N00164.AR.000486
NSWC CRANE
5090.3a

FINAL

Interim Measures Report
SWMU - 25/07D
Highway 58 Dump Site A

Volume 2

NSWC Crane
Crane, Indiana

Unit Identification Code: N00164
Contract No. N62467-93-D-1106

November, 1999

Southern Division
Naval Facilities Engineering Command
North Charleston, South Carolina
29419-9010

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APPENDIX D

ANALYTICAL RESULTS

- Table 1 (1 page), Table 4 (2 pages), Table 5 (6 pages), and Table 6 (1 Page) (extracted from the NSWC Crane Sampling and Analysis Plan)

- Chain-of-Custody Record (6 pages)

- Sample Results
  - 25/07D-001 (14 pages)
  - 25/07D-001RE (2 pages)
  - 25/07D-002 (14 Pages)
  - 25/07D-002R (3 pages)
  - 25/07D-003 (7 pages)
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- Backfill Samples
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- Inorganic Analysis Data Sheets for samples BIOF001 through BIOF014 (14 pages)

TABLE 1
ANALYTICAL SUMMARY

SWMU Number	Analytical Parameters[1]	Rationale
SWMU #03/10 Ammunition Burning Ground Soils	Explosives, Sb, Se, Cr, Cu, Co, Pb, Hg, Ni, Ag, Zn, Al, Ba, Mg, Mn, Sn, Na, P, TCE, tetrachloroethene	Contaminants identified in WES reports.
SWMU #10/15 Rockeye Soils	Explosives, Method 8240 VOCs, As, Al, Ba, Cd, Cr, Cu, Fe, Pb, Mg, Ni, Zn	Contaminants identified in WES reports.
SWMU #12/14 Mine Fill A Soils	Applicable Appendix IX Metals and Explosives	History of site and nature of cleanup activities.
SWMU #13/14 Mine Fill B Soils	Applicable Appendix IX Metals, and Explosives	History of site and nature of cleanup activities.
SWMU #14/00 Sanitary Landfill and Lithium Battery Disposal Soils	Applicable Appendix IX Metals and Lithium	History of site and nature of cleanup activities.
SWMU #16/16 Cast High Explosive/Incinerator Building 146 Soils	Applicable Appendix IX Metals, PCBs and Explosives	History of site and nature of cleanup activities.
SWMU #17/04 PCB Capacitor Burial/Pole Yard Soils	Applicable Appendix IX Metals and PCBs	History of site and nature of cleanup activities.
SWMU #23/00 Battery Shop Soils	Appendix IX List	History of site and nature of cleanup activities.
SWMU #24/00 Sludge Drying Beds Sludges and Soils	Appendix IX List	Potential contaminants unknown.
SWMU #25/07D Highway 58 Dump Site A Debris and Soils	Appendix IX List	Potential contaminants unknown.
SWMU #26/08D Highway 58 Dump Site B Debris and Soils	Appendix IX List	Potential contaminants unknown.
SWMUs #13/14, #16/16 and #17/04 Excavated Soil	RCRA Characteristics[2], Paint Filter Test and PCBs	Characterization for disposal; possible presence of PCBs.
SWMUs #14/00 and #23/00 Excavated Soil	RCRA Characteristics, Only TCLP Metals and Paint Filter Test	Characterization for disposal; potential TCLP contaminants are metals only.
SWMUs #24/00, #25/07D and #26/08D Incidental Soil, if required	RCRA Characteristics and Paint Filter Test	Characterization for disposal; potential contaminants unknown.

[1] - These parameters are preliminary and are not to be used until confirmed by the Project Manager.
[2] - RCRA Characteristics includes ignitability, corrosivity, reactivity, and full TCLP.

TABLE 4
ANALYTICAL METHODS

Parameter	Method Number	Sample Size/ Container	Preservation	Holding Time
Soil Sample Analyses (SAMPLER MUST NOTE IF APPENDIX IX OR STANDARD LIST WILL BE USED)				
Volatile Organics	8260	2 x 4 oz. glass jar	Refrigerate at 4°C	14 days
Volatile Organics	8015	2 x 4 oz. glass jar	Refrigerate at 4°C	14 days
Semivolatile Organics	8270	1 x 250 mL glass jar	Refrigerate at 4°C	14/40 days[1]
Organochlorine Pesticides/PCBs	8080	1 x 250 mL glass jar	Refrigerate at 4°C	14/40 days[1]
Organophosphate Pesticides	8140	1 x 250 mL glass jar	Refrigerate at 4°C	14/40 days[1]
Chlorinated Herbicides	8150	1 x 250 mL glass jar	Refrigerate at 4°C	14/40 days[1]
Metals	6010/7471	1 x 250 mL glass jar	Refrigerate at 4°C	6 months
Cyanide	9012	1 x 250 mL glass jar	Refrigerate at 4°C	14 days
Sulfide	9030	1 x 250 mL glass jar	Refrigerate at 4°C	7 days
Dioxins/furans	8280	1 x 250 mL glass jar	Refrigerate at 4°C	14/40 days[1]
Explosives	8330	1 x 250 mL glass jar	Refrigerate at 4°C	14/40 days[1]
Lithium	6010 or 7430	1 x 250 mL glass jar	Refrigerate at 4°C	6 months
Solid Waste Characterization Sample Analyses				
Ignitability	1010	1 X 250 mL glass jar	None	ASAP
Corrosivity - pH[2]	9040	1 x 500 mL plastic bottle	Refrigerate at 4°C	ASAP
Corrosivity - pH[2]	9045	1 x 250 mL glass jar	Refrigerate at 4°C	ASAP
Sulfide reactivity[3]	Sec.7.3.4.1	1 x 500 mL glass bottle	Refrigerate at 4°C 2 mL zinc acetate & NaOH to pH > 9	7 days
Sulfide reactivity[3]	Sec.7.3.4.1	1 x 250 mL glass jar	Refrigerate at 4°C	7 days
Cyanide reactivity[3]	Sec.7.3.3.2	1 x 1 L plastic bottle	Refrigerate at 4°C NaOH pH > 12	14 days
Cyanide reactivity[3]	Sec.7.3.3.2	1 x 250 mL glass jar	Refrigerate at 4°C	14 days

TABLE 4
ANALYTICAL METHODS

Parameter	Method Number	Sample Size/ Container	Preservation	Holding Time
TCLP - Organics[4]	8260, 8270, 8150, 8140, 8080	2 x 40 mL VOA vials (8260); 1 liter amber glass jar (8270); 1 liter amber glass jar (8080); 1 liter amber glass jar (8150/8140); 1 liter plastic (6010); 1 8-ounce jar (mercury)	Refrigerate at 4°C	14 days 7/40 days
TCLP - Metals[4]	6010, 7470	2 x 250 mL plastic bottle	HNO, pH < 2	180 days
Paint Filter Test	9095	1 x 250 mL glass jar	None	N/A
Water Samples (SAMPLER MUST NOTE IF STANDARD OR APPENDIX IX PARAMETER LIST WILL BE USED)				
Volatile Organics	624/8260	2 x 40 mL glass vials	HCL to pH < 2, Refrigerate at 4°C	14 days
Explosives	8330	1 x 250 mL glass or plastic	Refrigerate at 4°C	14/40 days
Total Nitrates	353.1	1 x 500 mL glass or plastic	Refrigerate at 4°C	48 hours
Metals	200 series	1 x 1 L plastic bottle	Refrigerate at 4°C	6 months

Notes:
[1] - 14 days for extraction and 40 days from extraction to analysis.
[2] - Liquid samples only.
[3] - Solid samples only.
[4] - For solid samples, submit the following jars: one 250 mL glass jar for 8260, two 500-mL (two 8-ounce jars) for 8080, 8140/ 8150 and metals. The extraction method will be EPA Method 1311.

TABLE 5
INTERIM MEASURE CLEANUP LEVELS' FOR SOIL ANALYSES

Compound	Cleanup Level µg/kg	Compound	Cleanup Level µg/kg
Volatile Compounds - Methods 8260 & 8015			
Acetone	9,200,000	trans-1,3-Dichloropropene	1,000
Acetonitrile	230,000	1,4-Dioxane	32,000
Acrolein	780,000	Ethylbenzene	58,000
Acrylonitrile	260	Ethyl cyanide	100
Allyl chloride	200,000	Ethyl methacrylate	38,000
Benzene	2,700	2-Hexanone	50
Bromodichloromethane	2,900	Iodomethane	5
Bromomethane	60,000	Isobutyl alcohol	N.A.
Carbon disulfide	53,000	Methacrylonitrile	56,000
Carbon tetrachloride	920	Methyl ethyl ketone	5,200,000
Chlorobenzene	300,000	Methyl methacrylate	3,200,000
2-Chloro-1,3-butadiene	5	4-Methyl-2-pentanone	2,000,000
Chlorodibromomethane	10,000	Pentachloroethane	10
Chloroethane	270,000	Styrene	13,000,000
Chloroform	960	1,1,1,2-Tetrachloroethane	10,000
Chloromethane	3,700	1,1,2,2-Tetrachloroethane	2,100
3-Chloropropene	5	Tetrachloroethylene	22,000
1,2-Dibromoethane	19	Toluene	280,000
Dibromomethane	390,000	Tribromomethane	110,000
trans-1,4-Dichloro-2-butene	15	1,1,1-Trichloroethane	300,000
Dichlorodifluoromethane	380,000	1,1,2-Trichloroethane	2,900
1,1-Dichloroethane	400,000	Trichloroethylene	14,000
1,2-Dichloroethane	840	Trichlorofluoromethane	410,000
1,1-Dichloroethylene	70	1,2,3-Trichloropropane	310,000
trans-1,2-Dichloroethylene	620,000	Vinyl acetate	39,000,000

TABLE 5
INTERIM MEASURE CLEANUP LEVELS[1] FOR SOIL ANALYSES

Compound	Cleanup Level µg/kg	Compound	Cleanup Level µg/kg
Dichloromethane	22,000	Vinyl chloride	9.7
1,2-Dichloropropane	1,300	Total xylenes	99,000
cis-1,3-Dichloropropene	1,000		
Base/Neutral Compounds - Methods 8270 & 8280[2]			
Acenaphthene	36,000	Hexachlorocyclopentadiene	270,000
Acenaphthylene	660	Hexachlorodibenzo-p-dioxins	N.A.[3]
Acetophenone	3,900,000	Hexachlorodibenzofurans	N.A.[3]
2-Acetylaminofluorene	N.A.[3]	Hexachloroethane	39,000
4-Aminobiphenyl	N.A.[3]	Hexachlorophene	12,000
Aniline	11,000	Hexachloropropene	N.A.[3]
Anthracene	1,900	Indeno(1,2,3-c,d)pyrene	1,200
Aramite	34,000	Isophorone	900,000
Benzo(a)anthracene	660	Isosafrole	N.A.[3]
Benzo(b)fluoranthene	660	Methapyrilene	N.A.[3]
Benzo(k)fluoranthene	660	3-Methylcholanthrene	N.A.[3]
Benzo(g,h,i)perylene	660	Methyl methanesulfonate	N.A.[3]
Benzo(a)pyrene	660	2-Methylnaphthalene	660
Benzyl alcohol	12,000,000	Naphthalene	80,000
Bis(2-chloroethoxy)methane	660	1,4-Naphthoquinone	N.A.[3]
Bis(2-chloroethyl)ether	150	1-Naphthylamine	N.A.[3]
Bis(2-chloroisopropyl)ether	12,000	2-Naphthylamine	N.A.[3]
Bis(2-ethylhexyl)phthalate	61,000	m-Nitroaniline	3,300
4-Bromophenyl phenyl ether	660	o-Nitroaniline	2,300
Butyl benzyl phthalate	7,800,000	p-Nitroaniline	N.A.[3]
p-Chloroaniline	160,000	Nitrobenzene	20,000
2-Chloronaphthalene	3,100,000	4-Nitroquinoline-1-oxide	N.A.[3]

TABLE 5
INTERIM MEASURE CLEANUP LEVELS[1] FOR SOIL ANALYSES

Compound	Cleanup Level µg/kg	Compound	Cleanup Level µg/kg
4-Chlorophenyl phenyl ether	660	N-Nitrosodi-n-butylamine	160
Chrysene	800	N-nitrosodiethylamine	5.7
Dibenzo(a,h)anthracene	120	N-nitrosodimethylamine	17
Dibenzofuran	660	N-nitrosodiphenylamine	170,000
1,2-Dibromo-3-chloropropane	610	N-nitrosomethylethylamine	39
Di-n-butyl phthalate	3,900,000	N-nitrosomorpholine	N.A.[2]
m-Dichlorobenzene	280,000	N-nitrosopiperidine	N.A.[2]
o-Dichlorbenzene	230,000	N-nitrosopyrrolidine	N.A.[2]
p-Dichlorobenzene	17,000	5-nitro-o-toluidine	N.A.[2]
3,3'-Dichlorobenzidine	1,900	Pentachlorobenzene	31,000
Diethyl phthalate	31,000,000	Pentachlorodibenzo-p-dioxins	N.A.[2]
O,O-Diethyl-O-2-purazinylphosphorothioate	N.A.[2]	Pentachlorodibenzofurans	N.A.[2]
p-Dimethylaminoazobenzene	N.A.[2]	Phenacetin	N.A.[2]
7,12-Dimethylbenz(a)anthracene	N.A.[2]	Phenanthrene	660
3,3'-Dimethylbenzidine	93	p-Phenylenediamine	7,400,000
alpha,alpha-Dimethyphenethylamine	N.A.[2]	2-Picoline	N.A.[2]
Dimethyl phthalate	100,000,000	Pyrene	1,200,000
m-Dinitrobenzene	3,900	Pyridine	3,900
2,4-Dinitrotoluene	78,000	Safrole	N.A.[2]
2,6-Dinitrotoluene	1,300	1,2,4,5-Tetrachlorobenzene	12,000
Di-n-octyl phthalate	780,000	2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.0057
Diphenylamine	980,000	Tetrachlorodibenzo-p-dioxins	N.A.[2]
Di-n-propylnitrosamine	120	Tetrachlorodibenzofurans	N.A.[2]
Ethyl methanesulfonate	N.A.[2]	o-Toluidine	N.A.[2]
Fluoranthene	1,600,000	1,2,4-Trichlorobenzene	93,000
Fluorene	28,000	O,O,O-Triethylphosphorothioate	N.A.[2]

TABLE 5
INTERIM MEASURE CLEANUP LEVELS[1] FOR SOIL ANALYSES

Compound	Cleanup Level µg/kg	Compound	Cleanup Level µg/kg
Hexachlorobenzene	530	sym-Trinitrobenzene	2,000
Hexachlorobutadiene	11,000		
Acid Compounds - Method 8270			
2-sec-Butyl-4,6-dinitrophenol	39,000	4,6-Dinitro-o-cresol	3,300
p-Chloro-m-cresol	210	2,4-Dintrophenol	78,000
2-Chlorophenol	200,000	2-Nitrophenol	300
meta-Cresol	2,000,000	4-Nitrophenol	190
ortho-Cresol	2,000,000	Pentachlorophenol	7,100
para-Cresol	200,000	Phenol	23,000,000
2,4-Dichlorophenol	120,000	2,3,4,6-Tetrachlorophenol	1,200,000
2,6-Dichlorophenol	N.A.[2]	2,4,5-Trichlorophenol	930
2,4-Dimethylphenol	780,000	2,4,6-Trichlorophenol	77,000
Pesticide & PCB Compounds - Methods 8080 & 8140			
Aldrin	50	Disulfoton	1,600
Aroclor 1016	110[4]	Endosulfan sulfate	44.2
Aroclor 1221	110[4]	Endosulfan I (alpha)	2,000
Aroclor 1232	110[4]	Endosulfan II (beta)	2,000
Aroclor 1242	110[4]	Endrin	12,000
Aroclor 1248	110[4]	Endrin aldehyde	15.4
Aroclor 1254	110[4]	Famphur	N.A.[2]
Aroclor 1260	110[4]	Heptachlor	190
alpha-BHC	2.01	Heptachlor epoxide	94
beta-BHC	4.02	Isodrin	N.A.[2]
delta-BHC	6.03	Kepone	47
gamma-BHC	2.68	Methoxychlor	200,000
Chlordane	660	Methyl parathion	20

TABLE 5
INTERIM MEASURE CLEANUP LEVELS FOR SOIL ANALYSES

Compound	Cleanup Level µg/kg	Compound	Cleanup Level µg/kg
Chlorobenzilate	3,200	Parathion	230,000
4,4'-DDD	3,500	Pentachloronitrobenzene	3,300
4,4'-DDE	2,500	Phorate	7,800
4,4'-DDT	8	Pronamide	2,900,000
Diallate	14,000	Tetraethyl dithiopyrophosphate	20,000
Dieldrin	53	Toxaphene	770
Dimethoate	7,800		
Herbicides - Method 8150			
2,4-Dichlorophenoxyacetic acid	390,000	2,4,5-T	390,000
Silvex	110		

TABLE 5
INTERIM MEASURE CLEANUP LEVELS[1] FOR SOIL ANALYSES

Compound	Cleanup Level µg/kg	Compound	Cleanup Level µg/kg
Metals - Methods 6010/7000			
Antimony	31,000	Mercury	23,000
Arsenic	970	Nickel	1,600,000
Barium	5,500,000	Selenium	390,000
Beryllium	400	Silver	390,000
Cadmium	39,000	Thallium	N.A.[2]
Chromium	940,000	Tin	47,000,000
Cobalt	**100**	Vanadium	550,000
Copper	2,900,000	Zinc	23,000,000
Lead	500,000		
Miscellaneous - Methods 9012 & 9030			
Cyanide	1,600,000	Sulfide	N.A.[2]

[1]Levels taken from USEPA memo *RCRA Corrective Action Guidance Human Health Data Quality Levels for RFI Projects* by Karl E. Bremer, June 18, 1994.
[2]N.A - None Available.
[3]Method 8280 for dioxins and furans only.
[4]DQL for total PCBs is 110 µg/kg.

Note: Constituents printed in bold fonc are those for which the lowest practical quantitative limit (PQL) either equals or exceeds the cleanup goal. For these cases, the PQL is listed as the cleanup level, and the detection limit achieved by the laboratory should be closely monitored. The analyte list for 8260 should be reviewed to make sure all parameters are accounted for.

Equipment rinsates will be analyzed for the same parameters as the soil samples collected that day. Consult the laboratory for appropriate bottle size and preservative.

TABLE 6
CLEANUP LEVELS DETERMINED THROUGH RISK ASSESSMENT

Compound	*Abbrev*	*Cleanup Level*[1]
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	HMX	
Hexahydro-1,3,5-trinitro-1,3,5-triazine	RDX	
1,3,5-trinitrobenzene	TNB	
Methyl-2,4,6-trinitrophenylnitramine	Tetryl	
o-nitrotoluene	2NT	
m-nitrotoluene	3NT	
p-nitrotoluene	4NT	

[1]Note: Cleanup levels are to be determined by bench- and pilot-scale studies. This table is being developed by another contractor. The compounds listed are those identified by EPA SW-846 Method 8330. Cleanup levels may be limited to only several of the compounds listed.

MORRISON KNUDSEN CORPORATION

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 73
Boise, Idaho 83729
(208) 386-5000

Project No.: 4-324
Project Name: NSWC - Crane
Samplers: (Signature) [illegible]
Sampler: (Print) Wes Lamarque

Analysis Required — App. IX

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Samples Yes	Split Samples No	8330 (Explosives)	8270 (VOC)	8010A (VOC)	Ba, Cd, Cr, Cu, Fe, Mg, Pb, Mn, Ni	8240 (VOC)	8120 (Semivolatiles)	TRPH (Semivolatiles)	8330 (Explosives)	8080 (PCB)	8120 (Herbicides)	8150 (Herbicides)	TPH 418.1	Remarks
Soil	Battery Shop	7-18-95	0917	NSWC-[illegible]-001		X					X	X	X	X	X	X	X	X	14 day turn around
Soil	Battery Shop	7-18-95	0939	NSWC-[illegible]		X					X	X	X	X	X	X	X	X	
Soil	Dumpsite A	7-18-95	1045	NSWC-[illegible]-01		X					X	X	X	X	X	X	X	X	
Soil	Dumpsite A	7-18-95	1055	NSWC-[illegible]-02		X					X	X	X	X	X	X	X	X	
Soil	Dumpsite B	7-18-95	1142	NSWC-[illegible]		X					X	X	X	X	X	X	X	X	
Soil	Dumpsite B	7-18-95	1151	NSWC-[illegible]-02		X					X	X	X	X	X	X	X	X	
Soil	Rockage	7-12-95	1400	NSWC-10/15-001		X	X	X	X										7 day for Explosives
Soil	Rockage	7-12-95	1410	NSWC-10/15-002		X	X	X	X										14 day for [illegible]
Soil	Rockage	7-[illegible]	0954	NSWC-10/15-005			X	X	X										
Soil	Rockage	7-[illegible]	1013	NSWC-10/15-007			X	X	X										
Soil	Rockage	7-[illegible]	1107	NSWC-10/15-010			X	X	X										
Water	Rockage - Rinsate	7-[illegible]-95	1030	NSWC-10/15-RB2			X	X	X										
Water	Trip Blank	7-[illegible]-95	1300	NSWC-10/15-TB2															14 day turn Around

Duplicate Sample

Relinquished By: (Signature) / Company	Date/Time	Received By: (Signature) / Company	Relinquished By: (Signature) / Company	Date/Time	Received By: (Signature) / Company
[illegible] / Morrison Knudsen	7-21-95 3:00pm				
Relinquished By: (Signature) / Company	Date/Time	Received By: (Signature) / Company	Relinquished By: (Signature) / Company	Date/Time	Received By: (Signature) / Company
Relinquished By: (Signature) / Company	Date/Time	Received By: (Signature) / Company	Received for Laboratory By: (Signature) / Company	Date/Time	Total No. Samples This Shipping Container: / Company
Relinquished By: (Signature) / Company	Date/Time	Received By: (Signature) / Company	Relinquished By: (Signature) / Company	Date/Time	Received By: (Signature) / Company

FEDEX AirBill 5911118502

MORRI[illegible]NUDSEN CORPORATION

CHAIN OF CUS[illegible]Y RECORD

720 Park Blvd., P.O. Bo[illegible]
Boise, Idaho 83729
(208) 386-5000

C-024

American Environmental Network

Project No.: 4224 / 1009-007-30 | Project Name: Navic Crane Inc

Samplers: (Signature) [illegible]

Sampler: (Print) Bill Kelly

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Samples Yes	Split Samples No	0095	1010	9045	30-8160	8270	2980	8150	6010A	7470	1010SH	Remarks
Soil	Left	11-16-95	1015	NEXC 25/070 003		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Soil	Center	11-16-95	1025	NEXC 25/070 004		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Soil	Right	11-16-95	1035	NEXC 25/070 005		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:
[illegible] / HHC	11-16-95 1500				
Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:
Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Received for Laboratory By: (Signature) / Company:	Date/Time	Total No. Samples This Shipping Container: / Company:
Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:

MORRISON KNUDSEN CORPORATION

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box
Boise, Idaho 83729
(208) 386-5000

C025

American Environmental Network

Project No.: NSWC 0009-007-30

Project Name: NSWC Crane IN

Samplers: (Signature) [signature]

Sampler: (Print) Jerry Smith

Split Samples

Analysis Required: 1C025, 1D10, 1C045, 342-846-Sel 2344, 342-846-Sel 2344, 8270, 8080, 8150, 8010A, 3470, 1340, NASH 1002, RCRA Characteristic 5¢, Paint Filter

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Yes	No	Remarks
Soil	Sect A Right	11-17-95	1315	NSWC 25/07D-006		✓	
Soil	Sect A Center	11-17-95	1330	NSWC 25/07D-007		✓	

Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:	Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:
Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:	Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:
Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:	Received for Laboratory By: (Signature) Company:	Date/Time	Total No. Samples This Shipping Container: Company:
Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:	Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:

MORRI[illegible]NUDSEN CORPORATION

CHAIN OF CUST[illegible]Y RECORD

720 Park Blvd., P.O. Box 7[illegible]
Boise, Idaho 83729
(208) 386-5000

AMERICAN SUBURBOMENTAL NETWORK INC.

Project No.: 1324-009-009-30
Project Name: NSWC - CRANE

Samplers: (Signature)
Sampler: (Print) ERIC

Split Samples

Analysis Required

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Yes	No	8240	8270	8080	8100	7010	7060	8260	6010A	T-Mercury	TPH						Remarks
SOIL		3-16-95		NSWC-EF/BF-06		X	X	X	X	X	X	X	X	X	X	✓						2 DAY
SOIL		3-16-95		NSWC-EF/BF-00[illegible]	X		X	X	X	X	X	X	X	X	X							TURNAROUND

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	
Company: Bio Lab / OMKemp	3-16-95 1500	Company:	Company:		R C
Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:	Relinquished By: (Signature) Company:	Date/Time	R C
Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:	Received for Laboratory By (Signature) Company:	Date/Time	T C
Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:	Relinquished By: (Signature) Company:	Date/Time	R C

Post-it® Fax Note 7671
Date 6/30/96 # of pages ▶ 2
To Dylan Carelli From Peter Chevalier
Co./Dept. MK-Env. Co. MK Crane
Phone # Phone #
Fax # Fax #

Container:

D-00015

MORRISON KNUDSEN CORPORATION

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 73
Boise, Idaho 83729
(208) 386-5000

C013

AMERICAN ENVIRONMENTAL NETWORK

Project No.: 4324 0009.007.30

Project Name: USUC CRANE

Samplers: (Signature) Bill Kemp

Sampler: (Print) Bill Kemp

Analysis Required: 8240, 8270, 8080, 8150, 7000, 7030, 8260, 6010 ARTA METALS, 7471 MERCURY, 8330 EPA

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Samples Yes	Split Samples No	8240	8270	8080	8150	7000	7030	8260	6010	7471	8330	Remarks
Soil	Borrow Pit	10-12-95	1230	USUC BP/BF 003		X	X	X	X	X	X	X	X	X	X	X	Contact Lucas (Board of Remedial R
Soil	Borrow Pit	10-12-95	1240	USUC BP/BF 004		X	X		X	X	X	X	X	X	X	X	

Relinquished By: (Signature)	Date/Time	Received By: (Signature)	Relinquished By: (Signature)	Date/Time	Received By: (Signature)
Company: MKC	10-13-95 1715	Company:	Company:		Company:
Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:	Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:
Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:	Received for Laboratory By: (Signature) Company:	Date/Time	Total No. Samples This Shipping Container: Company:
Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:	Relinquished By: (Signature) Company:	Date/Time	Received By: (Signature) Company:

MORRISON KNUDSEN CORPORATION

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 73
Boise, Idaho 83729
(208) 386-5000

C020

American Environmental Network

Project No.: 4324 0009-007-301

Project Name: Crane Naval

Samplers: (Signature) Kyle Kemp

Sampler: (Print) Bill Kemp

Split Samples

Analysis Required

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Yes	Split No	8240	8270	8080	8270	8140	4010	8260	1010A	7471	1010A							Remarks
SOIL	offsite BF - EAST SIDE	10-27-95	1410	NAVC EHef-005		X	X	X	X	X	X	X	X	X	X	X							7 day TAT
SOIL	" " BF WESTSIDE	10-27-95	1415	NAVC BP/BF 006		X	X	X	X	X	X	X	X	X	X	X							Requested

Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:
Relinquished By: (Signature) / Company: MK	10-27-95 1500	Received By: (Signature) / Company:			
Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:
Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Received for Laboratory By: (Signature) / Company:	Date/Time	Total No. Samples This Shipping Container: / Company:
Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:

D-00017

Rec'd 3/7/96 @845 / 1 cooler 3°C / 1 cooler 6°C / 1 cooler temp. blk 8°C / most sample jars 6°C

MORRISON KNUDSEN CORPORATION

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 73
Boise, Idaho 83729
(208) 386-5000

PO # 156 4324-2565 COMPU CHEMICAL ENVIRONMENTAL CORP

COC 33

Project No.: 4324-93-D-1406

Project Name: NSWC REMEDIATION CRANE

Samplers: (Signature) Bill Kemp

Sampler: (Print) BILL KEMP

Split Samples

Analysis Required

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Yes	No	8240	8330	8080	8010	6010A	7471	Hexavalent Cr	Appendix IX Metals								Remarks
LIQUID	EQUIP RINSATE	3-6-96	1015	NSWC-BIOF RB15			X	X	X	X	X		X	X								14 DAY
SOIL	REFERENCE E-100 BLDG	3-6-96	1130	NSWC BIOF 001			X	X	X	X	X	X	X									Turn
SOIL		3-6-96	1145	NSWC BIOF 002			X	X	X	X	X	X	X									Around
SOIL		3-6-96	1200	NSWC BIOF 003			X	X	X	X	X	X	X									
SOIL		3-6-96	1215	NSWC BIOF 004			X	X	X	X	X	X	X									
SOIL			1230	NSWC BIOF 005			X	X	X	X	X	X	X									
SOIL			1245	NSWC BIOF 006			X	X	X	X	X	X	X									
SOIL			1300	NSWC BIOF 007			X	X	X	X	X	X	X									
SOIL		3-6-96	1315	NSWC BIOF 008			X	X	X	X	X	X	X									
SOIL		3-6-96	1315	NSWC BIOF 009			X	X	X	X	X	X	X									
SOIL		3-6-96	1320	NSWC BIOF 010			X	X	X	X	X	X	X									
SOIL		3-6-96	1330	NSWC BIOF 011			X	X	X	X	X	X	X									
SOIL		3-6-96	1340	NSWC BIOF 012			X	X	X	X	X	X	X									
SOIL		3-6-96	1350	NSWC BIOF 013			X	X	X	X	X	X	X									
SOIL		3-6-96	1350	NSWC BIOF 014			X	X	X	X	X	X	X									
6 LIQUID	TRIP BLANK	3-6-96	1500	NSWC BIOF TB 17			X															
5 LIQUID	TRIP BLANK	3-6-96	1515	NSWC BIOF TB 18			X															
LIQUID	TRIP BLANK	3-6-96	1530	NSWC BIOF TB 19			X															

Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:
MIC	3-6-96 1700	Compuchem Env.			
Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:
Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Received for Laboratory By: (Signature) / Company:	Date/Time	Total No. Samples This Shipping Container: / Company:
Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:

SAMPLE 25/07D-001

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/070-001

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: NSWC Location: CRANE Group:

Matrix: (soil/water) SOIL Lab Sample ID: #003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EG311.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: not dec. 38 Date Analyzed: 7/27/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl Chloride	16	U
75-00-3	Chloroethane	16	U
75-09-2	Methylene Chloride	38	
67-64-1	Acetone	110	JB
75-05-8	Acetonitrile	8.1	U
107-13-1	Acrylonitrile	1600	U
107-02-8	Acrolein	1600	U
75-69-4	Trichlorofluoromethane	8.1	U
75-15-0	Carbon Disulfide	8.1	U
75-35-4	1,1-Dichloroethene	8.1	U
75-34-4	1,1-Dichloroethane	8.1	U
540-59-0	trans-1,2-Dichloroethene	8.1	U
67-66-3	Chloroform	8.1	U
107-06-2	1,2-Dichloroethane	8.1	U
75-71-8	Dichlorodifluoromethane	8.1	U
74-88-4	Iodomethane	8.1	U
107-12-0	Propionitrile	8.1	U
107-05-1	Allyl chloride	160	U
78-93-3	2-Butanone	160	U
71-55-6	1,1,1-Trichloroethane	8.1	U
56-23-5	Carbon Tetrachloride	8.1	U
108-05-4	Vinyl Acetate	8.1	U
75-27-4	Bromodichloromethane	8.1	U
78-87-5	1,2-Dichloropropane	8.1	U
10061-01-5	cis-1,3-Dichloropropene	8.1	U
79-01-6	Trichloroethene	8.1	U
71-43-2	Benzene	8.1	U
124-48-1	Dibromochloromethane	8.1	U
10061-02-6	trans-1,3-Dichloropropene	8.1	U
79-00-5	1,1,2-Trichloroethane	8.1	U
75-25-2	Bromoform	8.1	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/07D-001

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: NSWC Location: CRANE Group:

Matrix: (soil/water) SOIL Lab Sample ID: #003

Sample wt/vol: 5.0 (g/mL) 6 Lab File ID: E6311.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: not dec. 38 Date Analyzed: 7/27/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound			Q
126-98-7	Methacrylonitrile		8.1	U
74-95-3	Dibromomethane		8.1	U
106-93-4	1,2-Dibromoethane (EDB)		8.1	U
108-10-1	4-Methyl-2-Pentanone		81	U
591-78-6	2-Hexanone		81	U
127-18-4	Tetrachloroethene		19	
79-34-5	1,1,2,2-Tetrachloroethane		8.1	U
108-88-3	Toluene		8.1	U
108-90-7	Chlorobenzene		8.1	U
100-41-4	Ethylbenzene		8.1	U
100-42-5	Styrene		8.1	U
108-38-3	m + p-Xylene		8.1	U
95-47-6	o-Xylene		8.1	U
80-62-6	Methyl methacrylate		8.1	U
630-20-6	1,1,1,2-Tetrachloroethane		8.1	U
96-18-4	1,2,3-Trichloropropane		8.1	U
110-57-6	trans-1,4-Dichloro-2-butene		8.1	U
97-63-2	Ethyl methacrylate		8.1	U
76-01-7	Pentachloroethane		8.1	U
96-12-8	1,2-Dibromo-3-chloropropane		8.1	U
126-99-8	Chloroprene		5	UZ
123-91-1	1,4-Dioxane	(TIC)	1000	U
78-83-1	Isobutyl Alcohol	(TIC)	1000	U
	3-Chloroprene	(TIC)	5	U

FORM I VOA SW846

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MSWC-25/07D-001

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #003

Sample wt/vol: 30.3 (g/mL) G Lab File ID: DG433.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: 29 decanted: (Y/N): N Date Extracted: 7/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 7/28/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
62-75-9	N-Nitroso-Di-Methylamine	460	U
111-44-4	bis(2-Chloroethyl)ether	460	U
108-95-2	Phenol	460	U
95-57-8	2-Chlorophenol	460	U
541-73-1	1,3-Dichlorobenzene	460	U
106-46-7	1,4-Dichlorobenzene	460	U
95-50-1	1,2-Dichlorobenzene	460	U
100-51-6	Benzyl alcohol	930	U
108-60-1	bis(2-chloroisopropyl)ether	460	U
95-48-7	2-Methylphenol	460	U
67-72-1	Hexachloroethane	460	U
621-64-7	N-Nitroso-di-n-propylamine	460	U
106-44-5	4-Methylphenol	460	U
110-86-1	Pyridine	460	U
109-06-8	2-Picoline	460	U
62-53-3	Aniline	460	U
10595-95-6	N-Nitrosomethylethylamine	460	U
66-27-3	Methyl methanesulfonate	460	U
55-18-5	N-Nitrosodiethylamine	460	U
62-50-0	Ethyl methanesulfonate	460	U
108-39-4	3-Methylphenol	460	U
930-55-2	N-Nitrosopyrrolidine	460	U
95-53-4	o-Toluidine	460	U
59-89-2	N-Nitrosomorpholine	460	U
98-95-3	Nitrobenzene	460	U
78-59-1	Isophorone	460	U
88-75-5	2-Nitrophenol	460	U
105-67-9	2,4-Dimethylphenol	460	U
111-91-1	bis(2-Chloroethoxy)methane	460	U
120-83-2	2,4-Dichlorophenol	460	U
120-82-1	1,2,4-Trichlorobenzene	460	U
91-20-3	Naphthalene	460	U
106-47-8	4-Chloroaniline	930	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/07D-001

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #003

Sample wt/vol: 30.3 (g/mL) G Lab File ID: DG433.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: 29 decanted: (Y/N): N Date Extracted: 7/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 7/28/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
87-68-3	Hexachlorobutadiene	460	U
59-50-7	4-Chloro-3-methylphenol	460	U
91-57-6	2-Methylnaphthalene	460	U
77-47-4	Hexachlorocyclopentadiene	460	U
98-86-2	Acetophenone	460	U
122-09-8	a,a,a-Dimethylphenethylamine	460	U
1888-71-7	Hexachloropropene	460	U
87-65-0	2,6-Dichlorophenol	460	U
924-16-3	N-Nitrosodibutylamine	460	U
100-75-4	N-Nitrosopiperidine	460	U
130-15-4	1,4-Naphthoquinone	460	U
126-68-1	o,o,o-Triethyl phosphorothioate	460	U
120-58-1	Isosafrole	460	U
106-50-3	p-Phenylenediamine	460	U
88-06-2	2,4,6-Trichlorophenol	460	U
95-95-4	2,4,5-Trichlorophenol	460	U
91-58-7	2-Chloronaphthalene	460	U
88-74-4	2-Nitroaniline	2300	U
208-96-8	Acenaphthylene	460	U
131-11-3	Dimethylphthalate	460	U
606-20-2	2,6-Dinitrotoluene	460	U
83-32-9	Acenaphthene	460	U
99-09-2	3-Nitroaniline	2300	U
51-28-5	2,4-Dinitrophenol	2300	U
132-64-9	Dibenzofuran	460	U
121-14-2	2,4-Dinitrotoluene	460	U
100-02-7	4-Nitrophenol	460	U
86-73-7	Fluorene	460	U
7005-72-3	4-Chlorophenyl-phenylether	460	U
84-66-2	Diethylphthalate	460	U
100-01-6	4-Nitroaniline	2300	U
95-94-3	1,2,4,5-Tetrachlorobenzene	460	U
99-65-0	1,3-Dinitrobenzene	460	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/07D-001

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #003

Sample wt/vol: 30.3 (g/mL) G Lab File ID: DG433.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: 29 decanted: (Y/N): N Date Extracted: 7/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 7/28/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
608-93-5	Pentachlorobenzene	460	U
91-59-8	2-Naphthylamine	460	U
134-32-7	1-Naphthylamine	460	U
58-90-2	2,3,4,6-Tetrachlorophenol	460	U
297-97-2	Thionazin	460	U
99-55-8	5-Nitro-o-toluidine	460	U
94-59-7	Safrole	460	U
56-57-5	4-Nitroquinoline 1-oxide	460	U
534-52-1	4,6-Dinitro-2-methylphenol	2300	U
86-30-6	n-Nitrosodiphenylamine	460	U
101-55-3	4-Bromophenyl-phenylether	460	U
118-74-1	Hexachlorobenzene	200	J
87-86-5	Pentachlorophenol	2300	U
85-01-8	Phenanthrene	55	J
120-12-7	Anthracene	460	U
84-74-2	Di-n-butylphthalate	460	U
206-44-0	Fluoranthene	130	J
122-39-4	Diphenylamine	460	U
99-35-4	sym-Trinitrobenzene	460	U
62-44-2	Phenacetin	460	U
92-67-1	4-Aminobiphenyl	460	U
91-80-5	Methapyrilene	460	U
129-00-0	Pyrene	130	J
85-68-7	Butylbenzylphthalate	460	U
91-94-1	3,3'-Dichlorobenzidine	930	U
56-55-3	Benzo(a)anthracene	140	J
218-01-9	Chrysene	210	J
117-81-7	bis(2-Ethylhexyl)phthalate	460	U
60-11-7	p-Dimethylaminoazobenzene	460	U
140-57-8	Aramite	460	U
119-93-7	3,3'-Dimethylbenzidine	460	U
53-96-3	2-Acetylaminofluorene	460	U
117-84-0	Di-n-octylphthalate	460	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/07D-001

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #003

Sample wt/vol: 30.3 (g/mL) G Lab File ID: DG433.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: 29 decanted: (Y/N): N Date Extracted: 7/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 7/28/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
205-99-2	Benzo(b)fluoranthene	220	J
207-08-9	Benzo(k)fluoranthene	190	J
50-32-8	Benzo(a)pyrene	200	J
193-39-5	Indeno(1,2,3-cd)pyrene	190	J
53-70-3	Dibenz(a,h)anthracene	100	J
191-24-2	Benzo(g,h,i)perylene	220	J
57-97-6	7,12-Dimethylbenz(a)anthracene	460	U
56-49-5	3-Methylcholanthrene	460	U

FORM I SV

SW846

D-00024

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9507195

Project Name:——— NSWC-CRANE #4324

Client Name:——— MK CORP

Sample Number
NSWC-25/07D-001

AENI # 9507195-003

Concentration:——— Low

Date Sampled:——— 7/18/95

Date Received:——— 7/22/95

Date Ext Prepared:—— 7/26/95

Date Analyzed:——— 8/2/95

Conc/Dil Factor:——— 1

Method: ——— 8080

GPC Cleanup	Yes	X No
Seperatory Funnel Extraction		Yes
Continuous Liquid - Liquid Extraction		Yes
Percent Moisture	37.7	
Matric	SOIL	

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		2.6	U
319-85-7	beta-BHC		2.6	U
319-86-8	delta-BHC		2.6	U
58-89-9	gamma-BHC (Lindane)		5.2	U
75-44-8	Heptachlor		2.6	U
309-00-2	Aldrin		2.6	U
1024-57-3	Heptachlor epoxide		2.6	U
959-98-8	Endosulfan I		2.6	U
60-57-1	Dieldrin		5.2	U
75-55-9	4, 4'-DDE		5.2	U
72-20-8	Endrin		5.2	U
33213-65-9	Endosulfan II		5.2	U
72-54-8	4, 4'-DDD		5.2	U
1031-07-8	Endosulfan Sulfate		5.2	U
50-29-3	4, 4'-DDT		5.2	U
72-43-5	Methoxychlor		26	U
53494-70-5	Endrin Ketone		5.2	U
7421-36-3	Endrin aldehyde		5.2	U
57-74-9	Chlordane		52	U
8001-35-2	Toxaphene		260	U
12674-11-2	Aroclor-1016		52	U
11104-28-2	Aroclor-1221		100	U
11141-16-5	Aroclor-1232		52	U
53469-21-9	Aroclor-1242		52	U
12672-29-6	Aroclor-1248		52	U
11097-69-1	Aroclor-1254		52	U
11096-82-5	Aroclor-1260		52	U
510-15-6	Chlorobenzilate		104	U
2303-16-4	Diallate		521	U
465-73-6	Isodrin		13	U
143-50-0	Kepone		52	U
82-68-8	Pentachloronitrobenzene		10	U

Vi - Volume of extract injected (ul) - _____ 5

Vs - Volume of Water extracted (ml) - _____ N/A

Ws - Weight of sample extracted (g) - _____ 30.81

Vt - Volume of total extract (ul) - _____ 10,000

FORM I

D-00025

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

25/07D-001

Lab Name: AMERICAN_ENVIRON_NETWORK_ Contract: MK_CORP___
Lab Code: _____ Case No.: 95071 SAS No.: _____ SDG No.: 507195
Matrix (soil/water): SOIL_ Lab Sample ID: 950719503
Level (low/med): LOW__ Date Received: 07/22/95
% Solids: _62.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	3.2	U	N	P_
7440-38-2	Arsenic__	11.3	_		P_
7440-39-3	Barium___	87.7	_		P_
7440-41-7	Beryllium	0.80	_		P_
7440-43-9	Cadmium__	1.8	_	N	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	25.3	_	EN	P_
7440-48-4	Cobalt___	15.6	_		P_
7440-50-8	Copper___	92.1	_		P_
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	22.4	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.15	U		AV
7440-02-0	Nickel___	45.3	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	0.80	U	N	P_
7440-22-4	Silver___	1.3	U		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	1.6	U	N	P_
7440-62-2	Vanadium_	36.1	_		P_
7440-66-6	Zinc_____	1360	_	E	P_
	Cyanide__		_		NR
7440-31-5_	Tin_____	39.7	U		P_
7439-93-2_	Lithium__		_		NR
			_		
			_		
			_		
			_		
			_		
			_		
			_		

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:
CLIENT_ID:__NSWC-25/07D-001

FORM I - IN ILM02.1

TL-RTP Project: 335571
Client Sample: NSSWC-25/07D-001
Client Project: Indiana-Navy Project

Method 8280 PCDD/PCDF Analysis (b)
Analysis File: E952827
Matrix: SOIL

PCDD/PCDF SUMMARY REPORT

Specific Analytes	Conc. (ppb)	DL (ppb)	Blank (ppb)
2,3,7,8-TCDD	ND	0.076	ND
1,2,3,7,8-PeCDD	ND	0.798	ND
1,2,3,4,7,8-HxCDD	ND	0.722	ND
1,2,3,6,7,8-HxCDD	ND	0.437	ND
1,2,3,7,8,9-HxCDD	ND	0.418	ND
1,2,3,4,6,7,8-HpCDD	ND	1.08	ND
1,2,3,4,6,7,8,9-OCDD	1.33	0.589	ND
2,3,7,8-TCDF	ND	0.095	ND
1,2,3,7,8-PeCDF	ND	0.741	ND
2,3,4,7,8-PeCDF	ND	0.931	ND
1,2,3,4,7,8-HxCDF	ND	0.931	ND
1,2,3,6,7,8-HxCDF	ND	0.551	ND
2,3,4,6,7,8-HxCDF	ND	0.76	ND
1,2,3,7,8,9-HxCDF	ND	0.646	ND
1,2,3,4,6,7,8-HpCDF	0.251	0.123	ND
1,2,3,4,7,8,9-HpCDF	ND	0.266	ND
1,2,3,4,6,7,8,9-OCDF	ND	0.513	ND

Definitions:

Conc. - The concentration of the specific analyte in the units shown.

DL - The detection limit of the specific analyte in the units shown.

Blank - The concentration of the method blank.

ND - (Non-Detect) The concentration of the analyte is less than the detection limit.

Total Analytes	Conc. (ppb)	DL (ppb)
Total TCDD	ND	0.076
Total PeCDD	ND	0.798
Total HxCDD	ND	0.418
Total HpCDD	ND	1.08
Total TCDF	ND	0.095
Total PeCDF	ND	0.931
Total HxCDF	ND	0.646
Total HpCDF	0.251	0.266

8280_PSR v2.07. LARS 6.01.02

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801 Capitola Drive • Durham, North Carolina 27713
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American Environmental Network

TL-RTP Project: 33571 Method 8280 PCDD/PCDF Analysis (b)
Client Sample: NSWC-25/07D-001 Analysis File: E952827

Client Project:	Indiana-Navy Project				
Sample Matrix:	SOIL	Date Received:	07/27/95	Spike File:	SP828050
TLRTP ID:	103-239-3	Date Extracted:	07/28/95	ICal:	E855275
		Date Analyzed:	07/31/95	ConCal:	E952821
Sample Size:	10.650 g	Dilution Factor:	n/a	% Moisture:	50.6
Dry Weight:	5.261 g	Blank File:	E952824	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JF	% Solids:	49.4

Analytes	Conc. (ppb)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	0.076				—
1,2,3,7,8-PeCDD	ND	0.798				—
1,2,3,4,7,8-HxCDD	ND	0.722				—
1,2,3,6,7,8-HxCDD	ND	0.437				—
1,2,3,7,8,9-HxCDD	ND	0.418				—
1,2,3,4,6,7,8-HpCDD	ND	1.08				—
1,2,3,4,6,7,8,9-OCDD	1.33			0.95	36:15	—
2,3,7,8-TCDF	ND	0.095				—
1,2,3,7,8-PeCDF	ND	0.741				—
2,3,4,7,8-PeCDF	ND	0.931				—
1,2,3,4,7,8-HxCDF	ND	0.931				—
1,2,3,6,7,8-HxCDF	ND	0.551				—
2,3,4,6,7,8-HxCDF	ND	0.76				—
1,2,3,7,8,9-HxCDF	ND	0.646				—
1,2,3,4,6,7,8-HpCDF	0.251			1.09	32:33	—
1,2,3,4,7,8,9-HpCDF	ND	0.266				—
1,2,3,4,6,7,8,9-OCDF	ND	0.513				—

Totals	Conc. (ppb)	Number	DL	EMPC	Flags
Total TCDD		0		1.07	—
Total PeCDD	ND	0	0.798		—
Total HxCDD	ND	0	0.418		—
Total HpCDD	ND	0	1.08		—
Total TCDF	ND	0	0.095		—
Total PeCDF	ND	0	0.931		—
Total HxCDF	ND	0	0.646		—
Total HpCDF	0.251	1			—

8280_PSR v2.07. LAR

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D-00028

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American Environmental Network

TL-RTP Project: 33571 — Method 8280 PCDD/PCDF Analysis (b)

Client Sample: NSWC-25/07D-001 — Analysis File: E952827

Internal Standards	Conc. (ppb)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	3.65	38.4	40%-120%	0.81	20:04	V___
$^{13}C_{12}$-2,3,7,8-TCDD	3.59	37.8	40%-120%	0.78	21:13	V___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	6.34	66.7	40%-120%	1.23	30:29	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	12.6	66.3	40%-120%	1.06	32:32	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	14.3	75.3	25%-120%	0.92	36:14	___

Clean-Up Standard	Conc. (ppb)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	1.87	39.4	40%-120%	21:15	V___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.78	20:56	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.30	30:48	___

Data Reviewer: PCB 08/08/95

IC80_PSR v2.07, LARS 6.01.02

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American Environmental Network

TL-RTP Project: 33571 — Toxicity Equivalents Report

Client Sample: NSWC-25/07D-001 — Analysis File: E952827

Client Project:	Indiana-Navy Project				
Sample Matrix:	SOIL	Date Received:	07/27/95	Spike File:	SP828050
TLRTP ID:	103-239-3	Date Extracted:	07/28/95	ICal:	E855275
		Date Analyzed:	07/31/95	ConCal:	E952821
Sample Size:	10.650 g	Dilution Factor:	n/a	% Moisture:	50.6
Dry Weight:	5.261 g	Blank File:	E952824	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JF	% Solids:	49.4

Analytes	Conc. (ppb)		TEF		Equivalent
2,3,7,8-TCDD	ND	x	1	=	0
1,2,3,7,8-PeCDD	ND	x	0.5	=	0
1,2,3,4,7,8-HxCDD	ND	x	0.1	=	0
1,2,3,6,7,8-HxCDD	ND	x	0.1	=	0
1,2,3,7,8,9-HxCDD	ND	x	0.1	=	0
1,2,3,4,6,7,8-HpCDD	ND	x	0.01	=	0
1,2,3,4,6,7,8,9-OCDD	1.3	x	0.001	=	0.0013
2,3,7,8-TCDF	ND	x	0.1	=	0
1,2,3,7,8-PeCDF	ND	x	0.05	=	0
2,3,4,7,8-PeCDF	ND	x	0.5	=	0
1,2,3,4,7,8-HxCDF	ND	x	0.1	=	0
1,2,3,6,7,8-HxCDF	ND	x	0.1	=	0
2,3,4,6,7,8-HxCDF	ND	x	0.1	=	0
1,2,3,7,8,9-HxCDF	ND	x	0.1	=	0
1,2,3,4,6,7,8-HpCDF	0.25	x	0.01	=	0.0025
1,2,3,4,7,8,9-HpCDF	ND	x	0.01	=	0
1,2,3,4,6,7,8,9-OCDF	ND	x	0.001	=	0

Total 2,3,7,8-TCDD Toxicity (1989 ITF) Equivalents: 0.0038 ppb

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AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9507195
Report To: MK Corp
Project: NSWC - Crane #4324
Date: July 31, 1995
Analysis: Total Sulfide, SW846 9030M

Client ID	AENI ID	%Solids	Result, mg/Kg
NSWC-23/00-001	9507195-001	77.3	<52
NSWC-23/00-002	9507195-002	67.5	<59
NSWC-25/07D-001	9507195-003	62.3	<64
NSWC-25/07D-002	9507195-004	80.1	<50
NSWC-26/08D-001	9507195-005	85.4	<47
NSWC-26/08D-002	9507195-006	86.7	46

(1) Results reported on a dry weight basis.

lgchem1007

AMERICAN ENVIRONMENTAL NETWORK, INC
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9507195
Report To: MK Corp
Project: NSWC - Crane #4324
Date: July 31, 1995
Analysis: Total Cyanide, SW846 9010

Client ID	AENI ID	%Solids	Result, mg/Kg
NSWC-23/00-001	9507195-001	77.3	<1.3
NSWC-23/00-002	9507195-002	67.5	<1.5
NSWC-25/07D-001	9507195-003	62.3	<1.6
NSWC-25/07D-002	9507195-004	80.1	<1.2
NSWC-26/08D-001	9507195-005	85.4	<1.2
NSWC-26/08D-002	9507195-006	86.7	<1.2

(1) Results reported on a dry weight basis.

\gchem\007

SAMPLE 25/07D-001RE

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SWC-25/07D-001RE

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: NSWC Location: CRANE Group:

Matrix: (soil/water) SOIL Lab Sample ID: 003RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EG353.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: not dec. 38 Date Analyzed: 7/31/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl Chloride	16	U
75-00-3	Chloroethane	16	U
75-09-2	Methylene Chloride	39	B
67-64-1	Acetone	84	JB
75-05-8	Acetonitrile	8.1	U
107-13-1	Acrylonitrile	1600	U
107-02-8	Acrolein	1600	U
75-69-4	Trichlorofluoromethane	8.1	U
75-15-0	Carbon Disulfide	8.1	U
75-35-4	1,1-Dichloroethene	8.1	U
75-34-4	1,1-Dichloroethane	8.1	U
540-59-0	trans-1,2-Dichloroethene	8.1	U
67-66-3	Chloroform	8.1	U
107-06-2	1,2-Dichloroethane	8.1	U
75-71-8	Dichlorodifluoromethane	8.1	U
74-88-4	Iodomethane	8.1	U
107-12-0	Propionitrile	8.1	U
107-05-1	Allyl chloride	160	U
78-93-3	2-Butanone	160	U
71-55-6	1,1,1-Trichloroethane	8.1	U
56-23-5	Carbon Tetrachloride	8.1	U
108-05-4	Vinyl Acetate	8.1	U
75-27-4	Bromodichloromethane	8.1	U
78-87-5	1,2-Dichloropropane	8.1	U
10061-01-5	cis-1,3-Dichloropropene	8.1	U
79-01-6	Trichloroethene	8.1	U
71-43-2	Benzene	8.1	U
124-48-1	Dibromochloromethane	8.1	U
10061-02-6	trans-1,3-Dichloropropene	8.1	U
79-00-5	1,1,2-Trichloroethane	8.1	U
75-25-2	Bromoform	8.1	U

FORM I VOA SW846

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/07D-001RE

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: NSWC Location: CRANE Group:

Matrix: (soil/water) SOIL Lab Sample ID: #003RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EG353.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: not dec. 38 Date Analyzed: 7/31/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
126-98-7	Methacrylonitrile	8.1	U
74-95-3	Dibromomethane	8.1	U
106-93-4	1,2-Dibromoethane (EDB)	8.1	U
108-10-1	4-Methyl-2-Pentanone	81	U
591-78-6	2-Hexanone	81	U
127-18-4	Tetrachloroethene	16	
79-34-5	1,1,2,2-Tetrachloroethane	8.1	U
108-88-3	Toluene	8.1	U
108-90-7	Chlorobenzene	8.1	U
100-41-4	Ethylbenzene	8.1	U
100-42-5	Styrene	8.1	U
108-38-3	m + p-Xylene	8.1	U
95-47-6	o-Xylene	8.1	U
80-62-6	Methyl methacrylate	8.1	U
630-20-6	1,1,1,2-Tetrachloroethane	8.1	U
96-18-4	1,2,3-Trichloropropane	8.1	U
110-57-6	trans-1,4-Dichloro-2-butene	8.1	U
97-63-2	Ethyl methacrylate	8.1	U
76-01-7	Pentachloroethane	8.1	U
96-12-8	1,2-Dibromo-3-chloropropane	8.1	U
126-99-8	Chloroprene	5	UZ
123-91-1	1,4-Dioxane (TIC)	1000	U
78-83-1	Isobutyl Alcohol (TIC)	1000	U
	3-Chloroprene (TIC)	5	U

FORM I VOA SW846

D-00034

SAMPLE 25/07D-002

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/07D-002

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: NSWC Location: CRANE Group:

Matrix: (soil/water) SOIL Lab Sample ID: #004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E6354.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: not dec. 20 Date Analyzed: 7/31/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	25	B
67-64-1	Acetone	130	U
75-05-8	Acetonitrile	6.3	U
107-13-1	Acrylonitrile	1300	U
107-02-8	Acrolein	1300	U
75-69-4	Trichlorofluoromethane	6.3	U
75-15-0	Carbon Disulfide	6.3	U
75-35-4	1,1-Dichloroethene	6.3	U
75-34-4	1,1-Dichloroethane	6.3	U
540-59-0	trans-1,2-Dichloroethene	6.3	U
67-66-3	Chloroform	6.3	U
107-06-2	1,2-Dichloroethane	6.3	U
75-71-8	Dichlorodifluoromethane	6.3	U
74-88-4	Iodomethane	6.3	U
107-12-0	Propionitrile	6.3	U
107-05-1	Allyl chloride	130	U
78-93-3	2-Butanone	130	U
71-55-6	1,1,1-Trichloroethane	6.3	U
56-23-5	Carbon Tetrachloride	6.3	U
108-05-4	Vinyl Acetate	6.3	U
75-27-4	Bromodichloromethane	6.3	U
78-87-5	1,2-Dichloropropane	6.3	U
10061-01-5	cis-1,3-Dichloropropene	6.3	U
79-01-6	Trichloroethene	6.3	U
71-43-2	Benzene	6.3	U
124-48-1	Dibromochloromethane	6.3	U
10061-02-6	trans-1,3-Dichloropropene	6.3	U
79-00-5	1,1,2-Trichloroethane	6.3	U
75-25-2	Bromoform	6.3	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/07D-002

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: NSWC Location: CRANE Group:

Matrix: (soil/water) SOIL Lab Sample ID: #004

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E6354.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: not dec. 20 Date Analyzed: 7/31/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound			Q
126-98-7	Methacrylonitrile		6.3	U
74-95-3	Dibromomethane		6.3	U
106-93-4	1,2-Dibromoethane (EDB)		6.3	U
108-10-1	4-Methyl-2-Pentanone		63	U
591-78-6	2-Hexanone		63	U
127-18-4	Tetrachloroethene		6.3	U
79-34-5	1,1,2,2-Tetrachloroethane		6.3	U
108-88-3	Toluene		6.3	U
108-90-7	Chlorobenzene		6.3	U
100-41-4	Ethylbenzene		6.3	U
100-42-5	Styrene		6.3	U
108-38-3	m + p-Xylene		6.3	U
95-47-6	o-Xylene		6.3	U
80-62-6	Methyl methacrylate		6.3	U
630-20-6	1,1,1,2-Tetrachloroethane		6.3	U
96-18-4	1,2,3-Trichloropropane		6.3	U
110-57-6	trans-1,4-Dichloro-2-butene		6.3	U
97-63-2	Ethyl methacrylate		6.3	U
76-01-7	Pentachloroethane		6.3	U
96-12-8	1,2-Dibromo-3-chloropropane		6.3	U
126-99-8	Chloroprene		5	UZ
123-91-1	1,4-Dioxane	(TIC)	1000	U
78-83-1	Isobutyl Alcohol	(TIC)	1000	U
	3-Chloroprene	(TIC)	5	U

FORM I VOA SW846

D- 00036

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/070-002

Lab Name: AEMI MD Contract: MKC

Project No.: 9507195 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #004

Sample wt/vol: 30.4 (g/mL) G Lab File ID: DG434.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: 4 decanted: (Y/N): N Date Extracted: 7/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 7/28/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
62-75-9	N-Nitroso-Di-Methylamine	340	U
111-44-4	bis(2-Chloroethyl)ether	340	U
108-95-2	Phenol	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
95-50-1	1,2-Dichlorobenzene	340	U
100-51-6	Benzyl alcohol	680	U
108-60-1	bis(2-chloroisopropyl)ether	340	U
95-48-7	2-Methylphenol	340	U
67-72-1	Hexachloroethane	340	U
621-64-7	N-Nitroso-di-n-propylamine	340	U
106-44-5	4-Methylphenol	340	U
110-86-1	Pyridine	340	U
109-06-8	2-Picoline	340	U
62-53-3	Aniline	340	U
10595-95-6	N-Nitrosomethylethylamine	340	U
66-27-3	Methyl methanesulfonate	340	U
55-18-5	N-Nitrosodiethylamine	340	U
62-50-0	Ethyl methanesulfonate	340	U
108-39-4	3 Methylphenol	340	U
930-55-2	N-Nitrosopyrrolidine	340	U
95-53-4	o-Toluidine	340	U
59-89-2	N-Nitrosomorpholine	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	680	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/07D-002

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #004

Sample wt/vol: 30.4 (g/mL) G Lab File ID: DG434.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: 4 decanted: (Y/N): N Date Extracted: 7/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 7/28/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
98-86-2	Acetophenone	340	U
122-09-8	a,a,a-Dimethylphenethylamine	340	U
1888-71-7	Hexachloropropene	340	U
87-65-0	2,6-Dichlorophenol	340	U
924-16-3	N-Nitrosodibutylamine	340	U
100-75-4	N-Nitrosopiperidine	340	U
130-15-4	1,4-Naphthoquinone	340	U
126-68-1	o,o,o-Triethyl phosphorothioate	340	U
120-58-1	Isosafrole	340	U
106-50-3	p-Phenylenediamine	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	340	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
208-96-8	Acenaphthylene	340	U
131-11-3	Dimethylphthalate	340	U
606-20-2	2,6-Dinitrotoluene	340	U
83-32-9	Acenaphthene	340	U
99-09-2	3-Nitroaniline	1700	U
51-28-5	2,4-Dinitrophenol	1700	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
100-02-7	4-Nitrophenol	340	U
86-73-7	Fluorene	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
84-66-2	Diethylphthalate	340	U
100-01-6	4-Nitroaniline	1700	U
95-94-3	1,2,4,5-Tetrachlorobenzene	340	U
99-65-0	1,3-Dinitrobenzene	340	U

FORM I SV

SW846

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/07D-002

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #004

Sample wt/vol: 30.4 (g/mL) G Lab File ID: DG434.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: 4 decanted: (Y/N): N Date Extracted: 7/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 7/28/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
608-93-5	Pentachlorobenzene	340	U
91-59-8	2-Naphthylamine	340	U
134-32-7	1-Naphthylamine	340	U
58-90-2	2,3,4,6-Tetrachlorophenol	340	U
297-97-2	Thionazin	340	U
99-55-8	5-Nitro-o-toluidine	340	U
94-59-7	Safrole	340	U
56-57-5	4-Nitroquinoline 1-oxide	340	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	n-Nitrosodiphenylamine	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-butylphthalate	340	U
206-44-0	Fluoranthene	340	U
122-39-4	Diphenylamine	340	U
99-35-4	sym-Trinitrobenzene	340	U
62-44-2	Phenacetin	340	U
92-67-1	4-Aminobiphenyl	340	U
91-80-5	Methapyrilene	340	U
129-00-0	Pyrene	340	U
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	680	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
117-81-7	bis(2-Ethylhexyl)phthalate	340	U
60-11-7	p-Dimethylaminoazobenzene	340	U
140-57-8	Aramite	340	U
119-93-7	3,3'-Dimethylbenzidine	340	U
53-96-3	2-Acetylaminofluorene	340	U
117-84-0	Di-n-octylphthalate	340	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/07D-002

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #004

Sample wt/vol: 30.4 (g/mL) G Lab File ID: DG434.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: 4 decanted: (Y/N): N Date Extracted: 7/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 7/28/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
205-99-2	Benzo(b)fluoranthene	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenz(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U
57-97-6	7,12-Dimethylbenz(a)anthracene	340	U
56-49-5	3-Methylcholanthrene	340	U

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

25/07D-002

Lab Name: AMERICAN_ENVIRON_NETWORK_ Contract: MK_CORP___
Lab Code: _____ Case No.: 95071 SAS No.: _____ SDG No.: 507195
Matrix (soil/water): SOIL_ Lab Sample ID: 950719504
Level (low/med): LOW__ Date Received: 07/22/95
% Solids: _80.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	2.4	U	N	P_
7440-38-2	Arsenic__	13.1	_		P_
7440-39-3	Barium___	61.9	_		P_
7440-41-7	Beryllium	0.79	_		P_
7440-43-9	Cadmium__	0.49	U	N	P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	27.6	_	EN	P_
7440-48-4	Cobalt___	8.1	_		P_
7440-50-8	Copper___	17.1	_		P_
7439-89-6	Iron____		_		NR
7439-92-1	Lead____	24.4	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	21.1	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	0.61	U	N	P_
7440-22-4	Silver___	0.98	U		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	1.2	U	N	P_
7440-62-2	Vanadium_	32.5	_		P_
7440-66-6	Zinc____	78.9	_	E	P_
	Cyanide__		_		NR
7440-31-5_	Tin____	30.3	U		P_
7439-93-2_	Lithium__		_		NR
			_		
			_		
			_		
			_		
			_		
			_		
			_		

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments:
CLIENT_ID:__NSWC-25/07D-002

AMERICAN ENVIRONMENTAL NETWORK INC.
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Sample Number
NSWC-25/07D-002

Case No.: 9507195
Client Name: MK CORP
Project Name: NSWC-CRANE

AENI # 9507195-004

Concentration: Low
Date Sampled: 7/18/95
Date Received: 7/22/95
Date Extract Prepared: 7/27/95
Date Analyzed: 8/2/95
Conc/Dil Factor: 1
Matrix SOIL

GPC Cleanup No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid 80

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		37	U
SILVEX		37	U
2,4,5-T		37	U

Vi - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) N/A
Ws - Mass of soil extracted (g) 50.01
Vt- Volume of total extract (ul) 5000

FORM I

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9507195

Project Name:——— NSWC-CRANE #4324

Client Name:——— MK CORP

Sample Number
NSWC-25/07D-002

AENI # 9507195-004

Concentration:——— Low

Date Sampled:——— 7/18/95

Date Received:——— 7/22/95

Date Ext Prepared:——— 7/26/95

Date Analyzed:——— 8/2/95

Conc/Dil Factor:——— 1

Method: ——— 8080

GPC Cleanup	Yes	X No
Seperatory Funnel Extraction		Yes
Continuous Liquid - Liquid Extraction		Yes
Percent Moisture	19.9	
Matrix:	SOIL	

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		2.0	U
319-85-7	beta-BHC		2.0	U
319-86-8	delta-BHC		2.0	U
58-89-9	gamma-BHC (Lindane)		4.1	U
75-44-8	Heptachlor		2.0	U
309-00-2	Aldrin		2.0	U
1024-57-3	Heptachlor epoxide		2.0	U
959-98-8	Endosulfan I		2.0	U
60-57-1	Dieldrin		4.1	U
75-55-9	4, 4'-DDE		4.1	U
72-20-8	Endrin		4.1	U
33213-65-9	Endosulfan II		4.1	U
72-54-8	4, 4'-DDD		4.1	U
1031-07-8	Endosulfan Sulfate		4.1	U
50-29-3	4, 4'-DDT		4.1	U
72-43-5	Methoxychlor		20	U
53494-70-5	Endrin Ketone		4.1	U
7421-36-3	Endrin aldehyde		4.1	U
57-74-9	Chlordane		41	U
8001-35-2	Toxaphene		200	U
12674-11-2	Aroclor-1016		41	U
11104-28-2	Aroclor-1221		82	U
11141-16-5	Aroclor-1232		41	U
53469-21-9	Aroclor-1242		41	U
12672-29-6	Aroclor-1248		41	U
11097-69-1	Aroclor-1254		41	U
11096-82-5	Aroclor-1260		41	U
510-15-6	Chlorobenzilate		82	U
2303-16-4	Diallate		410	U
465-73-6	Isodrin		10	U
143-50-0	Kepone		41	U
82-68-8	Pentachloronitrobenzene		8.2	U

Vi - Volume of extract injected (ul) - _____ 5

Vs - Volume of Water extracted (ml) - _____ N/A

Ws - Weight of sample extracted (g) - _____ 30.47

Vt - Volume of total extract (ul) - _____ 10,000

FORM I

TL-RTP Project: 33571 Method 8280 PCDD/PCDF Analysis (b)
Client Sample: NSWC-25/07D-002 Analysis File: E952828
Client Project: Indiana-Navy Project Matrix: S

PCDD/PCDF SUMMARY REPORT

Specific Analytes	Conc. (ppb)	DL (ppb)	Blank (ppb)
2,3,7,8-TCDD	ND	0.0467	ND
1,2,3,7,8-PeCDD	ND	0.49	ND
1,2,3,4,7,8-HxCDD	ND	0.443	ND
1,2,3,6,7,8-HxCDD	ND	0.268	ND
1,2,3,7,8,9-HxCDD	ND	0.257	ND
1,2,3,4,6,7,8-HpCDD	ND	0.665	ND
1,2,3,4,6,7,8,9-OCDD	1.69	0.362	ND
2,3,7,8-TCDF	ND	0.0583	ND
1,2,3,7,8-PeCDF	ND	0.455	ND
2,3,4,7,8-PeCDF	ND	0.572	ND
1,2,3,4,7,8-HxCDF	ND	0.572	ND
1,2,3,6,7,8-HxCDF	ND	0.338	ND
2,3,4,6,7,8-HxCDF	ND	0.467	ND
1,2,3,7,8,9-HxCDF	ND	0.397	ND
1,2,3,4,6,7,8-HpCDF	ND	0.0754	ND
1,2,3,4,7,8,9-HpCDF	ND	0.163	ND
1,2,3,4,6,7,8,9-OCDF	ND	0.315	ND

Definitions:

Conc. - The concentration of the specific analyte in the units shown.

DL - The detection limit of the specific analyte in the units shown.

Blank - The concentration of the method blank.

ND - (Non-Detect) The concentration of the analyte is less than the detection limit.

Total Analytes	Conc. (ppb)	DL (ppb)
Total TCDD	ND	0.0467
Total PeCDD	ND	0.49
Total HxCDD	ND	0.257
Total HpCDD	ND	0.665
Total TCDF	ND	0.0583
Total PeCDF	ND	0.572
Total HxCDF	ND	0.397
Total HpCDF	ND	0.163

8280_PSR v2.07. LARS

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Printed: 14:45 08/08/95

American Environmental Network

TL-RTP Project: 33571 — Method 8280 PCDD/PCDF Analysis (b)

Client Sample: NSWC-25/07D-002 — Analysis File: E952828

Client Project:	Indiana-Navy Project				
Sample Matrix:	SOIL	Date Received:	07/27/95	Spike File:	SP828050
TLRTP ID:	103-239-4	Date Extracted:	07/28/95	ICal:	E855275
		Date Analyzed:	07/31/95	ConCal:	E952821
Sample Size:	10.650 g	Dilution Factor:	n/a	% Moisture:	19.5
Dry Weight:	8.573 g	Blank File:	E952824	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JF	% Solids:	80.5

Analytes	Conc. (ppb)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	0.0467				—
1,2,3,7,8-PeCDD	ND	0.49				—
1,2,3,4,7,8-HxCDD	ND	0.443				—
1,2,3,6,7,8-HxCDD	ND	0.268				—
1,2,3,7,8,9-HxCDD	ND	0.257				—
1,2,3,4,6,7,8-HpCDD	ND	0.665				—
1,2,3,4,6,7,8,9-OCDD	1.69			0.91	36:15	—
2,3,7,8-TCDF	ND	0.0583				—
1,2,3,7,8-PeCDF	ND	0.455				—
2,3,4,7,8-PeCDF	ND	0.572				—
1,2,3,4,7,8-HxCDF	ND	0.572				—
1,2,3,6,7,8-HxCDF	ND	0.338				—
2,3,4,6,7,8-HxCDF	ND	0.467				—
1,2,3,7,8,9-HxCDF	ND	0.397				—
1,2,3,4,6,7,8-HpCDF	ND	0.0754				—
1,2,3,4,7,8,9-HpCDF	ND	0.163				—
1,2,3,4,6,7,8,9-OCDF	ND	0.315				—

Totals	Conc. (ppb)	Number	DL	EMPC	Flags
Total TCDD		0		0.718	—
Total PeCDD	ND	0	0.49		—
Total HxCDD	ND	0	0.257		—
Total HpCDD	ND	0	0.665		—
Total TCDF	ND	0	0.0583		—
Total PeCDF	ND	0	0.572		—
Total HxCDF	ND	0	0.397		—
Total HpCDF	ND	0	0.163		—

8280_PSR v2.07, LARS 6 01 02

Triangle Laboratories of RTP, Inc.
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Phone: (919) 544-5729 • Fax: (919) 544-5491

Printed: 14:45 08/08/95

TL-RTP Project: 33571 Method 8280 PCDD/PCDF Analysis (b)
Client Sample: NSWC-25/07D-002 Analysis File: E952828

Internal Standards	Conc. (ppb)	% Recovery	QC Limits	Ratio	RT	Flags
$^{13}C_{12}$-2,3,7,8-TCDF	2.5	42.9	40%-120%	0.79	20:06	___
$^{13}C_{12}$-2,3,7,8-TCDD	2.3	39.5	40%-120%	0.80	21:14	V___
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	3.72	63.7	40%-120%	1.25	30:29	___
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	8.02	68.8	40%-120%	1.07	32:33	___
$^{13}C_{12}$-1,2,3,4,6,7,8,9-OCDD	7.61	65.2	25%-120%	0.92	36:14	___

Clean-Up Standard	Conc. (ppb)	% Recovery	QC Limits	RT	Flags
$^{37}Cl_4$-2,3,7,8-TCDD	1.18	40.6	40%-120%	21:16	___

Recovery Standards	Ratio	RT	Flags
$^{13}C_{12}$-1,2,3,4-TCDD	0.79	20:57	___
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	1.28	30:48	___

Data Reviewer: PCB 08/08/95

8280_PSR v2.07. LARS

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D-00046

Printed: 14:45 08/08/95

American Environmental Network

TL-RTP Project: 33571
Client Sample: NSWC-25/07D-002

Toxicity Equivalents Report
Analysis File: E952828

Client Project:	Indiana-Navy Project				
Sample Matrix:	SOIL	Date Received:	07/27/95	Spike File:	SP828050
TLRTP ID:	103-239-4	Date Extracted:	07/28/95	ICal:	E855275
		Date Analyzed:	07/31/95	ConCal:	E952821
Sample Size:	10.650 g	Dilution Factor:	n/a	% Moisture:	19.5
Dry Weight:	8.573 g	Blank File:	E952824	% Lipid:	n/a
GC Column:	DB-5	Analyst:	JF	% Solids:	80.5

Analytes	Conc. (ppb)		TEF		Equivalent
2,3,7,8-TCDD	ND	x	1	=	0
1,2,3,7,8-PeCDD	ND	x	0.5	=	0
1,2,3,4,7,8-HxCDD	ND	x	0.1	=	0
1,2,3,6,7,8-HxCDD	ND	x	0.1	=	0
1,2,3,7,8,9-HxCDD	ND	x	0.1	=	0
1,2,3,4,6,7,8-HpCDD	ND	x	0.01	=	0
1,2,3,4,6,7,8,9-OCDD	1.7	x	0.001	=	0.0017
2,3,7,8-TCDF	ND	x	0.1	=	0
1,2,3,7,8-PeCDF	ND	x	0.05	=	0
2,3,4,7,8-PeCDF	ND	x	0.5	=	0
1,2,3,4,7,8-HxCDF	ND	x	0.1	=	0
1,2,3,6,7,8-HxCDF	ND	x	0.1	=	0
2,3,4,6,7,8-HxCDF	ND	x	0.1	=	0
1,2,3,7,8,9-HxCDF	ND	x	0.1	=	0
1,2,3,4,6,7,8-HpCDF	ND	x	0.01	=	0
1,2,3,4,7,8,9-HpCDF	ND	x	0.01	=	0
1,2,3,4,6,7,8,9-OCDF	ND	x	0.001	=	0

Total 2,3,7,8-TCDD Toxicity (1989 ITF) Equivalents: 0.0017 ppb

TEFPR.prt v5.07. LARS 6.01 ...

