US EPA RECORDS CENTER REGION 5
469077

FILED

LAB ANALYSES

030-003625D

SYSTECH

7-1-93 TO

9-9-93

ВАСУ ИЛЬИЧ ЛЕВ

ОБЗОР - ОЗЕРОВ

ИЗДАТЕЛЬСТВО

ТЕ ЕР-1-Р

ЕР-Р-Р

SEP 10 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 9-1-93

SUBJECT: Review of Region V CLP Data
Received for Review on July 30 1993

FROM: Charles T. Elly, Director (SL-10C)
Central Regional Laboratory
Jay Thelen

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Dy-Tech (OH)

CASE and/or SAS NUMBER: 20247 (2) SDG NUMBER: MEWR82

Number and Type of Samples: 11 - water

CLP Sample Numbers: MEWR82, 85-94

CLP Laboratory: Chemmet Hrs. for Review 9 +0.4 T.M.

Following are our findings:

Data are Acceptable for use with Qualification

JT

( ) Data are acceptable for use.
(x) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

SITE : SYSTECH (OH) CASE: 20247 (2)
CONTRACTOR: SKINNER SDG : MEWR82

The laboratory's portion of this case contains 11 low level water samples analyzed for total metals and cyanide. Below is a summary of the out of control audits and their possible effects on the data for this case.

EVIDENTIAL AUDIT: The original Hg raw data from pages 145 to 190 are with case 20135, SDG: MAW659 and from pages 195 to 218 are with case 20209, SDG: MBDN83. All CN raw data are with case 20135, SDG: MAW698. The original airbill and DC-1 form are with case 20247, SDG: MEWR73. The airbill 5484373849 was mislabeled on the traffic report. The corrected airbill number should be 5484373845. The lab labeled the sample numbers on pages 186 to 189 incorrectly. The corrected pages 186 to 189 were faxed by the lab and were inserted into the case by the reviewer. All of the remaining raw data, forms and documents are originals and are present in the order indicated on the DC-2 form (inventory sheet). All original sample tags are included in the case and their numbers match the numbers on the DC-1 form (log-in sheet).

ICP ANALYSES: The duplicate audit for Zn (200.0% RPD) was not flagged by the lab because the duplicate difference did not exceed the technical criterion (+/- CRDL) for water samples. All Zn results are acceptable.

The preparation blank was found to contain Be (0.69 ug/l) and the CCB was found to contain Be (0.7 ug/l). The Be results on MEWR91, 93 and 94 are estimated (J) due to contamination.

GFAA ANALYSES: The duplicate audit for Pb (40.1% RPD) was not flagged by the lab because the duplicate difference did not exceed the technical criterion (+/- CRDL) for water samples. Pb results are not qualified on this basis. The Pb results on MEWR82, 87, 90, 91, 92 and 94 were flagged (W) by the lab and are estimated (J) due to interference.

The matrix spike recovery for Se (74.1%) is out of control. The Se result on MEWR82 was flagged (+) by the lab which indicated that

Reviewed by: _____ Lockheed/ESAT
Date: 8-24-93

on MEWR82 is estimated (J) due to low bias and interference. The Se results on MEWR85 and 88 were flagged (W) by the lab and are estimated (UJ) due to a possible elevated detection limit and interference. After checking the Se raw data, the reviewer added a (W) flag to Se result for MEWR90 on Form 1. The Se result on MEWR90 is estimated (UJ) due to a possible elevated detection limit and interference. The Se results on MEWR91, 92 and 93 were flagged (W) by the lab and are estimated (J) due to low bias and interference. The Se result on MEWR86 is estimated (J) due to low bias. All of the remaining Se results are estimated (UJ) due to a possible elevated detection limit.

The matrix spike recovery for Tl (51.7%) is out of control. The Tl result on MEWR94 is estimated (UJ) due to a possible elevated detection limit. All of the remaining Tl results were flagged (W) by the lab and are estimated (UJ) due to a possible elevated detection limit and interference.

The As results on MEWR82, 93 and 94 were flagged (W) by the lab. The Se results MERW82 and 93 are estimated (J) and the Se result on MEWR94 is estimated (UJ) due to interference.

OTHER QUALIFIERS: All Hg and CN results are acceptable.

Samples MEWR90/91 are field duplicates and show good field correlation.

Sample MEWR94 is a field blank and contains Al (277 ug/l), Be (0.69 ug/l), Fe (24.1 ug/l), Pb (3.4 ug/l) and Mn (12.8 ug/l). The Al results on MEWR87 and 88; the Fe results on MEWR82, 88, 92 and 93; the Pb results on MEWR85, 86 and 93 and the Mn result on MEWR92 are estimated (J) due to field contamination. The Be results on MEWR91 and 93 and the Pb results on MEWR82, 87, 90, 91 and 92 are affected by field contamination but remain qualified as stated above.

Reviewed by: _____ Lockheed/ESAT
Date: 9-24-93

QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 20247 (2) SITE: Clystech (OH) MATRIX: Water WATER SAMPLE SPK: ____

DATA SET: ____ LAB: Skinner CONC: Low WATER SAMPLE DUP: ____

LAB QC # MEWR82 REVIEWED BY: Bari Ghen SOIL SAMPLE SPK: ____

DATE: 8-24-93 SOIL SAMPLE DUP: ____

FORM #		FORM 2	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 5	FIELD	FIELD	FIELD	FIELD	COMMENTS
ELEMENT	HOLD TIME	INITIAL CALIB	CONTIN CALIB	CALIB BLANK	PREP WATER BLANK	PREP SOIL BLANK	ICS %R	SOIL SPIKE %R	SOIL DUP RPD	ICS AQ	ICS SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP %R	AQ SPIKE %R	BLANK	DUP RPD	BLANK	DUP RPD	
ALUMINUM																		227		
ANTIMONY																				
ARSENIC																				
BARIUM																				
BERYLLIUM			0.7		0.69													0.69		
CADMIUM																				
CALCIUM																				
CHROMIUM																				
COBALT																				
COPPER																				
IRON																		24.1		
LEAD																		3.4		
MAGNESIUM																				
MANGANESE																		12.8		
MERCURY																				
NICKEL																				
POTASSIUM																				
SELENIUM															74.1					
SILVER																				
SODIUM																				
THALLIUM															51.7					
TIN																				
VANADIUM																				
ZINC																				
CYANIDE																				

GLOSSARY A

Data Qualifier Definitions

For the purposes of this document the following code letters and associated definitions are provided.

U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J - The associated value is an estimated quantity.

R - The data are unusable. (Note: Analyte may or may not be present.)

UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

In Reference to Case No(s):

20247 (2)

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: 8-23-93

Laboratory Name: Skinner

Lab Contact: Richard Purdy 617-890-7200

Region: 5

Regional Contact: Bai Yuen

Call Initiated By: ___ Laboratory ✓ Region

In reference to data for the following sample number(s):

SDG: MEWR82

Summary of Questions/Issues Discussed:

1. Missing airbill 5434373849 which was listed on the traffic report.
2. Time discrepancy between HS raw data (P186) and Form 14 (P47).
3. MEWR89 is missing from the raw data, but was listed on Form 94 (P47).
4. Why MEWR94 for HS was digested seperately? If the HS sample was digested on 7-2-93, where was the result come from (P189)?

Summary of Resolution:

1. The airbill is mislabelled. Should be 5434373845.
2. P186-P189. Sample numbers were off by 1. The lab will fax the corrected raw data.
3. See question # 2
4. The lab could not find MEWR94

Bai Yuen
Signature

8-23-93
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

SOW No.: ILM02.1

EPA Sample No.	Lab Sample ID.
MEWR82	06175-01S
MEWR85	06175-02S
MEWR86	06175-03S
MEWR87	06175-04S
MEWR87D	06175-04S2
MEWR87S	06175-04DS
MEWR88	06175-05S
MEWR89	06175-06S
MEWR90	06175-07S
MEWR91	06175-08S
MEWR92	06175-09S
MEWR93	06175-10S
MEWR94	06175-11S

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes-were raw data generated before application of background corrections?	Yes/No	NO

Comments:

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 floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Kirk D. Johnson

Date: 7/27/93 Title: USEPA Data Manager

EPA SAMPLE NO.

MEWR82

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-01S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	3.8	B	W	F
7440-39-3	Barium	258			P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	110000			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.3	B		P
7439-89-6	Iron	27.4	B		P
7439-92-1	Lead	4.3		W	F
7439-95-4	Magnesium	29300			P
7439-96-5	Manganese	673			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	4440	B		P
7782-49-2	Selenium	14.2		+N	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	38600			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEWR85

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-02S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	5.7	B		F
7440-39-3	Barium	262			P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	56200			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	6.4	B		P
7440-50-8	Copper	4.3	B		P
7439-89-6	Iron	335			P
7439-92-1	Lead	2.3	B		F
7439-95-4	Magnesium	24000			P
7439-96-5	Manganese	250			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	2070	B		P
7782-49-2	Selenium	2.4	U	WN	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	76400			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEWR86

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-03S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	9.6	B		F
7440-39-3	Barium	218			P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	82600			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	1170			P
7439-92-1	Lead	2.2	B		F
7439-95-4	Magnesium	25700			P
7439-96-5	Manganese	493			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	9670			P
7782-49-2	Selenium	2.6	B	SN	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	80200			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

MEWR87

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-04S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.8	B		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	2.8	U		F
7440-39-3	Barium	46.2	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	70700			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	1070			P
7439-92-1	Lead	2.8	B	W	F
7439-95-4	Magnesium	32200			P
7439-96-5	Manganese	259			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	2450	B		P
7782-49-2	Selenium	2.4	U	N	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	17400			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	10.0	B		P
_____	Cyanide	10.0	U		CA
_____	_____	_____	_	_____	__

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

MEWR88

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-05S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.5	B		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	5.3	B		F
7440-39-3	Barium	124	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	77500			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	15.7	B		P
7439-92-1	Lead	1.9	U		F
7439-95-4	Magnesium	32500			P
7439-96-5	Manganese	486			P
7439-97-6	Mercury	0.28			AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	5990			P
7782-49-2	Selenium	2.4	U	WN	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	42800			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

MEWR89

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-06S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	10.5			F
7440-39-3	Barium	257			P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	90400			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	1840			P
7439-92-1	Lead	1.9	U		F
7439-95-4	Magnesium	28400			P
7439-96-5	Manganese	327			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	3280	B		P
7782-49-2	Selenium	2.4	U	N	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	43000			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	4.8	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEWR90

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-07S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	23.5	U		P	
7440-36-0	Antimony	17.9	U		P	
7440-38-2	Arsenic	14.6			F	
7440-39-3	Barium	176	B		P	
7440-41-7	Beryllium	0.50	U		P	
7440-43-9	Cadmium	1.7	U		P	
7440-70-2	Calcium	31500			P	
7440-47-3	Chromium	5.8	U		P	
7440-48-4	Cobalt	3.8	U		P	
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	354			P	
7439-92-1	Lead	2.6	B	W	F	
7439-95-4	Magnesium	23000			P	
7439-96-5	Manganese	116			P	
7439-97-6	Mercury	0.10	U		AV	
7440-02-0	Nickel	6.1	U		P	
7440-09-7	Potassium	3280	B		P	
7782-49-2	Selenium	2.4	U	N W	F	by 3-20-93
7440-22-4	Silver	3.8	U		P	
7440-23-5	Sodium	121000			P	
7440-28-0	Thallium	2.0	U	WN	F	
7440-62-2	Vanadium	3.3	U		P	
7440-66-6	Zinc	3.4	U		P	
	Cyanide	10.0	U		CA	

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEWR91

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-08S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	13.7			F
7440-39-3	Barium	177	B		P
7440-41-7	Beryllium	0.69	B		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	31700			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	355			P
7439-92-1	Lead	4.5		W	F
7439-95-4	Magnesium	23100			P
7439-96-5	Manganese	117			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	3220	B		P
7782-49-2	Selenium	2.6	B	WN	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	122000			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEWR92

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-093

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	2.3	U		F
7440-39-3	Barium	106	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	108000			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	3.0	B		P
7439-89-6	Iron	40.7	B		P
7439-92-1	Lead	2.8	B	W	P
7439-95-4	Magnesium	30500			P
7439-96-5	Manganese	12.2	B		P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	2930	B		P
7782-49-2	Selenium	2.7	B	WN	F
7440-22-4	Silver	3.3	U		P
7440-23-5	Sodium	48600			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.5	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

10

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEWR93

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-10S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	3.7	B	W	F
7440-39-3	Barium	317			P
7440-41-7	Beryllium	0.69	B		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	55200			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	36.4	B		P
7439-92-1	Lead	3.3			F
7439-95-4	Magnesium	22000			P
7439-96-5	Manganese	740			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	4470	B		P
7782-49-2	Selenium	3.1	B	WN	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	65700			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

MEWR94

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-11S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	277			P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	2.8	U	W	F
7440-39-3	Barium	2.5	U		P
7440-41-7	Beryllium	0.69	B		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	192	B		P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	24.1	B		P
7439-92-1	Lead	3.4		W	F
7439-95-4	Magnesium	71.5	B		P
7439-96-5	Manganese	12.8	B		P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	188	U		P
7782-49-2	Selenium	2.4	U	N	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	219	B		P
7440-28-0	Thallium	2.0	U	N	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	23.5	U	23.5	U	23.5	U	23.5	U	23.500	U	P
Antimony	17.9	U	17.9	U	17.9	U	17.9	U	17.900	U	P
Arsenic	2.8	U	2.9	B	2.8	U	2.8	U	2.800	U	F
Barium	2.5	U	2.5	U	2.5	U	2.5	U	2.500	U	P
Beryllium	0.5	U	0.5	U	0.5	U	0.7	B	0.690	B	P
Cadmium	1.7	U	1.7	U	1.7	U	1.7	U	1.700	U	P
Calcium	-93.4	B	42.3	U	-90.7	B	-48.5	B	42.300	U	P
Chromium	5.8	U	5.8	U	5.8	U	5.8	U	5.800	U	P
Cobalt	3.8	U	3.8	U	3.8	U	3.8	U	3.800	U	P
Copper	4.2	U	4.2	U	4.2	U	4.2	U	4.200	U	P
Iron	-10.0	B	4.8	U	-9.6	B	-11.4	B	-13.440	B	P
Lead	1.9	U	1.9	U	1.9	U	1.9	U	1.900	U	F
Magnesium	46.4	U	46.4	U	46.4	U	46.4	U	46.400	U	P
Manganese	1.8	U	1.8	U	1.8	U	1.8	U	1.800	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	AV
Nickel	6.1	U	6.1	U	6.1	U	6.1	U	6.100	U	P
Potassium	187.6	U	187.6	U	187.6	U	187.6	U	187.600	U	P
Selenium	2.9	B	2.4	U	2.4	U	2.4	U	2.400	U	F
Silver	3.8	U	3.8	U	3.8	U	3.8	U	3.800	U	P
Sodium	66.2	U	66.2	U	66.2	U	66.2	U	66.200	U	P
Thallium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	F
Vanadium	3.3	U	3.3	U	3.3	U	3.3	U	3.300	U	P
Zinc	3.4	U	3.4	U	3.4	U	3.4	U	3.400	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	CA

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			23.5	U							P
Antimony			17.9	U							P
Arsenic			2.8	U							F
Barium			2.5	U							P
Beryllium			0.7	B							P
Cadmium			1.7	U							P
Calcium			-74.2	B							P
Chromium			5.8	U							P
Cobalt			3.8	U							P
Copper			4.2	U							P
Iron			-6.9	B							P
Lead			1.9	U							F
Magnesium			46.4	U							P
Manganese			1.8	U							P
Mercury			0.1	U	0.1	U	0.1	U	0.100	U	AV
Nickel			6.1	U							P
Potassium			187.6	U							P
Selenium			2.4	U	2.4	U					F
Silver			3.8	U							P
Sodium			66.2	U							P
Thallium			2.0	U							F
Vanadium			3.3	U							P
Zinc			3.4	U							P
Cyanide											NR

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead	1.9	U	1.9	U	1.9	U					F
Magnesium											NR
Manganese											NR
Mercury			0.1	U	0.1	U	0.1	U			AV
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											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	0.1	U	0.1	U	0.1	U	0.1	U			AV
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											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			0.1	U							AV
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEWR87S

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

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

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	1950.3000		24.7700	B	2000.00	96.3		P
Antimony	75-125	470.3000		17.9000	U	500.00	94.1		P
Arsenic	75-125	38.0775		2.8000	U	40.00	95.2		F
Barium	75-125	1947.4000		46.1500	B	2000.00	95.1		P
Beryllium	75-125	49.1700		0.5000	U	50.00	98.3		P
Cadmium	75-125	46.5600		1.7000	U	50.00	93.1		P
Calcium									NR
Chromium	75-125	188.5200		5.8000	U	200.00	94.3		P
Cobalt	75-125	454.4100		3.8000	U	500.00	90.9		P
Copper	75-125	232.1400		4.2000	U	250.00	92.9		P
Iron	75-125	2010.1000		1072.2000		1000.00	93.8		P
Lead	75-125	20.7785		2.7895	B	20.00	89.9		F
Magnesium									NR
Manganese	75-125	719.5200		258.9000		500.00	92.1		P
Mercury	75-125	0.7720		0.1000	U	1.00	77.2		AV
Nickel	75-125	457.8200		6.1000	U	500.00	91.6		P
Potassium									NR
Selenium	75-125	7.4085		2.4000	U	10.00	74.1	N	F
Silver	75-125	44.2600		3.8000	U	50.00	88.5		P
Sodium									NR
Thallium	75-125	25.8665		2.0000	U	50.00	51.7	N	F
Vanadium	75-125	466.4700		3.3000	U	500.00	93.3		P
Zinc	75-125	447.3100		9.9600	B	500.00	87.5		P
Cyanide	75-125	409.9198		10.0000	U	500.00	82.0		CA

Comments:

6

DUPLICATES

EPA SAMPLE NO.

MEWR87D

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

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

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		24.7700	B	24.2700	B	2.0		P
Antimony		17.9000	U	17.9000	U			P
Arsenic		2.8000	U	2.8000	U			F
Barium		46.1500	B	44.9100	B	2.7		P
Beryllium		0.5000	U	0.5000	U			P
Cadmium		1.7000	U	1.7000	U			P
Calcium		70731.0000		70910.0000		0.3		P
Chromium		5.8000	U	5.8000	U			P
Cobalt		3.8000	U	3.8000	U			P
Copper		4.2000	U	4.2000	U			P
Iron		1072.2000		1107.4000		3.2		P
Lead	3.0	2.7895	B	4.1890		40.1		F
Magnesium		32174.0000		32286.0000		0.3		P
Manganese		258.9000		259.5300		0.2		P
Mercury		0.1000	U	0.1000	U			AV
Nickel		6.1000	U	6.1000	U			P
Potassium		2452.7000	B	2452.7000	B	0.0		P
Selenium		2.4000	U	2.4000	U			F
Silver		3.8000	U	3.8000	U			P
Sodium	5000.0	17354.0000		17510.0000		0.9		P
Thallium		2.0000	U	2.0000	U			F
Vanadium		3.3000	U	3.3000	U			P
Zinc		9.9600	B	3.4000	U	200.0		P
Cyanide		10.0000	U	10.0000	U			CA

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

ICP ID Number: Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number: F3

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BS	3	1.9	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium	276.80	BS	10	2.0	F
Vanadium			50		NR
Zinc			20		NR

Comments:

F3: THERMO JARRELL-ASH VIDEO 22E (#2913)

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

ICP ID Number: Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number: F5

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	197.20	BS	10	2.8	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium	196.00	BS	5	2.4	F
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

F5: THERMO JARRELL-ASH VIDEO 21E (#2936)

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

ICP ID Number: Date: 04/15/93

Flame AA ID Number: M1

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	AV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

M1: TECHNICON MERCURY ANALYZER (#SS4199A-D)

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

ICP ID Number: P1 Date: 04/15/93

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		200	23.5	P
Antimony	206.80		60	17.9	P
Arsenic			10		NR
Barium	493.40		200	2.5	P
Beryllium	313.00		5	0.5	P
Cadmium	226.50		5	1.7	P
Calcium	317.90		5000	42.3	P
Chromium	267.70		10	5.8	P
Cobalt	228.60		50	3.8	P
Copper	324.70		25	4.2	P
Iron	259.90		100	4.8	P
Lead			3		NR
Magnesium	279.00		5000	46.4	P
Manganese	257.60		15	1.8	P
Mercury			0.2		NR
Nickel	231.60		40	6.1	P
Potassium	766.40		5000	187.6	P
Selenium			5		NR
Silver	328.00		10	3.8	P
Sodium	588.90		5000	66.2	P
Thallium			10		NR
Vanadium	292.40		50	3.3	P
Zinc	213.80		20	3.4	P

Comments:

P1: THERMO JARRELL-ASH ICAP61 (#10782)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. (2) CERCLIS No. OHD

Case No. 20247 Site Name Location: Dystech

Contractor or EPA Lab: Therrien Data User: PRC

No. of Samples: 11 Date Samples or Data Received: 7-30-93

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 11 No. of samples received: 11

Received by: A D Harris Date: 7-30-93

Received by LSSS: Dorothy M. May Date: 8/04/93

Review started: 8-20-93 Reviewer Signature: S. Lynn

Total time spent on review: 9 Date review completed: 8-24-93

Copied by: Jeanette Pritchett Date: Sept 2, 1993

Mailed to user by: Lynette Burnett Date: 9-8-93

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

Data received by: Mildred Fairclough Date: SEP 10 1993

Data review received by: _____ Date: _____
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: _____

SEP 16 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 9-9-93

SUBJECT: Review of Region V CLP Data
Received for Review on Aug 3, 1993

FROM: Charles T. Elly, Director (SL-10C)
Central Regional Laboratory JTE

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Sysbech (OH)

CASE and/or SAS NUMBER: 20247 (3) **SDG NUMBER:** MEWR81

Number and Type of Samples: 4 (Water)

CLP Sample Numbers: MEWR81, 83-84, 95

CLP Laboratory: Skinner **Hrs. for Review** 3
0.5 L.F.

Following are our findings:

All Thallium Data are unusable (R) Due to Low Spike Recovery

All Other Data are Acceptable for use with Qualification

JTE

( ) Data are acceptable for use.
(x) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

SITE : SYSTECH (OH) CASE: 20247 (3)
CONTRACTOR: SKINNER SDG : MEWR81

The laboratory's portion of this case contains 4 low level water samples analyzed for total metals and cyanide. Below is a summary of the out of control audits and their possible effects on the data for this case.

EVIDENTIAL AUDIT: The original Hg raw data are with case 20209, SDG: MBDN83. The original CN raw data are with case 20203, SDG: MAW794. The reviewer corrected the airbill number on the DC-1 form (log-in sheet). The lab included the sample tags which did not belong to this SDG into the case. The reviewer called the lab to inform them of this situation and all the wrong sample tags were sent back to the lab. The lab called the reviewer on 8-30-93 and stated that all the sample tag which belong to this case could not be located. Therefore, no sample tags are included in the case. All of the remaining forms and documents are originals and are present in the order indicated on the DC-2 form (inventory sheet).

ICP ANALYSES: The duplicate audit for Cr (200.0% RPD) was not flagged by the lab because the duplicate difference did not exceed the technical criterion (+/- CRDL) for water samples. Cr results are not qualified on this basis. The CCB was found to contain Cr (2.5 ug/l). The Cr result on MEWR81 is estimated (J) due to contamination.

The preparation blank was found to contain Fe (9.85 ug/l) and K (1453.9 ug/l) and the CCBs were found to contain Al (32.9 ug/l), Fe (8.6 ug/l), Mn (1.2 ug/l) and Zn (4.4 ug/l). The Al result on MEWR84, the Fe and Mn results on MEWR95, the Zn results on MEWR83 and 84 and all K results are estimated (J) due to contamination.

GFAA ANALYSES: The duplicate audit for Se (200.0% RPD) and the matrix spike recovery for Se (54.1%) are out of control. All Se results were flagged (W) by the lab and are estimated (UJ) due to poor precision, a possible elevated detection limit and interference.

The matrix spike recovery for Tl (25.3%) indicated low bias. The Tl results on MEWR81, 83 and 84 were flagged (W) by the lab which

Reviewed by: _____ Lockheed/ESAT
Date: 9-1-93

indicated interference. However, all Tl results are less than IDL and are unusable (R).

The duplicate audit for Pb (77.2% RPD) was not flagged by the lab because the duplicate difference did not exceed the technical criterion (+/- CRDL) for water samples. Pb results are not qualified on this basis and will be qualified below.

OTHER QUALIFIERS: All CN results are acceptable.

The duplicate audit for Hg (29.1% RPD) was not flagged by the lab because the duplicate difference did not exceed the technical criterion (+/- CRDL) for water samples. All Hg results are acceptable.

Samples MEWR83/84 are field duplicates and show good field correlation.

Sample MEWR95 is a field blank and contains Pb (0.82 ug/l). The Pb results on MEWR81, 83 and 84 are estimated (J) due to contamination.

Reviewed by: _____ Lockheed/ESAT
Date: 9-1-93

QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 20247 (3)
SITE: Systech
MATRIX: Water
WATER SAMPLE SPK:
DATA SET:
LAB: Skinner
CONC: Low
WATER SAMPLE DUP:
LAB QC # MEWR81
REVIEWED BY: Bai L Green
SOIL SAMPLE SPK:
DATE: 8-25-93
SOIL SAMPLE DUP:

FORM #		FORM 2	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 5	FIELD	FIELD	FIELD	FIELD	COMMENTS
ELEMENT	HOLD TIME	INITIAL CALIB	CONTIN CALIB	CALIB BLANK	PREP WATER BLANK	PREP SOIL BLANK	ICS %R	SOIL SPIKE %R	SOIL DUP RPD	ICS AQ	ICS SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP %R	AQ SPIKE %R	BLANK	DUP RPD	BLANK	DUP RPD	
ALUMINUM			32.9																	
ANTIMONY																				
ARSENIC																				
BARIUM																				
BERYLLIUM																				
CADMIUM																				
CALCIUM																				
CHROMIUM			2.5																	
COBALT																				
COPPER																				
IRON			8.6		9.85															
LEAD																		0.82		
MAGNESIUM																				
MANGANESE			1.2																	
MERCURY																				
NICKEL																				
POTASSIUM					1453.9															
SELENIUM														200	54.1					
SILVER																				
SODIUM																				
THALLIUM															25.3					
TIN																				
VANADIUM																				
ZINC			4.4																	
CYANIDE																				

GLOSSARY A

Data Qualifier Definitions

For the purposes of this document the following code letters and associated definitions are provided.

U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J - The associated value is an estimated quantity.

R - The data are unusable. (Note: Analyte may or may not be present.)

UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

In Reference to Case No(s):
20247 (3)

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: 8-25-93 / 8-30-93

Laboratory Name: Skinner

Lab Contact: Richard Purdy 617-890-7200

Region: 5

Regional Contact: Bai Yuen

Call Initiated By: ___ Laboratory ✓ Region

In reference to data for the following sample number(s):

SDG: MEWR81

Summary of Questions/Issues Discussed:

1. The airbill # on the DC-1 form was incorrect.
2. The sample tags included in the case are not belong to this case.
3. HQ raw data for MEWR85 on pages 162 should be MEWR95? (Discrepancy between p162 and form 14.1 p39)

Summary of Resolution:

1. The reviewer will correct the airbill # on the DC-1.
2. The lab could not find the sample tags at this moment. The reviewer sent all the tags which did not belong to this SDG back to the lab.
3. Should be MEWR95.

Signature

8-30-93
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

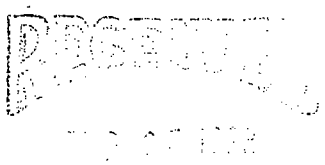
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

SOW No.: ILM02.1

EPA Sample No.	Lab Sample ID.
MEWR81	06207-01S
MEWR81D	06207-01S2
MEWR83	06207-02S
MEWR83S	06207-02DS
MEWR84	06207-03S
MEWR95	06207-04S



US EPA ... REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes-were raw data generated before application of background corrections?	Yes/No	NO

Comments:

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 floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Kirk D. Johnson

Date: 12/29/93 Title: USEPA Data Manager

EPA SAMPLE NO.

MEWR81

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Matrix (soil/water): WATER Lab Sample ID: 06207-01S

Level (low/med): LOW Date Received: 06/26/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.8	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	50.8		S	F
7440-39-3	Barium	614			P
7440-41-7	Beryllium	0.40	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	125000			P
7440-47-3	Chromium	2.0	B		P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	2.2	U		P
7439-89-6	Iron	11700			P
7439-92-1	Lead	2.5	B		F
7439-95-4	Magnesium	32400			P
7439-96-5	Manganese	603			P
7439-97-6	Mercury	0.13	B		AV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	4760	B		P
7782-49-2	Selenium	2.4	U	WN*	F
7440-22-4	Silver	3.4	U		P
7440-23-5	Sodium	57100			P
7440-28-0	Thallium	7.0	U	WN	F
7440-62-2	Vanadium	2.3	U		P
7440-66-6	Zinc	30.3			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

2

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEWR83

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Matrix (soil/water): WATER Lab Sample ID: 06207-02S

Level (low/med): LOW Date Received: 06/26/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.8	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	22.5			F
7440-39-3	Barium	593			P
7440-41-7	Beryllium	0.40	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	104000			P
7440-47-3	Chromium	1.8	U		P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	2.2	U		P
7439-89-6	Iron	10800			P
7439-92-1	Lead	1.0	B		F
7439-95-4	Magnesium	32000			P
7439-96-5	Manganese	1060			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	4940	B		P
7782-49-2	Selenium	2.4	U	WN*	F
7440-22-4	Silver	3.4	U		P
7440-23-5	Sodium	57500			P
7440-28-0	Thallium	7.0	U	WN	F
7440-62-2	Vanadium	2.3	U		P
7440-66-6	Zinc	10.0	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEWR84

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Matrix (soil/water): WATER Lab Sample ID: 06207-03S

Level (low/med): LOW Date Received: 06/26/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.9	B		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	21.9			F
7440-39-3	Barium	596			P
7440-41-7	Beryllium	0.40	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	104000			P
7440-47-3	Chromium	1.8	U		P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	2.2	U		P
7439-89-6	Iron	10900			P
7439-92-1	Lead	1.5	B		F
7439-95-4	Magnesium	32200			P
7439-96-5	Manganese	1070			P
7439-97-6	Mercury	0.11	B		AV
7440-02-0	Nickel	3.8	B		P
7440-09-7	Potassium	4990	B		P
7782-49-2	Selenium	2.4	U	WN*	F
7440-22-4	Silver	3.4	U		P
7440-23-5	Sodium	57600			P
7440-28-0	Thallium	7.0	U	WN	F
7440-62-2	Vanadium	2.3	U		P
7440-66-6	Zinc	10.4	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

4

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEWR95

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Matrix (soil/water): WATER Lab Sample ID: 06207-04S

Level (low/med): LOW Date Received: 06/26/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.8	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	2.8	U		F
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium	0.40	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	35.7	U		P
7440-47-3	Chromium	1.8	U		P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	2.2	U		P
7439-89-6	Iron	5.6	B		P
7439-92-1	Lead	0.82	B		F
7439-95-4	Magnesium	26.6	U		P
7439-96-5	Manganese	2.9	B		P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	130	B		P
7782-49-2	Selenium	2.4	U	WN*	F
7440-22-4	Silver	3.4	U		P
7440-23-5	Sodium	154	B		P
7440-28-0	Thallium	1.4	U	N	F
7440-62-2	Vanadium	2.3	U		P
7440-66-6	Zinc	4.1	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	22.8	U	32.9	B	22.8	U	34.6	B	22.800	U	P
Antimony	17.9	U	17.9	U	17.9	U	17.9	U	17.900	U	P
Arsenic	2.8	U	2.8	U	2.8	U	2.8	U	2.800	U	F
Barium	1.0	U	1.3	B	1.0	U	1.3	B	1.000	U	P
Beryllium	0.4	U	0.5	B	0.5	B	0.5	B	0.400	U	P
Cadmium	1.5	U	1.5	U	2.3	B	1.9	B	1.500	U	P
Calcium	35.7	U	35.7	U	35.7	U	92.9	B	-59.480	B	P
Chromium	1.8	U	2.5	B	1.8	U	2.5	B	1.800	U	P
Cobalt	1.5	U	1.5	U	1.5	B	1.5	U	1.500	U	P
Copper	15.8	B	9.2	B	2.2	U	2.2	B	2.200	U	P
Iron	5.0	U	8.6	B	5.0	U	14.3	B	9.850	B	P
Lead	0.8	U	0.8	U	0.8	U	0.8	U	0.800	U	F
Magnesium	26.6	U	39.3	B	26.6	U	27.6	B	26.600	U	P
Manganese	0.6	U	1.2	B	1.2	B	1.4	B	0.600	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	AV
Nickel	3.7	U	3.7	U	3.7	U	3.7	U	3.700	U	P
Potassium	85.5	U	85.5	U	85.5	U	85.5	U	1453.900	B	P
Selenium	2.4	U	2.4	U	2.4	U	2.4	U	2.400	U	F
Silver	3.4	U	3.4	U	3.4	U	3.4	U	3.400	U	P
Sodium	37.0	U	37.0	U	37.0	U	37.0	U	37.000	U	P
Thallium	1.4	U	1.4	U	1.4	U	1.4	U	1.400	U	F
Vanadium	2.3	U	2.3	U	2.3	U	2.3	U	2.300	U	P
Zinc	15.9	B	4.4	B	4.1	U	8.9	B	4.100	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	CA

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											NR
Arsenic			2.8	U	2.8	U	2.8	U			F
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury			0.1	U	0.1	U	0.1	U			AV
Nickel											NR
Potassium											NR
Selenium			2.4	U	2.4	U	2.4	U			F
Silver											NR
Sodium											NR
Thallium			1.4	U							F
Vanadium											NR
Zinc											NR
Cyanide			10.0	U	10.0	U	10.0	U			CA

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											NR
Arsenic			2.8	U	2.8	U					F
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury			0.1	U							AV
Nickel											NR
Potassium											NR
Selenium			2.4	U	2.4	U					F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide			10.0	U							CA

U.S. EPA - CLP

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											NR
Arsenic	2.8	U	2.8	U	2.8	U	2.8	U			F
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	2.4	U	2.4	U	2.4	U	2.4	U			F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											NR
Arsenic			2.8	U							F
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

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEWR83S

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

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

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	1978.7000		22.8000	U	2000.00	98.9		P
Antimony	75-125	490.3300		17.9000	U	500.00	98.1		P
Arsenic	75-125	59.1105		22.5085		40.00	91.5		F
Barium	75-125	2489.9000		593.1000		2000.00	94.8		P
Beryllium	75-125	48.6600		0.4000	U	50.00	97.3		P
Cadmium	75-125	45.3100		1.5000	U	50.00	90.6		P
Calcium									NR
Chromium	75-125	188.6700		1.8000	U	200.00	94.3		P
Cobalt	75-125	461.7800		1.5000	U	500.00	92.4		P
Copper	75-125	233.1400		2.2000	U	250.00	93.3		P
Iron		11700.0000		10765.0000		1000.00	93.5		P
Lead	75-125	19.8085		0.9985	B	20.00	94.0		F
Magnesium									NR
Manganese	75-125	1521.6000		1059.3000		500.00	92.5		P
Mercury	75-125	0.9150		0.1000	U	1.00	91.5		AV
Nickel	75-125	463.8300		3.7000	U	500.00	92.8		P
Potassium									NR
Selenium	75-125	5.4100		2.4000	U	10.00	54.1	N	F
Silver	75-125	44.0700		3.4000	U	50.00	88.1		P
Sodium									NR
Thallium	75-125	12.6490		7.0000	U	50.00	25.3	N	F
Vanadium	75-125	470.4600		2.3000	U	500.00	94.1		P
Zinc	75-125	463.2900		10.0500	B	500.00	90.6		P
Cyanide	75-125	463.6942		10.0000	U	500.00	92.7		CA

Comments:

6

DUPLICATES

EPA SAMPLE NO.

