ORGANICS ANALYSIS DATA SHEET

Page 1

SAMPLE NO.
CF455

PEI Associates, Inc

Case No.: 6828
QC Report No.:
Contract No. 68-01- 7084
Date Sample Received: 2/12/87

Lab Sample ID No.: GH802
Sample Matrix: SOIL
Data Release Authorized by: 19

VOLATILE COMPOUNDS

Concentration: Low
Date Extracted/ Prepared: 2/12/87
Date Analyzed: 2/12/87
Conc/ Dil Factor 0.97
pH 6
Per Cent Moisture 19.2

CAS Number		UG/KG	CAS Number		UG/KG
74-87-3	Chloromethane	12 U	78-87-5	1,2-dichloropropane	6 U
74-83-9	Bromomethane	12 U	10061-02-6	Trans-1,3-dichloropropene	6 U
75-01-4	Vinyl Chloride	12 U	79-01-6	Trichloroethene	6 U
75-00-3	Chloroethane	12 U	124-48-1	Dibromochloromethane	6 U
75-09-2	Methylene Chloride	11 B	79-00-5	1,1,2-trichloroethane	6 U
67-64-1	Acetone	7 JB	71-43-2	Benzene	6 U
75-15-0	Carbon Disulfide	6 U	10061-01-5	Cis-1,3-dichloropropene	6 U
75-35-4	1,1-Dichloroethene	6 U	110-75-8	2-chloroethylvinylether	12 U
75-35-3	1,1-Dichloroethane	6 U	75-25-2	Bromoform	6 U
156-60-5	Trans-1,2-dichloroethene	6 U	108-10-1	4-methyl-2-pentanone	12 U
78-93-3	Chloroform	6 U	591-78-6	2-hexanone	12 U
107-06-2	1,2-dichloroethane	6 U	127-18-4	Tetrachloroethene	6 U
78-93-3	2-butanone	12 U	79-34-5	1,1,2,2-tetrachloroethane	6 U
71-55-6	1,1,1-trichloroethane	6 U	108-88-3	Toluene	6 U
56-23-5	Carbon Tetrachloride	6 U	108-90-7	Chlorobenzene	6 U
108-05-4	Vinyl Acetate	12 U	100-41-4	Ethylbenzene	6 U
75-27-4	Bromodichloromethane	6 U	100-42-5	Styrene	6 U
			1330-20-7	Total Xylenes	6 U

ata Reporting Qualifiers

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 (not the instrument detection limit)

J — Indicates an estimated value. This flag is used when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria, but the result is less than the specified detection limit.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MSD

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

PEI Associates, Inc.
Case No: 6828

SAMPLE NO
CF455
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ORGANICS ANALYSIS DATA SHEET
Page 2

Soil

SEMIVOLATILE COMPOUNDS

GPC Cleanup? YES
Concentration: Low
Sep. Funnel Extraction?N/A
Date Extracted/ Prepared: 2/13/87
Cont. Liq/ Liq. Extraction?N/A
Date Analyzed: 3/4/87
Conc/ Dil. Factor 66
MULTIPLY DETECTION LIMITS X 2
Per Cent Moisture 19.2 ✓

CAS Number		UG/KG	CAS Number		UG/KG
108-95-2	Phenol	408 U	83-32-9	Acenapthene	408 U
111-44-4	bis(2-chloroethyl)ether	408 U	51-28-5	2,4-Dinitrophenol	408 U
95-57-8	2-Chlorophenol	408 U	100-02-7	4-Nitrophenol	408 U
541-73-1	1,3-Dichlorobenzene	408 U	132-64-9	Dibenzofuran	408 U
106-47-7	1,4-Dichlorobenzene	408 U	121-14-2	2,4-Dinitrotoluene	408 U
100-51-6	Benzyl Alcohol	408 U	606-20-2	2,6-Dinitrotoluene	408 U
95-50-1	1,2-Dichlorobenzene	408 U	84-66-2	Diethyl Phthalate	408 U
95-48-7	2-Methylphenol	408 U	7005-72-3	4Chlorophenylphenyl ether	408 U
39638-32-9	bis(2chloroisopropyl)ether	408 U	86-73-7	Fluorene	408 U
106-44-5	4-Methylphenol	408 U	100-01-6	4-Nitroaniline	408 U
621-64-7	N-nitroso-di-n-propylamine	408 U	534-52-1	4,6-dinitro-2-methylphenol	408 U
67-72-1	Hexachloroethane	408 U	534-52-1	N-Nitrosodiphenylamine	408 U
98-95-3	Nitrobenzene	408 U	101-55-3	4bromophenylphenylether	408 U
78-59-1	Isophorone	408 U	118-74-1	Hexachlorobenzene	408 U
88-75-5	2-Nitrophenol	408 U	87-86-5	Pentachlorophenol	408 U
105-67-9	2,4-Dimethylphenol	408 U	85-01-8	Phenanthrene	408 U
65-85-0	Benzoic Acid	408 U	120-12-7	Anthracene	408 U
111-91-1	bis(2-chlorethoxy)methane	408 U	84-74-2	Di-n-butyl phthalate	730 B
120-83-2	2,4-Dichlorophenol	408 U	206-44-0	Fluoranthene	408 U
120-82-1	1,2,4-Trichlorobenzene	408 U	129-00-0	Pyrene	408 U
91-20-3	Napthalene	408 U	85-68-7	Butylbenzylphthalate	408 U
106-47-8	4-Chloroaniline	408 U	91-94-1	3,3'-Dichlorobenzidine	408 U
87-68-3	Hexachlorobutadiene	408 U	56-55-3	Benzo(a)anthracene	408 U
59-50-7	4-Chloro-3-methylphenol	408 U	117-81-7	bis-(2-ethylhexyl)phthalate	408 U
91-57-6	2-Methylnapthalene	408 U	218-01-9	Chrysene	408 U
77-47-4	Hexachlorocyclopentadiene	408 U	117-84-0	Di-n-octyl phthalate	408 U
88-06-2	2,4,6-Trichlorophenol	408 U	205-99-2	Benzo(b)fluoranthene	408 U
95-95-4	2,4,5-Trichlorophenol	408 U	207-08-9	Benzo(k)fluoranthene	408 U
91-58-7	2-Chloronapthalene	408 U	50-32-8	Benzo(a)pyrene	408 U
88-74-4	2-Nitroaniline	408 U	193-39-5	Indeno(1,2,3-cd)pyrene	408 U
131-11-3	Dimethyl Phthalate	408 U	53-70-3	Dibenzo(a,h)anthracene	408 U
208-96-8	Acenapthylene	408 U	191-24-2	Benzo(g,h,i) perylene	408 U
99-09-2	3-Nitroaniline	408 U			

(1) Cannot be separated from diphenylamine

PEI ASSOCIATES, INC.

CASE NUMBER: 6828 SAMPLE NO.: CF455

ORGANIC ANALYSIS DATA
PAGE 3
PESTICIDES/PCBS

CONCENTRATION: LOW
DATE EXTRACTED: 2/13/87
DATE ANALYZED: 2/21&25/87
CONC/DIL FACTOR: NONE
PERCENT MOISTURE: 19

GPC CLEANUP: YES
SEP FUN EXT: NO
CONTINUOUS EXT.: NO

CAS NUMBER	COMPOUND NAME	UG/KG
319-84-6	ALPHA - BHC	8.0U
319-85-7	BETA - BHC	8.0U
319-86-8	DELTA - BHC	8.0U
58-89-9	GAMMA-BHC (LINDANE)	8.0U
76-44-8	HEPTACHLOR	8.0U
309-00-2	ALDRIN	8.0U
1024-57-3	HEPTACHLOR EPOXIDE	8.0U
959-98-8	ENDOSULFAN I	8.0U
60-57-1	DIELDRIN	16.0U
72-55-9	4,4'-DDE	16.0U
72-20-8	ENDRIN	16.0U
33213-65-9	ENDOSULFAN II	16.0U
72-54-8	4,4'-DDD	16.0U
1031-07-8	ENDOSULFAN SULFATE	16.0U
50-29-3	4,4'-DDT	16.0U
72-43-5	METHOXYCHLOR	80.0U
53494-70-5	ENDRIN KETONE	16.0U
57-74-9	CHLORDANE	80.0U
8001-35-2	TOXAPHENE	160.0U
12674-11-2	AROCLOR-1016	80.0U
11104-28-2	AROCLOR-1221	80.0U
11141-16-5	AROCLOR-1232	80.0U
53469-21-9	AROCLOR-1242	80.0U
12672-29-6	AROCLOR-1248	80.0U
11097-69-1	AROCLOR-1254	160.0U
11096-82-5	AROCLOR-1260	160.0U

VOLUME INJECTED:VI= 5.00 UL
VOLUME EXTRACTED:VS= N/A ML
WEIGHT EXTRACTED:WS= 24.40 G
EXTRACT VOLUME:VT= 1000 UL

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF456

PEI Associates, Inc

Case No.: 6828
Lab Sample ID No.: GH803
QC Report No.:
Sample Matrix: SOIL
Contract No. 68-01- 7084
Data Release Authorized by: A9
Date Sample Received: 2/12/87

VOLATILE COMPOUNDS

Concentration: Low
Date Extracted/ Prepared: 2/17/87
Date Analyzed: 2/17/87
Conc/ Dil Factor 0.84
pH 7
Per Cent Moisture 16.6

CAS Number		UG/KG	CAS Number		UG/KG
74-87-3	Chloromethane----------	12 U	78-87-5	1,2-dichloropropane------	6 U
74-83-9	Bromomethane----------	12 U	10061-02-6	Trans-1,3-dichloropropene	6 U
75-01-4	Vinyl Chloride----------	12 U	79-01-6	Trichloroethene----------	6 U
75-00-3	Chloroethane----------	12 U	124-48-1	Dibromochloromethane-----	6 U
-09-2	Methylene Chloride-------	19 B	79-00-5	1,1,2-trichloroethane----	6 U
67-64-1	Acetone----------	12 U	71-43-2	Benzene----------	7
75-15-0	Carbon Disulfide---------	6 U	10061-01-5	Cis-1,3-dichloropropene--	6 U
75-35-4	1,1-Dichloroethene-------	6 U	110-75-8	2-chloroethylvinylether--	12 U
75-35-3	1,1-Dichloroethane-------	6 U	75-25-2	Bromoform----------	6 U
156-60-5	Trans-1,2-dichloroethene-	6 U	108-10-1	4-methyl-2-pentanone-----	12 U
78-93-3	Chloroform----------	6 U	591-78-6	2-hexanone----------	12 U
107-06-2	1,2-dichloroethane-------	6 U	127-18-4	Tetrachloroethene--------	6 U
78-93-3	2-butanone----------	12 U	79-34-5	1,1,2,2-tetrachloroethane	6 U
71-55-6	1,1,1-trichloroethane----	6 U	108-88-3	Toluene----------	7
56-23-5	Carbon Tetrachloride-----	6 U	108-90-7	Chlorobenzene----------	6
108-05-4	Vinyl Acetate----------	12 U	100-41-4	Ethylbenzene----------	6 U
75-27-4	Bromodichloromethane-----	6 U	100-42-5	Styrene----------	2 J
			1330-20-7	Total Xylenes----------	6 U

Data Reporting Qualifiers

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 (not the instrument detection limit)

J — Indicates an estimated value. This flag is used when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria, but the result is less than the specified detection limit.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MSD

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

PEI Associates, Inc.
Case No: 6828

SAMPLE NO
CF456

ORGANICS ANALYSIS DATA SHEET
Page 2

Soil.

SEMIVOLATILE COMPOUNDS

GPC Cleanup? YES
Concentration: Low
Sep. Funnel Extraction?N/A
Date Extracted/ Prepared: 2/13/87
Cont. Liq/ Liq. Extraction?N/A
Date Analyzed: 3/4/87
Conc/ Dil. Factor 66
MULTIPLY DETECTION LIMITS X 2
Per Cent Moisture 16.6

CAS Number		UG/KG	CAS Number		UG/KG
108-95-2	Phenol	396 U	83-32-9	Acenapthene	396 U
11-44-4	bis(2-chloroethyl)ether	396 U	51-28-5	2,4-Dinitrophenol	396 U
95-57-8	2-Chlorophenol	396 U	100-02-7	4-Nitrophenol	396 U
541-73-1	1,3-Dichlorobenzene	396 U	132-64-9	Dibenzofuran	396 U
106-47-7	1,4-Dichlorobenzene	396 U	121-14-2	2,4-Dinitrotoluene	396 U
100-51-6	Benzyl Alcohol	396 U	606-20-2	2,6-Dinitrotoluene	396 U
95-50-1	1,2-Dichlorobenzene	396 U	84-66-2	Diethyl Phthalate	396 U
95-48-7	2-Methylphenol	396 U	7005-72-34	Chlorophenylphenyl ether	396 U
39638-32-9	bis(2chloroisopropyl)ether	396 U	86-73-7	Fluorene	396 U
106-44-5	4-Methylphenol	396 U	100-01-6	4-Nitroaniline	396 U
621-64-7	N-nitroso-di-n-propylamine	396 U	534-52-1	4,6-dinitro-2-methylphenol	396 U
67-72-1	Hexachloroethane	396 U	534-52-1	N-Nitrosodiphenylamine	396 U
98-95-3	Nitrobenzene	396 U	101-55-3	4bromophenylphenylether	396 U
78-59-1	Isophorone	396 U	118-74-1	Hexachlorobenzene	396 U
88-75-5	2-Nitrophenol	396 U	87-86-5	Pentachlorophenol	396 U
105-67-9	2,4-Dimethylphenol	396 U	85-01-8	Phenanthrene	396 U
65-85-0	Benzoic Acid	396 U	120-12-7	Anthracene	396 U
11-91-1	bis(2-chlorethoxy)methane	396 U	84-74-2	Di-n-butyl phthalate	276 JB
120-83-2	2,4-Dichlorophenol	396 U	206-44-0	Fluoranthene	396 U
120-82-1	1,2,4-Trichlorobenzene	396 U	129-00-0	Pyrene	396 U
91-20-3	Napthalene	396 U	85-68-7	Butylbenzylphthalate	396 U
106-47-8	4-Chloroaniline	396 U	91-94-1	3,3'-Dichlorobenzidine	396 U
87-68-3	Hexachlorobutadiene	396 U	56-55-3	Benzo(a)anthracene	396 U
59-50-7	4-Chloro-3-methylphenol	396 U	117-81-7	bis-(2-ethylhexyl)phthalate	396 U
91-57-6	2-Methylnapthalene	396 U	218-01-9	Chrysene	396 U
77-47-4	Hexachlorocyclopentadiene	396 U	117-84-0	Di-n-octyl phthalate	396 U
88-06-2	2,4,6-Trichlorophenol	396 U	205-99-2	Benzo(b)fluoranthene	396 U
95-95-4	2,4,5-Trichlorophenol	396 U	207-08-9	Benzo(k)fluoranthene	396 U
91-58-7	2-Chloronapthalene	396 U	50-32-8	Benzo(a)pyrene	396 U
88-74-4	2-Nitroaniline	396 U	193-39-5	Indeno(1,2,3-cd)pyrene	396 U
131-11-3	Dimethyl Phthalate	396 U	53-70-3	Dibenzo(a,h)anthracene	396 U
208-96-8	Acenapthylene	396 U	191-24-2	Benzo(g,h,i) perylene	396 U
99-09-2	3-Nitroaniline	396 U			

(1) Cannot be separated from diphenylamine

PEI ASSOCIATES, INC.

