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158277

ecology and environment, inc.
ANALYTICAL SERVICES CENTER, P.O. BOX D, BUFFALO, NEW YORK 14225, TEL. 716-631-0360
International Specialists in the Environment

eptember 11, 1987

& E Job # U-5920

Sample #	DC-GW-34A	DC-GW-41A
	DC-GW-38A	DC-GW-43A
	DC-GW-39A	DC-GW-57
	DC-GW-40A	

CASE NARRATIVE

nclosed are the organic analytical results for samples received on July 5,1987 at the Analytical Services Center. All samples were received in good ondition.

ompounds are reported as UNKNOWN if, in the judgment of our mass spectral pecialist, no valid tentative identification can be made.

ne "E" flag indicates an approximate concentration. The amount detected in ne analysis exceeds the calibrated range.

ample DC-GW-43A was not re-extracted for semi-volatiles because of low urrogate recoveries as hold time had expired.

ne percent difference for the phenol response factor exceeds 25% in the 8/7/87 ontinuing calibration check. As no phenol was detected in the sample ssociated with this standard, data quality has not been affected.

f you have any questions, please contact me at (716) 631-0360.

ld. w F. Clifton, Director
nalytical Services Center

ecology and environment, inc.
195 SUGG ROAD, P.O. BOX D, BUFFALO, N.Y., 14225, TEL. 716-632-4491
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: 14340
Project Name: SAND CREEK / SAUGET SITES
Project Manager: MIKE MILLER
Samplers: (Signature) [signature]
Field Team Leader: ANN SEWALL

	STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE TYPE AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	HSL ORGANICS - 8005	VOA/HSL ORGANICS - 4021	METALS - 1 LITER PLASTIC	CYANIDE - 1 LITER PLASTIC			REMARKS
6740	X-GW-439	7-14-87	1030		X		UNKNOWN	SITE O - WELL RA-25	6	2	2	1	1			
6741	X-GW-57	7-14-87	1300		X		UNKNOWN	BLANK	6	2	2	1	1			
6735	X-GW-31A	7-14-87	1615		X		UNKNOWN	SITE O - WELL RA-102	6	2	2	1	1			
6736	X-GW-38A	7-14-87	0945		X		UNKNOWN	SITE O WELL RA-21	2			1	1			
6737	X-GW-39A	7-14-87	1050		X		UNKNOWN - STRONG ODOR	SITE O WELL RA-22	2			1	1			

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Ship Via:
[signature]	7-14-87 / 1500	FEDERAL EXPRESS				FEDERAL EXPRESS
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	BL/Airbill Number: 2255199184 — Date: 7/14/87
Relinquished By: (Signature) [signature]	Date/Time: 7-15-87 9:00	Received For Laboratory By: (Signature) [signature]	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	

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*See CONCENTRATION RANGE on back of form.

234058

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195 SUGG ROAD, P.O. BOX D, BUFFALO, N.Y., 14226, TEL. 716-632-4491
International Specialists in the Environment

CHAIN-OF-CUSTODY RECORD

Project No.: IL 3140
Project Name: LEAD CREEK / SAUGET SITES
Project Manager: MIKE MILLER
Samplers: (Signatures) [signature]
Field Team Leader: ~~[illegible]~~ DAN SEWALL

	STATION NUMBER	DATE	TIME	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE TYPE AIR	SAMPLE INFORMATION / EXPECTED COMPOUNDS (Concentration)*	STATION LOCATION	NUMBER OF CONTAINERS	Vol. Organics - 80 oz.	Volatile Organics - 40 ml	Metals - 1 Litre Plastic	Cyanide - 1 Litre Plastic			REMARKS
6736	CGU-38A	7-14-87	0945		X		UNKNOWN	SITE O - WELL RE-21	4	2	2					
6737	CGU-39A	7-14-87	1050		X		UNKNOWN - STRONG ODOR - HIGH OIL CONTENT	SITE O - WELL RE-22	4	2	2					
6738	CGU-40A	7-14-87	1000		X		UNKNOWN	SITE O - WELL RE-23	6	2	2	1	1			
6739	CGU-41A	7-14-87	1145		X		UNKNOWN	SITE O - WELL RE-24	6	2	2	1	1			

Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)
[signature]	7-14-87 / 1800	FEDERAL EXPRESS			
Relinquished By: (Signature)	Date/Time:	Received By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received By: (Signature)
Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)	Relinquished By: (Signature)	Date/Time:	Received For Laboratory By: (Signature)
FEDERAL EXPRESS	7-15-87 9:00	[signature]			

Ship Via: FEDERAL EXPRESS
BL/Airbill Number: 2285199184
Date: 7/14/87

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files
*See CONCENTRATION RANGE on back of form.

234065

SURROGATE PERCENT RECOVERY SUMMARY

WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. U-5920 Contract Laboratory Ecology & Environment Inc. Contract No. IL-3140

	VOLATILE			SEMI-VOLATILE								PESTICIDE
SMO TRAFFIC NO. DC –	TOLUENE-D8 (88-110)	BFB (86-115)	1,2 DICHLORO-ETHANE-D4 (76-114)	NITRO-BENZENE-D5 (35-114)	2-FLUORO-BIPHENYL (43-116)	TERPHENYL-D14 (33-141)			PHENOL-D5 (10-94)	2-FLUORO-PHENOL (21-100)	2,4,6 TRIBROMO-PHENOL (10-123)	** DIBUTYL-CHLORENDATE (24-154)
GW-34A	100	99	100	46	44	54			26	44	47	96
GW-38A	100	98	99	47	52	132			2*	6*	35	104
GW-39A	93	93	97	DL	DL	DL			DL	DL	DL	DL
GW-40A	101	97	98	44	55	115			14	27	46	97
GW-41A	98	96	99	57	56	79			27	44	44	98
GW-43A	91	92	92	25*	48	108			0*	0*	0*	115
GW-57	97	97	94	51	59	164*			24	39	30	88
GW-34A MS	102	97	92	77	66	74			32	28	32	NR
GW-34A MSD	93	95	95	81	71	65			30	44	102	NR
D3082	104	104	102	NR	←						→	NR
D3101	97	97	98	NR	←						→	NR
B4149	NR	NR	NR	60	59	111			26	31	54	NR
E0226	NR	←			→	NR			28	35	54	NR
GW-43AMS	NR	←								→	NR	96
GW-43AMSD	NR	←								→	NR	81

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

**ADVISORY LIMITS ONLY

Volatiles: 0 out of 33 ; outside of QC limits

Semi-Volatiles: 7 out of 57 ; outside of QC limits

Pesticides: 0 out of 8 ; outside of QC limits

Comments: DL = Diluted Out

GW-43A – Sample not re-extracted because of low surrogate recoveries due to lab error. (discovered too far beyond hold times for reextraction).

NR = Not Required

FORM II

7/85

MS/MSD SUMMARY

WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. U-5920 Contractor Ecology & Environment Inc. Contract No. II-3140

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. GW-34A	1,1-Dichloroethene	50	0	39	78	39	78	0	14	61-145
	Trichloroethene		0	54	108	53	106	2	14	71-120
	Chlorobenzene		36	86	100	86	100	0	13	75-130
	Toluene		0	53	106	52	104	2	13	76-125
	Benzene		0	48	96	48	96	0	11	76-127
B/N SMO SAMPLE NO. GW-34A	1,2,4-Trichlorobenzene	100	0	49	49	50	50	2	28	39-98
	Acenaphthene			76	76	72	72	5	31	46-118
	2,4 Dinitrotoluene			44	44	74	74	51 *	38	24-96
	Pyrene			119	119	70	70	52 *	31	26-127
	N-Nitroso-Di-n-Propylamine			73	73	77	77	5	38	41-116
	1,4-Dichlorobenzene			55	55	48	48	14	28	36-97
ACID SMO SAMPLE NO. GW-34A	Pentachlorophenol	200		44	22	119	60	92 *	50	9-103
	Phenol			59	30	61	30	3	42	12-89
	2-Chlorophenol			127	64	135	68	6	40	27-123
	4-Chloro-3-Methylphenol			121	60	160	80	28	42	23-97
	4-Nitrophenol			0	0 *	79	40	*	50	10-80
PEST SMO SAMPLE NO. GW-43A	Lindane	0.20	0	0.20	100	0.17	85	16 *	15	56-123
	Heptachlor	0.20	0	0.19	95	0.16	80	17	20	40-131
	Aldrin	0.20	0	0.21	105	0.17	85	21	22	40-120
	Dieldrin	0.50	0	0.45	90	0.36	72	22 *	18	52-126
	Endrin	0.50	0	0.49	98	0.41	82	18	21	56-121
	4,4'-DDT	0.50	0	0.48	96	0.38	76	23	27	38-127

* ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5; outside QC limits
B/N 2 out of 6; outside QC limits
ACID 2 out of 5; outside QC limits
PEST 2 out of 6; outside QC limits

RECOVERY: VOAs 0 out of 10; outside QC limits
B/N 0 out of 12; outside QC limits
ACID 1 out of 10; outside QC limits
PEST 0 out of 12; outside QC limits

Comments:

8

FORM III

7/85
494095

STANDARDS DATA

INITIAL CALIBRATION DATA

Initial Calibration Data
HSL Compounds

ase No: 4-5920 Instrument ID: HP-5970B

on' 'or: E & E, INC. Calibration Date: 07/30/86

ontract No: II-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:		>B2318	>B2317	>B2320	>B2321	>B2322				
		RF	RF	RF	RF	RF				
Compound		20.00	50.00	80.00	120.00	160.00	$\overline{RF}$	% RSD	CCC	SPCC
NILINE	93	1.53020	1.25644	1.62634	1.62245	1.58163	1.52341	10.122		
IS(-2-CHLOROETHYL)ETHER	93	1.34445	1.22081	1.26618	1.07095	1.29722	1.23992	8.441		
1,3-DICHLOROBENZENE	146	1.46014	1.37957	1.42964	1.30860	1.33586	1.38276	4.559		
1,4-DICHLOROBENZENE	146	1.66736	1.29358	1.43871	1.25577	1.18343	1.36777	14.007	*	
BENZYL ALCOHOL	79	.98994	1.18557	1.00496	1.07361	1.14382	1.07958	7.887		
1,2-DICHLOROBENZENE	146	1.61074	1.48247	1.44441	1.30085	1.30196	1.42808	9.176		
BIS(2-CHLOROISOPROPYL)ETHER	45	3.10167	2.81979	3.04493	2.94413	2.94039	2.97018	3.652		
N-NITROSO-DI-N-PROPYLAMINE	70	1.28828	1.23766	1.29486	1.34328	1.29730	1.29228	2.904		**
EXACHLOROETHANE	117	.79392	.72848	.72662	.65702	.63961	.70913	8.755		
ITROBENZENE-D5 (SURR)	82	.38965	.37305	.41865	.42325	.40762	.40084	4.898		
ITROBENZENE	77	.42892	.38234	.41415	.43943	.43255	.41948	5.417		
SOPHORONE	82	.84007	.76477	.79107	.82839	.82546	.80995	3.848		
IS(-2-CHLOROETHOXY)METHANE	93	.46623	.44982	.45355	.46561	.44362	.45577	2.178		
,2,4-TRICHLOROBENZENE	180	.39238	.38210	.37397	.37375	.37036	.37851	2.345		
APHTHALENE	128	1.10454	.97856	1.02942	.88370	.92738	.98472	8.778		
-CHLOROANILINE	127	.38955	.37023	.40760	.39766	.40786	.39458	3.953		
EXACHLOROBUTADIENE	225	.28342	.26841	.25835	.24760	.23237	.25803	7.555	*	
-METHYLNAPHTHALENE	142	.70829	.65392	.61126	.58244	.56184	.62355	9.404		
EXACHLOROCYCLOPENTADIENE	237	.42682	.38196	.48139	.49313	.48657	.45397	10.605		**
-FLUOROBIPHENYL (SURR)	172	1.43778	1.49608	1.31182	1.22836	1.17905	1.33061	10.128		
-CHLORONAPHTHALENE	162	1.26208	1.35393	1.18900	1.10195	1.13384	1.20816	8.413		
-NITROANILINE	65	.39563	.49064	.43475	.41930	.45448	.43896	8.209		
IMETHYL PHTHALATE	163	1.53551	1.62787	1.36166	1.32005	1.34038	1.43709	9.517		
-NITROANILINE	138	.22174	.31144	.26162	.25592	.24885	.25992	12.546		
IBENZOFURAN	168	1.77467	1.85500	1.58680	1.39667	1.46174	1.61498	12.191		
CENAPHTHYLENE	152	1.97143	2.08657	1.83063	1.60600	1.52393	1.80371	13.185		
LUORENE	166	1.35721	1.41769	1.10410	1.09087	1.00139	1.19425	15.240		
-NITROANILINE	138	.13030	.18696	.13633	.16461	.15450	.15454	14.725		
CENAPHTHENE	153	1.32952	1.38687	1.10696	1.08827	1.02367	1.18706	13.524	*	
,4-DINITROTOLUENE	165	.35218	.43871	.35920	.36773	.39158	.38188	9.185		
,6-DINITROTOLUENE	165	.33892	.38691	.34388	.34507	.33955	.35087	5.793		
IETHYLPHTHALATE	149	1.54518	1.59131	1.28601	1.21661	1.31157	1.39014	12.017		
-CHLOROPHENYL-PHENYLETHER	204	.69494	.72268	.58641	.55946	.56319	.62534	12.397		
-NITROSODIPHENYLAMINE	169	.46709	.47088	.43295	.40737	.34790	.42524	11.873	*	
-BROMOPHENYL-PHENYL ETHER	248	.26935	.26406	.28047	.26087	.25818	.26659	3.303		
EXACHLOROBENZENE	284	.36253	.33008	.33921	.34540	.32747	.34094	4.119		

F - Response Factor (Subscript is amount in UG/L)

$\overline{F}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

CC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

:ase No: U-5920 Instrument ID: HP-5970B

:on tor: E & E, INC. Calibration Date: 07/30/86

:ontract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:		>B2318	>B2317	>B2320	>B2321	>B2322				
Compound		RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
'HENANTHRENE	178	1.04931	1.01512	.98050	.95298	.88999	.97758	6.231		
ANTHRACENE	178	1.12091	1.02625	1.04493	.93788	.90233	1.00646	8.678		
DI-N-BUTYLPHTHALATE	149	1.27178	1.10891	1.06851	1.11508	1.07179	1.12721	7.409		
FLUORANTHENE	202	.93206	.85951	.80155	.77543	.70727	.81517	10.452	*	
BENZIDINE		-	-	-	-	-	-	-		
PYRENE	202	1.67420	1.68596	1.76714	1.46297	1.41935	1.60192	9.479		
TERPHENYL-D14 (SURR)	244	1.14639	1.09283	1.18955	1.06562	1.05822	1.11052	5.053		
BUTYLBENZYLPHTHALATE	149	.65885	.67321	.68349	.67508	.67739	.67361	1.353		
',3'DICHLOROBENZIDINE	252	.27363	.29497	.31038	.35282	.36231	.31882	11.871		
BENZO(A)ANTHRACENE	228	1.11295	1.16545	1.14131	1.09826	1.08387	1.12037	2.943		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.89359	.90143	.88579	.90223	.92113	.90083	1.461		
CHRYSENE	228	1.21768	1.19377	1.18843	.98625	1.04715	1.12666	9.164		
DI-N-OCTYL PHTHALATE	149	1.66258	1.75298	1.71967	1.71622	1.68266	1.70682	2.056	*	
BENZO(B)FLUORANTHENE	252	1.07961	1.23626	1.14532	1.32040	1.29211	1.21474	8.303		
BENZO(K)FLUORANTHENE	252	1.41040	1.33474	1.35790	1.08149	1.00129	1.23716	14.793		
BENZO(A)PYRENE	252	1.10805	1.15079	1.13626	1.11791	1.09145	1.12089	2.078	*	
INDENO(1,2,3-CD)PYRENE	276	.91958	1.10814	1.04174	1.09403	1.04427	1.04154	7.135		
DIBENZ(A,H)ANTHRACENE	278	.98398	1.11071	1.10486	1.07317	1.06502	1.06755	4.748		
BENZO(G,H,I)PERYLENE	276	1.10921	1.20556	1.17094	1.16451	1.14309	1.15866	3.073		

RF - Response Factor (Subscript is amount in UG/L)

$\overline{RF}$ - Average Response Factor

%RSD - Percent Relative Standard Deviation

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Initial Calibration Data
HSL Compounds

ase No: U-5920 Instrument ID: HP-5970B

on' 'or: E & E, INC. Calibration Date: ~~07/31/86~~ 7/30/86

ontract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Compound		Laboratory ID: >B2323 RF 20.00	>B2324 RF 50.00	>B2325 RF 80.00	>B2326 RF 120.00	>B2327 RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
HENOL-D5 (SURR)	99	1.33554	1.32424	1.47714	1.37903	1.37876	1.37894	4.369		
ENTAFLUOROPHENOL	184	-	-	-	-	-	-	-		
2-FLUOROPHENOL (SURR)	112	.86601	.96224	.81732	.89616	.80413	.86917	7.349		
PHENOL	94	1.21969	1.30210	1.34366	1.27248	1.24820	1.27723	3.756	*	
2-METHYL PHENOL	108	.95956	1.15622	1.11972	1.02900	1.04621	1.06214	7.299		
2-CHLOROPHENOL	128	1.03433	1.21901	1.21545	1.19049	1.20231	1.17232	6.650		
4-METHYL PHENOL	108	.99078	1.16029	1.06554	1.03758	1.09053	1.06894	5.901		
2-NITROPHENOL	139	.16395	.20209	.20713	.20379	.18968	.19333	9.154	*	
,4-DIMETHYLPHENOL	122	.24782	.29464	.30384	.29645	.25225	.27900	9.574		
ENZOIC ACID	105	-	.22663	.22609	.24641	.25765	.23920	6.486		
,4-DICHLOROPHENOL	162	.27062	.28484	.33611	.32608	.29302	.30213	9.219	*	
-CHLORO-3-METHYLPHENOL	107	.29131	.34908	.34637	.34264	.32554	.33099	7.251	*	
,4,6-TRICHLOROPHENOL	196	.39345	.50875	.46278	.44935	.41174	.44521	10.146	*	
,4,5-TRICHLOROPHENOL	196	.42313	.61321	.54332	.51580	.50391	.51987	13.220		
,4,6-TRIBROMOPHENOL(SURR)	330	.29141	.38528	.33464	.31533	.31443	.32822	10.781		
,4-DINITROPHENOL	184	-	.16377	.13943	.16124	.18313	.16189	11.045		**
-NITROPHENOL	139	-	.19015	.15858	.14172	.15885	.16233	12.448		**
,6-DINITRO-2-METHYLPHENOL	198	-	.13952	.13065	.14342	.15487	.14211	7.067		
ENTACHLOROPHENOL	266	-	.17560	.16016	.16451	.18549	.17144	6.650	*	

F - Response Factor (Subscript is amount in UG/L)

$\overline{F}$ - Average Response Factor

RSD - Percent Relative Standard Deviation

CC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

CALE 5

Initial Calibration Data
HSL Compounds

se N · 4-5920 Instrument ID: HP-5970E

ntractor: E & E, INC. Calibration Date: 07/16/87

ntract No: II-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Compound		Laboratory ID: >E0029 RF 20.00	>E0030 RF 50.00	>E0031 RF 80.00	>E0032 RF 120.00	>E0033 RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
ILINE	93	1.31091	1.64253	1.67534	1.81087	1.85405	1.65874	12.888		
BIS(-2-CHLOROETHYL)ETHER	93	1.08100	1.20192	1.15948	1.17902	1.15830	1.15594	3.936		
1,3-DICHLOROBENZENE	146	1.50595	1.45382	1.38607	1.43687	1.37870	1.43228	3.648		
1,4-DICHLOROBENZENE	146	1.63135	1.49352	1.32278	1.51413	1.40782	1.47392	7.883	*	
BENZYL ALCOHOL	79	.82596	1.05282	1.13361	1.23861	1.21418	1.09304	15.203		
1,2-DICHLOROBENZENE	146	1.62068	1.50545	1.46232	1.51995	1.35242	1.49216	6.522		
S(2-CHLOROISOPROPYL)ETHER	45	2.55368	2.67676	2.60970	2.86499	2.86884	2.71479	5.361		
NITROSO-DI-N-PROPYLAMINE	70	1.08899	1.25471	1.17200	1.40507	1.30949	1.24605	9.791		**
XACHLOROETHANE	117	.81416	.78702	.76193	.76640	.75077	.77606	3.225		
TROBENZENE-D5 (SURR)	82	.34348	.43300	.42964	.44613	.41658	.41377	9.830		
TROBENZENE	77	.43534	.44133	.44380	.43562	.45446	.44211	1.767		
OPHORONE	82	.86254	.78647	.76700	.82438	.85991	.82006	5.229		
S(-2-CHLOROETHOXY)METHANE	93	.54215	.51325	.49357	.57298	.54314	.53302	5.729		
2,4-TRICHLOROBENZENE	180	.44579	.41906	.41408	.42191	.43606	.42738	3.074		
PHTHALENE	128	1.04493	.99143	1.03226	1.09292	.99004	1.03032	4.138		
CHLOROANILINE	127	.43503	.49186	.51783	.53545	.54854	.50574	8.872		
XACHLOROBUTADIENE	225	.33263	.30479	.29359	.29612	.29630	.30469	5.312	*	
METHYLNAPHTHALENE	142	.67323	.67663	.66018	.67819	.69815	.67728	2.016		
XACHLOROCYCLOPENTADIENE	237	.45567	.42334	.46404	.48117	.46174	.45719	4.628		**
FLUOROBIPHENYL (SURR)	172	1.12263	1.25547	1.17385	1.22784	1.02070	1.16010	8.030		
CHLORONAPHTHALENE	162	1.25876	1.18713	1.12466	1.09227	1.07597	1.14776	6.554		
NITROANILINE	65	.35411	.42357	.42571	.47728	.48416	.43297	12.081		
METHYL PHTHALATE	163	1.38385	1.40370	1.34228	1.41382	1.34096	1.37692	2.468		
NITROANILINE	138	.23591	.29188	.30244	.34343	.34877	.30449	14.999		
BENZOFURAN	168	1.59966	1.59028	1.62149	1.70620	1.49363	1.60225	4.745		
ENAPHTHYLENE	152	1.75866	1.72378	1.69806	1.67254	1.67796	1.70620	2.084		
UORENE	166	1.23805	1.15909	1.14048	1.17405	1.06959	1.15625	5.256		
NITROANILINE	138	.12918	.22822	.22314	.24990	.27058	.22021	24.641		
ENAPHTHENE	153	1.10765	1.11587	1.12787	1.05117	1.05368	1.09125	3.315	*	
4-DINITROTOLUENE	165	.31161	.36819	.33623	.37079	.35158	.34768	7.049		
6-DINITROTOLUENE	165	.28965	.34532	.30918	.35478	.33192	.32617	8.171		
ETHYLPHTHALATE	149	1.39835	1.48223	1.37398	1.46876	1.34165	1.41300	4.295		
CHLOROPHENYL-PHENYLETHER	204	.64262	.62868	.61796	.60286	.57309	.61304	4.349		
NITROSODIPHENYLAMINE	169	.46721	.41459	.41240	.39929	.38894	.41648	7.251	*	
BROMOPHENYL-PHENYL ETHER	248	.28032	.25886	.26727	.27480	.25242	.26674	4.262		
XACHLOROBENZENE	284	.36616	.33803	.34576	.35474	.31975	.34489	5.082		

- Response Factor (Subscript is amount in UG/L)

- Average Response Factor

SD - Percent Relative Standard Deviation

Initial Calibration Data
HSL Compounds

e N- 4-5920 Instrument ID: HP-5970E

tractor: E & E, INC. Calibration Date: 07/16/87

tract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:		>E0029	>E0030	>E0031	>E0032	>E0033				
		RF	RF	RF	RF	RF				
Compound		20.00	50.00	80.00	120.00	160.00	$\overline{RF}$	% RSD	CCC	SPCC
.NANTHRENE	178	.97707	.89737	.94311	1.01518	.91205	.94896	5.063		
NTHRACENE	178	.97333	.90452	.99353	.98228	.93519	.95777	3.860		
I-N-BUTYL PHTHALATE	149	1.19094	1.16482	1.11146	1.28322	1.20783	1.19165	5.274		
LUORANTHENE	202	.88701	.85095	.89279	.93770	.88750	.89119	3.466	*	
ENZIDINE		.60603	-	-	-	-	.60603	-		
YRENE	202	1.84601	1.69251	2.00046	1.88440	1.68736	1.82215	7.323		
PHENYL-D14 (SURR)	244	.94067	.99709	1.10732	1.09126	.92006	1.01128	8.438		
YLBENZYLPHTHALATE	149	.58502	.61994	.66116	.70421	.67732	.64953	7.276		
'DICHLOROBENZIDINE	252	.20220	.25713	.28126	.33003	.33739	.28160	19.740		
ZO(A)ANTHRACENE	228	.97148	.93635	1.04030	1.08506	1.05466	1.01757	6.052		
(2-ETHYLHEXYL)PHTHALATE	149	.59871	.67507	.75418	.85196	.85472	.74693	14.944		
YSENE	228	.93075	.90302	1.00718	1.03220	.94849	.96433	5.579		
N-OCTYL PHTHALATE	149	1.65141	1.80285	1.84527	2.11385	1.97338	1.87735	9.332	*	
ZO(B)FLUORANTHENE	252	1.21540	1.26409	1.33150	1.40416	1.13302	1.26963	8.219		
ZO(K)FLUORANTHENE	252	1.58749	1.35280	1.39645	1.43769	1.49038	1.45296	6.247		
ZO(A)PYRENE	252	1.09771	1.13677	1.21278	1.28607	1.17238	1.18114	6.137	*	
ENO(1,2,3-CD)PYRENE	276	.86630	1.01331	1.07948	1.19553	1.17917	1.06676	12.614		
ENZ(A,H)ANTHRACENE	278	.80493	.94974	.99804	1.11639	1.06103	.98603	12.093		
ZO(G,H,I)PERYLENE	276	.95633	1.03836	1.09090	1.24093	1.18268	1.10184	10.268		

- Response Factor (Subscript is amount in UG/L)

- Average Response Factor

SD - Percent Relative Standard Deviation

CALE 6

Initial Calibration Data
HSL Compounds

e No: U-5930 Instrument ID: HP-5970E

tractor: E & E, INC. Calibration Date: 07/17/87

tract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .05 Maximum % RSD for CCC is 30%

Laboratory ID:	>E0036	>E0037	>E0038	>E0039	>E0040				
Compound	RF 20.00	RF 50.00	RF 80.00	RF 120.00	RF 160.00	$\overline{RF}$	% RSD	CCC	SPCC
NIL-D5 (SURR) 99	1.27163	1.12845	1.11124	1.09147	1.09389	1.13934	6.622		
ENTAFLUOROPHENOL 184	-	-	-	-	-	-	-		
-FLUOROPHENOL (SURR) 112	.72636	.72110	.71876	.69546	.71107	.71455	1.680		
HENOL 94	1.41464	1.16398	1.31819	1.21046	1.07971	1.23740	10.608	*	
-METHYL PHENOL 108	1.09647	1.00886	.96386	.95938	.89755	.98522	7.484		
-CHLOROPHENOL 128	1.20245	1.03760	1.08218	1.01441	.99522	1.06637	7.755		
ETHYL PHENOL 108	1.20230	1.09218	1.03872	.98398	.91813	1.04706	10.331		
ITROPHENOL 139	.20591	.17401	.18486	.18545	.19073	.18819	6.174	*	
-DIMETHYLPHENOL 122	.29379	.25352	.25355	.23734	.22070	.25178	10.778		
ZOIC ACID 105	-	.22387	.23657	.25452	.25567	.24266	6.295		
-DICHLOROPHENOL 162	.31873	.29419	.30964	.28541	.26593	.29478	7.025	*	
HLORO-3-METHYLPHENOL 107	.37718	.32769	.35238	.32095	.31187	.33801	7.857	*	
,6-TRICHLOROPHENOL 196	.44116	.39757	.41107	.39147	.36507	.40127	6.946	*	
,5-TRICHLOROPHENOL 196	.41687	.37661	.43005	.44171	.41335	.41572	5.913		
,6-TRIBROMOPHENOL(SURR) 330	.30576	.30989	.29888	.30651	.33200	.31061	4.059		
-DINITROPHENOL 184	-	.11605	.12824	.14554	.17006	.13997	16.737		**
ITROPHENOL 139	-	.16795	.17408	.21397	.21440	.19260	13.007		**
-DINITRO-2-METHYLPHENOL 198	-	.10756	.11595	.11611	.13726	.11922	10.627		
TACHLOROPHENOL 266	-	.16309	.17752	.17727	.19520	.17827	7.375	*	

- Response Factor (Subscript is amount in UG/L)

- Average Response Factor

D - Percent Relative Standard Deviation

CVDI

Initial Calibration Data
HSL Compounds

se 4-5920 Instrument ID: HP-5970D

ntractor: E & E, INC. Calibration Date: ~~07/07/87~~ 6/30/87

ntract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .3 Maximum % RSD for CCC is 30%

Compound		>D2967 RF 20.00	>D2972 RF 50.00	>D2969 RF 100.00	>D2970 RF 150.00	>D2971 RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC	
LOROMETHANE	50	.73165	.86353	.80114	.78521	.83001	.80231	6.170		**	
ROMOMETHANE	94	1.50166	1.65451	1.39672	1.36785	1.35542	1.45523	8.616			
INYL CHLORIDE	62	.93262	1.04595	.89475	.86618	.88964	.92583	7.696	*		
HLOROETHANE	64	.61480	.66580	.63373	.62940	.65557	.63986	3.217			
ETHYLENE CHLORIDE	84	1.18082	1.16598	1.17179	1.14824	1.18319	1.17001	1.197			
ETONE	43	.38948	.27607	.22958	.21801	.20244	.26312	28.806			
ICHLOROFLUOROMETHANE	101	3.54645	3.61760	3.16235	3.08135	3.12546	3.30664	7.690			
RBON DISULFIDE	76	2.33135	2.55932	2.59737	2.59960	2.68636	2.55480	5.218			
1-DICHLOROETHENE	61	2.04820	2.13188	2.05386	2.03596	2.09599	2.07318	1.922	*		
1-DICHLOROETHANE	63	2.28569	2.20519	2.33030	2.32095	2.37900	2.30422	2.804		**	
NS-1,2-DICHLOROETHENE	96	1.02113	1.01636	1.07743	1.07742	1.14175	1.06682	4.796			
LOROFORM	83	3.30438	3.09562	3.05851	3.09599	3.22117	3.15513	3.287	*		
-DICHLOROETHANE	62	2.52473	2.35390	2.30019	2.25510	2.34821	2.35643	4.340			
2-DICHLOROETHANE-D4(SURR)	65	2.34286	2.07465	2.29224	2.24588	2.45134	2.28140	6.073			(Conc=50.0,50.0,50.0,50.0,50.0)
UTANONE	72	.01626	.01644	.01878	.02135	.01700	.01797	11.896			
1,1-TRICHLOROETHANE	97	.88271	.94951	.77369	.79630	.79682	.83981	8.829			
RBON TETRACHLORIDE	117	.89018	.95632	.78312	.82497	.83509	.85794	7.803			
NYL ACETATE	43	.82601	.72471	.75782	.69740	.75372	.75193	6.392			
MODICHLOROMETHANE	83	.97281	1.03120	.94891	.97587	.96957	.97967	3.132			
2-DICHLOROPROPANE	63	.32730	.34862	.36744	.37734	.37934	.36001	6.100	*		
NS-1,3-DICHLOROPROPENE	75	.78414	.83716	.80956	.83012	.81966	.81613	2.539			
ICHLOROETHENE	130	.46825	.48248	.43097	.44309	.44987	.45493	4.501			
ROMOCHLOROMETHANE	179	.72918	.74951	.68822	.71767	.71892	.72070	3.079			
1,2-TRICHLOROETHANE	97	.30606	.30457	.29944	.30005	.29383	.30079	1.602			
ZENE	78	.76110	.79046	.79636	.81903	.82181	.79775	3.090			
S-1,3-DICHLOROPROPENE	75	.41116	.43077	.41020	.40881	.39913	.41201	2.799			
HLOROETHYLVINYLETHER	63	.09691	.14121	.14848	.15016	.14577	.13651	16.405			
MOFORM	173	.65155	.68341	.59244	.61013	.60457	.62842	6.037		**	
ETHYL-2-PENTANONE	43	.35447	.30649	.31274	.30718	.28501	.31318	8.109			
EXANONE	43	.27412	.20546	.20970	.21109	.19483	.21904	14.355			
TRACHLOROETHENE	164	.64787	.67561	.54323	.55748	.56876	.59849	9.898			
1,2,2-TETRACHLOROETHANE	83	.44745	.46986	.50611	.51505	.47636	.48297	5.709		**	
ENE-D8 (SURR)	98	1.17863	1.17021	1.19222	1.20563	1.19935	1.18921	1.229			(Conc=50.0,50.0,50.0,50.0,50.0)
UENE	92	.68685	.73112	.70315	.71954	.71599	.71133	2.380	*		
LOROBENZENE	112	.96736	.99540	.94607	.96239	.95749	.96574	1.902		**	
YLBENZENE	91	1.77542	1.81120	1.69565	1.72226	1.70109	1.74112	2.888	*		

- Response Factor (Subscript is amount in UG/L)

- Average Response Factor

D - Percent Relative Standard Deviation

Initial Calibration Data
HSL Compounds

e " H-5970 Instrument ID: HP-5970D

tractor: E & E, INC. Calibration Date: ~~02/07/87~~ BJM 6/20/87

tract No: IL-3140

Minimum $\overline{RF}$ for SPCC is .3 Maximum % RSD for CCC is 30%

Laboratory ID:	>D2967 RF 20.00	>D2972 RF 50.00	>D2969 RF 100.00	>D2970 RF 150.00	>D2971 RF 200.00	$\overline{RF}$	% RSD	CCC	SPCC	
Compound										
-BROMOFLUOROBENZENE(SURR)	95	1.30532	1.26040	1.22885	1.16208	1.17604	1.22654	4.834		(Conc=50.0,50.0,50.0,50.0,50.0)
TYRENE	104	.87556	.91914	.90133	.91387	.89913	.90181	1.874		
TAL XYLENES	91	1.47736	1.48684	1.37824	1.39861	1.38187	1.42458	3.732		

- Response Factor (Subscript is amount in UG/L)

- Average Response Factor

D - Percent Relative Standard Deviation

CONTINUING CALIBRATION DATA

Continuing Calibration Check
HSL Compounds

Case No: U-5920 Calibration Date: 07/21/87

ntractor: E & E, INC. Time: 09:12

Contract No: IL-3140 Laboratory ID: >B4137

Instrument ID: HP-5970B Initial Calibration Date: ~~07/31/86~~ 7/30/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5	(SURR) 99	1.37894	1.31453	4.67		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL	(SURR) 112	.86917	.90578	4.21		
PHENOL	94	1.27723	1.48487	16.26	*	
2-METHYL PHENOL	108	1.06214	1.08362	2.02		
2-CHLOROPHENOL	128	1.17232	1.04442	10.91		
4-METHYL PHENOL	108	1.06894	1.12645	5.38		
2-NITROPHENOL	139	.19333	.19574	1.25	*	
2,4-DIMETHYLPHENOL	122	.27900	.24318	12.84		
BENZOIC ACID	105	.23920	.19234	19.59		
2,4-DICHLOROPHENOL	162	.30213	.27707	8.30	*	
4-CHLORO-3-METHYLPHENOL	107	.33099	.27284	17.57	*	
2,4,6-TRICHLOROPHENOL	196	.44521	.35071	21.23	*	
2,4,5-TRICHLOROPHENOL	196	.51987	.36016	30.72		
2,4,6-TRIBROMOPHENOL	(SURR) 330	.32822	.25156	23.36		
2,4-DINITROPHENOL	184	.16189	.10331	36.19		**
4-NITROPHENOL	139	.16233	.08198	49.49		**
4,6-DINITRO-2-METHYLPHENOL	198	.14211	.12681	10.77		
PENTACHLOROPHENOL	266	.17144	.16441	4.10	*	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: U-5920 Calibration Date: 07/21/87

Contractor: E & E, INC. Time: 10:11

Contract No: IL-3140 Laboratory ID: >B4138

Instrument ID: HP-5970B Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.52341	1.43166	6.02		
BIS(-2-CHLOROETHYL)ETHER	93	1.23992	1.12270	9.45		
1,3-DICHLOROBENZENE	146	1.38276	1.49465	8.09		
1,4-DICHLOROBENZENE	146	1.36777	1.30257	4.77	*	
BENZYL ALCOHOL	79	1.07958	.76065	29.54		
1,2-DICHLOROBENZENE	146	1.42808	1.32285	7.37		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.97018	3.05257	2.77		
N-NITROSO-DI-N-PROPYLAMINE	70	1.29228	1.19658	7.41		**
HEXACHLOROETHANE	117	.70913	.68224	3.79		
NITROBENZENE-D5 (SURR)	82	.40084	.44623	11.32		
NITROBENZENE	77	.41948	.46829	11.64		
ISOPHORONE	82	.80995	.85637	5.73		
BIS(-2-CHLOROETHOXY)METHANE	93	.45577	.48589	6.61		
1,2,4-TRICHLOROBENZENE	180	.37851	.39962	5.58		
NAPHTHALENE	128	.98472	1.02609	4.20		
4-CHLOROANILINE	127	.39458	.32196	18.40		
HEXACHLOROBUTADIENE	225	.25803	.30287	17.38	*	
2-METHYLNAPHTHALENE	142	.62355	.61982	.60		
HEXACHLOROCYCLOPENTADIENE	237	.45397	.48501	6.84		**
2-FLUOROBIPHENYL (SURR)	172	1.33061	1.48455	11.57		
2-CHLORONAPHTHALENE	162	1.20816	1.22863	1.69		
2-NITROANILINE	65	.43896	.23111	47.35		
DIMETHYL PHTHALATE	163	1.43709	1.12521	21.70		
4-NITROANILINE	138	.25992	.09431	63.71		
DIBENZOFURAN	168	1.61498	1.34442	16.75		
ACENAPHTHYLENE	152	1.80371	1.56757	13.09		
FLUORENE	166	1.19425	.89950	24.68		
3-NITROANILINE	138	.15454	.01692	89.05		
ACENAPHTHENE	153	1.18706	1.07928	9.08	*	
2,4-DINITROTOLUENE	165	.38188	.16573	56.60		
2,6-DINITROTOLUENE	165	.35087	.20838	40.61		
DIETHYLPHTHALATE	149	1.39014	.98877	28.87		
4-CHLOROPHENYL-PHENYLETHER	204	.62534	.49691	20.54		
N-NITROSODIPHENYLAMINE	169	.42524	.42331	.45	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26659	.30649	14.97		
HEXACHLOROBENZENE	284	.34094	.38447	12.77		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Pesponse Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: U-5920

Calibration Date: 07/21/87

ntractor: E & E, INC.

Time: 10:11

Contract No: IL-3140

Laboratory ID: :B4138

Instrument ID: HP-5970B

Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	.97758	.87696	10.29		
ANTHRACENE	178	1.00646	.89300	11.27		
DI-N-BUTYLPHTHALATE	149	1.12721	1.02405	9.15		
FLUORANTHENE	202	.81517	.72579	10.96	*	
BENZIDINE		-	-	-		
PYRENE	202	1.60192	1.09516	31.63		
TERPHENYL-D14 (SURR)	244	1.11052	.74328	33.07		
BUTYLBENZYLPHTHALATE	149	.67361	.52150	22.58		
3,3'DICHLOROBENZIDINE	252	.31882	.22181	30.43		
BENZO(A)ANTHRACENE	228	1.12037	.80108	28.50		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.90083	.80496	10.64		
CHRYSENE	228	1.12666	1.03554	8.09		
DI-N-OCTYL PHTHALATE	149	1.70682	1.79094	4.93	*	
BENZO(B)FLUORANTHENE	252	1.21474	.91696	24.51		
BENZO(K)FLUORANTHENE	252	1.23716	1.52762	23.48		
BENZO(A)PYRENE	252	1.12089	1.13388	1.16	*	
INDENO(1,2,3-CD)PYRENE	276	1.04154	.96477	7.37		
DIBENZ(A,H)ANTHRACENE	278	1.06755	1.06157	.56		
BENZO(G,H,I)PERYLENE	276	1.15866	1.18581	2.34		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: U-5920 Calibration Date: 08/11/87

Contractor: E & E, INC. Time: 09:42

Contract No: IL-3140 Laboratory ID: >B4283

Instrument ID: HP-5970B Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.52341	1.44850	4.92		
BIS(-2-CHLOROETHYL)ETHER	93	1.23992	1.10894	10.56		
1,3-DICHLOROBENZENE	146	1.38276	1.19561	13.53		
1,4-DICHLOROBENZENE	146	1.36777	1.14433	16.34	*	
BENZYL ALCOHOL	79	1.07958	.42075	61.03		
1,2-DICHLOROBENZENE	146	1.42808	1.42761	.03		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.97018	3.47612	17.03		
N-NITROSO-DI-N-PROPYLAMINE	70	1.29228	1.38289	7.01		**
HEXACHLOROETHANE	117	.70913	.72566	2.33		
NITROBENZENE-D5 (SURR)	82	.40084	.45086	12.48		
NITROBENZENE	77	.41948	.46680	11.28		
ISOPHORONE	82	.80995	.85617	5.71		
BIS(-2-CHLOROETHOXY)METHANE	93	.45577	.50568	10.95		
1,2,4-TRICHLOROBENZENE	180	.37851	.39212	3.60		
NAPHTHALENE	128	.98472	1.04074	5.69		
4-CHLOROANILINE	127	.39458	.40357	2.28		
HEXACHLOROBUTADIENE	225	.25803	.29930	16.00	*	
2-METHYLNAPHTHALENE	142	.62355	.65720	5.40		
HEXACHLOROCYCLOPENTADIENE	237	.45397	.47752	5.19		**
2-FLUOROBIPHENYL (SURR)	172	1.33061	1.51445	13.82		
2-CHLORONAPHTHALENE	162	1.20816	1.25910	4.22		
2-NITROANILINE	65	.43896	.34721	20.90		
DIMETHYL PHTHALATE	163	1.43709	1.10402	23.18		
4-NITROANILINE	138	.25992	.16335	37.15		
DIBENZOFURAN	168	1.61498	1.44797	10.34		
ACENAPHTHYLENE	152	1.80371	1.62155	10.10		
FLUORENE	166	1.19425	.94194	21.13		
3-NITROANILINE	138	.15454	.08401	45.64		
ACENAPHTHENE	153	1.18706	1.06149	10.58	*	
2,4-DINITROTOLUENE	165	.38188	.18173	52.41		
2,6-DINITROTOLUENE	165	.35087	.22299	36.44		
DIETHYLPHTHALATE	149	1.39014	.90683	34.77		
4-CHLOROPHENYL-PHENYLETHER	204	.62534	.54140	13.42		
N-NITROSODIPHENYLAMINE	169	.42524	.46917	10.33	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26659	.34351	28.85		
HEXACHLOROBENZENE	284	.34094	.36888	8.20		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: U-5920 Calibration Date: 08/11/87

Contractor: E & E, INC. Time: 09:42

Contract No: IL-3140 Laboratory ID: >B4283

Instrument ID: HP-5970B Initial Calibration Date: 07/30/86

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	.97758	.86820	11.19		
ANTHRACENE	178	1.00646	.90425	10.16		
DI-N-BUTYLPHTHALATE	149	1.12721	.81368	27.81		
FLUORANTHENE	202	.81517	.64270	21.16	*	
BENZIDINE		-	-	-		
PYRENE	202	1.60192	1.25631	21.58		
TERPHENYL-D14 (SURR)	244	1.11052	.85145	23.33		
BUTYLBENZYLPHTHALATE	149	.67361	.52781	21.64		
3,3'DICHLOROBENZIDINE	252	.31882	.31598	.89		
BENZO(A)ANTHRACENE	228	1.12037	.85835	23.39		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.90083	.78962	12.35		
CHRYSENE	228	1.12666	1.03318	8.30		
DI-N-OCTYL PHTHALATE	149	1.70682	1.69897	.47	*	
BENZO(B)FLUORANTHENE	252	1.21474	1.18828	2.18		
BENZO(K)FLUORANTHENE	252	1.23716	1.29181	4.42		
BENZO(A)PYRENE	252	1.12089	1.11732	.32	*	
INDENO(1,2,3-CD)PYRENE	276	1.04154	1.16465	11.82		
DIBENZ(A,H)ANTHRACENE	278	1.06755	1.14663	7.41		
BENZO(G,H,I)PERYLENE	276	1.15866	1.31775	13.73		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: U-5920

Calibration Date: 08/11/87

Contractor: E & E, INC.

Time: 10:38

Contract No: IL-3140

Laboratory ID: >B4284

Instrument ID: HP-5970B

Initial Calibration Date: ~~07/31/86~~ 7/30/86

Minimum $\overline{RF}$ for SPCC is .05

Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5 (SURR)	99	1.37894	1.28693	6.67		
PENTAFLUOROPHENOL	184	-	-	-		
2-FLUOROPHENOL (SURR)	112	.86917	.72695	16.36		
PHENOL	94	1.27723	1.47510	15.49	*	
2-METHYL PHENOL	108	1.06214	1.14542	7.84		
2-CHLOROPHENOL	128	1.17232	1.05064	10.38		
4-METHYL PHENOL	108	1.06894	1.19883	12.15		
2-NITROPHENOL	139	.19333	.19738	2.10	*	
2,4-DIMETHYLPHENOL	122	.27900	.27834	.24		
BENZOIC ACID	105	.23920	.22558	5.69		
2,4-DICHLOROPHENOL	162	.30213	.25583	15.33	*	
4-CHLORO-3-METHYLPHENOL	107	.33099	.35654	7.72	*	
2,4,6-TRICHLOROPHENOL	196	.44521	.36974	16.95	*	
2,4,5-TRICHLOROPHENOL	196	.51987	.44791	13.84		
2,4,6-TRIBROMOPHENOL(SURR)	330	.32822	.29692	9.53		
2,4-DINITROPHENOL	184	.16189	.06879	57.51		**
4-NITROPHENOL	139	.16233	.12796	21.17		**
4,6-DINITRO-2-METHYLPHENOL	198	.14211	.14060	1.06		
PENTACHLOROPHENOL	266	.17144	.18647	8.76	*	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

Continuing Calibration Check
HSL Compounds

Case No: 11-5920 Calibration Date: 08/07/87

Contractor: E & E, INC. Time: 18:46

Contract No: IL-3140 Laboratory ID: >E0222

Instrument ID: HP-5970E Initial Calibration Date: 07/16/87

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.65874	1.89743	14.39		
BIS(-2-CHLOROETHYL)ETHER	93	1.15594	1.29699	12.20		
1,3-DICHLOROBENZENE	146	1.43228	1.44626	.98		
1,4-DICHLOROBENZENE	146	1.47392	1.56393	6.11	*	
BENZYL ALCOHOL	79	1.09304	.96347	11.85		
1,2-DICHLOROBENZENE	146	1.49216	1.53972	3.19		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.71479	2.96867	9.35		
N-NITROSO-DI-N-PROPYLAMINE	70	1.24605	1.36899	9.87		**
HEXACHLOROETHANE	117	.77606	.89126	14.85		
NITROBENZENE-D5 (SURR)	82	.41377	.47815	15.56		
NITROBENZENE	77	.44211	.48382	9.44		
ISOPHORONE	82	.82006	.90394	10.23		
BIS(-2-CHLOROETHOXY)METHANE	93	.53302	.55470	4.07		
1,2,4-TRICHLOROBENZENE	180	.42738	.38960	8.84		
NAPHTHALENE	128	1.03032	1.00027	2.92		
4-CHLOROANILINE	127	.50574	.50365	.41		
HEXACHLOROBUTADIENE	225	.30469	.27510	9.71	*	
2-METHYLNAPHTHALENE	142	.67728	.62674	7.46		
HEXACHLOROCYCLOPENTADIENE	237	.45719	.35161	23.09		**
2-FLUOROBIPHENYL (SURR)	172	1.16010	1.23087	6.10		
2-CHLORONAPHTHALENE	162	1.14776	1.10419	3.80		
2-NITROANILINE	65	.43297	.51223	18.31		
DIMETHYL PHTHALATE	163	1.37692	1.32592	3.70		
4-NITROANILINE	138	.30449	.33026	8.46		
DIBENZOFURAN	168	1.60225	1.52231	4.99		
ACENAPHTHYLENE	152	1.70620	1.65790	2.83		
FLUORENE	166	1.15625	1.14709	.79		
3-NITROANILINE	138	.22021	.22905	4.01		
ACENAPHTHENE	153	1.09125	1.08734	.36	*	
2,4-DINITROTOLUENE	165	.34768	.35730	2.77		
2,6-DINITROTOLUENE	165	.32617	.30270	7.20		
DIETHYLPHTHALATE	149	1.41300	1.39104	1.55		
4-CHLOROPHENYL-PHENYLETHER	204	.61304	.57360	6.43		
N-NITROSODIPHENYLAMINE	169	.41648	.48889	17.39	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26674	.26076	2.24		
HEXACHLOROBENZENE	284	.34489	.35227	2.14		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

e No: U-5920 Calibration Date: 08/07/87

Contractor: E & E, INC. Time: 18:46

Contract No: IL-3140 Laboratory ID: >E0222

Instrument ID: HP-59/0E Initial Calibration Date: 07/16/87

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	.94896	.94395	.53		
ANTHRACENE	178	.95777	.96812	1.08		
DI-N-BUTYLPHTHALATE	149	1.19165	1.09919	7.76		
FLUORANTHENE	202	.89119	.86144	3.34	*	
BENZIDINE		.60603	.23857	60.63		
PYRENE	202	1.82215	1.59612	12.40		
TERPHENYL-D14 (SURR)	244	1.01128	.96756	4.32		
BUTYLBENZYLPHTHALATE	149	.64953	.67638	4.13		
3,3'DICHLOROBENZIDINE	252	.28160	.30881	9.66		
BENZO(A)ANTHRACENE	228	1.01757	.97220	4.46		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.74693	.87088	16.60		
CHRYSENE	228	.96433	.99777	3.47		
DI-N-OCTYL PHTHALATE	149	1.07735	1.98163	5.55	*	
BENZO(B)FLUORANTHENE	252	1.26963	1.43503	13.03		
BENZO(K)FLUORANTHENE	252	1.45296	1.14984	20.86		
BENZO(A)PYRENE	252	1.18114	1.13095	4.25	*	
INDENO(1,2,3-CD)PYRENE	276	1.06676	1.08105	1.34		
DIBENZ(A,H)ANTHRACENE	278	.98603	.99851	1.27		
BENZO(G,H,I)PERYLENE	276	1.10184	1.12578	2.17		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: H-5920 Calibration Date: 08/07/87

Contractor: E & E, INC. Time: 19:47

Contract No: IL-3140 Laboratory ID: >E0223

Instrument ID: HP5970E Initial Calibration Date: 07/17/87

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound			$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5	(SURR)	99	1.13934	1.55960	36.89		
PENTAFLUOROPHENOL		184	-	-	-		
2-FLUOROPHENOL	(SURR)	112	.71455	.96382	34.88		
PHENOL		94	1.23740	1.70923	38.13	*	
2-METHYL PHENOL		108	.98522	1.12499	14.19		
2-CHLOROPHENOL		128	1.06637	1.19069	11.66		
4-METHYL PHENOL		108	1.04706	1.14514	9.37		
2-NITROPHENOL		139	.18819	.20674	9.86	*	
2,4-DIMETHYLPHENOL		122	.25178	.29131	15.70		
BENZOIC ACID		105	.24266	.17158	29.29		
2,4-DICHLOROPHENOL		162	.29478	.31032	5.27	*	
4-CHLORO-3-METHYLPHENOL		107	.33801	.35833	6.01	*	
2,4,6-TRICHLOROPHENOL		196	.40127	.42020	4.72	*	
2,4,5-TRICHLOROPHENOL		196	.41572	.42989	3.41		
2,4,6-TRIBROMOPHENOL	(SURR)	330	.31061	.33287	7.17		
2,4-DINITROPHENOL		184	.13997	.09377	33.01		**
4-NITROPHENOL		139	.19260	.17437	9.47		**
4,6-DINITRO-2-METHYLPHENOL		198	.11922	.11962	.33		
PENTACHLOROPHENOL		266	.17827	.17320	2.85	*	

R - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

CCC - Calibration Check Compounds (*) SPCC - System Performance Check Compounds (**)

Continuing Calibration Check
HSL Compounds

Case No: 4-5920 Calibration Date: 08/26/87

Contractor: E & E, INC. Time: 12:03

Contract No: IC-3140 Laboratory ID: >E0419

Instrument ID: HP-5970E Initial Calibration Date: 07/16/87

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
ANILINE	93	1.65874	1.60706	3.12		
BIS(-2-CHLOROETHYL)ETHER	93	1.15594	1.19958	3.77		
1,3-DICHLOROBENZENE	146	1.43228	1.45672	1.71		
1,4-DICHLOROBENZENE	146	1.47392	1.55508	5.51	*	
BENZYL ALCOHOL	79	1.09304	.94360	13.67		
1,2-DICHLOROBENZENE	146	1.49216	1.47972	.83		
BIS(2-CHLOROISOPROPYL)ETHER	45	2.71479	2.60473	4.05		
N-NITROSO-DI-N-PROPYLAMINE	70	1.24605	.97172	22.06		**
HEXACHLOROETHANE	117	.77606	.77274	.43		
NITROBENZENE-D5 (SURR)	82	.41377	.45597	10.20		
NITROBENZENE	77	.44211	.49105	11.07		
ISOPHORONE	82	.82006	.80051	2.38		
BIS(-2-CHLOROETHOXY)METHANE	93	.53302	.52919	.72		
1,2,4-TRICHLOROBENZENE	180	.42758	.41689	2.46		
NAPHTHALENE	128	1.03032	1.09711	6.48		
4-CHLOROANILINE	127	.50574	.45646	9.74		
HEXACHLOROBUTADIENE	225	.30469	.26298	13.69	*	
2-METHYLNAPHTHALENE	142	.67728	.60632	10.48		
HEXACHLOROCYCLOPENTADIENE	237	.45719	.38461	15.87		**
2-FLUOROBIPHENYL (SURR)	172	1.16010	1.28886	11.10		
2-CHLORONAPHTHALENE	162	1.14776	1.30977	14.12		
2-NITROANILINE	65	.43297	.41948	3.11		
DIMETHYL PHTHALATE	163	1.37692	1.19869	12.94		
4-NITROANILINE	138	.30449	.31019	1.87		
DIBENZOFURAN	168	1.60225	1.52159	5.03		
ACENAPHTHYLENE	152	1.70620	1.76051	3.18		
FLUORENE	166	1.15625	1.13320	1.99		
3-NITROANILINE	138	.22021	.24927	13.20		
ACENAPHTHENE	153	1.09125	1.15829	6.14	*	
2,4-DINITROTOLUENE	165	.34768	.34458	.95		
2,6-DINITROTOLUENE	165	.32617	.29830	8.54		
DIETHYLPHTHALATE	149	1.41300	1.17571	16.79		
4-CHLOROPHENYL-PHENYLETHER	204	.61304	.55091	10.14		
N-NITROSODIPHENYLAMINE	169	.41648	.47966	15.17	*	
4-BROMOPHENYL-PHENYL ETHER	248	.26674	.24949	6.47		
HEXACHLOROBENZENE	284	.34489	.34414	.22		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: U-5930 Calibration Date: 08/26/87

Contractor: E & E, INC. Time: 12:03

Contract No: IL-3140 Laboratory ID: >E0419

Instrument ID: HP-5970E Initial Calibration Date: 07/16/87

Minimum $\overline{RF}$ for SPCC is .05 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENANTHRENE	178	.94896	1.00271	5.66		
ANTHRACENE	178	.95777	.99160	3.53		
DI-N-BUTYLPHTHALATE	149	1.19165	1.14168	4.19		
FLUORANTHENE	202	.89119	.94864	6.45	*	
BENZIDINE		.68603	-	-		
PYRENE	202	1.82215	1.31885	27.62		
TERPHENYL-D14 (SURR)	244	1.01128	.76769	24.09		
BUTYLBEN/YLPHTHALATE	149	.64953	.53740	17.26		
3,3'DICHLOROBENZIDINE	252	.28160	.32569	15.66		
BENZO(A)ANTHRACENE	228	1.01757	1.01171	.58		
BIS(2-ETHYLHEXYL)PHTHALATE	149	.74693	.72028	3.57		
CHRYSENE	228	.96433	1.01507	5.26		
DI-N-OCTYL PHTHALATE	149	1.87735	1.54055	17.94	*	
BENZO(B)FLUORANTHENE	252	1.26963	1.35374	6.62		
BENZO(K)FLUORANTHENE	252	1.45296	1.42149	2.17		
BENZO(A)PYRENE	252	1.18114	1.25748	6.46	*	
INDENO(1,2,3-CD)PYRENE	276	1.06676	1.16792	9.48		
DIBENZ(A,H)ANTHRACENE	278	.98603	1.04400	5.88		
BENZO(G,H,I)PERYLENE	276	1.10184	1.20630	9.48		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

.e No: U-5920 | Calibration Date: 08/26/87

Contractor: E & E, INC. | Time: 13:08

Contract No: IL-3140 | Laboratory ID: >E0420

Instrument ID: HP5970E | Initial Calibration Date: 07/17/87

Minimum $\overline{RF}$ for SPCC is .05 | Maximum % Diff for CCC is 25%

Compound			$\overline{RF}$	RF	%Diff	CCC	SPCC
PHENOL-D5	(SURR)	99	1.13934	1.23378	8.29		
PENTAFLUOROPHENOL		184	-	-	-		
2-FLUOROPHENOL	(SURR)	112	.71455	.80113	12.12		
PHENOL		94	1.23740	1.38397	11.85	*	
2-METHYL PHENOL		108	.98522	.91032	7.60		
2-CHLOROPHENOL		128	1.06637	1.02627	3.76		
4-METHYL PHENOL		108	1.04706	.93751	10.46		
2-NITROPHENOL		139	.18819	.16531	12.16	*	
2,4-DIMETHYLPHENOL		122	.25178	.24760	1.66		
BENZOIC ACID		105	.24266	.10759	55.74		
2,4-DICHLOROPHENOL		162	.29478	.25722	12.74	*	
4-CHLORO-3-METHYLPHENOL		107	.33801	.26238	22.38	*	
2,4,6-TRICHLOROPHENOL		196	.40127	.35857	10.64	*	
2,4,5-TRICHLOROPHENOL		196	.41572	.33177	20.19		
2,4,6-TRIBROMOPHENOL	(SURR)	330	.31061	.19618	36.84		
2,4-DINITROPHENOL		184	.13997	.06436	54.02		**
4-NITROPHENOL		139	.19260	.14866	22.81		**
4,6-DINITRO-2-METHYLPHENOL		198	.11922	.09564	19.78		
PENTACHLOROPHENOL		266	.17827	.14500	18.66	*	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

e No: U-5920 Calibration Date: 07/15/87

Contractor: E & E, INC. Time: 22:11

Contract No: IL-3140 Laboratory ID: >D3081

Instrument ID: HP-5970D Initial Calibration Date: 07/07/87

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	.80231	.50544	37.00		**
BROMOMETHANE	94	1.45523	1.33759	8.08		
VINYL CHLORIDE	62	.92583	.69415	25.02	*	
CHLOROETHANE	64	.63986	.51115	20.12		
METHYLENE CHLORIDE	84	1.17001	1.15380	1.39		
ACETONE	43	.26312	.52833	100.80		
TRICHLOROFLUOROMETHANE	101	3.30664	4.60802	39.36		
CARBON DISULFIDE	76	2.55480	2.50230	2.05		
1,1-DICHLOROETHENE	61	2.07318	2.41704	16.59	*	
1,1-DICHLOROETHANE	63	2.30422	2.33970	1.54		**
TRANS-1,2-DICHLOROETHENE	96	1.06682	1.01948	4.44		
CHLOROFORM	83	3.15513	3.59189	13.84	*	
1,2-DICHLOROETHANE	62	2.35643	2.92492	24.13		
1,2-DICHLOROETHANE-D4(SURR)	65	2.28140	2.74565	20.35		
2-BUTANONE	72	.01797	.03019	68.02		
1,1,1-TRICHLOROETHANE	97	.83981	1.05323	25.41		
CARBON TETRACHLORIDE	117	.85794	1.19821	39.66		
VINYL ACETATE	43	.75193	.61764	17.86		
BROMODICHLOROMETHANE	83	.97967	1.13702	16.06		
1,2-DICHLOROPROPANE	63	.36001	.33570	6.75	*	
TRANS-1,3-DICHLOROPROPENE	75	.81613	.83630	2.47		
TRICHLOROETHENE	130	.45493	.48024	5.56		
DIBROMOCHLOROMETHANE	129	.72070	.90642	25.77		
1,1,2-TRICHLOROETHANE	97	.30079	.31734	5.50		
BENZENE	78	.79775	.70491	11.64		
CIS-1,3-DICHLOROPROPENE	75	.41201	.44674	8.43		
2-CHLOROETHYLVINYLETHER	63	.13651	.10899	20.16		
BROMOFORM	173	.62842	.82991	32.06		**
4-METHYL-2-PENTANONE	43	.31318	.33075	5.61		
2-HEXANONE	43	.21904	.30186	37.81		
TETRACHLOROETHENE	164	.59849	.66558	11.21		
1,1,2,2-TETRACHLOROETHANE	83	.48297	.49533	2.56		**
TOLUENE-D8 (SURR)	98	1.18921	1.14362	3.83		
TOLUENE	92	.71133	.65251	8.27	*	
CHLOROBENZENE	112	.96574	.94408	2.24		**
ETHYLBENZENE	91	1.74112	1.70821	1.89	*	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

e No: U-5920 Calibration Date: 07/15/87

Contractor: E & E, INC. Time: 22:11

Contract No: IL-3140 Laboratory ID: >D3081

Instrument ID: HP-5970D Initial Calibration Date: 07/07/87

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	1.22654	1.32807	8.28		
STYRENE	104	.90181	.88284	2.10		
TOTAL XYLENES	91	1.42458	1.48595	4.31		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: U-5920 Calibration Date: 07/16/87

Contractor: E & E, INC. Time: 16:47

Contract No: IC-3140 Laboratory ID: >D3100

Instrument ID: HP-5970D Initial Calibration Date: 07/07/87

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
CHLOROMETHANE	50	.80231	.73565	8.31		**
BROMOMETHANE	94	1.45523	1.49865	2.98		
VINYL CHLORIDE	62	.92583	.86626	6.43	*	
CHLOROETHANE	64	.63986	.59524	6.97		
METHYLENE CHLORIDE	84	1.17001	1.11055	5.08		
ACETONE	43	.26312	.19005	27.77		
TRICHLOROFLUOROMETHANE	101	3.30664	4.74615	43.53		
CARBON DISULFIDE	76	2.55480	2.19152	14.22		
1,1-DICHLOROETHENE	61	2.07318	2.38673	15.12	*	
1,1-DICHLOROETHANE	63	2.30422	2.36614	2.69		**
TRANS-1,2-DICHLOROETHENE	96	1.06682	1.01391	4.96		
CHLOROFORM	83	3.15513	3.60191	14.16	*	
1,2-DICHLOROETHANE	62	2.35643	3.00587	27.56		
1,2-DICHLOROETHANE-D4(SURR)	65	2.28140	2.83356	24.20		
2-BUTANONE	72	.01797	.01748	2.72		
1,1,1-TRICHLOROETHANE	97	.83981	1.02581	22.15		
CARBON TETRACHLORIDE	117	.85794	1.19091	38.81		
VINYL ACETATE	43	.75193	.61996	17.55		
BROMODICHLOROMETHANE	83	.97967	1.11136	13.44		
1,2-DICHLOROPROPANE	63	.36001	.34927	2.98	*	
TRANS-1,3-DICHLOROPROPENE	75	.81613	.81645	.04		
TRICHLOROETHENE	130	.45493	.46480	2.17		
DIBROMOCHLOROMETHANE	129	.72070	.85912	19.21		
1,1,2-TRICHLOROETHANE	97	.30079	.31651	5.23		
BENZENE	78	.79775	.73136	8.32		
CIS-1,3-DICHLOROPROPENE	75	.41201	.45127	9.53		
2-CHLOROETHYLVINYLETHER	63	.13651	.16578	21.44		
BROMOFORM	173	.62842	.74651	18.79		**
4-METHYL-2-PENTANONE	43	.31318	.32314	3.18		
2-HEXANONE	43	.21904	.24749	12.99		
TETRACHLOROETHENE	164	.59849	.67066	12.06		
1,1,2,2-TETRACHLOROETHANE	83	.48297	.55671	15.27		**
TOLUENE-D8 (SURR)	98	1.18921	1.13989	4.15		
TOLUENE	92	.71133	.67520	5.08	*	
CHLOROBENZENE	112	.96574	.96585	.01		**
ETHYLBENZENE	91	1.74112	1.77276	1.82	*	

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

Continuing Calibration Check
HSL Compounds

Case No: 4-5920 Calibration Date: 07/16/87

Contractor: E & E, INC. Time: 16:47

Contract No: IL-3140 Laboratory ID: >D3100

Instrument ID: HP-5970D Initial Calibration Date: 07/07/87

Minimum $\overline{RF}$ for SPCC is .3 Maximum % Diff for CCC is 25%

Compound		$\overline{RF}$	RF	%Diff	CCC	SPCC
4-BROMOFLUOROBENZENE(SURR)	95	1.22654	1.32832	8.30		
STYRENE	104	.90181	.91109	1.03		
TOTAL XYLENES	91	1.42458	1.53461	7.72		

RF - Response Factor from daily standard file at 50.00 UG/L

$\overline{RF}$ - Average Response Factor from Initial Calibration Form VI

%Diff - % Difference from original average or curve

PESTICIDE STANDARDS

1. FORM VIII
2. FORM IX
3. FORM X

Pesticide Evaluation Standards Summary
(Page 1)

Case No: 11-9920 Region: _____
Contract No: IL-3140
Date of Analysis 7-28-87
7-29-87

Laboratory: Ecology and Environment, Inc.
GC Column: OV-1
Instrument ID: VARIAN 6000 GC#2

Evaluation Check for Linearity

Laboratory ID	RUN1	RUN 2	RUN 3	
Pesticide	Calibration Factor Eval. Mix A	Calibration Factor Eval. Mix B	Calibration Factor Eval. Mix C	% RSD (≤10%)
Aldrin	703	713	749	3.4
Endrin	625	634	653	2.2
4,4'- DDT(1)	403	440	468	7.5
Dibutyl Chlorendate	527	535	555	2.7

Evaluation Check for 4,4'- DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour					
Eval Mix B	Run 2	9:40	NA	NA	4.9
Eval Mix B	RUN 19	22:57	NA	NA	3.2
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7 5 4
(2) See Exhibit E, Section 7 3 1 2 2 1

Pesticide Evaluation Standards Summary
(Page 2)
Evaluation of Retention Time Shift for Dibutyl Chlorendate
Report all standards, blanks and samples

SMO Sample No	Lab ID	Time of Analysis	Percent Diff	SMO Sample No	Lab ID	Time of Analysis	Percent Diff
EVAL A	RUN 1	9:05	–				
EVAL B	2	9:40	0.07				
EVAL C	3	10:14	0.11				
IND A	4	11:46	0.04				
IND B	5	12:22	0.04				
TOXAPHENE	6	13:46	0.15				
CHLORDANE	7	14:20	0.11				
PCB 1016/1260	8	14:54	0.73				
PCB 1221	9	15:29	0				
PCB 1232	10	16:04	0.25				
PCB 1242	11	16:39	0.04				
PCB 1248	12	17:13	0.04				
PCB 1254	13	18:00	0				
BLANK.0301	14	18:38	0.04				
6735.04.0301	15	19:28	0				
6736.04.0301	16	20:18	0.04				
6737.04.0301	17	21:15	DL				
6738.04.0301	18	22:07	0.04				
EVAL B	19	22:57	0.11				
6739.04.0301	20	23:31	0.15				
6740.04.0301	21	0:21	0.04				
6740.04.0321	22	1:10	0.04				
6740.04.0331	23	1:69	0.15				
6741.04.0301	24	2:47	0.11				
IND A	25	3:21	0.18				
IND B	26	3:55	0.15				

DL = DILUTED OUT

Pesticide Evaluation Standards Summary
(Page 1)

Case No: U-5920 Region: _____
Contract No: IL-3140
Date of Analysis 8-3-87

Laboratory: ECOLOGY + ENVIRONMENT, INC.
GC Column: SP2250/SP2401
Instrument ID: Varian 6000#2

Evaluation Check for Linearity

Laboratory ID	Run 1	Run 2	Run 3	
Pesticide	Calibration Factor Eval. Mix A	Calibration Factor Eval. Mix B	Calibration Factor Eval. Mix C	% RSD (≤10%)
Aldrin	863	899	1021	8.9
Endrin	691	708	783	6.7
4,4'- DDT(1)	514	564	633	10.5
Dibutyl Chlorendate	689	612	674	6.2

Evaluation Check for 4,4'- DDT/Endrin Breakdown
(percent breakdown expressed as total degradation)

	Laboratory I.D.	Time of Analysis	Endrin	4,4'- DDT	Combined(2)
Eval Mix B 72 Hour					
Eval Mix B	Run 2	10:24	<1	4.7	NA
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					
Eval Mix B					

(1) See Exhibit E, Section 7 5 4
(2) See Exhibit E, Section 7 2 1 2 2 1

Pesticide Evaluation Standards Summary
(Page 2)

Evaluation of Retention Time Shift for Dibutyl Chlorendate

Report all standards, blanks and samples

SMO Sample No	Lab I D	Time of Analysis	Percent Diff.	SMO Sample No.	Lab I D.	Time of Analysis	Percent Diff
Eval mix A	Run 1	9:50	—				
Eval mix B	Run 2	10:24	0.13				
Eval mix C	Run 3	11:00	0.08				
Ind mix A	Run 4	12:10	0.04				
W. Blank	Run 5	12:44	0				
6737	Run 6	13:51	OL				
Ind mix A	Run 7	14:25	0.25				

SUMMA...

