160399

SAMPLING DATA

16 5 1 2 1 0 0 2 4 - - St. Louis Co.
Sauget / MESD Sauget Pump Station
Compliance

CELMS-ED-HQ 14 Sept. 1992

MEMORANDUM THRU CELMS-ED-HQ
FOR CELMS-CD-QM (Dave Mueller)

SUBJECT: Sediment in Monsanto Pump Station.

1. A confined space entry was performed at Monsanto Pump Station on 4 Sept. 1992. The entry was performed at Level B Protection due to only 18.5 % oxygen and the presence of low level organic vapors in the confined space. Two samples of the sediment were collected in the interior side of the gate chamber. One sample was collected on the surface and the other one near the bottom of the sediment. The sediment is approximately 30 inches deep and it is up against the gates. All conduits leading into and out of the chamber are nearly 3/4 full of this sediment. Analytical results were received on 9 Sept. 1992.

2. The following is a summary of the data:

a. Poly Chlorinated Byphenyls (PCB's)

Aroclor 1242	1100 ppm

b. Volatile Organic Chemicals (VOC's)

Benzene	29 ppm
Toluene	15 ppm
Chlorobenzene	63 ppm
Ethylbenzene	20 ppm
Xylene	94 ppm

c. Semi Volatile Chemicals (ABN's)

1,2,Dichlorobenzene	780 ppm
1,4,Dichlorobenzene	760 ppm
Pantachlorophenol	1100 ppm
4 Chloroaniline	260 ppm

d. Metals

Arsenic	33.8 ppm
Barium	1240.0 ppm
Cadmium	127.0 ppm
Chromium	158.0 ppm
Lead	481.0 ppm
Mercury	54.1 ppm
Selenium	22.4 ppm
Silver	8.1 ppm

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1631710024 - ST. CLAIR CO
SAUGET / MESD SAUGET
PUMP STATION

NOV 0 1992

FOS

Project Management Branch
Programs and Project Management Division

SUBJECT: Technical Information Concerning Pump Station P-12 in Sauget, Illinois

Mr. Walter Greathouse, Sr.
President, Board of Commissioners
Metro East Sanitary District
1800 Edison Avenue
Granite City, Illinois 62040

Dear Mr. Greathouse:

Enclosed is a technical report providing information about various facilities in the vicinity of subject pump station. This information should be useful in resolving issues concerning future flood control functions to be performed at that location. Conclusions are drawn concerning the functions that the pump station can now provide, and recommendations are offered concerning actions that might be taken toward resolving the issue of future usage of the pump station.

The technical information contained in this report is essentially the same as that in the earlier draft report; however, considerably more introductory information is provided, and the conclusions and recommendations have been more fully developed.

Sincerely,

Louis J. Chiodini Jr
for Jack R. Niemi
Deputy District Engineer
for Project Management

Enclosure

Copy Furnished:

Mr. Ken Mensing
District Manager, Rehabilitation Project
Illinois Environmental Protection Agency
2009 Mall Street
Collinsville, Illinois 62234

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IEPA/DLPC

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M. ORANDUM FOR CELMS-ED-HQ (H. Martin)

SUBJECT: Sediment in North Discharge Tunnel, Madison Pump Station, Metro East Sanitation District.

Reference: ER 1165-2-132 Water Resource Policies and Authorities HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW) GUIDANCE FOR CIVIL WORKS PROJECTS.

1. To the best of my knowledge, following the procedures described below, it is believed that the sediment at the subject location is not hazardous and therefore should not be regulated under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) according to paragraph 4.a.(1) of referenced ER. The sediment is classified as a Special Waste and is regulated under a State program. Transport and landfill permits are required to properly dispose of this material. The requirements of 29 CFR 1910.120 should be followed to provide personnel protection for anyone who may come in contact with this material.