CASE NUMBER: 6828 SAMPLE NO.: CF~~458~~ 456

ORGANIC ANALYSIS DATA
PAGE 3
PESTICIDES/PCBS

CONCENTRATION:	LOW	GPC CLEANUP:	YES
DATE EXTRACTED:	2/13/87	SEP FUN EXT:	NO
DATE ANALYZED:	2/21&25/87	CONTINUOUS EXT.:	NO
CONC/DIL FACTOR:	NONE		
PERCENT MOISTURE:	17		

CAS NUMBER	COMPOUND NAME	UG/KG
319-84-6	ALPHA - BHC	8.0U
319-85-7	BETA - BHC	8.0U
319-86-8	DELTA - BHC	8.0U
58-89-9	GAMMA-BHC (LINDANE)	8.0U
76-44-8	HEPTACHLOR	8.0U
309-00-2	ALDRIN	8.0U
1024-57-3	HEPTACHLOR EPOXIDE	8.0U
959-98-8	ENDOSULFAN I	8.0U
60-57-1	DIELDRIN	16.0U
72-55-9	4,4'-DDE	16.0U
72-20-8	ENDRIN	16.0U
33213-65-9	ENDOSULFAN II	16.0U
72-54-8	4,4'-DDD	16.0U
1031-07-8	ENDOSULFAN SULFATE	16.0U
50-29-3	4,4'-DDT	16.0U
72-43-5	METHOXYCHLOR	80.0U
53494-70-5	ENDRIN KETONE	16.0U
57-74-9	CHLORDANE	80.0U
8001-35-2	TOXAPHENE	160.0U
12674-11-2	AROCLOR-1016	80.0U
11104-28-2	AROCLOR-1221	80.0U
11141-16-5	AROCLOR-1232	80.0U
53469-21-9	AROCLOR-1242	80.0U
12672-29-6	AROCLOR-1248	80.0U
11097-69-1	AROCLOR-1254	160.0U
11096-82-5	AROCLOR-1260	160.0U

VOLUME INJECTED:VI=	5.00	UL
VOLUME EXTRACTED:VS=	N/A	ML
WEIGHT EXTRACTED:WS=	25.10	G
EXTRACT VOLUME:VT=	1000	UL

ORGANICS ANALYSIS DATA SHEET
Page 1

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SAMPLE NO.
CF500
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PEI Associates, Inc

Case No.: 6828
Lab Sample ID No.: GH804
QC Report No.:
Sample Matrix: SOIL
Contract No. 68-01- 7084
Data Release Authorized by: AG
Date Sample Received: 2/12/87

VOLATILE COMPOUNDS

Concentration: Low
Date Extracted/ Prepared: 2/17/87
Date Analyzed: 2/17/87
Conc/ Dil Factor 0.92
pH 6
Per Cent Moisture 18.8

CAS Number		UG/KG	CAS Number		UG/KG
74-87-3	Chloromethane----------	12 U	78-87-5	1,2-dichloropropane------	6 U
74-83-9	Bromomethane----------	12 U	10061-02-6	Trans-1,3-dichloropropene	6 U
75-01-4	Vinyl Chloride----------	12 U	79-01-6	Trichloroethene----------	6 U
75-00-3	Chloroethane----------	12 U	124-48-1	Dibromochloromethane-----	6 U
-09-2	Methylene Chloride-------	18 B	79-00-5	1,1,2-trichloroethane----	6 U
67-64-1	Acetone----------	9 J	71-43-2	Benzene----------	4 J
75-15-0	Carbon Disulfide---------	6 U	10061-01-5	Cis-1,3-dichloropropene--	6 U
75-35-4	1,1-Dichloroethene-------	6 U	110-75-8	2-chloroethylvinylether--	12 U
75-35-3	1,1-Dichloroethane-------	6 U	75-25-2	Bromoform----------	6 U
156-60-5	Trans-1,2-dichloroethene-	6 U	108-10-1	4-methyl-2-pentanone-----	12 U
78-93-3	Chloroform----------	6 U	591-78-6	2-hexanone----------	12 U
107-06-2	1,2-dichloroethane-------	6 U	127-18-4	Tetrachloroethene--------	6 U
78-93-3	2-butanone----------	12 U	79-34-5	1,1,2,2-tetrachloroethane	6 U
71-55-6	1,1,1-trichloroethane----	6 U	108-88-3	Toluene----------	4 J
56-23-5	Carbon Tetrachloride-----	6 U	108-90-7	Chlorobenzene----------	6 U
108-05-4	Vinyl Acetate----------	12 U	100-41-4	Ethylbenzene----------	6 U
75-27-4	Bromodichloromethane-----	6 U	100-42-5	Styrene----------	4 J
			1330-20-7	Total Xylenes----------	6 U

Data Reporting Qualifiers

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 (not the instrument detection limit)

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PEI Associates, Inc.
Case No: 6828

SAMPLE NO
CF500
========

ORGANICS ANALYSIS DATA SHEET
Page 2

Soil

SEMIVOLATILE COMPOUNDS

GPC Cleanup? YES
Concentration: Low
Sep. Funnel Extraction?N/A
Date Extracted/ Prepared: 2/13/87
Cont. Liq/ Liq. Extraction?N/A
Date Analyzed: 3/4/87
Conc/ Dil. Factor 66
MULTIPLY DETECTION LIMITS X 2
Per Cent Moisture 18.8

CAS Number		UG/KG	CAS Number		UG/KG
108-95-2	Phenol	406 U	83-32-9	Acenapthene	406 U
11-44-4	bis(2-chloroethyl)ether	406 U	51-28-5	2,4-Dinitrophenol	406 U
95-57-8	2-Chlorophenol	406 U	100-02-7	4-Nitrophenol	406 U
541-73-1	1,3-Dichlorobenzene	406 U	132-64-9	Dibenzofuran	406 U
106-47-7	1,4-Dichlorobenzene	406 U	121-14-2	2,4-Dinitrotoluene	406 U
100-51-6	Benzyl Alcohol	406 U	606-20-2	2,6-Dinitrotoluene	406 U
95-50-1	1,2-Dichlorobenzene	406 U	84-66-2	Diethyl Phthalate	406 U
95-48-7	2-Methylphenol	406 U	7005-72-3	4Chlorophenylphenyl ether	406 U
39638-32-9	bis(2chloroisopropyl)ether	406 U	86-73-7	Fluorene	406 U
106-44-5	4-Methylphenol	406 U	100-01-6	4-Nitroaniline	406 U
621-64-7	N-nitroso-di-n-propylamine	406 U	534-52-1	4,6-dinitro-2-methylphenol	406 U
67-72-1	Hexachloroethane	406 U	534-52-1	N-Nitrosodiphenylamine	406 U
98-95-3	Nitrobenzene	406 U	101-55-3	4bromophenylphenylether	406 U
78-59-1	Isophorone	406 U	118-74-1	Hexachlorobenzene	406 U
88-75-5	2-Nitrophenol	406 U	87-86-5	Pentachlorophenol	406 U
105-67-9	2,4-Dimethylphenol	406 U	85-01-8	Phenanthrene	406 U
65-85-0	Benzoic Acid	406 U	120-12-7	Anthracene	406 U
111-91-1	bis(2-chlorethoxy)methane	406 U	84-74-2	Di-n-butyl phthalate	283 J B
120-83-2	2,4-Dichlorophenol	406 U	206-44-0	Fluoranthene	406 U
120-82-1	1,2,4-Trichlorobenzene	406 U	129-00-0	Pyrene	406 U
91-20-3	Napthalene	406 U	85-68-7	Butylbenzylphthalate	406 U
106-47-8	4-Chloroaniline	406 U	91-94-1	3,3'-Dichlorobenzidine	406 U
87-68-3	Hexachlorobutadiene	406 U	56-55-3	Benzo(a)anthracene	406 U
59-50-7	4-Chloro-3-methylphenol	406 U	117-81-7	bis-(2-ethylhexyl)phthalate	246 J
91-57-6	2-Methylnapthalene	406 U	218-01-9	Chrysene	406 U
77-47-4	Hexachlorocyclopentadiene	406 U	117-84-0	Di-n-octyl phthalate	406 U
88-06-2	2,4,6-Trichlorophenol	406 U	205-99-2	Benzo(b)fluoranthene	406 U
95-95-4	2,4,5-Trichlorophenol	406 U	207-08-9	Benzo(k)fluoranthene	406 U
91-58-7	2-Chloronapthalene	406 U	50-32-8	Benzo(a)pyrene	406 U
88-74-4	2-Nitroaniline	406 U	193-39-5	Indeno(1,2,3-cd)pyrene	406 U
131-11-3	Dimethyl Phthalate	406 U	53-70-3	Dibenzo(a,h)anthracene	406 U
208-96-8	Acenapthylene	406 U	191-24-2	Benzo(g,h,i) perylene	406 U
99-09-2	3-Nitroaniline	406 U			

(1) Cannot be separated from diphenylamine

PEI ASSOCIATES, INC.

CASE NUMBER: 6828 SAMPLE NO.: CF500

ORGANIC ANALYSIS DATA
PAGE 3
PESTICIDES/PCBS

CONCENTRATION: LOW
DATE EXTRACTED: 2/13/87
DATE ANALYZED: 2/21&25/87
CONC/DIL FACTOR: NONE
PERCENT MOISTURE: 19

GPC CLEANUP: YES
SEP FUN EXT: NO
CONTINUOUS EXT.: NO

CAS NUMBER	COMPOUND NAME	UG/KG
319-84-6	ALPHA - BHC	8.0U
319-85-7	BETA - BHC	8.0U
319-86-8	DELTA - BHC	8.0U
58-89-9	GAMMA-BHC (LINDANE)	8.0U
76-44-8	HEPTACHLOR	8.0U
309-00-2	ALDRIN	8.0U
1024-57-3	HEPTACHLOR EPOXIDE	8.0U
959-98-8	ENDOSULFAN I	8.0U
60-57-1	DIELDRIN	16.0U
72-55-9	4,4'-DDE	16.0U
72-20-8	ENDRIN	16.0U
33213-65-9	ENDOSULFAN II	16.0U
72-54-8	4,4'-DDD	16.0U
1031-07-8	ENDOSULFAN SULFATE	16.0U
50-29-3	4,4'-DDT	16.0U
72-43-5	METHOXYCHLOR	80.0U
53494-70-5	ENDRIN KETONE	16.0U
57-74-9	CHLORDANE	80.0U
8001-35-2	TOXAPHENE	160.0U
12674-11-2	AROCLOR-1016	80.0U
11104-28-2	AROCLOR-1221	80.0U
11141-16-5	AROCLOR-1232	80.0U
53469-21-9	AROCLOR-1242	80.0U
12672-29-6	AROCLOR-1248	80.0U
11097-69-1	AROCLOR-1254	160.0U
11096-82-5	AROCLOR-1260	160.0U

VOLUME INJECTED:VI= 5.00 UL
VOLUME EXTRACTED:VS= N/A ML
WEIGHT EXTRACTED:WS= 24.57 G
EXTRACT VOLUME:VT= 1000 UL

ORGANICS ANALYSIS DATA SHEET

Page 1

SAMPLE NO.
CF501

PEI Associates, Inc

Case No.: 6828
QC Report No.:
Contract No. 68-01- 7084
Date Sample Received: 2/12/87

Lab Sample ID No.: GH805
Sample Matrix: SOIL
Data Release Authorized by:

VOLATILE COMPOUNDS

Concentration: Low
Date Extracted/ Prepared: 2/17/87
Date Analyzed: 2/17/87
Conc/ Dil Factor 0.95
pH 6
Per Cent Moisture 20.4

CAS Number		UG/KG	CAS Number		UG/KG
74-87-3	Chloromethane----------	13 U	78-87-5	1,2-dichloropropane------	6 U
-83-9	Bromomethane----------	13 U	10061-02-6	Trans-1,3-dichloropropene	6 U
-01-4	Vinyl Chloride----------	13 U	79-01-6	Trichloroethene----------	6 U
75-00-3	Chloroethane----------	13 U	124-48-1	Dibromochloromethane-----	6 U
75-09-2	Methylene Chloride-------	31 B	79-00-5	1,1,2-trichloroethane----	6 U
67-64-1	Acetone----------	13 U	71-43-2	Benzene----------	6 U
75-15-0	Carbon Disulfide---------	6 U	10061-01-5	Cis-1,3-dichloropropene--	6 U
75-35-4	1,1-Dichloroethene-------	6 U	110-75-8	2-chloroethylvinylether--	13 U
75-35-3	1,1-Dichloroethane-------	6 U	75-25-2	Bromoform----------	6 U
156-60-5	Trans-1,2-dichloroethene-	6 U	108-10-1	4-methyl-2-pentanone-----	13 U
78-93-3	Chloroform----------	6 U	591-78-6	2-hexanone----------	13 U
107-06-2	1,2-dichloroethane-------	6 U	127-18-4	Tetrachloroethene--------	6 U
78-93-3	2-butanone----------	13 U	79-34-5	1,1,2,2-tetrachloroethane	6 U
71-55-6	1,1,1-trichloroethane----	6 U	108-88-3	Toluene----------	6 U
56-23-5	Carbon Tetrachloride-----	6 U	108-90-7	Chlorobenzene----------	6 U
108-05-4	Vinyl Acetate----------	13 U	100-41-4	Ethylbenzene----------	6 U
75-27-4	Bromodichloromethane-----	6 U	100-42-5	Styrene----------	2 J
			1330-20-7	Total Xylenes----------	6 U

Data Reporting Qualifiers

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 (not the instrument detection limit)

J — Indicates an estimated value. This flag is used when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria, but the result is less than the specified detection limit.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MSD

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

PEI Associates, Inc.
Case No: 6828

SAMPLE NO
CF501
========

ORGANICS ANALYSIS DATA SHEET
Page 2

Soil

SEMIVOLATILE COMPOUNDS

GPC Cleanup? YES
Sep. Funnel Extraction?N/A
Cont. Liq/ Liq. Extraction?N/A

Concentration: Low
Date Extracted/ Prepared: 2/13/87
Date Analyzed: 3/4/87
Conc/ Dil. Factor 66
Per Cent Moisture 20.4

MULTIPLY DETECTION LIMITS X 2

CAS Number		UG/KG	CAS Number		UG/KG
108-95-2	Phenol	415 U	83-32-9	Acenapthene	415 U
1-44-4	bis(2-chloroethyl)ether	415 U	51-28-5	2,4-Dinitrophenol	415 U
95-57-8	2-Chlorophenol	415 U	100-02-7	4-Nitrophenol	415 U
541-73-1	1,3-Dichlorobenzene	415 U	132-64-9	Dibenzofuran	415 U
106-47-7	1,4-Dichlorobenzene	415 U	121-14-2	2,4-Dinitrotoluene	415 U
100-51-6	Benzyl Alcohol	415 U	606-20-2	2,6-Dinitrotoluene	415 U
95-50-1	1,2-Dichlorobenzene	415 U	84-66-2	Diethyl Phthalate	415 U
95-48-7	2-Methylphenol	415 U	7005-72-3	4Chlorophenylphenyl ether	415 U
39638-32-9	bis(2chloroisopropyl)ether	415 U	86-73-7	Fluorene	415 U
106-44-5	4-Methylphenol	415 U	100-01-6	4-Nitroaniline	415 U
621-64-7	N-nitroso-di-n-propylamine	415 U	534-52-1	4,6-dinitro-2-methylphenol	415 U
67-72-1	Hexachloroethane	415 U	534-52-1	N-Nitrosodiphenylamine	415 U
98-95-3	Nitrobenzene	415 U	101-55-3	4bromophenylphenylether	415 U
78-59-1	Isophorone	415 U	118-74-1	Hexachlorobenzene	415 U
88-75-5	2-Nitrophenol	415 U	87-86-5	Pentachlorophenol	415 U
105-67-9	2,4-Dimethylphenol	415 U	85-01-8	Phenanthrene	415 U
65-85-0	Benzoic Acid	415 U	120-12-7	Anthracene	415 U
.1-91-1	bis(2-chlorethoxy)methane	415 U	84-74-2	Di-n-butyl phthalate	314 J β
120-83-2	2,4-Dichlorophenol	415 U	206-44-0	Fluoranthene	415 U
120-82-1	1,2,4-Trichlorobenzene	415 U	129-00-0	Pyrene	415 U
91-20-3	Napthalene	415 U	85-68-7	Butylbenzylphthalate	415 U
106-47-8	4-Chloroaniline	415 U	91-94-1	3,3'-Dichlorobenzidine	415 U
87-68-3	Hexachlorobutadiene	415 U	56-55-3	Benzo(a)anthracene	415 U
59-50-7	4-Chloro-3-methylphenol	415 U	117-81-7	bis-(2-ethylhexyl)phthalate	201 J
91-57-6	2-Methylnapthalene	415 U	218-01-9	Chrysene	415 U
77-47-4	Hexachlorocyclopentadiene	415 U	117-84-0	Di-n-octyl phthalate	415 U
88-06-2	2,4,6-Trichlorophenol	415 U	205-99-2	Benzo(b)fluoranthene	415 U
95-95-4	2,4,5-Trichlorophenol	415 U	207-08-9	Benzo(k)fluoranthene	415 U
91-58-7	2-Chloronapthalene	415 U	50-32-8	Benzo(a)pyrene	415 U
88-74-4	2-Nitroaniline	415 U	193-39-5	Indeno(1,2,3-cd)pyrene	415 U
131-11-3	Dimethyl Phthalate	415 U	53-70-3	Dibenzo(a,h)anthracene	415 U
208-96-8	Acenapthylene	415 U	191-24-2	Benzo(g,h,i) perylene	415 U
99-09-2	3-Nitroaniline	415 U			

(1) Cannot be separated from diphenylamine

PEI ASSOCIATES, INC.