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Printed: 14:48 08/08/95

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9507195
Report To: MK Corp
Project: NSWC - Crane #4324
Date: July 31, 1995
Analysis: Total Sulfide, SW846 9030M

Client ID	AENI ID	%Solids	Result, mg/Kg
NSWC-23/00-001	9507195-001	77.3	<52
NSWC-23/00-002	9507195-002	67.5	<59
NSWC-25/07D-001	9507195-003	62.3	<64
NSWC-25/07D-002	9507195-004	80.1	<50
NSWC-26/08D-001	9507195-005	85.4	<47
NSWC-26/08D-002	9507195-006	86.7	46

(1) Results reported on a dry weight basis.

SAMPLE 25/07D-002R

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/07D-002 R

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #004 R

Sample wt/vol: 30.4 (g/mL) G Lab File ID: DH005.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: 4 decanted: (Y/N): N Date Extracted: 7/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 8/1/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
87-68-3	Hexachlorobutadiene	340	U
59-50-7	4-Chloro-3-methylphenol	340	U
91-57-6	2-Methylnaphthalene	340	U
77-47-4	Hexachlorocyclopentadiene	340	U
98-86-2	Acetophenone	340	U
122-09-8	a,a,a-Dimethylphenethylamine	340	U
1888-71-7	Hexachloropropene	340	U
87-65-0	2,6-Dichlorophenol	340	U
924-16-3	N-Nitrosodibutylamine	340	U
100-75-4	N-Nitrosopiperidine	340	U
130-15-4	1,4-Naphthoquinone	340	U
126-68-1	o,o,o-Triethyl phosphorothioate	340	U
120-58-1	Isosafrole	340	U
106-50-3	p-Phenylenediamine	340	U
88-06-2	2,4,6-Trichlorophenol	340	U
95-95-4	2,4,5-Trichlorophenol	340	U
91-58-7	2-Chloronaphthalene	340	U
88-74-4	2-Nitroaniline	1700	U
208-96-8	Acenaphthylene	340	U
131-11-3	Dimethylphthalate	340	U
606-20-2	2,6-Dinitrotoluene	340	U
83-32-9	Acenaphthene	340	U
99-09-2	3-Nitroaniline	1700	U
51-28-5	2,4-Dinitrophenol	1700	U
132-64-9	Dibenzofuran	340	U
121-14-2	2,4-Dinitrotoluene	340	U
100-02-7	4-Nitrophenol	340	U
86-73-7	Fluorene	340	U
7005-72-3	4-Chlorophenyl-phenylether	340	U
84-66-2	Diethylphthalate	340	U
100-01-6	4-Nitroaniline	1700	U
95-94-3	1,2,4,5-Tetrachlorobenzene	340	U
99-65-0	1,3-Dinitrobenzene	340	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MSWC-25/07D-002 R

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #004 R

Sample wt/vol: 30.4 (g/mL) G Lab File ID: DH005.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: 4 decanted: (Y/N): N Date Extracted: 7/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 8/1/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
62-75-9	N-Nitroso-Di-Methylamine	340	U
111-44-4	bis(2-Chloroethyl)ether	340	U
108-95-2	Phenol	340	U
95-57-8	2-Chlorophenol	340	U
541-73-1	1,3-Dichlorobenzene	340	U
106-46-7	1,4-Dichlorobenzene	340	U
95-50-1	1,2-Dichlorobenzene	340	U
100-51-6	Benzyl alcohol	680	U
108-60-1	bis(2-chloroisopropyl)ether	340	U
95-48-7	2-Methylphenol	340	U
67-72-1	Hexachloroethane	340	U
621-64-7	N-Nitroso-di-n-propylamine	340	U
106-44-5	4-Methylphenol	340	U
110-86-1	Pyridine	340	U
109-06-8	2-Picoline	340	U
62-53-3	Aniline	340	U
10595-95-6	N-Nitrosomethylethylamine	340	U
66-27-3	Methyl methanesulfonate	340	U
55-18-5	N-Nitrosodiethylamine	340	U
62-50-0	Ethyl methanesulfonate	340	U
108-39-4	3-Methylphenol	340	U
930-55-2	N-Nitrosopyrrolidine	340	U
95-53-4	o-Toluidine	340	U
59-89-2	N-Nitrosomorpholine	340	U
98-95-3	Nitrobenzene	340	U
78-59-1	Isophorone	340	U
88-75-5	2-Nitrophenol	340	U
105-67-9	2,4-Dimethylphenol	340	U
111-91-1	bis(2-Chloroethoxy)methane	340	U
120-83-2	2,4-Dichlorophenol	340	U
120-82-1	1,2,4-Trichlorobenzene	340	U
91-20-3	Naphthalene	340	U
106-47-8	4-Chloroaniline	680	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SWC-25/07D-002 R

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #004 R

Sample wt/vol: 30.4 (g/mL) G Lab File ID: DH005.D

Level: (low/med) LOW Date Received: 7/22/95

% Moisture: 4 decanted: (Y/N): N Date Extracted: 7/26/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 8/1/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
608-93-5	Pentachlorobenzene	340	U
91-59-8	2-Naphthylamine	340	U
134-32-7	1-Naphthylamine	340	U
58-90-2	2,3,4,6-Tetrachlorophenol	340	U
297-97-2	Thionazin	340	U
99-55-8	5-Nitro-o-toluidine	340	U
94-59-7	Safrole	340	U
56-57-5	4-Nitroquinoline 1-oxide	340	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	n-Nitrosodiphenylamine	340	U
101-55-3	4-Bromophenyl-phenylether	340	U
118-74-1	Hexachlorobenzene	340	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
84-74-2	Di-n-butylphthalate	340	U
206-44-0	Fluoranthene	65	J
122-39-4	Diphenylamine	340	U
99-35-4	sym-Trinitrobenzene	340	U
62-44-2	Phenacetin	340	U
92-67-1	4-Aminobiphenyl	340	U
91-80-5	Methapyrilene	340	U
129-00-0	Pyrene	60	J
85-68-7	Butylbenzylphthalate	340	U
91-94-1	3,3'-Dichlorobenzidine	680	U
56-55-3	Benzo(a)anthracene	61	J
218-01-9	Chrysene	76	J
117-81-7	bis(2-Ethylhexyl)phthalate	340	U
60-11-7	p-Dimethylaminoazobenzene	340	U
140-57-8	Aramite	340	U
119-93-7	3,3'-Dimethylbenzidine	340	U
53-96-3	2-Acetylaminofluorene	340	U
117-84-0	Di-n-octylphthalate	340	U

SAMPLE 25/07D-003

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

25/07D 003

Lab Name: AENI Contract: 9511144

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

Matrix (soil/water): SOIL Lab Sample ID: 951114401

Level (low/med): LOW Date Received: 11/17/95

% Solids: 79.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	2.5	U	N	P
7440-38-2	Arsenic	12.2		N	P
7440-39-3	Barium	64.3			P
7440-41-7	Beryllium	0.75			P
7440-43-9	Cadmium	1.3			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	22.1		N*	P
7440-48-4	Cobalt	12.7			P
7440-50-8	Copper	110		N*	P
7439-89-6	Iron				NR
7439-92-1	Lead	19.5		EN*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.13	U		AV
7440-02-0	Nickel	34.6		N	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.63	U	N	P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	12.6	U	N	P
7440-62-2	Vanadium	26.9		N*	P
7440-66-6	Zinc	16100		N	P
	Cyanide				NR
7440-31-5	Tin	25.2	U		P
7439-93-2	Lithium				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: NSWC_25/07D_003

Ω OMEGA LABORATORIES, INC.
125 State Street · Hackensack, NJ 07601 Tel: (201) 489-8700

LABORATORY ANALYSIS REPORT (PAGE1 - ASBESTOS CONTENT)

CLIENT NAME: AMERICAN ENVIRONMENTAL NET.
9151 RUMSEY RD. SUITE 150
COLUMBIA, MD 21045

CLIENT ACCOUNT: PROJECT: 9511144

DATE SAMPLED: 11/21/95
DATE RECEIVED: 11/27/95
DATE OF ANALYSIS: 11/27/95
DATE OF REPORT: 11/28/95

TEST REQUESTED: BULK ASBESTOS BY POLARIZED LIGHT MICROSCOPY
METHOD: EPA 600/M4-82-020

ANALYST: JOAN BENNETT

SAMPLE ID	LAB ID	ASBESTOS FIBER CONTENT (%)						TOTAL ASBESTOS	TOTAL NON-ASBESTOS
		CHRYSOTILE	AMOSITE	CROCIDOLITE	TREMOLITE	ACTINOLITE	ANTHOPHYLLITE		
9511144-001	B33893	ND	ND	ND	ND	ND	ND	ND	100
9511144-002	B33894	ND	ND	ND	ND	ND	ND	ND	100
9511144-003	B33895	ND	ND	ND	ND	ND	ND	ND	100

ND = none detected
LT = less than

uncertainty associated with method = +/- 5% by weight
test report relates only to items tested

SAMPLES PROVIDED BY CLIENT

MK Samples 25107D -003, 004, 005 Respectively.

D-00053

AENI
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Sample Number
NSWC 25/07D 003

Case No.: 9511144
Client Name: MK CORP
Project Name: CRANE NSWC
Account #: MKC 70

AENI # 9511144-001

Concentration: Low
Date Sampled: 11/16/95
Date Received: 11/17/95
Date Extract Prepared: 11/27/95
Date Analyzed: 12/1/95
Conc/Dil Factor: 1
Matrix SOIL

GPC Cleanup No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid 79.3

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		62	U
SILVEX		62	U
2,4,5-T		62	U

Vi - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) N/A
Ws - Mass of soil extracted (g) 10.10
Vt- Volume of total extract (ul) 10000

FORM I

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9511144

Project Name:——— NSWC CRANE

Client/Account #:—— MK CORP/MKC70

Sample Number
NSWC 25/07D 003

AENI # 9511144-001

Concentration:——— Low

Date Sampled:——— 11/16/95

Date Received:——— 11/17/95

Date Ext Prepared:— 11/23/95

Date Analyzed:——— 11/29/95

Conc/Dil Factor:——— 20

Method: ——— 8080

GPC Cleanup		Yes	X	No
Seperatory Funnel Extraction				Yes
Continuous Liquid - Liquid Extraction				Yes
Percent Moisture	20.7			
Matrix	SOIL			

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		42	U
319-85-7	beta-BHC		42	U
319-86-8	delta-BHC		42	U
58-89-9	gamma-BHC (Lindane)		84	U
75-44-8	Heptachlor		42	U
309-00-2	Aldrin		42	U
1024-57-3	Heptachlor epoxide		42	U
959-98-8	Endosulfan I		42	U
60-57-1	Dieldrin		84	U
75-55-9	4, 4'-DDE		84	U
72-20-8	Endrin		84	U
33213-65-9	Endosulfan II		84	U
72-54-8	4, 4'-DDD		84	U
1031-07-8	Endosulfan Sulfate		84	U
50-29-3	4, 4'-DDT		84	U
72-43-5	Methoxychlor		420	U
53494-70-5	Endrin Ketone		84	U
7421-36-3	Endrin aldehyde		84	U
57-74-9	Chlordane		840	U
8001-35-2	Toxaphene		4200	U
12674-11-2	Aroclor-1016		840	U
11104-28-2	Aroclor-1221		1700	U
11141-16-5	Aroclor-1232		840	U
53469-21-9	Aroclor-1242		840	U
12672-29-6	Aroclor-1248		840	U
11097-69-1	Aroclor-1254		840	U
11096-82-5	Aroclor-1260		840	U
510-15-6	Chlorobenzilate		1674	U
2303-16-4	Diallate		8371	U
465-73-6	Isodrin		209	U
143-50-0	Kepone		837	U
82-68-8	Pentachloronitrobenzene		167	U

Vi - Volume of extract injected (ul) - _____ 1

Vs - Volume of Water extracted (ml) - _____ N/A

Ws - Weight of sample extracted (g) - _____ 30.13

Vt - Volume of total extract (ul) - _____ 10,000

FORM I

D-00055

VOLATILE ORGANICS ANALYSIS DATA SHEET

NSWC 25/07D 003

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK351.D

Level: (low/med) LOW Date Received: 11/17/95

% Moisture: not dec. 21 Date Analyzed: 11/20/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	28	
67-64-1	Acetone	12	J
75-05-8	Acetonitrile	6.3	U
107-13-1	Acrylonitrile	1300	U
107-02-8	Acrolein	1300	U
75-69-4	Trichlorofluoromethane	6.3	U
75-15-0	Carbon Disulfide	6.3	U
75-35-4	1,1-Dichloroethene	6.3	U
75-34-4	1,1-Dichloroethane	6.3	U
540-59-0	trans-1,2-Dichloroethene	6.3	U
67-66-3	Chloroform	6.3	U
107-06-2	1,2-Dichloroethane	6.3	U
75-71-8	Dichlorodifluoromethane	6.3	U
74-88-4	Iodomethane	6.3	U
107-12-0	Propionitrile	6.3	U
107-05-1	Allyl chloride	130	U
78-93-3	2-Butanone	130	U
71-55-6	1,1,1-Trichloroethane	6.3	U
56-23-5	Carbon Tetrachloride	6.3	U
108-05-4	Vinyl Acetate	6.3	U
75-27-4	Bromodichloromethane	6.3	U
78-87-5	1,2-Dichloropropane	6.3	U
10061-01-5	cis-1,3-Dichloropropene	6.3	U
79-01-6	Trichloroethene	6.3	U
71-43-2	Benzene	6.3	U
124-48-1	Dibromochloromethane	6.3	U
10061-02-6	trans-1,3-Dichloropropene	6.3	U
79-00-5	1,1,2-Trichloroethane	6.3	U
75-25-2	Bromoform	6.3	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

NSWC 25/07D 003

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK351.D

Level: (low/med) LOW Date Received: 11/17/95

% Moisture: not dec. 21 Date Analyzed: 11/20/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
126-98-7	Methacrylonitrile	6.3	U
74-95-3	Dibromomethane	6.3	U
106-93-4	1,2-Dibromoethane (EDB)	6.3	U
108-10-1	4-Methyl-2-Pentanone	63	U
591-78-6	2-Hexanone	63	U
127-18-4	Tetrachloroethene	34	
79-34-5	1,1,2,2-Tetrachloroethane	6.3	U
108-88-3	Toluene	6.3	U
108-90-7	Chlorobenzene	6.3	U
100-41-4	Ethylbenzene	6.3	U
100-42-5	Styrene	6.3	U
108-38-3	m + p-Xylene	6.3	U
95-47-6	o-Xylene	6.3	U
80-62-6	Methyl methacrylate	6.3	U
630-20-6	1,1,1,2-Tetrachloroethane	6.3	U
96-18-4	1,2,3-Trichloropropane	6.3	U
110-57-6	trans-1,4-Dichloro-2-butene	32	U
97-63-2	Ethyl methacrylate	6.3	U
76-01-7	Pentachloroethane	6.3	U
96-12-8	1,2-Dibromo-3-chloropropane	6.3	U
78-83-1	Isobutyl Alcohol	6.3	U
126-99-8	Chloroprene (TIC) *	6.3	U
	3-Chloroprene (TIC)	6.3	U
123-91-1	1,4-Dioxane (TIC)	1300	U
	Methylene Chloride - Dichloromethane		
	Methyl ethyl ketone - 2-Butanone		
	Chloroprene - 2-Chloro-1,3-butadiene		
	Propionitrile - Ethyl Cyanide		
* - Reported as semiquantitative analysis only.			

FORM I VOA 8260/Appendix IX

D-00057

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

NSWC 25/07D 003

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: CRANE Location: NSWC Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 30.4 (g/mL) G Lab File ID: CK311.D

Level: (low/med) LOW Date Received: 11/17/95

% Moisture: 21 decanted: (Y/N): N Date Extracted: 11/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/26/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
91-20-3	Naphthalene	420	U
91-57-6	2-Methylnaphthalene	420	U
91-58-7	2-Chloronaphthalene	420	U
208-96-8	Acenaphthylene	420	U
83-32-9	Acenaphthene	420	U
132-64-9	Dibenzofuran	420	U
86-73-7	Fluorene	420	U
85-01-8	Phenanthrene	110	J
120-12-7	Anthracene	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
56-55-3	Benzo[a]anthracene	420	U
218-01-9	Chrysene	420	U
205-99-2	Benzo[b]fluoranthene	420	U
207-08-9	Benzo[k]fluoranthene	420	U
50-32-8	Benzo[a]pyrene	420	U
193-39-5	Indeno[1,2,3-cd]pyrene	420	U
53-70-3	Dibenz[a,h]anthracene	420	U
191-24-2	Benzo[g,h,i]perylene	420	U

SAMPLE 25/07D-004

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

25/07D 004

Lab Name: AENI Contract: 9511144

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

Matrix (soil/water): SOIL Lab Sample ID: 951114402

Level (low/med): LOW Date Received: 11/17/95

% Solids: 82.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	2.3	U	N	P
7440-38-2	Arsenic	9.6		N	P
7440-39-3	Barium	64.6			P
7440-41-7	Beryllium	0.82			P
7440-43-9	Cadmium	0.58			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	19.5		N*	P
7440-48-4	Cobalt	7.4			P
7440-50-8	Copper	26.5		N*	P
7439-89-6	Iron				NR
7439-92-1	Lead	16.5		EN*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.11	U		AV
7440-02-0	Nickel	13.7		N	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.58	U	N	P
7440-22-4	Silver	0.92	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	11.5	U	N	P
7440-62-2	Vanadium	27.7		N*	P
7440-66-6	Zinc	1990		N	P
	Cyanide				NR
7440-31-5	Tin	23.1	U		P
7439-93-2	Lithium				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: NSWC_25/07D_004

Ω OMEGA LABORATORIES, INC.
125 State Street · Hackensack, NJ 07601 Tel: (201) 489-8700

LABORATORY ANALYSIS REPORT (PAGE1 - ASBESTOS CONTENT)

CLIENT NAME: AMERICAN ENVIRONMENTAL NET.
9151 RUMSEY RD. SUITE 150
COLUMBIA, MD 21045

CLIENT ACCOUNT: PROJECT: 9511144

DATE SAMPLED: 11/21/95
DATE RECEIVED: 11/27/95
DATE OF ANALYSIS: 11/27/95
DATE OF REPORT: 11/28/95

TEST REQUESTED: BULK ASBESTOS BY POLARIZED LIGHT MICROSCOPY
METHOD: EPA 600/MA-82-020

ANALYST: JOAN BENNETT

SAMPLE ID	LAB ID	ASBESTOS FIBER CONTENT (%)						TOTAL ASBESTOS	TOTAL NON-ASBESTOS
		CHRYSOTILE	AMOSITE	CROCIDOLITE	TREMOLITE	ACTINOLITE	ANTHOPHYLLITE		
9511144-001	B33893	ND	ND	ND	ND	ND	ND	ND	100
9511144-002	B33894	ND	ND	ND	ND	ND	ND	ND	100
9511144-003	B33895	ND	ND	ND	ND	ND	ND	ND	100

ND = none detected
LT = less than

uncertainty associated with method = +/- 5% by weight
test report relates only to items tested

SAMPLES PROVIDED BY CLIENT

MK Samples 25107D -003, 004, 005 Respectively.

D-00060

AMERICAN ENVIRONMENTAL NETWORK, INC.
151 Rumsey Road Suite 150, Columbia, MD 21045-1992
10) 730-8525 Fax (410) 997-2586

Report Number: 9511144
Report To: MK Corp
Project: NSWC Crane, IN
Date: December 01, 1995
Sample ID: NSWC 25/07D 004, dated 11/16/95

Parameter	Method	Result	Date Analyzed
Corrosivity (as pH)	SW846 9045	8.4	11/29/95
Flashpoint, °F	SW846 1010	>203	11/30/95
Paintfilter	SW846 9095	(3)	12/01/95
Reactive Cyanide, mg/Kg	(1)	<2	12/01/95
Reactive Sulfide, mg/Kg	(2)	<40	11/30/95

(1) SW846 Chapter 7.3.3
(2) SW846 Chapter 7.3.4
(3) No Free Liquid.

gchem\003

AENI
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Sample Number
NSWC 25/07D 004

Case No.: 9511144
Client Name: MK CORP
Project Name: CRANE NSWC
Account #: MKC 70

AENI # 9511144-002

Concentration: Low
Date Sampled: 11/16/95
Date Received: 11/17/95
Date Extract Prepared: 11/27/95
Date Analyzed: 12/1/95
Conc/Dil Factor: 1
Matrix SOIL

GPC Cleanup No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid 82.6

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		58	U
SILVEX		58	U
2,4,5-T		58	U

Vi - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) N/A
Ws - Mass of soil extracted (g) 10.47
Vt- Volume of total extract (ul) 10000

FORM I

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9511144

Project Name:——— NSWC CRANE

Client/Account #:——— MK CORP/MKC70

Sample Number
NSWC 25/07D 004

AENI # 9511144-002

Concentration:——— Low

Date Sampled:——— 11/16/95

Date Received:——— 11/17/95

Date Ext Prepared:——— 11/23/95

Date Analyzed:——— 11/29/95

Conc/Dil Factor:——— 10

Method: ——— 8080

GPC Cleanup	Yes	X No
Seperatory Funnel Extraction		Yes
Continuous Liquid - Liquid Extraction		Yes
Percent Moisture	17.4	
Matrix:	SOIL	

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		20	U
319-85-7	beta-BHC		20	U
319-86-8	delta-BHC		20	U
58-89-9	gamma-BHC (Lindane)		40	U
75-44-8	Heptachlor		20	U
309-00-2	Aldrin		20	U
1024-57-3	Heptachlor epoxide		20	U
959-98-8	Endosulfan I		20	U
60-57-1	Dieldrin		40	U
75-55-9	4, 4'-DDE		40	U
72-20-8	Endrin		40	U
33213-65-9	Endosulfan II		40	U
72-54-8	4, 4'-DDD		40	U
1031-07-8	Endosulfan Sulfate		40	U
50-29-3	4, 4'-DDT		40	U
72-43-5	Methoxychlor		200	U
53494-70-5	Endrin Ketone		40	U
7421-36-3	Endrin aldehyde		40	U
57-74-9	Chlordane		400	U
8001-35-2	Toxaphene		2000	U
12674-11-2	Aroclor-1016		400	U
11104-28-2	Aroclor-1221		790	U
11141-16-5	Aroclor-1232		400	U
53469-21-9	Aroclor-1242		400	U
12672-29-6	Aroclor-1248		400	U
11097-69-1	Aroclor-1254		400	U
11096-82-5	Aroclor-1260		400	U
510-15-6	Chlorobenzilate		794	U
2303-16-4	Diallate		3972	U
465-73-6	Isodrin		99	U
143-50-0	Kepone		397	U
82-68-8	Pentachloronitrobenzene		79	U

Vi - Volume of extract injected (ul) - _____ 1

Vs - Volume of Water extracted (ml) - _____ N/A

Ws - Weight of sample extracted (g) - _____ 30.48

Vt - Volume of total extract (ul) - _____ 10,000

FORM I

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC 25/07D 004

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK352.D

Level: (low/med) LOW Date Received: 11/17/95

% Moisture: not dec. 17 Date Analyzed: 11/20/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	15	
67-64-1	Acetone	120	U
75-05-8	Acetonitrile	6	U
107-13-1	Acrylonitrile	1200	U
107-02-8	Acrolein	1200	U
75-69-4	Trichlorofluoromethane	6	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-4	1,1-Dichloroethane	6	U
540-59-0	trans-1,2-Dichloroethene	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
75-71-8	Dichlorodifluoromethane	6	U
74-88-4	Iodomethane	6	U
107-12-0	Propionitrile	6	U
107-05-1	Allyl chloride	120	U
78-93-3	2-Butanone	120	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	6	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
71-43-2	Benzene	6	U
124-48-1	Dibromochloromethane	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
75-25-2	Bromoform	6	U

FORM I VOA 8260/Appendix IX

D-00064

VOLATILE ORGANICS ANALYSIS DATA SHEET

NSWC 25/07D 004

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK352.D

Level: (low/med) LOW Date Received: 11/17/95

% Moisture: not dec. 17 Date Analyzed: 11/20/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
126-98-7	Methacrylonitrile	6	U
74-95-3	Dibromomethane	6	U
106-93-4	1,2-Dibromoethane (EDB)	6	U
108-10-1	4-Methyl-2-Pentanone	60	U
591-78-6	2-Hexanone	60	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
108-38-3	m + p-Xylene	6	U
95-47-6	o-Xylene	6	U
80-62-6	Methyl methacrylate	6	U
630-20-6	1,1,1,2-Tetrachloroethane	6	U
96-18-4	1,2,3-Trichloropropane	6	U
110-57-6	trans-1,4-Dichloro-2-butene	30	U
97-63-2	Ethyl methacrylate	6	U
76-01-7	Pentachloroethane	6	U
96-12-8	1,2-Dibromo-3-chloropropane	6	U
78-83-1	Isobutyl Alcohol	6	U
126-99-8	Chloroprene (TIC) *	6	U
	3-Chloroprene (TIC)	6	U
123-91-1	1,4-Dioxane (TIC)	1200	U
	Methylene Chloride - Dichloromethane		
	Methyl ethyl ketone - 2-Butanone		
	Chloroprene - 2-Chloro-1,3-butadiene		
	Propionitrile - Ethyl Cyanide		
* - Reported as semiquantitative analysis only.			

FORM I VOA

8260/Appendix IX

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC 25/07D 004

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: CRANE Location: NSWC Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 30.6 (g/mL) G Lab File ID: CK312.D

Level: (low/med) LOW Date Received: 11/17/95

% Moisture: 17 decanted: (Y/N): N Date Extracted: 11/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/26/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
91-20-3	Naphthalene	390	U
91-57-6	2-Methylnaphthalene	390	U
91-58-7	2-Chloronaphthalene	390	U
208-96-8	Acenaphthylene	390	U
83-32-9	Acenaphthene	390	U
132-64-9	Dibenzofuran	390	U
86-73-7	Fluorene	390	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
56-55-3	Benzo[a]anthracene	390	U
218-01-9	Chrysene	390	U
205-99-2	Benzo[b]fluoranthene	390	U
207-08-9	Benzo[k]fluoranthene	390	U
50-32-8	Benzo[a]pyrene	390	U
193-39-5	Indeno[1,2,3-cd]pyrene	390	U
53-70-3	Dibenz[a,h]anthracene	390	U
191-24-2	Benzo[g,h,i]perylene	390	U

SAMPLE 25/07D-005

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

25/07D 005

Name: AENI Contract: 9511144

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

Matrix (soil/water): SOIL Lab Sample ID: 951114403

Level (low/med): LOW Date Received: 11/17/95

% Solids: 71.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	2.8	U	N	P
7440-38-2	Arsenic	7.0		N	P
7440-39-3	Barium	111			P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium	0.55	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	19.2		N*	P
7440-48-4	Cobalt	6.1	B		P
7440-50-8	Copper	20.2		N*	P
7439-89-6	Iron				NR
7439-92-1	Lead	41.3		EN*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.19			AV
7440-02-0	Nickel	12.6		N	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.69	U	N	P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	13.8	U	N	P
7440-62-2	Vanadium	24.6		N*	P
7440-66-6	Zinc	70.5		N	P
	Cyanide				NR
7440-31-5	Tin	27.6	U		P
7439-93-2	Lithium				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: NSWC_25/07D_005

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9511144
Report To: MK Corp
Project: NSWC Crane, IN
Date: December 01, 1995
Sample ID: NSWC 25/07D 005, dated 11/16/95

Parameter	Method	Result	Date Analyzed
Corrosivity (as pH)	SW846 9045	8.6	11/29/95
Flashpoint, °F	SW846 1010	>203	11/30/95
Paintfilter	SW846 9095	(3)	12/01/95
Reactive Cyanide, mg/Kg	(1)	<2	12/01/95
Reactive Sulfide, mg/Kg	(2)	<40	11/30/95

(1) SW846 Chapter 7.3.3
(2) SW846 Chapter 7.3.4
(3) No Free Liquid.

\gchem\003

Ω OMEGA LABORATORIES, INC.
125 State Street · Hackensack, NJ 07601 Tel: (201) 489-8700

LABORATORY ANALYSIS REPORT (PAGE1 - ASBESTOS CONTENT)

CLIENT NAME: AMERICAN ENVIRONMENTAL NET.
9151 RUMSEY RD. SUITE 150
COLUMBIA, MD 21045

CLIENT ACCOUNT: PROJECT: 9511144

DATE SAMPLED: 11/21/95
DATE RECEIVED: 11/27/95
DATE OF ANALYSIS: 11/27/95
DATE OF REPORT: 11/28/95

TEST REQUESTED: BULK ASBESTOS BY POLARIZED LIGHT MICROSCOPY
METHOD: EPA 600/M4-82-020

ANALYST: JOAN BENNETT

SAMPLE ID	LAB ID	ASBESTOS FIBER CONTENT (%)						TOTAL ASBESTOS	TOTAL NON-ASBESTOS
		CHRYSOTILE	AMOSITE	CROCIDOLITE	TREMOLITE	ACTINOLITE	ANTHOPHYLLITE		
9511144-001	833893	ND	ND	ND	ND	ND	ND	ND	100
9511144-002	833894	ND	ND	ND	ND	ND	ND	ND	100
9511144-003	833895	ND	ND	ND	ND	ND	ND	ND	100

ND = none detected
LT = less than

uncertainty associated with method = +/- 5% by weight
test report relates only to items tested

SAMPLES PROVIDED BY CLIENT

MK Samples 251070-003, 004, 005 Respectively.

D-00069

AENI
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Sample Number
NSWC 25/07D 005

Case No.:_____ 9511144
Client Name:_____ MK CORP
Project Name:_____ CRANE NSWC
Account #:_____ MKC 70

AENI # 9511144-003

Concentration: _____ Low
Date Sampled:_____ 11/16/95
Date Received:_____ 11/17/95
Date Extract Prepared:_ 11/27/95
Date Analyzed:_____ 12/1/95
Conc/Dil Factor:_____ 1
Matrix_____ SOIL

GPC Cleanup _____ No
Shaker: _____ Yes
Continuous Liq-Liq Ext.: ___ No
Percent Solid _____ 71.8

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		69	U
SILVEX		69	U
2,4,5-T		69	U

Vi - Volume of extract injected (ul)___ 1
Vs - Volume of water extracted (ml)__ N/A
Ws - Mass of soil extracted (g)_____ 10.13
Vt- Volume of total extract (ul)_____ 10000

FORM I

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9511144
Project Name:——— NSWC CRANE
Client/Account #:——— MK CORP/MKC70

Sample Number
NSWC 25/07D 005

AENI # 9511144-003

Concentration:——— Low
Date Sampled:——— 11/16/95
Date Received:——— 11/17/95
Date Ext Prepared:——— 11/20/95
Date Analyzed:——— 11/28/95
Conc/Dil Factor:——— 20
Method: ——— 8080

GPC Cleanup | | Yes | X | No
Seperatory Funnel Extraction | | Yes
Continuous Liquid - Liquid Extraction | | Yes
Percent Moisture 28.2
Matrix: SOIL

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		46	U
319-85-7	beta-BHC		46	U
319-86-8	delta-BHC		46	U
58-89-9	gamma-BHC (Lindane)		92	U
75-44-8	Heptachlor		46	U
309-00-2	Aldrin		46	U
1024-57-3	Heptachlor epoxide		46	U
959-98-8	Endosulfan I		46	U
60-57-1	Dieldrin		92	U
75-55-9	4, 4'-DDE		92	U
72-20-8	Endrin		92	U
33213-65-9	Endosulfan II		92	U
72-54-8	4, 4'-DDD		92	U
1031-07-8	Endosulfan Sulfate		92	U
50-29-3	4, 4'-DDT		92	U
72-43-5	Methoxychlor		460	U
53494-70-5	Endrin Ketone		92	U
7421-36-3	Endrin aldehyde		92	U
57-74-9	Chlordane		920	U
8001-35-2	Toxaphene		4600	U
12674-11-2	Aroclor-1016		920	U
11104-28-2	Aroclor-1221		1800	U
11141-16-5	Aroclor-1232		920	U
53469-21-9	Aroclor-1242		920	U
12672-29-6	Aroclor-1248		920	U
11097-69-1	Aroclor-1254		920	U
11096-82-5	Aroclor-1260		920	U
510-15-6	Chlorobenzilate		1835	U
2303-16-4	Diallate		9175	U
465-73-6	Isodrin		229	U
143-50-0	Kepone		917	U
82-68-8	Pentachloronitrobenzene		183	U

Vi - Volume of extract injected (ul) - _____ 1
Vs - Volume of Water extracted (ml) - _____ N/A
Ws - Weight of sample extracted (g) - _____ 30.36
Vt - Volume of total extract (ul) - _____ 10,000

FORM I

A-00094

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NSWC 25/07D 005

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK353.D

Level: (low/med) LOW Date Received: 11/17/95

% Moisture: not dec. 28 Date Analyzed: 11/20/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	22	
67-64-1	Acetone	140	U
75-05-8	Acetonitrile	6.9	U
107-13-1	Acrylonitrile	1400	U
107-02-8	Acrolein	1400	U
75-69-4	Trichlorofluoromethane	6.9	U
75-15-0	Carbon Disulfide	6.9	U
75-35-4	1,1-Dichloroethene	6.9	U
75-34-4	1,1-Dichloroethane	6.9	U
540-59-0	trans-1,2-Dichloroethene	6.9	U
67-66-3	Chloroform	6.9	U
107-06-2	1,2-Dichloroethane	6.9	U
75-71-8	Dichlorodifluoromethane	6.9	U
74-88-4	Iodomethane	6.9	U
107-12-0	Propionitrile	6.9	U
107-05-1	Allyl chloride	140	U
78-93-3	2-Butanone	140	U
71-55-6	1,1,1-Trichloroethane	6.9	U
56-23-5	Carbon Tetrachloride	6.9	U
108-05-4	Vinyl Acetate	6.9	U
75-27-4	Bromodichloromethane	6.9	U
78-87-5	1,2-Dichloropropane	6.9	U
10061-01-5	cis-1,3-Dichloropropene	6.9	U
79-01-6	Trichloroethene	6.9	U
71-43-2	Benzene	6.9	U
124-48-1	Dibromochloromethane	6.9	U
10061-02-6	trans-1,3-Dichloropropene	6.9	U
79-00-5	1,1,2-Trichloroethane	6.9	U
75-25-2	Bromoform	6.9	U

SAMPLE NO.

NSWC 25/07D 035

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #003

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK353.D

Level: (low/med) LOW Date Received: 11/17/95

% Moisture: not dec. 28 Date Analyzed: 11/20/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
126-98-7	Methacrylonitrile	6.9	U
74-95-3	Dibromomethane	6.9	U
106-93-4	1,2-Dibromoethane (EDB)	6.9	U
108-10-1	4-Methyl-2-Pentanone	69	U
591-78-6	2-Hexanone	69	U
127-18-4	Tetrachloroethene	6.9	U
79-34-5	1,1,2,2-Tetrachloroethane	6.9	U
108-88-3	Toluene	6.9	U
108-90-7	Chlorobenzene	6.9	U
100-41-4	Ethylbenzene	6.9	U
100-42-5	Styrene	6.9	U
108-38-3	m + p-Xylene	6.9	U
95-47-6	o-Xylene	6.9	U
80-62-6	Methyl methacrylate	6.9	U
630-20-6	1,1,1,2-Tetrachloroethane	6.9	U
96-18-4	1,2,3-Trichloropropane	6.9	U
110-57-6	trans-1,4-Dichloro-2-butene	35	U
97-63-2	Ethyl methacrylate	6.9	U
76-01-7	Pentachloroethane	6.9	U
96-12-8	1,2-Dibromo-3-chloropropane	6.9	U
78-83-1	Isobutyl Alcohol	6.9	U
126-99-8	Chloroprene (TIC) *	6.9	U
	3-Chloroprene (TIC)	6.9	U
123-91-1	1,4-Dioxane (TIC)	1400	U
	Methylene Chloride = Dichloromethane		
	Methyl ethyl ketone = 2-Butanone		
	Chloroprene = 2-Chloro-1,3-butadiene		
	Propionitrile = Ethyl Cyanide		
* = Reported as semiquantitative analysis only.			

FORM I VOA 8260/Appendix IX

D-00073

SAMPLE NO.

NSWC 25/07D 005

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: CRANE Location: NSWC Group:

Matrix: (soil/water) SOIL Lab Sample ID: #003

Sample wt/vol: 30.3 (g/mL) G Lab File ID: CK313.D

Level: (low/med) LOW Date Received: 11/17/95

% Moisture: 28 decanted: (Y/N): N Date Extracted: 11/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/26/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
91-20-3	Naphthalene	460	U
91-57-6	2-Methylnaphthalene	460	U
91-58-7	2-Chloronaphthalene	460	U
208-96-8	Acenaphthylene	460	U
83-32-9	Acenaphthene	460	U
132-64-9	Dibenzofuran	460	U
86-73-7	Fluorene	460	U
85-01-8	Phenanthrene	460	U
120-12-7	Anthracene	460	U
206-44-0	Fluoranthene	460	U
129-00-0	Pyrene	460	U
56-55-3	Benzo(a)anthracene	460	U
218-01-9	Chrysene	460	U
205-99-2	Benzo(b)fluoranthene	460	U
207-08-9	Benzo(k)fluoranthene	460	U
50-32-8	Benzo(a)pyrene	460	U
193-39-5	Indeno(1,2,3-cd)pyrene	460	U
53-70-3	Dibenz(a,h)anthracene	460	U
191-24-2	Benzo(g,h,i)perylene	460	U

SAMPLE 25/07D-006

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

25/07D-006

Lab Name: AENI Contract: 9511157

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

Matrix (soil/water): SOIL Lab Sample ID: 951115701

Level (low/med): LOW Date Received: 11/18/95

% Solids: 56.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	32.0		N	P
7440-38-2	Arsenic	120		N	P
7440-39-3	Barium	100			P
7440-41-7	Beryllium	0.34	U		P
7440-43-9	Cadmium	11.7			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	23.3		N*	P
7440-48-4	Cobalt	2.5			P
7440-50-8	Copper	3810		N*	P
7439-89-6	Iron				NR
7439-92-1	Lead	728		EN*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.18	U		AV
7440-02-0	Nickel	211		N	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.84	U	N	P
7440-22-4	Silver	1.4	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.7	U	N	P
7440-62-2	Vanadium	2.7	U	N*	P
7440-66-6	Zinc	102000		N	P
	Cyanide				NR
7440-31-5	Tin	33.8	U		P
7439-93-2	Lithium				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: NSWC_25/07D-006

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
10) 730-8525 Fax (410) 997-2586

Report Number: 9511157
Report To: MK Corp
Project: NSWC Crane, IN
Date: December 01, 1995
Sample ID: NSWC 25/07D-006, dated 11/17/95

Parameter	Method	Result	Date Analyzed
Corrosivity (as pH)	SW846 9045	7.2	11/29/95
Flashpoint, °F	SW846 1010	>203	11/30/95
Paintfilter	SW846 9095	(3)	12/01/95
Reactive Cyanide, mg/Kg	(1)	<2	12/01/95
Reactive Sulfide, mg/Kg	(2)	<40	11/29/95

(1) SW846 Chapter 7.3.3
(2) SW846 Chapter 7.3.4
(3) No Free Liquid.

\gchem\003

AMERICAN ENVIRONMENTAL NETWORK, INC.

51 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Client: MK Corp

Project: NSWC-Crane

Case: 9511157

Analysis: Asbestos

Date: December 5, 1995

Client ID	AENI ID	Date Sampled	Date Received
NSWC 25/07D-006	9511157-001	11/17/95	11/18/95
NSWC 25/07D-007	9511157-002	11/17/95	11/18/95

Two samples were received and analyzed for Asbestos. The samples were subcontracted to a third party lab for analysis.

The enclosed report consists of tabulated results.

Report Released By: Kristina C. Yamarik 12/5/95
Kristina C. Yamarik
Project Manager

Ω OMEGA LABORATORIES, INC.
125 State Street · Hackensack, NJ 07601 Tel: (201) 489-8700

LABORATORY ANALYSIS REPORT (PAGE1 - ASBESTOS CONTENT)

CLIENT NAME: AMERICAN ENVIRONMENTAL NET.
9151 RUMSEY RD. SUITE 150
COLUMBIA, MD 21045

CLIENT ACCOUNT: PROJECT: 9511157

DATE SAMPLED: 11/21/95
DATE RECEIVED: 11/21/95
DATE OF ANALYSIS: 11/27/95
DATE OF REPORT: 11/28/95

TEST REQUESTED: BULK ASBESTOS BY POLARIZED LIGHT MICROSCOPY
METHOD: EPA 600/MA-82-020

ANALYST: JOAN BENNETT

SAMPLE ID	LAB ID	ASBESTOS FIBER CONTENT (%)						TOTAL ASBESTOS	TOTAL NON-ASBESTOS
		CHRYSOTILE	AMOSITE	CROCIDOLITE	TREMOLITE	ACTINOLITE	ANTHOPHYLLITE		
9511157-001	E30896	ND	ND	ND	ND	ND	ND	ND	100
9511157-002	E30897	ND	ND	ND	ND	ND	ND	ND	100

ND = none detected
LT = less than

uncertainty associated with method = +/- 5% by weight
test report relates only to items tested

SAMPLES PROVIDED BY CLIENT

D-00078

AENI
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Sample Number
NSWC 25/07D-006

Case No.: 9511157
Client Name: MK CORP
Project Name: CRANE NSWC
Account #: MKC 70

AENI # 9511157-001

Concentration: Low
Date Sampled: 11/17/95
Date Received: 11/18/95
Date Extract Prepared: 11/27/95
Date Analyzed: 12/1/95
Conc/Dil Factor: 1
Matrix SOIL

GPC Cleanup No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid 56.9

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		86	U
SILVEX		86	U
2,4,5-T		86	U

Vi - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) N/A
Ws - Mass of soil extracted (g) 10.18
Vt- Volume of total extract (ul) 10000

FORM I

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9511157

Project Name:——— NSWC CRANE

Client/Account #:——— MK CORP/MKC70

Sample Number
NSWC 25/07D-006

AENI # 9511157-001

Concentration:——— Low

Date Sampled:——— 11/17/95

Date Received:——— 11/18/95

Date Ext Prepared:——— 11/23/95

Date Analyzed:——— 11/29/95

Conc/Dil Factor:——— 1

Method: ——— 8080

GPC Cleanup		Yes	X	No
Seperatory Funnel Extraction				Yes
Continuous Liquid - Liquid Extraction				Yes
Percent Moisture	43.1			
Matrix	SOIL			

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		2.9	U
319-85-7	beta-BHC		2.9	U
319-86-8	delta-BHC		2.9	U
58-89-9	gamma-BHC (Lindane)		5.8	U
75-44-8	Heptachlor		2.9	U
309-00-2	Aldrin		2.9	U
1024-57-3	Heptachlor epoxide		2.9	U
959-98-8	Endosulfan I	4.3	2.9	P
60-57-1	Dieldrin		5.8	U
75-55-9	4, 4'-DDE		5.8	U
72-20-8	Endrin		5.8	U
33213-65-9	Endosulfan II		5.8	U
72-54-8	4, 4'-DDD		5.8	U
1031-07-8	Endosulfan Sulfate		5.8	U
50-29-3	4, 4'-DDT		5.8	U
72-43-5	Methoxychlor		29	U
53494-70-5	Endrin Ketone		5.8	U
7421-36-3	Endrin aldehyde		5.8	U
57-74-9	Chlordane		58	U
8001-35-2	Toxaphene		290	U
12674-11-2	Aroclor-1016		58	U
11104-28-2	Aroclor-1221		120	U
11141-16-5	Aroclor-1232		58	U
53469-21-9	Aroclor-1242		58	U
12672-29-6	Aroclor-1248		58	U
11097-69-1	Aroclor-1254		58	U
11096-82-5	Aroclor-1260		58	U
510-15-6	Chlorobenzilate		117	U
2303-16-4	Diallate		584	U
465-73-6	Isodrin		15	U
143-50-0	Kepone		58	U
82-68-8	Pentachloronitrobenzene		12	U

Vi - Volume of extract injected (ul) - _____ 1

Vs - Volume of Water extracted (ml) - _____ N/A

Ws - Weight of sample extracted (g) - _____ 30.11

Vt - Volume of total extract (ul) - _____ 10,000

FORM I

D-00080

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MSWC 25/07D-006

Lab Name: AENI Contract: 9511157

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 4.0 (g/mL) G Lab File ID: FK362.D

Level: (low/med) MED Date Received: 11/18/95

% Moisture: not dec. 43 Date Analyzed: 11/21/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	2200	U
74-83-9	Bromomethane	2200	U
75-01-4	Vinyl Chloride	2200	U
75-00-3	Chloroethane	2200	U
75-09-2	Methylene Chloride	1100	U
67-64-1	Acetone	22000	U
75-05-8	Acetonitrile	1100	U
107-13-1	Acrylonitrile	220000	U
107-02-8	Acrolein	220000	U
75-69-4	Trichlorofluoromethane	1100	U
75-15-0	Carbon Disulfide	1100	U
75-35-4	1,1-Dichloroethene	1100	U
75-34-4	1,1-Dichloroethane	1100	U
540-59-0	trans-1,2-Dichloroethene	1100	U
67-66-3	Chloroform	1100	U
107-06-2	1,2-Dichloroethane	1100	U
75-71-8	Dichlorodifluoromethane	1100	U
74-88-4	Iodomethane	1100	U
107-12-0	Propionitrile	1100	U
107-05-1	Allyl chloride	22000	U
78-93-3	2-Butanone	22000	U
71-55-6	1,1,1-Trichloroethane	1100	U
56-23-5	Carbon Tetrachloride	1100	U
108-05-4	Vinyl Acetate	1100	U
75-27-4	Bromodichloromethane	1100	U
78-87-5	1,2-Dichloropropane	1100	U
10061-01-5	cis-1,3-Dichloropropene	1100	U
79-01-6	Trichloroethene	1100	U
71-43-2	Benzene	1100	U
124-48-1	Dibromochloromethane	1100	U
10061-02-6	trans-1,3-Dichloropropene	1100	U
79-00-5	1,1,2-Trichloroethane	1100	U
75-25-2	Bromoform	1100	U

FORM I VOA

8260/Appendix IX

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

MSWC 25/07D-006

Lab Name: AENI Contract: 9511157

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 4.0 (g/mL) G Lab File ID: FK362.D

Level: (low/med) MED Date Received: 11/18/95

% Moisture: not dec. 43 Date Analyzed: 11/21/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
126-98-7	Methacrylonitrile	1100	U
74-95-3	Dibromomethane	1100	U
106-93-4	1,2-Dibromoethane (EDB)	1100	U
108-10-1	4-Methyl-2-Pentanone	11000	U
591-78-6	2-Hexanone	11000	U
127-18-4	Tetrachloroethene	11000	
79-34-5	1,1,2,2-Tetrachloroethane	1100	U
108-88-3	Toluene	1100	U
108-90-7	Chlorobenzene	1100	U
100-41-4	Ethylbenzene	1100	U
100-42-5	Styrene	1100	U
108-38-3	m + p-Xylene	1100	U
95-47-6	o-Xylene	1100	U
80-62-6	Methyl methacrylate	1100	U
630-20-6	1,1,1,2-Tetrachloroethane	1100	U
96-18-4	1,2,3-Trichloropropane	1100	U
110-57-6	trans-1,4-Dichloro-2-butene	1100	U
97-63-2	Ethyl methacrylate	1100	U
76-01-7	Pentachloroethane	1100	U
96-12-8	1,2-Dibromo-3-chloropropane	1100	U
78-83-1	Isobutyl Alcohol	1100	U
126-99-8	Chloroprene (TIC) *	1100	U
	3-Chloroprene (TIC)	1100	U
123-91-1	1,4-Dioxane (TIC)	220000	U
	Methylene Chloride - Dichloromethane		
	Methyl ethyl ketone - 2-Butanone		
	Chloroprene - 2-Chloro-1,3-butadiene		
	Propionitrile - Ethyl Cyanide		
	* - Reported as semiquantitative analysis only.		

FORM I VOA 8260/Appendix IX

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC 25/07D-006

Lab Name: AENI Contract: 9511157

Project No.: MKC70 Site: CRANE Location: NSWC Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 30.6 (g/mL) G Lab File ID: CK318.D

Level: (low/med) LOW Date Received: 11/18/95

% Moisture: 43 decanted: (Y/N): N Date Extracted: 11/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/27/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
91-20-3	Naphthalene	570	U
91-57-6	2-Methylnaphthalene	570	U
91-58-7	2-Chloronaphthalene	570	U
208-96-8	Acenaphthylene	570	U
83-32-9	Acenaphthene	570	U
132-64-9	Dibenzofuran	570	U
86-73-7	Fluorene	570	U
85-01-8	Phenanthrene	570	U
120-12-7	Anthracene	570	U
206-44-0	Fluoranthene	570	U
129-00-0	Pyrene	570	U
56-55-3	Benzo[a]anthracene	570	U
218-01-9	Chrysene	570	U
205-99-2	Benzo[b]fluoranthene	570	U
207-08-9	Benzo[k]fluoranthene	570	U
50-32-8	Benzo[a]pyrene	570	U
193-39-5	Indeno[1,2,3-cd]pyrene	570	U
53-70-3	Dibenz[a,h]anthracene	570	U
191-24-2	Benzo[g,h,i]perylene	570	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

WSWC-25/07D-006

Lab Name: AEM Contract: 9604074

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) LEACH' Lab Sample ID: #001

Sample wt/vol: 500.0 (g/mL) ML Lab File ID: D0225.D

Level: (low/med) Date Received: 4/11/96

% Moisture: 100 decanted: (Y/N): N Date Extracted: 4/13/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 4/19/96

Injection Volume: 1.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
110-86-1	Pyridine	40	UD
106-46-7	1,4-Dichlorobenzene	40	UD
95-48-7	2-Methylphenol	40	UD
108-39-4	3-Methylphenol	40	UD
67-72-1	Hexachloroethane	140	D
106-44-5	4-Methylphenol	40	UD
98-95-3	Nitrobenzene	40	UD
87-68-3	Hexachlorobutadiene	40	UD
88-06-2	2,4,6-Trichlorophenol	40	UD
95-95-4	2,4,5-Trichlorophenol	200	UD
121-14-2	2,4-Dinitrotoluene	40	UD
118-74-1	Hexachlorobenzene	40	UD
87-86-5	Pentachlorophenol	200	UD

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SECTA RIGHT

Lab Name: AENI Contract: 9604074

Lab Code: Case No.: MKC70 SAS No.: SDG No.: SECTA

Matrix (soil/water): WATER Lab Sample ID: 960407401

Level (low/med): LOW Date Received: 04/11/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	20.0	U		P
7440-39-3	Barium	500	U		P
7440-43-9	Cadmium	79.2			P
7440-47-3	Chromium	100	U		P
7439-92-1	Lead	347			P
7439-97-6	Mercury	0.20	U		AV
7782-49-2	Selenium	20.0	U		P
7440-22-4	Silver	50.0	U		P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: SECT_A_RIGHT

TCLP

FORM I - IN ILM03.0

D-00085

SAMPLE 25/07D-007

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

25/07D-007

Lab Name: AENI Contract: 9511157

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 951115

Matrix (soil/water): SOIL Lab Sample ID: 951115702

Level (low/med): LOW Date Received: 11/18/95

% Solids: 43.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	101		N	P
7440-38-2	Arsenic	201		N	P
7440-39-3	Barium	22.5	U		P
7440-41-7	Beryllium	0.45	U		P
7440-43-9	Cadmium	1.4			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	14.4		N*	P
7440-48-4	Cobalt	4.8			P
7440-50-8	Copper	1190		N*	P
7439-89-6	Iron				NR
7439-92-1	Lead	119		EN*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.25			AV
7440-02-0	Nickel	55.4		N	P
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.1	U	N	P
7440-22-4	Silver	1.8	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	22.5	U	N	P
7440-62-2	Vanadium	3.6	U	N*	P
7440-66-6	Zinc	7810		N	P
	Cyanide				NR
7440-31-5	Tin	45.0	U		P
7439-93-2	Lithium				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: NSWC_25/07D-007

AMERICAN ENVIRONMENTAL NETWORK, INC.
51 Rumsey Road Suite 150, Columbia, MD 21045-1992
(0) 730-8525 Fax (410) 997-2586

Report Number: 9511157
Report To: MK Corp
Project: NSWC Crane, IN
Date: December 01, 1995
Sample ID: NSWC 25/07D-007, dated 11/17/95

Parameter	Method	Result	Date Analyzed
Corrosivity (as pH)	SW846 9045	7.7	11/29/95
Flashpoint, °F	SW846 1010	>203	12/01/95
Paintfilter	SW846 9095	(3)	12/01/95
Reactive Cyanide, mg/Kg	(1)	<2	12/01/95
Reactive Sulfide, mg/Kg	(2)	<40	11/29/95

(1) SW846 Chapter 7.3.3
(2) SW846 Chapter 7.3.4
(3) No Free Liquid.

\gchem\003

AENI
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Sample Number
NSWC 25/07D-007

AENI # 9511157-002

Case No.: 9511157
Client Name: MK CORP
Project Name: CRANE NSWC
Account #: MKC 70

Concentration: Low
Date Sampled: 11/17/95
Date Received: 11/18/95
Date Extract Prepared: 11/27/95
Date Analyzed: 12/1/95
Conc/Dil Factor: 1
Matrix: SOIL

GPC Cleanup: No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid: 43.6

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		112	U
SILVEX		112	U
2,4,5-T		112	U

Vi - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) N/A
Ws - Mass of soil extracted (g) 10.20
Vt- Volume of total extract (ul) 10000

FORM I

D-00088

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9511157
Project Name:——— NSWC CRANE
Client/Account #:—— MK CORP/MKC70

Sample Number
NSWC 25/07D-007

AENI # 9511157-002

Concentration:——— Low
Date Sampled:——— 11/17/95
Date Received:——— 11/18/95
Date Ext Prepared:—— 11/20/95
Date Analyzed:——— 11/28/95
Conc/Dil Factor:——— 1
Method: ——— 8080

GPC Cleanup | | Yes | X | No
Seperatory Funnel Extraction | | Yes
Continuous Liquid - Liquid Extraction | | Yes
Percent Moisture 56.4
Matrix: SOIL

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		3.8	U
319-85-7	beta-BHC		3.8	U
319-86-8	delta-BHC		3.8	U
58-89-9	gamma-BHC (Lindane)		7.5	U
75-44-8	Heptachlor		3.8	U
309-00-2	Aldrin		3.8	U
1024-57-3	Heptachlor epoxide		3.8	U
959-98-8	Endosulfan I		3.8	U
60-57-1	Dieldrin		7.5	U
75-55-9	4, 4'-DDE		7.5	U
72-20-8	Endrin		7.5	U
33213-65-9	Endosulfan II		7.5	U
72-54-8	4, 4'-DDD		7.5	U
1031-07-8	Endosulfan Sulfate		7.5	U
50-29-3	4, 4'-DDT		7.5	U
72-43-5	Methoxychlor		38	U
53494-70-5	Endrin Ketone		7.5	U
7421-36-3	Endrin aldehyde		7.5	U
57-74-9	Chlordane		75	U
8001-35-2	Toxaphene		380	U
12674-11-2	Aroclor-1016		75	U
11104-28-2	Aroclor-1221		150	U
11141-16-5	Aroclor-1232		75	U
53469-21-9	Aroclor-1242		75	U
12672-29-6	Aroclor-1248		75	U
11097-69-1	Aroclor-1254		75	U
11096-82-5	Aroclor-1260		75	U
510-15-6	Chlorobenzilate		151	U
2303-16-4	Diallate		753	U
465-73-6	Isodrin		19	U
143-50-0	Kepone		75	U
82-68-8	Pentachloronitrobenzene		15	U

Vi - Volume of extract injected (ul) - 1
Vs - Volume of Water extracted (ml) - N/A
Ws - Weight of sample extracted (g) - 30.47
Vt - Volume of total extract (ul) - 10,000

FORM I

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC 25/07D-007

Lab Name: AENI Contract: 9511157

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK355.D

Level: (low/med) LOW Date Received: 11/18/95

% Moisture: not dec: 56 Date Analyzed: 11/20/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	23	U
74-83-9	Bromomethane	23	U
75-01-4	Vinyl Chloride	23	U
75-00-3	Chloroethane	23	U
75-09-2	Methylene Chloride	53	
67-64-1	Acetone	230	U
75-05-8	Acetonitrile	11	U
107-13-1	Acrylonitrile	2300	U
107-02-8	Acrolein	2300	U
75-69-4	Trichlorofluoromethane	11	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-4	1,1-Dichloroethane	11	U
540-59-0	trans-1,2-Dichloroethene	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
75-71-8	Dichlorodifluoromethane	11	U
74-88-4	Iodomethane	11	U
107-12-0	Propionitrile	11	U
107-05-1	Allyl chloride	230	U
78-93-3	2-Butanone	230	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
71-43-2	Benzene	11	U
124-48-1	Dibromochloromethane	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
79-00-5	1,1,2-Trichloroethane	11	U
75-25-2	Bromoform	11	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC 25/07D-007

Lab Name: AENI Contract: 9511157

Project No.: MKC70 Site: ____ Location: ____ Group: ____

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK355.D

Level: (low/med) LOW Date Received: 11/18/95

% Moisture: not dec. 56 Date Analyzed: 11/20/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: ____ (uL) Soil Aliquot Volume: ____ (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound			Q
126-98-7	Methacrylonitrile		11	U
74-95-3	Dibromomethane		11	U
106-93-4	1,2-Dibromoethane (EDB)		11	U
108-10-1	4-Methyl-2-Pentanone		110	U
591-78-6	2-Hexanone		110	U
127-18-4	Tetrachloroethene		45	
79-34-5	1,1,2,2-Tetrachloroethane		11	U
108-88-3	Toluene		11	U
108-90-7	Chlorobenzene		11	U
100-41-4	Ethylbenzene		11	U
100-42-5	Styrene		11	U
108-38-3	m + p-Xylene		11	U
95-47-6	o-Xylene		11	U
80-62-6	Methyl methacrylate		11	U
630-20-6	1,1,1,2-Tetrachloroethane		11	U
96-18-4	1,2,3-Trichloropropane		11	U
110-57-6	trans-1,4-Dichloro-2-butene		57	U
97-63-2	Ethyl methacrylate		11	U
76-01-7	Pentachloroethane		11	U
96-12-8	1,2-Dibromo-3-chloropropane		11	U
78-83-1	Isobutyl Alcohol		11	U
126-99-8	Chloroprene	(TIC) *	11	U
	3-Chloroprene	(TIC)	11	U
123-91-1	1,4-Dioxane	(TIC)	2300	U
	Methylene Chloride - Dichloromethane			
	Methyl ethyl ketone - 2-Butanone			
	Chloroprene - 2-Chloro-1,3-butadiene			
	Propionitrile - Ethyl Cyanide			
* - Reported as semiquantitative analysis only.				

FORM I VOA 8260/Appendix IX

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

NSWC 25/07D-007

Lab Name: AENI Contract: 9511157

Project No.: MKC70 Site: CRANE Location: NSWC Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 30.4 (g/mL) G Lab File ID: CK319.D

Level: (low/med) LOW Date Received: 11/18/95

% Moisture: 56 decanted: (Y/N): N Date Extracted: 11/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/27/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
91-20-3	Naphthalene	760	U
91-57-6	2-Methylnaphthalene	760	U
91-58-7	2-Chloronaphthalene	760	U
208-96-8	Acenaphthylene	760	U
83-32-9	Acenaphthene	760	U
132-64-9	Dibenzofuran	760	U
86-73-7	Fluorene	760	U
85-01-8	Phenanthrene	760	U
120-12-7	Anthracene	760	U
206-44-0	Fluoranthene	760	U
129-00-0	Pyrene	760	U
56-55-3	Benzo[a]anthracene	760	U
218-01-9	Chrysene	760	U
205-99-2	Benzo[b]fluoranthene	760	U
207-08-9	Benzo[k]fluoranthene	760	U
50-32-8	Benzo[a]pyrene	760	U
193-39-5	Indeno[1,2,3-cd]pyrene	760	U
53-70-3	Dibenz[a,h]anthracene	760	U
191-24-2	Benzo[g,h,i]perylene	760	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-25/07D-007

Lab Name: AENI Contract: 9604074

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) LEACH Lab Sample ID: #002

Sample wt/vol: 500.0 (g/mL) ML Lab File ID: DD226.D

Level: (low/med) Date Received: 4/11/96

% Moisture: 100 decanted: (Y/N): N Date Extracted: 4/13/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 4/19/96

Injection Volume: 1.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:

Concentration Units: (ug/L or ug/Kg) ug/L

CAS No.	Compound		Q
110-86-1	Pyridine	40	UD
106-46-7	1,4-Dichlorobenzene	40	UD
95-48-7	2-Methylphenol	40	UD
108-39-4	3-Methylphenol	40	UD
67-72-1	Hexachloroethane	29	JD
106-44-5	4-Methylphenol	40	UD
98-95-3	Nitrobenzene	40	UD
87-68-3	Hexachlorobutadiene	40	UD
88-06-2	2,4,6-Trichlorophenol	40	UD
95-95-4	2,4,5-Trichlorophenol	200	UD
121-14-2	2,4-Dinitrotoluene	40	UD
118-74-1	Hexachlorobenzene	40	UD
87-86-5	Pentachlorophenol	200	UD

FORM I SV 8270 - TCLP

D-00093

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SECTA CENTER

Lab Name: AENI Contract: 9604074

Lab Code: Case No.: MKC70 SAS No.: SDG No.: SECTA

Matrix (soil/water): WATER Lab Sample ID: 960407402

Level (low/med): LOW Date Received: 04/11/96

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic	20.0	U		P
7440-39-3	Barium	1800			P
7440-43-9	Cadmium	61.5			P
7440-47-3	Chromium	100	U		P
7439-92-1	Lead	117			P
7439-97-6	Mercury	0.20	U		AV
7782-49-2	Selenium	20.0	U		P
7440-22-4	Silver	50.0	U		P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: SECT_A_CENTER

TCLP

FORM I - IN ILM03.0

CONFIRMATORY SAMPLES

MORRISON KNUDSEN CORPORATION

CHAIN OF CUSTODY RECORD

720 Park Blvd., P.O. Box 73
Boise, Idaho 83729
(208) 386-6000

C OFC-35

IRP IFB-9379-2565 FORMAL CHEMICAL ENVIRONMENTAL CORP.

Project No.: 9379 6069-067-30

Project Name: DSOC [illegible]

Samplers: (Signature) [illegible]

Sampler: (Print) [illegible]

Split Samples

Analysis Required: 8240, [illegible]

Sample Type	Sampling Point Description	Sample Date	Time	Sample I.D. Number	Split Yes	Split No	8240	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	Remarks
SOIL	DUMP A [illegible]	3-12-96	1520	DSOC 25MM 006			X	X	X	X	X	X	X	4 DAY TURN
			1540	DSOC 25MM 007			X	X	X	X	X	X	X	Dup
			1550	DSOC 25MM 008			X	X	X	X	X	X	X	11 SAMPLES
			1600	DSOC 25MM 009			X	X	X	X	X	X	X	
			1610	DSOC 25MM 010			X	X	X	X	X	X	X	
			1620	DSOC 25MM 011			X	X	X	X	X	X	X	
			1630	DSOC 25MM 012			X	X	X	X	X	X	X	
			1640	DSOC 25MM 013			X	X	X	X	X	X	X	
			1650	DSOC 25MM 014			X	X	X	X	X	X	X	
			1655	DSOC 25MM 015			X	X	X	X	X	X	X	
			1700	DSOC 25MM 016			X	X	X	X	X	X	X	Du
LIQUID	TRIP BLANK	3-13-96	1230	TB20			X							
		3-13-96	1240	TB21			X							
		3-13-96	1250	TB22			X							
			1410	TB23										
			1415	TB24										

Relinquished By: (Signature) / Company: MKC	Date/Time 3-13-96 1700	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:
Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:
Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Received for Laboratory By: (Signature) / Company:	Date/Time	Total No. Samples This Shipping Container: / Company:
Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:	Relinquished By: (Signature) / Company:	Date/Time	Received By: (Signature) / Company:

N-00095

SAMPLE 25/07D-006

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-006

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__
Matrix (soil/water): SOIL_ Lab Sample ID: 791080
Level (low/med): LOW__ Date Received: 03/14/96
% Solids: _81.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	0.90	B	N	P
7440-38-2	Arsenic__	22.5			P
7440-39-3	Barium___	41.5			P
7440-41-7	Beryllium	0.58	B		P
7440-43-9	Cadmium__	0.02	U	N	P
7440-47-3	Chromium_	21.0		N*	P
7440-48-4	Cobalt___	7.0			P
7440-50-8	Copper___	12.4			P
7439-92-1	Lead____	16.0		*	P
7440-02-0	Nickel___	5.9			P
7782-49-2	Selenium_	0.86		N	P
7440-22-4	Silver___	0.09	U		P
7440-28-0	Thallium_	0.43	U		P
7440-62-2	Vanadium_	20.4			P
7440-66-6	Zinc_____	510			P
7440-31-5	Tin_____	0.51	U	N	P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.58g__Dry:5.66g_____

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-006

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791304

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091304B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted:03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	320	U
110-86-1	Pyridine	670	U
109-06-8	2-Picoline	1500	U
10595-95-6	Nitrosomethylethylamine	290	U
66-27-3	Methyl Methanesulfonate	850	U
55-18-5	N-Nitrosodiethylamine	270	U
62-50-0	Ethyl Methanesulfonate	730	U
108-95-2	Phenol	690	U
62-53-3	Aniline	680	U
111-44-4	Bis(2-chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	760	U
541-73-1	1,3-Dichlorobenzene	620	U
106-46-7	1,4-Dichlorobenzene	630	U
100-51-6	Benzyl Alcohol	670	U
95-50-1	1,2-Dichlorobenzene	710	U
95-48-7	2-Methylphenol	790	U
39638-32-9	bis(2-Chloroisopropyl)ether	790	U
108-39-4	3-Methylphenol	1600	U
106-44-5	4-Methylphenol	1600	U
930-55-2	N-Nitrosopyrrolidine	640	U
621-64-7	N-Nitroso-di-N-propylamine	290	U
98-86-2	Acetophenone	800	U
59-89-2	N-Nitrosomorpholine	910	U
636-21-5	o-Toluidine hydrochloride	2400	U
67-72-1	Hexachloroethane	730	U
98-95-3	Nitrobenzene	820	U
100-75-4	N-Nitrosopiperidine	900	U
78-59-1	Isophorone	820	U
88-75-5	2-Nitrophenol	750	U
105-67-9	2,4-Dimethylphenol	740	U
126-68-1	o,o,o-Triethylphosphorothioa	6400	U
111-91-1	Bis(2-chloroethoxy)methane	810	U
120-83-2	2,4-Dichlorophenol	670	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-006

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791304

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091304B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
120-82-1	1,2,4-Trichlorobenzene	670	U
91-20-3	Naphthalene	800	U
106-47-8	4-Chloroaniline	840	U
87-65-0	2,6-Dichlorophenol	1500	U
1888-71-7	Hexachloropropene	690	U
87-68-3	Hexachlorobutadiene	680	U
924-16-3	N-Nitroso-di-n-butylamine	180	U
59-50-7	4-Chloro-3-methylphenol	230	U
94-59-7	Safrole	700	U
91-57-6	2-Methylnaphthalene	1000	U
77-47-4	Hexachlorocyclopentadiene	800	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1600	U
88-06-2	2,4,6-Trichlorophenol	1600	U
95-95-4	2,4,5-Trichlorophenol	1600	U
120-58-1	Isosafrole	1600	U
91-58-7	2-Chloronaphthalene	1200	U
88-74-4	2-Nitroaniline	1300	U
130-15-4	1,4-Napthoquinone	1900	U
131-11-3	Dimethylphthalate	1200	U
99-65-0	1,3-Dinitrobenzene	680	U
606-20-2	2,6-Dinitrotoluene	910	U
208-96-8	Acenaphthylene	810	U
99-09-2	3-Nitroaniline	840	U
83-32-9	Acenaphthene	800	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	840	U
608-93-5	Pentachlorobenzene	800	U
121-14-2	2,4-Dinitrotoluene	800	U
132-64-9	Dibenzofuran	840	U
91-59-8	2-Naphthylamine	1000	U
58-90-2	2,3,4,6-Tetrachlorophenol	1700	U
134-32-7	1-Naphthylamine	1700	U
84-66-2	Diethylphthalate	870	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-006

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791304

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091304B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted:03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
7005-72-3	4-Chlorophenyl-phenylether	730	U
99-55-8	5-Nitro-o-toluidine	1200	U
86-73-7	Fluorene	840	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	1700	U
122-39-4	Diphenylamine	1700	U
99-35-4	1,3,5-Trinitrobenzene	1100	U
2303-16-4	Diallate (trans isomer)	800	U
62-44-2	Phenacetin	740	U
2303-16-4	Diallate (cis isomer)	800	U
101-55-3	4-Bromophenyl-phenylether	910	U
118-74-1	Hexachlorobenzene	930	U
92-67-1	4-Aminobiphenyl	500	U
87-86-5	Pentachlorophenol	1700	U
23950-58-5	Pronamide	790	U
85-01-8	Phenanthrene	750	U
120-12-7	Anthracene	900	U
84-74-2	Di-n-butylphthalate	930	U
56-57-5	4-Nitroquinoline-1-oxide	5800	J
91-80-5	Methapyrilene	1600	U
465-73-6	Isodrin	1100	U
206-44-0	Fluoranthene	1100	U
129-00-0	Pyrene	880	U
140-57-8	Aramite	800	U
60-11-7	p-Dimethylaminoazobenzene	810	U
510-15-6	Chlorobenzilate	860	U
85-68-7	Butylbenzylphthalate	820	U
119-93-7	3,3'-Dimethylbenzidine	550	U
117-81-7	bis(2-ethylhexyl)Phthalate	910	U
91-94-1	3,3'-Dichlorobenzidine	610	U
56-55-3	Benzo(a)Anthracene	800	U
218-01-9	Chrysene	650	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-006

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791304

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091304B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
117-84-0	Di-n-octylphthalate	580	U
57-97-6	7,12-Dimethylbenz(a)anthrace	500	U
205-99-2	Benzo(b)fluoranthene	930	U
207-08-9	Benzo(k)fluoranthene	750	U
193-39-5	Indeno(1,2,3-c,d)pyrene	560	U
53-70-3	Dibenzo(a,h)anthracene	220	U
191-24-2	Benzo(g,h,i)perylene	750	U
122-09-08	a,a-Dimethylphenethylamine	800	U
106-50-3	p-Phenylenediamine	800	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-006

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791304

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091304B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL	3.57	180	JA
2.	UNKNOWN	3.75	840	J
3.	ALDOL (BC)	3.96	11000	JAB
4.	UNKNOWN	4.10	170	J
5.	UNKNOWN	4.57	520	J
6.	ADVISORY SURROGATE COMPOUND	5.30	1800	JB
7.	ADVISORY SURROGATE COMPOUND	5.80	1300	JB
8.				
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FORM I SV-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-006

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791235

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091235A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 18 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	8	JB
67-64-1	Acetone	14	B
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U
75-05-8	acetonitrile	240	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-006

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791235

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091235A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 18 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	280	U
107-05-1	3-chloropropene	18	U
106-93-4	1,2-dibromoethane	18	U
74-95-3	dibromomethane	24	U
110-57-6	trans-1,4-dichloro-2-butene	18	U
75-71-8	dichlorodifluoromethane	24	U
123-91-1	1,4-dioxane	62000	U
107-12-0	propionitrile(ethylcyanide)	720	U
97-63-2	ethyl methacrylate	30	U
74-88-4	iodomethane	12	U
78-83-1	isobutyl alcohol	16000	U
126-98-7	methacrylonitrile	24	U
80-62-6	methyl methacrylate	61	U
630-20-6	1,1,1,2-tetrachloroethane	24	U
96-18-4	1,2,3-trichloropropane	24	U
108-05-4	vinyl acetate	24	U
96-12-8	1,2-dibromo-3-chloropropane	61	U
75-69-4	trichlorofluoromethane	24	U
107-13-1	acrylonitrile	260	U
156-60-5	trans-1,2-Dichloroethene	12	U

FORM I VOA

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-006

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791235

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091235A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 18 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.53	1600	JB
2.	LABORATORY ARTIFACT	22.90	10	J
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FORM I VOA-TIC

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-006

Lab Name: COMPUCHEM_ENV._CORP. Contract: SW-846

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 665C

Matrix (soil/water): SOIL Lab Sample ID: 791140

Level (low/med): LOW Date Received: 03/14/96

% Solids: 81.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.12	U		CV

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:
Undecanted Dry Weights Container:1.57g Wet:6.58g Dry:5.66g
Duplicate (2507D-006D)

FORM I - IN ILM03.0

1D

ORGANOCHLORINE PESTICIDES AND PCBs ANALYSIS DATA SHEET

SAMPLE NO.

