GC/MS REPORT SUMMARY SHEET

PROJECT Ridgefield Brookhill SAMPLES ANALYZED 91130150, 2, 4, 6, 8
91130162, 4, 6, 8

1. SUMMARY REPORT SHEETS

A) LISTING OF SAMPLES REPORTED..... ✓

B) SURROGATE SUMMARY SHEET..... ✓

C) METHOD BLANK SUMMARY SHEETS

SAMPLES EXTRACTED WITH BLANK..... ✓
COMPOUNDS PRESENT IN BLANK..... NA

D) INTERNAL STANDARD AREA SUMMARY SHEET.... ✓

E) SAMPLE HOLDING TIMES AND DILUTION SUMMARY SHEET..... ✓

F) DFTPP TUNE/DATE/SAMPLE SUMMARY SHEETS... ✓

G) MAGNETIC TAPE SUMMARY SHEETS..... NA

2. STANDARDS

A) INITIAL*....(IBM REPORT SHEET)..... ✓

B) ON-GOING*....(IBM REPORT SHEET)..... ✓

3. DFTPP TUNE CHECK

A) SPECTRUM/ION ABUNDANCE LISTING..... ✓

4. BLANKS

A) BLANK DATA PACKAGE..... ✓

B) IBM REPORT SHEETS..... ✓

5. SPIKES

A) SPIKE DATA PACKAGE..... ✓

B) IBM REPORT SHEETS..... ✓

6. SAMPLES

A) SAMPLE DATA PACKAGE..... ✓

B) IBM PERORT SHEETS..... ✓

* All Initial and On-going Standard Raw Data Are Stored in Separate Files.

USEPA RCRA 3058013

HW127AB1.NAM
05/01/91

X:W130150.QFD
X:W130152.QFD
X:W130152Y.QFD
X:W130152Z.QFD
X:W130154.QFD
X:W130156.QFD
X:W130158.QFD
X:W130162.QFD
X:W130164.QFD
X:W130166.QFD
X:W130168.QFD
X:WBW1093.QFD
X:WBW1093D.QFD

HW127AB1

1718-52-1

WATER SURROGATE PERCENT RECOVERY
(Page 1)

Case No. HWD-127A/1011 Contract Laboratory MANCHESTER LAB Contract No. AGDD3A

SMO TRAFFIC NO.	SEMI-VOLATILE Nitrobenzene-d5 (SS) 35 114	2-Fluorobiphenyl (SS) 43 116	Terphenyl-d14 (SS) 33 141	Pyrene-d10 (SS) 26 127	Phenol-d5 (SS) 10 94	2-Fluorophenol (SS) 21 100	
W91130150	51	46	84	84	18	31	✓
W91130152	42	37*	71	64	16	24	✓
W91130152Y	87	57	71	80	20	38	✓
W92130152Z	100	75	72	92	21	40	✓
W91130154	50	46	69	62	21	33	✓
W91130156	51	49	66	43	31	42	✓
W91130158	55	55	81	80	20	36	✓
W91130162	57	59	73	77	21	38	✓
W91130164	53	49	79	82	19	33	✓
W91130166	57	52	85	88	22	37	✓
W91130168	58	57	81	82	20	36	✓
WBW1093	60	54	98	100	31	47	✓
WBW1093D	58	49	88	90	28	42	✓

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

Volatiles: 0 out of 0; outside of QC limits
Semi-Volatiles: 1 out of 78; outside of QC limits
Pesticides: 0 out of 0; outside of QC limits

Comments:

FORM II

4B

SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: MANCHESTER LAB Contract: AGDD3A

Lab Code: _____ Case No.: HWD-12 SAS No.: 1011 SDG No.: RIDGEF

Lab File ID: WBW1093 Lab Sample ID: LAB BLANK

Date Extracted: 04/03/91 Extraction:(SepF/Cont/Sonc) _____

Date Analyzed: 04/26/91 Time Analyzed: 1421

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

Instrument ID: 5100

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	W911301500	SAMPLE	W130150	04/29/91
02	W911301520	SAMPLE	W130152	04/29/91
03	W911301520Y	MATRX_SPK	W130152Y	04/29/91
04	W921301520Z	MATX_SPK_DUP	W130152Z	04/29/91
05	W911301540	SAMPLE	W130154	04/29/91
06	W911301560	SAMPLE	W130156	04/29/91
07	W911301580	SAMPLE	W130158	04/29/91
08	W911301620	SAMPLE	W130162	04/29/91
09	W911301640	SAMPEL	W130164	04/29/91
10	W911301660	SAMPLE	W130166	04/29/91
11	W911301680	SAMPLE	W130168	04/29/91
12	WBW1093D	DUP_LAB_BLANK	WBW1093D	04/26/91

COMMENTS: WBW1093 RIDGEFIELD LAB BLANK 100% 1ML/2UL INJ
WDOE 35 DEG 2 MIN 50 DEG @ 5 MIN 320 DEG @ 8 DEG/MIN

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: MANCHESTER LAB Contract: AGDD3A

Lab Code: _____ Case No.: HWD-12 SAS No.: 1011 SDG No.: RIDGEF

Lab File ID (Standard): WAN1116 Date Analyzed: 04/26/91

Instrument ID: 5100 Time Analyzed: 0837

		IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
	12 HOUR STD	127000	10.77	494000	14.54	250000	20.05
	UPPER LIMIT	254000		988000		500000	
	LOWER LIMIT	63500		247000		125000	
	EPA SAMPLE NO.						
01	WBW1093	236000	10.77	895000	14.54	428000	20.05
02	WBW1093D	217000	10.77	845000	14.54	418000	20.05

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-1 1/87 Rev.

8C

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: MANCHESTER LAB Contract: AGDD3A

Lab Code: _____ Case No.: HWD-12 SAS No.: 1011 SDG No.: RIDGEF

Lab File ID (Standard): WAN1116 Date Analyzed: 04/26/91

Instrument ID: 5100 Time Analyzed: 0837

		IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS6(PRY) AREA #	RT
	12 HOUR STD	337000	24.80	188000	33.46	133000	37.79
	UPPER LIMIT	674000		376000		266000	
	LOWER LIMIT	168500		94000		66500	
	EPA SAMPLE NO.						
01	WBW1093	536000	24.80	209000	33.46	154000	37.81
02	WBW1093D	546000	24.80	218000	33.47	172000	37.81

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

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-2 1/87 Rev.

8B

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: MANCHESTER LAB Contract: AGDD3A

Lab Code: _____ Case No.: HWD-12 SAS No.: 1011 SDG No.: RIDGEF

Lab File ID (Standard): WAN1119 Date Analyzed: 04/29/91

Instrument ID: 5100 Time Analyzed: 0800

		IS1(DCB) AREA #	RT	IS2(NPT) AREA #	RT	IS3(ANT) AREA #	RT
	12 HOUR STD	194000	10.75	760000	14.52	383000	20.04
	UPPER LIMIT	388000		1520000		766000	
	LOWER LIMIT	97000		380000		191500	
	EPA SAMPLE NO.						
01	W91130150	219000	10.77	838000	14.54	421000	20.05
02	W91130152	228000	10.75	890000	14.54	474000	20.05
03	W91130152Y	182000	10.77	719000	14.54	342000	20.05
04	W92130152Z	214000	10.77	831000	14.54	389000	20.05
05	W91130154	260000	10.75	1010000	14.54	488000	20.05
06	W91130156	243000	10.77	938000	14.54	447000	20.05
07	W91130158	272000	10.77	1000000	14.54	496000	20.05
08	W91130162	263000	10.77	984000	14.54	381000	20.05
09	W91130164	240000	10.79	874000	14.54	357000	20.05
10	W91130166	214000	10.77	792000	14.54	329000	20.05
11	W91130168	241000	10.77	857000	14.54	348000	20.05

IS1 (DCB) = 1,4-Dichlorobenzene-d4
IS2 (NPT) = Naphthalene-d8
IS3 (ANT) = Acenaphthene-d10

UPPER LIMIT = + 100% of internal standard area.
LOWER LIMIT = - 50% of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-1 1/87 Rev.

8C

SEMIVOLATILE INTERNAL STANDARD AREA SUMMARY

Lab Name: MANCHESTER LAB Contract: AGDD3A

Lab Code: _____ Case No.: HWD-12 SAS No.: 1011 SDG No.: RIDGEF

Lab File ID (Standard): WAN1119 Date Analyzed: 04/29/91

Instrument ID: 5100 Time Analyzed: 0800

		IS4(PHN) AREA #	RT	IS5(CRY) AREA #	RT	IS6(PRY) AREA #	RT
	12 HOUR STD	493000	24.79	251000	33.44	176000	37.77
	UPPER LIMIT	986000		502000		352000	
	LOWER LIMIT	246500		125500		88000	
	EPA SAMPLE NO.						
01	W91130150	517000	24.80	219000	33.46	174000	37.81
02	W91130152	564000	24.79	205000	33.46	165000	37.79
03	W91130152Y	472000	24.80	225000	33.47	172000	37.81
04	W92130152Z	535000	24.80	236000	33.47	185000	37.82
05	W91130154	585000	24.79	212000	33.46	173000	37.79
06	W91130156	558000	24.80	211000	33.46	187000	37.79
07	W91130158	600000	24.80	231000	33.46	179000	37.81
08	W91130162	542000	24.80	240000	33.47	197000	37.81
09	W91130164	512000	24.80	214000	33.49	173000	37.82
10	W91130166	452000	24.80	192000	33.47	161000	37.81
11	W91130168	498000	24.80	238000	33.47	180000	37.81

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

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag internal standard area values with an asterisk

FORM VIII SV-2 1/87 Rev.