2. A preliminary investigation of the sediment at the subject location indicated the presence of controlled substances regulated under the Resource Conservation and Recovery Act (RCRA). Additional analysis required by RCRA to determine their Toxicity Characteristic was performed. The test method is described in 40 CFR 261 Appendix II and is titled Method 1311, Toxicity Characteristic Leaching Procedure (TCLP). Table 1 in 40 CFR 261.24 lists the Regulatory levels of contaminants for Toxicity Characteristic.

3. The sediment at subject location was re-sampled and the required TCLP analysis was performed. The contaminants present that are listed in Table 1 in 40 CFR 261.24 were found to be well below their respective regulatory level given in that table. Therefore it is believed that this material is not hazardous waste under RCRA.

4. There were contaminants detected in the sediment that are not regulated under RCRA. These are known as Poly Nuclear Aromatics (PNA's). Preliminary research of the various laws revealed the PNA's to be regulated in two conditions. If the PNA's are present in effluent discharges requiring a National Pollution Discharge Elimination System (NPDES) permit then it is regulated under the Clean Water Act. If the PNA's are present in a substance that is involved in a spill then it is regulated under the Reportable Quantities Section of CERCLA. It is believed that

because of the type of material and the site specific conditions at the subject location the sediment should not come under either Act. However this should be confirmed with Illinois Environmental Protection Agency

for Roger Myhre
Environmental Quality Section

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MAD-PS1T

Lab Name: ARDL, INC. Contract: METRO EAST

Lab Code: ----- Case No.: 8013 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) TCLP Lab Sample ID: 8013-1

Sample wt/vol: 800.0 (g/ml) mL Lab File ID: >M2592

Level: (low/med) LOW Date Received: 10/20/92

% Moisture: not dec. --- dec. --- Date Extracted: 10/22/92

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/22/92

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

TCLP Extraction Date: 10/21/92

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
110-86-1	Pyridine	12	U
106-46-7	1,4-Dichlorobenzene	12	U
95-48-7	2-Methylphenol (o-Cresol)	12	U
108-39-4	3 & 4-Methylphenol(m&p-Cresol)	12	U
67-72-1	Hexachloroethane	12	U
98-95-3	Nitrobenzene	12	U
87-68-3	Hexachlorobutadiene	12	U
88-06-2	2,4,6-Trichlorophenol	12	U
95-95-4	2,4,5-Trichlorophenol	62	U
121-14-2	2,4-Dinitrotoluene	12	U
118-74-1	Hexachlorobenzene	12	U
87-86-5	Pentachlorophenol	62	U

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MAD-PS1TRE

Lab Name: ARDL, INC. Contract: METRO EAST

Lab Code: ----- Case No.: 8013 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) TCLP Lab Sample ID: 8013-1RE

Sample wt/vol: 800.0 (g/ml) mL Lab File ID: >M2596

Level: (low/med) LOW Date Received: 10/20/92

% Moisture: not dec. --- dec. --- Date Extracted: 10/22/92

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/22/92

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

TCLP Extraction Date: 10/21/92

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
110-86-1	Pyridine	12	U
106-46-7	1,4-Dichlorobenzene	12	U
95-48-7	2-Methylphenol (o-Cresol)	12	U
108-39-4	3 & 4-Methylphenol(m&p-Cresol)	12	U
67-72-1	Hexachloroethane	12	U
98-95-3	Nitrobenzene	12	U
87-68-3	Hexachlorobutadiene	12	U
88-06-2	2,4,6-Trichlorophenol	12	U
95-95-4	2,4,5-Trichlorophenol	62	U
121-14-2	2,4-Dinitrotoluene	12	U
118-74-1	Hexachlorobenzene	12	U
87-86-5	Pentachlorophenol	62	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MAD-PS1B

Lab Name: ARDL, INC. Contract: METRO EAST

Lab Code: ----- Case No.: 8013 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) TCLP Lab Sample ID: 8013-2