2507D-006

Lab Name: COMPUCHEM,RTP Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0490C

Matrix: (soil/water) SOIL Lab Sample ID: 791333

Sample wt/vol: 30.00 (g/ml) G Lab File ID:

% Moisture: 18 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 03/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/26/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	gamma-BHC (Lindane)	1.2	U
76-44-8	Heptachlor	0.11	JP
309-00-2	Aldrin	1.2	U
959-98-8	Endosulfan I	1.8	U
60-57-1	Dieldrin	1.8	U
33213-65-9	Endosulfan II	4.3	U
50-29-3	4,4'-DDT	4.3	U
72-43-5	Methoxychlor	0.35	JP
319-84-6	alpha-BHC	1.2	U
319-85-7	beta-BHC	1.2	U
319-86-8	delta-BHC	0.15	JP
1024-57-3	Heptachlor epoxide	1.2	U
72-55-9	4,4'-DDE	0.16	JP
72-20-8	Endrin	3.0	U
72-54-8	4,4'-DDD	4.3	U
7421-93-4	Endrin aldehyde	1.2	U
1031-07-8	Endosulfan sulfate	2.4	U
11096-82-5	Aroclor-1260	24	U
12674-11-2	Aroclor-1016	24	U
11104-28-2	Aroclor-1221	24	U
11141-16-5	Aroclor-1232	24	U
53469-21-9	Aroclor-1242	24	U
12672-29-6	Aroclor-1248	24	U
11097-69-1	Aroclor-1254	24	U
8001-35-2	Toxaphene	24	U
57-74-9	Chlordane (Technical)	4.9	U

FORM I 8080

1D
HERBICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-006

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

Matrix: (soil/water) SOIL Lab Sample ID: 791366

Sample wt/vol: 50.2 (g/ml) G Lab File ID:

% Moisture: 18 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 03/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/24/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	120	U
93-72-1	2,4,5-TP (Silvex)	2.7	JBP
93-76-5	2,4,5-T	1.8	JBP

FORM I HERB

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (PPM)
1.	257D-006	791438	BRL	2.5
2.	257D-007	791442	BRL	2.5
3.	257D-008	791443	BRL	2.5
4.	257D-009	791444	BRL	2.5
5.	257D-010	791445	BRL	2.5
6.	257D-011	791446	BRL	2.5
7.	257D-012	791447	BRL	2.5
8.	257D-013	791448	BRL	2.5
9.	257D-014	791449	BRL	2.5
10.	257D-015	791450	BRL	2.5
11.	257D-016	791451	BRL	2.5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [illegible] / 785 Date: 3/29/96

Reviewed by/ID#: [illegible] / 1990 Date: 3/29/96

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-006

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Matrix (soil/water): SOIL_ Lab Sample ID: 791474

Level (low/med): LOW__ Date Received: 03/14/96

% Solids: _81.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Cyanide	0.61	U		AS

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.58g__Dry:5.66g_____
Duplicate_(2507D-006D)_____

SAMPLE 25/07D-007

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-007

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__
Matrix (soil/water): SOIL_ Lab Sample ID: 791085
Level (low/med): LOW__ Date Received: 03/14/96
% Solids: _84.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	0.29	B	N	P
7440-38-2	Arsenic__	13.8			P
7440-39-3	Barium___	36.8			P
7440-41-7	Beryllium	0.42	B		P
7440-43-9	Cadmium__	0.02	U	N	P
7440-47-3	Chromium_	10.6		N*	P
7440-48-4	Cobalt___	4.1	B		P
7440-50-8	Copper___	10.9			P
7439-92-1	Lead____	11.6		*	P
7440-02-0	Nickel___	4.3	B		P
7782-49-2	Selenium_	0.57	B	N	P
7440-22-4	Silver___	0.08	U		P
7440-28-0	Thallium_	0.40	U		P
7440-62-2	Vanadium_	15.0			P
7440-66-6	Zinc____	410			P
7440-31-5	Tin_____	0.51	B	N	P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.56g__Wet:6.56g__Dry:5.80g_____

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-007

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791307

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091307B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	300	U
110-86-1	Pyridine	640	U
109-06-8	2-Picoline	1400	U
10595-95-6	Nitrosomethylethylamine	280	U
66-27-3	Methyl Methanesulfonate	820	U
55-18-5	N-Nitrosodiethylamine	260	U
62-50-0	Ethyl Methanesulfonate	700	U
108-95-2	Phenol	670	U
62-53-3	Aniline	660	U
111-44-4	Bis(2-chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	740	U
541-73-1	1,3-Dichlorobenzene	600	U
106-46-7	1,4-Dichlorobenzene	610	U
100-51-6	Benzyl Alcohol	640	U
95-50-1	1,2-Dichlorobenzene	690	U
95-48-7	2-Methylphenol	760	U
39638-32-9	bis(2-Chloroisopropyl)ether	760	U
108-39-4	3-Methylphenol	1500	U
106-44-5	4-Methylphenol	1500	U
930-55-2	N-Nitrosopyrrolidine	620	U
621-64-7	N-Nitroso-di-N-propylamine	280	U
98-86-2	Acetophenone	770	U
59-89-2	N-Nitrosomorpholine	880	U
636-21-5	o-Toluidine hydrochloride	2300	U
67-72-1	Hexachloroethane	700	U
98-95-3	Nitrobenzene	800	U
100-75-4	N-Nitrosopiperidine	870	U
78-59-1	Isophorone	800	U
88-75-5	2-Nitrophenol	730	U
105-67-9	2,4-Dimethylphenol	720	U
126-68-1	o,o,o-Triethylphosphorothioa	6200	U
111-91-1	Bis(2-chloroethoxy)methane	790	U
120-83-2	2,4-Dichlorophenol	640	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-007

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791307

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091307B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
120-82-1	1,2,4-Trichlorobenzene	640	U
91-20-3	Naphthalene	770	U
106-47-8	4-Chloroaniline	810	U
87-65-0	2,6-Dichlorophenol	1400	U
1888-71-7	Hexachloropropene	670	U
87-68-3	Hexachlorobutadiene	660	U
924-16-3	N-Nitroso-di-n-butylamine	180	U
59-50-7	4-Chloro-3-methylphenol	220	U
94-59-7	Safrole	680	U
91-57-6	2-Methylnaphthalene	980	U
77-47-4	Hexachlorocyclopentadiene	770	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1500	U
88-06-2	2,4,6-Trichlorophenol	1500	U
95-95-4	2,4,5-Trichlorophenol	1500	U
120-58-1	Isosafrole	1500	U
91-58-7	2-Chloronaphthalene	1100	U
88-74-4	2-Nitroaniline	1300	U
130-15-4	1,4-Napthoquinone	1900	U
131-11-3	Dimethylphthalate	1100	U
99-65-0	1,3-Dinitrobenzene	660	U
606-20-2	2,6-Dinitrotoluene	880	U
208-96-8	Acenaphthylene	790	U
99-09-2	3-Nitroaniline	810	U
83-32-9	Acenaphthene	770	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	810	U
608-93-5	Pentachlorobenzene	770	U
121-14-2	2,4-Dinitrotoluene	770	U
132-64-9	Dibenzofuran	810	U
91-59-8	2-Naphthylamine	1000	U
58-90-2	2,3,4,6-Tetrachlorophenol	1600	U
134-32-7	1-Naphthylamine	1600	U
84-66-2	Diethylphthalate	840	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-007

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791307

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091307B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
7005-72-3	4-Chlorophenyl-phenylether	700	U
99-55-8	5-Nitro-o-toluidine	1200	U
86-73-7	Fluorene	810	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	1600	U
122-39-4	Diphenylamine	1600	U
99-35-4	1,3,5-Trinitrobenzene	1100	U
2303-16-4	Diallate (trans isomer)	770	U
62-44-2	Phenacetin	720	U
2303-16-4	Diallate (cis isomer)	770	U
101-55-3	4-Bromophenyl-phenylether	880	U
118-74-1	Hexachlorobenzene	900	U
92-67-1	4-Aminobiphenyl	480	U
87-86-5	Pentachlorophenol	1600	U
23950-58-5	Pronamide	760	U
85-01-8	Phenanthrene	730	U
120-12-7	Anthracene	870	U
84-74-2	Di-n-butylphthalate	900	U
56-57-5	4-Nitroquinoline-1-oxide	5600	U
91-80-5	Methapyrilene	1500	U
465-73-6	Isodrin	1100	U
206-44-0	Fluoranthene	1100	U
129-00-0	Pyrene	860	U
140-57-8	Aramite	770	U
60-11-7	p-Dimethylaminoazobenzene	790	U
510-15-6	Chlorobenzilate	830	U
85-68-7	Butylbenzylphthalate	800	U
119-93-7	3,3'-Dimethylbenzidine	530	U
117-81-7	bis(2-ethylhexyl)Phthalate	880	U
91-94-1	3,3'-Dichlorobenzidine	590	U
56-55-3	Benzo(a)Anthracene	770	U
218-01-9	Chrysene	630	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-007

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791307

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091307B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
117-84-0	Di-n-octylphthalate	560	U
57-97-6	7,12-Dimethylbenz(a)anthrace	480	U
205-99-2	Benzo(b)fluoranthene	900	U
207-08-9	Benzo(k)fluoranthene	730	U
193-39-5	Indeno(1,2,3-c,d)pyrene	540	U
53-70-3	Dibenzo(a,h)anthracene	210	U
191-24-2	Benzo(g,h,i)perylene	730	U
122-09-08	a,a-Dimethylphenethylamine	770	U
106-50-3	p-Phenylenediamine	770	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-007

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791307

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091307B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.74	720	J
2.	ALDOL (BC)	3.96	9400	JAB
3.	UNKNOWN	4.10	170	J
4.	UNKNOWN	4.57	440	J
5.	ADVISORY SURROGATE COMPOUND	5.30	1500	JB
6.	ADVISORY SURROGATE COMPOUND	5.80	1100	JB
7.				
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FORM I SV-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-007

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791237

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091237B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 15 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	JB
67-64-1	Acetone	7	JB
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U
75-05-8	acetonitrile	240	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-007

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791237

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091237B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 15 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	270	U
107-05-1	3-chloropropene	18	U
106-93-4	1,2-dibromoethane	18	U
74-95-3	dibromomethane	24	U
110-57-6	trans-1,4-dichloro-2-butene	18	U
75-71-8	dichlorodifluoromethane	24	U
123-91-1	1,4-dioxane	60000	U
107-12-0	propionitrile(ethylcyanide)	690	U
97-63-2	ethyl methacrylate	29	U
74-88-4	iodomethane	12	U
78-83-1	isobutyl alcohol	15000	U
126-98-7	methacrylonitrile	24	U
80-62-6	methyl methacrylate	59	U
630-20-6	1,1,1,2-tetrachloroethane	24	U
96-18-4	1,2,3-trichloropropane	24	U
108-05-4	vinyl acetate	24	U
96-12-8	1,2-dibromo-3-chloropropane	59	U
75-69-4	trichlorofluoromethane	24	U
107-13-1	acrylonitrile	250	U
156-60-5	trans-1,2-Dichloroethene	12	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-007

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791237

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091237B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 15 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.50	1300	JB
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FORM I VOA-TIC

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-007

Lab Name: COMPUCHEM_ENV._CORP. Contract: SW-846

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 665C

Matrix (soil/water): SOIL Lab Sample ID: 791141

Level (low/med): LOW Date Received: 03/14/96

% Solids: 84.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.11	U		CV

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

Undecanted_Dry_Weights Container:1.56g Wet:6.56g Dry:5.80g

FORM I - IN ILM03.0

1D

ORGANOCHLORINE PESTICIDES AND PCBs ANALYSIS DATA SHEET

SAMPLE NO.

2507D-007

Lab Name: COMPUCHEM, RTP Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0490C

Matrix: (soil/water) SOIL Lab Sample ID: 791336 D11

Sample wt/vol: 30.10 (g/ml) G Lab File ID:

% Moisture: 15 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 03/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/26/96

Injection Volume: 2.0 (uL) Dilution Factor: 10

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	gamma-BHC (Lindane)	12	U
76-44-8	Heptachlor	12	U
309-00-2	Aldrin	12	U
959-98-8	Endosulfan I	18	U
60-57-1	Dieldrin	3.9	JP
33213-65-9	Endosulfan II	41	U
50-29-3	4,4'-DDT	41	U
72-43-5	Methoxychlor	41	U
319-84-6	alpha-BHC	12	U
319-85-7	beta-BHC	12	U
319-86-8	delta-BHC	12	U
1024-57-3	Heptachlor epoxide	12	U
72-55-9	4,4'-DDE	41	U
72-20-8	Endrin	29	U
72-54-8	4,4'-DDD	41	U
7421-93-4	Endrin aldehyde	12	U
1031-07-8	Endosulfan sulfate	23	U
11096-82-5	Aroclor-1260	230	U
12674-11-2	Aroclor-1016	230	U
11104-28-2	Aroclor-1221	230	U
11141-16-5	Aroclor-1232	230	U
53469-21-9	Aroclor-1242	230	U
12672-29-6	Aroclor-1248	230	U
11097-69-1	Aroclor-1254	230	U
8001-35-2	Toxaphene	230	U
57-74-9	Chlordane (Technical)	47	U

FORM I 8080

1D
HERBICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-007

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

Matrix: (soil/water) SOIL Lab Sample ID: 791370

Sample wt/vol: 50.3 (g/ml) G Lab File ID:

% Moisture: 15 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 03/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/24/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	120	U
93-72-1	2,4,5-TP (Silvex)	2.8	JBP
93-76-5	2,4,5-T	29	U

FORM I HERB

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-007

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Matrix (soil/water): SOIL_ Lab Sample ID: 791479

Level (low/med): LOW__ Date Received: 03/14/96

% Solids: _84.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Cyanide	0.59	U		AS

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.56g__Wet:6.56g__Dry:5.80g_____

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (PPM)
1.	257D-006	791438	BRL	2.5
2.	257D-007	791442	BRL	2.5
3.	257D-008	791443	BRL	2.5
4.	257D-009	791444	BRL	2.5
5.	257D-010	791445	BRL	2.5
6.	257D-011	791446	BRL	2.5
7.	257D-012	791447	BRL	2.5
8.	257D-013	791448	BRL	2.5
9.	257D-014	791449	BRL	2.5
10.	257D-015	791450	BRL	2.5
11.	257D-016	791451	BRL	2.5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [illegible] / 1285 Date: 3/29/96

Reviewed by/ID#: [illegible] / 1990 Date: 3/29/96

SAMPLE 25/07D-008

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-008

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__
Matrix (soil/water): SOIL_ Lab Sample ID: 791087
Level (low/med): LOW__ Date Received: 03/14/96
% Solids: _87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	0.20	U	N	P
7440-38-2	Arsenic__	2.6			P
7440-39-3	Barium___	24.2			P
7440-41-7	Beryllium	0.29	B		P
7440-43-9	Cadmium__	0.02	U	N	P
7440-47-3	Chromium_	8.4		N*	P
7440-48-4	Cobalt___	3.3	B		P
7440-50-8	Copper___	8.2			P
7439-92-1	Lead____	6.6		*	P
7440-02-0	Nickel___	7.1			P
7782-49-2	Selenium_	0.29	B	N	P
7440-22-4	Silver___	0.08	U		P
7440-28-0	Thallium_	0.38	U		P
7440-62-2	Vanadium_	6.2			P
7440-66-6	Zinc____	45.1			P
7440-31-5	Tin_____	0.76	B	N	P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.57g__Dry:5.92g_____

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-008

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791308

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091308B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 13 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	300	U
110-86-1	Pyridine	630	U
109-06-8	2-Picoline	1400	U
10595-95-6	Nitrosomethylethylamine	280	U
66-27-3	Methyl Methanesulfonate	800	U
55-18-5	N-Nitrosodiethylamine	260	U
62-50-0	Ethyl Methanesulfonate	690	U
108-95-2	Phenol	660	U
62-53-3	Aniline	640	U
111-44-4	Bis(2-chloroethyl)ether	320	U
95-57-8	2-Chlorophenol	720	U
541-73-1	1,3-Dichlorobenzene	590	U
106-46-7	1,4-Dichlorobenzene	600	U
100-51-6	Benzyl Alcohol	630	U
95-50-1	1,2-Dichlorobenzene	680	U
95-48-7	2-Methylphenol	750	U
39638-32-9	bis(2-Chloroisopropyl)ether	750	U
108-39-4	3-Methylphenol	1500	U
106-44-5	4-Methylphenol	1500	U
930-55-2	N-Nitrosopyrrolidine	610	U
621-64-7	N-Nitroso-di-N-propylamine	280	U
98-86-2	Acetophenone	760	U
59-89-2	N-Nitrosomorpholine	860	U
636-21-5	o-Toluidine hydrochloride	2300	U
67-72-1	Hexachloroethane	690	U
98-95-3	Nitrobenzene	780	U
100-75-4	N-Nitrosopiperidine	850	U
78-59-1	Isophorone	780	U
88-75-5	2-Nitrophenol	710	U
105-67-9	2,4-Dimethylphenol	700	U
126-68-1	o,o,o-Triethylphosphorothioa	6100	U
111-91-1	Bis(2-chloroethoxy)methane	770	U
120-83-2	2,4-Dichlorophenol	630	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-008

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791308

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091308B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 13 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/27/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
120-82-1	1,2,4-Trichlorobenzene	630	U
91-20-3	Naphthalene	760	U
106-47-8	4-Chloroaniline	790	U
87-65-0	2,6-Dichlorophenol	1400	U
1888-71-7	Hexachloropropene	660	U
87-68-3	Hexachlorobutadiene	640	U
924-16-3	N-Nitroso-di-n-butylamine	170	U
59-50-7	4-Chloro-3-methylphenol	220	U
94-59-7	Safrole	670	U
91-57-6	2-Methylnaphthalene	970	U
77-47-4	Hexachlorocyclopentadiene	760	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1500	U
88-06-2	2,4,6-Trichlorophenol	1500	U
95-95-4	2,4,5-Trichlorophenol	1500	U
120-58-1	Isosafrole	1500	U
91-58-7	2-Chloronaphthalene	1100	U
88-74-4	2-Nitroaniline	1300	U
130-15-4	1,4-Napthoquinone	1800	U
131-11-3	Dimethylphthalate	1100	U
99-65-0	1,3-Dinitrobenzene	640	U
606-20-2	2,6-Dinitrotoluene	860	U
208-96-8	Acenaphthylene	770	U
99-09-2	3-Nitroaniline	790	U
83-32-9	Acenaphthene	760	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	790	U
608-93-5	Pentachlorobenzene	760	U
121-14-2	2,4-Dinitrotoluene	760	U
132-64-9	Dibenzofuran	790	U
91-59-8	2-Naphthylamine	990	U
58-90-2	2,3,4,6-Tetrachlorophenol	1600	U
134-32-7	1-Naphthylamine	1600	U
84-66-2	Diethylphthalate	830	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-008

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791308

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091308B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 13 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
7005-72-3	4-Chlorophenyl-phenylether	690	U
99-55-8	5-Nitro-o-toluidine	1100	U
86-73-7	Fluorene	790	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	1600	U
122-39-4	Diphenylamine	1600	U
99-35-4	1,3,5-Trinitrobenzene	1000	U
2303-16-4	Diallate (trans isomer)	760	U
62-44-2	Phenacetin	700	U
2303-16-4	Diallate (cis isomer)	760	U
101-55-3	4-Bromophenyl-phenylether	860	U
118-74-1	Hexachlorobenzene	880	U
92-67-1	4-Aminobiphenyl	470	U
87-86-5	Pentachlorophenol	1600	U
23950-58-5	Pronamide	750	U
85-01-8	Phenanthrene	710	U
120-12-7	Anthracene	850	U
84-74-2	Di-n-butylphthalate	880	U
56-57-5	4-Nitroquinoline-1-oxide	5500	U
91-80-5	Methapyrilene	1500	U
465-73-6	Isodrin	1100	U
206-44-0	Fluoranthene	65	J
129-00-0	Pyrene	70	J
140-57-8	Aramite	760	U
60-11-7	p-Dimethylaminoazobenzene	770	U
510-15-6	Chlorobenzilate	820	U
85-68-7	Butylbenzylphthalate	780	U
119-93-7	3,3'-Dimethylbenzidine	520	U
117-81-7	bis(2-ethylhexyl)Phthalate	860	U
91-94-1	3,3'-Dichlorobenzidine	570	U
56-55-3	Benzo(a)Anthracene	75	J
218-01-9	Chrysene	86	J

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-008

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791308

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091308B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 13 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
117-84-0	Di-n-octylphthalate	550	U
57-97-6	7,12-Dimethylbenz(a)anthrace	470	U
205-99-2	Benzo(b)fluoranthene	220	XJ
207-08-9	Benzo(k)fluoranthene	200	XJ
193-39-5	Indeno(1,2,3-c,d)pyrene	93	J
53-70-3	Dibenzo(a,h)anthracene	210	U
191-24-2	Benzo(g,h,i)perylene	150	J
122-09-08	a,a-Dimethylphenethylamine	760	U
106-50-3	p-Phenylenediamine	760	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
2507D-008

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791308

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091308B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 13 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL	3.57	160	JA
2.	UNKNOWN	3.75	780	J
3.	ALDOL (BC)	3.96	10000	JAB
4.	UNKNOWN	4.58	500	J
5.	ADVISORY SURROGATE COMPOUND	5.30	1800	JB
6.	ADVISORY SURROGATE COMPOUND	5.81	1300	JB
7.	BENZOPYRENE	24.31	150	J
8.				
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FORM I SV-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-008

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791242

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091242B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 13 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	6	JB
67-64-1	Acetone	6	JB
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (Total)	11	U
75-05-8	acetonitrile	230	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-008

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791242

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091242B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 13 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	260	U
107-05-1	3-chloropropene	17	U
106-93-4	1,2-dibromoethane	17	U
74-95-3	dibromomethane	23	U
110-57-6	trans-1,4-dichloro-2-butene	17	U
75-71-8	dichlorodifluoromethane	23	U
123-91-1	1,4-dioxane	59000	U
107-12-0	propionitrile(ethylcyanide)	680	U
97-63-2	ethyl methacrylate	29	U
74-88-4	iodomethane	11	U
78-83-1	isobutyl alcohol	15000	U
126-98-7	methacrylonitrile	23	U
80-62-6	methyl methacrylate	57	U
630-20-6	1,1,1,2-tetrachloroethane	23	U
96-18-4	1,2,3-trichloropropane	23	U
108-05-4	vinyl acetate	23	U
96-12-8	1,2-dibromo-3-chloropropane	57	U
75-69-4	trichlorofluoromethane	23	U
107-13-1	acrylonitrile	240	U
156-60-5	trans-1,2-Dichloroethene	11	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-008

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791242

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091242B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 13 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.51	1400	JB
2.				
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FORM I VOA-TIC

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-008

Lab Name: COMPUCHEM_ENV._CORP. Contract: SW-846

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 665C

Matrix (soil/water): SOIL Lab Sample ID: 791142

Level (low/med): LOW Date Received: 03/14/96

% Solids: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.11	U		CV

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:
Undecanted_Dry_Weights Container:1.57g Wet:6.57g Dry:5.92g

FORM I - IN ILM03.0

1D

ORGANOCHLORINE PESTICIDES AND PCBs ANALYSIS DATA SHEET

SAMPLE NO.

2507D-008

Lab Name: COMPUCHEM, RTP Contract:

Lab Code: COMPU / Case No.: 31923 SAS No.: SDG No.: 0490C

Matrix: (soil/water) SOIL Lab Sample ID: 791337

Sample wt/vol: 30.20 (g/ml) G Lab File ID:

% Moisture: 13 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 03/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/26/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	gamma-BHC (Lindane)	0.32	JP
76-44-8	Heptachlor	0.33	JP
309-00-2	Aldrin	0.25	JP
959-98-8	Endosulfan I	1.2	JP
60-57-1	Dieldrin	0.12	JP
33213-65-9	Endosulfan II	0.15	JP
50-29-3	4,4'-DDT	0.68	JP
72-43-5	Methoxychlor	4.5	
319-84-6	alpha-BHC	1.1	U
319-85-7	beta-BHC	0.68	JP
319-86-8	delta-BHC	0.061	JP
1024-57-3	Heptachlor epoxide	1.1	U
72-55-9	4,4'-DDE	0.13	JP
72-20-8	Endrin	3.6	P
72-54-8	4,4'-DDD	0.27	J
7421-93-4	Endrin aldehyde	2.0	P
1031-07-8	Endosulfan sulfate	0.66	JBP
11096-82-5	Aroclor-1260	23	U
12674-11-2	Aroclor-1016	23	U
11104-28-2	Aroclor-1221	23	U
11141-16-5	Aroclor-1232	23	U
53469-21-9	Aroclor-1242	23	U
12672-29-6	Aroclor-1248	23	U
11097-69-1	Aroclor-1254	23	U
8001-35-2	Toxaphene	23	U
57-74-9	Chlordane (Technical)	4.6	U

FORM I 8080

1D
HERBICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-008

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

Matrix: (soil/water) SOIL Lab Sample ID: 791371

Sample wt/vol: 50.3 (g/ml) G Lab File ID:

% Moisture: 13 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 03/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/24/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	110	U
93-72-1	2,4,5-TP (Silvex)	1.8	JBP
93-76-5	2,4,5-T	29	U

FORM I HERB

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-008

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Matrix (soil/water): SOIL_ Lab Sample ID: 791480

Level (low/med): LOW__ Date Received: 03/14/96

% Solids: _87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Cyanide	0.57	U		AS

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:

Undecanted_Dry_Weights____Container:1.57g__Wet:6.57g__Dry:5.92g_____

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (PPM)
1.	257D-006	791438	BRL	2.5
2.	257D-007	791442	BRL	2.5
3.	257D-008	791443	BRL	2.5
4.	257D-009	791444	BRL	2.5
5.	257D-010	791445	BRL	2.5
6.	257D-011	791446	BRL	2.5
7.	257D-012	791447	BRL	2.5
8.	257D-013	791448	BRL	2.5
9.	257D-014	791449	BRL	2.5
10.	257D-015	791450	BRL	2.5
11.	257D-016	791451	BRL	2.5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [illegible] / 785 Date: 3/29/96

Reviewed by/ID#: [illegible] / 1990 Date: 3/29/96

SAMPLE 25/07D-009

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-009

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__
Matrix (soil/water): SOIL_ Lab Sample ID: 791099
Level (low/med): LOW__ Date Received: 03/14/96
% Solids: _84.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	0.40	B	N	P
7440-38-2	Arsenic__	4.8			P
7440-39-3	Barium___	35.4			P
7440-41-7	Beryllium	0.37	B		P
7440-43-9	Cadmium__	0.33	B	N	P
7440-47-3	Chromium_	6.7		N*	P
7440-48-4	Cobalt___	5.2	B		P
7440-50-8	Copper___	18.5			P
7439-92-1	Lead____	10.5		*	P
7440-02-0	Nickel___	10.8			P
7782-49-2	Selenium_	0.31	U	N	P
7440-22-4	Silver___	0.08	U		P
7440-28-0	Thallium_	0.41	U		P
7440-62-2	Vanadium_	8.4			P
7440-66-6	Zinc____	1630			P
7440-31-5	Tin_____	0.89	B	N	P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.57g__Dry:5.80g_____

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-009

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791309

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091309B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted:03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	300	U
110-86-1	Pyridine	640	U
109-06-8	2-Picoline	1400	U
10595-95-6	Nitrosomethylethylamine	280	U
66-27-3	Methyl Methanesulfonate	820	U
55-18-5	N-Nitrosodiethylamine	260	U
62-50-0	Ethyl Methanesulfonate	700	U
108-95-2	Phenol	670	U
62-53-3	Aniline	660	U
111-44-4	Bis(2-chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	740	U
541-73-1	1,3-Dichlorobenzene	600	U
106-46-7	1,4-Dichlorobenzene	610	U
100-51-6	Benzyl Alcohol	640	U
95-50-1	1,2-Dichlorobenzene	690	U
95-48-7	2-Methylphenol	760	U
39638-32-9	bis(2-Chloroisopropyl)ether	760	U
108-39-4	3-Methylphenol	1500	U
106-44-5	4-Methylphenol	1500	U
930-55-2	N-Nitrosopyrrolidine	620	U
621-64-7	N-Nitroso-di-N-propylamine	280	U
98-86-2	Acetophenone	770	U
59-89-2	N-Nitrosomorpholine	880	U
636-21-5	o-Toluidine hydrochloride	2300	U
67-72-1	Hexachloroethane	700	U
98-95-3	Nitrobenzene	800	U
100-75-4	N-Nitrosopiperidine	870	U
78-59-1	Isophorone	800	U
88-75-5	2-Nitrophenol	730	U
105-67-9	2,4-Dimethylphenol	720	U
126-68-1	o,o,o-Triethylphosphorothioa	6200	U
111-91-1	Bis(2-chloroethoxy)methane	790	U
120-83-2	2,4-Dichlorophenol	640	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
2507D-009

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791309

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091309B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
120-82-1	1,2,4-Trichlorobenzene	640	U
91-20-3	Naphthalene	770	U
106-47-8	4-Chloroaniline	810	U
87-65-0	2,6-Dichlorophenol	1400	U
1888-71-7	Hexachloropropene	670	U
87-68-3	Hexachlorobutadiene	660	U
924-16-3	N-Nitroso-di-n-butylamine	180	U
59-50-7	4-Chloro-3-methylphenol	220	U
94-59-7	Safrole	680	U
91-57-6	2-Methylnaphthalene	980	U
77-47-4	Hexachlorocyclopentadiene	770	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1500	U
88-06-2	2,4,6-Trichlorophenol	1500	U
95-95-4	2,4,5-Trichlorophenol	1500	U
120-58-1	Isosafrole	1500	U
91-58-7	2-Chloronaphthalene	1100	U
88-74-4	2-Nitroaniline	1300	U
130-15-4	1,4-Napthoquinone	1900	U
131-11-3	Dimethylphthalate	1100	U
99-65-0	1,3-Dinitrobenzene	660	U
606-20-2	2,6-Dinitrotoluene	880	U
208-96-8	Acenaphthylene	790	U
99-09-2	3-Nitroaniline	810	U
83-32-9	Acenaphthene	770	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	810	U
608-93-5	Pentachlorobenzene	770	U
121-14-2	2,4-Dinitrotoluene	770	U
132-64-9	Dibenzofuran	810	U
91-59-8	2-Naphthylamine	1000	U
58-90-2	2,3,4,6-Tetrachlorophenol	1600	U
134-32-7	1-Naphthylamine	1600	U
84-66-2	Diethylphthalate	840	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-009

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791309

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091309B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
7005-72-3	4-Chlorophenyl-phenylether	700	U
99-55-8	5-Nitro-o-toluidine	1200	U
86-73-7	Fluorene	810	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	1600	U
122-39-4	Diphenylamine	1600	U
99-35-4	1,3,5-Trinitrobenzene	1100	U
2303-16-4	Diallate (trans isomer)	770	U
62-44-2	Phenacetin	720	U
2303-16-4	Diallate (cis isomer)	770	U
101-55-3	4-Bromophenyl-phenylether	880	U
118-74-1	Hexachlorobenzene	900	U
92-67-1	4-Aminobiphenyl	480	U
87-86-5	Pentachlorophenol	1600	U
23950-58-5	Pronamide	760	U
85-01-8	Phenanthrene	46	J
120-12-7	Anthracene	870	U
84-74-2	Di-n-butylphthalate	900	U
56-57-5	4-Nitroquinoline-1-oxide	5600	U
91-80-5	Methapyrilene	1500	U
465-73-6	Isodrin	1100	U
206-44-0	Fluoranthene	130	J
129-00-0	Pyrene	130	J
140-57-8	Aramite	770	U
60-11-7	p-Dimethylaminoazobenzene	790	U
510-15-6	Chlorobenzilate	830	U
85-68-7	Butylbenzylphthalate	800	U
119-93-7	3,3'-Dimethylbenzidine	530	U
117-81-7	bis(2-ethylhexyl)Phthalate	880	U
91-94-1	3,3'-Dichlorobenzidine	590	U
56-55-3	Benzo(a)Anthracene	120	J
218-01-9	Chrysene	120	J

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-009

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791309

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091309B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
117-84-0	Di-n-octylphthalate	560	U
57-97-6	7,12-Dimethylbenz(a)anthrace	480	U
205-99-2	Benzo(b)fluoranthene	330	XJ
207-08-9	Benzo(k)fluoranthene	300	XJ
193-39-5	Indeno(1,2,3-c,d)pyrene	140	J
53-70-3	Dibenzo(a,h)anthracene	210	U
191-24-2	Benzo(g,h,i)perylene	190	J
122-09-08	a,a-Dimethylphenethylamine	770	U
106-50-3	p-Phenylenediamine	770	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-009

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791309

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091309B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

Number TICs found: 8

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL	3.56	200	JA
2.	UNKNOWN	3.74	990	J
3.	ALDOL (BC)	3.96	13000	JAB
4.	UNKNOWN	4.57	610	J
5.	ADVISORY SURROGATE COMPOUND	5.30	1800	JB
6.	ADVISORY SURROGATE COMPOUND	5.80	1400	JB
7.	BENZOPYRENE	24.20	180	J
8.	BENZOFLUORANTHENE	24.31	220	J
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FORM I SV-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-009

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791244

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091244B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 15 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	9	JB
67-64-1	Acetone	12	B
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U
75-05-8	acetonitrile	240	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-009

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791244

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091244B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 15 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	270	U
107-05-1	3-chloropropene	18	U
106-93-4	1,2-dibromoethane	18	U
74-95-3	dibromomethane	24	U
110-57-6	trans-1,4-dichloro-2-butene	18	U
75-71-8	dichlorodifluoromethane	24	U
123-91-1	1,4-dioxane	60000	U
107-12-0	propionitrile(ethylcyanide)	690	U
97-63-2	ethyl methacrylate	29	U
74-88-4	iodomethane	12	U
78-83-1	isobutyl alcohol	15000	U
126-98-7	methacrylonitrile	24	U
80-62-6	methyl methacrylate	59	U
630-20-6	1,i,1,2-tetrachloroethane	24	U
96-18-4	1,2,3-trichloropropane	24	U
108-05-4	vinyl acetate	24	U
96-12-8	1,2-dibromo-3-chloropropane	59	U
75-69-4	trichlorofluoromethane	24	U
107-13-1	acrylonitrile	250	U
156-60-5	trans-1,2-Dichloroethene	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
2507D-009

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791244

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091244B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 15 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.51	1300	JB
2.	LABORATORY ARTIFACT	22.89	10	J
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FORM I VOA-TIC

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-009

Lab Name: COMPUCHEM_ENV._CORP. Contract: SW-846

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 665C

Matrix (soil/water): SOIL Lab Sample ID: 791143

Level (low/med): LOW Date Received: 03/14/96

% Solids: 84.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.12	U		CV

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

Undecanted_Dry_Weights Container:1.57g Wet:6.57g Dry:5.80g

FORM I - IN ILM03.0

D-00147

1D

ORGANOCHLORINE PESTICIDES AND PCBs ANALYSIS DATA SHEET

SAMPLE NO.

2507D-009

Lab Name: COMPUCHEM, RTP Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0490C

Matrix: (soil/water) SOIL Lab Sample ID: 791338

Sample wt/vol: 30.10 (g/ml) G Lab File ID:

% Moisture: 15 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 03/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/26/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	gamma-BHC (Lindane)	1.2	U
76-44-8	Heptachlor	0.069	JP
309-00-2	Aldrin	0.38	JP
959-98-8	Endosulfan I	3.6	P
60-57-1	Dieldrin	0.23	JP
33213-65-9	Endosulfan II	0.71	JP
50-29-3	4,4'-DDT	1.4	J
72-43-5	Methoxychlor	5.0	P
319-84-6	alpha-BHC	1.2	U
319-85-7	beta-BHC	1.2	U
319-86-8	delta-BHC	0.16	JP
1024-57-3	Heptachlor epoxide	1.2	U
72-55-9	4,4'-DDE	0.12	JP
72-20-8	Endrin	0.33	JP
72-54-8	4,4'-DDD	0.54	JP
7421-93-4	Endrin aldehyde	2.3	P
1031-07-8	Endosulfan sulfate	0.64	JB
11096-82-5	Aroclor-1260	23	U
12674-11-2	Aroclor-1016	23	U
11104-28-2	Aroclor-1221	23	U
11141-16-5	Aroclor-1232	23	U
53469-21-9	Aroclor-1242	23	U
12672-29-6	Aroclor-1248	23	U
11097-69-1	Aroclor-1254	23	U
8001-35-2	Toxaphene	23	U
57-74-9	Chlordane (Technical)	4.7	U

FORM I 8080

1D
HERBICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-009

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

Matrix: (soil/water) SOIL Lab Sample ID: 791372

Sample wt/vol: 50.1 (g/ml) G Lab File ID:

% Moisture: 15 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 03/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/24/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	120	U
93-72-1	2,4,5-TP (Silvex)	0.69	JBP
93-76-5	2,4,5-T	29	U

FORM I HERB

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-009

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Matrix (soil/water): SOIL_ Lab Sample ID: 791481

Level (low/med): LOW__ Date Received: 03/14/96

% Solids: _84.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Cyanide	0.59	U		AS

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.57g__Dry:5.80g_____

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (PPM)
1.	257D-006	791438	BRL	2.5
2.	257D-007	791442	BRL	2.5
3.	257D-008	791443	BRL	2.5
4.	257D-009	791444	BRL	2.5
5.	257D-010	791445	BRL	2.5
6.	257D-011	791446	BRL	2.5
7.	257D-012	791447	BRL	2.5
8.	257D-013	791448	BRL	2.5
9.	257D-014	791449	BRL	2.5
10.	257D-015	791450	BRL	2.5
11.	257D-016	791451	BRL	2.5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID# [illegible] / 785 Date: 3/29/96

Reviewed by/ID#: [illegible] / 1990 Date: 3/29/96

SAMPLE 25/07D-010

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-010

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__
Matrix (soil/water): SOIL_ Lab Sample ID: 791105
Level (low/med): LOW__ Date Received: 03/14/96
% Solids: _81.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	11.1	U	N	P
7440-38-2	Arsenic__	8.5			P
7440-39-3	Barium___	71.5			P
7440-41-7	Beryllium	0.29	B		P
7440-43-9	Cadmium__	1.2		N	P
7440-47-3	Chromium_	9.8		N*	P
7440-48-4	Cobalt___	4.4	B		P
7440-50-8	Copper___	117			P
7439-92-1	Lead____	35.1		*	P
7440-02-0	Nickel___	14.0			P
7782-49-2	Selenium_	0.65		N	P
7440-22-4	Silver___	0.09	U		P
7440-28-0	Thallium_	0.43	U		P
7440-62-2	Vanadium_	9.5			P
7440-66-6	Zinc____	5970			P
7440-31-5	Tin_____	2.2	B	N	P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.56g__Wet:6.57g__Dry:5.62g_____

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-010

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791310

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091310B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 19 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	320	U
110-86-1	Pyridine	680	U
109-06-8	2-Picoline	1500	U
10595-95-6	Nitrosomethylethylamine	300	U
66-27-3	Methyl Methanesulfonate	860	U
55-18-5	N-Nitrosodiethylamine	280	U
62-50-0	Ethyl Methanesulfonate	740	U
108-95-2	Phenol	700	U
62-53-3	Aniline	690	U
111-44-4	Bis(2-chloroethyl)ether	350	U
95-57-8	2-Chlorophenol	780	U
541-73-1	1,3-Dichlorobenzene	630	U
106-46-7	1,4-Dichlorobenzene	640	U
100-51-6	Benzyl Alcohol	680	U
95-50-1	1,2-Dichlorobenzene	730	U
95-48-7	2-Methylphenol	800	U
39638-32-9	bis(2-Chloroisopropyl)ether	800	U
108-39-4	3-Methylphenol	1600	U
106-44-5	4-Methylphenol	1600	U
930-55-2	N-Nitrosopyrrolidine	650	U
621-64-7	N-Nitroso-di-N-propylamine	300	U
98-86-2	Acetophenone	810	U
59-89-2	N-Nitrosomorpholine	930	U
636-21-5	o-Toluidine hydrochloride	2500	U
67-72-1	Hexachloroethane	8800	E
98-95-3	Nitrobenzene	840	U
100-75-4	N-Nitrosopiperidine	910	U
78-59-1	Isophorone	840	U
88-75-5	2-Nitrophenol	770	U
105-67-9	2,4-Dimethylphenol	750	U
126-68-1	o,o,o-Triethylphosphorothioa	6500	U
111-91-1	Bis(2-chloroethoxy)methane	830	U
120-83-2	2,4-Dichlorophenol	680	U

D-00153

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-010

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791310

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091310B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 19 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
120-82-1	1,2,4-Trichlorobenzene	680	U
91-20-3	Naphthalene	810	U
106-47-8	4-Chloroaniline	850	U
87-65-0	2,6-Dichlorophenol	1500	U
1888-71-7	Hexachloropropene	700	U
87-68-3	Hexachlorobutadiene	690	U
924-16-3	N-Nitroso-di-n-butylamine	190	U
59-50-7	4-Chloro-3-methylphenol	230	U
94-59-7	Safrole	720	U
91-57-6	2-Methylnaphthalene	1000	U
77-47-4	Hexachlorocyclopentadiene	810	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1600	U
88-06-2	2,4,6-Trichlorophenol	1600	U
95-95-4	2,4,5-Trichlorophenol	1600	U
120-58-1	Isosafrole	1600	U
91-58-7	2-Chloronaphthalene	1200	U
88-74-4	2-Nitroaniline	1400	U
130-15-4	1,4-Napthoquinone	2000	U
131-11-3	Dimethylphthalate	1200	U
99-65-0	1,3-Dinitrobenzene	690	U
606-20-2	2,6-Dinitrotoluene	930	U
208-96-8	Acenaphthylene	830	U
99-09-2	3-Nitroaniline	850	U
83-32-9	Acenaphthene	810	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	850	U
608-93-5	Pentachlorobenzene	810	U
121-14-2	2,4-Dinitrotoluene	810	U
132-64-9	Dibenzofuran	850	U
91-59-8	2-Naphthylamine	1100	U
58-90-2	2,3,4,6-Tetrachlorophenol	1700	U
134-32-7	1-Naphthylamine	1700	U
84-66-2	Diethylphthalate	890	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-010

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791310

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091310B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 19 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
7005-72-3	4-Chlorophenyl-phenylether	740	U
99-55-8	5-Nitro-o-toluidine	1200	U
86-73-7	Fluorene	850	U
100-01-6	4-Nitroaniline	1400	U
534-52-1	4,6-Dinitro-2-methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	1700	U
122-39-4	Diphenylamine	1700	U
99-35-4	1,3,5-Trinitrobenzene	1100	U
2303-16-4	Diallate (trans isomer)	810	U
62-44-2	Phenacetin	750	U
2303-16-4	Diallate (cis isomer)	810	U
101-55-3	4-Bromophenyl-phenylether	930	U
118-74-1	Hexachlorobenzene	95	J
92-67-1	4-Aminobiphenyl	510	U
87-86-5	Pentachlorophenol	1700	U
23950-58-5	Pronamide	800	U
85-01-8	Phenanthrene	770	U
120-12-7	Anthracene	910	U
84-74-2	Di-n-butylphthalate	950	U
56-57-5	4-Nitroquinoline-1-oxide	5900	J
91-80-5	Methapyrilene	1600	U
465-73-6	Isodrin	1100	U
206-44-0	Fluoranthene	1100	U
129-00-0	Pyrene	900	U
140-57-8	Aramite	810	U
60-11-7	p-Dimethylaminoazobenzene	830	U
510-15-6	Chlorobenzilate	880	U
85-68-7	Butylbenzylphthalate	840	U
119-93-7	3,3'-Dimethylbenzidine	560	U
117-81-7	bis(2-ethylhexyl)Phthalate	930	U
91-94-1	3,3'-Dichlorobenzidine	620	U
56-55-3	Benzo(a)Anthracene	45	J
218-01-9	Chrysene	52	J

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-010

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791310

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091310B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 19 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
117-84-0	Di-n-octylphthalate	590	U
57-97-6	7,12-Dimethylbenz(a)anthrace	510	U
205-99-2	Benzo(b)fluoranthene	160	JX
207-08-9	Benzo(k)fluoranthene	140	JX
193-39-5	Indeno(1,2,3-c,d)pyrene	85	J
53-70-3	Dibenzo(a,h)anthracene	220	U
191-24-2	Benzo(g,h,i)perylene	100	J
122-09-08	a,a-Dimethylphenethylamine	810	U
106-50-3	p-Phenylenediamine	810	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-010

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791310

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091310B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 19 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.74	560	J
2.	ALDOL (BC)	3.95	8100	JAB
3.	UNKNOWN	4.57	340	J
4.	ADVISORY SURROGATE COMPOUND	5.30	1400	JB
5.	ADVISORY SURROGATE COMPOUND	5.80	980	JB
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FORM I SV-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-010

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791245

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091245B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 19 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	11	JB
67-64-1	Acetone	10	JB
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	29	
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U
75-05-8	acetonitrile	250	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-010

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791245

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091245B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 19 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	280	U
107-05-1	3-chloropropene	19	U
106-93-4	1,2-dibromoethane	19	U
74-95-3	dibromomethane	25	U
110-57-6	trans-1,4-dichloro-2-butene	19	U
75-71-8	dichlorodifluoromethane	25	U
123-91-1	1,4-dioxane	63000	U
107-12-0	propionitrile(ethylcyanide)	730	U
97-63-2	ethyl methacrylate	31	U
74-88-4	iodomethane	12	U
78-83-1	isobutyl alcohol	16000	U
126-98-7	methacrylonitrile	25	U
80-62-6	methyl methacrylate	62	U
630-20-6	1,1,1,2-tetrachloroethane	25	U
96-18-4	1,2,3-trichloropropane	25	U
108-05-4	vinyl acetate	25	U
96-12-8	1,2-dibromo-3-chloropropane	62	U
75-69-4	trichlorofluoromethane	25	U
107-13-1	acrylonitrile	260	U
156-60-5	trans-1,2-Dichloroethene	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
2507D-010

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791245

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091245B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 19 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.51	1400	JB
2.	UNKNOWN	22.64	450	J
3.	LABORATORY ARTIFACT	22.89	7	J
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FORM I VOA-TIC

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-010

Lab Name: COMPUCHEM_ENV._CORP. Contract: SW-846

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 665C

Matrix (soil/water): SOIL Lab Sample ID: 791144

Level (low/med): LOW Date Received: 03/14/96

% Solids: 81.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.12	U		CV

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:
Undecanted_Dry_Weights Container:1.56g Wet:6.57g Dry:5.62g

FORM I - IN ILM03.0

1D

ORGANOCHLORINE PESTICIDES AND PCBs ANALYSIS DATA SHEET

SAMPLE NO.

2507D-010

Lab Name: COMPUCHEM, RTP Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0490C

Matrix: (soil/water) SOIL Lab Sample ID: 791339

Sample wt/vol: 30.30 (g/ml) G Lab File ID:

% Moisture: 19 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 03/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/26/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	gamma-BHC (Lindane)	0.10	JP
76-44-8	Heptachlor	0.19	JP
309-00-2	Aldrin	0.28	JP
959-98-8	Endosulfan I	2.2	P
60-57-1	Dieldrin	0.49	JP
33213-65-9	Endosulfan II	4.3	U
50-29-3	4,4'-DDT	0.47	JP
72-43-5	Methoxychlor	2.0	JP
319-84-6	alpha-BHC	1.2	U
319-85-7	beta-BHC	1.2	U
319-86-8	delta-BHC	0.14	J
1024-57-3	Heptachlor epoxide	0.20	JP
72-55-9	4,4'-DDE	0.19	J
72-20-8	Endrin	0.36	JP
72-54-8	4,4'-DDD	0.48	JP
7421-93-4	Endrin aldehyde	0.36	JP
1031-07-8	Endosulfan sulfate	0.45	JBP
11096-82-5	Aroclor-1260	24	U
12674-11-2	Aroclor-1016	24	U
11104-28-2	Aroclor-1221	24	U
11141-16-5	Aroclor-1232	24	U
53469-21-9	Aroclor-1242	24	U
12672-29-6	Aroclor-1248	24	U
11097-69-1	Aroclor-1254	24	U
8001-35-2	Toxaphene	24	U
57-74-9	Chlordane (Technical)	4.9	U

FORM I 8080

1D
HERBICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-010

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

Matrix: (soil/water) SOIL Lab Sample ID: 791373

Sample wt/vol: 50.4 (g/ml) G Lab File ID:

% Moisture: 19 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 03/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/24/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	120	U
93-72-1	2,4,5-TP (Silvex)	10	JBP
93-76-5	2,4,5-T	2.6	JBP

FORM I HERB

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-010

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Matrix (soil/water): SOIL_ Lab Sample ID: 791482

Level (low/med): LOW__ Date Received: 03/14/96

% Solids: _81.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Cyanide	0.62	U		AS

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.56g__Wet:6.57g__Dry:5.62g_____

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (PPM)
1.	257D-006	791438	BRL	2.5
2.	257D-007	791442	BRL	2.5
3.	257D-008	791443	BRL	2.5
4.	257D-009	791444	BRL	2.5
5.	257D-010	791445	BRL	2.5
6.	257D-011	791446	BRL	2.5
7.	257D-012	791447	BRL	2.5
8.	257D-013	791448	BRL	2.5
9.	257D-014	791449	BRL	2.5
10.	257D-015	791450	BRL	2.5
11.	257D-016	791451	BRL	2.5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [illegible] / 1285 Date: 3/29/96

Reviewed by/ID#: [illegible] / 1990 Date: 3/29/96

SAMPLE 25/07D-011

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-011

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__
Matrix (soil/water): SOIL_ Lab Sample ID: 791108
Level (low/med): LOW__ Date Received: 03/14/96
% Solids: _86.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	0.21	U	N	P
7440-38-2	Arsenic	3.1			P
7440-39-3	Barium	30.3			P
7440-41-7	Beryllium	0.28	B		P
7440-43-9	Cadmium	0.02	U	N	P
7440-47-3	Chromium	6.9		N*	P
7440-48-4	Cobalt	6.4			P
7440-50-8	Copper	11.8			P
7439-92-1	Lead	63.9		*	P
7440-02-0	Nickel	10.6			P
7782-49-2	Selenium	0.30	U	N	P
7440-22-4	Silver	0.08	U		P
7440-28-0	Thallium	0.41	U		P
7440-62-2	Vanadium	5.1	B		P
7440-66-6	Zinc	332			P
7440-31-5	Tin	4.2	B	N	P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.57g__Dry:5.89g_____

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-011

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791311

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091311B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 14 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	300	U
110-86-1	Pyridine	640	U
109-06-8	2-Picoline	1400	U
10595-95-6	Nitrosomethylethylamine	280	U
66-27-3	Methyl Methanesulfonate	810	U
55-18-5	N-Nitrosodiethylamine	260	U
62-50-0	Ethyl Methanesulfonate	690	U
108-95-2	Phenol	660	U
62-53-3	Aniline	650	U
111-44-4	Bis(2-chloroethyl)ether	320	U
95-57-8	2-Chlorophenol	730	U
541-73-1	1,3-Dichlorobenzene	590	U
106-46-7	1,4-Dichlorobenzene	600	U
100-51-6	Benzyl Alcohol	640	U
95-50-1	1,2-Dichlorobenzene	680	U
95-48-7	2-Methylphenol	750	U
39638-32-9	bis(2-Chloroisopropyl)ether	750	U
108-39-4	3-Methylphenol	1500	U
106-44-5	4-Methylphenol	1500	U
930-55-2	N-Nitrosopyrrolidine	610	U
621-64-7	N-Nitroso-di-N-propylamine	280	U
98-86-2	Acetophenone	760	U
59-89-2	N-Nitrosomorpholine	870	U
636-21-5	o-Toluidine hydrochloride	2300	U
67-72-1	Hexachloroethane	68	J
98-95-3	Nitrobenzene	790	U
100-75-4	N-Nitrosopiperidine	850	U
78-59-1	Isophorone	790	U
88-75-5	2-Nitrophenol	720	U
105-67-9	2,4-Dimethylphenol	700	U
126-68-1	o,o,o-Triethylphosphorothioa	6100	U
111-91-1	Bis(2-chloroethoxy)methane	770	U
120-83-2	2,4-Dichlorophenol	640	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-011

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791311

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091311B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 14 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
120-82-1	1,2,4-Trichlorobenzene	640	U
91-20-3	Naphthalene	760	U
106-47-8	4-Chloroaniline	800	U
87-65-0	2,6-Dichlorophenol	1400	U
1888-71-7	Hexachloropropene	660	U
87-68-3	Hexachlorobutadiene	650	U
924-16-3	N-Nitroso-di-n-butylamine	170	U
59-50-7	4-Chloro-3-methylphenol	220	U
94-59-7	Safrole	670	U
91-57-6	2-Methylnaphthalene	970	U
77-47-4	Hexachlorocyclopentadiene	760	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1500	U
88-06-2	2,4,6-Trichlorophenol	1500	U
95-95-4	2,4,5-Trichlorophenol	1500	U
120-58-1	Isosafrole	1500	U
91-58-7	2-Chloronaphthalene	1100	U
88-74-4	2-Nitroaniline	1300	U
130-15-4	1,4-Napthoquinone	1800	U
131-11-3	Dimethylphthalate	1100	U
99-65-0	1,3-Dinitrobenzene	650	U
606-20-2	2,6-Dinitrotoluene	870	U
208-96-8	Acenaphthylene	770	U
99-09-2	3-Nitroaniline	800	U
83-32-9	Acenaphthene	760	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	800	U
608-93-5	Pentachlorobenzene	760	U
121-14-2	2,4-Dinitrotoluene	760	U
132-64-9	Dibenzofuran	800	U
91-59-8	2-Naphthylamine	990	U
58-90-2	2,3,4,6-Tetrachlorophenol	1600	U
134-32-7	1-Naphthylamine	1600	U
84-66-2	Diethylphthalate	830	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-011

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791311

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091311B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 14 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
7005-72-3	4-Chlorophenyl-phenylether	690	U
99-55-8	5-Nitro-o-toluidine	1200	U
86-73-7	Fluorene	800	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	1600	U
122-39-4	Diphenylamine	1600	U
99-35-4	1,3,5-Trinitrobenzene	1100	U
2303-16-4	Diallate (trans isomer)	760	U
62-44-2	Phenacetin	700	U
2303-16-4	Diallate (cis isomer)	760	U
101-55-3	4-Bromophenyl-phenylether	870	U
118-74-1	Hexachlorobenzene	890	U
92-67-1	4-Aminobiphenyl	470	U
87-86-5	Pentachlorophenol	1600	U
23950-58-5	Pronamide	750	U
85-01-8	Phenanthrene	720	U
120-12-7	Anthracene	850	U
84-74-2	Di-n-butylphthalate	890	U
56-57-5	4-Nitroquinoline-1-oxide	5500	U
91-80-5	Methapyrilene	1500	U
465-73-6	Isodrin	1100	U
206-44-0	Fluoranthene	1100	U
129-00-0	Pyrene	840	U
140-57-8	Aramite	760	U
60-11-7	p-Dimethylaminoazobenzene	770	U
510-15-6	Chlorobenzilate	820	U
85-68-7	Butylbenzylphthalate	790	U
119-93-7	3,3'-Dimethylbenzidine	520	U
117-81-7	bis(2-ethylhexyl)Phthalate	870	U
91-94-1	3,3'-Dichlorobenzidine	580	U
56-55-3	Benzo(a)Anthracene	760	U
218-01-9	Chrysene	620	U

D-00169

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-011

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791311

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091311B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 14 decanted: (Y/N) N Date Extracted:03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
117-84-0	Di-n-octylphthalate	550	U
57-97-6	7,12-Dimethylbenz(a)anthrace	470	U
205-99-2	Benzo(b)fluoranthene	92	XJ
207-08-9	Benzo(k)fluoranthene	84	XJ
193-39-5	Indeno(1,2,3-c,d)pyrene	530	U
53-70-3	Dibenzo(a,h)anthracene	210	U
191-24-2	Benzo(g,h,i)perylene	720	U
122-09-08	a,a-Dimethylphenethylamine	760	U
106-50-3	p-Phenylenediamine	760	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-011

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791311

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091311B60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 14 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.74	340	J
2.	ALDOL (BC)	3.95	4800	JAB
3.	UNKNOWN	4.57	270	J
4.	ADVISORY SURROGATE COMPOUND	5.30	1200	JB
5.	ADVISORY SURROGATE COMPOUND	5.80	580	JB
6.				
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FORM I SV-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-011

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791247

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091247B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 14 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	7	JB
67-64-1	Acetone	11	JB
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	26	
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U
75-05-8	acetonitrile	230	U

D-00172

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-011

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791247

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091247B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 14 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	270	U
107-05-1	3-chloropropene	17	U
106-93-4	1,2-dibromoethane	17	U
74-95-3	dibromomethane	23	U
110-57-6	trans-1,4-dichloro-2-butene	17	U
75-71-8	dichlorodifluoromethane	23	U
123-91-1	1,4-dioxane	59000	U
107-12-0	propionitrile(ethylcyanide)	690	U
97-63-2	ethyl methacrylate	29	U
74-88-4	iodomethane	12	U
78-83-1	isobutyl alcohol	15000	U
126-98-7	methacrylonitrile	23	U
80-62-6	methyl methacrylate	58	U
630-20-6	1,1,1,2-tetrachloroethane	23	U
96-18-4	1,2,3-trichloropropane	23	U
108-05-4	vinyl acetate	23	U
96-12-8	1,2-dibromo-3-chloropropane	58	U
75-69-4	trichlorofluoromethane	23	U
107-13-1	acrylonitrile	240	U
156-60-5	trans-1,2-Dichloroethene	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.
2507D-011

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791247

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091247B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 14 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.50	1100	JB
2.	UNKNOWN	22.63	8	J
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FORM I VOA-TIC

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-011

Lab Name: COMPUCHEM_ENV._CORP. Contract: SW-846

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 665C

Matrix (soil/water): SOIL Lab Sample ID: 791145

Level (low/med): LOW Date Received: 03/14/96

% Solids: 86.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.11	U		CV

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:
Undecanted_Dry_Weights Container:1.57g Wet:6.57g Dry:5.89g

FORM I - IN ILM03.0

1D

ORGANOCHLORINE PESTICIDES AND PCBs ANALYSIS DATA SHEET

SAMPLE NO.

2507D-011

Lab Name: COMPUCHEM, RTP Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0490C

Matrix: (soil/water) SOIL Lab Sample ID: 791340

Sample wt/vol: 30.10 (g/ml) G Lab File ID:

% Moisture: 14 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 03/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/26/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	gamma-BHC (Lindane)	1.2	U
76-44-8	Heptachlor	0.096	JP
309-00-2	Aldrin	0.068	JP
959-98-8	Endosulfan I	0.77	JP
60-57-1	Dieldrin	1.7	U
33213-65-9	Endosulfan II	0.52	JP
50-29-3	4,4'-DDT	4.1	U
72-43-5	Methoxychlor	1.8	JP
319-84-6	alpha-BHC	1.2	U
319-85-7	beta-BHC	1.2	U
319-86-8	delta-BHC	0.13	JP
1024-57-3	Heptachlor epoxide	0.097	JP
72-55-9	4,4'-DDE	0.54	JP
72-20-8	Endrin	1.5	JP
72-54-8	4,4'-DDD	4.1	U
7421-93-4	Endrin aldehyde	0.40	JP
1031-07-8	Endosulfan sulfate	0.29	JBP
11096-82-5	Aroclor-1260	23	U
12674-11-2	Aroclor-1016	23	U
11104-28-2	Aroclor-1221	23	U
11141-16-5	Aroclor-1232	23	U
53469-21-9	Aroclor-1242	23	U
12672-29-6	Aroclor-1248	23	U
11097-69-1	Aroclor-1254	23	U
8001-35-2	Toxaphene	23	U
57-74-9	Chlordane (Technical)	4.6	U

FORM I 8080

1D
HERBICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-011

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

Matrix: (soil/water) SOIL Lab Sample ID: 791374

Sample wt/vol: 50.2 (g/ml) G Lab File ID:

% Moisture: 14 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 03/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/24/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	120	U
93-72-1	2,4,5-TP (Silvex)	2.4	JBP
93-76-5	2,4,5-T	29	U

FORM I HERB

D-00177

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-011

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Matrix (soil/water): SOIL_ Lab Sample ID: 791483

Level (low/med): LOW__ Date Received: 03/14/96

% Solids: _86.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Cyanide	0.58	U		AS

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.57g__Dry:5.89g_____

FORM I - IN ILM03.0

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (PPM)
1.	257D-006	791438	BRL	2.5
2.	257D-007	791442	BRL	2.5
3.	257D-008	791443	BRL	2.5
4.	257D-009	791444	BRL	2.5
5.	257D-010	791445	BRL	2.5
6.	257D-011	791446	BRL	2.5
7.	257D-012	791447	BRL	2.5
8.	257D-013	791448	BRL	2.5
9.	257D-014	791449	BRL	2.5
10.	257D-015	791450	BRL	2.5
11.	257D-016	791451	BRL	2.5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID# [illegible] / 785 Date: 3/29/96

Reviewed by/ID#: [illegible] / 1990 Date: 3/29/96

SAMPLE 25/07D-012

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-012

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__
Matrix (soil/water): SOIL_ Lab Sample ID: 791110
Level (low/med): LOW__ Date Received: 03/14/96
% Solids: _82.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	0.73	B	N	P
7440-38-2	Arsenic__	8.0			P
7440-39-3	Barium___	36.7			P
7440-41-7	Beryllium	0.33	B		P
7440-43-9	Cadmium__	0.17	B	N	P
7440-47-3	Chromium_	8.8		N*	P
7440-48-4	Cobalt___	5.9	B		P
7440-50-8	Copper___	70.8			P
7439-92-1	Lead____	38.8		*	P
7440-02-0	Nickel___	11.3			P
7782-49-2	Selenium_	0.61		N	P
7440-22-4	Silver___	0.09	U		P
7440-28-0	Thallium_	0.43	U		P
7440-62-2	Vanadium_	8.4			P
7440-66-6	Zinc____	2110			P
7440-31-5	Tin_____	2.1	B	N	P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.57g__Dry:5.68g_____

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-012

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791312

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091312C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	320	U
110-86-1	Pyridine	670	U
109-06-8	2-Picoline	1500	U
10595-95-6	Nitrosomethylethylamine	290	U
66-27-3	Methyl Methanesulfonate	850	U
55-18-5	N-Nitrosodiethylamine	270	U
62-50-0	Ethyl Methanesulfonate	730	U
108-95-2	Phenol	700	U
62-53-3	Aniline	680	U
111-44-4	Bis(2-chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	770	U
541-73-1	1,3-Dichlorobenzene	620	U
106-46-7	1,4-Dichlorobenzene	630	U
100-51-6	Benzyl Alcohol	670	U
95-50-1	1,2-Dichlorobenzene	720	U
95-48-7	2-Methylphenol	790	U
39638-32-9	bis(2-Chloroisopropyl)ether	790	U
108-39-4	3-Methylphenol	1600	U
106-44-5	4-Methylphenol	1600	U
930-55-2	N-Nitrosopyrrolidine	650	U
621-64-7	N-Nitroso-di-N-propylamine	290	U
98-86-2	Acetophenone	800	U
59-89-2	N-Nitrosomorpholine	910	U
636-21-5	o-Toluidine hydrochloride	2400	U
67-72-1	Hexachloroethane	730	U
98-95-3	Nitrobenzene	830	U
100-75-4	N-Nitrosopiperidine	900	U
78-59-1	Isophorone	830	U
88-75-5	2-Nitrophenol	760	U
105-67-9	2,4-Dimethylphenol	740	U
126-68-1	o,o,o-Triethylphosphorothioa	6500	U
111-91-1	Bis(2-chloroethoxy)methane	820	U
120-83-2	2,4-Dichlorophenol	670	U

D-00181

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-012

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791312

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091312C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
120-82-1	1,2,4-Trichlorobenzene	670	U
91-20-3	Naphthalene	800	U
106-47-8	4-Chloroaniline	840	U
87-65-0	2,6-Dichlorophenol	1500	U
1888-71-7	Hexachloropropene	700	U
87-68-3	Hexachlorobutadiene	680	U
924-16-3	N-Nitroso-di-n-butylamine	180	U
59-50-7	4-Chloro-3-methylphenol	230	U
94-59-7	Safrole	710	U
91-57-6	2-Methylnaphthalene	1000	U
77-47-4	Hexachlorocyclopentadiene	800	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1600	U
88-06-2	2,4,6-Trichlorophenol	1600	U
95-95-4	2,4,5-Trichlorophenol	1600	U
120-58-1	Isosafrole	1600	U
91-58-7	2-Chloronaphthalene	1200	U
88-74-4	2-Nitroaniline	1300	U
130-15-4	1,4-Napthoquinone	2000	U
131-11-3	Dimethylphthalate	1200	U
99-65-0	1,3-Dinitrobenzene	680	U
606-20-2	2,6-Dinitrotoluene	910	U
208-96-8	Acenaphthylene	820	U
99-09-2	3-Nitroaniline	840	U
83-32-9	Acenaphthene	800	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	840	U
608-93-5	Pentachlorobenzene	800	U
121-14-2	2,4-Dinitrotoluene	800	U
132-64-9	Dibenzofuran	840	U
91-59-8	2-Naphthylamine	1000	U
58-90-2	2,3,4,6-Tetrachlorophenol	1700	U
134-32-7	1-Naphthylamine	1700	U
84-66-2	Diethylphthalate	880	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-012

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791312

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091312C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
7005-72-3	4-Chlorophenyl-phenylether	730	U
99-55-8	5-Nitro-o-toluidine	1200	U
86-73-7	Fluorene	840	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	1700	U
122-39-4	Diphenylamine	1700	U
99-35-4	1,3,5-Trinitrobenzene	1100	U
2303-16-4	Diallate (trans isomer)	800	U
62-44-2	Phenacetin	740	U
2303-16-4	Diallate (cis isomer)	800	U
101-55-3	4-Bromophenyl-phenylether	910	U
118-74-1	Hexachlorobenzene	940	U
92-67-1	4-Aminobiphenyl	500	U
87-86-5	Pentachlorophenol	1700	U
23950-58-5	Pronamide	790	U
85-01-8	Phenanthrene	760	U
120-12-7	Anthracene	900	U
84-74-2	Di-n-butylphthalate	940	U
56-57-5	4-Nitroquinoline-1-oxide	5900	U
91-80-5	Methapyrilene	1600	U
465-73-6	Isodrin	1100	U
206-44-0	Fluoranthene	1100	U
129-00-0	Pyrene	890	U
140-57-8	Aramite	800	U
60-11-7	p-Dimethylaminoazobenzene	820	U
510-15-6	Chlorobenzilate	870	U
85-68-7	Butylbenzylphthalate	830	U
119-93-7	3,3'-Dimethylbenzidine	550	U
117-81-7	bis(2-ethylhexyl)Phthalate	910	U
91-94-1	3,3'-Dichlorobenzidine	610	U
56-55-3	Benzo(a)Anthracene	800	U
218-01-9	Chrysene	660	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-012

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791312

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091312C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
117-84-0	Di-n-octylphthalate	590	U
57-97-6	7,12-Dimethylbenz(a)anthrace	500	U
205-99-2	Benzo(b)fluoranthene	78	XJ
207-08-9	Benzo(k)fluoranthene	82	XJ
193-39-5	Indeno(1,2,3-c,d)pyrene	560	U
53-70-3	Dibenzo(a,h)anthracene	220	U
191-24-2	Benzo(g,h,i)perylene	760	U
122-09-08	a,a-Dimethylphenethylamine	800	U
106-50-3	p-Phenylenediamine	800	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-012

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791312

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091312C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Number TICs found: 6

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.74	740	J
2.	ALDOL (BC)	3.95	10000	JAB
3.	UNKNOWN	4.57	470	J
4.	ADVISORY SURROGATE COMPOUND	5.30	1600	JB
5.	ADVISORY SURROGATE COMPOUND	5.80	1200	JB
6.	UNKNOWN	23.15	950	J
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FORM I SV-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-012

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791249

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091249B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 18 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	14	B
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	3	J
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U
75-05-8	acetonitrile	240	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-012

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791249

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091249B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 18 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	280	U
107-05-1	3-chloropropene	18	U
106-93-4	1,2-dibromoethane	18	U
74-95-3	dibromomethane	24	U
110-57-6	trans-1,4-dichloro-2-butene	18	U
75-71-8	dichlorodifluoromethane	24	U
123-91-1	1,4-dioxane	62000	U
107-12-0	propionitrile(ethylcyanide)	720	U
97-63-2	ethyl methacrylate	30	U
74-88-4	iodomethane	12	U
78-83-1	isobutyl alcohol	16000	U
126-98-7	methacrylonitrile	24	U
80-62-6	methyl methacrylate	61	U
630-20-6	1,1,1,2-tetrachloroethane	24	U
96-18-4	1,2,3-trichloropropane	24	U
108-05-4	vinyl acetate	24	U
96-12-8	1,2-dibromo-3-chloropropane	61	U
75-69-4	trichlorofluoromethane	24	U
107-13-1	acrylonitrile	260	U
156-60-5	trans-1,2-Dichloroethene	12	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-012

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791249

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091249B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 18 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.50	1300	JB
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FORM I VOA-TIC

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-012

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 665C__

Matrix (soil/water): SOIL_ Lab Sample ID: 791157

Level (low/med): LOW__ Date Received: 03/14/96

% Solids: _82.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury__	0.12	U		CV

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

Undecanted_Dry_Weights____Container:1.57g__Wet:6.57g__Dry:5.68g_____

FORM I - IN ILM03.0

1D

ORGANOCHLORINE PESTICIDES AND PCBs ANALYSIS DATA SHEET

SAMPLE NO.