SAMPLE HOLDING TIMES AND DILUTIONS

Laboratory MANCHESTER LAB
Case Number HWD-127A

05/01/91

Sample number	M	L	Rcvd	VOA Anal	VOA Hld	VOA Dil	BNA Extr	BNA Hld	BNA Anal	BNA Hld	BNA Dil	PEST Extr	PEST Hld	PEST Anal	PEST Hld	PEST Dil
W91130150	W	L	03/27				04/03	7	04/29	26	0.008					
W91130152	W	L	03/27				04/03	7	04/29	26	0.008					
W91130152	W	L	03/27				04/03	7	04/29	26	0.078					
W92130152	W	L	03/27				04/03	7	04/29	26	0.078					
W91130154	W	L	03/27				04/03	7	04/29	26	0.008					
W91130156	W	L	03/27				04/03	7	04/29	26	0.012					
W91130158	W	L	03/27				04/03	7	04/29	26	0.009					
W91130162	W	L	03/27				04/03	7	04/29	26	0.008					
W91130164	W	L	03/27				04/03	7	04/29	26	0.008					
W91130166	W	L	03/27				04/03	7	04/29	26	0.008					
W91130168	W	L	03/27				04/03	7	04/29	26	0.008					

CROSS-REFERENCE OF FILES BY PERFORMANCE TUNE AND DATE ANALYZED

CASE NO HWD-127A CONTRACT AGDD3A
SAS NO 1011 CUSTOMER BAILEY REPORTED 05/01/91 16:08

TUNE	SAMPLE ID	LAB SAMP ID	FILE NAME	INST	ANALYZED
WDF1116	WBW1093	LAB_BLANK	WBW1093	5100	04/26/91 14:21
	WBW1093D	DUP_LAB_BLANK	WBW1093D	5100	04/26/91 15:15
WDF1119	W91130150	SAMPLE	W130150	5100	04/29/91 08:53
	W91130152	SAMPLE	W130152	5100	04/29/91 09:46
	W91130154	SAMPLE	W130154	5100	04/29/91 10:40
	W91130156	SAMPLE	W130156	5100	04/29/91 11:33
	W91130158	SAMPLE	W130158	5100	04/29/91 12:27
	W91130162	SAMPLE	W130162	5100	04/29/91 13:21
	W91130164	SAMPEL	W130164	5100	04/29/91 14:15
	W91130166	SAMPLE	W130166	5100	04/29/91 15:09
	W91130168	SAMPLE	W130168	5100	04/29/91 16:03
	W91130152Y	MATRX_SPK	W130152Y	5100	04/29/91 16:57
	W92130152Z	MATX_SPK_DUP	W130152Z	5100	04/29/91 17:51

Quantitation Report File: WAN1119

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from linear fit to whole .RL

No	Name		ng/2ul	Low ppb (based on 2l sample)	Hi ppb
1	CI30	D4-1,4-DICHLOROBENZENE (IS-1)			
2	CI40	D8-NAPHTHALENE (IS-2)			
3	CI50	D10-ACENAPHTHENE (IS-3)			
4	CI60	D10-PHENANTHRENE (IS-4)			
5	CI70	D12-CHRYSENE (IS-5)			
6	CI75	D12-PERYLENE (IS-6)			
7	CS50	2-FLUOROPHENOL (SS)	4	1	10
8	CS45	D5-PHENOL (SS)	4	1	10
9	C315	PHENOL	0.4	0.1	2
10	C330	2-CHLOROPHENOL			
11	C355	2-METHYLPHENOL			
12	C365	4-METHYLPHENOL			
13	CS20	D5-NITROBENZENE (SS)	4	1	10
14	C420	2-NITROPHENOL	0.4	0.1	2
15	C425	2,4-DIMETHYLPHENOL			
16	C440	2,4-DICHLOROPHENOL			
17	C450	NAPHTHALENE			
18	C465	4-CHLORO-3-METHYLPHENOL			
19	C470	2-METHYLNAPHTHALENE			
20	C475	1-METHYLNAPHTHALENE			
21	C515	2,4,6-TRICHLOROPHENOL			
22	C520	2,4,5-TRICHLOROPHENOL			
23	CS25	2-FLUOROBIPHENYL (SS)	4	1	10
24	C525	2-CHLORONAPHTHALENE	0.4	0.1	2
25	C540	ACENAPHTHYLENE			
26	C550	ACENAPHTHENE			
27	C555	2,4-DINITROPHENOL	4	1	10
28	C565	DIBENZOFURAN	0.4	0.1	2
29	C560	4-NITROPHENOL	4	1	10
30	C590	9H-FLUORENE	0.4	0.1	2
31	CS55	2,4,6-TRIBROMOPHENOL (SS)	4	1	10
32	C610	4,6-DINITRO-2-METHYLPHENOL	4	1	10
33	C635	PENTACHLOROPHENOL	4	1	10
34	C640	PHENANTHRENE	0.4	0.1	2
35	C645	ANTHRACENE			
36	C647	9H-CARBAZOLE			
37	C655	FLUORANTHENE			
38	CS35	D10-PYRENE (SS)	4	1	10
39	C715	PYRENE	0.4	0.1	2
40	CS30	D14-TERPHENYL (SS)	4	1	10
41	C717	RETENE(1-METHYL-7-(1-METHYLETHYL)-PHENANTHRENE)			2
42	C730	BENZO(A)ANTHRACENE	0.4	0.1	
43	C740	CHRYSENE			
44	C765	BENZO(B)FLUORANTHENE			
45	C770	BENZO(K)FLUORANTHENE			
46	C775	BENZO(A)PYRENE			
47	C780	INDENO(1,2,3-CD)PYRENE			
48	C785	DIBENZ(A,H)ANTHRACENE			
49	C790	BENZO(G,H,I)PERYLENE			

INITIAL CALIBRATION DATA
SEMIVOLATILE HSL COMPOUNDS

Minimum AVE RF is 0.010 Maximum %RSD is 20.5%

CASE NO WAN1116A LABORATORY MANCHESTER LAB CONTRACT WAN1116A
SAS NO _____ REPORTED 05/01/91 08:13 CUSTOMER _____
LEVEL _____ MATRIX _____ UNITS _____

A = 0.4ng/2ul
E = 0.8ng/2ul
B = 2.0ng/2ul
E = 8.0ng/2ul
D = 40ng/2ul

CODE	COMPOUND	TYPES	LOW LIMIT	HIGH LIMIT
C315	Phenol		0.800	
C325	bis(2-Chloroethyl)ether		0.700	
C330	2-Chlorophenol		0.800	
C335	1,3-Dichlorobenzene			
C340	1,4-Dichlorobenzene		0.500	
C345	Benzyl alcohol			
C350	1,2-Dichlorobenzene		0.400	
C355	2-Methylphenol		0.700	
C360	bis(2-Chloroisopropyl)ether		0.010	

RESPONSE FACTORS BY COMPOUND CODE

SAMPLE ID	FILE NAME	C315	C325	C330	C335	C340	C345	C350	C355	C360
WAN1116A	WAN1116A	1.026		0.668					0.605	
WAN1116E	WAN1116E	1.065		0.658					0.661	
WAN1116B	WAN1116B	1.518		1.059					1.168	
WAN1116 8.0	WAN1116	1.726		1.238					1.205	
WAN1116D	WAN1116D	1.972		1.329					1.470	

CODE	COMPOUND	TYPES	LOW LIMIT	HIGH LIMIT
C365	4-Methylphenol		0.600	
C370	N-Nitroso-di-n-propylamine		0.500	
C375	Hexachloroethane		0.300	
C410	Nitrobenzene		0.200	
C415	Isophorone		0.400	
C420	2-Nitrophenol		0.100	
C425	2,4-Dimethylphenol		0.200	
C430	Benzoic acid			
C435	bis(2-Chloroethoxy)methane		0.30	

RESPONSE FACTORS BY COMPOUND CODE

SAMPLE ID	FILE NAME	C365	C370	C375	C410	C415	C420	C425	C430	C435
WAN1116A	WAN1116A	0.590					0.041	0.108		
WAN1116E	WAN1116E	0.639					0.046	0.116		
WAN1116B	WAN1116B	1.233					0.090	0.207		
WAN1116	WAN1116	1.275					0.135	0.266		
WAN1116D	WAN1116D	1.602					0.178	0.338		

CODE	COMPOUND	TYPES	LOW LIMIT	HIGH LIMIT
C440	2,4-Dichlorophenol		0.200	
C445	1,2,4-Trichlorobenzene	V	0.200	
C450	Naphthalene		0.700	
C455	4-Chloroaniline		0.010	
C460	Hexachlorobutadiene	V	0.010	
C465	4-Chloro-3-methylphenol		0.200	

INITIAL CALIBRATION DATA
SEMIVOLATILE HSL COMPOUNDS

Minimum AVE RF is 0.010 Maximum %RSD is 20.5%

CASE NO	WAN1116A	LABORATORY	MANCHESTER LAB	CONTRACT	WAN1116A
SAS NO		REPORTED	05/01/91 08:13	CUSTOMER	
LEVEL		MATRIX		UNITS	

CODE	COMPOUND	TYPES	LOW LIMIT	HIGH LIMIT
C470	2-Methylnaphthalene		0.400	
C475	1-Methylnaphthalene			
C510	Hexachlorocyclopentadiene		0.010	

RESPONSE FACTORS BY COMPOUND CODE

SAMPLE ID	FILE NAME	C440	C445	C450	C455	C460	C465	C470	C475	C510
WAN1116A	WAN1116A	0.082		1.002			0.060	0.659	0.276	
WAN1116E	WAN1116E	0.087		1.010			0.066	0.674	0.294	
WAN1116B	WAN1116B	0.175		1.120			0.158	0.907	0.393	
WAN1116	WAN1116	0.221		1.130			0.212	0.909	0.398	
WAN1116D	WAN1116D	0.248		1.077			0.293	0.931	0.426	

CODE	COMPOUND	TYPES	LOW LIMIT	HIGH LIMIT
C515	2,4,6-Trichlorophenol		0.200	
C520	2,4,5-Trichlorophenol		0.200	
C525	2-Chloronaphthalene		0.800	
C530	2-Nitroaniline		0.010	
C535	Dimethyl phthalate		0.010	
C540	Acenaphthylene		1.300	
C545	3-Nitroaniline		0.010	
C550	Acenaphthene		0.800	
C555	2,4-Dinitrophenol		0.010	

