	NG/UL	83
31)	d10-Acenaphthene	11.39	164.0	192369	34.93	NG/UL	90
36)	2-Fluorobiphenyl	9.65	172.0	450727	47.32	NG/UL	94
39)	*d-10-Phenanthrene	15.62	188.0	169258	50.00	NG/UL	99
42)	Acenaphthene	11.48	153.0	332231	83.27	NG/UL	92
44)	4-Nitrophenol	12.37	109.0	11644	28.45	NG/UL	96
46)	2,4-Dinitrotoluene	12.27	165.0	95856	85.97	NG/UL	85
48)	Diethylphthalate	13.26	149.0	5328	1.42	NG/UL	92
54)	2,4,6-Tribromophenol	13.73	329.8	13011	31.64	NG/UL	99
57)	Pentachlorophenol	15.42	265.8	19493	48.21	NG/UL	96
60)	Di-n-Butylphthalate	18.12	149.0	20774	5.06	NG/UL	95
62)	d12-Chrysene	23.30	240.0	41191	59.75	NG/UL	87
63)	Pyrene	19.70	202.0	181117	86.25	NG/UL	82
64)	Terphenyl-d14	20.57	244.0	119164	86.78	NG/UL	97
67)	Bis(2-Ethylhexyl)Phthalate	24.42	149.0	527794	418.17	NG/UL	85
69)	*d12-Perylene	27.15	264.0	17618	50.00	NG/UL	98

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >RW107::D6 Quant Output File: ^RW107::D6
Name: 90FH30S86MDRE SF7465
Misc: 11/19/90 1030/1

Id File: IDRW6::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901119 17:01

Operator ID: KELLY
Quant Time: 901119 18:12
Injected at: 901119 17:33

A/BN BENCH SHEET

DATA SET: SF7465 SAMPLE TYPE: Water EXTRACTION METHOD:

SAMPLE #	SAMPLE AMOUNT	FINAL VOL.	SOLVENT EXTRACT.	DILUTION w/HEXANE 1st	2nd	3rd	EXTR VOL.
91FH30S85	1050						
91FH30S86	1035						
ABN-MS 91FH30S86	1030						
ABN-MSD 91FH30S86	1030						
91FH30S87	945						
91FH30D85	1045						
91FH03R85	1010						
* Method Blank	1000						
*Method Blank is w/the Dataset SF7464							
Sample S86 (including MS-MSD) - Dark yellow							

DATE EXTRACTED: 11/7/90 PREP. CHEM.: K.H., AK(W)
DATE CONCENTRATED: PREP. CHEM.:
DATE RECEIVED: GC/MS CHEM.:

REMARKS: 0.75ml of ABN (100µg/ml) Surrogate solution was added to all of the ABN samples. 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: Andrzej Kosmala
Individual who witness: Kelly M. Plead

FMGR : BLIST,BARW05

Initial Calib 11/16/90

Sequence File: BARW05::SC

Tune File: MT5996

CR List: D6,D2
CR Cut-off: 2500 blocks.

Number of samples: 3

```
                                                  Report Data Archive
                                                 Quant | | ID Archive
                                       Sample Size | | | | Output Archive
                                          Bottle | | | | | | |
Samp Data File     Sample Name                  | | | | | | |    Quant ID
 No. Method File   Misc Data                    | | | | | | |    Quant Output
---- ------------ ------------------------ ----------------  ------------
001) >RW091        100 STD                   -1 1 Y M N N N    IDRW5::SC
     TOXIC6        11/16/90                     Dil=1.00000    ^RW091::D6
     REPRT OPTIONS: BG Sub, Scale time: 1.500, Qion replaces Scan#
002) >RW092         50 STD                   -1 1 Y M N N N    IDRW5::SC
     TOXIC6        11/16/90                     Dil=1.00000    ^RW092::D6
     REPRT OPTIONS: BG Sub, Scale time: 1.500, Qion replaces Scan#
003) >RW093         25 STD                   -1 1 Y M N N N    IDRW5::SC
     TOXIC6        11/16/90                     Dil=1.00000    ^RW093::D6
     REPRT OPTIONS: BG Sub, Scale time: 1.500, Qion replaces Scan#
```

End of sequence file.

```
FMGR : BEDIT
FMGR : BLIST,BARW06

 Sequence File: BARW06::SC
 ------------------------------------------

 Tune File: MT5996

 CR List: D6,D2
 CR Cut-off:  2500 blocks.
                                                   Report Data Archive
                                                  Quant | | ID Archive
 Number of samples:   8                 Sample Size | | | | Output Archive
                                           Bottle | | | | | | |
 Samp Data File     Sample Name                  | | | | | | |    Quant ID
  No. Method File   Misc Data                     | | | | | | |    Quant Output
 ---- ------------ ------------------------ ----------------  ------------
 001) >RW094        91FH30S85      SF7465     -1 1 Y M N N N    IDRW5::SC
      TOXIC6        11/16/90       1050/1        Dil=1.00000    ^RW094::D6
      REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
      REPRT OPTIONS: Qion replaces Scan#
 002) >RW095        91FH30S86      SF7465     -1 1 Y M N N N    IDRW5::SC
      TOXIC6        11/16/90       1035/1        Dil=1.00000    ^RW095::D6
      REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
      REPRT OPTIONS: Qion replaces Scan#
 003) >RW096        91FH30S86MS    SF7465     -1 1 Y M N N N    IDRW5::SC
      TOXIC6        11/16/90       1030/1        Dil=1.00000    ^RW096::D6
      REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
      REPRT OPTIONS: Qion replaces Scan#
 004) >RW097        91FH30S86MSD   SF7465     -1 1 Y M N N N    IDRW5::SC
      TOXIC6        11/16/90       1030/1        Dil=1.00000    ^RW097::D6
      REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
      REPRT OPTIONS: Qion replaces Scan#
 005) >RW098        91FH30S87      SF7465     -1 1 Y M N N N    IDRW5::SC
      TOXIC6        11/16/90        945/1        Dil=1.00000    ^RW098::D6
      REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
      REPRT OPTIONS: Qion replaces Scan#
 006) >RW099        91FH30D85      SF7465     -1 1 Y M N N N    IDRW5::SC
      TOXIC6        11/16/90       1045/1        Dil=1.00000    ^RW099::D6
      REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
      REPRT OPTIONS: Qion replaces Scan#
 007) >RW100        91FH30R85      SF7465     -1 1 Y M N N N    IDRW5::SC
      TOXIC6        11/16/90       1010/1        Dil=1.00000    ^RW100::D6
      REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
      REPRT OPTIONS: Qion replaces Scan#
 008) >RW101        METHOD BLK     SF7465     -1 1 Y M N N N    IDRW5::SC
      TOXIC6        11/16/90       1000/1        Dil=1.00000    ^RW101::D6
      REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
      REPRT OPTIONS: Qion replaces Scan#

 End of sequence file.
```

GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

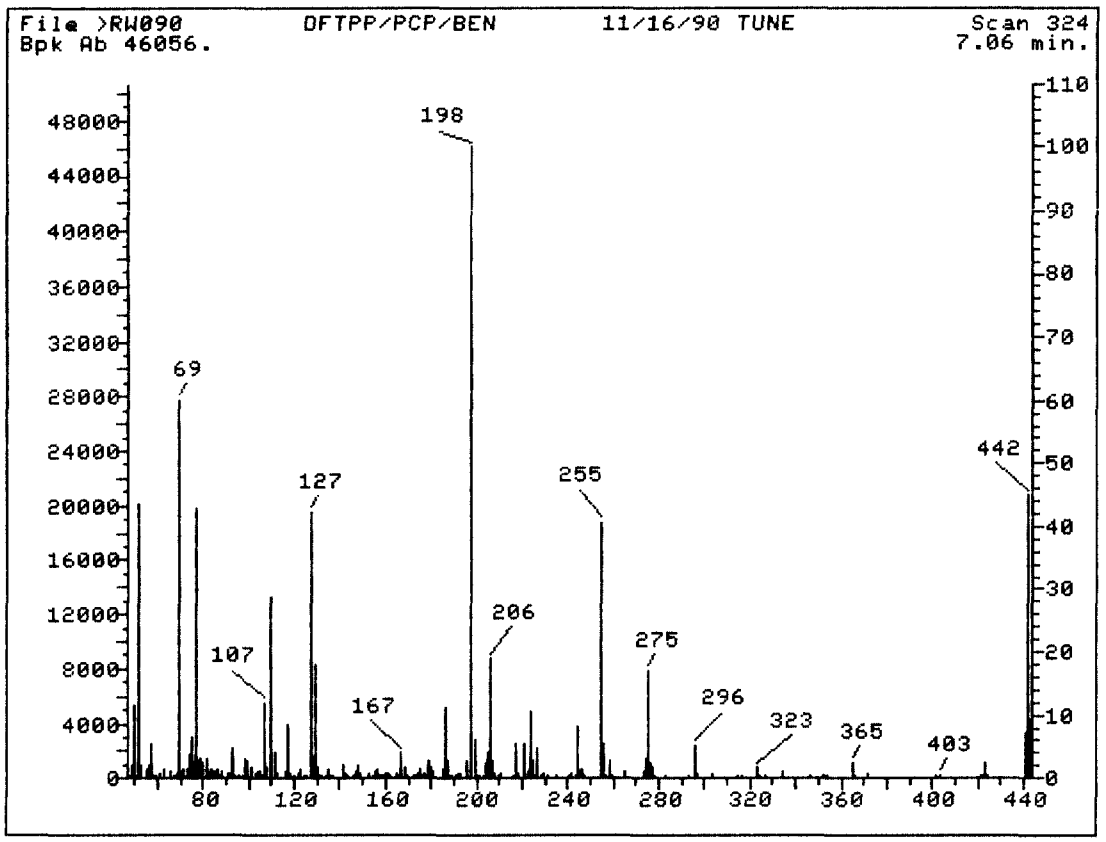
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	43.65	43.65	Ok
68	Less than 2% of mass 69	.77	1.28	Ok
69	(reference only)	60.24	60.24	Ok
70	Less than 2% of mass 69	.94	1.56	Ok
127	40-60% of mass 198	42.45	42.45	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.18	6.18	Ok
275	10-30% of mass 198	17.05	17.05	Ok
365	Greater than 1% of mass 198	2.47	2.47	Ok
441	0-100% of mass 443	7.14	78.37	Ok
442	Greater than 40% of mass 198	44.88	44.88	Ok
443	17-23% of mass 442	9.11	20.31	Ok

Injection Date: 11/16/90
Injection Time: 10:27
Data File: >RW090
Scan: 324

MS data file header from : >RW090

Sample: DFTPP/PCP/BEN Operator: MANAGER SUPER GRP. 11/16/90 10:27
Misc : 11/16/90 TUNE
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: DFTPP Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	150.	250.	0.	0.	0.
Chromatographic times, min. :	1.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0



MS data file header from : >RW090

Sample: DFTPP/PCP/BEN Operator: MANAGER SUPER GRP. 11/16/90 10:27
Misc : 11/16/90 TUNE
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: DFTPP Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	150.	250.	0.	0.	0.
Chromatographic times, min. :	1.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

>RW090 DFTPP/PCP/BEN 11/16/90 TUNE
324

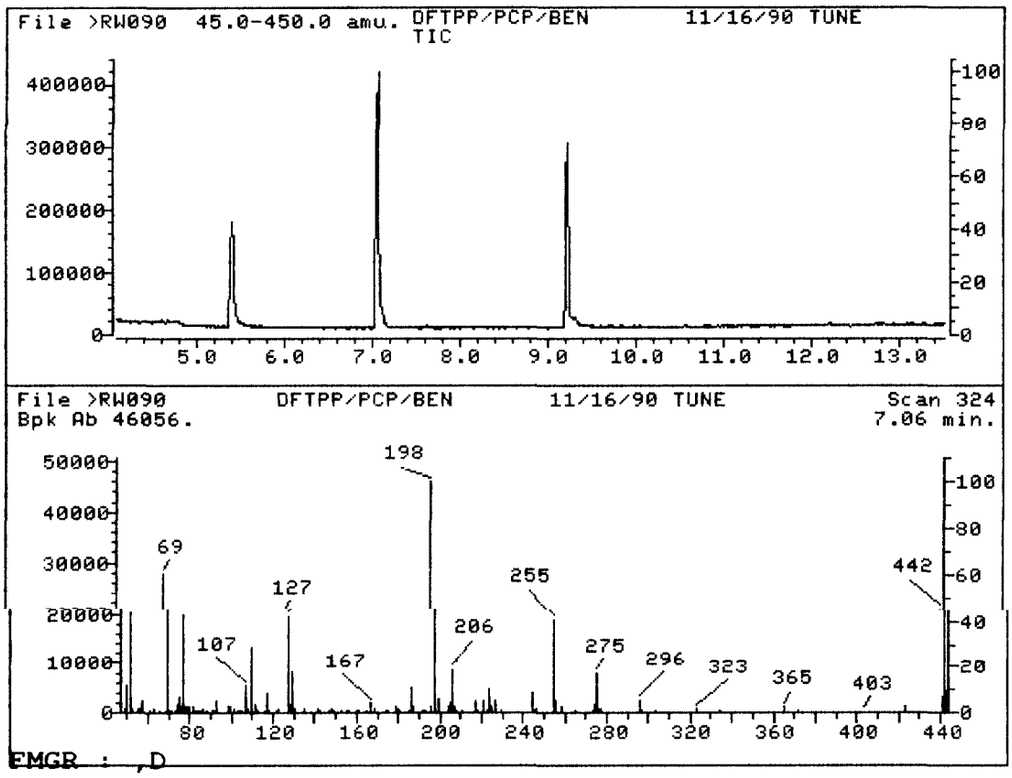
File: >RW090 Scan #: 324 Retn. time: 7.06

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
47.10	181.0	91.15	415.0	142.85	198.0	196.15	1341.0	265.00	523.0
48.00	129.0	92.05	365.0	146.15	140.0	198.00	46056.1	273.10	501.0
49.10	961.0	93.05	2258.0	147.05	468.0	199.00	2844.0	274.10	1483.0
50.10	5400.0	94.05	186.0	148.05	913.0	200.10	220.0	275.10	7852.0
51.20	20104.1	95.15	163.0	149.05	308.0	201.20	187.0	276.10	1060.0
52.20	936.0	96.15	117.0	150.95	82.0	203.00	246.0	277.00	777.0
52.90	90.0	97.25	176.0	151.25	99.0	204.10	1186.0	278.00	147.0
53.10	98.0	98.15	1420.0	152.05	115.0	205.10	1951.0	282.10	52.0
54.20	103.0	99.05	1240.0	153.05	307.0	206.00	8736.0	283.00	129.0
55.20	720.0	101.05	767.0	154.05	193.0	207.00	1274.0	293.00	150.0
56.20	993.0	101.85	86.0	155.15	536.0	208.00	345.0	295.10	78.0
57.20	2495.0	102.95	297.0	156.15	657.0	210.20	210.0	296.00	2432.0
58.20	183.0	104.05	431.0	157.15	163.0	210.90	396.0	297.00	324.0
59.10	197.0	105.15	571.0	157.95	128.0	211.90	110.0	300.80	57.0
60.00	98.0	106.15	188.0	159.15	172.0	215.10	116.0	303.10	299.0
60.20	95.0	107.05	5506.0	160.05	310.0	215.90	216.0	314.20	120.0
61.00	304.0	108.05	798.0	161.15	420.0	217.00	2504.0	314.90	208.0
63.10	717.0	110.05	13283.0	161.85	119.0	218.10	375.0	316.00	146.0
64.00	77.0	111.05	1836.0	165.05	344.0	221.00	2600.0	323.10	817.0
64.50	76.0	112.15	301.0	166.05	255.0	223.00	473.0	324.10	163.0
65.20	514.0	113.85	68.0	167.15	1875.0	224.00	4926.0	327.00	121.0
66.15	99.0	116.15	435.0	168.15	849.0	225.10	1263.0	331.95	66.0
67.15	219.0	117.05	3999.0	168.95	180.0	226.10	130.0	334.05	531.0
68.05	355.0	118.05	321.0	169.15	183.0	227.00	2231.0	340.85	80.0
69.05	27744.1	119.05	95.0	172.05	227.0	228.10	230.0	346.05	130.0
70.15	432.0	120.05	137.0	173.15	229.0	229.00	425.0	352.05	248.0
71.15	648.0	121.15	64.0	174.15	367.0	229.90	75.0	353.05	179.0
73.15	583.0	122.15	337.0	175.15	583.0	230.90	202.0	354.05	248.0
74.05	1829.0	123.05	689.0	176.15	234.0	235.00	175.0	365.05	1137.0
75.05	3025.0	124.15	203.0	177.15	276.0	236.00	108.0	365.95	174.0
76.05	1086.0	125.05	255.0	178.15	180.0	239.90	53.0	372.05	416.0
77.15	19832.1	127.05	19552.1	179.05	1329.0	241.00	121.0	373.05	98.0
78.15	1254.0	128.05	1664.0	180.05	857.0	242.00	293.0	401.95	154.0
79.05	1379.0	129.05	8237.0	181.05	520.0	243.00	214.0	403.15	208.0
80.05	1112.0	130.05	790.0	185.15	624.0	244.00	3811.0	421.15	175.0
81.05	1404.0	131.05	161.0	186.05	5123.0	245.10	460.0	422.05	198.0
82.05	367.0	132.05	169.0	187.15	1319.0	246.10	698.0	423.05	1169.0
83.15	607.0	134.05	261.0	188.15	122.0	247.00	153.0	424.05	255.0
83.95	578.0	135.15	690.0	189.15	248.0	255.00	18752.1	441.05	3290.0
85.15	440.0	136.15	219.0	191.25	146.0	256.00	2590.0	442.05	20672.1
86.05	715.0	137.05	271.0	192.05	409.0	257.00	214.0	443.05	4198.0
87.15	262.0	141.05	901.0	193.05	424.0	258.00	1253.0	444.05	373.0
88.15	525.0	142.05	362.0	194.15	78.0	259.10	158.0		

MS data file header from : >RW090

Sample: DFTPP/PCP/BEN Operator: MANAGER SUPER GRP. 11/16/90 10:27
Misc : 11/16/90 TUNE
Sys. #: 1 MS model: 96 SW/HW rev.: IA ALS # : 0
Method file: DFTPP Tuning file: MT5996 No. of extra records: 2
Source temp.: 200 Analyzer temp.: 180 Transfer line temp. : 280

Chromatographic temperatures :	150.	250.	0.	0.	0.
Chromatographic times, min. :	1.0	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0



GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	43.65	43.65	Ok
68	Less than 2% of mass 69	.77	1.28	Ok
69	(reference only)	60.24	60.24	Ok
70	Less than 2% of mass 69	.94	1.56	Ok
127	40-60% of mass 198	42.45	42.45	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	6.18	6.18	Ok
275	10-30% of mass 198	17.05	17.05	Ok
365	Greater than 1% of mass 198	2.47	2.47	Ok
441	0-100% of mass 443	7.14	78.37	Ok
442	Greater than 40% of mass 198	44.88	44.88	Ok
443	17-23% of mass 442	9.11	20.31	Ok