Case No. 11-5920 Laboratory ECOLOGY AND ENVIRONMENT, INC.

Contract No. IL-3140 GC Column OV-1 GC Instrument ID VARIAN/GCM GC#2

	DATE OF ANALYSIS 7-28-87 TIME OF ANALYSIS 11:46 - 18:00 LABORATORY ID RUN 4 - RUN 13				DATE OF ANALYSIS 7-29-87 TIME OF ANALYSIS 3:21 / 3:55 LABORATORY ID RUN 25 / RUN 26			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF. **
alpha-BHC	2.11	2.08-2.14	825	QUANT.	2.11	856		3.8
beta-BHC	2.25	2.22-2.28	313		2.25	314		0.32
delta-BHC	2.53	2.50-2.56	602		2.53	637		5.8
gamma-BHC	2.47	2.44-2.50	733		2.46	754		2.9
Heptachlor	3.92	3.88-3.96	720		3.91	725		0.69
Aldrin	4.83	4.79-4.87	732		4.82	756		3.3
Heptachlor Epoxide	5.86	5.81-5.91	695		5.85	718		3.3
Endosulfan I	7.27	7.21-7.33	662		7.25	688		3.9
Dieldrin	8.47	8.40-8.54	724		8.44	747		3.2
4,4'-DDE	8.35	8.28-8.42	658		8.35	685		4.1
Endrin	9.42	9.34-9.50	662		9.42	679		2.3
Endosulfan II	9.62	9.53-9.71	641		9.60	658		2.7
4,4'-DDD	10.49	10.40-10.58	553		10.48	592		7.1
Endosulfan Sulfate	12.31	12.21-12.41	351		12.30	368		4.8
4,4'-DDT	13.70	13.60-13.80	437		13.66	448		2.5
Methoxychlor	20.13	19.99-20.27	260		20.08	263		1.2
Endrin Ketone	15.76	15.62-15.90	649		15.75	686		5.7
Tech. Chlordane	6.69	6.60-6.78	99.8					
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene	13.70	13.60-13.80	71.4	QUANT.				
Aroclor - 1016	3.41	3.36-3.46	36.0					
Aroclor - 1221	2.12	2.09-2.15	13.3					
Aroclor - 1232	3.41	3.36-3.46	16.9					
Aroclor - 1242	3.41	3.36-3.46	30.5					
Aroclor - 1248	5.96	5.90-6.02	47.9					
Aroclor - 1254	14.15	14.09-14.21	44.8					
Aroclor - 1260	22.44	22.12-22.76	76.7					

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* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

FORM IX

PESTICIDE/PCB STANDARDS SUMMARY

Case No. U-5920 Laboratory ECOLOGY AND ENVIRONMENT, INC.

Contract No. IL-3140 GC Column SP2250/SP2401 GC Instrument ID Varian 6000 #2

	DATE OF ANALYSIS 8-3-87 TIME OF ANALYSIS 12:10 LABORATORY ID Run 4				DATE OF ANALYSIS 8-3-87 TIME OF ANALYSIS 14:25 LABORATORY ID Run 7			
COMPOUND	RT	RETENTION TIME WINDOW	CALIBRATION FACTOR	CONF. OR QUANT.	RT	CALIBRATION FACTOR	CONF. OR QUANT.	PERCENT DIFF.**
alpha-BHC								
beta-BHC								
delta-BHC								
gamma-BHC	2.24	2.21-2.27	990	CONF.	2.25	1029		3.9
Heptachlor	2.76	2.72-2.80	908		2.77	944		4.0
Aldrin	3.34	3.30-3.38	935		3.35	964		3.1
Heptachlor Epoxide	4.97	4.92-5.02	840		4.98	868		3.3
Endosulfan I	6.26	6.20-6.32	802		6.27	830		3.5
Dieldrin	7.64	7.57-7.71	865		7.66	901		4.2
4,4'-DDE								
Endrin								
Endosulfan II	11.25	11.15-11.35	750	CONF.	11.27	786		4.8
4,4'-DDD								
Endosulfan Sulfate								
4,4'-DDT	13.43	13.28-13.58	457	CONF.	13.44	466		2.0
Methoxychlor	25.89	25.65-26.13	267	CONF.	25.92	275		3.0
Endrin Ketone								
Tech. Chlordane								
alpha-Chlordane*								
gamma-Chlordane*								
Toxaphene								
Aroclor - 1016								
Aroclor - 1221								
Aroclor - 1232								
Aroclor - 1242								
Aroclor - 1248								
Aroclor - 1254								
Aroclor - 1260								

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* SEE EXHIBIT E, PART 7

** CONF. = CONFIRMATION (<20% DIFFERENCE)
QUANT. = QUANTITATION (<15% DIFFERENCE)

FORM IX

GC/MS TUNING

1. DFTPP FORM V

2. BFB FORM V

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-5920 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970B Date 7-30-86 Time 1051

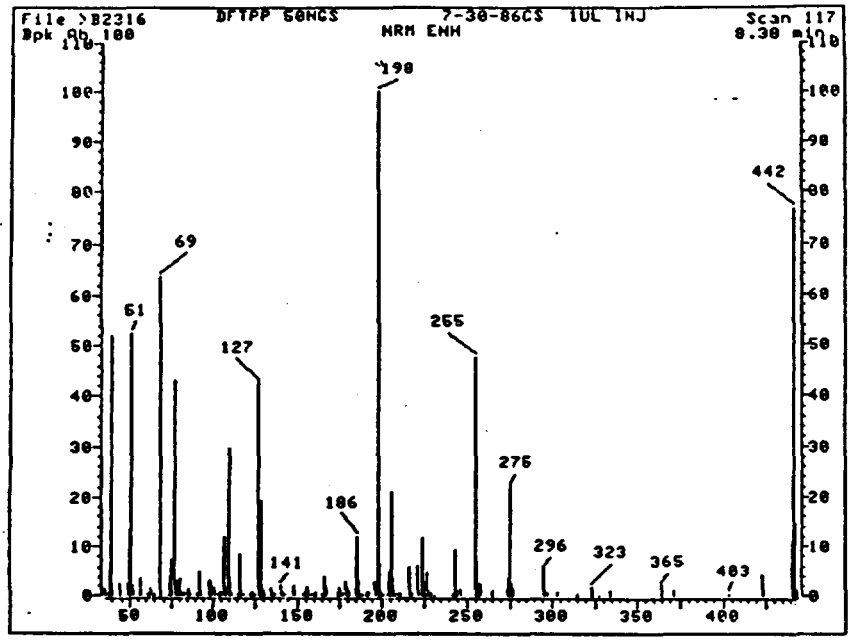
Lab ID B2316 Data Release Authorized By: [signature]

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	52.4
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	63.5
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	42.6
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	6.54
275	10.0 - 30.0% of mass 198	22.1
365	greater than 1.00% of mass 198	2.32
441	present, but less than mass 443	10.8
442	greater than 40.0% of mass 198	76.7
443	17.0 - 23.0% of mass 442	14.5 (18.9)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69.
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BN STD - 50 ng	B2317	7-30-86	1108
	20 ng	B2318		1207
	80 ng	B2320		1414
	120 ng	B2321		1505
	160 ng	B2322		1557
	AP STD - 20 ng	B2323		1657
	50 ng	B2324		1748
	80 ng	B2325		1839
	120 ng	B2326		1931
	160 ng	B2327		2022



>B2316 DFTPP 50NGS 7-30-86CS 1UL INJ
117 NRM ENH

File: >B2316 Scan #: 117 Retn. time: 8.38

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	1.46	91.10	.41	137.10	.39	191.05	.20	244.05	9.41
38.15	.49	92.00	.52	141.00	2.08	191.95	.73	245.05	1.02
39.15	5.09	93.00	4.94	142.10	.36	192.95	.62	246.05	1.49
40.05	51.88	94.00	.24	143.00	.28	196.05	2.98	255.05	47.58
44.05	2.55	98.00	3.16	147.10	.97	197.95	100.00	256.05	6.77
49.05	2.49	99.00	2.89	148.00	1.99	198.95	6.54	257.00	.27
50.05	13.27	101.00	1.69	153.00	.44	199.95	.28	258.00	2.64
51.15	52.38	103.00	.35	154.00	.36	201.35	.26	265.00	.91
52.10	2.35	104.00	.66	155.05	.90	202.95	.36	273.00	1.41
56.00	.87	104.90	.71	156.05	1.52	204.05	2.91	274.00	3.64
57.00	3.48	107.00	12.01	158.05	.26	205.05	4.95	275.00	22.14
61.10	.36	108.00	1.77	159.95	.35	206.05	20.98	276.00	2.79
62.10	.35	110.00	29.62	161.05	.58	207.05	4.00	276.90	1.69
63.00	1.39	111.00	3.98	164.95	.45	207.95	.42	296.00	5.45
65.10	.47	112.00	.28	166.05	.39	210.25	.26	297.10	.75
69.00	63.51	116.10	.39	167.05	4.02	211.05	.51	303.10	.57
73.10	.22	117.00	8.26	168.05	1.77	216.95	5.83	315.00	.48
74.10	3.84	118.10	.34	174.05	.73	217.95	.43	323.00	1.78
75.00	7.43	122.10	.46	174.95	1.54	221.05	6.08	326.90	.16
77.10	42.88	123.10	.70	176.05	.35	223.05	1.08	334.00	.96
78.10	2.86	124.00	.34	176.95	.78	224.05	11.72	364.95	2.32
79.10	3.13	125.00	.25	178.95	3.03	225.05	2.92	371.95	.89
80.00	2.00	127.00	42.62	180.05	1.56	226.15	.18	402.95	.53
81.00	3.61	128.10	2.95	181.05	.83	227.05	4.81	423.05	4.16
82.00	.44	129.00	19.25	185.05	1.25	227.95	.54	423.95	.76
83.00	.58	129.90	1.48	186.05	11.94	229.05	.84	441.05	10.76
84.90	.58	131.00	.18	187.05	3.14	230.95	.21	442.05	76.66
86.00	1.30	135.10	1.37	188.05	.18	242.05	.34	443.05	14.52
87.00	.26	136.00	.27	188.95	.45	243.05	.32	444.05	1.19

MS data file header from : >B2316

Sample: DFTPP 50NGS Operator: USER8 MS 7/30/86 10:51
Misc : 7-30-86CS 1UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPB Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures : 120. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 10.0 0.0 0.0 0.0 0.0

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-5920 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP 5970B Date 7-21-87 Time 8:08

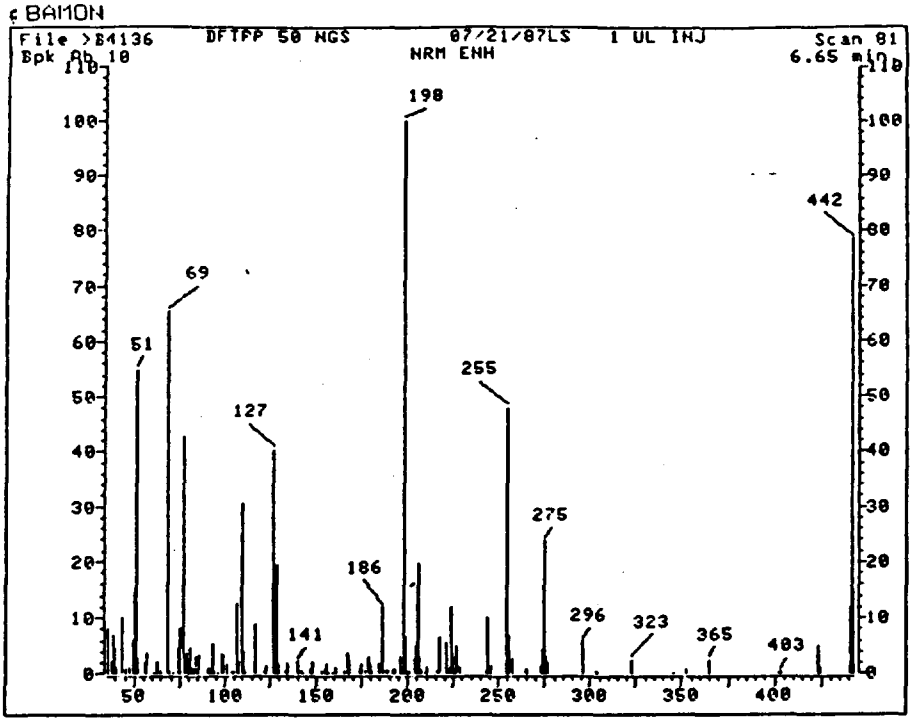
Lab ID B4136 Data Release Authorized By: C Slotowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	54.97
68	less than 2.0% of mass 69	0.00 (0.00)[1]
69	mass 69 relative abundance	65.27
70	less than 2.0% of mass 69	0.29 (0.44)[1]
127	40.0 - 60.0% of mass 198	40.25
197	less than 1.0% of mass 198	0.41
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.40
275	10.0 - 30.0% of mass 198	23.71
365	greater than 1.00% of mass 198	2.47
441	present, but less than mass 443	11.86
442	greater than 40.0% of mass 198	78.45
443	17.0 - 23.0% of mass 442	14.75 (18.80)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Cal Check A/P B4137	7-21-87	09:12
	Cont Cal Check B/N B4138	7-21-87	10:11
DC-GW-34A	6735 B4141	7-21-87	14:36
DC-GW-34A MS	6735 MS B4142	7-21-87	15:28
DC-GW-38A B/N	6736 B/N B4143	7-21-87	16:19
DC-GW-40A B/N	6738 B/N B4144	7-21-87	17:39
DC-GW-41A	6739 B4145	7-21-87	18:30
DC-GW-43A	6740 B4146	7-21-87	19:22
DC-GW-57	6741 B4147	7-21-87	20:13
DC-GW-39A	6737 B4148	7-21-87	21:04
B4149	Method Blank B4149	7-21-87	21:55



>B4136 DFTPP 50 NGS 07/21/87LS 1 UL INJ
81 NRM ENH

File: >B4136 Scan #: 81 Retn. time: 6.65

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.05	8.18	81.90	.94	128.95	19.25	188.70	.27	242.90	.30
38.00	2.18	83.10	1.00	129.95	1.57	188.90	.27	244.00	10.08
39.00	6.67	83.90	2.89	133.95	.24	191.90	.76	245.00	.86
40.00	4.69	84.80	.70	134.95	1.64	192.90	.67	246.00	1.47
41.00	1.01	86.00	3.36	140.85	2.25	196.00	2.85	255.00	47.90
44.00	10.08	91.00	.87	142.05	.33	196.80	.41	255.95	6.66
45.00	.73	91.90	1.17	142.95	.23	197.90	100.00	257.85	2.68
46.90	1.20	92.10	.61	146.95	.71	198.90	6.40	264.85	.73
48.90	5.97	93.10	5.13	147.95	2.07	200.10	.31	272.95	1.44
50.00	14.42	93.90	.36	152.95	.44	201.30	.44	273.95	4.15
51.00	54.97	96.10	.19	155.05	.74	204.00	2.79	274.95	23.71
52.00	2.58	98.00	3.68	155.95	1.57	205.00	4.85	275.95	2.85
56.00	1.92	99.00	3.33	156.95	.23	206.00	19.55	276.95	1.85
57.00	3.62	101.00	1.54	159.05	.20	207.00	2.85	295.95	5.74
61.00	.20	104.10	.53	160.95	1.20	208.00	.66	303.05	.30
63.00	1.91	105.10	.46	164.95	.43	209.80	.14	322.95	2.35
65.00	.27	107.00	12.57	167.05	3.69	210.90	.93	345.80	.19
68.90	65.27	108.10	1.94	168.05	2.34	215.90	.37	352.00	.57
69.90	.29	109.95	30.51	174.05	.61	216.90	6.48	364.90	2.47
71.40	.21	111.05	3.85	175.05	1.65	220.90	5.50	401.85	.23
74.00	4.69	111.95	.27	176.85	.54	222.30	.19	403.05	.36
75.00	7.95	117.05	8.66	179.05	2.84	223.10	1.15	422.95	4.75
77.00	42.80	117.85	.50	180.05	1.74	224.00	12.07	423.95	.93
78.10	3.35	121.95	.41	180.95	.56	225.00	3.01	440.95	11.86
79.00	3.59	122.95	1.28	185.00	1.65	226.20	.17	441.95	78.45
80.00	2.69	126.95	40.25	186.00	11.83	227.00	4.92	442.95	14.75
81.00	4.60	127.95	3.45	186.90	3.45	228.90	1.05		

MS data file header from : >B4136

Sample: DFTPP 50 NGS Operator: USER8 MS 7/21/87 8:08
Misc : 07/21/87LS 1 UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPB Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures : 150. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-5920 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5970B Date 8-11-87 Time 09:01

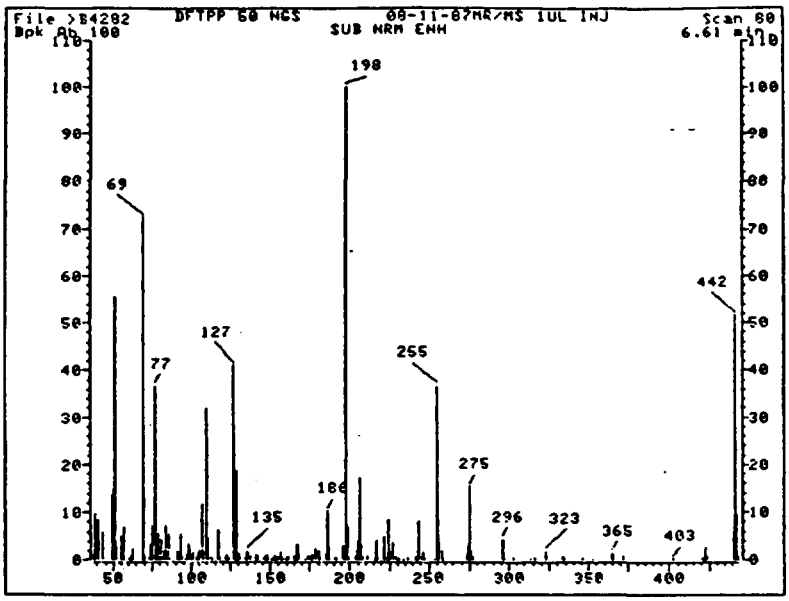
Lab ID B4282 Data Release Authorized By: C Bojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	55.62
68	less than 2.0% of mass 69	0.00 (0.00)[1]
69	mass 69 relative abundance	72.45
70	less than 2.0% of mass 69	0.64 (0.88)[1]
127	40.0 - 60.0% of mass 198	41.02
197	less than 1.0% of mass 198	0.00
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.71
275	10.0 - 30.0% of mass 198	15.37
365	greater than 1.00% of mass 198	1.50
441	present, but less than mass 443	6.99
442	greater than 40.0% of mass 198	51.57
443	17.0 - 23.0% of mass 442	9.23 (17.98)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check B/N 84283	8-11-87	09:49
	Cont Calib Check A/P 84284	8-11-87	10:38
DC-GW-40A	6738 A/P Recextraction 84289	8-11-87	17:13
DC-GW-38A	6736 A/P Recextraction 84291	8-11-87	18:55



>B4282 DFTPP 50 NGS 08-11-87MR/MS 1UL INJ
80 SUB NRM ENH

File: >B4282 Scan #: 80 Retn. time: 6.61

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.00	1.04	93.00	5.28	142.15	.74	192.00	.48	252.80	.22
39.00	9.74	94.10	.77	145.35	.27	196.00	3.00	255.00	36.70
41.10	8.29	95.90	.23	147.05	.87	196.60	.65	255.95	4.86
43.20	5.93	97.10	.98	147.95	.93	197.90	100.00	257.95	2.14
49.10	13.64	98.10	3.24	148.95	.52	198.90	6.71	258.85	.38
50.00	14.72	99.00	2.23	150.95	.17	200.00	.30	272.95	1.09
51.00	55.62	99.90	.77	151.55	.35	203.00	.69	273.95	3.31
52.00	2.71	101.00	1.82	153.05	.90	204.00	1.94	274.95	15.37
54.90	4.92	102.80	.39	153.85	.36	205.00	3.88	275.95	1.94
56.00	2.55	104.00	1.17	154.95	.68	206.00	16.96	276.95	.72
57.00	6.73	105.00	1.88	156.05	1.66	207.00	3.24	295.95	4.30
61.10	.55	107.00	11.73	157.05	.29	207.90	.88	296.95	.45
61.80	.71	108.00	1.72	158.95	.17	210.80	.56	303.05	.55
63.00	2.42	109.95	31.88	160.05	.55	215.40	.23	313.85	.14
69.00	72.45	110.95	4.59	161.05	.74	216.90	3.96	315.95	.29
70.00	.64	112.05	.33	164.95	.58	217.90	.45	323.05	1.69
73.10	.35	112.95	.17	166.05	.62	221.10	4.99	334.00	.87
74.10	3.28	116.95	6.03	167.05	3.15	223.10	.38	334.90	.30
75.00	7.08	117.85	.48	168.05	1.43	224.00	8.41	345.80	.29
77.00	36.68	121.85	.77	172.15	.16	225.00	1.77	352.90	.22
78.10	2.63	122.95	1.01	173.95	.71	227.00	3.59	364.90	1.50
79.00	5.38	124.05	.48	175.15	.80	229.00	.81	372.00	.64
80.00	2.63	126.95	41.02	176.05	.23	230.90	.39	402.85	.32
80.90	4.18	128.05	2.92	176.95	.91	234.00	.19	420.85	.33
82.00	.75	128.95	18.65	178.85	2.40	237.00	.26	421.95	.41
83.00	2.13	130.05	1.52	180.05	2.00	241.90	.74	422.95	2.75
84.00	7.19	130.95	1.48	181.05	.75	243.00	.38	423.85	.67
85.00	1.39	134.05	.29	185.00	1.33	244.00	8.07	440.95	6.99
86.00	5.32	134.95	1.75	186.00	10.32	245.10	.82	441.95	51.57
87.00	.23	137.05	.80	187.00	2.73	246.00	1.58	442.95	9.23
91.00	1.56	140.95	.94	191.00	.30	247.00	.26	443.95	.85
92.10	.80								

MS data file header from : >B4282

Sample: DFTPP 50 NGS Operator: USER8 MS 8/11/87 9:01
Misc : 08-11-87MR/MS 1UL INJ
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPP8 Tuning file: MTBON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures : 150. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 5.0 0.0 0.0 0.0 0.0

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-5920 Contractor Ecology & Environment Inc. Contract No. IL-3140

Instrument ID HP5970E Date 7-16-87 Time 1025

Lab ID E0028 Data Release Authorized By: [illegible]

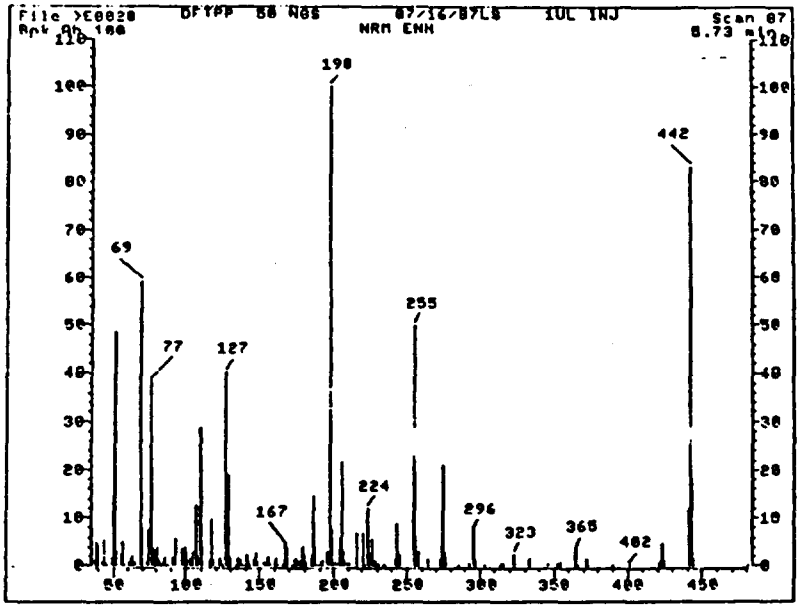
m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	48.5
68	less than 2.0% of mass 69	0 (0)[1]
69	mass 69 relative abundance	59.0
70	less than 2.0% of mass 69	0 (0)[1]
127	40.0 - 60.0% of mass 198	40.4
197	less than 1.0% of mass 198	0
198	base peak, 100% relative abundance	100
199	5.0 - 9.0% of mass 198	7.56
275	10.0 - 30.0% of mass 198	20.8
365	greater than 1.00% of mass 198	3.55
441	present, but less than mass 443	12.0
442	greater than 40.0% of mass 198	83.1
443	17.0 - 23.0% of mass 442	17.4 (20.9)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69.
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	BNSTD - 20ng	E0029	7-16-87	1046
	50ng	E0030		1144
	80ng	E0031		1242
	120ng	E0032		1341
	160ng	E0033		1442
	APSTD - 20ng	E0036	7-16-87	1815
	50ng	E0037		1908
	80 ng	E0038		2002
	120 ng	E0039		2055
	160 ng	E0040		2148

FORM V 7/85



>E0028 DFTPP 50 NGS 07/16/87LS 1UL INJ
87 NRM ENH

File: >E0028 Scan #: 87 Retn. time: 5.73

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
38.15	.89	86.75	.00	146.90	1.21	199.00	7.56	275.00	20.84
39.05	4.77	88.05	.00	148.00	2.66	201.40	.84	276.00	2.91
39.85	4.11	90.95	1.58	148.80	.84	202.70	.41	277.00	1.83
43.25	.64	93.05	5.52	153.00	.79	204.10	3.66	285.20	.00
43.95	5.34	96.95	.00	153.90	.30	205.10	5.91	292.80	.27
45.25	.44	97.95	3.65	155.00	.71	206.00	21.41	296.00	7.29
46.05	.00	99.05	3.82	155.80	1.77	207.00	3.15	296.90	1.02
49.15	1.99	101.05	2.53	156.70	.00	208.10	1.17	303.10	.01
50.05	14.58	102.85	1.22	157.00	.54	210.70	.28	313.85	.00
51.05	48.46	103.80	1.54	160.10	.39	211.00	.25	314.25	.00
52.05	2.93	104.90	2.98	161.00	1.22	217.00	6.72	314.85	.52
55.95	2.39	106.90	12.56	161.90	.22	221.00	6.76	315.95	.42
56.95	4.98	108.00	1.99	164.90	.03	222.10	.01	323.15	2.46
57.55	.01	109.90	28.74	166.20	.27	224.00	12.04	334.05	1.48
57.85	.00	111.00	3.84	167.00	4.23	225.00	2.63	345.95	.32
61.15	.61	115.90	1.14	168.00	3.54	227.00	5.57	352.15	.36
62.05	.82	117.00	9.83	172.00	.00	227.70	.80	352.85	.41
63.05	1.85	118.00	.98	174.10	1.30	228.00	.29	353.55	.00
64.85	.74	122.40	.82	174.90	1.41	229.10	1.03	353.95	.69
68.95	59.04	123.00	1.47	176.40	.00	230.90	.25	364.95	3.55
73.05	.85	123.80	.61	177.10	1.13	234.10	.00	366.05	.00
74.15	5.10	125.00	.00	178.20	.01	235.00	.00	372.05	1.23
74.95	7.47	127.00	40.37	178.90	4.05	242.30	.02	373.15	.00
77.05	38.50	128.90	19.00	180.00	2.29	243.10	1.29	389.75	.00
78.05	3.53	130.00	1.65	188.90	.85	244.00	8.58	401.85	.40
79.15	3.29	134.10	.01	184.00	.00	245.00	1.59	421.05	.86
80.15	3.31	134.90	1.66	185.00	2.43	245.90	2.38	422.05	.57
81.05	3.82	136.90	1.24	186.00	14.34	255.00	49.78	422.95	4.64
81.85	1.23	139.70	.00	187.10	3.48	256.00	6.31	424.05	1.07
82.35	.40	141.00	2.18	188.90	.02	257.10	.73	441.05	11.97
83.25	.60	142.00	.94	191.90	.74	258.00	2.83	442.05	83.08
84.05	.05	142.50	.63	192.90	1.06	265.00	1.39	443.05	17.35
84.95	.79	143.00	.00	196.00	3.11	273.10	1.52	443.95	1.28
86.05	1.66	146.00	.00	197.90	100.00	274.10	4.39	481.25	.00

MS data file header from : >E0028

Sample: DFTPP 50 NGS Operator: USER6 MS 7/16/87 10:25
Misc : 07/16/87LS 1UL INJ BTL# 1
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPE Tuning file: MTEUN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures :	150.	280.	0.	0.	0.
Chromatographic times, min. :	0.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-5920 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP 5970 E Date 8-7-87 Time 18:02

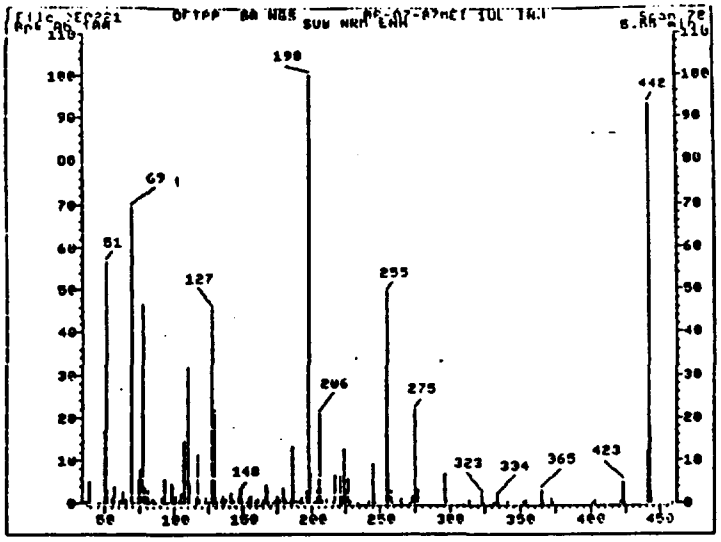
Lab ID E0221 Data Release Authorized By: C Hojtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	56.47
68	less than 2.0% of mass 69	0.00 (0.00)[1]
69	mass 69 relative abundance	69.25
70	less than 2.0% of mass 69	0.40 (0.57)[1]
127	40.0 - 60.0% of mass 198	45.49
197	less than 1.0% of mass 198	0.32
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	7.19
275	10.0 - 30.0% of mass 198	21.77
365	greater than 1.00% of mass 198	3.06
441	present, but less than mass 443	12.13
442	greater than 40.0% of mass 198	93.06
443	17.0 - 23.0% of mass 442	18.13 (19.48)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check B/N E0222	8-7-87	18:46
	Cont Calib Check A/P E0223	8-7-87	19:47
E0226	A/P Method Blank E0226	8-7-87	23:13



>E0221 DFIPP 50 NGS 08-07-87MEI 1UL INJ
78 SUB NRM ENH

File: >E0221 Scan #: 78 Retn. time: 5.55

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.15	.42	95.15	.29	148.90	1.01	200.60	.09	274.90	4.71
36.95	.28	95.95	.36	152.60	.39	200.90	.10	275.00	21.77
39.05	5.36	96.15	.17	155.00	1.22	201.60	.42	276.10	3.26
44.75	.13	98.05	4.48	156.10	1.70	202.80	.36	277.00	1.79
46.75	.14	99.05	4.00	159.10	.20	203.10	.40	296.00	6.66
49.05	.09	99.85	.20	159.80	.65	204.00	3.31	297.00	.92
50.05	17.53	101.05	2.15	160.00	.27	205.10	5.76	314.05	.81
51.05	56.47	102.95	.41	161.00	1.03	206.00	20.90	323.05	2.28
52.05	3.01	103.90	.97	164.10	.09	207.00	3.36	323.95	.24
54.95	.93	105.00	2.36	164.90	.68	207.90	.77	331.75	.07
56.15	1.01	105.90	.45	165.00	.90	210.20	.51	332.85	.21
56.95	3.82	107.00	14.56	167.00	4.36	210.40	.34	333.15	.13
60.35	.10	108.00	2.08	168.10	3.29	211.00	.91	334.05	1.61
61.15	.80	110.00	31.65	169.10	.42	215.70	.29	334.95	.21
62.75	.81	111.00	4.80	171.90	.16	216.90	6.43	340.95	.25
62.95	2.61	115.60	1.08	173.00	.49	221.00	6.09	351.95	.40
63.95	.56	116.90	11.40	174.10	.75	221.90	.42	353.05	.35
65.05	.98	118.00	1.00	175.00	1.59	223.00	1.73	354.05	.28
68.95	69.75	122.10	.42	176.00	.87	224.00	12.70	365.05	3.06
69.95	.40	123.10	1.48	176.90	.99	225.00	3.10	366.05	.11
70.95	.14	125.00	.40	178.90	3.65	227.00	5.73	366.95	.09
73.15	.22	126.90	45.49	180.00	2.46	228.20	.26	372.05	1.19
74.05	5.66	128.10	4.01	181.10	1.12	228.90	.87	373.15	.21
75.05	7.85	129.00	21.94	182.00	.28	233.90	.14	401.75	.14
77.05	46.67	130.00	1.86	183.50	.22	241.80	.51	402.05	.14
78.15	3.48	130.70	.42	185.10	1.19	244.10	9.09	402.25	.22
78.95	3.53	133.90	.79	186.00	13.10	245.10	1.40	403.05	.69
79.95	2.16	135.00	1.90	187.00	3.37	246.00	2.05	403.75	.09
81.05	3.33	135.80	.31	188.90	.77	246.90	.12	421.05	.53
81.95	.73	136.10	.25	190.90	.46	255.00	49.24	422.15	.72
83.85	1.15	136.30	.22	192.00	1.06	255.90	6.99	423.05	5.02
85.15	1.15	137.10	1.07	197.90	1.27	257.10	.73	424.15	.96
86.15	.53	141.00	2.31	194.10	.21	258.00	2.81	441.05	12.13
86.95	.16	142.00	.86	195.90	3.07	259.00	.41	442.05	93.06
91.05	1.76	143.00	.88	196.70	.32	265.00	1.09	443.05	18.13
92.15	1.14	147.10	1.29	198.00	100.00	270.20	.11	444.05	1.89
93.05	5.75	147.90	2.59	199.00	7.19	273.00	1.58	459.55	.08
93.85	.20								

MS data file header from : >E0221

Sample: DFIPP 50 NGS Operator: USER6 MS 8/07/87 18:02
Misc : 08-07-87MEI 1UL INJ BIL# 1
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFIPPE Tuning file: MTEON No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures : 150. 280. 0. 0. 0.
Chromatographic times, min. : 0.0 10.0 0.0 0.0 0.0
Chromatographic rate, deg/min: 5.0 0.0 0.0 0.0 0.0

GC/MS TUNING AND MASS CALIBRATION
Decafluorotriphenylphosphine (DFTPP)

Case No. U-5920 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5970 E Date 8-26-87 Time 9:32

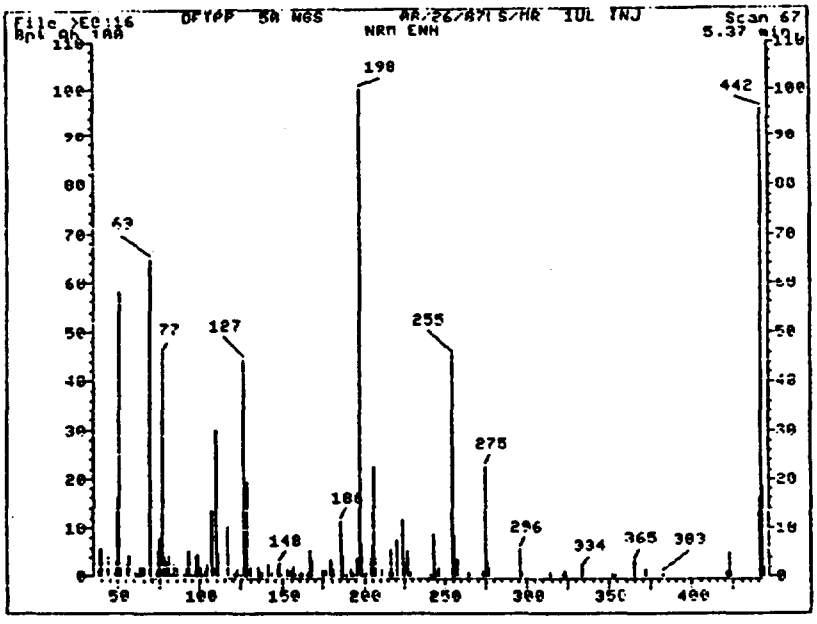
Lab ID E0416 Data Release Authorized By: C Stoytowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	57.94
68	less than 2.0% of mass 69	0.00 (0.00)[1]
69	mass 69 relative abundance	64.86
70	less than 2.0% of mass 69	0.00 (0.00)[1]
127	40.0 - 60.0% of mass 198	44.29
197	less than 1.0% of mass 198	0.00
198	base peak, 100% relative abundance	100.00
199	5.0 - 9.0% of mass 198	6.86
275	10.0 - 30.0% of mass 198	22.60
365	greater than 1.00% of mass 198	3.17
441	present, but less than mass 443	16.12
442	greater than 40.0% of mass 198	95.86
443	17.0 - 23.0% of mass 442	18.40 (19.19)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 69
[2] Value in parenthesis is % mass 442

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check B/N E0419	8-26-87	12:03
	Cont Calib Check A/P E0420	8-26-87	13:08
DC-GW-34A MSD	6735 MSD E0425	8-26-87	18:38



>E0416 DFTPP 50 NGS 08/26/87LS/MR 1UL INJ
67 NRM ENH

File: >E0416 Scan #: 67 Retn. time: 5.37

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
37.75	.62	85.80	1.61	136.90	.29	188.90	.47	254.95	45.49
38.15	.91	90.40	.36	140.90	2.35	192.00	1.43	255.95	8.47
39.05	5.59	92.20	1.67	142.50	.50	192.80	.24	257.85	3.20
40.05	5.87	93.00	5.30	143.10	.68	193.00	.29	264.95	.82
44.05	4.05	94.70	.35	147.00	1.93	194.00	.52	273.05	1.15
47.85	.82	97.10	.38	148.00	2.23	196.00	3.63	274.95	22.60
49.15	3.40	97.90	4.40	149.00	.47	197.85	100.00	275.95	3.10
50.05	16.09	98.90	4.69	152.90	1.29	198.85	6.86	276.85	1.72
51.05	57.94	100.90	2.16	154.90	1.20	199.85	.32	295.95	5.56
52.05	1.68	101.80	.32	155.90	1.88	200.85	.32	296.95	.59
56.05	2.44	103.90	1.00	156.80	.46	201.45	.67	314.85	.68
57.05	4.28	105.00	2.28	157.00	.43	203.95	3.46	322.45	.47
60.65	.62	107.00	13.42	159.80	.41	204.95	6.03	323.05	1.18
60.95	.87	108.10	1.90	161.10	.83	205.95	22.34	323.85	.32
62.05	.52	110.00	29.71	162.00	.35	207.05	3.55	334.00	1.55
63.15	2.11	111.00	4.46	164.70	.52	210.75	1.46	351.90	.49
65.15	1.56	116.90	10.11	165.70	.50	215.85	.62	353.50	.30
68.90	64.86	121.00	.33	166.10	.68	216.95	5.54	364.90	3.17
73.10	.24	121.80	.70	166.90	5.27	217.95	.56	371.90	1.47
74.00	5.22	123.10	1.23	168.00	3.20	220.95	7.36	382.90	.55
75.00	7.88	124.70	.39	175.00	1.18	224.05	11.54	421.00	.67
77.00	45.83	127.00	44.29	176.00	.46	225.05	2.76	422.10	1.06
78.10	3.95	127.90	5.05	176.90	.91	226.95	5.28	423.00	4.83
78.90	3.38	129.00	19.31	179.00	3.22	228.85	.71	423.90	.77
79.90	2.63	130.00	2.09	180.00	2.76	241.95	.41	441.10	16.12
81.00	4.13	130.80	.44	181.00	1.50	243.95	8.82	442.00	95.86
82.80	.77	134.80	1.94	186.00	11.45	244.95	.77	443.00	18.40
83.90	2.22	135.80	.67	187.10	4.13	245.95	1.76	444.10	1.93
85.10	.91								

MS data file header from : >E0416

Sample: DFTPP 50 NGS Operator: USER6 MS 8/26/87 9:32
Misc : 08/26/87LS/MR 1UL INJ BTL# 1
Sys. #: 2 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: DFTPPE Tuning file: MTEUN No. of extra records: 1
Source temp.: 0 Analyzer temp.: 275 Transfer line temp. : 0

Chromatographic temperatures : 150. 280. 0. 0. 0.
Chromatographic times, min : 0.0 10.0 0.0 0.0 0.0

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-5920 Contractor Ecology & Environment Inc Contract No. IL-3140

Instrument ID HP5970D Date 6-30-87 Time 1103

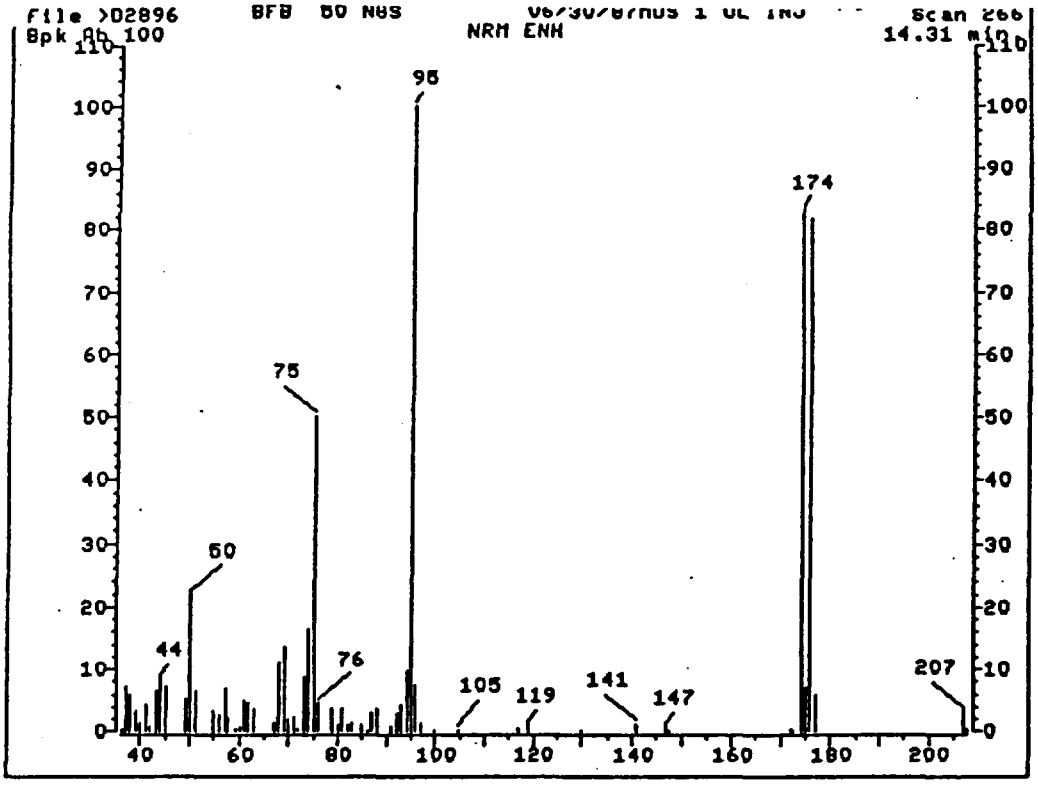
Lab ID D2896 Data Release Authorized By: C Stojowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	21.8
75	30.0 - 60.0% of the base peak	50.2
95	Base peak, 100% relative abundance	100
96	5.0 - 9.0% of the base peak	7.49
173	Less than 1.0% of the base peak	0
174	Greater than 50.0% of the base peak	83.2
175	5.0 - 9.0% of mass 174	7.09 (8.52)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	81.7 (98.2)[1]
177	5.0 - 9.0% of mass 176	5.73 (7.01)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1]Value in parenthesis is % mass 174.
[2]Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	VOA STD-50 ug/L D2897	6-30-87	1208
	20 ug/L D2898		1259
	100 ug/L D2900		1440
	150 ug/L D2901		1531
	200 ug/L D2902		1621



>D2896 BFB 50 NGS 06/30/87MDS 1 UL INJ
266 NRM ENH

File: >D2896 Scan #: 266 Retn. time: 14.31

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
35.90	2.20	55.05	3.22	70.00	1.96	86.00	.18	119.00	.90
36.10	.29	55.95	2.57	71.10	2.25	87.10	2.90	129.75	.11
37.00	7.11	57.15	6.81	71.90	.42	88.00	3.73	140.95	1.20
38.00	5.75	57.85	2.41	72.10	.15	91.15	.87	147.00	.62
39.00	3.27	59.45	.42	73.00	8.57	92.05	2.94	147.80	.15
40.00	1.22	60.05	.79	74.00	16.36	92.95	4.09	172.15	.24
41.10	4.38	60.25	.22	75.00	50.19	94.05	9.61	172.45	.12
41.90	.77	60.95	4.85	76.00	4.56	95.05	100.00	173.95	83.19
43.10	6.34	61.95	4.42	78.90	3.52	96.05	7.49	175.05	7.09
44.00	8.31	63.05	3.60	79.90	1.00	97.15	1.44	175.95	81.67
45.10	7.22	66.85	1.29	81.00	3.66	100.05	.13	176.85	5.73
49.10	5.27	67.15	.28	82.00	1.17	104.95	.19	207.05	3.14
50.05	21.76	68.05	10.89	83.00	1.30	116.80	.37	207.95	.55
51.05	6.48	69.00	13.39	85.10	.93				

MS data file header from : >D2896

Sample: BFB 50 NGS Operator: USER6 MS 6/30/87 11:03
Misc : 06/30/87MDS 1 UL INJ
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTVOD No. of extra records: 1
Source temp.: 0 Analyzer temp.: 200 Transfer line temp. : 20

Chromatographic temperatures : 220. 225. 0. 0. 0.

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-5920 Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5995C Date 7-15-87 Time 20:20

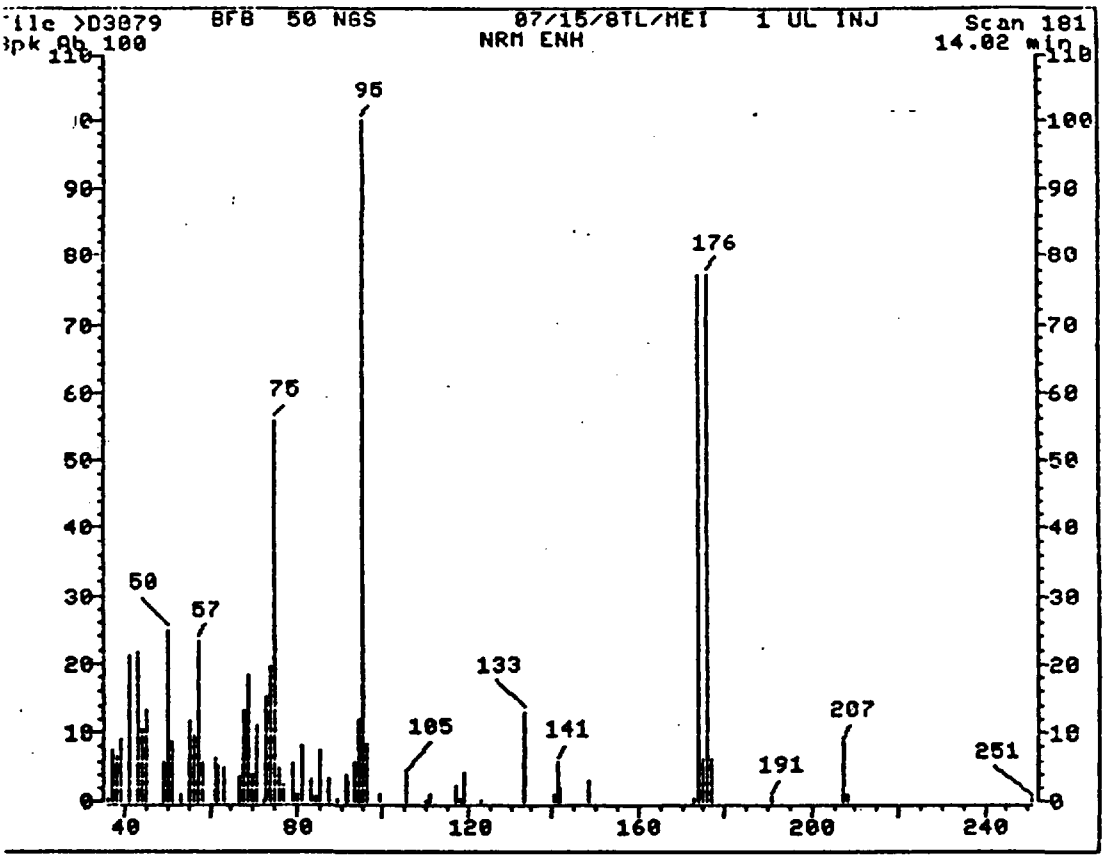
Lab ID D3079 Data Release Authorized By: C Krajtowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	24.84
75	30.0 - 60.0% of the base peak	55.81
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	8.43
173	Less than 1.0% of the base peak	0.45
174	Greater than 50.0% of the base peak	77.14
175	5.0 - 9.0% of mass 174	6.22 (8.06) [1]
176	Greater than 95.0%, but less than 101.0% of mass 174	77.27 (100.16) [1]
177	5.0 - 9.0% of mass 176	6.12 (7.92) [2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1] Value in parenthesis is % mass 174.
[2] Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID	DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check D3081	7-15-87	22:11
D3082	Method Blank D3082	7-15-87	23:31
DC-GW-57	6741 D3083	7-16-87	00:22
DC-GW-39A	6737 D3088	7-16-87	04:39



>D3079 BFB 50 NGS 07/15/8TL/MEI 1 UL INJ
181 NRM ENH

File: >D3079 Scan #: 181 Retn. time: 14.02

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.00	.27	57.15	23.20	75.10	55.81	94.05	11.85	141.15	5.77
37.10	7.53	57.95	5.79	75.90	4.77	95.05	100.00	141.95	2.11
38.00	6.61	58.15	1.59	77.10	2.30	96.05	8.43	148.20	2.99
39.00	8.92	61.05	6.25	78.90	5.67	99.15	1.12	172.75	.45
41.00	21.15	61.95	5.24	80.00	1.13	105.15	3.84	173.95	77.14
43.00	21.39	63.05	4.87	80.90	8.04	110.10	.14	175.05	6.22
44.10	10.38	67.05	3.54	83.10	3.41	111.10	1.17	175.95	77.27
45.10	13.33	68.05	13.22	84.10	.70	117.10	2.25	176.95	6.12
49.00	5.75	69.00	18.35	85.10	7.61	117.80	.27	190.90	.62
50.05	24.84	70.10	4.01	87.10	3.32	118.10	.34	207.05	8.59
50.85	8.70	71.10	10.90	89.05	.56	119.10	4.13	208.05	1.02
53.15	1.07	72.20	.14	91.05	4.03	123.20	.15	250.85	.34
54.95	11.75	73.00	15.11	91.85	2.84	133.05	12.91	251.05	.17
56.15	9.55	74.10	19.46	93.05	5.72	140.35	1.17		

MS data file header from : >D3079

Sample: BFB 50 NGS Operator: USER6 MS 7/15/87 20:20
File : 07/15/8TL/MEI 1 UL INJ
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTVOD No. of extra records: 1
Source temp.: 0 Analyzer temp.: 200 Transfer line temp. : 20

Chromatographic temperatures : 220. 225. 0. 0. 0.
Chromatographic times, min : 10.0 10.0 0.0 0.0 0.0

GC/MS TUNING AND MASS CALIBRATION

Bromofluorobenzene (BFB)

Case No. U-5920-J Contractor Ecology & Environment Contract No. IL-3140

Instrument ID HP5995C Date 7-16-87 Time 13:26

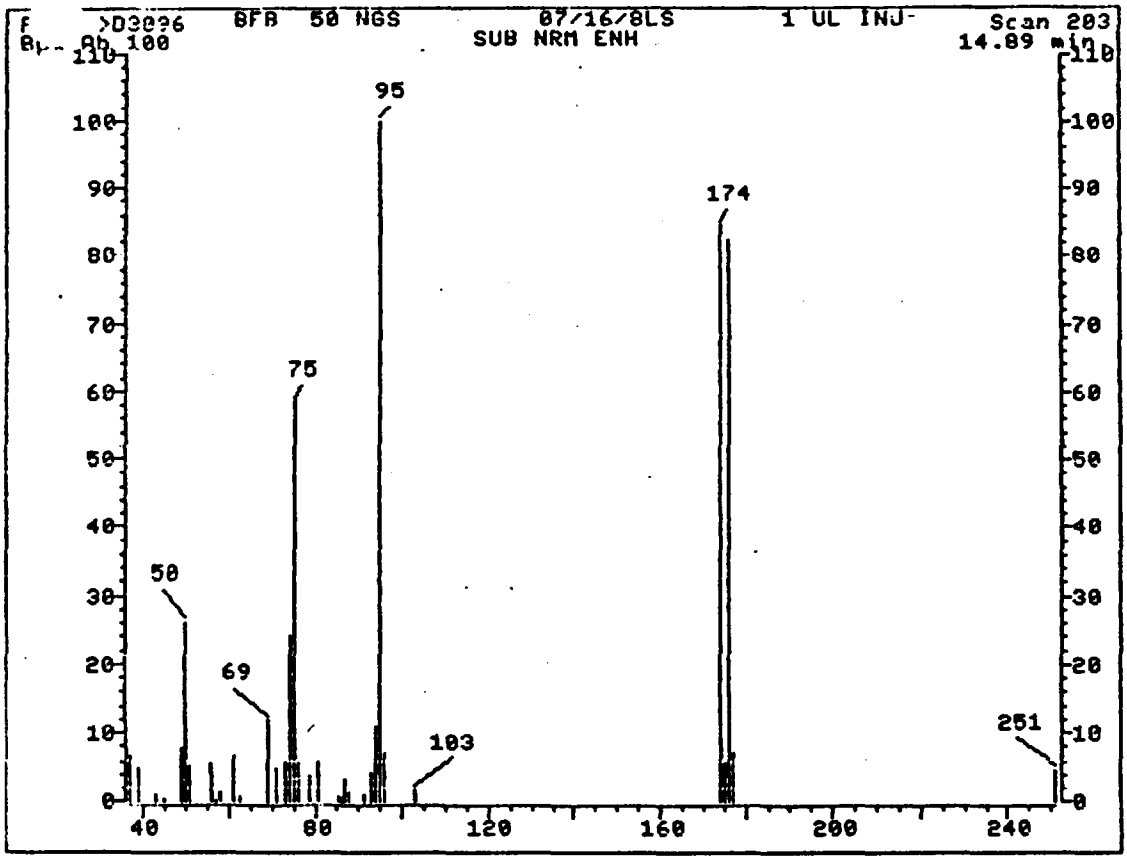
Lab ID D3096 Data Release Authorized By: C Nojowicz

m/e	ION ABUNDANCE CRITERIA	%RELATIVE ABUNDANCE
50	15.0 - 40.0% of the base peak	26.15
75	30.0 - 60.0% of the base peak	58.65
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of the base peak	7.23
173	Less than 1.0% of the base peak	0.00
174	Greater than 50.0% of the base peak	84.51
175	5.0 - 9.0% of mass 174	5.96 (7.06)[1]
176	Greater than 95.0%, but less than 101.0% of mass 174	82.36 (97.4%)[1]
177	5.0 - 9.0% of mass 176	6.99 (8.49)[2]

THIS PERFORMANCE TUNE APPLIES TO THE FOLLOWING SAMPLES, BLANKS AND STANDARDS.