RESPONSE FACTORS BY COMPOUND CODE

SAMPLE ID	FILE NAME	C515	C520	C525	C530	C535	C540	C545	C550	C555
WAN1116A	WAN1116A	0.066	0.052	0.812			0.845		0.752	
WAN1116E	WAN1116E	0.074	0.057	0.876			0.896		0.810	
WAN1116B	WAN1116B	0.167	0.158	1.072			1.369		1.045	0.007
WAN1116	WAN1116	0.231	0.227	1.094			1.477		1.060	0.022
WAN1116D	WAN1116D	0.290	0.280	1.204			1.549		1.141	0.083

CODE	COMPOUND	TYPES	LOW LIMIT	HIGH LIMIT
C560	4-Nitrophenol		0.010	
C565	Dibenzofuran		0.800	
C570	2,4-Dinitrotoluene		0.200	
C575	2,6-Dinitrotoluene		0.200	
C580	Diethylphthalate		0.010	
C585	4-Chlorophenylphenylether		0.400	
C590	Fluorene		0.900	
C595	4-Nitroaniline		0.010	
C610	4,6-Dinitro-2-methylphenol		0.010	

INITIAL CALIBRATION DATA
SEMIVOLATILE HSL COMPOUNDS

Minimum AVE RF is 0.010 **Maximum %RSD is 20.5%**

CASE NO	WAN1116A	LABORATORY	MANCHESTER LAB	CONTRACT	WAN1116A
SAS NO		REPORTED	05/01/91 08:13	CUSTOMER	
LEVEL		MATRIX		UNITS	

RESPONSE FACTORS BY COMPOUND CODE

SAMPLE ID	FILE NAME	C560	C565	C570	C575	C580	C585	C590	C595	C610
WAN1116A	WAN1116A		1.050					0.649		
WAN1116E	WAN1116E		1.144					0.714		
WAN1116B	WAN1116B	0.024	1.545					1.135		0.020
WAN1116	WAN1116	0.049	1.525					1.148		0.048
WAN1116D	WAN1116D	0.086	1.577					1.210		0.109

CODE	COMPOUND	TYPES	LOW LIMIT	HIGH LIMIT
C615	N-Nitrosodiphenylamine (1)	0	0.010	
C625	4-Bromophenyl-phenylether		0.100	
C630	Hexachlorobenzene		0.100	
C635	Pentachlorophenol		0.050	
C640	Phenanthrene		0.700	
C645	Anthracene		0.700	
C647	9h-Carbazole			
C650	Di-n-Butylphthalate		0.010	
C655	Fluoranthene		0.600	

RESPONSE FACTORS BY COMPOUND CODE

SAMPLE ID	FILE NAME	C615	C625	C630	C635	C640	C645	C647	C650	C655
WAN1116A	WAN1116A					0.878	0.462	0.241		0.352
WAN1116E	WAN1116E					0.897	0.483	0.279		0.431
WAN1116B	WAN1116B				0.021	1.135	0.878	0.458		0.761
WAN1116	WAN1116				0.051	1.150	0.972	0.560		0.879
WAN1116D	WAN1116D				0.098	1.257	1.189	0.398		1.056

CODE	COMPOUND	TYPES	LOW LIMIT	HIGH LIMIT
C715	Pyrene		0.600	
C717	Retene			
C720	Butylbenzylphthalate		0.010	
C725	3,3'-Dichlorobenzidine		0.010	
C730	Benzo(a)anthracene		0.800	
C735	bis(2-Ethylhexyl)phthalate		0.010	
C740	Chrysene		0.700	
C760	di-n-Octyl phthalate		0.010	
C765	Benzo(b)fluoranthene		0.700	

RESPONSE FACTORS BY COMPOUND CODE

SAMPLE ID	FILE NAME	C715	C717	C720	C725	C730	C735	C740	C760	C765
WAN1116A	WAN1116A	0.899	0.133			0.594		0.865		0.434
WAN1116E	WAN1116E	1.078	0.174			0.553		0.871		0.544
WAN1116B	WAN1116B	1.919	0.323			0.816		1.156		0.941
WAN1116	WAN1116	1.827	0.373			0.990		1.165		1.116
WAN1116D	WAN1116D	1.975	0.512			1.277		1.221		1.459

INITIAL CALIBRATION DATA
SEMIVOLATILE HSL COMPOUNDS

Minimum AVE RF is 0.010 Maximum %RSD is 20.5%

CASE NO WAN1116A LABORATORY MANCHESTER LAB CONTRACT WAN1116A
SAS NO _____ REPORTED 05/01/91 08:13 CUSTOMER _____
LEVEL _____ MATRIX _____ UNITS _____

CODE	COMPOUND	TYPES	LOW LIMIT	HIGH LIMIT
C770	Benzo(k)fluoranthene		0.700	
C775	Benzo(a)pyrene		0.700	
C780	Indeno(1,2,3-cd)pyrene		0.500	
C785	Dibenz(a,h)anthracene		0.400	
C790	Benzo(g,h,i)perylene		0.500	
CS20	Nitrobenzene-d5 . . . (SS)	N	0.200	
CS25	2-Fluorobiphenyl . . . (SS)	N	0.700	
CS30	Terphenyl-d14 . . . . . (SS)	N	0.500	
CS35	Pyrene-d10 . . . . . (SS)	N	0.010	

RESPONSE FACTORS BY COMPOUND CODE

SAMPLE ID	FILE NAME	C770	C775	C780	C785	C790	CS20	CS25	CS30	CS35
WAN1116A	WAN1116A	0.445	0.301	0.319	0.270	0.409	0.153	0.877	0.343	0.507
WAN1116E	WAN1116E	0.490	0.378	0.329	0.317	0.463	0.154	0.941	0.401	0.633
WAN1116B	WAN1116B	1.047	0.655	0.566	0.538	0.658	0.251	1.119	0.721	1.189
WAN1116	WAN1116	1.172	0.855	0.682	0.663	0.780	0.306	1.109	0.777	1.216
WAN1116D	WAN1116D	1.340	1.223	0.979	0.868	0.974	0.378	1.221	0.953	1.451

CODE	COMPOUND	TYPES	LOW LIMIT	HIGH LIMIT
CS45	Phenol-d5 . . . . . (SS)	N	0.800	
CS50	2-Fluorophenol . . . . (SS)	N	0.600	
CS55	2,4,6-Tribromophenol . (SS)	N		

RESPONSE FACTORS BY COMPOUND CODE

SAMPLE ID	FILE NAME	CS45	CS50	CS55
WAN1116A	WAN1116A	0.858	0.731	
WAN1116E	WAN1116E	0.847	0.688	0.008
WAN1116B	WAN1116B	1.221	0.875	0.032
WAN1116	WAN1116	1.532	1.102	0.043
WAN1116D	WAN1116D	1.745	1.170	0.065

Notes and summary data for this report.
Response Factor (number is the amount of nanograms)
AVE RF - Average Response Factor
%RSD - - Percent Relative Standard Deviation
CCC - - Calibration Check Compounds (*)
SPCC - - System Performance Check Compounds (**)
(1) - - Cannot be separated from diphenylamine

.92 4-17-91 RYA

4/29/91 8:00:10 SCAN 1 OF 5400
Acquisition started

Acquire
04/29/91 8:00:00 + 0:02
Run 0:WAN1119
Free sectors: 18417
Acquiring
Scan: 3 of 5400
Sample: WAN1119 BNA STD MIX LABN1115C 8NG/2UL INJ
Conds.: WDOE 35 DEG 2 MIN 50 DEG @ 5 MIN 320 DEG @ 8 DEG/MIN
Formula: WDF1119/ISSM1098A
Instrument: 5100
Weight: 0.000
Submitted by: RGX-WDOE
Analyst: RYA/WDOE
Acct. No: WAN1119

*** GC descriptor: PP ***

GC temperature: 35 DegC
Injector: 250 DegC
Elapsed time : 0: 7 min
Interface: 250 DegC

Seq. #	Temp (DegC)	Rate (C/min)	Time (minutes) period	Time (minutes) total
1	35- 35	-	2.0	2.0
2	35- 50	5.0	3.0	5.0
3	50-320	8.0	33.7	38.7
4	320-320	-	6.3	45.0

Valve times (minutes)

	Open	Close
Sweep/Split	1.0	0.0
Divert	45.0	3.0

*** Scan Parameters ***

MODE: EI (+) Centroid + Temp - Sequence: LL (10 time windows.)

Verified 4-29-91 Rya

Window # 1
Number of cycles: 700
Filament is OFF
Multiplier is ON and set to -1294. volts

MID scan Desc: PO Mass intervals: 4 Positive ion mode.
Scan time: 0.500 s Samp. int.: 0.200 ms Master rate: 128

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL
1	93.528	100.530	0.117	1	80	10	1	0
2	109.533	116.535	0.117	1	80	10	1	0
3	126.538	133.540	0.117	1	80	10	1	0
4	148.545	155.546	0.117	1	80	10	1	0

Window # 2
Number of cycles: 625
Filament is ON
Multiplier is ON and set to -1294. volts

MID scan Desc: PO Mass intervals: 4 Positive ion mode.
Scan time: 0.500 s Samp. int.: 0.200 ms Master rate: 128

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL
1	93.528	100.530	0.117	1	80	10	1	0
2	109.533	116.535	0.117	1	80	10	1	0
3	126.538	133.540	0.117	1	80	10	1	0
4	148.545	155.546	0.117	1	80	10	1	0

Window # 3
Number of cycles: 350
Filament is ON
Multiplier is ON and set to -1294. volts

MID scan Desc: P1 Mass intervals: 4 Positive ion mode.