CASE NUMBER: 6828 SAMPLE NO.: CF501

ORGANIC ANALYSIS DATA
PAGE 3
PESTICIDES/PCBS

CONCENTRATION: LOW
DATE EXTRACTED: 2/13/87
DATE ANALYZED: 2/21&25/87
CONC/DIL FACTOR: NONE
PERCENT MOISTURE: 20

GPC CLEANUP: YES
SEP FUN EXT: NO
CONTINUOUS EXT.: NO

CAS NUMBER	COMPOUND NAME	UG/KG
319-84-6	ALPHA - BHC	8.0U
319-85-7	BETA - BHC	8.0U
319-86-8	DELTA - BHC	8.0U
58-89-9	GAMMA-BHC (LINDANE)	8.0U
76-44-8	HEPTACHLOR	8.0U
309-00-2	ALDRIN	8.0U
1024-57-3	HEPTACHLOR EPOXIDE	8.0U
959-98-8	ENDOSULFAN I	8.0U
60-57-1	DIELDRIN	16.0U
72-55-9	4,4'-DDE	16.0U
72-20-8	ENDRIN	16.0U
33213-65-9	ENDOSULFAN II	16.0U
72-54-8	4,4'-DDD	16.0U
1031-07-8	ENDOSULFAN SULFATE	16.0U
50-29-3	4,4'-DDT	16.0U
72-43-5	METHOXYCHLOR	80.0U
53494-70-5	ENDRIN KETONE	16.0U
57-74-9	CHLORDANE	80.0U
8001-35-2	TOXAPHENE	160.0U
12674-11-2	AROCLOR-1016	80.0U
11104-28-2	AROCLOR-1221	80.0U
11141-16-5	AROCLOR-1232	80.0U
53469-21-9	AROCLOR-1242	80.0U
12672-29-6	AROCLOR-1248	80.0U
11097-69-1	AROCLOR-1254	160.0U
11096-82-5	AROCLOR-1260	160.0U

VOLUME INJECTED:VI= 5.00 UL
VOLUME EXTRACTED:VS= N/A ML
WEIGHT EXTRACTED:WS= 24.02 G
EXTRACT VOLUME:VT= 1000 UL

ORGANICS ANALYSIS DATA SHEET
Page 1

SAMPLE NO.
CF503
========

PEI Associates, Inc.

Case No.: 6828
Lab Sample ID: GH806
QC Report No.:
Sample Matrix: Water
Contract No. 68-01- 7084
Data Release Authorized by: KG
Date Sample Received: 2/12/87

VOLATILE COMPOUNDS

Concentration: Low
Date Extracted/ Prepared: 2/12/87
Date Analyzed: 2/12/87
Conc/ Dil Factor 1
pH 6.5
Per Cent Moisture N/A

CAS Number		UG/L	CAS Number		UG/L
74-87-3	Chloromethane----------	10 U	78-87-5	1,2-dichloropropane------	5 U
74-83-9	Bromomethane----------	10 U	10061-02-6	Trans-1,3-dichloropropene	5 U
75-01-4	Vinyl Chloride----------	10 U	79-01-6	Trichloroethene----------	5 U
-00-3	Chloroethane----------	10 U	124-48-1	Dibromochloromethane-----	5 U
/5-09-2	Methylene Chloride-------	5 U	79-00-5	1,1,2-trichloroethane----	5 U
67-64-1	Acetone----------	7 J B	71-43-2	Benzene----------	5 U
75-15-0	Carbon Disulfide---------	5 U	10061-01-5	Cis-1,3-dichloropropene--	5 U
75-35-4	1,1-Dichloroethene-------	5 U	110-75-8	2-chloroethylvinylether--	10 U
75-35-3	1,1-Dichloroethane-------	5 U	75-25-2	Bromoform----------	5 U
156-60-5	Trans-1,2-dichloroethene-	5 U	108-10-1	4-methyl-2-pentanone-----	5 U
78-93-3	Chloroform----------	5 U	591-78-6	2-hexanone----------	10 U
107-06-2	1,2-dichloroethane-------	5 U	127-18-4	Tetrachloroethene--------	5 U
78-93-3	2-butanone----------	10 U	79-34-5	1,1,2,2-tetrachloroethane	5 U
71-55-6	1,1,1-trichloroethane----	5 U	108-88-3	Toluene----------	5 U
56-23-5	Carbon Tetrachloride-----	5 U	108-90-7	Chlorobenzene----------	5 U
108-05-4	Vinyl Acetate----------	10 U	100-41-4	Ethylbenzene----------	5 U
75-27-4	Bromodichloromethane-----	5 U	100-42-5	Styrene----------	5 U
			1330-20-7	Total Xylenes----------	5 U

ata Reporting Qualifiers

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 (not the instrument detection limit)

J — Indicates an estimated value. This flag is used when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria, but the result is less than the specified detection limit.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MSD

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

PEI Associates, Inc.
Case No: 6828

SAMPLE NO
CF503

ORGANICS ANALYSIS DATA SHEET
Page2

SEMIVOLATILE COMPOUNDS
WATER

GPC Cleanup? NO
Sep. Funnel Extraction?NO
Cont. Liq/ Liq. Extraction?YES

Concentration: Low
Date Extracted/ Prepared: 2/12/87
Date Analyzed: 3/5/87
Conc/ Dil. Factor 500
Per Cent Moisture N/A

CAS Number		UG/L	CAS Number		UG/L
108-95-2	Phenol	10 U	83-32-9	Acenaphthene	10 U
111-44-4	Bis(2-chloroethyl)ether	10 U	51-28-5	2,4-Dinitrophenol	10 U
95-57-8	2-Chlorophenol	10 U	100-02-7	4-Nitrophenol	10 U
541-73-1	1,3-Dichlorobenzene	10 U	132-64-9	Dibenzofuran	10 U
106-47-7	1,4-Dichlorobenzene	10 U	121-14-2	2,4-Dinitrotoluene	10 U
100-51-6	Benzyl Alcohol	10 U	606-20-2	2,6-Dinitrotoluene	10 U
95-50-1	1,2-Dichlorobenzene	10 U	84-66-2	Diethyl Phthalate	10 U
95-48-7	2-Methylphenol	10 U	7005-72-3	4-Chlorophenylphenyl ether	10 U
39638-32-9	Bis(2-chloroisopropyl)ether	10 U	86-73-7	Fluorene	10 U
106-44-5	4-Methylphenol	10 U	100-01-6	4-Nitroaniline	10 U
621-64-7	N-nitroso-di-n-propylamine	10 U	534-52-1	4,6-Dinitro2methylphenol	10 U
67-72-1	Hexachloroethane	10 U	534-52-1	N-Nitrosodiphenylamine-(1)	10 U
98-95-3	Nitrobenzene	10 U	101-55-3	4-Bromophenylphenylether	10 U
78-59-1	Isophorone	10 U	118-74-1	Hexachlorobenzene	10 U
88-75-5	2-Nitrophenol	10 U	87-86-5	Pentachlorophenol	10 U
105-67-9	2,4-Dimethylphenol	10 U	85-01-8	Phenanthrene	10 U
65-85-0	Benzoic Acid	50 U	120-12-7	Anthracene	10 U
111-91-1	Bis(2-chlorethoxy)methane	10 U	84-74-2	Di-n-butyl phthalate	10 U
120-83-2	2,4-Dichlorophenol	10 U	206-44-0	Fluoranthene	10 U
120-82-1	1,2,4-Trichlorobenzene	10 U	129-00-0	Pyrene	10 U
91-20-3	Naphthalene	10 U	85-68-7	Butylbenzylphthalate	10 U
106-47-8	4-Chloroaniline	10 U	91-94-1	3,3'-Dichlorobenzidine	20 U
87-68-3	Hexachlorobutadiene	10 U	56-55-3	Benzo(a)anthracene	10 U
59-50-7	4-Chloro-3-methylphenol	10 U	117-81-7	Bis-(2-ethylhexyl)phthalate	10 U
91-57-6	2-Methylnaphthalene	10 U	218-01-9	Chrysene	10 U
77-47-4	Hexachlorocyclopentadiene	10 U	117-84-0	Di-n-octyl phthalate	10 U
88-06-2	2,4,6-Trichlorophenol	10 U	205-99-2	Benzo(b)fluoranthene	10 U
95-95-4	2,4,5-Trichlorophenol	50 U	207-08-9	Benzo(k)fluoranthene	10 U
91-58-7	2-Chloronaphthalene	10 U	50-32-8	Benzo(a)pyrene	10 U
88-74-4	2-Nitroaniline	50 U	193-39-5	Indeno(1,2,3-cd)pyrene	10 U
131-11-3	Dimethyl Phthalate	10 U	53-70-3	Dibenzo(a,h)anthracene	10 U
208-96-8	Acenaphthylene	10 U	191-24-2	Benzo(g,h,i)perylene	10 U
99-09-2	3-Nitroaniline	50 U			

(1) Cannot be separated from diphenylamine

PEI ASSOCIATES, INC.

CASE NUMBER: 6828 SAMPLE NO.: CF503

ORGANIC ANALYSIS DATA
PAGE 3
PESTICIDES/PCBS

CONCENTRATION:	LOW	GPC CLEANUP:	NO
DATE EXTRACTED:	2/12/87	SEP FUN EXT:	NO
DATE ANALYZED:	2/20&25/87	CONTINUOUS EXT.:	YES
CONC/DIL FACTOR:	NONE		
PERCENT MOISTURE:	N/A		

CAS NUMBER	COMPOUND NAME	UG/L
319-84-6	ALPHA - BHC	.05U
319-85-7	BETA - BHC	.05U
319-86-8	DELTA - BHC	.05U
58-89-9	GAMMA-BHC (LINDANE)	.05U
76-44-8	HEPTACHLOR	.05U
309-00-2	ALDRIN	.05U
1024-57-3	HEPTACHLOR EPOXIDE	.05U
959-98-8	ENDOSULFAN I	.05U
60-57-1	DIELDRIN	.10U
72-55-9	4,4'-DDE	.10U
72-20-8	ENDRIN	.10U
33213-65-9	ENDOSULFAN II	.10U
72-54-8	4,4'-DDD	.10U
1031-07-8	ENDOSULFAN SULFATE	.10U
50-29-3	4,4'-DDT	.10U
72-43-5	METHOXYCHLOR	.50U
53494-70-5	ENDRIN KETONE	.10U
57-74-9	CHLORDANE	.50U
8001-35-2	TOXAPHENE	1.00U
12674-11-2	AROCLOR-1016	.50U
11104-28-2	AROCLOR-1221	.50U
11141-16-5	AROCLOR-1232	.50U
53469-21-9	AROCLOR-1242	.50U
12672-29-6	AROCLOR-1248	.50U
11097-69-1	AROCLOR-1254	1.00U
11096-82-5	AROCLOR-1260	1.00U

VOLUME INJECTED:VI=	5.00	UL
VOLUME EXTRACTED:VS=	1000	ML
WEIGHT EXTRACTED:WS=	N/A	G
EXTRACT VOLUME:VT=	10000	UL

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF504
========

PEI Associates, Inc.

Case No.: 6828
Lab Sample ID: GH807
QC Report No.:
Sample Matrix: Water
Contract No. 68-01- 7084
Data Release Authorized by: AJ
Date Sample Received: 2/12/87

VOLATILE COMPOUNDS

Concentration: Low
Date Extracted/ Prepared: 2/12/87
Date Analyzed: 2/12/87
Conc/ Dil Factor 1
pH 6.5
Per Cent Moisture N/A

CAS Number		UG/L	CAS Number		UG/L
74-87-3	Chloromethane----------	10 U	78-87-5	1,2-dichloropropane------	5 U
74-83-9	Bromomethane----------	10 U	10061-02-6	Trans-1,3-dichloropropene	5 U
75-01-4	Vinyl Chloride----------	10 U	79-01-6	Trichloroethene----------	20
-00-3	Chloroethane----------	10 U	124-48-1	Dibromochloromethane-----	5 U
-09-2	Methylene Chloride-------	5 U	79-00-5	1,1,2-trichloroethane----	5 U
67-64-1	Acetone----------	5 J B	71-43-2	Benzene----------	5 U
75-15-0	Carbon Disulfide---------	5 U	10061-01-5	Cis-1,3-dichloropropene--	5 U
75-35-4	1,1-Dichloroethene-------	43	110-75-8	2-chloroethylvinylether--	10 U
75-35-3	1,1-Dichloroethane-------	5 U	75-25-2	Bromoform----------	5 U
156-60-5	Trans-1,2-dichloroethene-	5 U	108-10-1	4-methyl-2-pentanone-----	5 U
78-93-3	Chloroform----------	5 U	591-78-6	2-hexanone----------	10 U
107-06-2	1,2-dichloroethane-------	5 U	127-18-4	Tetrachloroethene--------	5 U
78-93-3	2-butanone----------	10 U	79-34-5	1,1,2,2-tetrachloroethane	5 U
71-55-6	1,1,1-trichloroethane----	190	108-88-3	Toluene----------	5 U
56-23-5	Carbon Tetrachloride-----	5 U	108-90-7	Chlorobenzene----------	5 U
108-05-4	Vinyl Acetate----------	10 U	100-41-4	Ethylbenzene----------	5 U
75-27-4	Bromodichloromethane-----	5 U	100-42-5	Styrene----------	5 U
			1330-20-7	Total Xylenes----------	5 U

ta Reporting Qualifiers

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 (not the instrument detection limit)

J — Indicates an estimated value. This flag is used when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria, but the result is less than the specified detection limit.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MSD

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

PEI Associates, Inc.
Case No: 6828

252 SAMPLE NO
CF504
=========

ORGANICS ANALYSIS DATA SHEET
Page2

SEMIVOLATILE COMPOUNDS

WATER

GPC Cleanup? NO
Sep. Funnel Extraction?NO
Cont. Liq/ Liq. Extraction?YES

Concentration: Low
Date Extracted/ Prepared: 2/12/87
Date Analyzed: 3/5/87
Conc/ Dil. Factor 500 ✓
Per Cent Moisture N/A