[1]Value in parenthesis is % mass 174.
[2]Value in parenthesis is % mass 176.

SAMPLE ID	LAB ID		DATE OF ANALYSIS	TIME OF ANALYSIS
	Cont Calib Check	D3100	7-16-87	16:47
D3101	Method Blank	D3101	7-16-87	17:38
DC-GW-34A	6735	D3102	7-16-87	18:30
DC-GW-38A	6736	D3103	7-16-87	19:21
DC-GW-34A-MS	6735 MS	D3105	7-16-87	21:02
DC-GW-40A	6738	D3106	7-16-87	21:53
DC-GW-41A	6739	D3107	7-16-87	22:44
DC-GW-34A-MSD	6735 MSD	D3108	7-16-87	23:50
DC-GW-43A	6740	D3109	7-17-87	00:41



>D3096 BFB 50 NGS 07/16/8LS 1 UL INJ
203 SUB NRM ENH

File: >D3096 Scan #: 203 Retn. time: 14.89

m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.	m/z	Int.
36.90	6.60	56.95	.05	74.00	24.24	86.50	.68	96.05	7.23
38.90	4.99	58.15	1.22	75.10	58.65	87.00	3.32	102.95	1.61
43.10	1.08	61.05	6.45	76.10	5.77	88.00	1.37	173.95	84.51
45.00	.44	62.45	.73	78.90	3.76	91.25	1.03	174.95	5.96
48.90	7.72	62.65	.73	80.80	5.72	93.05	4.35	175.95	82.36
49.95	26.15	68.90	11.78	85.10	.73	94.05	10.95	176.95	6.99
50.85	5.28	71.10	4.79	85.30	.68	95.05	100.00	251.05	4.59
55.95	5.57	73.00	5.72	85.70	.54				

MS data file header from : >D3096

Sample: BFB 50 NGS Operator: USER6 MS 7/16/87 13:26
Misc : 07/16/8LS 1 UL INJ
Sys. #: 1 MS model: 70 SW/HW rev.: CA ALS # : 0
Method file: BFB001 Tuning file: MTVOD No. of extra records: 1
Source temp.: 0 Analyzer temp.: 200 Transfer line temp. : 20

Chromatographic temperatures :	220.	225.	0.	0.	0.
Chromatographic times, min. :	10.0	10.0	0.0	0.0	0.0
Chromatographic rate, deg/min:	5.0	0.0	0.0	0.0	0.0

SAMPLE DATA

SAMPLE NUMBER DC-GW-34A

Sample Number
DC-GW-34A

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc. Case No: U-5920

Lab Sample ID No: 6735 QC Report No:

Sample Matrix: Water Contract No: IL-3140

Data Release Authorized By: C Stoytowicz Date Sample Received: 7-15-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 7-16-87

Conc/Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		(ug/l) or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	6	JB
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		(ug/l) or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	36	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: Ecology & Environment

Case No: U-5920 1

Sample Number
DC-GW-34A

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-16-87

Date Analyzed: 7-21-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1, 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2, 4-Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2, 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2, 4-Dinitrotoluene	10u
606-20-2	2, 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3, 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10u
53-70-3	Dibenzo(a, h)Anthracene	10u
191-24-2	Benzo(g, h, i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No 4-5920

Sample Number
DC-GW-34A

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-15-87

Date Analyzed: 7-28-87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name: Ecology & Environment

Case No: U-5920

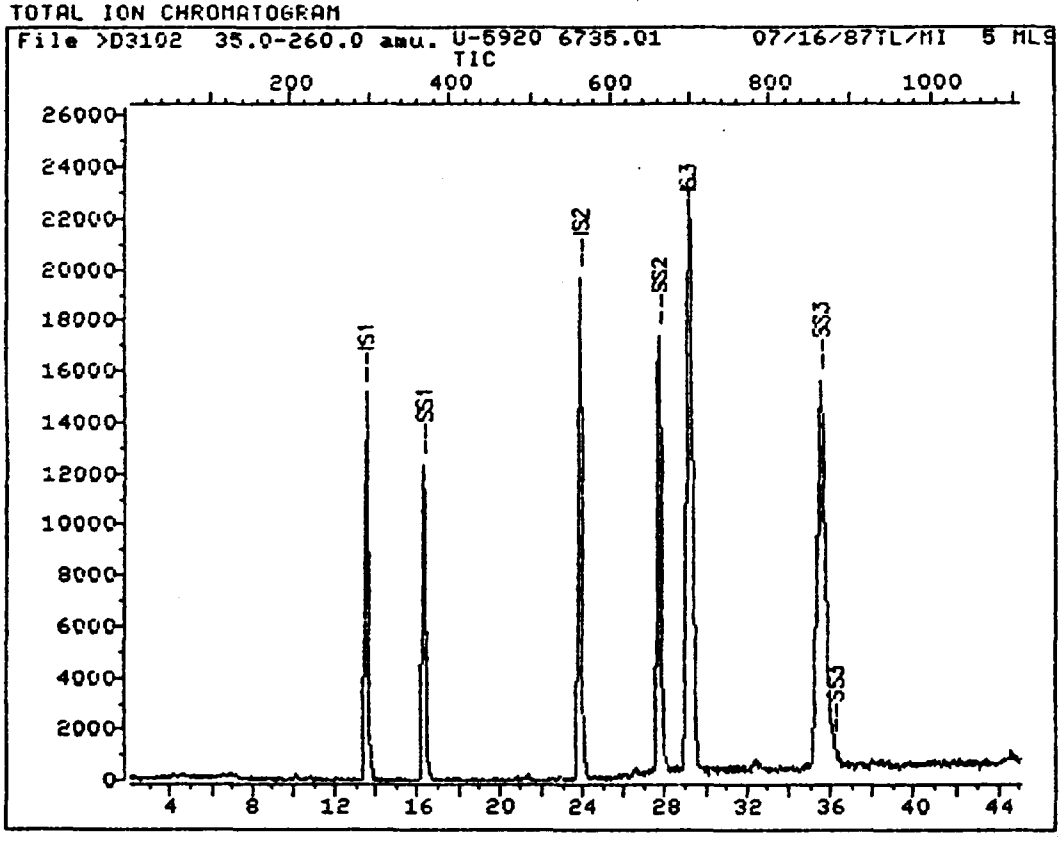
Sample Number: DC-GW-34A

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	Unknown	BNA	34.34	22 J
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

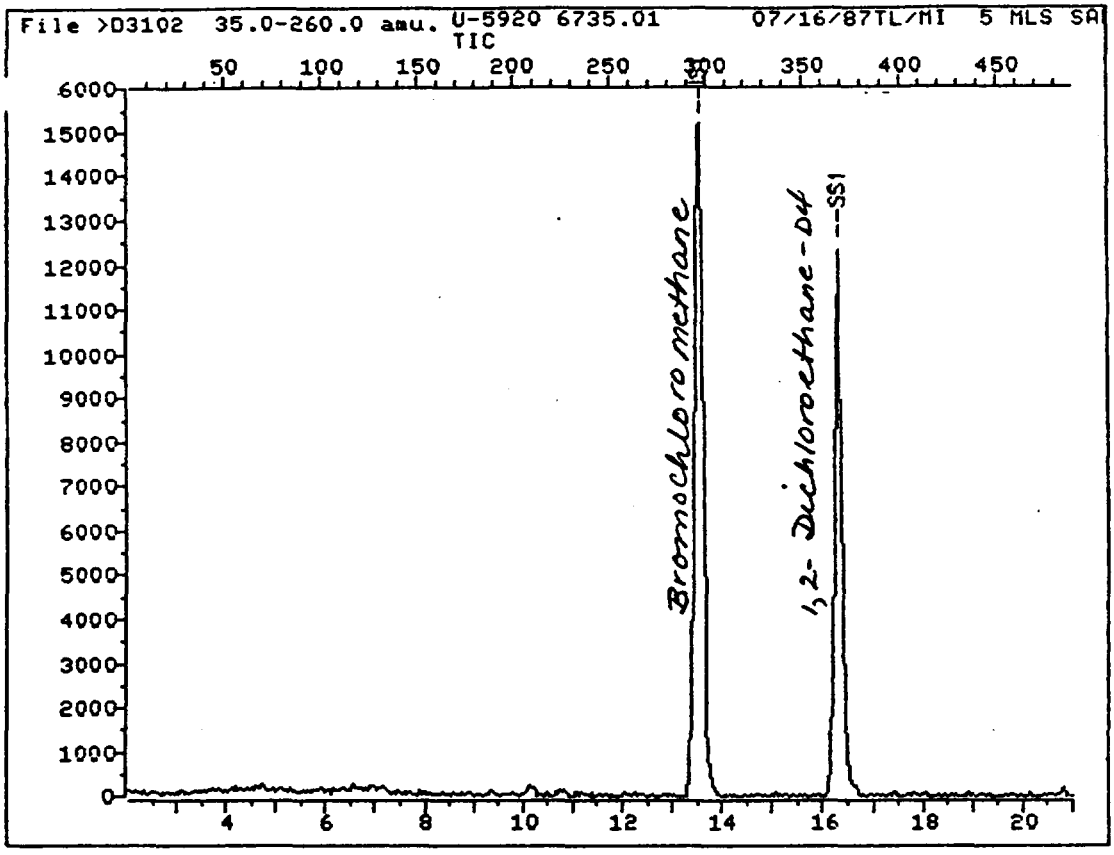


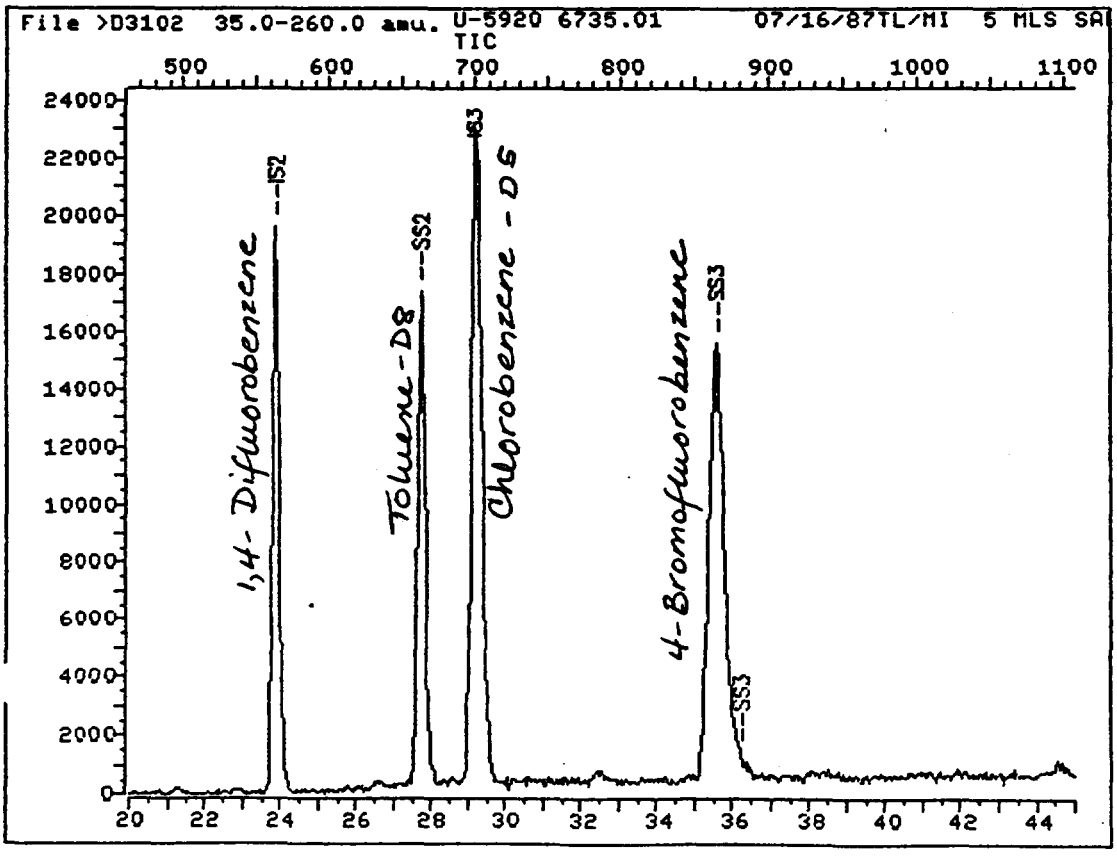
Data File: >D3102::D5
Name: U-5920 6735.01 DC-GW-34A
Misc: 07/16/87TL/MI 5 MLS SAM + 10 ULS IS/SS

Id File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

Operator ID: USER6
Quant Time: 870716 19:16
Injected at: 870716 18:30

DC-GW-34A


File >D3102 35.0-260.0 amu. U-5920 6735.01 07/16/87TL/MI 5 MLS SA
TIC
Bromochloromethane
1,2-Dichloroethane-D4
--SS1


File >D3102 35.0-260.0 amu. U-5920 6735.01 07/16/87TL/MI 5 MLS SA
TIC
1,4-Difluorobenzene
--IS2
Toluene-D8
--SS2
IS3
Chlorobenzene-D5
4-Bromofluorobenzene
--SS3
--SS3

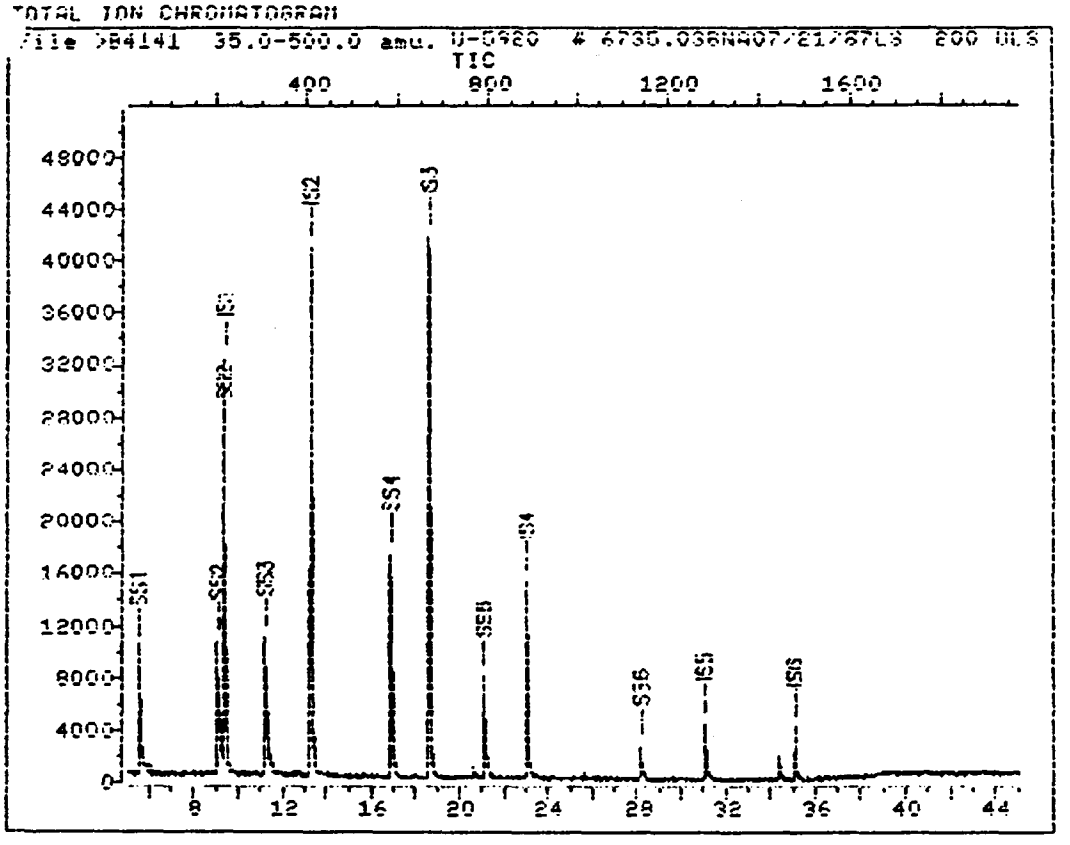
QUANT REPORT

perator ID: USER6 Quant Rev: 4 Quant Time: 870716 19:16
utput File: ^D3102::Q3 Injected at: 870716 18:30
ata File: >D3102::D5 Dilution Factor: 1.00
ame: U-5920 6735.01 DC-GW-34A
isc: 07/16/87TL/MI 5 MLS SAM + 10 ULS IS/SS

D File: VOADR::D2
itle: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	13.51	296	21245	50.00	UG/L	100
5)	1,2-DICHLOROETHANE-D4	(SURR) 65	16.31	368	59988	49.82	UG/L 100%	73
6)	*1,4-DIFLUOROBENZENE	(IS) 114	23.88	563	76638	50.00	UG/L	100
7)	2-BUTANONE	72	16.23	366	179	6.68	UG/L	100
1)	*CHLOROBENZENE-D5	(IS) 117	29.16	699	60116	50.00	UG/L	100
6)	TOLUENE-D8	(SURR) 98	27.72	662	68342	49.87	UG/L 99.8%	92
8)	CHLOROBENZENE	112	29.32	703	42140	36.29	UG/L	98
0)	4-BROMOFLUOROBENZENE	(SURR) 95	35.57	864	78891	49.40	UG/L 98.8%	100
0)	4-BROMOFLUOROBENZENE	(SURR) 95	36.23	881	256	.16	UG/L	100

* Compound is ISTD

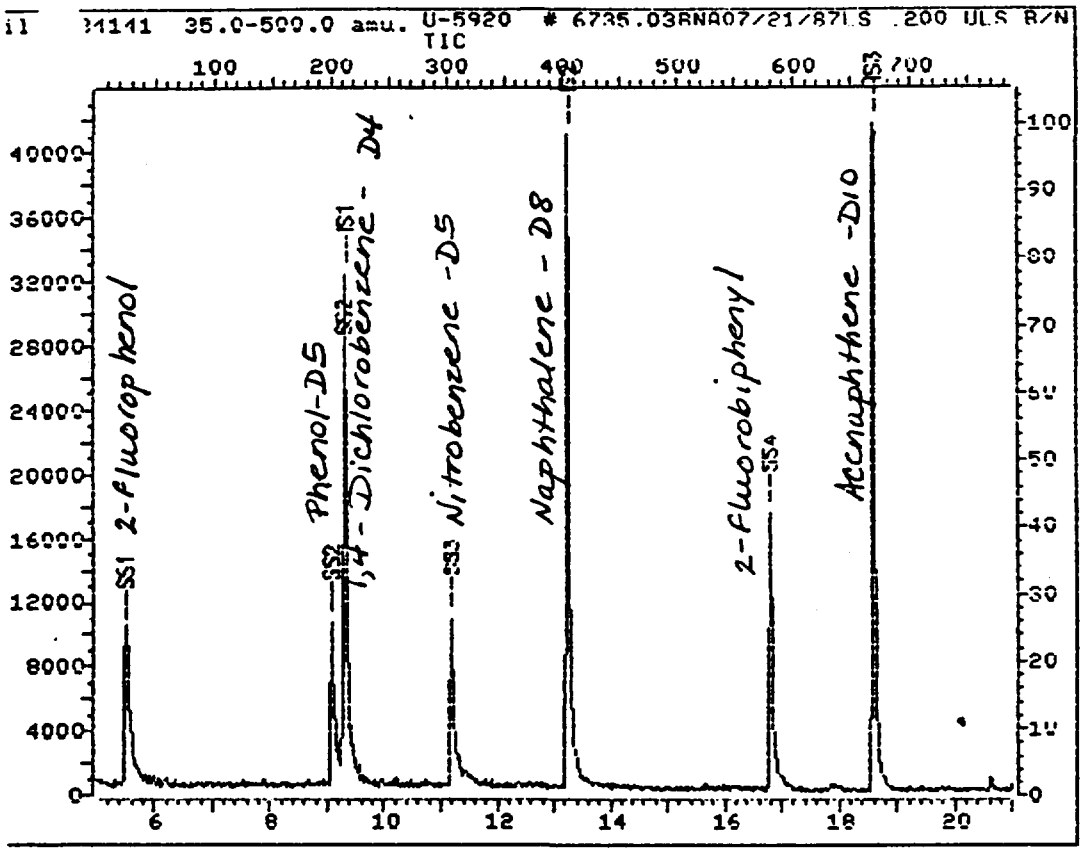


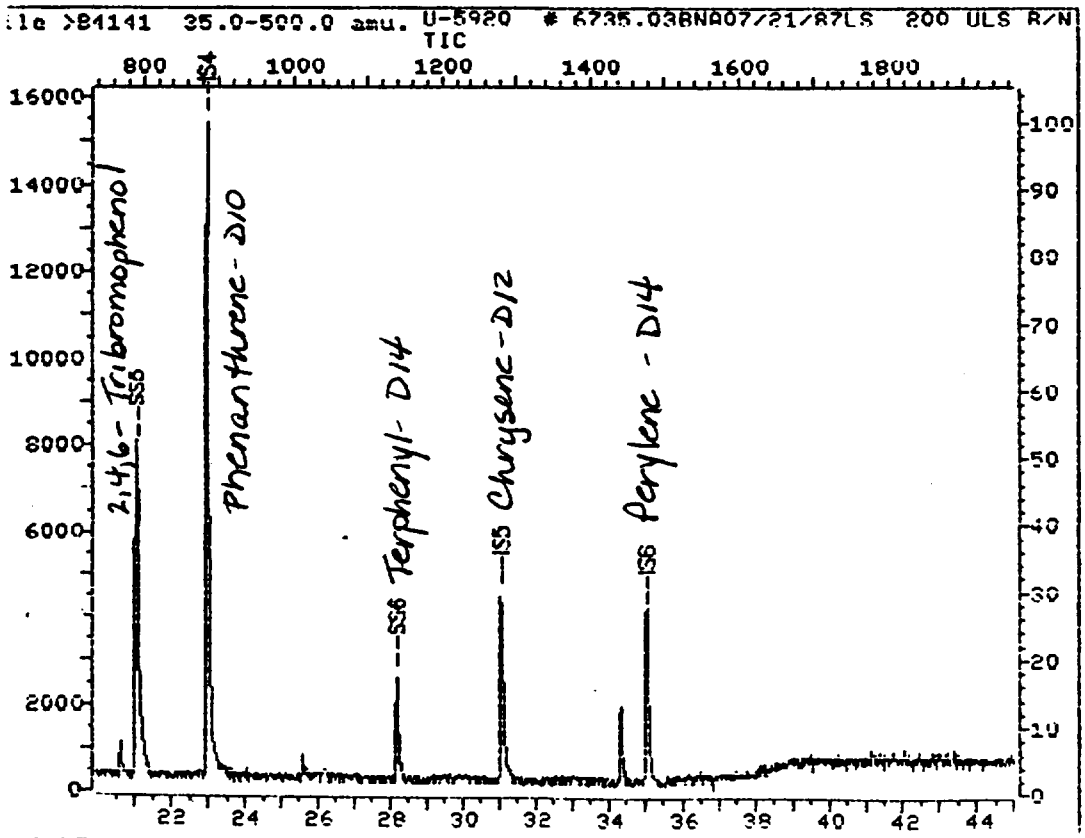
Data File: >B4141::D6
Name: U-5920 # 6735.03BNA DC-GW-34A
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870721 13:51

Operator ID: USER8
Quant Time: 870721 15:24
Injected at: 870721 14:36

DC-GW-34A


84141 35.0-500.0 amu. U-5920 # 6735.03BNA07/21/87LS .200 ULS R/N
TIC
2-Fluorophenol
Phenol-D5
1,4-Dichlorobenzene - D4
Nitrobenzene -D5
Naphthalene - D8
2-Fluorobiphenyl
Acenaphthene -D10


84141 35.0-500.0 amu. U-5920 # 6735.03BNA07/21/87LS 200 ULS R/N
TIC
2,4,6-Tribromophenol
Phenanthrene- D10
Terphenyl- D14
Chrysene-D12
Perylene - D14

QUANT REPORT

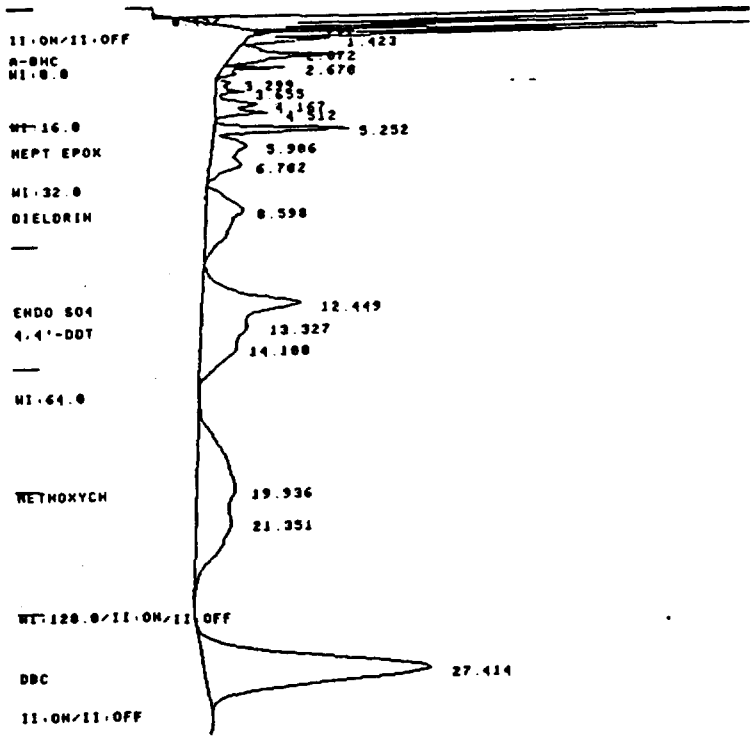
Operator ID: USER8 Quant Rev: 4 Quant Time: 870721 15:24
Output File: ^B4141::Q3 Injected at: 870721 14:36
Data File: >B4141::D6 Dilution Factor: 2.00
Name: U-5920 # 6735.03BNA DC-GW-34A
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870721 13:51

	Compound			R.T.	Scan#	Area	Conc	Units	Q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.31	212	15829	40.00	UG/L	78
2)	PHENOL-D5	(SURR)	99	9.06	200	13417	51.42	UG/L	86
2)	PHENOL-D5	(SURR)	99	9.29	211	2138	8.19	UG/L	52
5)	2-FLUOROPHENOL	(SURR)	112	5.49	24	15916	88.53	UG/L	62
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.18~~	~~304~~	~~2484~~	~~10.46~~	UG/L	98
19)	*NAPHTHALENE-D8	(IS)	136	13.23	405	68835	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.18	304	17283	46.32	UG/L	98
34)	*ACENAPHTHENE-D10	(IS)	162	18.58	668	36847	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.79	580	30304	44.32	UG/L	92
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.58~~	~~668~~	~~6640~~	~~12.81~~	UG/L	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.04	789	10841	93.57	UG/L	99
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.58~~	~~668~~	~~4301~~	~~44.81~~	UG/L	100
55)	*PHENANTHRENE-D10	(IS)	188	22.97	884	35915	40.00	UG/L	93
65)	*CHRYSENE-D12	(IS)	240	31.03	1280	16878	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.16	1139	8409	53.62	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.03	1477	12874	40.00	UG/L	100

* Compound is ISTD

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-GW-34A

RECALCULATE ON FILE: 7546291

CHANNEL: 1A - 1 TITLE: RUN# 15 19:28 28 JUL 87

SAMPLE: 6735.04.0301 METHOD: U-5920 CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.423		76138	VV	6.06
2		0.0000	1.772		20165	VV	5.06
3	~~A-BHC~~	0.0497	2.072	-0.038	163994	VV	7.44
4	~~G-BHC~~	0.0256	2.308	0.068	32104	VB	? 7.19
5		0.0000	2.670		58117	BV	6.44
6		0.0000	3.655		43595	VV	8.75
7		0.0000	4.167		83536	VV	? 14.31
8		0.0000	4.512		91819	VB	14.44
9		0.0000	5.252		208632	BV	11.13
~~10~~	~~HEPT EPOX~~	0.0597	5.906	0.046	165891	VV	? 31.88
11		0.0000	6.702		139075	VB	? 32.88
12	~~DIELDRIN~~	0.1581	8.598	0.138	458102	BV	101.06
13	~~ENDO SO4~~	0.4732	12.449	0.149	660201	VV	45.25
14	~~4,4'-DDT~~	0.1675	13.327	-0.363	292864	VV	?119.50
15		0.0000	14.100		238598	VB	? 91.44
16	~~METHOXYCH~~	0.6993	19.936	-0.194	727113	BV	?137.88
17		0.0000	21.351		503063	VB	?163.88
18	DBC	0.9620	27.414	0.024	2008957	BB	70.56
TOTALS:		2.5951		-0.170	5972044		

DETECTED PKS: 32 REJECTED PKS: 14

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 22.9 OFFSET: -18

RACK: 1 VIAL: 15 INJ: 1

NOTES:
NOTEBOOK:297-146 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-5920
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
PRIMARY ANALYSIS

SAMPLE NUMBER DC-GW-38A

481095

Sample Number
DC-GW-38A

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc Case No: U-5920

Lab Sample ID No: 6736 QC Report No:

Sample Matrix: Water Contract No: IL-3140

Data Release Authorized By: C Stoytowicz Date Sample Received: 7-15-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 7-16-87

Conc./Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	13 B	
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. *Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.*

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

Laboratory Name: Ecology & Environment

Case No: U-4431- U-4441

Sample Number
DC-GW-38A

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: B/N - 7/16/87

Date Analyzed: B/N - 7/21/87

Conc/Dil Factor: 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylpheno'	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2. 4. 6-Trichlorophenol	10u
95-95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2. 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3. 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2. 3-cd)Pyrene	10u
53-70-3	Dibenzo(a h)Anthracene	10u
191-24-2	Benzo(g h. i)Perylene	10u

(1)-Cannot be separated from diphenylamine.

Laboratory Name ecology and environment, inc.

Case No 4-5920

Sample Number DC-GW-38A

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 7-15-87

Date Analyzed: 7-28-87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name: Ecology & Environment

Case No: 4-5920

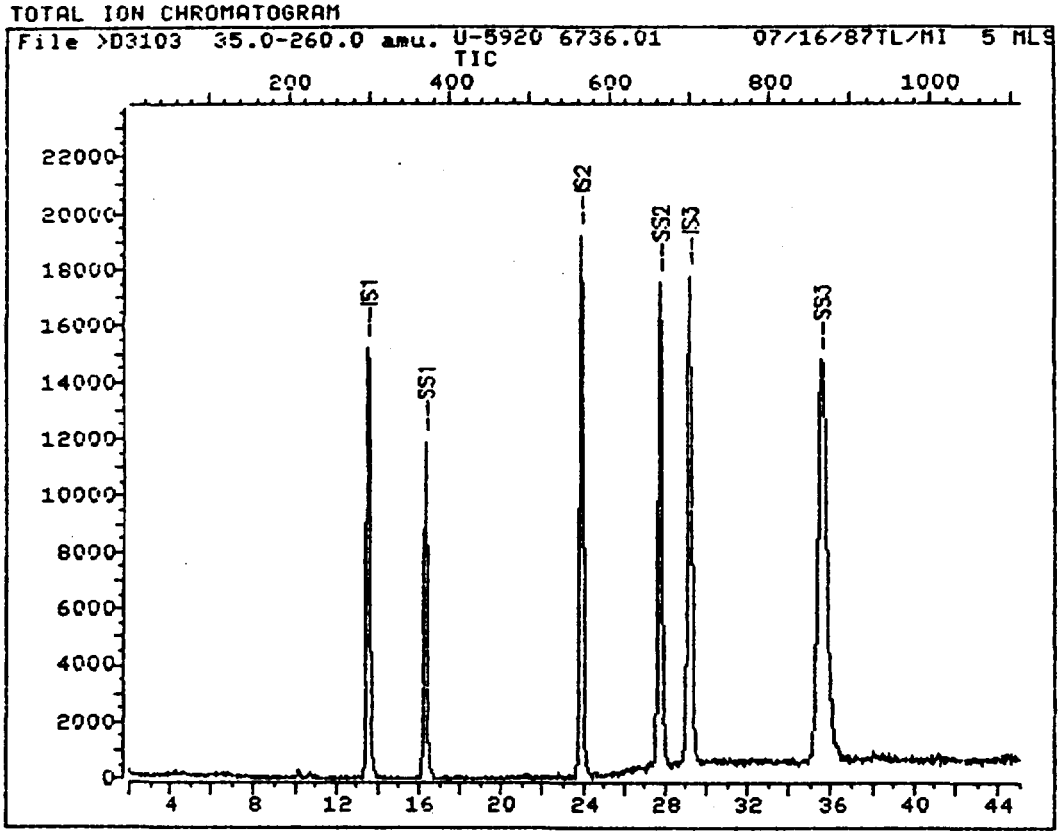
Sample Number
DC-GW-38A

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	No TIC's in B/N fraction			
4.				
5.	Unknown hydrocarbon	A/P	27.48	10 J
6.	Unknown	A/P	28.05	12 J
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

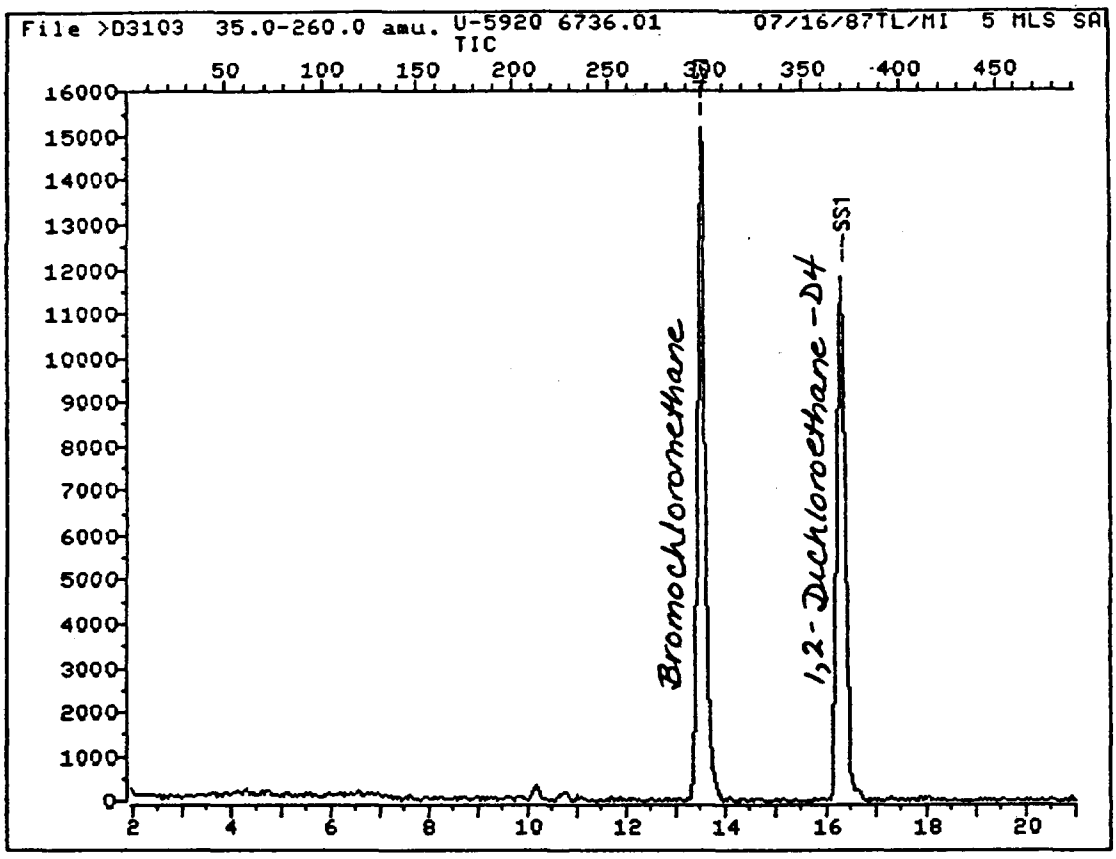


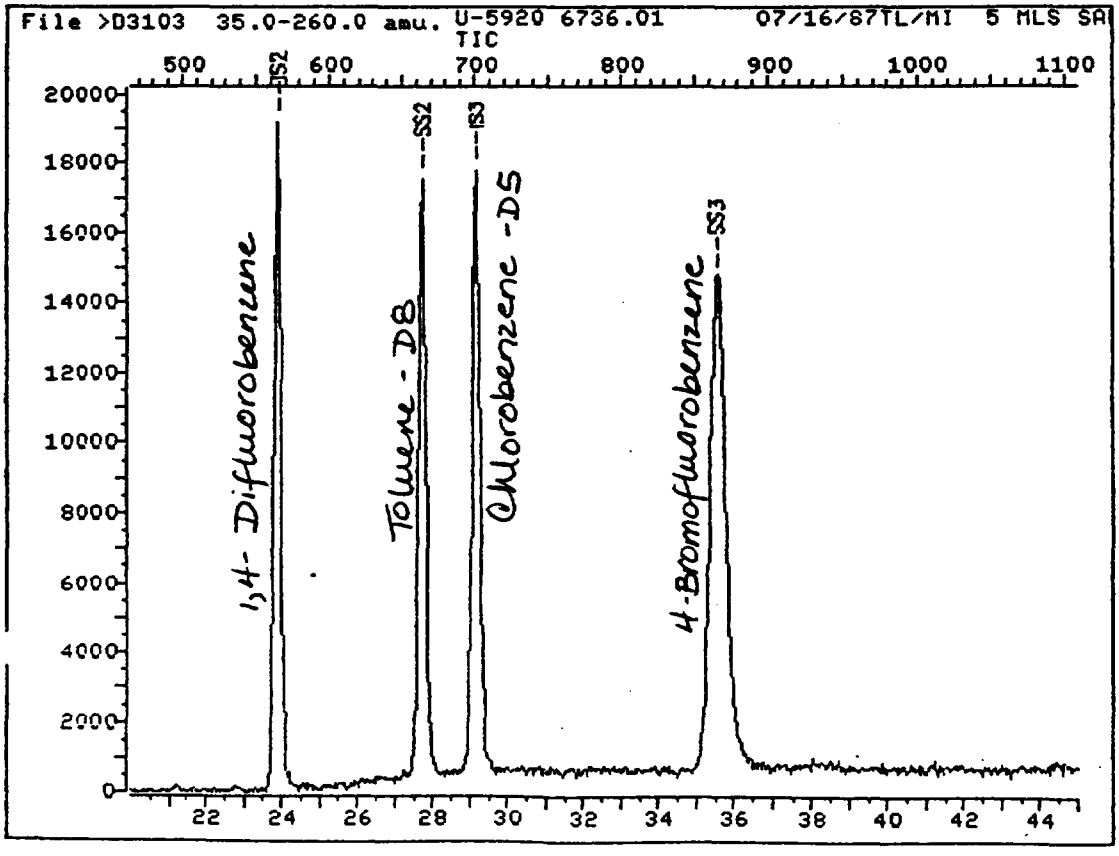
Data File: >D3103::D5
Name: U-5920 6736.01 DC-GW-38A
Misc: 07/16/87TL/MI 5 MLS SAM + 10 ULS IS/SS

Id File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

Operator ID: USER6
Quant Time: 870716 20:07
Injected at: 870716 19:21

DC-GW-38A


File >D3103 35.0-260.0 amu. U-5920 6736.01 07/16/87TL/MI 5 MLS SA
TIC
Bromochloromethane
1,2-Dichloroethane-D4
SS1


File >D3103 35.0-260.0 amu. U-5920 6736.01 07/16/87TL/MI 5 MLS SA
TIC
1,4-Difluorobenzene
Toluene-D8
Chlorobenzene-D5
4-Bromofluorobenzene
SS2
IS3
SS3

QUANT REPORT

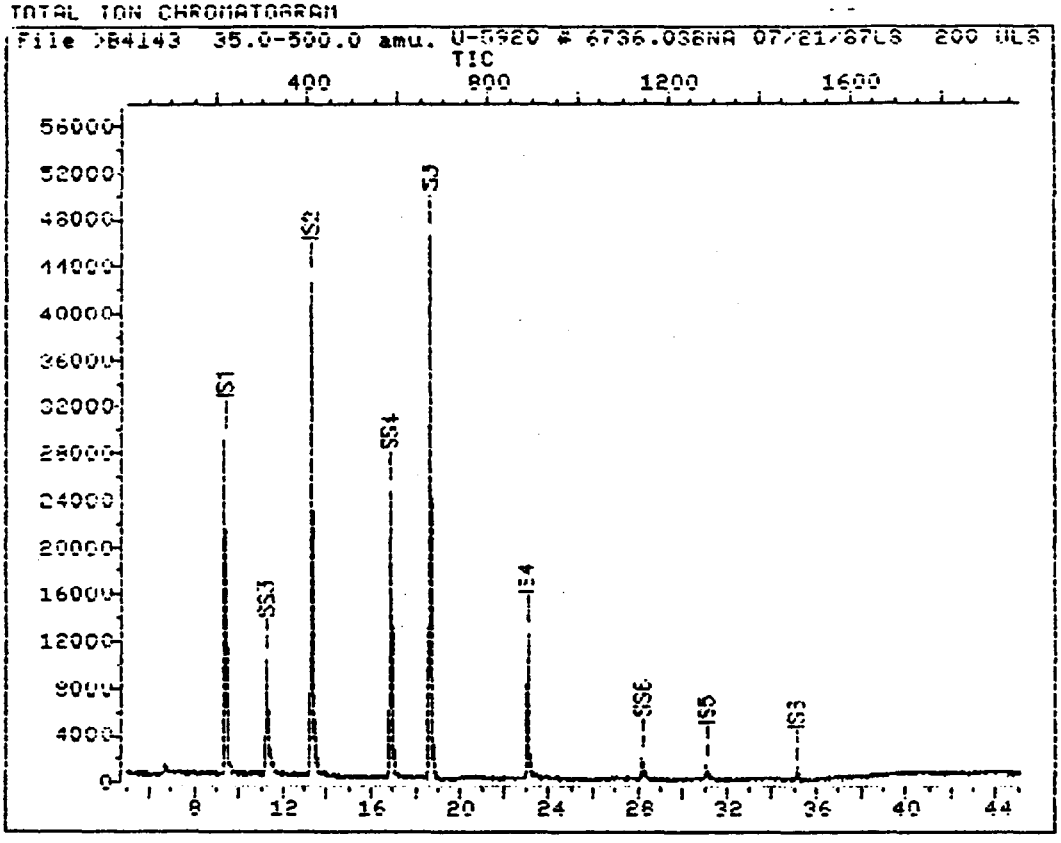
perator ID: USER6 Quant Rev: 4 Quant Time: 870716 20:07
utput File: ^D3103::Q3 Injected at: 870716 19:21
ata File: >D3103::D5 Dilution Factor: 1.00
ame: U-5920 6736.01 DC-GW-38A
isc: 07/16/87TL/MI 5 MLS SAM + 10 ULS IS/SS

D File: VOADR::D2
itle: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	13.52	298	20698	50.00 UG/L	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	16.31	370	58155	49.58 UG/L	75
6)	*1,4-DIFLUOROBENZENE	(IS)	114	23.88	565	73849	50.00 UG/L	100
7)	2-BUTANONE		72	16.27	369	340	13.17 UG/L	100
1)	*CHLOROBENZENE-D5	(IS)	117	29.17	701	59221	50.00 UG/L	100
6)	TOLUENE-D8	(SURR)	98	27.73	664	67870	50.27 UG/L	95
0)	4-BROMOFLUOROBENZENE	(SURR)	95	35.54	865	77383	49.19 UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

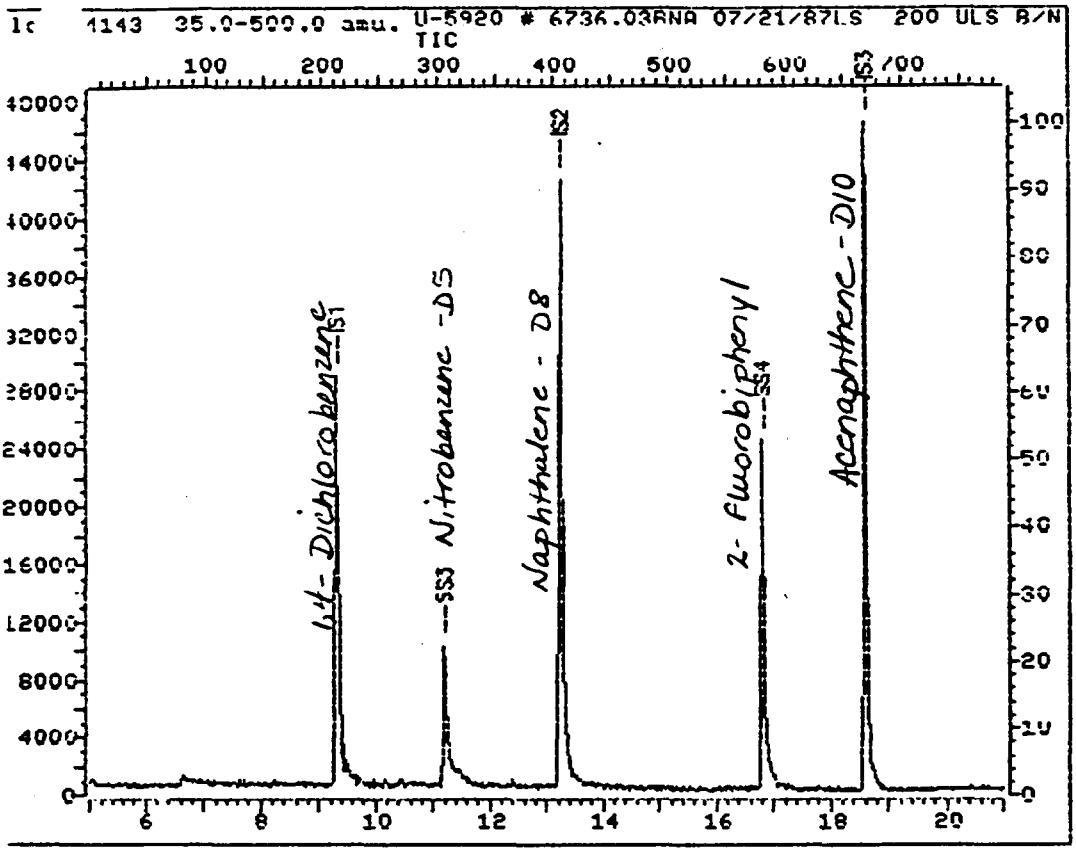


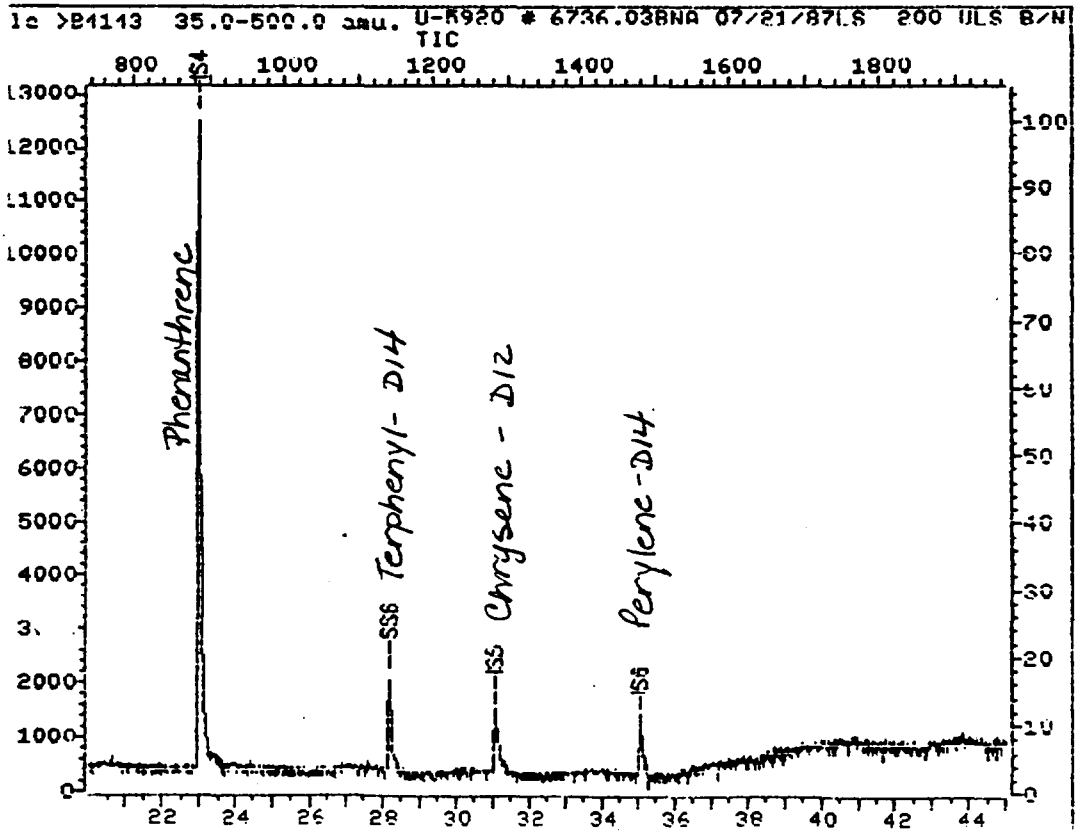
Data File: >B4143::D6
Name: U-5920 # 6736.03BNA DC-GW-38A B/N Results
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870721 13:51

Operator ID: USER8
Quant Time: 870721 17:06
Injected at: 870721 16:19

DC-GW-38A
B/N


1c 4143 35.0-500.0 amu. U-5920 # 6736.03BNA 07/21/87LS 200 ULS B/N
TIC
1,4-Dichlorobenzene
Nitrobenzene -D5
Naphthalene - D8
2-Fluorobiphenyl
Acenaphthene - D10


1c >B4143 35.0-500.0 amu. U-5920 # 6736.03BNA 07/21/87LS 200 ULS B/N
TIC
Phenanthrene
Terphenyl- D14
Chrysene - D12
Perylene-D14

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870721 17:06
Output File: ^B4143::Q3 Injected at: 870721 16:19
Data File: >B4143::D6 Dilution Factor: 2.00
Name: U-5920 # 6736.03BNA DC-GW-38A B/N Results
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870721 13:51

	Compound		R.T.	Scan#	Area	Conc	Units	Q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.29	212	15455	40.00 UG/L	82
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~	~~70~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible]~~	~~[illegible] UG/L~~ CW	95
19)	*NAPHTHALENE-D8	(IS)	136	13.24	406	69923	40.00 UG/L ✓	100
20)	NITROBENZENE-D5	(SURR)	82	11.18	305	18243	46.77 UG/L ✓	92
34)	*ACENAPHTHENE-D10	(IS)	162	18.58	669	39117	40.00 UG/L ✓	96
38)	2-FLUOROBIPHENYL	(SURR)	172	16.79	581	37918	52.24 UG/L ✓	92
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.50~~	~~[illegible]~~	~~[illegible]~~	~~[illegible] UG/L~~ CW	100
52)	~~*2,6-DINITROTOLUENE~~		~~165~~	~~18.58~~	~~[illegible]~~	~~[illegible]~~	~~[illegible] UG/L~~ CW	100
55)	*PHENANTHRENE-D10	(IS)	188	22.98	885	33522	40.00 UG/L	96
65)	*CHRYSENE-D12	(IS)	240	31.05	1282	7729	40.00 UG/L ✓	100
68)	TERPHENYL-D14	(SURR)	244	28.16	1140	9444	131.51 UG/L ✓	100
74)	*PERYLENE-D12	(IS)	264	35.05	1479	5330	40.00 UG/L	100

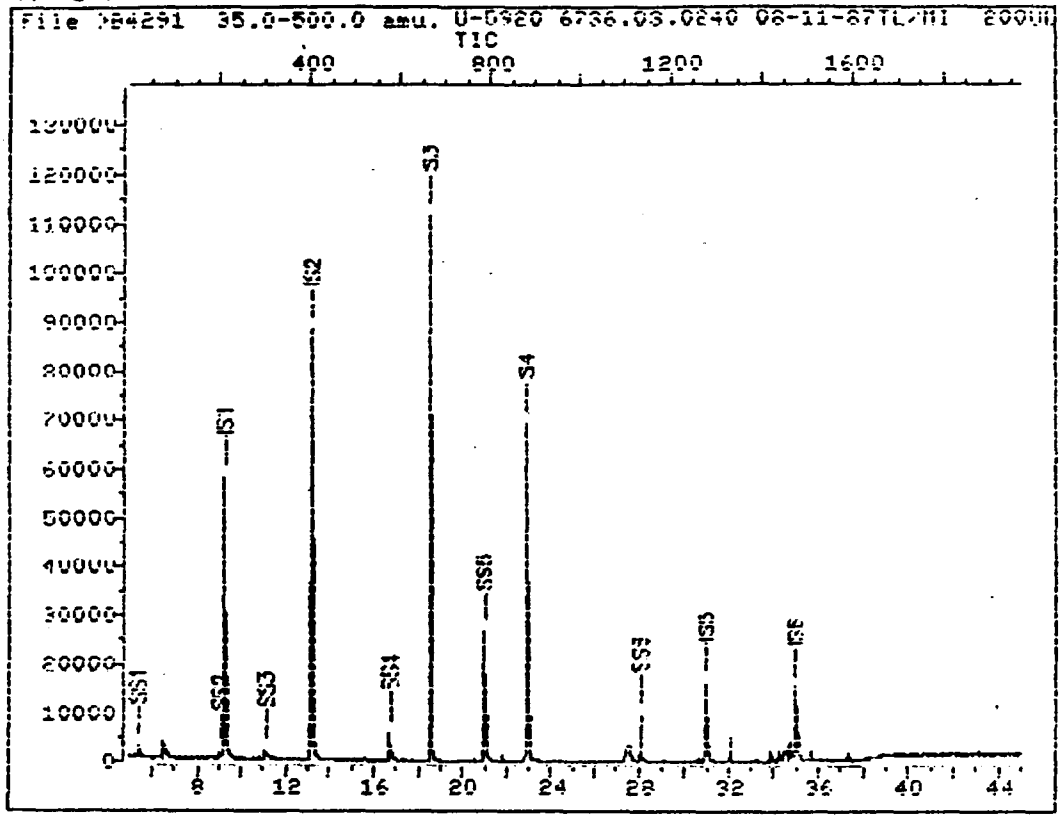
* Compound is ISTD

Rerun

NO ACID SURRS

Reextracted for acids only
& Reran B4290

TOTAL ION CHROMATOGRAM

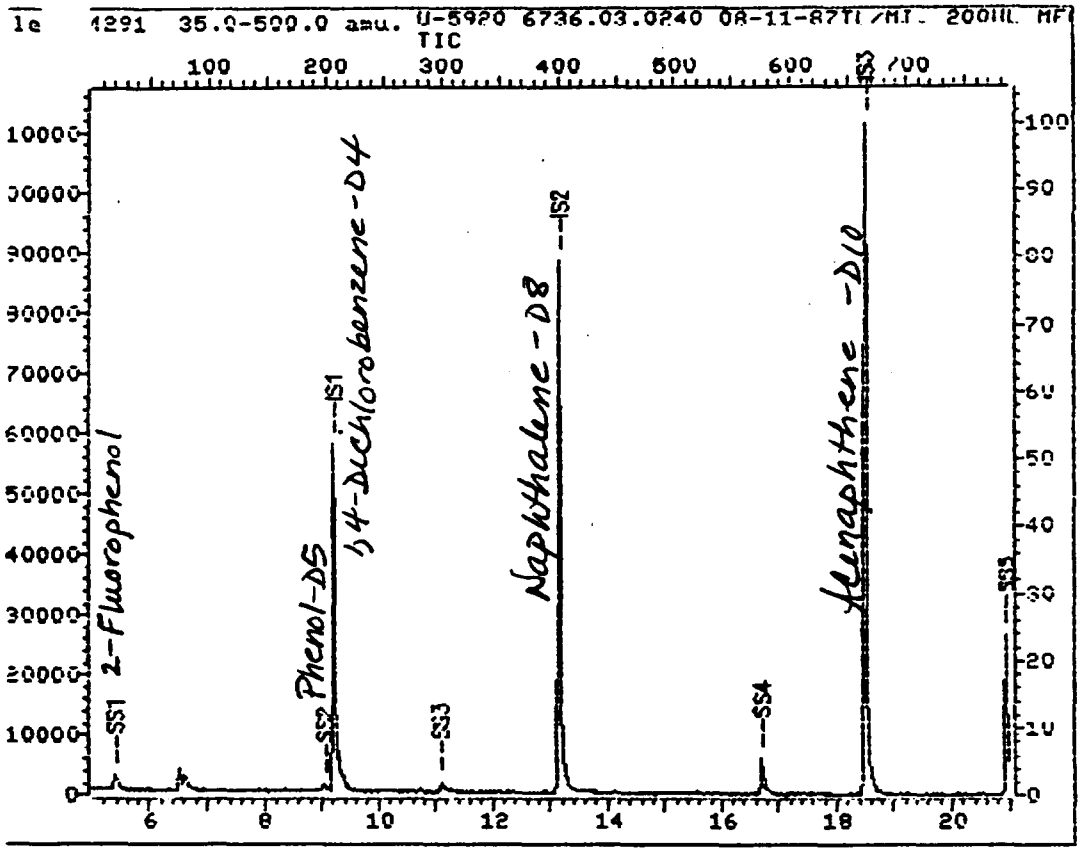


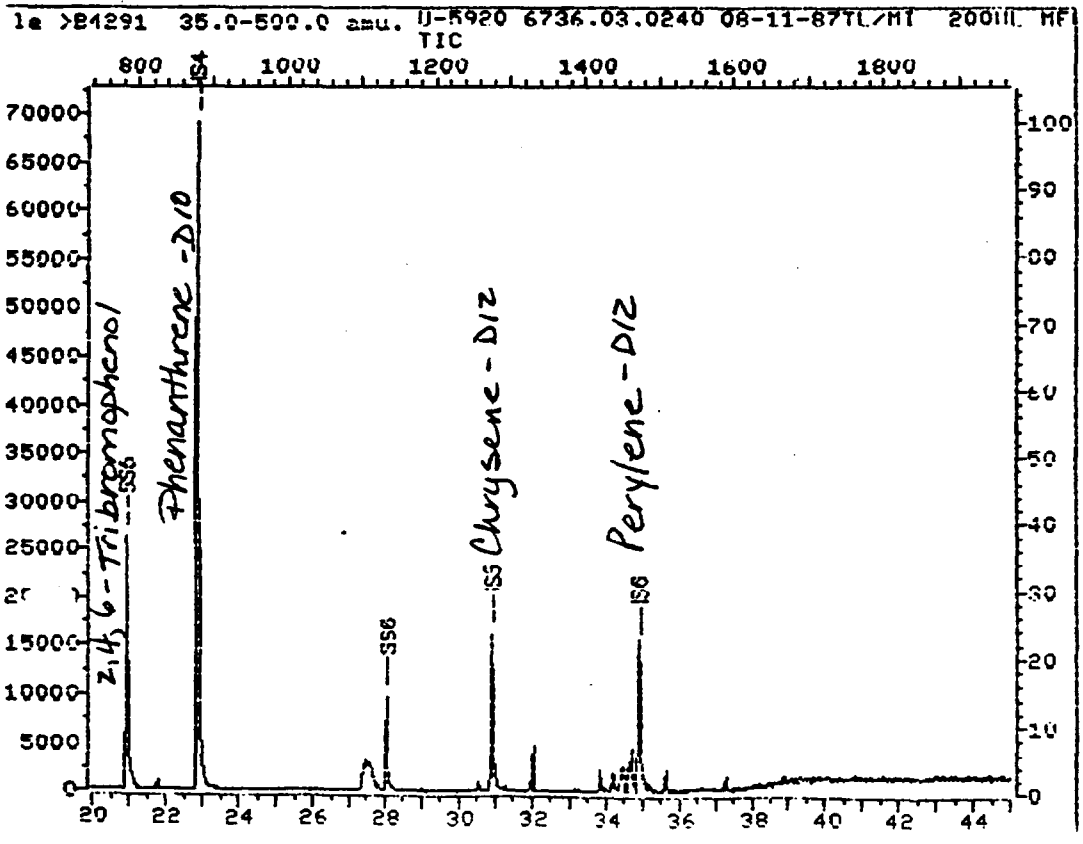
Data File: >B4291::D8
Name: U-5920 6736.03.0240 DC-GW-38A A/P Reextraction
Misc: 08-11-87TL/MI 200UL MECL2 + 200UL SAM + 4UL IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5920 (B)
Last Calibration: 870811 11:33

Operator ID: USER8
Quant Time: 870811 19:42
Injected at: 870811 18:55

DC-GW-38A
A/P Reextraction





QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 8/08/11 19:42
Output File: ^B4291::Q6 Injected at: 8/08/11 18:55
Data File: >B4291::D8 Dilution Factor: 2.00
Name: U-5920 6736.03.0240 DC-GW-38A A/P Reextraction
Misc: 08-11-87TL/MI 200UL MECL2 + 2000UL SAM + 40UL IS

A/P Water Reextraction

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 8/08/11 11:33

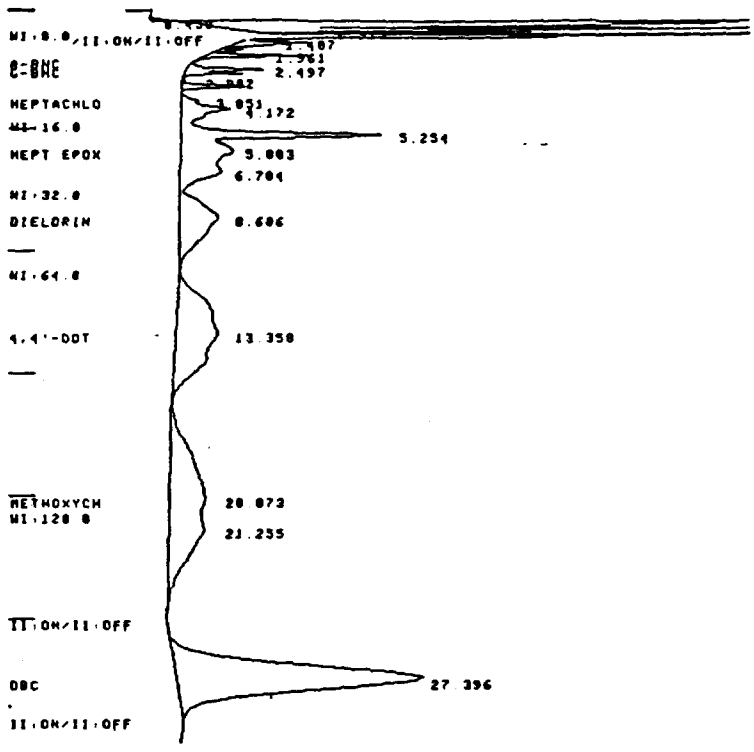
No B/N

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.20	202	24599	40.00	UG/L 80
2)	PHENOL-D5	(SURR)	99	9.04	199	1429	3.46	UG/L 1% LOW 80
5)	2-FLUOROPHENOL	(SURR)	112	5.38	19	3128	12.94	UG/L 6% LOW
19)	*NAPHTHALENE-D8	(IS)	136	13.14	401	108161	40.00	UG/L 100
20)	~~NITROBENZENE-D5~~	~~(SURR)~~	~~82~~	~~11.09~~	~~300~~	~~4240~~	~~6.94~~	~~UG/L~~ 89
34)	*ACENAPHTHENE-D10	(IS)	162	18.49	664	22434	40.00	UG/L 92
38)	~~2-FLUOROBIPHENYL~~	~~(SURR)~~	~~172~~	~~16.28~~	~~524~~	~~11414~~	~~8.39~~	~~UG/L~~ 99
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.49~~	~~664~~	~~13661~~	~~13.67~~	~~UG/L~~ 100
43)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.93	284	19120	21.31	UG/L 35% 99
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.49~~	~~664~~	~~9613~~	~~27.46~~	~~UG/L~~ 100
55)	*PHENANTHRENE-D10	(IS)	188	29.86	829	98069	40.00	UG/L 98
65)	*CHRYSENE-D12	(IS)	240	30.92	1275	37083	40.00	UG/L 100
68)	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~30.05~~	~~1134~~	~~19300~~	~~48.60~~	~~UG/L~~ 100
72)	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.46~~	~~1331~~	~~4126~~	~~11.41~~	~~UG/L~~ 86
74)	*PERYLENE-D12	(IS)	264	34.90	1471	29163	40.00	UG/L 100
75)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.84~~	~~1419~~	~~4003~~	~~6.61~~	~~UG/L~~ 100

* Compound is ISTD

Issues out
Matrix??