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL
1	78.524	85.525	0.117	1	80	10	1	0
2	102.531	109.533	0.117	1	80	10	1	0
3	125.538	132.540	0.117	1	80	10	1	0
4	136.541	143.543	0.117	1	80	10	1	0

Window # 4

Number of cycles: 175
Filament is ON
Multiplier is ON and set to -1294. volts

MID scan Desc: P2 Mass intervals: 3 Positive ion mode.
Scan time: 0.500 s Samp. int.: 0.200 ms Master rate: 128

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL
1	59.518	66.520	0.117	1	80	10	1	0
2	123.537	138.541	0.250	1	80	10	1	0
3	160.548	167.550	0.117	1	80	10	1	0

Window # 5

Number of cycles: 400
Filament is ON
Multiplier is ON and set to -1294. volts

MID scan Desc: P3 Mass intervals: 6 Positive ion mode.
Scan time: 0.500 s Samp. int.: 0.200 ms Master rate: 128

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL
1	105.532	108.532	0.050	1	80	10	1	0
2	131.540	134.540	0.050	1	80	10	1	0
3	138.542	144.543	0.100	1	80	10	1	0
4	161.548	165.549	0.067	1	80	10	1	0
5	168.551	173.552	0.084	1	80	10	1	0
6	195.559	202.560	0.117	1	80	10	1	0

Window # 6

Number of cycles: 320
Filament is ON
Multiplier is ON and set to -1294. volts

MID scan Desc: P4 Mass intervals: 6 Positive ion mode.
Scan time: 0.500 s Samp. int.: 0.200 ms Master rate: 128

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL
1	107.532	110.533	0.050	1	80	10	1	0
2	137.541	140.542	0.050	1	80	10	1	0
3	148.545	155.546	0.117	1	80	10	1	0
4	157.547	165.549	0.134	1	80	10	1	0
5	166.550	170.551	0.067	1	80	10	1	0
6	182.555	185.555	0.050	1	80	10	1	0

Window # 7

Number of cycles: 455
Filament is ON
Multiplier is ON and set to -1294. volts

MID scan Desc: P5 Mass intervals: 6 Positive ion mode.
Scan time: 0.500 s Samp. int.: 0.200 ms Master rate: 128

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL
1	162.549	167.550	0.084	1	80	10	1	0
2	174.552	179.554	0.084	1	80	10	1	0
3	184.555	189.557	0.083	1	80	10	1	0
4	196.559	199.560	0.050	1	80	10	1	0

Window # 8

Number of cycles: 775
Filament is ON
Multiplier is ON and set to -1294. volts

MID scan Desc: P6 Mass intervals: 5 Positive ion mode.
Scan time: 0.500 s Samp. int.: 0.200 ms Master rate: 128

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL
1	163.549	168.550	0.084	1	80	10	1	0
2	197.559	205.561	0.134	1	80	10	1	0
3	207.562	213.564	0.100	1	80	10	1	0
4	217.565	220.566	0.050	1	80	10	1	0
5	239.572	245.573	0.100	1	80	10	1	0

Window # 9

Number of cycles: 1600
Filament is ON
Multiplier is ON and set to -1294. volts

MID scan Desc: P7 Mass intervals: 5 Positive ion mode.
Scan time: 0.500 s Samp. int.: 0.200 ms Master rate: 128

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL
1	224.567	229.569	0.084	1	80	10	1	0
2	235.571	241.572	0.100	1	80	10	1	0
3	247.574	253.576	0.100	1	80	10	1	0
4	260.578	265.579	0.084	1	80	10	1	0
5	273.582	279.583	0.100	1	80	10	1	0

Window # 10

Number of cycles: 10
Filament is ON
Multiplier is ON and set to -1294. volts

MID scan Desc: P7 Mass intervals: 5 Positive ion mode.
Scan time: 0.500 s Samp. int.: 0.200 ms Master rate: 128

Int #	Lo mass	Hi mass	Time	MPW	MFW	MA	TH	BL
1	224.567	229.569	0.084	1	80	10	1	0
2	235.571	241.572	0.100	1	80	10	1	0
3	247.574	253.576	0.100	1	80	10	1	0
4	260.578	265.579	0.084	1	80	10	1	0
5	273.582	279.583	0.100	1	80	10	1	0

Interface number	0	
Sub-interface number	0	
# of acqu buffers	24	
Instrument type	Q	
Full scale mass	812	u
Zero scale mass	1	u
Intensity/ion	2	
Peak width	1000.	mmu
Offset at low mass	0	mmu
Offset at high mass	0	mmu
Voltage settling time(ms)	4	

Current instrument parameters.

	Positive ion mode	Negative ion mode
Resolution (high)	128.00	128.00
Resolution (low)	128.00	128.00
Ion energy	1.33	-4.00

Extractor voltage 0.00 not used

Electron multiplier voltage: -1294.
Electrometer Range: 10 ^-7
Electrometer zero: 0.9

4/29/91 8:44:30
Acquisition completed
Scans 1 to 5400 centroid

Mode	Scans	Secs	out of	%	Peaks per scan per second		
Centroid	5400	75.3	2700.0	2.8	21849.	4.	8.

Quantitation Report File: WAN1119

Data: WAN1119.TI
04/29/91 8:00:00
Sample: WAN1119 BNA STD MIX LABN1115C 8NG/2UL INJ
Conds.: WDOE 35 DEG 2 MIN 50 DEG @ 5 MIN 320 DEG @ 8 DEG/MIN
Formula: WDF1119/ISSM1098A Instrument: 5100 Weight: 0.000
Submitted by: RGX-WDOE Analyst: RYA/WDOE Acct. No.: WAN1119

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name	
1	CI30	D4-1,4-DICHLOROBENZENE (IS-1)
2	CI40	D8-NAPHTHALENE (IS-2)
3	CI50	D10-ACENAPHTHENE (IS-3)
4	CI60	D10-PHENANTHRENE (IS-4)
5	CI70	D12-CHRYSENE (IS-5)
6	CI75	D12-PERYLENE (IS-6)
7	CS50	2-FLUOROPHENOL (SS)
8	CS45	D5-PHENOL (SS)
9	C315	PHENOL
10	C330	2-CHLOROPHENOL
11	C355	2-METHYLPHENOL
12	C365	4-METHYLPHENOL
13	CS20	D5-NITROBENZENE (SS)
14	C420	2-NITROPHENOL
15	C425	2,4-DIMETHYLPHENOL
16	C440	2,4-DICHLOROPHENOL
17	C450	NAPHTHALENE
18	C465	4-CHLORO-3-METHYLPHENOL
19	C470	2-METHYLNAPHTHALENE
20	C475	1-METHYLNAPHTHALENE
21	C515	2,4,6-TRICHLOROPHENOL
22	C520	2,4,5-TRICHLOROPHENOL
23	CS25	2-FLUOROBIPHENYL (SS)
24	C525	2-CHLORONAPHTHALENE
25	C540	ACENAPHTHYLENE
26	C550	ACENAPHTHENE
27	C555	2,4-DINITROPHENOL
28	C565	DIBENZOFURAN
29	C560	4-NITROPHENOL
30	C590	9H-FLUORENE
31	CS55	2,4,6-TRIBROMOPHENOL (SS)
32	C610	4,6-DINITRO-2-METHYLPHENOL
33	C635	PENTACHLOROPHENOL
34	C640	PHENANTHRENE
35	C645	ANTHRACENE
36	C647	9H-CARBAZOLE
37	C655	FLUORANTHENE
38	CS35	D10-PYRENE (SS)
39	C715	PYRENE
40	CS30	D14-TERPHENYL (SS)
41	C717	RETENE(1-METHYL-7-(1-METHYLETHYL)-PHENANTHRENE)
42	C730	BENZO(A)ANTHRACENE
43	C740	CHRYSENE
44	C765	BENZO(B)FLUORANTHENE
45	C770	BENZO(K)FLUORANTHENE
46	C775	BENZO(A)PYRENE
47	C780	INDENO(1,2,3-CD)PYRENE