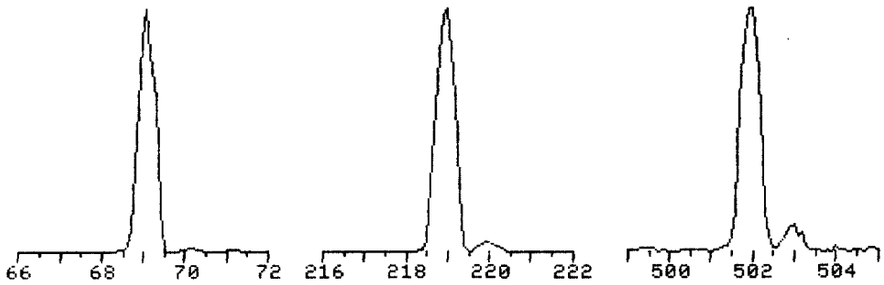
Injection Date: 11/16/90
Injection Time: 10:27
Data File: >RW090
Scan: 324

PROFILE SCAN ver 870605

INST # 1: 5995 #1 TYPE: 5996 DATE: 11/16/90 9:40

Repeller (V)	7.5	X - Ray (V)	39.2	AMU Offset	56
Ion Focus (V)	56.8	EM Volts (V)	2031	Mass Gain	-25
Ent Lens (mV)	68	AMU Gain	118	Mass Offset	11

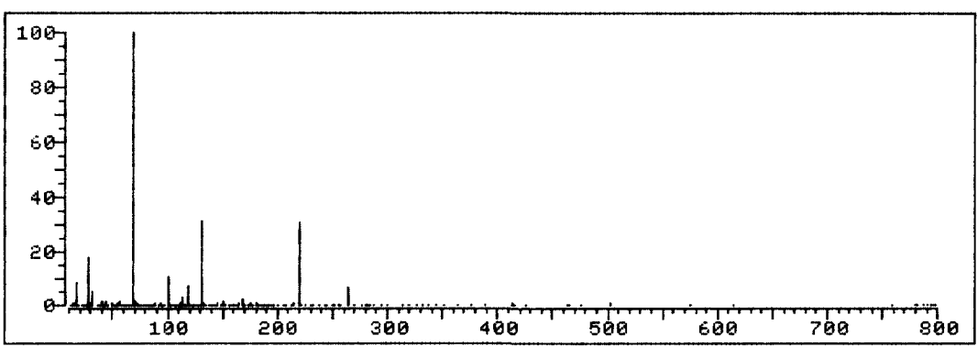
Integration (uS) 50 Source Temp 200



MASS	ABUND	REL. ABUND	FWHM	ISO FWHM
69.10	253553.	100.00	.460	.490
219.00	68871.	27.16	.560	.560
501.90	1288.	.51	.540	.530

INST # 1: 5995 #1 TYPE: 5996 DATE: 11/16/90 9:42

Mass Range	10- 800			Peaks detected	211
Base Peak	69.05	Abundance	207681	Total Ab.	547639
Samples / A.D.	16	Integration	50	Threshold	10



Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.05	207681	100.00	70.05	2860	1.38
219.00	64096	30.86	220.00	2777	4.33
502.00	1245	.60	503.00	131	10.52

Correct Files ? Y

Calibrating...

1)	2-Fluorophenol	Avg RF:	1.20151
2)	Phenol-d5	Avg RF:	1.62033
3)	Phenol	Avg RF:	1.65729
4)	bis(2-Chloroethyl)Ether	Avg RF:	1.43613
5)	2-Chlorophenol	Avg RF:	1.26168
6)	1,3-Dichlorobenzene	Avg RF:	1.33997
7)	1,4-Dichlorobenzene	Avg RF:	1.57753
8)	Benzyl Alcohol	Avg RF:	.79268
9)	1,2-Dichlorobenzene	Avg RF:	1.44431
10)	2-Methylphenol	Avg RF:	1.17330
11)	bis(2-Chloroisopropyl)ether	Avg RF:	.32344
12)	4-Methylphenol	Avg RF:	1.14175
13)	N-Nitroso-Di-n-propylamine	Avg RF:	1.21822
14)	Hexachloroethane	Avg RF:	.66303
15)	d8-Naphthalene	Avg RF:	4.27159
16)	Nitrobenzene-d5	Avg RF:	1.78974
17)	Nitrobenzene	Avg RF:	.72797
18)	Isophorone	Avg RF:	3.23111
19)	2-Nitrophenol	Avg RF:	.81721
20)	2,4-Dimethylphenol	Avg RF:	.96919
21)	Benzoic Acid	Avg RF:	.75135
22)	bis(2-Chloroethoxy)Methane	Avg RF:	2.08345
23)	2,4-Dichlorophenol	Avg RF:	1.22491
24)	1,2,4-Trichlorobenzene	Avg RF:	1.45982
25)	Naphthalene	Avg RF:	4.00414
26)	4-Chloroaniline	Avg RF:	.52570
27)	Hexachlorobutadiene	Avg RF:	.93994
28)	4-Chloro-3-methylphenol	Avg RF:	1.16580
29)	2-Methylnaphthalene	Avg RF:	2.71622
30)	d10-Acenaphthene	Avg RF:	2.02797
31)	Hexachlorocyclopentadiene	Avg RF:	.96733
32)	2,4,6-Trichlorophenol	Avg RF:	.88626
33)	2,4,5-Trichlorophenol	Avg RF:	.86519
34)	2-Chloronaphthalene	Avg RF:	2.62606
35)	2-Fluorobiphenyl	Avg RF:	3.33207
36)	2-Nitroaniline	Avg RF:	.80753
37)	Dimethylphthalate	Avg RF:	2.45774
38)	Acenaphthylene	Avg RF:	1.62068
39)	3-Nitroaniline	Avg RF:	.19017
40)	Acenaphthene	Avg RF:	1.05343
41)	2,4-Dinitrophenol	Avg RF:	.08385
42)	4-Nitrophenol	Avg RF:	.06844
43)	Dibenzofuran	Avg RF:	1.44631
44)	2,4-Dinitrotoluene	Avg RF:	.26406
45)	2,6-Dinitrotoluene	Avg RF:	.23807
46)	Diethylphthalate	Avg RF:	.92518
47)	4-Chlorophenyl-phenylether	Avg RF:	.45831
48)	Fluorene	Avg RF:	1.01298
49)	4-Nitroaniline	Avg RF:	.14513
50)	4,6-Dinitro-2-methylphenol	Avg RF:	.10136
51)	N-Nitrosodiphenylamine	Avg RF:	.30935
52)	2,4,6-Tribromophenol	Avg RF:	.11252
53)	4-Bromophenyl-phenylether	Avg RF:	.21433
54)	Hexachlorobenzene	Avg RF:	.22869
55)	Pentachlorophenol	Avg RF:	.10588
56)	Phenanthrene	Avg RF:	1.08200
57)	Anthracene	Avg RF:	1.05503
58)	Di-n-Butylphthalate	Avg RF:	1.13571
59)	Fluoranthene	Avg RF:	.78294
60)	d12-Chrysene	Avg RF:	.33556
61)	Pyrene	Avg RF:	.75657

61)	Pyrene	Avg RF:	.75857
62)	Terphenyl-d14	Avg RF:	.52582
63)	Butylbenzylphthalate	Avg RF:	.36098
64)	Benzo(a)Anthracene	Avg RF:	.42721
65)	Bis(2-Ethylhexyl)Phthalate	Avg RF:	.47116
66)	Chrysene	Avg RF:	.41097
67)	Di-n-octylphthalate	Avg RF:	2.93857
68)	Benzo(b)fluoranthene	Avg RF:	1.28550
69)	Benzo(k)Fluoranthene	Avg RF:	1.25784
70)	Benzo(a)Pyrene	Avg RF:	1.03955
71)	Indeno(1,2,3-cd)Pyrene	Avg RF:	.90268
72)	Dibenzo(a,h)Anthracene	Avg RF:	.84593
73)	Benzo(g,h,i)Perylene	Avg RF:	.91851

Calibration Time Stamp Updated: 901116 17:11

Calibration Report

Title: HP BNA STD REV E KELLY 06\23\89
Calibrated: 901116 17:03

Compound	Files: >RW093 RF 25.00	>RW092 RF 50.00	>RW091 RF 100.00	$\overline{RRT}$	$\overline{RF}$	% RSD	
2-Fluorophenol	1.02271	1.20071	1.38111	.548	1.20151	14.914	
Phenol-d5	1.53704	1.59549	1.72848	.899	1.62033	6.055	
Phenol	1.48483	1.69876	1.78828	.904	1.65729	9.408	
bis(2-Chloroethyl)Ether	1.29495	1.51330	1.50013	.918	1.43613	8.526	
2-Chlorophenol	1.15487	1.29965	1.33050	.923	1.26168	7.432	
1,3-Dichlorobenzene	1.21037	1.38420	1.42533	.980	1.33997	8.515	
1,4-Dichlorobenzene	1.37728	1.65695	1.69836	1.008	1.57753	11.071	
Benzyl Alcohol	.70068	.77624	.90111	1.106	.79268	12.769	
1,2-Dichlorobenzene	1.34154	1.48013	1.51125	1.097	1.44431	6.256	
2-Methylphenol	1.04227	1.21853	1.25912	1.205	1.17330	9.825	
bis(2-Chloroisopropyl)ether	.37077	.31092	.28863	1.201	.32344	13.133	
4-Methylphenol	1.07608	1.14479	1.20436	1.302	1.14175	5.623	
N-Nitroso-Di-n-propylamine	1.10768	1.22261	1.32436	1.287	1.21822	8.899	
Hexachloroethane	.61955	.66092	.70863	1.264	.66303	6.723	
d8-Naphthalene	4.03939	4.17297	4.60239	1.758	4.27159	6.887	(Conc=50.0,50.0,50.0)
Nitrobenzene-d5	1.53324	1.86706	1.96891	1.317	1.78974	12.734	
Nitrobenzene	.64820	.73978	.79594	1.327	.72797	10.244	
Isophorone	2.73204	3.17959	3.78170	1.492	3.23111	16.302	
2-Nitrophenol	.67643	.82544	.94975	1.528	.81721	16.746	
2,4-Dimethylphenol	.77373	.97203	1.16181	1.632	.96919	20.023	
Benzoic Acid	.47926	.78170	.99310	1.789	.75135	34.373	
bis(2-Chloroethoxy)Methane	1.78991	2.08821	2.37223	1.684	2.08345	13.976	
2,4-Dichlorophenol	1.03405	1.25188	1.38880	1.703	1.22491	14.606	
1,2,4-Trichlorobenzene	1.32543	1.50925	1.54477	1.741	1.45982	8.065	
Naphthalene	3.75046	4.03698	4.22500	1.769	4.00414	5.968	
4-Chloroaniline	.42856	.54532	.60322	1.856	.52570	16.924	
Hexachlorobutadiene	.86711	.97215	.98056	1.941	.93994	6.725	
4-Chloro-3-methylphenol	.93277	1.17578	1.38885	2.292	1.16580	19.575	
2-Methylnaphthalene	2.22778	2.84629	3.07460	2.282	2.71622	16.130	
d10-Acenaphthene	1.67089	1.87221	2.54080	3.092	2.02797	22.456	(Conc=50.0,50.0,50.0)
Hexachlorocyclopentadiene	.75931	1.03748	1.10520	2.481	.96733	18.949	
2,4,6-Trichlorophenol	.70157	.88084	1.07638	2.554	.88626	21.152	
2,4,5-Trichlorophenol	.65083	.85549	1.08926	2.580	.86519	25.355	
2-Chloronaphthalene	2.24867	2.58458	3.04492	2.646	2.62606	15.222	
2-Fluorobiphenyl	2.92985	3.27962	3.78674	2.623	3.33207	12.930	
2-Nitroaniline	.55044	.73516	1.13700	2.785	.80753	37.138	
Dimethylphthalate	1.96031	2.45756	2.95536	3.021	2.45774	20.243	
Acenaphthylene	2.01880	1.79582	1.04741	.699	1.62068	31.396	
3-Nitroaniline	.18883	.19436	.18732	.737	.19017	1.948	

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: 901116 17:03

Compound	Files: >RW093 RF 25.00	>RW092 RF 50.00	>RW091 RF 100.00	$\overline{RRT}$	$\overline{RF}$	% RSD	
Acenaphthene	1.32088	1.16954	.66987	.736	1.05343	32.340	
2,4-Dinitrophenol	.04634	.09743	.10778	.755	.08385	39.228	
4-Nitrophenol	.04713	.07790	.08028	.792	.06844	27.021	
Dibenzofuran	1.72793	1.58422	1.02677	.767	1.44631	25.608	
2,4-Dinitrotoluene	.23289	.27608	.28321	.786	.26406	10.310	
2,6-Dinitrotoluene	.26672	.28102	.16648	.717	.23807	26.215	
Diethylphthalate	1.06536	.99118	.71899	.851	.92518	19.713	
4-Chlorophenyl-phenylether	.52604	.49647	.35242	.845	.45831	20.268	
Fluorene	1.17484	1.08321	.78089	.831	1.01298	20.351	
4-Nitroaniline	.12205	.16080	.15252	.852	.14513	14.060	
4,6-Dinitro-2-methylphenol	.06784	.11834	.11789	.860	.10136	28.637	
N-Nitrosodiphenylamine	.40193	.29952	.22658	.870	.30935	28.476	
2,4,6-Tribromophenol	.10631	.11894	.11230	.879	.11252	5.615	
4-Bromophenyl-phenylether	.21074	.22927	.20299	.932	.21433	6.300	
Hexachlorobenzene	.22775	.24036	.21797	.948	.22869	4.908	
Pentachlorophenol	.08208	.11951	.11605	.988	.10588	19.539	
Phenanthrene	1.07631	1.15664	1.01305	1.004	1.08200	6.651	
Anthracene	1.02436	1.12169	1.01905	1.012	1.05503	5.477	
Di-n-Butylphthalate	1.00994	1.25835	1.13884	1.160	1.13571	10.939	
Fluoranthene	.71135	.86460	.77288	1.224	.78294	9.850	
d12-Chrysene	.31720	.32818	.36129	1.492	.33556	6.839	(Conc=50.0,50.0,50.0)
Pyrene	.68540	.82254	.76177	1.261	.75657	9.083	
Terphenyl-d14	.47333	.56547	.53866	1.316	.52582	9.013	
Butylbenzylphthalate	.32966	.37117	.38211	1.432	.36098	7.666	
Benzo(a)Anthracene	.37883	.40340	.49921	1.488	.42721	14.981	
Bis(2-Ethylhexyl)Phthalate	.42563	.46836	.51950	1.561	.47116	9.975	
Chrysene	.37383	.41179	.44730	1.497	.41097	8.941	
Di-n-octylphthalate	2.99618	2.99321	2.82632	.962	2.93857	3.309	
Benzo(b)fluoranthene	1.27826	1.28649	1.29175	.966	1.28550	.529	
Benzo(k)Fluoranthene	1.25486	1.26230	1.25637	.969	1.25784	.313	
Benzo(a)Pyrene	.98566	1.06984	1.06314	.995	1.03955	4.501	
Indeno(1,2,3-cd)Pyrene	.74655	.95600	1.00549	1.091	.90268	15.228	
Dibenzo(a,h)Anthracene	.68583	.85995	.99203	1.095	.84593	18.155	
Benzo(g,h,i)Perylene	.74165	.92151	1.09237	1.110	.91851	19.094	

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

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 901116 14:02
Output File: ^RW091::D6 Injected at: 901116 13:22
Data File: >RW091::D6 Dilution Factor: 1.00000
Name: 100 STD
Misc: 11/16/90

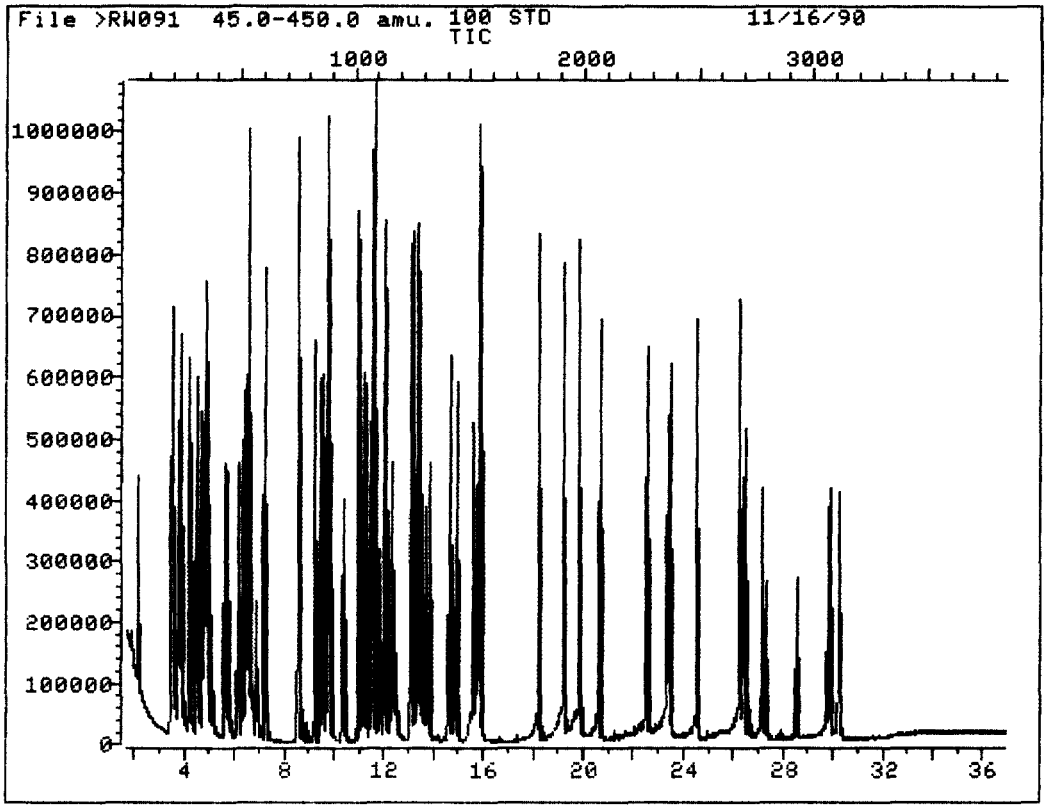
ID File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901114 11:01