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



RECALCULATE ON FILE: 7546292

DC-GW-38A

CHANNEL: 1A - 1 TITLE: RUN# 16 20:18 28 JUL 87

SAMPLE: 6736.04.0301 METHOD: U-5920 CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	WI/2 (SEC)
1		0.0000	1.407		43197	BV	3.88
2		0.0000	1.495		21167	VV	? 3.31
3		0.0000	1.961		65026	VV	4.19
4	~~C-BHC~~	0.0259	2.497	0.027	76047	VV	5.75
5		0.0000	2.673		47583	VV	5.69
6		0.0000	3.204		64489	VV	7.25
7	~~HEPTACHLO~~	0.0096	3.851	-0.069	27746	VV	? 11.50
8		0.0000	4.172		106710	VV	18.63
9		0.0000	4.382		52750	VV	? 42.69
10		0.0000	5.254		415245	VV	12.75
11	~~HEPT EPOX~~	0.1071	5.883	0.023	297619	VV	? 62.75
12		0.0000	6.704		189658	VV	? 45.50
13	~~DIELDRIN~~	0.1528	8.606	0.146	442790	VB	? 94.50
14	~~4,4'-DDT~~	0.5234	13.358	-0.332	915280	BV	252.13
15	~~METHOXYCH~~	0.5280	20.073	-0.057	653018	VV	?147.31
16		0.0000	21.255		542064	VB	?188.31
17	DBC	1.0378	27.396	0.006	2167245	BB	69.00
TOTALS:		2.4847		-0.256	6127634		

DETECTED PKS: 31 REJECTED PKS: 14

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 22.9 OFFSET: -62

RACK: 2 VIAL: 1 INJ: 1

NOTES:
NOTEBOOK:297-146 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-5920
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
PRIMARY ANALYSIS

SAMPLE NUMBER DC-GW-39A

481095

Sample Number
DC-GW-39A

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment
Case No: U-5920
Lab Sample ID No: 6737
QC Report No:
Sample Matrix: Water
Contract No: IL-3140
Data Release Authorized By: C Slojtowicz
Date Sample Received: 7-15-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 7-16-87

Conc/Dil Factor: 100 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	1000 u
74-83-9	Bromomethane	1000 u
75-01-4	Vinyl Chloride	1000 u
75-00-3	Chloroethane	1000 u
75-09-2	Methylene Chloride	31000
67-64-1	Acetone	34000
75-15-0	Carbon Disulfide	500 u
75-35-4	1, 1-Dichloroethene	500 u
75-34-3	1, 1-Dichloroethane	1700
156-60-5	Trans-1, 2-Dichloroethene	14000
67-66-3	Chloroform	1800
107-06-2	1, 2-Dichloroethane	2600
78-93-3	2-Butanone	54000 E
71-55-6	1, 1, 1-Trichloroethane	5000
56-23-5	Carbon Tetrachloride	500 u
108-05-4	Vinyl Acetate	1000 u
75-27-4	Bromodichloromethane	500 u

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	500 u
10061-02-6	Trans-1, 3-Dichloropropene	500 u
79-01-6	Trichloroethene	64000 E
124-48-1	Dibromochloromethane	500 u
79-00-5	1, 1, 2-Trichloroethane	500 u.
71-43-2	Benzene	150000 E
10061-01-5	cis-1, 3-Dichloropropene	500 u
110-75-8	2-Chloroethylvinylether	1000 u
75-25-2	Bromoform	500 u
108-10-1	4-Methyl-2-Pentanone	28000
591-78-6	2-Hexanone	1000 u
127-18-4	Tetrachloroethene	500 u
79-34-5	1, 1, 2, 2-Tetrachloroethane	12000
108-88-3	Toluene	1300
108-90-7	Chlorobenzene	180000 E
100-41-4	Ethylbenzene	860
100-42-5	Styrene	500 u
	Total Xylenes	2600

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e g , 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit) The footnote should read U-Compound was analyzed for but not detected The number is the minimum attainable detection limit for the sample

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1 1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e g , 10J) If limit of detection is 10 ug/l and a

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS

B This flag is used when the analyte is found in the blank as well as a sample It indicates possible/probable blank contamination and warns the data user to take appropriate action

Other Other specific flags and footnotes may be required to properly define the results If used, they must be fully described and such description attached to the data summary report

E This flag indicates an approximate concentration. The amount detected in the

Laboratory Name: Ecology & Environment

Case No: U-5920

Sample Number
DC-GW-39A

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-16-87

Date Analyzed: 7-21-87

Conc/Dil Factor: 25

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	1100
111-44-4	bis(-2-Chloroethyl)Ether	91 J
95-57-8	2-Chlorophenol	58 J
541-73-1	1. 3-Dichlorobenzene	290
106-46-7	1. 4-Dichlorobenzene	15000 E
100-51-6	Benzyl Alcohol	120u
95-50-1	1. 2-Dichlorobenzene	11000 E
95-48-7	2-Methylphenol	120
39638-32-9	bis(2-chloroisopropyl)Ether	120u
106-44-5	4-Methylphenol	1100
621-64-7	N-Nitroso-Di-n-Propylamine	120u
67-72-1	Hexachloroethane	120u
98-95-3	Nitrobenzene	120u
78-59-1	Isophorone	120u
88-75-5	2-Nitrophenol	120u
105-67-9	2. 4-Dimethylphenol	400
65-85-0	Benzoic Acid	600u
111-91-1	bis(-2-Chloroethoxy)Methane	120u
120-83-2	2. 4-Dichlorophenol	120u
120-82-1	1. 2. 4-Trichlorobenzene	200
91-20-3	Naphthalene	180
106-47-8	4-Chloroaniline	120u
87-68-3	Hexachlorobutadiene	120u
59-50-7	4-Chloro-3-Methylphenol	120u
91-57-6	2-Methylnaphthalene	120u
77-47-4	Hexachlorocyclopentadiene	120u
88-06-2	2. 4. 6-Trichlorophenol	120u
95-95-4	2. 4. 5-Trichlorophenol	600u
91-58-7	2-Chloronaphthalene	120u
88-74-4	2-Nitroaniline	600u
[illegible]11-3	Dimethyl Phthalate	120u
208-96-8	Acenaphthylene	120u
99-09-2	3-Nitroaniline	600u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	120u
51-28-5	2. 4-Dinitrophenol	600u
100-02-7	4-Nitrophenol	600u
132-64-9	Dibenzofuran	120u
121-14-2	2 4-Dinitrotoluene	120u
606-20-2	2. 6-Dinitrotoluene	120u
84-66-2	Diethylphthalate	120u
7005-72-3	4-Chlorophenyl-phenylether	120u
86-73-7	Fluorene	120u
100-01-6	4-Nitroaniline	600u
534-52-1	4. 6-Dinitro-2-Methylphenol	600u
86-30-6	N-Nitrosodiphenylamine (1)	120u
101-55-3	4-Bromophenyl-phenylether	120u
118-74-1	Hexachlorobenzene	120u
87-86-5	Pentachlorophenol	600u
85-01-8	Phenanthrene	120u
120-12-7	Anthracene	120u
84-74-2	Di-n-Butylphthalate	120u
206-44-0	Fluoranthene	120u
129-00-0	Pyrene	120u
85-68-7	Butylbenzylphthalate	120u
91-94-1	3. 3'-Dichlorobenzidine	240u
56-55-3	Benzo(a)Anthracene	120u
117-81-7	bis(2-Ethylhexyl)Phthalate	120u
218-01-9	Chrysene	120u
117-84-0	Di-n-Octyl Phthalate	120u
205-99-2	Benzo(b)Fluoranthene	120u
207-08-9	Benzo(k)Fluoranthene	120u
50-32-8	Benzo(a)Pyrene	120u
193-39-5	Indeno(1 2. 3-cd)Pyrene	120u
53-70-3	Dibenz(a h)Anthracene	120u
191-24-2	Benzo(g. h. i)Perylene	120u

(1)-Cannot be separated from diphenylamine

Laboratory Name ECOLOGY AND ENVIRONMENT, INC.

Case No _____

Sample Number
DC-GW-39A

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-15-87

Date Analyzed: 7-28-87

Conc/Dil Factor: 100

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☑Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l or ug/Kg) (Circle One)
319-84-6	Alpha-BHC	5.0 U
319-85-7	Beta-BHC	5.0 U
319-86-8	Delta-BHC	5.0 U
58-89-9	Gamma-BHC (Lindane)	5.0 U
76-44-8	Heptachlor	5.0 U
309-00-2	Aldrin	5.0 U
1024-57-3	Heptachlor Epoxide	5.0 U
959-98-8	Endosulfan I	5.0 U
60-57-1	Dieldrin	10 U
72-55-9	4,4'-DDE	10 U
72-20-8	Endrin	10 U
33213-65-9	Endosulfan II	10 U
72-54-8	4,4'-DDD	10 U
1031-07-8	Endosulfan Sulfate	10 U
50-29-3	4,4'-DDT	10 U
72-43-5	Methoxychlor	50 U
53494-70-5	Endrin Ketone	10 U
57-74-9	Chlordane	50 U
8001-35-2	Toxaphene	100 U
12674-11-2	Aroclor-1016	50 U
11104-28-2	Aroclor-1221	50 U
11141-16-5	Aroclor-1232	50 U
53469-21-9	Aroclor-1242	50 U
12672-29-6	Aroclor-1248	50 U
11097-69-1	Aroclor-1254	100 U
11096-82-5	Aroclor-1260	100 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name: Ecology & Environment Inc.

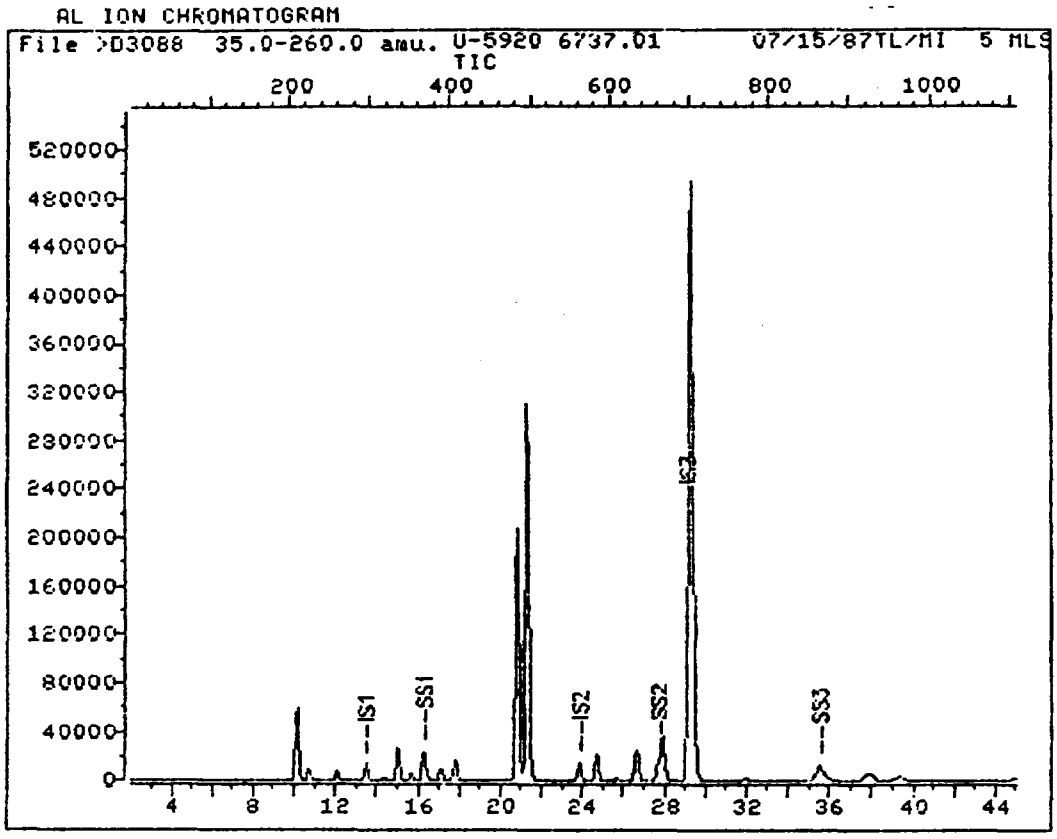
Case No: U-5920

Sample Number: DC-GW-39A

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	Unknown Alcohol	VOA	12.10	2800 J
2.	Unknown Alcohol	VOA	17.15	4100 J
3.				
4.				
5.	Unknown Alcohol	BNA	5.14	360 J
6. 95476	1,2-Dimethylbenzene		5.67	780 J
7. 111762	2-Butoxyethanol		6.56	600 J
8.	Unknown Acid		7.62	160 J
9.	Unknown		8.50	1900 J
10.	Unknown Acid		15.01	14000 J
11.	Unknown Acid		15.85	510 J
12.	Unknown Hydrocarbon		10.27	830 J
13.	Unknown Hydrazine		11.33	4,000 J
14.	Unknown Alcohol		11.69	4600 J
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

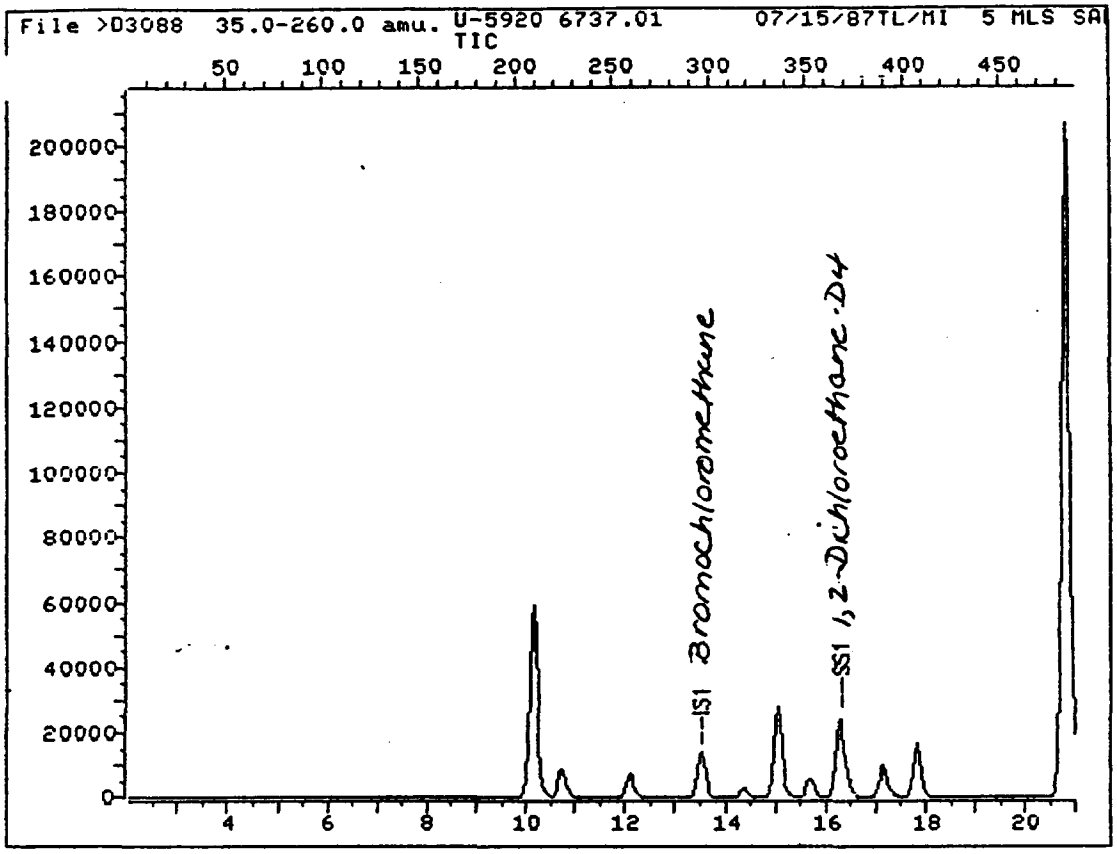


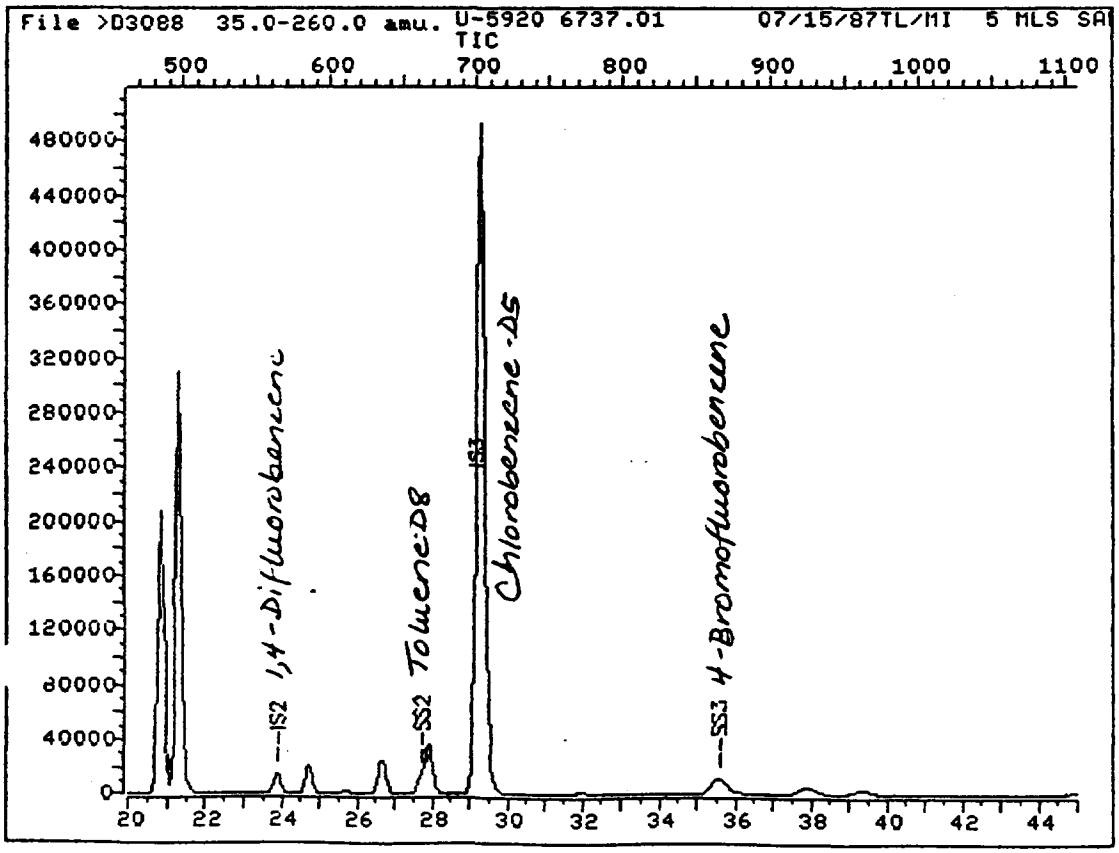
Data File: >D3088::D5
Name: U-5920 6737.01 DC-GW-39A
Misc: 07/15/87TL/MI 5 MLS SAM (100X) + 10 ULS IS/SS

Id File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870715 23:10

Operator ID: USER6
Quant Time: 870716 05:25
Injected at: 870716 04:39

DC-GW-39A


File >D3088 35.0-260.0 amu. U-5920 6737.01 07/15/87TL/MI 5 MLS SA
TIC
IS1 Bromochloromethane
SS1 1,2-Dichloroethane-D4


File >D3088 35.0-260.0 amu. U-5920 6737.01 07/15/87TL/MI 5 MLS SA
TIC
IS2 1,4-Difluorobenzene
SS2 Toluene-D8
IS3 Chlorobenzene-D5
SS3 4-Bromofluorobenzene

QUANT REPORT

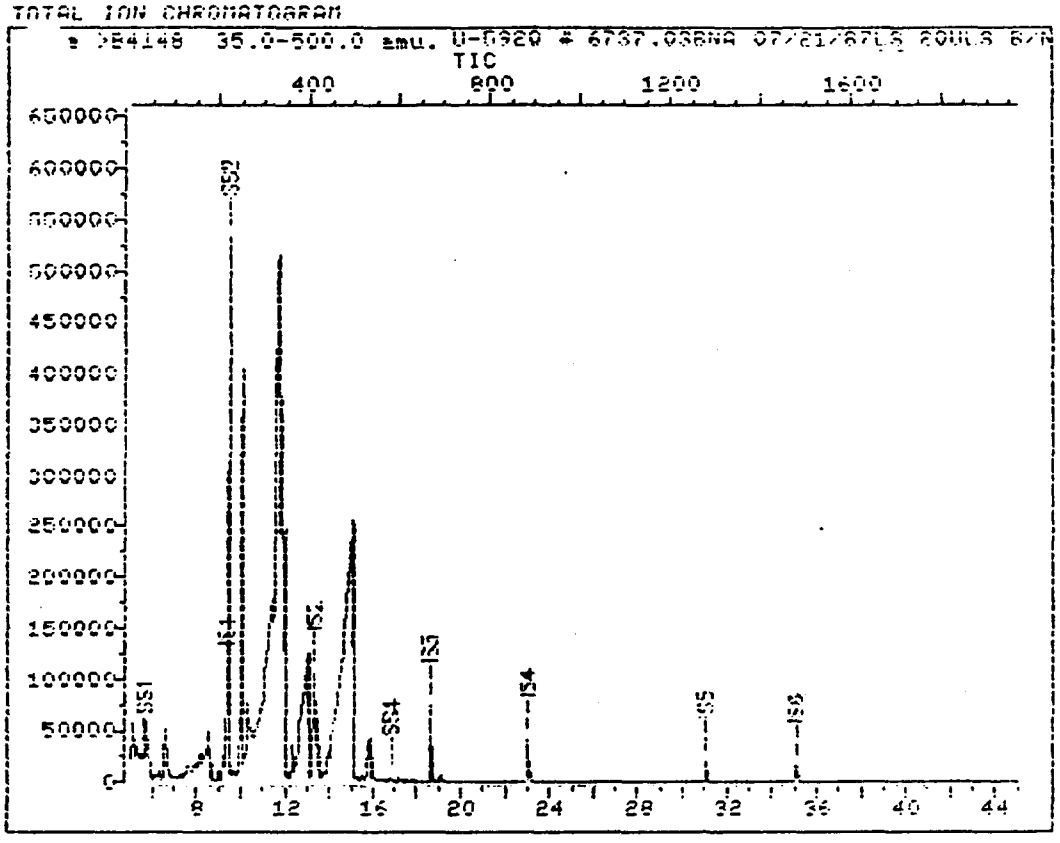
perator ID: USER6 Quant Rev: 4 Quant Time: 870716 05:25
utput File: ^D3088::Q3 Injected at: 870716 04:39
ata File: >D3088::D5 Dilution Factor: 1.00
ame: U-5920 6737.01 DC-GW-39A
isc: 07/15/87TL/MI 5 MLS SAM (100X) + 10 ULS IS/SS

D File: VOADR::D2
itle: VOA ID FILE FOR HP-5970D (CONT. CAL.)
ast Calibration: 870715 23:10

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE (IS)	128	13.50	296	18403	50.00	UG/L	100
6)	METHYLENE CHLORIDE	84	10.16	210	130528	307.37	UG/L yes	100 E
7)	ACETONE	43	10.74	225	66770	343.37	UG/L yes	100 E
11)	1,1-DICHLOROETHANE	63	14.35	318	14707	17.08	UG/L	94
12)	TRANS-1,2-DICHLOROETHENE	96	15.05	336	53892	143.62	UG/L yes	78
3)	CHLOROFORM	83	15.71	353	23262	17.60	UG/L	100
4)	1,2-DICHLOROETHANE	62	16.41	371	28239	26.23	UG/L yes	96
5)	1,2-DICHLOROETHANE-D4(SURR)	65	16.30	368	49038	48.53	UG/L 97 ✓	78
6)	*1,4-DIFLUOROBENZENE (IS)	114	23.87	563	59394	50.00	UG/L	100
7)	2-BUTANONE	72	16.26	367	19240	536.53	UG/L	100 E
7)	~~2-BUTANONE~~	~~72~~	~~17.11~~	~~389~~	~~461~~	~~12.86~~	~~UG/L~~	~~100~~ no CLU
7)	~~2-BUTANONE~~	~~72~~	~~17.23~~	~~392~~	~~125~~	~~3.49~~	~~UG/L~~	~~100~~ no CLU
8)	1,1,1-TRICHLOROETHANE	97	17.81	407	62436	49.90	UG/L	93
9)	~~CARBON TETRACHLORIDE~~	~~117~~	~~17.81~~	~~407~~	~~6206~~	~~4.36~~	~~UG/L~~	~~97~~ no CLU
3)	~~TRANS-1,3-DICHLOROPROPENE~~	~~75~~	~~21.27~~	~~496~~	~~30776~~	~~30.98~~	~~UG/L~~	~~100~~ no CLU
4)	TRICHLOROETHENE	130	20.80	484	364268	638.54	UG/L	88 E
6)	~~1,1,2-TRICHLOROETHANE~~	~~97~~	~~20.80~~	~~484~~	~~255369~~	~~677.44~~	~~UG/L~~	~~100~~ no CLU
7)	BENZENE	78	21.31	497	1297300	1549.30	UG/L E	100 E
8)	~~CIS-1,3-DICHLOROPROPENE~~	~~75~~	~~21.27~~	~~496~~	~~30776~~	~~57.99~~	~~UG/L~~	~~100~~ no CLU
1)	*CHLOROBENZENE-D5 (IS)	117	29.15	699	51079	50.00	UG/L	100
2)	4-METHYL-2-PENTANONE	43	24.72	585	94622	280.04	UG/L	87 E
2)	~~4-METHYL-2-PENTANONE~~	~~43~~	~~25.69~~	~~610~~	~~5156~~	~~15.26~~	~~UG/L~~	~~100~~ no CLU
3)	~~2-HEXANONE~~	~~43~~	~~25.69~~	~~610~~	~~5156~~	~~16.72~~	~~UG/L~~	~~100~~ no CLU
4)	~~TETRACHLOROETHENE~~	~~164~~	~~26.59~~	~~633~~	~~6809~~	~~10.01~~	~~UG/L~~	~~100~~ no CLU
5)	1,1,2,2-TETRACHLOROETHANE	83	26.70	636	62379	123.27	UG/L	100
6)	TOLUENE-D8 (SURR)	98	27.71	662	54105	46.31	UG/L 93 ✓	92
7)	TOLUENE	92	27.91	667	89370	134.07	UG/L	97
8)	CHLOROBENZENE	112	29.27	702	1784884	1850.67	UG/L	99 E
9)	ETHYLBENZENE	91	31.95	771	14988	8.59	UG/L	90
0)	4-BROMOFLUOROBENZENE(SURR)	95	35.56	864	63182	46.57	UG/L 93 ✓	100
2)	TOTAL XYLENES	91	39.37	962	39439	25.98	UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

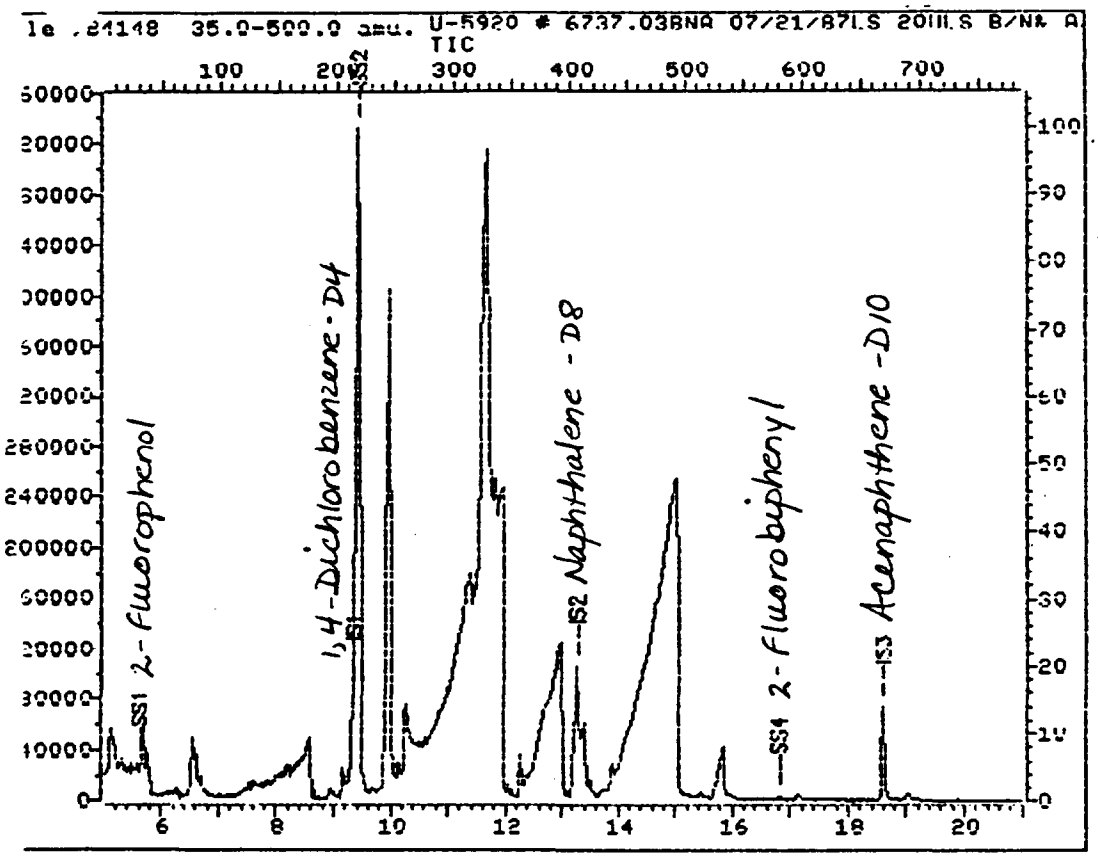


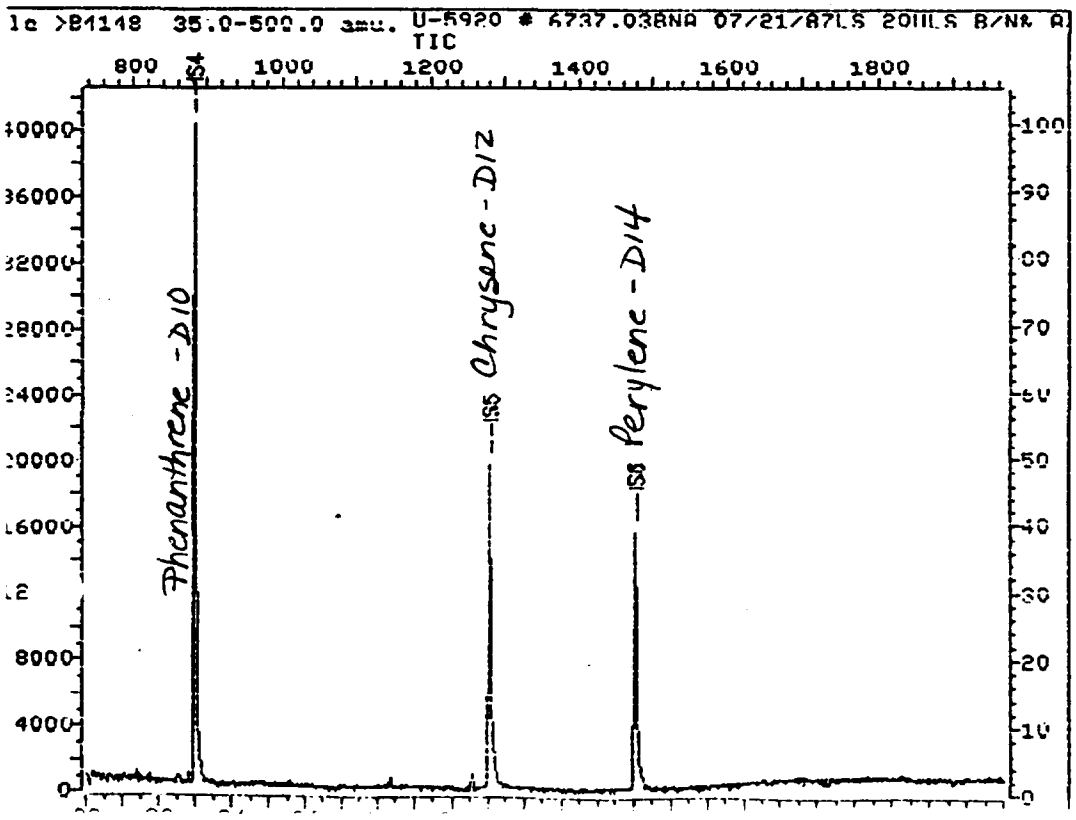
Data File: >B4148::D6
Name: U-5920 # 6737.03BNA DC-GW-39 A
Misc: 07/21/87LS 20ULS B/N& A/P /5UG ULS MFCL2 + 5 ULS IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5920 (B)
Last Calibration: 870727 18:30

Operator ID: USFRB
Quant Time: 870727 18:31
Injected at: 870721 21:04

DC-GW-39A


1e .84148 35.0-500.0 amu. U-5920 # 6737.03BNA 07/21/87LS 2011LS B/N& A
TIC
IS1 2-Fluorophenol
1,4-Dichlorobenzene-D4
IS2 Naphthalene-D8
IS3 Acenaphthene-D10
IS4 2-Fluorobiphenyl


1e >84148 35.0-500.0 amu. U-5920 # 6737.03BNA 07/21/87LS 2011LS B/N& A
TIC
IS4 Phenanthrene-D10
IS5 Chrysene-D12
IS6 Perylene-D14

QUANT REPORT

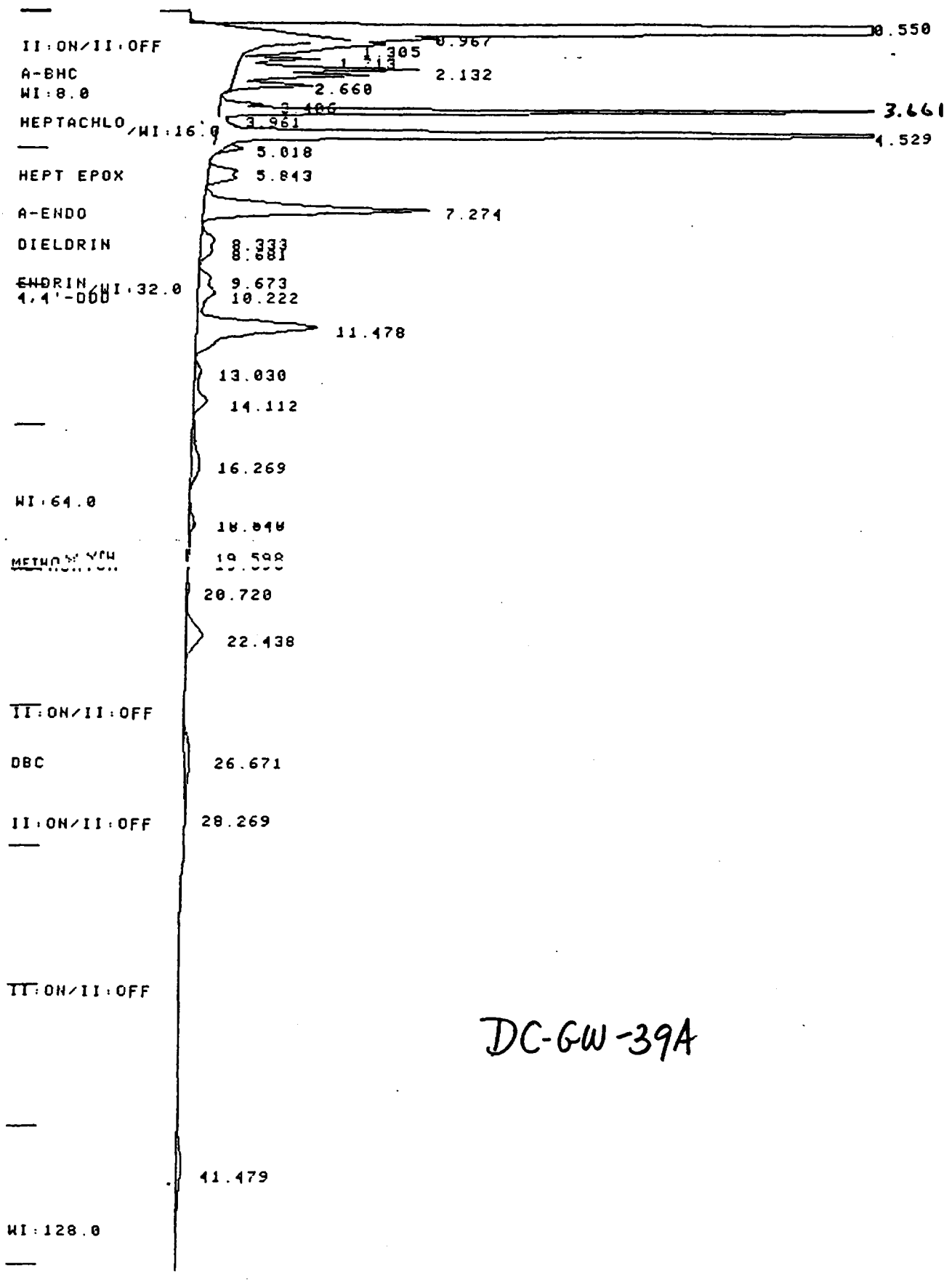
ne.tor ID: USER8 Quant Rev: 4 Quant Time: 870727 18:31
itput File: ^B4148::Q3 Injected at: 870721 21:04
ata File: >B4148::D6 Dilution Factor: 25.00
ame: U-5920 # 6737.03BNA DC- GW-39A
isc: 07/21/87LS 20ULS B/N& A/P /500 ULS MECL2 + 5 ULS IS

) File: BNABR::D2
itle: BNA ID FILE FOR THE HP 5970 (B)
ast Calibration: 870727 18:30

	Compound		R.I.	Scan#	Area	Conc	Units		Q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.33	213	23690	40.00	UG/L	100
2)	PHENOL-D5	(SURR)	99	9.43	218	1655	53.14	UG/L	1
5)	2-FLUOROPHENOL	(SURR)	112	5.61	38	1590	74.10	UG/L	85
6)	PHENOL		94	9.17	205	6182	181.43	UG/L yes	74
6)	PHENOL		94	9.31	212	32592	926.62	UG/L yes	73
8)	BIS(-2-CHLOROETHYL)ETHER		93	8.96	195	2432	91.44	UG/L yes	20
9)	1,3-DICHLOROBENZENE		146	9.17	205	10255	289.62	UG/L yes	98
9)	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.43~~	~~218~~	~~475499~~	~~14499.08~~	UG/L	99
1)	~~1,4-DICHLOROBENZENE~~		~~146~~	~~9.17~~	~~205~~	~~11054.5~~	~~349.77~~	UG/L	95
1)	1,4-DICHLOROBENZENE		146	9.43	218	475499	15409.26	UG/L yes	95
1)	~~1,2-DICHLOROBENZENE~~		~~146~~	~~9.43~~	~~218~~	~~476400~~	~~15173.09~~	UG/L	96
1)	1,2-DICHLOROBENZENE		146	9.98	245	336029	10724.22	UG/L yes	97
2)	2-METHYL PHENOL		108	11.14	302	3914	124.81	UG/L yes	94
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.99~~	~~268~~	~~5149~~	~~71.94~~	UG/L	100
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.43~~	~~242~~	~~3445~~	~~47.99~~	UG/L	100
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.61~~	~~276~~	~~1318~~	~~18.09~~	UG/L	100
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~10.76~~	~~292~~	~~3585~~	~~49.57~~	UG/L	100
4)	~~BIS(2-CHLOROISOPROPYL)ETHER~~		~~45~~	~~11.10~~	~~300~~	~~27414~~	~~383.24~~	UG/L	100
5)	2-CHLOROPHENOL		128	8.92	193	1435	58.00	UG/L	97
5)	~~4-METHYL PHENOL~~		~~108~~	~~11.14~~	~~302~~	~~3914~~	~~108.06~~	UG/L	76
5)	4-METHYL PHENOL		108	11.59	324	29645	1110.98	UG/L yes	98
9)	*NAPHTHALENE-D8	(IS)	136	13.26	406	96748	40.00	UG/L yes	100
3)	2,4-DIMETHYLPHENOL		122	12.96	391	9521	404.69	UG/L yes	95
3)	1,2,4-TRICHLOROBENZENE		180	13.22	404	7897	204.26	UG/L yes	100
7)	NAPHTHALENE		128	13.30	408	18029	181.61	UG/L yes	100
4)	*ACENAPHTHENE-D10	(IS)	162	18.59	668	55884	40.00	UG/L	98
1)	2-FLUOROBIPHENYL	(SURR)	172	16.80	580	3889	46.88	UG/L	87
)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.59~~	~~668~~	~~10426~~	~~165.80~~	UG/L	100
)	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.69~~	~~670~~	~~6540~~	~~94.34~~	UG/L	100
5)	*PHENANTHRENE-D10	(IS)	188	22.97	883	68508	40.00	UG/L	99
5)	*CHRYSENE-D12	(IS)	240	31.02	1279	48757	40.00	UG/L	100
4)	*PERYLENE-D12	(IS)	264	35.02	1476	36359	40.00	UG/L	100

- Compound is ISTD

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-GW-39A

CHANNEL: 1A - 1 TITLE: RUN# 17 21:15 28 JUL 87

DC-GW-39A

SAMPLE: 6737.04.0301 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.435		55554	VV	3.31
2		0.0000	1.713		43707	VV	4.63
3		0.0000	1.971		43615	VV	? 5.00
~~4~~	~~A-BHC~~	4.7803	2.132	0.022	157725	VV	5.69
5	~~B-BHC~~	9.4685	2.328	0.088	118677	VV	5.44
6		0.0000	2.660		102344	VB	7.00
7		0.0000	3.406		42162	BV	? 8.69
8		0.0000	3.661		894326	VV	8.38
9		0.0000	4.529		1974767	VV	10.56
10	~~ALDRIN~~	0.7251	5.018	0.198	21414	T	12.31
11	~~HEPT-EPOX~~	1.7009	5.843	-0.017	47255	BV	? 15.19
12		0.0000	6.073		45492	VV	? 17.63
13	~~A-ENDO~~	20.4835	7.274	0.004	542436	VV	19.31
14	~~4,4'-DDE~~	1.2668	8.333	-0.007	33352	VV	? 23.00
15	~~DIELDRIN~~	0.9822	8.681	0.221	28460	VV	? 28.81
16	~~B-ENDO~~	1.1300	9.673	0.063	28994	VV	? 24.06
17	~~4,4'-DDD~~	2.8258	10.222	-0.268	62380	VV	? 35.00
18		0.0000	11.478		423166	VV	27.13
19		0.0000	13.030		26802	VV	? 26.69
20	~~4,4'-DDT~~	2.7339	14.112	0.422	47811	VV	30.06
21	~~END KETON~~	2.6679	16.269	0.509	69241	VB	55.19
22		0.0000	18.540		27718	BV	43.38
23		0.0000	22.438		90468	VB	49.69
24	~~DBC~~	2.7522	26.671	-0.719	57473	BV	? 85.50
25		0.0000	41.479		50220	BB	108.00
TOTALS:		51.5170		0.516	5035559		

DETECTED PKS: 42 REJECTED PKS: 17

DIVISOR: 1.00000 MULTIPLIER: 1000.00000

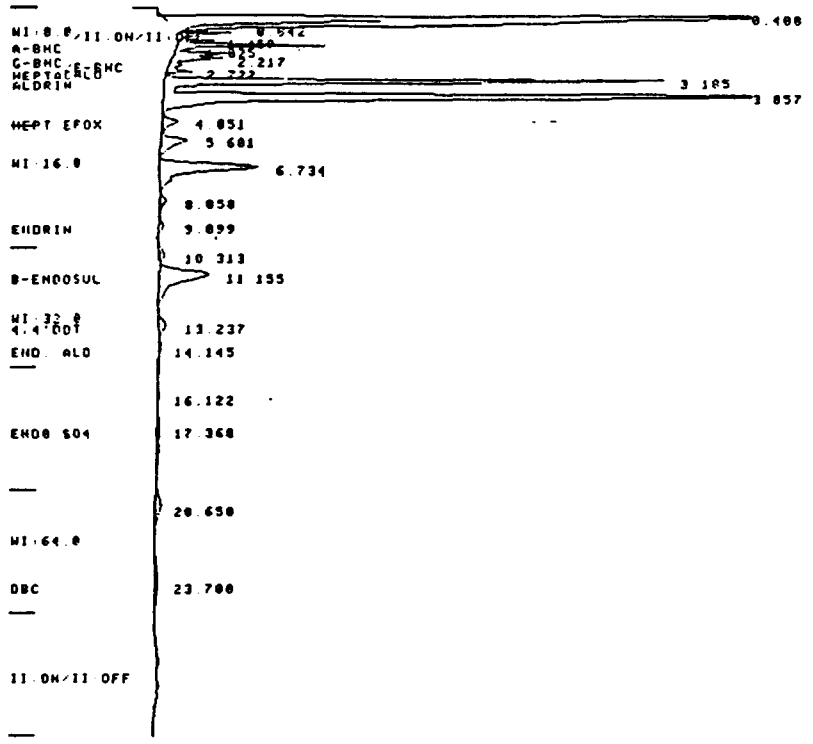
NOISE: 148.6 OFFSET: 1

RACK: 2 VIAL: 2 INJ: 1

NOTES:
NOTEBOOK:297-146 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-5920
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4.UL INJECTION
PRIMARY ANALYSIS

T RUN:
SAVE FILE: RAW 7546293

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



DC-GW-39A

CHANNEL: 18 - 1 TITLE: RUN# 6 13:51 3 AUG 87

SAMPLE: 6737.04.0301 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE		W1/2 (SEC)
1		0.0000	1.458		35323	BV		3.63
2	~~A-BHC~~	0.0000	1.654	-0.076	207455	VV		4.50
3		0.0000	1.825		28465	VV	?	7.56
4		0.0000	2.021		94943	VV		6.25
5	~~G-BHC~~	2.3037	2.217	-0.013	91188	VV		6.56
6	~~D-BHC~~	0.0000	2.447	-0.043	32597	VV		5.31
7	~~HEPTACHLO~~	1.4360	2.722	-0.038	52169	VV		5.94
8	~~ALDRIN~~	30.8262	3.185	-0.145	1152917	VV		7.81
9		0.0000	3.857		2941873	VV		8.94
10	~~HEPT EPOX~~	2.0122	4.851	-0.119	67588	T		14.75
11		0.0000	5.601		161164	T		19.94
12		0.0000	6.734		536739	BB		18.31
13	~~DIELDRIN~~	1.0726	8.058	0.418	37091	BB		25.44
14	~~ENDRIN~~	0.0000	9.099	-0.181	32652	BB		21.31
15		0.0000	10.313		32744	BB		29.88
16	~~B-ENDOSUL~~	14.3451	11.155	-0.085	430346	BB		30.56
17	~~4,4'DDT~~	3.3100	13.237	-0.183	60480	BB		34.50
18	~~ENDO SUL~~	0.0000	17.368	0.148	50187	BB		44.50
19		0.0000	20.650		81241	BB		48.63
20	~~DBC~~	2.7979	23.700	-0.010	63365	BB		94.00

TOTALS: 58.1037 -0.327 6190527

DETECTED PKS: 32 REJECTED PKS: 12

DIVISOR: 1.00000 MULTIPLIER: 1000.00000

NOISE: 57.1 OFFSET: 8

RACK: 1 VIAL: 6 INJ: 1

NOTES:
NOTEBOOK: 297-153 ANALYST: K.JUREK
SECURE AREA: D JC9#:U-5920
INST:VARIAN 6000#2B ECD 10X1 ATTN:8X
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
CONFIRMATION SEQUENCE

POST RUN:
SAVE FILE: RAW EPA459

SAMPLE NUMBER DC-GW-40A

481095

Sample Number
DC-GW-40A

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc. Case No: U-5920

Lab Sample ID No: 6738 QC Report No: _____

Sample Matrix: Water Contract No: IL-3140

Data Release Authorized By: C Hoytowicz Date Sample Received: 7-15-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: _____

Date Analyzed: 7-16-87

Conc./Dil Factor: 1 pH _____

Percent Moisture: (Not Decanted) _____

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	118	
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	17	
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: Ecology & Environment

Case No: U- 5920 1

Sample Number
DC-GW-40A

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: B/N - 7/16/87

Date Analyzed: B/N - 7/21/87

Conc/Dil Factor: 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2. 4. 6-Trichlorophenol	10u
95-95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2. 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3. 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2. 3-cd)Pyrene	10u
53-70-3	Dibenzo(a h)Anthracene	10u
191-24-2	Benzo(g h. i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No U-5920

Sample Number DC-GW-40A

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 7-15-87

Date Analyzed: 7-28-87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name: Ecology & Environment

Case No: 4-5920

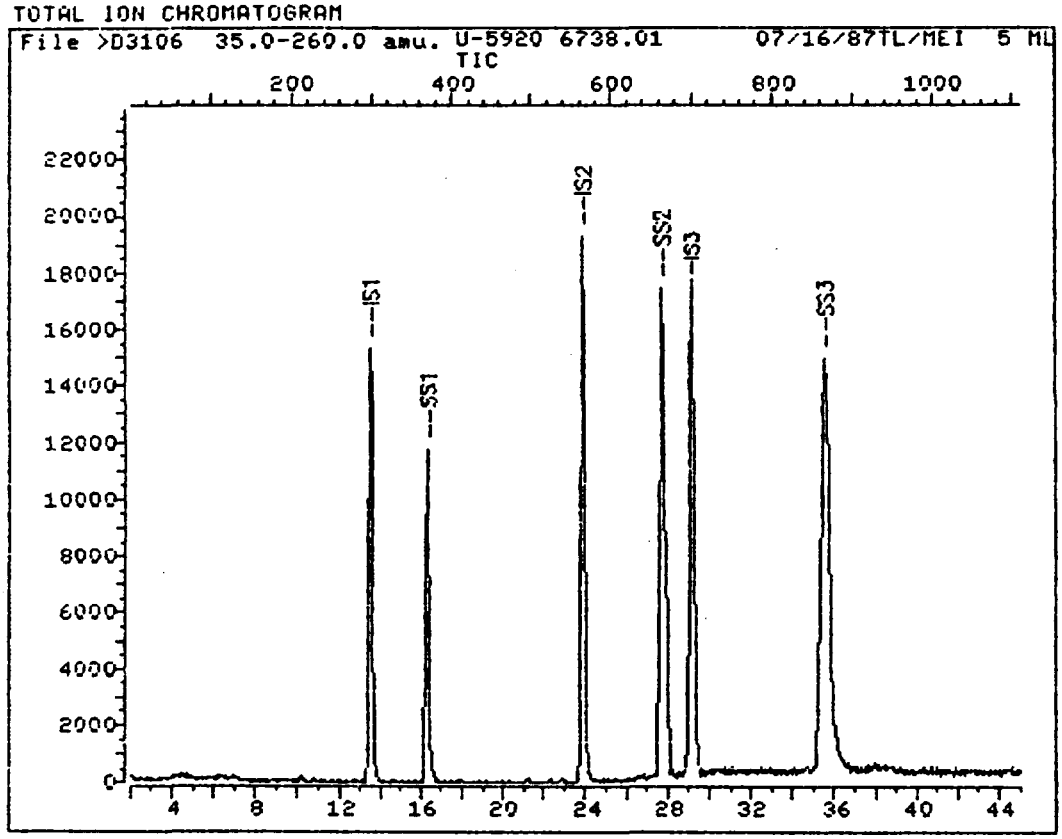
Sample Number: DC-GW-40A

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	No TIC's in B/N fraction			
4.				
5.	Unknown phthalate	A/P	33.86	43 J
6.	Unknown phthalate		34.44	61 J
7.	Unknown phthalate		34.51	38 J
8.	Unknown phthalate		34.67	52 J
9.	Unknown phthalate		34.73	64 J
10.	Unknown phthalate		35.67	38 J
11.	Unknown phthalate	✓	37.31	25 J
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

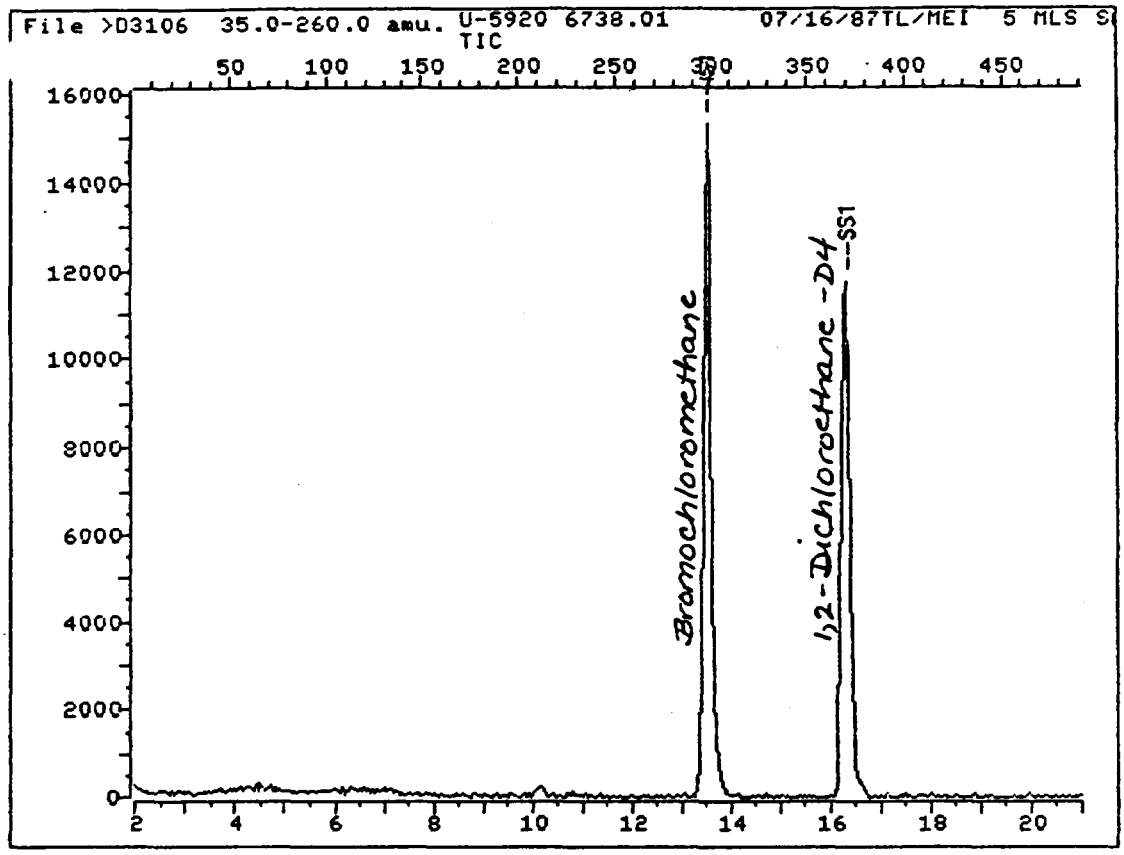


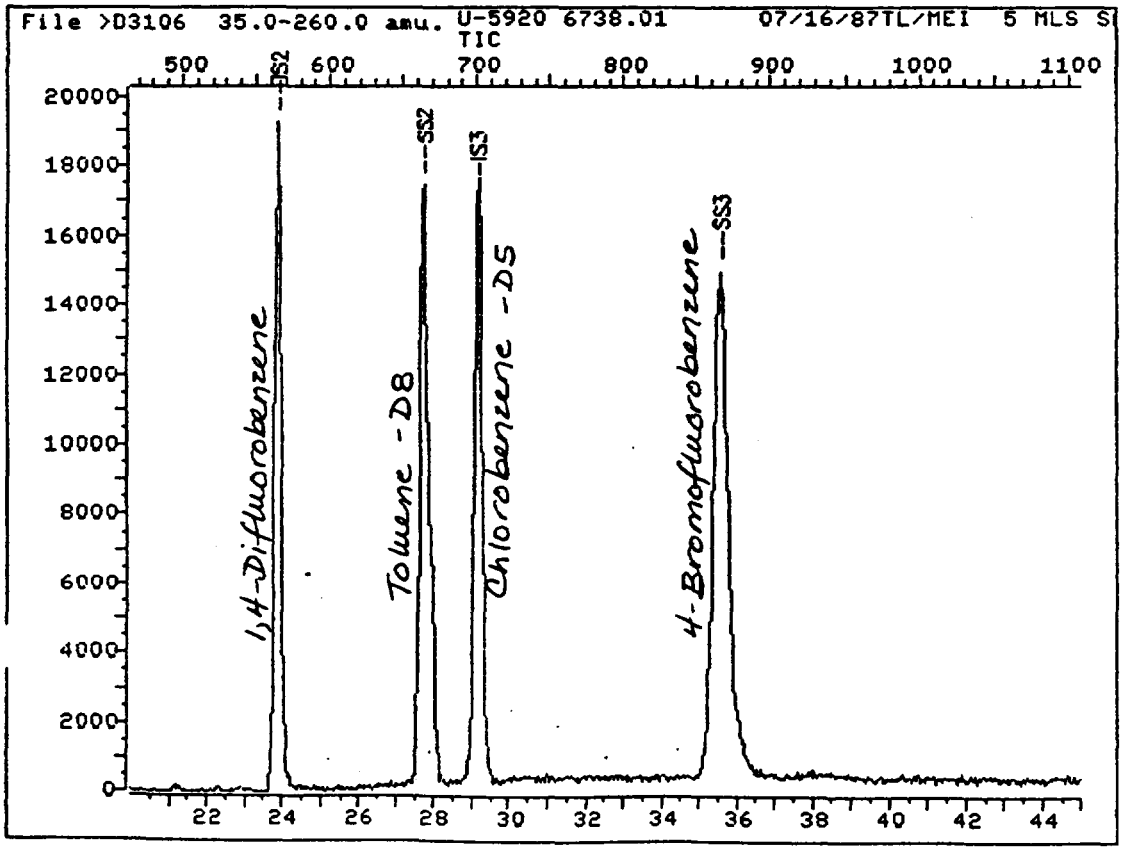
Data File: >D3106::D5
Name: U-5920 6738.01 DC-GW-40A
Misc: 07/16/87TL/MEI 5 MLS SAM + 10 ULS IS/SS