No	Name
48	C785 DIBENZ(A,H)ANTHRACENE
49	C790 BENZO(G,H,I)PERYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	152	1289	10:45	1	1.000	A BB	194263.	5.000 UG/ML	2.48
2	136	1741	14:31	2	1.000	A BB	759734.	5.000 UG/ML	2.48
3	164	2403	20:02	3	1.000	A BB	382663.	5.000 UG/ML	2.48
4	188	2973	24:47	4	1.000	A BB	493446.	5.000 UG/ML	2.48
5	240	4011	33:26	5	1.000	A BB	251459.	5.000 UG/ML	2.48
6	264	4532	37:46	6	1.000	A BB	176288.	5.000 UG/ML	2.48
7	112	886	7:23	1	0.687	A BB	185483.	4.000 UG/ML	1.98
8	99	1189	9:55	1	0.922	A BB	256374.	4.000 UG/ML	1.98
9	94	1193	9:57	1	0.926	A BB	294666.	4.000 UG/ML	1.98
10	128	1218	10:09	1	0.945	A BB	202269.	4.000 UG/ML	1.98
11	108	1396	11:38	1	1.083	A BV	198490.	4.000 UG/ML	1.98
12	108	1454	12:07	1	1.128	A BB	211623.	4.000 UG/ML	1.98
13	82	1485	12:23	2	0.853	A BB	203001.	4.000 UG/ML	1.98
14	139	1607	13:24	2	0.923	A BV	89358.	4.000 UG/ML	1.98
15	107	1645	13:43	2	0.945	A BB	168989.	4.000 UG/ML	1.98
16	162	1699	14:10	2	0.976	A BV	134680.	4.000 UG/ML	1.98
17	128	1749	14:35	2	1.005	A BV	687205.	4.000 UG/ML	1.98
18	107	1979	16:30	2	1.137	A BB	135363.	4.000 UG/ML	1.98
19	142	2011	16:46	2	1.155	A BB	546211.	4.000 UG/ML	1.98
20	142	2046	17:03	2	1.175	A BB	243554.	4.000 UG/ML	1.98
21	196	2126	17:43	3	0.885	A BV	68269.	4.000 UG/ML	1.98
22	196	2136	17:48	3	0.889	A VB	67265.	4.000 UG/ML	1.98
23	172	2160	18:00	3	0.899	A BB	342995.	4.000 UG/ML	1.98
24	162	2192	18:16	3	0.912	A BB	337836.	4.000 UG/ML	1.98
25	152	2346	19:33	3	0.976	A BB	452738.	4.000 UG/ML	1.98
26	153	2415	20:08	3	1.005	A BB	329846.	4.000 UG/ML	1.98
27	184	2445	20:23	3	1.017	A BV	9434.	4.000 UG/ML	1.98
28	168	2483	20:42	3	1.033	A BB	465452.	4.000 UG/ML	1.98
29	109	2485	20:43	3	1.034	A BB	14249.	4.000 UG/ML	1.98
30	166	2615	21:48	3	1.088	A BB	354310.	4.000 UG/ML	1.98
31	330	2707	22:34	3	1.127	A BB	14590.	4.000 UG/ML	1.98
32	198	2650	22:05	4	0.891	A BB	23810.	4.000 UG/ML	1.98
33	266	2908	24:14	4	0.978	A BB	20840.	4.000 UG/ML	1.98
34	178	2982	24:51	4	1.003	A BB	446298.	4.000 UG/ML	1.98
35	178	3001	25:01	4	1.009	A BB	394170.	4.000 UG/ML	1.98
36	167	3075	25:38	4	1.034	A BB	182708.	4.000 UG/ML	1.98
37	202	3447	28:44	4	1.159	A BB	348177.	4.000 UG/ML	1.98
38	212	3524	29:22	5	0.879	A BB	263902.	4.000 UG/ML	1.98
39	202	3532	29:26	5	0.881	A BB	385649.	4.000 UG/ML	1.98
40	244	3618	30:09	5	0.902	A BV	168040.	4.000 UG/ML	1.98
41	219	3665	30:33	5	0.914	A BB	80479.	4.000 UG/ML	1.98
42	228	4008	33:24	5	0.999	A BV	201365.	4.000 UG/ML	1.98
43	228	4022	33:31	5	1.003	A VB	240027.	4.000 UG/ML	1.98
44	252	4404	36:42	6	0.972	A BV	160304.	4.000 UG/ML	1.98
45	252	4414	36:47	6	0.974	A VB	174393.	4.000 UG/ML	1.98
46	252	4512	37:36	6	0.996	A BB	125362.	4.000 UG/ML	1.98
47	276	4879	40:40	6	1.077	A BV	101599.	4.000 UG/ML	1.98
48	278	4891	40:46	6	1.079	A VB	98527.	4.000 UG/ML	1.98
49	276	4972	41:26	6	1.097	A BB	113065.	4.000 UG/ML	1.98

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	10:45	1.00	1.000	1.00	5.00	5.00	1.000	1.000	1.00
2	14:31	1.00	1.000	1.00	5.00	5.00	1.000	1.000	1.00
3	20:02	1.00	1.000	1.00	5.00	5.00	1.000	1.000	1.00
4	24:47	1.00	1.000	1.00	5.00	5.00	1.000	1.000	1.00
5	33:26	1.00	1.000	1.00	5.00	5.00	1.000	1.000	1.00
6	37:46	1.00	1.000	1.00	5.00	5.00	1.000	1.000	1.00
7	7:23	1.00	0.687	1.00	4.00	4.00	1.194	1.194	1.00
8	9:55	1.00	0.922	1.00	4.00	4.00	1.650	1.650	1.00
9	9:57	1.00	0.926	1.00	4.00	4.00	1.896	1.896	1.00
10	10:09	1.00	0.945	1.00	4.00	4.00	1.302	1.302	1.00
11	11:38	1.00	1.083	1.00	4.00	4.00	1.277	1.277	1.00
12	12:07	1.00	1.128	1.00	4.00	4.00	1.362	1.362	1.00
13	12:23	1.00	0.853	1.00	4.00	4.00	0.334	0.334	1.00
14	13:24	1.00	0.923	1.00	4.00	4.00	0.147	0.147	1.00
15	13:43	1.00	0.945	1.00	4.00	4.00	0.278	0.278	1.00
16	14:10	1.00	0.976	1.00	4.00	4.00	0.222	0.222	1.00
17	14:35	1.00	1.005	1.00	4.00	4.00	1.131	1.131	1.00
18	16:30	1.00	1.137	1.00	4.00	4.00	0.223	0.223	1.00
19	16:46	1.00	1.155	1.00	4.00	4.00	0.899	0.899	1.00
20	17:03	1.00	1.175	1.00	4.00	4.00	0.401	0.401	1.00
21	17:43	1.00	0.885	1.00	4.00	4.00	0.223	0.223	1.00
22	17:48	1.00	0.889	1.00	4.00	4.00	0.220	0.220	1.00
23	18:00	1.00	0.899	1.00	4.00	4.00	1.120	1.120	1.00
24	18:16	1.00	0.912	1.00	4.00	4.00	1.104	1.104	1.00
25	19:33	1.00	0.976	1.00	4.00	4.00	1.479	1.479	1.00
26	20:08	1.00	1.005	1.00	4.00	4.00	1.077	1.077	1.00
27	20:23	1.00	1.017	1.00	4.00	4.00	0.031	0.031	1.00
28	20:42	1.00	1.033	1.00	4.00	4.00	1.520	1.520	1.00
29	20:43	1.00	1.034	1.00	4.00	4.00	0.047	0.047	1.00
30	21:48	1.00	1.088	1.00	4.00	4.00	1.157	1.157	1.00
31	22:34	1.00	1.127	1.00	4.00	4.00	0.048	0.048	1.00
32	22:05	1.00	0.891	1.00	4.00	4.00	0.060	0.060	1.00
33	24:14	1.00	0.978	1.00	4.00	4.00	0.053	0.053	1.00
34	24:51	1.00	1.003	1.00	4.00	4.00	1.131	1.131	1.00
35	25:01	1.00	1.009	1.00	4.00	4.00	0.999	0.999	1.00
36	25:38	1.00	1.034	1.00	4.00	4.00	0.463	0.463	1.00
37	28:44	1.00	1.159	1.00	4.00	4.00	0.882	0.882	1.00
38	29:22	1.00	0.879	1.00	4.00	4.00	1.312	1.312	1.00
39	29:26	1.00	0.881	1.00	4.00	4.00	1.917	1.917	1.00
40	30:09	1.00	0.902	1.00	4.00	4.00	0.835	0.835	1.00
41	30:33	1.00	0.914	1.00	4.00	4.00	0.400	0.400	1.00
42	33:24	1.00	0.999	1.00	4.00	4.00	1.001	1.001	1.00
43	33:31	1.00	1.003	1.00	4.00	4.00	1.193	1.193	1.00
44	36:42	1.00	0.972	1.00	4.00	4.00	1.137	1.137	1.00
45	36:47	1.00	0.974	1.00	4.00	4.00	1.237	1.237	1.00
46	37:36	1.00	0.996	1.00	4.00	4.00	0.889	0.889	1.00
47	40:40	1.00	1.077	1.00	4.00	4.00	0.720	0.720	1.00
48	40:46	1.00	1.079	1.00	4.00	4.00	0.699	0.699	1.00
49	41:26	1.00	1.097	1.00	4.00	4.00	0.802	0.802	1.00

FILE USED: D:WAN1119.TI
DATE GENERATED: 4/28/91 9:23:24

1	LL	1	0	0	-1289	0	0	0	0	0	0
2	LL	2	0	0	-1741	0	0	0	0	0	0
3	LL	3	0	0	-2403	0	0	0	0	0	0
4	LL	4	0	0	-2973	0	0	0	0	0	0
5	LL	5	0	0	-4011	0	0	0	0	0	0
6	LL	6	0	0	-4532	0	0	0	0	0	0
7	LL	7	0	0	-560	0	0	0	0	0	0
8	LL	8	0	0	-886	0	0	0	0	0	0
9	LL	9	0	0	-1086	0	0	0	0	0	0
10	LL	10	0	0	-1189	0	0	0	0	0	0
11	LL	11	0	0	-1193	0	0	0	0	0	0
12	LL	12	0	0	-1166	0	0	0	0	0	0
13	LL	13	0	0	-1177	0	0	0	0	0	0
14	LL	14	0	0	-1218	0	0	0	0	0	0
15	LL	15	0	0	-1215	0	0	0	0	0	0
16	LL	16	0	0	-1242	0	0	0	0	0	0
17	LL	17	0	0	-1298	0	0	0	0	0	0
18	LL	18	0	0	-1289	0	0	0	0	0	0
19	LL	19	0	0	-1300	0	0	0	0	0	0
20	LL	20	0	0	-1396	0	0	0	0	0	0
21	LL	21	0	0	-1348	0	0	0	0	0	0
22	LL	22	0	0	-1394	0	0	0	0	0	0
23	LL	23	0	0	-1401	0	0	0	0	0	0
24	LL	24	0	0	-1454	0	0	0	0	0	0
25	LL	25	0	0	-1485	0	0	0	0	0	0
26	LL	26	0	0	-1436	0	0	0	0	0	0
27	LL	27	0	0	-1528	0	0	0	0	0	0
28	LL	28	0	0	-1607	0	0	0	0	0	0
29	LL	29	0	0	-1645	0	0	0	0	0	0
30	LL	30	0	0	-1619	0	0	0	0	0	0
31	LL	31	0	0	-1699	0	0	0	0	0	0
32	LL	32	0	0	-1652	0	0	0	0	0	0
33	LL	33	0	0	-1662	0	0	0	0	0	0
34	LL	34	0	0	-1749	0	0	0	0	0	0
35	LL	35	0	0	-1727	0	0	0	0	0	0
36	LL	36	0	0	-1728	0	0	0	0	0	0
37	LL	37	0	0	-1741	0	0	0	0	0	0
38	LL	38	0	0	-1979	0	0	0	0	0	0
39	LL	39	0	0	-2011	0	0	0	0	0	0
40	LL	40	0	0	-2046	0	0	0	0	0	0
41	LL	41	0	0	-2006	0	0	0	0	0	0
42	LL	42	0	0	-2126	0	0	0	0	0	0
43	LL	43	0	0	-2136	0	0	0	0	0	0
44	LL	44	0	0	-2160	0	0	0	0	0	0
45	LL	45	0	0	-2192	0	0	0	0	0	0
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48	LL	48	0	0	-2346	0	0	0	0	0	0
49	LL	49	0	0	-2280	0	0	0	0	0	0
50	LL	50	0	0	-2340	0	0	0	0	0	0
51	LL	51	0	0	-2415	0	0	0	0	0	0
52	LL	52	0	0	-2445	0	0	0	0	0	0
53	LL	53	0	0	-2502	0	0	0	0	0	0
54	LL	54	0	0	-2483	0	0	0	0	0	0
55	LL	55	0	0	-2485	0	0	0	0	0	0
56	LL	56	0	0	-2431	0	0	0	0	0	0
57	LL	57	0	0	-2539	0	0	0	0	0	0
58	LL	58	0	0	-2615	0	0	0	0	0	0
59	LL	59	0	0	-2552	0	0	0	0	0	0
60	LL	60	0	0	-2537	0	0	0	0	0	0
61	LL	61	0	0	-2558	0	0	0	0	0	0