CAS Number		UG/L	CAS Number		UG/L
108-95-2	Phenol	10 U	83-32-9	Acenaphthene	10 U
111-44-4	Bis(2-chloroethyl)ether	10 U	51-28-5	2,4-Dinitrophenol	10 U
95-57-8	2-Chlorophenol	10 U	100-02-7	4-Nitrophenol	10 U
541-73-1	1,3-Dichlorobenzene	10 U	132-64-9	Dibenzofuran	10 U
106-47-7	1,4-Dichlorobenzene	10 U	121-14-2	2,4-Dinitrotoluene	10 U
100-51-6	Benzyl Alcohol	10 U	606-20-2	2,6-Dinitrotoluene	10 U
95-50-1	1,2-Dichlorobenzene	10 U	84-66-2	Diethyl Phthalate	10 U
95-48-7	2-Methylphenol	10 U	7005-72-3	4-Chlorophenylphenyl ether	10 U
39638-32-9	Bis(2-chloroisopropyl)ether	10 U	86-73-7	Fluorene	10 U
106-44-5	4-Methylphenol	10 U	100-01-6	4-Nitroaniline	10 U
621-64-7	N-nitroso-di-n-propylamine	10 U	534-52-1	4,6-Dinitro2methylphenol	10 U
67-72-1	Hexachloroethane	10 U	534-52-1	N-Nitrosodiphenylamine-(1)	10 U
98-95-3	Nitrobenzene	10 U	101-55-3	4-Bromophenylphenylether	10 U
78-59-1	Isophorone	10 U	118-74-1	Hexachlorobenzene	10 U
88-75-5	2-Nitrophenol	10 U	87-86-5	Pentachlorophenol	10 U
105-67-9	2,4-Dimethylphenol	10 U	85-01-8	Phenanthrene	10 U
65-85-0	Benzoic Acid	50 U	120-12-7	Anthracene	10 U
111-91-1	Bis(2-chlorethoxy)methane	10 U	84-74-2	Di-n-butyl phthalate	10 U
120-83-2	2,4-Dichlorophenol	10 U	206-44-0	Fluoranthene	10 U
120-82-1	1,2,4-Trichlorobenzene	10 U	129-00-0	Pyrene	10 U
91-20-3	Naphthalene	10 U	85-68-7	Butylbenzylphthalate	10 U
106-47-8	4-Chloroaniline	10 U	91-94-1	3,3'-Dichlorobenzidine	20 U
87-68-3	Hexachlorobutadiene	10 U	56-55-3	Benzo(a)anthracene	10 U
59-50-7	4-Chloro-3-methylphenol	10 U	117-81-7	Bis-(2-ethylhexyl)phthalate	10 U
91-57-6	2-Methylnaphthalene	10 U	218-01-9	Chrysene	10 U
77-47-4	Hexachlorocyclopentadiene	10 U	117-84-0	Di-n-octyl phthalate	10 U
88-06-2	2,4,6-Trichlorophenol	10 U	205-99-2	Benzo(b)fluoranthene	10 U
95-95-4	2,4,5-Trichlorophenol	50 U	207-08-9	Benzo(k)fluoranthene	10 U
91-58-7	2-Chloronaphthalene	10 U	50-32-8	Benzo(a)pyrene	10 U
88-74-4	2-Nitroaniline	50 U	193-39-5	Indeno(1,2,3-cd)pyrene	10 U
131-11-3	Dimethyl Phthalate	10 U	53-70-3	Dibenzo(a,h)anthracene	10 U
208-96-8	Acenaphthylene	10 U	191-24-2	Benzo(g,h,i)perylene	10 U
99-09-2	3-Nitroaniline	50 U			

(1) Cannot be separated from diphenylamine

PEI ASSOCIATES, INC.

CASE NUMBER: 6828 SAMPLE NO.: CF504

ORGANIC ANALYSIS DATA
PAGE 3
PESTICIDES/PCBS

CONCENTRATION:	LOW	GPC CLEANUP:	NO
DATE EXTRACTED:	2/12/87	SEP FUN EXT:	NO
DATE ANALYZED:	2/20&25/87	CONTINUOUS EXT.:	YES
CONC/DIL FACTOR:	NONE		
PERCENT MOISTURE:	N/A		

CAS NUMBER	COMPOUND NAME	UG/L
319-84-6	ALPHA - BHC	.05U
319-85-7	BETA - BHC	.05U
319-86-8	DELTA - BHC	.05U
58-89-9	GAMMA-BHC (LINDANE)	.05U
76-44-8	HEPTACHLOR	.05U
309-00-2	ALDRIN	.05U
1024-57-3	HEPTACHLOR EPOXIDE	.05U
959-98-8	ENDOSULFAN I	.05U
60-57-1	DIELDRIN	.10U
72-55-9	4,4'-DDE	.10U
72-20-8	ENDRIN	.10U
33213-65-9	ENDOSULFAN II	.10U
72-54-8	4,4'-DDD	.10U
1031-07-8	ENDOSULFAN SULFATE	.10U
50-29-3	4,4'-DDT	.10U
72-43-5	METHOXYCHLOR	.50U
53494-70-5	ENDRIN KETONE	.10U
57-74-9	CHLORDANE	.50U
8001-35-2	TOXAPHENE	1.00U
12674-11-2	AROCLOR-1016	.50U
11104-28-2	AROCLOR-1221	.50U
11141-16-5	AROCLOR-1232	.50U
53469-21-9	AROCLOR-1242	.50U
12672-29-6	AROCLOR-1248	.50U
11097-69-1	AROCLOR-1254	1.00U
11096-82-5	AROCLOR-1260	1.00U

VOLUME INJECTED:VI=	5.00	UL
VOLUME EXTRACTED:VS=	1000	ML
WEIGHT EXTRACTED:WS=	N/A	G
EXTRACT VOLUME:VT=	10000	UL

ORGANICS ANALYSIS DATA SHEET
Page 1

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SAMPLE NO.
CF506
========

PEI Associates, Inc.

Case No.: 6828
QC Report No.:
Contract No. 68-01- 7084
Date Sample Received: 2/12/87

Lab Sample ID: GH808
Sample Matrix: Water
Data Release Authorized by:

VOLATILE COMPOUNDS

Concentration: Low
Date Extracted/ Prepared: 2/12/87
Date Analyzed: 2/12/87
Conc/ Dil Factor 1
pH 6.5
Per Cent Moisture N/A

CAS Number		UG/L	CAS Number		UG/L
74-87-3	Chloromethane----------	10 U	78-87-5	1,2-dichloropropane------	5 U
74-83-9	Bromomethane----------	10 U	10061-02-6	Trans-1,3-dichloropropene	5 U
75-01-4	Vinyl Chloride----------	10 U	79-01-6	Trichloroethene----------	5 U
[illegible]-00-3	Chloroethane----------	10 U	124-48-1	Dibromochloromethane-----	5 U
[illegible]-09-2	Methylene Chloride-------	5 U	79-00-5	1,1,2-trichloroethane----	5 U
67-64-1	Acetone----------	7 JB	71-43-2	Benzene----------	5 U
75-15-0	Carbon Disulfide---------	5 U	10061-01-5	Cis-1,3-dichloropropene--	5 U
75-35-4	1,1-Dichloroethene-------	5 U	110-75-8	2-chloroethylvinylether--	10 U
75-35-3	1,1-Dichloroethane-------	5 U	75-25-2	Bromoform----------	5 U
156-60-5	Trans-1,2-dichloroethene-	5 U	108-10-1	4-methyl-2-pentanone-----	5 U
78-93-3	Chloroform----------	5 U	591-78-6	2-hexanone----------	10 U
107-06-2	1,2-dichloroethane-------	5 U	127-18-4	Tetrachloroethene--------	5 U
78-93-3	2-butanone----------	10 U	79-34-5	1,1,2,2-tetrachloroethane	5 U
71-55-6	1,1,1-trichloroethane----	5 U	108-88-3	Toluene----------	5 U
56-23-5	Carbon Tetrachloride-----	5 U	108-90-7	Chlorobenzene----------	5 U
108-05-4	Vinyl Acetate----------	10 U	100-41-4	Ethylbenzene----------	5 U
75-27-4	Bromodichloromethane-----	5 U	100-42-5	Styrene----------	5 U
			1330-20-7	Total Xylenes----------	5 U

ta Reporting Qualifiers

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 (not the instrument detection limit)

J — Indicates an estimated value. This flag is used when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria, but the result is less than the specified detection limit.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MSD

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

PEI Associates, Inc.
Case No: 6828

SAMPLE NO
CF506
=========

ORGANICS ANALYSIS DATA SHEET
Page2

SEMIVOLATILE COMPOUNDS

WATER

GPC Cleanup? NO
Sep. Funnel Extraction?NO
Cont. Liq/ Liq. Extraction?YES

Concentration: Low
Date Extracted/ Prepared: 2/12/87
Date Analyzed: 3/5/87
Conc/ Dil. Factor 500
Per Cent Moisture N/A

CAS Number		UG/L	CAS Number		UG/L
108-95-2	Phenol	10 U	83-32-9	Acenaphthene	10 U
111-44-4	Bis(2-chloroethyl)ether	10 U	51-28-5	2,4-Dinitrophenol	10 U
95-57-8	2-Chlorophenol	10 U	100-02-7	4-Nitrophenol	10 U
541-73-1	1,3-Dichlorobenzene	10 U	132-64-9	Dibenzofuran	10 U
106-47-7	1,4-Dichlorobenzene	10 U	121-14-2	2,4-Dinitrotoluene	10 U
100-51-6	Benzyl Alcohol	10 U	606-20-2	2,6-Dinitrotoluene	10 U
95-50-1	1,2-Dichlorobenzene	10 U	84-66-2	Diethyl Phthalate	10 U
95-48-7	2-Methylphenol	10 U	7005-72-3	4-Chlorophenylphenyl ether	10 U
39638-32-9	Bis(2-chloroisopropyl)ether	10 U	86-73-7	Fluorene	10 U
106-44-5	4-Methylphenol	10 U	100-01-6	4-Nitroaniline	10 U
621-64-7	N-nitroso-di-n-propylamine	10 U	534-52-1	4,6-Dinitro2methylphenol	10 U
67-72-1	Hexachloroethane	10 U	534-52-1	N-Nitrosodiphenylamine-(1)	10 U
98-95-3	Nitrobenzene	10 U	101-55-3	4-Bromophenylphenylether	10 U
78-59-1	Isophorone	10 U	118-74-1	Hexachlorobenzene	10 U
88-75-5	2-Nitrophenol	10 U	87-86-5	Pentachlorophenol	10 U
105-67-9	2,4-Dimethylphenol	10 U	85-01-8	Phenanthrene	10 U
65-85-0	Benzoic Acid	50 U	120-12-7	Anthracene	10 U
111-91-1	Bis(2-chlorethoxy)methane	10 U	84-74-2	Di-n-butyl phthalate	2 J B
120-83-2	2,4-Dichlorophenol	10 U	206-44-0	Fluoranthene	10 U
120-82-1	1,2,4-Trichlorobenzene	10 U	129-00-0	Pyrene	10 U
91-20-3	Naphthalene	10 U	85-68-7	Butylbenzylphthalate	10 U
106-47-8	4-Chloroaniline	10 U	91-94-1	3,3'-Dichlorobenzidine	20 U
87-68-3	Hexachlorobutadiene	10 U	56-55-3	Benzo(a)anthracene	10 U
59-50-7	4-Chloro-3-methylphenol	10 U	117-81-7	Bis-(2-ethylhexyl)phthalate	10 U
91-57-6	2-Methylnaphthalene	10 U	218-01-9	Chrysene	10 U
77-47-4	Hexachlorocyclopentadiene	10 U	117-84-0	Di-n-octyl phthalate	10 U
88-06-2	2,4,6-Trichlorophenol	10 U	205-99-2	Benzo(b)fluoranthene	10 U
95-95-4	2,4,5-Trichlorophenol	50 U	207-08-9	Benzo(k)fluoranthene	10 U
91-58-7	2-Chloronaphthalene	10 U	50-32-8	Benzo(a)pyrene	10 U
88-74-4	2-Nitroaniline	50 U	193-39-5	Indeno(1,2,3-cd)pyrene	10 U
131-11-3	Dimethyl Phthalate	10 U	53-70-3	Dibenzo(a,h)anthracene	10 U
208-96-8	Acenaphthylene	10 U	191-24-2	Benzo(g,h,i)perylene	10 U
99-09-2	3-Nitroaniline	50 U			

(1) Cannot be separated from diphenylamine

PEI ASSOCIATES, INC.

CASE NUMBER: 6828 SAMPLE NO.: CF506

ORGANIC ANALYSIS DATA
PAGE 3
PESTICIDES/PCBS

CONCENTRATION:	LOW	GPC CLEANUP:	NO
DATE EXTRACTED:	2/12/87	SEP FUN EXT:	NO
DATE ANALYZED:	2/20&25/87	CONTINUOUS EXT.:	YES
CONC/DIL FACTOR:	NONE		
PERCENT MOISTURE:	N/A		

CAS NUMBER	COMPOUND NAME	UG/L
319-84-6	ALPHA - BHC	.05U
319-85-7	BETA - BHC	.05U
319-86-8	DELTA - BHC	.05U
58-89-9	GAMMA-BHC (LINDANE)	.05U
76-44-8	HEPTACHLOR	.05U
309-00-2	ALDRIN	.05U
1024-57-3	HEPTACHLOR EPOXIDE	.05U
959-98-8	ENDOSULFAN I	.05U
60-57-1	DIELDRIN	.10U
72-55-9	4,4'-DDE	.10U
72-20-8	ENDRIN	.10U
33213-65-9	ENDOSULFAN II	.10U
72-54-8	4,4'-DDD	.10U
1031-07-8	ENDOSULFAN SULFATE	.10U
50-29-3	4,4'-DDT	.10U
72-43-5	METHOXYCHLOR	.50U
53494-70-5	ENDRIN KETONE	.10U
57-74-9	CHLORDANE	.50U
8001-35-2	TOXAPHENE	1.00U
12674-11-2	AROCLOR-1016	.50U
11104-28-2	AROCLOR-1221	.50U
11141-16-5	AROCLOR-1232	.50U
53469-21-9	AROCLOR-1242	.50U
12672-29-6	AROCLOR-1248	.50U
11097-69-1	AROCLOR-1254	1.00U
11096-82-5	AROCLOR-1260	1.00U

VOLUME INJECTED:VI=	5.00	UL
VOLUME EXTRACTED:VS=	1000	ML
WEIGHT EXTRACTED:WS=	N/A	G
EXTRACT VOLUME:VT=	10000	UL

ORGANICS ANALYSIS DATA SHEET

Page 1

SAMPLE NO.
CF507

PEI Associates, Inc.