Id File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

Operator ID: USER6
Quant Time: 870716 22:39
Injected at: 870716 21:53

DC-GW-40A


File >D3106 35.0-260.0 amu. U-5920 6738.01 07/16/87TL/MEI 5 MLS S
TIC
Bromochloromethane
1,2-Dichloroethane -D4
SS1


File >D3106 35.0-260.0 amu. U-5920 6738.01 07/16/87TL/MEI 5 MLS S
TIC
1,4-Difluorobenzene
IS2
Toluene -D8
SS2
IS3
Chlorobenzene -D5
4-Bromofluorobenzene
SS3

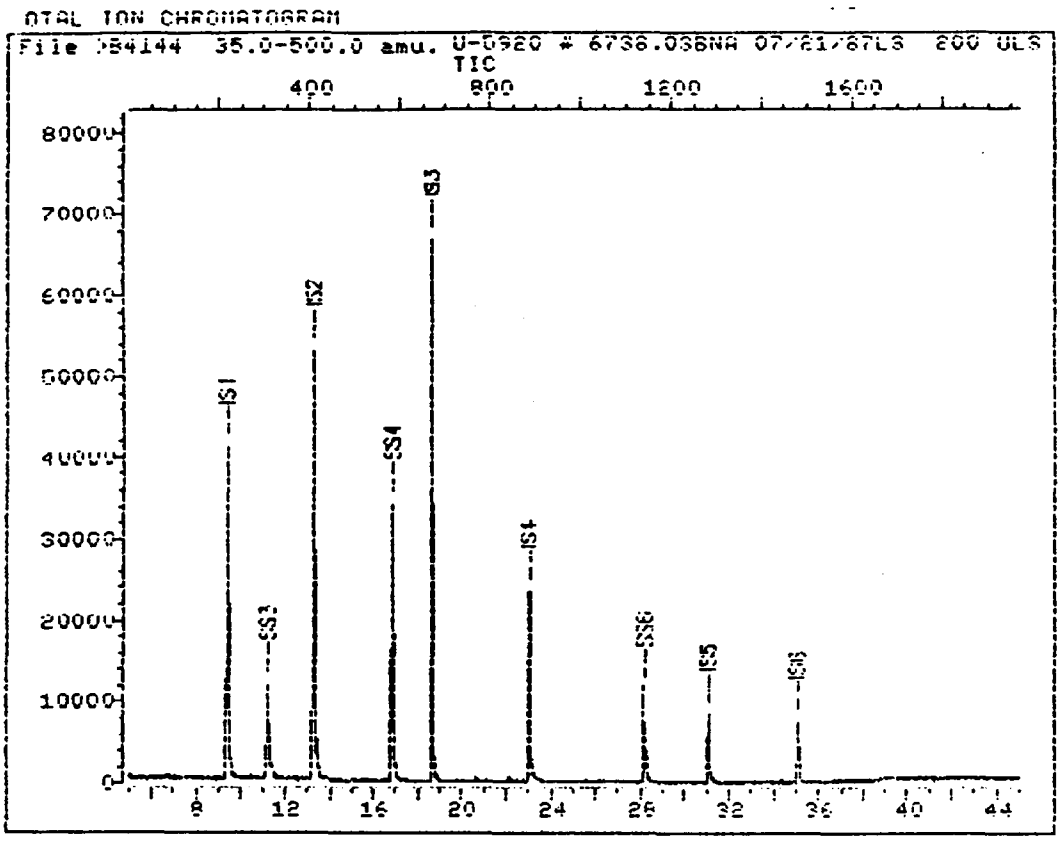
QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870716 22:39
Output File: ^D3106::Q3 Injected at: 870716 21:53
Data File: >D3106::D5 Dilution Factor: 1.00
Name: U-5920 6738.01 DC-GW-40A
Misc: 07/16/87TL/MEI 5 MLS SAM + 10 ULS IS/SS

ID File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	13.52	298	20839	50.00 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	16.32	370	57948	49.07 UG/L 98%	73
16)	*1,4-DIFLUOROBENZENE	(IS)	114	23.89	565	75611	50.00 UG/L	100
17)	2-BUTANONE		72	16.24	368	291	11.01 UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	29.14	700	59593	50.00 UG/L	100
36)	TOLUENE-D8	(SURR)	98	27.74	664	68923	50.73 UG/L 102%	92
37)	TOLUENE		92	27.93	669	13551	16.84 UG/L	95
40)	4-BROMOFLUOROBENZENE	(SURR)	95	35.58	866	76846	48.54 UG/L 98%	100

* Compound is ISTD



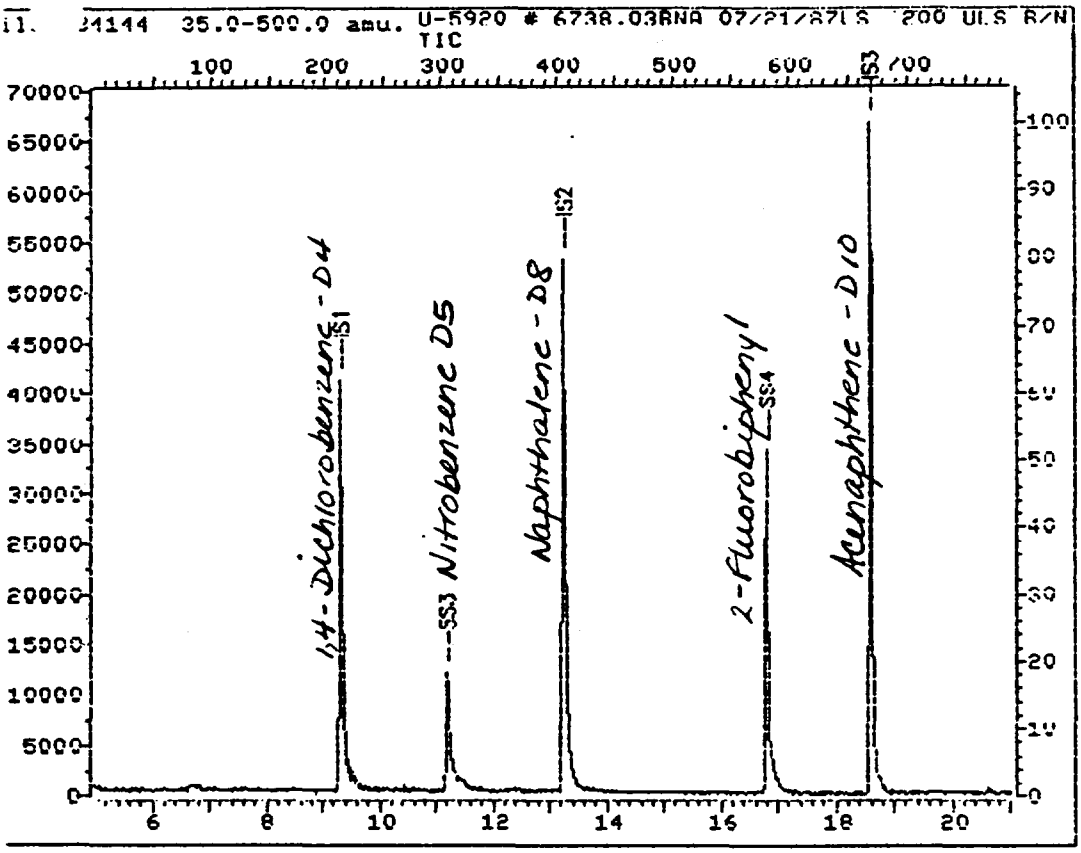
Data File: >B4144::D6
Name: U-5920 # 6738.03BNA DC-GW-40A B/N
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

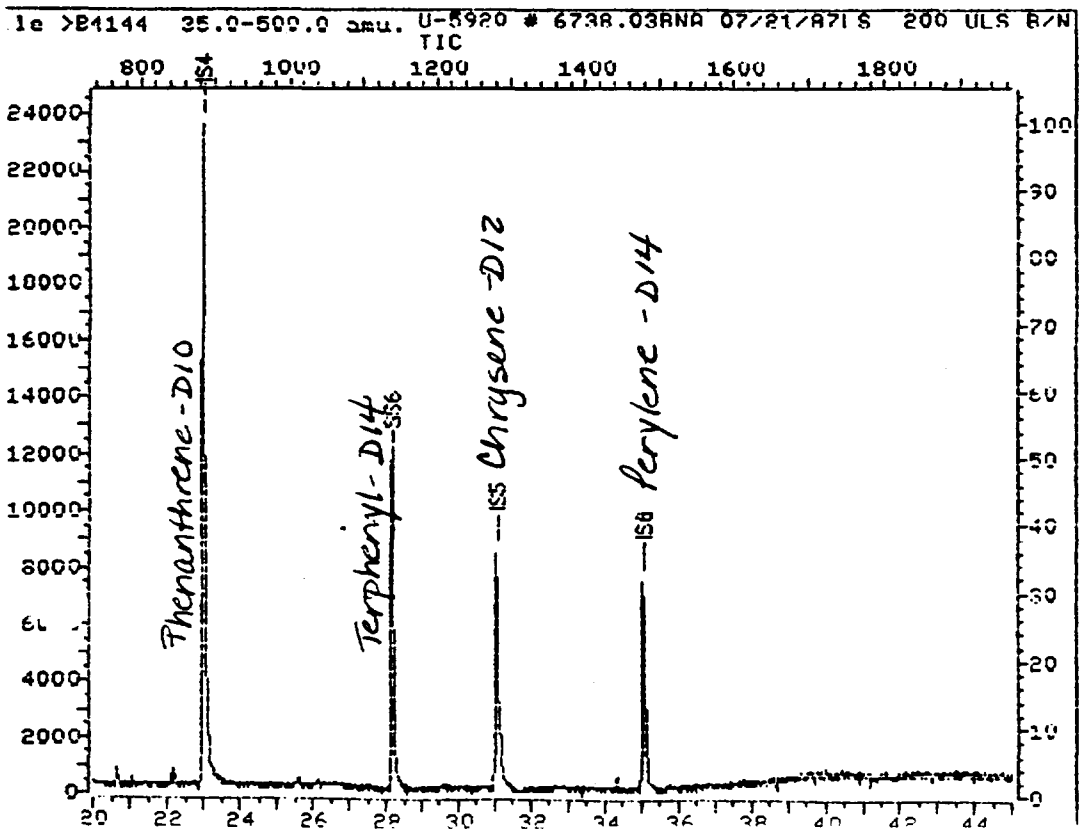
Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5971 (B)
Last Calibration: 870721 13:51

Operator ID: USER8
Quant Time: 870721 18:27
Injected at: 870721 17:39

DC-GW-40A

B/N


TIC
1,4-Dichlorobenzene-D4
Nitrobenzene D5
Naphthalene-D8
2-Fluorobiphenyl
Acenaphthene-D10


TIC
Phenanthrene-D10
Terphenyl-D14
Chrysene-D12
Perylene-D14

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870721 18:27
Output File: ^B4144::Q3 Injected at: 870721 17:39
Data File: >B4144::D6 Dilution Factor: 2.00
Name: U-5920 # 6738.03BNA DC-GW-40A B/N
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870721 13:51

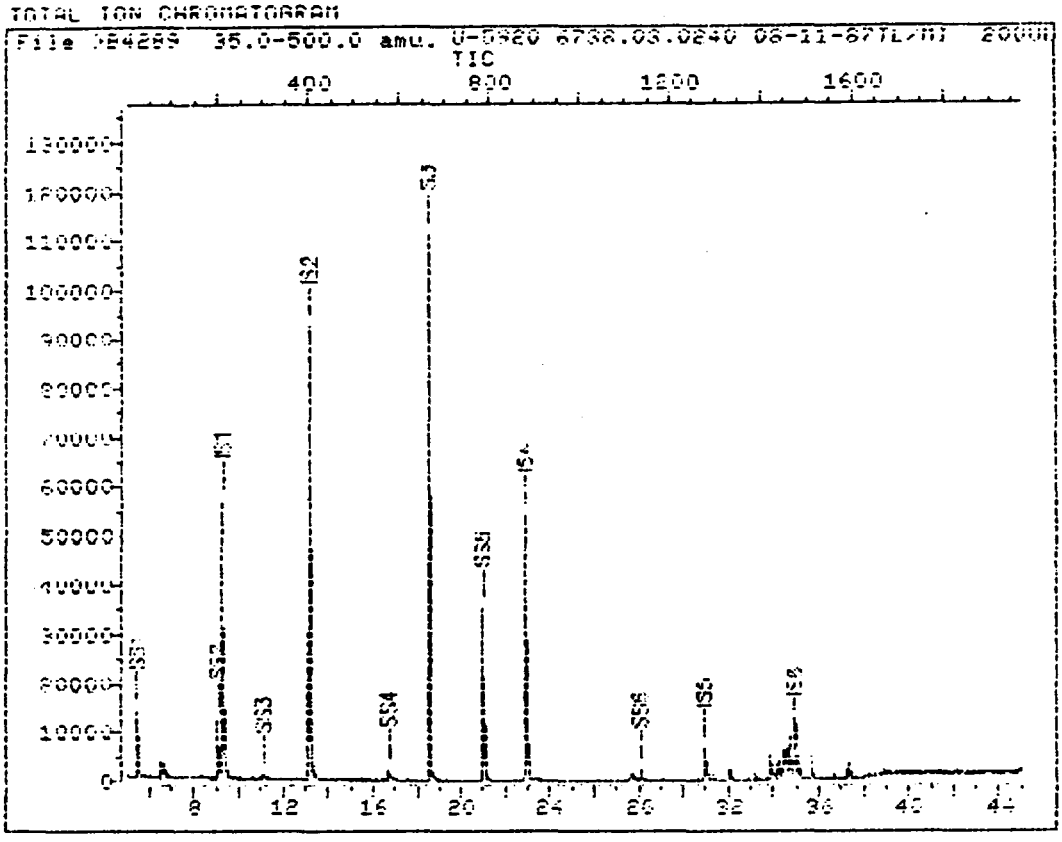
	Compound		R.T.	Scan#	Area	Conc	Units	Q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.31	213	18711	UG/L	84
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.19~~	~~305~~	~~3107~~	~~UG/L~~ cw	86
19)	*NAPHTHALENE-D8	(IS)	136	13.24	406	85246	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.19	305	20836	43.56 UG/L ✓	93
34)	*ACENAPHTHENE-D10	(IS)	162	18.59	669	47923	40.00 UG/L	92
38)	2-FLUOROBIPHENYL	(SURR)	172	16.80	581	49186	55.31 UG/L ✓	93
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.59~~	~~669~~	~~8944~~	~~12.97 UG/L~~ cw	100
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.59~~	~~669~~	~~5904~~	~~47.38 UG/L~~ cw	100
55)	*PHENANTHRENE-D10	(IS)	188	22.96	884	55301	40.00 UG/L	98
65)	*CHRYSENE-D12	(IS)	240	31.03	1281	26785	40.00 UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.14	1139	28503	114.53 UG/L ✓	100
74)	*PERYLENE-D12	(IS)	264	35.04	1478	20508	40.00 UG/L	100

* Compound is ISTD

Rerun
NO
ACID
Surrs

Reextracted
for acids
& rerun
at B4291

TOTAL ION CHROMATOGRAM



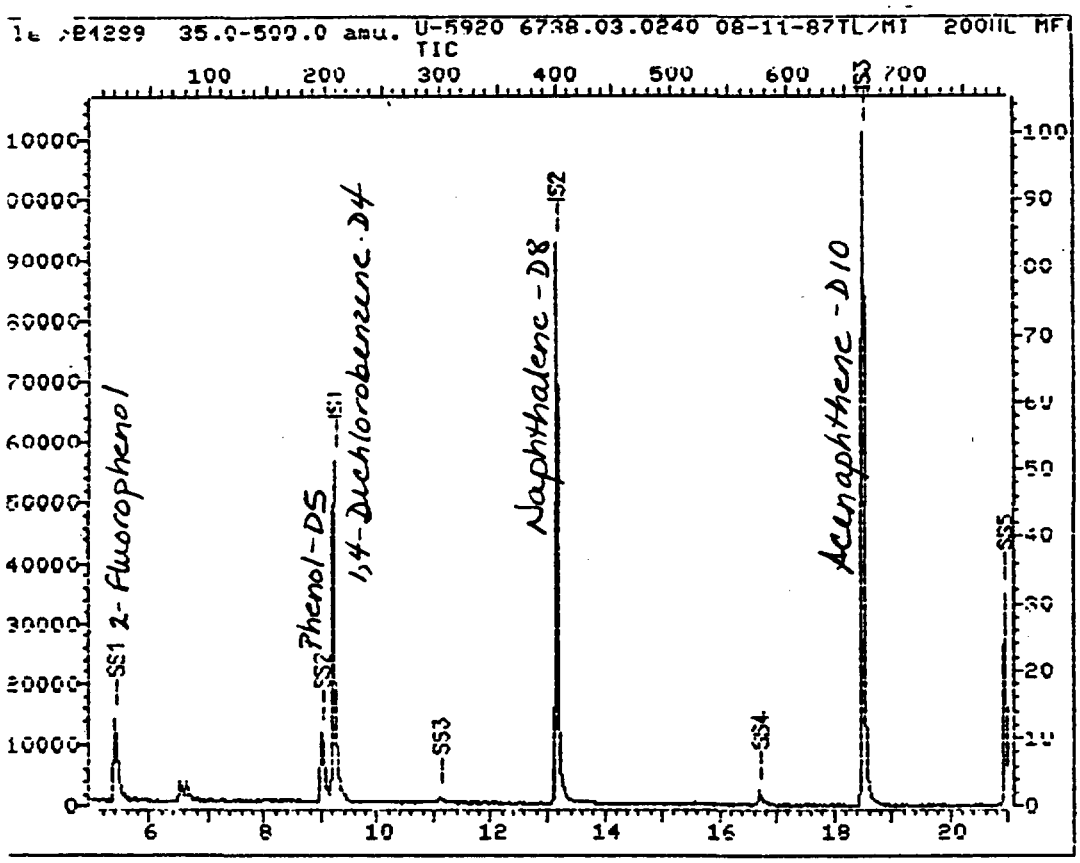
Data File: >B4289::D8
Name: U-5920 6738.03.0240 DC-GW-40A A/P Recextraction
Misc: 08-11-87TL/MI 200UL MFC12 + 200UL SAM + 4UL IS

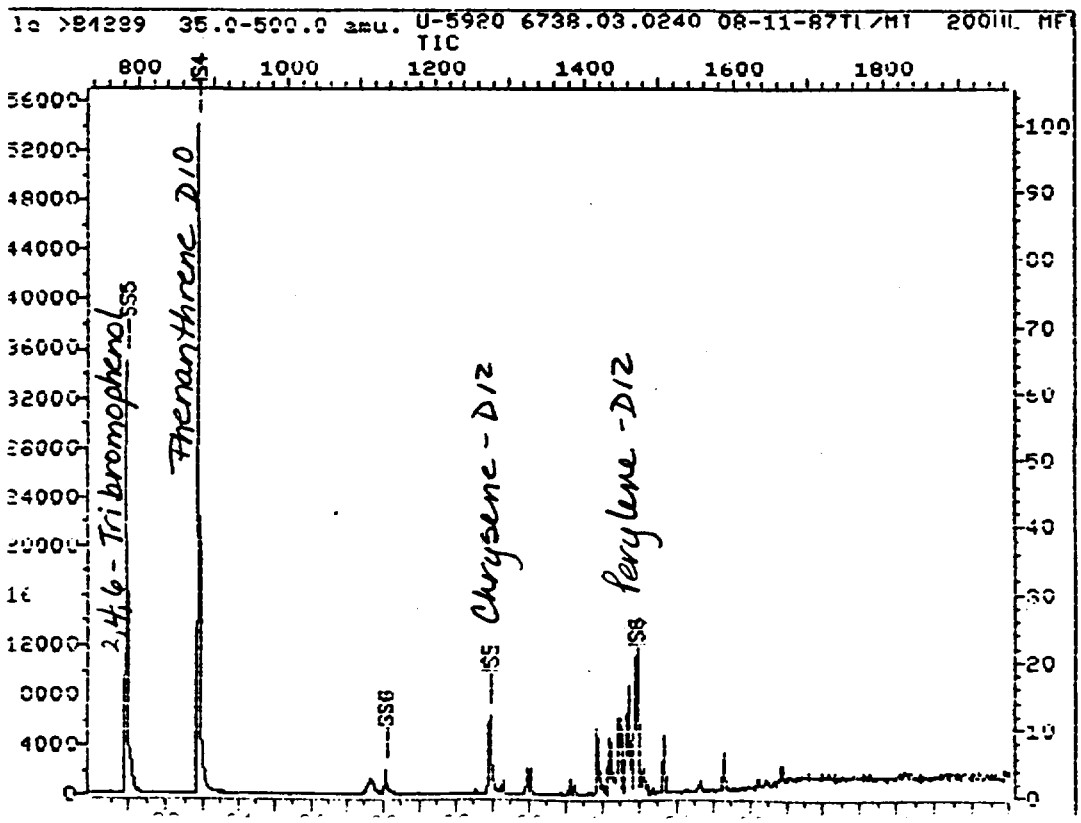
Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870811 11:33

Operator ID: USER8
Quant Time: 870811 18:00
Injected at: 870811 17:13

DC-GW-40A

A/P Reextraction





QUANT REPORT

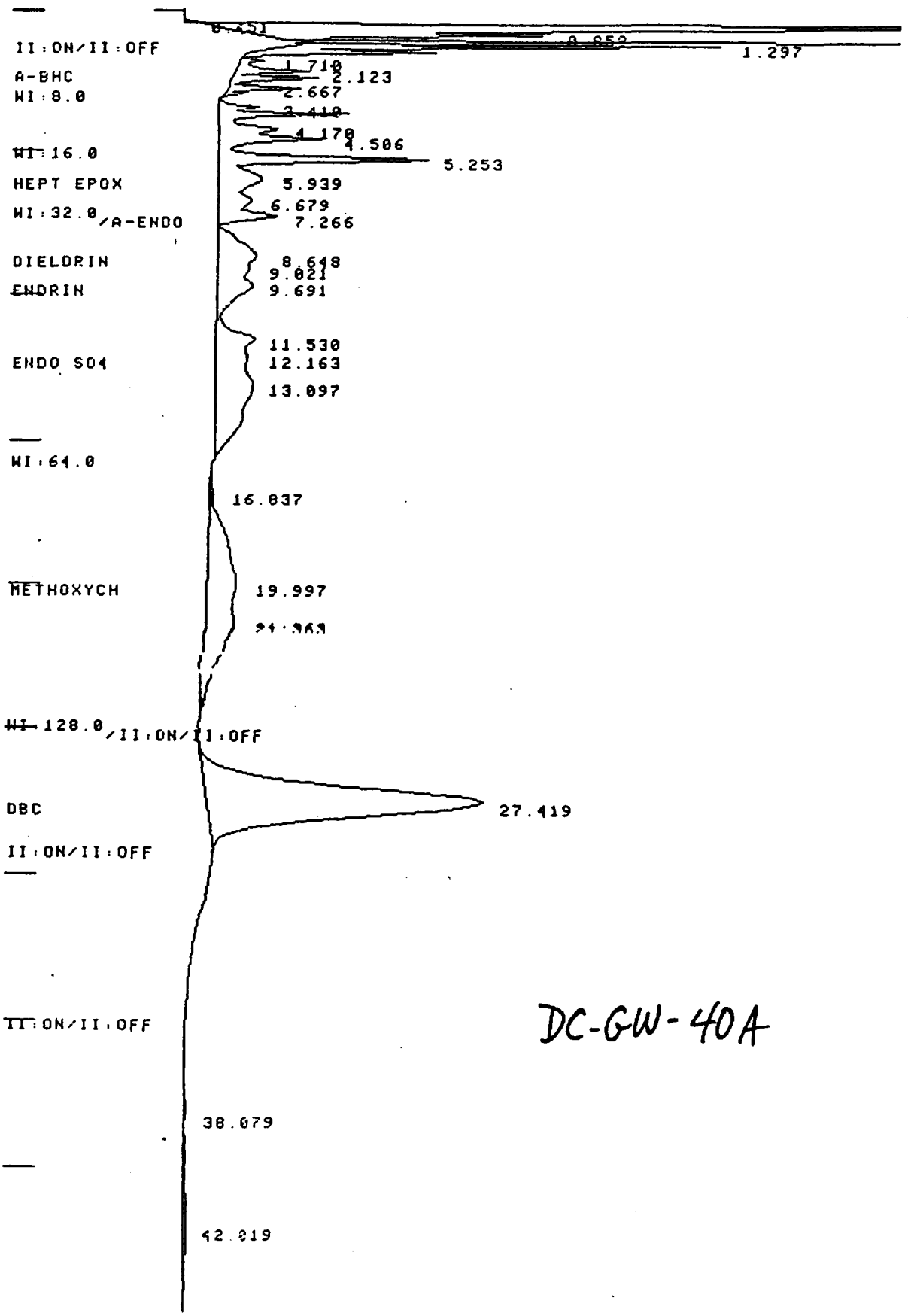
Operator ID: USER8 Quant Rev: 4 Quant Time: 870811 18:00
Output File: ^B4289::QA Injected at: 870811 17:13
Data File: >B4289::D8 Dilution Factor: 2.00
Name: U-5920 6238.03.0240 DC-GW-40A
Misc: 08-11-87TL/MI 200UL MECL2 + 200UL SAM + 40U IS

ID File: BNABR::D2 ACID Reextraction Water
Title: BNA ID FILE FOR THE HP 5970 (R)
Last Calibration: 870811 11:33 NO BIN

	Compound		R.I.	Rt	Scan#	Area	Conc	Units		Q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.93	208	28208	40.00	UG/L		88
2)	PHENOL-D5	(SURR)	99	9.00	192	12416	22.36	UG/L	13 ✓	87
5)	2-FLUOROPHENOL	(SURR)	112	5.40	98	13983	54.55	UG/L	27 ✓	91
19)	*NAPHTHALENE-D8	(IS)	136	13.15	401	111517	40.00	UG/L		100
20)	~~NITROBENZENE-D5~~	~~(SURR)~~	~~82~~	~~11.12~~	~~300~~	~~1010~~	~~2.00~~	~~UG/L~~	CW	95
34)	*ACENAPHTHENE-D10	(IS)	162	18.50	664	68949	40.00	UG/L		97
38)	~~2-FLUOROBIPHENYL~~	~~(SURR)~~	~~172~~	~~16.21~~	~~594~~	~~6215~~	~~4.24~~	~~UG/L~~	CW	98
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~10.50~~	~~864~~	~~17199~~	~~19.00~~	~~UG/L~~		100
43)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.94	784	23512	91.90	UG/L	46 ✓	99
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.50~~	~~664~~	~~9172~~	~~42.25~~	~~UG/L~~		100
55)	*PHENANTHRENE-D10	(IS)	188	22.87	879	28021	40.00	UG/L		99
65)	*CHRYSENE-D12	(IS)	240	30.93	1275	19159	40.00	UG/L		100
68)	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~28.06~~	~~1134~~	~~2241~~	~~45.35~~	~~UG/L~~	20 CW	100
72)	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~32.05~~	~~1438~~	~~1992~~	~~111.57~~	~~UG/L~~		87
74)	*PERYLENE-D12	(IS)	264	34.91	1471	14563	40.00	UG/L		100
75)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.05~~	~~1419~~	~~8496~~	~~97.47~~	~~UG/L~~	20 CW	100
75)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.16~~	~~1494~~	~~1594~~	~~4.94~~	~~UG/L~~		100
75)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~34.22~~	~~1437~~	~~3031~~	~~9.80~~	~~UG/L~~		100

* Compound is ISTD

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-GW-40A

CHANNEL: 1A - 1 TITLE: RUN# 18 22:07 28 JUL 87

DC-GW-40A

SAMPLE: 6738.04.0301 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.428		106402	VB	3.75
2		0.0000	1.969		20337	VV	5.25
3	~~A-BHC~~	0.0161	2.123	0.013	53152	VV	5.31
4	~~B-BHC~~	0.0557	2.325	0.085	69808	VV	5.19
5		0.0000	2.667		70405	VB	6.50
6		0.0000	3.410		44326	VV	8.94
7		0.0000	3.658		140010	VV	9.00
8		0.0000	4.170		100108	VV	? 15.06
9		0.0000	4.506		179375	VV	14.75
10		0.0000	5.253		298940	VV	11.69
11	~~HEPT EPOX~~	0.0644	5.939	0.079	178839	VV	? 44.00
12		0.0000	6.679		107429	VV	? 31.63
13	~~A-ENDO~~	0.0468	7.266	-0.004	123940	VV	19.88
14	D~~IELDRI~~N	0.0792	8.648	0.188	229457	VV	? 68.75
15	~~ENDRIN~~	0.0260	9.021	-0.399	68825	VV	?
16	~~B-ENDO~~	0.0676	9.691	0.081	173423	VV	? 54.81
17		0.0000	11.530		153941	VV	? 33.56
18	~~ENDO~~ SO4	0.0804	12.163	-0.137	112127	VV	? 27.56
19	4,~~4'~~ ~~DDT~~	0.2647	13.097	-0.593	462889	VB	?178.38
20	~~METHOXYCH~~	0.4308	19.997	-0.133	447930	VV	?143.75
21		0.0000	21.363		345938	VB	?175.56
22	DBC	0.9694	27.419	0.029	2024315	BB	68.44
23		0.0000	42.019		86234	VB	230.00
TOTALS:		2.1009		-0.791	5598150		

DETECTED PKS: 39 REJECTED PKS: 16

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 148.6 OFFSET: -44

RACK: 2 VIAL: 3 INJ: 1

NOTES:
NOTEBOOK:297-146 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-5920
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW 7546294

SAMPLE NUMBER DG-GW-41A

481095

Sample Number
DC-GW-41A

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc. Case No: U-5920

Lab Sample ID No: 6739 QC Report No:

Sample Matrix: Water Contract No: IL-3140

Data Release Authorized By: C Stoytowic Date Sample Received: 7-15-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 7-16-87

Conc./Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	20	
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	8	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: Ecology & Environment

Case No: 4- 5920 1

Sample Number
DC-GW-41A

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-16-87

Date Analyzed: 7-21-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10 u
111-44-4	bis(-2-Chloroethyl)Ether	10 u
95-57-8	2-Chlorophenol	10 u
541-73-1	1 3-Dichlorobenzene	10 u
106-46-7	1. 4-Dichlorobenzene	10 u
100-51-6	Benzyl Alcohol	10 u
95-50-1	1. 2-Dichlorobenzene	10 u
95-48-7	2-Methylphenol	10 u
39638-32-9	bis(2-chloroisopropyl)Ether	10 u
106-44-5	4-Methylphenol	10 u
621-64-7	N-Nitroso-Di-n-Propylamine	10 u
67-72-1	Hexachloroethane	10 u
98-95-3	Nitrobenzene	10 u
78-59-1	Isophorone	10 u
88-75-5	2-Nitrophenol	10 u
105-67-9	2. 4-Dimethylphenol	10 u
65-85-0	Benzoic Acid	50 u
111-91-1	bis(-2-Chloroethoxy)Methane	10 u
120-83-2	2. 4-Dichlorophenol	10 u
120-82-1	1. 2. 4-Trichlorobenzene	10 u
91-20-3	Naphthalene	10 u
106-47-8	4-Chloroaniline	10 u
87-68-3	Hexachlorobutadiene	10 u
59-50-7	4-Chloro-3-Methylphenol	10 u
91-57-6	2-Methylnaphthalene	10 u
77-47-4	Hexachlorocyclopentadiene	10 u
88-06-2	2. 4. 6-Trichlorophenol	10 u
95-95-4	2. 4. 5-Trichlorophenol	50 u
91-58-7	2-Chloronaphthalene	10 u
88-74-4	2-Nitroaniline	50 u
31-11-3	Dimethyl Phthalate	10 u
208-96-8	Acenaphthylene	10 u
99-09-2	3-Nitroaniline	50 u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10 u
51-28-5	2. 4-Dinitrophenol	50 u
100-02-7	4-Nitrophenol	50 u
132-64-9	Dibenzofuran	10 u
121-14-2	2 4-Dinitrotoluene	10 u
606-20-2	2. 6-Dinitrotoluene	10 u
84-66-2	Diethylphthalate	10 u
7005-72-3	4-Chlorophenyl-phenylether	10 u
86-73-7	Fluorene	10 u
100-01-6	4-Nitroaniline	50 u
534-52-1	4. 6-Dinitro-2-Methylphenol	50 u
86-30-6	N-Nitrosodiphenylamine (1)	10 u
101-55-3	4-Bromophenyl-phenylether	10 u
118-74-1	Hexachlorobenzene	10 u
87-86-5	Pentachlorophenol	50 u
85-01-8	Phenanthrene	10 u
120-12-7	Anthracene	10 u
84-74-2	Di-n-Butylphthalate	~~10~~ 9 J
206-44-0	Fluoranthene	10 u
129-00-0	Pyrene	10 u
85-68-7	Butylbenzylphthalate	10 u
91-94-1	3. 3'-Dichlorobenzidine	20 u
56-55-3	Benzo(a)Anthracene	10 u
117-81-7	bis(2-Ethylhexyl)Phthalate	10 u
218-01-9	Chrysene	10 u
117-84-0	Di-n-Octyl Phthalate	10 u
205-99-2	Benzo(b)Fluoranthene	10 u
207-08-9	Benzo(k)Fluoranthene	10 u
50-32-8	Benzo(a)Pyrene	10 u
193-39-5	Indeno(1. 2. 3-cd)Pyrene	10 u
53-70-3	Dibenzo(a h)Anthracene	10 u
191-24-2	Benzo(g h. i)Perylene	10 u

(1)-Cannot be separated from diphenylamine

Laboratory Name ECOLOGY AND ENVIRONMENT, INC.

Case No U-5920

Sample Number DC-GW-41A

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-15-87

Date Analyzed: 7-28-87

Conc/Dil Factor: 2

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☑Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	0.10	U
319-85-7	Beta-BHC	0.10	U
319-86-8	Delta-BHC	0.10	U
58-89-9	Gamma-BHC (Lindane)	0.10	U
76-44-8	Heptachlor	0.10	U
309-00-2	Aldrin	0.10	U
1024-57-3	Heptachlor Epoxide	0.10	U
959-98-8	Endosulfan I	0.20	U
60-57-1	Dieldrin	0.20	U
72-55-9	4,4'-DDE	0.20	U
72-20-8	Endrin	0.20	U
33213-65-9	Endosulfan II	0.20	U
72-54-8	4,4'-DDD	0.20	U
1031-07-8	Endosulfan Sulfate	0.20	U
50-29-3	4,4'-DDT	0.20	U
72-43-5	Methoxychlor	1.0	U
53494-70-5	Endrin Ketone	0.20	U
57-74-9	Chlordane	1.0	U
8001-35-2	Toxaphene	2.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	2.0	U
11096-82-5	Aroclor-1260	2.0	U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1,000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name: Ecology & Environment

Case No: 4-5171, 5180

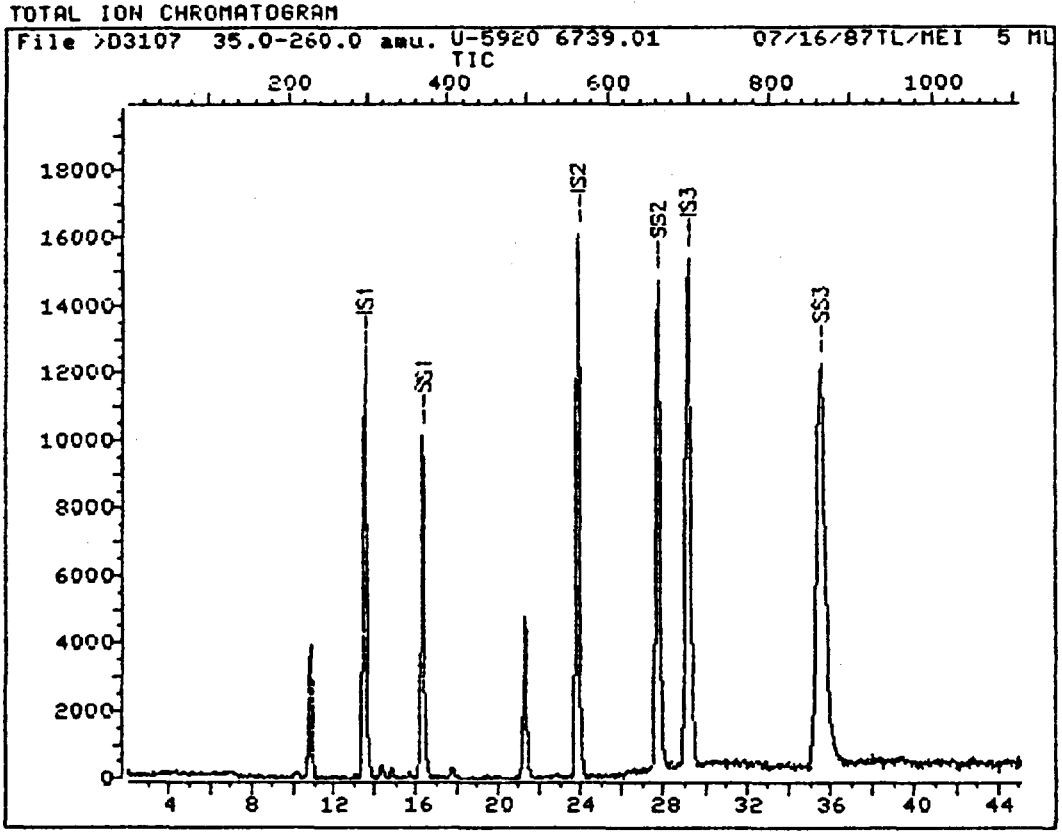
Sample Number: DC-GW-41A

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Butene isomer (?)	VOA	10.83	14 J
2.				
3.	Unknown	BNA	12.13	20 J
4.	Unknown - chloromethyl pyridine	↓	12.23	110 J
5.	Dimethyl hexadiene isomer	↓	16.05	54 J
6.	Unknown	↓	34.33	20 J
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

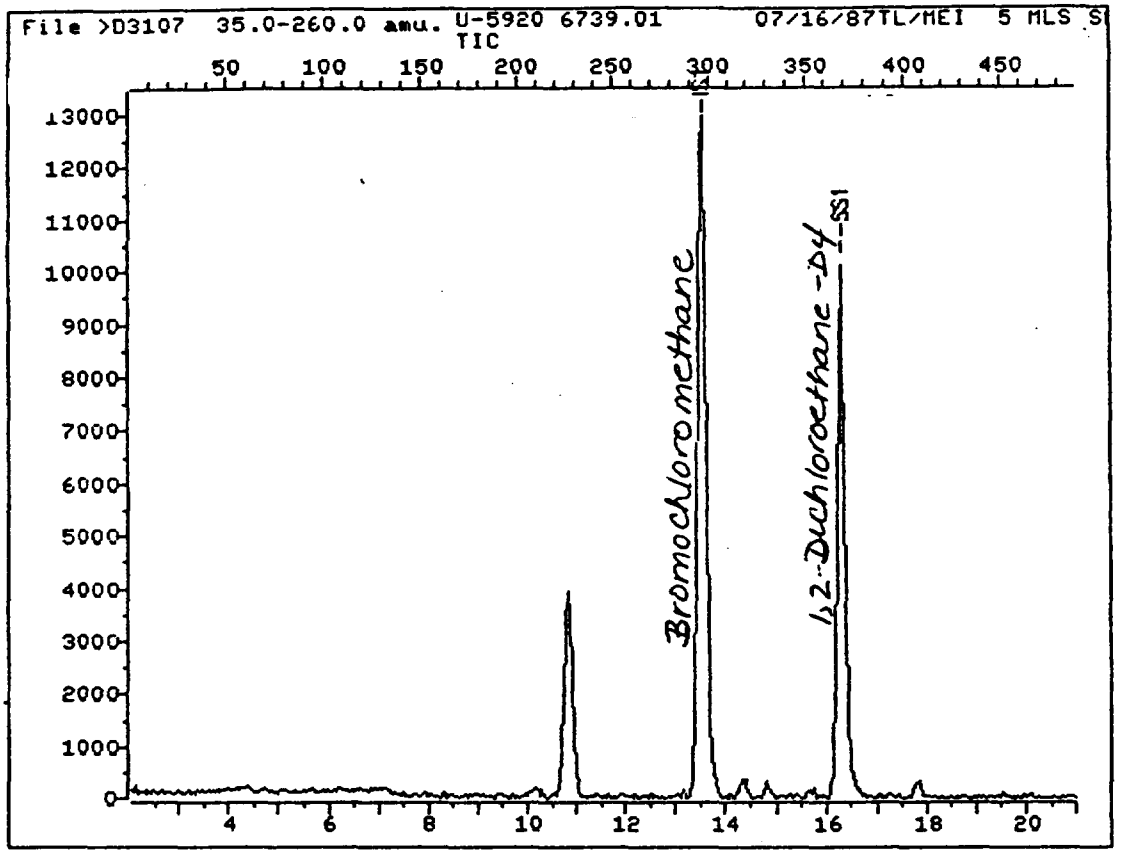


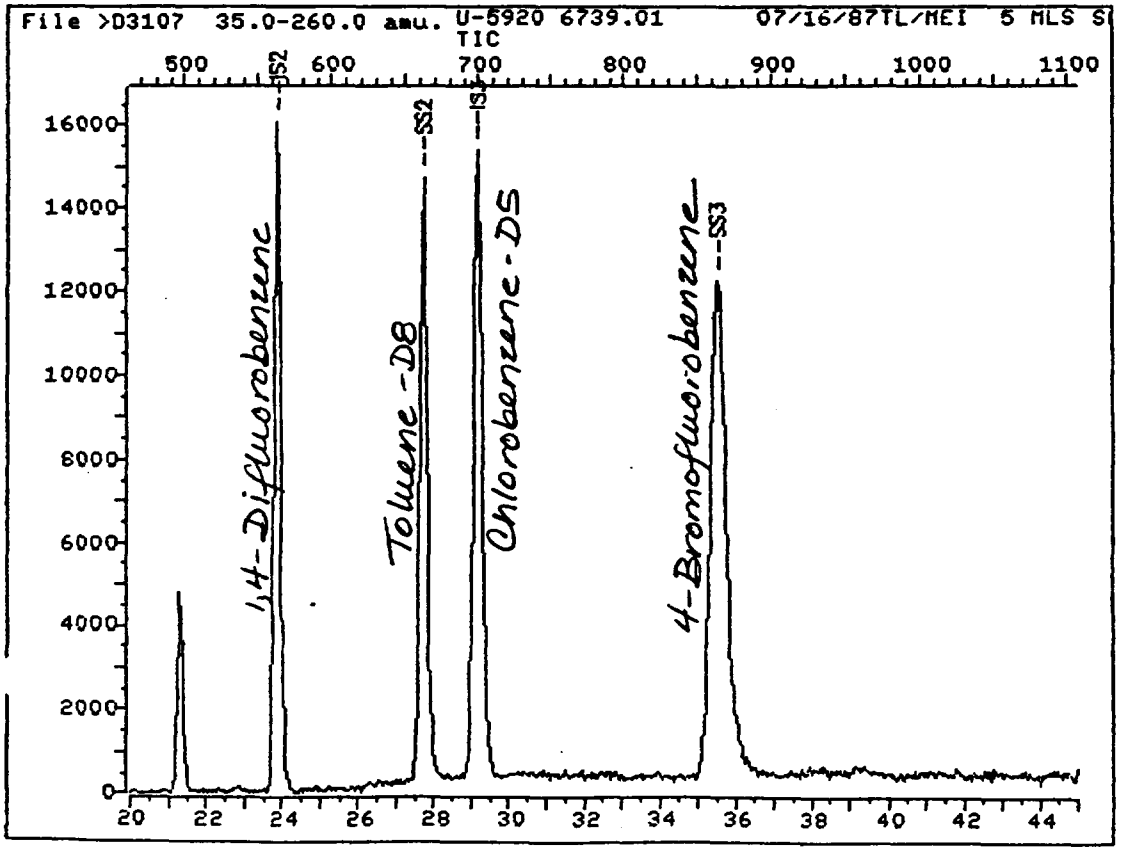
Data File: >D3107::D5
Name: U-5920 6739.01 DC-GW-41A
Misc: 07/16/87TL/MEI 5 MLS SAM + 10 ULS IS/SS

Id File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

Operator ID: USER6
Quant Time: 870716 23:30
Injected at: 870716 22:44

DC-GW-41A


File >D3107 35.0-260.0 amu. U-5920 6739.01 07/16/87TL/MEI 5 MLS S
TIC
Bromochloromethane
1,2-Dichloroethane-D4
SS1


File >D3107 35.0-260.0 amu. U-5920 6739.01 07/16/87TL/MEI 5 MLS S
TIC
1,4-Difluorobenzene
IS2
Toluene-D8
SS2
Chlorobenzene-D5
IS3
4-Bromofluorobenzene
SS3

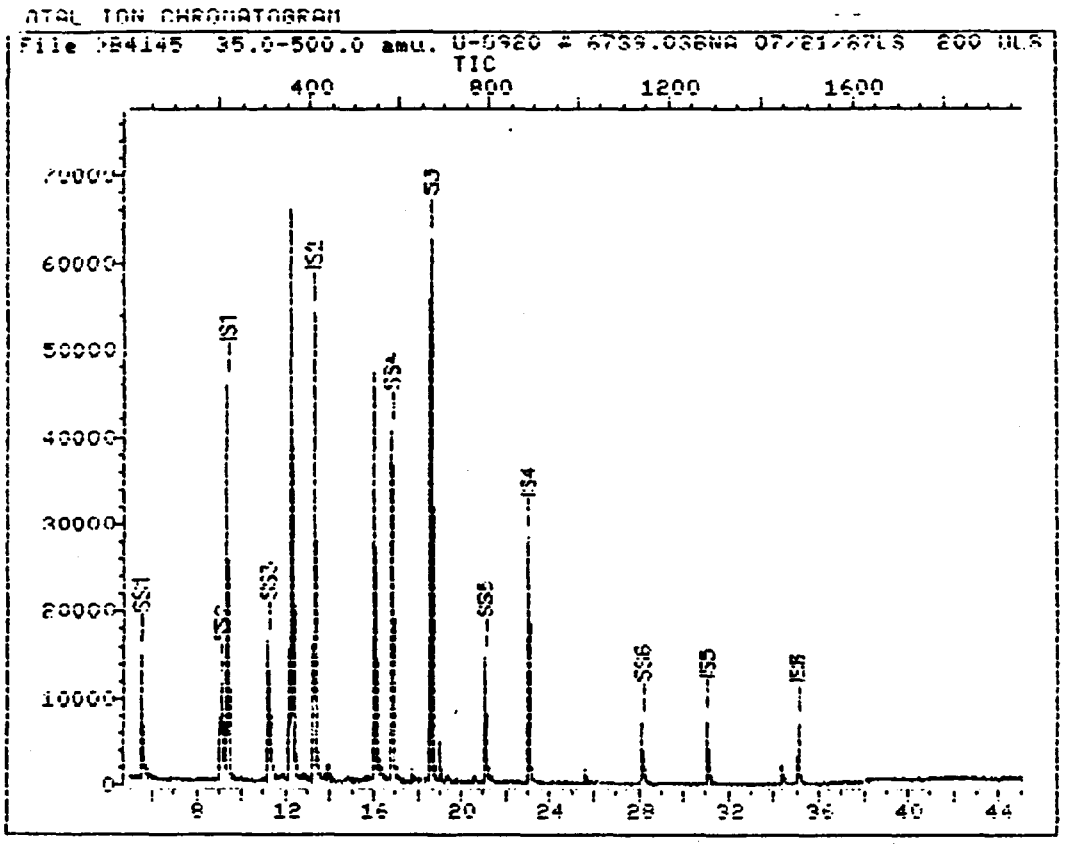
QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870716 23:30
Output File: ^D3107::Q3 Injected at: 870716 22:44
Data File: >D3107::D5 Dilution Factor: 1.00
Name: U-5920 6739.01 DC-GW-41A
Disc: 07/16/87TL/MEI 5 MLS SAM + 10 ULS IS/SS

D File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

	Compound		R.T.	Scan#	Area	Conc	Units		q
1)	*BROMOCHLOROMETHANE	(IS)	128	13.50	296	17671	50.00	UG/L	100
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	16.30	368	49351	49.28	UG/L 98%	74
6)	*1,4-DIFLUOROBENZENE	(IS)	114	23.87	563	62538	50.00	UG/L	100
7)	BENZENE		78	21.31	497	18069	19.75	UG/L	100
1)	*CHLOROBENZENE-D5	(IS)	117	29.16	699	50255	50.00	UG/L	100
6)	TOLUENE-D8	(SURR)	98	27.72	662	56287	49.13	UG/L 98%	88
8)	CHLOROBENZENE		112	29.31	703	7526	7.75	UG/L	99
0)	4-BROMOFLUOROBENZENE	(SURR)	95	35.52	863	63949	47.90	UG/L 96%	100

* Compound is ISTD

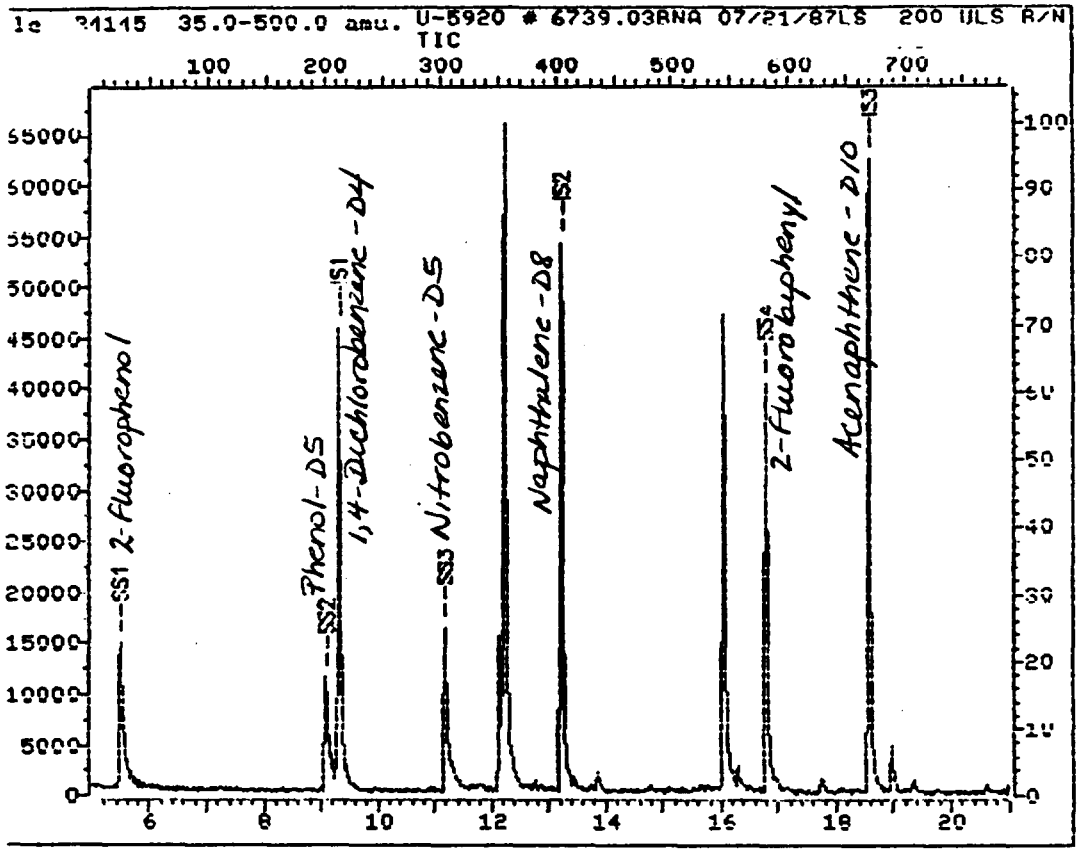


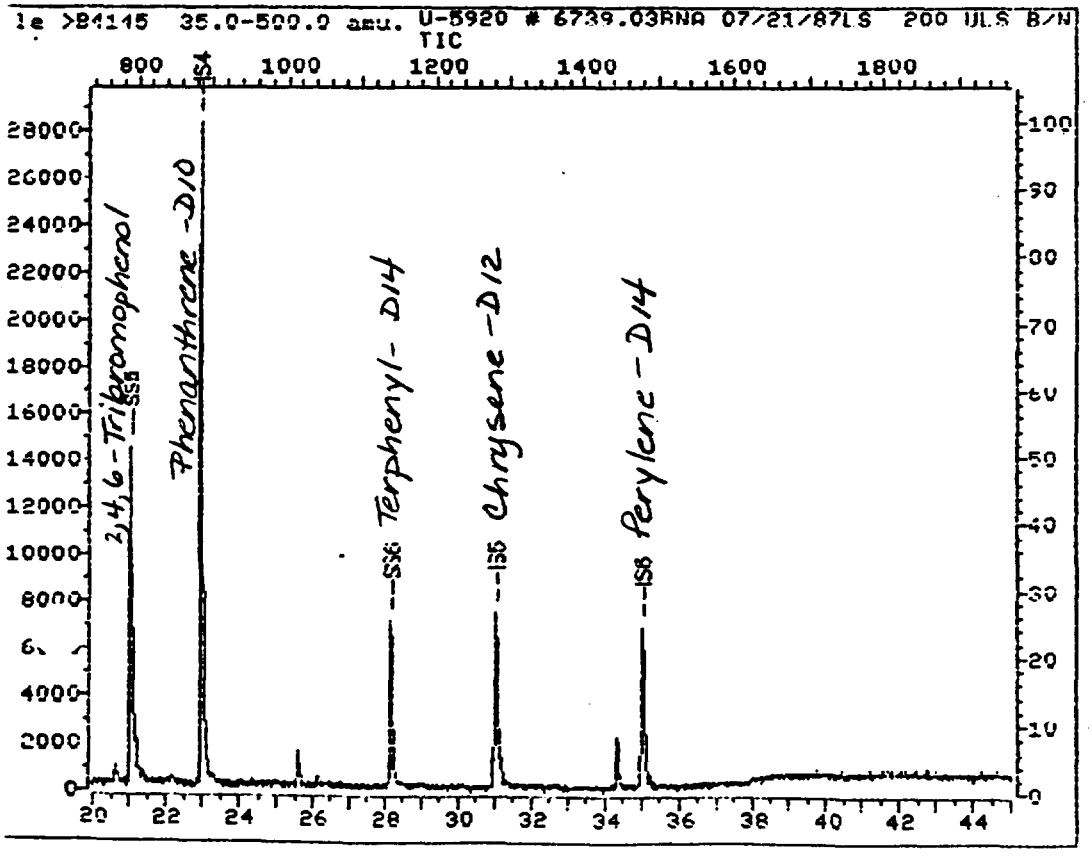
Data File: >B4145::D6
Name: U-5920 # 6739.03BNA DC-GW-41A
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870721 13:51

Operator ID: USERB
Quant Time: 870721 19:18
Injected at: 870721 18:30

DC-GW-41A


1e 84145 35.0-500.0 amu. U-5920 # 6739.03BNA 07/21/87LS 200 ULS B/N
TIC
SS1 2-Fluorophenol
SS2 Phenol-D5
IS1 1,4-Dichlorobenzene-D4
SS3 Nitrobenzene-D5
Naphthalene-D8
IS2
SS4 2-Fluorobiphenyl
Acenaphthene-D10
IS3


1e >84145 35.0-500.0 amu. U-5920 # 6739.03BNA 07/21/87LS 200 ULS B/N
TIC
IS4
SS5 2,4,6-Tribromophenol
Phenanthrene-D10
SS6 Terphenyl-D14
IS5 Chrysene-D12
IS6 Perylene-D14

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870721 19:18
Output File: ^B4145::Q3 Injected at: 870721 18:30
Data File: >B4145::D6 Dilution Factor: 2.00
Name: U-5920 # 6739.03BNA DC-GW-41A
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

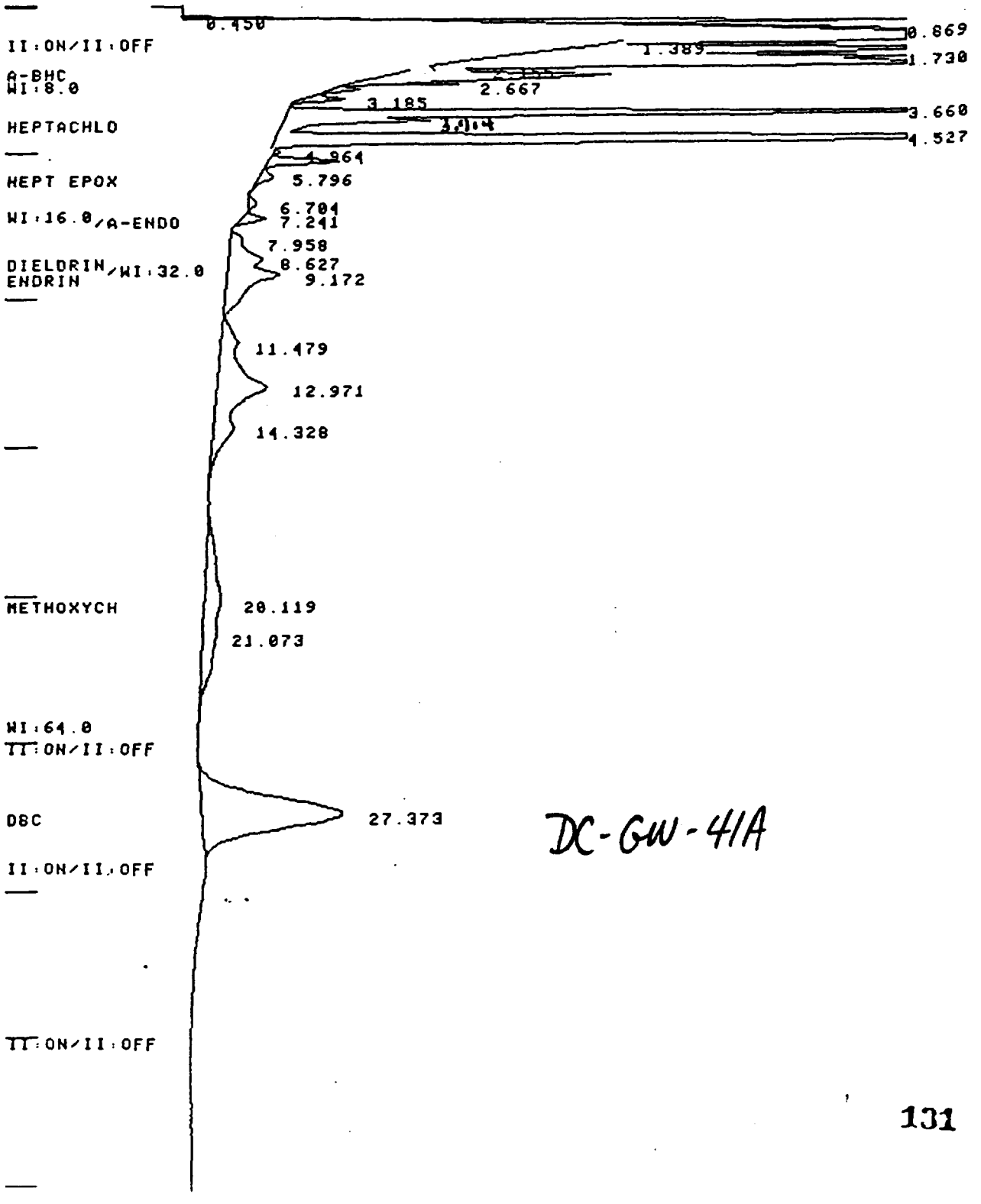
ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870721 13:51