64	LL	64	0	0	-2890	0	0	0	0	0	0
65	LL	65	0	0	-2607	0	0	0	0	0	0
66	LL	66	0	0	-2742	0	0	0	0	0	0
67	LL	67	0	0	-2752	0	0	0	0	0	0
68	LL	68	0	0	-2908	0	0	0	0	0	0
69	LL	69	0	0	-2982	0	0	0	0	0	0
70	LL	70	0	0	-3001	0	0	0	0	0	0
71	LL	71	0	0	-3075	0	0	0	0	0	0
72	LL	72	0	0	-3169	0	0	0	0	0	0
73	LL	73	0	0	-3447	0	0	0	0	0	0
74	LL	74	0	0	-3412	0	0	0	0	0	0
75	LL	75	0	0	-3524	0	0	0	0	0	0
76	LL	76	0	0	-3532	0	0	0	0	0	0
77	LL	77	0	0	-3618	0	0	0	0	0	0
78	LL	78	0	0	-3665	0	0	0	0	0	0
79	LL	79	0	0	-3740	0	0	0	0	0	0
80	LL	80	0	0	-4008	0	0	0	0	0	0
81	LL	81	0	0	-3921	0	0	0	0	0	0
82	LL	82	0	0	-4022	0	0	0	0	0	0
83	LL	83	0	0	-3976	0	0	0	0	0	0
84	LL	84	0	0	-4216	0	0	0	0	0	0
85	LL	85	0	0	-4404	0	0	0	0	0	0
86	LL	86	0	0	-4414	0	0	0	0	0	0
87	LL	87	0	0	-4512	0	0	0	0	0	0
88	LL	88	0	0	-4879	0	0	0	0	0	0
89	LL	89	0	0	-4764	0	0	0	0	0	0
90	LL	90	0	0	-4891	0	0	0	0	0	0
91	LL	91	0	0	-4972	0	0	0	0	0	0

GC/MS Tuning and Mass Calibration

DECAFLUOROTRIPHENYLPHOSPHINE

Case Number:		Laboratory:	MANCHESTER	Contract:	
Inst ID:	5100	Sens Date:	04/26/91	Sens Time:	8:12:00
Lab ID:	WDF1116	Cali Date:		Analyst:	RYA/WDOE

Data release authorized by: _____

M/E	Ion Abundance Criteria	Spec #1660	
51	30 to 60% of mass 198	52.07	
68	less than 2% of mass 69	0.85	(1.51) 1
69	mass 69 relative abundance	56.37	
70	less than 2% of mass 69	0.19	(0.33) 1
127	40 TO 60% of mass 198	47.66	
197	less than 1% of mass 198	0.00	
198	base peak, 100% relative abundance	100.00	
199	5 TO 9% of mass 198	6.45	
275	10 TO 30% of mass 198	17.52	
365	greater than 1% of mass 198	1.41	
441	less than mass 443	5.92	
442	greater than 40% of mass 198	46.44	
443	17 TO 23% of mass 442	8.20	(17.66) 2

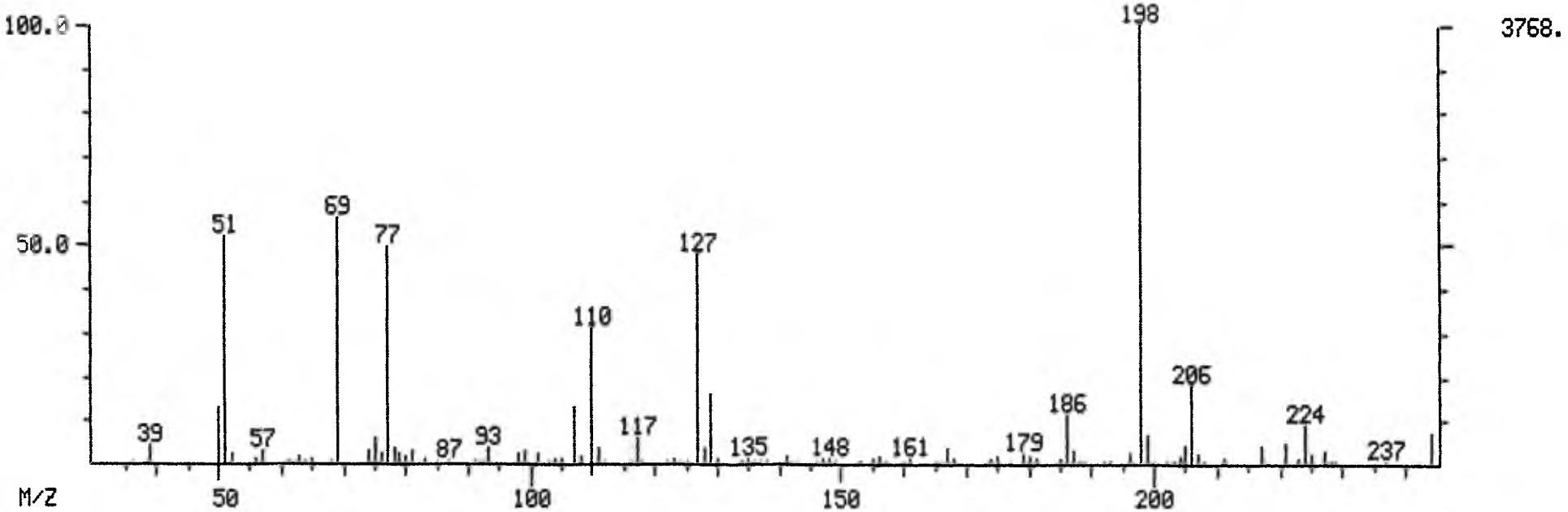
1 - value in parenthesis is % of mass 69
2 - value in parenthesis is % of mass 442

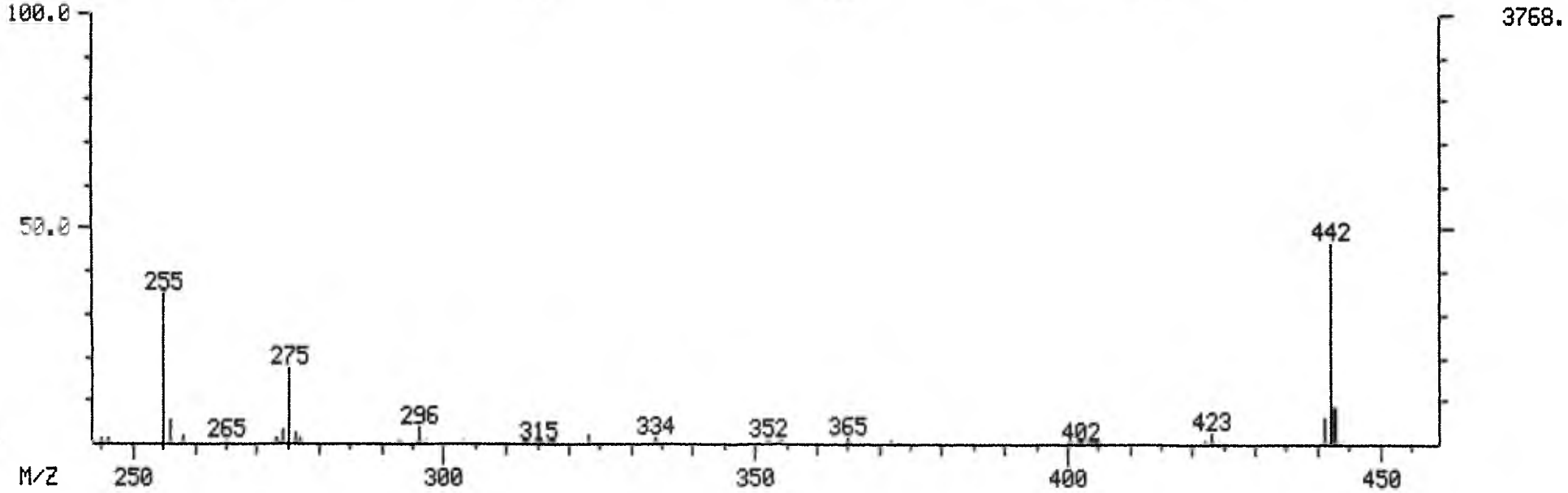
WDOE 4-26-91 Rya

MID MASS SPECTRUM
04/26/91 8:12:00 + 13:33
SAMPLE: WDF1116 DFTPP REF STD 0288B 50NG/2UL INJ
CONDS.: WDOE 35 DEG 2 MIN 50 DEG @ 5 MIN 320 DEG @ 8 DEG/MIN
GC TEMP: 243 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: WDF1116 #1660
CALI: WDF1116 #5

BASE M/Z: 198
RIC: 27520.