MEWR81D

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

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

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		22.8000	U	22.8000	U			P
Antimony		17.9000	U	17.9000	U			P
Arsenic	10.0	50.8000		49.1855		3.2		F
Barium	200.0	614.3900		624.7600		1.7		P
Beryllium		0.4000	U	0.4000	U			P
Cadmium		1.5000	U	1.5000	U			P
Calcium		124920.0000		126480.0000		1.2		P
Chromium		1.9700	B	1.8000	U	200.0		P
Cobalt		1.5000	U	1.5000	U			P
Copper		2.2000	U	2.2000	U			P
Iron		11724.0000		11877.0000		1.3		P
Lead		2.4605	B	1.0900	B	77.2		F
Magnesium		32414.0000		32741.0000		1.0		P
Manganese		603.3600		610.9800		1.3		P
Mercury		0.1340	B	0.1000	B	29.1		AV
Nickel		3.7000	U	3.7000	U			P
Potassium		4755.4000	B	4743.0000	B	0.3		P
Selenium	5.0	2.4000	U	12.1000	B	200.0	*	F
Silver		3.4000	U	3.4000	U			P
Sodium		57105.0000		57770.0000		1.2		P
Thallium		7.0000	U	7.0000	U			F
Vanadium		2.3000	U	2.3000	U			P
Zinc	20.0	30.2700		27.6700		9.0		P
Cyanide		10.0000	U	10.0000	U			CA

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

ICP ID Number: Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number: F1

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BS	3	0.8	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium	276.80	BS	10	1.4	F
Vanadium			50		NR
Zinc			20		NR

Comments:
F1: THERMO JARRELL-ASH VIDEO 22E (#2486)

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

ICP ID Number: Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number: F5

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	197.20	BS	10	2.8	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium	196.00	BS	5	2.4	F
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:
F5: THERMO JARRELL-ASH VIDEO 21E (#2936)

U.S. EPA - CLP

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

ICP ID Number: Date: 04/15/93

Flame AA ID Number: M1

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	AV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:
M1: TECHNICON MERCURY ANALYZER (#SS4199A-D)

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

ICP ID Number: P2 Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		200	22.8	P
Antimony	206.80		60	17.9	P
Arsenic			10		NR
Barium	493.40		200	1.0	P
Beryllium	313.00		5	0.4	P
Cadmium	226.50		5	1.5	P
Calcium	317.90		5000	35.7	P
Chromium	267.70		10	1.8	P
Cobalt	228.60		50	1.5	P
Copper	324.70		25	2.2	P
Iron	259.90		100	5.0	P
Lead			3		NR
Magnesium	279.00		5000	26.6	P
Manganese	257.60		15	0.6	P
Mercury			0.2		NR
Nickel	231.60		40	3.7	P
Potassium	766.40		5000	85.5	P
Selenium			5		NR
Silver	328.00		10	3.4	P
Sodium	588.90		5000	37.0	P
Thallium			10		NR
Vanadium	292.40		50	2.3	P
Zinc	213.80		20	4.1	P

Comments:
P2: THERMO JARRELL-ASH ICAP61 (#22982)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. (3) CERCLIS No. OH

Case No. 20247 Site Name Location: Systech

Contractor or EPA Lab: Skinner Data User: PRC

No. of Samples: 4 Date Samples or Data Received: 8-3-93

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 4 No. of samples received: 4

Received by: Lynette Burnett Date: 8-3-93

Received by LSSS: Dorothy M. May Date: 8/09/93

Review started: 8-25-93 Reviewer Signature: B. Green

Total time spent on review: 3 Date review completed: 8-31-93

Copied by: Lynette Burnett 0.5 L.F. Date: Sept 14 1993

Mailed to user by: Lynette Burnett Date: 9-14-93

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

Data received by: Mildred Jackson Date: SEP 16 1993

Data review received by: ___ Date: ___
Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose [ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose [ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose [ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: ___

SEP 07 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 8-30-93

SUBJECT: Review of Region V CLP Data Received for Review on July 30, 1993

FROM: Charles T. Elly, Director (SL-10C)
Central Regional Laboratory Jay Thakker

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Systech (OH)

CASE and/or SAS NUMBER: 30247 (1) SDG NUMBER: MEWR73

Number and Type of Samples: 5 - Soils

CLP Sample Numbers: MEWR73-77

CLP Laboratory: [illegible] Hrs. for Review 10 hrs +1.0

Following are our findings:

Data are Acceptable for use with Qualification
JR

( ) Data are acceptable for use.
(x) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

SITE: Systech
LABORATORY: Skinner & Sherman Labs

CASE: 20247(1)
SDG: MEWR73

The laboratory's portion of case 20247 (1) contains five (5) low level soil samples assayed for total metals and total cyanide. The following narrative lists the out of control audits and their possible effects on the results.

EVIDENTIAL AUDIT: All forms are originals. Most of the raw data sheets are originals, those photocopied state where the originals can be found. The ICP, As, Pb, Se and Tl raw data are originals. The original Hg raw data are with case 20231, SDG#: MABJ54. The original CN raw data are with case 20209, SDG: MBDN81. The Federal Express Airbill and the chain of custody form are originals. All forms are present and in the order indicated on the Form DC-2 [inventory sheet].

ICP ANALYSES: The duplicate RPD for Sb (200%) and Ba (40.6%) were not flagged by the laboratory because the duplicate difference did not exceed the technical criterion (±2X CRDL). All Sb data are not qualified base on this basis but qualified below. All Ba data are acceptable. The matrix spike for Sb (74.%) indicates low bias. All Sb data are estimated (UJ) due to possible elevation of the detection limit.

The duplicate RPDs for Al (30.2%) and Ca (34.9%) were flagged (*) by the laboratory. However, the duplicate differences did not exceed the technical criterion (±35%) for the soil samples. All Al and Ca data are acceptable.

The duplicate RPD for Mg (35%) was flagged (*) by the laboratory and is out of control. All Mg are estimated (J) due to poor precision.

The duplicate RPDs for Cu (45%) and Mn (37.1%) are out of control; the matrix spike recovery for Cu (69.8%) and Mn (135%) indicates low and high bias, respectively. All Cu data are estimated (J) due to poor precision and low bias. All Mn data are estimated (J) due to poor precision and high bias.

Reviewed by: ST Steffanie Tobin, Lockheed/ESAT
Date: August 20, 1993

The duplicate RPD for Zn (40.5%) was flagged (*) by the laboratory and out of control. All Zn data are estimated (J) due to poor precision.

GFAA ANALYSES: The duplicate RPD for Se (200%) was not flagged by the laboratory because the duplicate difference did not exceed the technical criterion (±2X CRDL) for the soil samples. All Se data are not qualified on this basis but are qualified below. The matrix spike recovery for Se (40.3%) indicates low bias. The Se result for MEWR73 is estimated (J) due to low bias. The Se data for MEWR74 and 76 were flagged (W) by the laboratory and are estimated (UJ) due to possible elevation of the detection limit and interference. The Se results for MEWR75 is estimated (UJ) due to possible elevation of the detection limit. The Se result for MEWR77 was flagged (+) by the laboratory, because the sample, when assayed by MSA, failed to have a correlation coefficient greater than 0.995. The Se result for MEWR77 is estimated (UJ) due to interference and possible elevation of the detection limit.

The matrix spike recovery for Pb (-54%) was not flagged by the laboratory because the sample concentration was more than 4X the spike level. All Pb data are not qualified on this basis but are qualified below. The duplicate RPD for Pb (101.5%) was flagged (*) by the laboratory and out of control. All Pb data are estimated (J) due to poor precision.

The duplicate RPD for As (58.9%) was flagged (*) by the laboratory. However, the duplicate difference did not exceed the technical criterion (±2X CRDL) for the soil samples. All As data are not qualified on this basis but qualified below. The matrix spike recoveries for As (62.7%) indicate a low bias. All As data are estimated (J) due to low bias.

The Tl result for MEWF74 was flagged (W) by the laboratory and is estimated (UJ) due to interference.

OTHER ANALYSES: All CN and Hg data are acceptable.

Reviewed by: ST Steffanie Tobin, Lockheed/ESAT
Date: August 20, 1993

GLOSSARY A

Data Qualifier Definitions

For the purposes of this document the following code letters and associated definitions are provided.

U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J - The associated value is an estimated quantity.

R - The data are unusable. (Note: Analyte may or may not be present.)

UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 20247 SITE: Systech MATRIX: Soil WATER SAMPLE SPK: NA

DATA SET: MEWR73 LAB: Skinner & Sherman labs CONC: low WATER SAMPLE DUP: NA

LAB QC # _____ REVIEWED BY: Stephanie N. Tobin SOIL SAMPLE SPK: MEWR73

DATE: 8/19/93 SOIL SAMPLE DUP: MEWR73D

FORM #		FORM 2	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 5	FIELD	FIELD	FIELD	FIELD		
ELEMENT	HOLD TIME	INITIAL CALIB	CONTIN CALIB	CALIB BLANK	PREP WATER BLANK	PREP SOIL BLANK	ICS %R	SOIL SPIKE %R	SOIL DUP RPD	LCS AQ	LCS SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP RPD	AQ SPIKE %R	BLANK	DUP RPD	BLANK	DUP RPD	GFAA DUP	GFAA ANALYT SPIKE
ALUMINUM	OK	OK	OK	~~22.4~~	NA		OK		~~30.2~~ *	NA	OK	NA		NA	NA						
ANTIMONY								74 N	~~200~~												
ARSENIC								62.7 N	~~58.9~~ *												
BARIUM									~~40.6~~				~~20~~								
BERYLLIUM													~~100~~								
CADMIUM																					
CALCIUM									~~34.9~~ *												
CHROMIUM													~~100~~								
COBALT													~~150~~								
COPPER								69.8 N	45 *												
IRON																					
LEAD									102 *												
MAGNESIUM									~~55.~~ *												
MANGANESE								35 N	37.1 *												
MERCURY																					
NICKEL													~~100~~								
POTASSIUM																					
SELENIUM								40.3 N	~~200~~												
SILVER																					
SODIUM													~~14~~								
THALLIUM																					
TIN																					
VANADIUM																					
ZINC				~~4.6~~		~~1.9~~			40 *												
CYANIDE	↓	↓	↓		↓		↓			↓	↓	↓		↓	↓						

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

SOW No.: ILM02.1

EPA Sample No.	Lab Sample ID.
MEWR73	06161-01S
MEWR73D	06161-01S2
MEWR73S	06161-01DS
MEWR74	06161-02S
MEWR75	06161-03S
MEWR76	06161-04S
MEWR77	06161-05S

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes-were raw data generated before application of background corrections?	Yes/No	NO

Comments:

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 floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Kirk D. Johnson

Date: 7/22/93 Title: USEPA Data Manager

TMA
Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

Sonic Airbill #B22294

July 28, 1993

USEPA Contract Laboratory Program (CLP)
Sample Management Office (SMO)
300 North Lee Street, Suite 200
Alexandria, VA 22314

Attention: Data Receiver

Dear Sir:

Enclosed is the Sample Data Package for the Inorganic Analyses of Case 20247 and SDG MEWR73. The samples were analyzed under Skinner and Sherman Work Order #S306161.

Please feel free to call if there are any questions concerning the enclosed.

Sincerely,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

Kirk Johnson
Contract Laboratory Program
EPA Data Manager

KDJ

Encl.
Data Audit Staff, EMSL-LV, Federal #
Chuck Elly, USEPA Region V, Federal #

EPA SAMPLE NO.

MEWR73

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Matrix (soil/water): SOIL Lab Sample ID: 06161-01S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 83.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2270		*	P
7440-36-0	Antimony	3.5	U	N	P
7440-38-2	Arsenic	6.0		N*	F
7440-39-3	Barium	28.1	B		P
7440-41-7	Beryllium	0.27	B		P
7440-43-9	Cadmium	0.33	U		P
7440-70-2	Calcium	72000		*	P
7440-47-3	Chromium	4.7			P
7440-48-4	Cobalt	2.2	B		P
7440-50-8	Copper	28.0		N*	P
7439-89-6	Iron	5880			P
7439-92-1	Lead	22.8		*	F
7439-95-4	Magnesium	23000		*	P
7439-96-5	Manganese	177		N*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	4.4	B		P
7440-09-7	Potassium	374	B		P
7782-49-2	Selenium	0.63	B	N	F
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	130	B		P
7440-28-0	Thallium	0.67	U		F
7440-62-2	Vanadium	8.6	B		P
7440-66-6	Zinc	31.2		*	P
	Cyanide	0.60	U		CA

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
ROOTS, STONES

2

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEWR74

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Matrix (soil/water): SOIL Lab Sample ID: 06161-02S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 78.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1890		*	P
7440-36-0	Antimony	3.7	U	N	P
7440-38-2	Arsenic	3.2		N*	F
7440-39-3	Barium	53.5			P
7440-41-7	Beryllium	0.28	U		P
7440-43-9	Cadmium	0.35	U		P
7440-70-2	Calcium	69800		*	P
7440-47-3	Chromium	4.8			P
7440-48-4	Cobalt	1.7	B		P
7440-50-8	Copper	6.6		N*	P
7439-89-6	Iron	5670			P
7439-92-1	Lead	7.5		*	F
7439-95-4	Magnesium	19800		*	P
7439-96-5	Manganese	166		N*	P
7439-97-6	Mercury	0.06	B		CV
7440-02-0	Nickel	4.4	B		P
7440-09-7	Potassium	323	B		P
7782-49-2	Selenium	0.58	U	WN	F
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	124	B		P
7440-28-0	Thallium	0.73	U	W	F
7440-62-2	Vanadium	6.9	B		P
7440-66-6	Zinc	30.0		*	P
	Cyanide	0.62	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
ROOTS, STONES

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEWR75

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Matrix (soil/water): SOIL Lab Sample ID: 06161-03S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 75.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9830		*	P
7440-36-0	Antimony	4.1	U	N	P
7440-38-2	Arsenic	8.5		N*	F
7440-39-3	Barium	113			P
7440-41-7	Beryllium	0.64	B		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	51200		*	P
7440-47-3	Chromium	24.7			P
7440-48-4	Cobalt	8.2	B		P
7440-50-8	Copper	56.0		N*	P
7439-89-6	Iron	16400			P
7439-92-1	Lead	118		*	F
7439-95-4	Magnesium	18800		*	P
7439-96-5	Manganese	491		N*	P
7439-97-6	Mercury	0.28			CV
7440-02-0	Nickel	26.1			P
7440-09-7	Potassium	1310	B		P
7782-49-2	Selenium	0.59	U	N	F
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	283	B		P
7440-28-0	Thallium	0.73	U		F
7440-62-2	Vanadium	19.9			P
7440-66-6	Zinc	215		*	P
	Cyanide	0.63	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
ROOTS, STONES

4

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEWR76

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Matrix (soil/water): SOIL Lab Sample ID: 06161-04S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 74.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8870		*	P
7440-36-0	Antimony	4.0	U	N	P
7440-38-2	Arsenic	6.3		N*	F
7440-39-3	Barium	43.8	B		P
7440-41-7	Beryllium	0.43	B		P
7440-43-9	Cadmium	0.38	U		P
7440-70-2	Calcium	43500		*	P
7440-47-3	Chromium	13.3			P
7440-48-4	Cobalt	7.2	B		P
7440-50-8	Copper	18.8		N*	P
7439-89-6	Iron	17700			P
7439-92-1	Lead	78.1		S*	F
7439-95-4	Magnesium	18400		*	P
7439-96-5	Manganese	568		N*	P
7439-97-6	Mercury	0.11	B		CV
7440-02-0	Nickel	17.2			P
7440-09-7	Potassium	1770			P
7782-49-2	Selenium	0.62	U	WN	F
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	158	B		P
7440-28-0	Thallium	0.78	U		F
7440-62-2	Vanadium	19.8			P
7440-66-6	Zinc	87.2		*	P
	Cyanide	0.63	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
ROOTS,STONES

5

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEWR77

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Matrix (soil/water): SOIL Lab Sample ID: 06161-05S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 75.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9470		*	P
7440-36-0	Antimony	4.1	U	N	P
7440-38-2	Arsenic	6.3		N*	F
7440-39-3	Barium	87.9			P
7440-41-7	Beryllium	0.44	B		P
7440-43-9	Cadmium	0.39	U		P
7440-70-2	Calcium	30100		*	P
7440-47-3	Chromium	15.6			P
7440-48-4	Cobalt	7.4	B		P
7440-50-8	Copper	28.2		N*	P
7439-89-6	Iron	17100			P
7439-92-1	Lead	115		*	F
7439-95-4	Magnesium	13400		*	P
7439-96-5	Manganese	578		N*	P
7439-97-6	Mercury	0.18			CV
7440-02-0	Nickel	16.8			P
7440-09-7	Potassium	1660			P
7782-49-2	Selenium	0.63	U	+N	F
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	113	B		P
7440-28-0	Thallium	0.78	U		F
7440-62-2	Vanadium	21.7			P
7440-66-6	Zinc	206		*	P
	Cyanide	1.0			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
ROOTS,STONES

6

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

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	20.9	U	22.2	B	20.9	U	20.9	U	4.180	U	P
Antimony	15.7	U	15.7	U	15.7	U	15.7	U	3.140	U	P
Arsenic	2.8	U	2.8	U	2.8	U	2.8	U	0.560	U	F
Barium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Beryllium	1.2	U	1.2	U	1.2	U	1.2	U	0.240	U	P
Cadmium	1.5	U	1.5	U	1.5	U	1.5	U	0.300	U	P
Calcium	84.0	U	84.0	U	84.0	U	84.0	U	-52.506	B	P
Chromium	5.1	U	5.1	U	5.1	U	5.1	U	1.020	U	P
Cobalt	2.5	U	2.5	U	2.5	U	2.5	U	0.500	U	P
Copper	4.0	U	4.0	U	4.0	U	4.0	U	0.800	U	P
Iron	15.5	U	15.5	U	15.5	U	15.5	U	3.100	U	P
Lead	1.4	U	1.4	U	1.4	U	1.4	U	0.280	U	F
Magnesium	40.1	U	40.1	U	40.1	U	40.1	U	8.020	U	P
Manganese	1.6	U	1.6	U	1.6	U	1.6	U	0.320	U	P
Mercury	0.1	U	0.1	U	0.1	U			0.050	U	CV
Nickel	4.7	U	4.7	U	4.7	U	4.7	U	0.940	U	P
Potassium	164.8	U	164.8	U	164.8	U	164.8	U	32.960	U	P
Selenium	2.4	U	2.4	U	2.4	U	2.4	U	0.480	U	F
Silver	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Sodium	49.2	U	49.2	U	49.2	U	49.2	U	9.840	U	P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	F
Vanadium	2.6	U	2.6	U	2.6	U	2.6	U	0.520	U	P
Zinc	3.7	U	3.7	U	3.7	U	3.7	U	1.202	B	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	0.500	U	CA

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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			20.9	U							P
Antimony			15.7	U							P
Arsenic			2.8	U	2.8	U	2.8	U			F
Barium			5.0	U							P
Beryllium			1.2	U							P
Cadmium			1.5	U							P
Calcium			84.0	U							P
Chromium			5.1	U							P
Cobalt			2.5	U							P
Copper			4.0	U							P
Iron			15.5	U							P
Lead			1.4	U	1.4	U					F
Magnesium			40.1	U							P
Manganese			1.6	U							P
Mercury											NR
Nickel			4.7	U							P
Potassium			164.8	U							P
Selenium			2.4	U	2.4	U	2.4	U			F
Silver			5.0	U							P
Sodium			49.2	U							P
Thallium			3.0	U							F
Vanadium			2.6	U							P
Zinc			4.6	B							P
Cyanide											NR

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead	1.4	U	1.4	U	1.4	U					F
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium			2.4	U							F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEWR73S

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

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

% Solids for Sample: 83.1

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	88.1843		3.4666	U	119.15	74.0	N	P
Arsenic	75-125	11.8181		5.9551		9.35	62.7	N	F
Barium	75-125	456.0651		28.1346	B	476.58	89.8		P
Beryllium	75-125	10.8399		0.2694	B	11.91	88.8		P
Cadmium	75-125	9.6818		0.3312	U	11.91	81.3		P
Calcium									NR
Chromium	75-125	48.8925		4.6788		47.66	92.8		P
Cobalt	75-125	104.0879		2.1683	B	119.15	85.5		P
Copper	75-125	69.6477		28.0440		59.57	69.8	N	P
Iron									NR
Lead		20.2133		22.7701		4.67	-54.7		F
Magnesium									NR
Manganese	75-125	338.0872		176.7893		119.15	135.4	N	P
Mercury	75-125	0.5519		0.0602	U	0.57	96.8		CV
Nickel	75-125	107.3191		4.3873	B	119.15	86.4		P
Potassium									NR
Selenium	75-125	1.5682		0.6262	B	2.34	40.3	N	F
Silver	75-125	9.8605		1.1040	U	11.91	82.8		P
Sodium									NR
Thallium	75-125	9.9322		0.6748	U	11.68	85.0		F
Vanadium	75-125	113.6815		8.5759	B	119.15	88.2		P
Zinc	75-125	129.1609		31.2258		119.15	82.2		P
Cyanide	75-125	25.6687		0.5957	U	28.38	90.4		CA

Comments:

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEWR73A

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

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

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		123.00		15.70	U	120.0	102.5		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper		444.23		127.01		260.0	122.0		P
Iron									NR
Lead									NR
Magnesium									NR
Manganese		2110.10		800.67		1600.0	81.8		P
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

6

DUPLICATES

EPA SAMPLE NO.

MEWR73D

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

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

% Solids for Sample: 83.1 % Solids for Duplicate: 80.3

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		2274.0370		1677.1195		30.2	*	P
Antimony		3.4666	U	7.9493	B	200.0		P
Arsenic	2.2	5.9551		3.2468		58.9	*	F
Barium		28.1346	B	18.6404	B	40.6		P
Beryllium		0.2694	B	0.2831	B	5.0		P
Cadmium		0.3312	U	0.3539	U			P
Calcium		72001.2365		102437.4130		34.9	*	P
Chromium	2.2	4.6788		3.9688		16.4		P
Cobalt		2.1683	B	1.8121	B	17.9		P
Copper	5.5	28.0440		17.7509		45.0	*	P
Iron		5884.3661		6309.1952		7.0		P
Lead		22.7701		69.7279		101.5	*	F
Magnesium		22972.2121		32731.6486		35.0	*	P
Manganese		176.7893		257.3323		37.1	*	P
Mercury		0.0602	U	0.0573	U			CV
Nickel		4.3873	B	3.6290	B	18.9		P
Potassium		373.9057	B	303.1075	B	20.9		P
Selenium		0.6262	B	0.5398	U	200.0		F
Silver		1.1040	U	1.1798	U			P
Sodium		129.9992	B	139.8410	B	7.3		P
Thallium		0.6748	U	0.6748	U			F
Vanadium		8.5759	B	7.0173	B	20.0		P
Zinc		31.2258		47.0919		40.5	*	P
Cyanide		0.5957	U	0.5676	U			CA

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

ICP ID Number: Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number: F2

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BS	3	1.4	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium	276.80	BS	10	3.0	F
Vanadium			50		NR
Zinc			20		NR

Comments:
F2: THERMO JARRELL-ASH VIDEO 22E (#2511)

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

ICP ID Number: Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number: F5

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	197.20	BS	10	2.8	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium	196.00	BS	5	2.4	F
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

F5: THERMO JARRELL-ASH VIDEO 21E (#2936)

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

ICP ID Number: Date: 04/15/93

Flame AA ID Number: M3

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

M3: LDC ANALYTICAL #050941

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

ICP ID Number: P1 Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		200	20.9	P
Antimony	206.80		60	15.7	P
Arsenic			10		NR
Barium	493.40		200	5.0	P
Beryllium	313.00		5	1.2	P
Cadmium	226.50		5	1.5	P
Calcium	317.90		5000	84.0	P
Chromium	267.70		10	5.1	P
Cobalt	228.60		50	2.5	P
Copper	324.70		25	4.0	P
Iron	259.90		100	15.5	P
Lead			3		NR
Magnesium	279.00		5000	40.1	P
Manganese	257.60		15	1.6	P
Mercury			0.2		NR
Nickel	231.60		40	4.7	P
Potassium	766.40		5000	164.8	P
Selenium			5		NR
Silver	328.00		10	5.0	P
Sodium	588.90		5000	49.2	P
Thallium			10		NR
Vanadium	292.40		50	2.6	P
Zinc	213.80		20	3.7	P

Comments:

P1: THERMO JARRELL-ASH ICAP61 (#10782)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. (1) CERCLIS No. (OH)

Case No. 20247 Site Name Location: Systech

Contractor or EPA Lab: Skinner Data User: PRC

No. of Samples: 5 Date Samples or Data Received: 7-30-93

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 5 No. of samples received: 5

Received by: A D Harris Date: 7-30-93

Received by LSSS: Dorothy M. May Date: 8/04/93

Review started: 8/19/93 Reviewer Signature: Stephanie N. Tobin

Total time spent on review: 10 hrs Date review completed: 8/20/93
FY.O BY 9-24-93

Copied by: Jeanette Pritchell Date: Aug 30, 93

Mailed to user by: A D Harris Date: 9-2-93

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, SSCRL

Data received by: Mildred Yarbrough Date: SEP 07 1993

Data review received by: ___ Date: ___
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: ___

SEP 13 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 9-1-93

SUBJECT: Review of Region V CLP Data Received for Review on Aug 2, 1993

FROM: Charles T. Elly, Director (SL-10C)
Central Regional Laboratory Jay Thakker

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Systech (OH)

CASE and/or SAS NUMBER: 20247 SDG NUMBER: MEWR78

Number and Type of Samples: 2 - soils

CLP Sample Numbers: MEWR 78 -79

CLP Laboratory: aats Hrs. for Review 7.5 hrs +0.3 T.M.

Following are our findings:

Data are Acceptable for use with Qualifications
JN

( ) Data are acceptable for use.
(x) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

SITE: Systech CASE: 20247
LABORATORY: AATS SDG: MEWR78

The laboratory's portion of case 20247 contains two (2) low level soil samples assayed for total metals and total cyanide. The following narrative lists the out of control audits and their possible effects on the results.

EVIDENTIAL AUDIT: All forms are originals. Most of the raw data sheets are originals, those photocopied state where the originals can be found. The ICP, Pb, Se, Tl, Hg and CN raw data are originals. The As raw data (pg 162-164 and 172-177) are with case 20266, SDG: MFAP70. The Federal Express Airbill and the chain of custody forms are originals. All forms are present and in the order indicated on the Form DC-2 [inventory sheet].

ICP ANALYSES: The duplicate RPD for Cd (200%) was not flagged by the laboratory because the duplicate difference did not exceed the technical criterion (±2CRDL). All Cd data are acceptable.

The duplicate RPDs for Ni (80.3%), Fe (91.9%) and Mn (47.1%) are out of control. All Ni, Fe and Mn are estimated (J) due to poor precision.

The matrix spike recoveries for Cr (132%), Cu (129%) and Zn (135%) are out of control. All Cr, Cu and Zn data are estimated (J) due to high bias. The matrix spike recovery for Sb (31.3%) indicate low bias. All Sb data are estimated (UJ) due to possible elevation of the detection limit.

The serial dilution audits on Ca (11.4%), Fe (61.3%), Mg (28.4%), Mn (35.3%) and Zn (20%) are out of control. All Ca and Mg data are estimated (J) due to interference. All Fe, Mn and Zn data are affected by interference but remain qualified as stated above.

The CCB contains Na (278 µg/L). All Na data are estimated (J) due to contamination.

GFAA ANALYSES: The matrix spike recovery for Pb (200%) was not flagged by the laboratory because the sample concentration was more than 4X the spike level. All Pb data are acceptable.

Reviewed by: _____ Steffanie Tobin, Lockheed/ESAT
Date: _____ August 23, 1993

OTHER ANALYSES: All CN and Hg data are acceptable.

Reviewed by: ST Steffanie Tobin, Lockheed/ESAT
Date: August 23, 1993

GLOSSARY A

Data Qualifier Definitions

For the purposes of this document the following code letters and associated definitions are provided.

U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J - The associated value is an estimated quantity.

R - The data are unusable. (Note: Analyte may or may not be present.)

UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 20247 SITE: Systech MATRIX: Soil WATER SAMPLE SPK: NA

DATA SET: MEWR78 LAB: AATS CONC: LOW WATER SAMPLE DUP: NA

LAB QC # _____ REVIEWED BY: Stephanie N. Tobin SOIL SAMPLE SPK: MEWR78

DATE: 8/22/93 SOIL SAMPLE DUP: MEWR78

FORM #		FORM 2	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 5	FIELD	FIELD	FIELD	FIELD		
ELEMENT	HOLD TIME	INITIAL CALIB	CONTI N CALIB	CALIB BLANK ug/L	PREP WATER BLANK	PREP SOIL BLANK	ICS %R	SOIL SPIKE %R	SOIL DUP RPD	LCS AQ	LCS SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP RPD	AQ SPIKE %R	BLANK	DUP RPD	BLANK	DUP RPD	GFAA DUP	GFAA ANALYT SPIKE
ALUMINUM	OK	OK	OK	~~100.4~~	NA	~~243~~ mg/kg		~~81.5~~ N		NA	OK	NA		NA	NA						
ANTIMONY		!						51.3 N													
ARSENIC																					
BARIUM																					
BERYLLIUM													~~100~~								
CADMIUM									~~200~~												
CALCIUM													114 E								
CHROMIUM								132 N													
COBALT													~~100~~								
COPPER				~~7.8~~				129 N													
IRON						~~6.5~~			91.9*				613 E								
LEAD								~~200~~													
MAGNESIUM													28.4 E								
MANGANESE									47.1*				353 E								
MERCURY																					
NICKEL									80.3*												
POTASSIUM																					
SELENIUM																					
SILVER																					
SODIUM				278																	
THALLIUM																					
TIN																					
VANADIUM																					
ZINC				~~4.0~~		~~0.75~~	~~75.3~~	135 N					20 E								
CYANIDE	↓	↓	↓		↓					↓	↓	↓		↓	↓						

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE **001**

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 20247 SAS No.: _____ SDG No.: MEWR78

SOW No.: 3/90

EPA Sample No.	Lab Sample ID
MEWR78	1424701
MEWR78D	1424701D
MEWR78S	1424701S
MEWR79	1424702

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES
If yes - were raw data generated before application of background corrections ? Yes/No NO

Comments:

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 floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Steve L. Markham Name: **Steve L. Markham**

Date: **07/27/93** Title: **Inorganic Program Manager**

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEWR78

Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

Matrix (soil/water): SOIL_ Lab Sample ID: 1424701____

Level (low/med): LOW___ Date Received: 06/23/93

% Solids: 88.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5780			P
7440-36-0	Antimony	5.4	U	N	P
7440-38-2	Arsenic	5.9			F
7440-39-3	Barium	104			P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium	0.68	U		P
7440-70-2	Calcium	129000		E	P
7440-47-3	Chromium	48.0		N	P
7440-48-4	Cobalt	5.3	B		P
7440-50-8	Copper	56.6		N	P
7439-89-6	Iron	37200		E*	P
7439-92-1	Lead	148			F
7439-95-4	Magnesium	28200		E	P
7439-96-5	Manganese	709		E*	P
7439-97-6	Mercury	0.27			CV
7440-02-0	Nickel	15.9		*	P
7440-09-7	Potassium	961	B		P
7782-49-2	Selenium	0.45	U		F
7440-22-4	Silver	1.8	U		P
7440-23-5	Sodium	170	B		P
7440-28-0	Thallium	0.68	U		F
7440-62-2	Vanadium	15.8			P
7440-66-6	Zinc	200		EN	P
	Cyanide	0.57	U		CA

Color Before: BROWN_____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEWR79

Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

Matrix (soil/water): SOIL__ Lab Sample ID: 1424702____

Level (low/med): LOW___ Date Received: 06/23/93

% Solids: _91.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10400			P
7440-36-0	Antimony	5.3	U	N	P
7440-38-2	Arsenic	8.5			F
7440-39-3	Barium	132			P
7440-41-7	Beryllium	0.96	B		P
7440-43-9	Cadmium	0.66	U		P
7440-70-2	Calcium	32700		E	P
7440-47-3	Chromium	23.4		N	P
7440-48-4	Cobalt	7.7	B		P
7440-50-8	Copper	33.7		N	P
7439-89-6	Iron	17200		E*	P
7439-92-1	Lead	92.0			F
7439-95-4	Magnesium	13800		E	P
7439-96-5	Manganese	590		E*	P
7439-97-6	Mercury	0.13			CV
7440-02-0	Nickel	23.0		*	P
7440-09-7	Potassium	1720			P
7782-49-2	Selenium	0.44	U		F
7440-22-4	Silver	1.8	U		P
7440-23-5	Sodium	97.6	B		P
7440-28-0	Thallium	0.66	U		F
7440-62-2	Vanadium	25.6			P
7440-66-6	Zinc	131		EN	P
	Cyanide	0.55	U		CA

Color Before: BROWN_____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW____ Clarity After: _____ Artifacts: _____

Comments:

3
BLANKS

012

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

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	41.0	U	41.0	U	100.4	B	88.3	B	24.337	B	P
Antimony	24.0	U	24.0	U	24.0	U	24.0	U	-6.059	B	P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	F
Barium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
dmium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
alcium	123.0	U	123.0	U	123.0	U	123.0	U	24.600	U	P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Cobalt	4.0	U	4.0	U	-4.2	B	-4.4	B	0.800	U	P
Copper	6.0	U	6.0	U	6.0	U	7.3	B	1.200	U	P
Iron	5.0	U	5.0	U	5.0	U	5.0	U	4.509	B	P
Lead	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	F
Magnesium	122.0	U	122.0	U	122.0	U	122.0	U	24.400	U	P
Manganese	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.100	U	CV
Nickel	7.0	U	7.0	U	7.0	U	7.0	U	1.400	U	P
Potassium	206.0	U	206.0	U	206.0	U	206.0	U	41.200	U	P
Selenium	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	F
Silver	8.0	U	8.0	U	8.0	U	8.0	U	1.600	U	P
Sodium	216.0	U	216.0	U	217.8	B	278.1	B	43.200	U	P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	F
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Zinc	2.2	B	2.7	B	4.0	B	2.3	B	0.751	B	P
Cyanide	10.0	U	10.0	U	10.0	U			0.500	U	CA