	Compound		R.T.	Scan#	Area	Conc	Units	Q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.30	212	19000	UG/L	83
2)	PHENOL-D5	(SURR)	99	9.08	201	16938	UG/L	81
5)	2-FLUOROPHENOL	(SURR)	112	5.48	24	19236	UG/L	71
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.17~~	~~304~~	~~3206~~	~~UG/L~~	96
19)	*NAPHTHALENE-D8	(IS)	136	13.23	405	87222	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.17	304	26412	UG/L	96
34)	*ACENAPHTHENE-D10	(IS)	162	18.59	669	48252	UG/L	99
38)	2-FLUOROBIPHENYL	(SURR)	172	16.78	580	50424	UG/L	94
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~10.59~~	~~669~~	~~9163~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.03	789	13592	UG/L	97
52)	~~2,4-DINITROTOLUENE~~		~~165~~	~~18.57~~	~~6000~~	~~61592~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.97	884	53743	UG/L	98
63)	DI-N-BUTYL PHTHALATE		149	25.59	1013	4488	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.02	1280	24583	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.15	1139	18015	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.02	1477	19315	UG/L	100

* Compound is ISTD

ATTEN: 8 ZERO: 10% 5 MIN/TICK 2CHART SPEED 0.5 CM/MIN

ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-GW-41A

RECALCULATE ON FILE: 7546296

CHANNEL: 1A - 1 TITLE: RUN# 20 23:31 28 JUL 87

DC-GW-41A

SAMPLE: 6739.04.0301 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.389		194260	BV	3.19
2		0.0000	1.497		827598	VV	4.06
3		0.0000	1.730		1889134	VV	3.94
4		0.0000	1.961		1558971	VV	3.94
5	~~A-BHC~~	0.0326	2.155	0.045	53788	T	5.06
6	~~B-BHC~~	0.4248	2.338	0.098	266208	VB	6.06
7		0.0000	2.667		66049	BV	5.13
8		0.0000	2.872		22271	VV	5.69
9		0.0000	3.185		34600	VB	6.19
10		0.0000	3.660		1712670	BV	8.25
11	~~HEPTACHLO~~	0.1063	3.914	-0.006	153089	VV	? 9.63
12		0.0000	4.527		3491592	VV	10.31
13		0.0000	5.258		84921	T	10.44
14	~~HEPT EPOX~~	0.0185	5.796	-0.064	25647	T	11.50
15	~~A-ENDO~~	0.0337	7.241	-0.029	44668	BV	13.38
16	~~4,4'-DDE~~	0.0177	7.958	-0.382	23342	VV	? 24.00
17	~~DIELDRIN~~	0.0743	8.627	0.167	107590	VV	? 33.44
18	~~ENDRIN~~	0.1982	9.172	-0.248	262517	VV	36.13
19		0.0000	11.479		79805	VV	? 48.13
20		0.0000	12.971		359180	VV	47.56
21	~~4,4'-DD~~T	0.1367	14.328	0.638	119562	VB	? 37.38
22	~~METHOXYCH~~	0.4418	20.119	-0.011	229682	BV	? 96.88
23		0.0000	21.073		133367	VB	?124.75
24	DBC	0.9842	27.373	-0.017	1027695	BB	69.44
TOTALS:		2.4688		0.191	12768206		

DETECTED PKS: 37 REJECTED PKS: 13

DIVISOR: 1.00000 MULTIPLIER: 20.00000

NOISE: 22.9 OFFSET: -16

RACK: 2 VIAL: 5 INJ: 1

NOTES:
NOTEBOOK:297-146 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-5920
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
PRIMARY ANALYSIS

SAMPLE NUMBER DC-GW-43A

481095

Sample Number
DC-GW-43A

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc. Case No: U-5920

Lab Sample ID No: 6740 QC Report No:

Sample Matrix: Water Contract No: IL-3140

Data Release Authorized By: [signature] Date Sample Received: 7-15-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 7-17-87

Conc./Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	5BJ	
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: Ecology & Environment

Case No: U- 5920 1

Sample Number
DC-GW-43 A

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7/16/87

Date Analyzed: 7/21/87

Conc/Dil Factor: 1

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1, 3-Dichlorobenzene	10u
106-46-7	1, 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1, 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylpheno'	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2, 4-Dichlorophenol	10u
120-82-1	1, 2, 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2, 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2, 4-Dinitrotoluene	10u
606-20-2	2, 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3, 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	10u
53-70-3	Dibenzo(a, h)Anthracene	10u
191-24-2	Benzo(g, h, i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No 11-5920

Sample Number
DC-GW-43A

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-15-87

Date Analyzed: 7-29-87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name: Ecology & Environment

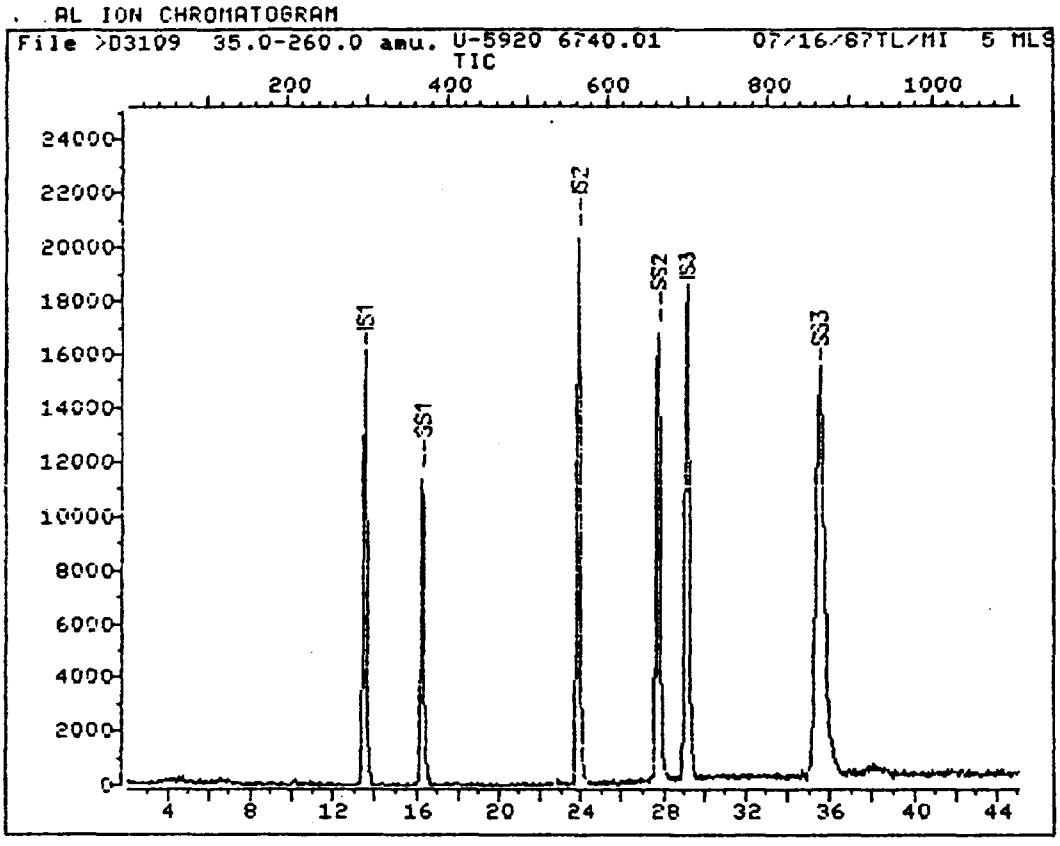
Case No: U-5920

Sample Number: DC-GW-43A

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	NO TIC's in VOA fraction			
2.				
3.	NO TIC's in B/NA fraction			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

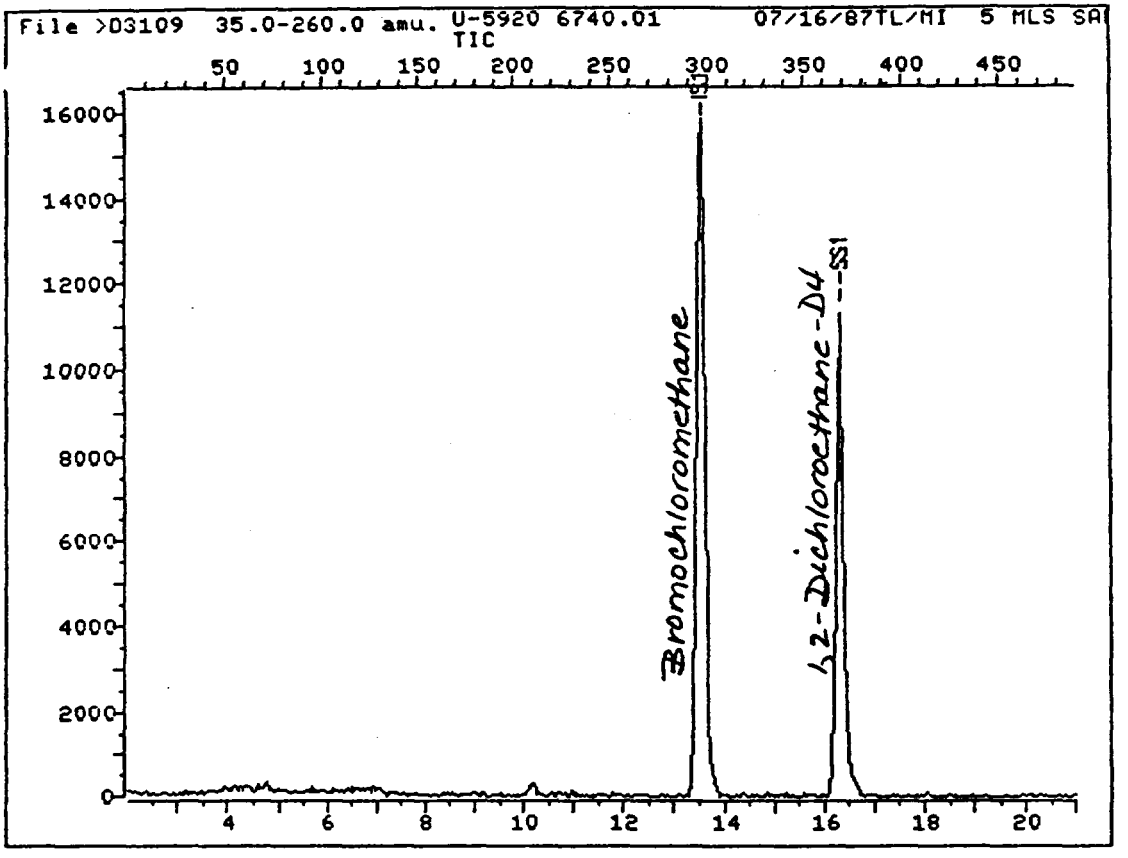


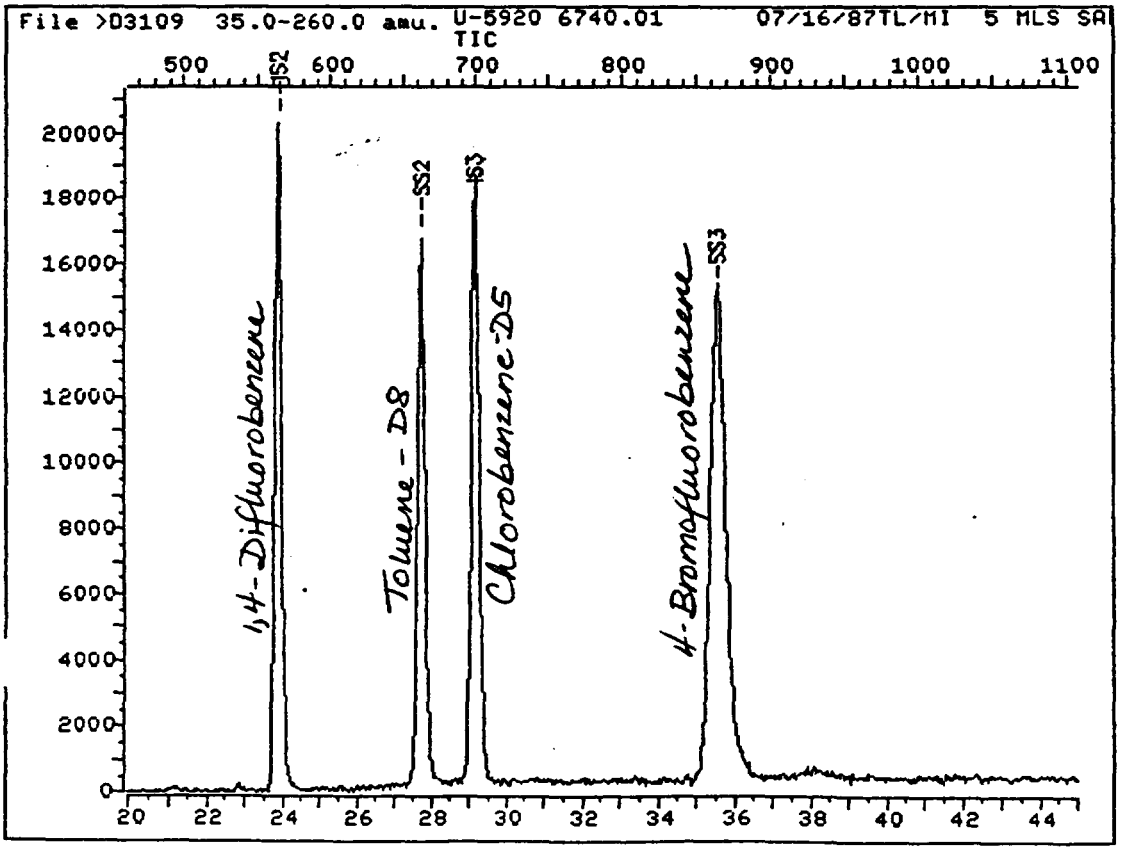
Data File: >D3109::D5
Name: U-5920 6740.01 DC-GW-43A
Misc: 07/16/87TL/MI 5 MLS SAM + 10 ULS IS/SS

Id File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

Operator ID: USER6
Quant Time: 870717 01:27
Injected at: 870717 00:41

DC-GW-43A


File >D3109 35.0-260.0 amu. U-5920 6740.01 07/16/87TL/MI 5 MLS SA
TIC
Bromochloromethane
1,2-Dichloroethane-D4
SS1


File >D3109 35.0-260.0 amu. U-5920 6740.01 07/16/87TL/MI 5 MLS SA
TIC
1,4-Difluorobenzene
Toluene-D8
Chlorobenzene-D5
4-Bromofluorobenzene
SS2
SS3

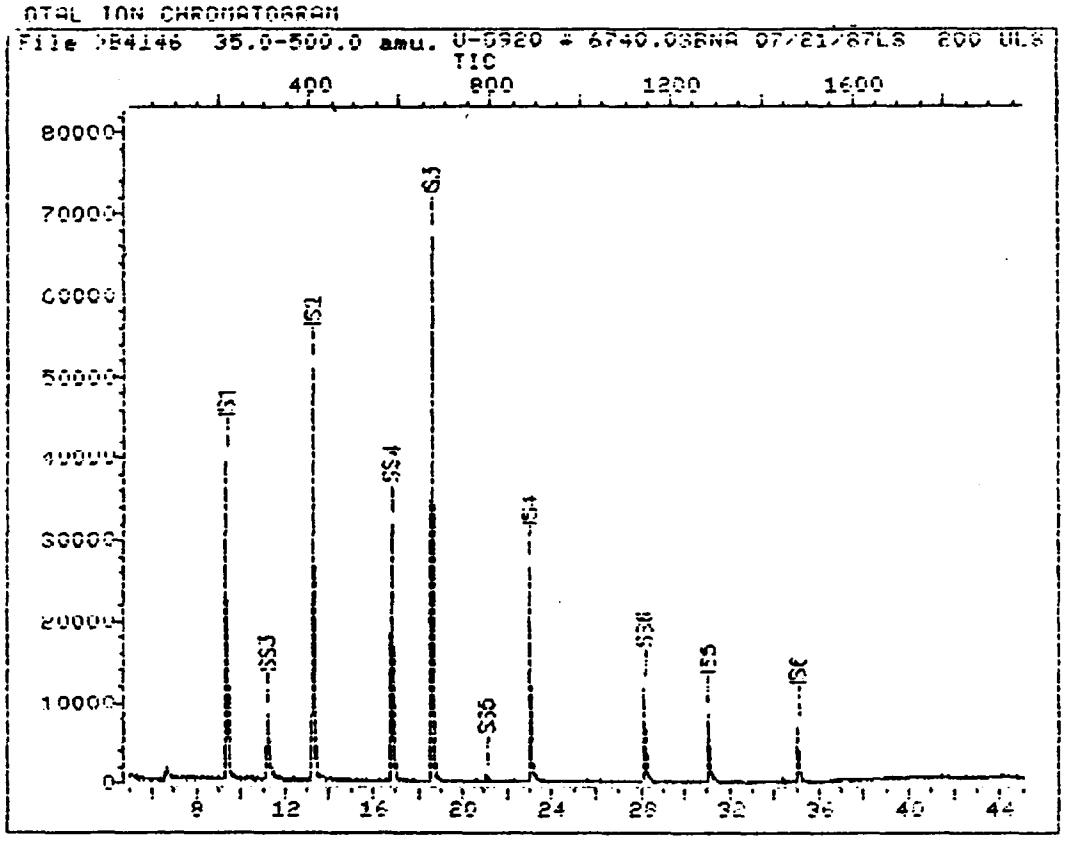
QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870717 01:27
Output File: ^D3109::Q3 Injected at: 870717 00:41
Data File: >D3109::D5 Dilution Factor: 1.00
Name: U-5920 6740.01 DC-GW-43A
Misc: 07/16/87TL/MI 5 MLS SAM + 10 ULS IS/SS

ID File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	13.50	296	21477	50.00	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	16.30	368	56109	46.10	UG/L	74
16)	*1,4-DIFLUOROBENZENE	(IS) 114	23.87	563	77176	50.00	UG/L	100
17)	2-BUTANONE	72	16.22	366	130	4.82	UG/L	100
31)	*CHLOROBENZENE-D5	(IS) 117	29.11	698	63885	50.00	UG/L	100
36)	TOLUENE-D8	(SURR) 98	27.71	662	66225	45.47	UG/L	90
40)	4-BROMOFLUOROBENZENE	(SURR) 95	35.52	863	77920	45.91	UG/L	100

* Compound is ISTD

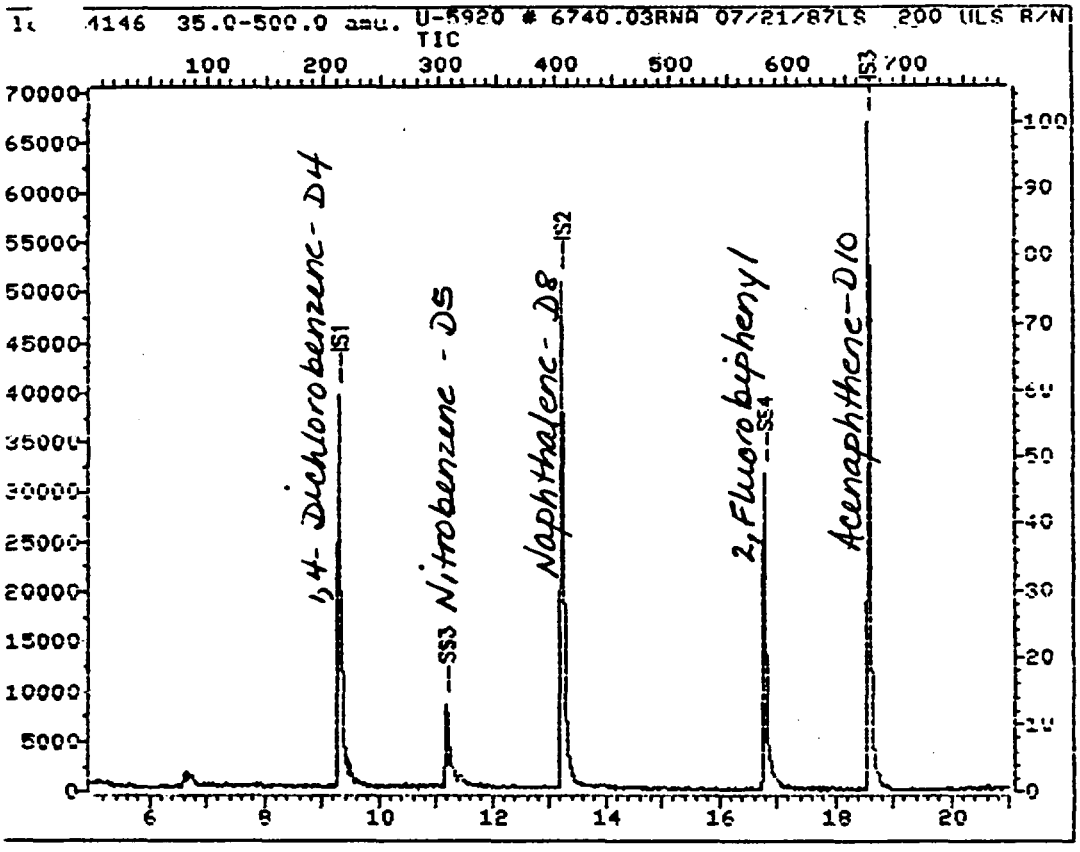


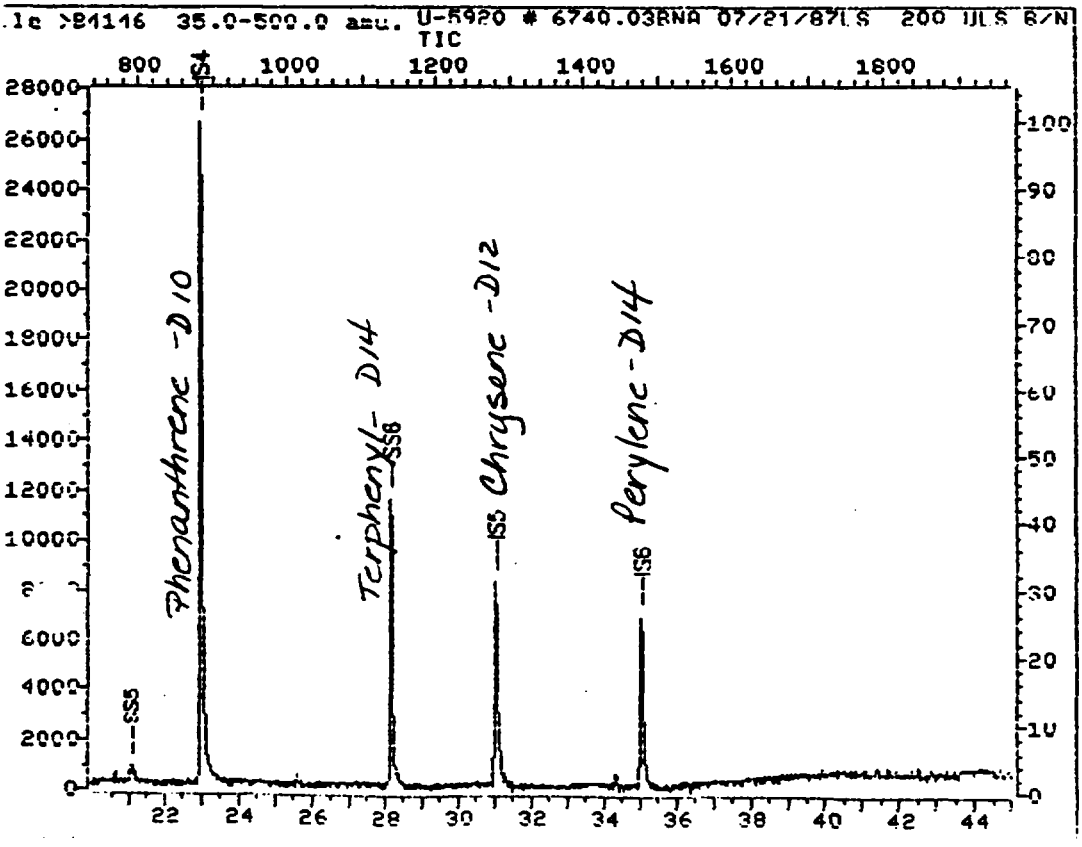
Data File: >B4146::D6
Name: U-5920 # 6740.03BNA DC-GW-43A
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5971 (B)
Last Calibration: 870721 13:51

Operator ID: USER8
Quant Time: 870721 20:09
Injected at: 870721 19:22

DC-GW43A


4146 35.0-500.0 amu. U-5920 # 6740.03RNA 07/21/87LS 200 ULS R/N
TIC
1,4- Dichlorobenzene - D4
IS1
SS3 Nitrobenzene - D5
Naphthalene - D8
IS2
2, Fluorobiphenyl
SS4
Acenaphthene-D10
IS3


84146 35.0-500.0 amu. U-5920 # 6740.03RNA 07/21/87LS 200 ULS R/N
TIC
IS4
Phenanthrene -D10
SS5
Terphenyl- D14
SS6
IS5 Chrysene -D12
IS6 Perylene - D14

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870721 20:09
Output File: ^B4146::Q3 Injected at: 870721 19:22
Data File: >B4146::D6 Dilution Factor: 2.00
Name: U-5920 # 6740.03BNA JC-GW-43A
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

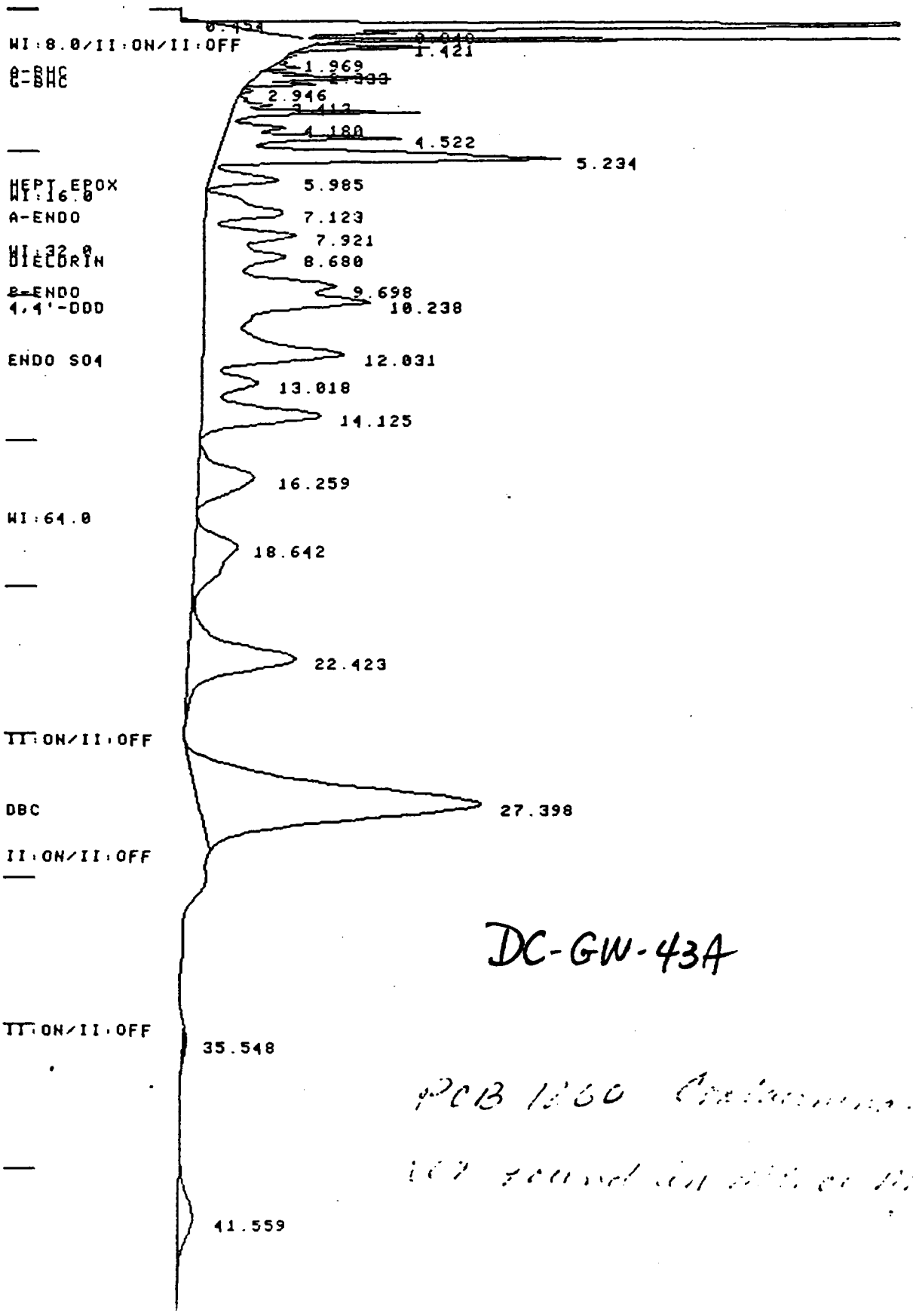
ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870721 13:51

	Compound		R.T.	Scan#	Area	Conc	Units	Q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.99	212	18784	40.00	UG/L	84
17)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.18~~	~~305~~	~~1774~~	~~6.31~~	~~UG/L~~	~~83~~
19)	*NAPHTHALENE-D8	(IS)	136	13.24	406	84231	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.18	305	11933	25.25	UG/L	94
34)	*ACENAPHTHENE-D10	(IS)	162	18.99	669	50080	40.00	UG/L	92
38)	2-FLUOROBIPHENYL	(SURR)	172	16.80	581	45053	48.48	UG/L	94
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.59~~	~~669~~	~~9100~~	~~12.93~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.05	790	1745	11.08	UG/L	92
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.59~~	~~669~~	~~6154~~	~~42.12~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.96	884	56313	40.00	UG/L	99
65)	*CHRYSENE-D12	(IS)	240	31.03	1281	26292	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.14	1139	26881	107.99	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.04	1428	19842	40.00	UG/L	100

* Compound is ISTD

NO acid surrs

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-GW-43A

PCB 1260 Confirmation
not found in all or DDD

RECALCULATE ON FILE: 7546297

CHANNEL: 1A - 1 TITLE: RUN# 21 0:21 29 JUL 87

DC-GW-43A

SAMPLE: 6740.04.0301 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.421		96606	VV	5.06
2	~~A-BHC~~	0.0065	2.127	0.017	21440	VV	4.44
3	~~B-BHC~~	0.0217	2.333	0.093	27245	VV	5.50
4	~~G-BHC~~	0.0323	2.481	0.011	94681	VV	5.81
5		0.0000	2.672		51093	VV	5.69
6		0.0000	3.413		32891	VV	7.50
7		0.0000	3.660		200308	VV	8.44
8		0.0000	4.180		78502	VV	13.00
9		0.0000	4.522		270835	VV	11.44
10		0.0000	5.234		696373	VV	? 18.06
11	~~HEPT EPOX~~	0.0555	5.985	0.125	154087	VB	? 18.81
12	~~A-ENDO~~	0.1161	7.123	-0.147	307461	BV	33.50
13		0.0000	7.921		266299	VV	29.44
14	~~DIELDRIN~~	0.1023	8.680	0.220	296365	VV	? 45.50
15	~~B-ENDO~~	0.1702	9.698	0.088	436775	VV	? 35.38
16	~~4,4'-DDD~~	0.3014	10.238	-0.252	665380	VV	? 37.63
17	~~ENDO SO4~~	0.4776	12.031	-0.269	666359	VV	39.94
18		0.0000	13.018		201355	VV	34.06
19	~~4,4'-DDT~~	0.2672	14.125	0.435	467276	VB	34.94
20	~~END KETON~~	0.1273	16.259	0.499	330333	BB	56.56
21		0.0000	18.642		360761	BV	83.75
22		0.0000	22.423		726713	VB	53.00
23	DBC	1.1480	27.398	0.008	2397397	BB	79.31
24		0.0000	41.559		169625	BB	93.88
TOTALS:		2.8262		0.828	9016160		

DETECTED PKS: 39 REJECTED PKS: 15

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 22.9 OFFSET: -25

RACK: 2 VIAL: 6 INJ: 1

NOTES:
NOTEBOOK:297-146 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-5920
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
PRIMARY ANALYSIS

SAMPLE NUMBER DC-GW-57

481095

Sample Number
DC-GW-57

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc Case No: U-5920

Lab Sample ID No: 6741 QC Report No: _____

Sample Matrix: Water Contract No: IL-3140

Data Release Authorized By: C Stojtowicz Date Sample Received: 7-15-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: _____

Date Analyzed: 7-16-87

Conc/Dil Factor: 1 pH _____

Percent Moisture: (Not Decanted) _____

CAS Number		(ug/l) or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		(ug/l) or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: Ecology & Environment

Case No: U- 5920 1

Sample Number
DC-GW-57

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-16-87

Date Analyzed: 7-21-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylpheno'	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2. 4. 6-Trichlorophenol	10u
95-95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2. 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3. 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1. 2. 3-cd)Pyrene	10u
53-70-3	Dibenz(a h)Anthracene	10u
191-24-2	Benzo(g h. i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ecology and environment, inc.

Case No 11-5920

Sample Number DC-GW-57

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-15-87

Date Analyzed: 7-29-87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l or ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1,000 or W_s _____ V_t 10,000 V_i 4

Laboratory Name Ecology & Environment

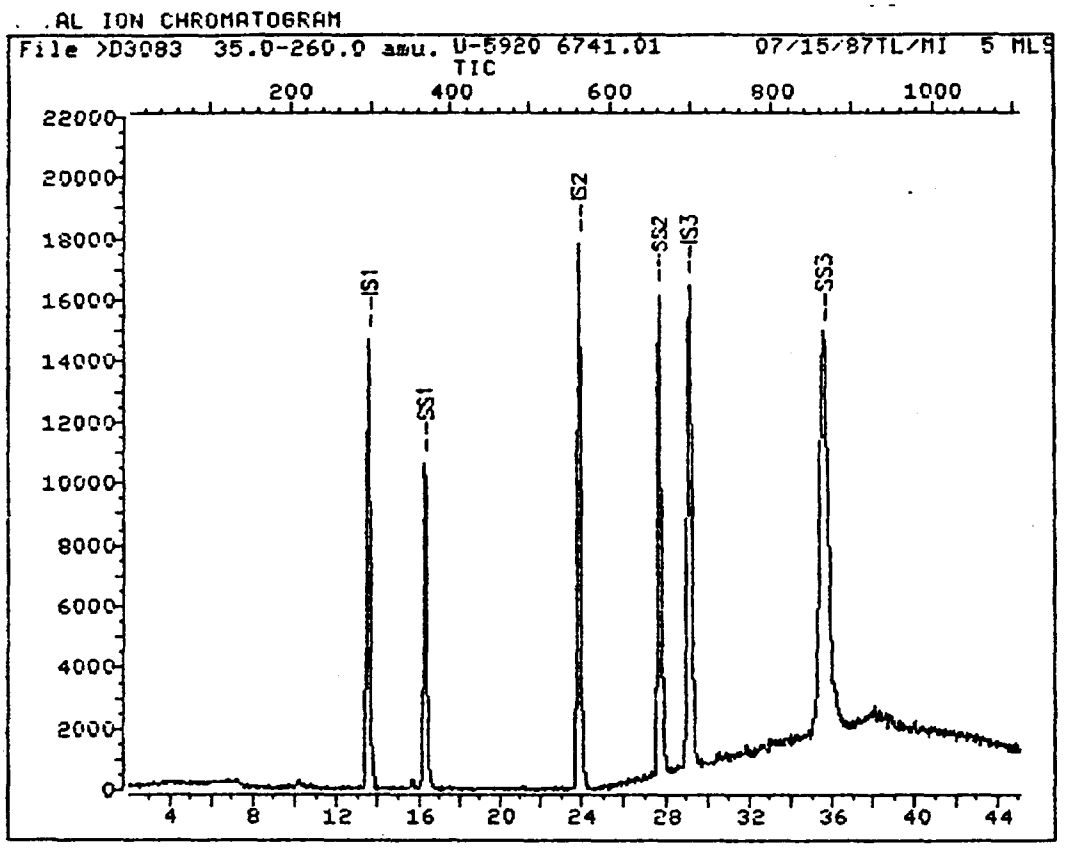
Case No 4-5920

Sample Number DC-GW-57

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.	No TIC's in B/NA fraction			
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

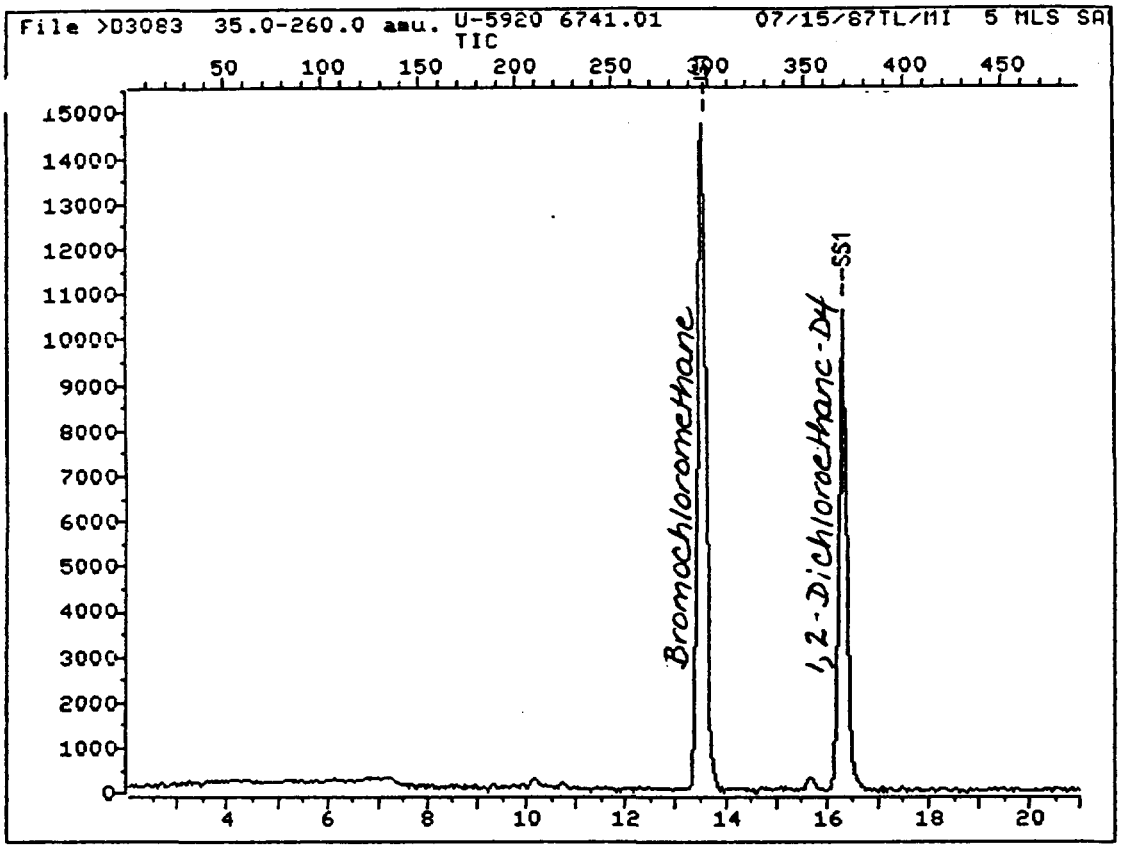


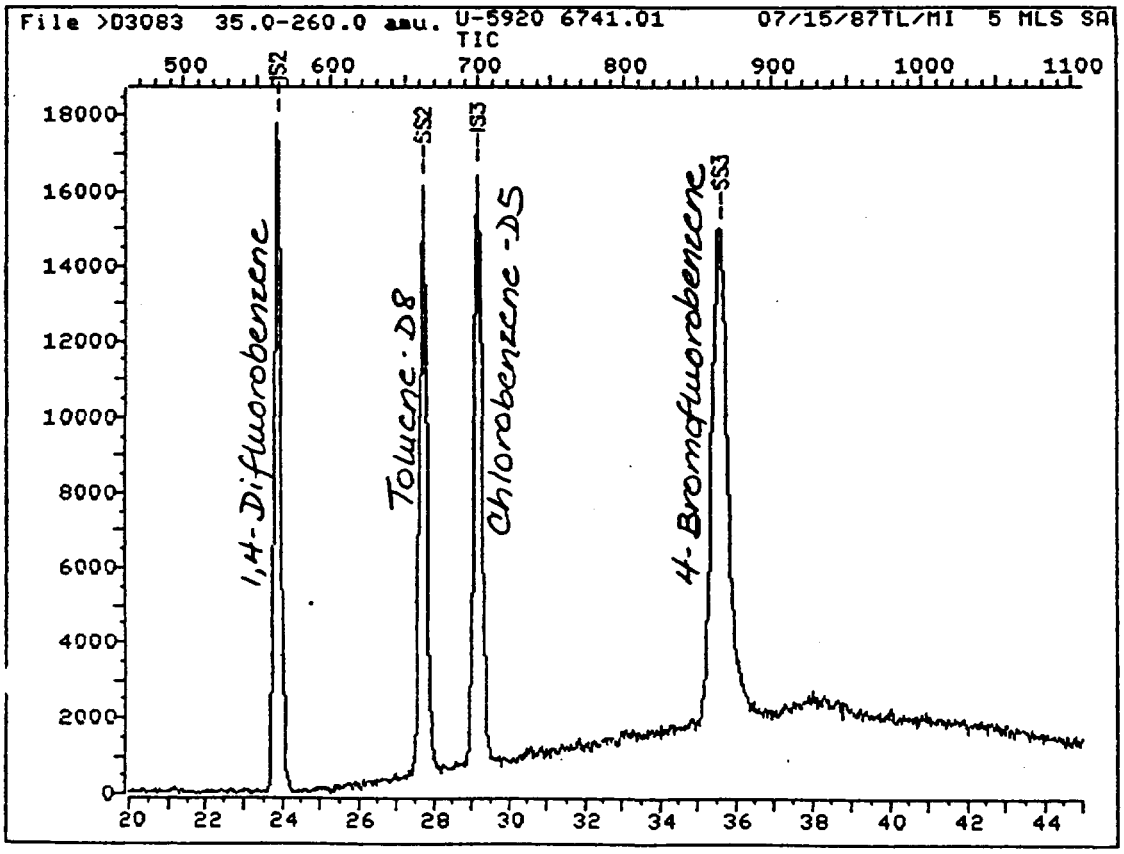
Data File: >D3083::D5
Name: U-5920 6741.01 DC-GW-57
Misc: 07/15/87TL/MI 5 MLS SAM + 10 ULS IS/SS

Id File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870715 23:10

Operator ID: USER6
Quant Time: 870716 01:08
Injected at: 870716 00:22

DC-GW-57


File >D3083 35.0-260.0 amu. U-5920 6741.01 07/15/87TL/MI 5 MLS SA
TIC
Bromochloromethane
1,2-Dichloroethane-D4
--SS1


File >D3083 35.0-260.0 amu. U-5920 6741.01 07/15/87TL/MI 5 MLS SA
TIC
1,4-Difluorobenzene
--IS2
Toluene-D8
--SS2
Chlorobenzene-D5
--IS3
4-Bromofluorobenzene
--SS3

QUANT REPORT

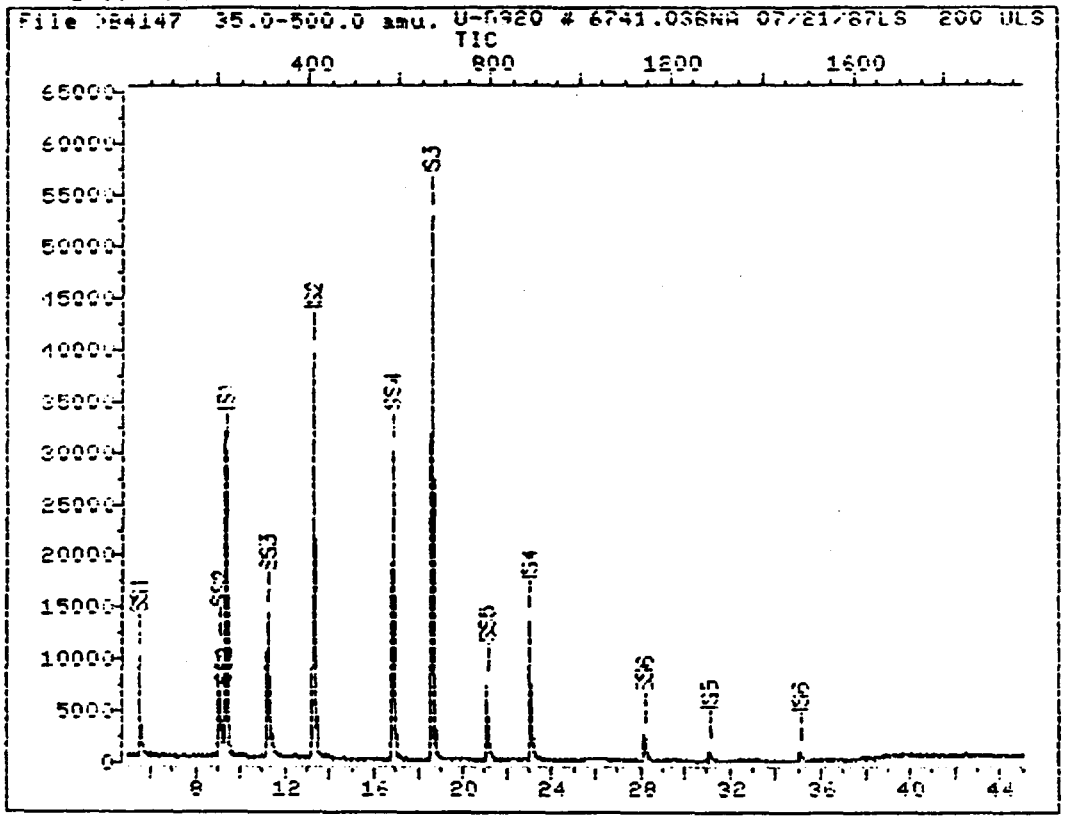
perator ID: USER6 Quant Rev: 4 Quant Time: 870716 01:08
utput File: ^D3083::Q3 Injected at: 870716 00:22
ata File: >D3083::D5 Dilution Factor: 1.00
ame: U-5920 6741.01 DC-GW-57
isc: 07/15/87TL/MI 5 MLS SAM + 10 ULS IS/SS

D File: VOADR::D2
itle: VOA ID FILE FOR HP-5970D (CONT. CAL.)
ast Calibration: 870715 23:10

	Compound		R.T.	Scan#	Area	Conc	Units		q
1)	*BROMOCHLOROMETHANE	(IS)	128	13.54	297	20792	50.00	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	16.30	368	53686	47.02	UG/L 94	77
16)	*1,4-DIFLUOROBENZENE	(IS)	114	23.87	563	69413	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS)	117	29.15	699	55832	50.00	UG/L	100
36)	TOLUENE-D8	(SURR)	98	27.71	662	61917	48.49	UG/L 97	92
0)	4-BROMOFLUOROBENZENE	(SURR)	95	35.60	865	71658	48.32	UG/L 97	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM

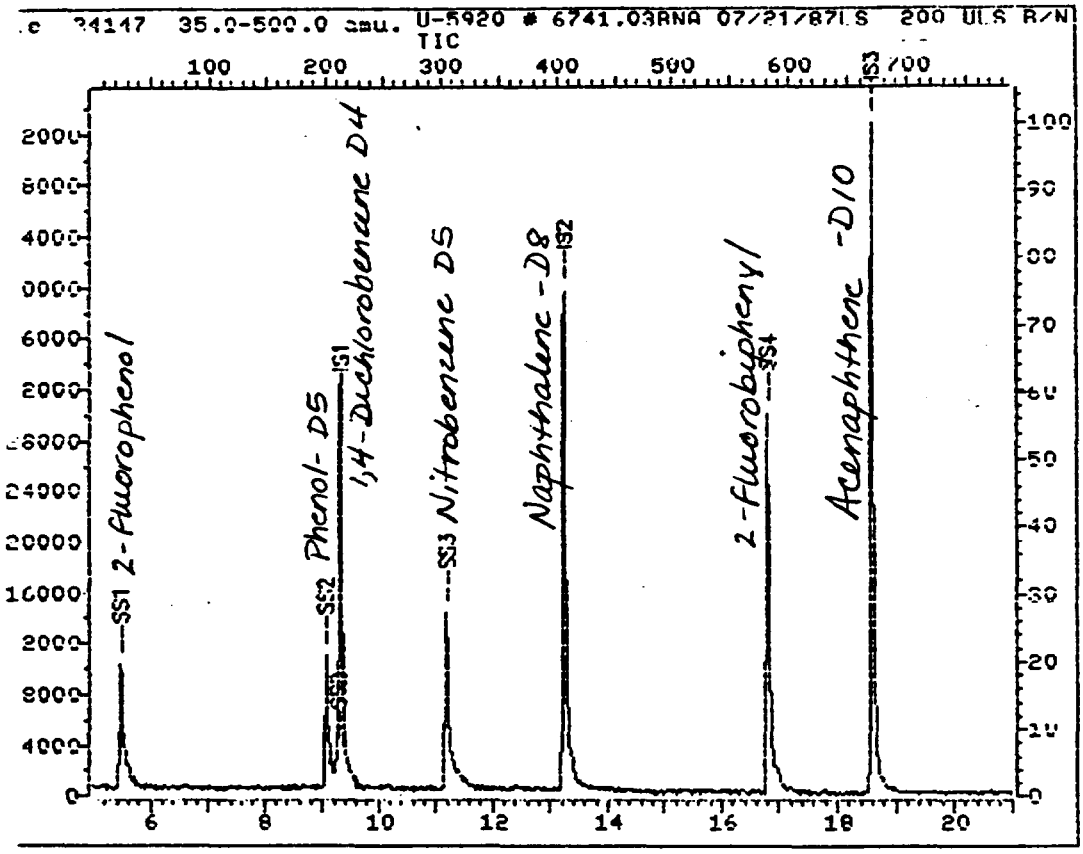


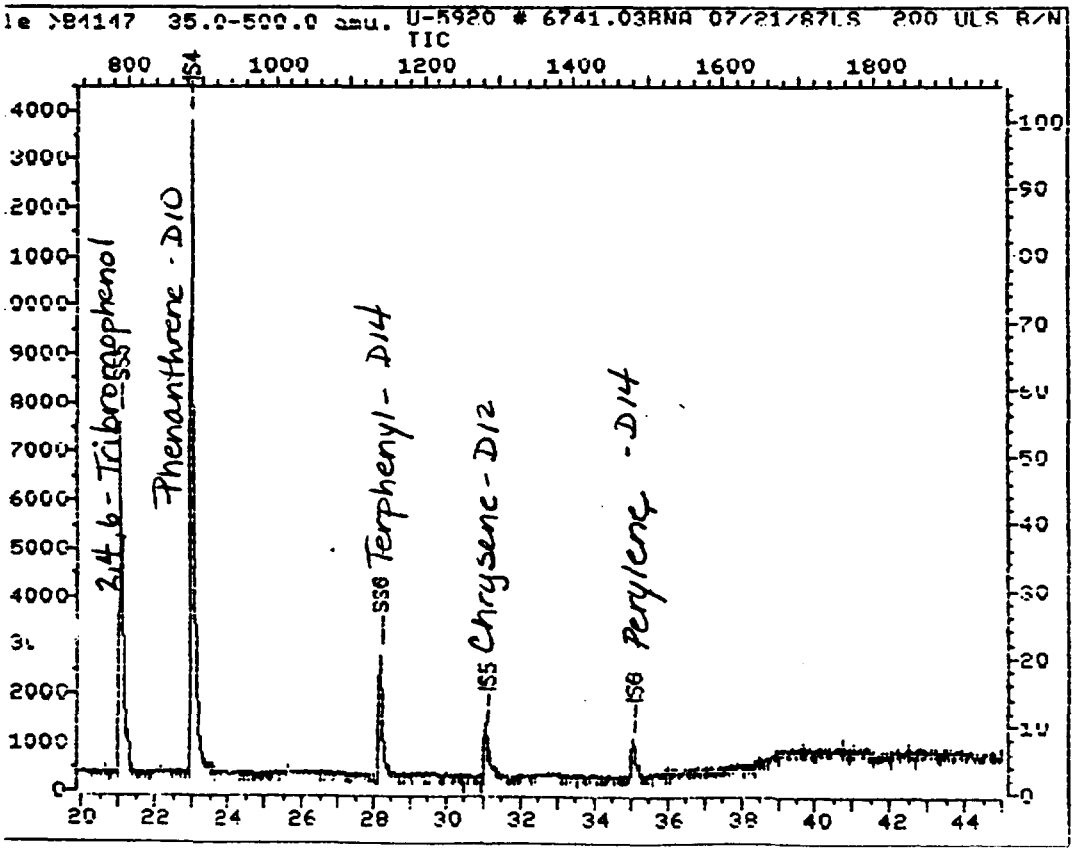
Data File: >84147::D6
Name: U-5920 # 6741.03BNA DC-GW-57
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870721 13:51

Operator ID: USER8
Quant Time: 870721 21:00
Injected at: 870721 20:13

DC-GW 57


35.0-500.0 amu. U-5920 # 6741.03RNA 07/21/87LS 200 ULS R/N
TIC
SS1 2-Fluorophenol
SS2 Phenol-D5
IS1 1,4-Dichlorobenzene D4
SS3 Nitrobenzene D5
IS2 Naphthalene-D8
SS4 2-Fluorobiphenyl
IS3 Acenaphthene-D10


35.0-500.0 amu. U-5920 # 6741.03RNA 07/21/87LS 200 ULS R/N
TIC
SS3 2,4,6-Tribromophenol
IS4 Phenanthrene-D10
SS6 Terphenyl-D14
IS5 Chrysene-D12
IS6 Perylene-D14

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870721 21:00
Output File: ^B4147::Q3 Injected at: 870721 20:13
Data File: >B4147::D6 Dilution Factor: 2.00
Name: U-5920 # 6741.03BNA DC-GW-57
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

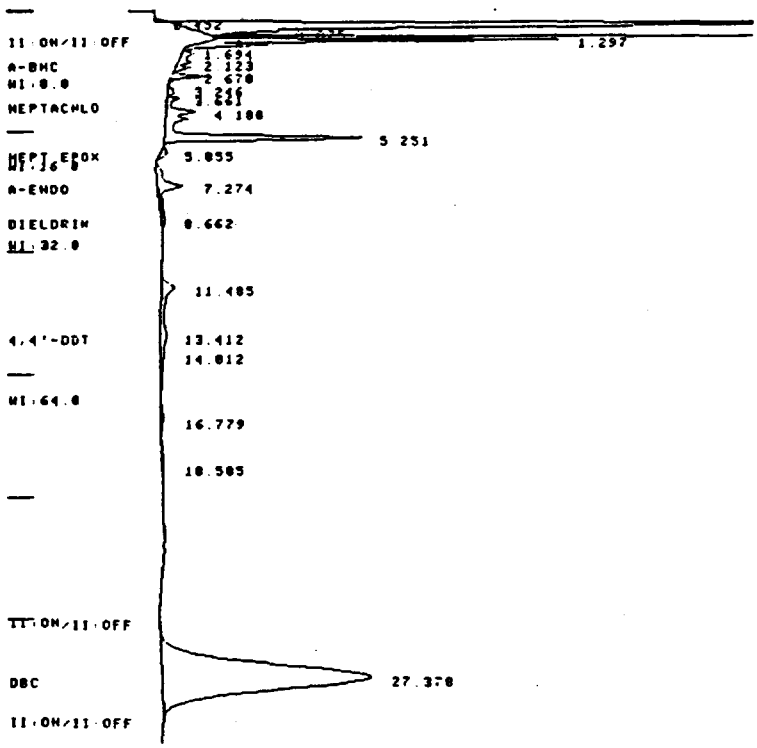
ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870721 13:51

	Compound		R.T.	Scan#	Area	Conc	Units	Q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.32	213	14592	40.00	UG/L	81
2)	PHENOL-D5	(SURR)	99	9.05	200	11519	48.04	UG/L	91
2)	PHENOL-D5	(SURR)	99	9.26	210	1719	7.17	UG/L	38
5)	2-FLUOROPHENOL	(SURR)	112	5.45	23	12826	77.63	UG/L	63
12)	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.19~~	~~305~~	~~3980~~	~~16.03~~	~~UG/L~~	90
19)	*NAPHTHALENE-D8	(IS)	136	13.24	406	76714	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.19	305	21616	50.52	UG/L	88
34)	*ACENAPHTHENE-D10	(IS)	162	18.59	669	44059	40.00	UG/L	95
38)	2-FLUOROBIPHENYL	(SURR)	172	16.80	581	48370	59.16	UG/L	96
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.59~~	~~669~~	~~7408~~	~~12.59~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.05	790	8432	60.86	UG/L	98
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.59~~	~~669~~	~~5215~~	~~45.44~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.96	884	39711	40.00	UG/L	98
65)	*CHRYSENE-D12	(IS)	240	31.10	1284	7792	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.17	1140	11873	164.08	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.08	1480	5352	40.00	UG/L	100

HCB

* Compound is ISTD

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-GW-57

CHANNEL: 1A - 1 TITLE: RUN# 24 2:47 29 JUL 87

SAMPLE: 6741.04.0301 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.413		43275	VB	4.38
2		0.0000	2.670		40752	VB	6.06
3		0.0000	4.180		46909	VV	11.88
4		0.0000	4.484		46958	VV	13.69
5		0.0000	5.251		314095	VB	11.13
6	A-ENDO	0.0323	7.274	0.004	85459	BV	21.31
7	DIELDRIN	0.0096	8.662	0.202	27865	VB	? 71.31
8		0.0000	11.485		64320	BV	30.63
9	4,4'-DDT	0.0262	13.412	-0.278	45750	VV	? 70.00
10		0.0000	14.012		21163	VB	? 75.38
11	DBC	0.8792	27.378	-0.012	1836115	BB	67.94

TOTALS: 0.9473 -0.084 2572661

DETECTED PKS: 35 REJECTED PKS: 24

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 194.3 OFFSET: -9

RACK: 2 VIAL: 9 INJ: 1

NOTES:
NOTEBOOK:297-146 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-5920
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
PRIMARY ANALYSIS

POST RUN:
SAVE FILE: RAW 7546300

MATRIX SPIKE DATA

1. FORM I OF NON-SPIKED COMPOUNDS
2. RAW DATA VOA, S-V, PESTICIDES
   (a) RIC AND QUANT REPORTS (GC/MS)
   (b) CHROMATOGRAMS AND LISTING (GC)

Sample Number
DC-GW-34A MS

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc. Case No: U-5920

Lab Sample ID No: 6735 MS QC Report No:

Sample Matrix: Water Contract No: IL-3140

Data Release Authorized By: C Stoglowicz Date Sample Received: 7-15-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 7-16-87

Conc./Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		(ug/l or ug/Kg) (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3J	
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	SPIKE	
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	11 B	
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		(ug/l or ug/Kg) (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	SPIKE	
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	SPIKE	
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	SPIKE	
108-90-7	Chlorobenzene	SPIKE	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: Ecology & Environment

Case No: 4- 5920 1

Sample Number
DC-GW-34A MS

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-16-87

Date Analyzed: 7-21-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	SPIKE
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	SPIKE
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	SPIKE
100-51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	SPIKE
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	SPIKE
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2. 4. 6-Trichlorophenol	10u
95-95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	SPIKE
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	SPIKE
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	SPIKE
606-20-2	2. 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	SPIKE
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	SPIKE
85-68-7	Butylbenzylphthalate	10u
91-94-1	3. 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2. 3-cd)Pyrene	10u
53-70-3	Dibenzo(a h)Anthracene	10u
191-24-2	Benzo(g h. i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name ECOLOGY AND ENVIRONMENT, INC.