MID Mass List Data: WDF1116 #1660 Base m/z: 198
04/26/91 8:12:00 + 13:33 Cali: WDF1116 # 5 RIC: 27520.
Sample: WDF1116 DFTPP REF STD 0288B 50NG/2UL INJ
Conds.: WDOE 35 DEG 2 MIN 50 DEG @ 5 MIN 320 DEG @ 8 DEG/MIN
Enhanced (S 15B 2N OT)

36	0.00	0.00	0.	Minima	Min inten:	24.	
444			# 0	Maxima			
Mass	% RA	% RIC	Inten.	Mass	% RA	% RIC	Inten.
38.00?	0.74	0.10	28.	168.00	1.38	0.19	52.
39.00?	4.03	0.55	152.	174.00	0.90	0.12	34.
50.00?	13.03	1.78	491.	175.00	1.57	0.21	59.
51.00?	52.07	7.13	1962.	177.00	0.64	0.09	24.
52.00?	2.65	0.36	100.	179.00	2.42	0.33	91.
56.00?	1.14	0.16	43.	180.00	1.59	0.22	60.
57.00?	3.24	0.44	122.	181.00	1.04	0.14	39.
63.00?	1.67	0.23	63.	185.00	1.04	0.14	39.
65.00?	1.09	0.15	41.	186.00	11.23	1.54	423.
68.00?	0.85	0.12	32.	187.00	3.13	0.43	118.
69.00	56.37	7.72	2124.	188.00	0.69	0.09	26.
74.00	3.29	0.45	124.	192.00	0.82	0.11	31.
75.00	6.02	0.82	227.	193.00	0.77	0.11	29.
76.00	2.20	0.30	83.	196.00	2.18	0.30	82.
77.00	49.63	6.80	1870.	198.00	100.00	13.69	3768.
78.00	3.85	0.53	145.	199.00	6.45	0.88	243.
79.00	2.12	0.29	80.	204.00	1.94	0.27	73.
80.00	1.86	0.25	70.	205.00	3.95	0.54	149.
81.00	3.05	0.42	115.	206.00	17.86	2.45	673.
82.00	0.80	0.11	30.	207.00	2.55	0.35	96.
83.00	1.09	0.15	41.	211.00	1.01	0.14	38.
93.00	3.66	0.50	138.	217.00	3.90	0.53	147.
98.00	2.23	0.31	84.	221.00	4.80	0.66	181.
99.00	2.79	0.38	105.	223.00	0.90	0.12	34.
101.00	2.10	0.29	79.	224.00	9.26	1.27	349.
103.00	0.64	0.09	24.	225.00	2.10	0.29	79.
104.00	1.25	0.17	47.	227.00	2.95	0.40	111.
105.00	1.14	0.16	43.	229.00	0.82	0.11	31.
107.00	12.95	1.77	488.	244.00	7.11	0.97	268.
108.00	1.73	0.24	65.	245.00	0.93	0.13	35.
110.00	31.37	4.30	1182.	246.00	1.35	0.19	51.
111.00	3.87	0.53	146.	255.00	34.50	4.72	1300.
117.00	6.24	0.85	235.	256.00	5.25	0.72	198.
122.00	0.72	0.10	27.	258.00	1.54	0.21	58.
123.00	1.17	0.16	44.	265.00	0.72	0.10	27.
127.00	47.66	6.53	1796.	273.00	0.90	0.12	34.
128.00	3.82	0.52	144.	274.00	3.11	0.43	117.
129.00	16.14	2.21	608.	275.00	17.52	2.40	660.
130.00	1.09	0.15	41.	276.00	2.26	0.31	85.
135.00	1.19	0.16	45.	277.00	1.09	0.15	41.
137.00	0.74	0.10	28.	296.00	3.58	0.49	135.
141.00	1.86	0.25	70.	323.00	1.51	0.21	57.
142.00	0.72	0.10	27.	334.00	0.90	0.12	34.
147.00	0.93	0.13	35.	365.00	1.41	0.19	53.
148.00	1.43	0.20	54.	372.00	0.72	0.10	27.
155.00	1.06	0.15	40.	423.00	2.36	0.32	89.
156.00	1.62	0.22	61.	441.00	5.92	0.81	223.
161.00	0.90	0.12	34.	442.00	46.44	6.36	1750.
165.00	0.64	0.09	24.	443.00	8.20	1.12	309.
167.00	3.53	0.48	133.	444.00	0.85	0.12	32.

GC/MS Tuning and Mass Calibration

DECAFLUOROTRIPHENYLPHOSPHINE

Case Number:		Laboratory:	MANCHESTER	Contract:	
Inst ID:	5100	Sens Date:	04/29/91	Sens Time:	7:35:00
Lab ID:	WDF1119	Cali Date:		Analyst:	RYA/WDOE

Data release authorized by: _____

M/E	Ion Abundance Criteria	Spec #1671	
51	30 to 60% of mass 198	52.49	
68	less than 2% of mass 69	0.00	(0.00) 1
69	mass 69 relative abundance	56.21	
70	less than 2% of mass 69	0.24	(0.42) 1
127	40 TO 60% of mass 198	48.34	
197	less than 1% of mass 198	0.00	
198	base peak, 100% relative abundance	100.00	
199	5 TO 9% of mass 198	6.67	
275	10 TO 30% of mass 198	17.85	
365	greater than 1% of mass 198	1.43	
441	less than mass 443	6.31	
442	greater than 40% of mass 198	45.73	
443	17 TO 23% of mass 442	8.84	(19.34) 2

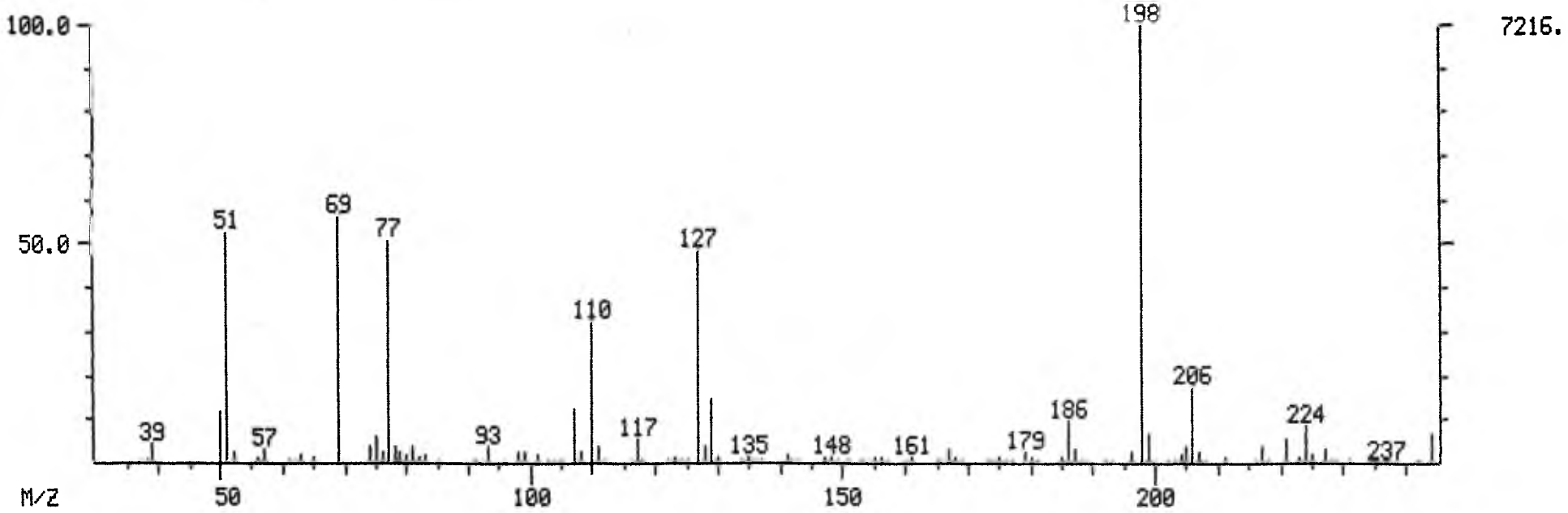
1 - value in parenthesis is % of mass 69
2 - value in parenthesis is % of mass 442

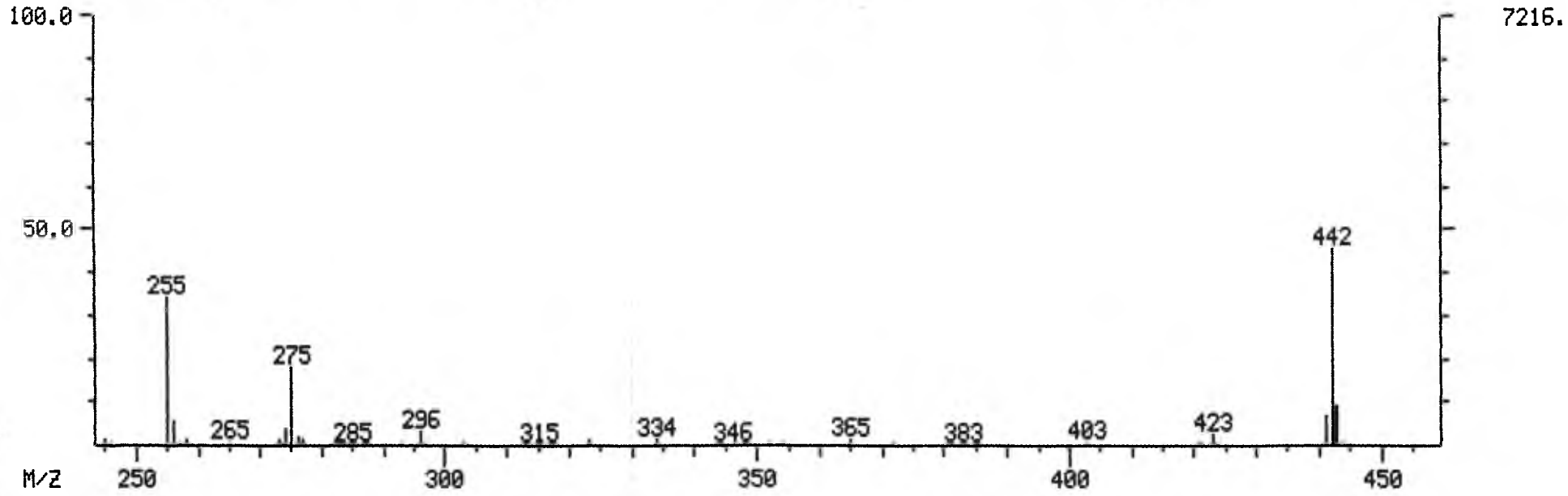
WDOE 4-29-91
RYA

MID MASS SPECTRUM
04/29/91 7:35:00 + 13:39
SAMPLE: WDF1119 DFTPP REF STD 0288B 50NG/2UL INJ
CONDS.: WDOE 35 DEG 2 MIN 50 DEG @ 5 MIN 320 DEG @ 8 DEG/MIN
GC TEMP: 243 DEG. C
ENHANCED (S 15B 2N 0T)

DATA: WDF1119 #1671
CALI: WDF1119 #5

BASE M/Z: 198
RIC: 51648.