3
BLANKS

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 20247__ SAS No.: _____ SDG No.: MEWR78

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or 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			59.5	B	60.5	B					P
Antimony			24.0	U	24.0	U					P
Arsenic	3.0	U	3.0	U	3.0	U					F
Barium			5.0	U	5.0	U					P
Beryllium			1.0	U	1.0	U					P
Cadmium			3.0	U	3.0	U					P
Calcium			123.0	U	123.0	U					P
Chromium			5.0	U	5.0	U					P
Cobalt			4.0	U	4.0	U					P
Copper			6.0	U	6.0	U					P
Iron			5.0	U	5.0	U					P
Lead	1.0	U	1.0	U	1.0	U					F
Magnesium			122.0	U	122.0	U					P
Manganese			1.0	U	1.0	U					P
Mercury			0.2	U	0.2	U	0.2	U			CV
Nickel			7.0	U	7.0	U					P
Potassium			206.0	U	206.0	U					P
Selenium			2.0	U							F
Silver			8.0	U	8.0	U					P
Sodium			216.0	U	216.0	U					P
Thallium			3.0	U							F
Vanadium			5.0	U	5.0	U					P
Zinc			2.6	B	2.6	B					P
Cyanide											NR

3
BLANKS

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or 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	24.0	U	24.0	U	24.0	U	24.0	U			P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U			F
Barium											NR
Beryllium											NR
dmium											NR
alcium	123.0	U	123.0	U	123.0	U	123.0	U			P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U			P
Cobalt											NR
Copper											NR
Iron											NR
Lead	1.0	U	1.0	U	1.0	U	1.0	U			F
Magnesium											NR
Manganese											NR
Mercury			0.2	U							CV
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc	2.0	U	2.0	U	2.0	U	2.0	U			P
Cyanide											NR

3
BLANKS

015

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 20247 SAS No.: _____ SDG No.: MEWR78

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or 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			24.0	U							P
Arsenic											NR
Barium											NR
Beryllium											NR
dmium											NR
alcium			123.0	U							P
Chromium			5.0	U							P
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			2.0	U							P
Cyanide											NR

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MEWR78S

Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 20247 SAS No.: SDG No.: MEWR78

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

% Solids for Sample: 88.1

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	35.5019		5.4484	U	113.51	31.3	N	P
Arsenic	75-125	15.3235		5.8593		9.08	104.2		F
Barium	75-125	586.0014		104.4679		454.03	106.1		P
Beryllium	75-125	12.4572		0.4833	B	11.35	105.5		P
Cadmium	75-125	12.9342		0.6810	U	11.35	114.0		P
Calcium									NR
Chromium	75-125	108.0949		47.9707		45.40	132.4	N	P
Cobalt	75-125	116.9115		5.3444	B	113.51	98.3		P
Copper	75-125	129.6422		56.5825		56.75	128.7	N	P
Iron									NR
Lead		138.4790		147.5596		4.54	-200.0		F
Magnesium									NR
Manganese		510.8052		708.7610		113.51	-174.4		P
Mercury	75-125	0.7548		0.2690		0.57	85.2		CV
Nickel	75-125	128.2048		15.9446		113.51	98.9		P
Potassium									NR
Selenium	75-125	1.8547		0.4540	U	2.27	81.7		F
Silver	75-125	11.1240		1.8161	U	11.35	98.0		P
Sodium									NR
Thallium	75-125	10.7787		0.6810	U	11.35	95.0		F
Vanadium	75-125	125.5076		15.7526		113.51	96.7		P
Zinc	75-125	353.7287		200.4202		113.51	135.1	N	P
Cyanide	75-125	6.2394		0.5675	U	5.68	109.8		CA

Comments:

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5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MEWR78A

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 20247 SAS No.: SDG No.: MEWR78

Matrix (soil/water) : 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		139.65		24.00	U	120.0	116.4		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium		602.29		211.31		420.0	93.1		P
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		2500.62		892.85		1800.0	89.9		P
Cyanide									NR

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.
MEWR78D

Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

Matrix (soil/water): SOIL_ Level (low/med): _LOW___

% Solids for Sample: _88.1 % Solids for Duplicate: __87.5

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		5779.7242		5786.4379		0.1		P
Antimony		5.4484	U	5.4484	U			P
Arsenic	2.3	5.8593		7.1723		20.4		F
Barium	45.4	104.4679		108.2123		3.5		P
Beryllium		0.4833	B	0.4908	B	1.5		P
Cadmium		0.6810	U	0.9403	B	200.0		P
Calcium		128853.3859		120474.5873		6.7		P
Chromium		47.9707		51.1812		6.5		P
Cobalt		5.3444	B	4.0266	B	28.1		P
Copper		56.5825		48.9333		14.5		P
Iron		37152.2388		13757.5700		91.9	*	P
Lead		147.5596		165.7208		11.6		F
Magnesium		28204.5641		34416.8002		19.8		P
Manganese		708.7610		438.6091		47.1	*	P
Mercury	0.1	0.2690		0.3014		11.4		CV
Nickel	9.1	15.9446		37.3582		80.3	*	P
Potassium		961.3585	B	1091.0302	B	12.6		P
Selenium		0.4540	U	0.4540	U			F
Silver		1.8161	U	1.8161	U			P
Sodium		170.4068	B	292.0879	B	52.6		P
Thallium		0.6810	U	0.6810	U			F
Vanadium	11.4	15.7526		16.7153		5.9		P
Zinc		200.4202		230.0238		13.8		P
Cyanide		0.5675	U	0.5675	U			CA

024

10
Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 20247 SAS No.: SDG No.: MEWR78

ICP ID Number: ARL3560 Date: 07/06/93

Flame AA ID Number :

Furnace AA ID Number :

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	41.0	P
Antimony	217.59		60	24.0	P
Arsenic			10		NR
Barium	445.40		200	5.0	P
Beryllium	313.40		5	1.0	P
Cadmium	226.50		5	3.0	P
Calcium	317.92		5000	123.0	P
Chromium	267.72		10	5.0	P
Cobalt	228.62		50	4.0	P
Copper	324.75		25	6.0	P
Iron	259.61		100	5.0	P
Lead			3		NR
Magnesium	279.01		5000	122.0	P
Manganese	257.61		15	1.0	P
Mercury			0.2		NR
Nickel	231.60		40	7.0	P
Potassium	776.49		5000	206.0	P
Selenium			5		NR
Silver	328.07		10	8.0	P
Sodium	589.00		5000	216.0	P
Thallium			10		NR
Vanadium	292.40		50	5.0	P
Zinc	213.86		20	2.0	P

Comments:

10
Instrument Detection Limits (Quarterly)

b Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

ICP ID Number: _____ Date: 04/13/93

Flame AA ID Number : _____

Furnace AA ID Number : VAR400A_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	193.70	BZ	10	3.0	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10

Instrument Detection Limits (Quarterly)

026

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 20247 SAS No.: SDG No.: MEWR78

ICP ID Number: Date: 07/04/93

Flame AA ID Number :

Furnace AA ID Number : PE5100A

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	193.70	BZ	10	1.0	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10
Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247__ SAS No.: _____ SDG No.: MEWR70

ICP ID Number: _____ Date: 04/13/93

Flame AA ID Number : _____

Furnace AA ID Number : VAR400B_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BZ	3	1.0	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10
Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247__ SAS No.: _____ SDG No.: MEWR78

ICP ID Number: _____ Date: 04/13/93

Flame AA ID Number : _____

Furnace AA ID Number : VAR400A_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BS	3	1.0	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10

Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

ICP ID Number: _____ Date: 04/13/93

Flame AA ID Number : _____

Furnace AA ID Number : VAR400B_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BZ	3	1.0	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10

Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

ICP ID Number: _____ Date: 04/20/93

Flame AA ID Number : _____

Furnace AA ID Number : PE5100B_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium	196.00	BZ	5	2.0	F
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10
Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247__ SAS No.: _____ SDG No.: MEWR78

ICP ID Number: _____ Date: 04/16/93

Flame AA ID Number : _____

Furnace AA ID Number : TJA22A_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium	276.80	BS	10	3.0	F
Vanadium			50		NR
Zinc			20		NR

Comments:

10
Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 20247 SAS No.: SDG No.: MEWR70

ICP ID Number: Date: 04/07/93

Flame AA ID Number : LEEMAN

Furnace AA ID Number :

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.2	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

SEP 07 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 8/31/93

SUBJECT: Review of Region V CLP Data
Received for Review on Aug 3, 1993

FROM: Charles T. Elly, Director (SL-10C)
Central Regional Laboratory
MSP for Charles T Elly

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Systech (OH)

CASE and/or SAS NUMBER: 20247 (2) **SDG NUMBER:** EWP64

Number and Type of Samples: 17 (water)

CLP Sample Numbers: EWP63, -67 - 76, 79, 77, 80

CLP Laboratory: SWRI **Hrs. for Review** 16+3 = 19 w/w

Following are our findings:

The data are acceptable for use with qualification.

Mumtaz Pasha
8/31/93

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

Seventeen (17) water samples, numbered EWP63-77 and EWP79-80, were collected June 21 and 25, 1993. The Southwest Research Institute of San Antonio, Texas received the samples on June 23 and 26, 1993 in good condition following CLP SOW OLM01.8 (8/91). Fifteen of the seventeen samples were analyzed for low level organics - Volatiles (VOA), Semi-Volatiles (SVOA) and Pesticide/PCBs (Pest/PCB). The remaining two, EWP79 and 80 were analyzed for VOCs only.

Sample EWP69 was used as the low level spike for all three fractions.

Samples EWP76 and 77 were identified as field blanks; EWP66 and 73 were identified as field duplicates; and EWP79 and 80 were identified as trip blanks.

VOA samples were all analyzed within the holding time of fourteen (14) days for preserved water samples; therefore, the results are acceptable. Both SVOA and Pest/PCB samples were extracted within the seven (7) days holding time for water samples and the extracts promptly analyzed; therefore, the results are acceptable.

The reviewer's narrative and data qualifiers are noted in the following pages.

Reviewed by: **M. Cecilia Luckett** MCL **Lockheed/ESAT**
Date: **August 19, 1993**

NARRATIVE

Below is a summary of the out-of-control audits and the possible effect on the data for this case.

1. HOLDING TIME.

Southwest Research Institute of San Antonio, Texas received seventeen (17) water samples on June 23 and 26, 1993 in good condition per the CLP SOW OLM01.8 (8/91). Fifteen of the seventeen water samples were analyzed for full organics. The remaining two, EWP79 and 80, were analyzed for VOCs only.

All VOA analyses were completed within the fourteen (14) days holding time for preserved water samples; therefore, the results are acceptable.

All SVOA and Pest/PCB extractions were completed within the seven (7) days holding time for water samples and the extracts promptly analyzed; therefore, the results are acceptable.

2. GC/MS TUNING AND GC PERFORMANCE.

GC/MS tuning complied with the mass list and ion abundance criteria for BFB and DFTPP, with the exception of the BFB tune performed June 28, 1993 at 13:15. The tune indicates the samples were normalized to m/z 174 (100.0%) instead of m/z 95 (95.5%). All samples were analyzed within the twelve (12) hour periods for BFB and DFTPP instrument performance checks as well; therefore, the results are acceptable.

The DDT and Endrin degradation checks using the PEMs of the DB-608 and DB-1701 columns were both < 20.0% and the combined breakdowns were < 30.0%; therefore, the results are acceptable. All of the % resolutions from the Resolution Check Mixture were $\geq$ 60.0%; therefore, the results are acceptable.

The Florisil Cartridge Check met the required QC criteria; therefore, the results are acceptable.

Reviewed by: M. Cecilia Luckett MCL Lockheed/ESAT
Date: August 19, 1993

3. CALIBRATION.

Initial and continuing calibration of VOA and SVOA standards were evaluated for the Target Compounds List (TCLs) and outliers were recorded on the outlier forms included as a part of this narrative.

The retention time window, % RSD for the initial and the % RPD for the continuing calibration (PEM) standards for Pest/PCB analysis met the required QC limits. In addition, none of the %Ds from the Calibration Verification Summary exceeded the maximum 25.0%.

4. METHOD BLANK.

VBLK01, VBLK02, VBLK03 and VBLK04 are the low level water VOA method blanks. All four method blanks reported no TCLs and no TICs; therefore, the results are acceptable.

SBLK01 and SBLK02 are the low level water SVOA method blanks. SBLK01 reported one (1) TCL, Di-n-octylphthalate, a common laboratory contaminant, and one (1) TIC. The presence of Di-n-octylphthalate in any of the samples associated with SBLK01 should be flagged as non-detected (U) when the concentration is less than (<) ten (10) times the blank results. The presence of the TIC in any of the samples associated with SBLK01 is flagged as non-detected (U) when the concentration is less than (<) five (5) times the blank results. Please refer to Form-IV SVOA (SBLK01) for a list of associated samples. SBLK02 reported two (2) TCLs, bis(2-Ethylhexyl)phthalate and Di-n-octylphthalate, common laboratory contaminants, and two (2) TICs. The presence of bis(2-Ethylhexyl)phthalate or Di-n-octylphthalate in any of the samples associated with SBLK02 should be flagged as non-detected (U) when the concentration is less than (<) ten (10) times the blank results. The presence of the TICs in any of the samples associated with SBLK02 should be flagged as non-detected (U) when the concentration is less than (<) five (5) times the blank results. Please refer to Form IV-SVOA (SBLK02) for a list of associated samples.

Reviewed by: M. Cecilia Luckett MCL **Lockheed/ESAT**
Date: August 19, 1993

4. METHOD BLANK.
(continued)

For the Pest/PCB fraction, there were four (4) instrument blanks for columns DB-608 and DB-1701. PBLK01 and PBLK02 are the low level water Pest/PCB method blanks. PBLK01 reported no target compounds or Aroclor/Toxaphene above the CRQL; therefore, the results are acceptable. PBLK02 reported one (1) TCL, Aroclor-1232. The presence of Aroclor-1232 in any of the samples associated with PBLK02 should be flagged as non-detected (U) when the concentration is less than (<) five (5) times the blank results. Please refer to Form IV-Pest/PCB (PBLK02) for a list of associated samples.

5. SURROGATE (SYSTEM MONITORING COMPOUND) RECOVERY.

The low level water system monitoring compound recoveries for the VOA fraction were all well within the required QC limits; therefore, the results are acceptable.

In the SVOA fraction, sample EWP74 and SBLK02 reported S2(FBP) = 2-Fluorobiphenyl in the base/neutral fraction low outside the required QC limits. Qualification is not required because only one surrogate in one fraction did not meet QC criteria.

For the Pest/PCB fraction, the retention times of Tetrachloro-m-xylene (TCX) and Decachlorobiphenyl (DCB) were well within the required $\pm$ 0.05 and $\pm$ 0.10 minutes of the mean retention time determined from the initial calibration, respectively.

In the Pest/PCB fraction, the following samples reported surrogate recoveries low outside the required QC limits: EWP64 and 76 - TCX1 and TCX2; EWP68 - TCX2, DCB1 and DCB2; EWP68MSD and 75 - TCX1, TCX2, DCB1 and DCB2; EWP67, 69, 69MS, 70, 71 and 74 - DCB1 and DCB2; EWP72 - DCB2. Positive results associated with all of the samples noted above should be flagged as estimated (J) and non-detected results as estimated (UJ).

Reviewed by: M. Cecilia Luckett MCL Lockheed/ESAT
Date: August 19, 1993

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE.

Sample EWP69 was used as the low level spike for all three fractions.

In the VOA fraction, the % RPDs for Benzene and Chlorobenzene were reported high outside the required QC limits. The presence of Benzene or Chlorobenzene in the unspiked sample should be flagged as estimated (J); non-detected results do not require qualification.

In the SVOA fraction, EWP69MS reported the % recovery for 1,4-Dichlorobenzene and 1,2,4-Trichlorobenzene low outside the required QC limits. The presence of 1,4-Dichlorobenzene or 1,2,4-Trichlorobenzene in the unspiked sample should be flagged as estimated (J) and non-detected results as estimated (UJ). In addition, EWP69MS and EWP69MSD reported the % recovery for 4-Nitrophenol high outside the required QC limits but less than (<) 100%. Because the % recovery was less than (<) 100%, no qualification is required.

In the Pest/PCB fraction, the % RPDs for all the spike compounds (gamma-BHC(Lindane), Heptachlor, Aldrin, Dieldrin, Endrin and 4,4'-DDT) were reported high outside the required QC limits. The presence of any of these compounds in the unspiked sample should be flagged as estimated (J); non-detected results do not require qualification.

7. FIELD BLANK AND FIELD DUPLICATE.

Samples EWP76 and 77 were identified as field blanks; EWP66 and 73 were identified as field duplicates; and EWP79 and 80 were identified as trip blanks. The following table summarizes the number of TCLs and TICs reported for each sample:

Sample ID #	VOA		SVOA		Pest/PCB
	TCL	TIC	TCL	TIC	TCL
EWP66(FD)	1	0	0	5	0
EWP73(FD)	0	0	0	10	0
EWP76(FB)	1	0	0	4	0
EWP77(FB)	1	0	1	5	0
EWP79(TB)	0	0	-	-	-
EWP80(TB)	1	0	-	-	-

Reviewed by: M. Cecilia Luckett MCL Lockheed/ESAT
Date: August 19, 1993

8. INTERNAL STANDARDS.

The internal standards retention times and area counts for the VOA and SVOA fractions were all within the required QC limits; therefore, the results are acceptable.

9. COMPOUND IDENTIFICATION.

Target compounds and TICs were identified by "best fit" library search method.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS.

VOA, SVOA, and Pest/PCB Target Compounds (TCLs) and Tentatively Identified Compounds (TICs) were properly quantitated; therefore, the results are acceptable.

11. SYSTEM PERFORMANCE.

GC/MS baseline indicated acceptable performance.

GC baseline counts indicated acceptable performance.

Reviewed by: M. Cecilia Luckett MCL Lockheed/ESAT
Date: August 19, 1993

12. OVERALL CASE ASSESSMENT.

The table below summarizes the number of target compounds outside the CRQL and the number of tentatively identified compounds associated with these samples. In the VOA fraction, EWP63 reported a concentration value for Xylene (total) which exceeded the calibration range. Accordingly, the results from the diluted reanalyses will be used to validate the data. Please note that some of the SVOA samples reported an excessive number of TIC compounds.

Sample ID #	# of Hits				
	VOA		SVOA		Pest/PCB
	TCL	TIC	TCL	TIC	TCL
EWP63	5	0	1	20	2
EWP63DL	3	0	-	-	-
EWP64	0	0	0	4	0
EWP65	0	0	0	4	0
EWP66(FD)	1	0	0	5	0
EWP67	1	0	0	6	1
EWP68	1	0	1	20	4
EWP69	0	0	0	11	1
EWP70	0	0	1	10	0
EWP71	1	0	0	2	1
EWP72	0	0	0	10	0
EWP73(FD)	0	0	0	10	0
EWP74	1	0	0	3	0
EWP75	0	0	0	3	1
EWP76(FB)	1	0	0	4	0
EWP77(FB)	1	0	1	5	0
EWP79(TB)	0	0	-	-	-
EWP80(TB)	1	0	-	-	-

(-) No analysis was performed.
(FB) Results from field blank analysis.
(FD) Results from field duplicate analysis.
(TB) Results from trip blank analysis.
(DL) Results from diluted reanalysis.

Reviewed by: M. Cecilia Luckett MCL **Lockheed/ESAT**
Date: August 19, 1993

CL 8-19-93 Pg 9 of 13

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 20247(2) CONTRACTOR: SWRI

COLUMN: SP-1000 SITE NAME: Systech (OH)

Instrument# FINNE		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6-23-93/05:54			6-28-93/13:20			6-29-93/05:45			6-30-93/17:06			7-1-93/08:40		
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01	0.880			0.813			1.327	-50.8	J	0.855			0.959		
Bromomethane	0.10	1.098			1.117			0.711	35.2	J	1.047			1.067		
Vinyl chloride	0.10															
Chloroethane	0.01	0.623			0.670			0.781	-25.4	J	0.691			0.862	-38.4	J
Methylene chloride	0.01	1.289			1.196			1.409			1.557			1.616	-25.4	J
Acetone	0.01	0.522			0.362	30.7	J	0.434			0.285	45.4	J	0.424		
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
1,2-Dichloroethene (total)		1.483			1.686			1.747			1.783			1.921	-29.5	J
Chloroform	0.20															
1,2-Dichloroethane	0.10	2.420			1.538	36.4	J	2.214			2.234			2.402		
2-Butanone	0.01															
1,1,1-Trichloroethane	0.10	0.640			0.459	28.3	J	0.552			0.585			0.613		
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane																
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01															
2-Hexanone	0.01															
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50	0.563			0.547			0.690			0.738	-31.1	J	0.771	-36.9	J
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
Toluene-d8																
Bromofluorobenzene																
1,2-Dichloroethane-d4		2.199			1.306	40.6	J	2.167			1.841			1.819		
Samples affected:					VBLK01			VBLK02			VBLK03			VBLK04		
					EWP64	EWP72		EWP74			EWP63			EWP80		
					67	" 73		75			65			" 63DL		
					68			76			66					
					69			↓ 79			↓ 77					
					69MS											
					69MSD											
					70											
					↓ 71											

Reviewer's Init/Date: CL/8-19-93

* These flags should be applied to the analytes on the sample data sheets.

Minimum Relative Response Factor

CL
8-19-93

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 20247(2)
COLUMN:

CONTRACTOR: SWRI
SITE NAME: Systech (OH)

Instrument# FINN4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6-11-93/13:56			7-21-93/16:21			7-22-93/16:30								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
1,3-Dichlorobenzene																
1,4-Dichlorobenzene																
1,2-Dichlorobenzene																
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01	2.831			2.216			2.076	26.7	J						
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxyl)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20	0.360			0.452	-25.6	J	0.451	-25.3	J						
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01															
4-Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples:

SBLK01	EWP67
EWP64	68
64	70
69MS	71
69MSD	72
SBLK02	73
EWP63	74
65	75
66	76
77	

Reviewer's Init/Date: CL/8-19-93

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 20247(2)
COLUMN:

CONTRACTOR: SWRI
SITE NAME: Systech (OH)

Instrument# FINN4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6-11-93/13:56			7-21-93/16:21			7-22-93/16:30								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01															
4,6-Dinitro-2-methylphenol	0.01															
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0.05															
Phenanthrene	0.70															
Anthracene	0.70															
Carbazole																
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01															
3,3'-Dichlorobenzidine	0.01															
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01															
Di-n-octyl phthalate	0.01															
Benzo(b)fluoranthene	0.70															
Benzo(k)fpuoranthene	0.70															
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthrancene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60															
2,4,6-Tribromophenol	0.01	0.134			0.178	-32.8	J	0.161								
2-Chlorophenol-d4																
1,2-Dichlorobenzene-d4																

Reviewer's Init/Date: CL/8-19-93

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

CALIBRATION OUTLIERS
PEST/PCB TCL COMPOUNDS

CASE\SAS#: 20247(2) CONTRACTOR: SWRI

Column: DB-608

Instrument#: HP5890D	Init. Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal	
Date/Time	7-14-93/12:51		7-14-93/11:55		7-15-93/01:11		7-15-93/18:02	
	%RSD	•	%RPD	•	%RPD	•	%RPD	•
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								
Affected samples:					PBLK01	EWP73	EWP68	
					EWP69		74	
					69MS		75	
					69MSD		76	
					64		PBLK02	
					67		EWP63	
					70		65	
					71		66	
					72		77	

Pest/PCB

Reviewer's Initial/Date CL/8-19-93

3/90 Rev

• These flags should be applied to the analytes on the Sample Data Sheets.

CALIBRATION OUTLIERS
PEST/PCB TCL COMPOUNDS

CASE\SAS#: 20247(2) CONTRACTOR: SWRI

Column: DB-1701

Instrument#: HP5890	Init. Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal	
Date/Time	7-14-93/12:51		7-14-93/11:55		7-15-93/01:11		7-15-93/18:02	
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples:

		PBLK01	EWP68
		EWP69	74
		69MS	75
		69MSD	76
		64	PBLK02
		67	EWP63
		70	65
		71	66
		72	77
		73	

Pest/PCB

Reviewer's Initial/Date CL/8-19-93

3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

DATA REPORTING QUALIFIERS
(page 1)

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

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL), report the value.

U - Indicates compound was analyzed for but not detected. The sample Quantitation Limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if thee sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the Sample Quantitation Limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U) \times df}{D} \qquad \text{where } D = \frac{100 - \%\ \text{moisture}}{100}$$

and df = dilution factor

at 24% moisture, $D = \frac{100 - 24}{100} = 0.76$

$$\frac{(330\ U) \times 10}{.76} = 4300\ U$$ rounded to the appropriate number of significant figures

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0.5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures. Therefore, the CRQL values will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume, this fact be accounted for in reporting the Sample Quantitation Limit.

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 bur greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it is as 3J. The Sample Quantitation Limit must be adjusted for dilution as discussed for the U flag. The J flag is also applied to pesticide/Aroclor results where the pesticide/Aroclor is confirmed to be present but the concentration is less than the CRQL.

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.

DATA REPORTING QUALIFIERS
(page 2)

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two 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 identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but unsuccessful, do not apply this flag, instead use a laboratory-defined, discussed below.

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

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for the specific analysis. This flag will not apply to pesticide/PCBs analyzed by GC/MS methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I 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 Form I. The Form I 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 I for the diluted sample and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

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

X - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG Narrative. If more than one flag is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B" and "D" flags for some sample. The laboratory-defined are limited to letters "X", "Y" and "Z".

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 20247

1. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

3. Region No.: 5 | Sampling Co.: PRC

5. Date Shipped: 6/22/93 | Carrier: Fed Ex

7. Date Received -- Received by: 6/23/93 Cynthia A Sauced

Sampler (Name): Trisha Miller

Airbill Number: 5484393171

Laboratory Contract Number: 68-D1-0088C | Unit Price: 1048

Sampler Signature: [signature]

6. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238

ATTN: Joe Pan

8. Transfer to | Date Received

Received by

Contract Number | Price

4. Type of Activity: Lead / Pre-Remedial / Remedial / Removal

SF	☑	RIFS	☐	CLEM	☐
PRP	☐	RD	☐	REMA	☐
ST	☐	PA	☐	REM	☐
FED	☐	SSI	☐	OIL	☐
		LSI	☑	UST	☐

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below): Solids	Water – Mis Liq.	Non Water – Mis Liq.
EWD 69	2	L	G	N		X	X		009575-009576	W185	6/21/93 1640		MEWR 87	Intact			
EWD 67	↓	↓	↓	↓		X	X		009559-009560	W186	↓ 1620		MEWR 85	↓			

Shipment for Case complete? (Y/N) Y | Page 1 of 1 | Sample used for a spike and/or duplicate: EWD 69 | Additional Sampler Signatures: [signature] | Chain of Custody Seal Number: 140217, 140218

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/4/93 [illegible]	Christine Fischman	Christine Fischman	6/22/93 1345	

Received for Laboratory by: (Signature) Cynthia A Sauced | Date / Time 6/23/93 0850 | Remarks: SWR2 | Is custody seal intact? Y/N/none

Split Samples ☐ Accepted (Signature) ☐ Declined

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PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 20247

1. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

3. Region No.: 5
Sampling Co.: PPC
Sampler (Name): Guy Montfort
Sampler Signature: [signature]

4. Type of Activity: Lead / Pre-Remedial / Remedial / Removal
SF ☑ PRP ☐ ST ☐ FED ☐ PA ☐ SSI ☐ ESI ☑ RIFS ☐ RD ☐ RA ☐ O&M ☐ NPLD ☐ CLEM ☐ REMA ☐ REM ☐ OIL ☐ UST ☐

5. Date Shipped: 6/22/93
Carrier: Fed Ex
Airbill Number: 5484373171

6. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238
ATTN: Joe Pari

7. Date Received -- Received by: 6/23/93 Cynthia A Saucedo
Laboratory Contract Number: 68-D1-00884
Unit Price: 1048

8. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below) Solids	Water -- Mis Liq.	Non Water -- Mis Liq.
EWP 68	2	L	G	N		X	X		009565-009566	W132	6/21/93 1645		MEWR 86	Intact			
EWP 64	↓	↓	↓	↓		X	X		009541-009542	W133	↓ 1746		MEWR 82	↓			
EWP 76	↓	↓	↓	↓		X	X		009619-009620	EB-1	↓ 1530		MEWR 94	↓			

Shipment for Case complete? (Y/N) Y
Page 1 of 1
Sample used for a spike and/or duplicate: EWP69
Additional Sampler Signatures: [signature]
Chain of Custody Seal Number: 140215, 140216

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	[illegible]	Christine Kirschman	Christine Kirschman	6/22/93 1355	

Received for Laboratory by: (Signature) Cynthia A Saucedo
Date / Time: 6/23/93 850
Remarks: Is custody seal intact? Y/N/none SWR 2

Split Samples ☐ Accepted (Signature)
☐ Declined

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United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
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703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

2. Preservative (Enter in Column D)
1. HCl
2. HNO_3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

3. Region No.: 5
Sampling Co.: PRC

5. Date Shipped: 6/22/93
Carrier: Federal Express

7. Date Received -- Received by: 6/23/93 Cynthia A Saucedo

Sampler (Name): Gail Monfort

Airbill Number: 5418437317 1

Laboratory Contract Number: 68-D1-0088

Unit Price: 1048.

Sampler Signature:

6. Ship To: Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78238
ATTN: Joe Pan

8. Transfer to

Date Received

Received by

Contract Number

Price

4. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF			RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI	O&M	OIL
			NPLD	UST

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp / Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rect	High Conc. Phases (Check below): Solids	Water - Mis Liq.	Non Water - Mis Liq.
EWP 68	2	L	G	2	X				009563-009564	W132	6/21/93 1645		MEWR86	Intact			
EWP 64					X				009539-009540	W133	1846		MEWR82				
EWP 70					X				009581-009582	W181	1805		MEWR88				
EWP 71					X				009587-009588	W182	1220		MEWR89				
EWP 72					X				009593-009594	W183	1355		MEWR90				
EWP 73					X				009599-009600	W183D	1355		MEWR91				
EWP 74					X				009605-009606	W184	1325		MEWR92				
EWP 69					X				009569-009570	W185	1640		MEWR87				
EWP 67					X				009557-009558	W186	1620		MEWR85				
EWP 75					X				009611-009612	W187	1120		MEWR93				

Shipment for Case complete? (Y/N): Y

Page 1 of 2

Sample used for a spike and/or duplicate: EWP 69

Additional Sampler Signatures:

Chain of Custody Seal Number: 140205, 140206

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	6/22/93 2000			6/22/93 1220	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		Cynthia A Saucedo	6/23/93	SWRI	

Split Samples: ☐ Accepted (Signature) ☐ Declined

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EPA Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

SAS No. (if applicable):

Case No.: 2217

1. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

2. Preservative (Enter in Column D)
1. HCl
2. HNO_3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

3. Region No.: 5
Sampling Co.: TMC
Sampler (Name): Guy Monfort
Sampler Signature: Guy F Monfort

4. Type of Activity
Lead: SF, PRP, ST, FED
Pre-Remedial: PA, SSI, LSI
Remedial: RIFS, RD, RA, O&M, NPLD
Removal: CLEM, REMA, REM, OIL, UST

5. Date Shipped: 6/22/93
Carrier: Fedex
Airbill Number: 5484373171

6. Ship To
Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78237
ATTN: Joe Hall

7. Date Received -- Received by: 6/23/93 Cynthia A Saucedo
Laboratory Contract Number: 68-D1-0088
Unit Price: 1048.
8. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis VOA	E BNA	E Pest/ PCB	E High ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below) Solids	Water -- Mis Liq.	Non Water -- Mis Liq.
EWP71	2	L	C	N		X	X		009587-009592	W177	6/21/93 1220		MFW128	IN+AC			
EWP72	↓	↓	↓	↓		X	X		009595-009596	W183	↓ 1355		MFWK91	↓			
EWP72	↓	↓	D	↓		X	X		009601-009602	W183D	↓ 1355		MFWK91	↓			

Shipment for Case complete? (Y/N): Y
Page 1 of 1
Sample used for a spike and/or duplicate: EWP69
Additional Sampler Signatures:
Chain of Custody Seal Number: 12117, 12128

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy F Monfort	6/22/93 2000	Cynthia A Saucedo	Cynthia A Saucedo	6/23/93 1235	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	Is custody seal intact? Y/N/none
		Cynthia A Saucedo	6/23/93 0850	SAMPLE	

Split Samples ☐ Accepted (Signature)
☐ Declined

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Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 20247

1. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

3. Region No.: 5

Sampling Co.: PPC

Sampler (Name): Guy Montfort

Sampler Signature: Guy P. Montfort

4. Type of Activity: Lead: SF, PRP, ST, FED; Pre-Remedial: PA, SSI, LSI; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST

5. Date Shipped: 6/22/93

Carrier: Fed Ex

Airbill Number: 5484373171

6. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238

ATTN: Joe Pan

7. Date Received -- Received by: 6/23/93 Cynthia A Saucedo

Laboratory Contract Number: 68-D1-00889

Unit Price: 1048

8. Transfer to

Date Received

Received by

Contract Number

Price

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	D High Conc. Phases (Check below): Solids	Water - Mis Liq.	Non-Water - Mis Liq.
EWP70	2	G	G	N		X	X		009583-009584	W181	6/21/93 1805		MEWR 88	Intact			
EWP74	↓	↓	↓	↓		X	X		009607-009608	W184	1325		MEWR 92	↓			
EWP75	↓	↓	↓	↓		X	X		009613-009614	W187	1180		MEWR 93	↓			

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWP69

Additional Sampler Signatures: [signature]

Chain of Custody Seal Number: 140209, 140210

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	6/22/93 2005	Christine Kirchman	Christine Kirchman	6/22/93 1325	

Received for Laboratory by: (Signature) Cynthia A Saucedo

Date / Time: 6/23/93 0850

Remarks: Is custody seal intact? Y/N/none: SWRI

Split Samples: ☐ Accepted ☐ Declined (Signature)

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

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0014 Dot 1

O 350415

Org-2

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable): 547

Case No.: 20247

1. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

3. Region No.: 5 | Sampling Co.: PRC

5. Date Shipped: 6/25/93 | Carrier: Fed Ex.

7. Date Received -- Received by: 6/26/93 Cynthia A Saucedo

Sampler (Name): Guy Montfort

Airbill Number: 7158669751

Laboratory Contract Number: 68-01-0088C | Unit Price: 1048

Sampler Signature: [signature]

6. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238, ATTN: Joe Pan

8. Transfer to | Date Received

Received by

Contract Number | Price

4. Type of Activity: Lead: SF [X], PRP, ST, FED; Pre-Remedial: PA, SSI, ESI [X]; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below): Solids	Water - Mis Liq.	Non Water - Mis Liq.
EWP 63	2	L	G	N		X	X		5-009535	W139	6/25/93 1145	GDM	MEWR81	Int	Act		
EWP 63						X	X		5-009536	W139	1145		MEWR81				
EWP 65						X	X		5-009547	W140	1015		MEWR83				
EWP 65						X	X		5-009548	W140	1015		MEWR83				
EWP 66						X	X		5-009553	W140D	1015		MEWR84				
EWP 66						X	X		5-009554	W140D	1015		MEWR84				

Shipment for Case complete? (Y/N) | Page 1 of 1 | Sample used for a spike and/or duplicate: EWP 69 | Additional Sampler Signatures: [signature] | Chain of Custody Seal Number: 140221, 140222

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy S. Montfort	6/25/93 1500	Christopher P. Coppel	Christopher P. Coppel	6/25/93 1520	

Received for Laboratory by: (Signature): Cynthia A Saucedo | Date / Time: 6/26/93 1018 24 | Remarks: SWRI | Is custody seal intact? Y/N/none

Split Samples: ☐ Accepted (Signature) ☐ Declined

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Cooler Temp 2.2C

0015

O 350416

Org-2

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (If applicable):

Case No.: 20747

1. Sample Description (Enter In Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

2. Preservative (Enter In Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

3. Region No.: 05
Sampling Co.: PRC
Sampler (Name): GUY MILLOT FOUT
Sampler Signature: Guy F. Millot

4. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	X		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		LSI X	O&M	OIL
			NPLD	UST

5. Date Shipped: 6/25/93
Carrier: Fed Ex
Airbill Number: 7158667762

6. Ship To:
SOUTHWEST RESEARCH INSTITUTE
6220 CULEBRA ROAD
SAN ANTONIO TX 78238
ATTN: JOE PAN

7. Date Received -- Received by:
6/26/93 Cynthia A Lucero
Laboratory Contract Number: 68-D1-0088
Unit Price: 70.48
8. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis I VOA	E BNA	E Pest/ PCB	E High ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below) Solids	Water - Mis Liq.	Non Water - Mis Liq.
EWP 63	2	L	G	1	X				5-009533, 009534	W139	6/25/93 1145	GDM	MEWR81	INTACT			
EWP 65					X				5-009545, 009546	W140	1015		MEWR83				
EWP 66					X				5-009551, 009552	W140D	1015		MEWR84				
EWP 77					X				5-009623, 009624	EB-2	1215		MEWR95				
EWP 77				N		X	X		5-009625, 009626	EB-2	1215		MEWR95				
EWP 80				1	X				5-190968, 190969	TB-2	0800		—	1 VOA 40mL Vial with HEADSPACE			

Shipment for Case complete? (Y/N): Y
Page 1 of 1
Sample Used for a spike and/or duplicate: EWP 69
Additional Sampler Signatures:
Chain of Custody Seal Number: 140223, 140224

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy F. Millot	6/25/93 1500			6/25/93 1520	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		Cynthia A Lucero	6/26/93 1018	SWRI	

Split Samples: ☐ Accepted (Signature) ☐ Declined

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O 350417

Cooler temp 22c

0016

017

EPA United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 20247

1. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

3. Region No.: 5

Sampling Co.: PRC

Sampler (Name): Guy Montfort

Sampler Signature: Guy P. Montfort

4. Type of Activity: Lead: SF ☑ PRP ☐ ST ☐ FED ☐ Pre-Remedial: PA ☐ SSI ☐ ESI ☑ Remedial: RIFS ☐ RD ☐ RA ☐ O&M ☐ NPLD ☐ Removal: CLEM ☐ REMA ☐ REM ☐ OIL ☐ UST ☐

5. Date Shipped: 6/22/93

Carrier: Federal Express

Airbill Number: 5484373171

6. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, Tx 78238

ATTN: Joe Pan

7. Date Received -- Received by: 6/23/93 Cynthia A Saucedo

Laboratory Contract Number: 68-D1-0088C

Unit Price: 1048.