Case No.: 6828
QC Report No.:
Contract No. 68-01- 7084
Date Sample Received: 2/12/87

Lab Sample ID: GH809
Sample Matrix: Water
Data Release Authorized by: KG

VOLATILE COMPOUNDS

Concentration: Low
Date Extracted/ Prepared: 2/12/87
Date Analyzed: 2/12/87
Conc/ Dil Factor 1
pH 6.5
Per Cent Moisture N/A

CAS Number		UG/L	CAS Number		UG/L
74-87-3	Chloromethane----------	10 U	78-87-5	1,2-dichloropropane------	5 U
74-83-9	Bromomethane----------	10 U	10061-02-6	Trans-1,3-dichloropropene	5 U
75-01-4	Vinyl Chloride----------	10 U	79-01-6	Trichloroethene----------	5 U
-00-3	Chloroethane----------	10 U	124-48-1	Dibromochloromethane-----	5 U
,5-09-2	Methylene Chloride-------	5 U	79-00-5	1,1,2-trichloroethane----	5 U
67-64-1	Acetone----------	10 U	71-43-2	Benzene----------	5 U
75-15-0	Carbon Disulfide---------	5 U	10061-01-5	Cis-1,3-dichloropropene--	5 U
75-35-4	1,1-Dichloroethene-------	5 U	110-75-8	2-chloroethylvinylether--	10 U
75-35-3	1,1-Dichloroethane-------	5 U	75-25-2	Bromoform----------	5 U
156-60-5	Trans-1,2-dichloroethene-	5 U	108-10-1	4-methyl-2-pentanone-----	5 U
78-93-3	Chloroform----------	5 U	591-78-6	2-hexanone----------	10 U
107-06-2	1,2-dichloroethane-------	5 U	127-18-4	Tetrachloroethene--------	5 U
78-93-3	2-butanone----------	10 U	79-34-5	1,1,2,2-tetrachloroethane	5 U
71-55-6	1,1,1-trichloroethane----	5 U	108-88-3	Toluene----------	5 U
56-23-5	Carbon Tetrachloride-----	5 U	108-90-7	Chlorobenzene----------	5 U
108-05-4	Vinyl Acetate----------	10 U	100-41-4	Ethylbenzene----------	5 U
75-27-4	Bromodichloromethane-----	5 U	100-42-5	Styrene----------	5 U
			1330-20-7	Total Xylenes----------	5 U

ta Reporting Qualifiers

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 (not the instrument detection limit)

J — Indicates an estimated value. This flag is used when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria, but the result is less than the specified detection limit.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MSD

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

PEI Associates, Inc.
Case No: 6828

SAMPLE NO
CF507

ORGANICS ANALYSIS DATA SHEET
Page2

SEMIVOLATILE COMPOUNDS

WATER

GPC Cleanup? NO

Concentration: Low
Sep. Funnel Extraction?NO
Date Extracted/ Prepared: 2/12/87
Cont. Liq/ Liq. Extraction?YES
Date Analyzed: 3/5/87
Conc/ Dil. Factor 500
Per Cent Moisture N/A

CAS Number		UG/L	CAS Number		UG/L
108-95-2	Phenol	10 U	83-32-9	Acenaphthene	10 U
111-44-4	Bis(2-chloroethyl)ether	10 U	51-28-5	2,4-Dinitrophenol	10 U
95-57-8	2-Chlorophenol	10 U	100-02-7	4-Nitrophenol	10 U
541-73-1	1,3-Dichlorobenzene	10 U	132-64-9	Dibenzofuran	10 U
106-47-7	1,4-Dichlorobenzene	10 U	121-14-2	2,4-Dinitrotoluene	10 U
100-51-6	Benzyl Alcohol	10 U	606-20-2	2,6-Dinitrotoluene	10 U
95-50-1	1,2-Dichlorobenzene	10 U	84-66-2	Diethyl Phthalate	10 U
95-48-7	2-Methylphenol	10 U	7005-72-3	4-Chlorophenylphenyl ether	10 U
39638-32-9	Bis(2-chloroisopropyl)ether	10 U	86-73-7	Fluorene	10 U
106-44-5	4-Methylphenol	10 U	100-01-6	4-Nitroaniline	10 U
621-64-7	N-nitroso-di-n-propylamine	10 U	534-52-1	4,6-Dinitro2methylphenol	10 U
67-72-1	Hexachloroethane	10 U	534-52-1	N-Nitrosodiphenylamine-(1)	10 U
98-95-3	Nitrobenzene	10 U	101-55-3	4-Bromophenylphenylether	10 U
78-59-1	Isophorone	10 U	118-74-1	Hexachlorobenzene	10 U
88-75-5	2-Nitrophenol	10 U	87-86-5	Pentachlorophenol	10 U
105-67-9	2,4-Dimethylphenol	10 U	85-01-8	Phenanthrene	10 U
65-85-0	Benzoic Acid	50 U	120-12-7	Anthracene	10 U
111-91-1	Bis(2-chlorethoxy)methane	10 U	84-74-2	Di-n-butyl phthalate	10 U
120-83-2	2,4-Dichlorophenol	10 U	206-44-0	Fluoranthene	10 U
120-82-1	1,2,4-Trichlorobenzene	10 U	129-00-0	Pyrene	10 U
91-20-3	Naphthalene	10 U	85-68-7	Butylbenzylphthalate	10 U
106-47-8	4-Chloroaniline	10 U	91-94-1	3,3'-Dichlorobenzidine	20 U
87-68-3	Hexachlorobutadiene	10 U	56-55-3	Benzo(a)anthracene	10 U
59-50-7	4-Chloro-3-methylphenol	10 U	117-81-7	Bis-(2-ethylhexyl)phthalate	10 U
91-57-6	2-Methylnaphthalene	10 U	218-01-9	Chrysene	10 U
77-47-4	Hexachlorocyclopentadiene	10 U	117-84-0	Di-n-octyl phthalate	10 U
88-06-2	2,4,6-Trichlorophenol	10 U	205-99-2	Benzo(b)fluoranthene	10 U
95-95-4	2,4,5-Trichlorophenol	50 U	207-08-9	Benzo(k)fluoranthene	10 U
91-58-7	2-Chloronaphthalene	10 U	50-32-8	Benzo(a)pyrene	10 U
88-74-4	2-Nitroaniline	50 U	193-39-5	Indeno(1,2,3-cd)pyrene	10 U
131-11-3	Dimethyl Phthalate	10 U	53-70-3	Dibenzo(a,h)anthracene	10 U
208-96-8	Acenaphthylene	10 U	191-24-2	Benzo(g,h,i)perylene	10 U
99-09-2	3-Nitroaniline	50 U			

(1) Cannot be separated from diphenylamine

PEI ASSOCIATES, INC.

CASE NUMBER: 6828 SAMPLE NO.: CF507

ORGANIC ANALYSIS DATA
PAGE 3
PESTICIDES/PCBS

CONCENTRATION:	LOW	GPC CLEANUP:	NO
DATE EXTRACTED:	2/12/87	SEP FUN EXT:	NO
DATE ANALYZED:	2/20&25/87	CONTINUOUS EXT.:	YES
CONC/DIL FACTOR:	NONE		
PERCENT MOISTURE:	N/A		

CAS NUMBER	COMPOUND NAME	UG/L
319-84-6	ALPHA - BHC	.05U
319-85-7	BETA - BHC	.05U
319-86-8	DELTA - BHC	.05U
58-89-9	GAMMA-BHC (LINDANE)	.05U
76-44-8	HEPTACHLOR	.05U
309-00-2	ALDRIN	.05U
1024-57-3	HEPTACHLOR EPOXIDE	.05U
959-98-8	ENDOSULFAN I	.05U
60-57-1	DIELDRIN	.10U
72-55-9	4,4'-DDE	.10U
72-20-8	ENDRIN	.10U
33213-65-9	ENDOSULFAN II	.10U
72-54-8	4,4'-DDD	.10U
1031-07-8	ENDOSULFAN SULFATE	.10U
50-29-3	4,4'-DDT	.10U
72-43-5	METHOXYCHLOR	.50U
53494-70-5	ENDRIN KETONE	.10U
57-74-9	CHLORDANE	.50U
8001-35-2	TOXAPHENE	1.00U
12674-11-2	AROCLOR-1016	.50U
11104-28-2	AROCLOR-1221	.50U
11141-16-5	AROCLOR-1232	.50U
53469-21-9	AROCLOR-1242	.50U
12672-29-6	AROCLOR-1248	.50U
11097-69-1	AROCLOR-1254	1.00U
11096-82-5	AROCLOR-1260	1.00U

VOLUME INJECTED:VI=	5.00	UL
VOLUME EXTRACTED:VS=	1000	ML
WEIGHT EXTRACTED:WS=	N/A	G
EXTRACT VOLUME:VT=	10000	UL

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF508

PEI Associates, Inc.

Case No.: 6828
QC Report No.:
Contract No. 68-01- 7084
Date Sample Received: 2/12/87

Lab Sample ID: GH810
Sample Matrix: Water
Data Release Authorized by: AA

VOLATILE COMPOUNDS

Concentration: Low
Date Extracted/ Prepared: 2/12/87
Date Analyzed: 2/12/87
Conc/ Dil Factor 1
pH 6.5
Per Cent Moisture N/A

CAS Number		UG/L	CAS Number		UG/L
74-87-3	Chloromethane----------	10 U	78-87-5	1,2-dichloropropane------	5 U
74-83-9	Bromomethane----------	10 U	10061-02-6	Trans-1,3-dichloropropene	5 U
75-01-4	Vinyl Chloride----------	10 U	79-01-6	Trichloroethene----------	5 U
75-00-3	Chloroethane----------	10 U	124-48-1	Dibromochloromethane-----	5 U
75-09-2	Methylene Chloride-------	5 U	79-00-5	1,1,2-trichloroethane----	5 U
67-64-1	Acetone----------	5 J B	71-43-2	Benzene----------	5 U
75-15-0	Carbon Disulfide---------	5 U	10061-01-5	Cis-1,3-dichloropropene--	5 U
75-35-4	1,1-Dichloroethene-------	5 U	110-75-8	2-chloroethylvinylether--	10 U
75-35-3	1,1-Dichloroethane-------	5 U	75-25-2	Bromoform----------	5 U
156-60-5	Trans-1,2-dichloroethene-	5 U	108-10-1	4-methyl-2-pentanone-----	5 U
78-93-3	Chloroform----------	5 U	591-78-6	2-hexanone----------	10 U
107-06-2	1,2-dichloroethane-------	5 U	127-18-4	Tetrachloroethene--------	5 U
78-93-3	2-butanone----------	10 U	79-34-5	1,1,2,2-tetrachloroethane	5 U
71-55-6	1,1,1-trichloroethane----	5 U	108-88-3	Toluene----------	5 U
56-23-5	Carbon Tetrachloride-----	5 U	108-90-7	Chlorobenzene----------	5 U
108-05-4	Vinyl Acetate----------	10 U	100-41-4	Ethylbenzene----------	5 U
75-27-4	Bromodichloromethane-----	5 U	100-42-5	Styrene----------	5 U
			1330-20-7	Total Xylenes----------	5 U

ata Reporting Qualifiers

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 (not the instrument detection limit)

J — Indicates an estimated value. This flag is used when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria, but the result is less than the specified detection limit.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MSD

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

PEI Associates, Inc.
Case No: 6828

SAMPLE NO
CF508
=========

ORGANICS ANALYSIS DATA SHEET
Page2

SEMIVOLATILE COMPOUNDS

WATER

GPC Cleanup? NO
Sep. Funnel Extraction?NO
Cont. Liq/ Liq. Extraction?YES

Concentration: Low
Date Extracted/ Prepared: 2/12/87
Date Analyzed: 3/9/87
Conc/ Dil. Factor 500
Per Cent Moisture N/A

CAS Number		UG/L	CAS Number		UG/L
108-95-2	Phenol	10 U	83-32-9	Acenaphthene	10 U
111-44-4	Bis(2-chloroethyl)ether	10 U	51-28-5	2,4-Dinitrophenol	10 U
95-57-8	2-Chlorophenol	10 U	100-02-7	4-Nitrophenol	10 U
541-73-1	1,3-Dichlorobenzene	10 U	132-64-9	Dibenzofuran	10 U
106-47-7	1,4-Dichlorobenzene	10 U	121-14-2	2,4-Dinitrotoluene	10 U
100-51-6	Benzyl Alcohol	10 U	606-20-2	2,6-Dinitrotoluene	10 U
95-50-1	1,2-Dichlorobenzene	10 U	84-66-2	Diethyl Phthalate	10 U
95-48-7	2-Methylphenol	10 U	7005-72-3	4-Chlorophenylphenyl ether	10 U
39638-32-9	Bis(2-chloroisopropyl)ether	10 U	86-73-7	Fluorene	10 U
106-44-5	4-Methylphenol	10 U	100-01-6	4-Nitroaniline	10 U
621-64-7	N-nitroso-di-n-propylamine	10 U	534-52-1	4,6-Dinitro2methylphenol	10 U
67-72-1	Hexachloroethane	10 U	534-52-1	N-Nitrosodiphenylamine-(1)	10 U
98-95-3	Nitrobenzene	10 U	101-55-3	4-Bromophenylphenylether	10 U
78-59-1	Isophorone	10 U	118-74-1	Hexachlorobenzene	10 U
88-75-5	2-Nitrophenol	10 U	87-86-5	Pentachlorophenol	10 U
105-67-9	2,4-Dimethylphenol	10 U	85-01-8	Phenanthrene	10 U
65-85-0	Benzoic Acid	50 U	120-12-7	Anthracene	10 U
111-91-1	Bis(2-chlorethoxy)methane	10 U	84-74-2	Di-n-butyl phthalate	3 J B
120-83-2	2,4-Dichlorophenol	10 U	206-44-0	Fluoranthene	10 U
120-82-1	1,2,4-Trichlorobenzene	10 U	129-00-0	Pyrene	10 U
91-20-3	Naphthalene	10 U	85-68-7	Butylbenzylphthalate	10 U
106-47-8	4-Chloroaniline	10 U	91-94-1	3,3'-Dichlorobenzidine	20 U
87-68-3	Hexachlorobutadiene	10 U	56-55-3	Benzo(a)anthracene	10 U
59-50-7	4-Chloro-3-methylphenol	10 U	117-81-7	Bis-(2-ethylhexyl)phthalate	10 U
91-57-6	2-Methylnaphthalene	10 U	218-01-9	Chrysene	10 U
77-47-4	Hexachlorocyclopentadiene	10 U	117-84-0	Di-n-octyl phthalate	10 U
88-06-2	2,4,6-Trichlorophenol	10 U	205-99-2	Benzo(b)fluoranthene	10 U
95-95-4	2,4,5-Trichlorophenol	50 U	207-08-9	Benzo(k)fluoranthene	10 U
91-58-7	2-Chloronaphthalene	10 U	50-32-8	Benzo(a)pyrene	10 U
88-74-4	2-Nitroaniline	50 U	193-39-5	Indeno(1,2,3-cd)pyrene	10 U
131-11-3	Dimethyl Phthalate	10 U	53-70-3	Dibenzo(a,h)anthracene	10 U
208-96-8	Acenaphthylene	10 U	191-24-2	Benzo(g,h,i)perylene	10 U
99-09-2	3-Nitroaniline	50 U			

(1) Cannot be separated from diphenylamine

PEI ASSOCIATES, INC.