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.76	227	116726	50.00	NG/UL	98
2)	2-Fluorophenol	2.09	44	322422	116.68	NG/UL	95
3)	Phenol-d5	3.41	188	403517	113.85	NG/UL	91
4)	Phenol	3.42	190	417478	111.82	NG/UL	81
5)	bis(2-Chloroethyl)Ether	3.47	195	350209	116.96	NG/UL	97
6)	2-Chlorophenol	3.49	197	310608	109.41	NG/UL	99
7)	1,3-Dichlorobenzene	3.69	219	332747	98.34	NG/UL	97
8)	1,4-Dichlorobenzene	3.79	230	396485	110.50	NG/UL	96
9)	Benzyl Alcohol	4.16	270	210366	116.53	NG/UL	94
10)	1,2-Dichlorobenzene	4.12	266	352805	99.65	NG/UL	96
11)	2-Methylphenol	4.52	310	293943	114.20	NG/UL	99
12)	bis(2-Chloroisopropyl)ether	4.50	308	67381	80.03	NG/UL	97
13)	4-Methylphenol	4.89	350	281161	106.68	NG/UL	99
14)	N-Nitroso-Di-n-propylamine	4.83	344	309175	112.75	NG/UL	99
15)	Hexachloroethane	4.73	333	165430	92.63	NG/UL	95
16)	d8-Naphthalene	6.55	532	537219	53.84	NG/UL	87
17)	Nitrobenzene-d5	4.94	356	459645	113.88	NG/UL	94
18)	Nitrobenzene	4.98	360	185814	107.34	NG/UL	97
19)	Isophorone	5.59	427	882846	119.65	NG/UL	96
20)	2-Nitrophenol	5.71	440	221721	109.96	NG/UL	92
21)	2,4-Dimethylphenol	6.09	482	271227	117.36	NG/UL	95
22)	Benzoic Acid	6.79	558	231841M	114.95	NG/UL	
23)	bis(2-Chloroethoxy)Methane	6.29	504	553802	117.79	NG/UL	98
24)	2,4-Dichlorophenol	6.36	511	324219	106.74	NG/UL	96
25)	1,2,4-Trichlorobenzene	6.50	526	360630	94.35	NG/UL	94
26)	Naphthalene	6.60	537	986334	109.17	NG/UL	97
27)	4-Chloroaniline	6.91	571	140822	111.50	NG/UL	96
28)	Hexachlorobutadiene	7.22	605	228914	91.64	NG/UL	96
29)	4-Chloro-3-methylphenol	8.51	747	324230	111.49	NG/UL	86
30)	2-Methylnaphthalene	8.49	744	717772	116.33	NG/UL	95
31)	d10-Acenaphthene	11.47	1070	296578	56.56	NG/UL	99
32)	Hexachlorocyclopentadiene	9.21	823	258010	94.18	NG/UL	99
33)	2,4,6-Trichlorophenol	9.48	853	251284M	106.90	NG/UL	91
34)	2,4,5-Trichlorophenol	9.58	864	254289M	104.08	NG/UL	
35)	2-Chloronaphthalene	9.83	891	710843	107.97	NG/UL	97
36)	2-Fluorobiphenyl	9.75	882	884023	108.20	NG/UL	92
37)	2-Nitroaniline	10.34	947	265435M	122.06	NG/UL	92
38)	Dimethylphthalate	11.23	1044	689934	95.37	NG/UL	90
39)	*d-10-Phenanthrene	15.70	1531	513510	50.00	NG/UL	99
40)	Acenaphthylene	10.98	1017	1075710	87.72	NG/UL	89
41)	3-Nitroaniline	11.60	1084	192383	108.13	NG/UL	92
42)	Acenaphthene	11.57	1081	687971	86.60	NG/UL	91
43)	2,4-Dinitrophenol	11.87	1114	110696M	97.57	NG/UL	82

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	4-Nitrophenol	12.46	1178	82452	103.87	NG/UL	75
45)	Dibenzofuran	12.06	1134	1054512	88.80	NG/UL	88
46)	2,4-Dinitrotoluene	12.36	1167	290860	106.35	NG/UL	92
47)	2,6-Dinitrotoluene	11.30	1051	170980	78.25	NG/UL	79
48)	Diethylphthalate	13.40	1281	738416	89.88	NG/UL	93
49)	4-Chlorophenyl-phenylether	13.27	1266	361940	86.42	NG/UL	96
50)	Fluorene	13.04	1242	801988	94.68	NG/UL	98
51)	4-Nitroaniline	13.44	1285	156644	91.71	NG/UL	95
52)	4,6-Dinitro-2-methylphenol	13.54	1296	121077	86.60	NG/UL	87
53)	N-Nitrosodiphenylamine	13.67	1310	232702	67.74	NG/UL	97
54)	2,4,6-Tribromophenol	13.81	1325	115332	95.85	NG/UL	95
55)	4-Bromophenyl-phenylether	14.64	1416	208471	96.53	NG/UL	93
56)	Hexachlorobenzene	14.89	1443	223856	91.83	NG/UL	98
57)	Pentachlorophenol	15.52	1512	119185	85.06	NG/UL	98
58)	Phenanthrene	15.78	1540	1040424	94.98	NG/UL	96
59)	Anthracene	15.91	1554	1046589	96.47	NG/UL	98
60)	Di-n-Butylphthalate	18.21	1806	1169614	86.10	NG/UL	94
61)	Fluoranthene	19.21	1915	793765	84.44	NG/UL	97
62)	d12-Chrysene	23.41	2373	185526	44.90	NG/UL	89
63)	Pyrene	19.79	1979	782358	83.92	NG/UL	93
64)	Terphenyl-d14	20.65	2072	553215	82.43	NG/UL	96
65)	Butylbenzylphthalate	22.46	2270	392436	87.78	NG/UL	71
66)	Benzo(a)Anthracene	23.37	2369	512703	99.47	NG/UL	95
67)	Bis(2-Ethylhexyl)Phthalate	24.47	2489	533539	88.93	NG/UL	90
68)	Chrysene	23.48	2381	459391M	89.51	NG/UL	91
69)	*d12-Perylene	27.25	2792	154253	50.00	NG/UL	96
70)	Di-n-octylphthalate	26.20	2678	871936	86.34	NG/UL	85
71)	Benzo(b)fluoranthene	26.35	2694	398512	102.74	NG/UL	87
72)	Benzo(k)Fluoranthene	26.42	2702	387598M	97.23	NG/UL	88
73)	Benzo(a)Pyrene	27.11	2777	327984	101.00	NG/UL	87
74)	Indeno(1,2,3-cd)Pyrene	29.75	3065	310199	120.76	NG/UL	85
75)	Dibenzo(a,h)Anthracene	29.85	3076	306047M	123.95	NG/UL	
76)	Benzo(g,h,i)Perylene	30.26	3121	337002	129.28	NG/UL	82

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >RW091::D6 Quant Output File: ^RW091::D6
Name: 100 STD
Misc: 11/16/90

Id File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901114 11:01

Operator ID: MANAGER
Quant Time: 901116 14:02
Injected at: 901116 13:22

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 901116 14:56
Output File: ^RW092::D6 Injected at: 901116 14:17
Data File: >RW092::D6 Dilution Factor: 1.00000
Name: 50 STD
Misc: 11/16/90

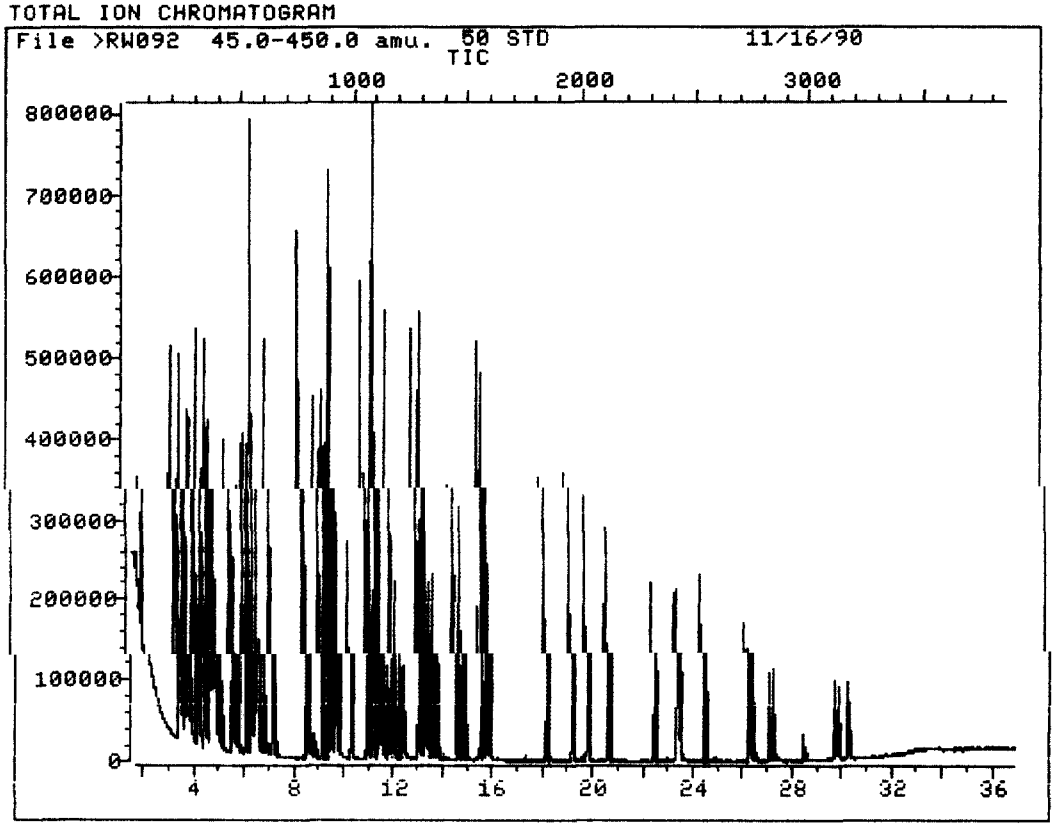
ID File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901114 11:01

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.70	220	160492	50.00	NG/UL	98
2)	2-Fluorophenol	2.05	39	192704	50.72	NG/UL	98
3)	Phenol-d5	3.33	179	256063	52.54	NG/UL	92
4)	Phenol	3.34	181	272638	53.11	NG/UL	86
5)	bis(2-Chloroethyl)Ether	3.40	187	242872	58.99	NG/UL	98
6)	2-Chlorophenol	3.42	189	208584	53.44	NG/UL	98
7)	1,3-Dichlorobenzene	3.63	212	222153	47.75	NG/UL	93
8)	1,4-Dichlorobenzene	3.73	223	265928	53.90	NG/UL	97
9)	Benzyl Alcohol	4.09	263	124581	50.19	NG/UL	97
10)	1,2-Dichlorobenzene	4.06	259	237549	48.80	NG/UL	97
11)	2-Methylphenol	4.45	302	195564	55.26	NG/UL	96
12)	bis(2-Chloroisopropyl)ether	4.43	300	49900	43.11	NG/UL	92
13)	4-Methylphenol	4.81	341	183730	50.70	NG/UL	99
14)	N-Nitroso-Di-n-propylamine	4.75	335	196219	52.04	NG/UL	97
15)	Hexachloroethane	4.67	326	106072	43.20	NG/UL	97
16)	d8-Naphthalene	6.49	525	669729	48.82	NG/UL	88
17)	Nitrobenzene-d5	4.86	347	299649	54.00	NG/UL	96
18)	Nitrobenzene	4.90	351	118728	49.89	NG/UL	88
19)	Isophorone	5.50	417	510298	50.30	NG/UL	97
20)	2-Nitrophenol	5.64	432	132476	47.78	NG/UL	94
21)	2,4-Dimethylphenol	6.02	474	156003	49.10	NG/UL	96
22)	Benzoic Acid	6.62	539	125457	45.24	NG/UL	99
23)	bis(2-Chloroethoxy)Methane	6.22	495	335141	51.85	NG/UL	98
24)	2,4-Dichlorophenol	6.29	503	200916	48.11	NG/UL	97
25)	1,2,4-Trichlorobenzene	6.43	518	242223	46.09	NG/UL	97
26)	Naphthalene	6.54	530	647903	52.16	NG/UL	97
27)	4-Chloroaniline	6.85	564	87520	50.40	NG/UL	94
28)	Hexachlorobutadiene	7.17	599	156023	45.43	NG/UL	95
29)	4-Chloro-3-methylphenol	8.46	741	188703	47.19	NG/UL	83
30)	2-Methylnaphthalene	8.43	737	456806	53.85	NG/UL	90
31)	d10-Acenaphthene	11.42	1065	300474	41.68	NG/UL	98
32)	Hexachlorocyclopentadiene	9.16	817	166508	44.21	NG/UL	97
33)	2,4,6-Trichlorophenol	9.43	847	141367	43.74	NG/UL	91
34)	2,4,5-Trichlorophenol	9.52	857	137300	40.87	NG/UL	96
35)	2-Chloronaphthalene	9.77	884	414805	45.82	NG/UL	98
36)	2-Fluorobiphenyl	9.69	875	526353	46.85	NG/UL	95
37)	2-Nitroaniline	10.29	941	117988	39.46	NG/UL	89
38)	Dimethylphthalate	11.16	1036	394419	39.65	NG/UL	92
39)	*d-10-Phenanthrene	15.66	1528	339685	50.00	NG/UL	99
40)	Acenaphthylene	10.93	1011	610014	75.20	NG/UL	89
41)	3-Nitroaniline	11.53	1076	66020	56.09	NG/UL	92
42)	Acenaphthene	11.52	1075	397275	75.60	NG/UL	97
43)	2,4-Dinitrophenol	11.81	1107	33095	44.10	NG/UL	83

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	4-Nitrophenol	12.39	1171	26460	50.39	NG/UL	77
45)	Dibenzofuran	12.00	1128	538135	68.50	NG/UL	88
46)	2,4-Dinitrotoluene	12.29	1160	93779	51.84	NG/UL	98
47)	2,6-Dinitrotoluene	11.22	1043	95459	66.04	NG/UL	81
48)	Diethylphthalate	13.32	1272	336689	61.95	NG/UL	91
49)	4-Chlorophenyl-phenylether	13.23	1262	168645	60.87	NG/UL	97
50)	Fluorene	13.01	1238	367949	65.67	NG/UL	97
51)	4-Nitroaniline	13.33	1273	54622	48.34	NG/UL	95
52)	4,6-Dinitro-2-methylphenol	13.46	1287	40197	43.46	NG/UL	86
53)	N-Nitrosodiphenylamine	13.62	1305	101744	44.78	NG/UL	99
54)	2,4,6-Tribromophenol	13.77	1321	40402	50.76	NG/UL	97
55)	4-Bromophenyl-phenylether	14.60	1412	77878	54.51	NG/UL	95
56)	Hexachlorobenzene	14.84	1439	81646	50.63	NG/UL	99
57)	Pentachlorophenol	15.46	1506	40597	43.80	NG/UL	96
58)	Phenanthrene	15.72	1535	392894	54.22	NG/UL	99
59)	Anthracene	15.85	1549	381022	53.09	NG/UL	98
60)	Di-n-Butylphthalate	18.17	1803	427443	47.57	NG/UL	96
61)	Fluoranthene	19.17	1913	293690	47.23	NG/UL	97
62)	d12-Chrysene	23.37	2374	111479	40.79	NG/UL	85
63)	Pyrene	19.75	1977	279406	45.31	NG/UL	90
64)	Terphenyl-d14	20.61	2071	192081	43.26	NG/UL	97
65)	Butylbenzylphthalate	22.42	2270	126082	42.63	NG/UL	73
66)	Benzo(a)Anthracene	23.33	2370	137097	40.21	NG/UL	93
67)	Bis(2-Ethylhexyl)Phthalate	24.46	2493	159094	40.09	NG/UL	90
68)	Chrysene	23.44	2382	139878M	41.20	NG/UL	90
69)	*d12-Perylene	27.22	2796	69817	50.00	NG/UL	97
70)	Di-n-octylphthalate	26.18	2682	208977	45.72	NG/UL	85
71)	Benzo(b)fluoranthene	26.31	2696	89819	51.16	NG/UL	87
72)	Benzo(k)Fluoranthene	26.37	2703	88130	48.84	NG/UL	85
73)	Benzo(a)Pyrene	27.06	2779	74693	50.82	NG/UL	88
74)	Indeno(1,2,3-cd)Pyrene	29.69	3067	66745	57.41	NG/UL	87
75)	Dibenzo(a,h)Anthracene	29.80	3079	60039	53.72	NG/UL	77
76)	Benzo(g,h,i)Perylene	30.19	3122	64337	54.53	NG/UL	84

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >RW092::D6 Quant Output File: ^RW092::D6
Name: 50 STD
Misc: 11/16/90

Id File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901114 11:01

Operator ID: MANAGER
Quant Time: 901116 14:56
Injected at: 901116 14:17

QUANT REPORT

Operator ID: MANAGER Quant Rev: 6 Quant Time: 901116 15:48
Output File: ^RW093::D6 Injected at: 901116 15:06
Data File: >RW093::D6 Dilution Factor: 1.00000
Name: 25 STD
Misc: 11/16/90

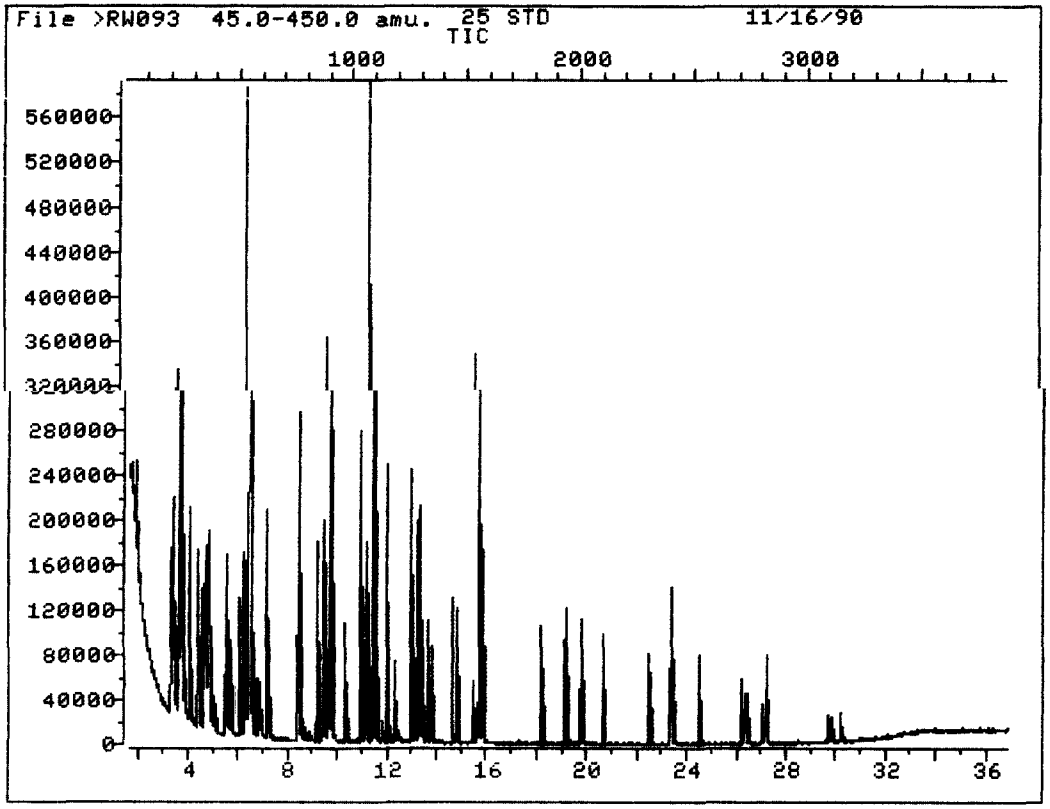
ID File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901114 11:01