8. Transfer to

Date Received

Received by

Contract Number

Price

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below): Solids	Water - Mis Liq.	Non Water - Mis Liq.
EWP79	4	L	G	1	X				009635-009636	TB-1	6/21/93 0800		—	Int	Acl		
EWP76	↓			↓	X				009617-009618	EB-1	1530		MEWR94				
EWP55	5			N	X	X	X		009501-009502 009503	SD-1	1158		MEWR73				
EWP56					X	X	X		009505-009506 009507	SD-2	0945		MEWR74				
EWP57					X	X	X		009509-009510 009511	SD-3	1003		MEWR75				
EWP58					X	X	X		009513-009514 009515	SD-4	1050		MEWR76				
EWP59	↓	↓	↓	↓	X	X	X		009517-009518 009519	SD-5	1045		MEWR77				

Shipment for Case complete? (Y/N) Y

Page ~~1~~ 2 of 2

Sample used for a spike and/or duplicate: EWP55

Additional Sampler Signatures: [signature] Trisha Miller

Chain of Custody Seal Number: 140205, 140206

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2200	Christine Kirschman	Christine Kirschman	6/22/93 1220	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	
		Cynthia A Saucedo	6/23/93 850	SWRI	

Split Samples ☐ Accepted (Signature) ☐ Declined

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0016(a)

SENT BY:SwRI 08-19-93 04:31PM 5125222021→ 1501#713123538307 # 1

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Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SAS No. (if applicable)
Case No. 20247

1. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

3. Region No. 5 | Sampling Co. PRC
Sampler (Name): Guy Montfort
Sampler Signature: Guy P. Montfort

4. Type of Activity: Lead / Pre-Remedial / Remedial / Removal
SF ☑ PRP ☐ ST ☐ FED ☐ PA ☐ SSI ☐ ESI ☒ RIFS ☐ RD ☐ RA ☐ O&M ☐ NPLD ☐ CLEM ☐ REMA ☐ REM ☐ OIL ☐ UST ☐

5. Date Shipped 6/22/93 | Carrier Federal Express
Airbill Number 5484373171

6. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238
ATTN: Joe Pan

7. Date Received – Received by 6/23/93 Cynthia A Saucedo
Laboratory Contract Number 68-D1-0088C | Unit Price 1048
8. Transfer to | Date Received
Received by
Contract Number | Price

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 8	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below): Solids	Water Mix Liq.	Non Water Mix Liq.
EWP79	4	L	G	1	X				009634-009636	TB-1	6/21/93 0800		—	Intact			
EWP76	↓			↓	X				009617-009618	FB-1	1530		MEWR94				
EWP55	5			N	X	X	X		009501-009512 009503	SD-1	1158		MEWR73				
EWP56					X	X	X		009505-009506 009507	SD-2	0945		MEWR74				
EWP57					X	X	X		009509-009510 009511	SD-3	1003		MEWR75				
EWP58					X	X	X		009513-009514 009515	SD-4	1050		MEWR76				
EWP59	↓	↓	↓	↓	X	X	X		009517-009518 009519	SD-5	1045		MEWR77				

Shipment for Case complete? (Y/N) Y | Page 1 of 2 | Sample used for a spike and/or duplicate: EWP55 | Additional Sampler Signatures: [signature] Trisha Miller | Chain of Custody Seal Number: 140205, 140206

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine Kirschman	Christine Kirschman	6/22/93 1220	

Received for Laboratory by: (Signature) Cynthia A Saucedo | Date / Time 6/23/93 850 | Remarks: Is custody seal intact? (Y)/N/none SWRI

Split Samples ☐ Accepted (Signature) ☐ Declined

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To: Cecilia Lu | From: Boyd
Co.: Reg 3 | Co.: SwRI
Dept. | Phone #
Fax #: 312-353-8307 | Fax #

0016 (B) 2041

CASE NARRATIVE
SwRI
CASE: 20247 SDG: EWP64

- SEVENTEEN LOW WATER SAMPLES FOR VOLATILE (VOA) COMPOUND ANALYSIS:

EWP63	EWP64	EWP65	EWP66	EWP67
EWP68	EWP69	EWP70	EWP71	EWP72
EWP73	EWP74	EWP75	EWP76	EWP77
EWP79	EWP80			

- FIFTEEN LOW WATER SAMPLES FOR SEMIVOLATILE (BNA) AND PESTICIDE (PEST) COMPOUND ANALYSIS:

EWP63	EWP64	EWP65	EWP66	EWP67
EWP68	EWP69	EWP70	EWP71	EWP72
EWP73	EWP74	EWP75	EWP76	EWP77

- QC SAMPLES: **MATRIX SPIKE/MATRIX SPIKE DUPLICATE:** EWP69

- DILUTIONS: VOA - EWP63

- The samples were received on June 26, 1993 for a thirty-five day turnaround from Verified Time of Sample Receipt (VTSR).

- All analyses performed were done so according to the requirements in the 3/90 USEPA Contract Laboratory Program Statement of Work (SOW) for Organics Analysis, Multi-media, Multi-concentration, with revisions, (OLM01.8, August 1991).

- Reference Log-In Non-Conformance dated 6-26-93. Sample identification number EWP80 (one vial) had headspace.

- Reference Telephone Conversation dated July 6, 1993. SwRI was instructed by SMO to proceed with analysis and note the above non-conformance in the case narrative.

VOLATILE COMPOUND ANALYSIS

1. Due to the low intensity of m/Z 72 for 2-Butanone, this compound was quantitated on m/Z 43. All primary quantitation ions were used for remaining compounds.

2. Manual peak integration was occasionally necessary for one or more of the following reasons:

   Not found - The peak in question was not correctly identified by the Autoquan software; therefore, it was necessary to manually add the peak to the quantitation report.

   Tailing - Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

   Splitting - Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

3. Sample EWP63 had target compounds exceeding the initial calibration range. This sample was reanalyzed at dilution to comply with the contract.

4. Samples EWP65 and EWP66 had semivolatile compounds carryover from a previous analysis. These compounds eluted as broad peaks when the temperature programmed up.

SEMIVOLATILE COMPOUND ANALYSIS

1. The retention time scan numbers were used to label the internal standards and surrogate peaks on the semivolatile GC/MS reconstructed ion chromatograms.

2. Standards and blanks were named as per the SOW revision 8/91.

3. The samples were extracted using the one step continuous liquid-liquid extraction technique. The final concentration was performed by the nitrogen blow-down procedure.

4. Manual peak integration was occasionally necessary for one or more of the following reasons:

   Not found - The peak in question was not correctly identified by the Autoquan software; therefore, it was necessary to manually add the peak to the quantitation report.

   Tailing - Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

   Splitting - Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

5. Bis (2-Ethylhexyl)phthalate was reported in sample EWP69MS and not in EWP69 unspiked (see attached spectra).

PESTICIDE COMPOUND ANALYSIS

1. The following information, related to each pesticide analysis, was included in the corresponding quantitation report, rather than the actual chromatogram:

   - Sample ID (SMO sample number from the traffic report)
   - Volume Injected (μL)
   - GC Column Identification
   - GC Instrument Identification

2. Each chromatogram was labeled both with a raw data file name which corresponded to its respective quantitation report and with a date and time of injection. All other times on chromatograms and reports were data transfer times. These injections were run in the proper sequence, but may not appear to be in proper sequence.

3. Samples EWP64, EWP67, EWP67, EWP69, EWP69MS, EWP69MSD, EWP70, EWP71, EWP72, EWP74, EWP75, and EWP76 had at least one surrogate recovery outside the advisory QC limits.

4. The EWP69MS and EWP69MSD matrix spike recoveries were within the QC recovery limits; however, the Relative Percent Difference (RPD) for the MS and MSD exceeded the QC RPD limits.

"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 floppy diskette has been authorized by the Assistant Director or his designee, as verified by the following signature."

Jo Ann Boyd

Jo Ann Boyd, Supervisor
Quality Assurance Unit

Telephone Conversation

Date: July 6, 1993

Time: 09:00

With: Jane Von Hofen
SMO
(703)519-1353

SWRI POC: Jennifer Hasdorff

Subject: Case # 20247 / Non-Conformance from 6-26-93

****

Purpose: Jane called with the following response to the Non-Conformace which we sent :

Please note that sample EWP80 (VOA) was received with headspace. Proceed with work and note in the Case Narrative.

Distribution :

Boyd
Gallamison
Gorton
File-Original

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	EWP63	94	93	95		0
02	EWP63DL	98	92	99		0
03	EWP64	99	91	100		0
04	EWP65	103	103	99		0
05	EWP66	99	94	102		0
06	EWP67	103	89	97		0
07	EWP68	103	95	100		0
08	EWP69	100	91	92		0
09	EWP69MS	105	91	100		0
10	EWP69MSD	107	99	101		0
11	EWP70	103	91	94		0
12	EWP71	104	88	87		0
13	EWP72	104	94	96		0
14	EWP73	106	93	102		0
15	EWP74	106	95	83		0
16	EWP75	104	94	85		0
17	EWP76	103	93	88		0
18	EWP77	99	100	104		0
19	EWP79	102	98	88		0
20	EWP80	99	90	101		0
21	VBLK01	105	92	99		0
22	VBLK02	101	95	88		0
23	VBLK03	99	99	102		0
24	VBLK04	101	93	94		0
25						
26						
27						
28						
29						
30						

	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

00100021(a)

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix Spike - EPA Sample No.: EWP69

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50.	0.	55.	110	61-145
Trichloroethene	50.	0.	45.	90	71-120
Benzene	50.	0.	47.	94	76-127
Toluene	50.	0.	53.	106	76-125
Chlorobenzene	50.	0.	55.	110	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.	50.	100	10	14	61-145
Trichloroethene	50.	41.	82	9	14	71-120
Benzene	50.	41.	82	14*	11	76-127
Toluene	50.	47.	94	12	13	76-125
Chlorobenzene	50.	48.	96	14*	13	75-130

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To Cecilia Lutt	From Boyd
Co. Reg 3	Co. SwRI
Dept.	Phone #
Fax # 312-353-8307	Fax #

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 2 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS:

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix Spike - EPA Sample No.: EWP69

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50.	0.	55.	110	61-145
Trichloroethene	50.	0.	45.	90	71-120
Benzene	50.	0.	47.	94	76-127
Toluene	50.	0.	53.	106	76-125
Chlorobenzene	50.	0.	55.	110	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.	50.	100	10*	14	61-145
Trichloroethene	50.	41.	82	9*	14	71-120
Benzene	50.	41.	82	14*	11	76-127
Toluene	50.	47.	94	12*	13	76-125
Chlorobenzene	50.	48.	96	14*	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 5 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
VBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab File ID:E06283B1 Lab Sample ID:E06283B1

Date Analyzed: 6/28/93 Time Analyzed:1354

GC Column:SP-1000 ID: 2.00 (mm) Heated Purge: (Y/N) N

Instrument ID:FINNE

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWP64	E0628305	E0628305	1644
02	EWP67	E0628306	E0628306	1718
03	EWP68	E0628307	E0628307	1752
04	EWP69	E0628308	E0628308	1826
05	EWP69MS	E0628309	E0628309	1900
06	EWP69MSD	E0628310	E0628310	1934
07	EWP70	E0628311	E0628311	2008
08	EWP71	E0628312	E0628312	2042
09	EWP72	E0628313	E0628313	2116
10	EWP73	E0628314	E0628314	2150
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COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab File ID:E06293B1 Lab Sample ID:E06293B1

Date Analyzed: 6/29/93 Time Analyzed:0619

GC Column:SP-1000 ID: 2.00 (mm) Heated Purge: (Y/N) N

Instrument ID:FINNE

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWP74	E0629301	E0629301	0653
02	EWP75	E0629302	E0629302	0727
03	EWP76	E0629303	E0629303	0801
04	EWP79	E0629304	E0629304	0836
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COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK03

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab File ID:E06303B2 Lab Sample ID:E06303B2

Date Analyzed: 6/30/93 Time Analyzed:1740

GC Column:SP-1000 ID: 2.00 (mm) Heated Purge: (Y/N) N

Instrument ID:FINNE

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWP63	E0630327	E0630327	0311
02	EWP65	E0630328	E0630328	0345
03	EWP66	E0630329	E0630329	0419
04	EWP77	E0630330	E0630330	0452
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COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
VBLK04

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab File ID:E07013B1 Lab Sample ID:E07013B1

Date Analyzed: 7/01/93 Time Analyzed:0914

GC Column:SP-1000 ID: 2.00 (mm) Heated Purge: (Y/N) N

Instrument ID:FINNE

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWP63DL	E0701302	E0701302	1021
02	EWP80	E0701301	E0701301	0948
03				
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E06283B1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E06283B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E06283B1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E06283B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E06293B1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E06293B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E06293B1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E06293B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK03

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E06303B2

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E06303B2

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 6/30/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK03

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E06303B2

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E06303B2

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 6/30/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK04

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E07013B1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E07013B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK04

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E07013B1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E07013B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

EWP63

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630327

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630327

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	89.	
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	22.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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	7.	J
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	160.	
100-42-5	Styrene	10.	U
1330-20-7	Xylene (total)	800.	E

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP63

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630327

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630327

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP63DL

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0701302

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0701302

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 5.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	50.	U
74-83-9	Bromomethane	50.	U
75-01-4	Vinyl Chloride	50.	U
75-00-3	Chloroethane	74.	D
75-09-2	Methylene Chloride	50.	U
67-64-1	Acetone	50.	U
75-15-0	Carbon Disulfide	50.	U
75-35-4	1,1-Dichloroethene	50.	U
75-34-3	1,1-Dichloroethane	50.	U
540-59-0	1,2-Dichloroethene (total)	50.	U
67-66-3	Chloroform	50.	U
107-06-2	1,2-Dichloroethane	50.	U
78-93-3	2-Butanone	50.	U
71-55-6	1,1,1-Trichloroethane	50.	U
56-23-5	Carbon Tetrachloride	50.	U
75-27-4	Bromodichloromethane	50.	U
78-87-5	1,2-Dichloropropane	50.	U
10061-01-5	cis-1,3-Dichloropropene	50.	U
79-01-6	Trichloroethene	50.	U
124-48-1	Dibromochloromethane	50.	U
79-00-5	1,1,2-Trichloroethane	50.	U
71-43-2	Benzene	50.	U
10061-02-6	trans-1,3-Dichloropropene	50.	U
75-25-2	Bromoform	50.	U
108-10-1	4-Methyl-2-Pentanone	50.	U
591-78-6	2-Hexanone	50.	U
127-18-4	Tetrachloroethene	50.	U
79-34-5	1,1,2,2-Tetrachloroethane	50.	U
108-88-3	Toluene	50.	U
108-90-7	Chlorobenzene	50.	U
100-41-4	Ethylbenzene	150.	D
100-42-5	Styrene	50.	U
1330-20-7	Xylene (total)	750.	D

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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EWP63DL

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0701302

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0701302

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 5.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

EWP64

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628305

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP64

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628305

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP65

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630328

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630328

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP65

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630328

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630328

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

EWP66

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630329

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630329

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	21.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP66

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630329

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630329

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP67

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628306

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628306

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	5.	J
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP67

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628306

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628306

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP68

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628307

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628307

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	9.	J
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP68

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628307

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628307

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

EWP69

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628308

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628308

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP69

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628308

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628308

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

EWP70

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628311

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628311

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP70

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628311

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628311

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

EWP71

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628312

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628312

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	17.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP71

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628312

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628312

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP72

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628313

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628313

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP72

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628313

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628313

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

EWP73

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628314

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628314

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP73

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628314

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628314

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP74

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629301

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

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EPA SAMPLE NO.

EWP74

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629301

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP75

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629302

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP75

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629302

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP76

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629303

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	45.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

1E

EPA SAMPLE NO.

EWP76

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629303

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP77

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630330

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630330

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	38.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP77

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630330

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630330

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP79

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629304

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP79

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629304

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP80

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0701301

Sample wt/vol: 5.00 (g/ml) G Lab File ID: E0701301

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	29.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP80

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0701301

Sample wt/vol: 5.00 (g/ml) G Lab File ID: E0701301

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	EWP63	85	55	94	84	83	99	86	44	0
02	EWP64	77	58	82	74	80	94	77	48	0
03	EWP65	73	59	83	71	71	90	71	40	0
04	EWP66	79	62	86	77	81	92	77	42	0
05	EWP67	80	49	74	82	81	98	82	47	0
06	EWP68	76	53	50	76	72	86	77	55	0
07	EWP69	84	48	81	84	90	95	83	43	0
08	EWP69MS	85	60	81	92	90	92	87	48	0
09	EWP69MSD	88	58	84	94	93	94	88	47	0
10	EWP70	80	51	82	78	72	95	79	47	0
11	EWP71	74	43	72	76	67	93	76	39	0
12	EWP72	79	50	93	84	73	97	84	48	0
13	EWP73	79	52	98	84	77	99	85	51	0
14	EWP74	75	42*	83	77	68	94	76	34	1
15	EWP75	81	46	81	80	69	95	81	44	0
16	EWP76	75	55	96	77	72	91	80	54	0
17	EWP77	80	63	86	75	78	91	78	48	0
18	SBLK01	85	58	83	86	94	93	84	41	0
19	SBLK02	83	32*	82	89	98	93	87	20	1
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		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(35-114)	
S2 (FBP)	= 2-Fluorobiphenyl	(43-116)	
S3 (TPH)	= Terphenyl-d14	(33-141)	
S4 (PHL)	= Phenol-d5	(10-110)	
S5 (2FP)	= 2-Fluorophenol	(21-110)	
S6 (TBP)	= 2,4,6-Tribromophenol	(10-123)	
S7 (2CP)	= 2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(16-110)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix Spike - EPA Sample No.: EWP69

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	75.	0.	56.	75	12-110
2-Chlorophenol	75.	0.	57.	76	27-123
1,4-Dichlorobenzene	50.	0.	15.	30*	36- 97
N-Nitroso-di-n-prop.(1)	50.	0.	28.	56	41-116
1,2,4-Trichlorobenzene	50.	0.	18.	36*	39- 98
4-Chloro-3-methylphenol	75.	0.	65.	87	23- 97
Acenaphthene	50.	0.	34.	68	46-118
4-Nitrophenol	75.	0.	67.	89*	10- 80
2,4-Dinitrotoluene	50.	0.	44.	88	24- 96
Pentachlorophenol	75.	0.	69.	92	9-103
Pyrene	50.	0.	41.	82	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	75.	56.	75	0	42	12-110
2-Chlorophenol	75.	59.	79	4	40	27-123
1,4-Dichlorobenzene	50.	20.	40	28	28	36- 97
N-Nitroso-di-n-prop.(1)	50.	29.	58	4	38	41-116
1,2,4-Trichlorobenzene	50.	24.	48	28	28	39- 98
4-Chloro-3-methylphenol	75.	66.	88	1	42	23- 97
Acenaphthene	50.	35.	70	3	31	46-118
4-Nitrophenol	75.	69.	92*	3	50	10- 80
2,4-Dinitrotoluene	50.	44.	88	0	38	24- 96
Pentachlorophenol	75.	70.	93	1	50	9-103
Pyrene	50.	42.	84	2	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: 0 out of 11 outside limits
Spike Recovery: 4 out of 22 outside limits

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab File ID:40721301 Lab Sample ID:40721301

Instrument ID:FINN4 Date Extracted: 6/26/93

Matrix: (soil/water) WATER Date Analyzed: 7/21/93

Level:(low/med) LOW Time Analyzed: 1914

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EWP64	40721302	40721302	7/21/93
02	EWP68	40722302	40722302	7/22/93
03	EWP69	40721303	40721303	7/21/93
04	EWP69MS	40721304	40721304	7/21/93
05	EWP69MSD	40721305	40721305	7/21/93
06	EWP70	40722303	40722303	7/22/93
07	EWP71	40722304	40722304	7/22/93
08	EWP72	40722305	40722305	7/22/93
09	EWP73	40722306	40722306	7/22/93
10	EWP74	40722307	40722307	7/22/93
11	EWP75	40722308	40722308	7/22/93
12	EWP76	40722309	40722309	7/22/93
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COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab File ID:40721306 Lab Sample ID:40721306

Instrument ID:FINN4 Date Extracted: 7/01/93

Matrix: (soil/water) WATER Date Analyzed: 7/21/93

Level:(low/med) LOW Time Analyzed: 2250

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EWP63	40721307	40721307	7/21/93
02	EWP65	40721308	40721308	7/22/93
03	EWP66	40721309	40721309	7/22/93
04	EWP67	40722301	40722301	7/22/93
05	EWP77	40721310	40721310	7/22/93
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COMMENTS:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721301

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721301

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721301

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721301

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	1.	J
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP75

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722308

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722308

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

EWP75

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722308

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722308

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CL 8-18-93

Number TICs Found: 3

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.78	4.	BJU
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	2.	NJ
3.		Unknown	19.62	2.	J
4.					
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0020479

1F

EPA SAMPLE NO.

SBLK01

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721301

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721301

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.90	10.	J
2.					
3.					
4.					
5.					
6.					
7.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721306

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721306

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721306

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721306

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	0.6	J
117-84-0	Di-n-octylphthalate	0.5	J
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020493

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721306

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721306

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

CL 8-18-93

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.88	11.	~~B~~ J
2.		Unknown	19.62	2.	J
3.					
4.					
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1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP63

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721307

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721307

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	5.	J
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020013

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP63

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721307

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721307

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10 ~~0.5~~	BJ U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

CL 8-18-93

(1) - Cannot be separated from Diphenylamine

0020014

1F

EPA SAMPLE NO.

EWP63

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721307

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721307

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

Number TICs Found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	100-41-4	BENZENE, ETHYL-	5.27	150.	NJ
2.		BENZENE, DIMETHYL-	5.53	660.	NJ
3.		BENZENE, DIMETHYL-	5.95	65.	NJ
4.		BENZENE, (METHYLETHYL)-	6.63	31.	NJ
5.	103-65-1	BENZENE, PROPYL-	7.27	33.	NJ
6.		BENZENE, ETHYL,METHYL-	7.45	78.	NJ
7.		BENZENE, TRIMETHYL-	7.58	26.	NJ
8.		BENZENE, ETHYL-METHYL-	7.80	19.	NJ
9.		BENZENE, TRIMETHYL-	8.13	110.	NJ
10.		BENZENE, TRIMETHYL-	8.68	30.	NJ
11.	873-94-9	CYCLOHEXANONE, 3,3,5-TRIMETH	9.03	51.	NJ
12.	116-02-9	CYCLOHEXANOL, 3,3,5-TRIMETHY	9.30	45.	NJ
13.		BENZENE, ETHYL,DIMETHYL-	9.77	11.	NJ
14.		BENZENE, TETRAMETHYL	10.45	13.	NJ
15.		BENZENE, TETRAMETHYL-	10.52	18.	NJ
16.		Unknown	10.65	20.	J
17.		BENZENE, ETHYL,DIMETHYL-	11.08	8.	NJ
18.		Unknown	14.68	21.	J
19.		Unknown	15.12	7.	J
20.	10544-50-0	SULFUR, MOL. (S8)	22.57	6.	NJ
21.					
22.					
23.					
24.					
25.					
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27.					
28.					
29.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP64

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721302

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP64

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721302

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020068

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EWP64

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721302

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CL 8-18-93

Number TICs Found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.85	2.	BJ
2.		Unknown	7.70	3.	J
3.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	3.	NJ
4.		Unknown	19.60	2.	J
5.					
6.					
7.					
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0020086

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP65

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721308

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721308

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 ~~0.8~~	BJU
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

CL 8-18-93

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP65

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721308

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721308

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP66

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721309

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721309

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020087

1F

EPA SAMPLE NO.

EWP65

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721308

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721308

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

CL 8-18-93

Number TICs Found: 4 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.93	9.	BJU
2.		Unknown	15.08	3.	J
3.	10544-50-0	SULFUR, MOL. (S8)	22.55	4.	NJ
4.		Unknown	19.62	5.	BJU
5.					
6.					
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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP66

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721309

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721309

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP67

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722301

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020107

1F

EPA SAMPLE NO.

EWP66

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721309

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721309

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs Found: 5

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

CL 8-18-93

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.88	9.	BJ U
2.		Unknown	15.08	4.	J
3.		PHENOL, 4-(TETRAMETHYLBUTYL)	17.60	3.	NJ
4.	10544-50-0	SULFUR, MOL. (S8)	22.57	3.	NJ
5.		Unknown	19.62	5.	BJ U
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
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0020127

1F

EPA SAMPLE NO.

EWP67

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722301

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs Found: 6 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CL 8-19-93

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.80	12.	BJU
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	2.	NJ
3.		Unknown	19.62	2.	JBU
4.		Unknown	27.25	2.	J
5.		Unknown Alkane	28.03	2.	J
6.		Unknown Alkane	28.80	2.	J
7.					
8.					
9.					
10.					
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13.					
14.					
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30.					

0020126

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP67

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722301

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	~~0.6~~	BJU
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

CL 8-18-93

(1) - Cannot be separated from Diphenylamine

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP68

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722302

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	5.	J
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP68

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722302

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020203

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP69

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721303

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020151

1F

EPA SAMPLE NO.

EWP68

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722302

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

Number TICs Found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	8.67	9.	J
2.		Unknown Alkane	10.15	25.	J
3.		Unknown Hydrocarbon	10.63	10.	J
4.		Unknown Alkane	11.88	16.	J
5.		Unknown Alkane	12.13	18.	J
6.		Unknown Alkane	13.05	11.	J
7.		Unknown Alkane	14.58	26.	J
8.	544-76-3	HEXADECANE	15.77	44.	NJ
9.		Unknown	16.38	73.	J
10.		Unknown	16.95	35.	J
11.		Unknown Alkane	18.80	65.	J
12.		Unknown Alkane	19.92	65.	J
13.		Unknown Alkane	20.83	18.	J
14.	10544-50-0	SULFUR, MOL. (S8)	22.67	35.	NJ
15.		Unknown Aromatic	28.00	35.	J
16.		Unknown Aromatic	28.92	16.	J
17.		Unknown PAH MW=191	30.30	27.	J
18.		Unknown PAH MW=191	31.58	26.	J
19.		Unknown PASH MW=191	32.52	29.	J
20.		UNRESOLVED HYDROCARBON COMPL	25.83	33000.	J
21.					
22.					
23.					
24.					
25.					
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29.					
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0020205

1F

EPA SAMPLE NO.

EWP69

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721303

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.8

CL 8-18-93

Number TICs Found: 11 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.87	7.	BJ
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	2.	NJ
3.		Unknown Alkane	25.60	2.	J
4.	630-01-3	HEXACOSANE	27.25	10.	NJ
5.	593-49-7	HEPTACOSANE	28.03	13.	NJ
6.		Unknown Alkane	28.78	16.	J
7.		Unknown Alkane	29.53	14.	J
8.		Unknown Alkane	30.37	9.	J
9.		Unknown Alkane	31.33	6.	J
10.		Unknown Alkane	32.45	3.	J
11.		Unknown	19.62	2.	J
12.					
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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP69

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721303

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020236

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP70

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722303

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	0.6	J
117-84-0	Di-n-octylphthalate	10 ~~1~~.	BJU
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

CL 8-18-93

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP70

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722303

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP71

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722304

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020237

1F

EPA SAMPLE NO.

EWP70

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722303

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CL 8-18-93

Number TICs Found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.85	4.	BJ
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	2.	NJ
3.		Unknown	19.60	2.	J
4.		Unknown	27.25	8.	J
5.	593-49-7	HEPTACOSANE	28.03	9.	NJ
6.		Unknown Alkane	28.78	11.	J
7.		Unknown Alkane	29.53	10.	J
8.		Unknown Alkane	30.38	6.	J
9.		Unknown Alkane	31.33	4.	J
10.		Unknown Alkane	32.45	2.	J
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0020271

1F

EPA SAMPLE NO.

EWP71

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722304

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.8

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	2.	NJ
2.		Unknown	19.62	2.	J
3.					
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0020270

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP71

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722304

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10 2.	BJU
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

Ch 8-18-93

(1) - Cannot be separated from Diphenylamine

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP72

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722305

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP72

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722305

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020287

1F

EPA SAMPLE NO.

EWP72

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722305

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.2

CL 8-18-93

Number TICs Found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.87	12.	BJU
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.53	3.	NJ
3.		Unknown	19.62	2.	J
4.		Unknown Alkane	25.62	4.	J
5.		Unknown Alkane	27.27	8.	J
6.		Unknown Alkane	28.05	8.	J
7.		Unknown Alkane	28.80	11.	J
8.		Unknown Alkane	29.53	8.	J
9.		Unknown Alkane	30.38	5.	J
10.		Unknown Alkane	31.35	3.	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP73

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722306

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722306

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP73

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722306

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722306

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020397

1F

EPA SAMPLE NO.

EWP73

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722306

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722306

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

CL 8-18-93

Number TICs Found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.92	16.	BJU
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.53	2.	NJ
3.		Unknown	19.62	2.	J
4.		Unknown Alkane	25.60	3.	J
5.	630-01-3	HEXACOSANE	27.25	7.	NJ
6.		Unknown Alkane	28.03	7.	J
7.		Unknown Alkane	28.78	9.	J
8.		Unknown Alkane	29.53	7.	J
9.		Unknown Alkane	30.38	4.	J
10.		Unknown Alkane	31.33	2.	J
11.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP74

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722307

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722307

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP74

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722307

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722307

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020347

1F

EPA SAMPLE NO.

EWP74

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722307

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722307

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

Number TICs Found: 3 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CL 8-18-93

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.85	6.	BJ
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	3.	NJ
3.		Unknown	19.62	2.	J
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1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP75

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722308

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722308

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP76

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722309

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722309

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP76

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722309

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722309

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020379

1F

EPA SAMPLE NO.

EWP76

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722309

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722309

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.7

CL 8-18-93

Number TICs Found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.88	8.	BJ
2.		Unknown	14.97	3.	J
3.		Unknown	19.62	6.	J
4.		Unknown	23.17	33.	J
5.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP77

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721310

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721310

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 9.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP77

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721310

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721310

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 9.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	0.6	J
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020397

1F

EPA SAMPLE NO.