Sample wt/vol: 900.0 (g/ml) mL Lab File ID: >M2593

Level: (low/med) LOW Date Received: 10/20/92

% Moisture: not dec. --- dec. --- Date Extracted: 10/22/92

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/22/92

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

TCLP Extraction Date: 10/21/92

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
110-86-1	Pyridine	11	U
106-46-7	1,4-Dichlorobenzene	11	U
95-48-7	2-Methylphenol (o-Cresol)	11	U
108-39-4	3 & 4-Methylphenol(m&p-Cresol)	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
87-68-3	Hexachlorobutadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	56	U
121-14-2	2,4-Dinitrotoluene	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	56	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MAD-PS1BRE

Lab Name: ARDL, INC. Contract: METRO EAST

Lab Code: ----- Case No.: 8013 SAS No.: ----- SDG No.: -----

Matrix: (soil/water) TCLP Lab Sample ID: 8013-2RE

Sample wt/vol: 900.0 (g/ml) mL Lab File ID: >M2597

Level: (low/med) LOW Date Received: 10/20/92

% Moisture: not dec. --- dec. --- Date Extracted: 10/22/92

Extraction: (Sepf/Cont/Sonc) SEPF Date Analyzed: 10/22/92

GPC Cleanup: (Y/N) N pH: --- Dilution Factor: 1.0

TCLP Extraction Date: 10/21/92

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
110-86-1	Pyridine	11	U
106-46-7	1,4-Dichlorobenzene	11	U
95-48-7	2-Methylphenol (o-Cresol)	11	U
108-39-4	3 & 4-Methylphenol(m&p-Cresol)	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
87-68-3	Hexachlorobutadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	56	U
121-14-2	2,4-Dinitrotoluene	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	56	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MAD-PS1T

ab Name: ARDL, INC. Contract: METRO EAST

ab Code: ----- Case No.: 8013 SAS No.: ----- SDG No.: -----

atrix: (soil/water) TCLP Lab Sample ID: 8013-1

ample wt/vol: 0.5 (g/ml) mL Lab File ID: >C5207

evel: (low/med) LOW Date Received: 10/20/92

Moisture: not dec. --- Date Analyzed: 10/22/92

olumn: (pack/cap) PACK Dilution Factor: 10

xtraction Date: 10/22/92

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	100.	U
75-35-4	1,1-Dichloroethene	50.	U
67-66-3	Chloroform	50.	U
107-06-2	1,2-Dichloroethane	50.	U
78-93-3	2-Butanone	100.	U
56-23-5	Carbon Tetrachloride	50.	U
79-01-6	Trichloroethene	50.	U
71-43-2	Benzene	50.	U
127-18-4	Tetrachloroethene	50.	U
108-90-7	Chlorobenzene	50.	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MAD-PS1B

ab Name: ARDL, INC. Contract: METRC EAST

ab Code: ----- Case No.: 8013 SAS No.: ----- SDG No.: -----

atrix: (soil/water) TCLP Lab Sample ID: 8013-2

ample wt/vol: 0.5 (g/ml) mL Lab File ID: >C5211

evel: (low/med) LOW Date Received: 10/20/92

Moisture: not dec. --- Date Analyzed: 10/22/92

olumn: (pack/cap) PACK Dilution Factor: 10

xtraction Date: 10/22/92

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	100.	U
75-35-4	1,1-Dichloroethene	50.	U
67-66-3	Chloroform	50.	U
107-06-2	1,2-Dichloroethane	50.	U
78-93-3	2-Butanone	50.	U
56-23-5	Carbon Tetrachloride	100.	U
79-01-6	Trichloroethene	50.	U
71-43-2	Benzene	50.	U
127-18-4	Tetrachloroethene	50.	U
108-90-7	Chlorobenzene	50.	U

INORGANIC ANALYSIS DATA PACKAGE

Corp of Engineers-St. Louis District
Contract No. DACW43-92-D-0512

Date: 10/23/92

Lab Name: ARDL, Inc.
Samples Received at ARDL: 10-20-92
Project Name: Metro East

ARDL Report No: 8013

CASE NARRATIVE

Sample ID No.	Date Collected	Lab ID No.	Analysis Requested
MAD-PS1T	10-20-92	8013-1	TCLP Metals (1) Other Inorganics (2)
MAD-PS1B	10-20-92	8013-2	TCLP Metals (1) Other Inorganics (2)

(1) Including arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver.