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.64	216	161486	50.00	NG/UL	95
2)	2-Fluorophenol	1.94	30	82577	21.60	NG/UL	99
3)	Phenol-d5	3.24	173	124105	25.31	NG/UL	90
4)	Phenol	3.26	175	119890	23.21	NG/UL	84
5)	bis(2-Chloroethyl)Ether	3.33	182	104558	25.24	NG/UL	99
6)	2-Chlorophenol	3.35	184	93248	23.74	NG/UL	99
7)	1,3-Dichlorobenzene	3.56	208	97729	20.88	NG/UL	95
8)	1,4-Dichlorobenzene	3.67	220	111206	22.40	NG/UL	97
9)	Benzyl Alcohol	4.03	259	56575	22.65	NG/UL	96
10)	1,2-Dichlorobenzene	4.00	256	108320	22.11	NG/UL	96
11)	2-Methylphenol	4.41	300	84156	23.63	NG/UL	99
12)	bis(2-Chloroisopropyl)ether	4.40	299	29937	25.70	NG/UL	96
13)	4-Methylphenol	4.75	338	86886	23.83	NG/UL	97
14)	N-Nitroso-Di-n-propylamine	4.70	332	89437	23.58	NG/UL	96
15)	Hexachloroethane	4.63	325	50024	20.25	NG/UL	94
16)	d8-Naphthalene	6.47	526	652305	47.26	NG/UL	87
17)	Nitrobenzene-d5	4.82	345	123798	22.17	NG/UL	91
18)	Nitrobenzene	4.85	349	52338	21.86	NG/UL	89
19)	Isophorone	5.46	416	220593	21.61	NG/UL	98
20)	2-Nitrophenol	5.61	432	54617	19.58	NG/UL	93
21)	2,4-Dimethylphenol	5.99	474	62473	19.54	NG/UL	96
22)	Benzoic Acid	6.45	524	38697	13.87	NG/UL	97
23)	bis(2-Chloroethoxy)Methane	6.19	495	144523	22.22	NG/UL	97
24)	2,4-Dichlorophenol	6.26	503	83492	19.87	NG/UL	95
25)	1,2,4-Trichlorobenzene	6.40	519	107019	20.24	NG/UL	89
26)	Naphthalene	6.51	530	302823	24.23	NG/UL	97
27)	4-Chloroaniline	6.84	567	34603	19.80	NG/UL	93
28)	Hexachlorobutadiene	7.15	601	70013	20.26	NG/UL	94
29)	4-Chloro-3-methylphenol	8.47	745	75315M	18.72	NG/UL	
30)	2-Methylnaphthalene	8.42	740	179878	21.07	NG/UL	94
31)	d10-Acenaphthene	11.43	1070	269826	37.20	NG/UL	97
32)	Hexachlorocyclopentadiene	9.17	822	61309	16.18	NG/UL	97
33)	2,4,6-Trichlorophenol	9.43	851	56647M	17.42	NG/UL	
34)	2,4,5-Trichlorophenol	9.53	862	52550M	15.55	NG/UL	87
35)	2-Chloronaphthalene	9.76	887	181564	19.93	NG/UL	98
36)	2-Fluorobiphenyl	9.68	878	236565	20.93	NG/UL	94
37)	2-Nitroaniline	10.28	944	44444	14.77	NG/UL	95
38)	Dimethylphthalate	11.15	1039	158281	15.81	NG/UL	90
39)	*d-10-Phenanthrene	15.66	1534	255181	50.00	NG/UL	98
40)	Acenaphthylene	10.93	1015	257580	42.27	NG/UL	92
41)	3-Nitroaniline	11.52	1080	24093	27.25	NG/UL	99
42)	Acenaphthene	11.51	1079	168532M	42.69	NG/UL	97
43)	2,4-Dinitrophenol	11.80	1111	5913M	10.49	NG/UL	81

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	4-Nitrophenol	12.41	1177	6013	15.24	NG/UL	83
45)	Dibenzofuran	12.00	1132	220468	37.36	NG/UL	91
46)	2,4-Dinitrotoluene	12.29	1164	29715	21.86	NG/UL	98
47)	2,6-Dinitrotoluene	11.21	1046	34031	31.34	NG/UL	80
48)	Diethylphthalate	13.30	1275	135930	33.29	NG/UL	91
49)	4-Chlorophenyl-phenylether	13.22	1266	67118	32.25	NG/UL	99
50)	Fluorene	13.00	1242	149899	35.61	NG/UL	97
51)	4-Nitroaniline	13.30	1275	15573	18.35	NG/UL	96
52)	4,6-Dinitro-2-methylphenol	13.45	1291	8656	12.46	NG/UL	76
53)	N-Nitrosodiphenylamine	13.62	1310	51283	30.04	NG/UL	97
54)	2,4,6-Tribromophenol	13.77	1326	13564	22.69	NG/UL	94
55)	4-Bromophenyl-phenylether	14.60	1417	26889	25.05	NG/UL	90
56)	Hexachlorobenzene	14.84	1444	29059	23.99	NG/UL	98
57)	Pentachlorophenol	15.45	1511	10472	15.04	NG/UL	95
58)	Phenanthrene	15.72	1540	137327	25.23	NG/UL	98
59)	Anthracene	15.84	1554	130698	24.24	NG/UL	98
60)	Di-n-Butylphthalate	18.17	1809	128859	19.09	NG/UL	96
61)	Fluoranthene	19.16	1918	90761	19.43	NG/UL	97
62)	d12-Chrysene	23.37	2381	80944	39.43	NG/UL	83
63)	Pyrene	19.74	1982	87450	18.88	NG/UL	87
64)	Terphenyl-d14	20.60	2077	60392	18.11	NG/UL	97
65)	Butylbenzylphthalate	22.42	2277	42061	18.93	NG/UL	68
66)	Benzo(a)Anthracene	23.32	2376	48335	18.87	NG/UL	92
67)	Bis(2-Ethylhexyl)Phthalate	24.44	2499	54306	18.21	NG/UL	87
68)	Chrysene	23.43	2388	47697M	18.70	NG/UL	88
69)	*d12-Perylene	27.22	2804	48120	50.00	NG/UL	97
70)	Di-n-octylphthalate	26.17	2689	72088	22.88	NG/UL	85
71)	Benzo(b)fluoranthene	26.29	2702	30755	25.42	NG/UL	89
72)	Benzo(k)Fluoranthene	26.37	2710	30192	24.28	NG/UL	84
73)	Benzo(a)Pyrene	27.07	2787	23715	23.41	NG/UL	84
74)	Indeno(1,2,3-cd)Pyrene	29.69	3075	17962	22.42	NG/UL	90
75)	Dibenzo(a,h)Anthracene	29.81	3088	16501	21.42	NG/UL	77
76)	Benzo(g,h,i)Perylene	30.19	3130	17844	21.94	NG/UL	83

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >RW093::D6 Quant Output File: ^RW093::D6
Name: 25 STD
Misc: 11/16/90

Id File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901114 11:01

Operator ID: MANAGER
Quant Time: 901116 15:48
Injected at: 901116 15:06

FMGR : BLIST,BARW08

Initial
Calib
11/19/90

Sequence File: BARW08::SC

Tune File: MT5996

CR List: D6
CR Cut-off: 2500 blocks.

Number of samples: 14

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                                                   Report Data Archive
                                                  Quant | | ID Archive
                                     Sample Size | | | | | Output Archive
                                        Bottle | | | | | | |
Samp Data File     Sample Name                | | | | | | |     Quant ID
 No. Method File   Misc Data                  | | | | | | |     Quant Output
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001) >RW106       90FH30S86MSRE SF7465     -1 1 Y M N N N     IDRW6::SC
     TOXIC6       11/19/90      1030/1        Dil=1.00000     ^RW106::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#
002) >RW107       90FH30S86MDRE SF7465     -1 1 Y M N N N     IDRW6::SC
     TOXIC6       11/19/90      1030/1        Dil=1.00000     ^RW107::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#
003) >RW108       90FH30S87 RE  SF7465     -1 1 Y M N N N     IDRW6::SC
     TOXIC6       11/19/90       945/1        Dil=1.00000     ^RW108::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#
004) >RW109       90FH03R85 RE  SF7465     -1 1 Y M N N N     IDRW6::SC
     TOXIC6       11/19/90      1010/1        Dil=1.00000     ^RW109::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#
005) >RW110       91FL30S89     SF7471     -1 1 Y M N N N     IDRW6::SC
     TOXIC6       11/19/90      1040/1        Dil=1.00000     ^RW110::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#
006) >RW111       91FL30S89MS   SF7471     -1 1 Y M N N N     IDRW6::SC
     TOXIC6       11/19/90      1000/1        Dil=1.00000     ^RW111::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#
007) >RW112       91FL30S89MSD  SF7471     -1 1 Y M N N N     IDRW6::SC
     TOXIC6       11/19/90      1015/1        Dil=1.00000     ^RW112::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#
008) >RW113       91FL30S90     SF7471     -1 1 Y M N N N     IDRW6::SC
     TOXIC6       11/19/90      1020/1        Dil=1.00000     ^RW113::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#
009) >RW114       91FL30S91     SF7471     -1 1 Y M N N N     IDRW6::SC
     TOXIC6       11/19/90      1035/1        Dil=1.00000     ^RW114::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#
010) >RW115       91FL30D90     SF7471     -1 1 Y M N N N     IDRW6::SC
     TOXIC6       11/19/90      1035/1        Dil=1.00000     ^RW115::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#
011) >RW116       91FL03R87     SF7471     -1 1 Y M N N N     IDRW6::SC
     TOXIC6       11/19/90      1050/1        Dil=1.00000     ^RW116::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#
012) >RW117       METHOD BLK    SF7471     -1 1 Y M N N N     IDRW6::SC
     TOXIC6       11/19/90      1000/1        Dil=1.00000     ^RW117::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#
013) >RW118       10 PPM MDL    -1 1 Y M N N N     IDRW6::SC
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013) >RW118        10 PPM MDL                -1 1 Y M N N N    IDRW6::SC
     TOXIC6        11/19/90                     Dil=1.00000    ^RW118::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#
014) >RW119        5  PPM MDL                -1 1 Y M N N N    IDRW6::SC
     TOXIC6        11/19/90                     Dil=1.00000    ^RW119::D6
     REPRT OPTIONS: Label Meth:1, BG Sub, Scale time: 1.500
     REPRT OPTIONS: Qion replaces Scan#

End of sequence file.
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FMGR : BLIST,BARW07

 Sequence File: BARW07::SC
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 Tune File: MT5996

 CR List: D6
 CR Cut-off:  2500 blocks.
                                                  Report Data Archive
                                                 Quant | | ID Archive
 Number of samples:   3                 Sample Size | | | | Output Archive
                                           Bottle | | | | | |
 Samp Data File     Sample Name                  | | | | | | |    Quant ID
  No. Method File   Misc Data                     | | | | | | |    Quant Output
 ---- ------------ ------------------------ ----------------  ------------
 001) >RW103       100 STD SF7471            -1 1 Y M N N N    IDRW5::SC
      TOXIC6       11/19/90                     Dil=1.00000    ^RW103::D6
      REPRT OPTIONS: BG Sub, Scale time: 1.500, Qion replaces Scan#
 002) >RW104       50  STD SF7471            -1 1 Y M N N N    IDRW5::SC
      TOXIC6       11/19/90                     Dil=1.00000    ^RW104::D6
      REPRT OPTIONS: BG Sub, Scale time: 1.500, Qion replaces Scan#
 003) >RW105       25  STD SF7471            -1 1 Y M N N N    IDRW5::SC
      TOXIC6       11/19/90                     Dil=1.00000    ^RW105::D6
      REPRT OPTIONS: BG Sub, Scale time: 1.500, Qion replaces Scan#

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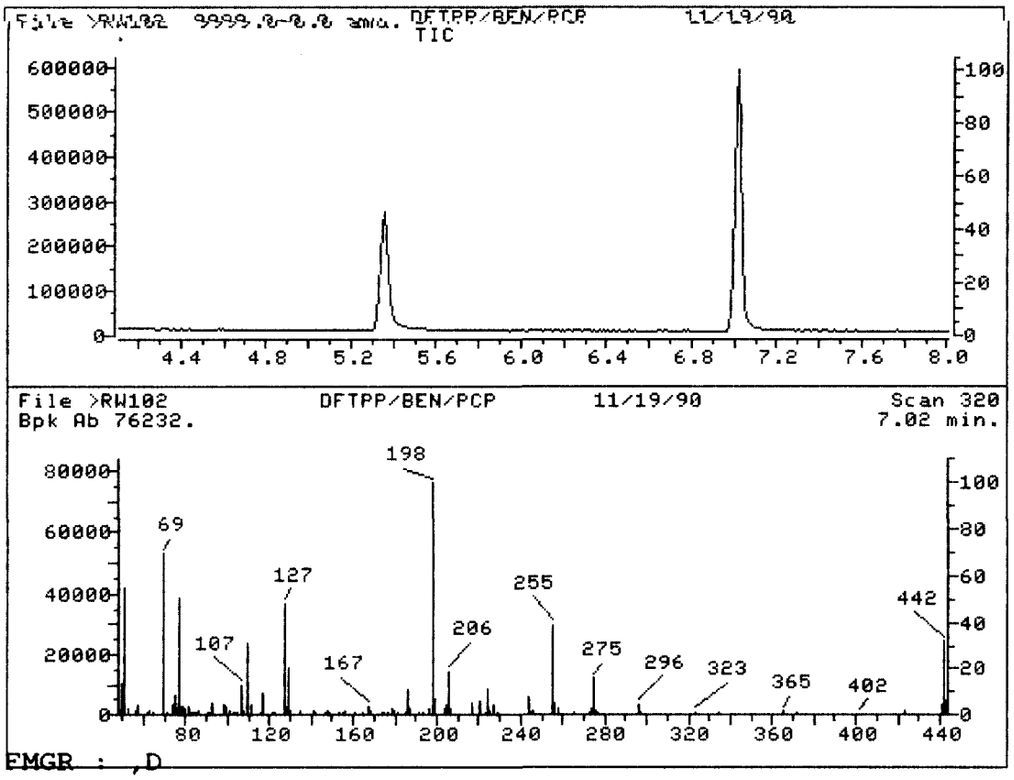


GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	48.97	48.97	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	62.04	62.04	Ok
70	Less than 2% of mass 69	.57	.92	Ok
127	40-60% of mass 198	44.59	44.59	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	6.74	6.74	Ok
275	10-30% of mass 198	17.82	17.82	Ok
365	Greater than 1% of mass 198	2.15	2.15	Ok
441	0-100% of mass 443	5.92	76.77	Ok
442	Greater than 40% of mass 198	40.20	40.20	Ok
443	17-23% of mass 442	7.72	19.19	Ok

Injection Date: 11/19/90
Injection Time: 12:43
Data File: >RW102
Scan: 319

FMGR : LSTGA

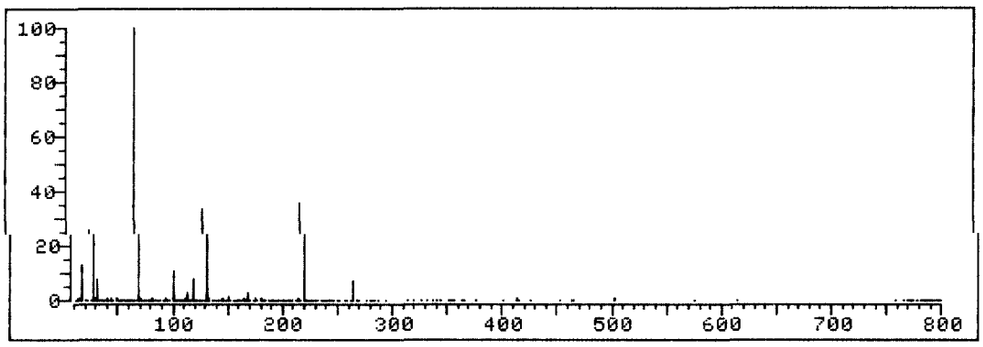
Instrument # 1

User: MANAGER
Data file name: >RW094 Cartridge: D6
Method file name: TOXIC6
Run time: 36.9
Retention time: 17.0
Post run time: 2.0

Instrument will be available in 21.8 minutes.