EWP77

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721310

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721310

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 9.5

CL 8-18-93

Number TICs Found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.87	29.	BJ U
2.		Unknown	11.68	2.	J
3.	74367-33-2	PROPANOIC ACID, 2-METHYL-, 2	14.23	3.	NJ
4.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	4.	NJ
5.		Unknown	19.62	2.	BJ U
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

WATER PESTICIDE SURROGATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

GC Column(1):DB-608 ID: 0.53 (mm) GC Column(2):DB-1701 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	EWP63	69	67	68	66			0
02	EWP64	52*	55*	79	80			2
03	EWP65	69	69	75	71			0
04	EWP66	76	75	79	78			0
05	EWP67	66	70	42*	42*			2
06	EWP68	63	53*	34*	99			2
07	EWP69	65	71	42*	42*			2
08	EWP69MS	67	72	41*	44*			2
09	EWP69MSD	45*	49*	30*	28*			4
10	EWP70	71	73	55*	57*			2
11	EWP71	66	68	26*	28*			2
12	EWP72	61	64	59*	61			1
13	EWP73	61	66	63	62			0
14	EWP74	80	81	41*	41*			2
15	EWP75	46*	47*	29*	29*			4
16	EWP76	46*	46*	72	72			2
17	EWP77	91	90	106	105			0
18	PBLK01	67	71	76	77			0
19	PBLK02	69	70	93	91			0
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix Spike - EPA Sample No.: EWP69

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC(Lindane)	0.50	0.0	0.37	74	56-123
Heptachlor	0.50	0.0	0.40	80	40-131
Aldrin	0.50	0.0	0.41	82	40-120
Dieldrin	1.0	0.0	0.94	94	52-126
Endrin	1.0	0.0	0.94	94	56-121
4,4'-DDT	1.0	0.0	1.0	100	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC(Lindane)	0.50	0.29	58	24*	15	56-123
Heptachlor	0.50	0.26	52	42*	20	40-131
Aldrin	0.50	0.24	48	52*	22	40-120
Dieldrin	1.0	0.72	72	27*	18	52-126
Endrin	1.0	0.71	71	28*	21	56-121
4,4'-DDT	1.0	0.71	71	34*	27	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 6 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab Sample ID:PBLK01 Lab File ID:

Matrix:(soil/water) WATER Extraction:(SepF/Cont/Sonc)CONT

Sulfur Cleanup: (Y/N) N Date Extracted: 6/26/93

Date Analyzed (1): 7/15/93 Date Analyzed (2): 7/15/93

Time Analyzed (1):0857 Time Analyzed (2):0857

Instrument ID (1):HP5890O Instrument ID (2):HP5890O

GC Column (1):DB-608 ID: 0.53(mm) GC Column (2):DB-1701 ID: 0.53(mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EWP64	EWP64	7/15/93	7/15/93
02	EWP67	EWP67	7/15/93	7/15/93
03	EWP68	EWP68	7/15/93	7/15/93
04	EWP69	EWP69	7/15/93	7/15/93
05	EWP69MS	EWP69MS	7/15/93	7/15/93
06	EWP69MSD	EWP69MSD	7/15/93	7/15/93
07	EWP70	EWP70	7/15/93	7/15/93
08	EWP71	EWP71	7/15/93	7/15/93
09	EWP72	EWP72	7/15/93	7/15/93
10	EWP73	EWP73	7/15/93	7/15/93
11	EWP74	EWP74	7/15/93	7/15/93
12	EWP75	EWP75	7/15/93	7/15/93
13	EWP76	EWP76	7/15/93	7/15/93
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

0030004
EPA SAMPLE NO.

4C
PESTICIDE METHOD BLANK SUMMARY

PBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab Sample ID:PBLK02 Lab File ID:

Matrix:(soil/water) WATER Extraction:(SepF/Cont/Sonc)CONT

Sulfur Cleanup: (Y/N) N Date Extracted: 7/01/93

Date Analyzed (1): 7/15/93 Date Analyzed (2): 7/15/93

Time Analyzed (1):2241 Time Analyzed (2):2241

Instrument ID (1):HP5890O Instrument ID (2):HP5890O

GC Column (1):DB-608 ID: 0.53(mm) GC Column (2):DB-1701 ID: 0.53(mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EWP63	EWP63	7/15/93	7/15/93
02	EWP65	EWP65	7/16/93	7/16/93
03	EWP66	EWP66	7/16/93	7/16/93
04	EWP77	EWP77	7/16/93	7/16/93
05				
06				
07				
08				
09				
10				
11				
12				
13				
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26				

COMMENTS:

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

0030248 EPA SAMPLE NO.

0030248

PBLK01 KW 3-4-93

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: PBLK01

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: / /

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 6.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
0030253
PBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: PBLK02

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: / /

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 7/01/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 6.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	0.05	J
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030005

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP63

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP63

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/26/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 7/01/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 6.9 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.003	JP
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	0.049	J
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030012

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP64

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP64

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030018

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP65

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP65

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/26/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 7/01/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/16/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 6.9 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030025

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP66

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP66

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/26/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 7/01/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/16/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030032

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP67

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP67

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	0.055	JP
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030037

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP68

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP68

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.011	JP
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.011	JP
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.015	JP
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.028	JP
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030046

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP69

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP69

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.8 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	0.044	J
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: EWP70

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP70

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030056

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP71

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP71

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.8 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	0.03	J
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030061

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP72

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP72

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 8.2 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030066

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP73

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP73

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.9 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

003007.1

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP74

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP74

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.6 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	0.043	J
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030076

EPA SAMPLE NO.

EWP75

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP75

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP76

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP76

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 5.7 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030087

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP77

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP77

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/26/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 7/01/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/16/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 9.5 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. (2) CERCLIS No. OH

Case No. 20247 Site Name Location: Systech

Contractor or EPA Lab: SWRI Data User: PRC

No. of Samples: 17 Date Samples or Data Received: 8-3-93

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 17 No. of samples received: 17

Received by: Lynette Burnett Date: 8-3-93

Received by LSSS: Dorothy M. May Date: 8/09/93

Review started: 8/18/93 Reviewer Signature: M. Cecilia Puckett

Total time spent on review: 16 hrs. Date review completed: 8-19-93

Copied by: Jeanette Purcell Date: Aug 31, 19[illegible]

Mailed to user by: A D Harris Date: 9-2-93

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

Data received by: Mildred Jackson Date: SEP 07 1993

Data review received by: ___ Date: ___
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: ___

AUG 25 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 8/18/93

SUBJECT: Review of Region V CLP Data
Received for Review on July 29, 1993

FROM: Charles T. Elly, Director (SL-10C) MSP for (C.T.E.)
Central Regional Laboratory

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Systech (OH)

CASE and/or SAS NUMBER: 20247 SDG NUMBER: EWP55

Number and Type of Samples: 5 (Soil)

CLP Sample Numbers: EWP55-59

CLP Laboratory: SWRI Hrs. for Review 6+1.5=7.5 wks

Following are our findings:

All of the Semi volatile samples showed the presence of PNA's at below the CRQL. Pesticide fraction showed positive hits for α + γ chlordane, Dieldrin and 4,4'-DDE. None of the pesticide samples showed the presence of PCB's except ~~Aroclor~~ EWP57 in which Aroclor 1242 was detected below CRQL. All of the data should be qualified according to the attached narrative

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

Munter 8/18/93

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

DATA QUALIFIERS

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

The samples were collected on the 21st of June 1993. The laboratory received five (5) soil samples on the 23rd of June 1993 in good condition for Volatile, Semivolatile and Pesticide/PCB analysis.
All soil samples met the technical holding time criteria.

The reviewer's narrative and data qualifiers are noted in the following pages.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 13 August 1993

NARRATIVE

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

1. HOLDING TIME

The laboratory received five (5) soil samples on the 23rd of June 1993 in good condition for full organic analysis.

Analysis of the soil samples were performed according to procedure outlined in the SOW 3/90 Statement of Work (SOW) (document OLM01.8) protocol.

All samples were collected on the 21st of June 1993.

All Volatile soil samples were analyzed as low-level samples within the fourteen (14) day technical holding time mandated for soil samples.

All Semivolatile soil samples met the technical holding time of fourteen (14) days for extraction.

All Pesticide soil samples were extracted within the fourteen (14) days technical holding time.

All Semivolatile and Pesticide extracts were analyzed within the forty (40) days technical holding time.

2.GC/MS TUNING AND GC PERFORMANCE

The GC/MS tuning complied with the mass list and ion abundance criteria for BFB and DFTPP.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 13 August 1993

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

GC Resolution Check Mixture met the 60% resolution criteria on both DB-608 and DB-1701 columns. Therefore, the resolution is acceptable.

DDT and Endrin degradation check using PEMix on both quantitation (DB-608) and confirmatory (DB-1701) columns are acceptable <20%.

The Florisil Cartridge Check and Resolution Check met the QC criteria (80-120%).

GPC calibration met the QC limit (80-110%) for all compounds on both DB-608 and DB-1701 columns.

3.CALIBRATION

Initial and continuing calibrations of the Volatile, Semivolatile and Pesticide standards were evaluated for the target compound list (TCL) and outliers are recorded on the outlier forms included as part of this narrative.

4.METHOD BLANK

VBLK01 is low level soil Volatile method blank. This blank contained VOA target compound Bromomethane (10 µg/KG). Contamination of Bromomethane was not present in any of the associated samples.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 13 August 1993

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

SBLK1 is the low level soil Semivolatile method blank. SBLK1 did not contain any Semivolatile target compounds but reported five (5) SVOA TICs.

The presence of tentatively identified compounds in any of the associated samples is flagged as non-detected (U) when sample result is less than 5 times the blank result.

PBLK01 is the Pesticide soil method blank. This blank contained Methoxychlor (0.16 µg/KG).

The presence of Methoxychlor in any of the associated samples is flagged as non-detected (U) when sample result is less than 5 times the blank result.

There were four (4) Pesticide instrument blanks but no samples were associated with the instrument blanks.

All instrument blanks did not contain any Pesticide residues.

5.SYSTEM MONITORING AND SURROGATE RECOVERY

Low level soil Volatile system monitoring compounds met the QC requirements.

All soil Semivolatile surrogates recoveries were well within the QC limit.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 13 August 1993

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

All soil Pesticide surrogates were within the QC criteria.

6.MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample **EWP55** was used as the soil spike for Volatile, Semivolatile and Pesticide fractions.

All soil Volatile matrix spike/matrix spike duplicate and RPDs were well within the QC limit.

All low level soil Semivolatile matrix spike/matrix spike duplicate and RPDs met the QC limit.

All Pesticide MS/MSD and RPDs met the QC limit.

7.FIELD BLANK AND FIELD DUPLICATE

No field blank nor field duplicate was included in SDG# EWP55.

8.INTERNAL STANDARDS

All Volatile internal standard area and RTs were well within the QC limit.

Semivolatile internal standards: IS5(CRY) Chrysene d12 in samples: EWP55MS, EWP55MSD, EWP59 and IS6(PRY) Perylene d12 in samples: EWP55MS, EWP55MSD, EWP59, EWP58,

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 13 August 1993

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

EWP58RE and EWP59RE were below the QC limit area.

Any positive SVOA results for compounds quantitated using the IS5 and IS6 are flagged as estimated (J) and any non-detected SVOA results are flagged with the sample quantitation limit as estimated (UJ).

Please, refer to Table 4 to locate those Semivolatile compounds, that are quantitated using IS5 and IS6.

9.COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all compounds were properly identified.

10.COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All VOAs, SVOAs and Pesticides target compound quantitative results were properly reported.

11.SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.

GC baseline indicated acceptable performance.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 13 August 1993

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

12.ADDITIONAL INFORMATION

SVOA samples EWP58 and EWP59 failed the internal standard recoveries.

Both samples were reanalyzed as EWP58RE and EWP59RE with the similar results.

A large number of SVOA TICs were noted in all samples: EWP55 (20), EWP56 (20), EWP57 (18), EWP58 (20), EWP59 (20), EWP58RE (20) and EWP59RE (20).

No additional specific problems was noted in this data case.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 13 August 1993

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 20247
COLUMN: SP-1000

CONTRACTOR: SWRI
SITE NAME: SYSTECH (OH)

Instrument# FINNX		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		5/31/93 16:42			6/28/93 9:07											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01															
Bromomethane	0.10															
Vinyl chloride	0.10															
Chloroethane	0.01															
Methylene chloride	0.01															
Acetone	0.01	2.194	41.2	J	1.477	32.4	J									
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
1,2-Dichloroethene (total)																
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01															
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane																
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01															
2-Hexanone	0.01															
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
Toluene-d8																
Bromofluorobenzene																
1,2-Dichloroethane-d4																

Samples affected:

	VBLK01			
	EWP55-			
	EWP59			
	EWP55MS			
	EWP55MSD			

Reviewer's Init/Date: KM 8-13-93

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 20247 CONTRACTOR: SWRI

COLUMN: SITE NAME: SYSTECH (OH)

Instrument# FINN4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6/11/93 13:56			7/15/93 18:40			7/16/93 14:25								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
1,3-Dichlorobenzene																
1,4-Dichlorobenzene																
1,2-Dichlorobenzene																
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01															
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxyl)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20															
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01	.230			.152	33.9	J	.149	35.2	J						
4-Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples:

SBLK01	EWP57
EWP55-	EWP58RE
EWP56	EWP59RE
EWP55MS	
EWP55MSD	
EWP58-	
EWB59	

Reviewer's Init/Date: VM 8-13-93

* These flags should be applied to the analytes on the sample data sheets.

Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 20247
COLUMN:

CONTRACTOR: SWRI
SITE NAME: SYSTECH (OH)

Instrument# FINN 4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6/11/93 13:56			7/15/93 18:40			7/16/93 14:25								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01															
4,6-Dinitro-2-methylphenol	0.01															
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10	.238			.312	31.1	J	.293								
Pentachlorophenol	0.05															
Phenanthrene	0.70															
Anthracene	0.70															
Carbazole																
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01															
3,3'-Dichlorobenzidine	0.01															
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01	.909			.675	25.7	J	.694								
Di-n-octyl phthalate	0.01															
Benzo(b)fluoranthene	0.70															
Benzo(k)fpuoranthene	0.70															
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthrancene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60	1.765			1.210	31.4	J	1.456								
2,4,6-Tribromophenol	0.01	.134			.176	31.3	J	.176	31.3	J						
2-Chlorophenol-d4																
1,2-Dichlorobenzene-d4																

Reviewer's Init/Date: KM 8-13-93

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIERS
PESTICIDE/PCB TCL COMPOUNDS

CASE\SAS#: 20247 CONTRACTOR: SWRI

Column: DB-608 Site Name: SYSTECH (OH)

Instrument#: J	Initial Cal.		Continue Cal.		Continue Cal.		Continue Ca	
Date/Time	7/09-10/93		7/10/93 20:41		7/11/93 18:57			
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples:				
		EWP55-		
		EWP59		
		EWP55 MS		
		EWP55 MSD		

Reviewer's Init/Date: KM 8-13-93

* These flags should be applied to the analytes on the sample data sheets.

CALIBRATION OUTLIERS
PESTICIDE/PCB TCL COMPOUNDS

CASE\SAS#: 20247 **CONTRACTOR:** SORI

Column: DB-1701 **Site Name:** SYSTECH (OH)

Instrument#: 1	Initial Cal.		Continue Cal.		Continue Cal.		Continue Ca	
Date/Time	7/09-10/93		7/10/93 20:41		7/11/93 18:57			
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples:

	EWP55-		
	EWP59		
	EWP55MS		
	EWP55MSD		

Reviewer's Init/Date: KM 8-13-93 BSAT-5-024.2 1/93

* These flags should be applied to the analytes on the sample data sheets.

DATA REPORTING QUALIFIERS
(page 2)

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two 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 identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but unsuccessful, do not apply this flag, instead use a laboratory-defined, discussed below.

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

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for the specific analysis. This flag will not apply to pesticide/PCBs analyzed by GC/MS methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I 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 Form I. The Form I 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 I for the diluted sample and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

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

X - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG Narrative. If more than one flag is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B" and "D" flags for some sample. The laboratory-defined are limited to letters "X", "Y" and "Z".

DATA REPORTING QUALIFIERS
(page 1)

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

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL), report the value.

U - Indicates compound was analyzed for but not detected. The sample Quantitation Limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if thee sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the Sample Quantitation Limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U) \times df}{D}$$

where $D = \frac{100 - \%\ moisture}{100}$

and df = dilution factor

at 24% moisture, $D = \frac{100 - 24}{100} = 0.76$

$$\frac{(330\ U) \times 10}{.76} = 4300\ U$$ rounded to the appropriate number of significant figures

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0.5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures. Therefore, the CRQL values will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume, this fact be accounted for in reporting the Sample Quantitation Limit.

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 bur greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it is as 3J. The Sample Quantitation Limit must be adjusted for dilution as discussed for the U flag. The J flag is also applied to pesticide/Aroclor results where the pesticide/Aroclor is confirmed to be present but the concentration is less than the CRQL.

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.

TABLE 4

(For Multi-Media, Multi-Concentration Analysis)

VOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

Bromochloromethane	1,4-Difluorobenzene	Chlorobenzene-d_5
Chloromethane	Bromoform	2-Hexanone
Bromomethane	1,1,1-Trichloroethane	4-Methyl-2-pentanone
Vinyl chloride	Carbon tetrachloride	Tetrachloroethene
Chloroethane	Bromodichloromethane	1,1,2,2-Tetrachloroethane
Methylene chloride	1,2-Dichloropropane	Toluene
Acetone	trans-1,3-Dichloropropene	Chlorobenzene
Carbon disulfide	Trichloroethene	Ethylbenzene
1,1-Dichloroethene	Dibromochloromethane	Styrene
1,1-Dichloroethane	1,1,2-Trichloroethane	Xylene(total)
1,2-Dichloroethene(total)	Benzene	Bromofluorobenzene(surr,smc)
Chloroform	cis-1,3-Dichloropropene	Toluene-d_8(surr,smc)
1,2-Dichloroethane		
1,2-Dichloroethane-d_4(surr,smc)		
2-Butanone		

SEMIVOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

1,4-Dichlorobenzene-d_4	Naphthalene-d_8	Acenaphthene-d_{10}	Phenanthrene-d_{10}	Chrysene-d_{12}	Perylene-d_{12}
Phenol	Nitrobenzene	Hexachlorocyclopentadiene	4,6-Dinitro-2-methylphenol	Pyrene	Di-n-octyl phthalate
bis(2-chloroethyl)ether	Isophorone	2,4,6-Trichlorophenol	N-nitroso-di-phenylamine	butylbenzyl phthalate	Benzo(b)fluoranthene
2-Chlorophenol	2-Nitrophenol	2,4,5-Trichlorophenol	Carbazole	3,3'-Dichlorobenzidine	Benzo(k)fluoranthene
1,3-Dichlorobenzene	2,4-Dimethylphenol	2-Chloronaphthalene	4-Bromophenyl phenyl ether	Benzo(a)anthracene	Benzo(a)pyrene
1,4-Dichlorobenzene	Naphthalene	2-Nitroaniline	Hexachlorobenzene	bis(2-Ethylhexyl)phthalate	Indeno(1,2,3-cd)pyrene
2,2'-Oxybis-(1-chloropropane)	bis(2-Chloroethoxy)methane	Dimethylphthalate	Pentachlorophenol	Chrysene	Dibenzo(a,h)anthracene
1,2-Dichlorobenzene	2,4-Dichlorophenol	Acenaphthylene	Phenanthrene	Terphenyl-d_{14}(surr)	Benzo(g,h,i)perylene
2-Methylphenol	1,2,4-Trichlorobenzene	3-Nitroaniline	Anthracene		
bis(2-Chloroisopropyl)ether	4-Chloroaniline	Acenaphthene	Di-n-butyl phthalate		
4-Methylphenol	Hexachlorobutadiene	2,4-Dinitrophenol	Fluoranthene		
N-nitroso-di-n-propylamine	4-Chloro-3-methylphenol	4-Nitrophenol			
Hexachloroethane	2-Methylnaphthalene	Dibenzofuran			
2-Fluorophenol(surr)	Nitrobenzene-d_5(surr)	2,4-Dinitrotoluene			
Phenol-d_6(surr)		2,6-Dinitrotoluene			
2-Chlorobenzene-d_4(surr)		Diethyl phthalate			
1,2-Dichlorobenzene-d_4(surr)		4-Chlorophenyl phenyl ether			
		Fluorene			
		4-Nitroaniline			
		2-Fluorobiphenyl(surr)			
		2,4,6-Tribromophenol(surr)			

(surr) - surrogate
(smc) - system monitoring compound

017

EPA United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

SAS No. (if applicable):
Case No.: 20247

1. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

3. Region No.: 5
Sampling Co.: PRC
Sampler (Name): Guy Montfort
Sampler Signature: Guy P. Montfort

4. Type of Activity: Lead / Pre-Remedial / Remedial / Removal
SF ☒ PRP ☐ ST ☐ FED ☐ PA ☐ SSI ☐ ESI ☒ RIFS ☐ RD ☐ RA ☐ O&M ☐ NPLD ☐ CLEM ☐ REMA ☐ REM ☐ OIL ☐ UST ☐

5. Date Shipped: 6/22/93
Carrier: Federal Express
Airbill Number: 5484373171

6. Ship To: Southwest Research Institute
6220 Culebra Road
San Antonio, Tx 78238
ATTN: Joe Pan

7. Date Received -- Received by: 6/23/93 Cynthia A Saucedo
Laboratory Contract Number: 68-D1-0088C
Unit Price: 1048.

8. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below) Solids	Water - Mis Liq.	Non Water - Mis Liq.
EWP79	4	L	G	1	X				009635-009636	TB-1	6/21/93 0800		—	Int	Acl		
EWP76	↓			↓	X				009617-009618	EB-1	1530		MEWR94				
EWP55	5			N	X	X	X		009501-009502 009503	SD-1	1158		MEWR73				
EWP56					X	X	X		009505-009506 009507	SD-2	0945		MEWR74				
EWP57					X	X	X		009509-009510 009511	SD-3	1003		MEWR75				
EWP58					X	X	X		009513-009514 009515	SD-4	1050		MEWR76				
EWP59	↓	↓	↓	↓	X	X	X		009517-009518 009519	SD-5	1045		MEWR77				

Shipment for Case complete? (Y/N): N
Page 1 of 2
Sample used for a spike and/or duplicate: EWP55
Additional Sampler Signatures: [signature] Trisha Miller
Chain of Custody Seal Number: 140205, 140206

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2:00	Christine Kirschman	Christine Kirschman	6/22/93 1220	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	
		Cynthia A Saucedo	6/23/93 850	SWRI	

Split Samples ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

DISTRIBUTION:
Blue - Region Copy Pink - SMO Copy White - Lab Copy for Return to Region Yellow - Lab Copy for Return to SMO

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

0 350412

Org-2

1110

002

CASE NARRATIVE
SwRI
CASE: 20247 SDG: EWP55

- FIVE LOW SOIL SAMPLES FOR VOLATILE (VOA), SEMIVOLATILE (BNA), AND PESTICIDE (PEST) COMPOUND ANALYSIS:

  EWP55 EWP56 EWP57 EWP58 EWP59

- QC SAMPLES: **MATRIX SPIKE/MATRIX SPIKE DUPLICATE** - EWP5

- REANALYSIS: BNA - EWP58, EWP59

- The samples were received on June 23, 1993 for a thirty-five day turnaround from Verified Time of Sample Receipt (VTSR) of the last sample in the Sample Delivery Group (SDG).

- All analyses performed were done so according to the requirements in the 3/90 USEPA Contract Laboratory Program Statement of Work (SOW) for Organics Analysis, Multi-media, Multi-concentration, with revisions, (OLM01.8, August 1991).

- Reference Log-In Non-Conformance dated 6-23-93. The cooler was received with the temperature registered at 14°C.

- SMO's response, as noted on the Telephone Conversation dated June 28, 1993 is as follows: note in the case narrative.

VOLATILE COMPOUND ANALYSIS

1. Due to the low intensity of m/Z 72 for 2-Butanone, this compound was quantitated on m/Z 43. All primary quantitation ions were used for remaining compounds.

2. Manual peak integration was occasionally necessary for one or more of the following reasons:

   Not found - The peak in question was not correctly identified by the Autoquan software; therefore, it was necessary to manually add the peak to the quantitation report.

   Tailing - Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

   Splitting - Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

SEMIVOLATILE COMPOUND ANALYSIS

1. The retention time scan numbers were used to label the internal standards and surrogate peaks on the semivolatile GC/MS reconstructed ion chromatograms.

2. Standards and blanks were named as per the SOW revision 8/91.

3. Manual peak integration was occasionally necessary for one or more of the following reasons:

Not found -	The peak in question was not correctly identified by the Autoquan software; therefore, it was necessary to manually add the peak to the quantitation report.
Tailing -	Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.
Splitting -	Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

4. The following Hazardous Substance List (HSL) compounds were reported in samples EWP55MS and EWP55MSD, but not detected in sample EWP55 (unspiked): Anthracene and Carbazole. Spectra were included in the case narrative.

5. Sample EWP57 contained a high level of an unknown phthalate eluting near the retention time for bis(2-ethylhexyl)-phthalate. The spectra indicated that this compound was not bis(2-ethylhexyl)phthalate. See attached spectra.

PESTICIDE COMPOUND ANALYSIS

1. The following information, related to each pesticide analysis, was included in the corresponding quantitation report, rather than the actual chromatogram:

   - Sample ID (SMO sample number from the traffic report)
   - Volume Injected (μL)
   - GC Column Identification
   - GC Instrument Identification

2. Each chromatogram was labeled both with a raw data file name which corresponded to its respective quantitation report and with a date and time of injection. All other times on chromatograms and reports were data transfer times. These injections were run in the proper sequence, but may not appear to be in proper sequence.

"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 floppy diskette has been authorized by the Assistant Director or his designee, as verified by the following signature."

Robin Attiyat

(for) **Jo Ann Boyd, Supervisor**
Quality Assurance Unit

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	EWP55	94	102	105		0
02	EWP55MS	93	96	104		0
03	EWP55MSD	96	95	106		0
04	EWP56	94	102	108		0
05	EWP57	100	95	105		0
06	EWP58	93	92	108		0
07	EWP59	97	88	109		0
08	VBLK01	94	104	111		0
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	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

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix Spike - EPA Sample No.: EWP55 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	78.	0.	110.	141	59-172
Trichloroethene	78.	0.	76.	97	62-137
Benzene	78.	0.	91.	117	66-142
Toluene	78.	0.	81.	104	59-139
Chlorobenzene	78.	0.	82.	105	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	78.	110.	141	0	22	59-172
Trichloroethene	78.	78.	100	3	24	62-137
Benzene	78.	92.	118	1	21	66-142
Toluene	78.	88.	113	8	21	59-139
Chlorobenzene	78.	86.	110	5	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:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Lab File ID:X06283B1 Lab Sample ID:X06283B1

Date Analyzed: 6/28/93 Time Analyzed:0945

GC Column:SP-1000 ID: 2.00 (mm) Heated Purge: (Y/N) Y

Instrument ID:FINNX

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWP55	X0628301	X0628301	1023
02	EWP55MS	X0628306	X0628306	1336
03	EWP55MSD	X0628307	X0628307	1414
04	EWP56	X0628302	X0628302	1102
05	EWP57	X0628303	X0628303	1140
06	EWP58	X0628304	X0628304	1219
07	EWP59	X0628305	X0628305	1257
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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: VBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X06283B1

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X06283B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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.	
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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: VBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X06283B1

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X06283B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: EWP55

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628301

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 36 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	16.	U
67-64-1	Acetone	16.	U
75-15-0	Carbon Disulfide	16.	U
75-35-4	1,1-Dichloroethene	16.	U
75-34-3	1,1-Dichloroethane	16.	U
540-59-0	1,2-Dichloroethene (total)	16.	U
67-66-3	Chloroform	16.	U
107-06-2	1,2-Dichloroethane	16.	U
78-93-3	2-Butanone	16.	U
71-55-6	1,1,1-Trichloroethane	16.	U
56-23-5	Carbon Tetrachloride	16.	U
75-27-4	Bromodichloromethane	16.	U
78-87-5	1,2-Dichloropropane	16.	U
10061-01-5	cis-1,3-Dichloropropene	16.	U
79-01-6	Trichloroethene	16.	U
124-48-1	Dibromochloromethane	16.	U
79-00-5	1,1,2-Trichloroethane	16.	U
71-43-2	Benzene	16.	U
10061-02-6	trans-1,3-Dichloropropene	16.	U
75-25-2	Bromoform	16.	U
108-10-1	4-Methyl-2-Pentanone	16.	U
591-78-6	2-Hexanone	16.	U
127-18-4	Tetrachloroethene	16.	U
79-34-5	1,1,2,2-Tetrachloroethane	16.	U
108-88-3	Toluene	16.	U
108-90-7	Chlorobenzene	16.	U
100-41-4	Ethylbenzene	16.	U
100-42-5	Styrene	16.	U
1330-20-7	Xylene (total)	16.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP55

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628301

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 36 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP56

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628302

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 23 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	13.	U
67-64-1	Acetone	13.	U
75-15-0	Carbon Disulfide	13.	U
75-35-4	1,1-Dichloroethene	13.	U
75-34-3	1,1-Dichloroethane	13.	U
540-59-0	1,2-Dichloroethene (total)	13.	U
67-66-3	Chloroform	13.	U
107-06-2	1,2-Dichloroethane	13.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	13.	U
56-23-5	Carbon Tetrachloride	13.	U
75-27-4	Bromodichloromethane	13.	U
78-87-5	1,2-Dichloropropane	13.	U
10061-01-5	cis-1,3-Dichloropropene	13.	U
79-01-6	Trichloroethene	13.	U
124-48-1	Dibromochloromethane	13.	U
79-00-5	1,1,2-Trichloroethane	13.	U
71-43-2	Benzene	13.	U
10061-02-6	trans-1,3-Dichloropropene	13.	U
75-25-2	Bromoform	13.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	13.	U
108-88-3	Toluene	13.	U
108-90-7	Chlorobenzene	13.	U
100-41-4	Ethylbenzene	13.	U
100-42-5	Styrene	13.	U
1330-20-7	Xylene (total)	13.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: EWP56

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628302

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 23 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP57

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628303

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 24 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	13.	U
67-64-1	Acetone	13.	U
75-15-0	Carbon Disulfide	13.	U
75-35-4	1,1-Dichloroethene	13.	U
75-34-3	1,1-Dichloroethane	13.	U
540-59-0	1,2-Dichloroethene (total)	13.	U
67-66-3	Chloroform	13.	U
107-06-2	1,2-Dichloroethane	13.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	13.	U
56-23-5	Carbon Tetrachloride	13.	U
75-27-4	Bromodichloromethane	13.	U
78-87-5	1,2-Dichloropropane	13.	U
10061-01-5	cis-1,3-Dichloropropene	13.	U
79-01-6	Trichloroethene	13.	U
124-48-1	Dibromochloromethane	13.	U
79-00-5	1,1,2-Trichloroethane	13.	U
71-43-2	Benzene	13.	U
10061-02-6	trans-1,3-Dichloropropene	13.	U
75-25-2	Bromoform	13.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	13.	U
108-88-3	Toluene	13.	U
108-90-7	Chlorobenzene	13.	U
100-41-4	Ethylbenzene	13.	U
100-42-5	Styrene	13.	U
1330-20-7	Xylene (total)	13.	U

1E

EPA SAMPLE NO.