(2) Paint-Filter, Flash Point, Reactive Cyanide, Reactive Sulfide, pH, EOX

The quality control data are summarized as follows:

LABORATORY CONTROL SAMPLES

Percent recovery of all LCS analyses were within control limits.

MATRIX SPIKES

Percent recovery of all matrix spikes and matrix spike duplicates were within control limits.

DUPLICATES

RPD on all duplicate analyses were within control limits.

Release of the data contained in this package has been authorized by the Technical Services Manager or his designee as verified by the following signature.

Daniel J. Gillespie
Technical Services Manager

ANALYSIS RESULTS
CONTRACT NO: DACW43-92-D-0512
US ARMY ENGINEER DISTRICT, ST. LOUIS

ARDL REPORT: 8013
UNITS: mg/L

Project Name: Metro East

Date Samples Received: 10-20-92 Date Collected: 10-20-92

Parameter	ARDL No : Customer No.:	8013-1 MAD-PS1T	8013-2 MAD-PS1B	Method	Notation
Arsenic (TCLP)		<0.075	0.082	6010	
Barium (TCLP)		1.0	0.76	6010	
Cadmium (TCLP)		0.015	<0.0050	6010	
Chromium (TCLP)		0.027	<0.0080	6010	
Lead (TCLP)		<0.045	<0.045	6010	
Mercury (TCLP)		<0.00020	<0.00020	7470	
Selenium (TCLP)		<0.075	<0.075	6010	
Silver (TCLP)		0.048	<0.010	6010	

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ANALYSIS RESULTS
CONTRACT NO: DACW43-92-D-0512
US ARMY ENGINEER DISTRICT, ST. LOUIS

ARDL REPORT: 8013
UNITS: mg/kg

Project Name: Metro East

Date Samples Received: 10-20-92 Date Collected: 10-20-92

Parameter	ARDL No.: 8013-1 Customer No.: MAD-PS1T	8013-2 MAD-PS1B	Method	Notation
Paint-Filter	Failed	Failed	9095	
Flash Point (Degrees F)	>200	>200	1010	
Reactive Cyanide	0.68	1.2	7.3.3/9010	
Reactive Sulfide	279	246	7.3.4/9030A	
pH (Units)	7.4	7.7	9045A	
EOX	<1640	<1640	9020	

ORGANIC ANALYSIS DATA PACKAGE

Corps of Engineers-St. Louis
Contract No. DACW43-92-D-0512

Date: 10/23/92

Lab Name: ARDL, Inc.

ARDL Report No.: 8013

Samples Received at ARDL: 10/20/92

Project Name: Metro East Pump Stations

CASE NARRATIVE

Sample ID No.	Lab ID No.	Date Collected	Volatiles Analysis Date	Semi-Volatiles Extr. Date	Semi-Volatiles Analysis Date
MAD-PS1T	8013-1	10/20/92	10/22/92	10/22/92	10/22/92
MAD-PS1TMS	8013-1MS	10/20/92	10/22/92	10/22/92	10/22/92
MAD-PS1TMSD	8013-1MSD	10/20/92	10/22/92	10/22/92	10/22/92
MAD-PS1TRE	8013-1RE	10/20/92		10/22/92	10/22/92
MAD-PS1B	8013-2	10/20/92	10/22/92	10/22/92	10/22/92
MAD-PS1BRE	8013-2RE	10/20/92		10/22/92	10/22/92
	BLANK B2465			10/22/92	10/22/92
	BK2 10/22/92		10/22/92		

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ORGANIC ANALYSIS DATA PACKAGE

Corps of Engineers-St. Louis
Contract No. DACW43-92-D-0512

Date: 10/23/92

Lab Name: ARDL, Inc.