INST # 1: 5995 #1 TYPE: 5996 DATE: 11/19/90 8:52

Mass Range	10- 800			Peaks detected	265
Base Peak	69.00	Abundance	136832	Total Ab.	392312
Samples / A.D.	16	Integration	50	Threshold	10

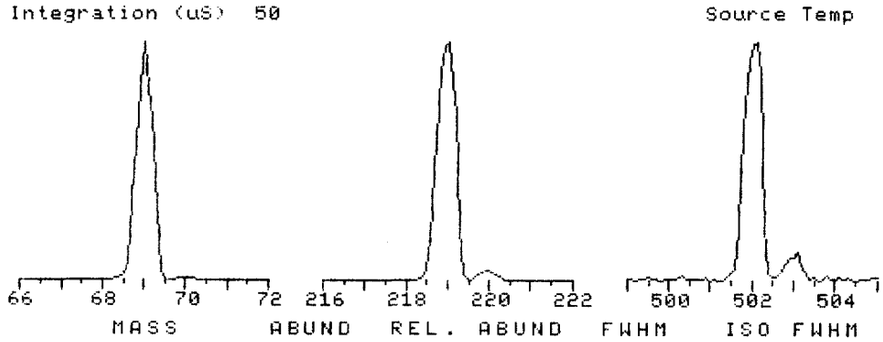


Mass	Abund	Rel. Abund	Iso Mass	Iso Abund	Iso Ratio
69.00	136832	100.00	70.00	1503	1.10
218.95	48864	35.71	219.95	2095	4.29
502.05	789	.58	503.05	69	8.75

PROFILE SCAN ver 870605

INST # 1: 5995 #1 TYPE: 5996 DATE: 11/19/90 8:54

Repeller (V)	7.5	X - Ray	(V) 39.2	AMU Offset	56
Ion Focus (V)	56.8	EM Volts	(V) 2031	Mass Gain	-22
Ent Lens (mV)	68	AMU Gain	124	Mass Offset	9
Integration (uS)	50			Source Temp	200



GC/MS PERFORMANCE STANDARD

Decafluorotriphenylphospine (DFTPP)

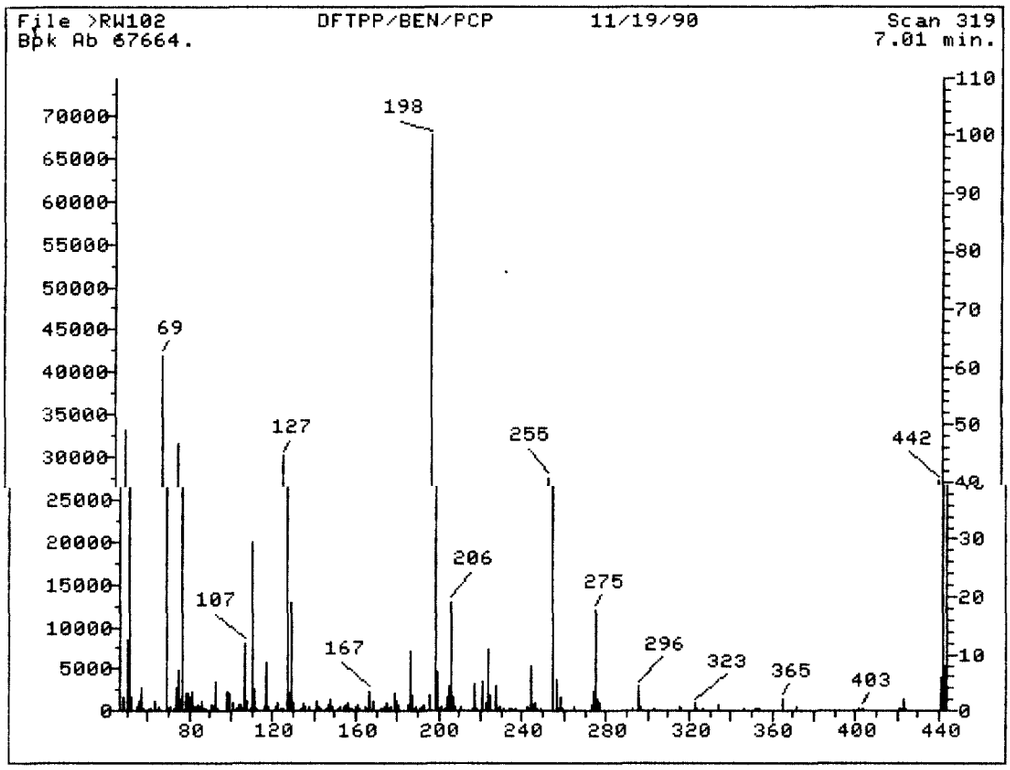
m/z	Ion Abundance Criteria	% Relative Abundance Base Peak	Appropriate Peak	Status
51	30-60% of mass 198	48.97	48.97	Ok
68	Less than 2% of mass 69	0.00	0.00	Ok
69	(reference only)	62.04	62.04	Ok
70	Less than 2% of mass 69	.57	.92	Ok
127	40-60% of mass 198	44.59	44.59	Ok
197	Less than 1% of mass 198	0.00	0.00	Ok
198	Base peak, 100% relative abundance	100.00	100.00	Ok
199	5-9% of mass 198	6.74	6.74	Ok
275	10-30% of mass 198	17.82	17.82	Ok
365	Greater than 1% of mass 198	2.15	2.15	Ok
441	0-100% of mass 443	5.92	76.77	Ok
442	Greater than 40% of mass 198	40.20	40.20	Ok
443	17-23% of mass 442	7.72	19.19	Ok

Injection Date: 11/19/90
Injection Time: 12:44
Data File: >RW102
Scan: 319

MS data file header from : >RW102

Sample: DFTPP/BEN/PCP Operator: MANAGER SUPER GRP. 11/19/90 12:44
Misc : 11/19/90
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	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0



MS data file header from : >RW102

Sample: DFTPP/BEN/PCP Operator: MANAGER SUPER GRP. 11/19/90 12:44
Misc : 11/19/90
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	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

>RW102 DFTPP/BEN/PCP 11/19/90
319

File: >RW102 Scan #: 319 Retn. time: 7.01

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
46.90	230.0	101.90	126.0	154.95	777.0	202.95	343.0	273.95	2380.0
49.00	1735.0	102.95	398.0	156.05	1086.0	204.05	1633.0	275.05	12059.0
50.10	8421.0	103.95	722.0	157.05	199.0	205.05	2989.0	275.95	1481.0
51.00	33136.1	104.95	733.0	157.95	230.0	206.05	12950.0	277.05	928.0
52.10	1656.0	106.05	204.0	158.95	164.0	207.05	1651.0	277.95	134.0
55.10	539.0	106.95	8143.0	159.95	436.0	207.95	535.0	282.85	140.0
56.00	1137.0	107.95	1228.0	161.05	755.0	208.95	162.0	283.95	79.0
57.00	2871.0	109.05	296.0	162.05	215.0	210.35	278.0	293.05	253.0
58.00	240.0	109.95	19840.1	162.95	79.0	210.95	556.0	293.95	75.0
61.10	387.0	110.95	2507.0	164.95	501.0	211.85	140.0	296.05	2966.0
62.00	387.0	111.95	347.0	166.05	382.0	214.95	138.0	297.05	451.0
63.10	1271.0	112.95	124.0	166.95	2393.0	215.95	296.0	303.05	326.0
64.00	153.0	115.95	428.0	168.05	1176.0	216.95	3225.0	313.90	139.0
65.10	610.0	116.95	5668.0	170.05	108.0	217.95	386.0	315.00	416.0
69.00	41976.1	117.95	575.0	170.75	74.0	220.95	3537.0	316.00	239.0
70.00	388.0	119.95	110.0	171.15	106.0	222.95	921.0	323.00	935.0
71.10	549.0	121.95	441.0	171.95	210.0	224.05	7318.0	324.00	210.0
73.00	253.0	122.95	870.0	172.95	286.0	225.05	1791.0	326.90	201.0
74.00	2860.0	123.95	382.0	173.95	569.0	226.05	165.0	333.00	144.0
75.00	4764.0	124.95	354.0	174.95	869.0	226.95	3008.0	334.00	702.0
76.10	1434.0	126.95	30168.1	175.95	310.0	227.95	363.0	334.90	118.0
77.10	31544.1	127.95	2132.0	176.95	604.0	228.95	537.0	341.00	91.0
78.10	2092.0	128.95	12778.0	177.85	128.0	229.95	84.0	345.90	208.0
79.00	2087.0	130.05	977.0	178.95	2057.0	231.05	243.0	352.10	272.0
80.00	1575.0	130.95	159.0	180.05	1180.0	233.95	206.0	353.00	258.0
81.00	2441.0	131.95	143.0	180.95	677.0	234.95	207.0	354.00	288.0
82.00	549.0	133.05	123.0	182.05	109.0	237.05	202.0	365.00	1452.0
83.00	608.0	133.95	277.0	182.95	66.0	240.95	171.0	366.00	170.0
84.00	799.0	134.95	929.0	183.85	159.0	241.95	402.0	370.90	83.0
85.10	515.0	135.95	469.0	184.95	808.0	242.95	353.0	372.00	595.0
86.00	1151.0	137.05	432.0	186.05	7053.0	244.05	5269.0	383.00	101.0
87.00	278.0	140.95	1183.0	187.05	1946.0	245.05	719.0	401.90	186.0
88.10	223.0	142.05	442.0	187.95	209.0	246.05	1038.0	403.00	321.0
91.10	651.0	142.95	271.0	189.05	441.0	246.95	246.0	404.00	134.0
92.00	547.0	144.85	84.0	190.95	233.0	249.05	212.0	421.00	237.0
93.00	3459.0	145.95	184.0	192.05	599.0	254.95	27560.1	422.00	188.0
93.90	272.0	147.05	633.0	193.05	635.0	255.95	3824.0	423.00	1442.0
95.00	150.0	148.05	1509.0	193.95	105.0	257.05	289.0	424.00	321.0
96.10	137.0	148.95	417.0	195.95	1926.0	258.05	1618.0	441.00	4008.0
97.10	147.0	151.15	195.0	197.95	67664.2	259.05	231.0	442.00	27200.1
98.00	2249.0	151.95	68.0	198.95	4559.0	264.95	567.0	443.00	5221.0
99.00	2085.0	152.85	478.0	200.05	363.0	265.85	126.0	444.00	464.0
101.00	1068.0	153.95	411.0	201.45	447.0	273.05	744.0		

MS data file header from : >RW102

Sample: DFTPP/BEN/PCP Operator: MANAGER SUPER GRP. 11/19/90 12:44
Misc : 11/19/90
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	0.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	8.0	0.0	0.0	0.0	0.0

FMGR : CBCAL,CBRW6,IDRW6:KH,,A

Calib File: CBRW6::SC
Title: HP BNA STD REV E KELLY 06\23\89
Units: NG/UL
Last Edit: 891025 10:33
Last Calib: 901119 16:53

ID File: IDRW6:KH:SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Units: NG/UL
Last Edit: 901114 09:27
Last Calib: 901119 16:59

Correct Files ? Y

Calibrating...

1)	2-Fluorophenol	Avg RF:	1.43780
2)	Phenol-d5	Avg RF:	1.95108
3)	Phenol	Avg RF:	2.05124
4)	bis(2-Chloroethyl)Ether	Avg RF:	1.58979
5)	2-Chlorophenol	Avg RF:	1.20304
6)	1,3-Dichlorobenzene	Avg RF:	1.50519
7)	1,4-Dichlorobenzene	Avg RF:	1.59339
8)	Benzyl Alcohol	Avg RF:	.93853
9)	1,2-Dichlorobenzene	Avg RF:	1.53686
10)	2-Methylphenol	Avg RF:	1.28222
11)	bis(2-Chloroisopropyl)ether	Avg RF:	.35961
12)	4-Methylphenol	Avg RF:	1.37534
13)	N-Nitroso-Di-n-propylamine	Avg RF:	1.36489
14)	Hexachloroethane	Avg RF:	.66096
15)	d8-Naphthalene	Avg RF:	4.24377
16)	Nitrobenzene-d5	Avg RF:	2.10489
17)	Nitrobenzene	Avg RF:	.81747
18)	Isophorone	Avg RF:	3.32571
19)	2-Nitrophenol	Avg RF:	.89010
20)	2,4-Dimethylphenol	Avg RF:	1.06525
21)	Benzoic Acid	Avg RF:	.99259
22)	bis(2-Chloroethoxy)Methane	Avg RF:	2.47163
23)	2,4-Dichlorophenol	Avg RF:	1.21035
24)	1,2,4-Trichlorobenzene	Avg RF:	1.37128
25)	Naphthalene	Avg RF:	4.04586
26)	4-Chloroaniline	Avg RF:	.63680
27)	Hexachlorobutadiene	Avg RF:	.86920
28)	4-Chloro-3-methylphenol	Avg RF:	1.29449
29)	2-Methylnaphthalene	Avg RF:	2.46706
30)	d10-Acenaphthene	Avg RF:	1.69093
31)	Hexachlorocyclopentadiene	Avg RF:	.82008
32)	2,4,6-Trichlorophenol	Avg RF:	.77650
33)	2,4,5-Trichlorophenol	Avg RF:	.75527
34)	2-Chloronaphthalene	Avg RF:	2.24867
35)	2-Fluorobiphenyl	Avg RF:	2.92463
36)	2-Nitroaniline	Avg RF:	.87957
37)	Dimethylphthalate	Avg RF:	2.24157
38)	Acenaphthylene	Avg RF:	1.80159
39)	3-Nitroaniline	Avg RF:	.32420
40)	Acenaphthene	Avg RF:	1.17864
41)	2,4-Dinitrophenol	Avg RF:	.12534
42)	4-Nitrophenol	Avg RF:	.12091
43)	Dibenzofuran	Avg RF:	1.56106
44)	2,4-Dinitrotoluene	Avg RF:	.32937
45)	2,6-Dinitrotoluene	Avg RF:	.32792
46)	Diethylphthalate	Avg RF:	1.10999
47)	4-Chlorophenyl phenylether	Avg RF:	.52772

47)	4-Chlorophenyl-phenylether	Avg RF:	.52773
48)	Fluorene	Avg RF:	1.08636
49)	4-Nitroaniline	Avg RF:	.24579
50)	4,6-Dinitro-2-methylphenol	Avg RF:	.12324
51)	N-Nitrosodiphenylamine	Avg RF:	.38415
52)	2,4,6-Tribromophenol	Avg RF:	.12148
53)	4-Bromophenyl-phenylether	Avg RF:	.23778
54)	Hexachlorobenzene	Avg RF:	.20346
55)	Pentachlorophenol	Avg RF:	.11945
56)	Phenanthrene	Avg RF:	1.14020
57)	Anthracene	Avg RF:	1.10488
58)	Di-n-Butylphthalate	Avg RF:	1.21345
59)	Fluoranthene	Avg RF:	.66467
60)	d12-Chrysene	Avg RF:	.20367
61)	Pyrene	Avg RF:	.62033
62)	Terphenyl-d14	Avg RF:	.40566
63)	Butylbenzylphthalate	Avg RF:	.27669
64)	Benzo(a)Anthracene	Avg RF:	.25977
65)	Bis(2-Ethylhexyl)Phthalate	Avg RF:	.37285
66)	Chrysene	Avg RF:	.23867
67)	Di-n-octylphthalate	Avg RF:	4.57687
68)	Benzo(b)fluoranthene	Avg RF:	1.35066
69)	Benzo(k)Fluoranthene	Avg RF:	1.37108
70)	Benzo(a)Pyrene	Avg RF:	1.08590
71)	Indeno(1,2,3-cd)Pyrene	Avg RF:	.82774
72)	Dibenzo(a,h)Anthracene	Avg RF:	.77117
73)	Benzo(g,h,i)Perylene	Avg RF:	.83577

Calibration Time Stamp Updated: 901119 17:01

FMGR : ,*TASK,20

Calibration Report

Title: HP BNA STD REV E KELLY 06\23\B9
Calibrated: 901119 16:53

Compound	Files: >RW105 RF 25.00	>RW104 RF 50.00	>RW103 RF 100.00	$\overline{RRT}$	$\overline{RF}$	% RSD	
2-Fluorophenol	1.40031	1.46480	1.44829	.533	1.43780	2.330	
Phenol-d5	1.89703	1.94181	2.01440	.894	1.95108	3.036	
Phenol	2.04058	2.02941	2.08372	.902	2.05124	1.398	
bis(2-Chloroethyl)Ether	1.67728	1.63146	1.66063	.917	1.58979	7.182	
2-Chlorophenol	1.38368	1.44607	.77938	.922	1.20304	30.608	
1,3-Dichlorobenzene	1.51081	1.50284	1.50192	.980	1.50519	.325	
1,4-Dichlorobenzene	1.66037	1.60690	1.51289	1.008	1.59339	4.686	
Benzyl Alcohol	.87544	.94188	.99827	1.111	.93853	6.551	
1,2-Dichlorobenzene	1.55627	1.52960	1.52471	1.099	1.53686	1.105	
2-Methylphenol	1.28557	1.37232	1.18877	1.211	1.28222	7.161	
bis(2-Chloroisopropyl)ether	.33464	.43147	.31272	1.206	.35961	17.573	
4-Methylphenol	1.40257	1.39921	1.32424	1.312	1.37534	3.220	
N-Nitroso-Di-n-propylamine	1.32915	1.37152	1.39399	1.295	1.36489	2.412	
Hexachloroethane	.63614	.70035	.64639	1.269	.66096	5.219	
d8-Naphthalene	4.20609	4.15065	4.37456	1.774	4.24377	2.748	(Conc=50.0,50.0,50.0)
Nitrobenzene-d5	2.01380	2.15911	2.14174	1.325	2.10489	3.770	
Nitrobenzene	.80180	.82505	.82555	1.337	.81747	1.660	
Isophorone	3.16852	3.18881	3.61981	1.503	3.32571	7.664	
2-Nitrophenol	.83287	.91925	.91817	1.540	.89010	5.568	
2,4-Dimethylphenol	.95244	1.04302	1.20028	1.646	1.06525	11.773	
Benzoic Acid	.84271	1.00399	1.13107	1.823	.99259	14.559	
bis(2-Chloroethoxy)Methane	2.34490	2.49164	2.57836	1.702	2.47163	4.775	
2,4-Dichlorophenol	1.13923	1.23859	1.25322	1.719	1.21035	5.124	
1,2,4-Trichlorobenzene	1.30741	1.39927	1.40717	1.757	1.37128	4.044	
Naphthalene	3.99925	4.18024	3.95809	1.786	4.04586	2.921	
4-Chloroaniline	.64345	.65128	.61567	1.875	.63680	2.938	
Hexachlorobutadiene	.84037	.90839	.85885	1.960	.86920	4.047	
4-Chloro-3-methylphenol	1.25464	1.25947	1.36936	2.319	1.29449	5.012	
2-Methylnaphthalene	2.26918	2.42117	2.71083	2.307	2.46706	9.095	
d10-Acenaphthene	1.65358	1.65555	1.76367	3.128	1.69093	3.726	(Conc=50.0,50.0,50.0)
Hexachlorocyclopentadiene	.69383	.85102	.91538	2.509	.82008	13.898	
2,4,6-Trichlorophenol	.74685	.77386	.80880	2.582	.77650	4.000	
2,4,5-Trichlorophenol	.69679	.79361	.77539	2.610	.75527	6.812	
2-Chloronaphthalene	2.18367	2.23028	2.33206	2.675	2.24867	3.375	
2-Fluorobiphenyl	2.89710	2.87800	2.99877	2.652	2.92463	2.220	
2-Nitroaniline	.85751	.87237	.90882	2.820	.87957	3.002	
Dimethylphthalate	2.40423	2.25510	2.06538	3.059	2.24157	7.576	
Acenaphthylene	1.52655	1.85565	2.02258	.698	1.80159	14.010	
3-Nitroaniline	.29374	.33589	.34297	.737	.32420	8.210	

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: 901119 16:53

Compound	Files: >RW105 RF 25.00	>RW104 RF 50.00	>RW103 RF 100.00	$\overline{RRT}$	$\overline{RF}$	% RSD	
Acenaphthene	1.07604	1.21500	1.24490	.735	1.17864	7.645	
2,4-Dinitrophenol	.09033	.12691	.15878	.754	.12534	27.328	
4-Nitrophenol	.10277	.12816	.13180	.792	.12091	13.078	
Dibenzofuran	1.37337	1.58909	1.72072	.767	1.56106	11.234	
2,4-Dinitrotoluene	.30123	.33774	.34914	.785	.32937	7.599	
2,6-Dinitrotoluene	.27976	.32683	.37717	.717	.32792	14.856	
Diethylphthalate	1.14607	1.10543	1.07848	.851	1.10999	3.065	
4-Chlorophenyl-phenylether	.46094	.55776	.56449	.844	.52773	10.979	
Fluorene	.97796	1.12842	1.15268	.830	1.08636	8.713	
4-Nitroaniline	.23461	.25119	.25158	.852	.24579	3.942	
4,6-Dinitro-2-methylphenol	.10291	.12833	.13848	.860	.12324	14.870	
N-Nitrosodiphenylamine	.45676	.37270	.32299	.870	.38415	17.602	
2,4,6-Tribromophenol	.10462	.12838	.13146	.879	.12148	12.091	
4-Bromophenyl-phenylether	.21183	.24563	.25587	.932	.23778	9.693	
Hexachlorobenzene	.18617	.21304	.21116	.948	.20346	7.371	
Pentachlorophenol	.10609	.12556	.12671	.987	.11945	9.700	
Phenanthrene	1.09151	1.17430	1.15480	1.004	1.14020	3.796	
Anthracene	1.06582	1.12382	1.12500	1.012	1.10488	3.062	
Di-n-Butylphthalate	1.27477	1.24212	1.12346	1.160	1.21345	6.562	
Fluoranthene	.66802	.70061	.62539	1.223	.66467	5.675	
d12-Chrysene	.21045	.21759	.18295	1.491	.20367	8.980	(Conc=50.0,50.0,50.0)
Pyrene	.65267	.64516	.56315	1.260	.62033	8.005	
Terphenyl-d14	.41261	.43049	.37388	1.316	.40566	7.134	
Butylbenzylphthalate	.28175	.29893	.24939	1.431	.27669	9.092	
Benzo(a)Anthracene	.24300	.28708	.24924	1.489	.25977	9.181	
Bis(2-Ethylhexyl)Phthalate	.35477	.41318	.35061	1.560	.37285	9.383	
Chrysene	.22598	.26576	.22427	1.495	.23867	9.836	
Di-n-octylphthalate	4.29652	4.71436	4.71972	.962	4.57687	5.305	
Benzo(b)fluoranthene	1.30277	1.32373	1.42549	.966	1.35066	4.860	
Benzo(k)Fluoranthene	1.35534	1.38152	1.37637	.969	1.37108	1.011	
Benzo(a)Pyrene	1.01628	1.10574	1.13568	.994	1.08590	5.721	
Indeno(1,2,3-cd)Pyrene	.76915	.80735	.90672	1.091	.82774	8.579	
Dibenzo(a,h)Anthracene	.69465	.81642	.80244	1.095	.77117	8.641	
Benzo(g,h,i)Perylene	.80130	.84110	.86492	1.109	.83577	3.846	