EWP57

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628303

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 24 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: EWP58

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628304

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 26 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	14.	U
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	14.	U
540-59-0	1,2-Dichloroethene (total)	14.	U
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	14.	U
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	14.	U
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	14.	U
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	14.	U
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP58

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628304

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 26 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: EWP59

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628305

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 20 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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.	U
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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP59

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628305

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 20 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	EWP55	61	72	83	69	69	80	65	51	0
02	EWP55MS	66	71	85	72	69	79	69	57	0
03	EWP55MSD	68	78	101	77	70	88	73	58	0
04	EWP56	73	78	97	76	78	89	78	67	0
05	EWP57	49	63	73	53	47	58	53	42	0
06	EWP58	56	64	78	62	58	72	61	50	0
07	EWP58RE	45	53	66	48	43	59	48	39	0
08	EWP59	55	65	86	57	55	71	58	48	0
09	EWP59RE	43	52	68	46	40	56	45	37	0
10	SBLK01	80	81	88	84	84	94	81	74	0
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		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(23-120)	
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)	
S3 (TPH)	= Terphenyl-d14	(18-137)	
S4 (PHL)	= Phenol-d5	(24-113)	
S5 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix Spike - EPA Sample No.: EWP55 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	4000.	0.	2500.	62	26- 90
2-Chlorophenol	4000.	0.	2600.	65	25-102
1,4-Dichlorobenzene	2700.	0.	1400.	52	28-104
N-Nitroso-di-n-prop.(1)	2700.	0.	1700.	63	41-126
1,2,4-Trichlorobenzene	2700.	0.	1700.	63	38-107
4-Chloro-3-methylphenol	4000.	0.	2800.	70	26-103
Acenaphthene	2700.	0.	1900.	70	31-137
4-Nitrophenol	4000.	0.	1700.	42	11-114
2,4-Dinitrotoluene	2700.	0.	1700.	63	28- 89
Pentachlorophenol	4000.	0.	2400.	60	17-109
Pyrene	2700.	250.	3000.	102	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	4000.	2700.	67	8	35	26- 90
2-Chlorophenol	4000.	2700.	67	3	50	25-102
1,4-Dichlorobenzene	2700.	1400.	52	0	27	28-104
N-Nitroso-di-n-prop.(1)	2700.	1900.	70	10	38	41-126
1,2,4-Trichlorobenzene	2700.	1700.	63	0	23	38-107
4-Chloro-3-methylphenol	4000.	3200.	80	13	33	26-103
Acenaphthene	2700.	2100.	78	11	19	31-137
4-Nitrophenol	4000.	2000.	50	17	50	11-114
2,4-Dinitrotoluene	2700.	1900.	70	10	47	28- 89
Pentachlorophenol	4000.	2600.	65	8	47	17-109
Pyrene	2700.	3200.	109	7	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: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Lab File ID:40715308 Lab Sample ID:40715308

Instrument ID:FINN4 Date Extracted: 6/29/93

Matrix: (soil/water) SOIL Date Analyzed: 7/16/93

Level:(low/med) LOW Time Analyzed: 0023

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EWP55	40715309	40715309	7/16/93
02	EWP55MS	40715310	40715310	7/16/93
03	EWP55MSD	40715311	40715311	7/16/93
04	EWP56	40715312	40715312	7/16/93
05	EWP57	40716301	40716301	7/16/93
06	EWP58	40715313	40715313	7/16/93
07	EWP58RE	40716302	40716302	7/16/93
08	EWP59	40715314	40715314	7/16/93
09	EWP59RE	40716303	40716303	7/16/93
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COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715308

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715308

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330.	U
111-44-4	bis(2-Chloroethyl)ether	330.	U
95-57-8	2-Chlorophenol	330.	U
541-73-1	1,3-Dichlorobenzene	330.	U
106-46-7	1,4-Dichlorobenzene	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330.	U
106-44-5	4-Methylphenol	330.	U
621-64-7	N-Nitroso-di-n-propylamine	330.	U
67-72-1	Hexachloroethane	330.	U
98-95-3	Nitrobenzene	330.	U
78-59-1	Isophorone	330.	U
88-75-5	2-Nitrophenol	330.	U
105-67-9	2,4-Dimethylphenol	330.	U
111-91-1	bis(2-Chloroethoxy)methane	330.	U
120-83-2	2,4-Dichlorophenol	330.	U
120-82-1	1,2,4-Trichlorobenzene	330.	U
91-20-3	Naphthalene	330.	U
106-47-8	4-Chloroaniline	330.	U
87-68-3	Hexachlorobutadiene	330.	U
59-50-7	4-Chloro-3-methylphenol	330.	U
91-57-6	2-Methylnaphthalene	330.	U
77-47-4	Hexachlorocyclopentadiene	330.	U
88-06-2	2,4,6-Trichlorophenol	330.	U
95-95-4	2,4,5-Trichlorophenol	800.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	800.	U
131-11-3	Dimethylphthalate	330.	U
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U
99-09-2	3-Nitroaniline	800.	U
83-32-9	Acenaphthene	330.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715308

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715308

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	800.	U
100-02-7	4-Nitrophenol	800.	U
132-64-9	Dibenzofuran	330.	U
121-14-2	2,4-Dinitrotoluene	330.	U
84-66-2	Diethylphthalate	330.	U
7005-72-3	4-Chlorophenyl-phenylether	330.	U
86-73-7	Fluorene	330.	U
100-01-6	4-Nitroaniline	800.	U
534-52-1	4,6-Dinitro-2-methylphenol	800.	U
86-30-6	N-Nitrosodiphenylamine (1)	330.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	800.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
86-74-8	Carbazole	330.	U
84-74-2	Di-n-butylphthalate	330.	U
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	330.	U
85-68-7	Butylbenzylphthalate	330.	U
91-94-1	3,3'-Dichlorobenzidine	330.	U
56-55-3	Benzo(a)anthracene	330.	U
218-01-9	Chrysene	330.	U
117-81-7	bis(2-Ethylhexyl)phthalate	330.	U
117-84-0	Di-n-octylphthalate	330.	U
205-99-2	Benzo(b)fluoranthene	330.	U
207-08-9	Benzo(k)fluoranthene	330.	U
50-32-8	Benzo(a)pyrene	330.	U
193-39-5	Indeno(1,2,3-cd)pyrene	330.	U
53-70-3	Dibenz(a,h)anthracene	330.	U
191-24-2	Benzo(g,h,i)perylene	330.	U

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SBLK01

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715308

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715308

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

Number TICs Found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.65	190.	J
2.		UNKNOWN MW=112	7.08	460.	J
3.		UNKNOWN	9.08	72.	J
4.		UNKNOWN	8.02	220.	J
5.		UNKNOWN	19.57	97.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP55

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715309

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715309

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 36 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	520.	U
111-44-4	bis(2-Chloroethyl)ether	520.	U
95-57-8	2-Chlorophenol	520.	U
541-73-1	1,3-Dichlorobenzene	520.	U
106-46-7	1,4-Dichlorobenzene	520.	U
95-50-1	1,2-Dichlorobenzene	520.	U
95-48-7	2-Methylphenol	520.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	520.	U
106-44-5	4-Methylphenol	44.	J
621-64-7	N-Nitroso-di-n-propylamine	520.	U
67-72-1	Hexachloroethane	520.	U
98-95-3	Nitrobenzene	520.	U
78-59-1	Isophorone	520.	U
88-75-5	2-Nitrophenol	520.	U
105-67-9	2,4-Dimethylphenol	520.	U
111-91-1	bis(2-Chloroethoxy)methane	520.	U
120-83-2	2,4-Dichlorophenol	520.	U
120-82-1	1,2,4-Trichlorobenzene	520.	U
91-20-3	Naphthalene	520.	U
106-47-8	4-Chloroaniline	520.	U
87-68-3	Hexachlorobutadiene	520.	U
59-50-7	4-Chloro-3-methylphenol	520.	U
91-57-6	2-Methylnaphthalene	520.	U
77-47-4	Hexachlorocyclopentadiene	520.	U
88-06-2	2,4,6-Trichlorophenol	520.	U
95-95-4	2,4,5-Trichlorophenol	1200.	U
91-58-7	2-Chloronaphthalene	520.	U
88-74-4	2-Nitroaniline	1200.	U
131-11-3	Dimethylphthalate	520.	U
208-96-8	Acenaphthylene	520.	U
606-20-2	2,6-Dinitrotoluene	520.	U
99-09-2	3-Nitroaniline	1200.	U
83-32-9	Acenaphthene	520.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP55

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715309

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715309

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 36 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1200.	U
100-02-7	4-Nitrophenol	1200.	U
132-64-9	Dibenzofuran	520.	U
121-14-2	2,4-Dinitrotoluene	520.	U
84-66-2	Diethylphthalate	520.	U
7005-72-3	4-Chlorophenyl-phenylether	520.	U
86-73-7	Fluorene	8.	J
100-01-6	4-Nitroaniline	1200.	U
534-52-1	4,6-Dinitro-2-methylphenol	1200.	U
86-30-6	N-Nitrosodiphenylamine (1)	520.	U
101-55-3	4-Bromophenyl-phenylether	520.	U
118-74-1	Hexachlorobenzene	520.	U
87-86-5	Pentachlorophenol	1200.	U
85-01-8	Phenanthrene	130.	J
120-12-7	Anthracene	520.	U
86-74-8	Carbazole	520.	U
84-74-2	Di-n-butylphthalate	520.	U
206-44-0	Fluoranthene	200.	J
129-00-0	Pyrene	250.	J
85-68-7	Butylbenzylphthalate	520.	U
91-94-1	3,3'-Dichlorobenzidine	520.	U
56-55-3	Benzo(a)anthracene	99.	J
218-01-9	Chrysene	130.	J
117-81-7	bis(2-Ethylhexyl)phthalate	90.	J
117-84-0	Di-n-octylphthalate	520.	U
205-99-2	Benzo(b)fluoranthene	240.	J
207-08-9	Benzo(k)fluoranthene	520.	U
50-32-8	Benzo(a)pyrene	94.	J
193-39-5	Indeno(1,2,3-cd)pyrene	48.	J
53-70-3	Dibenz(a,h)anthracene	520.	U
191-24-2	Benzo(g,h,i)perylene	50.	J

(1) - Cannot be separated from Diphenylamine

0020012A

1F

EPA SAMPLE NO.

EWP55

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715309

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715309

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 36 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs Found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.60	450.	JB u
2.		UNKNOWN MW=112	7.08	1200.	JB u
3.		UNKNOWN MW=112	7.27	310.	J
4.		UNKNOWN	9.20	2200.	JB u
5.		UNKNOWN HYDROCARBON	20.65	480.	J
6.	2091-29-4	9-HEXADECENOIC ACID	21.30	840.	JN
7.	57-10-3	HEXADECANOIC ACID	21.52	1700.	JN
8.		UNKNOWN	22.32	310.	J
9.	57-11-4	OCTADECANOIC ACID	23.45	460.	JN
10.	629-99-2	PENTACOSANE	26.42	1500.	JN
11.	593-49-7	HEPTACOSANE	28.02	1900.	JN
12.		UNKNOWN ALKANE	28.77	440.	J
13.		UNKNOWN HYDROCARBON	29.07	940.	J
14.		UNKNOWN ALKANE	29.53	3000.	J
15.		UNKNOWN HYDROCARBON	30.77	810.	J
16.		UNKNOWN ALKANE	31.33	2700.	J
17.		UNKNOWN HYDROCARBON	33.08	590.	J
18.		UNKNOWN ALKANE	33.80	1100.	J
19.		UNKNOWN MW=414	34.72	8500.	J
20.		UNKNOWN MW=414	35.45	3400.	J
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KM 8-13-96

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP56

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715312

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715312

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 23 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (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
108-95-2	Phenol	430.	U
111-44-4	bis(2-Chloroethyl)ether	430.	U
95-57-8	2-Chlorophenol	430.	U
541-73-1	1,3-Dichlorobenzene	430.	U
106-46-7	1,4-Dichlorobenzene	430.	U
95-50-1	1,2-Dichlorobenzene	430.	U
95-48-7	2-Methylphenol	430.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	430.	U
106-44-5	4-Methylphenol	430.	U
621-64-7	N-Nitroso-di-n-propylamine	430.	U
67-72-1	Hexachloroethane	430.	U
98-95-3	Nitrobenzene	430.	U
78-59-1	Isophorone	430.	U
88-75-5	2-Nitrophenol	430.	U
105-67-9	2,4-Dimethylphenol	430.	U
111-91-1	bis(2-Chloroethoxy)methane	430.	U
120-83-2	2,4-Dichlorophenol	430.	U
120-82-1	1,2,4-Trichlorobenzene	430.	U
91-20-3	Naphthalene	430.	U
106-47-8	4-Chloroaniline	430.	U
87-68-3	Hexachlorobutadiene	430.	U
59-50-7	4-Chloro-3-methylphenol	430.	U
91-57-6	2-Methylnaphthalene	430.	U
77-47-4	Hexachlorocyclopentadiene	430.	U
88-06-2	2,4,6-Trichlorophenol	430.	U
95-95-4	2,4,5-Trichlorophenol	1000.	U
91-58-7	2-Chloronaphthalene	430.	U
88-74-4	2-Nitroaniline	1000.	U
131-11-3	Dimethylphthalate	430.	U
208-96-8	Acenaphthylene	430.	U
606-20-2	2,6-Dinitrotoluene	430.	U
99-09-2	3-Nitroaniline	1000.	U
83-32-9	Acenaphthene	430.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP56

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715312

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715312

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 23 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (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
51-28-5	2,4-Dinitrophenol	1000.	U
100-02-7	4-Nitrophenol	1000.	U
132-64-9	Dibenzofuran	430.	U
121-14-2	2,4-Dinitrotoluene	430.	U
84-66-2	Diethylphthalate	430.	U
7005-72-3	4-Chlorophenyl-phenylether	430.	U
86-73-7	Fluorene	430.	U
100-01-6	4-Nitroaniline	1000.	U
534-52-1	4,6-Dinitro-2-methylphenol	1000.	U
86-30-6	N-Nitrosodiphenylamine (1)	430.	U
101-55-3	4-Bromophenyl-phenylether	430.	U
118-74-1	Hexachlorobenzene	430.	U
87-86-5	Pentachlorophenol	1000.	U
85-01-8	Phenanthrene	72.	J
120-12-7	Anthracene	430.	U
86-74-8	Carbazole	430.	U
84-74-2	Di-n-butylphthalate	430.	U
206-44-0	Fluoranthene	140.	J
129-00-0	Pyrene	150.	J
85-68-7	Butylbenzylphthalate	430.	U
91-94-1	3,3'-Dichlorobenzidine	430.	U
56-55-3	Benzo(a)anthracene	64.	J
218-01-9	Chrysene	93.	J
117-81-7	bis(2-Ethylhexyl)phthalate	37.	J
117-84-0	Di-n-octylphthalate	430.	U
205-99-2	Benzo(b)fluoranthene	160.	J
207-08-9	Benzo(k)fluoranthene	430.	U
50-32-8	Benzo(a)pyrene	75.	J
193-39-5	Indeno(1,2,3-cd)pyrene	32.	J
53-70-3	Dibenz(a,h)anthracene	430.	U
191-24-2	Benzo(g,h,i)perylene	27.	J

(1) - Cannot be separated from Diphenylamine

0020085

1F

EPA SAMPLE NO.

EWP56

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715312

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715312

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 23 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs Found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.63	950.	JB u
2.		UNKNOWN MW=112	7.07	620.	JB u
3.		UNKNOWN	8.05	740.	JB u
4.		UNKNOWN	9.18	1700.	JB
5.	143-07-7	DODECANOIC ACID	16.97	170.	JN
6.	544-76-3	HEXADECANE	17.40	120.	JN
7.	629-78-7	HEPTADECANE	18.60	130.	JN
8.		UNKNOWN ALKANE	18.67	130.	J
9.	544-63-8	TETRADECANOIC ACID	19.32	250.	JN
10.		UNKNOWN	19.57	250.	JB u
11.		UNKNOWN HYDROCARBON	20.48	270.	J
12.		UNKNOWN HYDROCARBON	20.65	300.	J
13.		UNKNOWN	20.70	290.	J
14.	2091-29-4	9-HEXADECENOIC ACID	21.33	1300.	JN
15.	57-10-3	HEXADECANOIC ACID	21.52	840.	JN
16.		UNKNOWN ALKANE	28.00	110.	J
17.		UNKNOWN ALKANE	29.52	990.	J
18.		UNKNOWN ALKANE	31.30	250.	J
19.		UNKNOWN	32.05	310.	J
20.		UNKNOWN	34.60	310.	J
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KM 8-13-93

KM 8-13-93

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP57

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716301

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 24 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430.	U
111-44-4	bis(2-Chloroethyl)ether	430.	U
95-57-8	2-Chlorophenol	430.	U
541-73-1	1,3-Dichlorobenzene	430.	U
106-46-7	1,4-Dichlorobenzene	430.	U
95-50-1	1,2-Dichlorobenzene	430.	U
95-48-7	2-Methylphenol	430.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	430.	U
106-44-5	4-Methylphenol	430.	U
621-64-7	N-Nitroso-di-n-propylamine	430.	U
67-72-1	Hexachloroethane	430.	U
98-95-3	Nitrobenzene	430.	U
78-59-1	Isophorone	35.	J
88-75-5	2-Nitrophenol	430.	U
105-67-9	2,4-Dimethylphenol	430.	U
111-91-1	bis(2-Chloroethoxy)methane	430.	U
120-83-2	2,4-Dichlorophenol	430.	U
120-82-1	1,2,4-Trichlorobenzene	430.	U
91-20-3	Naphthalene	33.	J
106-47-8	4-Chloroaniline	430.	U
87-68-3	Hexachlorobutadiene	430.	U
59-50-7	4-Chloro-3-methylphenol	430.	U
91-57-6	2-Methylnaphthalene	26.	J
77-47-4	Hexachlorocyclopentadiene	430.	U
88-06-2	2,4,6-Trichlorophenol	430.	U
95-95-4	2,4,5-Trichlorophenol	1000.	U
91-58-7	2-Chloronaphthalene	430.	U
88-74-4	2-Nitroaniline	1000.	U
131-11-3	Dimethylphthalate	430.	U
208-96-8	Acenaphthylene	110.	J
606-20-2	2,6-Dinitrotoluene	430.	U
99-09-2	3-Nitroaniline	1000.	U
83-32-9	Acenaphthene	430.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 5

EWP57

mw 7/26/93

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716301

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 24 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000.	U
100-02-7	4-Nitrophenol	1000.	U
132-64-9	Dibenzofuran	27.	J
121-14-2	2,4-Dinitrotoluene	430.	U
84-66-2	Diethylphthalate	430.	U
7005-72-3	4-Chlorophenyl-phenylether	430.	U
86-73-7	Fluorene	45.	J
100-01-6	4-Nitroaniline	1000.	U
534-52-1	4,6-Dinitro-2-methylphenol	1000.	U
86-30-6	N-Nitrosodiphenylamine (1)	430.	U
101-55-3	4-Bromophenyl-phenylether	430.	U
118-74-1	Hexachlorobenzene	430.	U
87-86-5	Pentachlorophenol	1000.	U
85-01-8	Phenanthrene	640.	
120-12-7	Anthracene	99.	J
86-74-8	Carbazole	52.	J
84-74-2	Di-n-butylphthalate	430.	U
206-44-0	Fluoranthene	1000.	
129-00-0	Pyrene	1400.	
85-68-7	Butylbenzylphthalate	190.	J
91-94-1	3,3'-Dichlorobenzidine	430.	U
56-55-3	Benzo(a)anthracene	910.	
218-01-9	Chrysene	650.	
117-81-7	bis(2-Ethylhexyl)phthalate	430.	U
117-84-0	Di-n-octylphthalate	430.	U
205-99-2	Benzo(b)fluoranthene	1400.	
207-08-9	Benzo(k)fluoranthene	430.	U
50-32-8	Benzo(a)pyrene	580.	
193-39-5	Indeno(1,2,3-cd)pyrene	270.	J
53-70-3	Dibenz(a,h)anthracene	100.	J
191-24-2	Benzo(g,h,i)perylene	290.	J

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

EWP57

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716301

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 24 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs Found: 18

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
1.		UNKNOWN	6.57	760.	JB U	KM 8-13-9
2.		UNKNOWN MW=112	7.00	610.	JB U	
3.		UNKNOWN	7.98	720.	JB U	
4.		UNKNOWN	9.13	1200.	JB	
5.	70-55-3	BENZENESULFONAMIDE, 4-METHYL	18.30	230.	JN	
6.		UNKNOWN ALKANE	18.63	100.	J	
7.		PHENANTHRENE, METHYL-	20.98	110.	J	
8.		UNKNOWN PAH	21.18	350.	J	
9.	2091-29-4	9-HEXADECENOIC ACID	21.35	260.	JN	
10.	57-10-3	HEXADECANOIC ACID	21.45	280.	JN	
11.		UNKNOWN PHTHALATE	26.90	36000.	J	
12.		UNKNOWN ALKANE	29.48	650.	J	
13.		UNKNOWN ALKANE	31.25	930.	J	
14.		UNKNOWN PHTHALATE	26.63	3600.	J	
15.		UNKNOWN MW=112	7.22	160.	J	
16.		UNKNOWN	17.85	500.	J	
17.		UNKNOWN	19.53	310.	JB U	KM 8-13-9a
18.		UNKNOWN	24.67	120.	J	
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP58

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715313

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715313

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 26 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (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
108-95-2	Phenol	440.	U
111-44-4	bis(2-Chloroethyl)ether	440.	U
95-57-8	2-Chlorophenol	440.	U
541-73-1	1,3-Dichlorobenzene	440.	U
106-46-7	1,4-Dichlorobenzene	440.	U
95-50-1	1,2-Dichlorobenzene	440.	U
95-48-7	2-Methylphenol	440.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	440.	U
106-44-5	4-Methylphenol	440.	U
621-64-7	N-Nitroso-di-n-propylamine	440.	U
67-72-1	Hexachloroethane	440.	U
98-95-3	Nitrobenzene	440.	U
78-59-1	Isophorone	440.	U
88-75-5	2-Nitrophenol	440.	U
105-67-9	2,4-Dimethylphenol	440.	U
111-91-1	bis(2-Chloroethoxy)methane	440.	U
120-83-2	2,4-Dichlorophenol	440.	U
120-82-1	1,2,4-Trichlorobenzene	440.	U
91-20-3	Naphthalene	440.	U
106-47-8	4-Chloroaniline	440.	U
87-68-3	Hexachlorobutadiene	440.	U
59-50-7	4-Chloro-3-methylphenol	440.	U
91-57-6	2-Methylnaphthalene	440.	U
77-47-4	Hexachlorocyclopentadiene	440.	U
88-06-2	2,4,6-Trichlorophenol	440.	U
95-95-4	2,4,5-Trichlorophenol	1100.	U
91-58-7	2-Chloronaphthalene	440.	U
88-74-4	2-Nitroaniline	1100.	U
131-11-3	Dimethylphthalate	440.	U
208-96-8	Acenaphthylene	440.	U
606-20-2	2,6-Dinitrotoluene	440.	U
99-09-2	3-Nitroaniline	1100.	U
83-32-9	Acenaphthene	440.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP58

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715313

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715313

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 26 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (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
51-28-5	2,4-Dinitrophenol	1100.	U
100-02-7	4-Nitrophenol	1100.	U
132-64-9	Dibenzofuran	440.	U
121-14-2	2,4-Dinitrotoluene	440.	U
84-66-2	Diethylphthalate	440.	U
7005-72-3	4-Chlorophenyl-phenylether	440.	U
86-73-7	Fluorene	440.	U
100-01-6	4-Nitroaniline	1100.	U
534-52-1	4,6-Dinitro-2-methylphenol	1100.	U
86-30-6	N-Nitrosodiphenylamine (1)	440.	U
101-55-3	4-Bromophenyl-phenylether	440.	U
118-74-1	Hexachlorobenzene	440.	U
87-86-5	Pentachlorophenol	1100.	U
85-01-8	Phenanthrene	170.	J
120-12-7	Anthracene	26.	J
86-74-8	Carbazole	440.	U
84-74-2	Di-n-butylphthalate	440.	U
206-44-0	Fluoranthene	280.	J
129-00-0	Pyrene	420.	J
85-68-7	Butylbenzylphthalate	440.	U
91-94-1	3,3'-Dichlorobenzidine	440.	U
56-55-3	Benzo(a)anthracene	200.	J
218-01-9	Chrysene	240.	J
117-81-7	bis(2-Ethylhexyl)phthalate	52.	J
117-84-0	Di-n-octylphthalate	440.	U
205-99-2	Benzo(b)fluoranthene	400.	J
207-08-9	Benzo(k)fluoranthene	290.	J
50-32-8	Benzo(a)pyrene	280.	J
193-39-5	Indeno(1,2,3-cd)pyrene	160.	J
53-70-3	Dibenz(a,h)anthracene	71.	J
191-24-2	Benzo(g,h,i)perylene	150.	J

(1) - Cannot be separated from Diphenylamine

0020239

1F

EPA SAMPLE NO.

EWP58

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715313

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715313

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 26 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs Found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.63	1100.	JB U
2.		UNKNOWN MW=112	7.05	480.	JB U
3.		UNKNOWN	8.05	860.	JB U
4.		UNKNOWN	9.17	1600.	JB
5.		UNKNOWN	19.57	420.	JB U
6.	2091-29-4	9-HEXADECENOIC ACID	21.30	510.	JN
7.	2091-29-4	9-HEXADECENOIC ACID	21.40	620.	JN
8.	57-10-3	HEXADECANOIC ACID	21.50	590.	JN
9.	593-49-7	HEPTACOSANE	28.00	960.	JN
10.		UNKNOWN HYDROCARBON	29.07	1400.	J
11.		UNKNOWN ALKANE	29.53	3900.	J
12.		UNKNOWN HYDROCARBON	29.60	5200.	J
13.		UNKNOWN HYDROCARBON	30.77	760.	J
14.		UNKNOWN ALKANE	31.37	6500.	J
15.		UNKNOWN MW=400	33.38	850.	J
16.		UNKNOWN ALKANE	33.78	2500.	J
17.		UNKNOWN MW=414	34.68	2100.	J
18.		UNKNOWN	34.82	1500.	J
19.		UNKNOWN	35.32	1600.	J
20.		UNKNOWN	35.55	940.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

KM 8-13-93

KM 8-13-93

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP58RE

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716302

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 26 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (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
108-95-2	Phenol	440.	U
111-44-4	bis(2-Chloroethyl)ether	440.	U
95-57-8	2-Chlorophenol	440.	U
541-73-1	1,3-Dichlorobenzene	440.	U
106-46-7	1,4-Dichlorobenzene	440.	U
95-50-1	1,2-Dichlorobenzene	440.	U
95-48-7	2-Methylphenol	440.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	440.	U
106-44-5	4-Methylphenol	440.	U
621-64-7	N-Nitroso-di-n-propylamine	440.	U
67-72-1	Hexachloroethane	440.	U
98-95-3	Nitrobenzene	440.	U
78-59-1	Isophorone	440.	U
88-75-5	2-Nitrophenol	440.	U
105-67-9	2,4-Dimethylphenol	440.	U
111-91-1	bis(2-Chloroethoxy)methane	440.	U
120-83-2	2,4-Dichlorophenol	440.	U
120-82-1	1,2,4-Trichlorobenzene	440.	U
91-20-3	Naphthalene	440.	U
106-47-8	4-Chloroaniline	440.	U
87-68-3	Hexachlorobutadiene	440.	U
59-50-7	4-Chloro-3-methylphenol	440.	U
91-57-6	2-Methylnaphthalene	440.	U
77-47-4	Hexachlorocyclopentadiene	440.	U
88-06-2	2,4,6-Trichlorophenol	440.	U
95-95-4	2,4,5-Trichlorophenol	1100.	U
91-58-7	2-Chloronaphthalene	440.	U
88-74-4	2-Nitroaniline	1100.	U
131-11-3	Dimethylphthalate	440.	U
208-96-8	Acenaphthylene	440.	U
606-20-2	2,6-Dinitrotoluene	440.	U
99-09-2	3-Nitroaniline	1100.	U
83-32-9	Acenaphthene	440.	U

0020313A

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP58RE

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716302

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 26 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (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
51-28-5	2,4-Dinitrophenol	1100.	U
100-02-7	4-Nitrophenol	1100.	U
132-64-9	Dibenzofuran	440.	U
121-14-2	2,4-Dinitrotoluene	440.	U
84-66-2	Diethylphthalate	440.	U
7005-72-3	4-Chlorophenyl-phenylether	440.	U
86-73-7	Fluorene	440.	U
100-01-6	4-Nitroaniline	1100.	U
534-52-1	4,6-Dinitro-2-methylphenol	1100.	U
86-30-6	N-Nitrosodiphenylamine (1)	440.	U
101-55-3	4-Bromophenyl-phenylether	440.	U
118-74-1	Hexachlorobenzene	440.	U
87-86-5	Pentachlorophenol	1100.	U
85-01-8	Phenanthrene	140.	J
120-12-7	Anthracene	440.	U
86-74-8	Carbazole	440.	U
84-74-2	Di-n-butylphthalate	440.	U
206-44-0	Fluoranthene	250.	J
129-00-0	Pyrene	330.	J
85-68-7	Butylbenzylphthalate	440.	U
91-94-1	3,3'-Dichlorobenzidine	440.	U
56-55-3	Benzo(a)anthracene	180.	J
218-01-9	Chrysene	190.	J
117-81-7	bis(2-Ethylhexyl)phthalate	48.	J
117-84-0	Di-n-octylphthalate	440.	U
205-99-2	Benzo(b)fluoranthene	300.	J
207-08-9	Benzo(k)fluoranthene	230.	J
50-32-8	Benzo(a)pyrene	210.	J
193-39-5	Indeno(1,2,3-cd)pyrene	97.	J
53-70-3	Dibenz(a,h)anthracene	51.	J
191-24-2	Benzo(g,h,i)perylene	100.	J

(1) - Cannot be separated from Diphenylamine

0020314

1F

EPA SAMPLE NO.

EWP58RE

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716302

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 26 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs Found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.55	1200.	JB
2.		UNKNOWN MW=112	6.97	510.	JB
3.		UNKNOWN	7.98	940.	JB
4.		UNKNOWN	9.12	1600.	JB
5.	2091-29-4	9-HEXADECENOIC ACID	21.27	200.	JN
6.	2091-29-4	9-HEXADECENOIC ACID	21.35	330.	JN
7.	57-10-3	HEXADECANOIC ACID	21.47	350.	JN
8.		UNKNOWN ALKANE	27.17	310.	J
9.	593-49-7	HEPTACOSANE	27.95	550.	JN
10.		UNKNOWN ALKANE	28.70	570.	J
11.		UNKNOWN HYDROCARBON	29.00	950.	J
12.		UNKNOWN ALKANE	29.47	2800.	J
13.		UNKNOWN HYDROCARBON	29.55	3300.	J
14.		UNKNOWN ALKANE	30.27	520.	J
15.		UNKNOWN HYDROCARBON	30.68	490.	J
16.		UNKNOWN ALKANE	31.27	4500.	J
17.		UNKNOWN ALKANE	33.65	1600.	J
18.		UNKNOWN MW=414	34.55	1700.	J
19.		UNKNOWN	35.17	990.	J
20.		UNKNOWN	35.38	710.	J
21.					
22.					
23.					
24.					
25.					
26.					
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29.					
30.					

KM 8-13-93

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP59

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715314

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715314

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 20 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410.	U
111-44-4	bis(2-Chloroethyl)ether	410.	U
95-57-8	2-Chlorophenol	410.	U
541-73-1	1,3-Dichlorobenzene	410.	U
106-46-7	1,4-Dichlorobenzene	410.	U
95-50-1	1,2-Dichlorobenzene	410.	U
95-48-7	2-Methylphenol	410.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	410.	U
106-44-5	4-Methylphenol	410.	U
621-64-7	N-Nitroso-di-n-propylamine	410.	U
67-72-1	Hexachloroethane	410.	U
98-95-3	Nitrobenzene	410.	U
78-59-1	Isophorone	410.	U
88-75-5	2-Nitrophenol	410.	U
105-67-9	2,4-Dimethylphenol	410.	U
111-91-1	bis(2-Chloroethoxy)methane	410.	U
120-83-2	2,4-Dichlorophenol	410.	U
120-82-1	1,2,4-Trichlorobenzene	410.	U
91-20-3	Naphthalene	410.	U
106-47-8	4-Chloroaniline	410.	U
87-68-3	Hexachlorobutadiene	410.	U
59-50-7	4-Chloro-3-methylphenol	410.	U
91-57-6	2-Methylnaphthalene	410.	U
77-47-4	Hexachlorocyclopentadiene	410.	U
88-06-2	2,4,6-Trichlorophenol	410.	U
95-95-4	2,4,5-Trichlorophenol	1000.	U
91-58-7	2-Chloronaphthalene	410.	U
88-74-4	2-Nitroaniline	1000.	U
131-11-3	Dimethylphthalate	410.	U
208-96-8	Acenaphthylene	410.	U
606-20-2	2,6-Dinitrotoluene	410.	U
99-09-2	3-Nitroaniline	1000.	U
83-32-9	Acenaphthene	410.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP59

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715314

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715314

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 20 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000.	U
100-02-7	4-Nitrophenol	1000.	U
132-64-9	Dibenzofuran	410.	U
121-14-2	2,4-Dinitrotoluene	410.	U
84-66-2	Diethylphthalate	410.	U
7005-72-3	4-Chlorophenyl-phenylether	410.	U
86-73-7	Fluorene	410.	U
100-01-6	4-Nitroaniline	1000.	U
534-52-1	4,6-Dinitro-2-methylphenol	1000.	U
86-30-6	N-Nitrosodiphenylamine (1)	410.	U
101-55-3	4-Bromophenyl-phenylether	410.	U
118-74-1	Hexachlorobenzene	410.	U
87-86-5	Pentachlorophenol	1000.	U
85-01-8	Phenanthrene	130.	J
120-12-7	Anthracene	20.	J
86-74-8	Carbazole	410.	U
84-74-2	Di-n-butylphthalate	410.	U
206-44-0	Fluoranthene	190.	J
129-00-0	Pyrene	310.	J
85-68-7	Butylbenzylphthalate	410.	U
91-94-1	3,3'-Dichlorobenzidine	410.	U
56-55-3	Benzo(a)anthracene	130.	J
218-01-9	Chrysene	160.	J
117-81-7	bis(2-Ethylhexyl)phthalate	41.	J
117-84-0	Di-n-octylphthalate	410.	U
205-99-2	Benzo(b)fluoranthene	330.	J
207-08-9	Benzo(k)fluoranthene	410.	U
50-32-8	Benzo(a)pyrene	150.	J
193-39-5	Indeno(1,2,3-cd)pyrene	68.	J
53-70-3	Dibenz(a,h)anthracene	410.	U
191-24-2	Benzo(g,h,i)perylene	410.	U

(1) - Cannot be separated from Diphenylamine

0020387

1F

EPA SAMPLE NO.

EWP59

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715314

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715314

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 20 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs Found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.63	1000.	JB
2.		UNKNOWN MW=112	7.05	380.	JB
3.		UNKNOWN	8.05	680.	JB
4.		UNKNOWN	9.17	1200.	JB
5.		UNKNOWN	18.25	270.	J
6.		UNKNOWN	20.25	1100.	J
7.	2091-29-4	9-HEXADECENOIC ACID	21.30	280.	JN
8.	2091-29-4	9-HEXADECENOIC ACID	21.40	260.	JN
9.	57-10-3	HEXADECANOIC ACID	21.50	350.	JN
10.		UNKNOWN ALKANE	28.02	230.	J
11.		UNKNOWN ALKANE	28.77	240.	J
12.		UNKNOWN HYDROCARBON	29.08	860.	J
13.		UNKNOWN ALKANE	29.53	2000.	J
14.		UNKNOWN HYDROCARBON	29.63	2200.	J
15.		UNKNOWN ALKANE	30.37	370.	J
16.		UNKNOWN HYDROCARBON	30.78	420.	J
17.		UNKNOWN ALKANE	31.35	3000.	J
18.		UNKNOWN	34.82	1400.	J
19.		UNKNOWN	35.43	700.	J
20.		UNKNOWN	35.57	480.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

KM 8-13-93

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP59RE

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716303

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 20 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410.	U
111-44-4	bis(2-Chloroethyl)ether	410.	U
95-57-8	2-Chlorophenol	410.	U
541-73-1	1,3-Dichlorobenzene	410.	U
106-46-7	1,4-Dichlorobenzene	410.	U
95-50-1	1,2-Dichlorobenzene	410.	U
95-48-7	2-Methylphenol	410.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	410.	U
106-44-5	4-Methylphenol	410.	U
621-64-7	N-Nitroso-di-n-propylamine	410.	U
67-72-1	Hexachloroethane	410.	U
98-95-3	Nitrobenzene	410.	U
78-59-1	Isophorone	410.	U
88-75-5	2-Nitrophenol	410.	U
105-67-9	2,4-Dimethylphenol	410.	U
111-91-1	bis(2-Chloroethoxy)methane	410.	U
120-83-2	2,4-Dichlorophenol	410.	U
120-82-1	1,2,4-Trichlorobenzene	410.	U
91-20-3	Naphthalene	410.	U
106-47-8	4-Chloroaniline	410.	U
87-68-3	Hexachlorobutadiene	410.	U
59-50-7	4-Chloro-3-methylphenol	410.	U
91-57-6	2-Methylnaphthalene	410.	U
77-47-4	Hexachlorocyclopentadiene	410.	U
88-06-2	2,4,6-Trichlorophenol	410.	U
95-95-4	2,4,5-Trichlorophenol	1000.	U
91-58-7	2-Chloronaphthalene	410.	U
88-74-4	2-Nitroaniline	1000.	U
131-11-3	Dimethylphthalate	410.	U
208-96-8	Acenaphthylene	410.	U
606-20-2	2,6-Dinitrotoluene	410.	U
99-09-2	3-Nitroaniline	1000.	U
83-32-9	Acenaphthene	410.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP59RE

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716303

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 20 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000.	U
100-02-7	4-Nitrophenol	1000.	U
132-64-9	Dibenzofuran	410.	U
121-14-2	2,4-Dinitrotoluene	410.	U
84-66-2	Diethylphthalate	410.	U
7005-72-3	4-Chlorophenyl-phenylether	410.	U
86-73-7	Fluorene	410.	U
100-01-6	4-Nitroaniline	1000.	U
534-52-1	4,6-Dinitro-2-methylphenol	1000.	U
86-30-6	N-Nitrosodiphenylamine (1)	410.	U
101-55-3	4-Bromophenyl-phenylether	410.	U
118-74-1	Hexachlorobenzene	410.	U
87-86-5	Pentachlorophenol	1000.	U
85-01-8	Phenanthrene	100.	J
120-12-7	Anthracene	410.	U
86-74-8	Carbazole	410.	U
84-74-2	Di-n-butylphthalate	410.	U
206-44-0	Fluoranthene	160.	J
129-00-0	Pyrene	220.	J
85-68-7	Butylbenzylphthalate	410.	U
91-94-1	3,3'-Dichlorobenzidine	410.	U
56-55-3	Benzo(a)anthracene	100.	J
218-01-9	Chrysene	120.	J
117-81-7	bis(2-Ethylhexyl)phthalate	32.	J
117-84-0	Di-n-octylphthalate	410.	U
205-99-2	Benzo(b)fluoranthene	310.	J
207-08-9	Benzo(k)fluoranthene	410.	U
50-32-8	Benzo(a)pyrene	110.	J
193-39-5	Indeno(1,2,3-cd)pyrene	57.	J
53-70-3	Dibenz(a,h)anthracene	410.	U
191-24-2	Benzo(g,h,i)perylene	60.	J

(1) - Cannot be separated from Diphenylamine

0020458

1F

EPA SAMPLE NO.