2507D-012

Lab Name: COMPUCHEM, RTP Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0490C

Matrix: (soil/water) SOIL Lab Sample ID: 791341

Sample wt/vol: 30.30 (g/ml) G Lab File ID:

% Moisture: 18 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 03/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/26/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	gamma-BHC (Lindane)	0.071	JP
76-44-8	Heptachlor	0.068	JP
309-00-2	Aldrin	1.2	U
959-98-8	Endosulfan I	1.3	JP
60-57-1	Dieldrin	0.098	JP
33213-65-9	Endosulfan II	0.39	JP
50-29-3	4,4'-DDT	0.55	JP
72-43-5	Methoxychlor	0.43	JP
319-84-6	alpha-BHC	1.2	U
319-85-7	beta-BHC	0.22	JP
319-86-8	delta-BHC	0.16	JP
1024-57-3	Heptachlor epoxide	0.15	JP
72-55-9	4,4'-DDE	0.23	JP
72-20-8	Endrin	0.37	J
72-54-8	4,4'-DDD	4.2	U
7421-93-4	Endrin aldehyde	1.2	U
1031-07-8	Endosulfan sulfate	2.4	U
11096-82-5	Aroclor-1260	24	U
12674-11-2	Aroclor-1016	24	U
11104-28-2	Aroclor-1221	24	U
11141-16-5	Aroclor-1232	24	U
53469-21-9	Aroclor-1242	24	U
12672-29-6	Aroclor-1248	24	U
11097-69-1	Aroclor-1254	24	U
8001-35-2	Toxaphene	24	U
57-74-9	Chlordane (Technical)	4.8	U

FORM I 8080

1D
HERBICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-012

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

Matrix: (soil/water) SOIL Lab Sample ID: 791375

Sample wt/vol: 50.4 (g/ml) G Lab File ID:

% Moisture: 18 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 03/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/24/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	120	U
93-72-1	2,4,5-TP (Silvex)	2.4	JBP
93-76-5	2,4,5-T	3.0	JBP

FORM I HERB

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-012

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Matrix (soil/water): SOIL_ Lab Sample ID: 791484

Level (low/med): LOW__ Date Received: 03/14/96

% Solids: _82.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Cyanide	0.61	U		AS

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.57g__Dry:5.68g_____

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (PPM)
1.	257D-006	791438	BRL	2.5
2.	257D-007	791442	BRL	2.5
3.	257D-008	791443	BRL	2.5
4.	257D-009	791444	BRL	2.5
5.	257D-010	791445	BRL	2.5
6.	257D-011	791446	BRL	2.5
7.	257D-012	791447	BRL	2.5
8.	257D-013	791448	BRL	2.5
9.	257D-014	791449	BRL	2.5
10.	257D-015	791450	BRL	2.5
11.	257D-016	791451	BRL	2.5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID# [illegible] / 785 Date: 3/29/96

Reviewed by/ID#: [illegible] / 1990 Date: 3/29/96

SAMPLE 25/07D-0013

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-013

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__
Matrix (soil/water): SOIL_ Lab Sample ID: 791111
Level (low/med): LOW__ Date Received: 03/14/96
% Solids: _85.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	0.42	B	N	P
7440-38-2	Arsenic__	6.9			P
7440-39-3	Barium___	53.1			P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium__	0.02	U	N	P
7440-47-3	Chromium_	12.7		N*	P
7440-48-4	Cobalt___	8.1			P
7440-50-8	Copper___	25.5			P
7439-92-1	Lead____	22.0		*	P
7440-02-0	Nickel___	12.0			P
7782-49-2	Selenium_	0.36	B	N	P
7440-22-4	Silver___	0.08	U		P
7440-28-0	Thallium_	0.39	U		P
7440-62-2	Vanadium_	19.1			P
7440-66-6	Zinc____	452			P
7440-31-5	Tin_____	1.2	B	N	P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.58g__Dry:5.84g_____

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-013

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791313

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091313C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	300	U
110-86-1	Pyridine	640	U
109-06-8	2-Picoline	1400	U
10595-95-6	Nitrosomethylethylamine	280	U
66-27-3	Methyl Methanesulfonate	820	U
55-18-5	N-Nitrosodiethylamine	260	U
62-50-0	Ethyl Methanesulfonate	700	U
108-95-2	Phenol	670	U
62-53-3	Aniline	660	U
111-44-4	Bis(2-chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	740	U
541-73-1	1,3-Dichlorobenzene	600	U
106-46-7	1,4-Dichlorobenzene	610	U
100-51-6	Benzyl Alcohol	640	U
95-50-1	1,2-Dichlorobenzene	690	U
95-48-7	2-Methylphenol	760	U
39638-32-9	bis(2-Chloroisopropyl)ether	760	U
108-39-4	3-Methylphenol	1500	U
106-44-5	4-Methylphenol	1500	U
930-55-2	N-Nitrosopyrrolidine	620	U
621-64-7	N-Nitroso-di-N-propylamine	280	U
98-86-2	Acetophenone	770	U
59-89-2	N-Nitrosomorpholine	880	U
636-21-5	o-Toluidine hydrochloride	2300	U
67-72-1	Hexachloroethane	700	U
98-95-3	Nitrobenzene	800	U
100-75-4	N-Nitrosopiperidine	870	U
78-59-1	Isophorone	800	U
88-75-5	2-Nitrophenol	730	U
105-67-9	2,4-Dimethylphenol	720	U
126-68-1	o,o,o-Triethylphosphorothioa	6200	U
111-91-1	Bis(2-chloroethoxy)methane	790	U
120-83-2	2,4-Dichlorophenol	640	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-013

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791313

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091313C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
120-82-1	1,2,4-Trichlorobenzene	640	U
91-20-3	Naphthalene	770	U
106-47-8	4-Chloroaniline	810	U
87-65-0	2,6-Dichlorophenol	1400	U
1888-71-7	Hexachloropropene	670	U
87-68-3	Hexachlorobutadiene	660	U
924-16-3	N-Nitroso-di-n-butylamine	180	U
59-50-7	4-Chloro-3-methylphenol	220	U
94-59-7	Safrole	680	U
91-57-6	2-Methylnaphthalene	980	U
77-47-4	Hexachlorocyclopentadiene	770	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1500	U
88-06-2	2,4,6-Trichlorophenol	1500	U
95-95-4	2,4,5-Trichlorophenol	1500	U
120-58-1	Isosafrole	1500	U
91-58-7	2-Chloronaphthalene	1100	U
88-74-4	2-Nitroaniline	1300	U
130-15-4	1,4-Napthoquinone	1900	U
131-11-3	Dimethylphthalate	1100	U
99-65-0	1,3-Dinitrobenzene	660	U
606-20-2	2,6-Dinitrotoluene	880	U
208-96-8	Acenaphthylene	160	J
99-09-2	3-Nitroaniline	810	U
83-32-9	Acenaphthene	770	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	810	U
608-93-5	Pentachlorobenzene	770	U
121-14-2	2,4-Dinitrotoluene	770	U
132-64-9	Dibenzofuran	810	U
91-59-8	2-Naphthylamine	1000	U
58-90-2	2,3,4,6-Tetrachlorophenol	1600	U
134-32-7	1-Naphthylamine	1600	U
84-66-2	Diethylphthalate	840	U

D-00196

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
2507D-013

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791313

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091313C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
7005-72-3	4-Chlorophenyl-phenylether	700	U
99-55-8	5-Nitro-o-toluidine	1200	U
86-73-7	Fluorene	810	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	1600	U
122-39-4	Diphenylamine	1600	U
99-35-4	1,3,5-Trinitrobenzene	1100	U
2303-16-4	Diallate (trans isomer)	770	U
62-44-2	Phenacetin	720	U
2303-16-4	Diallate (cis isomer)	770	U
101-55-3	4-Bromophenyl-phenylether	880	U
118-74-1	Hexachlorobenzene	900	U
92-67-1	4-Aminobiphenyl	480	U
87-86-5	Pentachlorophenol	1600	U
23950-58-5	Pronamide	760	U
85-01-8	Phenanthrene	260	J
120-12-7	Anthracene	120	J
84-74-2	Di-n-butylphthalate	900	U
56-57-5	4-Nitroquinoline-1-oxide	5600	U
91-80-5	Methapyrilene	1500	U
465-73-6	Isodrin	1100	U
206-44-0	Fluoranthene	1700	
129-00-0	Pyrene	1900	
140-57-8	Aramite	770	U
60-11-7	p-Dimethylaminoazobenzene	790	U
510-15-6	Chlorobenzilate	830	U
85-68-7	Butylbenzylphthalate	800	U
119-93-7	3,3'-Dimethylbenzidine	530	U
117-81-7	bis(2-ethylhexyl)Phthalate	880	U
91-94-1	3,3'-Dichlorobenzidine	590	U
56-55-3	Benzo(a)Anthracene	1900	
218-01-9	Chrysene	2100	

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-013

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791313

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091313C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
117-84-0	Di-n-octylphthalate	560	U
57-97-6	7,12-Dimethylbenz(a)anthrace	480	U
205-99-2	Benzo(b)fluoranthene	3700	X
207-08-9	Benzo(k)fluoranthene	3900	X
193-39-5	Indeno(1,2,3-c,d)pyrene	1800	
53-70-3	Dibenzo(a,h)anthracene	460	
191-24-2	Benzo(g,h,i)perylene	2000	
122-09-08	a,a-Dimethylphenethylamine	770	U
106-50-3	p-Phenylenediamine	770	U

D- 00198

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-013

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791313

Sample wt/vol: 30.1 (g/mL) G Lab File ID: GH091313C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

Number TICs found: 13

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.73	840	J
2.		ALDOL (BC)	3.96	11000	JAB
3.		UNKNOWN	4.57	520	J
4.		ADVISORY SURROGATE COMPOUND	5.30	1800	JB
5.		ADVISORY SURROGATE COMPOUND	5.80	1400	JB
6.	612-94-2	NAPHTHALENE, 2-PHENYL-	16.86	290	NJ
7.		BENZOFLUORENE	19.16	440	J
8.		METHYLPYRENE	19.39	260	J
9.	82-05-3	7H-BENZ[DE]ANTHRACEN-7-ONE	20.37	290	NJ
10.		BENZONAPHTHOTHIOPHENE	20.63	260	J
11.		BENZOFLUORANTHENE	23.86	790	J
12.		BENZOPYRENE	24.21	1900	J
13.		BENZOFLUORANTHENE	24.32	2400	J
14.					
15.					
16.					
17.					
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22.					
23.					
24.					
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FORM I SV-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-013

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791251

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091251B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 15 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	12	B
67-64-1	Acetone	10	JB
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U
75-05-8	acetonitrile	240	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-013

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791251

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091251B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 15 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	270	U
107-05-1	3-chloropropene	18	U
106-93-4	1,2-dibromoethane	18	U
74-95-3	dibromomethane	24	U
110-57-6	trans-1,4-dichloro-2-butene	18	U
75-71-8	dichlorodifluoromethane	24	U
123-91-1	1,4-dioxane	60000	U
107-12-0	propionitrile(ethylcyanide)	690	U
97-63-2	ethyl methacrylate	29	U
74-88-4	iodomethane	12	U
78-83-1	isobutyl alcohol	15000	U
126-98-7	methacrylonitrile	24	U
80-62-6	methyl methacrylate	59	U
630-20-6	1,1,1,2-tetrachloroethane	24	U
96-18-4	1,2,3-trichloropropane	24	U
108-05-4	vinyl acetate	24	U
96-12-8	1,2-dibromo-3-chloropropane	59	U
75-69-4	trichlorofluoromethane	24	U
107-13-1	acrylonitrile	250	U
156-60-5	trans-1,2-Dichloroethene	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-013

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791251

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091251B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 15 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.50	1200	JB
2.	LABORATORY ARTIFACT	22.89	7	J
3.				
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FORM I VOA-TIC

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-013

Lab Name: COMPUCHEM_ENV._CORP. Contract: SW-846

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 665C

Matrix (soil/water): SOIL Lab Sample ID: 791161

Level (low/med): LOW Date Received: 03/14/96

% Solids: 85.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.10	U		CV

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:
Undecanted_Dry_Weights Container:1.57g Wet:6.58g Dry:5.84g

1D
ORGANOCHLORINE PESTICIDES AND PCBs ANALYSIS DATA SHEET

SAMPLE NO.
2507D-013

Lab Name: COMPUCHEM,RTP Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0490C

Matrix: (soil/water) SOIL Lab Sample ID: 791342

Sample wt/vol: 30.10 (g/ml) G Lab File ID:

% Moisture: 15 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 03/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/26/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	gamma-BHC (Lindane)	1.2	U
76-44-8	Heptachlor	0.15	JP
309-00-2	Aldrin	1.2	U
959-98-8	Endosulfan I	3.1	P
60-57-1	Dieldrin	0.36	JP
33213-65-9	Endosulfan II	0.97	JP
50-29-3	4,4'-DDT	0.94	JP
72-43-5	Methoxychlor	0.80	JP
319-84-6	alpha-BHC	1.2	U
319-85-7	beta-BHC	1.2	U
319-86-8	delta-BHC	0.097	JP
1024-57-3	Heptachlor epoxide	0.45	JP
72-55-9	4,4'-DDE	0.29	J
72-20-8	Endrin	0.57	JP
72-54-8	4,4'-DDD	1.2	JP
7421-93-4	Endrin aldehyde	2.6	P
1031-07-8	Endosulfan sulfate	1.1	JBP
11096-82-5	Aroclor-1260	23	U
12674-11-2	Aroclor-1016	23	U
11104-28-2	Aroclor-1221	23	U
11141-16-5	Aroclor-1232	23	U
53469-21-9	Aroclor-1242	23	U
12672-29-6	Aroclor-1248	23	U
11097-69-1	Aroclor-1254	23	U
8001-35-2	Toxaphene	23	U
57-74-9	Chlordane (Technical)	4.7	U

FORM I 8080

1D
HERBICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-013

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

Matrix: (soil/water) SOIL Lab Sample ID: 791376

Sample wt/vol: 50.0 (g/ml) G Lab File ID:

% Moisture: 15 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 03/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/24/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	120	U
93-72-1	2,4,5-TP (Silvex)	4.7	JBP
93-76-5	2,4,5-T	1.2	JBP

FORM I HERB

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-013

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Matrix (soil/water): SOIL_ Lab Sample ID: 791485

Level (low/med): LOW__ Date Received: 03/14/96

% Solids: _85.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Cyanide	0.59	U		AS

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.58g__Dry:5.84g_____

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (PPM)
1.	257D-006	791438	BRL	2.5
2.	257D-007	791442	BRL	2.5
3.	257D-008	791443	BRL	2.5
4.	257D-009	791444	BRL	2.5
5.	257D-010	791445	BRL	2.5
6.	257D-011	791446	BRL	2.5
7.	257D-012	791447	BRL	2.5
8.	257D-013	791448	BRL	2.5
9.	257D-014	791449	BRL	2.5
10.	257D-015	791450	BRL	2.5
11.	257D-016	791451	BRL	2.5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [illegible] / 285 Date: 3/29/96

Reviewed by/ID#: [illegible] / 1990 Date: 3/29/96

SAMPLE 25/07D-014

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-014

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__
Matrix (soil/water): SOIL_ Lab Sample ID: 791113
Level (low/med): LOW__ Date Received: 03/14/96
% Solids: _84.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	0.69	B	N	P
7440-38-2	Arsenic__	4.2			P
7440-39-3	Barium___	37.6			P
7440-41-7	Beryllium	0.45	B		P
7440-43-9	Cadmium__	0.02	U	N	P
7440-47-3	Chromium_	10		N*	P
7440-48-4	Cobalt___	5.3	B		P
7440-50-8	Copper___	92.4			P
7439-92-1	Lead____	62.8		*	P
7440-02-0	Nickel___	11.5			P
7782-49-2	Selenium_	0.37	B	N	P
7440-22-4	Silver___	0.08	U		P
7440-28-0	Thallium_	0.41	U		P
7440-62-2	Vanadium_	10.5			P
7440-66-6	Zinc____	472			P
7440-31-5	Tin_____	1.6	B	N	P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.56g__Wet:6.56g__Dry:5.78g_____

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-014

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791314

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091314C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 16 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	310	U
110-86-1	Pyridine	650	U
109-06-8	2-Picoline	1400	U
10595-95-6	Nitrosomethylethylamine	280	U
66-27-3	Methyl Methanesulfonate	830	U
55-18-5	N-Nitrosodiethylamine	270	U
62-50-0	Ethyl Methanesulfonate	710	U
108-95-2	Phenol	670	U
62-53-3	Aniline	660	U
111-44-4	Bis(2-chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	740	U
541-73-1	1,3-Dichlorobenzene	600	U
106-46-7	1,4-Dichlorobenzene	610	U
100-51-6	Benzyl Alcohol	650	U
95-50-1	1,2-Dichlorobenzene	700	U
95-48-7	2-Methylphenol	770	U
39638-32-9	bis(2-Chloroisopropyl)ether	770	U
108-39-4	3-Methylphenol	1500	U
106-44-5	4-Methylphenol	1500	U
930-55-2	N-Nitrosopyrrolidine	630	U
621-64-7	N-Nitroso-di-N-propylamine	280	U
98-86-2	Acetophenone	780	U
59-89-2	N-Nitrosomorpholine	890	U
636-21-5	o-Toluidine hydrochloride	2400	U
67-72-1	Hexachloroethane	710	U
98-95-3	Nitrobenzene	800	U
100-75-4	N-Nitrosopiperidine	880	U
78-59-1	Isophorone	800	U
88-75-5	2-Nitrophenol	730	U
105-67-9	2,4-Dimethylphenol	720	U
126-68-1	o,o,o-Triethylphosphorothioa	6300	U
111-91-1	Bis(2-chloroethoxy)methane	790	U
120-83-2	2,4-Dichlorophenol	650	U

FORM I SV-1

D-00209

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-014

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791314

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091314C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 16 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
120-82-1	1,2,4-Trichlorobenzene	650	U
91-20-3	Naphthalene	780	U
106-47-8	4-Chloroaniline	820	U
87-65-0	2,6-Dichlorophenol	1400	U
1888-71-7	Hexachloropropene	670	U
87-68-3	Hexachlorobutadiene	660	U
924-16-3	N-Nitroso-di-n-butylamine	180	U
59-50-7	4-Chloro-3-methylphenol	220	U
94-59-7	Safrole	690	U
91-57-6	2-Methylnaphthalene	990	U
77-47-4	Hexachlorocyclopentadiene	780	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1500	U
88-06-2	2,4,6-Trichlorophenol	1500	U
95-95-4	2,4,5-Trichlorophenol	1500	U
120-58-1	Isosafrole	1500	U
91-58-7	2-Chloronaphthalene	1100	U
88-74-4	2-Nitroaniline	1300	U
130-15-4	1,4-Napthoquinone	1900	U
131-11-3	Dimethylphthalate	1100	U
99-65-0	1,3-Dinitrobenzene	660	U
606-20-2	2,6-Dinitrotoluene	890	U
208-96-8	Acenaphthylene	790	U
99-09-2	3-Nitroaniline	820	U
83-32-9	Acenaphthene	780	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	820	U
608-93-5	Pentachlorobenzene	780	U
121-14-2	2,4-Dinitrotoluene	780	U
132-64-9	Dibenzofuran	820	U
91-59-8	2-Naphthylamine	1000	U
58-90-2	2,3,4,6-Tetrachlorophenol	1700	U
134-32-7	1-Naphthylamine	1700	U
84-66-2	Diethylphthalate	850	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-014

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791314

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091314C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 16 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
7005-72-3	4-Chlorophenyl-phenylether	710	U
99-55-8	5-Nitro-o-toluidine	1200	U
86-73-7	Fluorene	820	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	1700	U
122-39-4	Diphenylamine	1700	U
99-35-4	1,3,5-Trinitrobenzene	1100	U
2303-16-4	Diallate (trans isomer)	780	U
62-44-2	Phenacetin	720	U
2303-16-4	Diallate (cis isomer)	780	U
101-55-3	4-Bromophenyl-phenylether	890	U
118-74-1	Hexachlorobenzene	910	U
92-67-1	4-Aminobiphenyl	480	U
87-86-5	Pentachlorophenol	1700	U
23950-58-5	Pronamide	770	U
85-01-8	Phenanthrene	730	U
120-12-7	Anthracene	880	U
84-74-2	Di-n-butylphthalate	910	U
56-57-5	4-Nitroquinoline-1-oxide	5700	U
91-80-5	Methapyrilene	1500	U
465-73-6	Isodrin	1100	U
206-44-0	Fluoranthene	1100	U
129-00-0	Pyrene	860	U
140-57-8	Aramite	780	U
60-11-7	p-Dimethylaminoazobenzene	790	U
510-15-6	Chlorobenzilate	840	U
85-68-7	Butylbenzylphthalate	800	U
119-93-7	3,3'-Dimethylbenzidine	530	U
117-81-7	bis(2-ethylhexyl)Phthalate	890	U
91-94-1	3,3'-Dichlorobenzidine	590	U
56-55-3	Benzo(a)Anthracene	780	U
218-01-9	Chrysene	640	U

D- 00211

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-014

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791314

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091314C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 16 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
117-84-0	Di-n-octylphthalate	570	U
57-97-6	7,12-Dimethylbenz(a)anthrace	480	U
205-99-2	Benzo(b)fluoranthene	910	U
207-08-9	Benzo(k)fluoranthene	730	U
193-39-5	Indeno(1,2,3-c,d)pyrene	540	U
53-70-3	Dibenzo(a,h)anthracene	210	U
191-24-2	Benzo(g,h,i)perylene	730	U
122-09-08	a,a-Dimethylphenethylamine	780	U
106-50-3	p-Phenylenediamine	780	U

D-00212

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-014

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791314

Sample wt/vol: 30.2 (g/mL) G Lab File ID: GH091314C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 16 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	3.73	450	J
2.	ALDOL (BC)	3.95	6400	JAB
3.	UNKNOWN	4.57	270	J
4.	ADVISORY SURROGATE COMPOUND	5.30	870	JB
5.	ADVISORY SURROGATE COMPOUND	5.80	680	JB
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FORM I SV-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-014

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791253

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091253A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 16 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	7	JB
67-64-1	Acetone	12	B
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U
75-05-8	acetonitrile	240	U

D-00214

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-014

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791253

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091253A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 16 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	270	U
107-05-1	3-chloropropene	18	U
106-93-4	1,2-dibromoethane	18	U
74-95-3	dibromomethane	24	U
110-57-6	trans-1,4-dichloro-2-butene	18	U
75-71-8	dichlorodifluoromethane	24	U
123-91-1	1,4-dioxane	61000	U
107-12-0	propionitrile(ethylcyanide)	700	U
97-63-2	ethyl methacrylate	30	U
74-88-4	iodomethane	12	U
78-83-1	isobutyl alcohol	15000	U
126-98-7	methacrylonitrile	24	U
80-62-6	methyl methacrylate	60	U
630-20-6	1,1,1,2-tetrachloroethane	24	U
96-18-4	1,2,3-trichloropropane	24	U
108-05-4	vinyl acetate	24	U
96-12-8	1,2-dibromo-3-chloropropane	60	U
75-69-4	trichlorofluoromethane	24	U
107-13-1	acrylonitrile	250	U
156-60-5	trans-1,2-Dichloroethene	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-014

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791253

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091253A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 16 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.54	1300	JB
2.	LABORATORY ARTIFACT	22.93	9	J
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FORM I VOA-TIC

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-014

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 665C__

Matrix (soil/water): SOIL_ Lab Sample ID: 791162

Level (low/med): LOW__ Date Received: 03/14/96

% Solids: _84.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury__	0.11	U		CV

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

Undecanted_Dry_Weights____Container:1.56g__Wet:6.56g__Dry:5.78g_____

FORM I - IN ILM03.0

1D

ORGANOCHLORINE PESTICIDES AND PCBs ANALYSIS DATA SHEET

SAMPLE NO.

2507D-014

Lab Name: COMPUCHEM, RTP Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0490C

Matrix: (soil/water) SOIL Lab Sample ID: 791343

Sample wt/vol: 30.00 (g/ml) G Lab File ID:

% Moisture: 16 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 03/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/26/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	gamma-BHC (Lindane)	0.082	JP
76-44-8	Heptachlor	0.077	JP
309-00-2	Aldrin	1.2	U
959-98-8	Endosulfan I	1.8	U
60-57-1	Dieldrin	0.43	JP
33213-65-9	Endosulfan II	0.15	JP
50-29-3	4,4'-DDT	0.16	JP
72-43-5	Methoxychlor	4.2	U
319-84-6	alpha-BHC	1.2	U
319-85-7	beta-BHC	1.2	U
319-86-8	delta-BHC	0.14	JP
1024-57-3	Heptachlor epoxide	0.22	JP
72-55-9	4,4'-DDE	0.26	JP
72-20-8	Endrin	0.26	J
72-54-8	4,4'-DDD	0.41	JP
7421-93-4	Endrin aldehyde	0.95	JP
1031-07-8	Endosulfan sulfate	2.4	U
11096-82-5	Aroclor-1260	24	U
12674-11-2	Aroclor-1016	24	U
11104-28-2	Aroclor-1221	24	U
11141-16-5	Aroclor-1232	24	U
53469-21-9	Aroclor-1242	24	U
12672-29-6	Aroclor-1248	24	U
11097-69-1	Aroclor-1254	24	U
8001-35-2	Toxaphene	24	U
57-74-9	Chlordane (Technical)	4.8	U

FORM I 8080

1D
HERBICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-014

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

Matrix: (soil/water) SOIL Lab Sample ID: 791377

Sample wt/vol: 50.3 (g/ml) G Lab File ID:

% Moisture: 16 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 03/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/24/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	120	U
93-72-1	2,4,5-TP (Silvex)	30	U
93-76-5	2,4,5-T	0.43	JBP

FORM I HERB

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-014

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Matrix (soil/water): SOIL_ Lab Sample ID: 791486

Level (low/med): LOW__ Date Received: 03/14/96

% Solids: _84.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Cyanide	0.59	U		AS

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.56g__Wet:6.56g__Dry:5.78g_____

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (PPM)
1.	257D-006	791438	BRL	2.5
2.	257D-007	791442	BRL	2.5
3.	257D-008	791443	BRL	2.5
4.	257D-009	791444	BRL	2.5
5.	257D-010	791445	BRL	2.5
6.	257D-011	791446	BRL	2.5
7.	257D-012	791447	BRL	2.5
8.	257D-013	791448	BRL	2.5
9.	257D-014	791449	BRL	2.5
10.	257D-015	791450	BRL	2.5
11.	257D-016	791451	BRL	2.5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID#: [illegible] / 1285 Date: 3/29/96

Reviewed by/ID#: [illegible] / 1990 Date: 3/29/96

SAMPLE 25/07D-015

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-015

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__
Matrix (soil/water): SOIL_ Lab Sample ID: 791122
Level (low/med): LOW__ Date Received: 03/14/96
% Solids: _84.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	0.21	U	N	P
7440-38-2	Arsenic__	6.0			P
7440-39-3	Barium___	34.7			P
7440-41-7	Beryllium	0.38	B		P
7440-43-9	Cadmium__	0.02	U	N	P
7440-47-3	Chromium_	7.1		N*	P
7440-48-4	Cobalt___	17.5			P
7440-50-8	Copper___	8.4			P
7439-92-1	Lead____	12.0		*	P
7440-02-0	Nickel___	12.5			P
7782-49-2	Selenium_	0.31	U	N	P
7440-22-4	Silver___	0.08	U		P
7440-28-0	Thallium_	0.41	U		P
7440-62-2	Vanadium_	8.7			P
7440-66-6	Zinc____	25.3			P
7440-31-5	Tin_____	0.82	B	N	P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.56g__Wet:6.57g__Dry:5.80g_____

D-00222

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-015

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791315

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091315C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	310	U
110-86-1	Pyridine	650	U
109-06-8	2-Picoline	1400	U
10595-95-6	Nitrosomethylethylamine	280	U
66-27-3	Methyl Methanesulfonate	820	U
55-18-5	N-Nitrosodiethylamine	260	U
62-50-0	Ethyl Methanesulfonate	710	U
108-95-2	Phenol	670	U
62-53-3	Aniline	660	U
111-44-4	Bis(2-chloroethyl)ether	330	U
95-57-8	2-Chlorophenol	740	U
541-73-1	1,3-Dichlorobenzene	600	U
106-46-7	1,4-Dichlorobenzene	610	U
100-51-6	Benzyl Alcohol	650	U
95-50-1	1,2-Dichlorobenzene	690	U
95-48-7	2-Methylphenol	760	U
39638-32-9	bis(2-Chloroisopropyl)ether	760	U
108-39-4	3-Methylphenol	1500	U
106-44-5	4-Methylphenol	1500	U
930-55-2	N-Nitrosopyrrolidine	620	U
621-64-7	N-Nitroso-di-N-propylamine	280	U
98-86-2	Acetophenone	780	U
59-89-2	N-Nitrosomorpholine	880	U
636-21-5	o-Toluidine hydrochloride	2400	U
67-72-1	Hexachloroethane	710	U
98-95-3	Nitrobenzene	800	U
100-75-4	N-Nitrosopiperidine	870	U
78-59-1	Isophorone	800	U
88-75-5	2-Nitrophenol	730	U
105-67-9	2,4-Dimethylphenol	720	U
126-68-1	o,o,o-Triethylphosphorothioa	6200	U
111-91-1	Bis(2-chloroethoxy)methane	790	U
120-83-2	2,4-Dichlorophenol	650	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-015

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791315

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091315C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
120-82-1	1,2,4-Trichlorobenzene	650	U
91-20-3	Naphthalene	780	U
106-47-8	4-Chloroaniline	810	U
87-65-0	2,6-Dichlorophenol	1400	U
1888-71-7	Hexachloropropene	670	U
87-68-3	Hexachlorobutadiene	660	U
924-16-3	N-Nitroso-di-n-butylamine	180	U
59-50-7	4-Chloro-3-methylphenol	220	U
94-59-7	Safrole	680	U
91-57-6	2-Methylnaphthalene	990	U
77-47-4	Hexachlorocyclopentadiene	780	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1500	U
88-06-2	2,4,6-Trichlorophenol	1500	U
95-95-4	2,4,5-Trichlorophenol	1500	U
120-58-1	Isosafrole	1500	U
91-58-7	2-Chloronaphthalene	1100	U
88-74-4	2-Nitroaniline	1300	U
130-15-4	1,4-Napthoquinone	1900	U
131-11-3	Dimethylphthalate	1100	U
99-65-0	1,3-Dinitrobenzene	660	U
606-20-2	2,6-Dinitrotoluene	880	U
208-96-8	Acenaphthylene	790	U
99-09-2	3-Nitroaniline	810	U
83-32-9	Acenaphthene	780	U
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	810	U
608-93-5	Pentachlorobenzene	780	U
121-14-2	2,4-Dinitrotoluene	780	U
132-64-9	Dibenzofuran	810	U
91-59-8	2-Naphthylamine	1000	U
58-90-2	2,3,4,6-Tetrachlorophenol	1600	U
134-32-7	1-Naphthylamine	1600	U
84-66-2	Diethylphthalate	850	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-015

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791315

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091315C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
7005-72-3	4-Chlorophenyl-phenylether	710	U
99-55-8	5-Nitro-o-toluidine	1200	U
86-73-7	Fluorene	810	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-methylphenol	2100	U
86-30-6	N-Nitrosodiphenylamine (1)	1600	U
122-39-4	Diphenylamine	1600	U
99-35-4	1,3,5-Trinitrobenzene	1100	U
2303-16-4	Diallate (trans isomer)	780	U
62-44-2	Phenacetin	720	U
2303-16-4	Diallate (cis isomer)	780	U
101-55-3	4-Bromophenyl-phenylether	880	U
118-74-1	Hexachlorobenzene	910	U
92-67-1	4-Aminobiphenyl	480	U
87-86-5	Pentachlorophenol	1600	U
23950-58-5	Pronamide	760	U
85-01-8	Phenanthrene	730	U
120-12-7	Anthracene	870	U
84-74-2	Di-n-butylphthalate	910	U
56-57-5	4-Nitroquinoline-1-oxide	5600	U
91-80-5	Methapyrilene	1500	U
465-73-6	Isodrin	1100	U
206-44-0	Fluoranthene	1100	U
129-00-0	Pyrene	860	U
140-57-8	Aramite	780	U
60-11-7	p-Dimethylaminoazobenzene	790	U
510-15-6	Chlorobenzilate	840	U
85-68-7	Butylbenzylphthalate	800	U
119-93-7	3,3'-Dimethylbenzidine	530	U
117-81-7	bis(2-ethylhexyl)Phthalate	880	U
91-94-1	3,3'-Dichlorobenzidine	590	U
56-55-3	Benzo(a)Anthracene	780	U
218-01-9	Chrysene	640	U

D-00225

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-015

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791315

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091315C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
117-84-0	Di-n-octylphthalate	560	U
57-97-6	7,12-Dimethylbenz(a)anthrace	480	U
205-99-2	Benzo(b)fluoranthene	910	U
207-08-9	Benzo(k)fluoranthene	730	U
193-39-5	Indeno(1,2,3-c,d)pyrene	540	U
53-70-3	Dibenzo(a,h)anthracene	210	U
191-24-2	Benzo(g,h,i)perylene	730	U
122-09-08	a,a-Dimethylphenethylamine	780	U
106-50-3	p-Phenylenediamine	780	U

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-015

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791315

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091315C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500 (uL) Date Analyzed: 03/27/96

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

Number TICs found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		ALDOL (BC)	3.94	1900	JAB
2.		ADVISORY SURROGATE COMPOUND	5.30	230	JB
3.		ADVISORY SURROGATE COMPOUND	5.80	220	JB
4.		UNKNOWN	25.27	240	J
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
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FORM I SV-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-015

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791254

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091254A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 15 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	JB
67-64-1	Acetone	13	B
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U
75-05-8	acetonitrile	240	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-015

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791254

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091254A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 15 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	270	U
107-05-1	3-chloropropene	18	U
106-93-4	1,2-dibromoethane	18	U
74-95-3	dibromomethane	24	U
110-57-6	trans-1,4-dichloro-2-butene	18	U
75-71-8	dichlorodifluoromethane	24	U
123-91-1	1,4-dioxane	60000	U
107-12-0	propionitrile(ethylcyanide)	690	U
97-63-2	ethyl methacrylate	29	U
74-88-4	iodomethane	12	U
78-83-1	isobutyl alcohol	15000	U
126-98-7	methacrylonitrile	24	U
80-62-6	methyl methacrylate	59	U
630-20-6	1,1,1,2-tetrachloroethane	24	U
96-18-4	1,2,3-trichloropropane	24	U
108-05-4	vinyl acetate	24	U
96-12-8	1,2-dibromo-3-chloropropane	59	U
75-69-4	trichlorofluoromethane	24	U
107-13-1	acrylonitrile	250	U
156-60-5	trans-1,2-Dichloroethene	12	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-015

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791254

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091254A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 15 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.54	1400	JB
2.	LABORATORY ARTIFACT	22.93	10	J
3.				
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FORM I VOA-TIC

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-015

Lab Name: COMPUCHEM_ENV._CORP. Contract: SW-846

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 665C

Matrix (soil/water): SOIL Lab Sample ID: 791166

Level (low/med): LOW Date Received: 03/14/96

% Solids: 84.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.12	U		CV

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:
Undecanted_Dry_Weights Container:1.56g Wet:6.57g Dry:5.80g

FORM I - IN ILM03.0

1D

ORGANOCHLORINE PESTICIDES AND PCBs ANALYSIS DATA SHEET

SAMPLE NO.

2507D-015

Lab Name: COMPUCHEM, RTP Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0490C

Matrix: (soil/water) SOIL Lab Sample ID: 791344

Sample wt/vol: 30.30 (g/ml) G Lab File ID:

% Moisture: 15 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 03/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/26/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	gamma-BHC (Lindane)	0.10	JP
76-44-8	Heptachlor	0.087	JP
309-00-2	Aldrin	0.26	JP
959-98-8	Endosulfan I	1.0	JP
60-57-1	Dieldrin	0.10	JP
33213-65-9	Endosulfan II	1.4	J
50-29-3	4,4'-DDT	1.1	JP
72-43-5	Methoxychlor	0.32	JP
319-84-6	alpha-BHC	1.2	U
319-85-7	beta-BHC	1.2	U
319-86-8	delta-BHC	0.22	J
1024-57-3	Heptachlor epoxide	0.28	J
72-55-9	4,4'-DDE	4.1	U
72-20-8	Endrin	0.29	JP
72-54-8	4,4'-DDD	0.64	JP
7421-93-4	Endrin aldehyde	0.15	JP
1031-07-8	Endosulfan sulfate	0.53	JBP
11096-82-5	Aroclor-1260	23	U
12674-11-2	Aroclor-1016	23	U
11104-28-2	Aroclor-1221	23	U
11141-16-5	Aroclor-1232	23	U
53469-21-9	Aroclor-1242	23	U
12672-29-6	Aroclor-1248	23	U
11097-69-1	Aroclor-1254	23	U
8001-35-2	Toxaphene	23	U
57-74-9	Chlordane (Technical)	4.7	U

FORM I 8080

1D
HERBICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-015

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

Matrix: (soil/water) SOIL Lab Sample ID: 791378

Sample wt/vol: 50.1 (g/ml) G Lab File ID:

% Moisture: 15 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 03/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/24/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	120	U
93-72-1	2,4,5-TP (Silvex)	29	U
93-76-5	2,4,5-T	2.9	JBP

FORM I HERB

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-015

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Matrix (soil/water): SOIL_ Lab Sample ID: 791487

Level (low/med): LOW__ Date Received: 03/14/96

% Solids: _84.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Cyanide	0.59	U		AS

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.56g__Wet:6.57g__Dry:5.80g_____

SULFIDE ANALYSIS

SUMMARY REPORT

ITEM NO.	SAMPLE IDENTIFIER	COMPUCHEM NUMBER	CONCENTRATION (mg/kg)	REPORTING LIMIT (PPM)
1.	257D-006	791438	BRL	2.5
2.	257D-007	791442	BRL	2.5
3.	257D-008	791443	BRL	2.5
4.	257D-009	791444	BRL	2.5
5.	257D-010	791445	BRL	2.5
6.	257D-011	791446	BRL	2.5
7.	257D-012	791447	BRL	2.5
8.	257D-013	791448	BRL	2.5
9.	257D-014	791449	BRL	2.5
10.	257D-015	791450	BRL	2.5
11.	257D-016	791451	BRL	2.5

BRL = BELOW REPORTING LIMIT

Reviewed by/ID# [illegible] / 1785 Date: 3/29/96

Reviewed by/ID#: [illegible] / 1990 Date: 3/29/96

SAMPLE 25/07D-016

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-016

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__
Matrix (soil/water): SOIL_ Lab Sample ID: 791123
Level (low/med): LOW__ Date Received: 03/14/96
% Solids: _82.2

Concentration Units (ug/L or mg/kg dry weight) MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	0.23	B	N	P
7440-38-2	Arsenic__	6.4			P
7440-39-3	Barium___	64.5			P
7440-41-7	Beryllium	0.41	B		P
7440-43-9	Cadmium__	0.02	U	N	P
7440-47-3	Chromium_	7.1		N*	P
7440-48-4	Cobalt___	10.3			P
7440-50-8	Copper___	9.9			P
7439-92-1	Lead____	15.8		*	P
7440-02-0	Nickel___	8.0			P
7782-49-2	Selenium_	1.1		N	P
7440-22-4	Silver___	0.09	U		P
7440-28-0	Thallium_	0.43	U		P
7440-62-2	Vanadium_	9.3			P
7440-66-6	Zinc____	27.9			P
7440-31-5	Tin_____	0.72	B	N	P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.57g__Dry:5.68g_____

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-016

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791316

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091316C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	320	U
110-86-1	Pyridine	670	U
109-06-8	2-Picoline	1500	U
10595-95-6	Nitrosomethylethylamine	290	U
66-27-3	Methyl Methanesulfonate	850	U
55-18-5	N-Nitrosodiethylamine	270	U
62-50-0	Ethyl Methanesulfonate	730	U
108-95-2	Phenol	700	U
62-53-3	Aniline	680	U
111-44-4	Bis(2-chloroethyl)ether	340	U
95-57-8	2-Chlorophenol	770	U
541-73-1	1,3-Dichlorobenzene	620	U
106-46-7	1,4-Dichlorobenzene	630	U
100-51-6	Benzyl Alcohol	670	U
95-50-1	1,2-Dichlorobenzene	720	U
95-48-7	2-Methylphenol	790	U
39638-32-9	bis(2-Chloroisopropyl)ether	790	U
108-39-4	3-Methylphenol	1600	U
106-44-5	4-Methylphenol	1600	U
930-55-2	N-Nitrosopyrrolidine	650	U
621-64-7	N-Nitroso-di-N-propylamine	290	U
98-86-2	Acetophenone	800	U
59-89-2	N-Nitrosomorpholine	910	U
636-21-5	o-Toluidine hydrochloride	2400	U
67-72-1	Hexachloroethane	730	U
98-95-3	Nitrobenzene	830	U
100-75-4	N-Nitrosopiperidine	900	U
78-59-1	Isophorone	830	U
88-75-5	2-Nitrophenol	760	U
105-67-9	2,4-Dimethylphenol	740	U
126-68-1	o,o,o-Triethylphosphorothioa	6500	U
111-91-1	Bis(2-chloroethoxy)methane	820	U
120-83-2	2,4-Dichlorophenol	670	U

D- 00237

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-016

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791316

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091316C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted:03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
120-82-1	1,2,4-Trichlorobenzene	670	U
91-20-3	Naphthalene	800	U
106-47-8	4-Chloroaniline	840	U
87-65-0	2,6-Dichlorophenol	1500	U
1888-71-7	Hexachloropropene	700	U
87-68-3	Hexachlorobutadiene	680	U
924-16-3	N-Nitroso-di-n-butylamine	180	U
59-50-7	4-Chloro-3-methylphenol	230	U
94-59-7	Safrole	710	U
91-57-6	2-Methylnaphthalene	1000	U
77-47-4	Hexachlorocyclopentadiene	800	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1600	U
88-06-2	2,4,6-Trichlorophenol	1600	U
95-95-4	2,4,5-Trichlorophenol	1600	U
120-58-1	Isosafrole	1600	U
91-58-7	2-Chloronaphthalene	1200	U
88-74-4	2-Nitroaniline	1300	U
130-15-4	1,4-Napthoquinone	2000	U
131-11-3	Dimethylphthalate	1200	U
99-65-0	1,3-Dinitrobenzene	680	U
606-20-2	2,6-Dinitrotoluene	910	U
208-96-8	Acenaphthylene	820	U
99-09-2	3-Nitroaniline	840	U
83-32-9	Acenaphthene	800	U
51-28-5	2,4-Dinitrophenol	2100	U
100-02-7	4-Nitrophenol	840	U
608-93-5	Pentachlorobenzene	800	U
121-14-2	2,4-Dinitrotoluene	800	U
132-64-9	Dibenzofuran	840	U
91-59-8	2-Naphthylamine	1000	U
58-90-2	2,3,4,6-Tetrachlorophenol	1700	U
134-32-7	1-Naphthylamine	1700	U
84-66-2	Diethylphthalate	880	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-016

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791316

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091316C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
7005-72-3	4-Chlorophenyl-phenylether	730	U
99-55-8	5-Nitro-o-toluidine	1200	U
86-73-7	Fluorene	840	U
100-01-6	4-Nitroaniline	1300	U
534-52-1	4,6-Dinitro-2-methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	1700	U
122-39-4	Diphenylamine	1700	U
99-35-4	1,3,5-Trinitrobenzene	1100	U
2303-16-4	Diallate (trans isomer)	800	U
62-44-2	Phenacetin	740	U
2303-16-4	Diallate (cis isomer)	800	U
101-55-3	4-Bromophenyl-phenylether	910	U
118-74-1	Hexachlorobenzene	940	U
92-67-1	4-Aminobiphenyl	500	U
87-86-5	Pentachlorophenol	1700	U
23950-58-5	Pronamide	790	U
85-01-8	Phenanthrene	760	U
120-12-7	Anthracene	900	U
84-74-2	Di-n-butylphthalate	940	U
56-57-5	4-Nitroquinoline-1-oxide	5900	U
91-80-5	Methapyrilene	1600	U
465-73-6	Isodrin	1100	U
206-44-0	Fluoranthene	1100	U
129-00-0	Pyrene	890	U
140-57-8	Aramite	800	U
60-11-7	p-Dimethylaminoazobenzene	820	U
510-15-6	Chlorobenzilate	870	U
85-68-7	Butylbenzylphthalate	830	U
119-93-7	3,3'-Dimethylbenzidine	550	U
117-81-7	bis(2-ethylhexyl)Phthalate	910	U
91-94-1	3,3'-Dichlorobenzidine	610	U
56-55-3	Benzo(a)Anthracene	800	U
218-01-9	Chrysene	660	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-016

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791316

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091316C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
117-84-0	Di-n-octylphthalate	590	U
57-97-6	7,12-Dimethylbenz(a)anthrace	500	U
205-99-2	Benzo(b)fluoranthene	940	U
207-08-9	Benzo(k)fluoranthene	760	U
193-39-5	Indeno(1,2,3-c,d)pyrene	560	U
53-70-3	Dibenzo(a,h)anthracene	220	U
191-24-2	Benzo(g,h,i)perylene	760	U
122-09-08	a,a-Dimethylphenethylamine	800	U
106-50-3	p-Phenylenediamine	800	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-016

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791316

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091316C60.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/27/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

Number TICs found: 10

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	3.73	660	J
2.		ALDOL (BC)	3.96	8400	JAB
3.		UNKNOWN	4.57	430	J
4.		ADVISORY SURROGATE COMPOUND	5.30	1600	JB
5.		ADVISORY SURROGATE COMPOUND	5.80	1100	JB
6.		UNKNOWN ALKANE	12.63	190	J
7.		UNKNOWN ALKANE	13.78	330	J
8.		UNKNOWN ALKANE	24.26	200	J
9.		UNKNOWN ALKANE	25.63	460	J
10.		UNKNOWN	28.53	210	J
11.					
12.					
13.					
14.					

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-016

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791255

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091255A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 18 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	8	JB
67-64-1	Acetone	14	B
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	12	U
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (Total)	12	U
75-05-8	acetonitrile	240	U

D-00242

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-016

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791255

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091255A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 18 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	280	U
107-05-1	3-chloropropene	18	U
106-93-4	1,2-dibromoethane	18	U
74-95-3	dibromomethane	24	U
110-57-6	trans-1,4-dichloro-2-butene	18	U
75-71-8	dichlorodifluoromethane	24	U
123-91-1	1,4-dioxane	62000	U
107-12-0	propionitrile(ethylcyanide)	720	U
97-63-2	ethyl methacrylate	30	U
74-88-4	iodomethane	12	U
78-83-1	isobutyl alcohol	16000	U
126-98-7	methacrylonitrile	24	U
80-62-6	methyl methacrylate	61	U
630-20-6	1,1,1,2-tetrachloroethane	24	U
96-18-4	1,2,3-trichloropropane	24	U
108-05-4	vinyl acetate	24	U
96-12-8	1,2-dibromo-3-chloropropane	61	U
75-69-4	trichlorofluoromethane	24	U
107-13-1	acrylonitrile	260	U
156-60-5	trans-1,2-Dichloroethene	12	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

2507D-016

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791255

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091255A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. 18 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.50	1100	JB
2.	LABORATORY ARTIFACT	22.90	8	J
3.				
4.				
5.				
6.				
7.				
8.				
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30.				

FORM I VOA-TIC

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-016

Lab Name: COMPUCHEM_ENV._CORP. Contract: SW-846

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 665C

Matrix (soil/water): SOIL Lab Sample ID: 791169

Level (low/med): LOW Date Received: 03/14/96

% Solids: 82.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7439-97-6	Mercury	0.12	U		CV

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

Undecanted_Dry_Weights Container:1.57g Wet:6.57g Dry:5.68g

1D

ORGANOCHLORINE PESTICIDES AND PCBs ANALYSIS DATA SHEET

SAMPLE NO.

2507D-016

Lab Name: COMPUCHEM, RTP Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0490C

Matrix: (soil/water) SOIL Lab Sample ID: 791345

Sample wt/vol: 30.20 (g/ml) G Lab File ID:

% Moisture: 18 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 03/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/26/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
58-89-9	gamma-BHC (Lindane)	0.21	JP
76-44-8	Heptachlor	0.25	JP
309-00-2	Aldrin	0.45	JP
959-98-8	Endosulfan I	2.4	
60-57-1	Dieldrin	0.13	JP
33213-65-9	Endosulfan II	0.18	JP
50-29-3	4,4'-DDT	0.98	JP
72-43-5	Methoxychlor	4.2	U
319-84-6	alpha-BHC	1.2	U
319-85-7	beta-BHC	1.1	JP
319-86-8	delta-BHC	0.14	JP
1024-57-3	Heptachlor epoxide	0.19	JP
72-55-9	4,4'-DDE	0.078	JP
72-20-8	Endrin	0.44	JP
72-54-8	4,4'-DDD	0.25	JP
7421-93-4	Endrin aldehyde	0.35	JP
1031-07-8	Endosulfan sulfate	0.13	JBP
11096-82-5	Aroclor-1260	24	U
12674-11-2	Aroclor-1016	24	U
11104-28-2	Aroclor-1221	24	U
11141-16-5	Aroclor-1232	24	U
53469-21-9	Aroclor-1242	24	U
12672-29-6	Aroclor-1248	24	U
11097-69-1	Aroclor-1254	24	U
8001-35-2	Toxaphene	24	U
57-74-9	Chlordane (Technical)	4.8	U

FORM I 8080

1D
HERBICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507D-016

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

Matrix: (soil/water) SOIL Lab Sample ID: 791379

Sample wt/vol: 50.2 (g/ml) G Lab File ID:

% Moisture: 18 decanted: (Y/N) N Date Received: 03/14/96

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 03/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/24/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	120	U
93-72-1	2,4,5-TP (Silvex)	1.6	JBP
93-76-5	2,4,5-T	1.3	JBP

FORM I HERB

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

2507D-016

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Matrix (soil/water): SOIL_ Lab Sample ID: 791488

Level (low/med): LOW__ Date Received: 03/14/96

% Solids: _82.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
	Cyanide	0.61	U		AS

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: COLORLESS Clarity After: _____ Artifacts: _____

Comments:
CONTAINER_WT:1.57G_WET_WT._6.57G__DRY_WT._5.68G

SAMPLE 25/07D-T21

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507DTB21

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0412C

Matrix: (soil/water) WATER Lab Sample ID: 790939

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN090939B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. _____ Date Analyzed: 03/17/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U
75-05-8	acetonitrile	60	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507DTB21

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0412C

Matrix: (soil/water) WATER Lab Sample ID: 790939

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN090939B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. _____ Date Analyzed: 03/17/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
107-02-8	acrolein	90	U
107-05-1	3-chloropropene	15	U
106-93-4	1,2-dibromoethane	10	U
74-95-3	dibromomethane	10	U
110-57-6	trans-1,4-dichloro-2-butene	10	U
75-71-8	dichlorodifluoromethane	10	U
123-91-1	1,4-dioxane	3700	U
107-12-0	propionitrile(ethylcyanide)	220	U
97-63-2	ethyl methacrylate	10	U
74-88-4	iodomethane	5	U
78-83-1	isobutyl alcohol	2800	U
126-98-7	methacrylonitrile	20	U
80-62-6	methyl methacrylate	20	U
630-20-6	1,1,1,2-tetrachloroethane	10	U
96-18-4	1,2,3-trichloropropane	10	U
108-05-4	vinyl acetate	10	U
96-12-8	1,2-dibromo-3-chloropropane	10	U
75-69-4	trichlorofluoromethane	10	U
107-13-1	acrylonitrile	95	U
156-60-5	trans-1,2-Dichloroethene	10	U

SAMPLE 25/07D-T22

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507DTB22

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0412C

Matrix: (soil/water) WATER Lab Sample ID: 790940

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN090940B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. _____ Date Analyzed: 03/17/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U
75-05-8	acetonitrile	60	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507DTB22

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0412C

Matrix: (soil/water) WATER Lab Sample ID: 790940

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN090940B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. _____ Date Analyzed: 03/17/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
107-02-8	acrolein	90	U
107-05-1	3-chloropropene	15	U
106-93-4	1,2-dibromoethane	10	U
74-95-3	dibromomethane	10	U
110-57-6	trans-1,4-dichloro-2-butene	10	U
75-71-8	dichlorodifluoromethane	10	U
123-91-1	1,4-dioxane	3700	U
107-12-0	propionitrile(ethylcyanide)	220	U
97-63-2	ethyl methacrylate	10	U
74-88-4	iodomethane	5	U
78-83-1	isobutyl alcohol	2800	U
126-98-7	methacrylonitrile	20	U
80-62-6	methyl methacrylate	20	U
630-20-6	1,1,1,2-tetrachloroethane	10	U
96-18-4	1,2,3-trichloropropane	10	U
108-05-4	vinyl acetate	10	U
96-12-8	1,2-dibromo-3-chloropropane	10	U
75-69-4	trichlorofluoromethane	10	U
107-13-1	acrylonitrile	95	U
156-60-5	trans-1,2-Dichloroethene	10	U

SAMPLE 25/07D-T23

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507DTB23

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0412C

Matrix: (soil/water) WATER Lab Sample ID: 790941

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN090941B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. _____ Date Analyzed: 03/17/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U
75-05-8	acetonitrile	60	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507DTB23

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0412C

Matrix: (soil/water) WATER Lab Sample ID: 790941

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN090941B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. _____ Date Analyzed: 03/17/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
107-02-8	acrolein	90	U
107-05-1	3-chloropropene	15	U
106-93-4	1,2-dibromoethane	10	U
74-95-3	dibromomethane	10	U
110-57-6	trans-1,4-dichloro-2-butene	10	U
75-71-8	dichlorodifluoromethane	10	U
123-91-1	1,4-dioxane	3700	U
107-12-0	propionitrile(ethylcyanide)	220	U
97-63-2	ethyl methacrylate	10	U
74-88-4	iodomethane	5	U
78-83-1	isobutyl alcohol	2800	U
126-98-7	methacrylonitrile	20	U
80-62-6	methyl methacrylate	20	U
630-20-6	1,1,1,2-tetrachloroethane	10	U
96-18-4	1,2,3-trichloropropane	10	U
108-05-4	vinyl acetate	10	U
96-12-8	1,2-dibromo-3-chloropropane	10	U
75-69-4	trichlorofluoromethane	10	U
107-13-1	acrylonitrile	95	U
156-60-5	trans-1,2-Dichloroethene	10	U

SAMPLE 25/07D-T24

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507DTB24

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0412C

Matrix: (soil/water) WATER Lab Sample ID: 790942

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN090942B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. _____ Date Analyzed: 03/18/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U
75-05-8	acetonitrile	60	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

2507DTB24

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0412C

Matrix: (soil/water) WATER Lab Sample ID: 790942

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CN090942B55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. _____ Date Analyzed: 03/18/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
107-02-8	acrolein	90	U
107-05-1	3-chloropropene	15	U
106-93-4	1,2-dibromoethane	10	U
74-95-3	dibromomethane	10	U
110-57-6	trans-1,4-dichloro-2-butene	10	U
75-71-8	dichlorodifluoromethane	10	U
123-91-1	1,4-dioxane	3700	U
107-12-0	propionitrile(ethylcyanide)	220	U
97-63-2	ethyl methacrylate	10	U
74-88-4	iodomethane	5	U
78-83-1	isobutyl alcohol	2800	U
126-98-7	methacrylonitrile	20	U
80-62-6	methyl methacrylate	20	U
630-20-6	1,1,1,2-tetrachloroethane	10	U
96-18-4	1,2,3-trichloropropane	10	U
108-05-4	vinyl acetate	10	U
96-12-8	1,2-dibromo-3-chloropropane	10	U
75-69-4	trichlorofluoromethane	10	U
107-13-1	acrylonitrile	95	U
156-60-5	trans-1,2-Dichloroethene	10	U

Backfill Samples

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9508204
Report To: MK Corp
Project: NSWC-Crane #4324-009-008-30
Date: August 25, 1995
Analysis: Total Cyanide, SW846 9010

Client ID	AENI ID	Result	Date Analyzed
NSWC-BP/BF-001	9508204-001	<1.2	08/22/95
NSWC-BP/BF-002	9508204-002	<1.2	08/22/95

(1) Results reported as mg/kg on a dry weight basis.

\gchem\002

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9508204
Report To: MK Corp
Project: NSWC-Crane #4324-009-008-30
Date: August 25, 1995
Analysis: Total Sulfide, SW846 9030M

Client ID	AENI ID	Result	Date Analyzed
NSWC-BP/BF-001	9508204-001	<49	08/22/95
NSWC-BP/BF-002	9508204-002	<49	08/22/95

(1) Results reported as mg/kg on a dry weight basis.

lgchem1002

TL-RTP Project: 33852
Client Sample: NSWC-BP/BF-001
Client Project: Indiana-Navy Project

Method 8280 PCDD/PCDF Analysis (b)
Analysis File: E953147
Matrix: SOIL

PCDD/PCDF SUMMARY REPORT

Specific Analytes	Conc. (ppb)	DL (ppb)	Blank (ppb)
2,3,7,8-TCDD	ND	0.0503	ND
1,2,3,7,8-PeCDD	ND	0.528	ND
1,2,3,4,7,8-HxCDD	ND	0.478	ND
1,2,3,6,7,8-HxCDD	ND	0.289	ND
1,2,3,7,8,9-HxCDD	ND	0.277	ND
1,2,3,4,6,7,8-HpCDD	ND	0.717	ND
1,2,3,4,6,7,8,9-OCDD	3.97	0.39	ND
2,3,7,8-TCDF	ND	0.0629	ND
1,2,3,7,8-PeCDF	ND	0.491	ND
2,3,4,7,8-PeCDF	ND	0.616	ND
1,2,3,4,7,8-HxCDF	ND	0.616	ND
1,2,3,6,7,8-HxCDF	ND	0.365	ND
2,3,4,6,7,8-HxCDF	ND	0.503	ND
1,2,3,7,8,9-HxCDF	ND	0.428	ND
1,2,3,4,6,7,8-HpCDF	ND	0.0813	ND
1,2,3,4,7,8,9-HpCDF	ND	0.176	ND
1,2,3,4,6,7,8,9-OCDF	ND	0.34	ND

Definitions:

Conc. - The concentration of the specific analyte in the units shown.

DL - The detection limit of the specific analyte in the units shown.

Blank - The concentration of the method blank.

ND - (Non-Detect) The concentration of the analyte is less than the detection limit.

Total Analytes	Conc. (ppb)	DL (ppb)
Total TCDD	ND	0.0503
Total PeCDD	ND	0.528
Total HxCDD	ND	0.277
Total HpCDD	ND	0.717
Total TCDF	ND	0.0629
Total PeCDF	ND	0.616
Total HxCDF	ND	0.428
Total HpCDF	ND	0.176

8280_PSR v2.07, LARS 6.01.02

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NSWC-BP/BF-001

Lab Name: AENI MD Contract: MKC

Project No.: 9508204 Site: NSWC Location: CRANE Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EH310.D

Level: (low/med) LOW Date Received: 8/17/95

% Moisture: not dec. 19 Date Analyzed: 8/22/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	21	
67-64-1	Acetone	11	J
75-05-8	Acetonitrile	6.2	U
107-13-1	Acrylonitrile	1200	U
107-02-8	Acrolein	1200	U
75-69-4	Trichlorofluoromethane	6.2	U
75-15-0	Carbon Disulfide	6.2	U
75-35-4	1,1-Dichloroethene	6.2	U
75-34-4	1,1-Dichloroethane	6.2	U
540-59-0	trans-1,2-Dichloroethene	6.2	U
67-66-3	Chloroform	6.2	U
107-06-2	1,2-Dichloroethane	6.2	U
75-71-8	Dichlorodifluoromethane	6.2	U
74-88-4	Iodomethane	6.2	U
107-12-0	Propionitrile	6.2	U
107-05-1	Allyl chloride	120	U
78-93-3	2-Butanone	120	U
71-55-6	1,1,1-Trichloroethane	6.2	U
56-23-5	Carbon Tetrachloride	6.2	U
108-05-4	Vinyl Acetate	6.2	U
75-27-4	Bromodichloromethane	6.2	U
78-87-5	1,2-Dichloropropane	6.2	U
10061-01-5	cis-1,3-Dichloropropene	6.2	U
79-01-6	Trichloroethene	6.2	U
71-43-2	Benzene	6.2	U
124-48-1	Dibromochloromethane	6.2	U
10061-02-6	trans-1,3-Dichloropropene	6.2	U
79-00-5	1,1,2-Trichloroethane	6.2	U
75-25-2	Bromoform	6.2	U

FORM I VOA 8260/Appendix IX

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-BP/BF-001

Lab Name: AENI MD Contract: MKC

Project No.: 9508204 Site: NSWC Location: CRANE Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EH310.D

Level: (low/med) LOW Date Received: 8/17/95

% Moisture: not dec. 19 Date Analyzed: 8/22/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
126-98-7	Methacrylonitrile	6.2	U
74-95-3	Dibromomethane	6.2	U
106-93-4	1,2-Dibromoethane (EDB)	6.2	U
108-10-1	4-Methyl-2-Pentanone	62	U
591-78-6	2-Hexanone	62	U
127-18-4	Tetrachloroethene	6.2	U
79-34-5	1,1,2,2-Tetrachloroethane	6.2	U
108-88-3	Toluene	6.2	U
108-90-7	Chlorobenzene	6.2	U
100-41-4	Ethylbenzene	6.2	U
100-42-5	Styrene	6.2	U
108-38-3	m + p-Xylene	6.2	U
95-47-6	o-Xylene	6.2	U
80-62-6	Methyl methacrylate	6.2	U
630-20-6	1,1,1,2-Tetrachloroethane	6.2	U
96-18-4	1,2,3-Trichloropropane	6.2	U
110-57-6	trans-1,4-Dichloro-2-butene	6.2	U
97-63-2	Ethyl methacrylate	6.2	U
76-01-7	Pentachloroethane	6.2	U
96-12-8	1,2-Dibromo-3-chloropropane	6.2	U
126-99-8	Chloroprene	5	UZ
123-91-1	1,4-Dioxane (TIC)	1000	U
78-83-1	Isobutyl Alcohol (TIC)	1000	U
	3-Chloroprene (TIC)	5	U

FORM I VOA 8260/Appendix IX

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NSWC-BP/BF-001

Lab Name: AENI MD
Contract: MKC
Project No.: 9508204
Site:
Location:
Group:
Matrix: (soil/water) SOIL
Lab Sample ID: #001
Sample wt/vol: 31.0 (g/mL) G
Lab File ID: DH263.D
Level: (low/med) LOW
Date Received: 8/17/95
% Moisture: 19
decanted: (Y/N): N
Date Extracted: 8/20/95
Concentrated Extract Volume: 1000 (uL)
Date Analyzed: 8/21/95
Injection Volume: 1.0 (uL)
Dilution Factor: 1.0
GPC Cleanup: (Y/N) N
pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
62-75-9	N-Nitroso-Di-Methylamine	400	U
111-44-4	bis(2-Chloroethyl)ether	400	U
108-95-2	Phenol	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
100-51-6	Benzyl alcohol	800	U
108-60-1	bis(2-chloroisopropyl)ether	400	U
95-48-7	2-Methylphenol	400	U
67-72-1	Hexachloroethane	400	U
621-64-7	N-Nitroso-di-n-propylamine	400	U
106-44-5	4-Methylphenol	400	U
110-86-1	Pyridine	400	U
109-06-8	2-Picoline	400	U
62-53-3	Aniline	400	U
10595-95-6	N-Nitrosomethylethylamine	400	U
66-27-3	Methyl methanesulfonate	400	U
55-18-5	N-Nitrosodiethylamine	400	U
62-50-0	Ethyl methanesulfonate	400	U
108-39-4	3-Methylphenol	400	U
930-55-2	N-Nitrosopyrrolidine	400	U
95-53-4	o-Toluidine	400	U
59-89-2	N-Nitrosomorpholine	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	800	U

FORM I SV

SW846

D-00263

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-BP/BF-001

Lab Name: AENI MD Contract: MKC

Project No.: 9508204 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 31.0 (g/mL) G Lab File ID: DH263.D

Level: (low/med) LOW Date Received: 8/17/95

% Moisture: 19 decanted: (Y/N): N Date Extracted: 8/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 8/21/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
98-86-2	Acetophenone	400	U
122-09-8	a,a,a-Dimethylphenethylamine	400	U
1888-71-7	Hexachloropropene	400	U
87-65-0	2,6-Dichlorophenol	400	U
924-16-3	N-Nitrosodibutylamine	400	U
100-75-4	N-Nitrosopiperidine	400	U
130-15-4	1,4-Naphthoquinone	400	U
126-68-1	o,o,o-Triethyl phosphorothioate	400	U
120-58-1	Isosafrole	400	U
106-50-3	p-Phenylenediamine	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	400	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	2000	U
208-96-8	Acenaphthylene	400	U
131-11-3	Dimethylphthalate	400	U
606-20-2	2,6-Dinitrotoluene	400	U
83-32-9	Acenaphthene	400	U
99-09-2	3-Nitroaniline	2000	U
51-28-5	2,4-Dinitrophenol	2000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
100-02-7	4-Nitrophenol	400	U
86-73-7	Fluorene	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
84-66-2	Diethylphthalate	400	U
100-01-6	4-Nitroaniline	2000	U
95-94-3	1,2,4,5-Tetrachlorobenzene	400	U
99-65-0	1,3-Dinitrobenzene	400	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-BP/BF-001

Lab Name: AENI MD Contract: MKC

Project No.: 9508204 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 31.0 (g/mL) G Lab File ID: DH263.D

Level: (low/med) LOW Date Received: 8/17/95

% Moisture: 19 decanted: (Y/N): N Date Extracted: 8/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 8/21/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
608-93-5	Pentachlorobenzene	400	U
91-59-8	2-Naphthylamine	400	U
134-32-7	1-Naphthylamine	400	U
58-90-2	2,3,4,6-Tetrachlorophenol	400	U
297-97-2	Thionazin	400	U
99-55-8	5-Nitro-o-toluidine	400	U
94-59-7	Safrole	400	U
56-57-5	4-Nitroquinoline 1-oxide	400	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	n-Nitrosodiphenylamine	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
84-74-2	Di-n-butylphthalate	400	U
206-44-0	Fluoranthene	400	U
122-39-4	Diphenylamine	400	U
99-35-4	sym-Trinitrobenzene	400	U
62-44-2	Phenacetin	400	U
92-67-1	4-Aminobiphenyl	400	U
91-80-5	Methapyrilene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	800	U
56-55-3	Benzo[a]anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)phthalate	400	U
60-11-7	p-Dimethylaminoazobenzene	400	U
140-57-8	Aramite	400	U
119-93-7	3,3'-Dimethylbenzidine	400	U
53-96-3	2-Acetylaminofluorene	400	U
117-84-0	Di-n-octylphthalate	400	U

FORM I SV

SW846

D-00265

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-BP/BF-001

Lab Name: AENI MD Contract: MKC

Project No.: 9508204 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 31.0 (g/mL) G Lab File ID: DH263.D

Level: (low/med) LOW Date Received: 8/17/95

% Moisture: 19 decanted: (Y/N): N Date Extracted: 8/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 8/21/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenz(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U
57-97-6	7,12-Dimethylbenz(a)anthracene	400	U
56-49-5	3-Methylcholanthrene	400	U

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BP/BF-001

Lab Name: AMERICAN_ENVIRON_NETWORK_ Contract: MK_CORP___
Lab Code: _____ Case No.: 95082 SAS No.: _____ SDG No.: 508204
Matrix (soil/water): SOIL_ Lab Sample ID: 950820401
Level (low/med): LOW__ Date Received: 08/17/95
% Solids: _81.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	2.6	U		P_
7440-38-2	Arsenic__	9.4	_		P_
7440-39-3	Barium___	62.4	_		P_
7440-41-7	Beryllium	0.57	_		P_
7440-43-9	Cadmium__	0.52	U		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	15.8	_		P_
7440-48-4	Cobalt___	3.9	_		P_
7440-50-8	Copper___	15.3	_		P_
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	13.8	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.12	U		AV
7440-02-0	Nickel___	10	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	0.65	U		P_
7440-22-4	Silver___	1.0	U		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	1.3	U		P_
7440-62-2	Vanadium_	31.2	_		P_
7440-66-6	Zinc_____	39.5	_		P_
_____	Cyanide__		_		NR
7440-31-5_	Tin_____	32.4	U		P_
7439-93-2_	Lithium__	12.8	_		P_

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

C ments:
LIENT_ID:__NSWC-BP/BF-001

FORM I - IN ILM02.1

D-00267

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9508204
Project Name:——— NSWC-CRANE
Client Name:——— MK CORP

Sample Number
NSWC-BP/BF-001

AENI # 9508204-001

Concentration:——— Low
Date Sampled:——— 8/16/95
Date Received:——— 8/17/95
Date Ext Prepared:— 8/21/95
Date Analyzed:——— 8/22/95
Conc/Dil Factor:——— 1
Method: ——— 8080

GPC Cleanup | | Yes | X | No
Seperatory Funnel Extraction | | Yes
Continuous Liquid - Liquid Extraction | | Yes
Percent Moisture 18.8
Matrix: SOIL

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		2.0	U
319-85-7	beta-BHC		2.0	U
319-86-8	delta-BHC		2.0	U
58-89-9	gamma-BHC (Lindane)		4.1	U
75-44-8	Heptachlor		2.0	U
309-00-2	Aldrin		2.0	U
1024-57-3	Heptachlor epoxide		2.0	U
959-98-8	Endosulfan I		2.0	U
60-57-1	Dieldrin		4.1	U
75-55-9	4, 4'-DDE		4.1	U
72-20-8	Endrin		4.1	U
33213-65-9	Endosulfan II		4.1	U
72-54-8	4, 4'-DDD		4.1	U
1031-07-8	Endosulfan Sulfate		4.1	U
50-29-3	4, 4'-DDT		8.2	U
72-43-5	Methoxychlor		20	U
53494-70-5	Endrin Ketone		4.1	U
7421-36-3	Endrin aldehyde		4.1	U
57-74-9	Chlordane		41	U
8001-35-2	Toxaphene		200	U
12674-11-2	Aroclor-1016		41	U
11104-28-2	Aroclor-1221		82	U
11141-16-5	Aroclor-1232		41	U
53469-21-9	Aroclor-1242		41	U
12672-29-6	Aroclor-1248		41	U
11097-69-1	Aroclor-1254		41	U
11096-82-5	Aroclor-1260		41	U
510-15-6	Chlorobenzilate		82	U
2303-16-4	Diallate		409	U
465-73-6	Isodrin		10	U
143-50-0	Kepone		41	U
82-68-8	Pentachloronitrobenzene		8.2	U

Vi - Volume of extract injected (ul) - _____ 5
Vs - Volume of Water extracted (ml) - _____ N/A
Ws - Weight of sample extracted (g) - _____ 30.09
Vt - Volume of total extract (ul) - _____ 10,000

FORM I

D-00268

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Organophosphorus

Case No.: 9508204

Project Name: NSWC-CRANE #4324-009-008-30

Client Name: MK CORP

Sample Number
NSWC-BP/BF-001

AENI # 9508204-001

Concentration: Low

Date Sampled: 8/16/95

Date Received: 8/17/95

Date Ext Prepared: 8/21/95

Date Analyzed: 8/26/95

Conc/Dil Factor: 1

Method: 8140

GPC Cleanup	Yes	X No
Seperatory Funnel Extraction		Yes
Continuous Liquid - Liquid Extration		Yes
Percent Solid	81.2	
Matrix	SOIL	

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
298-02-2	Phorate		2.0	U
60-51-5	Dimethoate		4.0	U
23950-58-5	Pronamide		2.0	U
298-04-4	Disulfoton		2.0	U
298-00-0	Methyl Parathion		2.0	U
56-38-2	Ethyl Parathion		2.0	U
52-85-7	Famphur		2.0	U
3689-24-5	Tetraethyl dithiopyrophosphate		202	U

Vi - Volume of extract injected (ul) - 1

Vs - Volume of Water extracted (ml) - N/A

Ws - Weight of sample extracted (g) - 30.42

Vt - Volume of total extract (ul) - 1,000

AMERICAN ENVIRONMENTAL NETWORK INC.
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Case No.: 9508204
Client Name: MK CORP
Project Name: NSWC-CRANE #4324-009-008-30

Sample Number
NSWC-BP/BF-001

AENI # 9508204-001

Concentration: Low
Date Sampled: 8/16/95
Date Received: 8/17/95
Date Extract Prepared: 8/22/95
Date Analyzed: 8/25/95
Conc/Dil Factor: 10
Matrix SOIL

GPC Cleanup No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid 81.2

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		61	U
SILVEX		61	U
2,4,5-T		61	U

Vi - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) N/A
Ws - Mass of soil extracted (g) 50.31
Vt- Volume of total extract (ul) 5000

FORM I

TL-RTP Project: 33852
Client Sample: NSWC-BP/BF-002
Client Project: Indiana-Navy Project

Method 8280 PCDD/PCDF Analysis (b)
Analysis File: E953148
Matrix: SOIL

PCDD/PCDF SUMMARY REPORT

Specific Analytes	Conc. (ppb)	DL (ppb)	Blank (ppb)
2,3,7,8-TCDD	ND	0.0497	ND
1,2,3,7,8-PeCDD	ND	0.522	ND
1,2,3,4,7,8-HxCDD	ND	0.472	ND
1,2,3,6,7,8-HxCDD	ND	0.286	ND
1,2,3,7,8,9-HxCDD	ND	0.273	ND
1,2,3,4,6,7,8-HpCDD	ND	0.708	ND
1,2,3,4,6,7,8,9-OCDD	4.45	0.385	ND
2,3,7,8-TCDF	ND	0.0621	ND
1,2,3,7,8-PeCDF	ND	0.484	ND
2,3,4,7,8-PeCDF	ND	0.609	ND
1,2,3,4,7,8-HxCDF	ND	0.609	ND
1,2,3,6,7,8-HxCDF	ND	0.36	ND
2,3,4,6,7,8-HxCDF	ND	0.497	ND
1,2,3,7,8,9-HxCDF	ND	0.422	ND
1,2,3,4,6,7,8-HpCDF	ND	0.0802	ND
1,2,3,4,7,8,9-HpCDF	ND	0.174	ND
1,2,3,4,6,7,8,9-OCDF	ND	0.335	ND

Definitions:

Conc. - The concentration of the specific analyte in the units shown.

DL - The detection limit of the specific analyte in the units shown.

Blank - The concentration of the method blank.

ND - (Non-Detect) The concentration of the analyte is less than the detection limit.