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

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 901119 14:22
Output File: ^RW103::SC Injected at: 901119 13:21
Data File: >RW103::D6 Dilution Factor: 1.00000
Name: 100 STD SF7471
Misc: 11/19/90

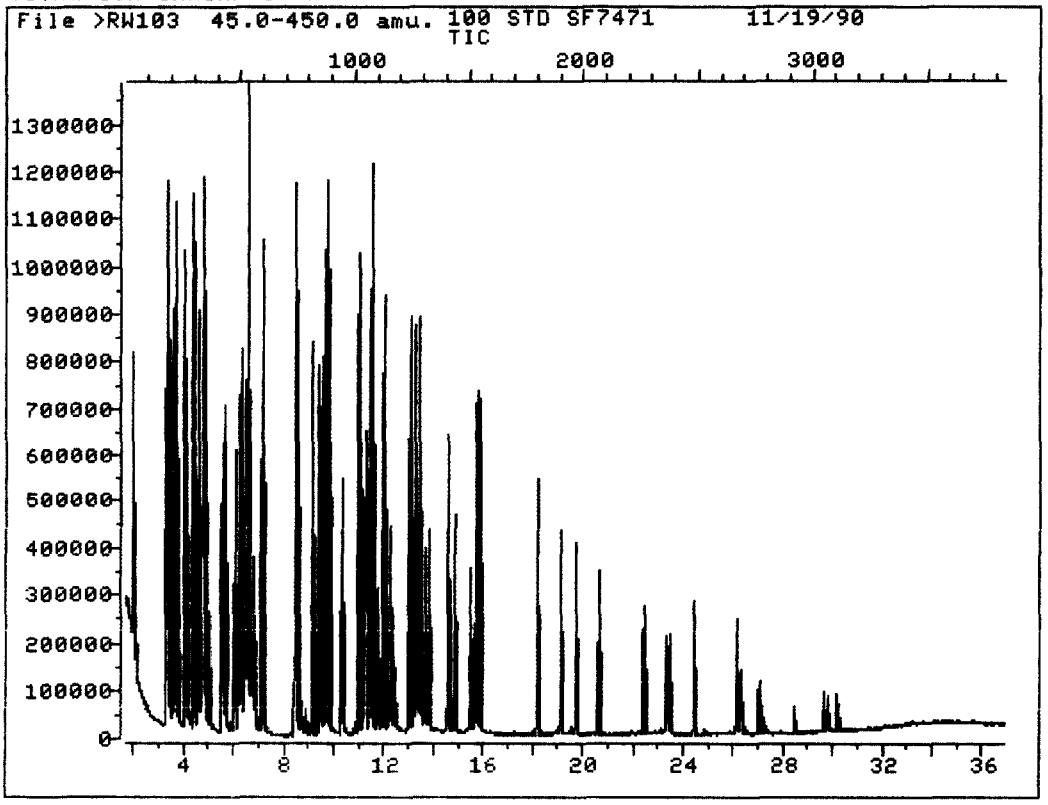
ID File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.62	211	168302	50.00	NG/UL	95
2)	2-Fluorophenol	1.90	22	487501	120.54	NG/UL	95
3)	Phenol-d5	3.24	169	678054	124.32	NG/UL	91
4)	Phenol	3.28	174	701388	125.73	NG/UL	79
5)	bis(2-Chloroethyl)Ether	3.34	180	491654	101.71	NG/UL	95
6)	2-Chlorophenol	3.35	182	262342	61.77	NG/UL	98
7)	1,3-Dichlorobenzene	3.56	204	505553	112.09	NG/UL	97
8)	1,4-Dichlorobenzene	3.66	215	509246	95.90	NG/UL	98
9)	Benzyl Alcohol	4.05	258	336022	125.94	NG/UL	96
10)	1,2-Dichlorobenzene	3.98	251	513223	105.57	NG/UL	96
11)	2-Methylphenol	4.41	297	400144	101.32	NG/UL	94
12)	bis(2-Chloroisopropyl)ether	4.38	294	105263	96.69	NG/UL	96
13)	4-Methylphenol	4.80	340	445746	115.98	NG/UL	98
14)	N-Nitroso-Di-n-propylamine	4.74	334	469224	114.43	NG/UL	94
15)	Hexachloroethane	4.61	319	217579	97.49	NG/UL	98
16)	d8-Naphthalene	6.46	522	736247	51.21	NG/UL	89
17)	Nitrobenzene-d5	4.84	344	720919	119.67	NG/UL	88
18)	Nitrobenzene	4.88	349	277882	113.40	NG/UL	86
19)	Isophorone	5.49	416	1218442	112.03	NG/UL	94
20)	2-Nitrophenol	5.61	429	309061	112.36	NG/UL	88
21)	2,4-Dimethylphenol	6.02	473	404020	123.84	NG/UL	97
22)	Benzoic Acid	6.80	559	380722M	150.54	NG/UL	92
23)	bis(2-Chloroethoxy)Methane	6.22	495	867887	123.75	NG/UL	95
24)	2,4-Dichlorophenol	6.28	502	421840	102.31	NG/UL	93
25)	1,2,4-Trichlorobenzene	6.40	515	473658	96.39	NG/UL	92
26)	Naphthalene	6.52	528	1332308	98.85	NG/UL	97
27)	4-Chloroaniline	6.83	562	207237	117.11	NG/UL	98
28)	Hexachlorobutadiene	7.14	596	289092	91.37	NG/UL	97
29)	4-Chloro-3-methylphenol	8.46	740	460932	117.46	NG/UL	92
30)	2-Methylnaphthalene	8.41	735	912476	99.80	NG/UL	98
31)	d10-Acenaphthene	11.40	1061	296829	43.48	NG/UL	95
32)	Hexachlorocyclopentadiene	9.14	815	308122	94.63	NG/UL	98
33)	2,4,6-Trichlorophenol	9.42	845	272245M	91.26	NG/UL	
34)	2,4,5-Trichlorophenol	9.52	856	261000M	89.62	NG/UL	
35)	2-Chloronaphthalene	9.77	883	784980	88.80	NG/UL	99
36)	2-Fluorobiphenyl	9.69	874	1009398	90.00	NG/UL	93
37)	2-Nitroaniline	10.29	940	305913M	112.54	NG/UL	
38)	Dimethylphthalate	11.17	1036	695215M	84.04	NG/UL	
39)	*d-10-Phenanthrene	15.64	1523	282894	50.00	NG/UL	98
40)	Acenaphthylene	10.92	1009	1144349	124.80	NG/UL	89
41)	3-Nitroaniline	11.55	1077	194051	180.35	NG/UL	92
42)	Acenaphthene	11.51	1073	704351	118.18	NG/UL	93
43)	2,4-Dinitrophenol	11.81	1106	89838	189.36	NG/UL	79

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	4-Nitrophenol	12.39	1169	74570	192.59	NG/UL	76
45)	Dibenzofuran	12.00	1126	973561	118.97	NG/UL	92
46)	2,4-Dinitrotoluene	12.30	1159	197539	132.22	NG/UL	83
47)	2,6-Dinitrotoluene	11.23	1043	213396	158.42	NG/UL	68
48)	Diethylphthalate	13.34	1272	610189	116.57	NG/UL	90
49)	4-Chlorophenyl-phenylether	13.22	1259	319380	123.17	NG/UL	94
50)	Fluorene	13.00	1235	652175	113.79	NG/UL	95
51)	4-Nitroaniline	13.35	1274	142339	173.35	NG/UL	91
52)	4,6-Dinitro-2-methylphenol	13.46	1286	78353	136.63	NG/UL	88
53)	N-Nitrosodiphenylamine	13.61	1302	182742	104.41	NG/UL	98
54)	2,4,6-Tribromophenol	13.76	1318	74379	116.84	NG/UL	93
55)	4-Bromophenyl-phenylether	14.59	1409	144768	119.38	NG/UL	89
56)	Hexachlorobenzene	14.83	1435	119469	92.33	NG/UL	92
57)	Pentachlorophenol	15.45	1502	71690	119.67	NG/UL	98
58)	Phenanthrene	15.72	1531	653372	106.73	NG/UL	97
59)	Anthracene	15.84	1545	636511	106.63	NG/UL	98
60)	Di-n-Butylphthalate	18.15	1797	635638	98.92	NG/UL	95
61)	Fluoranthene	19.14	1905	353838	79.88	NG/UL	96
62)	d12-Chrysene	23.33	2362	51756	27.26	NG/UL	84
63)	Pyrene	19.72	1968	318624	74.43	NG/UL	86
64)	Terphenyl-d14	20.59	2063	211537	71.10	NG/UL	97
65)	Butylbenzylphthalate	22.39	2260	141100	69.09	NG/UL	64
66)	Benzo(a)Anthracene	23.29	2358	141016	58.34	NG/UL	89
67)	Bis(2-Ethylhexyl)Phthalate	24.41	2480	198372	74.41	NG/UL	89
68)	Chrysene	23.39	2369	126890M	54.57	NG/UL	90
69)	*d12-Perylene	27.16	2780	29834	50.00	NG/UL	95
70)	Di-n-octylphthalate	26.13	2668	281616	160.61	NG/UL	85
71)	Benzo(b)fluoranthene	26.25	2681	85056	110.89	NG/UL	87
72)	Benzo(k)Fluoranthene	26.32	2688	82125	109.42	NG/UL	83
73)	Benzo(a)Pyrene	27.01	2764	67764	109.25	NG/UL	83
74)	Indeno(1,2,3-cd)Pyrene	29.63	3050	54102	100.45	NG/UL	85
75)	Dibenzo(a,h)Anthracene	29.74	3062	47880M	94.86	NG/UL	
76)	Benzo(g,h,i)Perylene	30.14	3105	51608	94.17	NG/UL	74

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >RW103::D6 Quant Output File: ^RW103::SC
Name: 100 STD SF7471
Misc: 11/19/90

Id File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

Operator ID: KELLY
Quant Time: 901119 14:22
Injected at: 901119 13:21

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 901119 16:28
Output File: ^RW104::QT Injected at: 901119 14:10
Data File: >RW104::D6 Dilution Factor: 1.00000
Name: 50 STD SF7471
Misc: 11/19/90

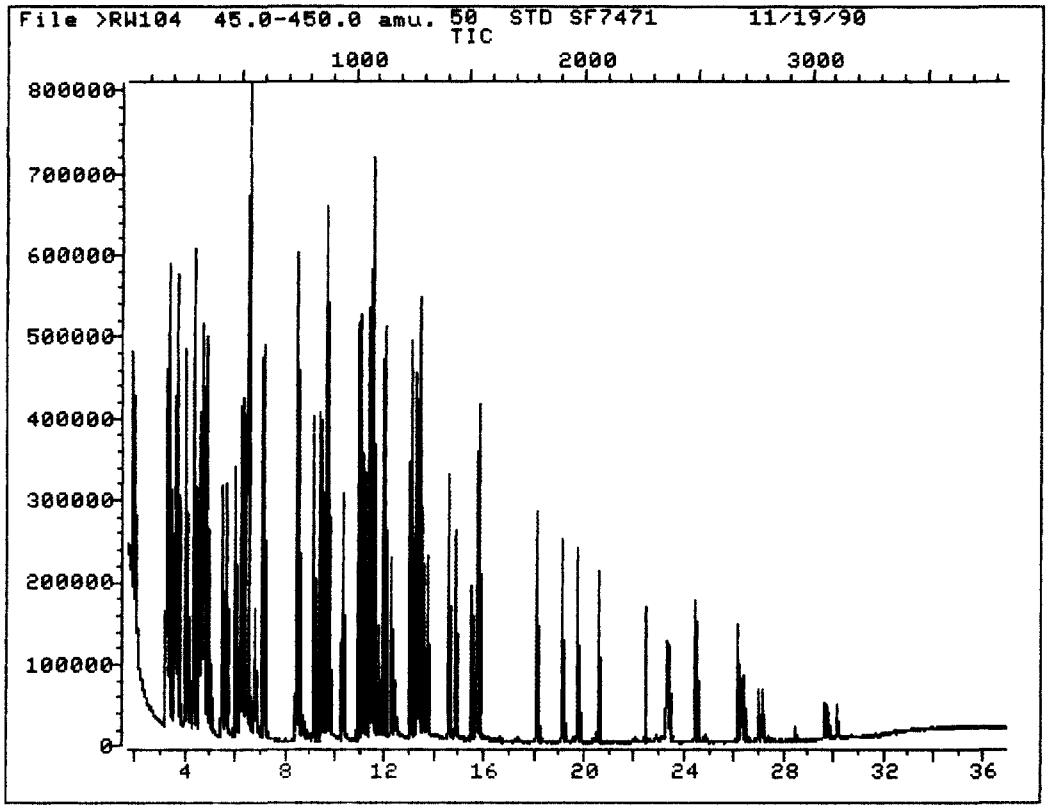
ID File: IDRW6::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.59	208	152665	50.00	NG/UL	91
2)	2-Fluorophenol	1.86	18	223624	60.96	NG/UL	98
3)	Phenol-d5	3.19	164	296446	59.92	NG/UL	91
4)	Phenol	3.21	166	309820	61.23	NG/UL	84
5)	bis(2-Chloroethyl)Ether	3.27	173	249067	56.80	NG/UL	97
6)	2-Chlorophenol	3.29	175	220765	57.31	NG/UL	99
7)	1,3-Dichlorobenzene	3.51	199	229431	56.08	NG/UL	96
8)	1,4-Dichlorobenzene	3.62	211	245318	50.93	NG/UL	98
9)	Benzyl Alcohol	3.99	252	143792	59.41	NG/UL	97
10)	1,2-Dichlorobenzene	3.96	248	233516	52.95	NG/UL	97
11)	2-Methylphenol	4.36	292	209506	58.48	NG/UL	95
12)	bis(2-Chloroisopropyl)ether	4.35	291	65871	66.70	NG/UL	96
13)	4-Methylphenol	4.73	333	213610	61.27	NG/UL	99
14)	N-Nitroso-Di-n-propylamine	4.67	326	209383	56.29	NG/UL	95
15)	Hexachloroethane	4.58	316	106919	52.81	NG/UL	98
16)	d8-Naphthalene	6.44	519	633659	48.58	NG/UL	89
17)	Nitrobenzene-d5	4.78	338	329621	60.32	NG/UL	88
18)	Nitrobenzene	4.83	343	125957	56.67	NG/UL	83
19)	Isophorone	5.44	410	486819	49.35	NG/UL	95
20)	2-Nitrophenol	5.58	425	140338	56.24	NG/UL	87
21)	2,4-Dimethylphenol	5.96	467	159233	53.81	NG/UL	97
22)	Benzoic Acid	6.60	537	153274	66.81	NG/UL	98
23)	bis(2-Chloroethoxy)Methane	6.17	490	380386	59.80	NG/UL	97
24)	2,4-Dichlorophenol	6.23	497	189090	50.56	NG/UL	94
25)	1,2,4-Trichlorobenzene	6.37	512	213620	47.93	NG/UL	96
26)	Naphthalene	6.48	524	638177	52.20	NG/UL	97
27)	4-Chloroaniline	6.81	560	99427	61.94	NG/UL	94
28)	Hexachlorobutadiene	7.12	594	138680	48.32	NG/UL	95
29)	4-Chloro-3-methylphenol	8.45	739	192277M	54.02	NG/UL	
30)	2-Methylnaphthalene	8.40	734	369628M	44.57	NG/UL	
31)	d10-Acenaphthene	11.40	1062	252745	40.82	NG/UL	94
32)	Hexachlorocyclopentadiene	9.14	815	129921M	43.99	NG/UL	
33)	2,4,6-Trichlorophenol	9.41	844	118141M	43.66	NG/UL	
34)	2,4,5-Trichlorophenol	9.51	855	121157M	45.86	NG/UL	
35)	2-Chloronaphthalene	9.75	881	340486M	42.46	NG/UL	67
36)	2-Fluorobiphenyl	9.66	872	439370M	43.19	NG/UL	
37)	2-Nitroaniline	10.28	939	133180M	54.01	NG/UL	
38)	Dimethylphthalate	11.14	1034	344275M	45.88	NG/UL	
39)	*d-10-Phenanthrene	15.64	1525	276251	50.00	NG/UL	96
40)	Acenaphthylene	10.92	1009	512624	57.25	NG/UL	90
41)	3-Nitroaniline	11.52	1075	92790	88.31	NG/UL	95
42)	Acenaphthene	11.49	1072	335644	57.67	NG/UL	91
43)	2,4-Dinitrophenol	11.79	1105	35058	75.67	NG/UL	82