ARDL Report No.: 8013

Samples Received at ARDL: 10/20/92

Project Name: Metro East Pump Stations

CASE NARRATIVE

Sample ID No.	Lab ID No.	Date Collected	Herbicide Extr. Date	Herbicide Analysis Date	Pesticide Extr. Date	Pesticide Analysis Date
MAD-PS1T	8013-1	10/20/92	10/22/92	10/23/92	10/22/92	10/23/92
MAD-PS1B	8013-2	10/20/92	10/22/92	10/23/92	10/23/92	10/23/92
	8013-B2464				10/22/92	10/23/92
	8013-B2467				10/23/92	10/23/92
	8013-B2466		10/22/92	10/23/92		

ORGANIC ANALYSIS DATA PACKAGE

Corps of Engineers-St. Louis Date: 10/23/92
Contract No. DACW43-92-D-0512

Lab Name: ARDL, Inc.

ARDL Report No.: 8013 Samples Received at ARDL: 10/20/92

Project Name: Metro East Pump Stations

CASE NARRATIVE

VOLATILE FRACTION

Two (2) waste samples were received by ARDL on October 20, 1992, for VOA TCLP analysis by GC/MS. All analyses were performed according to low level protocol.

No other unusual problems were encountered during the sample analyses.

SEMIVOLATILE FRACTION

Two (2) waste samples were received by ARDL on October 20, 1992, for TCLP extraction and BNA analysis by GC/MS. The results were requested on a three day turnaround basis.

Surrogate recovery result failures were observed in the initial analyses and the reanalyses of both samples. Results of both evaluations have been reported.

No other unusual problems were encountered during testing.

TCLP PESTICIDE FRACTION

Two (2) TCLP extracts were received for Pesticide analysis. The TCLP extracts were extracted and concentrated per SW-846.

No additional problems were encountered in the analysis of these samples.

ORGANIC ANALYSIS DATA PACKAGE

Corps of Engineers-St. Louis
Contract No. DACW43-92-D-0512

Date: 10/23/92

Lab Name: ARDL, Inc.

ARDL Report No.: 8013 Samples Received at ARDL: 10/20/92

Project Name: Metro East Pump Stations

CASE NARRATIVE (Continued)

TCLP HERBICIDE FRACTION

Two (2) TCLP extracts were received for herbicide analysis. The TCLP extracts were extracted and concentrated per SW-846. The resulting extracts were then esterified with boron trifluoride to form methyl esters of the target compounds.

No additional problems were encountered in the analysis of these samples.

ORGANIC DATA REPORTING QUALIFIERS

The following organic data reporting qualifiers are used as required.

U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.

N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.

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ORGANIC ANALYSIS DATA PACKAGE

Corps of Engineers-St. Louis Date: 10/23/92.
Contract No. DACW43-92-D-0512

Lab Name: ARDL, Inc.

ARDL Report No.: 8013 Samples Received at ARDL: 10/20/92

Project Name: Metro East Pump Stations

CASE NARRATIVE (Continued)

ORGANIC DATA REPORTING QUALIFIERS (Continued)

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do not apply this flag, instead use a laboratory-defined flag.

B - This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must by used for a TIC as well as for a positively identified target compound.

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. If one or more compounds have a response greater than full scale, except as noted in Exhibit D, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form 1 for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate copies of Form 1. The Form 1 for the diluted sample shall have the "DL" suffix appended to the sample number.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form 1 for the diluted sample, and all concentration values reported on that Form 1 are flagged with the "D" flag.

ORGANIC ANALYSIS DATA PACKAGE

Corps of Engineers-St. Louis
Contract No. DACW43-92-D-0512

Date: 10/23/92

Lab Name: ARDL, Inc.

ARDL Report No.: 8013

Samples Received at ARDL: 10/20/92

Project Name: Metro East Pump Stations

CASE NARRATIVE (Continued)

ORGANIC DATA REPORTING QUALIFIERS (Continued)

A - This flag indicates that a TIC is a suspected aldol-condensation product.

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 the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized for the Laboratory Manager or his designee, as verified by the following signature.

Daniel J. Gillespie
Technical Services Manager

1D
PESTICIDE ORGANIC ANALYSIS

Customer Sample No.