EWP59RE

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716303

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 20 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs Found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.58	820.	JB u
2.		UNKNOWN MW=112	7.02	260.	JB u
3.		UNKNOWN C10.H16	7.53	210.	J
4.		UNKNOWN	8.02	530.	JB u
5.		UNKNOWN	9.15	1100.	J
6.		UNKNOWN	18.22	160.	J
7.		UNKNOWN	20.20	600.	J
8.	2091-29-4	9-HEXADECENOIC ACID	21.27	140.	JN
9.	2091-29-4	9-HEXADECENOIC ACID	21.37	160.	JN
10.	57-10-3	HEXADECANOIC ACID	21.47	280.	JN
11.		UNKNOWN ALKANE	24.65	100.	J
12.	630-01-3	HEXACOSANE	27.18	91.	JN
13.	593-49-7	HEPTACOSANE	27.97	250.	JN
14.		UNKNOWN ALKANE	28.72	310.	J
15.		UNKNOWN HYDROCARBON	29.02	780.	J
16.		UNKNOWN ALKANE	29.47	1700.	J
17.		UNKNOWN HYDROCARBON	29.57	1600.	J
18.		UNKNOWN HYDROCARBON	30.70	350.	J
19.		UNKNOWN ALKANE	31.27	2400.	J
20.		UNKNOWN ALKANE	33.65	850.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

KM
p-13-a

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

GC Column(1):DB-608 ID: 0.53 (mm) GC Column(2):DB-1701 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	EWP55	67	78	65	84			0
02	EWP55MS	65	68	75	79			0
03	EWP55MSD	72	77	76	79			0
04	EWP56	73	77	68	77			0
05	EWP57	77	78	96	67			0
06	EWP58	89	88	63	73			0
07	EWP59	82	82	93	106			0
08	PBLK01	85	82	91	93			0
09								
10								
11								
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28								
29								
30								

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix Spike - EPA Sample No.: EWP55

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC(Lindane)	26.	0.0	24.	92	46-127
Heptachlor	26.	0.0	25.	96	35-130
Aldrin	26.	0.0	21.	81	34-132
Dieldrin	52.	2.8	50.	91	31-134
Endrin	52.	0.51	49.	93	42-139
4,4'-DDT	52.	0.0	50.	96	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC(Lindane)	26.	27.	104	12	50	46-127
Heptachlor	26.	28.	108	12	31	35-130
Aldrin	26.	24.	92	13	43	34-132
Dieldrin	52.	57.	104	13	38	31-134
Endrin	52.	56.	107	14	45	42-139
4,4'-DDT	52.	58.	112	15	50	23-134

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:

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Lab Sample ID:PBLK01 Lab File ID:

Matrix:(soil/water) SOIL Extraction:(SepF/Cont/Sonc)SONC

Sulfur Cleanup: (Y/N) N Date Extracted: 6/29/93

Date Analyzed (1): 7/11/93 Date Analyzed (2): 7/11/93

Time Analyzed (1):0951 Time Analyzed (2):0951

Instrument ID (1):HP5890J Instrument ID (2):JP5890J

GC Column (1):DB-608 ID: 0.53(mm) GC Column (2):DB-1701 ID: 0.53(mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EWP55	EWP55	7/11/93	7/11/93
02	EWP55MS	EWP55MS	7/11/93	7/11/93
03	EWP55MSD	EWP55MSD	7/11/93	7/11/93
04	EWP56	EWP56	7/11/93	7/11/93
05	EWP57	EWP57	7/11/93	7/11/93
06	EWP58	EWP58	7/11/93	7/11/93
07	EWP59	EWP59	7/11/93	7/11/93
08				
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26				

COMMENTS:

0030222
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

PBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water)SOIL Lab Sample ID: PBLK01

Sample wt/vol: 30.0 (g/ml)G Lab File ID:

% Moisture: 0 decanted: (Y/N) N Date Received: / /

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/11/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: 6.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG	Q
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)	1.7	U
76-44-8	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
72-55-9	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	0.16	JP
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	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

0030004
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP55

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water)SOIL Lab Sample ID: EWP55

Sample wt/vol: 30.0 (g/ml)G Lab File ID:

% Moisture: 36 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/11/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: 7.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	0.13	JP
319-85-7	beta-BHC	2.7	U
319-86-8	delta-BHC	2.7	U
58-89-9	gamma-BHC(Lindane)	2.7	U
76-44-8	Heptachlor	2.7	U
309-00-2	Aldrin	2.7	U
1024-57-3	Heptachlor epoxide	0.14	JP
959-98-8	Endosulfan I	2.7	U
60-57-1	Dieldrin	2.8	J
72-55-9	4,4'-DDE	0.46	JP
72-20-8	Endrin	0.51	JP
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	27.	U
53494-70-5	Endrin ketone	5.2	U
7421-36-3	Endrin aldehyde	5.2	U
5103-71-9	alpha-Chlordane	0.40	JP
5103-74-2	gamma-Chlordane	0.82	JP
8001-35-2	Toxaphene	270.	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

0030011

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP56

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water)SOIL Lab Sample ID: EWP56

Sample wt/vol: 30.0 (g/ml)G Lab File ID:

% Moisture: 23 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/11/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	2.2	U
319-85-7	beta-BHC	2.2	U
319-86-8	delta-BHC	2.2	U
58-89-9	gamma-BHC(Lindane)	2.2	U
76-44-8	Heptachlor	2.2	U
309-00-2	Aldrin	2.2	U
1024-57-3	Heptachlor epoxide	0.10	JP
959-98-8	Endosulfan I	2.2	U
60-57-1	Dieldrin	1.2	J
72-55-9	4,4'-DDE	0.29	J
72-20-8	Endrin	4.3	U
33213-65-9	Endosulfan II	4.3	U
72-54-8	4,4'-DDD	4.3	U
1031-07-8	Endosulfan sulfate	4.3	U
50-29-3	4,4'-DDT	4.3	U
72-43-5	Methoxychlor	22.	U
53494-70-5	Endrin ketone	4.3	U
7421-36-3	Endrin aldehyde	4.3	U
5103-71-9	alpha-Chlordane	0.17	JP
5103-74-2	gamma-Chlordane	0.36	JP
8001-35-2	Toxaphene	220.	U
12674-11-2	Aroclor-1016	43.	U
11104-28-2	Aroclor-1221	87.	U
11141-16-5	Aroclor-1232	43.	U
53469-21-9	Aroclor-1242	43.	U
12672-29-6	Aroclor-1248	43.	U
11097-69-1	Aroclor-1254	43.	U
11096-82-5	Aroclor-1260	43.	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP57

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water)SOIL Lab Sample ID: EWP57

Sample wt/vol: 30.0 (g/ml)G Lab File ID:

% Moisture: 24 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/11/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: 7.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	2.2	U
319-85-7	beta-BHC	2.2	U
319-86-8	delta-BHC	0.53	JP
58-89-9	gamma-BHC(Lindane)	2.2	U
76-44-8	Heptachlor	0.16	JP
309-00-2	Aldrin	2.2	U
1024-57-3	Heptachlor epoxide	0.46	JP
959-98-8	Endosulfan I	2.2	U
60-57-1	Dieldrin	1.7	JP
72-55-9	4,4'-DDE	0.84	JP
72-20-8	Endrin	6.8	
33213-65-9	Endosulfan II	4.3	U
72-54-8	4,4'-DDD	4.3	U
1031-07-8	Endosulfan sulfate	4.3	U
50-29-3	4,4'-DDT	4.3	U
72-43-5	Methoxychlor	22.	U
53494-70-5	Endrin ketone	2.1	JP
7421-36-3	Endrin aldehyde	4.3	U
5103-71-9	alpha-Chlordane	0.26	JP
5103-74-2	gamma-Chlordane	0.38	JP
8001-35-2	Toxaphene	220.	U
12674-11-2	Aroclor-1016	43.	U
11104-28-2	Aroclor-1221	88.	U
11141-16-5	Aroclor-1232	43.	U
53469-21-9	Aroclor-1242	32.	J
12672-29-6	Aroclor-1248	43.	U
11097-69-1	Aroclor-1254	43.	U
11096-82-5	Aroclor-1260	43.	U

0030027
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP58

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water)SOIL Lab Sample ID: EWP58

Sample wt/vol: 30.0 (g/ml)G Lab File ID:

% Moisture: 26 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/11/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	2.3	U
319-85-7	beta-BHC	2.3	U
319-86-8	delta-BHC	0.49	JP
58-89-9	gamma-BHC(Lindane)	2.3	U
76-44-8	Heptachlor	2.3	U
309-00-2	Aldrin	2.3	U
1024-57-3	Heptachlor epoxide	0.24	JP
959-98-8	Endosulfan I	2.3	U
60-57-1	Dieldrin	2.0	JP
72-55-9	4,4'-DDE	6.9	
72-20-8	Endrin	0.28	JP
33213-65-9	Endosulfan II	4.5	U
72-54-8	4,4'-DDD	2.8	JP
1031-07-8	Endosulfan sulfate	4.5	U
50-29-3	4,4'-DDT	8.4	
72-43-5	Methoxychlor	35.	B
53494-70-5	Endrin ketone	4.5	U
7421-36-3	Endrin aldehyde	4.5	U
5103-71-9	alpha-Chlordane	0.48	JP
5103-74-2	gamma-Chlordane	0.40	JP
8001-35-2	Toxaphene	230.	U
12674-11-2	Aroclor-1016	45.	U
11104-28-2	Aroclor-1221	91.	U
11141-16-5	Aroclor-1232	45.	U
53469-21-9	Aroclor-1242	45.	U
12672-29-6	Aroclor-1248	45.	U
11097-69-1	Aroclor-1254	45.	U
11096-82-5	Aroclor-1260	45.	U

0030036
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP59

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water)SOIL Lab Sample ID: EWP59

Sample wt/vol: 30.0 (g/ml)G Lab File ID:

% Moisture: 20 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/11/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: 7.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC(Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	0.18	JP
72-55-9	4,4'-DDE	4.1	U
72-20-8	Endrin	0.24	JP
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	0.55	JP
72-43-5	Methoxychlor	21.	U
53494-70-5	Endrin ketone	4.1	U
7421-36-3	Endrin aldehyde	4.1	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210.	U
12674-11-2	Aroclor-1016	41.	U
11104-28-2	Aroclor-1221	84.	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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. _____ CERCLIS No. OH

Case No. 20347 Site Name Location: Systech

Contractor or EPA Lab: SWRI Data User: PRC

No. of Samples: 5 Date Samples or Data Received: 7-28-93

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 5 No. of samples received: 5

Received by: Lynette Burnett Date: 7-29-93

Received by LSSS: Dorothy M. May Date: 8/03/93

Review started: ~~8-13-93~~ Reviewer Signature: 8-13-93

Total time spent on review: 6 Date review completed: 8-14-93

Copied by: Jeanette Pritchett Date: Aug 18 1993

Mailed to user by: Lynette Burnett Date: 8-20-93

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

Data received by: Mildred Yarbrough Date: AUG 25 1993

Data review received by: _____ Date: _____
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: _____

AUG 25 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 8/18/93

SUBJECT: Review of Region V CLP Data
Received for Review on July 29, 1993

FROM: Charles T. Elly, Director (SL-10C)
Central Regional Laboratory
MSP for Charles T. Elly

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Siptech (OH)

CASE and/or SAS NUMBER: 20247 **SDG NUMBER:** EWP60

Number and Type of Samples: 2 (Soil)

CLP Sample Numbers: EWP60-61

CLP Laboratory: Enseco - Wads/Alert **Hrs. for Review** 4+1=5 NSW

Following are our findings:

All data are acceptable to use with qualification.

Mumtaz Pasha
8/18/93

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

DATA QUALIFIERS

CONTRACTOR: W A D S **CASE:** 20247

SITE NAME: SIPTECH **SDG#:** EWP60

Below is a summary of the out-of-control audits and possible effect on the data for this case:

The laboratory received two (2) soil samples on the 25th of June 1993 in good condition for full organic analysis. All samples met the technical holding time for extraction and analysis.

The reviewer's narrative and data qualifiers are noted in the following pages.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 10 August 1993

NARRATIVE

CONTRACTOR: W A D S **CASE:** 20247

SITE NAME: SIPTECH **SDG#:** EWP60

1. HOLDING TIME

The laboratory received two (2) soil samples on the 25th of June 1993 in good condition for full organic analysis.

Analysis of the soil samples were performed according to procedure outlined in the SOW 3/90 Statement of Work (SOW) (document OLMO1.8) protocol.

All Volatile soil samples were analyzed as low-level samples within fourteen (14) days technical holding time mandated for soil samples.

All Semivolatile soil samples met the technical holding time of fourteen (14) days for extraction.

All Pesticide soil samples were extracted within the fourteen (14) days technical holding time.

All Semivolatile and Pesticide extracts were promptly analyzed and met the holding time of forty (40) days. Therefore, the results are acceptable.

2. GC/MS TUNING AND GC PERFORMANCE

The GC/MS tuning complied with the mass list ion abundance criteria for BFB and DFTPP.

GC Resolution Check Mixture met the 60% resolution criteria on

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 10 August 1993

both RTX-1701 and RTX-5 columns. Therefore, the resolution is acceptable.

DDT and Endrin degradation check using PEMix on both quantitation (RTX-1701) and confirmatory (RTX-5) columns are acceptable <20%.

The Florisil Cartridge Check met the QC criteria (80-120%).

GPC calibration met the QC limit (80-110%) for all compounds on both RTX-1701 and RTX-5 columns.

3. CALIBRATION

Initial and continuing calibration of the Volatile, Semivolatile and Pesticide standards were evaluated for the target compound list (TCL) and outliers are recorded on the outlier forms included as part of this narrative.

4. METHOD BLANK

VBLK1 is the low level soil Volatile method blank. This blank contained Acetone (2 µg/KG).

Acetone is a common laboratory contaminant. The presence of Acetone in any of the associated samples is flagged as non-detected "U" when sample result is less than 10 times the blank result.

SBLK1B is the low level soil Semivolatile method blank.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 10 August 1993

CONTRACTOR: W A D S **CASE:** 20247

SITE NAME: SIPTECH **SDG#:** EWP60

SBLK1B contained Di-n-butylphthalate (43 µg/KG), bis(2-Ethylhexyl)phthalate (400 µg/KG) and eight (8) SVOA TICs.

Di-n-butylphthalate and bis(2-Ethylhexyl)phthalate are common laboratory (phthalate esters) contaminants.

The presence of phthalate esters in any of the associated samples is flagged as non-detected "U" when sample result is less than 10 times the blank result.

The presence of tentatively identified compounds in any of the associated samples is flagged as non-detected "U" when sample result is less than 5 times the blank result.

PBLK1 is the Pesticide soil method blank. This blank contained Methoxychlor (2.1 µg/KG).

Methoxychlor was not found in any of the associated samples.

There were two (2) Pesticide instrument blanks but no samples were associated with those blanks.

All instrument blanks did not contain any Pesticide residues.

5. SYSTEM MONITORING AND SURROGATE RECOVERY

The low level soil system monitoring compounds met the QC requirements.

All Semivolatile surrogate standards met the QC limit.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 10 August 1993

CONTRACTOR: W A D S **CASE:** 20247

SITE NAME: SIPTECH **SDG#:** EWP60

Water Pesticide surrogate recoveries used for instrument blanks met the QC limit.

Soil Pesticide surrogates TCX(2) Tetrachloro-m-xylene in sample EWP60MS; DCB(1) and DCB(2) Decachlorobiphenyl in sample EWP61 were outside of the QC limit.

Any positive Pesticide results in EWP60MS and EWP61 are flagged as estimated "J" and any non-detected Pesticide results are flagged with the sample quantitation limit as estimated "UJ".

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample **EWP69** was used as the soil spike for Volatile, Semivolatile and Pesticides.

All low level soil Volatile matrix spike/matrix spike duplicate and RPDs were well within the QC limit.

All low level soil Semivolatile matrix spike/matrix spike duplicate and RPDs were well within the QC limit.

Pesticide matrix spike/matrix pike duplicate for Dieldrin (MS=143%, MSD=159%) were outside the QC limit.

Any positive result for Dieldrin is flagged as estimated "J" and any non-detected 1,1-Dichloroethane result is flagged with the sample quantitation limit as estimated "UJ" in unspiked sample (EWP60).

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 10 August 1993

CONTRACTOR: W A D S **CASE:** 20247

SITE NAME: SIPTECH **SDG#:** EWP60

7. FIELD BLANK AND FIELD DUPLICATE

No field blank nor field duplicate was included in SDG#: EWP60.

8. INTERNAL STANDARDS

All Volatile and Semivolatile internal standard area and RTs were well within the QC limit.

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All VOAs, SVOAs and Pesticides target compound quantitative results were properly reported. The CRQLs were adjusted to reflect sample dilutions.

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.

GC baseline indicated acceptable performance.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 10 August 1993

CONTRACTOR: W A D S **CASE:** 20247

SITE NAME: SIPTECH **SDG#:** EWP60

12. ADDITIONAL INFORMATION

A large number of SVOA TICs were noted in samples EWP60-22 and EWP61-21.

No additional specific problems was noted in this data case.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 10 August 1993

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 20247 CONTRACTOR: WADS

COLUMN: RTX 502.2 SITE NAME: Siptech

Instrument# INCO550-1		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6/02/93 8:37			6/26/93 9:19											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01	1.167			1.477	26.6	J									
Bromomethane	0.10															
Vinyl chloride	0.10															
Chloroethane	0.01															
Methylene chloride	0.01															
Acetone	0.01	.783			.980	25.2	J									
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
1,2-Dichloroethene (total)																
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01															
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane																
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01															
2-Hexanone	0.01															
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
Toluene-d8																
Bromofluorobenzene																
1,2-Dichloroethane-d4																

Samples affected: VBLK1, EWP60, EWP60MS, EWP60MSD, EWP61

Reviewer's Init/Date: KM 8-10-93

* These flags should be applied to the analytes on the sample data sheets.

Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 20247
COLUMN:

CONTRACTOR: WADS
SITE NAME: Siptech

Instrument# EXTR03		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6/09/93 14:18			7/07/93 9:02			7/12/93 10:05								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80	1.903			1.921			1.400	26.4	J						
bis(chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
1,3-Dichlorobenzene																
1,4-Dichlorobenzene																
1,2-Dichlorobenzene																
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01	1.734			1.444			1.780	55.0	J						
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxyl)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20															
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01	.248			.326	31.4	J	.301								
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01	.111			.144	29.7	J	.125								
4-Nitrophenol	0.01	.089			.141	58.4	J	.161	80.9	J						
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples:

		SBLK1B	EWP61		
		EWP60			
		EWP60MS			
		EWP60MSD			

Reviewer's Init/Date: KM 8-9-93

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 20247
COLUMN:

CONTRACTOR: WADS
SITE NAME: Siptech

Instrument# EXTRO3		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6/09/93 14:13			7/07/93 9:02			7/12/93 10:05								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01	.165			.240	45.4	J	.091	44.9	J						
4,6-Dinitro-2-methylphenol	0.01															
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0.05															
Phenanthrene	0.70															
Anthracene	0.70															
Carbazole																
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01	.524			.686	30.9	J	.611								
3,3'-Dichlorobenzidine	0.01	.241			.259			.179	25.7	J						
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01	.686			.967	41.0	J	.952								
Di-n-octyl phthalate	0.01	.243			1.708	37.4	J	1.586								
Benzo(b)fluoranthene	0.70															
Benzo(k)fpuoranthene	0.70															
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthrancene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60															
2,4,6-Tribromophenol	0.01	.113			.171	44.9	J	.146								
2-Chlorophenol-d4																
1,2-Dichlorobenzene-d4																

Reviewer's Init/Date: KM 8-9-93

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

CALIBRATION OUTLIERS
PESTICIDE/PCB TCL COMPOUNDS

CASE\SAS#: 20247 **CONTRACTOR:** WADS

Column: RTX1701 **Site Name:** Siptech

Instrument#: XA	Initial Cal.		Continue Cal.		Continue Cal.		Continue Ca	
Date/Time	7/19-20/93		7/20/93 18:07					
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples:

EWP60MS			
EWP60MSD			
EWP60			
EWP61			

Reviewer's Init/Date: 8-9-93 KM

* These flags should be applied to the analytes on the sample data sheets.

CALIBRATION OUTLIERS
PESTICIDE/PCB TCL COMPOUNDS

CASE\SAS#: 20247 **CONTRACTOR:** WADS

Column: RTX5 **Site Name:** Siptech

Instrument#: XB	Initial Cal.		Continue Cal.		Continue Cal.		Continue Ca	
Date/Time	7/19-20/93		7/20/93 13:07					
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC	20.6	J						
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples:

EWP60MS			
EWP60MSD			
EWP60			
EWP61			

Reviewer's Init/Date: KM 8-9-93

ESAT-5-024.2 1/93

* These flags should be applied to the analytes on the sample data sheets.

DATA REPORTING QUALIFIERS
(page 1)

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

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL), report the value.

U - Indicates compound was analyzed for but not detected. The sample Quantitation Limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if thee sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the Sample Quantitation Limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U) \times df}{D} \qquad \text{where } D = \frac{100 - \%\ \text{moisture}}{100}$$

and df = dilution factor

at 24% moisture, $D = \frac{100 - 24}{100} = 0.76$

$$\frac{(330\ U) \times 10}{.76} = 4300\ U$$ rounded to the appropriate number of significant figures

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0.5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures. Therefore, the CRQL values will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume, this fact be accounted for in reporting the Sample Quantitation Limit.

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 bur greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it is as 3J. The Sample Quantitation Limit must be adjusted for dilution as discussed for the U flag. The J flag is also applied to pesticide/Aroclor results where the pesticide/Aroclor is confirmed to be present but the concentration is less than the CRQL.

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.

DATA REPORTING QUALIFIERS
(page 2)

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two 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 identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but unsuccessful, do not apply this flag, instead use a laboratory-defined, discussed below.

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

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for the specific analysis. This flag will not apply to pesticide/PCBs analyzed by GC/MS methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I 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 Form I. The Form I 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 I for the diluted sample and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

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

X - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG Narrative. If more than one flag is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B" and "D" flags for some sample. The laboratory-defined are limited to letters "X", "Y" and "Z".

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Sample Description (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Rinsate
   5. Soil/Sediment
   6. Oil (High only)
   7. Waste (High only)
   8. Other (Specify)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. H_2SO_4
   5. Other (Specify)
   6. Ice only
   N. Not preserved

3. Region No.: 5
Sampling Co.: PRC

5. Date Shipped: 6/22/93
Carrier: Fed Ex

7. Date Received -- Received by: 6/23/93 Ron Gibas

Sampler (Name): Christine Huschman

Airbill Number: 715866920 30

Laboratory Contract Number: 68-D1-0085

Unit Price: $724.00

Sampler Signature: Christine Huschman

4. Type of Activity

	Lead	Pre-Remedial	Remedial		Removal
SF	☑		RIFS		CLEM
PRP		PA	RD		REMA
ST		SSI	RA		REM
FED		ESI ☑	O&M		OIL
			NPLD		UST

6. Ship To: Wadsworth/Alert Laboratories, Inc.
4101 Shuffel Drive, N.W.
North Canton, OH 44720
ATTN: Mark Nebiolo

8. Transfer to

Date Received

Received by

Contract Number

Price

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/ PCB	High ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below): Solids	Water -- Mis Liq.	Non Water -- Mis Liq.
EWP60	5	L	G	N	X				009521-009522	SS-1	6/21/93 1130		MEWR72				
EWP60	↓	↓	C	↓		X	X		009523	↓	↓		↓				
EWP61	↓	↓	G	↓	X				009525-009526	SS-2	1107		WEWF79				
EWP61	↓	↓	C	↓		X	X		009527	↓	↓		↓				

Shipment for Case complete? (Y/N): N

Page 1 of 1

Sample used for a spike and/or duplicate: EWP60

Additional Sampler Signatures

Chain of Custody Seal Number: 140201, 140202

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Christine Huschman	6/22/93 1015				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		Ron Gibas	6/23/93 1600		

Split Samples ☐ Accepted (Signature)

☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

DISTRIBUTION:
Blue - Region Copy Pink - SMO Copy White - Lab Copy for Return to Region Yellow - Lab Copy for Return to SMO

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

Org-2

SDG EWP60

0 350113

Organic Sample Collection Requirements

"This form replaces both the individual Traffic Report and EPA Chain of Custody Record. If the sampling team elects to use an alternative chain-of-custody form, cross out the bottom portion of this record and indicate that chain-of-custody information is recorded on an alternative form."

Water Samples	Required Volume	Container Type
Extractable Analysis (Low Level)	1 Gallon	1 X 4-Liter Amber Glass Bottle
		OR
		2 X 80-oz. Amber Glass Bottle
		OR
		4 X 1-Liter Amber Glass Bottles
Extractable Analysis (Medium Level*)	1 Gallon	32-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)	80 ml.	2 X 40-ml. Glass Vials

*All Medium and High Level Samples to be Sealed in Metal Can for Shipment

Soil/Sediment Samples	Required Volume	Container Type
Extractable Analysis (Low or Medium Level*)	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar
		OR
	240 ml.	2 X 4-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)		2 X 120 ml. Wide-Mouth Glass Vials†

†Soil VOA Vials under study, subject to change, check to ensure proper sealing.

HIGH CONCENTRATION SAMPLE COLLECTION REQUIREMENTS

Liquid or Solid Samples	Required Volume	Container Type
Extractable and Volatile Analysis	6 oz.	1 X 8-oz. Wide-Mouth Glass Jar

1. Organic Sample Collection Requirements

- Please indicate sample to spike and/or duplicate.
- Ship medium and high concentration samples in paint cans.
- Aqueous samples require one triple-volume sample per twenty for Matrix Spike/Matrix Spike Duplicate.
- Oily samples must be analyzed under the Special Analytical Services (SAS) program.
- Confirmatory analysis and Special Analytical Services (SAS) parameters may require extra volume; for SAS consult specified SAS methods for requirements.
- Additional sample volume not required for method OLC01.

2. Cooler and Sample Documentation

- Complete all sections of the Traffic Report/Chain of Custody Form - Press firmly with a ball point pen to ensure that carbon copies are legible. Check the information and correct any errors.
- Please remember to complete the Chain of Custody information on the form.
- Seal the two sets of laboratory Traffic Report/Chain of Custody form copies in a plastic bag. Include a return address for the cooler. Tape bag under cooler lid.
- Overlap the lid and bottle of each sample container with custody seals.
- Seal each container in a plastic bag.
- Pack medium and high concentration samples in metal cans.
- Cool low waters to 4° C. Cooling of low soils is optional. Do not cool medium or high concentration waters and soils.
- Separate and surround cooler contents with vermiculite or equivalent packaging.
- Seal the cooler, overlapping the lid and body with custody seals.
- FAX SMO a copy of the Traffic Report/Chain of Custody Form as soon as possible. Send SMO the pink copy of the Traffic Report within 5 days.
- In column E RAS analysis indicate number of sample bottles sent for analysis.

3. Sample Shipment Reporting

- PHONE IN ALL SHIPMENTS IMMEDIATELY TO SMO (or to RSCC, if instructed)
  - Required information:
    - Case (and/or SAS) Number
    - Date shipped
    - Number of samples by concentration and matrix
    - Carrier and airbill number
    - Next planned shipment
- Leave your name and a number where you can be reached.
- Information for SATURDAY DELIVERIES must be phoned in by 3:00 PM (Eastern) the preceding FRIDAY.
- Report any delays or changes of scope (i.e., changes in number of samples to be collected, matrix changes, etc.)
- CALL IF YOU HAVE ANY QUESTIONS

USEPA Contract Laboratory Program
Sample Management Office
P.O. Box 818
Alexandria, VA 22313
Phone: (703) 557-2490
(703) 684-5678
FAX: (703) 683-0378

WADSWORTH/ ALERT Laboratories
Division of Enseco Incorporated

Corporate and Laboratory:
4101 Shuttel Drive, NW
North Canton, OH 44720

216-497-9396
FAX 216-497-0772

SDG NARRATIVE

This narrative pertains to case number 20247, which was completed by Enseco-Wadsworth/ALERT Laboratories under contract number 68-D1-0085. The following samples are associated with this case under SDG EWP60:

EPA Sample Number	Date Sample Received
EWP60	6/23/93
EWP61	6/23/93

Since the samples for this SDG are soils, no GC/MS volatile pH measurements were necessary.

No problems were encountered during the GC/MS volatile analysis of this SDG.

During the semivolatile and pesticide/PCB extraction procedure, the concentration water bath temperature was maintained above 80°C in order to accomplish concentration within the time limit specified in the SOW.

During the GC/MS semivolatile analysis of this SDG, sample EWP61 was analyzed at a 1:4 dilution. A straight analysis could not be performed due to the high concentration of TICs which prevented adequate resolution of the target analyte peaks.

During the pesticide/PCB analysis of this SDG, the following items were noted:

1. The surrogate recoveries for samples EWP60MS AND EWP61 were outside of control limits. This was due to a matrix effect. Since the limits are advisory only, no corrective action was required.

2. The MS/MSD % recovery for Dieldrin was outside of control limits for samples EWP60MS and EWP60MSD. This also was attributed to a matrix effect.

3. No retention time for Decachlorobyphenyl could be determined for sample EWP61. This could be attributed to a coelution of multicomponent analyte peaks.