Total Analytes	Conc. (ppb)	DL (ppb)
Total TCDD	ND	0.0497
Total PeCDD	ND	0.522
Total HxCDD	ND	0.273
Total HpCDD	ND	0.708
Total TCDF	ND	0.0621
Total PeCDF	ND	0.609
Total HxCDF	ND	0.422
Total HpCDF	ND	0.174

8280_PSR v2.07, LARS 6.01.02

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

Printed: 23:43 08/24/95

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.: NSWC-BP/BF-002

Lab Name: AENI MD Contract: MKC

Project No.: 9508204 Site: NSWC Location: CRANE Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EH311.D

Level: (low/med) LOW Date Received: 8/17/95

% Moisture: not dec. 18 Date Analyzed: 8/22/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	16	
67-64-1	Acetone	7.7	J
75-05-8	Acetonitrile	6.1	U
107-13-1	Acrylonitrile	1200	U
107-02-8	Acrolein	1200	U
75-69-4	Trichlorofluoromethane	6.1	U
75-15-0	Carbon Disulfide	6.1	U
75-35-4	1,1-Dichloroethene	6.1	U
75-34-4	1,1-Dichloroethane	6.1	U
540-59-0	trans-1,2-Dichloroethene	6.1	U
67-66-3	Chloroform	6.1	U
107-06-2	1,2-Dichloroethane	6.1	U
75-71-8	Dichlorodifluoromethane	6.1	U
74-88-4	Iodomethane	6.1	U
107-12-0	Propionitrile	6.1	U
107-05-1	Allyl chloride	120	U
78-93-3	2-Butanone	120	U
71-55-6	1,1,1-Trichloroethane	6.1	U
56-23-5	Carbon Tetrachloride	6.1	U
108-05-4	Vinyl Acetate	6.1	U
75-27-4	Bromodichloromethane	6.1	U
78-87-5	1,2-Dichloropropane	6.1	U
10061-01-5	cis-1,3-Dichloropropene	6.1	U
79-01-6	Trichloroethene	6.1	U
71-43-2	Benzene	6.1	U
124-48-1	Dibromochloromethane	6.1	U
10061-02-6	trans-1,3-Dichloropropene	6.1	U
79-00-5	1,1,2-Trichloroethane	6.1	U
75-25-2	Bromoform	6.1	U

FORM I VOA 8260/Appendix IX

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NSWC-BP/BF-002

Lab Name: AENI MD Contract: MKC

Project No.: 9508204 Site: NSWC Location: CRANE Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EH311.D

Level: (low/med) LOW Date Received: 8/17/95

% Moisture: not dec. 18 Date Analyzed: 8/22/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound			Q
126-98-7	Methacrylonitrile		6.1	U
74-95-3	Dibromomethane		6.1	U
106-93-4	1,2-Dibromoethane (EDB)		6.1	U
108-10-1	4-Methyl-2-Pentanone		61	U
591-78-6	2-Hexanone		61	U
127-18-4	Tetrachloroethene		6.1	U
79-34-5	1,1,2,2-Tetrachloroethane		6.1	U
108-88-3	Toluene		6.1	U
108-90-7	Chlorobenzene		6.1	U
100-41-4	Ethylbenzene		6.1	U
100-42-5	Styrene		6.1	U
108-38-3	m + p-Xylene		6.1	U
95-47-6	o-Xylene		6.1	U
80-62-6	Methyl methacrylate		6.1	U
630-20-6	1,1,1,2-Tetrachloroethane		6.1	U
96-18-4	1,2,3-Trichloropropane		6.1	U
110-57-6	trans-1,4-Dichloro-2-butene		6.1	U
97-63-2	Ethyl methacrylate		6.1	U
76-01-7	Pentachloroethane		6.1	U
96-12-8	1,2-Dibromo-3-chloropropane		6.1	U
126-99-8	Chloroprene		5	UZ
123-91-1	1,4-Dioxane	(TIC)	1000	U
78-83-1	Isobutyl Alcohol	(TIC)	1000	U
	3-Chloroprene	(TIC)	5	U

FORM I VOA 8260/Appendix IX

D-00274

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-BP/BF-002

Lab Name: AENI MD

Contract: MKC

Project No.: 9508204

Site:

Location:

Group:

Matrix: (soil/water) SOIL

Lab Sample ID: #002

Sample wt/vol: 30.2 (g/mL) G

Lab File ID: DH264.D

Level: (low/med) LOW

Date Received: 8/17/95

% Moisture: 18

decanted: (Y/N): N

Date Extracted: 8/20/95

Concentrated Extract Volume: 1000 (uL)

Date Analyzed: 8/21/95

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
62-75-9	N-Nitroso-Di-Methylamine	400	U
111-44-4	bis(2-Chloroethyl)ether	400	U
108-95-2	Phenol	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
100-51-6	Benzyl alcohol	810	U
108-60-1	bis(2-chloroisopropyl)ether	400	U
95-48-7	2-Methylphenol	400	U
67-72-1	Hexachloroethane	400	U
621-64-7	N-Nitroso-di-n-propylamine	400	U
106-44-5	4-Methylphenol	400	U
110-86-1	Pyridine	400	U
109-06-8	2-Picoline	400	U
62-53-3	Aniline	400	U
10595-95-6	N-Nitrosomethylethylamine	400	U
66-27-3	Methyl methanesulfonate	400	U
55-18-5	N-Nitrosodiethylamine	400	U
62-50-0	Ethyl methanesulfonate	400	U
108-39-4	3-Methylphenol	400	U
930-55-2	N-Nitrosopyrrolidine	400	U
95-53-4	o-Toluidine	400	U
59-89-2	N-Nitrosomorpholine	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	810	U

FORM I SV

SW846

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-BP/BF-002

Lab Name: AENI MD Contract: MKC

Project No.: 9508204 Site: _____ Location: _____ Group: _____

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 30.2 (g/mL) G Lab File ID: DH264.D

Level: (low/med) LOW Date Received: 8/17/95

% Moisture: 18 decanted: (Y/N): N Date Extracted: 8/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 8/21/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: _____

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
98-86-2	Acetophenone	400	U
122-09-8	a,a,a-Dimethylphenethylamine	400	U
1888-71-7	Hexachloropropene	400	U
87-65-0	2,6-Dichlorophenol	400	U
924-16-3	N-Nitrosodibutylamine	400	U
100-75-4	N-Nitrosopiperidine	400	U
130-15-4	1,4-Naphthoquinone	400	U
126-68-1	o,o,o-Triethyl phosphorothioate	400	U
120-58-1	Isosafrole	400	U
106-50-3	p-Phenylenediamine	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	400	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	2000	U
208-96-8	Acenaphthylene	400	U
131-11-3	Dimethylphthalate	400	U
606-20-2	2,6-Dinitrotoluene	400	U
83-32-9	Acenaphthene	400	U
99-09-2	3-Nitroaniline	2000	U
51-28-5	2,4-Dinitrophenol	2000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
100-02-7	4-Nitrophenol	400	U
86-73-7	Fluorene	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
84-66-2	Diethylphthalate	400	U
100-01-6	4-Nitroaniline	2000	U
95-94-3	1,2,4,5-Tetrachlorobenzene	400	U
99-65-0	1,3-Dinitrobenzene	400	U

FORM I SV SW846

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC-BP/BF-002

Lab Name: AENI MD Contract: MKC

Project No.: 9508204 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 30.2 (g/mL) G Lab File ID: DH264.D

Level: (low/med) LOW Date Received: 8/17/95

% Moisture: 18 decanted: (Y/N): N Date Extracted: 8/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 8/21/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
608-93-5	Pentachlorobenzene	400	U
91-59-8	2-Naphthylamine	400	U
134-32-7	1-Naphthylamine	400	U
58-90-2	2,3,4,6-Tetrachlorophenol	400	U
297-97-2	Thionazin	400	U
99-55-8	5-Nitro-o-toluidine	400	U
94-59-7	Safrole	400	U
56-57-5	4-Nitroquinoline 1-oxide	400	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	n-Nitrosodiphenylamine	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
84-74-2	Di-n-butylphthalate	400	U
206-44-0	Fluoranthene	400	U
122-39-4	Diphenylamine	400	U
99-35-4	sym-Trinitrobenzene	400	U
62-44-2	Phenacetin	400	U
92-67-1	4-Aminobiphenyl	400	U
91-80-5	Methapyrilene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	810	U
56-55-3	Benzo(a)anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)phthalate	400	U
60-11-7	p-Dimethylaminoazobenzene	400	U
140-57-8	Aramite	400	U
119-93-7	3,3'-Dimethylbenzidine	400	U
53-96-3	2-Acetylaminofluorene	400	U
117-84-0	Di-n-octylphthalate	400	U

FORM I SV

SW846

D-00277

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NSWC-BP/BF-002

Lab Name: AENI MD Contract: MKC

Project No.: 9508204 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 30.2 (g/mL) G Lab File ID: DH264.D

Level: (low/med) LOW Date Received: 8/17/95

% Moisture: 18 decanted: (Y/N): N Date Extracted: 8/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 8/21/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
205-99-2	Benzo(b)fluoranthene	400	U
207-08-9	Benzo(k)fluoranthene	400	U
50-32-8	Benzo(a)pyrene	400	U
193-39-5	Indeno(1,2,3-cd)pyrene	400	U
53-70-3	Dibenz(a,h)anthracene	400	U
191-24-2	Benzo(g,h,i)perylene	400	U
57-97-6	7,12-Dimethylbenz(a)anthracene	400	U
56-49-5	3-Methylcholanthrene	400	U

FORM I SV SW846

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BP/BF-002

Lab Name: AMERICAN_ENVIRON_NETWORK_ Contract: MK_CORP___

Lab Code: _____ Case No.: 95082 SAS No.: _____ SDG No.: 508204

Matrix (soil/water): SOIL_ Lab Sample ID: 950820402

Level (low/med): LOW__ Date Received: 08/17/95

% Solids: _82.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_		_		NR
7440-36-0	Antimony_	2.4	U		P_
7440-38-2	Arsenic__	9.0	_		P_
7440-39-3	Barium___	65.1	_		P_
7440-41-7	Beryllium	0.56	_		P_
7440-43-9	Cadmium__	0.48	U		P_
7440-70-2	Calcium__		_		NR
7440-47-3	Chromium_	16.9	_		P_
7440-48-4	Cobalt___	4.6	_		P_
7440-50-8	Copper___	16.1	_		P_
7439-89-6	Iron_____		_		NR
7439-92-1	Lead_____	14.9	_		P_
7439-95-4	Magnesium		_		NR
7439-96-5	Manganese		_		NR
7439-97-6	Mercury__	0.10	U		AV
7440-02-0	Nickel___	10.8	_		P_
7440-09-7	Potassium		_		NR
7782-49-2	Selenium_	0.60	U		P_
7440-22-4	Silver___	0.96	U		P_
7440-23-5	Sodium___		_		NR
7440-28-0	Thallium_	1.2	U		P_
7440-62-2	Vanadium_	30.8	_		P_
7440-66-6	Zinc_____	41.9	_		P_
	Cyanide__		_		NR
7440-31-5_	Tin_____	30.0	U		P_
7439-93-2_	Lithium__	11.7	_		P_
			_		
			_		
			_		
			_		
			_		
			_		
			_		

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

CLIENT_ID:__NSWC-BP/BF-002

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.: 9508204
Project Name: NSWC-CRANE
Client Name: MK CORP

Sample Number
NSWC-BP/BF-002

AENI # 9508204-002

Concentration: Low
Date Sampled: 8/16/95
Date Received: 8/17/95
Date Ext Prepared: 8/21/95
Date Analyzed: 8/22/95
Conc/Dil Factor: 1
Method: 8080

GPC Cleanup	Yes	X No
Seperatory Funnel Extraction		Yes
Continuous Liquid - Liquid Extraction		Yes
Percent Moisture	17.6	
Matrix:	SOIL	

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		2.0	U
319-85-7	beta-BHC		2.0	U
319-86-8	delta-BHC		2.0	U
58-89-9	gamma-BHC (Lindane)		4.0	U
75-44-8	Heptachlor		2.0	U
309-00-2	Aldrin		2.0	U
1024-57-3	Heptachlor epoxide		2.0	U
959-98-8	Endosulfan I		2.0	U
60-57-1	Dieldrin		4.0	U
75-55-9	4, 4'-DDE		4.0	U
72-20-8	Endrin		4.0	U
33213-65-9	Endosulfan II		4.0	U
72-54-8	4, 4'-DDD		4.0	U
1031-07-8	Endosulfan Sulfate		4.0	U
50-29-3	4, 4'-DDT		8.1	U
72-43-5	Methoxychlor		20	U
53494-70-5	Endrin Ketone		4.0	U
7421-36-3	Endrin aldehyde		4.0	U
57-74-9	Chlordane		40	U
8001-35-2	Toxaphene		200	U
12674-11-2	Aroclor-1016		40	U
11104-28-2	Aroclor-1221		81	U
11141-16-5	Aroclor-1232		40	U
53469-21-9	Aroclor-1242		40	U
12672-29-6	Aroclor-1248		40	U
11097-69-1	Aroclor-1254		40	U
11096-82-5	Aroclor-1260		40	U
510-15-6	Chlorobenzilate		81	U
2303-16-4	Diallate		403	U
465-73-6	Isodrin		10	U
143-50-0	Kepone		40	U
82-68-8	Pentachloronitrobenzene		8.1	U

Vi - Volume of extract injected (ul) - 5
Vs - Volume of Water extracted (ml) - N/A
Ws - Weight of sample extracted (g) - 30.11
Vt - Volume of total extract (ul) - 10,000

FORM I

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Organophosphorus

Case No.: 9508204

Project Name: NSWC-CRANE #4324-009-008-30

Client Name: MK CORP

Sample Number
NSWC-BP/BF-002

AENI # 9508204-002

Concentration: Low

Date Sampled: 8/16/95

Date Received: 8/17/95

Date Ext Prepared: 8/21/95

Date Analyzed: 8/26/95

Conc/Dil Factor: 1

Method: 8140

GPC Cleanup	Yes	X No
Seperatory Funnel Extraction		Yes
Continuous Liquid - Liquid Extration		Yes
Percent Solid	82.4	
Matrix	SOIL	

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
298-02-2	Phorate		2.0	U
60-51-5	Dimethoate		4.0	U
23950-58-5	Pronamide		2.0	U
298-04-4	Disulfoton		2.0	U
298-00-0	Methyl Parathion		2.0	U
56-38-2	Ethyl Parathion		2.0	U
52-85-7	Famphur		2.0	U
3689-24-5	Tetraethyl dithiopyrophosphate		200	U

Vi - Volume of extract injected (ul) - 1

Vs - Volume of Water extracted (ml) - N/A

Ws - Weight of sample extracted (g) - 30.35

Vt - Volume of total extract (ul) - 1,000

FORM I

AMERICAN ENVIRONMENTAL NETWORK INC.
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Case No.: 9508204
Client Name: MK CORP
Project Name: NSWC-CRANE #4324-009-008-30

Sample Number
NSWC-BP/BF-002

AENI # 9508204-002

Concentration: Low
Date Sampled: 8/16/95
Date Received: 8/17/95
Date Extract Prepared: 8/22/95
Date Analyzed: 8/25/95
Conc/Dil Factor: 10
Matrix SOIL

GPC Cleanup No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid 82.4

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		60	U
SILVEX		60	U
2,4,5-T		60	U

Vi - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) N/A
Ws - Mass of soil extracted (g) 50.58
Vt- Volume of total extract (ul) 5000

FORM I

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9510148
Report To: MK Corp.
Project: Crane NSWC
Date: October 26, 1995
Analysis: Total Cyanide, SW846 9010

Client ID	AENI ID	%Solids	Result, mg/Kg
NSWC BP/BF 003	9510148-001	85.6	<1.2
NSWC BP/BF 004	9510148-002	87.5	<1.1

(1) Results reported on a dry weight basis.

lgchem1007

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9510148
Report To: MK Corp.
Project: Crane NSWC
Date: October 26, 1995
Analysis: Total Sulfide, SW846 9030M

Client ID	AENI ID	%Solids	Result, mg/Kg
NSWC BP/BF 003	9510148-001	85.6	<58
NSWC BP/BF 004	9510148-002	87.5	<58

(1) Results reported on a dry weight basis.

\gchem\007

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.: 9510148
Project Name: CRANE NSWC
Client Name: MK CORP

Sample Number
NSWC BP/BF 003

AENI # 9510148-001

Concentration: Low
Date Sampled: 10/11/95
Date Received: 10/14/95
Date Ext Prepared: 10/18/95
Date Analyzed: 10/21/95
Conc/Dil Factor: 2
Method: 8080

GPC Cleanup		Yes	X	No
Seperatory Funnel Extraction				Yes
Continuous Liquid - Liquid Extraction				Yes
Percent Moisture	14.4			
Matrix	SOIL			

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		3.8	U
319-85-7	beta-BHC		3.8	U
319-86-8	delta-BHC		3.8	U
58-89-9	gamma-BHC (Lindane)		7.7	U
75-44-8	Heptachlor		3.8	U
309-00-2	Aldrin		3.8	U
1024-57-3	Heptachlor epoxide		3.8	U
959-98-8	Endosulfan I		3.8	U
60-57-1	Dieldrin		7.7	U
75-55-9	4, 4'-DDE		7.7	U
72-20-8	Endrin		7.7	U
33213-65-9	Endosulfan II		7.7	U
72-54-8	4, 4'-DDD		7.7	U
1031-07-8	Endosulfan Sulfate		7.7	U
50-29-3	4, 4'-DDT		7.7	U
72-43-5	Methoxychlor		38	U
53494-70-5	Endrin Ketone		7.7	U
7421-36-3	Endrin aldehyde		7.7	U
57-74-9	Chlordane		77	U
8001-35-2	Toxaphene		380	U
12674-11-2	Aroclor-1016		77	U
11104-28-2	Aroclor-1221		150	U
11141-16-5	Aroclor-1232		77	U
53469-21-9	Aroclor-1242		77	U
12672-29-6	Aroclor-1248		77	U
11097-69-1	Aroclor-1254		77	U
11096-82-5	Aroclor-1260		77	U
510-15-6	Chlorobenzilate		154	U
2303-16-4	Diallate		768	U
465-73-6	Isodrin		19	U
143-50-0	Kepone		77	U
82-68-8	Pentachloronitrobenzene		15	U

Vi - Volume of extract injected (ul) - 5
Vs - Volume of Water extracted (ml) - N/A
Ws - Weight of sample extracted (g) - 30.41
Vt - Volume of total extract (ul) - 10,000

FORM I

D-00286

AENI
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Case No.: 9510148
Client Name: MK CORP
Project Name: CRANE NSWC

Sample Number
NSWC BP/BF 003

AENI # 9510148-001

Concentration: Low
Date Sampled: 10/11/95
Date Received: 10/14/95
Date Extract Prepared: 10/19/95
Date Analyzed: 10/25/95
Conc/Dil Factor: 1
Matrix SOIL

GPC Cleanup No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid 85.6

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		57	U
SILVEX		57	U
2,4,5-T		57	U

Vi - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) N/A
Ws - Mass of soil extracted (g) 10.25
Vt- Volume of total extract (ul) 10000

FORM I

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC BP/BF 003

Lab Name: AENI Contract: 9510148

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FJ371.D

Level: (low/med) LOW Date Received: 10/14/95

% Moisture: not dec. 14 Date Analyzed: 10/24/95

GC Column: CAP. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	5.8	U
67-64-1	Acetone	120	U
75-05-8	Acetonitrile	5.8	U
107-13-1	Acrylonitrile	1200	U
107-02-8	Acrolein	1200	U
75-69-4	Trichlorofluoromethane	5.8	U
75-15-0	Carbon Disulfide	5.8	U
75-35-4	1,1-Dichloroethene	5.8	U
75-34-4	1,1-Dichloroethane	5.8	U
540-59-0	trans-1,2-Dichloroethene	5.8	U
67-66-3	Chloroform	5.8	U
107-06-2	1,2-Dichloroethane	5.8	U
75-71-8	Dichlorodifluoromethane	5.8	U
74-88-4	Iodomethane	5.8	U
107-12-0	Propionitrile	5.8	U
107-05-1	Allyl chloride	120	U
78-93-3	2-Butanone	120	U
71-55-6	1,1,1-Trichloroethane	5.8	U
56-23-5	Carbon Tetrachloride	5.8	U
108-05-4	Vinyl Acetate	5.8	U
75-27-4	Bromodichloromethane	5.8	U
78-87-5	1,2-Dichloropropane	5.8	U
10061-01-5	cis-1,3-Dichloropropene	5.8	U
79-01-6	Trichloroethene	5.8	U
71-43-2	Benzene	5.8	U
124-48-1	Dibromochloromethane	5.8	U
10061-02-6	trans-1,3-Dichloropropene	5.8	U
79-00-5	1,1,2-Trichloroethane	5.8	U
75-25-2	Bromoform	5.8	U

FORM I VOA

8260/Appendix IX

D-00288

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC BP/BF 003

Lab Name: AENI Contract: 9510148

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FJ371.D

Level: (low/med) LOW Date Received: 10/14/95

% Moisture: not dec. 14 Date Analyzed: 10/24/95

GC Column: CAP. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
126-98-7	Methacrylonitrile	5.8	U
74-95-3	Dibromomethane	5.8	U
106-93-4	1,2-Dibromoethane (EDB)	5.8	U
108-10-1	4-Methyl-2-Pentanone	58	U
591-78-6	2-Hexanone	58	U
127-18-4	Tetrachloroethene	5.8	U
79-34-5	1,1,2,2-Tetrachloroethane	5.8	U
108-88-3	Toluene	5.8	U
108-90-7	Chlorobenzene	5.8	U
100-41-4	Ethylbenzene	5.8	U
100-42-5	Styrene	5.8	U
108-38-3	m + p-Xylene	5.8	U
95-47-6	o-Xylene	5.8	U
80-62-6	Methyl methacrylate	5.8	U
630-20-6	1,1,1,2-Tetrachloroethane	5.8	U
96-18-4	1,2,3-Trichloropropane	5.8	U
110-57-6	trans-1,4-Dichloro-2-butene	29	U
97-63-2	Ethyl methacrylate	5.8	U
76-01-7	Pentachloroethane	5.8	U
96-12-8	1,2-Dibromo-3-chloropropane	5.8	U
78-83-1	Isobutyl Alcohol	5.8	U
126-99-8	Chloroprene (TIC)	5.8	UZ
	3-Chloroprene (TIC)	5.8	U
123-91-1	1,4-Dioxane (TIC)	1200	U
Methylene Chloride - Dichloromethane			
Methyl ethyl ketone - 2-Butanone			
Chloroprene - 2-Chloro-1,3-butadiene			
Propionitrile - Ethyl Cyanide			

FORM I VOA 8260/Appendix IX

D-00289

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC BP/BF 003

Lab Name: AENI Contract: 9510148

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 30.9 (g/mL) G Lab File ID: DJ288.D

Level: (low/med) LOW Date Received: 10/14/95

% Moisture: 14 decanted: (Y/N): N Date Extracted: 10/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/23/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
91-20-3	Naphthalene	380	U
91-57-6	2-Methylnaphthalene	380	U
91-58-7	2-Chloronaphthalene	380	U
208-96-8	Acenaphthylene	380	U
83-32-9	Acenaphthene	380	U
132-64-9	Dibenzofuran	380	U
86-73-7	Fluorene	380	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
205-99-2	Benzo(b)fluoranthene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	380	U
193-39-5	Indeno(1,2,3-cd)pyrene	380	U
53-70-3	Dibenz(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U

TL-RTP Project: 34600B
Client Sample: NSWC BP/BF 003
Client Project: Indiana Navy Project

Method 8280 PCDD/PCDF Analysis (b)
Analysis File: B951[illegible]
Matrix: SO[illegible]

PCDD/PCDF SUMMARY REPORT

Specific Analytes	Conc. (ppb)	DL (ppb)	Blank (ppb)
2,3,7,8-TCDD	ND	0.151	ND
1,2,3,7,8-PeCDD	ND	1.04	ND
1,2,3,4,7,8-HxCDD	ND	0.0754	ND
1,2,3,6,7,8-HxCDD	ND	0.226	ND
1,2,3,7,8,9-HxCDD	ND	0.226	ND
1,2,3,4,6,7,8-HpCDD	ND	0.301	ND
1,2,3,4,6,7,8,9-OCDD	10.7	0.388	ND
2,3,7,8-TCDF	ND	0.129	ND
1,2,3,7,8-PeCDF	ND	0.506	ND
2,3,4,7,8-PeCDF	ND	0.614	ND
1,2,3,4,7,8-HxCDF	ND	0.108	ND
1,2,3,6,7,8-HxCDF	ND	0.108	ND
2,3,4,6,7,8-HxCDF	ND	0.269	ND
1,2,3,7,8,9-HxCDF	ND	0.172	ND
1,2,3,4,6,7,8-HpCDF	ND	0.205	ND
1,2,3,4,7,8,9-HpCDF	ND	0.0323	ND
1,2,3,4,6,7,8,9-OCDF	ND	0.237	ND

Definitions:

Conc. - The concentration of the specific analyte in the units shown.

DL - The detection limit of the specific analyte in the units shown.

Blank - The concentration of the method blank.

ND - (Non-Detect) The concentration of the analyte is less than the detection limit.

Total Analytes	Conc. (ppb)	DL (ppb)
Total TCDD	ND	0.151
Total PeCDD	ND	1.04
Total HxCDD	ND	0.226
Total HpCDD	ND	0.301
Total TCDF	ND	0.129
Total PeCDF	ND	0.614
Total HxCDF	ND	0.172
Total HpCDF	ND	0.0323

8280_PSR v2.07, LARS 6.03.01

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

D- 00291

Printed: 18:49 10/23/95

ORGANIC ANALYSIS DATA SHEET

Client: MK CORP
Account # MKC70
Analysis: EXPLOSIVES
Method: 8330
Instrument: HPLC SYS 2

NSWC BP/BF 003
Sample:

Matrix: SOIL
Sample: (g) 2.1
Final Volume: (L) 0.02
(%) Moisture: 14.4
Dilution Factor: 1
Level (low/med): LOW

Lab Sample ID: L9510148-001
Lab Name: AENI
Contract: 9510148
Date Sampled: 10/12/95
Date Received: 10/14/95
Date Prepared: 10/23/95
Date Analyzed: 10/25/95
Time Analyzed: 4:02

Compound	Concentration (mg/Kg)	Detection Limit	Qualifier
HMX		0.32	U
RDX		0.38	U
TNB		0.26	U
TETRYL		0.28	U
DNB		0.21	U
TNT		0.25	U
2,6-DNT		0.27	U
2,4-DNT		0.21	U

Form I

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BP/BF 003

Lab Name: AENI Contract: 9510148

Lab Code: Case No.: MKC70 SAS No.: SDG No.: BP/BF

Matrix (soil/water): SOIL Lab Sample ID: 951014801

Level (low/med): LOW Date Received: 10/14/95

% Solids: 85.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	2.3	U	N	P
7440-38-2	Arsenic	7.8		N*	P
7440-39-3	Barium	92.1			P
7440-41-7	Beryllium	0.74			P
7440-43-9	Cadmium	0.45	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	22.1			P
7440-48-4	Cobalt	8.6			P
7440-50-8	Copper	15.1			P
7439-89-6	Iron				NR
7439-92-1	Lead	14.2		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.12	U		AV
7440-02-0	Nickel	14.5			P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.57	U	N	P
7440-22-4	Silver	0.91	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.1	U	N	P
7440-62-2	Vanadium	39.0			P
7440-66-6	Zinc	40.8			P
	Cyanide				NR
7440-31-5	Tin	22.7	U		P
7439-93-2	Lithium	14.9			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: NSWC_BP/BF_003

FORM I - IN

ILM02.1

D-00293

AENI
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Case No.: 9510148
Client Name: MK CORP
Project Name: CRANE NSWC

Sample Number
NSWC BP/BF 004

AENI # 9510148-002

Concentration: Low
Date Sampled: 10/11/95
Date Received: 10/14/95
Date Extract Prepared: 10/19/95
Date Analyzed: 10/25/95
Conc/Dil Factor: 1
Matrix SOIL

GPC Cleanup No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid 87.5

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		57	U
SILVEX		57	U
2,4,5-T		57	U

Vi - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) N/A
Ws - Mass of soil extracted (g) 10.09
Vt- Volume of total extract (ul) 10000

FORM I

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC BP/BF 004

Lab Name: AENI Contract: 9510148

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FJ359.D

Level: (low/med) LOW Date Received: 10/14/95

% Moisture: not dec. 12 Date Analyzed: 10/24/95

GC Column: CAP. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	10	
67-64-1	Acetone	110	U
75-05-8	Acetonitrile	5.7	U
107-13-1	Acrylonitrile	1100	U
107-02-8	Acrolein	1100	U
75-69-4	Trichlorofluoromethane	5.7	U
75-15-0	Carbon Disulfide	5.7	U
75-35-4	1,1-Dichloroethene	5.7	U
75-34-4	1,1-Dichloroethane	5.7	U
540-59-0	trans-1,2-Dichloroethene	5.7	U
67-66-3	Chloroform	5.7	U
107-06-2	1,2-Dichloroethane	5.7	U
75-71-8	Dichlorodifluoromethane	5.7	U
74-88-4	Iodomethane	5.7	U
107-12-0	Propionitrile	5.7	U
107-05-1	Allyl chloride	110	U
78-93-3	2-Butanone	110	U
71-55-6	1,1,1-Trichloroethane	5.7	U
56-23-5	Carbon Tetrachloride	5.7	U
108-05-4	Vinyl Acetate	5.7	U
75-27-4	Bromodichloromethane	5.7	U
78-87-5	1,2-Dichloropropane	5.7	U
10061-01-5	cis-1,3-Dichloropropene	5.7	U
79-01-6	Trichloroethene	5.7	U
71-43-2	Benzene	5.7	U
124-48-1	Dibromochloromethane	5.7	U
10061-02-6	trans-1,3-Dichloropropene	5.7	U
79-00-5	1,1,2-Trichloroethane	5.7	U
75-25-2	Bromoform	5.7	U

FORM I VOA

8260/Appendix IX

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC BP/BF 004

Lab Name: AENI Contract: 9510148

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FJ359.D

Level: (low/med) LOW Date Received: 10/14/95

% Moisture: not dec. 12 Date Analyzed: 10/24/95

GC Column: CAP. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
126-98-7	Methacrylonitrile	5.7	U
74-95-3	Dibromomethane	5.7	U
106-93-4	1,2-Dibromoethane (EDB)	5.7	U
108-10-1	4-Methyl-2-Pentanone	57	U
591-78-6	2-Hexanone	57	U
127-18-4	Tetrachloroethene	34	
79-34-5	1,1,2,2-Tetrachloroethane	5.7	U
108-88-3	Toluene	16	
108-90-7	Chlorobenzene	5.7	U
100-41-4	Ethylbenzene	5.7	U
100-42-5	Styrene	5.7	U
108-38-3	m + p-Xylene	4.7	J
95-47-6	o-Xylene	5.7	U
80-62-6	Methyl methacrylate	5.7	U
630-20-6	1,1,1,2-Tetrachloroethane	5.7	U
96-18-4	1,2,3-Trichloropropane	5.7	U
110-57-6	trans-1,4-Dichloro-2-butene	28	U
97-63-2	Ethyl methacrylate	5.7	U
76-01-7	Pentachloroethane	5.7	U
96-12-8	1,2-Dibromo-3-chloropropane	5.7	U
78-83-1	Isobutyl Alcohol	5.7	U
126-99-8	Chloroprene (TIC)	5.7	UZ
	3-Chloroprene (TIC)	5.7	U
123-91-1	1,4-Dioxane (TIC)	1100	U
Methylene Chloride - Dichloromethane			
Methyl ethyl ketone - 2-Butanone			
Chloroprene - 2-Chloro-1,3-butadiene			
Propionitrile - Ethyl Cyanide			

FORM I VOA 8260/Appendix IX

D- 00296

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC BP/BF 004

Lab Name: AENI Contract: 9510148

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 30.7 (g/mL) G Lab File ID: DJ289.D

Level: (low/med) LOW Date Received: 10/14/95

% Moisture: 12 decanted: (Y/N): N Date Extracted: 10/20/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/23/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
91-20-3	Naphthalene	370	U
91-57-6	2-Methylnaphthalene	370	U
91-58-7	2-Chloronaphthalene	370	U
208-96-8	Acenaphthylene	370	U
83-32-9	Acenaphthene	370	U
132-64-9	Dibenzofuran	370	U
86-73-7	Fluorene	370	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
56-55-3	Benzo(a)anthracene	370	U
218-01-9	Chrysene	370	U
205-99-2	Benzo(b)fluoranthene	370	U
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	370	U
193-39-5	Indeno(1,2,3-cd)pyrene	370	U
53-70-3	Dibenz(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

TL-RTP Project: 34600B
Client Sample: NSWC BP/BF 004
Client Project: Indiana Navy Project

Method 8280 PCDD/PCDF Analysis (b)
Analysis File: B951307
Matrix: SOIL

PCDD/PCDF SUMMARY REPORT

Specific Analytes	Conc. (ppb)	DL (ppb)	Blank (ppb)
2,3,7,8-TCDD	ND	0.156	ND
1,2,3,7,8-PeCDD	ND	1.08	ND
1,2,3,4,7,8-HxCDD	ND	0.0781	ND
1,2,3,6,7,8-HxCDD	ND	0.234	ND
1,2,3,7,8,9-HxCDD	ND	0.234	ND
1,2,3,4,6,7,8-HpCDD	ND	0.312	ND
1,2,3,4,6,7,8,9-OCDD	13.4	0.401	ND
2,3,7,8-TCDF	ND	0.134	ND
1,2,3,7,8-PeCDF	ND	0.524	ND
2,3,4,7,8-PeCDF	ND	0.636	ND
1,2,3,4,7,8-HxCDF	ND	0.112	ND
1,2,3,6,7,8-HxCDF	ND	0.112	ND
2,3,4,6,7,8-HxCDF	ND	0.279	ND
1,2,3,7,8,9-HxCDF	ND	0.178	ND
1,2,3,4,6,7,8-HpCDF	ND	0.212	ND
1,2,3,4,7,8,9-HpCDF	ND	0.0335	ND
1,2,3,4,6,7,8,9-OCDF	ND	0.245	ND

Definitions:

Conc. - The concentration of the specific analyte in the units shown.

DL - The detection limit of the specific analyte in the units shown.

Blank - The concentration of the method blank.

ND - (Non-Detect) The concentration of the analyte is less than the detection limit.

Total Analytes	Conc. (ppb)	DL (ppb)
Total TCDD	ND	0.156
Total PeCDD	ND	1.08
Total HxCDD	ND	0.234
Total HpCDD	ND	0.312
Total TCDF	ND	0.134
Total PeCDF	ND	0.636
Total HxCDF	ND	0.178
Total HpCDF	ND	0.0335

8280_PSR v2.07, LARS 6.03.01

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

D-00298

Printed: 19:21 10/23/95

ORGANIC ANALYSIS DATA SHEET

Client: MK CORP
Account # MKC70
Analysis: EXPLOSIVES
Method: 8330
Instrument: HPLC SYS 2

NSWC BP/BF 004
Sample:

Matrix: SOIL
Sample: (g) 2.0
Final Volume: (L) 0.02
(%) Moisture: 12.5
Dilution Factor: 1
Level (low/med): LOW

Lab Sample ID: L9510148-002
Lab Name: AENI
Contract: 9510148
Date Sampled: 10/12/95
Date Received: 10/14/95
Date Prepared: 10/23/95
Date Analyzed: 10/25/95
Time Analyzed: 5:38

Compound	Concentration (mg/Kg)	Detection Limit	Qualifier
HMX		0.32	U
RDX		0.39	U
TNB		0.26	U
TETRYL		0.29	U
DNB		0.22	U
TNT		0.25	U
2,6-DNT		0.28	U
2,4-DNT		0.22	U

Form I

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BP/BF 004

Name: AENI Contract: 9510148

Lab Code: Case No.: MKC70 SAS No.: SDG No.: BP/BF

Matrix (soil/water): SOIL Lab Sample ID: 951014802

Level (low/med): LOW Date Received: 10/14/95

% Solids: 87.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	2.2	U	N	P
7440-38-2	Arsenic	6.3		N*	P
7440-39-3	Barium	83.9			P
7440-41-7	Beryllium	0.81			P
7440-43-9	Cadmium	0.44	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	22.8			P
7440-48-4	Cobalt	7.0			P
7440-50-8	Copper	13.9			P
7439-89-6	Iron				NR
7439-92-1	Lead	13.7		*	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.08	U		AV
7440-02-0	Nickel	13.5			P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.55	U	N	P
7440-22-4	Silver	0.89	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.1	U	N	P
7440-62-2	Vanadium	38.2			P
7440-66-6	Zinc	40.1			P
	Cyanide				NR
7440-31-5	Tin	22.2	U		P
7439-93-2	Lithium	14.7			P

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

LIENT_ID: NSWC_BP/BF_004

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9510322
Report To: MK Corp
Project: Crane NSWC
Date: November 15, 1995
Analysis: Total Cyanide, SW846 9010

Client ID	AENI ID	Result	Date Analyzed
NSWC BF/BF-005	9510322-001	<1.1	11/14/95
NSWC BF/BF-006	9510322-002	<1.1	11/14/95

(1) Results reported as mg/Kg on a dry weight basis.

(2) Distillation Date: 11/09/95

lgchem\002

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9510322

Account #:——— MKC70

Client Name:——— MK CORP

Sample Number

NSWC BF/BF-005

AEN# # 9510322-001

Concentration:——— Low

Date Sampled:——— 10/27/95

Date Received:——— 10/31/95

Date Ext Prepared:——— 11/8/95

Date Analyzed:——— 11/10/95

Conc/Dil Factor:——— 1

Method: ——— 8080

GPC Cleanup	Yes	X No
Seperatory Funnel Extraction		Yes
Continuous Liquid - Liquid Extraction		Yes
Percent Moisture	6.3	
Matrix	SOIL	

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		1.8	U
319-85-7	beta-BHC		1.8	U
319-86-8	delta-BHC		1.8	U
58-89-9	gamma-BHC (Lindane)		3.5	U
75-44-8	Heptachlor		1.8	U
309-00-2	Aldrin		1.8	U
1024-57-3	Heptachlor epoxide		1.8	U
959-98-8	Endosulfan I		1.8	U
60-57-1	Dieldrin		3.5	U
75-55-9	4, 4'-DDE		3.5	U
72-20-8	Endrin		3.5	U
33213-65-9	Endosulfan II		3.5	U
72-54-8	4, 4'-DDD		3.5	U
1031-07-8	Endosulfan Sulfate		3.5	U
50-29-3	4, 4'-DDT		3.5	U
72-43-5	Methoxychlor		18	U
53494-70-5	Endrin Ketone		3.5	U
7421-36-3	Endrin aldehyde		3.5	U
57-74-9	Chlordane		35	U
8001-35-2	Toxaphene		180	U
12674-11-2	Aroclor-1016		35	U
11104-28-2	Aroclor-1221		70	U
11141-16-5	Aroclor-1232		35	U
53469-21-9	Aroclor-1242		35	U
12672-29-6	Aroclor-1248		35	U
11097-69-1	Aroclor-1254		35	U
11096-82-5	Aroclor-1260		35	U
510-15-6	Chlorobenzilate		70	U
2303-16-4	Diallate		350	U
465-73-6	Isodrin		8.8	U
143-50-0	Kepone		35	U
82-68-8	Pentachloronitrobenzene		7.0	U

Vi - Volume of extract injected (ul) - _____ 1

Vs - Volume of Water extracted (ml) - _____ N/A

Ws - Weight of sample extracted (g) - _____ 30.47

Vt - Volume of total extract (ul) - _____ 10,000

FORM I

D-00302

AENI
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Sample Number
NSWC BF/BF-005

Case No.: 9510322
Client Name: MK CORP
Account #: MKC70

AENI # 9510322-001

Concentration: Low
Date Sampled: 10/27/95
Date Received: 10/31/95
Date Extract Prepared: 11/3/95
Date Analyzed: 11/15/95
Conc/Dil Factor: 1
Matrix: SOIL

GPC Cleanup: No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid: 93.7

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		51	U
SILVEX		51	U
2,4,5-T		51	U

Vi - Volume of extract injected (ul) 1
Ve - Volume of water extracted (ml) N/A
We - Mass of soil extracted (g) 10.43
Vt- Volume of total extract (ul) 10000

FORM I

AENI

Organic Analysis Data Sheet

Organophosphorus

Case No.: 9510322

Project Name: MKC70

Client Name: MK CORP

Sample Number
NSWC BF/BF-005

Concentration: Low

Date Sampled: 10/27/95

Date Received: 10/31/95

Date Ext Prepared: 11/9/95

Date Analyzed: 11/16/95

Conc/Dil Factor: 1

Method: 8140

AENI # 9510322-001

GPC Cleanup | | Yes | X | No

Seperatory Funnel Extraction | | Yes

Continuous Liquid - Liquid Extration | | Yes

Percent Solid 93.7

Matrix SOIL

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
298-02-2	Phorate		8.9	U
60-51-5	Dimethoate		8.9	U
23950-58-5	Pronamide		0.89	U
298-04-4	Disulfoton		8.9	U
298-00-0	Methyl Parathion		0.89	U
56-38-2	Ethyl Parathion	1.1	0.89	P
52-85-7	Famphur		3.6	U
3689-24-5	Tetraethyl dithiopyrophosphate		89	U

Vi - Volume of extract injected (ul) - 1

Vs - Volume of Water extracted (ml) - N/A

Ws - Weight of sample extracted (g) - 30.06

Vt - Volume of total extract (ul) - 1,000

FORM I

D-00304

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC BP/BF-005

Lab Name: AENI Contract: 9510322

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK139.D

Level: (low/med) LOW Date Received: 10/31/95

% Moisture: not dec. 6 Date Analyzed: 11/8/95

GC Column: CAP. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	41	B
67-64-1	Acetone	110	U
75-05-8	Acetonitrile	5.3	U
107-13-1	Acrylonitrile	1100	U
107-02-8	Acrolein	1100	U
75-69-4	Trichlorofluoromethane	5.3	U
75-15-0	Carbon Disulfide	5.3	U
75-35-4	1,1-Dichloroethene	5.3	U
75-34-4	1,1-Dichloroethane	5.3	U
540-59-0	trans-1,2-Dichloroethene	5.3	U
67-66-3	Chloroform	5.3	U
107-06-2	1,2-Dichloroethane	5.3	U
75-71-8	Dichlorodifluoromethane	5.3	U
74-88-4	Iodomethane	5.3	U
107-12-0	Propionitrile	5.3	U
107-05-1	Allyl chloride	110	U
78-93-3	2-Butanone	110	U
71-55-6	1,1,1-Trichloroethane	5.3	U
56-23-5	Carbon Tetrachloride	5.3	U
108-05-4	Vinyl Acetate	5.3	U
75-27-4	Bromodichloromethane	5.3	U
78-87-5	1,2-Dichloropropane	5.3	U
10061-01-5	cis-1,3-Dichloropropene	5.3	U
79-01-6	Trichloroethene	5.3	U
71-43-2	Benzene	5.3	U
124-48-1	Dibromochloromethane	5.3	U
10061-02-6	trans-1,3-Dichloropropene	5.3	U
79-00-5	1,1,2-Trichloroethane	5.3	U
75-25-2	Bromoform	5.3	U

FORM I VOA 8260/Appendix IX

D-00305

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
NSWC BP/BF-005

Lab Name: AENI Contract: 9510322

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK139.D

Level: (low/med) LOW Date Received: 10/31/95

% Moisture: not dec. 6 Date Analyzed: 11/8/95

GC Column: CAP. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound			Q
126-98-7	Methacrylonitrile		5.3	U
74-95-3	Dibromomethane		5.3	U
106-93-4	1,2-Dibromoethane (EDB)		5.3	U
108-10-1	4-Methyl-2-Pentanone		53	U
591-78-6	2-Hexanone		53	U
127-18-4	Tetrachloroethene		5.3	U
79-34-5	1,1,2,2-Tetrachloroethane		5.3	U
108-88-3	Toluene		5.3	U
108-90-7	Chlorobenzene		5.3	U
100-41-4	Ethylbenzene		5.3	U
100-42-5	Styrene		5.3	U
108-38-3	m + p-Xylene		5.3	U
95-47-6	o-Xylene		5.3	U
80-62-6	Methyl methacrylate		5.3	U
630-20-6	1,1,1,2-Tetrachloroethane		5.3	U
96-18-4	1,2,3-Trichloropropane		5.3	U
110-57-6	trans-1,4-Dichloro-2-butene		27	U
97-63-2	Ethyl methacrylate		5.3	U
76-01-7	Pentachloroethane		5.3	U
96-12-8	1,2-Dibromo-3-chloropropane		5.3	U
78-83-1	Isobutyl Alcohol		5.3	U
126-99-8	Chloroprene	(TIC) *	5.3	U
	3-Chloroprene	(TIC)	5.3	U
123-91-1	1,4-Dioxane	(TIC)	1100	U
	Methylene Chloride - Dichloromethane			
	Methyl ethyl ketone - 2-Butanone			
	Chloroprene - 2-Chloro-1,3-butadiene			
	Propionitrile - Ethyl Cyanide			
* - Reported as semiquantitative analysis only.				

FORM I VOA

8260/Appendix IX

D-00306

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC BP/6F-005RE

Lab Name: AENI Contract: 9510322

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK190.D

Level: (low/med) LOW Date Received: 10/31/95

% Moisture: not dec. 6 Date Analyzed: 11/10/95

GC Column: CAP. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	9	B
67-64-1	Acetone	110	U
75-05-8	Acetonitrile	5.3	U
107-13-1	Acrylonitrile	1100	U
107-02-8	Acrolein	1100	U
75-69-4	Trichlorofluoromethane	5.3	U
75-15-0	Carbon Disulfide	5.3	U
75-35-4	1,1-Dichloroethene	5.3	U
75-34-4	1,1-Dichloroethane	5.3	U
540-59-0	trans-1,2-Dichloroethene	5.3	U
67-66-3	Chloroform	5.3	U
107-06-2	1,2-Dichloroethane	5.3	U
75-71-8	Dichlorodifluoromethane	5.3	U
74-88-4	Iodomethane	5.3	U
107-12-0	Propionitrile	5.3	U
107-05-1	Allyl chloride	110	U
78-93-3	2-Butanone	110	U
71-55-6	1,1,1-Trichloroethane	5.3	U
56-23-5	Carbon Tetrachloride	5.3	U
108-05-4	Vinyl Acetate	5.3	U
75-27-4	Bromodichloromethane	5.3	U
78-87-5	1,2-Dichloropropane	5.3	U
10061-01-5	cis-1,3-Dichloropropene	5.3	U
79-01-6	Trichloroethene	2	J
71-43-2	Benzene	5.3	U
124-48-1	Dibromochloromethane	5.3	U
10061-02-6	trans-1,3-Dichloropropene	5.3	U
79-00-5	1,1,2-Trichloroethane	5.3	U
75-25-2	Bromoform	5.3	U

FORM I VOA

8260/Appendix IX

D-00307

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC BP/BF-005RE

Lab Name: AENI Contract: 9510322

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001RE

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK190.D

Level: (low/med) LOW Date Received: 10/31/95

% Moisture: not dec. 6 Date Analyzed: 11/10/95

GC Column: CAP. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound			Q
126-98-7	Methacrylonitrile		5.3	U
74-95-3	Dibromomethane		5.3	U
106-93-4	1,2-Dibromoethane (EDB)		5.3	U
108-10-1	4-Methyl-2-Pentanone		53	U
591-78-6	2-Hexanone		53	U
127-18-4	Tetrachloroethene		1.4	J
79-34-5	1,1,2,2-Tetrachloroethane		5.3	U
108-88-3	Toluene		5.3	U
108-90-7	Chlorobenzene		5.3	U
100-41-4	Ethylbenzene		5.3	U
100-42-5	Styrene		5.3	U
108-38-3	m + p-Xylene		3.3	J
95-47-6	o-Xylene		1.3	J
80-62-6	Methyl methacrylate		5.3	U
630-20-6	1,1,1,2-Tetrachloroethane		5.3	U
96-18-4	1,2,3-Trichloropropane		5.3	U
110-57-6	trans-1,4-Dichloro-2-butene		27	U
97-63-2	Ethyl methacrylate		5.3	U
76-01-7	Pentachloroethane		5.3	U
96-12-8	1,2-Dibromo-3-chloropropane		5.3	U
78-83-1	Isobutyl Alcohol		5.3	U
126-99-8	Chloroprene	(TIC) *	5.3	U
	3-Chloroprene	(TIC)	5.3	U
123-91-1	1,4-Dioxane	(TIC)	1100	U
	Methylene Chloride - Dichloromethane			
	Methyl ethyl ketone - 2-Butanone			
	Chloroprene - 2-Chloro-1,3-butadiene			
	Propionitrile - Ethyl Cyanide			
	* - Reported as semiquantitative analysis only.			

FORM I VOA

8260/Appendix IX

D-00308

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BF/BF-005

Lab Name: AENI Contract: 9510322

Lab Code: Case No.: MKC70 SAS No.: SDG No.: BF/BF-

Matrix (soil/water): SOIL Lab Sample ID: 951032201

Level (low/med): LOW Date Received: 10/31/95

% Solids: 93.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	2.1	U	N	P
7440-38-2	Arsenic	1.9		N	P
7440-39-3	Barium	20.6			P
7440-41-7	Beryllium	0.21	U		P
7440-43-9	Cadmium	0.42	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	4.6		N	P
7440-48-4	Cobalt	2.4			P
7440-50-8	Copper	4.3		E	P
7439-89-6	Iron				NR
7439-92-1	Lead	3.5		E	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.07	U	N	AV
7440-02-0	Nickel	6.2			P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.53	U	N	P
7440-22-4	Silver	0.84	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.1	U	N	P
7440-62-2	Vanadium	7.3			P
7440-66-6	Zinc	16.0		EN	P
	Cyanide				NR
7440-31-5	Tin	21.2	U		P
7439-93-2	Lithium				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: NSWC_BF/BF-005

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC BP/BF-005

Lab Name: AENI Contract: 9510322

Project No.: MKC10322 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #001

Sample wt/vol: 30.9 (g/mL) G Lab File ID: CK083.D

Level: (low/med) LOW Date Received: 10/31/95

% Moisture: 6 decanted: (Y/N): N Date Extracted: 11/3/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
91-20-3	Naphthalene	340	U
91-57-6	2-Methylnaphthalene	340	U
91-58-7	2-Chloronaphthalene	340	U
208-96-8	Acenaphthylene	340	U
83-32-9	Acenaphthene	340	U
132-64-9	Dibenzofuran	340	U
86-73-7	Fluorene	340	U
85-01-8	Phenanthrene	340	U
120-12-7	Anthracene	340	U
206-44-0	Fluoranthene	340	U
129-00-0	Pyrene	340	U
56-55-3	Benzo(a)anthracene	340	U
218-01-9	Chrysene	340	U
205-99-2	Benzo(b)fluoranthene.	340	U
207-08-9	Benzo(k)fluoranthene	340	U
50-32-8	Benzo(a)pyrene	340	U
193-39-5	Indeno(1,2,3-cd)pyrene	340	U
53-70-3	Dibenz(a,h)anthracene	340	U
191-24-2	Benzo(g,h,i)perylene	340	U

TL-RTP Project: 34871
Client Sample: NSWC BP/BF-005
Client Project: Indiana - Navy Project

Method 8280 PCDD/PCDF Analysis (b)
Analysis File: B951476
Matrix: Soil

PCDD/PCDF SUMMARY REPORT

Specific Analytes	Conc. (ppb)	DL (ppb)	Blank (ppb)
2,3,7,8-TCDD	ND	0.149	ND
1,2,3,7,8-PeCDD	ND	1.03	ND
1,2,3,4,7,8-HxCDD	ND	0.0745	ND
1,2,3,6,7,8-HxCDD	ND	0.223	ND
1,2,3,7,8,9-HxCDD	ND	0.223	ND
1,2,3,4,6,7,8-HpCDD	ND	0.298	ND
1,2,3,4,6,7,8,9-OCDD	ND	0.383	ND
2,3,7,8-TCDF	ND	0.128	ND
1,2,3,7,8-PeCDF	ND	0.5	ND
2,3,4,7,8-PeCDF	ND	0.607	ND
1,2,3,4,7,8-HxCDF	ND	0.106	ND
1,2,3,6,7,8-HxCDF	ND	0.106	ND
2,3,4,6,7,8-HxCDF	ND	0.266	ND
1,2,3,7,8,9-HxCDF	ND	0.17	ND
1,2,3,4,6,7,8-HpCDF	ND	0.202	ND
1,2,3,4,7,8,9-HpCDF	ND	0.0319	ND
1,2,3,4,6,7,8,9-OCDF	ND	0.234	ND

Definitions:

Conc. - The concentration of the specific analyte in the units shown.

DL - The detection limit of the specific analyte in the units shown.

Blank - The concentration of the method blank.

ND - (Non-Detect) The concentration of the analyte is less than the detection limit.

Total Analytes	Conc. (ppb)	DL (ppb)
Total TCDD	ND	0.149
Total PeCDD	ND	1.03
Total HxCDD	ND	0.223
Total HpCDD	ND	0.298
Total TCDF	ND	0.128
Total PeCDF	ND	0.607
Total HxCDF	ND	0.17
Total HpCDF	ND	0.0319

8280_PSR v2.07, LARS 6.03.04

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5491

D-00311

Printed: 14:46 11/20/95

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9510322

Account #:——— MKC70

Client Name:——— MK CORP

Sample Number

NSWC BF/BF-006

AENI # 9510322-002

Concentration:——— Low

Date Sampled:——— 10/27/95

Date Received:——— 10/31/95

Date Ext Prepared:——— 11/8/95

Date Analyzed:——— 11/10/95

Conc/Dil Factor:——— 1

Method: ——— 8080

GPC Cleanup	Yes	X No
Seperatory Funnel Extraction		Yes
Continuous Liquid - Liquid Extraction		Yes
Percent Moisture	10.5	
Matrix	SOIL	

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		1.8	U
319-85-7	beta-BHC		1.8	U
319-86-8	delta-BHC		1.8	U
58-89-9	gamma-BHC (Lindane)		3.7	U
75-44-8	Heptachlor		1.8	U
309-00-2	Aldrin		1.8	U
1024-57-3	Heptachlor epoxide		1.8	U
959-98-8	Endosulfan I		1.8	U
60-57-1	Dieldrin		3.7	U
75-55-9	4, 4'-DDE		3.7	U
72-20-8	Endrin		3.7	U
33213-65-9	Endosulfan II		3.7	U
72-54-8	4, 4'-DDD		3.7	U
1031-07-8	Endosulfan Sulfate		3.7	U
50-29-3	4, 4'-DDT		3.7	U
72-43-5	Methoxychlor		18	U
53494-70-5	Endrin Ketone		3.7	U
7421-36-3	Endrin aldehyde		3.7	U
57-74-9	Chlordane		37	U
8001-35-2	Toxaphene		180	U
12674-11-2	Aroclor-1016		37	U
11104-28-2	Aroclor-1221		73	U
11141-16-5	Aroclor-1232		37	U
53469-21-9	Aroclor-1242		37	U
12672-29-6	Aroclor-1248		37	U
11097-69-1	Aroclor-1254		37	U
11096-82-5	Aroclor-1260		37	U
510-15-6	Chlorobenzilate		73	U
2303-16-4	Diallate		367	U
465-73-6	Isodrin		9.2	U
143-50-0	Kepone		37	U
82-68-8	Pentachloronitrobenzene		7.3	U

Vi - Volume of extract injected (ul) - _____ 1

Vs - Volume of Water extracted (ml) - _____ N/A

Ws - Weight of sample extracted (g) - _____ 30.46

Vt - Volume of total extract (ul) - _____ 10,000

FORM I

D-00312

AENI
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Case No.: 9510322
Client Name: MK CORP
Account #: MKC70

Sample Number
NSWC BF/BF-006

AENI # 9510322-002

Concentration: Low
Date Sampled: 10/27/95
Date Received: 10/31/95
Date Extract Prepared: 11/3/95
Date Analyzed: 11/15/95
Conc/Dil Factor: 1
Matrix SOIL

GPC Cleanup No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid 89.5

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		55	U
SILVEX		55	U
2,4,5-T		55	U

Vi - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) N/A
Ws - Mass of soil extracted (g) 10.25
Vt- Volume of total extract (ul) 10000

FORM I

D-00313

AENI

Organic Analysis Data Sheet

Organophosphorus

Case No.:——— 9510322

Project Name:——— MKC70

Client Name:——— MK CORP

Sample Number
NSWC BF/BF-006

AENI # 9510322-002

Concentration:——— Low

Date Sampled:——— 10/27/95

Date Received:——— 10/31/95

Date Ext Prepared:— 11/9/95

Date Analyzed:——— 11/16/95

Conc/Dil Factor:——— 1

Method: ——— 8140

GPC Cleanup	Yes	X No
Seperatory Funnel Extraction		Yes
Continuous Liquid - Liquid Extration		Yes
Percent Solid	89.5	
Matrix	SOIL	

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
298-02-2	Phorate		9.1	U
60-51-5	Dimethoate		9.1	U
23950-58-5	Pronamide		0.91	U
298-04-4	Disulfoton		9.1	U
298-00-0	Methyl Parathion	1.5	0.91	P
56-38-2	Ethyl Parathion		0.91	U
52-85-7	Famphur		3.6	U
3689-24-5	Tetraethyl dithiopyrophosphate		91	U

Vi - Volume of extract injected (ul) - _____ 1

Ve - Volume of Water extracted (ml) - _____ N/A

Ws - Weight of sample extracted (g) - _____ 30.64

Vt - Volume of total extract (ul) - _____ 1,000

FORM I

D-00314

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC BP/BF-006

Lab Name: AENI

Contract: 9510322

Project No.: MKC70

Site:

Location:

Group:

Matrix: (soil/water) SOIL

Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) G

Lab File ID: FK140.D

Level: (low/med) LOW

Date Received: 10/31/95

% Moisture: not dec. 11

Date Analyzed: 11/8/95

GC Column: CAP. ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume: 1 (uL)

Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	19	B
67-64-1	Acetone	110	U
75-05-8	Acetonitrile	5.6	U
107-13-1	Acrylonitrile	1100	U
107-02-8	Acrolein	1100	U
75-69-4	Trichlorofluoromethane	5.6	U
75-15-0	Carbon Disulfide	5.6	U
75-35-4	1,1-Dichloroethene	5.6	U
75-34-4	1,1-Dichloroethane	5.6	U
540-59-0	trans-1,2-Dichloroethene	5.6	U
67-66-3	Chloroform	5.6	U
107-06-2	1,2-Dichloroethane	5.6	U
75-71-8	Dichlorodifluoromethane	5.6	U
74-88-4	Iodomethane	5.6	U
107-12-0	Propionitrile	5.6	U
107-05-1	Allyl chloride	110	U
78-93-3	2-Butanone	110	U
71-55-6	1,1,1-Trichloroethane	5.6	U
56-23-5	Carbon Tetrachloride	5.6	U
108-05-4	Vinyl Acetate	5.6	U
75-27-4	Bromodichloromethane	5.6	U
78-87-5	1,2-Dichloropropane	5.6	U
10061-01-5	cis-1,3-Dichloropropene	5.6	U
79-01-6	Trichloroethene	5.6	U
71-43-2	Benzene	5.6	U
124-48-1	Dibromochloromethane	5.6	U
10061-02-6	trans-1,3-Dichloropropene	5.6	U
79-00-5	1,1,2-Trichloroethane	5.6	U
75-25-2	Bromoform	5.6	U

FORM I VOA

8260/Appendix IX

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC BP/BF-008

Lab Name: AENI Contract: 9510322

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK140.D

Level: (low/med) LOW Date Received: 10/31/95

% Moisture: not dec. 11 Date Analyzed: 11/8/95

GC Column: CAP. ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound			Q
126-98-7	Methacrylonitrile		5.6	U
74-95-3	Dibromomethane		5.6	U
106-93-4	1,2-Dibromoethane (EDB)		5.6	U
108-10-1	4-Methyl-2-Pentanone		56	U
591-78-6	2-Hexanone		56	U
127-18-4	Tetrachloroethene		5.6	U
79-34-5	1,1,2,2-Tetrachloroethane		5.6	U
108-88-3	Toluene		5.6	U
108-90-7	Chlorobenzene		5.6	U
100-41-4	Ethylbenzene		5.6	U
100-42-5	Styrene		5.6	U
108-38-3	m + p-Xylene		5.6	U
95-47-6	o-Xylene		5.6	U
80-62-6	Methyl methacrylate		5.6	U
630-20-6	1,1,1,2-Tetrachloroethane		5.6	U
96-18-4	1,2,3-Trichloropropane		5.6	U
110-57-6	trans-1,4-Dichloro-2-butene		28	U
97-63-2	Ethyl methacrylate		5.6	U
76-01-7	Pentachloroethane		5.6	U
96-12-8	1,2-Dibromo-3-chloropropane		5.6	U
78-83-1	Isobutyl Alcohol		5.6	U
126-99-8	Chloroprene	(TIC) *	5.6	U
	3-Chloroprene	(TIC)	5.6	U
123-91-1	1,4-Dioxane	(TIC)	1100	U
	Methylene Chloride - Dichloromethane			
	Methyl ethyl ketone - 2-Butanone			
	Chloroprene - 2-Chloro-1,3-butadiene			
	Propionitrile - Ethyl Cyanide			
* - Reported as semiquantitative analysis only.				

FORM I VOA 8260/Appendix IX

D-00316

U.S. EPA - CLP

1.

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BF/BF-006

Lab Name: AENI Contract: 9510322

Lab Code: Case No.: MKC70 SAS No.: SDG No.: BF/BF-

Matrix (soil/water): SOIL Lab Sample ID: 951032202

Level (low/med): LOW Date Received: 10/31/95

% Solids: 89.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony	2.2	U	N	P
7440-38-2	Arsenic	1.8		N	P
7440-39-3	Barium	26.7			P
7440-41-7	Beryllium	0.22	U		P
7440-43-9	Cadmium	0.45	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	5.6		N	P
7440-48-4	Cobalt	3.2			P
7440-50-8	Copper	4.8		E	P
7439-89-6	Iron				NR
7439-92-1	Lead	3.9		E	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.00	U	N	AV
7440-02-0	Nickel	6.6			P
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.56	U	N	P
7440-22-4	Silver	0.89	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium	1.1	U	N	P
7440-62-2	Vanadium	8.6			P
7440-66-6	Zinc	17.7		EN	P
	Cyanide				NR
7440-31-5	Tin	21.5	U		P
7439-93-2	Lithium				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

CLIENT_ID: NSWC_BF/BF-006

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

NSWC BP/BF-006

Lab Name: AENI Contract: 9510322

Project No.: MKC10322 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: #002

Sample wt/vol: 30.4 (g/mL) G Lab File ID: CK084.D

Level: (low/med) LOW Date Received: 10/31/95

% Moisture: 10 decanted: (Y/N): N Date Extracted: 11/3/95

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 11/8/95

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
91-20-3	Naphthalene	370	U
91-57-6	2-Methylnaphthalene	370	U
91-58-7	2-Chloronaphthalene	370	U
208-96-8	Acenaphthylene	370	U
83-32-9	Acenaphthene	370	U
132-64-9	Dibenzofuran	370	U
86-73-7	Fluorene	370	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
56-55-3	Benzo[a]anthracene	370	U
218-01-9	Chrysene	370	U
205-99-2	Benzo[b]fluoranthene	370	U
207-08-9	Benzo[k]fluoranthene	370	U
50-32-8	Benzo[a]pyrene	370	U
193-39-5	Indeno[1,2,3-cd]pyrene	370	U
53-70-3	Dibenz[a,h]anthracene	370	U
191-24-2	Benzo[g,h,i]perylene	370	U

American Environmental Network

TL-RTP Project: 34871
Client Sample: NSWC BP/BF-006
Client Project: Indiana - Navy Project

Method 8280 PCDD/PCDF Analysis
Analysis File: B951477
Matrix: Soil

PCDD/PCDF SUMMARY REPORT

Specific Analytes	Conc. (ppb)	DL (ppb)	Blank (ppb)
2,3,7,8-TCDD	ND	0.156	ND
1,2,3,7,8-PeCDD	ND	1.08	ND
1,2,3,4,7,8-HxCDD	ND	0.0778	ND
1,2,3,6,7,8-HxCDD	ND	0.233	ND
1,2,3,7,8,9-HxCDD	ND	0.233	ND
1,2,3,4,6,7,8-HpCDD	ND	0.311	ND
1,2,3,4,6,7,8,9-OCDD	ND	0.4	ND
2,3,7,8-TCDF	ND	0.133	ND
1,2,3,7,8-PeCDF	ND	0.522	ND
2,3,4,7,8-PeCDF	ND	0.633	ND
1,2,3,4,7,8-HxCDF	ND	0.111	ND
1,2,3,6,7,8-HxCDF	ND	0.111	ND
2,3,4,6,7,8-HxCDF	ND	0.278	ND
1,2,3,7,8,9-HxCDF	ND	0.178	ND
2,3,4,6,7,8-HpCDF	ND	0.211	ND
1,2,3,4,7,8,9-HpCDF	ND	0.0333	ND
1,2,3,4,6,7,8,9-OCDF	ND	0.244	ND

Definitions:

Conc. - The concentration of the specific analyte in the units shown.

DL - The detection limit of the specific analyte in the units shown.

Blank - The concentration of the method blank.

ND - (Non-Detect) The concentration of the analyte is less than the detection limit.

Total Analytes	Conc. (ppb)	DL (ppb)
Total TCDD	ND	0.156
Total PeCDD	ND	1.08
Total HxCDD	ND	0.233
Total HpCDD	ND	0.311
Total TCDF	ND	0.133
Total PeCDF	ND	0.633
Total HxCDF	ND	0.178
Total HpCDF	ND	0.0333

Triangle Laboratories of RTP, Inc.
801 Capitola Drive • Durham, North Carolina 27713
Phone: (919) 544-5729 • Fax: (919) 544-5401

D-00319

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF001

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 375C__
Matrix (soil/water): SOIL_ Lab Sample ID: 788912
Level (low/med): LOW__ Date Received: 03/07/96
% Solids: _72.6

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	410	B	N	P
7440-38-2	Arsenic__	9200			P
7440-39-3	Barium___	86300			P
7440-41-7	Beryllium	627	B		P
7440-43-9	Cadmium__	27.5	U	N	P
7440-47-3	Chromium_	17700			P
7440-48-4	Cobalt___	9200			P
7440-50-8	Copper___	14600			P
7439-92-1	Lead____	15900			P
7440-02-0	Nickel___	11100			P
7782-49-2	Selenium_	1060		N	P
7440-22-4	Silver___	96.4	U		P
7440-28-0	Thallium_	482	U		P
7440-62-2	Vanadium_	30200			P
7440-66-6	Zinc____	34000			P
7439-93-2	Lithium__	7440	B		P
7440-31-5	Tin_____	1730	B		P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:0.82g__Wet:5.86g__Dry:4.48g_____
Duplicate_(BIOF001D)_____

D-08320

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF002

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 375C__
Matrix (soil/water): SOIL_ Lab Sample ID: 788915
Level (low/med): LOW__ Date Received: 03/07/96
% Solids: _71.2

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	303	B	N	P
7440-38-2	Arsenic__	6210			P
7440-39-3	Barium___	82000			P
7440-41-7	Beryllium	557	B		P
7440-43-9	Cadmium__	25.1	U	N	P
7440-47-3	Chromium_	11100			P
7440-48-4	Cobalt___	10700			P
7440-50-8	Copper___	9190			P
7439-92-1	Lead____	16200			P
7440-02-0	Nickel___	8540			P
7782-49-2	Selenium_	1210		N	P
7440-22-4	Silver___	87.8	U		P
7440-28-0	Thallium_	439	U		P
7440-62-2	Vanadium_	20100			P
7440-66-6	Zinc____	24300			P
7439-93-2	Lithium__	4690	B		P
7440-31-5	Tin_____	1390	B		P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:0.67g__Wet:5.67g__Dry:4.23g_____

D-00321

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF003

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 375C__
Matrix (soil/water): SOIL_ Lab Sample ID: 788918
Level (low/med): LOW__ Date Received: 03/07/96
% Solids: _80.3

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	363	B	N	P
7440-38-2	Arsenic__	8200			P
7440-39-3	Barium___	61200			P
7440-41-7	Beryllium	417	B		P
7440-43-9	Cadmium__	24.7	U	N	P
7440-47-3	Chromium_	15900			P
7440-48-4	Cobalt___	10800			P
7440-50-8	Copper___	9910			P
7439-92-1	Lead____	13500			P
7440-02-0	Nickel___	9500			P
7782-49-2	Selenium_	1060		N	P
7440-22-4	Silver___	86.3	U		P
7440-28-0	Thallium_	432	U		P
7440-62-2	Vanadium_	27100			P
7440-66-6	Zinc____	27000			P
7439-93-2	Lithium__	6960	B		P
7440-31-5	Tin_____	1310	B		P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:0.83g__Wet:5.85g__Dry:4.86g_____

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF004

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 375C__
Matrix (soil/water): SOIL_ Lab Sample ID: 788922
Level (low/med): LOW__ Date Received: 03/07/96
% Solids: _67.2

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	335	B	N	P_
7440-38-2	Arsenic__	4950	_		P_
7440-39-3	Barium___	123000	_		P_
7440-41-7	Beryllium	729	B		P_
7440-43-9	Cadmium__	29.8	U	N	P_
7440-47-3	Chromium_	10400	_		P_
7440-48-4	Cobalt___	9890	_		P_
7440-50-8	Copper___	10300	_		P_
7439-92-1	Lead____	16700	_		P_
7440-02-0	Nickel___	9860	_		P_
7782-49-2	Selenium_	733	B	N	P_
7440-22-4	Silver___	104	U		P_
7440-28-0	Thallium_	521	U		P_
7440-62-2	Vanadium_	18300	_		P_
7440-66-6	Zinc____	27000	_		P_
7439-93-2	Lithium__	4730	B		P_
7440-31-5	Tin_____	1060	B		P_

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:0.79g__Wet:5.82g__Dry:4.17g_____

D-00323

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF005

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 375C__
Matrix (soil/water): SOIL_ Lab Sample ID: 788924
Level (low/med): LOW__ Date Received: 03/07/96
% Solids: _75.8

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	346	B	N	P
7440-38-2	Arsenic__	7430			P
7440-39-3	Barium___	105000			P
7440-41-7	Beryllium	602	B		P
7440-43-9	Cadmium__	26.4	U	N	P
7440-47-3	Chromium_	12100			P
7440-48-4	Cobalt___	8690			P
7440-50-8	Copper___	10900			P
7439-92-1	Lead____	16300			P
7440-02-0	Nickel___	9050			P
7782-49-2	Selenium_	985		N	P
7440-22-4	Silver___	92.3	U		P
7440-28-0	Thallium_	462	U		P
7440-62-2	Vanadium_	24100			P
7440-66-6	Zinc____	29700			P
7439-93-2	Lithium__	5820	B		P
7440-31-5	Tin_____	888	B		P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:0.68g__Wet:5.69g__Dry:4.48g_____

D-00324

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF006

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 375C__
Matrix (soil/water): SOIL_ Lab Sample ID: 788926
Level (low/med): LOW__ Date Received: 03/07/96
% Solids: _72.5

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	248	U	N	P
7440-38-2	Arsenic__	5880			P
7440-39-3	Barium___	89200			P
7440-41-7	Beryllium	642	B		P
7440-43-9	Cadmium__	27.6	U	N	P
7440-47-3	Chromium_	11300			P
7440-48-4	Cobalt___	10300			P
7440-50-8	Copper___	10400			P
7439-92-1	Lead____	16500			P
7440-02-0	Nickel___	9410			P
7782-49-2	Selenium_	816		N	P
7440-22-4	Silver___	96.6	U		P
7440-28-0	Thallium_	483	U		P
7440-62-2	Vanadium_	20900			P
7440-66-6	Zinc____	25800			P
7439-93-2	Lithium__	5100	B		P
7440-31-5	Tin_____	1410	B		P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:0.59g__Wet:5.61g__Dry:4.23g_____

D-00325

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF007

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 375C__
Matrix (soil/water): SOIL_ Lab Sample ID: 788928
Level (low/med): LOW__ Date Received: 03/07/96
% Solids: _75.3

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	448	B	N	P
7440-38-2	Arsenic__	11400			P
7440-39-3	Barium___	58300			P
7440-41-7	Beryllium	546	B		P
7440-43-9	Cadmium__	26.6	U	N	P
7440-47-3	Chromium_	17700			P
7440-48-4	Cobalt___	6370	B		P
7440-50-8	Copper___	15400			P
7439-92-1	Lead____	16400			P
7440-02-0	Nickel___	10900			P
7782-49-2	Selenium_	1310		N	P
7440-22-4	Silver___	93.0	U		P
7440-28-0	Thallium_	465	U		P
7440-62-2	Vanadium_	32000			P
7440-66-6	Zinc____	35700			P
7439-93-2	Lithium__	8730	B		P
7440-31-5	Tin_____	1450	B		P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:0.67g__Wet:5.69g__Dry:4.45g_____

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF008

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 375C__
Matrix (soil/water): SOIL_ Lab Sample ID: 788930
Level (low/med): LOW__ Date Received: 03/07/96
% Solids: _70.5

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	239	U	N	P
7440-38-2	Arsenic__	6130			P
7440-39-3	Barium___	91900			P
7440-41-7	Beryllium	648	B		P
7440-43-9	Cadmium__	26.5	U	N	P
7440-47-3	Chromium_	11400			P
7440-48-4	Cobalt___	11100			P
7440-50-8	Copper___	10400			P
7439-92-1	Lead____	17000			P
7440-02-0	Nickel___	10500			P
7782-49-2	Selenium_	943		N	P
7440-22-4	Silver___	92.8	U		P
7440-28-0	Thallium_	464	U		P
7440-62-2	Vanadium_	22300			P
7440-66-6	Zinc____	29900			P
7439-93-2	Lithium__	6220	B		P
7440-31-5	Tin_____	1350	B		P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:0.70g__Wet:5.71g__Dry:4.23g_____

D-00327

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF009

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 375C__
Matrix (soil/water): SOIL_ Lab Sample ID: 788932
Level (low/med): LOW__ Date Received: 03/07/96
% Solids: _67.4

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	267	U	N	P
7440-38-2	Arsenic__	2960			P
7440-39-3	Barium___	83500			P
7440-41-7	Beryllium	540	B		P
7440-43-9	Cadmium__	29.7	U	N	P
7440-47-3	Chromium_	9490			P
7440-48-4	Cobalt___	4860	B		P
7440-50-8	Copper___	10500			P
7439-92-1	Lead____	13200			P
7440-02-0	Nickel___	8990			P
7782-49-2	Selenium_	386	U	N	P
7440-22-4	Silver___	104	U		P
7440-28-0	Thallium_	519	U		P
7440-62-2	Vanadium_	17200			P
7440-66-6	Zinc____	39700			P
7439-93-2	Lithium__	6030	B		P
7440-31-5	Tin_____	2140	B		P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:0.79g__Wet:5.79g__Dry:4.16g_____

D-00328

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF010

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 375C__
Matrix (soil/water): SOIL_ Lab Sample ID: 788934
Level (low/med): LOW__ Date Received: 03/07/96
% Solids: _79.2

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	233	B	N	P
7440-38-2	Arsenic__	5260			P
7440-39-3	Barium___	46700			P
7440-41-7	Beryllium	478	B		P
7440-43-9	Cadmium__	25.3	U	N	P
7440-47-3	Chromium_	12400			P
7440-48-4	Cobalt___	8080			P
7440-50-8	Copper___	7120			P
7439-92-1	Lead____	13700			P
7440-02-0	Nickel___	7240			P
7782-49-2	Selenium_	855		N	P
7440-22-4	Silver___	88.4	U		P
7440-28-0	Thallium_	442	U		P
7440-62-2	Vanadium_	20900			P
7440-66-6	Zinc____	20600			P
7439-93-2	Lithium__	4430	B		P
7440-31-5	Tin_____	1250	B		P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:0.74g__Wet:5.75g__Dry:4.71g_____

D-00329

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF011

Lab Name: COMPUCHEM_ENV._CORP. Contract: SW-846
Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 375C
Matrix (soil/water): SOIL Lab Sample ID: 788936
Level (low/med): LOW Date Received: 03/07/96
% Solids: 77.3

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony	610	B	N	P
7440-38-2	Arsenic	6870			P
7440-39-3	Barium	73000			P
7440-41-7	Beryllium	542	B		P
7440-43-9	Cadmium	25.9	U	N	P
7440-47-3	Chromium	38300			P
7440-48-4	Cobalt	9180			P
7440-50-8	Copper	16000			P
7439-92-1	Lead	15200			P
7440-02-0	Nickel	193000			P
7782-49-2	Selenium	1430		N	P
7440-22-4	Silver	90.6	U		P
7440-28-0	Thallium	453	U		P
7440-62-2	Vanadium	24200			P
7440-66-6	Zinc	38700			P
7439-93-2	Lithium	45200			P
7440-31-5	Tin	1830	B		P

Color Before: BROWN Clarity Before: Texture: MEDIUM
Color After: YELLOW Clarity After: Artifacts:

Comments:
Undecanted_Dry_Weights Container:0.78g Wet:5.80g Dry:4.66g

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF012

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 375C__
Matrix (soil/water): SOIL_ Lab Sample ID: 788938
Level (low/med): LOW__ Date Received: 03/07/96
% Solids: _77.2

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	491	B	N	P
7440-38-2	Arsenic__	6730			P
7440-39-3	Barium___	54600			P
7440-41-7	Beryllium	459	B		P
7440-43-9	Cadmium__	25.9	U	N	P
7440-47-3	Chromium_	17600			P
7440-48-4	Cobalt___	12600			P
7440-50-8	Copper___	11200			P
7439-92-1	Lead____	14500			P
7440-02-0	Nickel___	21100			P
7782-49-2	Selenium_	938		N	P
7440-22-4	Silver___	90.7	U		P
7440-28-0	Thallium_	453	U		P
7440-62-2	Vanadium_	23500			P
7440-66-6	Zinc____	31300			P
7439-93-2	Lithium__	7940	B		P
7440-31-5	Tin_____	1510	B		P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.58g__Dry:5.44g_____

D-00331

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF013

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____
Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 375C__
Matrix (soil/water): SOIL_ Lab Sample ID: 788940
Level (low/med): LOW__ Date Received: 03/07/96
% Solids: _81.0

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	383	B	N	P
7440-38-2	Arsenic__	2880			P
7440-39-3	Barium___	51600			P
7440-41-7	Beryllium	454	B		P
7440-43-9	Cadmium__	24.7	U	N	P
7440-47-3	Chromium_	9360			P
7440-48-4	Cobalt___	7820			P
7440-50-8	Copper___	8510			P
7439-92-1	Lead____	7380			P
7440-02-0	Nickel___	10600			P
7782-49-2	Selenium_	572	B	N	P
7440-22-4	Silver___	86.4	U		P
7440-28-0	Thallium_	432	U		P
7440-62-2	Vanadium_	14200			P
7440-66-6	Zinc____	25300			P
7439-93-2	Lithium__	5580	B		P
7440-31-5	Tin_____	897	B		P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM
Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:
Undecanted_Dry_Weights____Container:1.57g__Wet:6.58g__Dry:5.63g_____

D-00332

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

BIOF014

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 375C__

Matrix (soil/water): SOIL_ Lab Sample ID: 788941

Level (low/med): LOW__ Date Received: 03/07/96

% Solids: _78.9

Concentration Units (ug/L or mg/kg dry weight): UG/KG

CAS No.	Analyte	Concentration	C	Q	M
7440-36-0	Antimony_	228	U	N	P
7440-38-2	Arsenic__	2580			P
7440-39-3	Barium___	62700			P
7440-41-7	Beryllium	623	B		P
7440-43-9	Cadmium__	25.3	U	N	P
7440-47-3	Chromium_	9480			P
7440-48-4	Cobalt___	12100			P
7440-50-8	Copper___	10400			P
7439-92-1	Lead____	7720			P
7440-02-0	Nickel___	17900			P
7782-49-2	Selenium_	554	B	N	P
7440-22-4	Silver___	88.7	U		P
7440-28-0	Thallium_	444	U		P
7440-62-2	Vanadium_	13200			P
7440-66-6	Zinc____	36100			P
7439-93-2	Lithium__	6520	B		P
7440-31-5	Tin_____	1190	B		P

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: _____ Artifacts: _____

Comments:

Undecanted_Dry_Weights____Container:1.57g__Wet:6.59g__Dry:5.53g_____

D-00333

APPENDIX E

QC DATA

- Laboratory Quality Control Data (186 pages)

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9507195

Project Name:——— NSWC-CRANE #4324

Client Name:——— MK CORP

Sample Number
BLANK

AENI # BLK 0726LA

Concentration:——— Low

Date Sampled:——— N/A

Date Received:——— N/A

Date Ext Prepared:— 7/26/95

Date Analyzed:——— 8/2/95

Conc/Dil Factor:——— 1

Method: ——— 8080

GPC Cleanup | | Yes | X | No

Seperatory Funnel Extraction | | Yes

Continuous Liquid - Liquid Extraction | | Yes

Percent Moisture 0

Matrix: SOIL

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		1.7	U
319-85-7	beta-BHC		1.7	U
319-86-8	delta-BHC		1.7	U
58-89-9	gamma-BHC (Lindane)		3.3	U
75-44-8	Heptachlor		1.7	U
309-00-2	Aldrin		1.7	U
1024-57-3	Heptachlor epoxide		1.7	U
959-98-8	Endosulfan I		1.7	U
60-57-1	Dieldrin		3.3	U
75-55-9	4, 4'-DDE		3.3	U
72-20-8	Endrin		3.3	U
33213-65-9	Endosulfan II		3.3	U
72-54-8	4, 4'-DDD		3.3	U
1031-07-8	Endosulfan Sulfate		3.3	U
50-29-3	4, 4'-DDT		3.3	U
72-43-5	Methoxychlor		17	U
53494-70-5	Endrin Ketone		3.3	U
7421-36-3	Endrin aldehyde		3.3	U
57-74-9	Chlordane		33	U
8001-35-2	Toxaphene		170	U
12674-11-2	Aroclor-1016		33	U
11104-28-2	Aroclor-1221		67	U
11141-16-5	Aroclor-1232		33	U
53469-21-9	Aroclor-1242		33	U
12672-29-6	Aroclor-1248		33	U
11097-69-1	Aroclor-1254		33	U
11096-82-5	Aroclor-1260		33	U
510-15-6	Chlorobenzilate		67	U
2303-16-4	Diallate		333	U
465-73-6	Isodrin		8.3	U
143-50-0	Kepone		33	U
82-68-8	Pentachloronitrobenzene		6.7	U

Vi - Volume of extract injected (ul) - _____ 5

Vs - Volume of Water extracted (ml) - _____ N/A

Ws - Weight of sample extracted (g) - _____ 30

Vt - Volume of total extract (ul) - _____ 10,000

FORM I

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: American Environmental Network, Inc. Contract: 9507195

Lab Code: NA Case No.: NA SAS No.: NA

Instrument ID: GC-F

GC Column(1): DB-5 D: 0.53 mm GC Column(2): DB 608 ID: 0.53 mm

Dates of Analyses: 8/2/95 to 8/2/95

Method: 8080

	EPA SAMPLE NO.	TCMX 1 %REC	#	TCMX 2 % REC	#	DCB 1 %REC	#	DCB 2 %REC	#	TOTAL OUT
	BLK 0726LA	68		78		89		88		0
	BLANK SPIKE	95		100		103		100		0
	NSWC-23/00-001	77		92		85		85		0
	NSWC-23/00-002	101		65		77		82		0
	NSWC-25/07D-001	65		61		164	*	83		1
	NSWC-25/07D-002	73		62		73		84		0
10X	NSWC-26/08D-001	D		D		D		D		0
	NSWC-26/08D-002	69		56	*	156	*	119		2

ADVISORY QC LIMITS

TCMX= Tetrachloro-m-xylene (60-150)

DCB= Decachlorobiphenyl (60-150)

COLUMN TO BE USED TO FLAG RECOVERY VALUES

* VALUES OUTSIDE OF QC LIMITS

D SURROGATE DILUTED OUT

FORM II PEST-1

3F

SOIL BLANK SPIKE RECOVERY

Lab Name: American Environmental Network, Inc. Contract: 9507195

Lab Code: NA Case No.: NA SAS No.: NA

Matrix Spike - EPA Sample No.: LCS 0726LA

Method: 8080

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	BS CONCENTRATION (ug/Kg)	BS % REC	#	QC LIMITS REC.
gamma-BHC (Lindane)	6.7	0.0	6.4	96		46 - 127
Heptachlor	6.7	0.0	5.8	87		35 - 130
Aldrin	6.7	0.0	5.8	87		34 - 132
Dieldrin	17	0.0	17	100		31 - 134
Endrin	17	0.0	18	106		42 - 139
4,4'-DDT	17	0.0	17	100		23 - 134

Column to be used to flag recovery values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 6 outside limits.