CASE NUMBER: 6828 SAMPLE NO.: CF508

ORGANIC ANALYSIS DATA
PAGE 3
PESTICIDES/PCBS

CONCENTRATION: LOW
DATE EXTRACTED: 2/12/87
DATE ANALYZED: 2/21&25/87
CONC/DIL FACTOR: NONE
PERCENT MOISTURE: N/A

GPC CLEANUP: NO
SEP FUN EXT: NO
CONTINUOUS EXT.: YES

CAS NUMBER	COMPOUND NAME	UG/L
319-84-6	ALPHA - BHC	.05U
319-85-7	BETA - BHC	.05U
319-86-8	DELTA - BHC	.05U
58-89-9	GAMMA-BHC (LINDANE)	.05U
76-44-8	HEPTACHLOR	.05U
309-00-2	ALDRIN	.05U
1024-57-3	HEPTACHLOR EPOXIDE	.05U
959-98-8	ENDOSULFAN I	.05U
60-57-1	DIELDRIN	.10U
72-55-9	4,4'-DDE	.10U
72-20-8	ENDRIN	.10U
33213-65-9	ENDOSULFAN II	.10U
72-54-8	4,4'-DDD	.10U
1031-07-8	ENDOSULFAN SULFATE	.10U
50-29-3	4,4'-DDT	.10U
72-43-5	METHOXYCHLOR	.50U
53494-70-5	ENDRIN KETONE	.10U
57-74-9	CHLORDANE	.50U
8001-35-2	TOXAPHENE	1.00U
12674-11-2	AROCLOR-1016	.50U
11104-28-2	AROCLOR-1221	.50U
11141-16-5	AROCLOR-1232	.50U
53469-21-9	AROCLOR-1242	.50U
12672-29-6	AROCLOR-1248	.50U
11097-69-1	AROCLOR-1254	1.00U
11096-82-5	AROCLOR-1260	1.00U

VOLUME INJECTED:VI=	5.00	UL
VOLUME EXTRACTED:VS=	1000	ML
WEIGHT EXTRACTED:WS=	N/A	G
EXTRACT VOLUME:VT=	10000	UL

Report Number: _____

DATA QA PROCESSING FORM

Project Title: Southern Die Casters

TDD No.: F3-8701-03

Charge Number: ~~$575BA$I~~ $575PAB2$I

Due Date to Site Leader: _____

PROCESS STEP	DATE	FIT INITIAL	COMMENTS: NO CHANGE	COMMENTS: SEE BELOW	COMMENTS: SEE TEXT
Rough Draft Completed (Chemist)	5/6/87	JEC.			
Rough Draft Typed					
Rough Draft Review (Chemist)					
Review by SITL	5/18	~~JJS~~ JW			
Inserted into Report (SITL)					

COMMENTS: Move Changes Need JEC.

THIS FORM IS TO BE ATTACHED TO THE REPORT WHEN THE ROUGH DRAFT IS COMPLETED AND REMAIN WITH THE REPORT THROUGHOUT IN-HOUSE PROCESSING. ALL SPACES MUST BE COMPLETED.

RETAIN IN TDD FILE FOR QA RECORDS

7.0 LABORATORY DATA

7.1 Sample Data Summary

The attached data summary contains only compounds which were identified as detected in at least one sample. The complete list of compounds analyzed for, their results, and the associated detection limits are located as an appendix. Results for tentatively identified compounds appear following the organic data section of this report.

The following codes are used in the data summary to indicate the confidence in the positive results:

- Δ This concentration reported by laboratory, but evidence to doubt presence of compound/element (may or may not be present).
- UJ The material was analyzed for, but was not detected. The associated numerical value is the estimated sample quantitation limit.
- J The associated numerical value is an estimated quantity because quality control criteria were not met. (See Quality Assurance Review for specifics as to magnitude or direction of variability or bias.)
- R Quality Control indicates that data are unusable (compounds may or may not be present). Resampling and/or reanalysis is necessary for verification.
- N Evidence for presence of material is presumptive (tentative identification).
- H Suspected Unreliable Result: Even though data validation criteria have been met, this result may still be suspect because false positives are a frequent problem with this particular compound or method of analysis. To prove validity, corroboration with additional analytical results or supporting information would be recommended.

7.0 LABORATORY DATA

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The attached data summary contains only compounds which were identified as detected in at least one sample. The complete list of compounds analyzed for, their results, and the associated detection limits are located as an appendix. Results for tentatively identified compounds appear following the organic data section of this report.

The following codes are used in the data summary to indicate the confidence in the positive results:

- Δ This concentration reported by laboratory, but evidence to doubt presence of compound/element (may or may not be present).
- UJ The material was analyzed for, but was not detected. The associated numerical value is the estimated sample quantitation limit.
- J The associated numerical value is an estimated quantity because quality control criteria were not met. (See Quality Assurance Review for specifics as to magnitude or direction of variability or bias.)
- R Quality Control indicates that data are unusable (compounds may or may not be present). Resampling and/or reanalysis is necessary for verification.
- N Evidence for presence of material is presumptive (tentative identification).
- H Suspected Unreliable Result: Even though data validation criteria have been met, this result may still be suspect because false positives are a frequent problem with this particular compound or method of analysis. To prove validity, corroboration with additional analytical results or supporting information would be recommended.

7.2 Quality Assurance Review

7.2.1 Organic Data: Lab Case 6828

7.2.1.1 Summary

Eight solid samples and five aqueous samples were analyzed through the EPA Contract Laboratory Program (CLP) for volatile, acid, base-neutral, and pesticide compounds. Included in the sample set were two field blanks, one soil and one aqueous, and a duplicate pair.

The laboratory data have been fully reviewed to determine the usability of results according to the National Guidelines (areas examined in detail are listed in the Support Documentation appendix). Although there were several problems noted during review of laboratory data, most did not result in major impacts on the overall data quality/usability. Overall, detection capability was acceptable for most compounds, as demonstrated by meeting criteria for holding times, tuning, instrument performance, surrogate recoveries, and minimum response factors. Blank contamination affected mostly low-level samples results for four compounds, and quantitative accuracy and imprecision were acceptable for most results. Precision was noted for the field duplicate results.

In general, the principal areas of concern were identified as false positive results due to blank contamination, field duplicate imprecision, high matrix spike recoveries for two compounds, and several compound results that were flagged as inaccurate because they were below the limit of quantitation. The following sections explain these areas of concern and their associated impact on the sample results.

7.2.1.2 Qualifiers

- All positive results for methylene chloride, acetone, di-n-butyl phthalate, and diethyl phthalate have been flagged (UJ) on the data summary. There is evidence to doubt the presence of these compounds, based upon the fact that the concentrations reported were not substantially above the levels detected in laboratory and field blanks.

- The levels of bis(2-ethylhexyl) phthalate in samples CF697, CF500, and CF501 have been flagged (H). There is evidence to doubt the presence of these compounds, based upon the

- Positive results for zinc in soil samples have been flagged as estimated (J) due to spectral interference and poor precision, yielding low recovery of the matrix spike of sample MCE116 (see the Support Documentation appendix, page 9, for matrix duplicate results.)

- Positive results for arsenic in soil samples have been flagged as estimated (J) due to sample digestion loss. Values could be biased low, due to low recoveries in the matrix spike of sample MCE118 (see the Support Documentation appendix, page 5, for spike recoveries.)

- Positive results for barium in water samples have been flagged as estimated (J) due to poor precision of duplicates in sample MCE124 (see the Support Documentation appendix, page 9A, for duplicates.)

- Positive results for beryllium in sample MCE120 and MCE118 are considered to have a possible sensitivity problem described in the serial dilutions. Both samples exhibit a sensitivity problem, showing a 183 percent recovery in the serial dilution, and values have been flagged (J). It is suspected that the low-level beryllium results observed in the samples and blanks from this case are due to noise rather than the presence of beryllium (see the Support Documentation appendix, pages 15a and 15b.)

- The positive results for ~~selorium~~ selenium in samples MCE111, MCE114, MCE115, MCE116, and MCE117 can be considered bias low, thus, there is the possibility that the sample value may have been supressed.

- The detection limits for tin are considered biased low for water samples based upon low matrix spike recovery for sample MCE124.

- Mercury detection limits in soil sample MCE115 and water samples MCE121, MCE123, and MCE125 show inadequate sensitivity yielding the calibration blank at 0.003 absorbance equal to the low standard 0.2 µg/l. The sample results which were questioned are believed to be due to noise rather than the presence of mercury.(see the Support Documentation appendix, pages 12 and 13, for sample run.)

7.2.2 Inorganic Data: Lab Case 6828

7.2.2.1 Summary

Eight solid samples and five unfiltered aqueous samples were analyzed through the EPA Contract Laboratory Program (CLP) for metals and cyanide. Included in this sample were one field blank for aqueous samples. Solid field blanks were omitted.

The laboratory data have been fully reviewed to determine the usability of results according to the National Guidelines (The Support Documentation appendix examines the listed areas in detail.) Several problems were noted in the laboratory data review. Most did not result in major impacts on the overall data quality/usability. The detection capability was acceptable for most elements, as demonstrated by meeting criteria for holding times, matrix spikes, post-digestion spikes, and instrument detection limits. Blank contamination affected mostly low-level results for several metals; the only major concern was the results for mercury. Minor problems were noted with quantitative precision in positive results for barium and zinc, resulting in the flagging of several results as estimated (J) on the data summary. The bias low detection limits for other compounds also displayed minor problems.

There is the possibility that zinc might be in sample MCE124 at 45 µg/l. However, this value is questioned by the blank. (It should be noted that the laboratory forgot to report this result.)

In general, the principal areas of concern were identified as blank contamination, matrix spike recoveries for seven elements, duplicate precision for cadmium matrix spike due to spectral interference, spike recovery for antimony, biased low detection limits for tin in water, base or low matrix spike recoveries, disagreement with the several dilution analyses for beryllium and selenium, poor detection sensitivity for mercury, and poor accuracy of the lowest calibration standard for several elements.

fact that this phthalate is a very common laboratory contaminant.

- The presence of 1,1,1-trichloroethane is quantitatively imprecise in sample CF699 and has been flagged (J) due to possible inhomogeneity in field duplicate.

- The presence of 1,1-dichloroethene in sample CF504 has been flagged (J) due to high matrix spike recovery (see the Support Documentation appendix pages IIIa and IIIb).

- The presence of butylbenzyl phthalate is questionable in sample CF698 and has been flagged (J) because it was detected in one field duplicate but not the other.

- In general, very few tentatively identified compounds were detected, except for those associated with laboratory blank contamination. Tentatively identified compound results are summarized in a table immediately following this report.

7.2.1.3 Supporting Data

The Support Documentation appendix to this report documents the above findings associated with blank contamination, field duplicate results, and matrix spike results. The text of this report has been formatted to address only those issues affecting the application of the data to the subject investigation. (Issues pertaining to laboratory contractual compliance are addressed on a separate summary directed to the deputy project officer.)

Report prepared by James Chambers _____ Date: May 7, 1987
(215) 687-9510

Report reviewed by Russell Slobod _____ Date: May 7, 1987
(215) 687-9510

7.2.2.2 Qualifiers

There is evidence to doubt the presence of several inorganic compounds. The presence of the following metals is qualitatively questionable. The fact that the concentrations reported were not substantially above the levels detected in laboratory or field blanks. These results have been flagged (UJ) on the data summary and are listed below:

Elements	Sample Numbers
arsenic	MCE111 through MCE114, and MCE118 through MCE126
barium	Aqueous samples MCE112 and MCE113, and MCE121 through MCE125
beryllium	All positive results
cadmium	MCE111 through MCE116 and MCE125
calcium	MCE 126
cobalt	All soil samples, except MCE117
copper	MCE111 through MCE116 and MCE124
lead	MCE111 through MCE113, and MCE124
manganese	MCE123, and MCE125
mercury	MCE115, MCE121, MCE123, and MCE125
nickel	MCE111 through MCE116, MCE120 and MCE125
sodium	All soil sample results
zinc	MCE112, MCE113, MCE121, MCE123, and MCE125
tin	MCE115 through MCE118

These metals were detected in laboratory and/or field blanks at sufficient levels to deem them questionable. The Support Documentation appendix to this report contains a tabulation of all laboratory method blanks and field blanks results (see Support Documentation appendix, pages 2, 3, and 4, for blank analysis results.)

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 113

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 563 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	12100 P *	13.	Magnesium	[435] P
2.	Antimony	40UFR	14.	Manganese	129P *
3.	Arsenic	6.7UFR	15.	Mercury	0.1 UCV
4.	Barium	[14] P	16.	Nickel	44P *
5.	Beryllium	[2.0] P	17.	Potassium	[597] P
6.	Cadmium	8.8P	18.	Selenium	17UFR
7.	Calcium	[500] P	19.	Silver	6.7UF
8.	Chromium	12F	20.	Sodium	[62] P
9.	Cobalt	40P	21.	Thallium	6.8UF
10.	Copper	29P	22.	Tin	26 UP
11.	Iron	57600 P	23.	Vanadium	[22] P
12.	Lead	6.5F	24.	Zinc	34P *
Cyanide		1.3U	Percent Solids (%)		73.5

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: See dilution factor 5.

for Lab Manager Phyllis Christopher

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 114

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 564 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	19600 P *	13.	Magnesium	[1840] P
2.	Antimony	37UFR	14.	Manganese	[422] P*
3.	Arsenic	6.3FR	15.	Mercury	0.1 UCV
4.	Barium	[40] P	16.	Nickel	52 P*
5.	Beryllium	1.2UP	17.	Potassium	[793] P
6.	Cadmium	6.8P	18.	Selenium	16UFR
7.	Calcium	[794] P	19.	Silver	6.3UF
8.	Chromium	36F	20.	Sodium	[230] P
9.	Cobalt	[21] P	21.	Thallium	6.3UF
10.	Copper	29P	22.	Tin	24 UP
11.	Iron	38200 P	23.	Vanadium	[18] P
12.	Lead	17FS	24.	Zinc	43P*
	Cyanide	1.3U		Percent Solids (%)	79.0

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: See dilution factors.

for Lab Manager Phyllis Christopher

7.2.2.3 Supporting Data

The Support Documentation appendix to this report documents the above findings regarding blank analyses, matrix spikes, duplicate analyses, serial dilutions, duplicate spike recoveries, and detection limits. The text of this report has been formatted to address those issues affecting the application of the data to the subject investigation.

Report prepared by James Chambers _____ Date: May 7, 1987
(215) 687-9510

Report reviewed by Russell Slobod _____ Date: May 7, 1987
(215) 687-9510

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 115

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 565 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	29900 P *	13.	Magnesium	[2720] P
2.	Antimony	35UFR	14.	Manganese	338P *
3.	Arsenic	8.9FR	15.	Mercury	0.1 CV
4.	Barium	[29] P	16.	Nickel	46P *
5.	Beryllium	[2.3]P	17.	Potassium	[475] P
6.	Cadmium	8.2P	18.	Selenium	15UFR
7.	Calcium	[316] P	19.	Silver	6.0UF
8.	Chromium	37F	20.	Sodium	[99] P
9.	Cobalt	[29]P	21.	Thallium	~~6.0UF~~ 5.9UF
10.	Copper	42P	22.	Tin	43 P
11.	Iron	41100 P	23.	Vanadium	[22]P
12.	Lead	11F	24.	Zinc	50P *
	Cyanide	1.2U		Percent Solids (%)	83.0

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Cd- Peak offset (see case narrative)
Se dilution factor 5.

for Lab Manager Phyllis Christopher

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 116

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 566 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	19100 P*	13.	Magnesium	[2390] P
2.	Antimony	35UFR	14.	Manganese	593P*
3.	Arsenic	5.9UFR	15.	Mercury	0.1 UCV
4.	Barium	~~[52] P~~ KH [60]P	16.	Nickel	45P *
5.	Beryllium	[1.2]P	17.	Potassium	[638] P
6.	Cadmium	8.3P	18.	Selenium	15UFR
7.	Calcium	[716]P	19.	Silver	5.9UF
8.	Chromium	19F	20.	Sodium	[258]P
9.	Cobalt	35P	21.	Thallium	~~5.9UF~~ KH 6.0UF
10.	Copper	26P	22.	Tin	31 P
11.	Iron	32800 P	23.	Vanadium	[12]P
12.	Lead	12F	24.	Zinc	53P*
	Cyanide	1.2U		Percent Solids (%)	84.0

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Sn - this sample ~~had~~ showed spectral interferences.
Se dilution factor 5.