MAD-PSIT

Lab Name: ARDL, Inc. Contract: METRO EAST
Lab Code: _____ Case No.: 8013 SAS No.: _____ SDG No.: _____

Matrix(soil/water) : TCLP
Sample(wt/vol) : 1000 (g/mL) mL
Level(low/med) : ---
% Moisture(not dec) : ---
Extraction(Sepf/Conc/Sonc) SEPF
GPC Cleanup (Y/N): N pH: ---

Lab Sample ID : 8013-1
Lab File ID :
Date Received : 10/20/92
Date Extracted : 10/23/92
Date Analyzed : 10/23/92
Dilution Factor: 1.0

Cas No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
58-89-9	gamma-BHC(Lindane)	1.0	U
76-44-8	Heptachlor	1.0	U
1024-57-3	Heptachlor Epoxide	1.0	U
72-20-8	Endrin	1.0	U
72-43-5	Methoxychlor	1.8	U
12789-03-6	Chlordane	1.0	U
8001-35-2	Toxaphene	2.4	U

9 5 2 3 0 1 1 0 7 1

1D
PESTICIDE ORGANIC ANALYSIS

Customer Sample No.

MAD-PSIB

Lab Name: ARDL, Inc. Contract: METRO EAST
Lab Code: _____ Case No.: 8013 SAS No.: _____ SDG No.: _____

Matrix(soil/water) : TCLP Lab Sample ID : 8013-2
Sample(wt/vol) 1000 (g/mL) mL Lab File ID :
Level(low/med) --- Date Received : 10/20/92
% Moisture(not dec) --- Date Extracted : 10/23/92
Extraction(Sepf/Conc/Sonc) SEPF Date Analyzed : 10/23/92
GPC Cleanup (Y/N): N pH: --- Dilution Factor: 1.0

Cas No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
58-89-9	gamma-BHC(Lindane)	1.0	U
76-44-8	Heptachlor	1.0	U
1024-57-3	Heptachlor Epoxide	1.0	U
72-20-8	Endrin	1.0	U
72-43-5	Methoxychlor	1.8	U
12789-03-6	Chlordane	1.0	U
8001-35-2	Toxaphene	2.4	U

HERBICIDE ANALYSIS

Customer Sample No.

MAD-PSIT

Lab Name: ARDL, Inc. Contract: METRO EAST
Lab Code: _____ Case No.: 8013 SAS No.: _____ SDG No.: _____

Matrix(soil/water) : TCLP
Sample(wt/vol) : 700 (g/mL) mL
Level(low/med) : ---
% Moisture(not dec): ---
Extraction(Sept/Conc/Sonc) SEPF
GPC Cleanup (Y/N): N pH: ---

Lab Sample ID : 8013-1
Lab File ID :
Date Received : 10/20/92
Date Extracted : 10/22/92
Date Analyzed : 10/23/92
Dilution Factor: 1.0

Cas No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
94-75-7	2,4-D	17	U
93-72-1	Silvex	2.4	U

9 3 2 3 8 0 0 1 0 7 3

HERBICIDE ANALYSIS

Customer Sample No.

MAD-PSIB

Lab Name: ARDL, Inc. Contract: METRO EAST
Lab Code: _____ Case No.: 8013 SAS No.: _____ SDG No.: _____

Matrix(soil/water) : TCLP Lab Sample ID : 8013-2
Sample(wt/vol) : 900 (g/mL) mL Lab File ID :
Level(low/med) : --- Date Received : 10/20/92
% Moisture(not dec): --- Date Extracted : 10/22/92
Extraction(Sepf/Conc/Sonc) SEPF Date Analyzed : 10/23/92
GPC Cleanup (Y/N): N pH: --- Dilution Factor: 1.0

Cas No.	Compound	Concentration Units: (ug/L or ug/Kg) ug/L	Q
94-75-7	2,4-D	13	U
93-72-1	Silvex	1.9	U

9 3 2 3 0 0 1 0 7 4