FORM III PEST-2

AMERICAN ENVIRONMENTAL NETWORK, INC.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

August 8, 1995

Client: MK Corp

Project: NSWC - Crane #4324

Case: 9507195

Analysis: Metals

Client ID	AENI ID	Date Sampled	Date Received	Date Analyzed
NSWC-23/00-001	9507195-001	07/18/95	07/22/95	07/28-08/04/95
NSWC-23/00-002	9507195-002	07/18/95	07/22/95	07/28-08/04/95
NSWC-25/07D-001	9507195-003	07/18/95	07/22/95	07/28-08/04/95
NSWC-25/07D-002	9507195-004	07/18/95	07/22/95	07/28-08/04/95
NSWC-26/08D-001	9507195-005	07/18/95	07/22/95	07/28-08/04/95
NSWC-26/08D-002	9507195-006	07/18/95	07/22/95	07/28-08/04/95

Six soil samples were received and analyzed for Metals following SW846 methodologies. Soil results are reported in units of mg/kg dry weight.

The matrix spike and/or matrix spike duplicate percent recoveries for Antimony, Cadmium, Chromium, Selenium and Thallium were outside acceptable limits. The serial dilution for Chromium and Zinc were just outside acceptable limits. A post digestion spike was analyzed and is reported within.

Report Released By

Christopher Baggett
Metals Laboratory Manager

U.S. EPA - CLP

3
BLANKS

Lab Name: AMERICAN_ENVIRON_NETWORK_ Contract: MK_CORP___

Lab Code: _____ Case No.: 95071 SAS No.: _____ SDG No.: 507195

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P
Arsenic	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Barium	100.0	U	100.0	U	100.0	U	100.0	U	10.000	U	P
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	0.200	U	P
Cadmium	4.0	U	4.0	U	4.0	U	4.0	U	0.400	U	P
Calcium											NR
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Cobalt	11.0	U	11.0	U	11.0	U	11.0	U	1.100	U	P
Copper	25.0	U	25.0	U	25.0	U	25.0	U	2.500	U	P
Iron											NR
Lead	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Magnesium											NR
Manganese											NR
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.100	U	AV
Nickel	15.0	U	15.0	U	15.0	U	15.0	U	1.500	U	P
Potassium											NR
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	0.500	U	P
Silver	8.0	U	8.0	U	8.0	U	8.0	U	0.800	U	P
Sodium											NR
Thallium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Vanadium	16.0	U	16.0	U	16.0	U	16.0	U	1.600	U	P
Zinc	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P
Cyanide											NR
Tin	250.0	U	250.0	U	250.0	U			25.000	U	P
Lithium											NR

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

23/00-001S

Lab Name: AMERICAN_ENVIRON_NETWORK_ Contract: MK_CORP___

Lab Code: _____ Case No.: 95071 SAS No.: _____ SDG No.: 507195

Matrix: __SOIL_____ Level (low/med): _LOW____

% Solids for Sample: _77.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR
Tin	75-125	122.9203		32.6682	U	133.37	92.2		P
Lithium									NR

Comments:
CLIENT_ID: __NSWC-23/00-001
MATRIX_SPIKE

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

23/00-001M

Lab Name: AMERICAN_ENVIRON_NETWORK_ Contract: MK_CORP___

Lab Code: _____ Case No.: 95071 SAS No.: _____ SDG No.: 507195

Matrix: __SOIL_____ Level (low/med): _LOW____

% Solids for Sample: _77.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR
Tin	75-125	114.2489		32.6682	U	132.01	86.5		P
Lithium									NR

Comments:

CLIENT_ID: __NSWC-23/00-001

MATRIX_SPIKE_DUPLICATE

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

26/08D-001S

Lab Name: AMERICAN_ENVIRON_NETWORK_ Contract: MK_CORP___

Lab Code: _____ Case No.: 95071 SAS No.: _____ SDG No.: 507195

Matrix: __SOIL_____ Level (low/med): _LOW____

% Solids for Sample: _85.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	75-125	16.6726		37.8328		11.15	-189.8	N	P
Arsenic	75-125	26.0607		14.1192		11.15	107.1		P
Barium		30994.7655		51326.8707		223.04	-9115.9		P
Beryllium	75-125	5.8119		0.8825		5.58	88.3		P
Cadmium	75-125	18.5301		14.6436		5.58	69.7	N	P
Calcium									NR
Chromium	75-125	84.5655		69.7963		22.30	66.2	N	P
Cobalt	75-125	47.3152		1.2267	U	55.76	84.9		P
Copper		603.4066		755.9901		27.88	-547.3		P
Iron									NR
Lead		2278.9451		7044.8319		55.76	-8547.1		P
Magnesium									NR
Manganese									NR
Mercury	75-125	1.3583		0.2693		1.17	93.1		AV
Nickel	75-125	100.0549		55.8953		55.76	79.2		P
Potassium									NR
Selenium	75-125	9.4484		0.5576	U	11.15	84.7		P
Silver	75-125	15.7348		2.4132		11.15	119.5		P
Sodium									NR
Thallium	75-125	7.8813		1.1152	U	11.15	70.7	N	P
Vanadium	75-125	106.2329		39.6030		55.76	119.5		P
Zinc		1446.3055		1366.4350		55.76	143.2		P
Cyanide									NR
Tin									NR
Lithium									NR

Comments:

CLIENT_ID: __NSWC-26/08D-001

MATRIX_SPIKE

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

26/08D-001M

Lab Name: AMERICAN_ENVIRON_NETWORK_ Contract: MK_CORP___

Lab Code: _____ Case No.: 95071 SAS No.: _____ SDG No.: 507195

Matrix: __SOIL_____ Level (low/med): _LOW____

% Solids for Sample: _85.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony	75-125	23.2760		37.8328		11.15	-130.6	N	NR
Arsenic	75-125	24.2051		14.1192		11.15	90.5		P
Barium		32754.0287		51326.8707		223.04	-8327.1		P
Beryllium	75-125	5.8497		0.8825		5.58	89.0		P
Cadmium	75-125	20.2586		14.6436		5.58	100.6		P
Calcium									NR
Chromium	75-125	87.6561		69.7963		22.30	80.1		P
Cobalt	75-125	48.0544		1.2267	U	55.76	86.2		P
Copper		788.9567		755.9901		27.88	118.2		P
Iron									NR
Lead		4868.8873		7044.8319		55.76	-3902.3		P
Magnesium									NR
Manganese									NR
Mercury	75-125	1.4110		0.2693		1.17	97.6		AV
Nickel	75-125	109.8741		55.8953		55.76	96.8		P
Potassium									NR
Selenium	75-125	8.1702		0.5576	U	11.15	73.3	N	P
Silver	75-125	12.7748		2.4132		11.15	92.9		P
Sodium									NR
Thallium	75-125	8.4028		1.1152	U	11.15	75.4		P
Vanadium	75-125	88.1588		39.6030		55.76	87.1		P
Zinc		1582.2740		1366.4350		55.76	387.1		P
Cyanide									NR
Tin									NR
Lithium									NR

Comments:
CLIENT_ID: __NSWC-26/08D-001
MATRIX_SPIKE_DUPLICATE

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

26/08D-001P

Lab Name: AMERICAN_ENVIRON_NETWORK_ Contract: MK_CORP___

Lab Code: _____ Case No.: 95071 SAS No.: _____ SDG No.: 507195

Matrix: ____SOIL_____ Level (low/med): LOW_____

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Aluminum									NR
Antimony		523.00		339.25		200.0	91.9		P
Arsenic		144.58		126.61		20.0	89.8		P
Barium		262606.37		460248.05		4000.0	-4941.0		P
Beryllium		95.39		7.91		100.0	87.5		P
Cadmium		217.33		131.31		100.0	86.0		P
Calcium									NR
Chromium		802.06		625.86		200.0	88.1		P
Cobalt		878.58		11.00	U	1000.0	87.9		P
Copper		7195.58		6778.96		500.0	83.3		P
Iron									NR
Lead		62973.13		63171.01		200.0	-98.9		P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel		1399.98		501.21		1000.0	89.9		P
Potassium									NR
Selenium		14.33		5.00	U	20.0	71.6		P
Silver		209.91		21.64		200.0	94.1		P
Sodium									NR
Thallium		10.00	U	10.00	U	20.0	0.0		P
Vanadium		1253.14		355.12		1000.0	89.8		P
Zinc		12935.00		12252.82		1000.0	68.2		P
Cyanide									NR
Tin									NR
Lithium									NR

Comments:
CLIENT_ID:__NSWC-26/08D-001

2.1

E-00010

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Name: AMERICAN_ENVIRON_NETWORK_ Contract: MK_CORP___

Lab Code: _____ Case No.: 95071 SAS No.: _____ SDG No.: 507195

Solid LCS Source: _____

Aqueous LCS Source: SPEX_____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony	100.0	95.21	95.2						
Arsenic	100.0	96.86	96.9						
Barium	2000.0	2245.27	112.3						
Beryllium	50.0	47.39	94.8						
Cadmium	50.0	50.39	100.8						
Calcium									
Chromium	200.0	210.68	105.3						
Cobalt	500.0	517.27	103.5						
Copper	250.0	260.15	104.1						
Iron									
Lead	500.0	513.04	102.6						
Magnesium									
Manganese									
Mercury									
Nickel	500.0	519.93	104.0						
Potassium									
Selenium	100.0	89.34	89.3						
Silver	100.0	97.74	97.7						
Sodium									
Thallium	100.0	101.66	101.7						
Vanadium	500.0	504.42	100.9						
Zinc	500.0	528.67	105.7						
Cyanide									
Tin									
Lithium									

FORM VII - IN

ILM02.1

E-00011

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: AMERICAN_ENVIRON_NETWORK_ Contract: MK_CORP___

Lab Code: _____ Case No.: 95071 SAS No.: _____ SDG No.: 507195

Solid LCS Source: _____

Aqueous LCS Source: SPEX_____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury	2.0	1.77	88.5						
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									
Tin									
Lithium									

FORM VII - IN

ILM02.1

E-00012

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: AMERICAN_ENVIRON_NETWORK_ Contract: MK_CORP___

Lab Code: _____ Case No.: 95071 SAS No.: _____ SDG No.: 507195

Solid LCS Source: _____

Aqueous LCS Source: SPEX_____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									
Tin	1000.0	953.20	95.3						
Lithium									

FORM VII - IN

ILM02.1

E-00013

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9507195
Report To: MK Corp
Project: NSWC - Crane #4324
Date: July 31, 1995
Analysis: General Chemistry Parameters

Client ID	AENI ID	Date Sampled	Date Received
NSWC-23/00-001	9507195-001	07/18/95	07/22/95
NSWC-23/00-002	9507195-002	07/18/95	07/22/95
NSWC-25/07D-001	9507195-003	07/18/95	07/22/95
NSWC-25/07D-002	9507195-004	07/18/95	07/22/95
NSWC-26/08D-001	9507195-005	07/18/95	07/22/95
NSWC-26/08D-002	9507195-006	07/18/95	07/22/95

Six soil samples were received and analyzed for General Chemistry Parameters.

All quality control met standard laboratory criteria.

This report consists of tabulated sample results and a QC Summary Report.

Report Released By: Rhonda Green-Barron
General Chemistry Laboratory Manager

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9507195
Report To: MK Corp
Project: NSWC - Crane #4324
Date: July 31, 1995
Analysis: General Chemistry Parameters

QC SUMMARY

Parameter	Sample ID	Result/Recovery
Total Cyanide	Blank	< 0.02 mg/L
	LCS	100%
	LCSD	100%
Total Sulfide	Blank	< 1 mg/L

AMERICAN ENVIRONMENTAL NETWORK, INC.

August 3, 1995

Client: MK CORP

Case: 9507195

Project: NSWC-CRANE

Analysis: Herbicides by Method 8150

Client ID	AENI#	Date Sampled	Date Received	Date Extracted	Date Analyzed
NSWC-23/00-001	9507195-001	07/18/95	07/22/95	07/27/95	08/02/95
NSWC-23/00-002	9507195-002	07/18/95	07/22/95	07/27/95	08/02/95
NSWC-25/07D-001	9507195-003	07/18/95	07/22/95	07/27/95	08/02/95
NSWC-25/07D-002	9507195-004	07/18/95	07/22/95	07/27/95	08/02/95
NSWC-26/08D-001	9507195-005	07/18/95	07/22/95	07/27/95	08/02/95
NSWC-26/08D-002	9507195-006	07/18/95	07/22/95	07/27/95	08/02/95

Six soil samples were extracted and analyzed for 2,4-D, Silvex, and 2,4,5-T using SW-846 method 8150.

The enclosed package consists specifically of tabulated results (Form I), surrogate spike recoveries (Form II), matrix spike recoveries (Form III), method blank summary (Form IV), initial calibration summary (Form VI), and continuing calibration summary (Form VII).

Form I (Tabulated Results)

The qualifier "U" indicates that a compound was analyzed for but not detected above the reporting limit. The samples were prepared and analyzed within method specified holding time.

Form II (Surrogate Spike Recoveries)

Six out of twenty surrogate recoveries were outside specified criteria (50-150%). The surrogate was masked by matrix interference in several of the samples and could not be evaluated.

Form III (Matrix Spike Recoveries)

A lab control sample (LCS) was extracted with this sample set. LCS recoveries were within specified criteria (50-150%).

MS/MSD was performed on AENI sample ID number 9507195-001. Recoveries were within criteria.

Form IV (Method Blank Summary)

No herbicides were detected in the method blank above the reporting limit.

Form VI (Initial Calibration Summary)

Linear five-point curve with correlation coefficient of 0.995 or better was used for sample quantitation.

Form VII (Continuing Calibration Summary)

Recoveries for continuing calibration verification standards were within +/- 15% criteria with the exception of 2,4-D in the ending standard.

Data Released By

Charles E. Ferrin Jr.
GC/LC Lab Manager

AMERICAN ENVIRONMENTAL NETWORK INC.
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Sample Number
BLANK

Case No.: 9507195
Client Name: MK CORP
Project Name: NSWC-CRANE

AENI # BLK 0727RA

Concentration: Low
Date Sampled: N/A
Date Received: N/A
Date Extract Prepared: 7/27/95
Date Analyzed: 8/2/95
Conc/Dil Factor: 1
Matrix SOIL

GPC Cleanup No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid 100

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		30	U
SILVEX		30	U
2,4,5-T		30	U

Vi - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) N/A
Ws - Mass of soil extracted (g) 50.00
Vt- Volume of total extract (ul) 5000

FORM I

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No.: 9507195 Laboratory Name: American Environmental Network Inc.

Client ID	AEN ID	DCAA DB-5	DCAA DB-608
BLANK	BLK 0727RA	111	42*
BLANK SPIKE	LCS 0727RA	M	45*
NSWC-23/00-001	9507195-001	125	34*
MATRIX SPIKE	MS 9507195-001	M	48*
MATRIX SPIKE DUP	MSD 9507195-001	M	48*
NSWC-23/00-002	9507195-002	128	M
NSWC-25/07D-001	9507195-003	139	72
NSWC-25/07D-002	9507195-004	107	57
NSWC-26/08D-001	9507195-005	94	60
NSWC-26/08D-002	9507195-006	M	40*

CONTROL LIMITS = 50-150%

* - Values are outside of contract required QC limits.
M-Matrix interference. D-Surrogate diluted out.

6 out of 20 outside QC limits.

AMERICAN ENVIRONMENTAL NETWORK, INC.
HERBICIDE MATRIX SPIKE RECOVERIES

Case No.: 9507195

Client Name: MK CORP

Project Name: NSWC-CRANE

Client Sample ID: LCS 0727RA

Date of Analysis: 8/2/95

Instrument ID: GC-H

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	BS CONC (ug/kg)	BS % REC	BSD CONC (ug/kg)	BSD % REC	QC LIMITS REC
2,4-D	100	0.0	114	114	N/A	N/A	50-150
Silvex	106	0.0	83	78	N/A	N/A	50-150

Spike Recovery: 0 out of 2 outside QC limits.

AMERICAN ENVIRONMENTAL NETWORK, INC.
HERBICIDE MATRIX SPIKE RECOVERIES

Case No.: 9507195

Client Name: MK CORP

Project Name: NSWC-CRANE

Client Sample ID: NSWC-23/00-001

Date of Analysis: 8/2/95

Instrument ID: GC-H

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	MS CONC (ug/kg)	MS % REC	MSD CONC (ug/kg)	MSD % REC	QC LIMITS REC
2,4-D	130	0.0	97	75	126	97	50-150
Silvex	137	0.0	85	62	77	56	50-150

Spike Recovery: 0 out of 4 outside QC limits.

AMERICAN ENVIRONMENTAL NETWORK, INC.

July 31, 1995

Client: MK CORP

Case: 9507195

Project: NSWC-CRANE #4324

Analysis: Organophosphorus by method 8141

Client ID	AEN ID	Date Sampled	Date Received	Date Extracted	Date Analyzed	MATRIX
NSWC-23/00-001	9507195-001	07/18/95	07/22/95	07/26/95	07/28/95	SOIL
NSWC-23/00-002	9507195-002	07/18/95	07/22/95	07/26/95	07/28/95	SOIL
NSWC-25/07D-001	9507195-003	07/18/95	07/22/95	07/26/95	07/28/95	SOIL
NSWC-25/07D-002	9507195-004	07/18/95	07/22/95	07/26/95	07/28/95	SOIL
NSWC-26/08D-001	9507195-005	07/18/95	07/22/95	07/26/95	07/28/95	SOIL
NSWC-26/08D-002	9507195-006	07/18/95	07/22/95	07/26/95	07/28/95	SOIL

Six soil samples were analyzed for organophosphorus using method 8141.

The enclosed package consists specifically of tabulated results (Form I), surrogate spike recovery (Form II), blank spike recovery summary (Form III), method blank summary (Form IV), initial calibration summary (Form VI), and continuing calibration summary (Form VII).

Form I (Tabulated Results)

The qualifier "U" indicates that a compound was analyzed for but not detected above the detection limit. The qualifier "P" indicates that the difference between two columns is greater than 25%. The samples were extracted and analyzed within holding times.

Form II (Surrogate Spike Recoveries)

The surrogate recoveries in both blank and blank spike were outside criteria. Other calculated surrogate recoveries were within criteria (50-150%).

Form III (Blank Spike Summary)

Blank spike was analyzed with the samples. All percent recoveries were within criteria.

Form IV (Method Blank Summary)

No target analyte is detected in the method blank.

Form VI (Initial Calibration Summary)

A five-point-curve was used for sample quantitation. The correlation coefficient for each component is greater 0.995.

Form VII (Continuing Calibration Summary)

The percent recoveries for all continuing calibration standards are within criteria except Disulfoton on DB5 column.

Data Released By CEF

Charles E. Ferrin Jr.
GC/LC Lab Manager

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Organophosphorus

Case No.:——— 9507195

Project Name:——— NSWC-CRANE #4324

Client Name:——— MK CORP

Sample Number
BLANK

AENI # BLK 0726LC

Concentration:——— Low

Date Sampled:——— N/A

Date Received:——— N/A

Date Ext Prepared:— 7/26/95

Date Analyzed:——— 7/26/95

Conc/Dil Factor:——— 1

Method: ——— 8141

GPC Cleanup	Yes	X No
Seperatory Funnel Extraction		Yes
Continuous Liquid - Liquid Extration		Yes
Percent Solid	100	
Matrix	SOIL	

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
298-02-2	Phorate		1.7	U
60-51-5	Dimethoate		3.3	U
23950-58-5	Pronamide		1.7	U
298-04-4	Disulfoton		1.7	U
298-00-0	Methyl Parathion		1.7	U
56-38-2	Ethyl Parathion		1.7	U
52-85-7	Famphur		1.7	U
3689-24-5	Tetraethyl dithiopyrophosphate		170	U

Vi - Volume of extract injected (ul) - _____ 1

Vs - Volume of Water extracted (ml) - _____ N/A

Ws - Weight of sample extracted (g) - _____ 30

Vt - Volume of total extract (ul) - _____ 1,000

FORM I

AMERICAN ENVIRONMENTAL NETWORK, INC.
ORGANIC ANALYSIS DATA SHEET
SURROGATE PERCENT RECOVERIES
ORGANOPHOPHORUS

CLIENT NAME: MK CORP
PROJECT NAME: NSWC-CRANE #4324
CONTRACT NUMBER : 9507195
SURROGATE: Tokuthion
ACCEPTANCE CRITERIA: 50-150%
MATRIX: SOIL/WATER
METHOD: 8141

CLIENT ID	AENI ID	DB5 COLUMN % RECOVERY	#	608 COLUMNE % RECOVERY	#
BLANK	BLK 0726LC	25	*	0	*
BLANK SPIKE	LCS 0726LC	22	*	1	*
NSWC-23/00-001	9507195-001 10X	76		D	
NSWC-23/00-002	9507195-002 10X	D		D	
NSWC-25/07D-001	9507195-003 10X	89		114	
NSWC-25/07D-002	9507195-004 10X	81		90	
NSWC-26/08D-001	9507195-005 10X	97		D	
NSWC-26/08D-002	9507195-006 10X	72		123	
NSWC-26/08D-002	9507195-006MS 10X	85		D	
NSWC-26/08D-002	9507195-006MSD 10X	111		D	

COLUMN TO BE USED TO FLAG RECOVERY VALUES
* VALUES OUTSIDE OF QC LIMITS

FORM II

E-00025

SOIL BLANK SPIKE RECOVERY

Lab Name: American Environmental Network, Inc. Contract: 9507195
Lab Code: NA Case No.: NA SAS No.: NA
Matrix Spike - EPA Sample No.: LCS 0726LC
Method: 8141

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	BS CONCENTRATION (ug/Kg)	BS % REC	#
Phorate	6.7	0.0	5.4	81	
Disulfoton	6.7	0.0	4.6	69	
Methyl Parathion	0.83	0.0	1.0	122	

QC limits for %recovery 50-150%

Column to be used to flag recovery values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 3 outside limits.

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 RUMSEY ROAD
COLUMBIA, MD. 21045
(410) 730-8525

Project Number: 9507-195
Client Name: MK Corporation
Project Title: NSWC - Crane
#4324

Six soil samples were analyzed for the volatile organic compounds in the Appendix IX compound list by method 8260, capillary column, 5gr/5ml purge. Two water and seven soil samples were analyzed for the semivolatile organic compounds in the Appendix IX compound list by method 8270.
All analyses followed the standard AENI QA/QC and holding time requirements.

This package consists of the tabulated results of the samples and the method blanks, along with the QC forms II, III, IV, V, VI, VII and VIII.

Data Released for Minh-Thuy L. Nguyen 8/30/95
GC/MS Lab Manager

SEMIVOLATILES Section:

Client ID	AENI ID	Matrix	Date Sampled	Date Received	Date Extracted	Date Analyzed
NSWC-23/00-001	195-001	SOIL	07/18/95	07/22/95	07/26/95	07/28/95
NSWC-23/00-002	195-002	SOIL	07/18/95	07/22/95	07/26/95	07/28/95
NSWC-25/07D-001	195-003	SOIL	07/18/95	07/22/95	07/26/95	07/28/95
NSWC-25/07D-002	195-004	SOIL	07/18/95	07/22/95	07/26/95	08/01/95
NSWC-26/08D-001	195-005	SOIL	07/18/95	07/22/95	07/26/95	07/28/95
NSWC-26/08D-002	195-006	SOIL	07/18/95	07/22/95	07/26/95	07/28/95

Form I (Tabulated Results)
All analyses were performed within the holding time requirement. The results for the samples were reported on the basis of dry weight.

Form II (Surrogate Recoveries)
The surrogate recoveries for the samples, QC and method blank were within the method specified limits.

Form III (LCS Recoveries)
An LCS analysis were reported. All spike recoveries were within criteria.

Form IV (Method Blank Summary)
The method blank was free of target analytes.

Form V (Tuning and Mass Calibration)
All calibration standards, method blanks, QC and samples were analyzed within the method specified mass calibration and 12-hr tune criteria.

Form VI (Initial Calibration)
The initial calibration curves met the method specified Min mean RRF for the SPCC compounds and Max %RSD for the CCC compounds. Note that due to high number of target analytes, two curves were prepared, one for the TCL compounds and one for the Appendix IX non TCL compounds.

Form VII (Continuing Calibration)
All CCC and SPCC compounds for the daily continuing calibrations were within the method specified criteria for max %D and Min RRF50. Note that methyl methanesulfonate, 1,4-naphthoquinone, 2-naphthylamine and 1-naphthylamine were double spiked in the daily continuing calibration solution.

Form VIII (Internal Standard Summary)
All internal standard area recoveries and retention times shifting were within the lab warning limits, except for sample NSWC-25/07D-002. The sample was reanalyzed and showed the same results. Both analyses were included in the data package.

VOLATILES Section:

Client ID	AENI ID	Matrix	Date Sampled	Date Received	Date Analyzed
NSWC-23/00-001	195-001	SOIL	07/18/95	07/22/95	07/27/95
NSWC-23/00-002	195-002	SOIL	07/18/95	07/22/95	07/27/95
NSWC-25/07D-001	195-003	SOIL	07/18/95	07/22/95	07/27/95
NSWC-25/07D-002	195-004	SOIL	07/18/95	07/22/95	07/31/95
NSWC-26/08D-001	195-005	SOIL	07/18/95	07/22/95	07/27/95
NSWC-26/08D-002	195-006	SOIL	07/18/95	07/22/95	07/27/95

Form I (Tabulated Results)
All analyses were performed within the holding time requirement. The results for the samples were reported on the basis of dry weight.

Form II (Surrogate Recoveries)
The surrogate recoveries for the samples, QC, and the method blanks were within the method specified limits with the exception of one recovery in the reanalysis (see Form VIII section) of sample NSWC-26/08D-001.

Form III (MS/MSD Recoveries)
An MS/MSD analysis was performed on sample NSWC-26/08d-002. All spike recoveries and all %RPDs were within the method advisory limits.

Form IV (Method Blank Summary)
The method blanks were free of target analytes, except for methylene chloride and acetone which are common lab artifacts.

Form V (Tuning and Mass Calibration)
All calibration standards, method blanks and samples were analyzed within the method specified mass calibration and 12-hr tune criteria.

Form VI (Initial Calibration)
The initial calibration curve met the method specified Min mean RRF for the SPCC compounds and Max %RSD for the CCC compounds.

Form VII (Continuing Calibration)
All CCC and SPCC compounds for the daily continuing calibrations were within the method specified criteria for max %D and Min RRF50.

Form VIII (Internal Standard Summary)
All samples with the exception of NSWC-23/00-002 had internal standard areas that were below the lab warning limits. They were reanalyzed and showed the same results which could be an indication of matrix interference. Both analyses were reported. Sample NSWC-26/08D-002 also had low internal standard areas but because the MS and MSD performed on that sample did also, reanalysis was not required.

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: NSWC Location: CRANE Group:

Level: (low/med) LOW

	SAMPLE NO.	SMC1 #	SMC2 (TOL) #	SMC3 (BFB) #	OTHER #	TOT OUT
01	VBLK01	105	97	93		
02	NSWC-23/00-001	114	108	78		
03	NSWC-23/00-002	117	95	74		
04	NSWC-25/07D-00	117	112	81		
05	NSWC-26/08D-00	118	96	80		
06	NSWC-26/08D-00	115	113	77		
07	NSWC-26/08D-00	118	103	65		
08	NSWC-26/08D-00	118	114	88		
09	VBLK02	98	96	101		
10	NSWC-23/00-001	107	98	94		
11	NSWC-25/07D-00	113	107	94		
12	NSWC-25/07D-00	118	101	91		
13	NSWC-26/08D-00	151 *	108	81		1
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

	QC LIMITS
SMC1 - Dibromofluoromethane	(80-120)
SMC2 (TOL) - Toluene-d8	(84-138)
SMC3 (BFB) - Bromofluorobenzene	(59-113)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM II VOA-2 SW846

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: NSWC Location: CRANE Group: _____

Matrix Spike - Sample No.: NSWC-26/080-002 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	57	0	71	124	(59-172)
Trichloroethene	57	0	37	64	(62-137)
Benzene	57	0	57	99	(66-142)
Toluene	57	0	54	94	(59-139)
Chlorobenzene	57	0	56	97	(60-133)

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MS % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	57	75	131	5	22	(59-172)
Trichloroethene	57	38	66	3	24	(62-137)
Benzene	57	61	106	7	21	(66-142)
Toluene	57	61	106	12	21	(59-139)
Chlorobenzene	57	58	101	4	21	(60-133)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

Comments: _____

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: _____ Location: _____ Group: _____

Level: (low/med) LOW

	SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	#	#	TOT OUT
01	SBLK01	66	77	76	78	55	110			
02	SBLK01 MS	77	85	88	88	53	130			
03	NSWC-23/00-001	63	77	72	74	64	100			
04	NSWC-23/00-002	50	63	60	64	60	88			
05	NSWC-25/07D-00	58	70	64	70	44	100			
06	NSWC-25/07D-00	54	57	52	62	22	70			
07	NSWC-26/08D-00	69	84	84	86	81	86			
08	NSWC-26/08D-00	53	59	60	60	30	62			
09	NSWC-25/07D-00	52	57	52	60	27	66			
10										
11										
12										
13										
14										
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29										
30										

	QC LIMITS
S1 (2FP) - 2-Fluorophenol	(25-121)
S2 (PHL) - Phenol-d5	(24-113)
S3 (NBZ) - Nitrobenzene-d5	(23-120)
S4 (FBP) - 2-Fluorobiphenyl	(30-115)
S5 (TBP) - 2,4,6-Tribromophenol	(19-122)
S6 (TPH) - Terphenyl-d14	(18-137)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

FORM II SV-2 SW846

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AENI MD Contract: MKC

Project No.: 9507195 Site: Location: Group:

Matrix Spike - Sample No.: SBLK01 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	6700	0	5400	81	(26-90)
2-Chlorophenol	6700	0	5100	76	(25-102)
1,4-Dichlorobenzene	3300	0	2700	82	(28-104)
N-Nitroso-di-n-propylamine	3300	0	3500	106	(41-126)
1,2,4-Trichlorobenzene	3300	0	3100	94	(38-107)
4-Chloro-3-methylphenol	6700	0	5900	88	(26-103)
Acenaphthene	3300	0	2900	88	(31-137)
2,4-Dinitrotoluene	3300	0	2900	88	(28-89)
4-Nitrophenol	6700	0	5300	79	(11-114)
Pentachlorophenol	6700	0	5700	85	(17-109)
Pyrene	3300	0	3900	118	(35-142)

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol					35	(26-90)
2-Chlorophenol					50	(25-102)
1,4-Dichlorobenzene					27	(28-104)
N-Nitroso-di-n-propylamine					38	(41-126)
1,2,4-Trichlorobenzene					23	(38-107)
4-Chloro-3-methylphenol					33	(26-103)
Acenaphthene					19	(31-137)
2,4-Dinitrotoluene					47	(28-89)
4-Nitrophenol					50	(11-114)
Pentachlorophenol					47	(17-109)
Pyrene					36	(35-142)

* Values outside of QC limits

Comments:

AMERICAN ENVIRONMENTAL NETWORK, INC.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Client: MK Corp

Project: NSWC-Crane

Case: 9507195

Analysis: Dioxins

Date: August 10, 1995

Client ID	AENI ID	Date Sampled	Date Received
NSWC-23/00-001	9507195-001	07/18/95	07/22/95
NSWC-23/00-002	9507195-002	07/18/95	07/22/95
NSWC-25/07D-001	9507195-003	07/18/95	07/22/95
NSWC-25/07D-002	9507195-004	07/18/95	07/22/95
NSWC-26/08D-001	9507195-005	07/18/95	07/22/95
NSWC-26/08D-002	9507195-006	07/18/95	07/22/95

Six samples were received and analyzed for Dioxins by Method 8280. The samples were subcontracted to a third party lab for analysis.

The enclosed report consists of tabulated results.

Report Released By: Kristina C Yamarik 8/10/95
Kristina C. Yamarik
Project Manager

TRIANGLE LABS

CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Dibenzo-*p*-Dioxins and Dibenzofurans by

High-Resolution Chromatography / Low-Resolution Mass Spectrometry

Method 8280 Rev. 0 (9/86)

Date: August 8, 1995

Client ID: American Environmental Network

P.O. Number:

TLI Project Number: 33571

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Rev. 06/21/95

Analytical Services Division
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729
P.O. Box 13485
Research Triangle Park, NC 27709-3485
Fax # 919-544-5491

Overview

The samples and any associated QC samples were extracted and analyzed according to procedures described in EPA Method 8280. Any particular difficulties encountered during the sample handling by Triangle Laboratories will be discussed in the QC Remarks section below. Results reported relate only to the items tested.

Sample Extraction

The solid samples have been Soxhlet-Dean Stark extracted with toluene to produce a final extract. Eighty percent of the extract was archived while twenty percent was processed through the cleanup procedures.

The cleanup of extracts may include the use of bulk acid/base washes, and acid silica, basic silica, activated alumina, and carbon column liquid chromatography.

Sample Analysis

A five point initial calibration curve was analyzed, in triplicate, on each instrument used for sample analysis. Calibration ranges are listed below and are based on sample size. A continuing calibration check and a column performance evaluation are analyzed at the beginning of each twelve hour period of sample analysis. The column performance solution, which is used to evaluate the GC resolution is also performed at the end of each twelve hour analytical sequence.

Calibration Ranges

Compounds	Solid (10 g sample)	Water (1 L sample)	
	ppb (µg/Kg)	ppt (ng/L)	ppb (µg/L)
TCDD/TCDF PeCDD/PeCDF	1-20	10-200	0.01-0.2
HxCDD/HxCDF HpCDD/HpCDF	2.5-50	25-500	0.025-0.5
OCDD/OCDF	5-100	50-1000	0.05-1.0

Some of the labeled standards used in the analysis have ion fragments with the same mass as the quantitation mass of some of the analytes. These lower mass fragments appear as peaks or 'breakthrough' in the analyte channels. This can often be witnessed in the cases

of $^{13}C_{12}$-TCDF internal standard appearing in the TCDD analyte channels, $^{13}C_{12}$-HxCDD internal and recovery standards appearing the HpCDF analyte channels, and $^{13}C_{12}$-HpCDF internal standard appearing the HpCDD analyte channels. For most of the above situations, the interfering peaks due to the labeled standards lie outside the retention time window of the analyte. In the case of TCDD/TCDF, the interferences usually lie within the retention time window. Whenever breakthrough peaks occur from the labeled standards, these peaks are reported as EMPCs, and may be considered artifacts from the labeled standards. This is a limitation caused by the use of low-resolution mass spectrometry, recommended in the method.

Quality Control Samples

A laboratory method blank, identified as the TLI Soil Blank, was prepared along with the samples. One such sample per 20 field samples (or less) of a given matrix is prepared.

The batch QC matrix spike/matrix spike duplicate (MS/MSD) were extracted and analyzed with TLI Project number 33450. A table summarizing the percent recoveries and relative percent differences for the batch MS/MSD are included in this data package.

The advisory quality control range for internal and clean-up standard percent recoveries is 40-120 percent recovery (25-120 for the OCDD internal standard). If recoveries are below the advisory range, analyte results are judged to be valid as long as the ratio of signal to noise for the standard is greater than ten to one and the percent recovery is greater than ten percent.

Quality Control Remarks

This release of this particular set of American Environmental Network analytical data by Triangle Laboratories was authorized by the Quality Control Chemist who has reviewed each sample data package individually following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: Six soil samples were received from American Environmental Network with no coolant in good condition July 27, 1995 and were stored in a refrigerator at 4°C until the time of extraction. Sample NSWC-23/07D-001 arrived with the bottom of the bottle broken. The original bottle and bag were placed in a new bag for storage.

Sample Preparation Laboratory: None.

Mass Spectrometry: None.

Data Review: The internal and cleanup standards for these samples are within the QC advisory limits of 40-120 percent (25-120 percent for the OCDD internal standard) or meet ten to one signal to noise criteria in all cases.

Other Comments: No 2,3,7,8-substituted target analytes were detected in the TLI Blank above the method detection limit (MDL).

Sample Calculations:

Method 8280 does not specify which of the two monitored masses to use for quantitation of all of the isotope-labeled standards. Following the pattern established by the method, we have selected which mass to use for each analyte and standard based on the theoretical ratio. For groups with theoretical ratios that are greater than one (the pentas, hexas and heptas), the first monitored mass should be larger and is therefore used for quantitation. For channels with theoretical ratios of less than one (the tetras and octas), the second monitored mass should generally be larger and is used for quantitation.

Analyte Concentration

The concentration or amount of any analyte is calculated using the following expression.

$$C_{(\sigma)} = \frac{A_\sigma * Q_\beta}{A_\beta * RRF_{(\sigma)} * W}$$

Where:

$C_{(\sigma)}$ is the concentration or amount of a given analyte,

A_σ is the integrated ion current of the quantitation ion of the analyte,

A_β is the integrated ion current of the quantitation ion of the corresponding internal standard,

Q_β represents the amount of internal standard added to the sample before extraction,

$RRF_{(\sigma)}$ is the analyte relative response factor from the continuing calibration and,

W is the sample weight or volume

Detection Limits

The detection limit reported for a target analyte was derived from a method validation study performed by Triangle Laboratories, Inc. The reported detection limit has been

adjusted for each sample using the actual sample size extracted and any dilution factors associated with that sample analysis.

Data Flags

In order to assist with data interpretation, data qualifier flags are used on the final reports. Please note that all data qualifier flags are subjective and are applied as consistently as possible. Each flag has been reviewed by two independent Chemists and the impact of the data qualifier flag on the quality of the data discussed above. The flag(s) associated with this data package is/are:

A **'V'** flag is used to indicate that, although the percent recovery of a labeled standard may be below a specific QC limit, the signal-to-noise ratio of the peak is greater than ten-to-one. The standard is considered reliably quantifiable. All quantitations derived from the standard are considered valid as well.

The value reported for 'EMPCs' represents the estimated maximum possible concentration reported for GC/MS peaks eluting within the retention time windows established by the daily GC performance analysis, and which are characterized by a signal to noise ratio in excess of 2.5 to 1, but which do not meet the ion abundance ratio criteria. The 'EMPC' is calculated by using the same expression used for reporting the identified analyte concentrations. An EMPC can be reported for a non-detected specific isomers (e.g. 2,3,7,8-TCDD) but can also be reported for 'totals' (e.g. Total TCDD) in which case the 'total' EMPC represents the sum of all the positively identified PCDD/PCDF peaks and of the peaks that do not meet all the identification criteria.

By our interpretation, the analytical data in this project are valid based on the guidelines of EPA Method 8280. Any specific QC concerns or problems have been discussed in the QC Remarks section of this case narrative with emphasis on their affect on the data. Should American Environmental Network have any questions or comments regarding this data package, please feel free to contact our Project Scientist, Mary McDonald at 919\544-5729.

For Triangle Laboratories, Inc.,

Report Preparation

Patricia C. Berkowitz
8/8/95
Patricia C. Berkowitz
Report Preparation Chemist

Quality Control

Kenneth Varley
Kenneth Varley
Report Preparation Chemist

The total number of pages in the data package is : 59 .

SDG 951114

E-00040

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9511144
Report To: MK Corp
Project: Crane NSWC, IN
Date: December 01, 1995
Analysis: General Chemistry Parameters

Client ID	AENI ID	Date Sampled	Date Received
NSWC 25/07D 003	9511144-001	11/16/95	11/17/95
NSWC 25/07D 004	9511144-002	11/16/95	11/17/95
NSWC 25/07D 005	9511144-003	11/16/95	11/17/95

Three soil samples were received and analyzed for General Chemistry Parameters.

All quality control met standard laboratory criteria.

This report consists of tabulated sample results and a QC Summary Report.

Report Released By: Rhonda Green-Barron
General Chemistry Laboratory Manager

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9511144
Report To: MK Corp
Project: Crane NSWC, IN
Date: December 01, 1995
Analysis: General Chemistry Parameters

QC SUMMARY

Parameter	Sample ID	Result/Recovery
Corrosivity (as pH)	BS951129	6.98
	BSD951129	6.99
Flashpoint	BS951130	100%
Reactive Cyanide	PBLK951201	< 0.02 mg/L
	BS951201	81%
Reactive Sulfide	PBLK951130	< 1 mg/L
	BS951130	73%

AMERICAN ENVIRONMENTAL NETWORK, INC.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

November 22, 1995

Client: MK Corp

Project: NSWC Crane, IN

Case: 9511144

Analysis: Metals

Client ID	AENI ID	Date Sampled	Date Received	Date Analyzed
NSWC 25/07D 003	9511144-001	11/16/95	11/17/95	11/20,21/95
NSWC 25/07D 004	9511144-002	11/16/95	11/17/95	11/20,21/95
NSWC 25/07D 005	9511144-003	11/16/95	11/17/95	11/20,21/95

Three soil samples were received and analyzed for metals per SW846 methodology. Results are reported in units of mg/Kg dry weight.

The matrix spike and/or matrix spike duplicate were outside control limits for Sb, As, Cr, Cu, Pb, Ni, Se, Tl, V and Zn. A post-spike was performed and reported. The duplicate analysis was outside control limits for Cr, Cu, Pb and V and the data flagged accordingly. The serial dilution analysis was outside control limits for Pb and the data flagged. All other QC data were within normal control limits.

Report Released By

Christopher Baggett
Metals Laboratory Manager

U.S. EPA - CLP

3
BLANKS

Lab Name: AENI Contract: 9511144

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P
Arsenic	8.0	U	8.0	U	8.0	U	8.0	U	0.800	U	P
Barium	100.0	U	100.0	U	100.0	U	100.0	U	10.000	U	P
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	0.200	U	P
Cadmium	4.0	U	4.0	U	4.0	U	4.0	U	0.400	U	P
Calcium											NR
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Cobalt	11.0	U	11.0	U	11.0	U	11.0	U	1.100	U	P
Copper	25.0	U	25.0	U	25.0	U	25.0	U	2.500	U	[illegible]
Iron											NR
Lead	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Magnesium											NR
Manganese											NR
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.100	U	AV
Nickel	15.0	U	15.0	U	15.0	U	15.0	U	1.500	U	P
Potassium											NR
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	0.500	U	P
Silver	8.0	U	8.0	U	8.0	U	8.0	U	0.800	U	P
Sodium											NR
Thallium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Vanadium	16.0	U	16.0	U	16.0	U	16.0	U	1.600	U	P
Zinc	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P
Cyanide											NR
Tin	200.0	U	200.0	U	200.0	U	200.0	U	20.000	U	P
Lithium											NR

FORM III - IN ILM02.1

E-00044

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

951115001S

Lab Name: AENI Contract: 9511144

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

Matrix: SOIL Level (low/med): LOW

% Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	79-121	4.0582	B	2.3064	B	9.80	17.9	N	P
Arsenic	79-121	13.9753		6.3659		9.80	77.6	N	P
Barium	79-121	238.6587		44.2868		196.08	99.1		P
Beryllium	79-121	4.7952		0.5573		4.90	86.5		P
Cadmium	79-121	4.5866		0.3774	U	4.90	93.6		P
Calcium									NR
Chromium	79-121	36.6954		26.0142		19.61	54.5	N	P
Cobalt	79-121	48.4564		5.5662		49.02	87.5		P
Copper	79-121	45.9282		28.8934		24.51	69.5	N	P
Iron									NR
Lead	79-121	89.0922		82.4458		49.02	13.6	N	P
Magnesium									NR
Manganese									NR
Mercury	79-121	1.0950		0.3000		1.00	79.5		AV
Nickel	79-121	54.6734		17.1402		49.02	76.6	N	P
Potassium									NR
Selenium	79-121	7.7056		0.4717	U	9.80	78.6	N	P
Silver	79-121	8.4866		0.7547	U	9.80	86.6		P
Sodium									NR
Thallium	79-121	9.8039	U	9.4340	U	9.80	0.0	N	P
Vanadium	79-121	76.9745		39.5500		49.02	76.3	N	P
Zinc	79-121	137.2853		94.8157		49.02	86.6		P
Cyanide									NR
Tin	79-121	79.2653		18.8679	U	98.04	80.8		P
Lithium									NR

Comments:
MATRIX_SPIKE

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

95111500 1M

Lab Name: AENI Contract: 9511144

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

Matrix: SOIL Level (low/med): LOW

% Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony	79-121	3.8776	B	2.3064	B	9.62	16.3	N	NR
Arsenic	79-121	14.6084		6.3659		9.62	85.7		P
Barium	79-121	225.4165		44.2868		192.31	94.2		P
Beryllium	79-121	4.8259		0.5573		4.81	88.7		P
Cadmium	79-121	4.5026		0.3774	U	4.81	93.6		P
Calcium									NR
Chromium	79-121	41.4718		26.0142		19.23	80.4		P
Cobalt	79-121	47.9565		5.5662		48.08	88.2		P
Copper	79-121	49.0114		28.8934		24.04	83.7		P
Iron									
Lead	79-121	87.8411		82.4458		48.08	11.2	N	P
Magnesium									NR
Manganese									NR
Mercury	79-121	1.1455		0.3000		0.91	92.9		AV
Nickel	79-121	55.8689		17.1402		48.08	80.6		P
Potassium									NR
Selenium	79-121	7.4592		0.4717	U	9.62	77.5	N	P
Silver	79-121	8.2154		0.7547	U	9.62	85.4		P
Sodium									NR
Thallium	79-121	9.6154	U	9.4340	U	9.62	0.0	N	P
Vanadium	79-121	77.4894		39.5500		48.08	78.9	N	P
Zinc	79-121	156.3413		94.8157		48.08	128.0	N	P
Cyanide									NR
Tin	79-121	83.2215		18.8679	U	96.15	86.6		P
Lithium									NR

Comments:
MATRIX_SPIKE_DUPLICATE

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

951115001A

Lab Name: AENI Contract: 9511144

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

Matrix: SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Aluminum									NR
Antimony		198.40		24.45	B	200.0	87.0		P
Arsenic		83.73		67.48		20.0	81.3		P
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium		457.85		275.75		200.0	91.0		P
Cobalt									NR
Copper		788.79		306.27		500.0	96.5		P
Iron									NR
Lead		1049.28		873.92		200.0	87.7		P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel		1090.33		181.69		1000.0	90.9		P
Potassium									NR
Selenium		15.05		5.00	U	20.0	75.2		P
Silver									NR
Sodium									NR
Thallium		20.15		100.00	U	20.0	100.7		P
Vanadium		1312.45		419.23		1000.0	89.3		P
Zinc		1895.94		1005.05		1000.0	89.1		P
Cyanide									NR
Tin		912.71		200.00	U	1000.0	91.3		P
Lithium									NR

Comments:

2.1

E-00047

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

951115001D

Lab Name: AENI Contract: 9511144

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

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

% Solids for Sample: 100.0 % Solids for Duplicate: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								
Antimony		2.3064	B	1.8868	U	200.0		NR
Arsenic		6.3659		5.9392		6.9		P
Barium	18.9	44.2868		42.6889		3.7		P
Beryllium	0.5	0.5573		0.4318	B	25.4		P
Cadmium		0.3774	U	0.3774	U			P
Calcium								NR
Chromium		26.0142		36.9315		34.7	*	P
Cobalt	4.7	5.5662		4.8738		13.3		P
Copper		28.8934		38.8542		29.4	*	P
Iron								NR
Lead		82.4458		44.0336		60.7	*	P
Magnesium								NR
Manganese								NR
Mercury	0.1	0.3000		0.3136		4.4		AV
Nickel	3.8	17.1402		20.0753		15.8		P
Potassium								NR
Selenium		0.4717	U	0.4717	U			P
Silver		0.7547	U	0.7547	U			P
Sodium								NR
Thallium		9.4340	U	9.4340	U			P
Vanadium		39.5500		32.2519		20.3	*	P
Zinc		94.8157		91.5186		3.5		P
Cyanide								NR
Tin		18.8679	U	18.8679	U			P
Lithium								NR

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: AENI Contract: 9511144

Lab Code: _____ Case No.: MKC70 SAS No.: _____ SDG No.: 25/07D

Solid LCS Source: _____

Aqueous LCS Source: SPEX

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony	100.0	88.21	88.2						
Arsenic	100.0	85.91	85.9						
Barium	2000.0	2067.02	103.4						
Beryllium	50.0	45.79	91.6						
Cadmium	50.0	47.62	95.2						
Calcium									
Chromium	200.0	197.15	98.6						
Cobalt	500.0	481.30	96.3						
Copper	250.0	251.53	100.6						
Iron									
Lead	500.0	473.88	94.8						
Magnesium									
Manganese									
Mercury									
Nickel	500.0	481.39	96.3						
Potassium									
Selenium	100.0	85.53	85.5						
Silver	100.0	92.49	92.5						
Sodium									
Thallium	100.0	87.92	87.9						
Vanadium	500.0	485.76	97.2						
Zinc	500.0	475.12	95.0						
Cyanide									
Tin	1000.0	827.48	82.7						
Lithium									

FORM VII - IN

ILM02.1

E-00049

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Name: AENI Contract: 9511144

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

Solid LCS Source:

Aqueous LCS Source: SPEX

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
gnesium									
nganese									
Mercury	2.0	1.99	99.5						
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									
Tin									
Lithium									

FORM VII - IN

ILM02.1

E-00050

AMERICAN ENVIRONMENTAL NETWORK, INC.

December 1, 1995

Client: MK CORP

Case: 9511144

Project: CRANE NSWC

Analysis: Herbicides by Method 8150 (Appendix IX)

Client ID	AENI#	Date Sampled	Date Received	Date Extracted	Date Analyzed
NSWC 25/07D 003	9511144-001	11/16/95	11/17/95	11/27/95	12/01/95
NSWC 25/07D 004	9511144-002	11/16/95	11/17/95	11/27/95	12/01/95
NSWC 25/07D 005	9511144-003	11/16/95	11/17/95	11/27/95	12/01/95

Three soil samples were extracted and analyzed for 2,4-D, Silvex, and 2,4,5-T using SW-846 method 8150.

The enclosed package consists specifically of tabulated results (Form I), surrogate spike recoveries (Form II), matrix spike recoveries (Form III), method blank summary (Form IV), initial calibration summary (Form VI), and continuing calibration summary (Form VII).

Form I (Tabulated Results)

The qualifier "U" indicates that a compound was analyzed for but not detected above the reporting limit. The samples were prepared and analyzed within method specified holding time.

Form II (Surrogate Spike Recoveries)

Seven out of ten surrogate recoveries were within specified criteria (50-150%). The other three recoveries were below criteria. Surrogate recoveries tended to be lower on column DB-5. Column DB-608 was used for quantitation purposes.

Form III (Matrix Spike Recoveries)

A blank spike (BS) was prepared with this sample set. BS recoveries were within specified criteria (50-150%).

Form IV (Method Blank Summary)

No herbicides were detected in the method blank above the reporting limit.

Form VI (Initial Calibration Summary)

Linear five-point curve with correlation coefficient of 0.995 or better was used for sample quantitation.

Form VII (Continuing Calibration Summary)

Recoveries for continuing calibration verification standards were within +/- 15% criteria.

Data Released By

Noble N. Nemieboka
GC/LC Acting Lab Manager

AENI
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Sample Number
SBLK01

Case No.: 9511144
Client Name: MK CORP
Project Name: CRANE NSWC
Account #: MKC 70

AENI # BLK951127LB

Concentration: Low
Date Sampled: N/A
Date Received: N/A
Date Extract Prepared: 11/27/95
Date Analyzed: 12/1/95
Conc/Dil Factor: 1
Matrix SOIL

GPC Cleanup No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid 100

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		50	U
SILVEX		50	U
2,4,5-T		50	U

Vi - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) N/A
Ws - Mass of soil extracted (g) 10.00
Vt- Volume of total extract (ul) 10000

FORM I

E-00053

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No.: 9511144 Laboratory Name: American Environmental Network Inc.

Client ID	AEN ID	DCAA DB-5	DCAA DB-608
SBLK 01	BLK951127LB	69	94
BS	BS951127LB	54	94
NSWC 25/07D 003	9511144-001	31*	73
NSWC 25/07D 004	9511144-002	35*	51
NSWC 25/07D 005	9511144-003	28*	51

CONTROL LIMITS = 50-150%

* - Values are outside of contract required QC limits.
M-Matrix interference. D-Surrogate diluted out.

3 out of 10
outside QC limits.

FORM II HERBICIDES

E-00054

AMERICAN ENVIRONMENTAL NETWORK, INC.
HERBICIDE MATRIX SPIKE RECOVERIES

Case No.: 9511144

Client Name: MK CORP

Project Name: CRANE NSWC

Client Sample ID: BS951127LB

Date of Analysis: 12/1/95

Instrument ID: GC-H

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	BS CONC (ug/kg)	BS % REC	BSD CONC (ug/kg)	BSD % REC	QC LIMITS REC
2,4-D	503	0.0	355	71	N/A	N/A	50-150
Silvex	529	0.0	355	67	N/A	N/A	50-150

Spike Recovery: 0 out of 2 outside QC limits.

AMERICAN ENVIRONMENTAL NETWORK, INC.

November 29, 1995

Client: MK CORP

Case: 9511144

Project: NSWC CRANE

Analysis: Pesticides and PCB's by SW-846 Method 8080 (Appendix IX)

Client ID	AENI#	Date Sampled	Date Received	Date Extracted	Date Analyzed
NSWC 25/07D 003	9511144-001	11/16/95	11/17/95	11/23/95	11/29/95
NSWC 25/07D 004	9511144-002	11/16/95	11/17/95	11/23/95	11/29/95
NSWC 25/07D 005	9511144-003	11/16/95	11/17/95	11/20/95	11/28/95

Three soil samples were extracted and analyzed for Pesticides and PCB's by SW-846 method 8080 (Appendix IX).

The enclosed package consists specifically of tabulated results (Form I), surrogate spike recoveries (Form II), matrix spike recoveries (Form III), method blank summary (Form IV), initial calibration summary (Form VI), continuing calibration summary (Form VII), and retention time shifting summary (Form VIII).

Form I (Tabulated Results)

The qualifier "U" indicates that a compound was analyzed for but not detected above the reporting limit. The samples were prepared and analyzed within method specified holding time. The sample extracts were diluted prior to analysis due to dark coloration and potential for damage to the chromatographic column. Reporting limits for the samples are elevated in proportion to the dilution factor.

Form II (Surrogate Spike Recoveries)

Fourteen out of sixteen measurable surrogate recoveries were within EPA CLP advisory limits (60-150%). The surrogates were diluted out of the samples.

Form III (Matrix Spike Recoveries)

Two blank spikes (BS) were extracted with this sample set. All BS recoveries were within specified criteria (see Form III).

MS/MSD was performed on sample NSWC 25/07D 005 (AENI# 9511144-003). Percent recoveries and RPD could not be evaluated due to 20X diluti

Form IV (Method Blank Summary)

No pesticides or PCB's were detected in the method blanks.

Form VI (Initial Calibration Summary)

Linear five-point curve with correlation coefficient of 0.995 or better was used for sample quantitation.

A separate calibration curve was analyzed for Diallate, PCNB, Isodrin, Chlorobenzilate, and Kepone. Quantitation (both columns) was based on a five point calibration with correlation coefficient of 0.995 or better.

Form VII (Continuing Calibration Summary)

CCV recoveries were either within or above criteria on both columns for all components of interest. High recoveries do not affect sample data quality since these pesticides were not present in the samples.

Form VIII (Retention Time Shifting Summary)

All retention time shifting was within criteria (+/- 1.5%).

Data Released By

Noble N Nemieboka
GC/LC Acting Lab Manager

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9511144
Project Name:——— NSWC CRANE
Client/Account #:—— MK CORP/MKC70

Sample Number
PBLK 01

AENI # BLK951120LA

Concentration:——— Low
Date Sampled:——— N/A
Date Received:——— N/A
Date Ext Prepared:—— 11/20/95
Date Analyzed:——— 11/28/95
Conc/Dil Factor:——— 1
Method: ——— 8080

GPC Cleanup	Yes	X No
Seperatory Funnel Extraction		Yes
Continuous Liquid - Liquid Extraction		Yes
Percent Moisture	0	
Matrix:	SOIL	

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		1.7	U
319-85-7	beta-BHC		1.7	U
319-86-8	delta-BHC		1.7	U
58-89-9	gamma-BHC (Lindane)		3.3	U
75-44-8	Heptachlor		1.7	U
309-00-2	Aldrin		1.7	U
1024-57-3	Heptachlor epoxide		1.7	U
959-98-8	Endosulfan I		1.7	U
60-57-1	Dieldrin		3.3	U
75-55-9	4, 4'-DDE		3.3	U
72-20-8	Endrin		3.3	U
33213-65-9	Endosulfan II		3.3	U
72-54-8	4, 4'-DDD		3.3	U
1031-07-8	Endosulfan Sulfate		3.3	U
50-29-3	4, 4'-DDT		3.3	U
72-43-5	Methoxychlor		17	U
53494-70-5	Endrin Ketone		3.3	U
7421-36-3	Endrin aldehyde		3.3	U
57-74-9	Chlordane		33	U
8001-35-2	Toxaphene		170	U
12674-11-2	Aroclor-1016		33	U
11104-28-2	Aroclor-1221		67	U
11141-16-5	Aroclor-1232		33	U
53469-21-9	Aroclor-1242		33	U
12672-29-6	Aroclor-1248		33	U
11097-69-1	Aroclor-1254		33	U
11096-82-5	Aroclor-1260		33	U
510-15-6	Chlorobenzilate		67	U
2303-16-4	Diallate		333	U
465-73-6	Isodrin		8.3	U
143-50-0	Kepone		33	U
82-68-8	Pentachloronitrobenzene		6.7	U

Vi - Volume of extract injected (ul) - _____ 1
Vs - Volume of Water extracted (ml) - _____ N/A
Ws - Weight of sample extracted (g) - _____ 30
Vt - Volume of total extract (ul) - _____ 10,000

FORM I

E-00058

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.: 9511144
Project Name: NSWC CRANE
Client/Account #: MK CORP/MKC70

Sample Number
PBLK 02

AENI # BLK951122VA

Concentration: Low
Date Sampled: N/A
Date Received: N/A
Date Ext Prepared: 11/23/95
Date Analyzed: 11/29/95
Conc/Dil Factor: 1
Method: 8080

GPC Cleanup		Yes	X	No
Seperatory Funnel Extraction				Yes
Continuous Liquid - Liquid Extraction				Yes
Percent Moisture	0			
Matrix:	SOIL			

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		1.7	U
319-85-7	beta-BHC		1.7	U
319-86-8	delta-BHC		1.7	U
58-89-9	gamma-BHC (Lindane)		3.3	U
75-44-8	Heptachlor		1.7	U
309-00-2	Aldrin		1.7	U
1024-57-3	Heptachlor epoxide		1.7	U
959-98-8	Endosulfan I		1.7	U
60-57-1	Dieldrin		3.3	U
75-55-9	4, 4'-DDE		3.3	U
72-20-8	Endrin		3.3	U
33213-65-9	Endosulfan II		3.3	U
72-54-8	4, 4'-DDD		3.3	U
1031-07-8	Endosulfan Sulfate		3.3	U
50-29-3	4, 4'-DDT		3.3	U
72-43-5	Methoxychlor		17	U
53494-70-5	Endrin Ketone		3.3	U
7421-36-3	Endrin aldehyde		3.3	U
57-74-9	Chlordane		33	U
8001-35-2	Toxaphene		170	U
12674-11-2	Aroclor-1016		33	U
11104-28-2	Aroclor-1221		67	U
11141-16-5	Aroclor-1232		33	U
53469-21-9	Aroclor-1242		33	U
12672-29-6	Aroclor-1248		33	U
11097-69-1	Aroclor-1254		33	U
11096-82-5	Aroclor-1260		33	U
510-15-6	Chlorobenzilate		67	U
2303-16-4	Diallate		333	U
465-73-6	Isodrin		8.3	U
143-50-0	Kepone		33	U
82-68-8	Pentachloronitrobenzene		6.7	U

Vi - Volume of extract injected (ul) - 1
Vs - Volume of Water extracted (ml) - N/A
Ws - Weight of sample extracted (g) - 30
Vt - Volume of total extract (ul) - 10,000

FORM I

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: American Environmental Network, Inc. Contract: 9511144
Lab Code: NA Case No.: NA SAS No.: NA
Instrument ID: GC-F
GC Column(1): DB-5 D: 0.53 mm GC Column(2): DB 608 ID: 0.53 mm
Dates of Analyses: 11/28/95 to 11/28/95
Method: 8080

	EPA SAMPLE NO.	TCMX 1 %REC	#	TCMX 2 % REC	#	DCB 1 %REC	#	DCB 2 %REC	#	TOTAL OUT
	BLK951120LA	95		117		69		85		0
	BS 01	87		81		85		108		0
20X	NSWC 25/07D 005	D		D		D		D		0

ADVISORY QC LIMITS

TCMX= Tetrachloro-m-xylene (60-150)
DCB= Decachlorobiphenyl (60-150)

COLUMN TO BE USED TO FLAG RECOVERY VALUES
* VALUES OUTSIDE OF QC LIMITS
D SURROGATE DILUTED OUT

FORM II PEST-1

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: American Environmental Network, Inc. Contract: 9511144

Lab Code: NA Case No.: NA SAS No.: NA

Instrument ID: GC-F

GC Column(1): DB-5 D: 0.53 mm GC Column(2): DB 608 ID: 0.53 mm

Dates of Analyses: 11/29/95 to 11/29/95

Method: 8080

	EPA SAMPLE NO.	TCMX 1 %REC	#	TCMX 2 % REC	#	DCB 1 %REC	#	DCB 2 %REC	#	TOTAL OUT
	BLK951122VA	102		172	*	89		111		1
	BS 02	109		181	*	103		106		1
20X	NSWC 25/07D 003	D		D		D		D		0
10X	NSWC 25/07D 004	D		D		D		D		0

ADVISORY QC LIMITS

TCMX= Tetrachloro-m-xylene (60-150)

DCB= Decachlorobiphenyl (60-150)

COLUMN TO BE USED TO FLAG RECOVERY VALUES

* VALUES OUTSIDE OF QC LIMITS

D SURROGATE DILUTED OUT

FORM II PEST-1

E-00061

3F

SOIL BLANK SPIKE RECOVERY

Lab Name: American Environmental Network, Inc. Contract: 9511144

Lab Code: NA Case No.: NA SAS No.: NA

Matrix Spike - EPA Sample No.: BS951120LA

Method: 8080

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	BS CONCENTRATION (ug/Kg)	BS % REC	#	QC LIMITS REC.
gamma-BHC (Lindane)	6.7	0.0	6.3	94		46 - 127
Heptachlor	6.7	0.0	4.8	72		35 - 130
Aldrin	6.7	0.0	5.8	87		34 - 132
Dieldrin	17	0.0	16	94		31 - 134
Endrin	17	0.0	20	118		42 - 139
4,4'-DDT	17	0.0	18	106		23 - 134

Column to be used to flag recovery values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 6 outside limits.

FORM III PEST-2

3F

SOIL BLANK SPIKE RECOVERY

Lab Name: American Environmental Network, Inc. Contract: 9511144

Lab Code: NA Case No.: NA SAS No.: NA

Matrix Spike - EPA Sample No.: BS951122VA

Method: 8080

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	BS CONCENTRATION (ug/Kg)	BS % REC	#	QC LIMITS REC.
gamma-BHC (Lindane)	6.7	0.0	7.0	104		46 - 127
Heptachlor	6.7	0.0	6.5	97		35 - 130
Aldrin	6.7	0.0	6.8	101		34 - 132
Dieldrin	17	0.0	17	100		31 - 134
Endrin	17	0.0	23	135		42 - 139
4,4'-DDT	17	0.0	20	118		23 - 134

Column to be used to flag recovery values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 6 outside limits.

FORM III PEST-2

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 RUMSEY ROAD
COLUMBIA, MD. 21045
(410) 730-8525

Project Number: 9511-144
Client Name: Morrison Knudsen Corporation
Project Title: NSWC Crane

Three soil samples were analyzed for the volatile organic compounds in the Appendix IX list by method 8260 and for the polynuclear aromatic compounds, by method 8270.
All analyses followed the standard AENI QA/QC and holding time requirements.

This package consists of the tabulated results of the samples and the method blanks, along with the QC forms II, III, IV, V, VI, VII and VIII.

Data Released _____ 4/2/15
Minh-Thuy L. Nguyen
GC/MS Lab Manager

VOLATILES Section:

Client ID	AENI ID	Matrix	Date Sampled	Date Received	Date Analyzed
NSWC 25/07D 003	144-001	Soil	11/16/95	11/17/95	11/20/95
NSWC 25/07D 004	144-002	Soil	11/16/95	11/17/95	11/20/95
NSWC 25/07D 005	144-003	Soil	11/16/95	11/17/95	11/20/95

Form I (Tabulated Results)
All analyses were performed within the holding time requirement. The results for the soil samples were reported on the basis of dry weight. Note that chloroprene was reported for semiquantitative analysis only ('Z' flag), due to the laboratory inability to purchase this compound in a known mixture.

Form II (Surrogate Recoveries)
The surrogate recoveries for the samples and the method blank were within the method specified limits.

Form III (MS/MSD Recoveries)
A batch MS/MSD analysis was reported (lab sample ID# 9511157-002. All spike recoveries and all %RPDs were within the method advisory limits.

Form IV (Method Blank Summary)
The method blank was free of target analytes. However methylene chloride is a common lab artifact and results reported in the samples should be viewed as maximum values.

Form V (Tuning and Mass Calibration)
All calibration standards, method blank and samples were analyzed within the method specified mass calibration and 12-hr tune criteria.

Form VI (Initial Calibration)
The initial calibration curve met the method specified Min mean RRF for the SPCC compounds and Max %RSD for the CCC compounds.

Form VII (Continuing Calibration)
All CCC and SPCC compounds for the daily continuing calibration were within the method specified criteria for max %D and Min RRF50.

Form VIII (Internal Standard Summary)
All internal standard areas and all retention times were within the lab warning limits.

SEMIVOLATILES Section:

Client ID	AENI ID	Matrix	Date Sampled	Date Received	Date Extracted	Date Analyzed
NSWC 25/07D 003	144-001	Soil	11/16/95	11/17/95	11/20/95	11/26/95
NSWC 25/07D 004	144-002	Soil	11/16/95	11/17/95	11/20/95	11/26/95
NSWC 25/07D 005	144-003	Soil	11/16/95	11/17/95	11/20/95	11/26/95

Form I (Tabulated Results)
All sample preparation and analyses were performed within the holding time requirement. The results were reported on the basis of dry weight.

Form II (Surrogate Recoveries)
The surrogate recoveries for the samples, QC, and method blank were within the method specified limits.

Form III (BS Recoveries)
A BS analysis was reported. All spike recoveries were within the method advisory limits.

Form IV (Method Blank Summary)
The method blank was free of target analytes.

Form V (Tuning and Mass Calibration)
All calibration standards, method blank, QC and samples were analyzed within the method specified mass calibration and 12-hr tune criteria.

Form VI (Initial Calibration)
The initial calibration curve met the method specified Min mean RRF for the SPCC compounds and Max %RSD for the CCC compounds.

Form VII (Continuing Calibration)
All CCC and SPCC compounds for the daily continuing calibration were within the method specified criteria for max %D and Min RRF50.

Form VIII (Internal Standard Summary)
All internal standard area recoveries and retention times were within the lab warning limits.

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: _____ Location: _____ Group: _____

Level: (low/med) LOW

	SAMPLE NO.	SMC1 #	SMC2 (TOL) #	SMC3 (BFB) #	OTHER #	TOT OUT
01	VBLK01	112	111	94		
02	NSWC 25/07D 00	111	107	88		
03	NSWC 25/07D 00	113	113	91		
04	NSWC 25/07D 00	118	111	83		
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

	QC LIMITS
SMC1 - Dibromofluoromethane	(80-120)
SMC2 (TOL) - Toluene-d8	(81-117)
SMC3 (BFB) - Bromofluorobenzene	(74-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK01

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: 951120FS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK350.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. 0 Date Analyzed: 11/20/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	100	U
75-05-8	Acetonitrile	5	U
107-13-1	Acrylonitrile	1000	U
107-02-8	Acrolein	1000	U
75-69-4	Trichlorofluoromethane	5	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-4	1,1-Dichloroethane	5	U
540-59-0	trans-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
75-71-8	Dichlorodifluoromethane	5	U
74-88-4	Iodomethane	5	U
107-12-0	Propionitrile	5	U
107-05-1	Allyl chloride	100	U
78-93-3	2-Butanone	100	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
71-43-2	Benzene	5	U
124-48-1	Dibromochloromethane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
75-25-2	Bromoform	5	U

FORM I VOA 8260/Appendix IX

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK01

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: 951120FS

Sample wt/vol: 5.0 (g/mL) G Lab File ID: FK350.D

Level: (low/med) LOW Date Received:

% Moisture: not dec. 0 Date Analyzed: 11/20/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 1 (uL) Soil Aliquot Volume: 1 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
126-98-7	Methacrylonitrile	5	U
74-95-3	Dibromomethane	5	U
106-93-4	1,2-Dibromoethane (EDB)	5	U
108-10-1	4-Methyl-2-Pentanone	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
108-38-3	m + p-Xylene	5	U
95-47-6	o-Xylene	5	U
80-62-6	Methyl methacrylate	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
110-57-6	trans-1,4-Dichloro-2-butene	25	U
97-63-2	Ethyl methacrylate	5	U
76-01-7	Pentachloroethane	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
78-83-1	Isobutyl Alcohol	5	U
126-99-8	Chloroprene (TIC) *	5	U
	3-Chloroprene (TIC)	5	U
123-91-1	1,4-Dioxane (TIC)	1000	U
	Methylene Chloride - Dichloromethane		
	Methyl ethyl ketone - 2-Butanone		
	Chloroprene - 2-Chloro-1,3-butadiene		
	Propionitrile - Ethyl Cyanide		
* - Reported as semiquantitative analysis only.			

FORM I VOA 8260/Appendix IX

E-00069

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: CRANE Location: NSWC Group: _____

Level: (low/med) LOW

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	#	#	#	#	#	TOT OUT
01	SBLK01	74	77	75						
02	SBLK01MS	82	90	83						
03	NSWC 25/07D 00	75	80	83						
04	NSWC 25/07D 00	77	83	73						
05	NSWC 25/07D 00	67	73	74						
06										
07										
08										
09										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										
21										
22										
23										
24										
25										
26										
27										
28										
29										
30										

	QC LIMITS
S1 (NBZ) - Nitrobenzene-d5	(23-120)
S2 (FBP) - 2-Fluorobiphenyl	(30-115)
S3 (TPH) - Terphenyl-d14	(18-137)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

FORM II SV-2 SW846

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AENI Contract: 9511144

Project No.: MKC70 Site: CRANE Location: NSWC Group: _____

Matrix Spike - Sample No.: 951120LB Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,4-Dichlorobenzene	3300	0	2500	76	(28-104)
N-Nitroso-di-n-propylamine	3300	0	2300	70	(41-126)
1,2,4-Trichlorobenzene	3300	0	2600	79	(41-126)
Acenaphthene	3300	0	3000	91	(31-137)
2,4-Dinitrotoluene	3300	0	2700	82	(28-89)
Pyrene	3300	0	2500	76	(35-142)

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,4-Dichlorobenzene	3300				27	(28-104)
N-Nitroso-di-n-propylamine	3300				38	(41-126)
1,2,4-Trichlorobenzene	3300				38	(41-126)
Acenaphthene	3300				19	(31-137)
2,4-Dinitrotoluene	3300				47	(28-89)
Pyrene	3300				36	(35-142)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Comments: _____

SDG 9511157

E-00072

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9511157
Report To: MK Corp
Project: NSWC Crane, IN
Date: December 01, 1995
Analysis: General Chemistry Parameters

Client ID	AENI ID	Date Sampled	Date Received
NSWC 25/07D 006	9511157-001	11/17/95	11/18/95
NSWC 25/07D 007	9511157-002	11/17/95	11/18/95

Two soil samples were received and analyzed for General Chemistry Parameters.

All quality control met standard laboratory criteria.

This report consists of tabulated sample results and a QC Summary Report.