Case No H-5920

Sample Number DC-GW-43A MS

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-15-87

Date Analyzed: 7-29-87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☑Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)	
319-84-6	Alpha-BHC	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.20	S
76-44-8	Heptachlor	0.19	S
309-00-2	Aldrin	0.21	S
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.45	S
72-55-9	4, 4'-DDE	0.10	U
72-20-8	Endrin	0.49	S
33213-65-9	Endosulfan II	0.10	U
72-54-8	4, 4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4, 4'-DDT	0.48	S
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

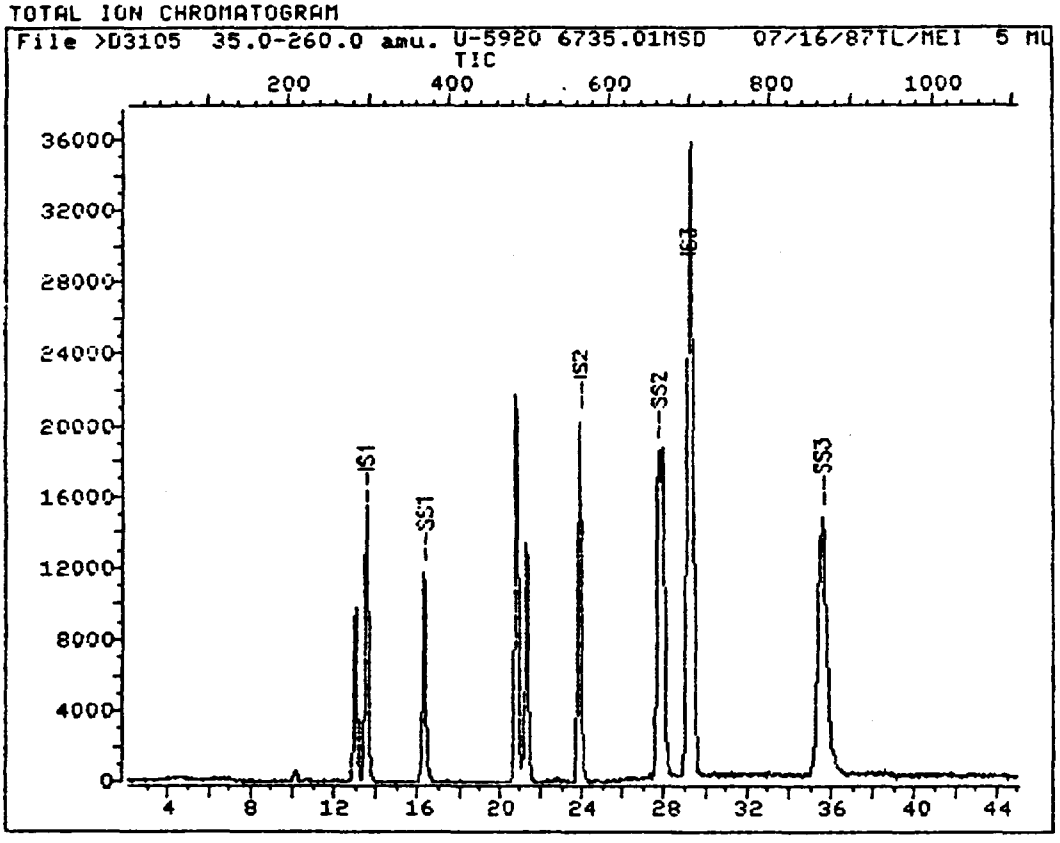
W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 or W_s _____ V_t 10,000 V_i 4

S = Spiked Compound

TOTAL ION CHROMATOGRAM

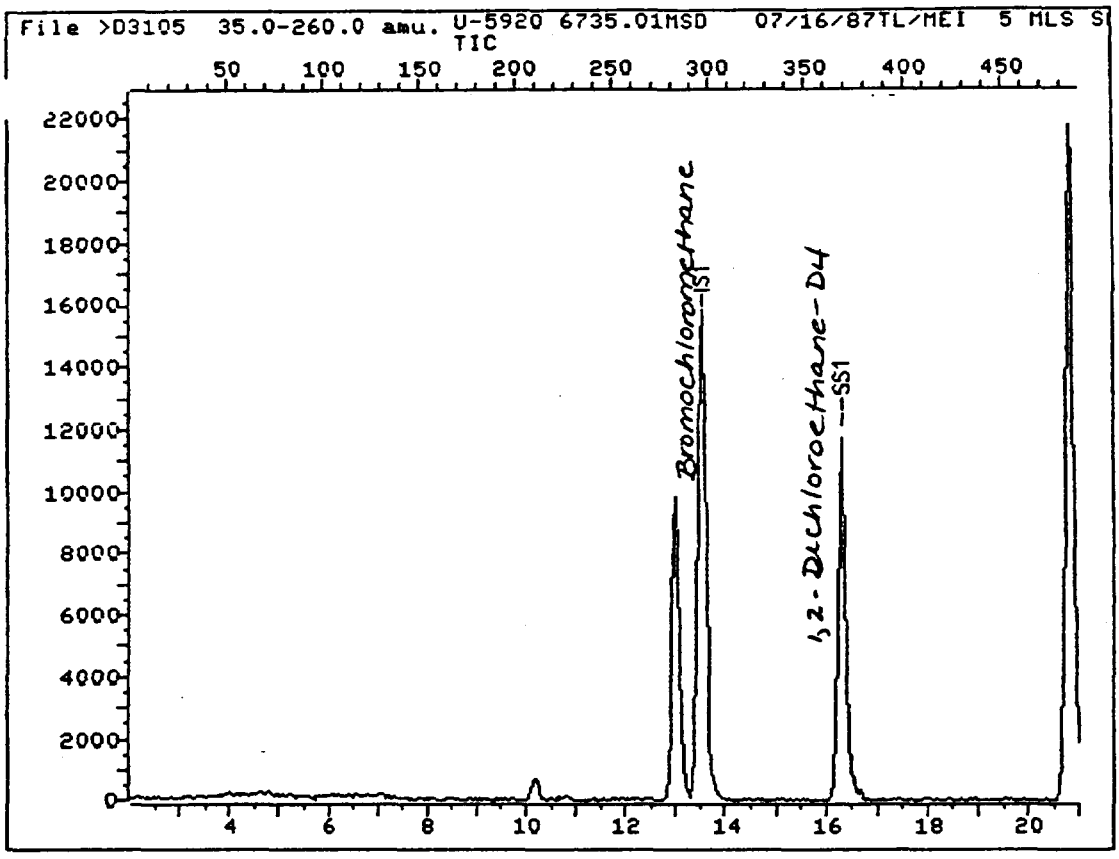


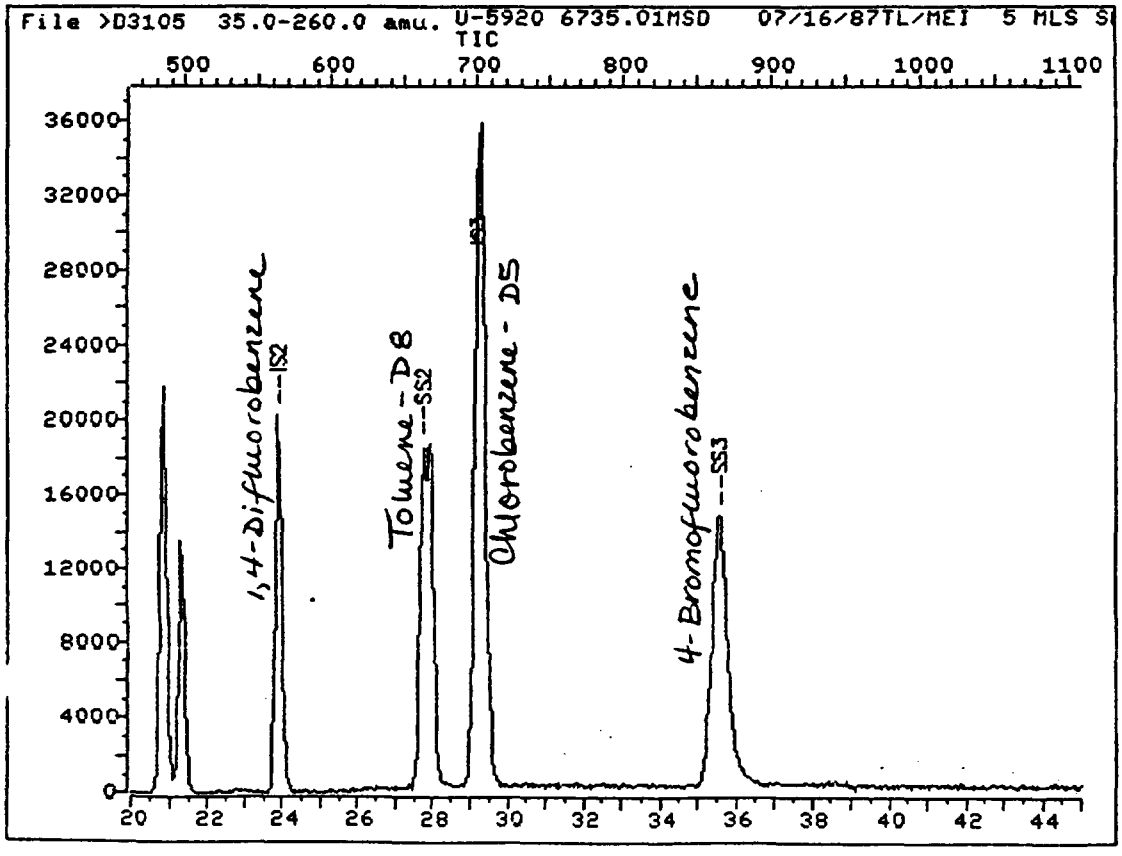
Data File: >D3105::D5 cw
Name: U-5920 6735.01MS~~D~~ DC-GW-34A MS
Misc: 07/16/87TL/MEI 5 MLS SAM + 10 ULS IS/SS/MS

Id File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

Operator ID: USER6
Quant Time: 870716 21:48
Injected at: 870716 21:02

DC-GW-34A MS


File >D3105 35.0-260.0 amu. U-5920 6735.01MSD 07/16/87TL/MEI 5 MLS S
TIC
Bromochloromethane
--IS1
1,2-Dichloroethane-D4
--SS1


File >D3105 35.0-260.0 amu. U-5920 6735.01MSD 07/16/87TL/MEI 5 MLS S
TIC
1,4-Difluorobenzene
--IS2
Toluene-D8
--SS2
Chlorobenzene-D5
4-Bromofluorobenzene
--SS3

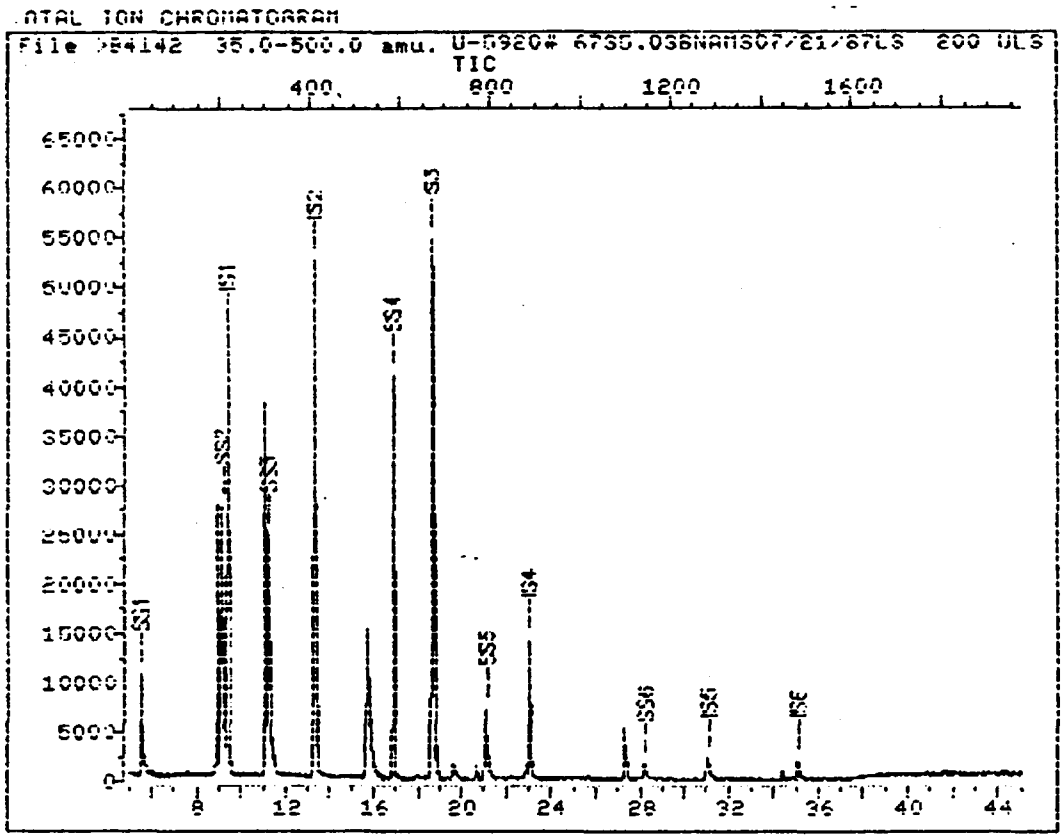
QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870716 21:48
Output File: ^D3105::Q3 Injected at: 870716 21:02
Data File: >D3105::D5 Dilution Factor: 1.00
Name: U-5920 6735.01MS DC-GW-34A MS
Disc: 07/16/87TL/MEI 5 MLS SAM + 10 ULS IS/SS/MS

D File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

	Compound		R.T.	Scan#	Area	Conc	Units		q
1)	*BROMOCHLOROMETHANE	(IS) 128	13.50	296	21850	50.00	UG/L		100
6)	METHYLENE CHLORIDE	84	10.16	210	1684	3.47	UG/L		100
10)	1,1-DICHLOROETHENE	61	13.00	283	40394	38.73	UG/L		82
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	16.30	368	57280	46.26	UG/L	92%	76
16)	*1,4-DIFLUOROBENZENE	(IS) 114	23.87	563	76491	50.00	UG/L		100
17)	2-BUTANONE	72	16.26	367	298	11.14	UG/L		100
24)	TRICHLOROETHENE	130	20.80	484	38152	53.66	UG/L		86
26)	~~1,1,2 TRICHLOROETHANE~~	~~97~~	~~20.80~~	~~484~~	~~26694~~	~~55.13~~	~~UG/L~~	NOCW	4
27)	BENZENE	78	21.31	497	53768	48.06	UG/L		100
31)	*CHLOROBENZENE-D5	(IS) 117	29.15	699	59325	50.00	UG/L		100
36)	TOLUENE-D8	(SURR) 98	27.72	662	69298	51.24	UG/L	102%	92
37)	TOLUENE	92	27.91	667	42708	53.31	UG/L		95
38)	CHLOROBENZENE	112	29.31	703	99043	86.43	UG/L		99
40)	4-BROMOFLUOROBENZENE	(SURR) 95	35.56	864	76558	48.58	UG/L	98%	100

* Compound is ISTD

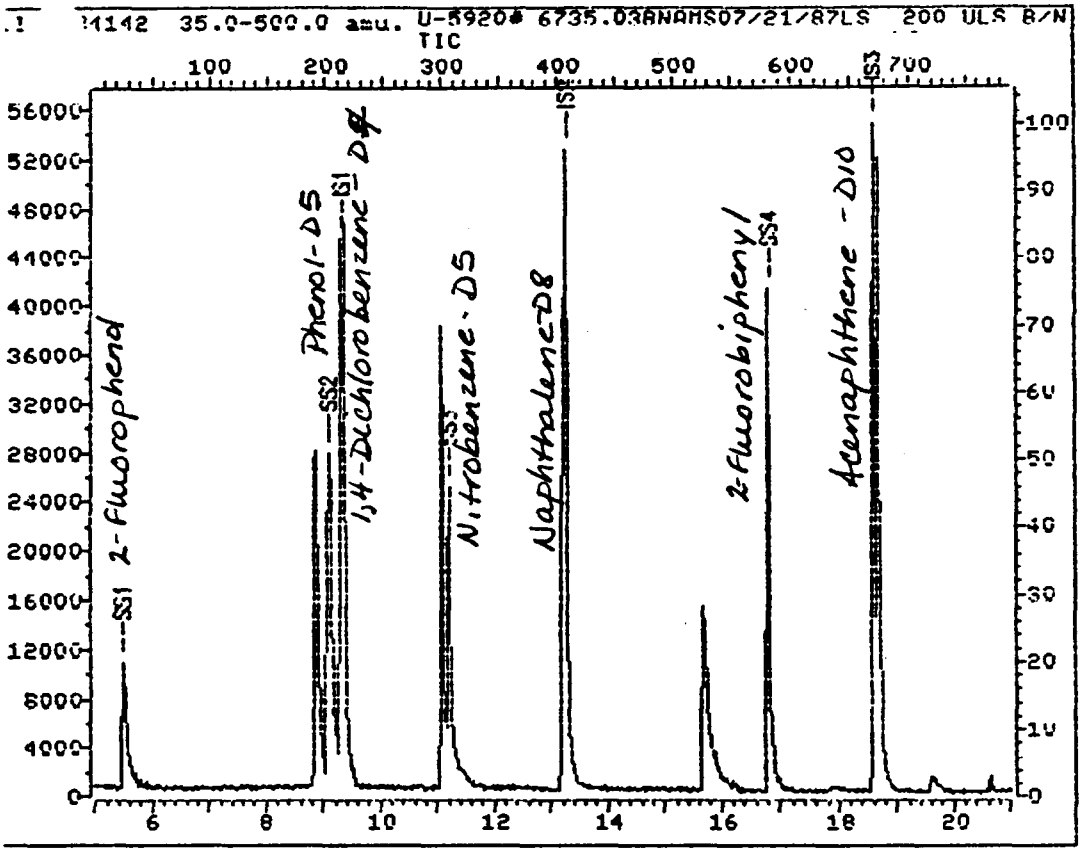


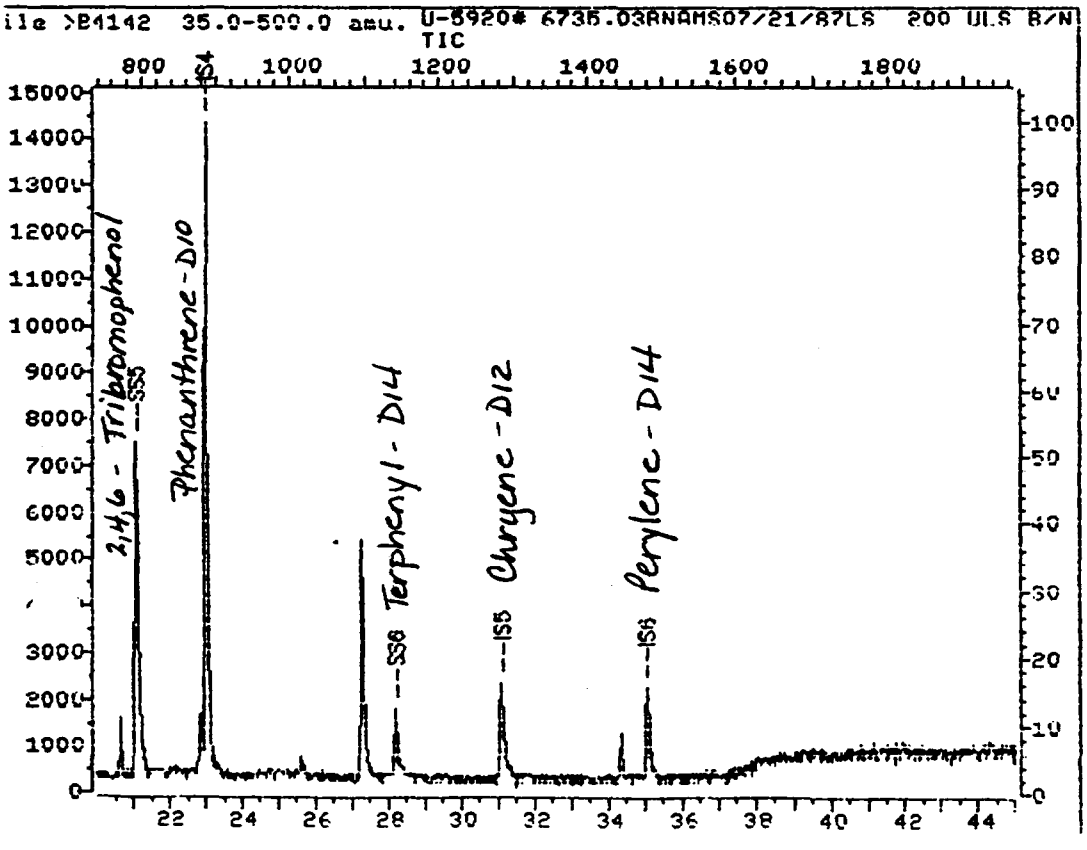
Data File: >B4142::D6
Name: U-5920# 6735.03BNAMS DC-GW-34A MS
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THF HP 5970 (B)
Last Calibration: 870721 13:51

Operator ID: USER8
Quant Time: 870721 16:15
Injected at: 870721 15:28

DC-GW-34A MS


.1 ?4142 35.0-500.0 amu. U-5920# 6735.03RNAMS07/21/87LS 200 ULS B/N
TIC
2-Fluorophenol
Phenol-D5
1,4-Dichlorobenzene-D4
Nitrobenzene-D5
Naphthalene-D8
2-Fluorobiphenyl
Acenaphthene-D10


ile >B4142 35.0-500.0 amu. U-5920# 6735.03RNAMS07/21/87LS 200 ULS B/N
TIC
2,4,6-Tribromophenol
Phenanthrene-D10
Terphenyl-D14
Chrysene-D12
Perylene-D14

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870721 16:15
Output File: ^B4142::Q3 Injected at: 870721 15:28
Data File: >B4142::D6 Dilution Factor: 2.00
Name: U-5920# 6735.03BNAMS DC-GW-34A MS
Misc: 07/21/87LS 200 ULS B/N + 200 ULS A/P + 4 ULS IS

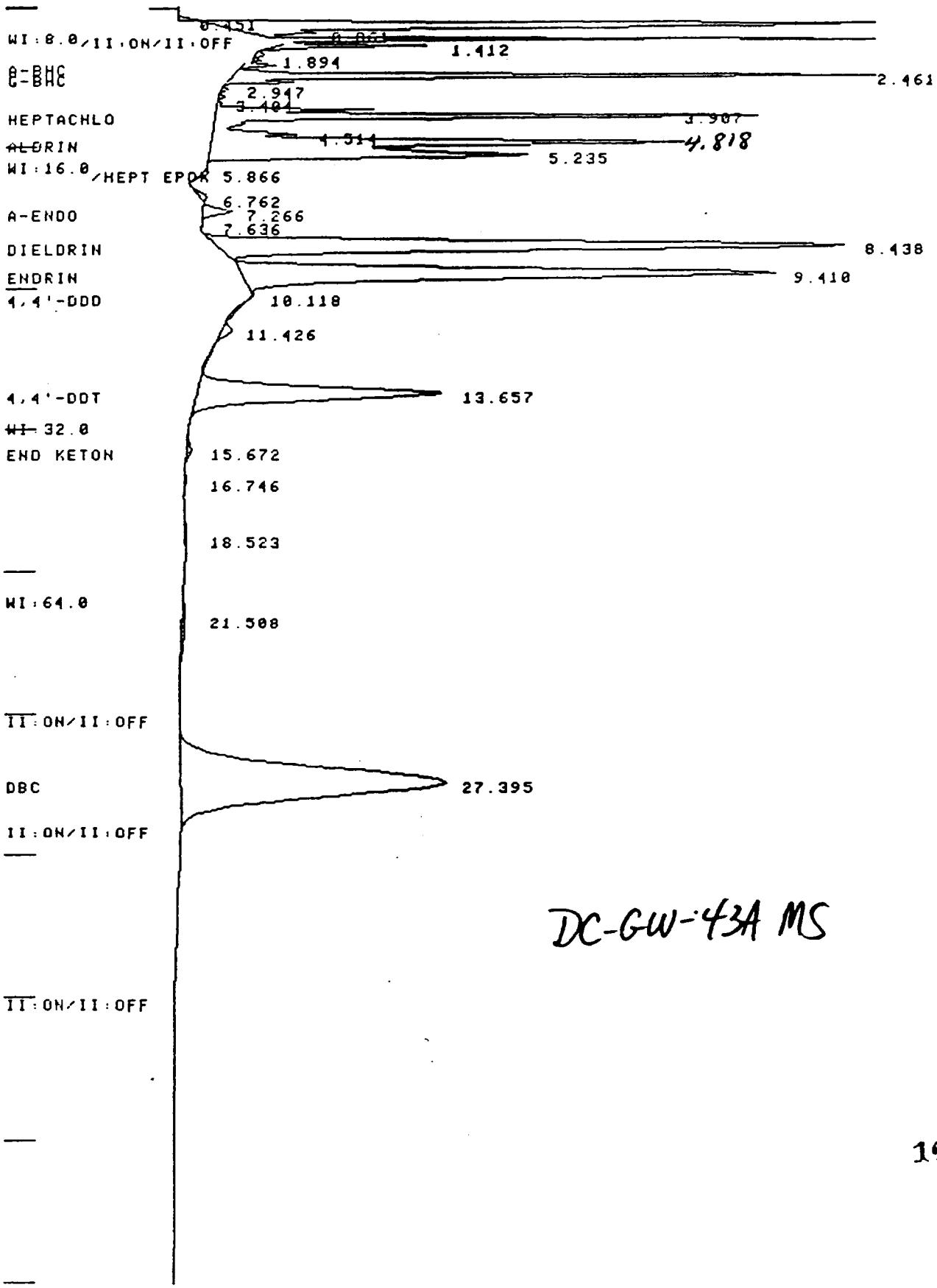
ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870721 13:51

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.31	213	19422	40.00	UG/L	83
2)	PHENOL-D5	(SURR)	99	9.09	202	20625	64.61	UG/L	95
5)	2-FLUOROPHENOL	(SURR)	112	5.47	24	12316	55.99	UG/L	81
6)	PHENOL		94	9.13	204	21397	59.34	UG/L	88
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~9.35~~	~~215~~	~~17247~~	~~47.59~~	~~UG/L~~ no CW	~~98~~
10)	1,4-DICHLOROBENZENE		146	9.35	215	17247	54.52	UG/L	95
15)	2-CHLOROPHENOL		128	8.84	190	32267	122.22	UG/L	96
~~15)~~	~~2-CHLOROPHENOL~~		~~128~~	~~9.86~~	~~201~~	~~5501~~	~~21.69~~	~~UG/L~~ no CW	~~89~~
17)	N-NITROSO-DI-N-PROPYLAMINE		70	11.08	300	21190	72.92	UG/L	90
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.20~~	~~306~~	~~7010~~	~~24.12~~	~~UG/L~~ no CW	
19)	*NAPHTHALENE-D8	(IS)	136	13.25	402	73445	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.20	306	31541	76.99	UG/L	91
28)	1,2,4-TRICHLOROBENZENE		180	13.21	405	18121	49.39	UG/L	100
32)	4-CHLORO-3-METHYLPHENOL		107	15.67	526	30193	120.54	UG/L	91
~~33)~~	~~2-METHYLNAPHTHALENE~~		~~142~~	~~15.67~~	~~526~~	~~10670~~	~~32.82~~	~~UG/L~~ no CW	~~19~~
34)	*ACENAPHTHENE-D10	(IS)	162	18.60	670	38649	40.00	UG/L	97
38)	2-FLUOROBIPHENYL	(SURR)	172	16.81	582	47030	65.57	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.68~~	~~670~~	~~7308~~	~~13.44~~	~~UG/L~~ no CW	~~100~~
42)	ACENAPHTHENE		153	18.68	674	39876	76.48	UG/L	94
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.06	791	7791	64.11	UG/L	99
51)	2,4-DINITROTOLUENE		165	19.60	719	3558	44.44	UG/L	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~18.68~~	~~670~~	~~4744~~	~~47.12~~	~~UG/L~~ no CW	~~100~~
55)	*PHENANTHRENE-D10	(IS)	188	22.97	885	33458	40.00	UG/L	96
60)	PENTACHLOROPHENOL		266	22.83	878	2996	43.57	UG/L	100
65)	*CHRYSENE-D12	(IS)	240	31.07	1283	10465	40.00	UG/L	100
67)	PYRENE		202	27.24	1095	17099	119.36	UG/L	97
68)	TERPHENYL-D14	(SURR)	244	28.18	1141	7167	73.71	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.05	1479	7844	40.00	UG/L	100

* Compound is ISTD

No 4-Nitrophenol detected

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-GW-43A MS

RECALCULATE ON FILE: 7546298

CHANNEL: 1A - 1 TITLE: RUN# 22 1:10 29 JUL 87

DC-GW-43 MS

SAMPLE: 6740.04.0321 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.412		76874	BV	3.88
2	~~A-BHC~~	0.0066	2.119	0.009	21938	VV	4.75
3	G-BHC	0.2046	2.461	-0.009	599697	VV	5.63
4		0.0000	2.668		46780	VV	5.94
5		0.0000	3.657		141752	VV	8.56
6	HEPTACHLO	0.1905	3.907	-0.013	548562	VV	8.88
7		0.0000	4.166		30112	VV	? 13.00
8		0.0000	4.514		100486	VV	? 11.13
9	ALDRIN	0.2084	4.818	-0.002	615570	VV	11.63
10		0.0000	5.235		561366	VB	? 16.44
11	~~A-ENDO~~	0.0201	7.266	-0.004	53232	BB	21.94
12	DIELDRIN	0.4485	8.438	-0.022	1299755	BB	19.63
13	ENDRIN	0.4885	9.410	-0.010	1293791	BB	23.31
14	4,4'-DDT	0.4818	13.657	-0.033	842655	BB	31.63
15		0.0000	21.508		27385	BB	47.00
16	DBC	0.9588	27.395	0.005	2002310	BB	67.63
TOTALS:		3.0079		-0.079	8262265		

DETECTED PKS: 39 REJECTED PKS: 23

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 22.9 OFFSET: -2

RACK: 2 VIAL: 7 INJ: 1

NOTES:
NOTEBOOK:297-146 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-5920
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
PRIMARY ANALYSIS

MATRIX SPIKE DUPLICATE DATA

1. FORM I OF NON-SPIKED COMPOUNDS
2. RAW DATA VOA, S-V, PESTICIDES
   (a) RIC AND QUANT REPORTS (GC/MS)
   (b) CHROMATOGRAMS AND LISTING (GC)

Sample Number
DC-GW-34A MSD

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc Case No: U-5920

Lab Sample ID No: 6735 MSD QC Report No:

Sample Matrix: Water Contract No: IL-3140

Data Release Authorized By: C Sportowicz Date Sample Received: 7-15-87

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 7-16-87

Conc./Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3J	
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	SPIKE	
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	SPIKE	
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	SPIKE	
108-90-7	Chlorobenzene	SPIKE	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: Ecology & Environment

Case No: U- 5920 1

Sample Number
DC-GW-34A MSD

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-16-87

Date Analyzed: 8-26-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	SPIKE
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	SPIKE
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	SPIKE
100-51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylphenol	10u
621-64-7	N-Nitroso-Di-n-Propylamine	SPIKE
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	SPIKE
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	SPIKE
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2. 4. 6-Trichlorophenol	10u
95-95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
31-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	SPIKE
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	SPIKE
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	SPIKE
606-20-2	2. 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	SPIKE
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	4J
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	SPIKE
85-68-7	Butylbenzylphthalate	10u
91-94-1	3. 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	1J
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	2J
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2. 3-cd)Pyrene	10u
53-70-3	Dibenzo(a h)Anthracene	10u
191-24-2	Benzo(g h. i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name Ecology and Environment, Inc.

Case No 11-5920

Sample Number DC-GW-43A MSD

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 7-15-87

Date Analyzed: 7-29-87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☑Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.05 U
319-85-7	Beta-BHC	0.05 U
319-86-8	Delta-BHC	0.05 U
58-89-9	Gamma-BHC (Lindane)	0.17 S
76-44-8	Heptachlor	0.16 S
309-00-2	Aldrin	0.17 S
1024-57-3	Heptachlor Epoxide	0.05 U
959-98-8	Endosulfan I	0.05 U
60-57-1	Dieldrin	0.36 S
72-55-9	4, 4'-DDE	0.10 U
72-20-8	Endrin	0.41 S
33213-65-9	Endosulfan II	0.10 U
72-54-8	4, 4'-DDD	0.10 U
1031-07-8	Endosulfan Sulfate	0.10 U
50-29-3	4, 4'-DDT	0.38 S
72-43-5	Methoxychlor	0.50 U
53494-70-5	Endrin Ketone	0.10 U
57-74-9	Chlordane	0.50 U
8001-35-2	Toxaphene	1.0 U
12674-11-2	Aroclor-1016	0.50 U
11104-28-2	Aroclor-1221	0.50 U
11141-16-5	Aroclor-1232	0.50 U
53469-21-9	Aroclor-1242	0.50 U
12672-29-6	Aroclor-1248	0.50 U
11097-69-1	Aroclor-1254	1.0 U
11096-82-5	Aroclor-1260	1.0 U

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

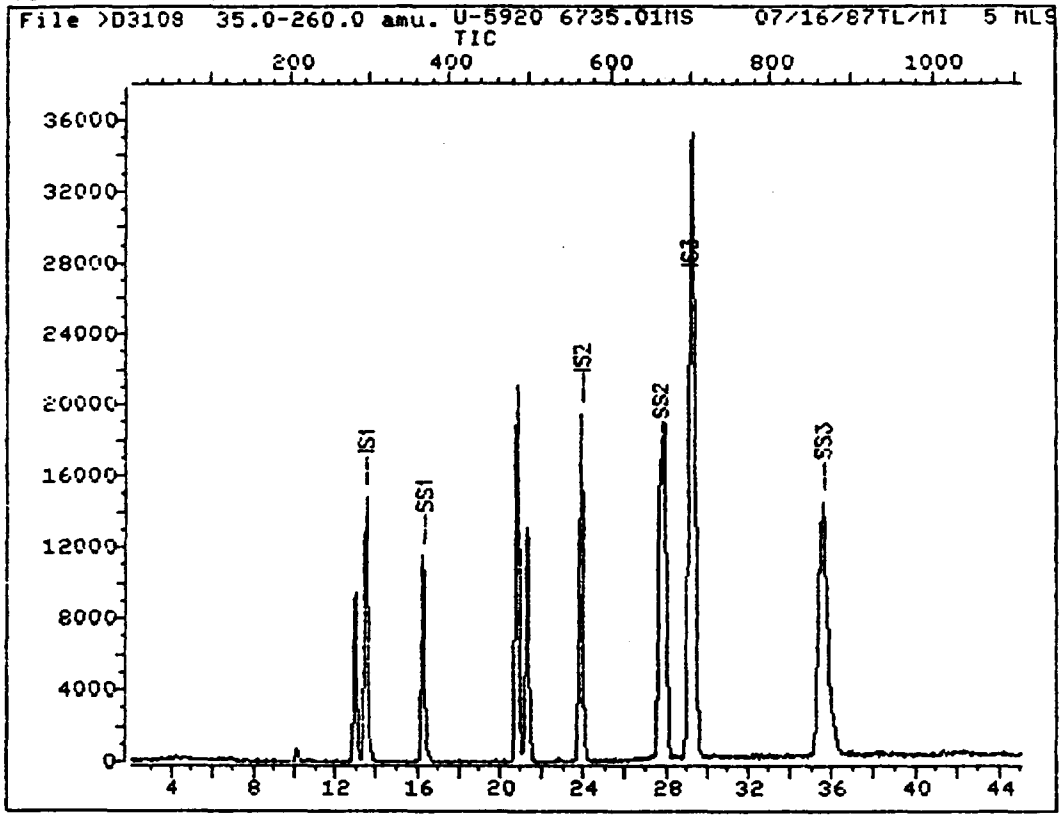
W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 or W_s _____ V_t 10,000 V_i 4

S = Spiked Compound

TOTAL ION CHROMATOGRAM



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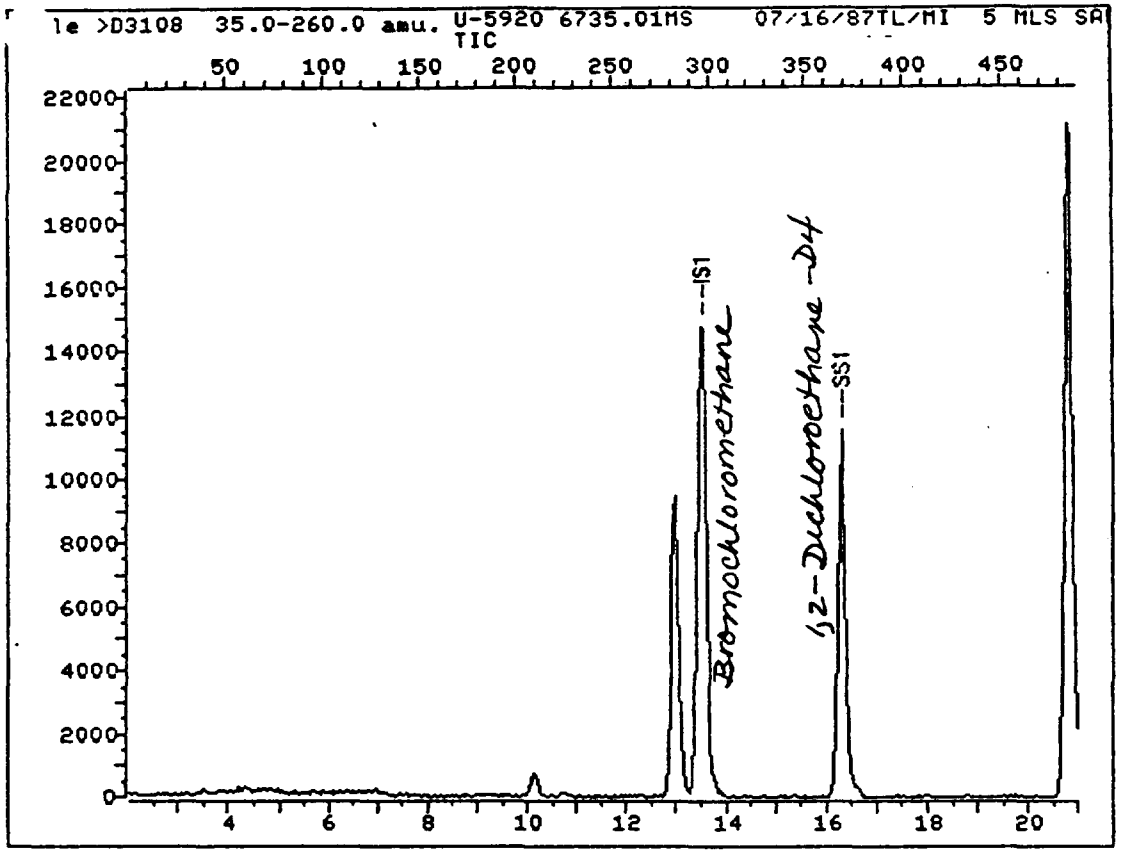
Misc: 07/16/87TL/MI 5 MLS SAM + 10 ULS IS/SS/MS

Id File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

Operator ID: USER6
Quant Time: 870717 00:36
Injected at: 870716 23:50

DC-GW-34AMSD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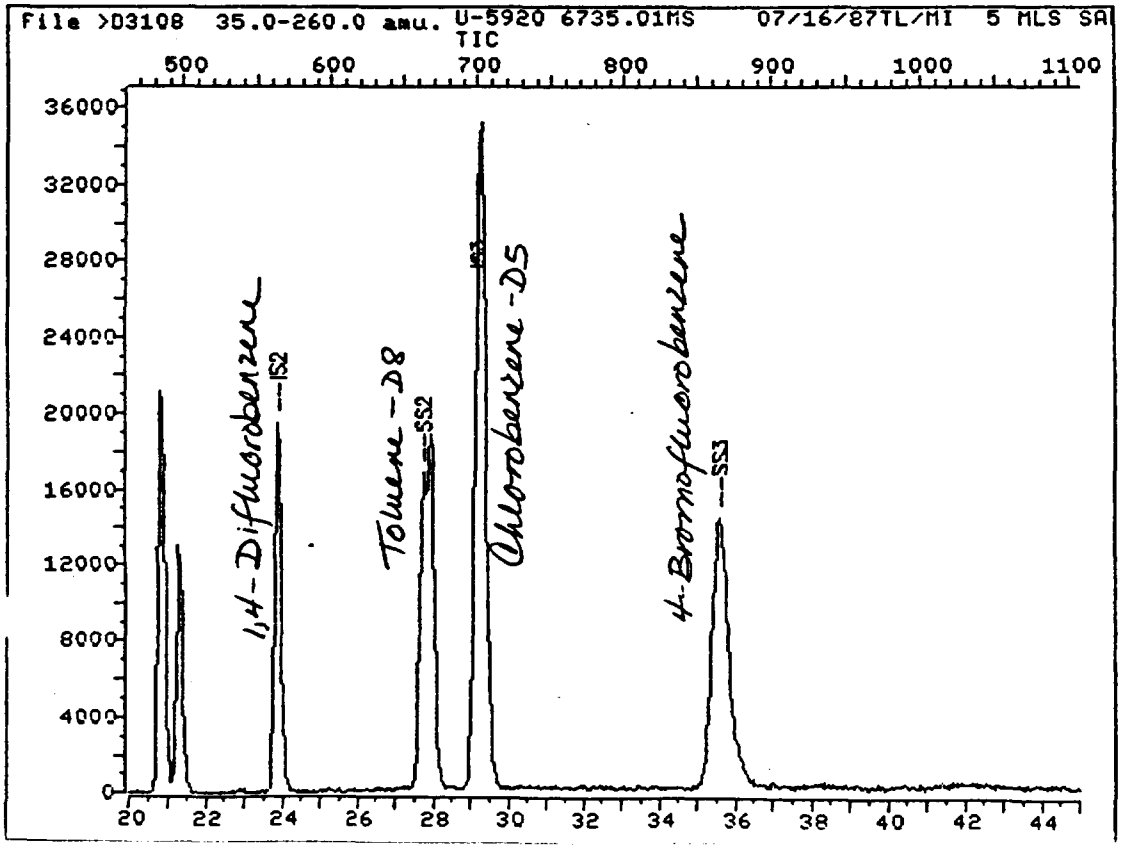
TIC
--IS1
Bromochloromethane
1,2-Dichloroethane-D4
--SS1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TIC
1,4-Difluorobenzene
--IS2
Toluene-D8
--SS2
IS3
Chlorobenzene-D5
4-Bromofluorobenzene
--SS3

QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870717 00:36
Output File: ^D3108::Q3 Injected at: 870716 23:50
Data File: >D3108::D5 Dilution Factor: 1.00
Name: U-5920 6735.01MSD DC-GW-34A MSD
Disc: 07/16/87TL/MI 5 MLS SAM + 10 ULS IS/SS/MS

D File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	13.50	296	20874	50.00 UG/L	100
6)	METHYLENE CHLORIDE		84	10.12	209	1554	3.35 UG/L	100
.0)	1,1-DICHLOROETHENE		61	12.99	283	38804	38.94 UG/L	84
5)	1,2-DICHLOROETHANE-D4	(SURR)	65	16.30	368	56030	47.36 UG/L	75
.6)	*1,4-DIFLUOROBENZENE	(IS)	114	23.87	563	73935	50.00 UG/L	100
4)	TRICHLOROETHENE		130	20.80	484	36137	52.58 UG/L	83
~~6)~~	~~1,1,2-TRICHLOROETHANE~~		~~97~~	~~20.80~~	~~484~~	~~26536~~	~~56.70 UG/L~~ no cal	14
7)	BENZENE		78	21.30	497	52357	48.41 UG/L	100
1)	*CHLOROBENZENE-D5	(IS)	117	29.15	699	59498	50.00 UG/L	100
6)	TOLUENE-D8	(SURR)	98	27.71	662	62858	46.34 UG/L	90
7)	TOLUENE		92	27.91	667	41409	51.54 UG/L	97
8)	CHLOROBENZENE		112	29.31	703	99253	86.36 UG/L	99
0)	4-BROMOFLUOROBENZENE	(SURR)	95	35.56	864	74800	47.32 UG/L	100

* Compound is ISTD

QUANT REPORT

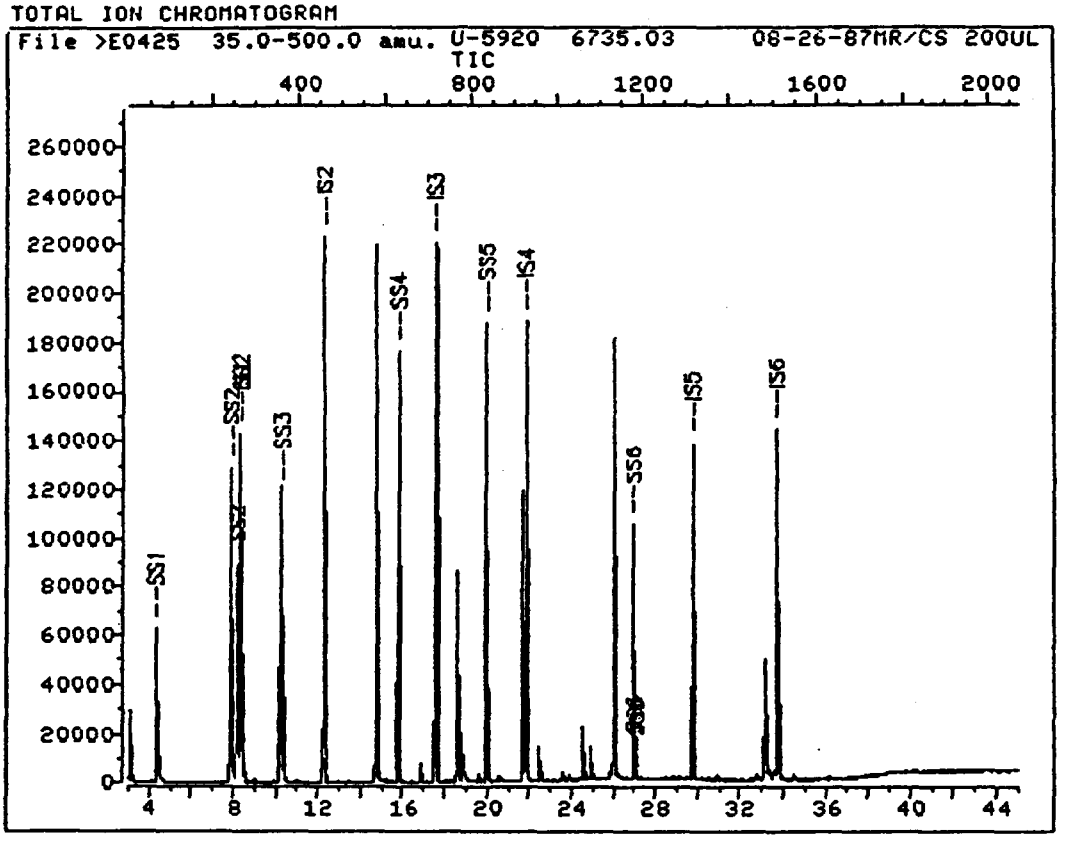
Operator ID: USER6 Quant Rev: 4 Quant Time: 870826 19:26
Output File: ^E0425::Q6 Injected at: 870826 18:38
Data File: >E0425::D3 Dilution Factor: 2.00
Name: U-5920 6735.03 MSD DC-GW-34A MSD
Misc: 08-26-87MR/CS 200UL B/N + 200UL A/P + 4UL IS BTL# 5

ID File: CONTE7::D2
Title: BNA ID FILE FOR THE HP 5970 (E)
Last Calibration: 870826 18:10

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.34	265	57245	40.00 UG/L	89
2)	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~7.87~~	~~242~~	~~5894~~	~~6.68 UG/L~~	44
2)	PHENOL-D5	(SURR)	99	8.18	257	54204	61.40 UG/L	95
2)	~~PHENOL-D5~~	~~(SURR)~~	~~99~~	~~8.34~~	~~265~~	~~4845~~	~~5.49 UG/L~~	82
5)	2-FLUOROPHENOL	(SURR)	112	4.25	64	50263	87.68 UG/L 44	83
6)	PHENOL		94	8.22	259	60401	60.99 UG/L	62
~~7)~~	~~ANILINE~~		~~93~~	~~7.87~~	~~242~~	~~1665~~	~~1.45 UG/L~~	1
~~9)~~	~~1,3-DICHLOROBENZENE~~		~~146~~	~~8.38~~	~~267~~	~~53771~~	~~51.59 UG/L~~	97
10)	1,4-DICHLOROBENZENE		146	8.38	267	53771	48.32 UG/L	96
15)	2-CHLOROPHENOL		128	7.87	242	98781	134.51 UG/L	97
~~15)~~	~~2-CHLOROPHENOL~~		~~128~~	~~8.16~~	~~256~~	~~1920~~	~~2.61 UG/L~~	97
17)	N-NITROSO-DI-N-PROPYLAMINE		70	10.19	356	53184	76.53 UG/L	85
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~10.27~~	~~360~~	~~20503~~	~~29.50 UG/L~~	92
19)	*NAPHTHALENE-D8	(IS)	136	12.26	458	201968	40.00 UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	10.27	360	93133	80.91 UG/L	92
28)	1,2,4-TRICHLOROBENZENE		180	12.22	456	52558	49.94 UG/L	100
32)	4-CHLORO-3-METHYLPHENOL		107	14.68	577	106183	160.30 UG/L	98
34)	*ACENAPHTHENE-D10	(IS)	162	17.53	717	107923	40.00 UG/L	96
38)	2-FLUOROBIPHENYL	(SURR)	172	15.78	631	123920	71.27 UG/L 71	92
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.53~~	~~717~~	~~23791~~	~~14.71 UG/L~~	100
47)	ACENAPHTHENE		153	17.61	721	111766	71.53 UG/L	93
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	19.93	835	53973	203.93 UG/L 102	96
50)	4-NITROPHENOL		139	18.75	777	15767	78.62 UG/L	100
51)	2,4-DINITROTOLUENE		165	18.55	767	34562	74.39 UG/L	100
~~52)~~	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.53~~	~~717~~	~~14022~~	~~34.84 UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	21.82	928	180030	40.00 UG/L	86
57)	~~N-NITROSODIPHENYLAMINE~~		~~169~~	~~19.93~~	~~835~~	~~1369~~	~~1.27 UG/L~~	37
60)	PENTACHLOROPHENOL		266	21.66	920	38815	118.95 UG/L	100
63)	DI-N-BUTYLPHTHALATE		149	24.47	1058	11083	4.31 UG/L	99
65)	*CHRYSENE-D12	(IS)	240	29.72	1316	140584	40.00 UG/L	100
67)	PYRENE		202	26.00	1133	163203	70.42 UG/L	91
68)	TERPHENYL-D14	(SURR)	244	26.93	1179	87611	64.94 UG/L 66	100
68)	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~26.99~~	~~1182~~	~~793~~	~~.59 UG/L~~	100
68)	~~TERPHENYL-D14~~	~~(SURR)~~	~~244~~	~~27.14~~	~~1189~~	~~78~~	~~.06 UG/L~~	100
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	30.92	1375	1629	1.29 UG/L	79
74)	*PERYLENE-D12	(IS)	264	33.67	1510	130042	40.00 UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	32.69	1462	4073	1.63 UG/L	100

* Compound is ISTD

TOTAL ION CHROMATOGRAM



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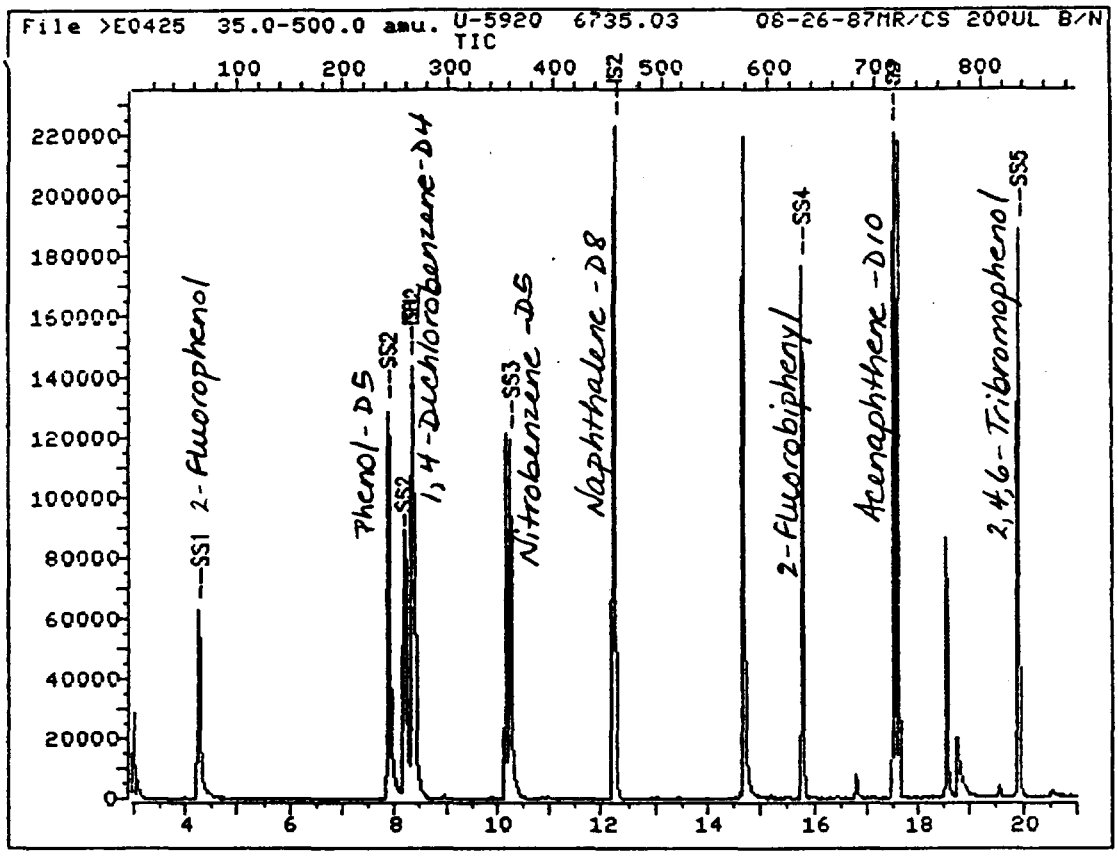
Misc: 08-26-87MR/CS 200UL B/N + 200UL A/P + 4UL IS BTL# 5

Id File: CONTE7::D2
Title: BNA ID FILE FOR THE HP 5970 (E)
Last Calibration: 870826 18:10

Operator ID: USER6
Quant Time: 870826 19:26
Injected at: 870826 18:38

DC-GW-34A MSD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TIC
2-Fluorophenol
SS1
Phenol-D5
SS2
1,4-Dichlorobenzene-D4
Nitrobenzene-D5
SS3
Naphthalene-D8
2-Fluorobiphenyl
SS4
Acenaphthene-D10
2,4,6-Tribromophenol
SS5

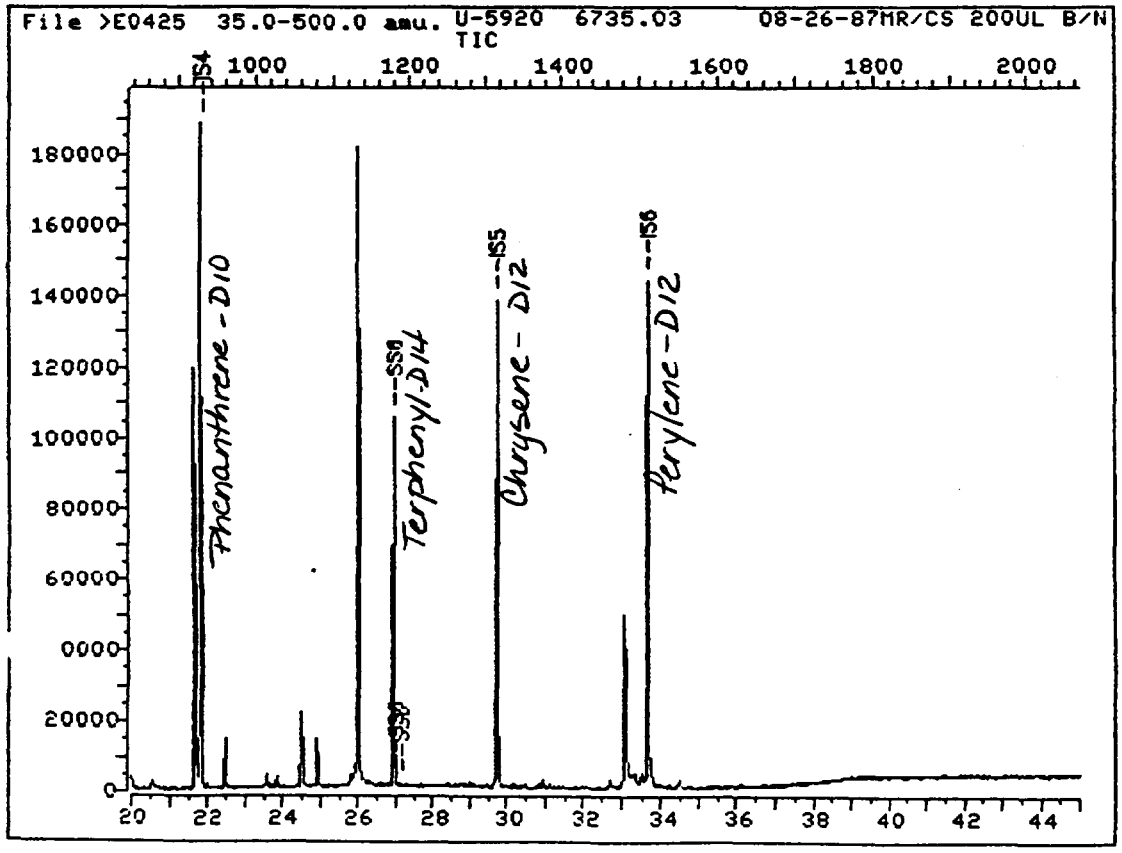
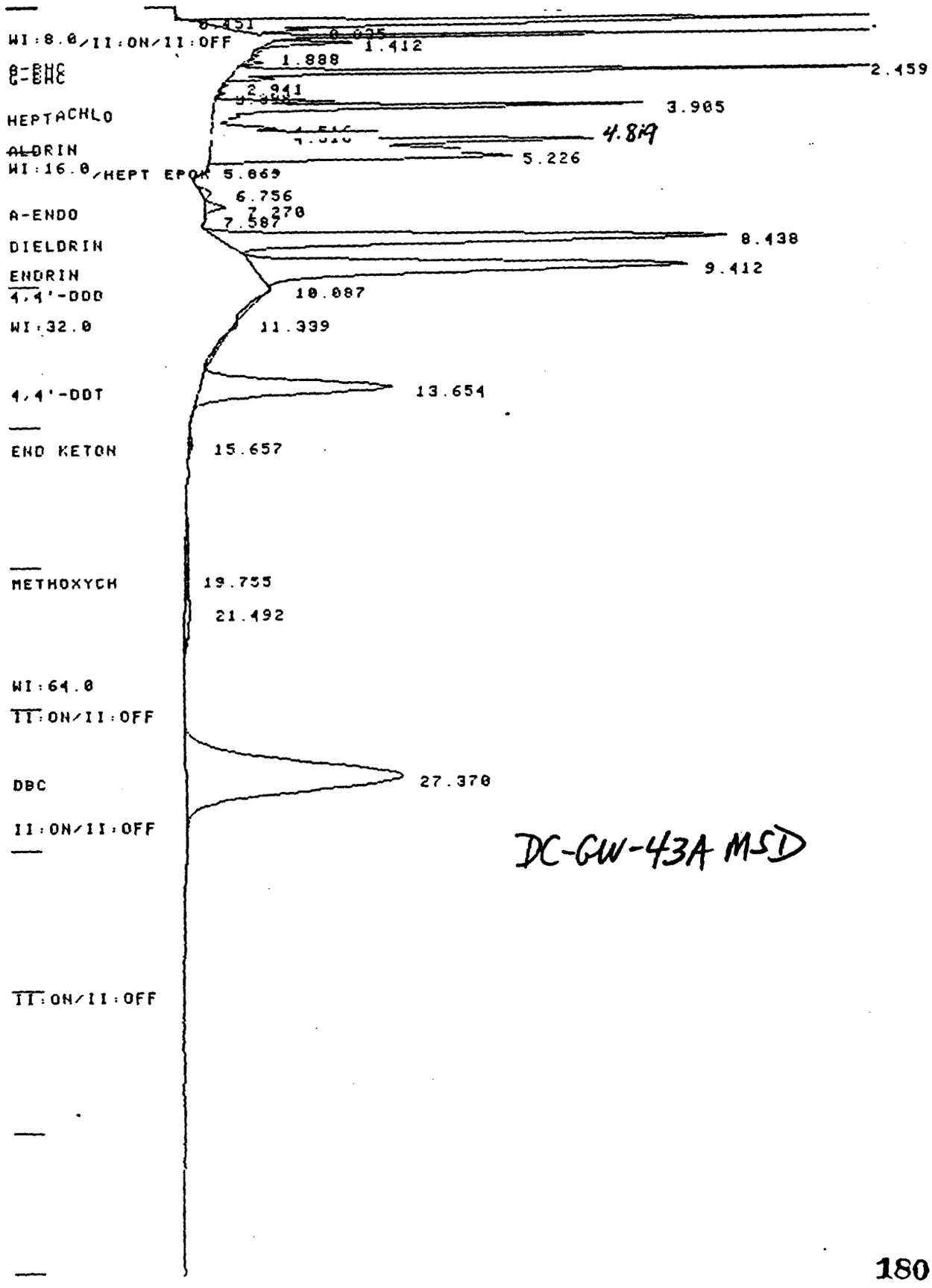

File >E0425 35.0-500.0 amu. U-5920 6735.03 08-26-87MR/CS 200UL B/N
TIC
Phenanthrene-D10
Terphenyl-D14
SS6
Chrysene-D12
IS5
Perylene-D12
IS6

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



DC-GW-43A MSD

RECALCULATE ON FILE: 7546299

CHANNEL: 1A - 1 TITLE: RUN# 23 1:59 29 JUL 87

DC-GW-43 MSD

SAMPLE: 6740.04.0331 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.412		69897	BV	3.88
2	G-BHC	0.1684	2.459	-0.011	493568	VV	5.63
3		0.0000	2.669		37363	VV	5.75
4		0.0000	3.655		111061	VV	8.50
5	HEPTACHLO	0.1557	3.905	-0.015	448464	VV	8.88
6		0.0000	4.169		28398	VV	? 12.06
7		0.0000	4.516		78353	VV	? 10.88
8	ALDRIN	0.1720	4.819	-0.001	507929	VV	12.25
9		0.0000	5.226		608254	VB	? 21.50
10	~~A-ENDO~~	0.0135	7.270	0.000	35725	BB	22.81
11	DIELDRIN	0.3595	8.438	-0.022	1041841	BB	19.81
12	ENDRIN	0.4052	9.412	-0.008	1073191	BB	24.31
13	4,4'-DDT	0.3842	13.654	-0.036	671851	BB	31.56
14	~~METHOXYCH~~	0.0364	19.755	-0.375	37892	BV	? 30.63
15		0.0000	21.492		60372	VB	? 67.44
16	DBC	0.8055	27.370	-0.020	1682187	BB	69.19
TOTALS:		2.5005		-0.486	6986346		

DETECTED PKS: 38 REJECTED PKS: 22

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 22.9 OFFSET: -18

RACK: 2 VIAL: 8 INJ: 1

NOTES:
NOTEBOOK:297-146 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-5920
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
CARRIER GAS: N2 @ 60 ML/MIN
DET: 300 C INJ: 220 C
200 C ISOTHERMAL 4 UL INJECTION
PRIMARY ANALYSIS

BLANK DATA

1. FORM I PAGES 1 THROUGH 4
2. RAW DATA VOA, S-V, PESTICIDES
   (a) RIC AND QUANT REPORTS (GC/MS)
   (b) CHROMATOGRAMS AND LISTINGS (GC)

Sample Number
D3082

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc. Case No: U-5920

Lab Sample ID No: Method Blank QC Report No:

Sample Matrix: Water Contract No: IL-3140

Data Release Authorized By: C Wojtowicz Date Sample Received:

Volatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 7-15-87

Conc./Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration/dilution action. (This is not necessarily the instrument detection limit.) The footnote should read: U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a concentration of 3 µg/l is calculated, report as 3J.