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	4-Nitrophenol	12.37	1168	35403	93.63	NG/UL	82
45)	Dibenzofuran	11.99	1126	438987	54.94	NG/UL	92
46)	2,4-Dinitrotoluene	12.28	1158	93302	63.95	NG/UL	84
47)	2,6-Dinitrotoluene	11.21	1041	90287M	68.64	NG/UL	
48)	Diethylphthalate	13.31	1270	305376	59.74	NG/UL	92
49)	4-Chlorophenyl-phenylether	13.21	1259	154083	60.85	NG/UL	97
50)	Fluorene	12.99	1235	311728	55.70	NG/UL	93
51)	4-Nitroaniline	13.32	1271	69392	86.54	NG/UL	89
52)	4,6-Dinitro-2-methylphenol	13.44	1285	35451	63.31	NG/UL	71
53)	N-Nitrosodiphenylamine	13.60	1302	102959	60.24	NG/UL	97
54)	2,4,6-Tribromophenol	13.75	1318	35464	57.05	NG/UL	97
55)	4-Bromophenyl-phenylether	14.58	1409	67856	57.30	NG/UL	87
56)	Hexachlorobenzene	14.83	1436	58852	46.58	NG/UL	94
57)	Pentachlorophenol	15.44	1503	34686	59.29	NG/UL	97
58)	Phenanthrene	15.70	1531	324401	54.27	NG/UL	93
59)	Anthracene	15.83	1545	310457	53.26	NG/UL	99
60)	Di-n-Butylphthalate	18.15	1799	343137	54.68	NG/UL	97
61)	Fluoranthene	19.13	1906	193544	44.74	NG/UL	95
62)	d12-Chrysene	23.32	2365	60110	32.42	NG/UL	86
63)	Pyrene	19.71	1970	178226	42.64	NG/UL	87
64)	Terphenyl-d14	20.58	2065	118924	40.94	NG/UL	96
65)	Butylbenzylphthalate	22.39	2263	82580	41.41	NG/UL	64
66)	Benzo(a)Anthracene	23.28	2361	79305	33.60	NG/UL	91
67)	Bis(2-Ethylhexyl)Phthalate	24.41	2484	114141	43.85	NG/UL	91
68)	Chrysene	23.38	2372	73417M	32.33	NG/UL	89
69)	*d12-Perylene	27.17	2786	34971	50.00	NG/UL	96
70)	Di-n-octylphthalate	26.13	2673	164866	80.22	NG/UL	86
71)	Benzo(b)fluoranthene	26.25	2686	46292	51.49	NG/UL	84
72)	Benzo(k)Fluoranthene	26.31	2693	48313	54.92	NG/UL	82
73)	Benzo(a)Pyrene	27.01	2769	38669	53.18	NG/UL	86
74)	Indeno(1,2,3-cd)Pyrene	29.63	3056	28234	44.72	NG/UL	83
75)	Dibenzo(a,h)Anthracene	29.74	3068	28551	48.26	NG/UL	75
76)	Benzo(g,h,i)Perylene	30.13	3110	29414	45.79	NG/UL	81

* Compound is ISTD

TOTAL ION CHROMATOGRAM



Data File: >RW104::D6 Quant Output File: ^RW104::QT
Name: 50 STD SF7471
Misc: 11/19/90

Id File: IDRW6::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

Operator ID: KELLY
Quant Time: 901119 16:28
Injected at: 901119 14:10

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 901119 15:40
Output File: ^RW105::D6 Injected at: 901119 15:00
Data File: >RW105::D6 Dilution Factor: 1.00000
Name: 25 STD SF7471
Misc: 11/19/90

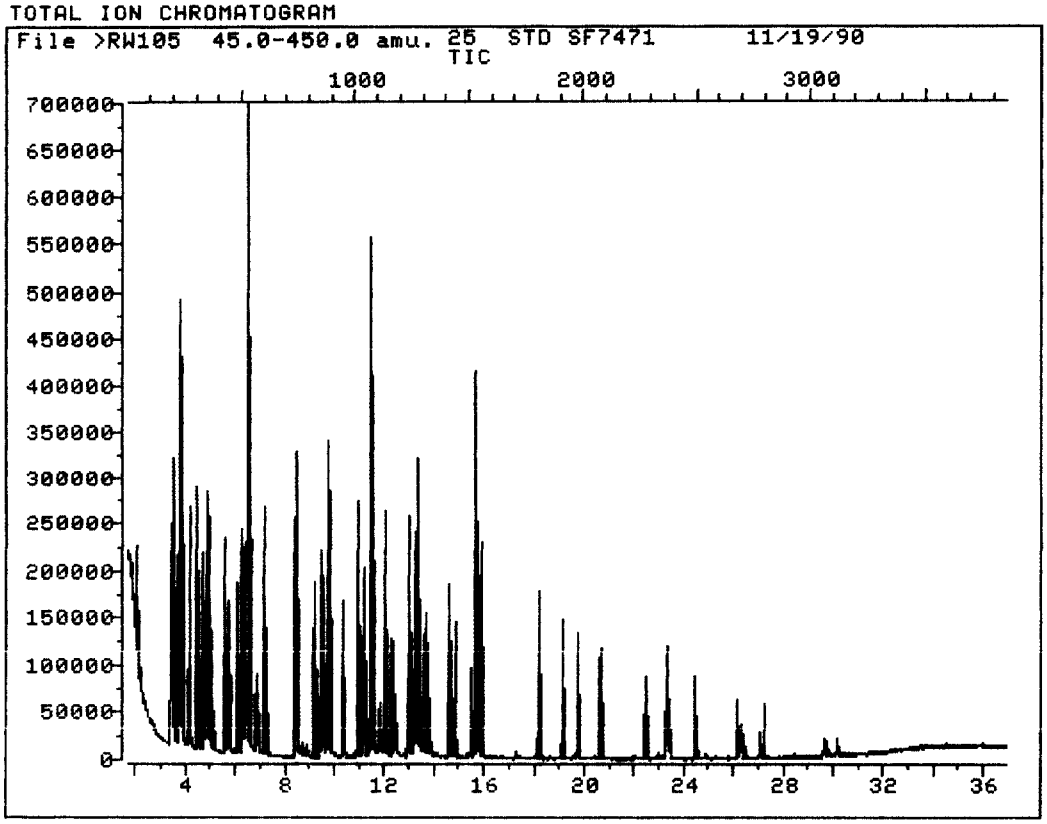
ID File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

	Compound	R.T.	Scan#	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	3.73	224	148549	50.00	NG/UL	98
2)	2-Fluorophenol	2.08	43	104007	29.14	NG/UL	97
3)	Phenol-d5	3.36	183	140901	29.27	NG/UL	92
4)	Phenol	3.39	186	151563	30.78	NG/UL	75
5)	bis(2-Chloroethyl)Ether	3.43	191	124579	29.20	NG/UL	98
6)	2-Chlorophenol	3.45	193	102772	27.42	NG/UL	97
7)	1,3-Dichlorobenzene	3.66	216	112215	28.19	NG/UL	97
8)	1,4-Dichlorobenzene	3.76	227	123323	26.31	NG/UL	96
9)	Benzyl Alcohol	4.12	266	65023	27.61	NG/UL	99
10)	1,2-Dichlorobenzene	4.09	263	115591	26.94	NG/UL	99
11)	2-Methylphenol	4.48	306	95485	27.39	NG/UL	97
12)	bis(2-Chloroisopropyl)ether	4.46	304	24855	25.87	NG/UL	96
13)	4-Methylphenol	4.82	343	104175	30.71	NG/UL	99
14)	N-Nitroso-Di-n-propylamine	4.76	336	98722	27.28	NG/UL	96
15)	Hexachloroethane	4.70	330	47249	23.99	NG/UL	95
16)	d8-Naphthalene	6.51	528	624810	49.23	NG/UL	89
17)	Nitrobenzene-d5	4.88	350	149574	28.13	NG/UL	88
18)	Nitrobenzene	4.92	354	59553	27.54	NG/UL	81
19)	Isophorone	5.51	419	235340	24.52	NG/UL	94
20)	2-Nitrophenol	5.66	435	61861	25.48	NG/UL	91
21)	2,4-Dimethylphenol	6.03	476	70742	24.57	NG/UL	97
22)	Benzoic Acid	6.55	532	62592	28.04	NG/UL	99
23)	bis(2-Chloroethoxy)Methane	6.23	498	174166	28.14	NG/UL	98
24)	2,4-Dichlorophenol	6.30	505	84616	23.25	NG/UL	93
25)	1,2,4-Trichlorobenzene	6.45	522	97107	22.39	NG/UL	98
26)	Naphthalene	6.55	532	297042	24.97	NG/UL	98
27)	4-Chloroaniline	6.87	568	47792	30.60	NG/UL	98
28)	Hexachlorobutadiene	7.19	602	62418	22.35	NG/UL	93
29)	4-Chloro-3-methylphenol	8.47	743	93188M	26.91	NG/UL	
30)	2-Methylnaphthalene	8.43	739	168542	20.89	NG/UL	98
31)	d10-Acenaphthene	11.43	1067	245638	40.77	NG/UL	96
32)	Hexachlorocyclopentadiene	9.17	820	51534	17.93	NG/UL	97
33)	2,4,6-Trichlorophenol	9.43	848	55472M	21.07	NG/UL	90
34)	2,4,5-Trichlorophenol	9.53	859	51754M	20.13	NG/UL	
35)	2-Chloronaphthalene	9.76	884	162191	20.79	NG/UL	97
36)	2-Fluorobiphenyl	9.68	875	215181	21.74	NG/UL	93
37)	2-Nitroaniline	10.29	942	63691	26.55	NG/UL	83
38)	Dimethylphthalate	11.15	1037	178573	24.46	NG/UL	91
39)	*d-10-Phenanthrene	15.65	1529	305609	50.00	NG/UL	99
40)	Acenaphthylene	10.93	1012	233263	23.55	NG/UL	90
41)	3-Nitroaniline	11.52	1077	44885	38.62	NG/UL	94
42)	Acenaphthene	11.50	1075	164423	25.54	NG/UL	95
43)	2,4-Dinitrophenol	11.79	1107	13803	26.93	NG/UL	82

	Compound	R.T.	Scan#	Area	Conc	Units	q
44)	4-Nitrophenol	12.39	1172	15704	37.54	NG/UL	87
45)	Dibenzofuran	12.00	1129	209857	23.74	NG/UL	96
46)	2,4-Dinitrotoluene	12.29	1161	46029	28.52	NG/UL	81
47)	2,6-Dinitrotoluene	11.21	1043	42748	29.38	NG/UL	69
48)	Diethylphthalate	13.30	1272	175124	30.97	NG/UL	87
49)	4-Chlorophenyl-phenylether	13.21	1262	70434	25.14	NG/UL	98
50)	Fluorene	12.99	1238	149437	24.14	NG/UL	93
51)	4-Nitroaniline	13.30	1272	35849	40.41	NG/UL	87
52)	4,6-Dinitro-2-methylphenol	13.44	1287	15725	25.38	NG/UL	71
53)	N-Nitrosodiphenylamine	13.61	1306	69795	36.91	NG/UL	98
54)	2,4,6-Tribromophenol	13.75	1321	15986	23.25	NG/UL	97
55)	4-Bromophenyl-phenylether	14.58	1412	32368	24.71	NG/UL	97
56)	Hexachlorobenzene	14.83	1439	28448	20.35	NG/UL	98
57)	Pentachlorophenol	15.44	1506	16211	25.05	NG/UL	97
58)	Phenanthrene	15.71	1535	166788	25.22	NG/UL	94
59)	Anthracene	15.84	1549	162862	25.26	NG/UL	97
60)	Di-n-Butylphthalate	18.15	1803	194790	28.06	NG/UL	94
61)	Fluoranthene	19.14	1911	102076	21.33	NG/UL	94
62)	d12-Chrysene	23.34	2372	64316	31.36	NG/UL	86
63)	Pyrene	19.72	1975	99731	21.57	NG/UL	86
64)	Terphenyl-d14	20.59	2071	63048	19.62	NG/UL	96
65)	Butylbenzylphthalate	22.40	2269	43052	19.51	NG/UL	62
66)	Benzo(a)Anthracene	23.30	2368	37132	14.22	NG/UL	92
67)	Bis(2-Ethylhexyl)Phthalate	24.42	2491	54210	18.82	NG/UL	90
68)	Chrysene	23.40	2379	34531M	13.75	NG/UL	88
69)	*d12-Perylene	27.18	2793	33286	50.00	NG/UL	95
70)	Di-n-octylphthalate	26.15	2680	71507	36.55	NG/UL	85
71)	Benzo(b)fluoranthene	26.26	2692	21682	25.34	NG/UL	88
72)	Benzo(k)Fluoranthene	26.33	2700	22557	26.94	NG/UL	85
73)	Benzo(a)Pyrene	27.02	2776	16914	24.44	NG/UL	86
74)	Indeno(1,2,3-cd)Pyrene	29.64	3063	12801	21.30	NG/UL	86
75)	Dibenzo(a,h)Anthracene	29.76	3076	11561M	20.53	NG/UL	
76)	Benzo(g,h,i)Perylene	30.14	3118	13336	21.81	NG/UL	77

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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Name: 25 STD SF7471
Misc: 11/19/90

Id File: IDRW5::SC
Title: HP BNA STD REV A ZIYAD 06\19\90
Last Calibration: 901116 17:11

Operator ID: KELLY
Quant Time: 901119 15:40
Injected at: 901119 15:00

QUANT REPORT

Operator ID: KELLY Quant Rev: 6 Quant Time: 901115 23:20
Output File: ^NF037::C8 Injected at: 901115 22:35
Data File: >NF037::C6 Dilution Factor: 1.00000
Name: TOXSTD 10PPM
Misc: 11/15/90 BTL#10

ID File: IDNF1A::KS
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 901115 14:54

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.32	152.0	292225	50.00	NG/UL	95
2)	2-Fluorophenol	3.18	112.0	95171	9.06	NG/UL	91
3)	Phenol-d5	4.82	99.0	93040	8.59	NG/UL	81
4)	Phenol	4.86	94.0	89916	8.70	NG/UL	89
5)	bis(2-Chloroethyl)Ether	4.93	93.0	87577	9.11	NG/UL	95
6)	2-Chlorophenol	4.96	128.0	74869	8.89	NG/UL	97
7)	1,3-Dichlorobenzene	5.22	146.0	84543	9.78	NG/UL	94
8)	1,4-Dichlorobenzene	5.35	146.0	86506	9.59	NG/UL	95
9)	Benzyl Alcohol	5.76	108.0	39996	8.34	NG/UL	82
10)	1,2-Dichlorobenzene	5.74	146.0	78875	9.31	NG/UL	99
11)	2-Methylphenol	6.15	108.0	62772	9.11	NG/UL	81
12)	bis(2-Chloroisopropyl)ether	7.86	121.0	25694	10.64	NG/UL	68
13)	4-Methylphenol	6.52	108.0	59903	8.69	NG/UL	97
14)	N-Nitroso-Di-n-propylamine	6.48	70.0	50032	10.00	NG/UL	86
15)	Hexachloroethane	6.44	201.0	26325	9.47	NG/UL	97
16)	d8-Naphthalene	8.43	136.0	1035414	51.36	NG/UL	89
17)	Nitrobenzene-d5	6.65	82.0	79475	9.07	NG/UL	96
18)	Nitrobenzene	6.69	123.0	37480	9.56	NG/UL	97
19)	Isophorone	7.32	82.0	133628	11.00	NG/UL	92
20)	2-Nitrophenol	7.52	139.0	33886	9.00	NG/UL	85
21)	2,4-Dimethylphenol	7.86	122.0	46572	10.33	NG/UL	92
23)	bis(2-Chloroethoxy)Methane	8.09	93.0	82094	9.60	NG/UL	99
24)	2,4-Dichlorophenol	8.18	162.0	47161	8.97	NG/UL	97
25)	1,2,4-Trichlorobenzene	8.36	180.0	54533	9.46	NG/UL	96
26)	Naphthalene	8.47	128.0	180928	9.29	NG/UL	98
27)	4-Chloroaniline	8.81	127.0	19379	8.73	NG/UL	93
28)	Hexachlorobutadiene	9.12	225.0	29879	9.15	NG/UL	93
29)	4-Chloro-3-methylphenol	10.40	107.0	48866	9.48	NG/UL	94
30)	2-Methylnaphthalene	10.45	142.0	106504	10.00	NG/UL	92
31)	d10-Acenaphthene	13.56	164.0	419037	54.84	NG/UL	92
32)	Hexachlorocyclopentadiene	11.20	237.0	27182	8.66	NG/UL	93
33)	2,4,6-Trichlorophenol	11.55	196.0	29787	9.80	NG/UL	90
35)	2-Chloronaphthalene	11.84	162.0	98841	9.98	NG/UL	96
36)	2-Fluorobiphenyl	11.72	172.0	128913	9.59	NG/UL	95
37)	2-Nitroaniline	12.36	138.0	29314	9.01	NG/UL	98
38)	Dimethylphthalate	13.19	163.0	101551	10.49	NG/UL	92
39)	*d-10-Phenanthrene	17.95	188.0	470226	50.00	NG/UL	97
40)	Acenaphthylene	13.06	152.0	140613	8.86	NG/UL	93
41)	3-Nitroaniline	13.61	138.0	18555	7.24	NG/UL	93
42)	Acenaphthene	13.64	153.0	98525	8.80	NG/UL	90
43)	2,4-Dinitrophenol	13.91	184.0	7332	5.97	NG/UL	83
44)	4-Nitrophenol	14.40	109.0	7047	6.17	NG/UL	85
45)	Dibenzofuran	14.13	168.0	125510	8.93	NG/UL	96

FIW108

FIW109

MDL STUDY

	Compound	R.T.	Q ion	Area	Conc	Units	q
47)	2,6-Dinitrotoluene	14.41	165.0	23112	8.19	NG/UL	83
48)	Diethylphthalate	15.40	149.0	96338	9.27	NG/UL	91
49)	4-Chlorophenyl-phenylether	15.35	204.0	42514	8.77	NG/UL	99
50)	Fluorene	15.16	166.0	93238	8.99	NG/UL	94
51)	4-Nitroaniline	15.45	138.0	11299	6.17	NG/UL	79
52)	4,6-Dinitro-2-methylphenol	15.60	198.0	8544	6.93	NG/UL	76
53)	N-Nitrosodiphenylamine	15.76	169.0	40702	10.07	NG/UL	95
54)	2,4,6-Tribromophenol	15.96	329.6	12995	9.01	NG/UL	95
55)	4-Bromophenyl-phenylether	16.79	248.0	21680	9.02	NG/UL	89
56)	Hexachlorobenzene	17.07	284.0	21283	9.11	NG/UL	97
57)	Pentachlorophenol	17.69	265.8	9763	7.85	NG/UL	90
58)	Phenanthrene	18.00	178.0	99895	9.33	NG/UL	94
59)	Anthracene	18.00	178.0	99895	9.63	NG/UL	94
60)	Di-n-Butylphthalate	20.44	149.0	102842	9.23	NG/UL	95
61)	Fluoranthene	21.60	202.0	68139	9.23	NG/UL	88
62)	d12-Chrysene	25.98	240.0	156583	49.80	NG/UL	93
63)	Pyrene	21.60	202.0	68139	9.49	NG/UL	91
64)	Terphenyl-d14	23.06	244.0	51290	8.90	NG/UL	94
65)	Butylbenzylphthalate	24.88	149.0	25297	8.70	NG/UL	83
66)	Benzo(a)Anthracene	25.93	228.0	36759	9.59	NG/UL	97
67)	Bis(2-Ethylhexyl)Phthalate	28.67	149.0	34958	7.98	NG/UL	55
68)	Chrysene	26.05	228.0	34713	9.89	NG/UL	96
69)	*d12-Perylene	29.95	264.0	103291	50.00	NG/UL	97
70)	Di-n-octylphthalate	28.67	149.0	34958	7.98	NG/UL	87
71)	Benzo(b)fluoranthene	28.99	252.0	21819	9.21	NG/UL	97
72)	Benzo(k)Fluoranthene	29.06	252.0	25460	10.46	NG/UL	94
73)	Benzo(a)Pyrene	29.79	252.0	18806	9.41	NG/UL	93
74)	Indeno(1,2,3-cd)Pyrene	32.96	276.0	12309	6.84	NG/UL	87
75)	Dibenzo(a,h)Anthracene	32.55	278.0	10659	7.04	NG/UL	89
76)	Benzo(g,h,i)Perylene	32.96	276.0	12309	6.90	NG/UL	90