Report Released By: Rhonda Green-Barron
Rhonda Green-Barron
General Chemistry Laboratory Manager

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

Report Number: 9511157
Report To: MK Corp
Project: NSWC Crane, IN
Date: December 01, 1995
Analysis: General Chemistry Parameters

QC SUMMARY

Parameter	Sample ID	Result/Recovery
Corrosivity (as pH)	BS951129	6.98
	BSD951129	6.99
Flashpoint	BS951130	100%
	BS951201	100%
Reactive Cyanide	PBLK951201	< 0.02 mg/L
	BS951201	81%
Reactive Sulfide	PBLK951130	< 1 mg/L
	BS951130	73%

AMERICAN ENVIRONMENTAL NETWORK, INC.

9151 Rumsey Road Suite 150, Columbia, MD 21045-1992
(410) 730-8525 Fax (410) 997-2586

November 22, 1995

Client: MK Corp

Project: NSWC Crane, IN

Case: 9511157

Analysis: Metals

Client ID	AENI ID	Date Sampled	Date Received	Date Analyzed
NSWC 25/07D-006	9511157-001	11/17/95	11/18/95	11/20,21/95
NSWC 25/07D-007	9511157-002	11/17/95	11/18/95	11/20,21/95

Two soil samples were received and analyzed for metals following SW846 methodologies. Results are reported in units of mg/Kg dry weight.

The matrix spike and/or matrix spike duplicate percent recoveries were outside control limits for Antimony, Arsenic, Chromium, Copper, Lead, Nickel, Selenium, Thallium, Vanadium and Zinc. An analytical spike was analyzed and is reported within. The duplicate analysis was outside control limits for Chromium, Copper, Lead and Vanadium and the data flagged accordingly. The serial dilution analysis was outside control limits for Lead and the data flagged. All other QC data were within normal control limits.

Report Released By

Christopher Baggett
Metals Laboratory Manager

U.S. EPA - CLP

3
BLANKS

Lab Name: AENI Contract: 9511157

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P
Arsenic	8.0	U	8.0	U	8.0	U	8.0	U	0.800	U	P
Barium	100.0	U	100.0	U	100.0	U	100.0	U	10.000	U	P
Beryllium	2.0	U	2.0	U	2.0	U	2.0	U	0.200	U	P
Cadmium	4.0	U	4.0	U	4.0	U	4.0	U	0.400	U	P
Calcium											NR
Chromium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Cobalt	11.0	U	11.0	U	11.0	U	11.0	U	1.100	U	P
Copper	25.0	U	25.0	U	25.0	U	25.0	U	2.500	U	P
Iron											NR
Lead	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Magnesium											NR
Manganese											NR
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.100	U	AV
Nickel	15.0	U	15.0	U	15.0	U	15.0	U	1.500	U	P
Potassium											NR
Selenium	5.0	U	5.0	U	5.0	U	5.0	U	0.500	U	P
Silver	8.0	U	8.0	U	8.0	U	8.0	U	0.800	U	P
Sodium											NR
Thallium	10.0	U	10.0	U	10.0	U	10.0	U	1.000	U	P
Vanadium	16.0	U	16.0	U	16.0	U	16.0	U	1.600	U	P
Zinc	20.0	U	20.0	U	20.0	U	20.0	U	2.000	U	P
Cyanide											NR
Tin	200.0	U	200.0	U	200.0	U	200.0	U	20.000	U	P
Lithium											NR

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

951115001S

Lab Name: AENI Contract: 9511157

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D
Matrix: SOIL Level (low/med): LOW
% Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	79-121	4.0582		2.3064		9.80	17.9	N	P
Arsenic	79-121	13.9753		6.3659		9.80	77.6	N	P
Barium	79-121	238.6587		44.2868		196.08	99.1		P
Beryllium	79-121	4.7952		0.5573		4.90	86.5		P
Cadmium	79-121	4.5866		0.3774	U	4.90	93.6		P
Calcium									NR
Chromium	79-121	36.6954		26.0142		19.61	54.5	N	P
Cobalt	79-121	48.4564		5.5662		49.02	87.5		P
Copper	79-121	45.9282		28.8934		24.51	69.5	N	P
Iron									NR
Lead	79-121	89.0922		82.4458		49.02	13.6	N	P
Magnesium									NR
Manganese									NR
Mercury	79-121	1.0950		0.3000		1.00	79.5		AV
Nickel	79-121	54.6734		17.1402		49.02	76.6	N	P
Potassium									NR
Selenium	79-121	7.7056		0.4717	U	9.80	78.6	N	P
Silver	79-121	8.4866		0.7547	U	9.80	86.6		P
Sodium									NR
Thallium	79-121	9.8039	U	9.4340	U	9.80	0.0	N	P
Vanadium	79-121	76.9745		39.5500		49.02	76.3	N	P
Zinc	79-121	137.2853		94.8157		49.02	86.6		P
Cyanide									NR
Tin	79-121	79.2653		18.8679	U	98.04	80.8		P
Lithium									NR

Comments:
MATRIX_SPIKE

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

951115001M

Lab Name: AENI Contract: 9511157

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

Matrix: SOIL Level (low/med): LOW

% Solids for Sample: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	79-121	3.8776		2.3064		9.62	16.3	N	P
Arsenic	79-121	14.6084		6.3659		9.62	85.7		P
Barium	79-121	225.4165		44.2868		192.31	94.2		P
Beryllium	79-121	4.8259		0.5573		4.81	88.7		P
Cadmium	79-121	4.5026		0.3774	U	4.81	93.6		P
Calcium									NR
Chromium	79-121	41.4718		26.0142		19.23	80.4		P
Cobalt	79-121	47.9565		5.5662		48.08	88.2		P
Copper	79-121	49.0114		28.8934		24.04	83.7		P
Iron									N
Lead	79-121	87.8411		82.4458		48.08	11.2	N	P
Magnesium									NR
Manganese									NR
Mercury	79-121	1.1455		0.3000		0.91	92.9		AV
Nickel	79-121	55.8689		17.1402		48.08	80.6		P
Potassium									NR
Selenium	79-121	7.4592		0.4717	U	9.62	77.5	N	P
Silver	79-121	8.2154		0.7547	U	9.62	85.4		P
Sodium									NR
Thallium	79-121	9.6154	U	9.4340	U	9.62	0.0	N	P
Vanadium	79-121	77.4894		39.5500		48.08	78.9	N	P
Zinc	79-121	156.3413		94.8157		48.08	128.0	N	P
Cyanide									NR
Tin	79-121	83.2215		18.8679	U	96.15	86.6		P
Lithium									NR

Comments:
MATRIX_SPIKE_DUPLICATE

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: AENI Contract: 9511157 | 951115001A

Lab Code: _____ Case No.: MKC70 SAS No.: _____ SDG No.: 25/07D

Matrix: SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Aluminum									
Antimony									NR
Arsenic		198.40		24.45		200.0	87.0		P
Barium		83.73		67.48		20.0	81.3		P
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt		457.85		275.75		200.0	91.0		P
Copper									NR
Iron		788.79		306.27		500.0	96.5		P
Lead									NR
Magnesium		1049.28		873.92		200.0	87.7		P
Manganese									NR
Mercury									NR
Nickel									NR
Potassium		1090.33		181.69		1000.0	90.9		P
Selenium									NR
Silver		15.05		5.00	U	20.0	75.2		P
Sodium									NR
Thallium									NR
Vanadium		20.15		100.00	U	20.0	100.7		P
Zinc		1312.45		419.23		1000.0	89.3		P
Cyanide		1895.94		1005.05		1000.0	89.1		P
Tin									NR
Lithium									NR
									NR

Comments:

2.1

E-00079

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

951115001D

Lab Name: AENI Contract: 9511157

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

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

% Solids for Sample: 100.0 % Solids for Duplicate: 100.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony		2.3064		1.8868	U	200.0		P
Arsenic		6.3659		5.9392		6.9		P
Barium	18.9	44.2868		42.6889		3.7		P
Beryllium	0.5	0.5573		0.4318		25.4		P
Cadmium		0.3774	U	0.3774	U			P
Calcium								NR
Chromium		26.0142		36.9315		34.7	*	P
Cobalt	4.7	5.5662		4.8738		13.3		P
Copper		28.8934		38.8542		29.4	*	P
Iron								NR
Lead		82.4458		44.0336		60.7	*	P
Magnesium								NR
Manganese								NR
Mercury	0.1	0.3000		0.2875		4.3		AV
Nickel	3.8	17.1402		20.0753		15.8		P
Potassium								NR
Selenium		0.4717	U	0.4717	U			P
Silver		0.7547	U	0.7547	U			P
Sodium								NR
Thallium		9.4340	U	9.4340	U			P
Vanadium		39.5500		32.2519		20.3	*	P
Zinc		94.8157		91.5186		3.5		P
Cyanide								NR
Tin		18.8679	U	18.8679	U			P
Lithium								NR

FORM VI - IN ILM02.1

E-00080

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Name: AENI Contract: 9511157

Lab Code: _____ Case No.: MKC70 SAS No.: _____ SDG No.: 25/07D

Solid LCS Source: _____

Aqueous LCS Source: SPEX

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony	100.0	88.21	88.2						
Arsenic	100.0	85.91	85.9						
Barium	2000.0	2067.02	103.4						
Beryllium	50.0	45.79	91.6						
Cadmium	50.0	47.62	95.2						
Calcium									
Chromium	200.0	197.15	98.6						
Cobalt	500.0	481.30	96.3						
Copper	250.0	251.53	100.6						
Iron									
Lead	500.0	473.88	94.8						
Magnesium									
Manganese									
Mercury									
Nickel	500.0	481.39	96.3						
Potassium									
Selenium	100.0	85.53	85.5						
Silver	100.0	92.49	92.5						
Sodium									
Thallium	100.0	87.92	87.9						
Vanadium	500.0	485.76	97.2						
Zinc	500.0	475.12	95.0						
Cyanide									
Tin	1000.0	827.48	82.7						
Lithium									

FORM VII - IN

ILM02.1

E-00081

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Name: AENI Contract: 9511157

Lab Code: Case No.: MKC70 SAS No.: SDG No.: 25/07D

Solid LCS Source:

Aqueous LCS Source: SPEX

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead									
gnesium									
manganese									
Mercury	2.0	1.99	99.5						
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									
Tin									
Lithium									

FORM VII - IN

ILM02.1

E-00082

AMERICAN ENVIRONMENTAL NETWORK, INC.

December 1, 1995

Client: MK CORP

Case: 9511157

Project: CRANE NSWC

Analysis: Herbicides by Method 8150 (Appendix IX)

Client ID	AENI#	Date Sampled	Date Received	Date Extracted	Date Analyzed
NSWC 25/07D-006	9511157-001	11/17/95	11/18/95	11/27/95	12/01/95
NSWC 25/07D-007	9511157-002	11/17/95	11/18/95	11/27/95	12/01/95

Two soil samples were extracted and analyzed for 2,4-D, Silvex, and 2,4,5-T using SW-846 method 8150.

The enclosed package consists specifically of tabulated results (Form I), surrogate spike recoveries (Form II), matrix spike recoveries (Form III), method blank summary (Form IV), initial calibration summary (Form VI), and continuing calibration summary (Form VII).

Form I (Tabulated Results)

The qualifier "U" indicates that a compound was analyzed for but not detected above the reporting limit. The samples were prepared and analyzed within method specified holding time.

Form II (Surrogate Spike Recoveries)

Seven out of eight surrogate recoveries were within specified criteria (50-150%). The other recovery was slightly below criteria.

Form III (Matrix Spike Recoveries)

A blank spike (BS) was prepared with this sample set. BS recoveries were within specified criteria (50-150%).

Form IV (Method Blank Summary)

No herbicides were detected in the method blank above the reporting limit.

Form VI (Initial Calibration Summary)

Linear five-point curve with correlation coefficient of 0.995 or better was used for sample quantitation.

Form VII (Continuing Calibration Summary)

Recoveries for continuing calibration verification standards were within +/- 15% criteria.

Data Released By

Noble N. Nemieboka
GC/LC Acting Lab Manager

AENI
ORGANIC ANALYSIS DATA SHEET
HERBICIDES METHOD 8150

Sample Number
SBUK01

Case No.: 9511157
Client Name: MK CORP
Project Name: CRANE NSWC
Account #: MKC 70

AENI # BUK951127LB

Concentration: Low
Date Sampled: N/A
Date Received: N/A
Date Extract Prepared: 11/27/95
Date Analyzed: 12/1/95
Conc/Dil Factor: 1
Matrix SOIL

GPC Cleanup No
Shaker: Yes
Continuous Liq-Liq Ext.: No
Percent Solid 100

Compound	Concentration ug/kg	Reporting Limit	Qualifier
2,4 D		50	U
SILVEX		50	U
2,4,5-T		50	U

Vi - Volume of extract injected (ul) 1
Vs - Volume of water extracted (ml) N/A
Ws - Mass of soil extracted (g) 10.00
Vt- Volume of total extract (ul) 10000

FORM I

E-00085

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No.: 9511157 Laboratory Name: American Environmental Network Inc.

Client ID	AEN ID	DCAA DB-5	DCAA DB-608
SBLK 01	BLK951127LB	69	94
BS	BS951127LB	54	94
NSWC 25/07D-006	9511157-001	46*	85
NSWC 25/07D-007	9511157-002	55	79

CONTROL LIMITS = 50-150%

* - Values are outside of contract required QC limits.
M-Matrix interference. D-Surrogate diluted out.

1 out of 8
outside QC limits.

FORM II HERBICIDES

E - 00086

AMERICAN ENVIRONMENTAL NETWORK, INC.
HERBICIDE MATRIX SPIKE RECOVERIES

Case No.: 9511157

Client Name: MK CORP

Project Name: CRANE NSWC

Client Sample ID: BS951127LB

Date of Analysis: 12/1/95

Instrument ID: GC-H

COMPOUND	SPIKE ADDED (ug/kg)	SAMPLE CONCENTRATION (ug/kg)	BS CONC (ug/kg)	BS % REC	BSD CONC (ug/kg)	BSD % REC	QC LIMITS REC
2,4-D	503	0.0	355	71	N/A	N/A	50-150
Silvex	529	0.0	355	67	N/A	N/A	50-150

Spike Recovery: 0 out of 2 outside QC limits.

AMERICAN ENVIRONMENTAL NETWORK, INC.

November 29, 1995

Client: MK CORP

Case: 9511157

Project: NSWC CRANE

Analysis: Pesticides and PCB's by SW-846 Method 8080 (Appendix IX)

Client ID	AENI#	Date Sampled	Date Received	Date Extracted	Date Analyzed
NSWC 25/07D-006	9511157-001	11/17/95	11/18/95	11/23/95	11/29/95
NSWC 25/07D-007	9511157-002	11/17/95	11/18/95	11/20/95	11/28/95

Two soil samples were extracted and analyzed for Pesticides and PCB's by SW-846 method 8080 (Appendix IX).

The enclosed package consists specifically of tabulated results (Form I), surrogate spike recoveries (Form II), matrix spike recoveries (Form III), method blank summary (Form IV), initial calibration summary (Form VI), continuing calibration summary (Form VII), and retention time shifting summary (Form VIII).

Form I (Tabulated Results)

The qualifier "U" indicates that a compound was analyzed for but not detected above the reporting limit. The samples were prepared and analyzed within method specified holding time.

Form II (Surrogate Spike Recoveries)

Seventeen out of twenty-four surrogate recoveries were within EPA CLP advisory limits (60-150%). Uniformly low recoveries for sample NSWC 25/07D-007 may indicate matrix suppression.

Form III (Matrix Spike Recoveries)

Two blank spikes (BS) were extracted with this sample set. All BS recoveries were within specified criteria (see Form III).

Form IV (Method Blank Summary)

No pesticides or PCB's were detected in the method blanks.

Form VI (Initial Calibration Summary)

Linear five-point curve with correlation coefficient of 0.995 or better was used for sample quantitation.

A separate calibration curve was analyzed for Diallate, PCNB, Isodrin, Chlorobenzilate, and Kepone. Quantitation (both columns) was based on a five point calibration with correlation coefficient of 0.995 or better.

Form VII (Continuing Calibration Summary)

CCV recoveries were either within or above criteria on both columns for all components of interest. High recoveries do not affect sample data quality since these pesticides were not present in the samples.

Form VIII (Retention Time Shifting Summary)

All retention time shifting was within criteria (+/- 1.5%).

Data Released By

Noble N. Nemseboka
GC/LC Acting Lab Manager

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9511157

Project Name:——— NSWC CRANE

Client/Account #:—— MK CORP/MKC70

Sample Number
PBLK 01

AENI # BLK951120LA

Concentration:——— Low

Date Sampled:——— N/A

Date Received:——— N/A

Date Ext Prepared:—— 11/20/95

Date Analyzed:——— 11/28/95

Conc/Dil Factor:——— 1

Method: ——— 8080

GPC Cleanup	Yes	X No
Seperatory Funnel Extraction		Yes
Continuous Liquid - Liquid Extraction		Yes

Percent Moisture 0

Matrix: SOIL

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		1.7	U
319-85-7	beta-BHC		1.7	U
319-86-8	delta-BHC		1.7	U
58-89-9	gamma-BHC (Lindane)		3.3	U
75-44-8	Heptachlor		1.7	U
309-00-2	Aldrin		1.7	U
1024-57-3	Heptachlor epoxide		1.7	U
959-98-8	Endosulfan I		1.7	U
60-57-1	Dieldrin		3.3	U
75-55-9	4, 4'-DDE		3.3	U
72-20-8	Endrin		3.3	U
33213-65-9	Endosulfan II		3.3	U
72-54-8	4, 4'-DDD		3.3	U
1031-07-8	Endosulfan Sulfate		3.3	U
50-29-3	4, 4'-DDT		3.3	U
72-43-5	Methoxychlor		17	U
53494-70-5	Endrin Ketone		3.3	U
7421-36-3	Endrin aldehyde		3.3	U
57-74-9	Chlordane		33	U
8001-35-2	Toxaphene		170	U
12674-11-2	Aroclor-1016		33	U
11104-28-2	Aroclor-1221		67	U
11141-16-5	Aroclor-1232		33	U
53469-21-9	Aroclor-1242		33	U
12672-29-6	Aroclor-1248		33	U
11097-69-1	Aroclor-1254		33	U
11096-82-5	Aroclor-1260		33	U
510-15-6	Chlorobenzilate		67	U
2303-16-4	Diallate		333	U
465-73-6	Isodrin		8.3	U
143-50-0	Kepone		33	U
82-68-8	Pentachloronitrobenzene		6.7	U

Vi - Volume of extract injected (ul) - _____ 1

Vs - Volume of Water extracted (ml) - _____ N/A

Ws - Weight of sample extracted (g) - _____ 30

Vt - Volume of total extract (ul) - _____ 10,000

FORM I

E- 00090

AMERICAN ENVIRONMENTAL NETWORK, INC.

Organic Analysis Data Sheet

Pesticide/PCBs

Case No.:——— 9511157
Project Name:——— NSWC CRANE
Client/Account #:——— MK CORP/MKC70

Sample Number
PBLK 02

AENI # BLK951122VA

Concentration:——— Low
Date Sampled:——— N/A
Date Received:——— N/A
Date Ext Prepared:——— 11/23/95
Date Analyzed:——— 11/29/95
Conc/Dil Factor:——— 1
Method: ——— 8080

GPC Cleanup | | Yes | X | No
Seperatory Funnel Extraction | | Yes
Continuous Liquid - Liquid Extraction | | Yes
Percent Moisture 0
Matrix: SOIL

CAS Number	Compound	Concentration ug/Kg	Detection Limit	Qualifier
319-84-6	alpha-BHC		1.7	U
319-85-7	beta-BHC		1.7	U
319-86-8	delta-BHC		1.7	U
58-89-9	gamma-BHC (Lindane)		3.3	U
75-44-8	Heptachlor		1.7	U
309-00-2	Aldrin		1.7	U
1024-57-3	Heptachlor epoxide		1.7	U
959-98-8	Endosulfan I		1.7	U
60-57-1	Dieldrin		3.3	U
75-55-9	4, 4'-DDE		3.3	U
72-20-8	Endrin		3.3	U
33213-65-9	Endosulfan II		3.3	U
72-54-8	4, 4'-DDD		3.3	U
1031-07-8	Endosulfan Sulfate		3.3	U
50-29-3	4, 4'-DDT		3.3	U
72-43-5	Methoxychlor		17	U
53494-70-5	Endrin Ketone		3.3	U
7421-36-3	Endrin aldehyde		3.3	U
57-74-9	Chlordane		33	U
8001-35-2	Toxaphene		170	U
12674-11-2	Aroclor-1016		33	U
11104-28-2	Aroclor-1221		67	U
11141-16-5	Aroclor-1232		33	U
53469-21-9	Aroclor-1242		33	U
12672-29-6	Aroclor-1248		33	U
11097-69-1	Aroclor-1254		33	U
11096-82-5	Aroclor-1260		33	U
510-15-6	Chlorobenzilate		67	U
2303-16-4	Diallate		333	U
465-73-6	Isodrin		8.3	U
143-50-0	Kepone		33	U
82-68-8	Pentachloronitrobenzene		6.7	U

Vi - Volume of extract injected (ul) - _____ 1
Vs - Volume of Water extracted (ml) - _____ N/A
Ws - Weight of sample extracted (g) - _____ 30
Vt - Volume of total extract (ul) - _____ 10,000

FORM I

E-01191

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: American Environmental Network, Inc. Contract: 9511157

Lab Code: NA Case No.: NA SAS No.: NA

Instrument ID: GC-F

GC Column(1): DB-5 D: 0.53 mm GC Column(2): DB 608 ID: 0.53 mm

Dates of Analyses: 11/28/95 to 11/28/95

Method: 8080

EPA SAMPLE NO.	TCMX 1 %REC	#	TCMX 2 % REC	#	DCB 1 %REC	#	DCB 2 %REC	#	TOTAL OUT
BLK951120LA	95		117		69		85		0
BS 01	87		81		85		106		0
NSWC 25/07D-007	24	*	30	*	30	*	42	*	4

ADVISORY QC LIMITS

TCMX= Tetrachloro-m-xylene (60-150)

DCB= Decachlorobiphenyl (60-150)

COLUMN TO BE USED TO FLAG RECOVERY VALUES

* VALUES OUTSIDE OF QC LIMITS

D SURROGATE DILUTED OUT

FORM II PEST-1

E-00092

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: American Environmental Network, Inc. Contract: 9511157
Lab Code: NA Case No.: NA SAS No.: NA
Instrument ID: GC-F
GC Column(1): DB-5 D: 0.53 mm GC Column(2): DB 608 ID: 0.53 mm
Dates of Analyses: 11/29/95 to 11/29/95
Method: 8080

EPA SAMPLE NO.	TCMX 1 %REC	#	TCMX 2 % REC	#	DCB 1 %REC	#	DCB 2 %REC	#	TOTAL OUT
BLK951122VA	102		172	*	89		111		1
BS 02	109		181	*	103		106		1
NSWC 25/07D-006	71		56	*	120		121		1

ADVISORY QC LIMITS

TCMX= Tetrachloro-m-xylene (60-150)
DCB= Decachlorobiphenyl (60-150)

COLUMN TO BE USED TO FLAG RECOVERY VALUES
* VALUES OUTSIDE OF QC LIMITS
D SURROGATE DILUTED OUT

FORM II PEST-1

3F

SOIL BLANK SPIKE RECOVERY

Lab Name: American Environmental Network, Inc. Contract: 9511157

Lab Code: NA Case No.: NA SAS No.: NA

Matrix Spike - EPA Sample No.: BS951120LA

Method: 8080

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	BS CONCENTRATION (ug/Kg)	BS % REC	#	QC LIMITS REC.
gamma-BHC (Lindane)	6.7	0.0	6.3	94		46 - 127
Heptachlor	6.7	0.0	4.8	72		35 - 130
Aldrin	6.7	0.0	5.8	87		34 - 132
Dieldrin	17	0.0	16	94		31 - 134
Endrin	17	0.0	20	118		42 - 139
4,4'-DDT	17	0.0	18	106		23 - 134

Column to be used to flag recovery values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 6 outside limits.

FORM III PEST-2

3F

SOIL BLANK SPIKE RECOVERY

Lab Name: American Environmental Network, Inc. Contract: 9511157

Lab Code: NA Case No.: NA SAS No.: NA

Matrix Spike - EPA Sample No.: BS951122VA

Method: 8080

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	BS CONCENTRATION (ug/Kg)	BS % REC	#	QC LIMITS REC.
gamma-BHC (Lindane)	6.7	0.0	7.0	104		46 - 127
Heptachlor	6.7	0.0	6.5	97		35 - 130
Aldrin	6.7	0.0	6.8	101		34 - 132
Dieldrin	17	0.0	17	100		31 - 134
Endrin	17	0.0	23	135		42 - 139
4,4'-DDT	17	0.0	20	118		23 - 134

Column to be used to flag recovery values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 6 outside limits.

FORM III PEST-2

AMERICAN ENVIRONMENTAL NETWORK, INC.
9151 RUMSEY ROAD
COLUMBIA, MD. 21045
(410) 730-8525

Project Number: 9511-157
Client Name: Morrison Knudsen Corporation
Project Title: NSWC Crane

Two soil samples were analyzed for the volatile organic compounds in the Appendix IX list by method 8260 and for the polynuclear aromatic compounds, by method 8270.
All analyses followed the standard AENI QA/QC and holding time requirements.

This package consists of the tabulated results of the samples and the method blanks, along with the QC forms II, III, IV, V, VI, VII and VIII.

Data Released Minh-Thuy L. Nguyen 11/20/95
Minh-Thuy L. Nguyen
GC/MS Lab Manager

VOLATILES Section:

Client ID	AENI ID	Matrix	Date Sampled	Date Received	Date Analyzed
NSWC 25/07D-006	157-001	Soil	11/17/95	11/18/95	11/21/95
NSWC 25/07D-007	157-002	Soil	11/17/95	11/18/95	11/20/95

Form I (Tabulated Results)
All analyses were performed within the holding time requirement. The results for the soil samples were reported on the basis of dry weight. Note that chloroprene was reported for semiquantitative analysis only ('Z' flag), due to the laboratory inability to purchase this compound in a known mixture.
Sample NSWC 25/07D-006 was analyzed by the medium level method due to high level of tetrachloroethene.

Form II (Surrogate Recoveries)
The surrogate recoveries for the samples, QC and method blanks were within the method specified limits.

Form III (MS/MSD Recoveries)
The MS/MSD analysis was performed on sample NSWC 25/07D 007. All spike recoveries and all %RPDs were within the method advisory limits.

Form IV (Method Blank Summary)
The method blanks were free of target analytes. However methylene chloride is a common lab artifact and results reported in the samples should be viewed as maximum values.

Form V (Tuning and Mass Calibration)
All calibration standards, method blanks, QC and samples were analyzed within the method specified mass calibration and 12-hr tune criteria.

Form VI (Initial Calibration)
The initial calibration curve met the method specified Min mean RRF for the SPCC compounds and Max %RSD for the CCC compounds.

Form VII (Continuing Calibration)
All CCC and SPCC compounds for the daily continuing calibrations were within the method specified criteria for max %D and Min RRF50.

Form VIII (Internal Standard Summary)
All internal standard areas and all retention times were within the lab warning limits.

SEMIVOLATILES Section:

Client ID	AENI ID	Matrix	Date Sampled	Date Received	Date Extracted	Date Analyzed
NSWC 25/07D-006	157-001	Soil	11/17/95	11/18/95	11/20/95	11/27/95
NSWC 25/07D-007	157-002	Soil	11/17/95	11/18/95	11/20/95	11/27/95

Form I (Tabulated Results)
All sample preparation and analyses were performed within the holding time requirement. The results were reported on the basis of dry weight.

Form II (Surrogate Recoveries)
The surrogate recoveries for the samples, QC, and method blank were within the method specified limits.

Form III (MS/MSD Recoveries)
A MS/MSD analysis was performed on sample NSWC 25/07D-007. All spike recoveries and all %RPDs were within the method advisory limits.

Form IV (Method Blank Summary)
The method blank was free of target analytes.

Form V (Tuning and Mass Calibration)
All calibration standards, method blank, QC and samples were analyzed within the method specified mass calibration and 12-hr tune criteria.

Form VI (Initial Calibration)
The initial calibration curve met the method specified Min mean RRF for the SPCC compounds and Max %RSD for the CCC compounds.

Form VII (Continuing Calibration)
All CCC and SPCC compounds for the daily continuing calibrations were within the method specified criteria for max %D and Min RRF50.

Form VIII (Internal Standard Summary)
All internal standard area recoveries and retention times were within the lab warning limits.

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AENI Contract: 9511157

Project No.: MKC70 Site: Location: Group:

Level: (low/med) LOW

	SAMPLE NO.	SMC1 #	SMC2 (TOL) #	SMC3 (BFB) #	OTHER #	TOT OUT
01	VBLK01	112	111	94		
02	NSWC 25/07D-00	115	110	78		
03	NSWC 25/07D-00	116	108	76		
04	NSWC 25/07D-00	111	115	89		
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
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16						
17						
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19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

	QC LIMITS
SMC1 - Dibromofluoromethane	(80-120)
SMC2 (TOL) - Toluene-d8	(81-117)
SMC3 (BFB) - Bromofluorobenzene	(74-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: AENI Contract: 9511157

Project No.: MKC70 Site: _____ Location: _____ Group: _____

Level: (low/med) MED

	SAMPLE NO.	SMC1 #	SMC2 (TOL) #	SMC3 (BFB) #	OTHER #	TOT OUT
01	VBLK02	112	99	100		
02	MSWC 25/07D-0	99	96	94		
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

	QC LIMITS
SMC1 - Dibromofluoromethane	(80-120)
SMC2 (TOL) - Toluene-d8	(81-117)
SMC3 (BFB) - Bromofluorobenzene	(74-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM II VOA-2 SW846

E-00100

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AENI Contract: 9511157

Project No.: MKC70 Site: Location: Group:

Matrix Spike - Sample No.: NSWC 25/07D-007 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	110	0	140	127	(59-172)
Trichloroethene	110	0	84	76	(62-137)
Benzene	110	0	100	91	(66-142)
Toluene	110	0	120	109	(59-139)
Chlorobenzene	110	0	94	85	(60-133)

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MS % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	110	140	127	0	22	(59-172)
Trichloroethene	110	110	97	24	24	(62-137)
Benzene	110	120	109	18	21	(66-142)
Toluene	110	140	127	15	21	(59-139)
Chlorobenzene	110	110	100	16	21	(60-133)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

Comments:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLK02

Lab Name: AENI Contract: 9511157

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: 951121FM

Sample wt/vol: 4.0 (g/mL) G Lab File ID: FK361.D

Level: (low/med) MED Date Received:

% Moisture: not dec. 0 Date Analyzed: 11/21/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

Concentration Units: (ug/L or ug/Kg) ug/Kg

CAS No.	Compound		Q
74-87-3	Chloromethane	1300	U
74-83-9	Bromomethane	1300	U
75-01-4	Vinyl Chloride	1300	U
75-00-3	Chloroethane	1300	U
75-09-2	Methylene Chloride	630	U
67-64-1	Acetone	13000	U
75-05-8	Acetonitrile	630	U
107-13-1	Acrylonitrile	130000	U
107-02-8	Acrolein	130000	U
75-69-4	Trichlorofluoromethane	630	U
75-15-0	Carbon Disulfide	630	U
75-35-4	1,1-Dichloroethene	630	U
75-34-4	1,1-Dichloroethane	630	U
540-59-0	trans-1,2-Dichloroethene	630	U
67-66-3	Chloroform	630	U
107-06-2	1,2-Dichloroethane	630	U
75-71-8	Dichlorodifluoromethane	630	U
74-88-4	Iodomethane	630	U
107-12-0	Propionitrile	630	U
107-05-1	Allyl chloride	13000	U
78-93-3	2-Butanone	13000	U
71-55-6	1,1,1-Trichloroethane	630	U
56-23-5	Carbon Tetrachloride	630	U
108-05-4	Vinyl Acetate	630	U
75-27-4	Bromodichloromethane	630	U
78-87-5	1,2-Dichloropropane	630	U
10061-01-5	cis-1,3-Dichloropropene	630	U
79-01-6	Trichloroethene	630	U
71-43-2	Benzene	630	U
124-48-1	Dibromochloromethane	630	U
10061-02-6	trans-1,3-Dichloropropene	630	U
79-00-5	1,1,2-Trichloroethane	630	U
75-25-2	Bromoform	630	U

FORM I VOA 8260/Appendix IX

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLK02

Lab Name: AENI Contract: 9511157

Project No.: MKC70 Site: Location: Group:

Matrix: (soil/water) SOIL Lab Sample ID: 951121FM

Sample wt/vol: 4.0 (g/mL) G Lab File ID: FK361.D

Level: (low/med) MED Date Received:

% Moisture: not dec. 0 Date Analyzed: 11/21/95

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/Kg	Q
126-98-7	Methacrylonitrile	630	U
74-95-3	Dibromomethane	630	U
106-93-4	1,2-Dibromoethane (EDB)	630	U
108-10-1	4-Methyl-2-Pentanone	6300	U
591-78-6	2-Hexanone	6300	U
127-18-4	Tetrachloroethene	630	U
79-34-5	1,1,2,2-Tetrachloroethane	630	U
108-88-3	Toluene	630	U
108-90-7	Chlorobenzene	630	U
100-41-4	Ethylbenzene	630	U
100-42-5	Styrene	630	U
108-38-3	m + p-Xylene	630	U
95-47-6	o-Xylene	630	U
80-62-6	Methyl methacrylate	630	U
630-20-6	1,1,1,2-Tetrachloroethane	630	U
96-18-4	1,2,3-Trichloropropane	630	U
110-57-6	trans-1,4-Dichloro-2-butene	630	U
97-63-2	Ethyl methacrylate	630	U
76-01-7	Pentachloroethane	630	U
96-12-8	1,2-Dibromo-3-chloropropane	630	U
78-83-1	Isobutyl Alcohol	630	U
126-99-8	Chloroprene (TIC) *	630	U
	3-Chloroprene (TIC)	630	U
123-91-1	1,4-Dioxane (TIC)	130000	U
	Methylene Chloride - Dichloromethane		
	Methyl ethyl ketone - 2-Butanone		
	Chloroprene - 2-Chloro-1,3-butadiene		
	Propionitrile - Ethyl Cyanide		
* - Reported as semiquantitative analysis only.			

FORM I VOA 8260/Appendix IX

E-00103

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: AENI Contract: 9511157

Project No.: MKC70 Site: CRANE Location: NSWC Group: _____

Level: (low/med) LOW

	SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	#	#	#	#	#	TOT OUT
01	SBLK01	74	77	75						
02	NSWC 25/07D-00	93	59	65						
03	NSWC 25/07D-00	89	79	90						
04	NSWC 25/07D-00	71	56	68						
05	NSWC 25/07D-00	75	57	65						
06										
07										
08										
09										
10										
11										
12										
13										
14										
15										
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22										
23										
24										
25										
26										
27										
28										
29										
30										

	QC LIMITS
S1 (NBZ) - Nitrobenzene-d5	(23-120)
S2 (FBP) - 2-Fluorobiphenyl	(30-115)
S3 (TPH) - Terphenyl-d14	(18-137)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

FORM II SV-2 SW846

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: AENI Contract: 9511157

Project No.: MKC70 Site: CRANE Location: NSWC Group:

Matrix Spike - Sample No.: NSWC 25/07D-007 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,4-Dichlorobenzene	7400	0	3600	49	(28-104)
N-Nitroso-di-n-propylamine	7400	0	4700	64	(41-126)
1,2,4-Trichlorobenzene	7400	0	4000	54	(41-126)
Acenaphthene	7400	0	3900	53	(31-137)
2,4-Dinitrotoluene	7400	0	3700	50	(28-89)
Pyrene	7400	0	3700	50	(35-142)

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,4-Dichlorobenzene	7400	3400	46	6	27	(28-104)
N-Nitroso-di-n-propylamine	7400	5000	68	6	38	(41-126)
1,2,4-Trichlorobenzene	7400	4000	54	0	38	(41-126)
Acenaphthene	7400	4100	55	5	19	(31-137)
2,4-Dinitrotoluene	7400	4100	55	10	47	(28-89)
Pyrene	7400	3800	51	3	36	(35-142)

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Comments:

SDG 0465C

E00106

COMPUCHEM
ENVIRONMENTAL
CORPORATION

04/APR/96

Morrison Knudsen Corp.
Attn: Alan Fosdick
1500 West 3rd Street
Cleveland, OH 44113-1406

ACCOUNT #: 501019

CC#	SAMPLE-ID	RECEIPT DATE
791304	2507D-006	3/14/96
791307	2507D-007	3/14/96
791308	2507D-008	3/14/96
791309	2507D-009	3/14/96
791310	2507D-010	3/14/96
791311	2507D-011	3/14/96
791312	2507D-012	3/14/96
791313	2507D-013	3/14/96
791314	2507D-014	3/14/96
791315	2507D-015	3/14/96
791316	2507D-016	3/14/96

TOTAL NUMBER OF SAMPLES = 11

COMPUCHEM
ENVIRONMENTAL
CORPORATION

SDG NARRATIVE

Case #31923
SDG #0465C
PROTOCOL: SW-846
METHOD: 8270

Samples: 2507D-006, 2507D-007, 2507D-008, 2507D-009
2507D-010, 2507D-011, 2507D-012, 2507D-013,
2507D-014, 2507D-015, 2507D-016

The eleven (11) soil samples listed above were received intact, properly refrigerated, with proper documentation, in a sealed shipping container, on March 14, 1996. The samples were scheduled for the requested analyses of the semivolatile fractions. These samples were analyzed following the SW-846 protocol using Method 8270.

All pertinent Quality Assurance notices are included in the narrative section, and all pertinent Laboratory notices for case #31923, SDG #0465C are included in the sample data sections.

The pH values ranged from 7.3 to 8.7 and the percent moisture values ranged from 13% to 19%.

SEMIVOLATILES
The semivolatile fractions were initially extracted and analyzed within the required holding time. Because all Quality Control criteria were not met for the method blank, the samples were re-extracted. The repeat extractions, however, were performed outside of the required holding time. The analyses of the initial extracts and the analyses of the repeat extracts are reported for each of the samples.

One to nine target analytes were detected in five of the samples. These were di-n-butylphthalate, bis(2-ethylhexyl)-phthalate, benzo(b)fluoranthene, benzo(k)fluoranthene, hexachloroethane, fluoranthene, pyrene, benzo(a)anthracene, chrysene, ideno(1,2,3-c,d)pyrene, dibenzo(a,h)anthracene, benzo(g,h,i)perylene. Benzo(b)fluoranthene and benzo(k)fluor-anthene were determined to be indistinguishable coeluting isomers in several of the samples. The 'X' flag is used to denote this. An Extracted Ion Current Profile (EICP) has been provided for each pair of isomers flagged with an 'X' on the Form 1.

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The amount of hexachloroethane detected in the initial analysis of sample 2507D-010 exceeded the instrument's analytical ranged as defined by the highest concentration level of the Initial Calibration. The second extract of the sample was analyzed at a 4:1 dilution in order to bring the amount into range.

Four to thirteen Tentatively Identified Compounds (TICs) were detected in the in the initial and/or repeat analyses of the samples. Many of these TICs were assessed as aldols, unknowns, unknown amides, unknown hydrocarbons, PAHs, laboratory artifacts and advisory surrogate compounds.

QC SUMMARY
The surrogates met recovery criteria for the semivolatile samples, with a few exceptions. The recovery of 2,4,6-tribromophenol failed acceptance criteria in the initial analysis of sample 2507D-014. All of the surrogate recoveries failed acceptance criteria in the initial analysis of sample 2507D-015.

The initial analyses of the duplicate matrix spikes did not meet all Quality Control criteria. The surrogate recoveries, the spike recoveries in the MSD failed acceptance criteria. The relative percent difference (RPD) values also failed acceptance criteria. All accuracy and precision criteria were met for the second extracts of the duplicate matrix spikes.

The method blank, identified as SBLK15, associated with the initial extracts of the semivolatile samples failed surrogate recovery criteria. The method blank (SBLK56) associated with the repeat extractions met all Quality Control criteria.

The initial calibrations and continuing calibrations met Quality Control criteria. In the analysis of the Initial and Continuing Calibration standards and some of the samples and blanks, the operator performed manual integrations and/or manual edits of one or more of the TCL analytes. These manual integrations or edits are indicated by the "M", "H", or the "MH" flag present on the quantitation report. An Extracted Ion Current Profile (EICP) has been provided for each analyte requiring a manual integration or a manual edit. As noted on the quantitation reports by number, these manual edits and/or manual integrations were required for the following reasons: 1) TCL analytes were initially not found by the automatic integration routine, 2) TCL analytes were incorrectly integrated by the automatic integration routine, 3) the operator selected an alternate peak within the retention time window for a particular TCL analyte than that chosen by the computer software. The explanations for the manual

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integrations and/or manual edits are summarized in a quality assurance notice which is located in the narrative section of the data package.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data contained in the hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Patricia B. Hopkins

Patricia B. Hopkins
Technical Reviewer
04 April 1996

Note: This report is paginated for reference and accountability in numerical sequence.

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Level: (low/med) LOW

	SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	S7 #	S8 #	TOT OUT
01	2507D-006	65	69	78	78	31	70			0
02	2507D-006MS	59	61	69	70	31	60			0
03	2507D-006MSD	8*	9*	9*	9*	3*	9*			6
04	2507D-006RE	47	48	49	49	22	55			0
05	2507D-006REM	57	56	54	53	25	63			0
06	2507D-006REM	79	76	81	81	40	103			0
07	2507D-007	57	61	67	68	28	64			0
08	2507D-007RE	53	53	53	54	25	65			0
09	2507D-008	72	73	83	84	31	76			0
10	2507D-008RE	64	63	64	64	32	82			0
11	2507D-009	70	71	79	80	38	70			0
12	2507D-009RE	72	70	73	74	37	99			0
13	2507D-010	51	53	56	55	20	47			0
14	2507D-010DL	59	61	66	58	22	73			0
15	2507D-011	41	57	51	68	36	66			0
16	2507D-011RE	52	52	52	54	24	69			0
17	2507D-012	57	60	68	66	32	63			0
18	2507D-012RE	57	56	57	57	26	75			0
19	2507D-013	67	69	78	80	35	84			0
20	2507D-013RE	68	68	71	58	24	92			0
21	2507D-014	32	34	37	38	17*	36			1
22	2507D-014RE	50	52	60	56	23	75			0
23	2507D-015	9*	9*	9*	10*	3*	10*			6
24	2507D-015RE	60	63	67	62	30	78			0
25	2507D-016	55	61	65	73	29	77			0
26	2507D-016RE	55	55	60	58	29	70			0
27	SBLK15	9*	10*	11*	11*	3*	9*			6
28	SBLK56	76	76	84	78	40	89			0
29	SLCS14	72	76	89	87	41	81			0
30	SLCS55	63	60	63	63	29	74			0

			QC LIMITS
S1	(2FP)	= 2-Fluorophenol	(25-121)
S2	(PHL)	= Phenol-d5	(24-113)
S3	(NBZ)	= Nitrobenzene-d5	(23-120)
S4	(FBP)	= 2-Fluorobiphenyl	(30-115)
S5	(TBP)	= 2,4,6-Tribromophenol	(19-122)
S6	(TPH)	= Terphenyl-d14	(18-137)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM II SV-2

3D
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix Spike - Sample No.: 2507D-006 Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	4065	0.000	1814	45	26- 90
2-Chlorophenol	4065	0.000	1773	44	25-102
1,4-Dichlorobenzene	2032	0.000	1172	58	28-104
N-Nitroso-di-N-prop.(1)	2032	0.000	1475	72	41-126
1,2,4-Trichlorobenzene	2032	0.000	1336	66	38-107
4-Chloro-3-methylphenol	4065	0.000	1938	48	26-103
Acenaphthene	2032	0.000	1216	60	31-137
4-Nitrophenol	4065	0.000	1803	44	11-114
2,4-Dinitrotoluene	2032	0.000	1438	71	28- 89
Pentachlorophenol	4065	0.000	897.6	22	17-109
Pyrene	2032	0.000	1115	55	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	4065	284.6	7*	146*	35	26- 90
2-Chlorophenol	4065	259.8	6*	152*	50	25-102
1,4-Dichlorobenzene	2032	177.9	9*	146*	27	28-104
N-Nitroso-di-N-prop.(1)	2032	189.6	9*	156*	38	41-126
1,2,4-Trichlorobenzene	2032	199.6	10*	147*	23	38-107
4-Chloro-3-methylphenol	4065	247.0	6*	156*	33	26-103
Acenaphthene	2032	177.3	9*	148*	19	31-137
4-Nitrophenol	4065	115.5	3*	174*	50	11-114
2,4-Dinitrotoluene	2032	158.9	8*	159*	47	28- 89
Pentachlorophenol	4065	0.000	0*	200*	47	17-109
Pyrene	2032	165.0	8*	149*	36	35-142

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

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

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

COMMENTS: _____

3D
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix Spike - Sample No.: 2507D-006RE Level(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	3049	0.000	1687	55	12- 89
2-Chlorophenol	3049	0.000	1678	55	27-123
1,4-Dichlorobenzene	2032	0.000	1024	50	36- 97
N-Nitroso-di-N-prop.(1)	2032	0.000	1201	59	41-116
1,2,4-Trichlorobenzene	2032	0.000	1060	52	39- 98
4-Chloro-3-methylphenol	3049	0.000	1792	59	23- 97
Acenaphthene	2032	0.000	1048	52	46-118
4-Nitrophenol	3049	0.000	1541	50	10- 80
2,4-Dinitrotoluene	2032	0.000	1171	58	24- 96
Pentachlorophenol	3049	0.000	1154	38	9-103
Pyrene	2032	0.000	1425	70	26-127

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	3039	2266	74	29	42	12- 89
2-Chlorophenol	3039	2263	74	29	40	27-123
1,4-Dichlorobenzene	2026	1511	74	39*	28	36- 97
N-Nitroso-di-N-prop.(1)	2026	1714	85	36	38	41-116
1,2,4-Trichlorobenzene	2026	1604	79	41*	28	39- 98
4-Chloro-3-methylphenol	3039	2460	81	31	42	23- 97
Acenaphthene	2026	1598	79	41*	31	46-118
4-Nitrophenol	3039	2075	68	30	50	10- 80
2,4-Dinitrotoluene	2026	1533	76	27	38	24- 96
Pentachlorophenol	3039	1907	63	50	50	9-103
Pyrene	2026	2538	125	56*	31	26-127

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

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

RPD: 4 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLK15

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791631

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091631B60.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/26/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
62-75-9	N-Nitrosodimethylamine	260	U
110-86-1	Pyridine	550	U
109-06-8	2-Picoline	1200	U
10595-95-6	Nitrosomethylethylamine	240	U
66-27-3	Methyl Methanesulfonate	700	U
55-18-5	N-Nitrosodiethylamine	220	U
62-50-0	Ethyl Methanesulfonate	600	U
108-95-2	Phenol	570	U
62-53-3	Aniline	560	U
111-44-4	Bis(2-chloroethyl)ether	280	U
95-57-8	2-Chlorophenol	630	U
541-73-1	1,3-Dichlorobenzene	510	U
106-46-7	1,4-Dichlorobenzene	520	U
100-51-6	Benzyl Alcohol	550	U
95-50-1	1,2-Dichlorobenzene	590	U
95-48-7	2-Methylphenol	650	U
39638-32-9	bis(2-Chloroisopropyl)ether	650	U
108-39-4	3-Methylphenol	1300	U
106-44-5	4-Methylphenol	1300	U
930-55-2	N-Nitrosopyrrolidine	530	U
621-64-7	N-Nitroso-di-N-propylamine	240	U
98-86-2	Acetophenone	660	U
59-89-2	N-Nitrosomorpholine	750	U
636-21-5	o-Toluidine hydrochloride	2000	U
67-72-1	Hexachloroethane	600	U
98-95-3	Nitrobenzene	680	U
100-75-4	N-Nitrosopiperidine	740	U
78-59-1	Isophorone	680	U
88-75-5	2-Nitrophenol	620	U
105-67-9	2,4-Dimethylphenol	610	U
126-68-1	o,o,o-Triethylphosphorothioa	5300	U
111-91-1	Bis(2-chloroethoxy)methane	670	U
120-83-2	2,4-Dichlorophenol	550	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLK15

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791631

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091631B60.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/26/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
120-82-1	1,2,4-Trichlorobenzene	550	U
91-20-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	690	U
87-65-0	2,6-Dichlorophenol	1200	U
1888-71-7	Hexachloropropene	570	U
87-68-3	Hexachlorobutadiene	560	U
924-16-3	N-Nitroso-di-n-butylamine	150	U
59-50-7	4-Chloro-3-methylphenol	190	U
94-59-7	Safrole	580	U
91-57-6	2-Methylnaphthalene	840	U
77-47-4	Hexachlorocyclopentadiene	660	U
95-94-3	1,2,4,5-Tetrachlorobenzene	1300	U
88-06-2	2,4,6-Trichlorophenol	1300	U
95-95-4	2,4,5-Trichlorophenol	1300	U
120-58-1	Isosafrole	1300	U
91-58-7	2-Chloronaphthalene	970	U
88-74-4	2-Nitroaniline	1100	U
130-15-4	1,4-Napthoquinone	1600	U
131-11-3	Dimethylphthalate	970	U
99-65-0	1,3-Dinitrobenzene	560	U
606-20-2	2,6-Dinitrotoluene	750	U
208-96-8	Acenaphthylene	670	U
99-09-2	3-Nitroaniline	690	U
83-32-9	Acenaphthene	660	U
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	690	U
608-93-5	Pentachlorobenzene	660	U
121-14-2	2,4-Dinitrotoluene	660	U
132-64-9	Dibenzofuran	690	U
91-59-8	2-Naphthylamine	860	U
58-90-2	2,3,4,6-Tetrachlorophenol	1400	U
134-32-7	1-Naphthylamine	1400	U
84-66-2	Diethylphthalate	720	U

E-00115

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLK15

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791631

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091631B60.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/26/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
7005-72-3	4-Chlorophenyl-phenylether	600	U
99-55-8	5-Nitro-o-toluidine	1000	U
86-73-7	Fluorene	690	U
100-01-6	4-Nitroaniline	1100	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	1400	U
122-39-4	Diphenylamine	1400	U
99-35-4	1,3,5-Trinitrobenzene	910	U
2303-16-4	Diallate (trans isomer)	660	U
62-44-2	Phenacetin	610	U
2303-16-4	Diallate (cis isomer)	660	U
101-55-3	4-Bromophenyl-phenylether	750	U
118-74-1	Hexachlorobenzene	770	U
92-67-1	4-Aminobiphenyl	410	U
87-86-5	Pentachlorophenol	1400	U
23950-58-5	Pronamide	650	U
85-01-8	Phenanthrene	620	U
120-12-7	Anthracene	740	U
84-74-2	Di-n-butylphthalate	770	U
56-57-5	4-Nitroquinoline-1-oxide	4800	U
91-80-5	Methapyrilene	1300	U
465-73-6	Isodrin	920	U
206-44-0	Fluoranthene	920	U
129-00-0	Pyrene	730	U
140-57-8	Aramite	660	U
60-11-7	p-Dimethylaminoazobenzene	670	U
510-15-6	Chlorobenzilate	710	U
85-68-7	Butylbenzylphthalate	680	U
119-93-7	3,3'-Dimethylbenzidine	450	U
117-81-7	bis(2-ethylhexyl)Phthalate	750	U
91-94-1	3,3'-Dichlorobenzidine	500	U
56-55-3	Benzo(a)Anthracene	660	U
218-01-9	Chrysene	540	U

E'00116

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLK15

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791631

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091631B60.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted:03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/26/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
117-84-0	Di-n-octylphthalate	480	U
57-97-6	7,12-Dimethylbenz(a)anthrace	410	U
205-99-2	Benzo(b)fluoranthene	770	U
207-08-9	Benzo(k)fluoranthene	620	U
193-39-5	Indeno(1,2,3-c,d)pyrene	460	U
53-70-3	Dibenzo(a,h)anthracene	180	U
191-24-2	Benzo(g,h,i)perylene	620	U
122-09-08	a,a-Dimethylphenethylamine	660	U
106-50-3	p-Phenylenediamine	660	U

E·00117

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

SBLK15

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0465C

Matrix: (soil/water) SOIL Lab Sample ID: 791631

Sample wt/vol: 30.0 (g/mL) G Lab File ID: GH091631B60.D

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/25/96

Concentrated Extract Volume: 500(uL) Date Analyzed: 03/26/96

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:_____

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	ALDOL (BC)	3.94	2100	JA
2.	ADVISORY SURROGATE COMPOUND	5.30	210	J
3.	ADVISORY SURROGATE COMPOUND	5.80	160	J
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FORM I SV-TIC

SDG 640C

E-00119

COMPUCHEM
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CORPORATION

26/MAR/96

Morrison Knudsen Corp.
Attn: Alan Fosdick
1500 West 3rd Street
Cleveland, OH 44113-1406

ACCOUNT #: 501019

CC#	SAMPLE-ID	RECEIPT DATE
791080	2507D-006	3/14/96
791085	2507D-007	3/14/96
791087	2507D-008	3/14/96
791099	2507D-009	3/14/96
791105	2507D-010	3/14/96
791108	2507D-011	3/14/96
791110	2507D-012	3/14/96
791111	2507D-013	3/14/96
791113	2507D-014	3/14/96
791122	2507D-015	3/14/96
791123	2507D-016	3/14/96

TOTAL NUMBER OF SAMPLES = 11

COMPUCHEM
ENVIRONMENTAL
CORPORATION

3306 Chapel Hill/Nelson Highway P.O. Box 14998
Research Triangle Park, NC 27709-4998
(919) 406-1600

INORGANIC CASE SUMMARY NARRATIVE
CASE # 31923 SDG # 640C
PROTOCOL: SW-846

SAMPLE IDs:

The following customer IDs are associated with this SDG:

2507D-006, 2507D-007, 2507D-008, 2507D-009, 2507D-010, 2507D-011, 2507D-012, 2507D-013, 2507D-014, 2507D-015, 2507D-016

The indicated Sample Delivery Group (SDG) consisting of eleven soil samples was received into the laboratory management system (LMS) on March 14, 1996 intact, properly preserved, at a temperature of 4 (+/-2) degrees Celcius, with proper documentation, in sealed shipping containers, unless otherwise noted in any attachments or Quality Assurance Notices. The samples were analyzed for Appendix IX metals (mercury is reported in a separate SDG) using method 6010A for ICP analysis.

INSTRUMENTAL QUALITY CONTROL:

All calibration verification solutions (ICV & CCV), blanks (ICB, CCB) and interference check samples (ICSA & ICSAB) associated with this data were confirmed to be within EPA allowable limits.

SAMPLE PREPARATION QUALITY CONTROL:

The Laboratory Control Samples for Soils (LCSS) and Preparation Blanks for Soils (PBS) were found to be within acceptable ranges. All field samples associated with this case were prepared and analyzed within the specified holding times.

MATRIX RELATED QUALITY CONTROL:

The sample matrix spike and matrix spike duplicate, 2507D-006S(791082)/2507D-006S(791081), were found to be outside control limits for antimoby, cadmium, chromium, selenium, and tin. The reported concentrations for these

analytes are flagged with an "N" on all associated Form 1 and on Form 5a.

An "N" indicates a matrix-related interference in the sample preparation procedure &/or analysis for the flagged analyte. This is normally the consequence of a relatively high anionic content in the sample or of an inconsistent sample matrix relative to that analyte in sediment.

Method 6010 control limits for matrix spike recoveries are set at 80% to 120% of the analyte quantity added unless original sample concentrations exceed the true values of these "spikes" by a factor of four or more; in this case affected analytes are not flagged even if recoveries fall outside percentage recovery control limits.

Post-digestion spikes are mandatory for analytes demonstrating unsatisfactory matrix spike recoveries during ICP analysis (excluding silver due to that analyte's extreme sensitivity to light and halides). The results of such spikes are presented on Form 5b.

Unsatisfactory recovery of post-digestion spikes do not have bearing upon the aforementioned "N" flags, but may indicate interference during analysis &/or a solution matrix which is hostile to the analyte in question.

Satisfactory recovery of an analyte in this type of post-digestion spike implies interference by the required preparation procedure or in the sample matrix itself. Lack of uniformity for an analyte in sediment samples will also result in satisfactory recovery of post-digestion spikes after failure in the related matrix spike.

The sample matrix duplicate, 2507D-006D(791084), was within control limits for all requested analytes.

Control limits for duplicate determinations are +/- 20% Relative Percent Difference (RPD) for concentrations greater than or equal to five times the Reporting Limit in both the original and duplicate samples, and +/- the Reporting Limit for concentrations less than five times the Reporting Limit. The RPD is not calculated if both the original and duplicate values fall below the IDL.

A four-fold serial dilution of sample, 2507D-006L, was performed in accordance with method 6010 requirements for ICP analysis. The adjusted sample concentrations were within control limits for all requested analytes.

Control limits for serial dilution are defined as a deviation less than or equal to 10% in the dilution-adjusted concentrations from the original values for all analyte concentrations with values greater than fifty (50) times their respective Instrument Detection Limit (IDL) in the original sample.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data contained in the hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jeanne Alston
Final Technical Reviewer
March 25, 1996

Note: This report is paginated for reference and accountability.

U.S. EPA - CLP

3
BLANKS

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Antimony	1.8	U	1.8	U	1.8	U	1.8	U	-0.199	B	P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	-0.760	B	P
Barium	0.1	U	0.1	B	0.1	U	0.3	B	0.010	U	P
Beryllium	0.3	U	0.4	B	0.3	B	0.5	B	0.030	U	P
Cadmium	0.2	U	0.2	U	0.2	U	0.2	U	-0.067	B	P
Chromium	0.7	U	0.7	U	0.7	U	0.7	U	0.070	U	P
Cobalt	0.5	U	0.5	U	0.5	U	0.5	U	0.050	U	P
Copper	0.7	U	0.7	U	0.7	U	0.7	U	0.070	U	P
Lead	1.6	U	1.6	U	1.6	U	1.6	U	0.264	B	P
Nickel	19.4	B	1.0	U	1.0	U	1.0	U	0.100	U	P
Selenium	2.6	U	2.6	U	2.6	U	2.9	B	0.260	U	P
Silver	0.7	U	0.7	U	0.7	U	0.7	U	0.070	U	P
Thallium	3.5	U	3.5	U	3.5	U	4.6	B	-0.794	B	P
Vanadium	0.6	U	0.6	U	0.6	U	0.6	U	0.060	U	P
Zinc	-4.8	B	-4.8	B	-4.8	B	-4.4	B	-0.446	B	P
Tin	4.2	U	4.2	U	4.2	U	4.2	U	0.771	B	P

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____ 2507D-006S___

Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__
Matrix: __SOIL_____ Level (low/med): _LOW____
% Solids for Sample: _81.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	80-120	25.1103		0.8974	B	61.27	39.5	N	P
Arsenic	80-120	230.7598		22.5245		245.10	85.0		P
Barium	80-120	255.7598		41.5074		245.10	87.4		P
Beryllium	80-120	5.7267		0.5842	B	6.13	83.9		P
Cadmium	80-120	4.4179		0.0245	U	6.13	72.1	N	P
Chromium	80-120	33.7868		21.0417		24.51	52.0	N	P
Cobalt	80-120	60.0735		7.0025		61.27	86.6		P
Copper	80-120	40.2206		12.3529		30.64	91.0		P
Lead	80-120	67.5368		16.0294		61.27	84.1		P
Nickel	80-120	58.7255		5.8713		61.27	86.3		P
Selenium	80-120	183.2108		0.8624		245.10	74.4	N	P
Silver	80-120	5.3627		0.0858	U	6.13	87.5		P
Thallium	80-120	214.3382		0.4289	U	245.10	87.4		P
Vanadium	80-120	72.0956		20.3799		61.27	84.4		P
Zinc		549.3873		510.1716		61.27	64.0		P
Tin	80-120	96.9608		0.5147	U	122.55	79.1	N	P

Comments:

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____ 2507D-006S___

Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__
Matrix: __SOIL_____ Level (low/med): _LOW____
% Solids for Sample: _81.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony	80-120	18.0882		0.8974	B	61.27	28.1	N	P
Arsenic	80-120	223.6520		22.5245		245.10	82.1		P
Barium	80-120	252.9412		41.5074		245.10	86.3		P
Beryllium	80-120	5.7230		0.5842	B	6.13	83.8		P
Cadmium	80-120	3.7083		0.0245	U	6.13	60.5	N	P
Chromium	80-120	39.6814		21.0417		24.51	76.0	N	P
Cobalt	80-120	57.4387		7.0025		61.27	82.3		P
Copper	80-120	40.9436		12.3529		30.64	93.3		P
Lead	80-120	66.0172		16.0294		61.27	81.6		P
Nickel	80-120	58.9706		5.8713		61.27	86.7		P
Selenium	80-120	179.6569		0.8624		245.10	72.9	N	P
Silver	80-120	5.1115		0.0858	U	6.13	83.4		P
Thallium	80-120	208.7010		0.4289	U	245.10	85.1		P
Vanadium	80-120	73.4926		20.3799		61.27	86.7		P
Zinc		563.1127		510.1716		61.27	86.4		P
Tin	80-120	85.1225		0.5147	U	122.55	69.5	N	P

Comments:

E 00126

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____ 2507D-006A___

Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__

Matrix: ____SOIL_____ Level (low/med): LOW_____

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Added (SA)	%R	Q	M
Antimony		129.50		7.32	B	120.0	101.8		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium		8.49		0.20	U	10.0	84.9		P
Chromium		828.50		171.70		342.0	192.0		P
Cobalt									NR
Copper									NR
Lead									NR
Nickel									NR
Selenium		24.48		7.04		14.0	124.6		P
Silver									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Tin		40.46	B	4.20	U	40.0	101.1		P

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

2507D-006D

Lab Name: COMPUCHEM_ENV._CORP. Contract: SW-846

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 640C

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

% Solids for Sample: 81.6 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Antimony		0.8974	B	0.5151	B	54.1		P
Arsenic		22.5245		23.7132		5.1		P
Barium	24.5	41.5074		38.9093		6.5		P
Beryllium		0.5842	B	0.4714	B	21.4		P
Cadmium		0.0245	U	0.0245	U			P
Chromium		21.0417		10.6066		65.9	*	P
Cobalt	6.1	7.0025		5.5233	B	23.6		P
Copper	3.1	12.3529		12.5735		1.8		P
Lead		16.0294		12.6348		23.7	*	P
Nickel	4.9	5.8713		5.5613		5.4		P
Selenium	0.6	0.8624		0.8142		5.7		P
Silver		0.0858	U	0.0858	U			P
Thallium		0.4289	U	0.4289	U			P
Vanadium	6.1	20.3799		15.2941		28.5		P
Zinc		510.1716		499.1422		2.2		P
Tin		0.5147	U	0.5147	U			P

FORM VI - IN

3/90

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923 SAS No.: _____ SDG No.: 640C__

Solid LCS Source: EPA-LV_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Antimony				211.0	262.0		127.0	294.0	124.2
Arsenic				917.0	1005.4		635.0	1199.0	109.6
Barium				4.8	5.4	B	0.0	40.0	112.5
Beryllium				19.4	18.2		16.5	22.3	93.8
Cadmium				45.4	40.6		35.7	55.1	89.4
Chromium				99.6	98.3		79.2	120.0	98.7
Cobalt				144.0	146.5		125.0	162.0	101.7
Copper				6910.0	6729.0		6006.0	7820.0	97.4
Lead				236.0	226.0		188.0	285.0	95.8
Nickel				60.9	57.5		49.2	72.6	94.4
Selenium				39.2	39.7		19.1	59.4	101.3
Silver				22.2	18.8		15.5	29.0	84.7
Thallium				39.0	39.7		24.6	53.5	101.8
Vanadium				65.8	66.5		51.7	79.9	101.1
Zinc				187.0	181.2		138.0	236.0	96.9
Tin				100.0	99.6		80.0	120.0	99.6

SDG 0515(

E·00130

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28/MAR/96

Morrison Knudsen Corp.
Attn: Alan Fosdick
1500 West 3rd Street
Cleveland, OH 44113-1406

ACCOUNT #: 501019

CC#	SAMPLE-ID	RECEIPT DATE
791366	2507D-006	3/14/96
791370	2507D-007	3/14/96
791371	2507D-008	3/14/96
791372	2507D-009	3/14/96
791373	2507D-010	3/14/96
791374	2507D-011	3/14/96
791375	2507D-012	3/14/96
791376	2507D-013	3/14/96
791377	2507D-014	3/14/96
791378	2507D-015	3/14/96
791379	2507D-016	3/14/96

TOTAL NUMBER OF SAMPLES = 11

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SDG NARRATIVE

Case #31923
SDG #0515C
PROTOCOL: SW-846

Samples: 2507D-006, 2507D-007, 2507D-008, 2507D-009, 2507D-010 2507D-011, 2507D-012, 2507D-013, 2507D-014, 2507D-015 2507D-016

Attached are pertinent analytical data dealing with the analyses of eleven (11) soil samples associated with case #31923, SDG #0515C. The samples were received intact in properly sealed shipping containers with the corresponding chains-of-custody. The samples were logged into the CompuChem Laboratory Management system and scheduled for the analyses of the herbicide fractions by Method 8150.

The dry weight factors for the samples ranged from 1.15 to 1.23 and the percent moisture values ranged from 13% to 19%.

HERBICIDES
The pesticide/pcb fractions were extracted and analyzed within the required holding time. Dual column analyses were performed to confirm the presence of one or more target analytes in the samples. No target analytes were confirmed with concentrations above the reporting limits in the herbicide samples.

QC SUMMARY
The surrogates met recovery criteria for all of the herbicide samples. The duplicate matrix spikes met recovery and relative percent difference (RPD) criteria for all of the spiking compounds.

The associated blank spikes met Quality Control criteria, with one exception. The recovery of the surrogate 2,4-DB exceeded the upper acceptance limit in the analysis of the BS performed on the RTX-1701 analytical column.

The associated blanks, initial calibrations and continuing calibrations met Quality Control criteria.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data contained in the hardcopy data package has

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been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Patricia B. Hopkins

Patricia B. Hopkins
Technical Reviewer
27 March 1996

E-00133

2F
SOIL HERBICIDE SURROGATE RECOVERY

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

GC Column (1): RTX-1701 ID: 0.53 (mm) GC Column (2): RTX-35 ID: 0.53 (mm)

	SAMPLE NO.	DB 1 %REC #	DB 2 %REC #	%REC #	%REC #	OTHER (1)	OTHER (2)	TOT OUT
01	HBLK67	42	53					0
02	BS	200*	31					1
03	2507D-012	47	95					0
04	2507D-012MS	61	57					0
05	2507D-012MSD	61	61					0
06	2507D-007	62	63					0
07	2507D-006	45	68					0
08	2507D-013	77	57					0
09	2507D-014	59	56					0
10	2507D-015	61	61					0
11	2507D-016	64	54					0
12	2507D-009	56	52					0
13	2507D-010	55	87					0
14	2507D-011	54	91					0
15	2507D-008	56	72					0
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY
QC LIMITS
(20-150)

DB = 2,4-DB

Column to be used to flag recovery values.
* Values outside of QC Limits
D Surrogate diluted out.

FORM II HERB-2

3F

SOIL HERBICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATED RECOVERY

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

Matrix Spike - Sample No.: 2507D-012

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
2,4-D	193.573	0.00	130	67	50-135
2,4,5-TP (Silvex)	48.393	2.4	33	63	50-135
2,4,5-T	48.393	3.0	33	62	50-135

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
2,4-D	193.573	130	67	0	20	50-135
2,4,5-TP (Silvex)	48.393	35	67	6	20	50-135
2,4,5-T	48.393	34	64	3	20	50-135

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 3 outside limits
Spike Recovery: 0 out of 6 outside limits

COMMENTS:

FORM III HERB-2

1D
HERBICIDE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

HBLK67

Lab Name: COMPUCHEM ENV. CORP. Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0515C

Matrix: (soil/water) SOIL Lab Sample ID: 791833

Sample wt/vol: 50.4 (g/ml) G Lab File ID:

% Moisture: decanted: (Y/N) Date Received:

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 03/23/96

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/24/96

Injection Volume: 2.0 (uL) Dilution Factor: 1

GPC Cleanup: (Y/N) N pH: Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
94-75-7	2,4-D	99	U
93-72-1	2,4,5-TP (Silvex)	4.8	J
93-76-5	2,4,5-T	1.9	JP

FORM I HERB

SDG 0440

E 00137

COMPUCHEM
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21/MAR/96

Morrison Knudsen Corp.
Attn: Alan Fosdick
1500 West 3rd Street
Cleveland, OH 44113-1406

ACCOUNT #: 501019

CC#	SAMPLE-ID	RECEIPT DATE
791235	2507D-006	3/14/96
791237	2507D-007	3/14/96
791242	2507D-008	3/14/96
791244	2507D-009	3/14/96
791245	2507D-010	3/14/96
791247	2507D-011	3/14/96
791249	2507D-012	3/14/96
791251	2507D-013	3/14/96
791253	2507D-014	3/14/96
791254	2507D-015	3/14/96
791255	2507D-016	3/14/96

TOTAL NUMBER OF SAMPLES = 11

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SDG NARRATIVE
CASE # 31923
SDG # 0440C
CONTRACT # 501019

Sample Identifications: 2507D-006, 2507D-007, 2507D-008, 2507D-009, 2507D-010, 2507D-011, 2507D-012, 2507D-013, 2507D-014, 2507D-015, 2507D-016

The eleven (11) soil samples listed above were received intact, properly refrigerated, with proper documentation, in a sealed shipping container, on March 14, 1996. The samples were scheduled for the requested analysis of the volatile fraction. These samples were analyzed following Statement of Work (SOW) Document No. OLM03.2 protocol with the exceptions and/or additions described in the attached Project Profile Sheet (PPS) #467. The percent moistures of these soil samples ranged from 13 to 19.

All pertinent Quality Assurance notices are included in the narrative section, and all pertinent Laboratory notices for Case 31923, SDG 0440C, are included in the sample data sections.

Volatiles

All of the samples were analyzed within holding time requirements. The requested target analytes acetone, methylene chloride, and tetrachloroethene were identified above detection limits in some of the samples. There are several large and small peaks present at the beginning of the RIC for each of the samples. All of these peaks were determined to be carbon dioxide peaks. Since carbon dioxide does not get counted in the total number of Tentatively Identified Compounds (TICs), the reviewer chose to only identify one of the peaks as carbon dioxide instead of listing carbon dioxide several times on the Form 1e. A library search has been provided. Other TICs were found in the samples. These TICs could be characterized as unknowns and laboratory artifacts.

The system monitoring compounds met recovery criteria in the analyses of these samples. All of the internal standards met response and retention time criteria in the analyses of these samples.

The associated method blanks met all quality control criteria. The target analytes methylene chloride and acetone were found in the method blanks at concentrations within acceptance criteria limits. A single TIC was found in each of the method blanks. The associated volatile holding blank met all quality control criteria.

2507D-007 was used as the original to prepare the duplicate matrix spikes. The associated duplicate matrix spikes met all advisory

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accuracy and precision criteria. The associated laboratory control samples met all accuracy criteria.

In the analyses of some of the Initial and Continuing Calibration Standards, as well as each of the samples and the blanks, the operator performed manual integrations and/or manual edits of one or more of the Target Compound List (TCL) analytes. These manual integrations or edits are indicated by an "M", an "H", an "L", an "MH", or an "ML" flag present on the quantitation report. An Extracted Ion Current Profile (EICP) has been provided for each analyte requiring a manual integration. These manual edits and/or manual integrations were required because target analytes were incorrectly integrated by the automatic integration routine.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data contained in the hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jean M. Zimmerman
Jean M. Zimmerman
Final Technical Reviewer
March 20, 1996

2B
SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Level: (low/med) LOW

	SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	2507D-006	106	103	106		0
02	2507D-007	102	90	104		0
03	2507D-007MS	102	103	106		0
04	2507D-007MSD	105	102	110		0
05	2507D-008	102	90	102		0
06	2507D-009	101	89	103		0
07	2507D-010	104	90	104		0
08	2507D-011	101	91	100		0
09	2507D-012	95	80	96		0
10	2507D-013	100	89	102		0
11	2507D-014	109	98	104		0
12	2507D-015	106	100	104		0
13	2507D-016	108	100	105		0
14	VBLKJ1	109	99	106		0
15	VBLKV1	100	90	99		0
16	VBLKV3	109	100	101		0
17	VHBLKM1	110	101	107		0
18	VLCS200	106	100	107		0
19	VLCS84	99	90	104		0
20	VLCS85	108	99	104		0
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

			QC LIMITS
SMC1	(TOL)	= Toluene-d8	(84-138)
SMC2	(BFB)	= Bromofluorobenzene	(59-113)
SMC3	(DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM II VOA-2

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix Spike - Sample No.: 2507D-007 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	58.82	0.000	57.23	97	59-172
Trichloroethene	58.82	0.000	58.98	100	62-137
Benzene	58.82	0.000	64.53	110	66-142
Toluene	58.82	0.000	57.12	97	59-139
Chlorobenzene	58.82	0.000	59.58	101	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	58.82	56.83	97	0	22	59-172
Trichloroethene	58.82	54.97	93	7	24	62-137
Benzene	58.82	61.79	105	5	21	66-142
Toluene	58.82	54.20	92	5	21	59-139
Chlorobenzene	58.82	55.35	94	7	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3B

SOIL VOLATILE LAB CONTROL SAMPLE RECOVERY

CLIENT SAMPLE NO.

VLCS200

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Lab Sample ID: 791890 LCS Lot No.: 44556

Lab File ID: GH091890A55.D Date Analyzed: 03/19/96

Purge Volume: 0.0 (mL) Dilution Factor: 1.0

LCS Aliquot: 10.0 (uL)

COMPOUND	AMOUNT ADDED (ug/Kg)	AMOUNT RECOVERED (ug/Kg)	%REC #	QC LIMITS
Chlorobenzene	50.00	45.33	91	60-133
Toluene	50.00	46.54	93	59-139
Benzene	50.00	50.77	102	66-142
1,1-Dichloroethene	50.00	54.90	110	59-172
Trichloroethene	50.00	47.35	95	62-137

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 5 total.

COMMENTS:

FORM III

3B

SOIL VOLATILE LAB CONTROL SAMPLE RECOVERY

CLIENT SAMPLE NO.

VLCS84

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Lab Sample ID: 791559 LCS Lot No.: 44556

Lab File ID: GH091559B55.D Date Analyzed: 03/19/96

Purge Volume: 0.0 (mL) Dilution Factor: 1.0

LCS Aliquot: 10.0 (uL)

COMPOUND	AMOUNT ADDED (ug/Kg)	AMOUNT RECOVERED (ug/Kg)	%REC #	QC LIMITS
Chlorobenzene	50.00	47.01	94	60-133
Toluene	50.00	46.28	92	59-139
Benzene	50.00	49.82	100	66-142
1,1-Dichloroethene	50.00	50.34	101	59-172
Trichloroethene	50.00	47.05	94	62-137

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 5 total.

COMMENTS:

FORM III

E-00144

3B

SOIL VOLATILE LAB CONTROL SAMPLE RECOVERY

CLIENT SAMPLE NO.