for Lab Manager Phyllis Christopher

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 117

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 567 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	51400 P*	13.	Magnesium	17100 P
2.	Antimony	36UFR	14.	Manganese	1350P*
3.	Arsenic	23FR	15.	Mercury	0.1 UCV
4.	Barium	[84] P	16.	Nickel	104P*
5.	Beryllium	[2.4] P	17.	Potassium	[275] P
6.	Cadmium	14P	18.	Selenium	15UFR
7.	Calcium	[553] P	19.	Silver	6.0UF
8.	Chromium	78F	20.	Sodium	[160] P
9.	Cobalt	49P	21.	Thallium	6.0UF
10.	Copper	77P	22.	Tin	60 P
11.	Iron	76800 P	23.	Vanadium	114P
12.	Lead	10F	24.	Zinc	177P*
	Cyanide	1.2U		Percent Solids (%)	83.0

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Se dilution factor 5.

for Lab Manager Phyllis Christopher

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 118

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 568 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	36600P*	13.	Magnesium	11400 P
2.	Antimony	37UFR	14.	Manganese	910P*
3.	Arsenic	10FR	15.	Mercury	0.1 UCV
4.	Barium	[80] P	16.	Nickel	94P*
5.	Beryllium	[1.9] P	17.	Potassium	[633] P
6.	Cadmium	13P	18.	Selenium	15UFR
7.	Calcium	[253] P	19.	Silver	6.2UF
8.	Chromium	50FS	20.	Sodium	[65] P
9.	Cobalt	33P	21.	Thallium	~~6.2UF~~ KH 6.1UF
10.	Copper	81P	22.	Tin	40 P
11.	Iron	63200 P	23.	Vanadium	56P
12.	Lead	9.9F	24.	Zinc	181P*

Cyanide 1.24 Percent Solids (%) 81.0

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Se dilution factor 5.

for Lab Manager Phyllis Christopher

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 120

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 569 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	139 UP	13.	Magnesium	12500 P
2.	Antimony	60UFR	14.	Manganese	29P
3.	Arsenic	10UF	15.	Mercury	0.5 CV
4.	Barium	[86] P	16.	Nickel	[25]P
5.	Beryllium	1.9UP	17.	Potassium	[2330] P
6.	Cadmium	3.2UP	18.	Selenium	5.0UFR
7.	Calcium	36000 P	19.	Silver	10UF
8.	Chromium	10UF	20.	Sodium	65800 P
9.	Cobalt	13UP	21.	Thallium	10UFR
10.	Copper	2630P	22.	Tin	38 UPR
11.	Iron	337 P	23.	Vanadium	18UP
12.	Lead	21FS	24.	Zinc	100P*
	Cyanide	10U		Percent Solids (%)	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

for Lab Manager Phyllis Christopher

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 121

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 570 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	139 UP	13.	Magnesium	[3440] P
2.	Antimony	60UFR	14.	Manganese	17P
3.	Arsenic	10UF	15.	Mercury	0.2 CV
4.	Barium	[15] P	16.	Nickel	19UP
5.	Beryllium	[2.0] P	17.	Potassium	[985] P
6.	Cadmium	3.2UP	18.	Selenium	5.0UFR
7.	Calcium	7380 P	19.	Silver	10UF
8.	Chromium	10UF	20.	Sodium	[3470] P
9.	Cobalt	13UP	21.	Thallium	10UFR
10.	Copper	147P	22.	Tin	38 UPR
11.	Iron	295 P	23.	Vanadium	18UP
12.	Lead	19F	24.	Zinc	44P
Cyanide		10U	Percent Solids (%)		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

for Lab Manager Phyllis Christopher

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 123

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 571 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	139 UP	13.	Magnesium	[3060] P
2.	Antimony	60UFR	14.	Manganese	[6.0] P
3.	Arsenic	10UF	15.	Mercury	0.2 CV
4.	Barium	[28] P	16.	Nickel	19UP
5.	Beryllium	1.9UP	17.	Potassium	[1070]
6.	Cadmium	3.2UP	18.	Selenium	5.0UFR
7.	Calcium	5820 P	19.	Silver	10UF
8.	Chromium	10UF	20.	Sodium	6440 P
9.	Cobalt	13UP	21.	Thallium	10UFR
10.	Copper	19UP	22.	Tin	38 UPR
11.	Iron	170 P	23.	Vanadium	18UP
12.	Lead	50UF	24.	Zinc	[12] P*
	Cyanide	10U		Percent Solids (%)	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

for Lab Manager Phyllis Christopher

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 124

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 572 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	139 UP	13.	Magnesium	[1850] P
2.	Antimony	60UFR	14.	Manganese	15P
3.	Arsenic	10UF	15.	Mercury	0.2 U CV
4.	Barium	[12] P	16.	Nickel	19UP
5.	Beryllium	1.9UP	17.	Potassium	[710] P
6.	Cadmium	3.2UP	18.	Selenium	5.0UFR
7.	Calcium	5360 P	19.	Silver	10UF
8.	Chromium	10UF	20.	Sodium	[4400] P
9.	Cobalt	13UP	21.	Thallium	10UFR
10.	Copper	80P	22.	Tin	38 UPR
11.	Iron	230 P	23.	Vanadium	18UP
12.	Lead	5.3F	24.	Zinc	45UP*
Cyanide		10U	Percent Solids (%)		

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: ____

for Lab Manager Phyllis Christopher

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 125

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 573 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	139 UP	13.	Magnesium	5240 P
2.	Antimony	60UFR	14.	Manganese	[6.0]P
3.	Arsenic	10UF	15.	Mercury	0.2 CV
4.	Barium	[15] P	16.	Nickel	[22]P
5.	Beryllium	[2.0]P	17.	Potassium	[656] P
6.	Cadmium	7.0P	18.	Selenium	5.0UFR
7.	Calcium	9850 P	19.	Silver	10UF
8.	Chromium	10UF	20.	Sodium	[2620] P
9.	Cobalt	13UP	21.	Thallium	10UFR
10.	Copper	146P	22.	Tin	38 UPR
11.	Iron	140 P	23.	Vanadium	18UP
12.	Lead	5.0UF	24.	Zinc	40P*
	Cyanide	10U		Percent Solids (%)	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

for Lab Manager Phyllis Christopher

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 126

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 574 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water X Soil ____ Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	139 UP	13.	Magnesium	15 UP
2.	Antimony	60UFR	14.	Manganese	[3.0] P
3.	Arsenic	10UF	15.	Mercury	0.2 U CV
4.	Barium	3.6 UP	16.	Nickel	19UP
5.	Beryllium	[2.0] P	17.	Potassium	[110] P
6.	Cadmium	3.2UP	18.	Selenium	5.0UFR
7.	Calcium	[99] P	19.	Silver	10UF
8.	Chromium	10UF	20.	Sodium	[388] P
9.	Cobalt	13UP	21.	Thallium	10UFR
10.	Copper	19UP	22.	Tin	38 UPR
11.	Iron	17 UP	23.	Vanadium	18UP
12.	Lead	5.0UF	24.	Zinc	[12] P*
	Cyanide	10U		Percent Solids (%)	

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments:

for Lab Manager Phyllis Christopher

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF509
========

PEI Associates, Inc.

Case No.: 6828
Lab Sample ID: GH811
QC Report No.:
Sample Matrix: Water
Contract No. 68-01- 7084
Data Release Authorized by: AG
Date Sample Received: 2/12/87

VOLATILE COMPOUNDS

Concentration: Low
Date Extracted/ Prepared: 2/12/87
Date Analyzed: 2/12/87
Conc/ Dil Factor 1
pH 6.5
Per Cent Moisture N/A

CAS Number		UG/L	CAS Number		UG/L
74-87-3	Chloromethane----------	10 U	78-87-5	1,2-dichloropropane------	5 U
74-83-9	Bromomethane----------	10 U	10061-02-6	Trans-1,3-dichloropropene	5 U
75-01-4	Vinyl Chloride----------	10 U	79-01-6	Trichloroethene----------	5 U
[illegible]-00-3	Chloroethane----------	10 U	124-48-1	Dibromochloromethane-----	5 U
[illegible]-09-2	Methylene Chloride-------	3 JB	79-00-5	1,1,2-trichloroethane----	5 U
67-64-1	Acetone----------	9 JB	71-43-2	Benzene----------	5 U
75-15-0	Carbon Disulfide---------	5 U	10061-01-5	Cis-1,3-dichloropropene--	5 U
75-35-4	1,1-Dichloroethene-------	5 U	110-75-8	2-chloroethylvinylether--	10 U
75-35-3	1,1-Dichloroethane-------	5 U	75-25-2	Bromoform----------	5 U
156-60-5	Trans-1,2-dichloroethene-	5 U	108-10-1	4-methyl-2-pentanone-----	5 U
78-93-3	Chloroform----------	5 U	591-78-6	2-hexanone----------	10 U
107-06-2	1,2-dichloroethane-------	5 U	127-18-4	Tetrachloroethene--------	5 U
78-93-3	2-butanone----------	10 U	79-34-5	1,1,2,2-tetrachloroethane	5 U
71-55-6	1,1,1-trichloroethane----	5 U	108-88-3	Toluene----------	5 U
56-23-5	Carbon Tetrachloride-----	5 U	108-90-7	Chlorobenzene----------	5 U
108-05-4	Vinyl Acetate----------	10 U	100-41-4	Ethylbenzene----------	5 U
75-27-4	Bromodichloromethane-----	5 U	100-42-5	Styrene----------	5 U
			1330-20-7	Total Xylenes----------	5 U

ta Reporting Qualifiers

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 (not the instrument detection limit)

J — Indicates an estimated value. This flag is used when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria, but the result is less than the specified detection limit.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MSD

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

PEI Associates, Inc.
Case No: 6828

SAMPLE NO
CF509

ORGANICS ANALYSIS DATA SHEET
Page2

SEMIVOLATILE COMPOUNDS
WATER

GPC Cleanup? NO
Sep. Funnel Extraction?NO
Cont. Liq/ Liq. Extraction?YES

Concentration: Low
Date Extracted/ Prepared: 2/12/87
Date Analyzed: 3/5/87
Conc/ Dil. Factor 500 ✓
Per Cent Moisture N/A

CAS Number		UG/L	CAS Number		UG/L
108-95-2	Phenol	10 U	83-32-9	Acenaphthene	10 U
111-44-4	Bis(2-chloroethyl)ether	10 U	51-28-5	2,4-Dinitrophenol	10 U
95-57-8	2-Chlorophenol	10 U	100-02-7	4-Nitrophenol	10 U
541-73-1	1,3-Dichlorobenzene	10 U	132-64-9	Dibenzofuran	10 U
106-47-7	1,4-Dichlorobenzene	10 U	121-14-2	2,4-Dinitrotoluene	10 U
100-51-6	Benzyl Alcohol	10 U	606-20-2	2,6-Dinitrotoluene	10 U
95-50-1	1,2-Dichlorobenzene	10 U	84-66-2	Diethyl Phthalate	10 U
95-48-7	2-Methylphenol	10 U	7005-72-3	4-Chlorophenylphenyl ether	10 U
39638-32-9	Bis(2-chloroisopropyl)ether	10 U	86-73-7	Fluorene	10 U
106-44-5	4-Methylphenol	10 U	100-01-6	4-Nitroaniline	10 U
621-64-7	N-nitroso-di-n-propylamine	10 U	534-52-1	4,6-Dinitro2methylphenol	10 U
67-72-1	Hexachloroethane	10 U	534-52-1	N-Nitrosodiphenylamine-(1)	10 U
98-95-3	Nitrobenzene	10 U	101-55-3	4-Bromophenylphenylether	10 U
78-59-1	Isophorone	10 U	118-74-1	Hexachlorobenzene	10 U
88-75-5	2-Nitrophenol	10 U	87-86-5	Pentachlorophenol	10 U
105-67-9	2,4-Dimethylphenol	10 U	85-01-8	Phenanthrene	10 U
65-85-0	Benzoic Acid	50 U	120-12-7	Anthracene	10 U
111-91-1	Bis(2-chlorethoxy)methane	10 U	84-74-2	Di-n-butyl phthalate	10 U
120-83-2	2,4-Dichlorophenol	10 U	206-44-0	Fluoranthene	10 U
120-82-1	1,2,4-Trichlorobenzene	10 U	129-00-0	Pyrene	10 U
91-20-3	Naphthalene	10 U	85-68-7	Butylbenzylphthalate	10 U
106-47-8	4-Chloroaniline	10 U	91-94-1	3,3'-Dichlorobenzidine	20 U
87-68-3	Hexachlorobutadiene	10 U	56-55-3	Benzo(a)anthracene	10 U
59-50-7	4-Chloro-3-methylphenol	10 U	117-81-7	Bis-(2-ethylhexyl)phthalate	10 U
91-57-6	2-Methylnaphthalene	10 U	218-01-9	Chrysene	10 U
77-47-4	Hexachlorocyclopentadiene	10 U	117-84-0	Di-n-octyl phthalate	10 U
88-06-2	2,4,6-Trichlorophenol	10 U	205-99-2	Benzo(b)fluoranthene	10 U
95-95-4	2,4,5-Trichlorophenol	50 U	207-08-9	Benzo(k)fluoranthene	10 U
91-58-7	2-Chloronaphthalene	10 U	50-32-8	Benzo(a)pyrene	10 U
88-74-4	2-Nitroaniline	50 U	193-39-5	Indeno(1,2,3-cd)pyrene	10 U
131-11-3	Dimethyl Phthalate	10 U	53-70-3	Dibenzo(a,h)anthracene	10 U
208-96-8	Acenaphthylene	10 U	191-24-2	Benzo(g,h,i)perylene	10 U
99-09-2	3-Nitroaniline	50 U			

(1) Cannot be separated from diphenylamine

PEI ASSOCIATES, INC.