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described, and such description attached to the data summary report.

Laboratory Name Ecology & Environment

Case No U-5920

Sample Number D3082

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.				
4.				
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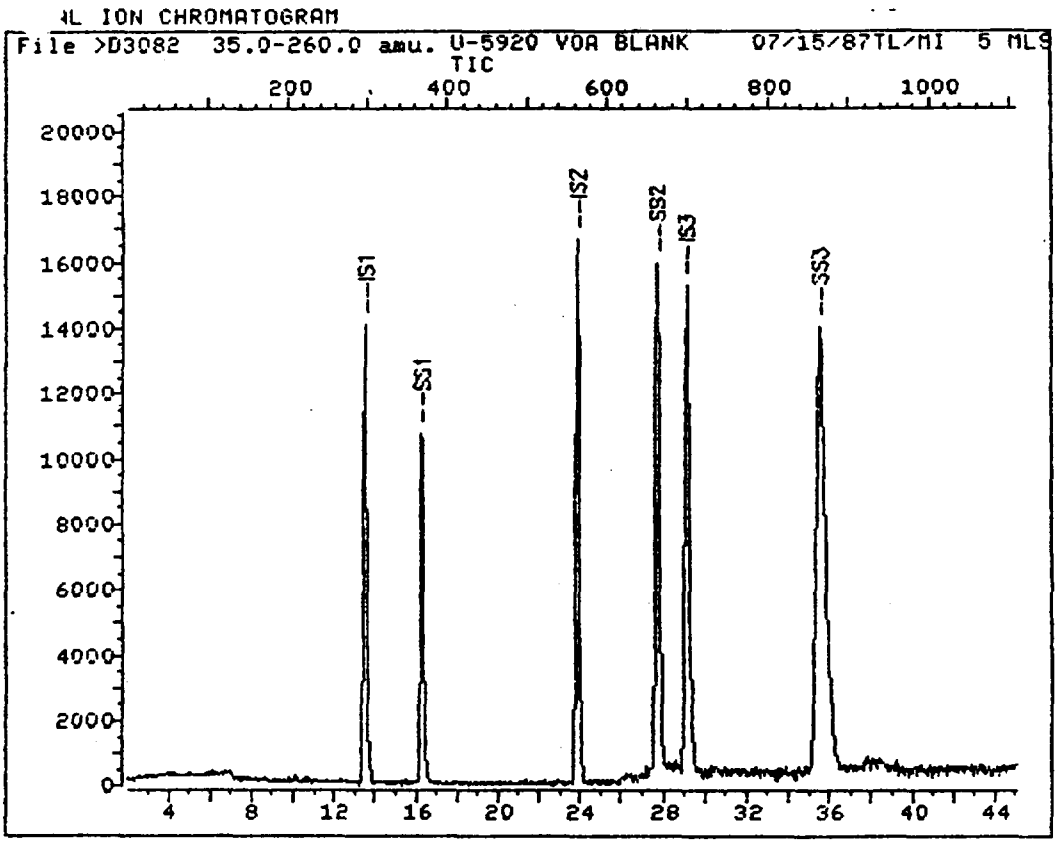
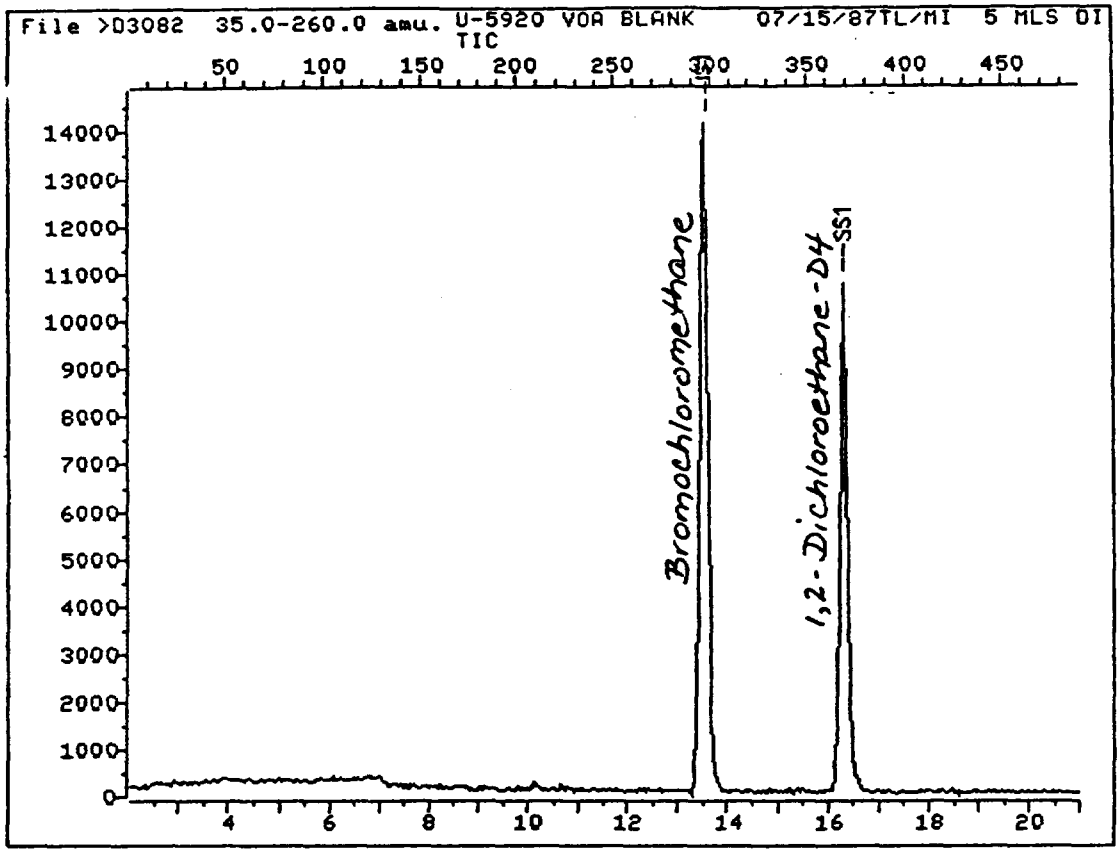


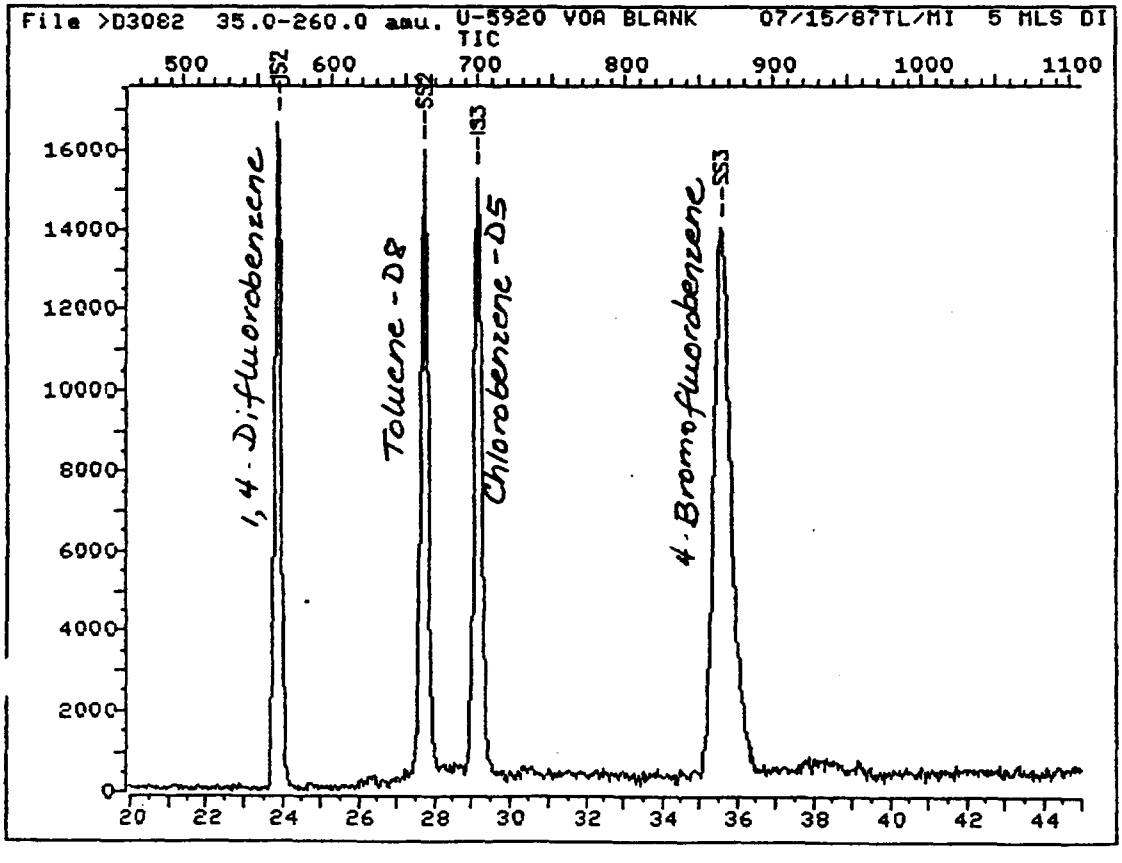
Data File: >D3082::D5
Name: U-5920 VOA BLANK
Misc: 07/15/87TL/MI 5 MLS DI + 10 ULS IS/SS

Id File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870715 23:10

Operator ID: USER6
Quant Time: 870716 00:17
Injected at: 870715 23:31

D3082


File >D3082 35.0-260.0 amu. U-5920 VOA BLANK 07/15/87TL/MI 5 MLS DI
TIC
Bromochloromethane
1,2-Dichloroethane-D4
SS1


File >D3082 35.0-260.0 amu. U-5920 VOA BLANK 07/15/87TL/MI 5 MLS DI
TIC
1,4-Difluorobenzene
DS2
Toluene-D8
SS2
IS3
Chlorobenzene-D5
4-Bromofluorobenzene
SS3

QUANT REPORT

ıerator ID: USER6 Quant Rev: 4 Quant Time: 870716 00:17
ıtput File: ^D3082::Q3 Injected at: 870715 23:31
ıta File: >D3082::D5 Dilution Factor: 1.00
ıme: U-5920 VOA BLANK
.sc: 07/15/87TL/MI 5 MLS DI + 10 ULS IS/SS

) File: VOADR::D2
.tle: VOA ID FILE FOR HP-5970D (CONT. CAL.)
ıst Calibration: 870715 23:10

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS) 128	13.54	297	19481	50.00	UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR) 65	16.30	368	54343	50.80	UG/L 102	76 ✓
16)	*1,4-DIFLUOROBENZENE	(IS) 114	23.87	563	64674	50.00	UG/L	100
31)	*CHLOROBENZENE-D5	(IS) 117	29.15	699	52847	50.00	UG/L	100
5)	TOLUENE-D8	(SURR) 98	27.71	662	63045	52.16	UG/L 104 ✓	94
1)	4-BROMOFLUOROBENZENE	(SURR) 95	35.56	864	73452	52.33	UG/L 105 ✓	100

* Compound is ISTD

Sample Number
D3101

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Ecology & Environment Inc. Case No: U-5920

Lab Sample ID No: Method Blank QC Report No:

Sample Matrix: Water Contract No: IL-3140

Data Release Authorized By: C Stoytowicz Date Sample Received:

Volatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared:

Date Analyzed: 7-16-87

Conc./Dil Factor: 1 pH

Percent Moisture: (Not Decanted)

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1, 1-Dichloroethene	5	U
75-34-3	1, 1-Dichloroethane	5	U
156-60-5	Trans-1, 2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1, 2-Dichloroethane	5	U
78-93-3	2-Butanone	15	
71-55-6	1, 1, 1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5	U
10061-02-6	Trans-1, 3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1, 1, 2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1, 3-Dichloropropene	5	U
110-75-8	2-Chloroethylvinylether	10	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
	Total Xylenes	5	U

Data Reporting Qualifiers

For reporting results to EPA, the following results qualifiers are used. Additional flags or footnotes explaining results are encouraged. However, the definition of each flag must be explicit.

Value If the result is a value greater than or equal to the detection limit, report the value.

U Indicates compound was analyzed for but not detected. Report the minimum detection limit for the sample with the U (e.g., 10U) based on necessary concentration-dilution action. (This is not necessarily the instrument detection limit.) The footnote should read U-Compound was analyzed for but not detected. The number is the minimum attainable detection limit for the sample.

J Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed or when the mass spectral data indicated the presence of a compound that meets the identification criteria but the result is less than the specified detection limit but greater than zero (e.g., 10J). If limit of detection is 10 µg/l and a

C This flag applies to pesticide parameters where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract should be confirmed by GC/MS.

B This flag is used when the analyte is found in the blank as well as a sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.

Other Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the data summary report.

Laboratory Name: Ecology & Environment

Case No: U-5920

Sample Number
D3101

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in VOA fraction			
2.				
3.				
4.				
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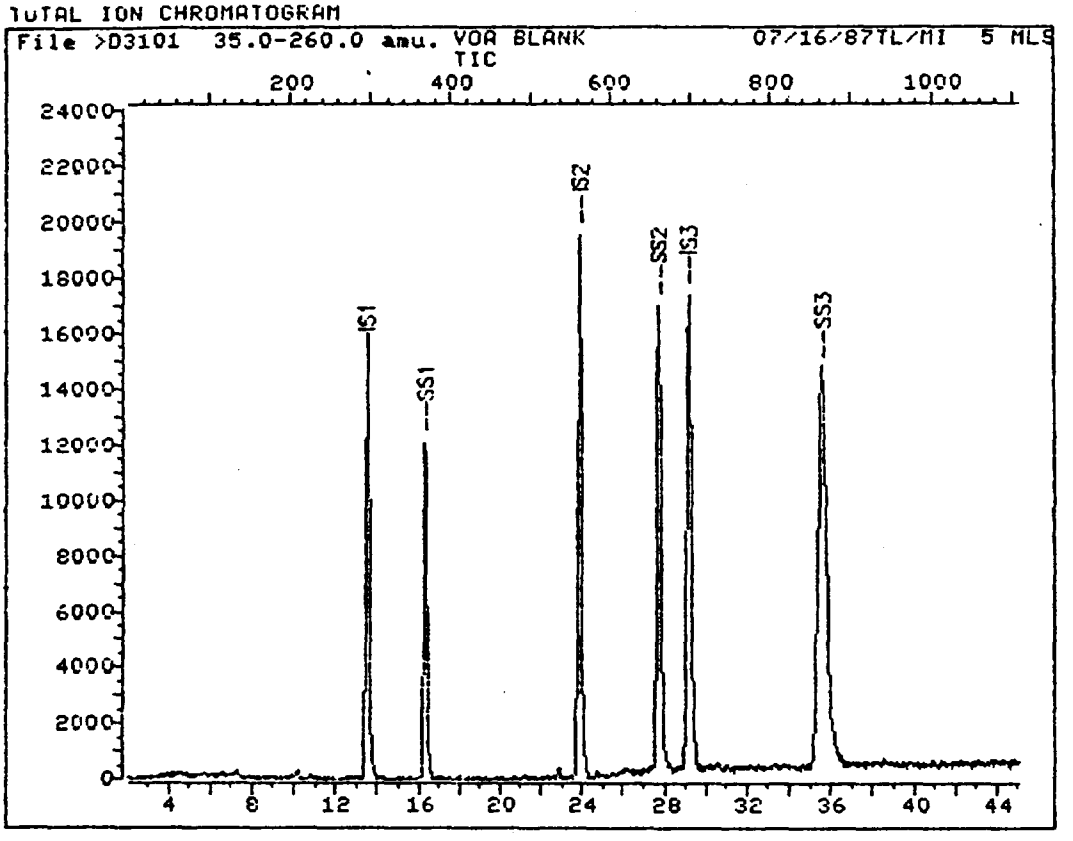
TOTAL ION CHROMATOGRAM

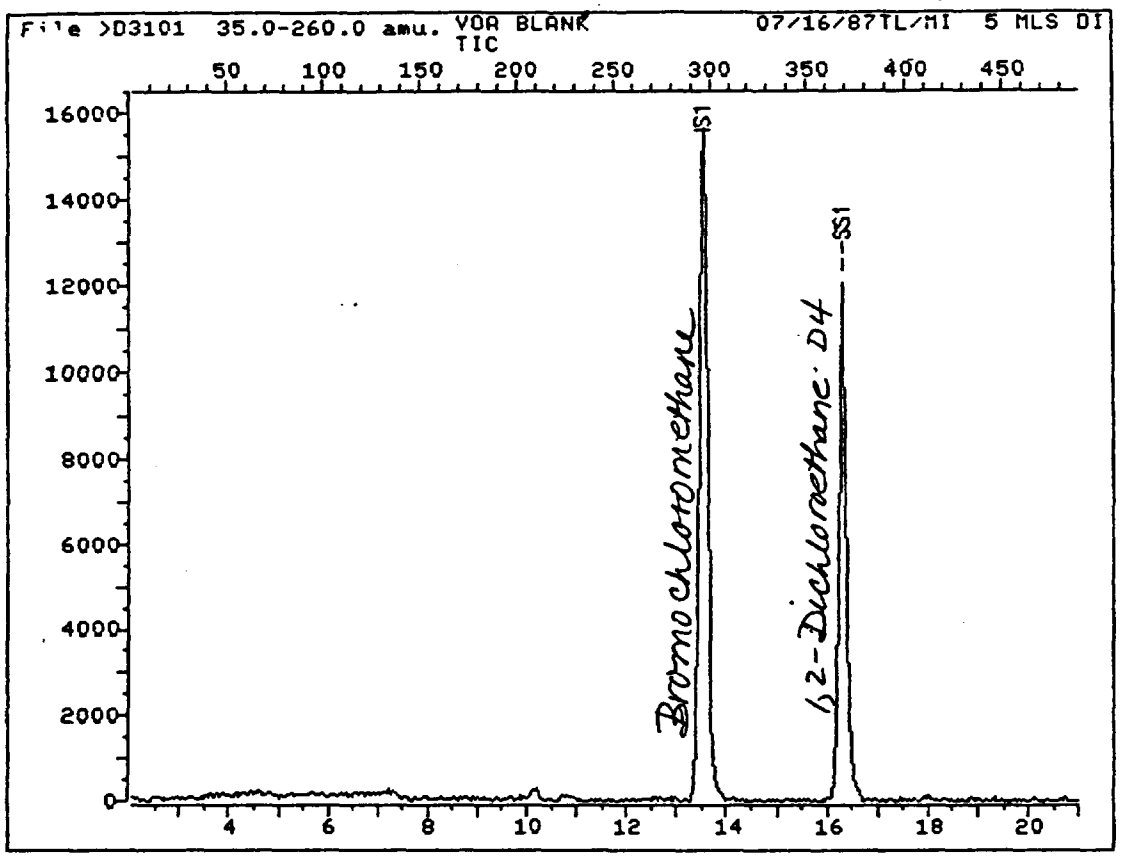


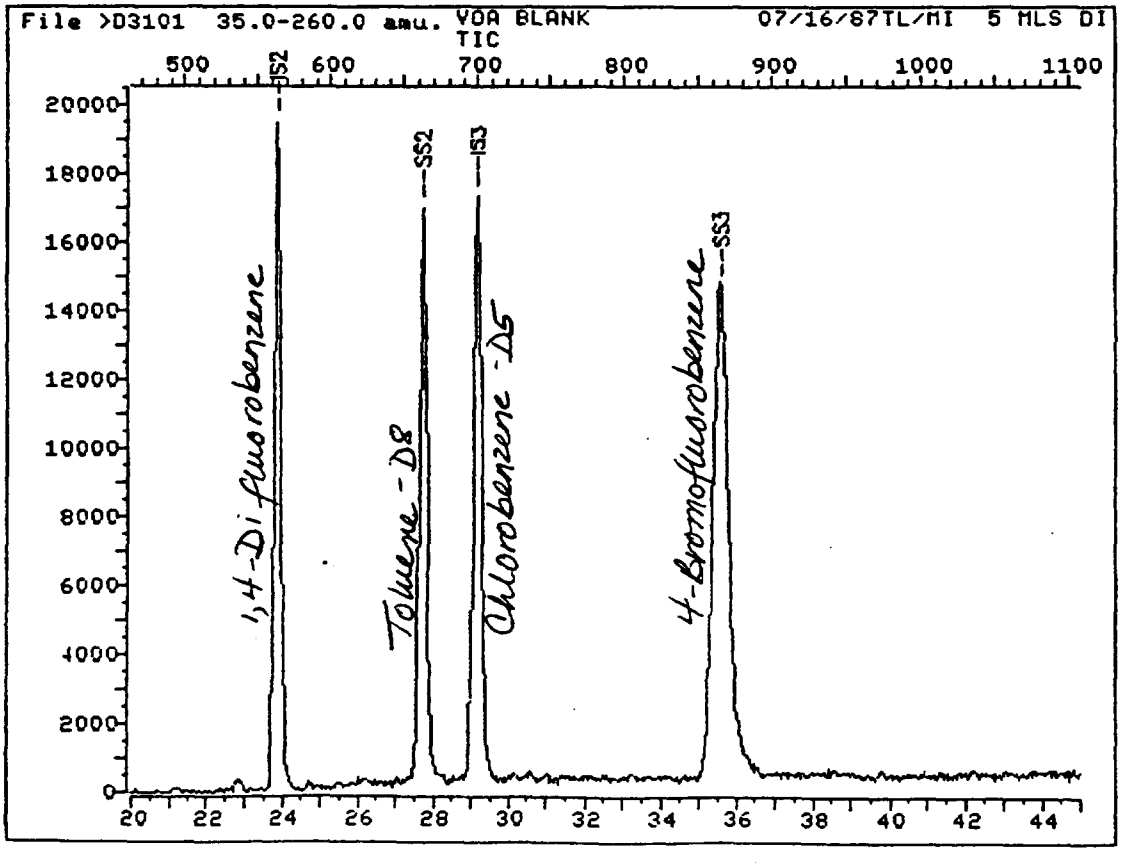
Data File: >D3101::D5
Name: VOA BLANK
Misc: 07/16/87TL/MI 5 MLS DI + 10 ULS IS/SS

Id File: VOADR::D2
Title: VOA ID FILE FOR HP-5970D (CONT. CAL.)
Last Calibration: 870716 18:07

Operator ID: USER6
Quant Time: 870716 18:24
Injected at: 870716 17:38

D3101


File >D3101 35.0-260.0 amu. VOA BLANK 07/16/87TL/MI 5 MLS DI
TIC
IS1
SS1
Bromochloromethane
1,2-Dichloroethane-D4


File >D3101 35.0-260.0 amu. VOA BLANK 07/16/87TL/MI 5 MLS DI
TIC
IS2
SS2
IS3
SS3
1,4-Difluorobenzene
Toluene-D8
Chlorobenzene-D5
4-Bromofluorobenzene

QUANT REPORT

perator ID: USER6 Quant Rev: 4 Quant Time: 870716 18:24
utput File: ^D3101::Q3 Injected at: 870716 17:38
ata File: >D3101::D5 Dilution Factor: 1.00
ame: VOA BLANK
isc: 07/16/87TL/MI 5 MLS DI + 10 ULS IS/SS

D File: VOADR::D2
itle: VOA ID FILE FOR HP-5970D (CONT. CAL.)
ast Calibration: 870716 18:07

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*BROMOCHLOROMETHANE	(IS)	128	13.50	296	21001	50.00 UG/L	100
15)	1,2-DICHLOROETHANE-D4	(SURR)	65	16.30	368	58278	48.97 UG/L 98%	73
16)	*1,4-DIFLUOROBENZENE	(IS)	114	23.87	563	75389	50.00 UG/L	100
17)	2-BUTANONE		72	16.30	368	396	15.03 UG/L	100
1)	*CHLOROBENZENE-D5	(IS)	117	29.15	699	59803	50.00 UG/L	100
6)	TOLUENE-D8	(SURR)	98	27.71	662	66239	48.58 UG/L 97%	93
0)	4-BROMOFLUOROBENZENE	(SURR)	95	35.60	865	77408	48.72 UG/L 97%	100

* Compound is ISTD

Laboratory Name: Ecology & Environment

Case No: U- 5920 1

Sample Number
B4149

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-16-87

Date Analyzed: 7-21-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l) or ug/Kg (Circle One)
108-95-2	Phenol	10u
111-44-4	bis(-2-Chloroethyl)Ether	10u
95-57-8	2-Chlorophenol	10u
541-73-1	1 3-Dichlorobenzene	10u
106-46-7	1. 4-Dichlorobenzene	10u
100-51-6	Benzyl Alcohol	10u
95-50-1	1. 2-Dichlorobenzene	10u
95-48-7	2-Methylphenol	10u
39638-32-9	bis(2-chloroisopropyl)Ether	10u
106-44-5	4-Methylpheno	10u
621-64-7	N-Nitroso-Di-n-Propylamine	10u
67-72-1	Hexachloroethane	10u
98-95-3	Nitrobenzene	10u
78-59-1	Isophorone	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2. 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
111-91-1	bis(-2-Chloroethoxy)Methane	10u
120-83-2	2. 4-Dichlorophenol	10u
120-82-1	1. 2. 4-Trichlorobenzene	10u
91-20-3	Naphthalene	10u
106-47-8	4-Chloroaniline	10u
87-68-3	Hexachlorobutadiene	10u
59-50-7	4-Chloro-3-Methylphenol	10u
91-57-6	2-Methylnaphthalene	10u
77-47-4	Hexachlorocyclopentadiene	10u
88-06-2	2. 4. 6-Trichlorophenol	10u
95-95-4	2. 4. 5-Trichlorophenol	50u
91-58-7	2-Chloronaphthalene	10u
88-74-4	2-Nitroaniline	50u
131-11-3	Dimethyl Phthalate	10u
208-96-8	Acenaphthylene	10u
99-09-2	3-Nitroaniline	50u

CAS Number		(ug/l) or ug/Kg (Circle One)
83-32-9	Acenaphthene	10u
51-28-5	2. 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
132-64-9	Dibenzofuran	10u
121-14-2	2 4-Dinitrotoluene	10u
606-20-2	2. 6-Dinitrotoluene	10u
84-66-2	Diethylphthalate	10u
7005-72-3	4-Chlorophenyl-phenylether	10u
86-73-7	Fluorene	10u
100-01-6	4-Nitroaniline	50u
534-52-1	4. 6-Dinitro-2-Methylphenol	50u
86-30-6	N-Nitrosodiphenylamine (1)	10u
101-55-3	4-Bromophenyl-phenylether	10u
118-74-1	Hexachlorobenzene	10u
87-86-5	Pentachlorophenol	50u
85-01-8	Phenanthrene	10u
120-12-7	Anthracene	10u
84-74-2	Di-n-Butylphthalate	10u
206-44-0	Fluoranthene	10u
129-00-0	Pyrene	10u
85-68-7	Butylbenzylphthalate	10u
91-94-1	3. 3'-Dichlorobenzidine	20u
56-55-3	Benzo(a)Anthracene	10u
117-81-7	bis(2-Ethylhexyl)Phthalate	10u
218-01-9	Chrysene	10u
117-84-0	Di-n-Octyl Phthalate	10u
205-99-2	Benzo(b)Fluoranthene	10u
207-08-9	Benzo(k)Fluoranthene	10u
50-32-8	Benzo(a)Pyrene	10u
193-39-5	Indeno(1 2. 3-cd)Pyrene	10u
53-70-3	Dibenz(a h)Anthracene	10u
191-24-2	Benzo(g h. i)Perylene	10u

(1)-Cannot be separated from diphenylamine

Laboratory Name Ecology & Environment

Case No. U-5920

Sample Number B4149

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	No TIC's in BNA fraction			
2.				
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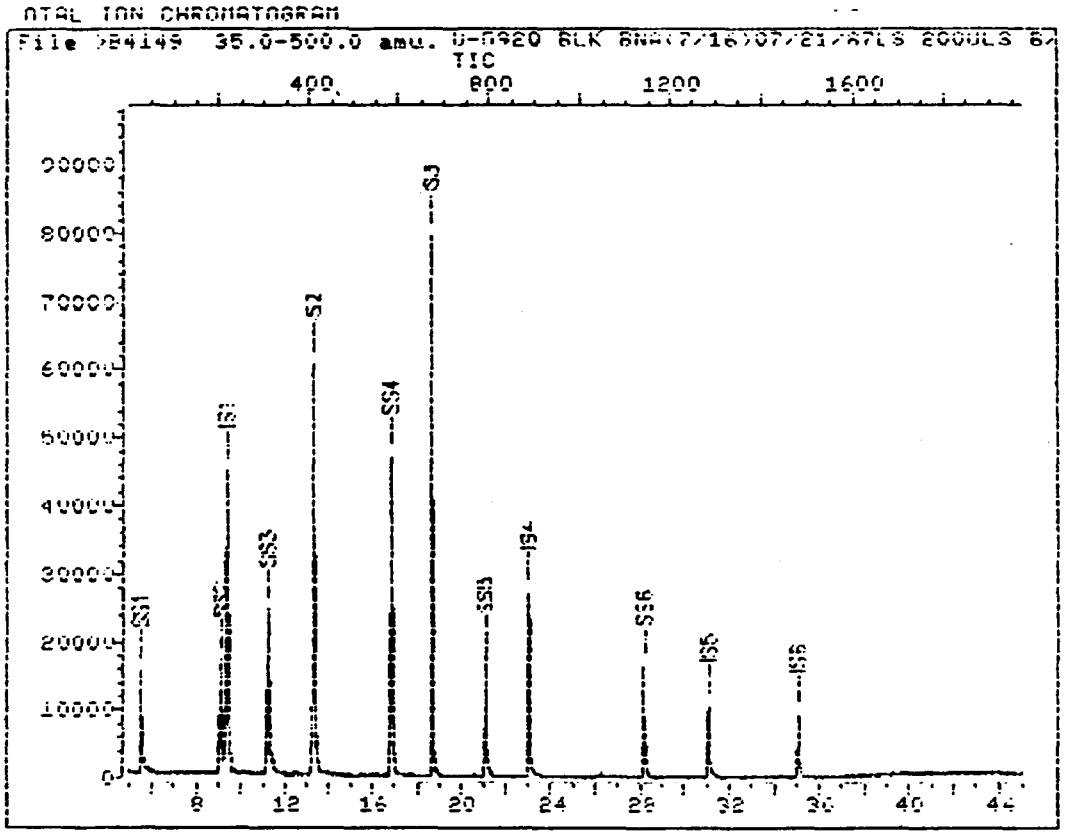
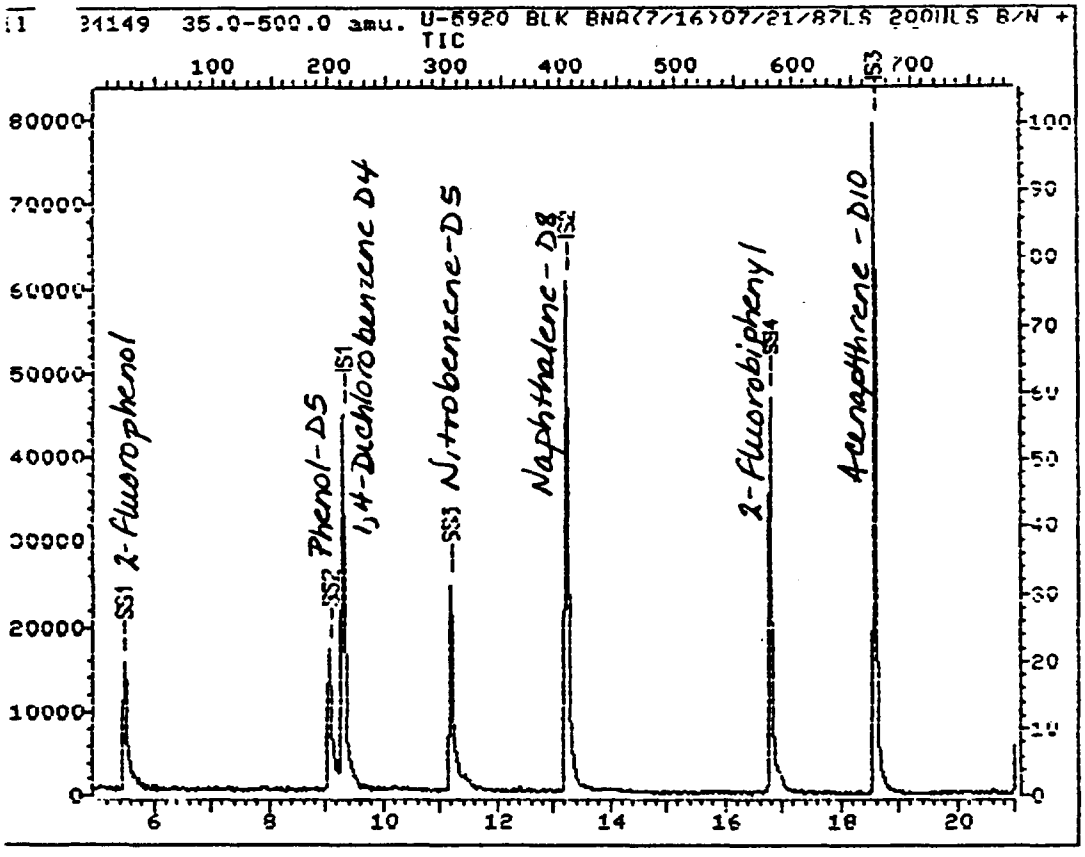


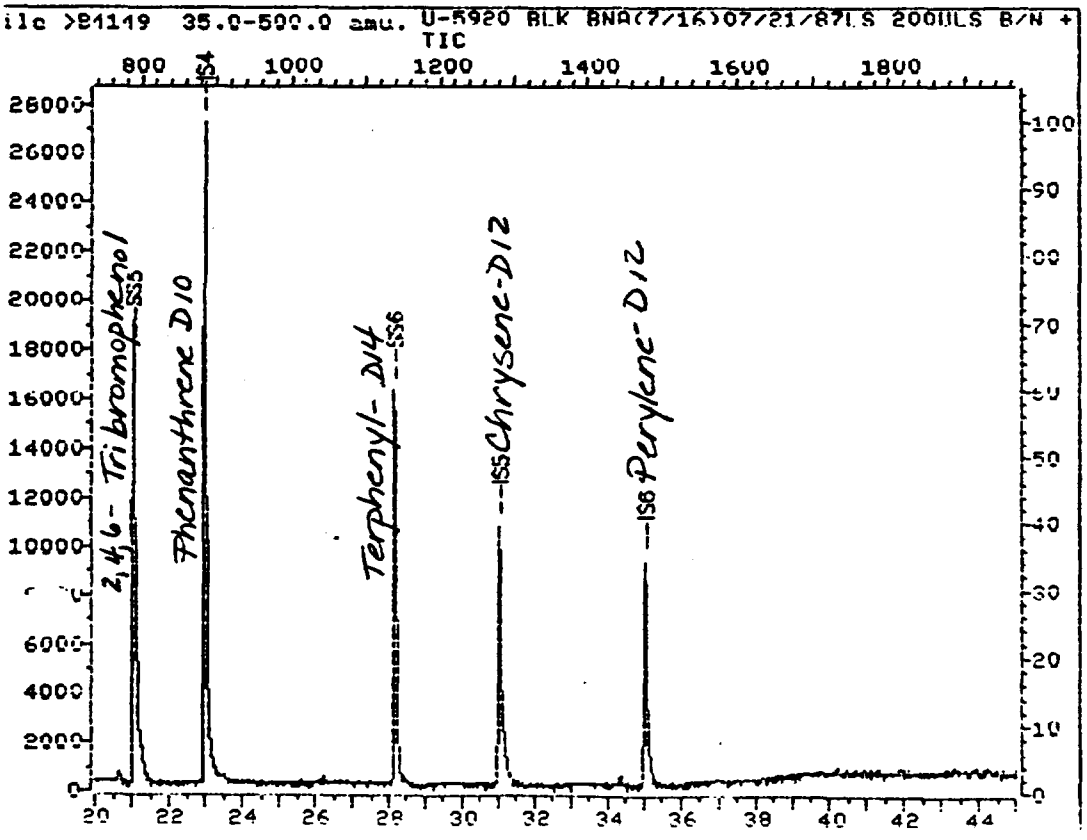
Data File: >B4149::DA
Name: U-5920 BLK BNA(7/16)
Misc: 07/21/87LS 2000LS B/N + 200 US A/P + 4 US IS

Id File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870721 13:51

Operator ID: USER8
Quant Time: 870721 22:43
Injected at: 870721 21:55

B4149


1 B4149 35.0-500.0 amu. U-5920 BLK BNA(7/16)07/21/87LS 2000ULS B/N +
TIC
SS1 2-Fluorophenol
SS2 Phenol-D5
IS1 1,4-Dichlorobenzene D4
SS3 Nitrobenzene-D5
Naphthalene-D8
IS2
SS4 2-Fluorobiphenyl
IS3 Acenaphthrene-D10


ilc >B4149 35.0-500.0 amu. U-5920 BLK BNA(7/16)07/21/87LS 2000ULS B/N +
TIC
IS4
SS5 2,4,6-Tribromophenol
Phenanthrene D10
SS6 Terphenyl-D14
IS5 Chrysene-D12
IS6 Perylene-D12

QUANT REPORT

Operator ID: USER8 Quant Rev: 4 Quant Time: 870721 22:43
Output File: ^B4149::Q3 Injected at: 870721 21:55
Data File: >B4149::D6 Dilution Factor: 2.00
Name: U-5920 BLK BNA(7/16)
Misc: 07/21/87LS 200ULS B/N + 200 ULS A/P + 4 ULS IS

ID File: BNABR::D2
Title: BNA ID FILE FOR THE HP 5970 (B)
Last Calibration: 870721 13:51

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	9.31	213	22416	40.00	UG/L	88
2)	PHENOL-D5	(SURR)	99	9.07	201	19588	53.18	UG/L	93
5)	2-FLUOROPHENOL	(SURR)	112	5.47	24	15288	62.21	UG/L	62
~~17)~~	~~N-NITROSO-DI-N-PROPYLAMINE~~		~~70~~	~~11.18~~	~~305~~	~~4734~~	~~14.12~~	~~UG/L~~	89
19)	*NAPHTHALENE-D8	(IS)	136	13.24	486	96895	40.00	UG/L	100
20)	NITROBENZENE-D5	(SURR)	82	11.18	305	32244	59.66	UG/L	90
34)	*ACENAPHTHENE-D10	(IS)	162	18.59	669	58384	40.00	UG/L	99
38)	2-FLUOROBIPHENYL	(SURR)	172	16.80	581	63657	58.76	UG/L	94
~~41)~~	~~DIMETHYL PHTHALATE~~		~~163~~	~~18.59~~	~~669~~	~~10294~~	~~14.45~~	~~UG/L~~	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	21.03	789	19886	108.32	UG/L	99
~~54)~~	~~2,4-DINITROTOLUENE~~		~~165~~	~~18.59~~	~~669~~	~~7094~~	~~46.65~~	~~UG/L~~	100
55)	*PHENANTHRENE-D10	(IS)	188	22.96	884	61294	40.00	UG/L	98
65)	*CHRYSENE-D12	(IS)	240	31.03	1281	35492	40.00	UG/L	100
68)	TERPHENYL-D14	(SURR)	244	28.15	1139	36497	110.68	UG/L	100
74)	*PERYLENE-D12	(IS)	264	35.04	1428	27028	40.00	UG/L	100

* Compound is ISTD

Laboratory Name: Ecology & Environment

Case No: U- 5920 /

Sample Number: E0226

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-28-87

Date Analyzed: 8-7-87

Conc/Dil Factor: 2

Percent Moisture (Decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

A/P Extraction Blank

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	10u
95-57-8	2-Chlorophenol	10u
95-48-7	2-Methylphenol	10u
106-44-5	4-Methylphenol	10u
88-75-5	2-Nitrophenol	10u
105-67-9	2, 4-Dimethylphenol	10u
65-85-0	Benzoic Acid	50u
120-83-2	2, 4-Dichlorophenol	10u
88-06-2	2, 4, 6-Trichlorophenol	10u
95-95-4	2, 4, 5-Trichlorophenol	50u

CAS Number		ug/l or ug/Kg (Circle One)
51-28-5	2, 4-Dinitrophenol	50u
100-02-7	4-Nitrophenol	50u
534-52-1	4, 6-Dinitro-2-Methylphenol	50u
87-86-5	Pentachlorophenol	50u

Laboratory Name: Ecology & Environment

Case No: 4-5920

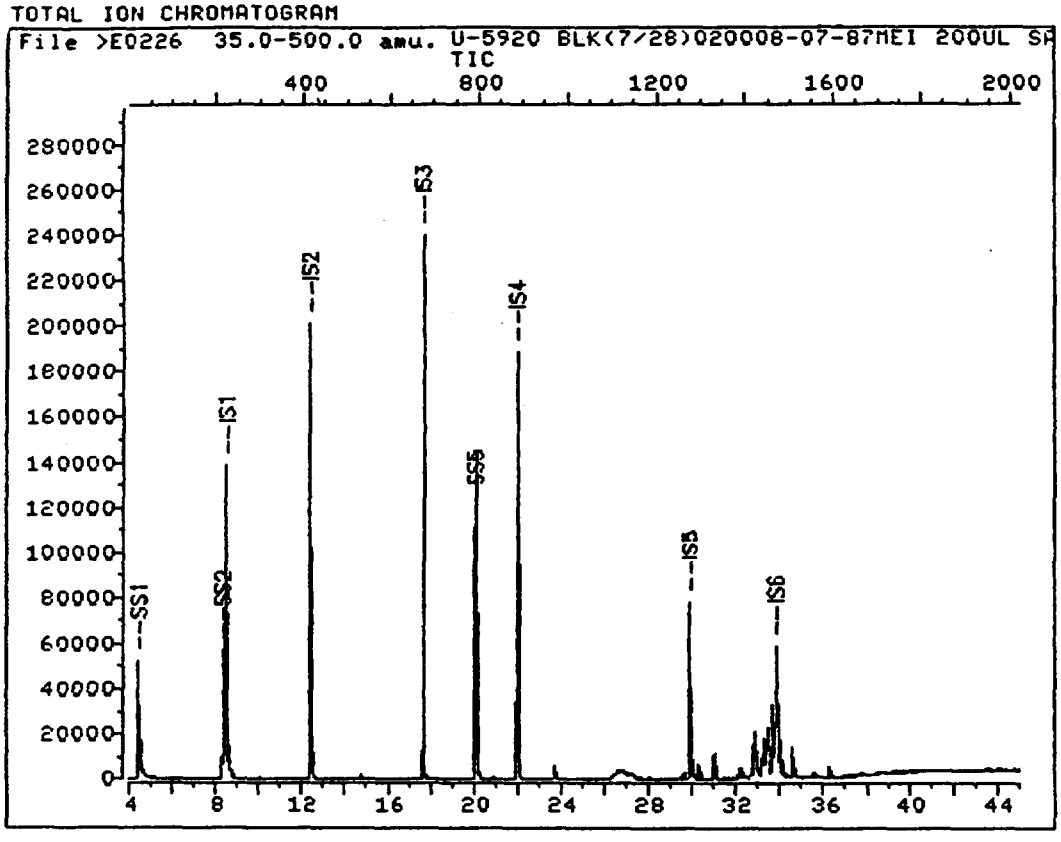
Sample Number: E 022.6

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number min.	Estimated Concentration (ug/l or ug/kg)
1.	Unknown	A/P	26.58	16 J
2.	Unknown phthalate	↓	30.97	12 J
3.	Unknown phthalate		33.18	35 J
4.	Unknown phthalate		33.41	27 J
5.	Unknown phthalate		33.47	26 J
6.	Unknown phthalate		33.67	60 J
7.	Unknown phthalate		33.73	15 J
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
16.				
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30				

TOTAL ION CHROMATOGRAM

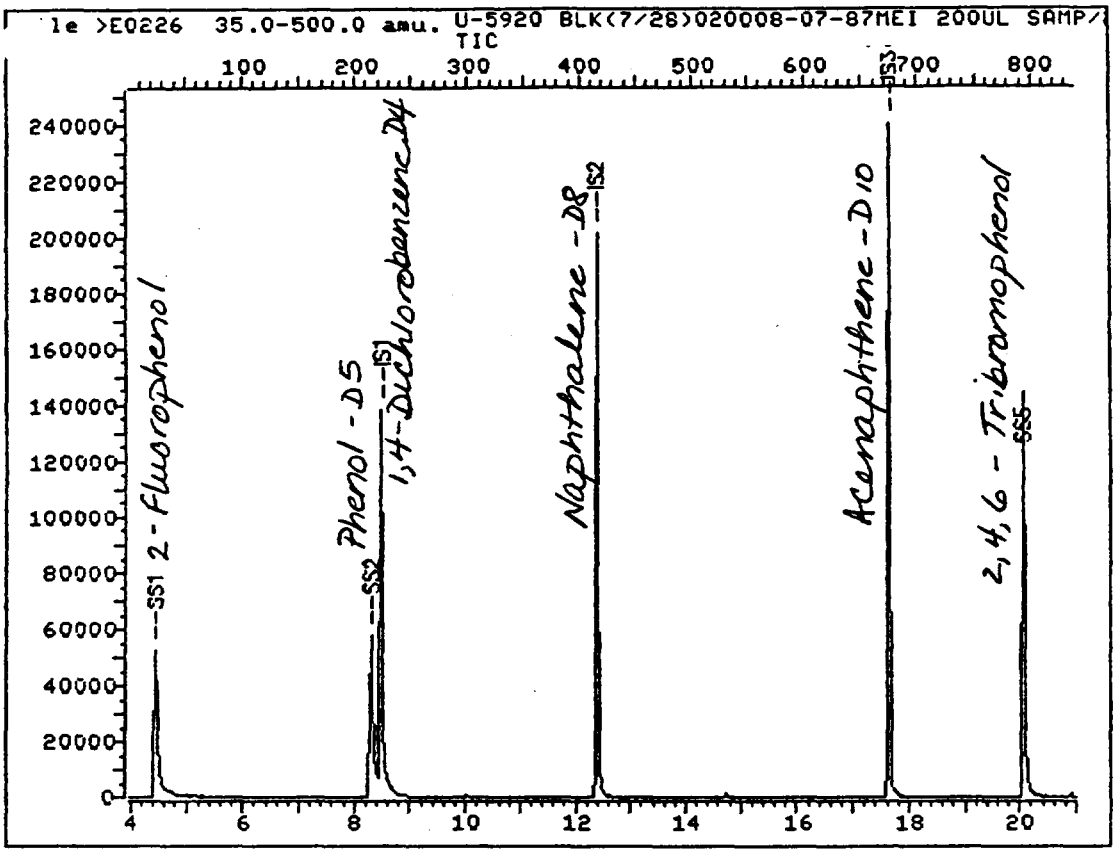


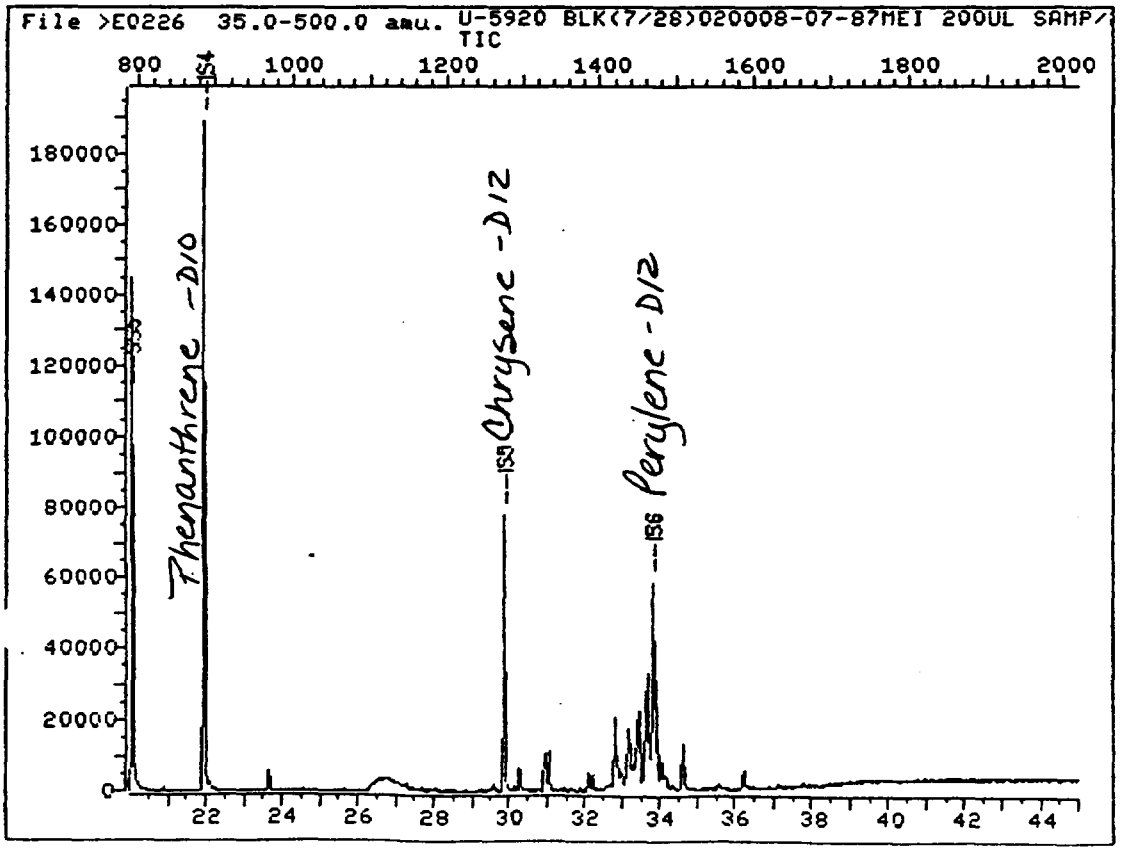
Data File: >E0226::D7
Name: U-5920 BLK(7/28)0200 A/P
Misc: 08-07-87MEI 200UL SAMP/200UL MECL2 + 4UL IS BTL# 2

Id File: CONTE7::D2
Title: BNA ID FILE FOR THE HP 5970 (E)
Last Calibration: 870807 22:15

Operator ID: USER6
Quant Time: 870808 00:01
Injected at: 870807 23:13

E 0226
A/P Blank





QUANT REPORT

Operator ID: USER6 Quant Rev: 4 Quant Time: 870808 00:01
Output File: ^E0226::Q6 Injected at: 870807 23:13
Data File: >E0226::D7 Dilution Factor: 2.00
Name: U-5920 BLK(7/28)0200 A/P Extraction Only
Misc: 08-07-87MEI 200UL SAMP/200UL MECL2 + 4UL IS BTL# 2

ID File: CONTE7::D2
Title: BNA ID FILE FOR THE HP 5970 (E)
Last Calibration: 870807 22:15

	Compound		R.T.	Scan#	Area	Conc	Units	q
1)	*1,4-DICHLOROBENZENE-D4	(IS)	152	8.49	223	65471	40.00 UG/L	88
2)	PHENOL-D5	(SURR)	99	8.30	214	71233	55.81 UG/L	96
5)	2-FLUOROPHENOL	(SURR)	112	4.42	23	56035	71.04 UG/L	83
19)	*NAPHTHALENE-D8	(IS)	136	12.39	415	219705	40.00 UG/L	100
34)	*ACENAPHTHENE-D10	(IS)	162	17.65	674	117579	40.00 UG/L	91
41)	~~DIMETHYL PHTHALATE~~		~~163~~	~~17.65~~	~~674~~	~~24231~~	~~12.43~~ UG/L	100
48)	2,4,6-TRIBROMOPHENOL	(SURR)	330	20.05	792	52661	107.64 UG/L	98
52)	~~2,6-DINITROTOLUENE~~		~~165~~	~~17.65~~	~~674~~	~~15193~~	~~34.15~~ UG/L	100
55)	*PHENANTHRENE-D10	(IS)	188	21.96	886	190167	40.00 UG/L	84
57)	~~N-NITROSODIPHENYLAMINE~~		~~169~~	~~20.07~~	~~793~~	~~1293~~	~~1.11~~ UG/L	28
65)	*CHRYSENE-D12	(IS)	240	29.87	1275	84242	40.00 UG/L	100
72)	~~BIS(2-ETHYLHEXYL)PHTHALATE~~		~~149~~	~~30.95~~	~~1320~~	~~17913~~	~~19.53~~ UG/L	39
72)	BIS(2-ETHYLHEXYL)PHTHALATE		149	31.05	1333	9624	10.49 UG/L	80
74)	*PERYLENE-D12	(IS)	264	33.82	1469	53015	40.00 UG/L	100
75)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~32.61~~	~~1410~~	~~2085~~	~~1.59~~ UG/L	100
75)	DI-N-OCTYL PHTHALATE		149	32.84	1421	35333	26.91 UG/L	100
75)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.00~~	~~1429~~	~~1758~~	~~1.34~~ UG/L	100
75)	~~DI-N-OCTYL PHTHALATE~~		~~149~~	~~33.18~~	~~1438~~	~~20069~~	~~15.28~~ UG/L	100

* Compound is ISTD

Laboratory Name ecology and environment, inc.

Case No U-5920

Sample Number BLANK

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 7-15-87

Date Analyzed: 7-28-87

Conc/Dil Factor: 1

Percent Moisture (decanted) _____

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l or ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	0.05	U
319-85-7	Beta-BHC	0.05	U
319-86-8	Delta-BHC	0.05	U
58-89-9	Gamma-BHC (Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor Epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan Sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin Ketone	0.10	U
57-74-9	Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

V_i = Volume of extract injected (ul)

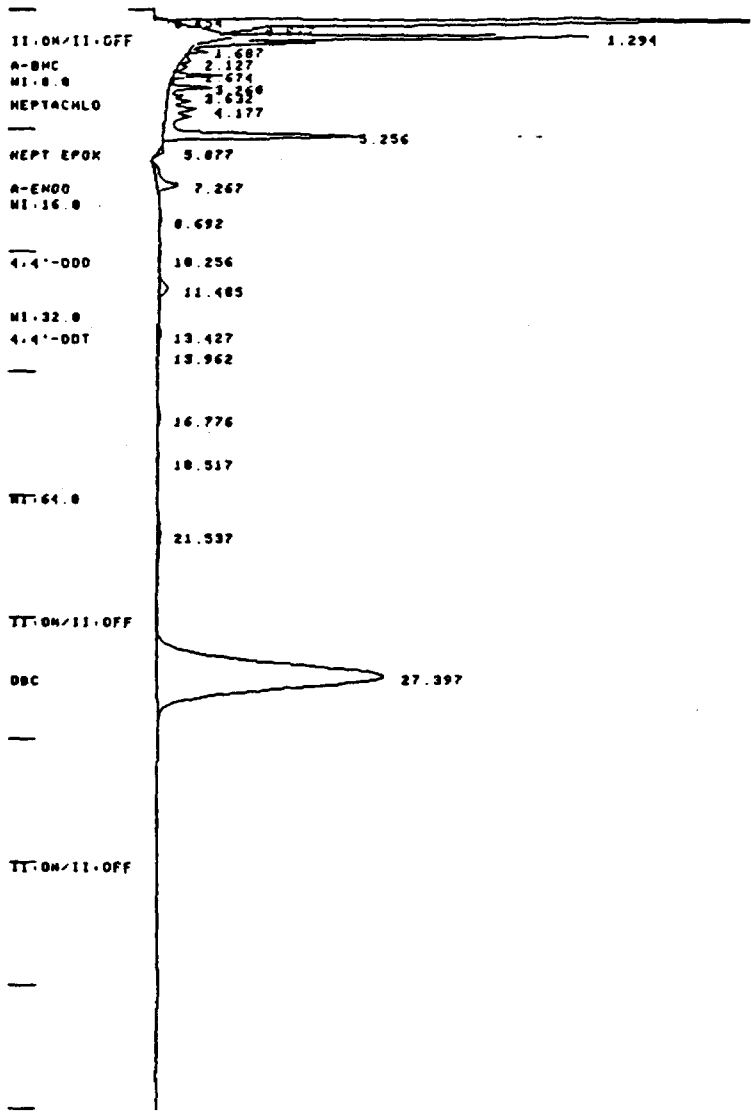
V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 or W_s _____ V_t 10,000 V_i 4

CHART SPEED 0.5 CM/MIN
ATTEN: 8 ZERO: 10% 5 MIN/TICK



CHANNEL: 1A - 1 TITLE: RUN#14 18:38 28 JUL 87

SAMPLE: BLK.0301 METHOD: CEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.407		58243	VB	3.38
2		0.0000	2.674		51484	VB	6.13
3		0.0000	3.260		47622	VV	7.56
4	~~HEPTACHLO~~	0.0105	3.873	-0.047	30374	VV	9.19
5		0.0000	4.177		47710	VV	11.44
6		0.0000	4.491		55887	VV	12.50
7		0.0000	5.256		317371	VB	11.19
8	~~A-ENDO~~	0.0285	7.267	-0.003	75525	BB	? 23.13
9		0.0000	11.485		32225	BB	27.13
10		0.0000	21.537		44400	BB	75.31
11	DBC	0.9761	27.397	0.007	2038430	BB	68.13
TOTALS:		1.0152		-0.043	2799271		

DETECTED PKS: 34 REJECTED PKS: 23

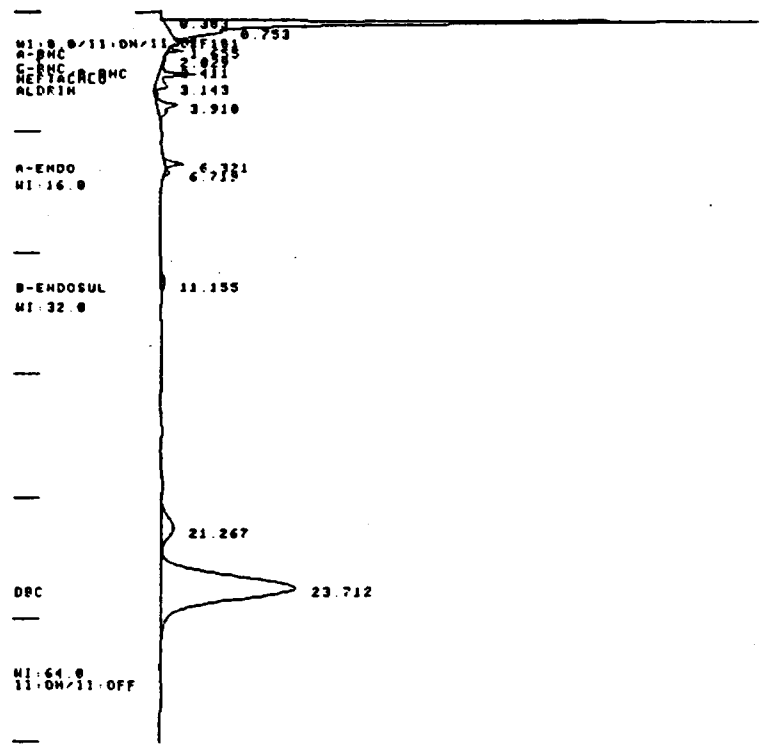
DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 182.8 OFFSET: -22

RACK: 1 VIAL: 14 INJ: 1

NOTES:
NOTEBOOK:297-146 ANALYST:RICHARD SAMSON
SECURE AREA: D JOB#:U-5920
INST: VARIAN 6000# 2A ECD 10X1
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
LIQUID PHASE: 3% OV-1
[illegible] /MIN

CHART SPEED 0.5 CM/MIN
ATTEN: 16 ZERO: 10% 5 MIN/TICK



RECALCULATE ON FILE: EPA458

CHANNEL: 1B - 1 TITLE: RUN# 5 12:44 3 AUG 87

SAMPLE: W. BLK 7/15 METHOD: PEPA CALCULATION: ES - ANALYS

PEAK NO	PEAK NAME	RESULT UG/L	TIME (MIN)	TIME OFFSET	AREA COUNTS	SEP CODE	W1/2 (SEC)
1		0.0000	1.274		24457	BV	3.50
2	~~A-BHC~~	0.0000	1.655	-0.075	22134	VB	4.38
3	~~B-BHC~~	0.0000	2.612	0.122	84003	VV	6.81
4	~~ALDRIN~~	0.0155	3.143	-0.187	57853	VV	8.81
5		0.0000	3.910		89739	VV	? 14.94
6		0.0000	4.117		26379	VB	?
7	~~A-ENDO~~	0.0205	6.321	0.071	65985	BB	15.38
8	~~A,B-END~~	0.0088	11.155	-0.085	26315	BB	? 31.94
9		0.0000	21.267		180455	BV	56.44
10	DBC	1.0112	23.712	0.002	2290175	VB	63.56

TOTALS: 1.0560 -0.152 2867326

DETECTED PKS: 25 REJECTED PKS: 15

DIVISOR: 1.00000 MULTIPLIER: 10.00000

NOISE: 68.6 OFFSET: -10

RACK: 1 VIAL: 5 INJ: 1

NOTES:
NOTEBOOK: 297-153 ANALYST: K.JUREK
SECURE AREA: D JOB#:U-5920
INST:VARIAN 6000#2B ECD 10X1 ATTN:8X
COLUMN: 6' GLASS 4MM ID 100/120 SUPELCOPORT
PHASE:1.5% SP2250/1.95% SP2401
CARRIER GAS: N2 @ 60 ML/MIN.
DET:300 C INJ:220 C
200 C ISOTHERMAL 4 UL INJECTION
CONFIRMATION SEQUENCE

L16302000005 ·
St. Clair
Sanget-Sanget.
LAB DATA

[illegible]

GROUNDWATER ORGANICS
U5920
(REPLACEMENT SAMPLES)

CASE NARRATIVE