VLCS85

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Lab Sample ID: 791560 LCS Lot No.: 44556

Lab File ID: GH091560A55.D Date Analyzed: 03/19/96

Purge Volume: 0.0 (mL) Dilution Factor: 1.0

LCS Aliquot: 10.0 (uL)

COMPOUND	AMOUNT ADDED (ug/Kg)	AMOUNT RECOVERED (ug/Kg)	%REC #	QC LIMITS
Chlorobenzene	50.00	45.55	91	60-133
Toluene	50.00	45.90	92	59-139
Benzene	50.00	48.88	98	66-142
1,1-Dichloroethene	50.00	52.99	106	59-172
Trichloroethene	50.00	45.89	92	62-137

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 5 total.

COMMENTS:

FORM III

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLKV1

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791556

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091556B55.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 03/18/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	6	J
67-64-1	Acetone	8	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U
75-05-8	acetonitrile	200	U

FORM I VOA

E-00146

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLKV1

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791556

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091556B55.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 03/18/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	230	U
107-05-1	3-chloropropene	15	U
106-93-4	1,2-dibromoethane	15	U
74-95-3	dibromomethane	20	U
110-57-6	trans-1,4-dichloro-2-butene	15	U
75-71-8	dichlorodifluoromethane	20	U
123-91-1	1,4-dioxane	51000	U
107-12-0	propionitrile(ethylcyanide)	590	U
97-63-2	ethyl methacrylate	25	U
74-88-4	iodomethane	10	U
78-83-1	isobutyl alcohol	13000	U
126-98-7	methacrylonitrile	20	U
80-62-6	methyl methacrylate	50	U
630-20-6	1,1,1,2-tetrachloroethane	20	U
96-18-4	1,2,3-trichloropropane	20	U
108-05-4	vinyl acetate	20	U
96-12-8	1,2-dibromo-3-chloropropane	50	U
75-69-4	trichlorofluoromethane	20	U
107-13-1	acrylonitrile	210	U
156-60-5	trans-1,2-Dichloroethene	10	U

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLKV1

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791556

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091556B55.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 03/18/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		CO2 (NOT IN TIC TOTAL)	2.51	1100	J
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLKV3

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791558

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091558A55.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	6	J
67-64-1	Acetone	15	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U
75-05-8	acetonitrile	200	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLKV3

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791558

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091558A55.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	230	U
107-05-1	3-chloropropene	15	U
106-93-4	1,2-dibromoethane	15	U
74-95-3	dibromomethane	20	U
110-57-6	trans-1,4-dichloro-2-butene	15	U
75-71-8	dichlorodifluoromethane	20	U
123-91-1	1,4-dioxane	51000	U
107-12-0	propionitrile(ethylcyanide)	590	U
97-63-2	ethyl methacrylate	25	U
74-88-4	iodomethane	10	U
78-83-1	isobutyl alcohol	13000	U
126-98-7	methacrylonitrile	20	U
80-62-6	methyl methacrylate	50	U
630-20-6	1,1,1,2-tetrachloroethane	20	U
96-18-4	1,2,3-trichloropropane	20	U
108-05-4	vinyl acetate	20	U
96-12-8	1,2-dibromo-3-chloropropane	50	U
75-69-4	trichlorofluoromethane	20	U
107-13-1	acrylonitrile	210	U
156-60-5	trans-1,2-Dichloroethene	10	U

E 00150

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLKV3

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791558

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091558A55.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.56	940	J
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLKJ1

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791889

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091889A55.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	16	
67-64-1	Acetone	31	
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U
75-05-8	acetonitrile	200	U

FORM I VOA

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLKJ1

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791889

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091889A55.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	230	U
107-05-1	3-chloropropene	15	U
106-93-4	1,2-dibromoethane	15	U
74-95-3	dibromomethane	20	U
110-57-6	trans-1,4-dichloro-2-butene	15	U
75-71-8	dichlorodifluoromethane	20	U
123-91-1	1,4-dioxane	51000	U
107-12-0	propionitrile(ethylcyanide)	590	U
97-63-2	ethyl methacrylate	25	U
74-88-4	iodomethane	10	U
78-83-1	isobutyl alcohol	13000	U
126-98-7	methacrylonitrile	20	U
80-62-6	methyl methacrylate	50	U
630-20-6	1,1,1,2-tetrachloroethane	20	U
96-18-4	1,2,3-trichloropropane	20	U
108-05-4	vinyl acetate	20	U
96-12-8	1,2-dibromo-3-chloropropane	50	U
75-69-4	trichlorofluoromethane	20	U
107-13-1	acrylonitrile	210	U
156-60-5	trans-1,2-Dichloroethene	10	U

E-00153

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLKJ1

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791889

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091889A55.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.54	1100	J
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VHBLKM1

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791240

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091240A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	6	JB
67-64-1	Acetone	11	B
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U
75-05-8	acetonitrile	200	U

FORM I VOA

E-00155

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VHBLKM1

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791240

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091240A55.D

Level: (low/med) LOW Date Received: 03/14/96

% Moisture: not dec. Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
107-02-8	acrolein	230	U
107-05-1	3-chloropropene	15	U
106-93-4	1,2-dibromoethane	15	U
74-95-3	dibromomethane	20	U
110-57-6	trans-1,4-dichloro-2-butene	15	U
75-71-8	dichlorodifluoromethane	20	U
123-91-1	1,4-dioxane	51000	U
107-12-0	propionitrile(ethylcyanide)	590	U
97-63-2	ethyl methacrylate	25	U
74-88-4	iodomethane	10	U
78-83-1	isobutyl alcohol	13000	U
126-98-7	methacrylonitrile	20	U
80-62-6	methyl methacrylate	50	U
630-20-6	1,1,1,2-tetrachloroethane	20	U
96-18-4	1,2,3-trichloropropane	20	U
108-05-4	vinyl acetate	20	U
96-12-8	1,2-dibromo-3-chloropropane	50	U
75-69-4	trichlorofluoromethane	20	U
107-13-1	acrylonitrile	210	U
156-60-5	trans-1,2-Dichloroethene	10	U

E-00156

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VHBLKM1

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0440C

Matrix: (soil/water) SOIL Lab Sample ID: 791240

Sample wt/vol: 5.0 (g/mL) G Lab File ID: GH091240A55.D

Level: (low/med) LOW Date Received: 03/15/96

% Moisture: not dec. 0 Date Analyzed: 03/19/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	CO2 (NOT IN TIC TOTAL)	2.50	970	JB
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FORM I VOA-TIC

SDG GL3C

E 00158

COMPUCHEM
ENVIRONMENTAL
CORPORATION

27/MAR/96

Morrison Knudsen Corp.
Attn: Alan Fosdick
1500 West 3rd Street
Cleveland, OH 44113-1406

ACCOUNT #: 501019

CC#	SAMPLE-ID	RECEIPT DATE
791140	2507D-006	3/14/96
791141	2507D-007	3/14/96
791142	2507D-008	3/14/96
791143	2507D-009	3/14/96
791144	2507D-010	3/14/96
791145	2507D-011	3/14/96
791157	2507D-012	3/14/96
791161	2507D-013	3/14/96
791162	2507D-014	3/14/96
791166	2507D-015	3/14/96
791169	2507D-016	3/14/96

TOTAL NUMBER OF SAMPLES = 11

COMPUCHEM
ENVIRONMENTAL
CORPORATION

3306 Chapel Hill-Nelson Highway P.O. Box 14998
Research Triangle Park, NC 27709-4998
(919) 406-1600

INORGANIC CASE SUMMARY NARRATIVE
CASE # 31923 SDG # 665C
PROTOCOL: SW-846

SAMPLE IDs:

The following customer IDs are associated with this SDG:

2507D-006, 2507D-007, 2507D-008, 2507D-009, 2507D-010, 2507D-011, 2507D-012, 2507D-013, 2507D-014, 2507D-015, 2507D-016

The indicated Sample Delivery Group (SDG) consisting of eleven soil samples was received into the laboratory management system (LMS) on March 14, 1996 intact, properly preserved, at a temperature of 4 (+/-2) degrees Celcius, with proper documentation, in sealed shipping containers, unless otherwise noted in any attachments or Quality Assurance Notices. The samples were analyzed for mercury using method 7471.

INSTRUMENTAL QUALITY CONTROL:

All calibration verification solutions (ICV & CCV), blanks (ICB, CCB) associated with this data were confirmed to be within EPA allowable limits.

SAMPLE PREPARATION QUALITY CONTROL:

The Laboratory Control Samples for Soils (LCSS) and Preparation Blanks for Soils (PBS) were found to be within acceptable ranges. All field samples associated with this case were prepared and analyzed within the specified holding times.

MATRIX RELATED QUALITY CONTROL:

The sample matrix spike, 2507D-012S(791879), was found to be within control limits for mercury.

Control limits for matrix spike recoveries are set at 75-125% of the analyte quantity added unless original sample concentrations exceed the true values of these "spikes" by a factor of four or more; in this case affected analytes

are not flagged even if recoveries fall outside percentage recovery control limits.

The sample matrix duplicate, 2507D-012D(791159), was within control limits for mercury.

Control limits for duplicate determinations are +/- 20% Relative Percent Difference (RPD) for concentrations greater than or equal to five times the Reporting Limit in both the original and duplicate samples, and +/- the Reporting Limit for concentrations less than five times the Reporting Limit. The RPD is not calculated if both the original and duplicate values fall below the IDL.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data contained in the hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jeanne Alston
Final Technical Reviewer
March 26, 1996

Note: This report is paginated for reference and accountability.

U.S. EPA - CLP

3
BLANKS

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 665C__

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.100	U	CV

FORM III - IN ILM03.0

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

2507D-012S

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 665C__

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: _82.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Mercury	80-120	0.6356		0.1217	U	0.61	104.2		CV

Comments:

FORM V (Part 1) - IN ILM03.0

E 00163

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

2507D-012D

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 665C__

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _82.2 % Solids for Duplicate: ___0.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Mercury		0.1217	U	0.1217	U			CV

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 665C__

Solid LCS Source: EPA-LV_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Mercury				12.7	11.4		8.5	17.0	89.8

FORM VII - IN ILM03.0

E-00165

COMPUCHEM
ENVIRONMENTAL
CORPORATION

27/MAR/96

Morrison Knudsen Corp.
Attn: Alan Fosdick
1500 West 3rd Street
Cleveland, OH 44113-1406

ACCOUNT #: 501019

CC#	SAMPLE-ID	RECEIPT DATE
791474	2507D-006	3/14/96
791479	2507D-007	3/14/96
791480	2507D-008	3/14/96
791481	2507D-009	3/14/96
791482	2507D-010	3/14/96
791483	2507D-011	3/14/96
791484	2507D-012	3/14/96
791485	2507D-013	3/14/96
791486	2507D-014	3/14/96
791487	2507D-015	3/14/96
791488	2507D-016	3/14/96

TOTAL NUMBER OF SAMPLES = 11

COMPUCHEM
ENVIRONMENTAL
CORPORATION

3306 Chapel Hill-Nelson Highway P.O. Box 14998
Research Triangle Park, NC 27709-4998
(919) 406-1600

INORGANIC CASE SUMMARY NARRATIVE
CASE # 31923 SDG # 565C
PROTOCOL: SW-846

SAMPLE IDs:

The following customer IDs are associated with this SDG:

2507D-006, 2507D-007, 2507D-008, 2507D-009, 2507D-010, 2507D-011, 2507D-012, 2507D-013, 2507D-014, 2507D-015, 2507D-016

The indicated Sample Delivery Group (SDG) consisting of ten soil samples was received into the laboratory management system (LMS) on March 14, 1996 intact, properly preserved, at a temperature of 4 (+/-2) degrees Celcius, with proper documentation, in sealed shipping containers, unless otherwise noted in any attachments or Quality Assurance Notices. The samples were analyzed for cyanide using method 9012.

INSTRUMENTAL QUALITY CONTROL:

All calibration verification solutions (ICV & CCV), blanks (ICB, CCB) associated with this data were confirmed to be within EPA allowable limits.

SAMPLE PREPARATION QUALITY CONTROL:

The Laboratory Control Samples for Soils (LCSS) and Preparation Blanks for Soils (PBS) were found to be within acceptable ranges. All field samples associated with this case were prepared and analyzed within the specified holding times.

MATRIX RELATED QUALITY CONTROL:

The sample matrix spike and matrix spike duplicate, 2507D-006S(791476)/2507D-006S(791475), were found to be within control limits for cyanide.

Control limits for matrix spike recoveries are set at 75-125% of the analyte quantity added unless original sample concentrations exceed the true values of these "spikes" by a factor of four or more; in this case affected analytes are not flagged even if recoveries fall outside percentage recovery control limits.

The sample matrix duplicate, 2507D-006D(791477), was within control limits for cyanide.

Control limits for duplicate determinations are +/- 20% Relative Percent Difference (RPD) for concentrations greater than or equal to five times the Reporting Limit in both the original and duplicate samples, and +/- the Reporting Limit for concentrations less than five times the Reporting Limit. The RPD is not calculated if both the original and duplicate values fall below the IDL.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data contained in the hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jeanne Alston
Final Technical Reviewer
March 26, 1996

Note: This report is paginated for reference and accountability.

U.S. EPA - CLP

3
BLANKS

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Preparation Blank Matrix (soil/water): SOIL_

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	0.500	U	AS

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

2507D-006S

Lab Name: COMPUCHEM_ENV._CORP. Contract: SW-846

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C

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

% Solids for Sample: 81.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Cyanide	75-125	2.5382		0.6127	U	2.45	103.6		AS

Comments:

FORM V (Part 1) - IN ILM03.0

E-00171

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

2507D-006S

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: _81.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Cyanide	75-125	2.5110		0.6127	U	2.45	102.5		AS

Comments:

FORM V (Part 1) - IN ILM03.0

E-00172

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

2507D-006D

Lab Name: COMPUCHEM_ENV._CORP. Contract: SW-846

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 565C

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

% Solids for Sample: 81.6 % Solids for Duplicate: 0.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Cyanide		0.6127	U	0.6127	U			AS

E-00173

U.S. EPA - CLP

7

LABORATORY CONTROL SAMPLE

Lab Name: COMPUCHEM_ENV._CORP._____ Contract: SW-846____

Lab Code: COMPU_ Case No.: 31923_ SAS No.: _____ SDG No.: 565C__

Solid LCS Source: EPA-LV_____

Aqueous LCS Source: _____

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Cyanide				5.6	6.3		4.3	6.9	112.5

FORM VII - IN ILM03

E-00174

E-00175

COMPUCHEM
ENVIRONMENTAL
CORPORATION

21/MAR/96

Morrison Knudsen Corp.
Attn: Alan Fosdick
1500 West 3rd Street
Cleveland, OH 44113-1406

ACCOUNT #: 501019

CC#	SAMPLE-ID	RECEIPT DATE
790939	2507DTB21	3/14/96
790940	2507DTB22	3/14/96
790941	2507DTB23	3/14/96
790942	2507DTB24	3/14/96
790943	2608DRB16	3/14/96

TOTAL NUMBER OF SAMPLES = 5

COMPUCHEM
ENVIRONMENTAL
CORPORATION

SDG NARRATIVE
CASE # 31923
SDG # 0412C
CONTRACT # 501019

Sample Identifications: 2507DTB21, 2507DTB22, 2507DTB23, 2507DTB24, 2608DRB16

The five (5) water samples listed above were received intact, properly refrigerated, with proper documentation, in a sealed shipping container, on March 14, 1996. The samples were scheduled for the requested analysis of the volatile fraction. These samples were analyzed following Statement of Work (SOW) Document No. OLM03.2 protocol with the exceptions and/or additions described in the attached Project Profile Sheet (PPS) #467.

All pertinent Quality Assurance notices are included in the narrative section, and all pertinent Laboratory notices for Case 31923, SDG 0412C, are included in the sample data sections.

Volatiles

All of the samples were analyzed within holding time requirements. The requested target analyte acetone was identified above detection limits in one of the samples. No Tentatively Identified Compounds (TICs) were found in the samples. The pH values of these samples are summarized on the attached batch sheet.

The system monitoring compounds met recovery criteria in the analyses of these samples. All of the internal standards met response and retention time criteria in the analyses of these samples.

The associated method blank met all quality control criteria. None of the requested target analytes were found in the method blank. The associated volatile holding blank met all quality control criteria.

Duplicate sample spikes were not required because the samples listed above are field QC samples. The associated laboratory control sample met all accuracy criteria.

In the analyses of some of the Initial and Continuing Calibration Standards, the operator performed manual integrations and/or manual edits of one or more of the Target Compound List (TCL) analytes. These manual integrations or edits are indicated by an "M", an "H", an "L", an "MH", or an "ML" flag present on the quantitation report. An Extracted Ion Current Profile (EICP) has been provided for each analyte requiring a manual integration. These manual edits and/or manual integrations were required because target analytes were incorrectly integrated by the automatic integration routine.

COMPUCHEM
ENVIRONMENTAL
CORPORATION

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data contained in the hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jean M. Zimmerman
Final Technical Reviewer
March 20, 1996

2A
WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0412C

	SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	2507DTB21	98	96	101		0
02	2507DTB22	109	106	113		0
03	2507DTB23	99	95	101		0
04	2507DTB24	96	94	99		0
05	2608DRB16	106	102	108		0
06	VBLKLV	102	99	104		0
07	VHBLK56	104	98	102		0
08	VLCS42	102	98	105		0
09						
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			QC LIMITS
SMC1	(TOL)	= Toluene-d8	(88-110)
SMC2	(BFB)	= Bromofluorobenzene	(86-115)
SMC3	(DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

FORM II VOA-1

3A
WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

CLIENT SAMPLE NO.

VLCS42

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0412C

Lab Sample ID: 791555 LCS Lot No.: 44556

Lab File ID: CN091555B55.D Date Analyzed: 03/17/96

Purge Volume: 5.0 (mL) Dilution Factor: 1.0

COMPOUND	AMOUNT ADDED (ug/L)	AMOUNT RECOVERED (ug/L)	%REC #	QC LIMITS
Benzene	50.00	46.76	94	76-127
Toluene	50.00	43.79	88	76-125
Chlorobenzene	50.00	43.48	87	75-130
Trichloroethene	50.00	43.73	87	71-120
1,1-Dichloroethene	50.00	46.77	94	61-145

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.

LCS Recovery: 0 outside limits out of 5 total.

COMMENTS:

FORM III

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

VBLKLV

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0412C

Matrix: (soil/water) WATER Lab Sample ID: VBLKLV

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CB960317B55.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 03/17/96

GC Column: DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (Total)	10	U
75-05-8	acetonitrile	60	U

E-00181

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.
VBLKLV

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0412C

Matrix: (soil/water) WATER Lab Sample ID: VBLKLV

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CB960317B55.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 03/17/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
107-02-8	acrolein	90	U
107-05-1	3-chloropropene	15	U
106-93-4	1,2-dibromoethane	10	U
74-95-3	dibromomethane	10	U
110-57-6	trans-1,4-dichloro-2-butene	10	U
75-71-8	dichlorodifluoromethane	10	U
123-91-1	1,4-dioxane	3700	U
107-12-0	propionitrile(ethylcyanide)	220	U
97-63-2	ethyl methacrylate	10	U
74-88-4	iodomethane	5	U
78-83-1	isobutyl alcohol	2800	U
126-98-7	methacrylonitrile	20	U
80-62-6	methyl methacrylate	20	U
630-20-6	1,1,1,2-tetrachloroethane	10	U
96-18-4	1,2,3-trichloropropane	10	U
108-05-4	vinyl acetate	10	U
96-12-8	1,2-dibromo-3-chloropropane	10	U
75-69-4	trichlorofluoromethane	10	U
107-13-1	acrylonitrile	95	U
156-60-5	trans-1,2-Dichloroethene	10	U

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SAMPLE NO.

VBLKLV

Lab Name: COMPUCHEM ENV. CORP. Contract: 501019

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0412C

Matrix: (soil/water) WATER Lab Sample ID: VBLKLV

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: CB960317B55.D

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 03/17/96

GC Column:DB624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
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FORM I VOA-TIC

COMPUCHEM
ENVIRONMENTAL
CORPORATION

SDG NARRATIVE

Case #31923
SDG #0490C
PROTOCOL: SW-846

Samples: 2507D-006, 2507D-007, 2507D-008, 2507D-009, 2507D-010 2507D-011, 2507D-012, 2507D-013, 2507D-014, 2507D-015 2507D-016

Attached are pertinent analytical data dealing with the analyses of eleven (11) soil samples associated with case #31923, SDG #0490C. The samples were received intact on March 14, 1996 in properly sealed shipping containers with the corresponding chain-of-custody (COC) documents. The samples were logged into the CompuChem Laboratory Management system and scheduled for the analyses of the pesticide/pcb fractions by Method 8080.

PESTICIDE/PCB
The pesticide/pcb fractions were extracted and analyzed within the required holding time. Dual column analyses were performed to confirm the presence of one or more target analytes in the samples. One to three target analytes were detected with concentrations above the reporting limits in five samples. These were assessed as methoxychlor, endrin, endrin aldehyde and endosulfan I.

Due to the large amount of organic material present, as demonstrated by the chromatogram, sample 2507D-007 was analyzed at a 10:1 dilution in order to provide discernible and reproducible results.

QC SUMMARY
The surrogates met recovery criteria for the pesticide/pcb fractions, with two exceptions. The recoveries of decachlorobiphenyl (DCB) failed acceptance criteria in the analyses of samples 2507D-009 and 2507D-013, performed on the RTX-1701 analytical column.

The duplicate matrix spikes met recovery and relative percent difference criteria. The associated blank spike, blank, initial calibrations and continuing calibrations met Quality Control criteria.

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CORPORATION

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than conditions detailed above. Release of the data contained in the hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Patricia B. Hopkins

Patricia B. Hopkins
Technical Reviewer
28 March 1996

E-00186

COMPUCHEM
ENVIRONMENTAL
CORPORATION

29/MAR/96

Morrison Knudsen Corp.
Attn: Alan Fosdick
1500 West 3rd Street
Cleveland, OH 44113-1406

ACCOUNT #: 501019

CC#	SAMPLE-ID	RECEIPT DATE
791333	2507D-006	3/14/96
791336	2507D-007	3/14/96
791337	2507D-008	3/14/96
791338	2507D-009	3/14/96
791339	2507D-010	3/14/96
791340	2507D-011	3/14/96
791341	2507D-012	3/14/96
791342	2507D-013	3/14/96
791343	2507D-014	3/14/96
791344	2507D-015	3/14/96
791345	2507D-016	3/14/96

TOTAL NUMBER OF SAMPLES = 11

E-00187

2F

SOIL ORGANOCHLORINE PESTICIDE AND PCB SURROGATE RECOVERY

Lab Name: COMPUCHEM, RTP Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0490C

GC Column (1): RTX-1701 ID: 0.53 (mm) GC Column (2): DB-608 ID: 0.53 (mm)

	SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK76	110	110	120	130			0
02	BS	120	110	110	120			0
03	2507D-010	84	96	120	120			0
04	2507D-006	130	110	120	120			0
05	2507D-008MS	120	110	140	100			0
06	2507D-008MSD	120	110	140	100			0
07	2507D-007	190D	140D	140D	150D			0
08	2507D-008	110	100	130	100			0
09	2507D-009	99	97	160*	89			1
10	2507D-011	100	91	120	100			0
11	2507D-012	110	100	120	110			0
12	2507D-013	130	120	180*	99			1
13	2507D-014	120	110	110	110			0
14	2507D-015	110	110	120	120			0
15	2507D-016	110	98	120	110			0
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	QC LIMITS
TCX = Tetrachloro-m-xylene	(20-150)
DCB = Decachlorobiphenyl	(20-150)

Column to be used to flag recovery values.
* Values outside of QC Limits
D Surrogate diluted out.

FORM II 8080-2

3F

SOIL ORGANOCHLORINE PESTICIDE/PCB MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: COMPUCHEM, RTP Contract:

Lab Code: COMPU Case No.: 31923 SAS No.: SDG No.: 0490C

Matrix Spike - Sample No.: 2507D-008

COMPOUND	SPIKE ADDED (mg/Kg)	SAMPLE CONCENTRATION (mg/Kg)	MS CONCENTRATION (mg/Kg)	MS % REC #	QC. LIMITS REC.
gamma-BHC (Lindane)	30.651	0.32	24	77	32-127
Heptachlor	30.651	0.33	25	80	34-111
Aldrin	30.651	0.25	24	77	42-122
Endosulfan I	30.651	1.2	0.00	0	45-153
Dieldrin	76.628	0.12	62	81	36-146
Endosulfan II	76.628	0.15	0.00	0	20-120
4,4'-DDT	76.628	0.68	71	92	25-160
Methoxychlor	76.628	4.5	0.00	0	40-130
alpha-BHC	30.651	0.00	0.00	0	37-134
beta-BHC	30.651	0.68	0.00	0	17-147
delta-BHC	30.651	0.061	0.00	0	19-140
Heptachlor epoxide	30.651	0.00	0.00	0	37-142
4,4'-DDE	30.651	0.13	0.00	0	30-145
Endrin	76.628	3.6	62	76	30-147
4,4'-DDD	76.628	0.27	0.00	0	31-141
Endrin aldehyde	76.628	2.0	0.00	0	26-144
Endosulfan sulfate	76.628	0.66	0.00	0	26-144

COMPOUND	SPIKE ADDED (mg/Kg)	MSD CONCENTRATION (mg/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	30.651	26	84	9	20	32-127
Heptachlor	30.651	28	90	12	20	34-111
Aldrin	30.651	27	87	12	20	42-122
Endosulfan I	30.651	0.00	0	0	20	45-153
Dieldrin	76.628	69	90	11	20	36-146
Endosulfan II	76.628	0.00	0	0	20	20-120
4,4'-DDT	76.628	82	106	14	20	25-160
Methoxychlor	76.628	0.00	0	0	20	40-130
alpha-BHC	30.651	0.00	0	0	20	37-134
beta-BHC	30.651	0.00	0	0	20	17-147
delta-BHC	30.651	0.00	0	0	20	19-140
Heptachlor epoxide	30.651	0.00	0	0	20	37-142
4,4'-DDE	30.651	0.00	0	0	20	30-145
Endrin	76.628	66	81	6	20	30-147
4,4'-DDD	76.628	0.00	0	0	20	31-141
Endrin aldehyde	76.628	0.00	0	0	20	26-144
Endosulfan sulfate	76.628	0.00	0	0	20	26-144

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

FORM III 8080-2

APPENDIX F

WASTE MANIFESTS

APPENDIX F

WASTE MANIFESTS

- SouthDiv Waste Report for the period - February 1996 (1 page)
- Letter from MK Project Manager Steven Downey to Brent Robertson dated: April 18, 1996, concerning material transportation from SWMU 25/07D including back-up documentation (12 pages)
- Asbestos Waste Shipment/Disposal Record (14 pages)

SOUTHDIV WASTE REPORT
DELIVERY ORDER 0009 - NSWC CRANE, INDIANA (PHASE 3)
Reporting Period - February, 1996

WASTE DESCRIPTION	QUANTITY	DATE(s) GENERATED	DISPOSAL DATE	DISPOSAL DESTINATION	DISPOSAL METHOD	MANIFEST ATTACHED (YES OR NO) IF YES INCLUDE #	HAZARDOUS CLASSIFICATION	USEPA HW CODE (IF HAZARDOUS)
SWMU 25/07D Soil and Debris	39700 LB	2/2/96	2/2/96	Southside Landfill Indianapolis, IN.	Landfill	01	Non-Hazardous	NA
SWMU 25/07D Soil and Debris	39100 LB	2/2/96	2/2/96	Southside Landfill Indianapolis, IN.	Landfill	02	Non-Hazardous	NA
SWMU 25/07D Soil and Debris	40240 LB	2/2/96	2/2/96	Southside Landfill Indianapolis, IN.	Landfill	03	Non-Hazardous	NA
SWMU 25/07D Soil and Debris	39520 LB	2/2/96	2/2/96	Southside Landfill Indianapolis, IN.	Landfill	04	Non-Hazardous	NA
SWMU 25/07D Soil and Debris	35320 LB	2/2/96	2/2/96	Southside Landfill Indianapolis, IN.	Landfill	05	Non-Hazardous	NA
SWMU 25/07D Soil and Debris	40320 LB	2/2/96	2/2/96	Southside Landfill Indianapolis, IN.	Landfill	06	Non-Hazardous	NA
SWMU 25/07D Soil and Debris	(mech. problems)	2/2/96	2/2/96	Southside Landfill Indianapolis, IN.	Landfill	07	Non-Hazardous	NA
SWMU 25/07D Soil and Debris	37960 LB	2/5/96	2/5/96	Southside Landfill Indianapolis, IN.	Landfill	08	Non-Hazardous	NA
SWMU 25/07D Soil and Debris	37520 LB	2/5/96	2/5/96	Southside Landfill Indianapolis, IN.	Landfill	09	Non-Hazardous	NA
SWMU 25/07D Soil and Debris	39760 LB	2/5/96	2/5/96	Southside Landfill Indianapolis, IN.	Landfill	10	Non-Hazardous	NA
SWMU 25/07D Soil and Debris	40360 LB	2/5/96	2/5/96	Southside Landfill Indianapolis, IN.	Landfill	11	Non-Hazardous	NA
SWMU 25/07D Soil and Debris	35100 LB	2/5/96	2/5/96	Southside Landfill Indianapolis, IN.	Landfill	12	Non-Hazardous	NA
Total Weight	**424,900 LB**							

Revised: 8/16/96
c:\msoffice\excel\WASTEDO9.XLS

MORRISON KNUDSEN CORPORATION
ENGINEERING, CONSTRUCTION & ENVIRONMENTAL GROUP
NSWC CTR 12
300 HIGHWAY 361
CRANE, IN 47522

TRANSMITTAL LETTER

PROJECT NAME: SOUTHDIV ERAC CRANE DIVISION NSWC	TRANSMITTAL NO.: 96-4324-333	WORK ORDER NO.: 4324-0009-007-3
	DATE: April 19, 1996	

TO:
Tom Brent
Site Representative, Crane Division
Naval Surface Weapons Center
Building 3260
Crane, Indiana 47522

REFERENCES

ITEM: Response to Letter to Brent Robertson #4330

EQUIPMENT NO.:

PURCHASE ORDER NO.:

VENDOR ORDER NO.:

TRANSMITTED HEREWITH

FOR:
- [ ] REVIEW AND COMMENT
- [ ] APPROVAL
- [X] RECORD
- [ ] INFORMATION

FOR STATUS NOTED

REVIEWED	A
REVIEWED AS NOTED - RESUBMIT	B
NOT REVIEWED - RESUBMIT	C
FOR INFORMATION	D

ITEM	QUANTITY	TITLE/DESCRIPTION
1	1	Document packages on SWMU #25/00 and #26/08, with MK letter to Brent Robertson #4324-0009-159.
2	1	Signed manifests from Southside Landfill for SWMU #25/00 and #26/08.

File: 11.097.F
12.082.05.F
13.050.05.F
30.040.F

cc: Cathy Simantel w/att
Robert Hlavacek w/att
Bill Kemp w/att

BY: Steven T Downey

NAME: Steven T. Downey

TITLE: Project Manager

F-08003

MORRISON KNUDSEN CORPORATION
300 Highway 361, CTR-12
P.O. Box 301
Crane, IN 47522
(812) 854-6941
Fax: (812) 854-6944

43241-0009-159

Brent Robertson
ROICC Office
NSWC Crane - B-2516
300 Highway 361
Crane, IN 47522-5082

April 18, 1996

Subject: Contract N62467-93-D-1106, Environmental RAC Contract 4324-0024 NSWC-Crane Information Request Pertaining to Dump Sites A & B

Brent,

This memo is in response to your memo 4330 dated 4/15/96, concerning material transported from SWMUs 25/07D and 26/08D to Southside Landfill in Indianapolis. The following is a brief synopsis of events regarding this disposal.

SWMU 25/07D (Dump Site A)
Initial surface samples taken from Dump Site A were analyzed for Total Metals; no TCLP analyses were run. Based on a review of the results from these analyses by the MK Project Chemist, this material was classified as nonhazardous material containing asbestos. The material was disposed of as special waste at the Southside Landfill in Indianapolis, IN. Subsequently concerns were raised by the Crane EPD based on a review of the raw data from the Laboratory. To address these concerns, the Laboratory that performed the original analyses was contacted and asked to run a TCLP analysis on remaining material from the original samples (this material was still within acceptable hold time). The advance copy of the results of these analyses confirm the material to be nonhazardous.

SWMU 26/08D (Dump Site B)
Initial surface samples taken from Dump Site B were analyzed for Total Metals. Subsequently, three additional samples were collected from a depth of approximately two feet and analyzed for TCLP. One of these samples exceeded the regulatory TCLP level for lead, one exceeded the level for barium and the third exceeded the level for both lead and barium. The worst case for lead was 16.4 mg/L (allowable is 5 mg/L) and the worst case for barium was 210 Mg/L (allowable is 100 mg/L). A scope of work was developed to dispose of this material as hazardous waste containing asbestos.

U.S. Tech began excavation for disposal and found the material to be comprised primarily of debris with very little soil content. U.S. Tech recommended disposal as special waste and suggested that a sample be collected from the waste pile and analyzed for TCLP to profile the material for disposal. This was discussed with SOUTHDIV and Crane EPD and a sample was collected from the waste pile for TCLP analysis. The waste pile analytical results revealed nonhazardous levels of lead and barium. Photos were given to SOUTHDIV and reviewed with the EPA. The EPA recommended

separating as much soil as possible for disposal as hazardous and disposing of the remaining material as asbestos containing debris. U.S. Tech indicated their disposal facility would accept the material as nonhazardous. Separating the soil was not considered to be practical due to the asbestos material and the possibility of it becoming airborne if screened. After discussing the problems with trying to separate the debris from the soil and the latest analytical results with SOUTHDIV, a decision was made to dispose of the material as nonhazardous as long as the receiving facility was willing to accept the material. The material was disposed of at Southside Landfill in Indianapolis as nonhazardous asbestos containing material.

The letter from 095 dated 4/12/96 which you attached to your letter of 4/15/96 requested additional information regarding the disposal of this material. The requested information is as follows:

a. Documentation on how soils from SWMUs 25/07D and 26/08D were represented to Southside Landfill.
The attached letter from Southside Landfill to EnviroSolve dated 1/31/96 indicates the material was described "as being soil with asbestos particles being the only contaminant". Letter from Southside Landfill to Envirosolve dated 4/9/96 (also attached) transmitted a copy of their generic permit and indicated "analysis of asbestos contaminated materials is not necessary". All of the TCLP analyses for SWMU 26/08D were sent by U.S. Tech to the disposal facility along with the original scope of work which indicated the material was considered hazardous.

b. Documentation from Southside Landfill certifying acceptance and disposal of the 1100 tons of material.
Copies of the signed Waste Manifests are attached.

c. Explanation of why U.S. Tech excavated two holes at SWMU 26/08D in the grassy area within the circle made by the gravel road.
The attached letter from U.S. Tech to MK dated 4/18/96 explains that the holes were excavated to determine if the debris laden soil extended across the road.

Five additional samples were collected from the locations which exhibited the highest levels of lead and barium in the confirmation analyses (Total Metals only) for SWMU 26/08D. The samples were analyzed for TCLP and all of the results came back nonhazardous based on preliminary results.

I hope this letter provides the requested information. If you require anything further please let me know.

Sincerely,

Steven T. Downey
Project Manager
Morrison Knudsen Corp.

cc: Tom Brent - NSWC Crane EPD
Bill Kemp - MK
Cathy Simantel - MK
Robert Hlavacek - MK

SOUTH SIDE LANDFILL INC.

2561 KENTUCKY AVENUE • PHONE (317) 247-6808 • INDIANAPOLIS, INDIANA 46221

January 31, 1996

Mr. Eric Julian
EnviroSolve Environmental Management
2255 North Ralston Road
P.O. Box 18568
Indianapolis, Indiana 46218-0568

Mr. Julian:

Per our previous conversation this letter is to serve as written clarification of requirements for receiving asbestos containing material. South Side Landfill, Inc. has a State of Indiana issued generic permit for accepting asbestos containing material. This permit serves in lieu of having to submit a profile to obtain a generator specific permit.

The material from Crane Naval Base that you describe as being soil with asbestos particles being the only contaminate, can be accepted under this approval. The requirements that are set forth in our permit are that the material be placed in a lined bed, wetted and labeled as containing asbestos. We also require 24 hour advance notification before accepting this material. Also, the hauler and generator will receive a copy of the Asbestos Disposal Notification Form, the original will be kept in our operating record file as required by NESHAP regulations.

If you have any further questions, or wish to obtain a copy of our permit, please give me a call at (317) 247-6808.

Sincerely,

Scott Fitzgerald
Administrative Manager

TOTAL P.01

F-00006

SOUTH SIDE LANDFILL INC.

2561 KENTUCKY AVENUE - PHONE (317) 247-6808 - INDIANAPOLIS, INDIANA 46221

April 9, 1996

Mr. Eric Julian
EnviroSolve Environmental Management, Inc.
2255 N. Ralston Avenue
Indianapolis, Indiana 46212

Dear Eric:

As per your request I am sending you a copy of our generic permit granting approval to accept asbestos contaminated materials. According to our permit analysis of asbestos contaminated materials is not necessary.

If you have any questions please feel free to call me at (317) 247-6808.

Respectfully,

Tina DuVall

Tina DuVall
South Side Landfill, Inc.

This approval is granted to the landfill subject to the following conditions:

Advanced Notification

1. The generator or hauler shall provide the landfill with 24 hours advanced notification of intended disposal.

Packaging Requirements

2. All asbestos shall be:

   a. Adequately wetted to prevent airborne release during disposal unless excluded under the federal NESHAP 40 CFR 61.145 and Indiana Air Rule 326 IAC 14-10-4 (see enclosed memo for guidance).

   b. In leak tight wrapping or containers.

   c. In containers with asbestos warning labels or markings in accordance with all local, state and federal regulations.

3. Improper or incomplete packaging or labels shall be accepted in accordance with the March 14, 1994, memo (copy enclosed).

Disposal Requirements

4. Personnel handling asbestos-containing materials will be provided with on-site supervision at all times by a person currently accredited as an asbestos waste disposal manager by the Indiana Department of Environmental Management (326 IAC 18-3). Proof of this certification shall be maintained on-site.

5. Appropriate protective equipment shall be used during all handling and disposal activities to ensure proper protection from exposure to the material, especially from inhalation.

6. The landfill will have a written contingency plan to safely control torn bags or broken containers. Dedicated equipment and supplies will be maintained at the disposal point to properly wet, overpack, and clean up spilled asbestos-containing materials. All spilled asbestos-containing materials must be cleaned up immediately using appropriate methods.

7. Each load of asbestos shall be covered immediately with soil or solid waste to prevent airborne release. A daily cover at least six (6) inches thick shall also be in place by the end of each operating day (329 IAC 2-14-13).

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P.O. Box 6015
Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

RECEIVED
OCT 2 1995

Mr. John Balkema
Southside Landfill
2314 Miller Road
Kalamazoo, MI 49001

Sept. 27, 1995

Dear Mr. Balkema:

Re: Variable Source Asbestos Approval

The Southside Landfill, Opp. No. 49-1, Marion County, is hereby granted approval to accept for disposal asbestos-containing waste. This approval is limited to the following:

1. Asbestos that is properly wetted, bagged, or wrapped in leak tight packaging and labeled;

2. Asbestos transite paneling and other category II nonfriable asbestos that is wetted, wrapped in leak tight packaging, and labeled;

3. Asbestos that is encased in concrete or metal (i.e. furnaces, boilers and fire safes);

4. Friction products such as brake linings, clutch facings, etc.

This approval does not include the following:

1. Asbestos from the manufacturing, formulating, or grinding of asbestos-containing products (i.e., baghouse collection sludges or dust); bulk disposal of asbestos-containing products which are not packaged or encased. These wastes will require certification in accordance with 329 IAC 2-21-11.

2. ~~Packing, gaskets, resilient floor coverings (including asbestos mastic) and asphalt-based paints and roofing shingles containing asbestos that are hard-textured (nonfriable) and have very little potential of becoming friable during transportation and disposal. These wastes can be disposed at any approved sanitary landfill as a solid waste.~~

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Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

DATE: September 25, 1995

TO: Variable Source Asbestos Approved (VSAA) Landfills

FROM: Gregory C. Lorenz, Chief
Special Waste Section
Solid and Hazardous Waste Management

SUBJECT: Regulated Asbestos Containing Material Wetting Exemptions

In response to changes in the federal NESHAP 40 CFR 61.145 and Indiana Air Rule 326 IAC 14-10-4, condition number two (2) of the VSAA has been amended to include the following wetting exemptions for Regulated Asbestos Containing Material (RACM). This memo is intended to serve as general guidance on these exemptions. If you have any questions regarding the wetting exemptions, please contact Mr. Dan Lamberson of the Office of Air Management at (317) 233-4385.

326 IAC 14-10-4(6)(D): RACM contained in leak-tight wrapping that has been removed in accordance with subdivisions (3)(B)(iii), (4), or (7)(B)(ii)(CC)(leak-tight wrapping to contain all RACM prior to dismantlement) need not be wetted.

326 IAC 14-10-4(3): In renovation operations, wetting is not required if:

(B)(iii) Leak-tight wrapping is used to contain all RACM prior to dismantlement.

326 IAC 14-10-4(5): For large components, such as reactor vessels, large tanks, and steam generators, but not beams, which must be handled in accordance with subdivision (2) through (4), the RACM is not required to be stripped if the following requirements are met:

(A) the component is removed, transported, stored, disposed of, or reused without disturbing or damaging the RACM;

(B) the component is encased in leak-tight wrapping; and

8. There shall be no visible emissions of dust to the outside air where asbestos-containing material has been deposited.

9. There shall be no direct physical contact between asbestos material and heavy equipment during disposal and covering operations.

10. If nuisance or pollution conditions are created, immediate corrective action shall be taken by the operator.

Disposal Notification

11. Asbestos waste material accepted pursuant to this approval shall be:

a. Accompanied by a completed asbestos notification or equivalent document per each delivery.

b. Reported to this office in summary on the special waste monthly report forms (329 IAC 2-21-15).

c. Disposal notifications shall be maintained on-site and be made available for staff review (329 IAC 2-21-15).

This approval will expire September 30, 1996.

This approval may be revoked if the landfill fails to maintain compliance with 329 IAC 2, et seq., or the requirements of this approval. The landfill must also comply with all regulations of the Indiana Department of Labor and the U.S. EPA. Any necessary local approval must be obtained, but is not required for this approval to be valid.

If you have any questions, please contact Ms. Susan Bremer at 317/232-3451 or Mr. Scott Draschil at 317/232-0447.

Sincerely,

Gregory C. Lorenz

Gregory C. Lorenz, Chief
Special Waste Permit Section
Solid Waste Facilities Branch
Solid and Hazardous Waste Management

Enclosures

cc: Marion County Health Department
Marion County Solid Waste Management District
Mr. Frank Pruitt, Office of Air Management
Mr. Dave Brown, Solid Waste Compliance Section

(C) the leak-tight wrapping is labeled according to 40 CFR Part 61.149(d)(1)(i), (ii), and (iii)* during all loading and unloading operations and during storage.

326 IAC 14-10-7(B)(ii)(CC): When the temperature at the point of wetting is below zero degrees Celsius, the owner or operator must proceed with the following:

(B) During periods when wetting operations are suspended due to freezing temperatures:

(ii)(CC) Leak-tight wrapping shall be used to contain all RACM prior to dismantlement.

The contractor/generator should indicate the reason for deviation from the standard wetting, required by state and federal regulations, on the waste shipment record (WSR). If RACM is not adequately wetted upon arrival at the landfill and the WSR does not indicate why, the landfill operator should request the information and record it on the WSR.

We expect all VSAA landfills to comply with both state and federal requirements. If you have any questions regarding the VSAA, please contact the Special Waste Section at (317)232-4473.

AAI

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Indianapolis, Indiana 46206-6015
Telephone 317-232-8603
Environmental Helpline 1-800-451-6027

DATE: March 14, 1994

TO: Variable Source Asbestos Approved (VSAA) Landfills

FROM: Patrick Carroll, Chief
Solid Waste Permit Branch
Solid and Hazardous Waste Management

SUBJECT: Handling and Reporting of Improperly Labeled and/or Packaged Asbestos Containing Material (ACM)

The Variable Source Asbestos Approval issued by IDEM on September 24, 1993, is not consistent with federal rules concerning the landfill's responsibility for handling of improperly labeled and/or packaged ACM.

To rectify the situation condition number three (3) of the VSAA is being amended. Since Indiana's Solid Waste Rules (329 IAC 2) and Indiana's Air Rules (326 IAC 1) are silent regarding handling of improperly labeled and/or packaged ACM, the landfill must comply with NESHAP rule 61.154(e)(1)(IV). "Guidelines for Asbestos NESHAP Landfill Recordkeeping Inspections, March, 1992," summarizes 61.154(e)(1)(IV), handling of improperly packaged ACM, as follows:

> As disposal site operators check asbestos waste shipments that arrive at their facilities, they are required to note whether a significant amount of improperly enclosed or uncovered waste exists in the load. If such material is discovered, the waste disposal operator must make note of this in Item 12* of the Waste Shipment Record (WSR) and send, by the following working day, a written report of the problem to the agency responsible for administering the asbestos NESHAP program for the jurisdiction where the job site is located (identified on the WSR). If the disposal site is in a different jurisdiction than the job site, the written report must also be sent to the agency responsible for the disposal site.
>
> The written report must include a copy of the WSR and a detailed description of the improperly enclosed or uncovered waste so that the Agency can determine the urgency of the situation and the course of action to pursue.

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*Item 12 on the Federal WSR corresponds to #14 on the Indiana Asbestos Waste Shipment/Disposal Record

To facilitate environmentally sound handling of the improperly labeled and/or packaged asbestos, the landfill should accept the waste and cover it immediately with at least six inches of soil or solid waste. Additionally, the landfill should always indicate the discrepancies on the WSR. Therefore, condition number three (3) as stated in the September 24, 1993 VSAA is revoked and replaced with:

> "Improperly labeled and/or packaged asbestos should be accepted. Improper packaging shall be handled according to NESHAP 61.154(a)(1)(TV); incomplete labeling shall be noted on the Indiana Asbestos Waste Shipment/Disposal Record."

We expect all VSAA Landfills to comply with both state and federal requirements.

At present the responsible agency is the EPA and a copy of the WSR and report should be sent to Mr. Andrew Anderson of the U.S. EPA - Region 5, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3590. Also, please send a copy to Ms. Ashly Insco of the Solid Waste Permit Section, and to Mr. Dan Lamberson of the Office of Air Management, 100 N. Senate Ave., P.O. Box 6015, Indianapolis, Indiana 46206-6015.

If you have any questions regarding this matter, please contact Ms. Ashly Insco of the Solid Waste Permit Section at (317) 232-3451.

AAI

ASBESTOS WASTE SHIPMENT/DISPOSAL RECORD

instructions on other side

GENERATOR

1. WORK SITE
Name: U.S. Naval Surface Warfare Center
Mailing Address: Code 0951 Building 3260, Crane, Indiana 47522

2. OWNER
Name: U.S. Naval Surface Warfare Center
Contact: Tim Brent
Phone: 812-854-3114

3. OPERATOR/CONTRACTOR
Name: U.S. TECH GROUP, INC.
Mailing Address: 5359 Old Boonville Highway, Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Abdelsalam
Phone: (812) 476-2845

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: SOUTHSIDE LANDFILL
Mailing Address: 2561 Kentucky Ave, Indianapolis, IN 46221
Location:
Phone: 317 247 6609

6. ORIGIN OF WASTE
County: MARTIN
State: INDIANA

7. RESPONSIBLE AGENCY
Name: I.D.E.M.
Address: 105 S. Meridian, Indianapolis, IN 46206-6015

8. DESCRIPTION (type asbestos waste, friable and/or nonfriable)	9. Containers: Number	Type	10. Total Quantity: Cu. Ft., Cu. Yds., lbs., tons
SOIL CONTAMINATED WITH NON-FRIABLE ASBESTOS	01	DT	19.85 tons 39,700 lbs

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION
TRUCK 357

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

THOMAS J BRENT — ENVIRO DEPT. CPC — [signature] — 2/6/96
Name(printed or typed) — Title — Signature — Date(MM/DD/YY)

13. TRANSPORTERS

(acknowledgement of receipt of materials)

TRANSPORTER #1
Name: TRI AX, INC / ENVIROSOLVE
Address: 2255 N. RALSTON AVE. INDIANAPOLIS, IN 46218
Phone: (317) 788 7825
John P DESJARDINS — DRIVER
Name (printed or typed) — Title
[signature] — 2/2/96
Signature — Date(MM/DD/YY)

TRANSPORTER #2
Name:
Address:
Phone:
Name (printed or typed) — Title
Signature — Date(MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

E HAMRICK — [signature] — 2-2-96
Name(printed or typed) — Title — Signature — Date(MM/DD/YY)

* This waste is accepted at South Side Landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.

ASBESTOS WASTE SHIPMENT/DISPOSAL RECORD 11911 5971 2

(Instructions on other side)

GENERATOR

1. WORK SITE
Name: U.S. Naval Surface Warfare Center
Mailing Address: Code 095, Bldg 3260
Crane, IN 47522

2. OWNER
Name: U.S. Naval Surface Warfare Ctr
Contact: Tom Brent
Phone: 812-854-3114

3. OPERATOR/CONTRACTOR
Name: U.S. Tech Group, Inc.
Mailing Address: 5354 O/O Booneville Highway
Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Abdelsalam
Phone: (812) 476-2645

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: Southside Landfill
Mailing Address: 2561 Kentucky Ave
Indianapolis, IN 46221
Location:
Phone: 317 247 6608

6. ORIGIN OF WASTE
County:
State: Indiana

7. RESPONSIBLE AGENCY
Name: I.D.E.M.
Address:

8. DESCRIPTION (type asbestos waste, friable and/or non(friable)	9. Containers number	type	10. Total Quantity Cu. Yd. Tons
SOIL CONTAMINATED WITH NON-FRIABLE ASBESTOS	01	DT	19.55 tons 39,100 lbs

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION
TRUCK 312

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

THOMAS J. BRENT — ENVIRON. PROT. SPEC. — Thomas J. Brent — 2/2/96
Name(printed or typed) — Title — Signature — Date(MM/DD/YY)

13. TRANSPORTERS
(acknowledgement of receipt of materials)

TRANSPORTER #1
Name: TRI AX, INC / ENVIROSOLVE
Address: 2255 N. RALSTON AVE.
INDIANAPOLIS, IN 46218
Phone: (317) 788 7825
WALLACE STONE JR — DRIVER
Name (printed or typed) — Title
2-2-96
Signature — Date(MM/DD/YY)

TRANSPORTER #2
Name:
Address:
Phone:
Name (printed or typed) — Title
Signature — Date(MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

E. HAMRICK — E. Hamrick — 2-2-96
Name(printed or typed) — Title — Signature — Date(MM/DD/YY)

* This waste is accepted at South Side landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.

ASBESTOS WASTE SHIPMENT/DISPOSAL RECORD

Instructions on other side

3

GENERATOR

1. WORK SITE
Name: U.S. Naval Surface Warfare Ctr
Mailing Code 095, Bldg 3260
Address: Crane, IN 47522

2. OWNER
Name: U.S. Naval Surface Warfare Ctr
Contact: Tom Begnt
Phone: 812-854-3114

3. OPERATOR/CONTRACTOR
Name: U.S. Tech Group, Inc.
Mailing Address: 5354 Old Booneville Highway
Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Abdelaalam
Phone: (812) 476-2845

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: Southside Landfill
Mailing Address: 2561 Kentucky Ave.
Indianapolis, IN 46221
Location:
Phone: 317 247 6808

6. ORIGIN OF WASTE
County:
State: Indiana

7. RESPONSIBLE AGENCY
Name: I.D.E.M.
Address:

8. DESCRIPTION (type asbestos waste, friable and/or non-friable)	9. Containers number	9. Containers type	10. Total Quantity Cu. Yd., Cu. Meters
Soil contaminated with non-friable asbestos	01	DT	20.12 40,240 lbs

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION
Truck 326

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Thomas J. Begnt — Environ. Spt. Spec. — Signature — 2/6/96
Name (printed or typed) — Title — Date (MM/DD/YY)

13. TRANSPORTERS
(acknowledgement of receipt of materials)

TRANSPORTER #1
Name: Tri Ax, Inc / EnviroSolve
Address: 2255 N. Ralston Ave.
Indianapolis, IN 46226
Phone: (317) 788 7825
Debbie Harrison — Driver
Name (printed or typed) — Title
Signature — Date (MM/DD/YY) 2-2-96

TRANSPORTER #2
Name:
Address:
Phone:
Name (printed or typed) — Title
Signature — Date (MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

E Hamlick — Title — E Hamlick — 2-2-96
Name (printed or typed) — Title — Signature — Date (MM/DD/YY)

* This waste is accepted at South Side Landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.

ASBESTOS WASTE SHIPMENT/DISPOSAL RECORD 11407 591 4

instructions on other side

GENERATOR

1. WORK SITE
Name: US Naval Surface Warfare Center
Mailing Address: Code 095, Building 3260, Crane, Indiana 47522

2. OWNER
Name: U.S. Naval Surface Warfare Center
Contact: Tom Brent
Phone: 812-854-3114

3. OPERATOR/CONTRACTOR
Name: U.S. TECH GROUP, Inc.
Mailing Address: 5854 Old Boonville Highway, Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Abdelsalam
Phone: (812) 476-2845

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: Southside Landfill
Mailing Address: 2561 Kentucky Ave, Indianapolis, IN 46221
Location:
Phone: 317 247 6505

6. ORIGIN OF WASTE
County:
State: INDIANA

7. RESPONSIBLE AGENCY
Name: I.D.E.M.
Address:

8. DESCRIPTION (type asbestos waste, friable and/or nonfriable)	9. Containers number	9. Containers type	10. Total Quantity Cu. ft. Cu. Yd. lbs. tons
SOIL CONTAMINATED WITH NON-FRIABLE ASBESTOS	01	DT	19.76 tons 39,520 lbs.

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION
TRUCK 327

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

THOMAS J. BRENT — ENVIRONMENTAL PROJ. SPEC. — [signature] — 2/2/96
Name (printed or typed) — Title — Signature — Date (MM/DD/YY)

13. TRANSPORTERS
(acknowledgement of receipt of materials)

TRANSPORTER #1
Name: TRI AX, Inc / EnviroSolve
Address: 2255 N. RALSTON AVE. INDIANAPOLIS, IN 46218
Phone: (317) 788 7825
JEFF NAPIER — Driver
Name (printed or typed) — Title
[signature] — 2-2-96
Signature — Date (MM/DD/YY)

TRANSPORTER #2
Name:
Address:
Phone:
Name (printed or typed) — Title
Signature — Date (MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

E Hamlick — E Hamlick — 2-2-96
Name (printed or typed) — Title — Signature — Date (MM/DD/YY)

* This waste is accepted at South Side Landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.

ASBESTOS WASTE SHIPMENT/DISPOSAL RECORD

(Instructions on other side)

5

11926

GENERATOR

1. WORK SITE
Name: U.S. Naval Surface Warfare Center
Mailing Address: Code 09S, Bldg 3260 Crane IN 47522

2. OWNER
Name: U.S. Naval Warfare Center
Contact: Tom Brent
Phone: 812-854-3114

3. OPERATOR/CONTRACTOR
Name: U.S. Tech Group, Inc.
Mailing Address: 5359 Old Boonville Highway Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Abdelsalam
Phone: (812) 476-2845

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: Southside Landfill
Mailing Address: 2561 Kentucky Ave. Indianapolis, IN 46221
Location:
Phone: 317 247 6808

6. ORIGIN OF WASTE
County:
State: Indiana

7. RESPONSIBLE AGENCY
Name: I.D.E.M.
Address:

8. DESCRIPTION (type asbestos waste, friable and/or nonfriable)	9. Containers number	9. Containers type	10. Total Quantity Cu ft, Cu Yds, lbs, tons
SOIL CONTAMINATED WITH NON-FRIABLE ASBESTOS	01	DT	35,320 lbs 19.16 tons

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION
TRUCK #328

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

THOMAS J. BRENT ENV. ENGR. SPEC. — 2/2/96
Name(printed or typed) Title Signature Date(MM/DD/YY)

13. TRANSPORTERS

(acknowledgement of receipt of materials)

TRANSPORTER #1
Name: Tri Ax, Inc / EnviroSolve
Address: 2265 N. Ralston Ave. Indianapolis, IN 46216
Phone: (317) 788 7825
Kris Ridge — Driver
Name (printed or typed) Title
02-02-96
Signature Date(MM/DD/YY)

TRANSPORTER #2
Name:
Address:
Phone:
Name (printed or typed) Title
Signature Date(MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

E Hamblin — E Hamblin — 2-2-96
Name(printed or typed) Title Signature Date(MM/DD/YY)

* This waste is accepted at South Side Landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.

ASBESTOS WASTE SHIPMENT/DISPOSAL RECORD 1197X

Instructions on other side

6

GENERATOR

1. WORK SITE
Name: U. S. Naval Surface Warfare Center
Mailing Address: Code 095, Bldg 3260, Crane, IN 47522

2. OWNER
Name: U.S. Naval Warfare Center
Contact: Tom Brent
Phone: 812-854-3114

3. OPERATOR/CONTRACTOR
Name: U.S. Tech Group, Inc.
Mailing Address: 5354 Old Boonville Highway, Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Abdelsalam
Phone: (812) 476-2845

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: Southside Landfill
Mailing Address: 2561 Kentucky Ave, Indianapolis, IN 46221
Location:
Phone: 317 247 6508

6. ORIGIN OF WASTE
County:
State: Indiana

7. RESPONSIBLE AGENCY
Name: I.D.E.M.
Address:

8. DESCRIPTION (type asbestos waste, friable and/or nonfriable)	9. Containers number	9. Containers type	10. Total Quantity Cu. Ft., Cu. Yds., Bbls., tons
SOIL CONTAMINATED WITH NON-FRIABLE ASBESTOS	01	OT	40,320 lbs 12.50 tons

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Thomas J. Brent, Env=Ron. Prot. Spec. — Title — Signature — 2/2/96 Date(MM/DD/YY)
Name(printed or typed)

13. TRANSPORTERS
(acknowledgement of receipt of materials)

TRANSPORTER #1
Name: Tri Ax, Inc / EnviroSolve
Address: 2255 N. Ralston Ave. Indianapolis, IN 46218
Phone: (317) 788 7825
Shawn Parton — Driver
Name (printed or typed) — Title
02-02-96
Signature — Date(MM/DD/YY)

TRANSPORTER #2
Name:
Address:
Phone:
Name (printed or typed) — Title
Signature — Date(MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

E Hamblick — Title — E Hamblick — 2/2/96 Date(MM/DD/YY)
Name(printed or typed) — Signature

* This waste is accepted at South Side Landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.

ASBESTOS WASTE SHIPMENT/DISPOSAL RECORD

instructions on other side

GENERATOR

1. WORK SITE
Name: U. S. Naval Surface Warfare Center
Mailing Address: Code 095, Bldg 3260
Crane, IN 47522

2. OWNER
Name: U.S. Naval Surface Warfare Ctr
Contact: Tom Grant
Phone: 812-854-3114

3. OPERATOR/CONTRACTOR
Name: U.S. Tech Group, Inc.
Mailing Address: 5359 Old Boonville Highway
Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Abdelsalam
Phone: (812) 476-2845

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: Southside Landfill
Mailing Address: 2561 Kentucky Ave.
Indianapolis, IN 46221
Location:
Phone: 317 247 6608

6. ORIGIN OF WASTE
County:
State: Indiana

7. RESPONSIBLE AGENCY
Name: I.D.E.M.
Address:

8. DESCRIPTION (type asbestos waste, friable and/or nonfriable)	9. Containers number	type	10. Total Quantity Cu. ft. Cu. Yds. lbs. tons
SOIL CONTAMINATED WITH NON-FRIABLE ASBESTOS			

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION
TRUCK 359 Returned empty - flat tire

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Name(printed or typed) Title Signature Date(MM/DD/YY)

13. TRANSPORTERS

(acknowledgement of receipt of materials)

TRANSPORTER #1
Name: Tri Ax, Inc./Enviro Solve
Address: 2255 N. Ralston Ave.
Indianapolis, IN 46218
Phone: (317) 788 9625

Name (printed or typed) Title
Signature Date(MM/DD/YY)

TRANSPORTER #2
Name:
Address:
Phone:

Name (printed or typed) Title
Signature Date(MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

Name(printed or typed) Title Signature Date(MM/DD/YY)

* This waste is accepted at South Side Landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.

ASBESTOS WASTE SHIPMENT/DISPOSAL RECORD

Instructions on other side

GENERATOR

1. WORK SITE
Name: U.S. Naval Surface Warfare Center
Mailing Address: Code 096, Bldg 3260, Crane, IN 47522

2. OWNER
Name: U.S. Naval Surface Warfare Ctr
Contact: Tom Brent
Phone: 812-854-3114

3. OPERATOR/CONTRACTOR
Name: U.S. Tech Group, Inc
Mailing Address: 5359 Old Boonville Highway, Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Addalsalam
Phone: (812) 476-2845

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: Southside Landfill
Mailing Address: 2561 Kentucky Ave, Indianapolis, IN 46221
Location:
Phone: 317 247 6608

6. ORIGIN OF WASTE
County:
State: Indiana

7. RESPONSIBLE AGENCY
Name: I.D.E.M.
Address:

8. DESCRIPTION (type asbestos waste, friable and/or nonfriable)	9. Containers: Number	9. Containers: Type	10. Total Quantity (Cu. Yd. & Wt. Cu. Yds.)
SOIL CONTAMINATED WITH NON-FRIABLE ASBESTOS	01	OT	20.62 37,960 lbs.

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

TRUCK 329

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Thomas F. Brent — Envir. Coord. Spec. — Thomas F. Brent — 2/5/96
Name (printed or typed) — Title — Signature — Date (MM/DD/YY)

13. TRANSPORTERS
(acknowledgement of receipt of materials)

TRANSPORTER #1
Name: Tri Ax, Inc / EnviroSolve
Address: 2255 N. Ralston Ave, Indianapolis, IN 46218
Phone: (317) 788 7825
Jeff Napich — Driver
Name (printed or typed) — Title
Signature — 2-5-96
Date (MM/DD/YY)

TRANSPORTER #2
Name:
Address:
Phone:
Name (printed or typed) — Title
Signature — Date (MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

20.62 tons

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

Brad Fosty — Book Foreman — 2-5-96
Name (printed or typed) — Title — Signature — Date (MM/DD/YY)

* This waste is accepted at South Side Landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.

ASBESTOS WASTE SHIPMENT/DISPOSAL RECORD

(Instructions on other side)

12207 501

9

GENERATOR

1. WORK SITE
Name: U.S. Naval Surface Warfare Center
Mailing Code 075, Bldg 2260
Address: Crane, IN 47522

2. OWNER
Name: US Naval Surface Warfare Ctr
Contact: Tom Brent
Phone: 812-854-3114

3. OPERATOR/CONTRACTOR
Name: U.S. Tech Group, Inc.
Mailing Address: 5359 Old Boonville Highway
Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Addaloolam
Phone: (812) 476-2845

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: Southside Landfill
Mailing Address: 2561 Kentucky Ave.
Indianapolis, IN 46221
Location:
Phone: 317 247 4905

6. ORIGIN OF WASTE
County:
State: Indiana

7. RESPONSIBLE AGENCY
Name: I.D.E.M.
Address:

8. DESCRIPTION (type asbestos waste, friable and/or nonfriable)	9. Containers number	9. Containers type	10. Total Quantity Cu. Yd. Cu. Yds. Dry Lbs
SOIL CONTAMINATED WITH NON-FRIABLE ASBESTOS	01	DT	18.5 37,820 lbs

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

TRUCK 312

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

THOMAS J. BRENT ENVIRON. PROT. SPEC. Thomas J. Brent 2/5/96
Name(printed or typed) Title Signature Date(MM/DD/YY)

TRANSPORTERS

(acknowledgement of receipt of materials)

TRANSPORTER #1
Name: TRI AX, Inc / EnviroSolve
Address: 2255 N. Ralston Ave.
Indianapolis, IN 46218
Phone: (317) 788 7825

Wallace Stone Jr. Driver
Name (printed or typed) Title
Wallace Stone 2-5-96
Signature Date(MM/DD/YY)

TRANSPORTER #2
Name:
Address:
Phone:
Name (printed or typed) Title
Signature Date(MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

Brad Fiske Brad Fiske 2-5-96
Name(printed or typed) Title Signature Date(MM/DD/YY)

* This waste is accepted at South Side Landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.

10

ASBESTOS WASTE SHIPMENT/DISPOSAL RECORD

Instructions on other side

GENERATOR

1. WORK SITE
Name: US Naval Surface Warfare Center
Mailing Address: Code 095, Bldg 3260, Crane, IN 47522

2. OWNER
Name: US Naval Surface Warfare Ctr
Contact: Tom Brent
Phone: 812-854-3114

3. OPERATOR/CONTRACTOR
Name: U.S. Tech Group, Inc
Mailing Address: 5354 Old Boonville Highway, Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Abdelsalam
Phone: (812) 476-2845

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: Southside Landfill
Mailing Address: 2561 Kentucky Ave, Indianapolis, IN 46221
Location:
Phone: 317 247 6808

6. ORIGIN OF WASTE
County:
State: Indiana

7. RESPONSIBLE AGENCY
Name: I.D.E.M.
Address:

8. DESCRIPTION (type asbestos waste, friable and/or nonfriable)	9. Containers number	9. Containers type	10. Total Quantity Cu. Yd. Cu. Yd. Tons
SOIL CONTAMINATED WITH NON-FRIABLE ASBESTOS	01	DT	15.38 39,760 lbs

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

TRUCK 357

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

THOMAS J. BRENT ENVIRON. OPT. SPEC. [signature] 2/5/96
Name(printed or typed) Title Signature Date(MM/DD/YY)

13. TRANSPORTERS

(acknowledgement of receipt of materials)

TRANSPORTER #1
Name: Tri Ax, Inc / EnviroSolve
Address: 2255 N. Ralston Ave, Indianapolis, IN 46218
Phone: (317) 788 7825
John P Dessjardins DRIVER
Name (printed or typed) Title
[signature] 2/5/96
Signature Date(MM/DD/YY)

TRANSPORTER #2
Name:
Address:
Phone:
Name (printed or typed) Title
Signature Date(MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

[signature] 2-5-96
Name(printed or typed) Title Signature Date(MM/DD/YY)

* This waste is accepted at South Side Landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.

ASBESTOS WASTE SHIPMENT/DISPOSAL RECORD

Instructions on other side

GENERATOR

1. WORK SITE
Name: US Naval Surface Warfare Center
Mailing Address: Code 095, Bldg 3260, Crane, IN 47522

2. OWNER
Name: US Naval Surface Warfare Ctr
Contact: Tom Brent
Phone: 812-854-3114

3. OPERATOR/CONTRACTOR
Name: U.S. TECH GROUP, INC.
Mailing Address: 5354 Old Boonville Highway, Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Abdelsalam
Phone: (812) 476-2645

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: Southside Landfill
Mailing Address: 2561 Kentucky Ave, Indianapolis, IN 46221
Location:
Phone: 317 247 1608

6. ORIGIN OF WASTE
County:
State: INDIANA

7. RESPONSIBLE AGENCY
Name: I.D.E.M.
Address:

8. DESCRIPTION (type asbestos waste, friable and/or non(friable)	9. Containers number	9. Containers type	10. Total Quantity Cu. ft. Cu. Yds. Bbl. tons
SOIL CONTAMINATED WITH NON-FRIABLE ASBESTOS	01	DT	40,360

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

TRUCK 328

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

THOMAS T. BRENT ENVIRON. PROJ. SPEC. [signature] 2/5/96
Name(printed or typed) Title Signature Date(MM/DD/YY)

13. TRANSPORTERS

(acknowledgement of receipt of materials)

TRANSPORTER #1
Name: TRI AX, INC / ENVIROSOLVE
Address: 2255 N. RALSTON AVE. INDIANAPOLIS, IN 46218
Phone: (317) 788 7825
Kris Ridge — Driver
Name (printed or typed) Title
[signature] 02-05-96
Signature Date(MM/DD/YY)

TRANSPORTER #2
Name:
Address:
Phone:
Name (printed or typed) Title
Signature Date(MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

E HAMPICK — [signature] — 2/5/96
Name(printed or typed) Title Signature Date(MM/DD/YY)

* This waste is accepted at South Side landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.

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ASBESTOS WASTE SHIPMENT/DISPOSAL

instructions on other side

GENERATOR

1. WORK SITE
Name: US Naval Surface Warfare Center
Mailing Address: Code 09S, Bldg 3260
Crane, IN 47522

2. OWNER
Name: US Naval Surface Warfare Ctr
Contact: Tom Brent
Phone: 812-854-3114

3. OPERATOR/CONTRACTOR
Name: U.S. Tech Group, Inc.
Mailing Address: 5354 Old Boonville Highway
Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Abdelsalam
Phone: (812) 476-2845

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: Southside Landfill
Mailing Address: 2561 Kentucky Ave.
Indianapolis, IN 46221
Location:
Phone: 317 247 6908

6. ORIGIN OF WASTE
County:
State: Indiana

7. RESPONSIBLE AGENCY
Name: I.D.E.M.
Address:

8. DESCRIPTION (type asbestos waste, friable and/or nonfriable)	9. Containers number	9. Containers type	10. Total Quantity Cu. Ft. Cu. Yds. lbs. tons
SOIL CONTAMINATED WITH NON-FRIABLE ASBESTOS	01	OT	35,000 lbs.

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

TRUCK 357

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Thomas J. Brent — Envir. Prot. Spec. — Thomas J. Brent — 2/5/96
Name (printed or typed) — Title — Signature — Date (MM/DD/YY)

13. TRANSPORTERS

(acknowledgement of receipt of materials)

TRANSPORTER #1
Name: Tri Ax, Inc / EnviroSolve
Address: 2265 N. Ralston Ave.
Indianapolis, IN 46218
Phone: (317) 788 7825
Debbie Harrison — Driver
Name (printed or typed) — Title
Debbie Harrison — 2-5-96
Signature — Date (MM/DD/YY)

TRANSPORTER #2
Name:
Address:
Phone:
Name (printed or typed) — Title
Signature — Date (MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

RuK — RuK — 2/5/96
Name (printed or typed) — Title — Signature — Date (MM/DD/YY)

* This waste is accepted at South Side landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.

ASBESTOS WASTE SHIPMENT/DISPOSAL RECORD 25/07D-001 5791

(Instructions on other side)

GENERATOR

1. WORK SITE
Name: U.S. Naval Sea Face Warfare Center
Mailing Address: Code 095, Bldg 3260
Crane, IN 47522

2. OWNER
Name: U.S. Naval Sea Face Warfare Ctr
Contact: Tom Grant
Phone: 812-854-3114

3. OPERATOR/CONTRACTOR
Name: U.S. Tech Group, Inc.
Mailing Address: 5354 Old Boonville Highway
Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Abdelsalam
Phone: (812) 476-2845

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: Southside Landfill
Mailing Address: 2561 Kentucky Ave.
Indianapolis, IN 46221
Location:
Phone: 317 247 6905

6. ORIGIN OF WASTE
County:
State: Indiana

7. RESPONSIBLE AGENCY
Name: D.E.M.
Address:

8. DESCRIPTION (type asbestos waste, friable and/or non-friable)	9. Containers number	9. Containers type	10. Total Quantity Cu. Yd. Cu. Yds. Dry Lbs.
SOIL CONTAMINATED WITH NON-FRIABLE ASBESTOS			37,680

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

Truck # 363

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Christine D. Freeman Env. Prot. Spec. Christine D. Freeman 3/11/96
Name (printed or typed) Title Signature Date (MM/DD/YY)

13. TRANSPORTERS
(acknowledgement of receipt of materials)

TRANSPORTER #1
Name: TRI AX, Inc / EnviroSolve
Address: 2255 N. Ralston Ave.
Indianapolis, IN 46218
Phone: (317) 788-7825
Bob Raven
Name (printed or typed) Title
DBR 3-11-96
Signature Date (MM/DD/YY)

TRANSPORTER #2
Name:
Address:
Phone:
Name (printed or typed) Title
Signature Date (MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

19.20 tons

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

Bob Fish 3-11-96
Name (printed or typed) Title Signature Date (MM/DD/YY)

* This waste is accepted at South Side Landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.

ASBESTOS WASTE SHIPMENT/DISPOSAL RECORD

25/070-003 571

(Instructions on other side)

GENERATOR

1. WORK SITE
Name: U.S. Naval Surface Warfare Center
Mailing Address: Code 095, Bld. 3260, Crane, IN 47522

2. OWNER
Name: U.S. Naval Surface Warfare Ctr
Contact: Tom Grant
Phone: 812-854-3414

3. OPERATOR/CONTRACTOR
Name: U.S. Tech Group, Inc
Mailing Address: 5354 Old Boonville Highway, Evansville, IN 47715

4. AUTHORIZED AGENT
Name: Ramadan Addalwalan
Phone: (812) 476-2645

WASTE

5. WASTE DISPOSAL SITE (WDS)
Name: Southside Landfill
Mailing Address: 2561 Kentucky Ave, Indianapolis, IN 46221
Location:
Phone: 317 247 1508

6. ORIGIN OF WASTE
County:
State: Indiana

7. RESPONSIBLE AGENCY
Name: I.D.E.M.
Address:

8. DESCRIPTION (type asbestos waste, friable and/or nonfriable)	9. Containers: Number	Type	10. Total Quantity (Cu. Ft., Cu. Yd., lbs., tons)
SOIL CONTAMINATED WITH NON-FRIABLE ASBESTOS			38,000

11. SPECIAL HANDLING INSTRUCTIONS AND ADDITIONAL INFORMATION

Truck # 322

12. OPERATOR'S CERTIFICATION
I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and government regulations.

Christine D. Freeman — Env Prot Spec — Christine D. Freeman — 3/11/96
Name (printed or typed) — Title — Signature — Date (MM/DD/YY)

13. TRANSPORTERS (acknowledgement of receipt of materials)

TRANSPORTER #1
Name: Tri Ax, Inc / EnviroSolve
Address: 2255 N. Ralston Ave, Indianapolis, IN 46218
Phone: (317) 788 7825
GLENN BURELSON — Title
Name (printed or typed)
Signature — Date (MM/DD/YY): 3-11-96

TRANSPORTER #2
Name:
Address:
Phone:
Name (printed or typed) — Title
Signature — Date (MM/DD/YY)

WASTE DISPOSAL SITE

14. DISCREPANCY INDICATION SPACE

19.38 tons

15. CERTIFICATION OF RECEIPT
I hereby certify that the above named material has been accepted and that to the best of my knowledge the foregoing is true except as noted above.

Brad Foster — Scale Foreman — 3-11-96
Name (printed or typed) — Title — Signature — Date (MM/DD/YY)

* This waste is accepted at South Side Landfill only during office hrs. which are: 7:30 A.M. - 5:00 P.M. Monday thru Friday or Saturday 8:00 A.M. - 3:00 P.M.