CASE NUMBER: 6828 SAMPLE NO.: CF509

ORGANIC ANALYSIS DATA
PAGE 3
PESTICIDES/PCBS

CONCENTRATION: LOW
DATE EXTRACTED: 2/12/87
DATE ANALYZED: 2/21&25/87
CONC/DIL FACTOR: NONE
PERCENT MOISTURE: N/A

GPC CLEANUP: NO
SEP FUN EXT: NO
CONTINUOUS EXT.: YES

CAS NUMBER	COMPOUND NAME	UG/L
319-84-6	ALPHA - BHC	.05U
319-85-7	BETA - BHC	.05U
319-86-8	DELTA - BHC	.05U
58-89-9	GAMMA-BHC (LINDANE)	.05U
76-44-8	HEPTACHLOR	.05U
309-00-2	ALDRIN	.05U
1024-57-3	HEPTACHLOR EPOXIDE	.05U
959-98-8	ENDOSULFAN I	.05U
60-57-1	DIELDRIN	.10U
72-55-9	4,4'-DDE	.10U
72-20-8	ENDRIN	.10U
33213-65-9	ENDOSULFAN II	.10U
72-54-8	4,4'-DDD	.10U
1031-07-8	ENDOSULFAN SULFATE	.10U
50-29-3	4,4'-DDT	.10U
72-43-5	METHOXYCHLOR	.50U
53494-70-5	ENDRIN KETONE	.10U
57-74-9	CHLORDANE	.50U
8001-35-2	TOXAPHENE	1.00U
12674-11-2	AROCLOR-1016	.50U
11104-28-2	AROCLOR-1221	.50U
11141-16-5	AROCLOR-1232	.50U
53469-21-9	AROCLOR-1242	.50U
12672-29-6	AROCLOR-1248	.50U
11097-69-1	AROCLOR-1254	1.00U
11096-82-5	AROCLOR-1260	1.00U

VOLUME INJECTED:VI=	5.00	UL
VOLUME EXTRACTED:VS=	1000	ML
WEIGHT EXTRACTED:WS=	N/A	G
EXTRACT VOLUME:VT=	10000	UL

ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
CF510
========

PEI Associates, Inc

Case No.: 6828
Lab Sample ID No.: GH812
QC Report No.:
Sample Matrix: SOIL
Contract No. 68-01- 7084
Data Release Authorized by:
Date Sample Received: 2/12/87

VOLATILE COMPOUNDS

Concentration: Low
Date Extracted/ Prepared: 2/12/87
Date Analyzed: 2/12/87
Conc/ Dil Factor 1.00
pH 6.5
Per Cent Moisture 0.0

VOA ANALYSIS ONLY

CAS Number		UG/KG	CAS Number		UG/KG
74-87-3	Chloromethane----------	10 U	78-87-5	1,2-dichloropropane------	5 U
74-83-9	Bromomethane----------	10 U	10061-02-6	Trans-1,3-dichloropropene	5 U
75-01-4	Vinyl Chloride----------	10 U	79-01-6	Trichloroethene----------	5 U
75-00-3	Chloroethane----------	10 U	124-48-1	Dibromochloromethane-----	5 U
75-09-2	Methylene Chloride-------	4 JB	79-00-5	1,1,2-trichloroethane----	5 U
67-64-1	Acetone----------	30 B	71-43-2	Benzene----------	5 U
15-0	Carbon Disulfide---------	5 U	10061-01-5	Cis-1,3-dichloropropene--	5 U
75-35-4	1,1-Dichloroethene-------	5 U	110-75-8	2-chloroethylvinylether--	10 U
75-35-3	1,1-Dichloroethane-------	5 U	75-25-2	Bromoform----------	5 U
156-60-5	Trans-1,2-dichloroethene-	5 U	108-10-1	4-methyl-2-pentanone-----	10 U
78-93-3	Chloroform----------	5 U	591-78-6	2-hexanone----------	10 U
107-06-2	1,2-dichloroethane-------	5 U	127-18-4	Tetrachloroethene--------	5 U
78-93-3	2-butanone----------	10 U	79-34-5	1,1,2,2-tetrachloroethane	5 U
71-55-6	1,1,1-trichloroethane----	5 U	108-88-3	Toluene----------	5 U
56-23-5	Carbon Tetrachloride-----	5 U	108-90-7	Chlorobenzene----------	5 U
108-05-4	Vinyl Acetate----------	10 U	100-41-4	Ethylbenzene----------	5 U
75-27-4	Bromodichloromethane-----	5 U	100-42-5	Styrene----------	5 U
			1330-20-7	Total Xylenes----------	5 U

Data Reporting Qualifiers

lue — 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 (not the instrument detection limit)

J — Indicates an estimated value. This flag is used when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria, but the result is less than the specified detection limit.

C — This flag applies to pesticide parameters where the identification has been confirmed by GC/MSD

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

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 111

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 561 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	9400 P*	13.	Magnesium	[1570] P
2.	Antimony	36UFR	14.	Manganese	351 P*
3.	Arsenic	5.9UFR	15.	Mercury	0.1UCV
4.	Barium	[40] P	16.	Nickel	36 P*
5.	Beryllium	[1.8] P	17.	Potassium	[631] P
6.	Cadmium	6.6 P	18.	Selenium	15UFR
7.	Calcium	[772] P	19.	Silver	5.9UF
8.	Chromium	18F	20.	Sodium	[73] P
9.	Cobalt	[15] P	21.	Thallium	KH ~~5.9UF~~ 6.0UF
10.	Copper	22 P	22.	Tin	23 UP
11.	Iron	33900 P	23.	Vanadium	[26] P
12.	Lead	8.9F	24.	Zinc	102 P*
Cyanide		1.2U	Percent Solids (%)		82.5

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: See dilution factor 5.

for Lab Manager Phyllis Christopher

Form I

U.S. EPA Contract Laboratory Program
Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
703/557-2490 FTS: 8-557-2490

EPA Sample No. MCE 112

Date 3/13/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Hittman Ebasco Assoc., Inc. CASE NO. 6828

SOW NO. 7/84

LAB SAMPLE ID. NO. 562 QC REPORT NO. 2

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

ug/L or mg/kg dry weight (Circle One)

1.	Aluminum	10700 P *	13.	Magnesium	[340] P
2.	Antimony	38UFR	14.	Manganese	96P *
3.	Arsenic	6.5UFR	15.	Mercury	0.1 UCV
4.	Barium	[18] P	16.	Nickel	40P *
5.	Beryllium	[1.3]P	17.	Potassium	[538] P
6.	Cadmium	8.9P	18.	Selenium	16UFR
7.	Calcium	[503] P	19.	Silver	6.5UF
8.	Chromium	16F	20.	Sodium	[78] P
9.	Cobalt	[26]P	21.	Thallium	~~6.5UF~~ *H 6.4UF
10.	Copper	38P	22.	Tin	24UP
11.	Iron	51600 P	23.	Vanadium	[16]P
12.	Lead	7.1F	24.	Zinc	31P *
	Cyanide	1.3U		Percent Solids (%)	77.5

Footnotes: For reporting results to EPA, standard result qualifiers are used as defined on Cover Page. Additional flags or footnotes explaining results are encouraged. Definition of such flags must be explicit and contained on Cover Page, however.

Comments: Se dilution factor 5.

for Lab Manager Phyllis Christopher

Report Number: _____

DATA QA PROCESSING FORM

Project Title: Southern Ore Castors

TDD No.: F3-8701-03

Charge Number: $575PAB2$I

Due Date: _____

PROCESS STEP	DATE	FIT INITIAL	COMMENTS NO CHANGE	SEE BELOW	SEE TEXT
Rough Draft Completed (Chemist)	4/	JEC			
Rough Draft Typed					
Rough Draft Review (Chemist)	5/7	JEC			
Peer Review	5/7	RS			
Author Corrections					
Author/Reviewer Collaboration	5/7	RS/JEC			
Proofreading/Editing	5/18	DBF			
Final Type					
Author Final Review	6/24	JEC		✓	
Copying and Distribution					

COMMENTS: More Changes Need JEC

THIS FORM IS TO BE ATTACHED TO THE REPORT WHEN THE ROUGH DRAFT IS COMPLETED AND REMAIN WITH THE REPORT THROUGHOUT IN-HOUSE PROCESSING. ALL SPACES MUST BE COMPI

RETAIN IN TDD FILE FOR QA RECORDS

7.0 LABORATORY DATA

7.1 Sample Data Summary

The attached data summary contains only compounds which were identified as detected in at least one sample. The complete list of compounds analyzed for, their results, and the associated detection limits are located as an appendix. Results for tentatively identified compounds appear following the organic data section of this report.

The following codes are used in the data summary to indicate the confidence in the positive results:

- Δ This concentration reported by laboratory, but evidence to doubt presence of compound/element (may or may not be present).
- UJ The material was analyzed for, but was not detected. The associated numerical value is the estimated sample quantitation limit.
- J The associated numerical value is an estimated quantity because quality control criteria were not met. (See Quality Assurance Review for specifics as to magnitude or direction of variability or bias.)
- R Quality Control indicates that data are unusable (compounds may or may not be present). Resampling and/or reanalysis is necessary for verification.
- N Evidence for presence of material is presumptive (tentative identification).
- H Suspected Unreliable Result: Even though data validation criteria have been met, this result may still be suspect because false positives are a frequent problem with this particular compound or method of analysis. To prove validity, corroboration with additional analytical results or supporting information would be recommended.

7.2 Quality Assurance Review

7.2.1 Organic Data: Lab Case 6828

7.2.1.1 Summary

Eight solid samples and five aqueous samples were analyzed through the EPA Contract Laboratory Program (CLP) for volatile, acid, base-neutral, and pesticide compounds. Included in the sample set were two field blanks, one soil and one aqueous, and a duplicate pair.

The laboratory data have been fully reviewed to determine the usability of results according to the National Guidelines (areas examined in detail are listed in the Support Documentation appendix). Although there were several problems noted during review of laboratory data, most did not result in major impacts on the overall data quality/usability. Overall, detection capability was acceptable for most compounds, as demonstrated by meeting criteria for holding times, tuning, instrument performance, surrogate recoveries, and minimum response factors. Blank contamination affected mostly low-level samples results for four compounds, and quantitative accuracy and imprecision were acceptable for most results. Precision was noted for the field duplicate results.

In general, the principal areas of concern were identified as false positive results due to blank contamination, field duplicate imprecision, high matrix spike recoveries for two compounds, and several compound results that were flagged as inaccurate because they were below the limit of quantitation. The following sections explain these areas of concern and their associated impact on the sample results.

7.2.1.2 Qualifiers

- All positive results for methylene chloride, acetone, di-n-butyl phthalate, and diethyl phthalate have been flagged (UJ) on the data summary. There is evidence to doubt the presence of these compounds, based upon the fact that the concentrations reported were not substantially above the levels detected in laboratory and field blanks.

- The levels of bis(2-ethylhexyl) phthalate in samples CF697, CF500, and CF501 have been flagged (H). There is evidence to doubt the presence of these compounds, based upon the

fact that this phthalate is a very common laboratory contaminant.

- The presence of 1,1,1-trichloroethane is quantitatively imprecise in sample CF699 and has been flagged (J) due to possible inhomogeneity in the field duplicate.

- The presence of 1,1-dichloroethene in sample CF504 has been flagged (J) due to high matrix spike recovery (see the Support Documentation appendix pages IIIa and IIIb).

- The presence of butylbenzyl phthalate is questionable in sample CF698 and has been flagged (J) because it was detected in one field duplicate but not the other.

- In general, very few tentatively identified compounds were detected, except for those associated with laboratory blank contamination. Tentatively identified compound results are summarized in a table immediately following this report.

7.2.1.3 Supporting Data

The Support Documentation appendix to this report documents the above findings associated with blank contamination, field duplicate results, and matrix spike results. The text of this report has been formatted to address only those issues affecting the application of the data to the subject investigation. (Issues pertaining to laboratory contractual compliance are addressed on a separate summary directed to the deputy project officer.)

Report prepared by James Chambers _____ Date: May 7, 1987
(215) 687-9510

Report reviewed by Russell Slobod _____ Date: May 7, 1987
(215) 687-9510

7.0 LABORATORY DATA

7.1 Sample Data Summary

The attached data summary contains only compounds which were identified as detected in at least one sample. The complete list of compounds analyzed for, their results, and the associated detection limits are located as an appendix. Results for tentatively identified compounds appear following the organic data section of this report.

The following codes are used in the data summary to indicate the confidence in the positive results:

- Δ This concentration reported by laboratory, but evidence to doubt presence of compound/element (may or may not be present).
- UJ The material was analyzed for, but was not detected. The associated numerical value is the estimated sample quantitation limit.
- J The associated numerical value is an estimated quantity because quality control criteria were not met. (See Quality Assurance Review for specifics as to magnitude or direction of variability or bias.)
- R Quality Control indicates that data are unusable (compounds may or may not be present). Resampling and/or reanalysis is necessary for verification.
- N Evidence for presence of material is presumptive (tentative identification).
- H Suspected Unreliable Result: Even though data validation criteria have been met, this result may still be suspect because false positives are a frequent problem with this particular compound or method of analysis. To prove validity, corroboration with additional analytical results or supporting information would be recommended.

7.2.2 Inorganic Data: Lab Case 6828

7.2.2.1 Summary

Eight solid samples and five unfiltered aqueous samples were analyzed through the EPA Contract Laboratory Program (CLP) for metals and cyanide. Included in this sample were one field blank for aqueous samples. Solid field blanks were omitted.

The laboratory data have been fully reviewed to determine the usability of results according to the National Guidelines (The Support Documentation appendix examines the listed areas in detail.) Several problems were noted in the laboratory data review. Most did not result in major impacts on the overall data quality/usability. The detection capability was acceptable for most elements, as demonstrated by meeting criteria for holding times, matrix spikes, post-digestion spikes, and instrument detection limits. Blank contamination affected mostly low-level results for several metals; the only major concern was the results for mercury. Minor problems were noted with quantitative precision in positive results for barium and zinc, resulting in the flagging of several results as estimated (J) on the data summary. The bias low detection limits for other compounds also displayed minor problems.

There is the possibility that zinc might be in sample MCE124 at 45 µg/l. However, this value is questioned by the blank. (It should be noted that the laboratory forgot to report this result.)

In general, the principal areas of concern were identified as blank contamination, matrix spike recoveries for seven elements, duplicate precision for cadmium matrix spike due to spectral interference, spike recovery for antimony, biased low detection limits for tin in water, base or low matrix spike recoveries, disagreement with the several dilution analyses for beryllium and selenium, poor detection sensitivity for mercury, and poor accuracy of the lowest calibration standard for several elements.

7.2.2.2 Qualifiers

There is evidence to doubt the presence of several inorganic compounds. The presence of the following metals is qualitatively questionable. The fact that the concentrations reported were not substantially above the levels detected in laboratory or field blanks. These results have been flagged (UJ) on the data summary and are listed below:

Elements	Sample Numbers
arsenic	MCE111 through MCE114, and MCE118 through MCE126
barium	Aqueous samples MCE112 and MCE113, and MCE121 through MCE125
beryllium	All positive results
cadmium	MCE111 through MCE116 and MCE125
calcium	MCE 126
cobalt	All soil samples, except MCE117
copper	MCE111 through MCE116 and MCE124
lead	MCE111 through MCE113, and MCE124
manganese	MCE123, and MCE125
mercury	MCE115, MCE121, MCE123, and MCE125
nickel	MCE111 through MCE116, MCE120 and MCE125
sodium	All soil sample results
zinc	MCE112, MCE113, MCE121, MCE123, and MCE125
tin	MCE115 through MCE118

These metals were detected in laboratory and/or field blanks at sufficient levels to deem them questionable. The Support Documentation appendix to this report contains a tabulation of all laboratory method blanks and field blanks results (see Support Documentation appendix, pages 2, 3, and 4, for blank analysis results.)

- Positive results for zinc in soil samples have been flagged as estimated (J) due to spectral interference and poor precision, yielding low recovery of the matrix spike of sample MCE116 (see the Support Documentation appendix, page 9, for matrix duplicate results.)

- Positive results for arsenic in soil samples have been flagged as estimated (J) due to sample digestion loss. Values could be biased low, due to low recoveries in the matrix spike of sample MCE118 (see the Support Documentation appendix, page 5, for spike recoveries.)

- Positive results for barium in water samples have been flagged as estimated (J) due to poor precision of duplicates in sample MCE124 (see the Support Documentation appendix, page 9A, for duplicates.)

- Positive results for beryllium in sample MCE120 and MCE118 are considered to have a possible sensitivity problem described in the serial dilutions. Both samples exhibit a sensitivity problem, showing a 183 percent recovery in the serial dilution, and values have been flagged (J). It is suspected that the low-level beryllium results observed in the samples and blanks from this case are due to noise rather than the presence of beryllium (see the Support Documentation appendix, pages 15a and 15b.)

- The positive results for selerium, in samples MCE111, MCE114, MCE115, MCE116, and MCE117 can be considered bias low, thus, there is the possibility that the sample value may have been supressed.

- The detection limits for tin are considered biased low for water samples based upon low matrix spike recovery for sample MCE124.

- Mercury detection limits in soil sample MCE115 and water samples MCE121, MCE123, and MCE125 show inadequate sensitivity yielding the calibration blank at 0.003 absorbance equal to the low standard 0.2 µg/l. The sample results which were questioned are believed to be due to noise rather than the presence of mercury.(see the Support Documentation appendix, pages 12 and 13, for sample run.)

7.2.2.3 Supporting Data

The Support Documentation appendix to this report documents the above findings regarding blank analyses, matrix spikes, duplicate analyses, serial dilutions, duplicate spike recoveries, and detection limits. The text of this report has been formatted to address those issues affecting the application of the data to the subject investigation.

Report prepared by James Chambers _____ Date: May 7, 1987
(215) 687-9510

Report reviewed by Russell Slobod _____ Date: May 7, 1987
(215) 687-9510