MID Mass List Data: WDF1119 #1671 Base m/z: 198
04/29/91 7:35:00 + 13:39 Cali: WDF1119 # 5 RIC: 51648.
Sample: WDF1119 DFTPP REF STD 0288B 50NG/2UL INJ
Conds.: WDOE 35 DEG 2 MIN 50 DEG @ 5 MIN 320 DEG @ 8 DEG/MIN
Enhanced (S 15B 2N OT)

37	0.00	0.00	0.	Minima	Min inten:	41.	
444			# 0	Maxima			
Mass	% RA	% RIC	Inten.	Mass	% RA	% RIC	Inten.
38.00?	0.60	0.08	43.	168.00	1.29	0.18	93.
39.00?	4.17	0.58	301.	174.00	0.69	0.10	50.
50.00?	11.92	1.67	860.	175.00	1.29	0.18	93.
51.00?	52.49	7.33	3788.	177.00	0.72	0.10	52.
52.00?	2.59	0.36	187.	179.00	2.27	0.32	164.
56.00?	1.26	0.18	91.	180.00	1.39	0.19	100.
57.00?	2.97	0.41	214.	181.00	0.76	0.11	55.
63.00?	1.76	0.25	127.	185.00	1.07	0.15	77.
65.00?	1.12	0.16	81.	186.00	9.83	1.37	709.
69.00	56.21	7.85	4056.	187.00	2.97	0.41	214.
74.00	3.40	0.47	245.	192.00	0.61	0.09	44.
75.00	6.25	0.87	451.	193.00	0.75	0.10	54.
76.00	2.23	0.31	161.	196.00	2.41	0.34	174.
77.00	51.00	7.13	3680.	198.00	100.00	13.97	7216.
78.00	3.44	0.48	248.	199.00	6.67	0.93	481.
79.00	2.47	0.34	178.	204.00	2.06	0.29	149.
80.00	1.90	0.27	137.	205.00	3.51	0.49	253.
81.00	3.30	0.46	238.	206.00	17.32	2.42	1250.
82.00	1.00	0.14	72.	207.00	2.15	0.30	155.
83.00	1.54	0.21	111.	211.00	1.18	0.16	85.
85.00	0.73	0.10	53.	217.00	3.66	0.51	264.
91.00	0.78	0.11	56.	221.00	5.52	0.77	398.
92.00	0.62	0.09	45.	223.00	0.91	0.13	66.
93.00	3.37	0.47	243.	224.00	8.23	1.15	594.
98.00	2.52	0.35	182.	225.00	2.04	0.28	147.
99.00	2.55	0.36	184.	227.00	2.81	0.39	203.
101.00	1.68	0.23	121.	229.00	0.73	0.10	53.
104.00	0.85	0.12	61.	244.00	6.55	0.92	473.
105.00	0.75	0.10	54.	245.00	1.05	0.15	76.
107.00	12.62	1.76	911.	246.00	0.87	0.12	63.
108.00	2.19	0.31	158.	255.00	34.42	4.81	2484.
110.00	32.48	4.54	2344.	256.00	5.24	0.73	378.
111.00	3.85	0.54	278.	258.00	1.43	0.20	103.
117.00	5.28	0.74	381.	273.00	1.03	0.14	74.
122.00	0.61	0.09	44.	274.00	3.33	0.46	240.
123.00	1.04	0.15	75.	275.00	17.85	2.49	1288.
127.00	48.34	6.75	3488.	276.00	2.06	0.29	149.
128.00	3.60	0.50	260.	277.00	0.98	0.14	71.
129.00	15.24	2.13	1100.	296.00	3.02	0.42	218.
130.00	1.37	0.19	99.	303.00	0.57	0.08	41.
135.00	1.22	0.17	88.	323.00	1.46	0.20	105.
137.00	0.61	0.09	44.	334.00	0.96	0.13	69.
141.00	1.59	0.22	115.	365.00	1.43	0.20	103.
142.00	0.65	0.09	47.	372.00	0.78	0.11	56.
147.00	1.05	0.15	76.	423.00	2.63	0.37	190.
148.00	1.33	0.19	96.	441.00	6.31	0.88	455.
155.00	1.01	0.14	73.	442.00	45.73	6.39	3300.
156.00	1.50	0.21	108.	443.00	8.84	1.24	638.
161.00	1.00	0.14	72.	444.00	0.65	0.09	47.
167.00	3.15	0.44	227.				

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

CASE NO HWD-127A | LABORATORY MANCHESTER LAB | CONTRACT AGDD3A
SAS NO 1011 | REPORTED 05/01/91 16:28 | CUSTOMER BAILEY

FILE NAME W130152 | SAMPLE ID W9113 0152 | LEVEL LOW
SPIKE W130152Y | LAB SAMP ID SAMPLE | MATRIX WATER
DUP SPIKE W130152Z | ANALYZED 04/29/91 09:46 | UNITS ug/L

COMPOUND	TYPES	CONC SAMPLE	CONC SPIKED	CONC MS	% REC	CONC MSD	% REC	RPD
Phenol	A	0.16	5.00	1.22	~~21~~ 24	1.16	~~20~~ 23	~~8~~ 4
2-Chlorophenol	A		5.00	3.86	77	3.78	76	2
2-Methylphenol	A		5.00	3.24	65	2.86	57	12
4-Methylphenol	A	0.00	5.00	2.46	49	1.92	38	25
2-Nitrophenol	A		5.00	4.56	91	4.74	95	-4
2,4-Dimethylphenol	A		5.00	2.48	50	2.05	41	19
2,4-Dichlorophenol	A		5.00	3.71	74	3.81	76	-3
Naphthalene	B	0.02	5.00	3.39	~~67~~ 68	4.12	82	~~-20~~ -19
4-Chloro-3-methylphenol	A		5.00	3.64	73	3.90	78	-7
2-Methylnaphthalene	B	0.01	5.00	1.92	38	2.51	50	-27
1-Methylnaphthalene	B		5.00	0.11	~~2~~ NAR	0.15	~~3~~ NAR	-31
2,4,6-Trichlorophenol	A		5.00	3.59	72	3.82	76	-6
2,4,5-Trichlorophenol	A		5.00	4.52	90	4.52	90	0
2-Chloronaphthalene	B		5.00	2.47	49	3.21	64	-26
Acenaphthylene	B		5.00	3.53	71	4.17	83	-17
Acenaphthene	B	0.00	5.00	3.54	71	4.22	84	-18
2,4-Dinitrophenol	A		5.00	4.91	98	4.70	94	4
4-Nitrophenol	A		5.00	1.30	26	0.98	20	28
Dibenzofuran	B	0.00	5.00	3.25	65	3.90	78	-18
Fluorene	B		5.00	3.95	79	4.41	88	-11
4,6-Dinitro-2-methylphenol	A		5.00	3.71	74	4.16	83	-11
Pentachlorophenol	A	0.08	5.00	5.31	~~105~~ 110	5.37	~~106~~ 110	~~-1~~ 0
Phenanthrene	B	0.02	5.00	3.98	~~79~~ 80	4.12	82	~~-3~~ -2
Anthracene	B		5.00	3.43	69	3.01	60	13
9h-Carbazole	B	0.06	5.00		NAR		NAR	
Fluoranthene	B	0.03	5.00	4.22	84	4.13	~~82~~ 83	~~2~~ 1
Pyrene	B	0.05	5.00	4.21	~~83~~ 84	4.18	~~83~~ 84	~~1~~ 0
Retene	B		5.00		NAR		NAR	
Benzo(a)anthracene	B	0.05	5.00	4.11	~~81~~ 82	3.90	~~77~~ 78	5
Chrysene	B	0.02	5.00	4.21	84	3.88	~~77~~ 78	~~8~~ 7
Benzo(b)fluoranthene	B	0.12	5.00	3.78	~~73~~ 75	3.33	~~64~~ 66	13
Benzo(k)fluoranthene	B	0.11	5.00	3.86	~~75~~ 77	3.44	~~67~~ 69	~~12~~ 11
Benzo(a)pyrene	B	0.09	5.00	3.78	~~74~~ 75	2.88	~~56~~ 57	~~28~~ 27
Indeno(1,2,3-cd)pyrene	B		5.00	3.60	72	3.17	63	13
Dibenz(a,h)anthracene	B		5.00	3.06	61	2.77	55	10
Benzo(g,h,i)perylene	B		5.00	3.42	68	2.88	58	17

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

CASE NO	HWD-127A	LABORATORY	MANCHESTER LAB	CONTRACT	AGDD3A
SAS NO	1011	REPORTED	05/01/91 16:28	CUSTOMER	BAILEY

Notes and summary data for this report.
% REC = (MS - SAMPLE) / SPIKE * 100
RPD = (MS - MSD) / ((MS + MSD) / 2) * 100
Underlined values are outside of QC limits.

Recovery: Base/Neutrals outside QC limits: 0 of 22
Acids outside QC limits - - - -: 0 of 14

RPD: Base/Neutrals outside QC limits: 0 of 22
Acids outside QC limits - - - -: 0 of 14
The above limits are for internal use only and are not method QC limits.