* Compound is ISTD

U.S. Environmental Protection Agency Region V

Superfund Document Management System (SDMS)

Lab Data Reference Sheet

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I. Unscannable item due to format

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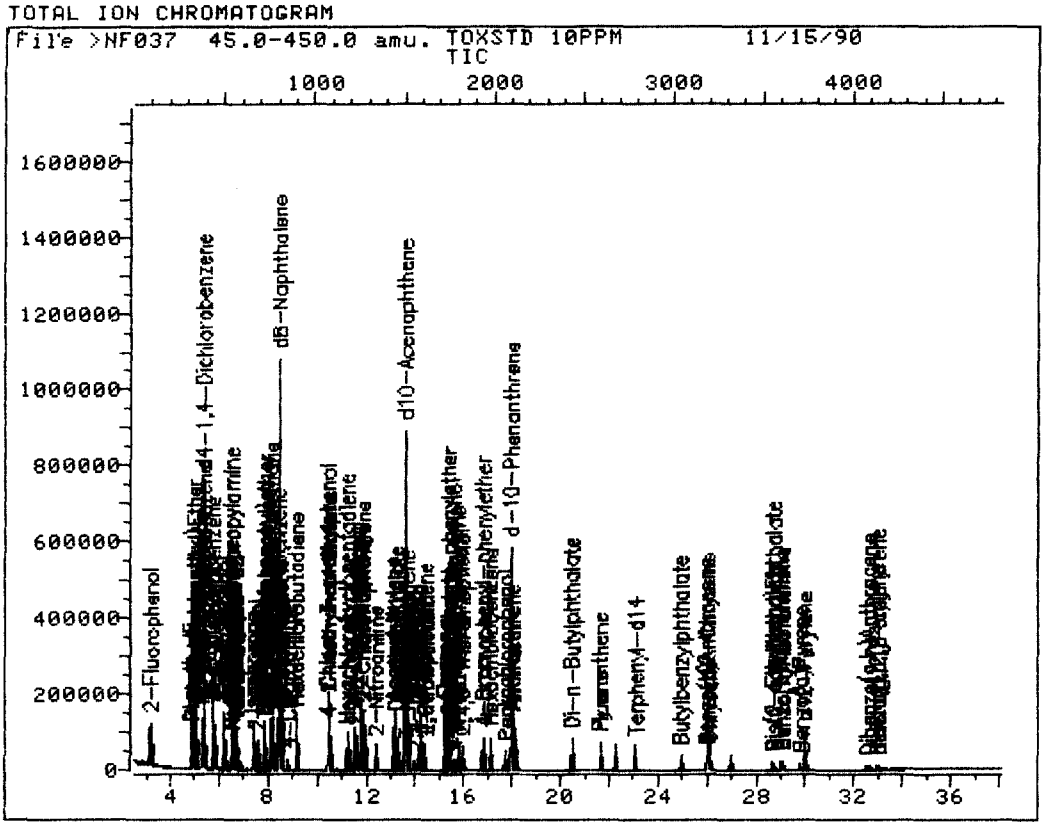
II. Image Quality (Pages follow / No. of pages 1)

✓ Resolution / Contrast

TOTAL ION CHROMATOGRAM



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Name: TOXSTD 10PPM
Misc: 11/15/90 BTL#10

Id File: IDNF1A::KS
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 901115 14:54

Operator ID: KELLY
Quant Time: 901115 23:20
Injected at: 901115 22:35

QUANT REPORT

Operator ID: KELLY
Output File: ^NF038::C8
Data File: >NF038::C6
Name: TOXSTD 5PPM
Misc: 11/15/90

Quant Rev: 6
Quant Time: 901116 00:11
Injected at: 901115 23:26
Dilution Factor: 1.00000

BTL#11

ID File: IDNF1A::KS
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 901115 14:54

	Compound	R.T.	Q ion	Area	Conc	Units	q
1)	*d4-1,4-Dichlorobenzene	5.31	152.0	277813	50.00	NG/UL	96
2)	2-Fluorophenol	3.16	112.0	42438	4.25	NG/UL	87
3)	Phenol-d5	4.82	99.0	39454	3.83	NG/UL	80
4)	Phenol	4.84	94.0	40371	4.11	NG/UL	88
5)	bis(2-Chloroethyl)Ether	4.92	93.0	39951	4.37	NG/UL	99
6)	2-Chlorophenol	4.94	128.0	33561	4.19	NG/UL	97
7)	1,3-Dichlorobenzene	5.22	146.0	38083	4.64	NG/UL	91
8)	1,4-Dichlorobenzene	5.34	146.0	38871	4.53	NG/UL	94
9)	Benzyl Alcohol	5.75	108.0	17476	3.83	NG/UL	63
10)	1,2-Dichlorobenzene	5.73	146.0	36774	4.57	NG/UL	96
11)	2-Methylphenol	6.14	108.0	27528	4.20	NG/UL	96
12)	bis(2-Chloroisopropyl)ether	7.85	121.0	10542	4.59	NG/UL	71
13)	4-Methylphenol	6.51	108.0	25375	3.87	NG/UL	84
14)	N-Nitroso-Di-n-propylamine	6.46	70.0	20085	4.22	NG/UL	73
15)	Hexachloroethane	6.43	201.0	12076	4.57	NG/UL	90
16)	d8-Naphthalene	8.41	136.0	896482	46.77	NG/UL	87
17)	Nitrobenzene-d5	6.62	82.0	34263	4.11	NG/UL	94
18)	Nitrobenzene	6.67	123.0	14522	3.90	NG/UL	95
19)	Isophorone	7.31	82.0	56770	4.92	NG/UL	95
20)	2-Nitrophenol	7.50	139.0	13905	3.88	NG/UL	94
21)	2,4-Dimethylphenol	7.84	122.0	21134	4.93	NG/UL	82
22)	Benzoic Acid	8.13	105.0	5884	1.79	NG/UL	98
23)	bis(2-Chloroethoxy)Methane	8.07	93.0	36179	4.45	NG/UL	93
24)	2,4-Dichlorophenol	8.16	162.0	20545	4.11	NG/UL	93
25)	1,2,4-Trichlorobenzene	8.34	180.0	24249	4.42	NG/UL	99
26)	Naphthalene	8.45	128.0	82156	4.44	NG/UL	98
27)	4-Chloroaniline	8.79	127.0	8035	3.81	NG/UL	73
28)	Hexachlorobutadiene	9.11	225.0	14338	4.62	NG/UL	94
29)	4-Chloro-3-methylphenol	10.39	107.0	18928	3.86	NG/UL	97
30)	2-Methylnaphthalene	10.43	142.0	47905	4.73	NG/UL	91
31)	d10-Acenaphthene	13.54	164.0	380440	52.37	NG/UL	92
32)	Hexachlorocyclopentadiene	11.18	237.0	11003	3.69	NG/UL	95
33)	2,4,6-Trichlorophenol	11.53	196.0	11879	4.11	NG/UL	97
35)	2-Chloronaphthalene	11.82	162.0	42834	4.55	NG/UL	97
36)	2-Fluorobiphenyl	11.70	172.0	56922	4.45	NG/UL	90
37)	2-Nitroaniline	12.35	138.0	10206	3.30	NG/UL	80
38)	Dimethylphthalate	13.17	163.0	47351	5.15	NG/UL	96
39)	*d-10-Phenanthrene	17.93	188.0	522439	50.00	NG/UL	99
40)	Acenaphthylene	13.05	152.0	64028	3.63	NG/UL	96
41)	3-Nitroaniline	13.59	138.0	6894	2.42	NG/UL	98
42)	Acenaphthene	13.62	153.0	45695	3.67	NG/UL	89
43)	2,4-Dinitrophenol	13.89	184.0	2529	1.85	NG/UL	73
44)	4-Nitrophenol	14.39	109.0	1378	1.09	NG/UL	86

	Compound	R.T.	Q ion	Area	Conc	Units	q
45)	Dibenzofuran	14.11	168.0	57759	3.70	NG/UL	92
47)	2,6-Dinitrotoluene	14.39	165.0	10728	3.42	NG/UL	89
48)	Diethylphthalate	15.37	149.0	48549	4.20	NG/UL	92
49)	4-Chlorophenyl-phenylether	15.34	204.0	19300	3.59	NG/UL	95
50)	Fluorene	15.14	166.0	43981	3.82	NG/UL	94
51)	4-Nitroaniline	15.42	138.0	4828	2.37	NG/UL	68
52)	4,6-Dinitro-2-methylphenol	15.58	198.0	4561	3.33	NG/UL	84
53)	N-Nitrosodiphenylamine	15.74	169.0	17111	3.81	NG/UL	96
54)	2,4,6-Tribromophenol	15.93	329.6	6117	3.82	NG/UL	88
55)	4-Bromophenyl-phenylether	16.78	248.0	11101	4.16	NG/UL	93
56)	Hexachlorobenzene	17.06	284.0	11696	4.51	NG/UL	97
57)	Pentachlorophenol	17.67	265.8	4823	3.49	NG/UL	88
58)	Phenanthrene	17.99	178.0	55789	4.69	NG/UL	92
59)	Anthracene	17.99	178.0	55789	4.84	NG/UL	92
60)	Di-n-Butylphthalate	20.42	149.0	66237	5.35	NG/UL	93
61)	Fluoranthene	21.59	202.0	44665	5.45	NG/UL	89
62)	d12-Chrysene	25.97	240.0	209573	59.99	NG/UL	92
63)	Pyrene	21.59	202.0	44665	5.60	NG/UL	93
64)	Terphenyl-d14	23.04	244.0	35266	5.51	NG/UL	98
65)	Butylbenzylphthalate	24.87	149.0	17623	5.46	NG/UL	73
66)	Benzo(a)Anthracene	25.92	228.0	25668	6.03	NG/UL	96
68)	Chrysene	26.03	228.0	21789	5.59	NG/UL	96
69)	*d12-Perylene	29.93	264.0	138148	50.00	NG/UL	96
70)	Di-n-octylphthalate	28.65	149.0	23616	4.03	NG/UL	84
71)	Benzo(b)fluoranthene	28.98	252.0	15824	4.99	NG/UL	94
72)	Benzo(k)Fluoranthene	29.04	252.0	14667	4.51	NG/UL	95
73)	Benzo(a)Pyrene	29.77	252.0	14239	5.33	NG/UL	89
74)	Indeno(1,2,3-cd)Pyrene	32.43	276.0	7943	3.30	NG/UL	83
75)	Dibenzo(a,h)Anthracene	32.54	278.0	7746	3.82	NG/UL	75

* Compound is ISTD

U.S. Environmental Protection Agency Region V

Superfund Document Management System (SDMS)

Lab Data Reference Sheet

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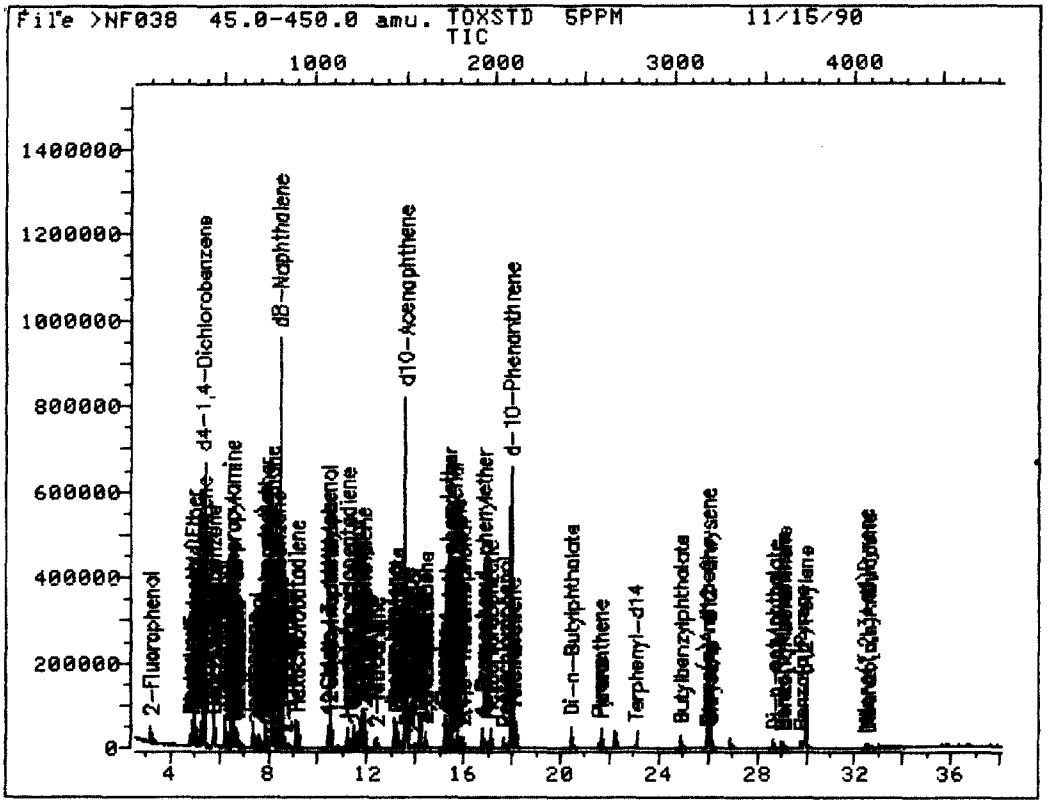
TOTAL ION CHROMATOGRAM



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Misc: 11/15/90 BTL#11

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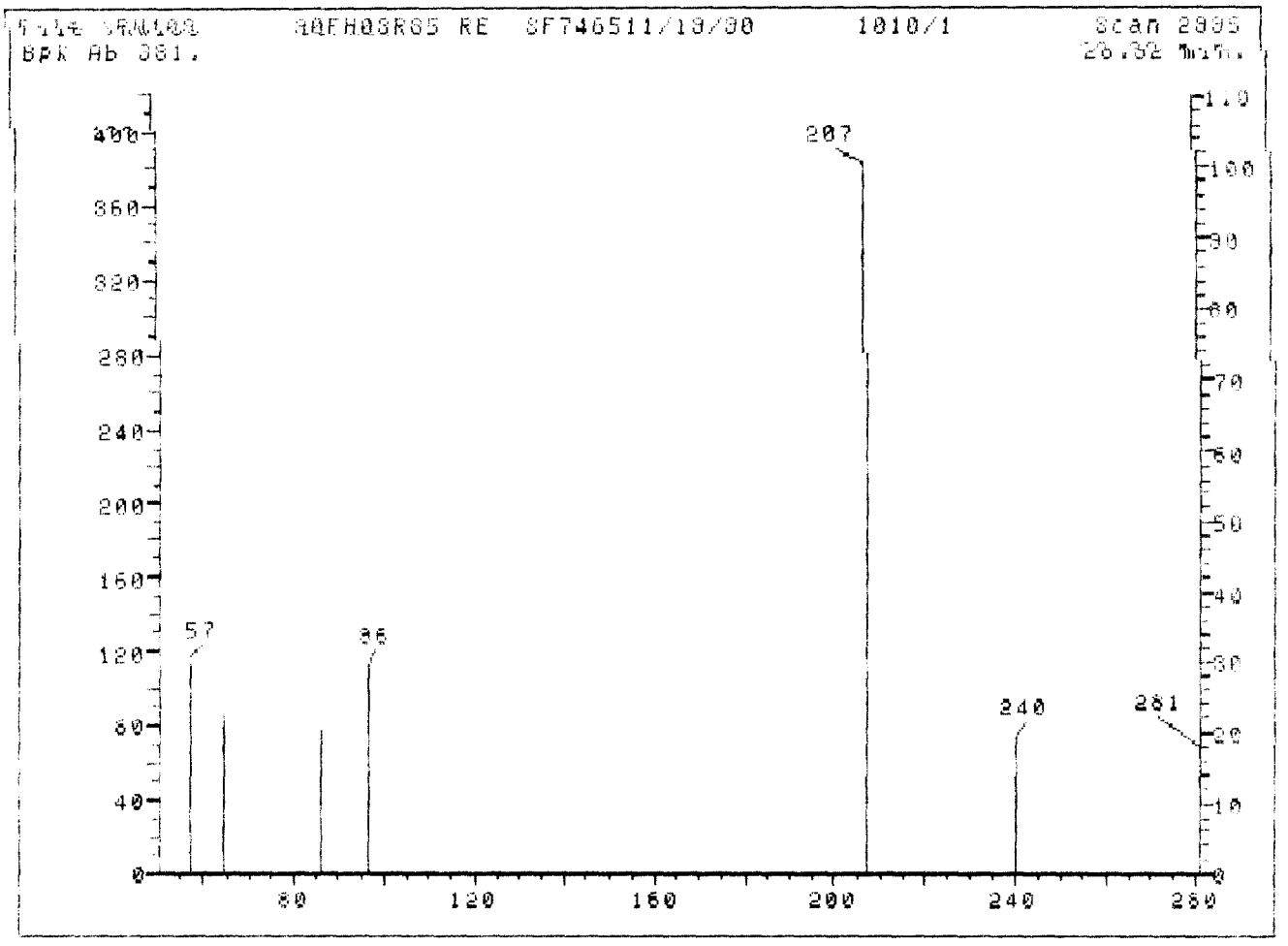
Title: CRL SOP 625 NS HP-5987 KDH 06\28\89
Last Calibration: 901115 14:54

Operator ID: KELLY
Quant Time: 901116 00:11
Injected at: 901115 23:26



73
147
221

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

90FH03R85RE

Lab Name: ALCO Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH03R85RE

Sample wt/vol: 1010 (g/mL) mL Lab File ID: >RW109

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted: 11/07/90

Extraction: (Sept/Cont/Sonc) SEPT Date Analyzed: 11/19/90

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

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	21.95	9.	
2.	Unknown	23.42	10.	
3.	Unknown	24.82	14.	
4.	Unknown	26.13	14.	
5.	Unknown	27.37	9.	
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FORM I SV-TIC 1/87 Rev.

these compds were not reported since they were due to col. bleed. Bale 11/28/90

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

90FH30S87RE

Lab Name: ALCO Contract: 5SCRL

Lab Code: CHICAGOIL Case No.: SF7465 SAS No.: ------- SDG No.: TFA302

Matrix: (soil/water) WATER Lab Sample ID: 90FH30S87RE

Sample wt/vol: 945 (g/mL) mL Lab File ID: >RW108

Level: (low/med) LOW Date Received: 11/06/90

% Moisture: not dec.____ dec. ____ Date Extracted: 11/07/90

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 11/19/90

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

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown	21.95	9.	
2.	Unknown	24.82	11.	
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