LAB.
313 33305

Laboratories:
Pittsburgh, PA
412-826-5477

Tampa, FL
813-621-0784

"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 floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

Ron Gibas
CLP Manager
July 27, 1993

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	EWP60	114	71	100		0
02	EWP60MS	117	66	102		0
03	EWP60MSD	114	70	100		0
04	EWP61	126	71	99		0
05	VBLK1	105	82	97		0
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	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

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Matrix Spike - EPA Sample No.: EWP60 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.	48.	84	59-172
Trichloroethene	57.	0.	55.	96	62-137
Benzene	57.	0.	57.	100	66-142
Toluene	57.	0.	70.	123	59-139
Chlorobenzene	57.	0.	60.	105	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	57.	49.	86	2	22	59-172
Trichloroethene	57.	54.	95	1	24	62-137
Benzene	57.	53.	93	7	21	66-142
Toluene	57.	68.	119	3	21	59-139
Chlorobenzene	57.	61.	107	2	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:

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Lab File ID:VOI8165 Lab Sample ID:VBLK1

Date Analyzed: 6/26/93 Time Analyzed:1047

GC Column:RTX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID:INCOS50-1

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWP60	E1544103	VOI8169	1341
02	EWP60MS	E1544103	VOI8170	1432
03	EWP60MSD	E1544103	VOI8171	1529
04	EWP61	E1545103	VOI8172	1632
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COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:VBLK1

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VOI8165

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 6/26/93

GC Column:RTX502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	10.	U
67-64-1	Acetone	2.	J
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene(total)	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

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK1

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:VBLK1

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VOI8165

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 6/26/93

GC Column:RTX502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP60

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:E1544103

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VOI8169

Level: (low/med) LOW Date Received: 6/25/93

% Moisture: not dec. 13 Date Analyzed: 6/26/93

GC Column:RTX502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	11.	U
67-64-1	Acetone	11.	U
75-15-0	Carbon Disulfide	11.	U
75-35-4	1,1-Dichloroethene	11.	U
75-34-3	1,1-Dichloroethane	11.	U
540-59-0	1,2-Dichloroethene(total)	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	11.	U
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

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EWP60

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:E1544103

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VOI8169

Level: (low/med) LOW Date Received: 6/25/93

% Moisture: not dec. 13 Date Analyzed: 6/26/93

GC Column:RTX502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP61

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:E1545103

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VOI8172

Level: (low/med) LOW Date Received: 6/25/93

% Moisture: not dec. 11 Date Analyzed: 6/26/93

GC Column:RTX502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	11.	U
67-64-1	Acetone	11.	U
75-15-0	Carbon Disulfide	11.	U
75-35-4	1,1-Dichloroethene	11.	U
75-34-3	1,1-Dichloroethane	11.	U
540-59-0	1,2-Dichloroethene(total)	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	11.	U
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

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EWP61

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:E1545103

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VOI8172

Level: (low/med) LOW Date Received: 6/25/93

% Moisture: not dec. 11 Date Analyzed: 6/26/93

GC Column:RTX502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	EWP60	54	64	46	63	60	58	61	57	0
02	EWP60MS	72	88	61	83	83	97	85	75	0
03	EWP60MSD	70	83	57	78	83	78	83	77	0
04	EWP61	75	91	88	73	69	92	76	74	0
05	SBLK1B	63	63	88	73	74	93	70	67	0
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		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(23-120)	
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)	
S3 (TPH)	= Terphenyl-d14	(18-137)	
S4 (PHL)	= Phenol-d5	(24-113)	
S5 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

\# Column to be used to flag recovery values

* Values outside of contract-required QC limits

D Surrogate diluted out

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix Spike - EPA Sample No.: EWP60 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	2900.	34.	2400.	81	26- 90
2-Chlorophenol	2900.	0.	2300.	79	25-102
1,4-Dichlorobenzene	2000.	0.	1400.	70	28-104
N-Nitroso-di-n-prop.(1)	2000.	0.	1500.	75	41-126
1,2,4-Trichlorobenzene	2000.	0.	1600.	80	38-107
4-Chloro-3-methylphenol	2900.	0.	2600.	90	26-103
Acenaphthene	2000.	0.	1700.	85	31-137
4-Nitrophenol	2900.	0.	1800.	62	11-114
2,4-Dinitrotoluene	2000.	0.	1400.	70	28- 89
Pentachlorophenol	2900.	0.	2400.	83	17-109
Pyrene	2000.	190.	1300.	55	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	2900.	2200.	75	8	35	26- 90
2-Chlorophenol	2900.	2300.	79	0	50	25-102
1,4-Dichlorobenzene	2000.	1400.	70	0	27	28-104
N-Nitroso-di-n-prop.(1)	2000.	1500.	75	0	38	41-126
1,2,4-Trichlorobenzene	2000.	1500.	75	6	23	38-107
4-Chloro-3-methylphenol	2900.	2400.	83	8	33	26-103
Acenaphthene	2000.	1600.	80	6	19	31-137
4-Nitrophenol	2900.	1500.	52	17	50	11-114
2,4-Dinitrotoluene	2000.	1200.	60	15	47	28- 89
Pentachlorophenol	2900.	2300.	79	5	47	17-109
Pyrene	2000.	1400.	60	9	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: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.: SBLK1B

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Lab File ID:SBLK1B Lab Sample ID:92629

Instrument ID:EXTR03 Date Extracted: 6/29/93

Matrix: (soil/water) SOIL Date Analyzed: 7/07/93

Level:(low/med) LOW Time Analyzed: 1232

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EWP60	E1544	EWP60	7/07/93
02	EWP60MS	E1544MS	EWP60MS	7/07/93
03	EWP60MSD	E1544MSD	EWP60MSD	7/07/93
04	EWP61	E1545	EWP61	7/12/93
05				
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COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1B

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:92629

Sample wt/vol: 30.0 (g/ml) G Lab File ID: SBLK1B

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/07/93

Injection Volume: 2.0 (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
108-95-2	Phenol	330.	U
111-44-4	bis(2-Chloroethyl)ether	330.	U
95-57-8	2-Chlorophenol	330.	U
541-73-1	1,3-Dichlorobenzene	330.	U
106-46-7	1,4-Dichlorobenzene	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330.	U
106-44-5	4-Methylphenol	330.	U
621-64-7	N-Nitroso-di-n-propylamine	330.	U
67-72-1	Hexachloroethane	330.	U
98-95-3	Nitrobenzene	330.	U
78-59-1	Isophorone	330.	U
88-75-5	2-Nitrophenol	330.	U
105-67-9	2,4-Dimethylphenol	330.	U
111-91-1	bis(2-Chloroethoxy)methane	330.	U
120-83-2	2,4-Dichlorophenol	330.	U
120-82-1	1,2,4-Trichlorobenzene	330.	U
91-20-3	Naphthalene	330.	U
106-47-8	4-Chloroaniline	330.	U
87-68-3	Hexachlorobutadiene	330.	U
59-50-7	4-Chloro-3-methylphenol	330.	U
91-57-6	2-Methylnaphthalene	330.	U
77-47-4	Hexachlorocyclopentadiene	330.	U
88-06-2	2,4,6-Trichlorophenol	330.	U
95-95-4	2,4,5-Trichlorophenol	830.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	800.	U
131-11-3	Dimethylphthalate	330.	U
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U
99-09-2	3-Nitroaniline	800.	U
83-32-9	Acenaphthene	330.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1B

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:92629

Sample wt/vol: 30.0 (g/ml) G Lab File ID: SBLK1B

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/07/93

Injection Volume: 2.0 (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
51-28-5	2,4-Dinitrophenol	800.	U
100-02-7	4-Nitrophenol	800.	U
132-64-9	Dibenzofuran	330.	U
121-14-2	2,4-Dinitrotoluene	330.	U
84-66-2	Diethylphthalate	330.	U
7005-72-3	4-Chlorophenyl-phenylether	330.	U
86-73-7	Fluorene	330.	U
100-01-6	4-Nitroaniline	800.	U
534-52-1	4,6-Dinitro-2-methylphenol	800.	U
86-30-6	N-Nitrosodiphenylamine (1)	330.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	800.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
86-74-8	Carbazole	330.	U
84-74-2	Di-n-butylphthalate	43.	J
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	330.	U
85-68-7	Butylbenzylphthalate	330.	U
91-94-1	3,3'-Dichlorobenzidine	330.	U
56-55-3	Benzo(a)anthracene	330.	U
218-01-9	Chrysene	330.	U
117-81-7	bis(2-Ethylhexyl)phthalate	460.	
117-84-0	Di-n-octylphthalate	330.	U
205-99-2	Benzo(b)fluoranthene	330.	U
207-08-9	Benzo(k)fluoranthene	330.	U
50-32-8	Benzo(a)pyrene	330.	U
193-39-5	Indeno(1,2,3-cd)pyrene	330.	U
53-70-3	Dibenz(a,h)anthracene	330.	U
191-24-2	Benzo(g,h,i)perylene	330.	U

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SBLK1B

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:92629

Sample wt/vol: 30.0 (g/ml) G Lab File ID: SBLK1B

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/07/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Number TICs Found: 8

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Aldol Condensation Product	4.03	420.	JA
2.		Aldol Condensation Product	4.47	7600.	JA
3.		Aldol Condensation Product	5.53	190.	JA
4.		Aldol Condensation Product	5.88	88.	JA
5.		Aldol Condensation Product	6.00	190.	JA
6.	111-90-0	Ethanol, 2-(2-ethoxyethoxy)-	6.85	74.	JN
7.		Aldol Condensation Product	6.98	360.	JA
8.		Unknown	14.57	190.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: EWP60

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: E1544

Sample wt/vol: 30.0 (g/ml) G Lab File ID: EWP60

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 13 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/07/93

Injection Volume: 2.0 (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
108-95-2	Phenol	34.	J
111-44-4	bis(2-Chloroethyl)ether	380.	U
95-57-8	2-Chlorophenol	380.	U
541-73-1	1,3-Dichlorobenzene	380.	U
106-46-7	1,4-Dichlorobenzene	380.	U
95-50-1	1,2-Dichlorobenzene	380.	U
95-48-7	2-Methylphenol	380.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380.	U
106-44-5	4-Methylphenol	380.	U
621-64-7	N-Nitroso-di-n-propylamine	380.	U
67-72-1	Hexachloroethane	380.	U
98-95-3	Nitrobenzene	380.	U
78-59-1	Isophorone	37.	J
88-75-5	2-Nitrophenol	380.	U
105-67-9	2,4-Dimethylphenol	380.	U
111-91-1	bis(2-Chloroethoxy)methane	380.	U
120-83-2	2,4-Dichlorophenol	380.	U
120-82-1	1,2,4-Trichlorobenzene	380.	U
91-20-3	Naphthalene	19.	J
106-47-8	4-Chloroaniline	380.	U
87-68-3	Hexachlorobutadiene	380.	U
59-50-7	4-Chloro-3-methylphenol	380.	U
91-57-6	2-Methylnaphthalene	27.	J
77-47-4	Hexachlorocyclopentadiene	380.	U
88-06-2	2,4,6-Trichlorophenol	380.	U
95-95-4	2,4,5-Trichlorophenol	920.	U
91-58-7	2-Chloronaphthalene	380.	U
88-74-4	2-Nitroaniline	920.	U
131-11-3	Dimethylphthalate	380.	U
208-96-8	Acenaphthylene	58.	J
606-20-2	2,6-Dinitrotoluene	380.	U
99-09-2	3-Nitroaniline	920.	U
83-32-9	Acenaphthene	380.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP60

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:E1544

Sample wt/vol: 30.0 (g/ml) G Lab File ID: EWP60

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 13 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/07/93

Injection Volume: 2.0 (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
51-28-5	2,4-Dinitrophenol	920.	U
100-02-7	4-Nitrophenol	920.	U
132-64-9	Dibenzofuran	380.	U
121-14-2	2,4-Dinitrotoluene	380.	U
84-66-2	Diethylphthalate	380.	U
7005-72-3	4-Chlorophenyl-phenylether	380.	U
86-73-7	Fluorene	380.	U
100-01-6	4-Nitroaniline	920.	U
534-52-1	4,6-Dinitro-2-methylphenol	920.	U
86-30-6	N-Nitrosodiphenylamine (1)	380.	U
101-55-3	4-Bromophenyl-phenylether	380.	U
118-74-1	Hexachlorobenzene	380.	U
87-86-5	Pentachlorophenol	920.	U
85-01-8	Phenanthrene	130.	J
120-12-7	Anthracene	56.	J
86-74-8	Carbazole	20.	J
84-74-2	Di-n-butylphthalate	380 ~~33~~.	JB W KM 8-9-93
206-44-0	Fluoranthene	330.	J
129-00-0	Pyrene	190.	J
85-68-7	Butylbenzylphthalate	42.	J
91-94-1	3,3'-Dichlorobenzidine	380.	U
56-55-3	Benzo(a)anthracene	210.	J
218-01-9	Chrysene	230.	J
117-81-7	bis(2-Ethylhexyl)phthalate	380.	U
117-84-0	Di-n-octylphthalate	380.	U
205-99-2	Benzo(b)fluoranthene	630.	
207-08-9	Benzo(k)fluoranthene	380.	U
50-32-8	Benzo(a)pyrene	300.	J
193-39-5	Indeno(1,2,3-cd)pyrene	280.	J
53-70-3	Dibenz(a,h)anthracene	380.	U
191-24-2	Benzo(g,h,i)perylene	270.	J

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

EWP60

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: E1544

Sample wt/vol: 30.0 (g/ml) G Lab File ID: EWP60

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 13 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/07/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs Found: 22 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Aldol Condensation Product	4.03	280.	JAB u
2.		Aldol Condensation Product	4.45	5400.	JAB u
3.		Unknown Acid	18.30	580.	J
4.		Unknown	21.08	140.	J
5.		Unknown	21.45	560.	J
6.		Unknown	22.02	300.	J
7.		Unknown	22.83	280.	J
8.		Unknown Ester	22.95	380.	J
9.		Unknown	23.83	170.	J
10.		Unknown	24.60	700.	J
11.		Unknown Hydrocarbon	25.43	700.	J
12.		Unknown Hydrocarbon	26.73	1100.	J
13.		Unknown	28.35	420.	J
14.		Unknown	28.87	240.	J
15.		Unknown	26.35	110.	J
16.		Unknown	24.90	300.	J
17.		Unknown	25.67	260.	J
18.		Unknown	27.57	200.	J
19.		Unknown	28.12	200.	J
20.		Unknown	24.12	120.	J
21.		Unknown	26.30	120.	J
22.		Unknown	21.03	76.	J
23.					
24.					
25.					
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KM 8-4-93

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP61

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: E1545

Sample wt/vol: 30.0 (g/ml) G Lab File ID: EWP61

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 12 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/12/93

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1500.	U
111-44-4	bis(2-Chloroethyl)ether	1500.	U
95-57-8	2-Chlorophenol	1500.	U
541-73-1	1,3-Dichlorobenzene	1500.	U
106-46-7	1,4-Dichlorobenzene	1500.	U
95-50-1	1,2-Dichlorobenzene	1500.	U
95-48-7	2-Methylphenol	1500.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1500.	U
106-44-5	4-Methylphenol	1500.	U
621-64-7	N-Nitroso-di-n-propylamine	1500.	U
67-72-1	Hexachloroethane	1500.	U
98-95-3	Nitrobenzene	1500.	U
78-59-1	Isophorone	1500.	U
88-75-5	2-Nitrophenol	1500.	U
105-67-9	2,4-Dimethylphenol	1500.	U
111-91-1	bis(2-Chloroethoxy)methane	1500.	U
120-83-2	2,4-Dichlorophenol	1500.	U
120-82-1	1,2,4-Trichlorobenzene	1500.	U
91-20-3	Naphthalene	360.	J
106-47-8	4-Chloroaniline	1500.	U
87-68-3	Hexachlorobutadiene	1500.	U
59-50-7	4-Chloro-3-methylphenol	1500.	U
91-57-6	2-Methylnaphthalene	270.	J
77-47-4	Hexachlorocyclopentadiene	1500.	U
88-06-2	2,4,6-Trichlorophenol	1500.	U
95-95-4	2,4,5-Trichlorophenol	3600.	U
91-58-7	2-Chloronaphthalene	1500.	U
88-74-4	2-Nitroaniline	3600.	U
131-11-3	Dimethylphthalate	1500.	U
208-96-8	Acenaphthylene	740.	J
606-20-2	2,6-Dinitrotoluene	1500.	U
99-09-2	3-Nitroaniline	3600.	U
83-32-9	Acenaphthene	130.	J

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP61

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: E1545

Sample wt/vol: 30.0 (g/ml) G Lab File ID: EWP61

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 12 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/12/93

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	3600.	U
100-02-7	4-Nitrophenol	3600.	U
132-64-9	Dibenzofuran	530.	J
121-14-2	2,4-Dinitrotoluene	1500.	U
84-66-2	Diethylphthalate	1500.	U
7005-72-3	4-Chlorophenyl-phenylether	1500.	U
86-73-7	Fluorene	660.	J
100-01-6	4-Nitroaniline	3600.	U
534-52-1	4,6-Dinitro-2-methylphenol	3600.	U
86-30-6	N-Nitrosodiphenylamine (1)	1500.	U
101-55-3	4-Bromophenyl-phenylether	1500.	U
118-74-1	Hexachlorobenzene	1500.	U
87-86-5	Pentachlorophenol	3600.	U
85-01-8	Phenanthrene	6700.	
120-12-7	Anthracene	1200.	J
86-74-8	Carbazole	580.	J
84-74-2	Di-n-butylphthalate	1500.	U
206-44-0	Fluoranthene	9200.	
129-00-0	Pyrene	6400.	
85-68-7	Butylbenzylphthalate	1500.	U
91-94-1	3,3'-Dichlorobenzidine	1500.	U
56-55-3	Benzo(a)anthracene	4500.	
218-01-9	Chrysene	3900.	
117-81-7	bis(2-Ethylhexyl)phthalate	1500 84.	JB U
117-84-0	Di-n-octylphthalate	1500.	U
205-99-2	Benzo(b)fluoranthene	5400.	
207-08-9	Benzo(k)fluoranthene	2000.	
50-32-8	Benzo(a)pyrene	3300.	
193-39-5	Indeno(1,2,3-cd)pyrene	2200.	
53-70-3	Dibenz(a,h)anthracene	660.	J
191-24-2	Benzo(g,h,i)perylene	2200.	

KM 8-9-93

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EWP61

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:E1545

Sample wt/vol: 30.0 (g/ml) G Lab File ID: EWP61

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 12 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/12/93

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 7.6

Number TICs Found: 21

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Aldol Condensation Product	4.23	5200.	JAB
2.		Unknown Polyaromatic Hydroca	17.78	760.	J
3.		Unknown Polyaromatic Hydroca	17.85	1000.	J
4.		Unknown Polyaromatic Hydroca	18.02	1000.	J
5.		Unknown Polyaromatic Hydroca	18.47	840.	J
6.		Unknown Polyaromatic Hydroca	19.57	620.	J
7.		Unknown	20.83	720.	J
8.		Unknown Polyaromatic Hydroca	21.75	1500.	J
9.		Unknown Polyaromatic Hydroca	22.07	1200.	J
10.		Unknown Polyaromatic Hydroca	23.45	1000.	J
11.		Unknown Polyaromatic Hydroca	25.00	1400.	J
12.		Unknown Polyaromatic Hydroca	25.33	3200.	J
13.		Unknown Polyaromatic Hydroca	25.82	1800.	J
14.		Unknown Polyaromatic Hydroca	27.43	1000.	J
15.		Unknown Polyaromatic Hydroca	28.62	1100.	J
16.		Unknown Polyaromatic Hydroca	20.57	800.	J
17.		Unknown Polyaromatic Hydroca	20.62	660.	J
18.		Unknown Polyaromatic Hydroca	21.98	1200.	J
19.		Unknown Polyaromatic Hydroca	22.22	1000.	J
20.		Unknown	23.92	660.	J
21.		Unknown Polyaromatic Hydroca	25.58	1200.	J
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

KM 8-4-6

2E
WATER PESTICIDE SURROGATE RECOVERY

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

GC Column(1):RTX1701 ID: 0.53 (mm) GC Column(2):RTX5 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PIBLKX1	110	110	95	100			0
02	PIBLKX2	110	115	90	105			0
03								
04								
05								
06								
07								
08								
09								
10								
11								
12								
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25								
26								
27								
28								
29								
30								

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

GC Column(1):RTX1701 ID: 0.53 (mm) GC Column(2):RTX5 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	EWP60	78	131	124	98			0
02	EWP60MS	92	229*	111	92			1
03	EWP60MSD	92	144	150	124			0
04	EWP61	86	99	0*	238*			2
05	PBLK1	90	83	98	98			0
06								
07								
08								
09								
10								
11								
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17								
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19								
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24								
25								
26								
27								
28								
29								
30								

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix Spike - EPA Sample No.: EWP60

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC(Lindane)	19.	0.0	16.	84	46-127
Heptachlor	19.	0.0	17.	89	35-130
Aldrin	19.	0.0	15.	79	34-132
Dieldrin	38.	1.6	56.	143*	31-134
Endrin	38.	0.0	38.	100	42-139
4,4'-DDT	38.	0.0	23.	61	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC(Lindane)	19.	15.	79	6	50	46-127
Heptachlor	19.	18.	95	7	31	35-130
Aldrin	19.	15.	79	0	43	34-132
Dieldrin	38.	62.	159*	11	38	31-134
Endrin	38.	40.	105	5	45	42-139
4,4'-DDT	38.	37.	97	46	50	23-134

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: 2 out of 12 outside limits

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK1

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Lab Sample ID:92629101B Lab File ID:

Matrix:(soil/water) SOIL Extraction:(SepF/Cont/Sonc)SONC

Sulfur Cleanup: (Y/N) Y Date Extracted: 6/29/93

Date Analyzed (1): 7/20/93 Date Analyzed (2): 7/20/93

Time Analyzed (1):0858 Time Analyzed (2):0858

Instrument ID (1):HP5890XA Instrument ID (2):HP5890XB

GC Column (1):RTX1701 ID: 0.53(mm) GC Column (2):RTX5 ID: 0.53(mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EWP60	E1544101	7/20/93	7/20/93
02	EWP60MS	E1544101S	7/20/93	7/20/93
03	EWP60MSD	E1544101D	7/20/93	7/20/93
04	EWP61	E1545101	7/20/93	7/20/93
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK1

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No. 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: 92629101B

Sample wt/vol: 30.0 (g/ml) G Lab File ID:

% Moisture: 0 decanted: (Y/N) N Date Received: / /

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
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)	1.7	U
76-44-8	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
72-55-9	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	2.1	JP
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	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

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKX1

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No. 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) WATER Lab Sample ID: P1963

Sample wt/vol: 1000 (g/ml) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: / /

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: / /

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.025	U
319-85-7	beta-BHC	0.025	U
319-86-8	delta-BHC	0.025	U
58-89-9	gamma-BHC(Lindane)	0.025	U
76-44-8	Heptachlor	0.025	U
309-00-2	Aldrin	0.025	U
1024-57-3	Heptachlor epoxide	0.025	U
959-98-8	Endosulfan I	0.025	U
60-57-1	Dieldrin	0.05	U
72-55-9	4,4'-DDE	0.05	U
72-20-8	Endrin	0.05	U
33213-65-9	Endosulfan II	0.05	U
72-54-8	4,4'-DDD	0.05	U
1031-07-8	Endosulfan sulfate	0.05	U
50-29-3	4,4'-DDT	0.05	U
72-43-5	Methoxychlor	0.25	U
53494-70-5	Endrin ketone	0.05	U
7421-36-3	Endrin aldehyde	0.05	U
5103-71-9	alpha-Chlordane	0.025	U
5103-74-2	gamma-Chlordane	0.025	U
8001-35-2	Toxaphene	2.5	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	0.50	U
11096-82-5	Aroclor-1260	0.50	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKX2

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No. 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) WATER Lab Sample ID: P1963

Sample wt/vol: 1000 (g/ml) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: / /

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: / /

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.025	U
319-85-7	beta-BHC	0.025	U
319-86-8	delta-BHC	0.025	U
58-89-9	gamma-BHC(Lindane)	0.025	U
76-44-8	Heptachlor	0.025	U
309-00-2	Aldrin	0.025	U
1024-57-3	Heptachlor epoxide	0.025	U
959-98-8	Endosulfan I	0.025	U
60-57-1	Dieldrin	0.05	U
72-55-9	4,4'-DDE	0.05	U
72-20-8	Endrin	0.05	U
33213-65-9	Endosulfan II	0.05	U
72-54-8	4,4'-DDD	0.05	U
1031-07-8	Endosulfan sulfate	0.05	U
50-29-3	4,4'-DDT	0.05	U
72-43-5	Methoxychlor	0.25	U
53494-70-5	Endrin ketone	0.05	U
7421-36-3	Endrin aldehyde	0.05	U
5103-71-9	alpha-Chlordane	0.025	U
5103-74-2	gamma-Chlordane	0.025	U
8001-35-2	Toxaphene	2.5	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	0.50	U
11096-82-5	Aroclor-1260	0.50	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP60

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No. 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: E1544101

Sample wt/vol: 30.0 (g/ml) G Lab File ID:

% Moisture: 13 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
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)	2.0	U
76-44-8	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	1.6	JP
72-55-9	4,4'-DDE	3.8	U
72-20-8	Endrin	3.8	U
33213-65-9	Endosulfan II	3.8	U
72-54-8	4,4'-DDD	3.8	U
1031-07-8	Endosulfan sulfate	3.8	U
50-29-3	4,4'-DDT	3.8	U
72-43-5	Methoxychlor	20.	U
53494-70-5	Endrin ketone	3.8	U
7421-36-3	Endrin aldehyde	3.8	U
5103-71-9	alpha-Chlordane	3.4	P
5103-74-2	gamma-Chlordane	4.1	P
8001-35-2	Toxaphene	200.	U
12674-11-2	Aroclor-1016	38.	U
11104-28-2	Aroclor-1221	77.	U
11141-16-5	Aroclor-1232	38.	U
53469-21-9	Aroclor-1242	38.	U
12672-29-6	Aroclor-1248	38.	U
11097-69-1	Aroclor-1254	110.	
11096-82-5	Aroclor-1260	38.	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP61

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No. 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: E1545101

Sample wt/vol: 30.0 (g/ml) G Lab File ID:

% Moisture: 12 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.9	U
319-85-7	beta-BHC	1.9	U
319-86-8	delta-BHC	1.9	U
58-89-9	gamma-BHC(Lindane)	1.9	U
76-44-8	Heptachlor	1.9	U
309-00-2	Aldrin	1.9	U
1024-57-3	Heptachlor epoxide	1.9	U
959-98-8	Endosulfan I	1.9	U
60-57-1	Dieldrin	3.7	U
72-55-9	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	19.	U
53494-70-5	Endrin ketone	3.7	U
7421-36-3	Endrin aldehyde	3.7	U
5103-71-9	alpha-Chlordane	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
8001-35-2	Toxaphene	190.	U
12674-11-2	Aroclor-1016	37.	U
11104-28-2	Aroclor-1221	76.	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	29.	J
11096-82-5	Aroclor-1260	37.	U

Systech

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

SCREENING PACKAGE SUMMARY INFORMATION

== OLM01.8 VER. 5 ==

SDG:	EWP60
CASE:	20247
LAB:	WADS
CONTRACT:	68-D1-0085
REGION:	5
DRD:	07/28/93
SDG RECEIPT DATE:	06/25/93
FORMAT:	AGENCY STANDARD
SCREEN DATE:	07/29/93
MAIL DATE 1:	07/30/93
SCREENER:	AM/CM

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

MAINFRAME / PC DISCREPANCY LIST
OLM01.8 VERSION 5

PCCCS OLM01.8 VERSION 5 WAS RELEASED ON JULY 15, 1993.

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U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

DEFECT COUNTS BY SAMPLE AND CRITERION

THIS REPORT PROVIDES A SUMMARY OF THE TECHNICAL DEFECTS PRESENT ON THE DISKETTE AND HARDCOPY DATA PACKAGE. IT IS ORGANIZED BY SAMPLE AND DEFECT. IT SUMMARIZES 1) THE FRACTIONS ANALYZED DENOTED BY A "Y" FOR YES, OR "NA" FOR NOT ANALYZED IN THE APPROPRIATE "AN" (ANALYZED) COLUMN, AND 2) THE HOLDING TIME VIOLATION FOR EXTRACTION(EX) ANALYSES (DENOTED BY THE NUMBER OF DAYS(2,3,ETC) THE SAMPLE IS OUTSIDE THE HOLDING TIME IN THE APPROPRIATE COLUMN.) THE NUMBERS UNDER THE TECHNICAL/MANUAL DEFECT COLUMNS INDICATE THE NUMBER OF NON-COMPLIANCE DEFECTS ASSOCIATED WITH THE SAMPLE UNDER THAT SPECIFIC CRITERION.

CASE: 20247 CONTRACT: 68-D1-0085 SAMPLES: 4 DATE RECEIVED: 07/28/93
LAB CODE: WADS SAS NO.: SCREENER: AM/CM DATE SCREENED: 07/29/93
SDG NO: EWP60 REGION: 5 MAIL DATE (1): 07/30/93

	HOLDING TIMES					TECHNICAL/MANUAL DEFECTS										
SAMPLE	VOA AN	BNA EX	BNA AN	PES EX	PES AN	DAT A	SUR R	MS/MSD	BLANK	TUNE	INIT C	CONT C	INTSTD	ANSEQ	GPCFLO	PHIT S	MANUAL
EWP60	Y		Y		Y												2
EWP60MS	Y		Y		Y												2
EWP60MSD	Y		Y		Y												2
EWP61	Y		Y		Y												2

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

DEFECT COUNTS FOR VOLATILE FRACTION

THIS REPORT PROVIDES A SUMMARY OF THE TECHNICAL DEFECTS PRESENT ON THE DISKETTE AND HARDCOPY DATA PACKAGE. IT IS ORGANIZED BY SAMPLE AND DEFECT. IT SUMMARIZES 1) THE FRACTIONS ANALYZED DENOTED BY A "Y" FOR YES, OR "NA" FOR NOT ANALYZED IN THE APPROPRIATE "AN" (ANALYZED) COLUMN, AND 2) THE HOLDING TIME VIOLATION FOR EXTRACTION(EX) ANALYSES (DENOTED BY THE NUMBER OF DAYS(2,3,ETC) THE SAMPLE IS OUTSIDE THE HOLDING TIME IN THE APPROPRIATE COLUMN.) THE NUMBERS UNDER THE TECHNICAL/MANUAL DEFECT COLUMNS INDICATE THE NUMBER OF NON-COMPLIANCE DEFECTS ASSOCIATED WITH THE SAMPLE UNDER THAT SPECIFIC CRITERION.

CASE: 20247 CONTRACT: 68-D1-0085 SAMPLES: 4 DATE RECEIVED: 07/28/93
LAB CODE: WADS SAS NO.: SCREENER: AM/CM DATE SCREENED: 07/29/93
SDG NO: EWP60 REGION: 5 MAIL DATE (1): 07/30/93

		TECHNICAL/MANUAL DEFECTS								
SAMPLE	VOA AN	DATA	SUR R	MS/MSD	BLANK	TUNE	INIT C	CONT C	INTSTD	MANUAL
EWP60	Y									2
	+	+	+	+	+	+	+	+	+	+
EWP60MS	Y									2
	+	+	+	+	+	+	+	+	+	+
EWP60MSD	Y									2
	+	+	+	+	+	+	+	+	+	+
EWP61	Y									2
	+	+	+	+	+	+	+	+	+	+
	+	+	+	+	+	+	+	+	+	+
	+	+	+	+	+	+	+	+	+	+
	+	+	+	+	+	+	+	+	+	+
	+	+	+	+	+	+	+	+	+	+
	+	+	+	+	+	+	+	+	+	+
	+	+	+	+	+	+	+	+	+	+
	+	+	+	+	+	+	+	+	+	+
	+	+	+	+	+	+	+	+	+	+
	+	+	+	+	+	+	+	+	+	+
	+	+	+	+	+	+	+	+	+	+

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

DEFECT COUNTS FOR SEMI-VOLATILE FRACTION

THIS REPORT PROVIDES A SUMMARY OF THE TECHNICAL DEFECTS PRESENT ON THE DISKETTE AND HARDCOPY DATA PACKAGE. IT IS ORGANIZED BY SAMPLE AND DEFECT. IT SUMMARIZES 1) THE FRACTIONS ANALYZED DENOTED BY A "Y" FOR YES, OR "NA" FOR NOT ANALYZED IN THE APPROPRIATE "AN" (ANALYZED) COLUMN, AND 2) THE HOLDING TIME VIOLATION FOR EXTRACTION(EX) ANALYSES (DENOTED BY THE MUMBER OF DAYS(2,3,ETC) THE SAMPLE IS OUTSIDE THE HOLDING TIME IN THE APPROPRIATE COLUMN.) THE NUMBERS UNDER THE TECHNICAL/MANUAL DEFECT COLUMNS INDICATE THE NUMBER OF NON-COMPLIANCE DEFECTS ASSOCIATED WITH THE SAMPLE UNDER THAT SPECIFIC CRITERION.

CASE: 20247 CONTRACT: 68-D1-0085 SAMPLES: 4 DATE RECEIVED: 07/28/93
LAB CODE: WADS SAS NO.: SCREENER: AM/CM DATE SCREENED: 07/29/93
SDG NO: EWP60 REGION: 5 MAIL DATE (1): 07/30/93

		TECHNICAL/MANUAL DEFECTS								
SAMPLE	BNA EX	BNA AN	DATA	SUR R	MS/MSD	BLANK	TUNE	INIT C	CONT C	INTSTD	MANUAL
EWP60		Y									
	+		+	+	+	+	+	+	+	+	+
EWP60MS		Y									
	+		+	+	+	+	+	+	+	+	+
EWP60MSD		Y									
	+		+	+	+	+	+	+	+	+	+
EWP61		Y									
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

DEFECT COUNTS FOR PESTICIDE FRACTION

THIS REPORT PROVIDES A SUMMARY OF THE TECHNICAL DEFECTS PRESENT ON THE DISKETTE AND HARDCOPY DATA PACKAGE. IT IS ORGANIZED BY SAMPLE AND DEFECT. IT SUMMARIZES 1) THE FRACTIONS ANALYZED DENOTED BY A "Y" FOR YES, OR "NA" FOR NOT ANALYZED IN THE APPROPRIATE "AN" (ANALYZED) COLUMN, AND 2) THE HOLDING TIME VIOLATION FOR EXTRACTION(EX) ANALYSES (DENOTED BY THE NUMBER OF DAYS(2,3,ETC) THE SAMPLE IS OUTSIDE THE HOLDING TIME IN THE APPROPRIATE COLUMN.) THE NUMBERS UNDER THE TECHNICAL/MANUAL DEFECT COLUMNS INDICATE THE NUMBER OF NON-COMPLIANCE DEFECTS ASSOCIATED WITH THE SAMPLE UNDER THAT SPECIFIC CRITERION.

CASE: 20247 CONTRACT: 68-D1-0085 SAMPLES: 4 DATE RECEIVED: 07/28/93
LAB CODE: WADS SAS NO.: SCREENER: AM/CM DATE SCREENED: 07/29/93
SDG NO: EWP60 REGION: 5 MAIL DATE (1): 07/30/93

		TECHNICAL/MANUAL DEFECTS										
SAMPLE	PES EX	PES AN	DATA	SUR R	MS/MSD	BLANK		INIT C	CONT C	AN SEQ	GPC FIL O	PH ITS	MAN UAL
EWP60		Y										
	+		+	+	+	+	+	+	+	+	+	+	
EWP60MS		Y										
	+		+	+	+	+	+	+	+	+	+	+	
EWP60MSD		Y										
	+		+	+	+	+	+	+	+	+	+	+	
EWP61		Y										
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	

U.S.E.P.A CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR

ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

WARNING!

LAB RECEIPT DATE VARIES BETWEEN FRACTIONS ON THE FOLLOWING SAMPLES
PLEASE CHECK TO MAKE SURE THESE DATES ARE CORRECT

---------- LAB=WADS SDG=EWP60 DRD=28JUL93 ----------

OBS	SAMPLE	LAB RECEIPT DATE VOLATILES	LAB RECEIPT DATE SEMIVOLATILES	LAB RECEIPT DATE PESTICIDES
1	EWP60	25JUN93	23JUN93	23JUN93
2	EWP60MS	25JUN93	23JUN93	23JUN93
3	EWP60MSD	25JUN93	23JUN93	23JUN93
4	EWP61	25JUN93	23JUN93	23JUN93

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

LAB: WADS SDG: EWP60

TECHNICAL DEFECT FREQUENCY REPORT

NO DEFECTS FOUND

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

== FILE SKELETON ==
LAB: WADS SDG: EWP60

FRACTION	SAMPLE	QC	SQ	LEVEL	MATRIX	DILUTION	ANALYSIS DATE	ANALYSIS TIME	LAB FILE/ SAMP_ID	COL_ID	INSTID	MB_FID	SB_FID	REC_REF	RUN
VOA		MNC			0					RTX502.2	INCOS50-1			000022F81	1
VOA		LPC			0		93/06/02	08:27	BFB840I	RTX502.2	INCOS50-1			00043273A	1
VOA	VSTD010B	CLM			0		93/06/02	11:25	VOI7809	RTX502.2	INCOS50-1			0004776A0	1
VOA	VSTD020B	CLM			0		93/06/02	10:45	VOI7808	RTX502.2	INCOS50-1			000926B64	1
VOA	VSTD050B	CLM			0		93/06/02	10:05	VOI7807	RTX502.2	INCOS50-1			001376029	1
VOA	VSTD100B	CLM			0		93/06/02	09:15	VOI7806	RTX502.2	INCOS50-1			0018254ED	1
VOA	VSTD200B	CLM			0		93/06/02	08:37	VOI7805	RTX502.2	INCOS50-1			00227498E	1
VOA		LPC			0		93/06/26	09:09	BFB863I	RTX502.2	INCOS50-1			002723BC9	1
VOA	VSTD050C	CLC			0		93/06/26	09:19	VOI8163	RTX502.2	INCOS50-1			002768BAC	1
VOA	VBLK1	LRB		LOW	SOIL	1.00	93/06/26	10:47	VOI8165	RTX502.2	INCOS50-1			003210F05	1
VOA	EWP60	LSD		LOW	SOIL	1.00	93/06/26	13:41	VOI8169	RTX502.2	INCOS50-1	VOI8165		00367A15E	1
VOA	EWP60MS	LF1		LOW	SOIL	1.00	93/06/26	14:32	VOI8170	RTX502.2	INCOS50-1	VOI8165		00413374A	1
VOA	EWP60MSD	LF2		LOW	SOIL	1.00	93/06/26	15:29	VOI8171	RTX502.2	INCOS50-1	VOI8165		00459D732	1
VOA	EWP61			LOW	SOIL	1.00	93/06/26	16:32	VOI8172	RTX502.2	INCOS50-1	VOI8165		00505754C	1
BNA		MNC			0					DB5.625	EXTR03			000022E65	2
BNA		LPC			0		93/06/09	13:24	3DF0609	DB5.625	EXTR03			000821FC5	2
BNA	SSTD160	CLM			0		93/06/09	14:18	3SH0609A	DB5.625	EXTR03			000867315	2
BNA	SSTD120	CLM			0		93/06/09	14:51	3SMH0609	DB5.625	EXTR03			001734212	2
BNA	SSTD080	CLM			0		93/06/09	15:25	3SM0609	DB5.625	EXTR03			002601137	2
BNA	SSTD020	CLM			0		93/06/09	16:00	3SL0609	DB5.625	EXTR03			00347DFC9	2
BNA	SSTD050	CLM			0		93/06/09	16:35	3SML0609	DB5.625	EXTR03			00434AE95	2
BNA		LPC			0		93/07/07	08:44	3DF0707	DB5.625	EXTR03			005217B1E	2
BNA	SSTD050A	CLC			0		93/07/07	09:02	3SML0707	DB5.625	EXTR03			00525CEE0	2
BNA	SBLK1B	LRB		LOW	SOIL	1.00	93/07/07	12:32	SBLK1B	DB5.625	EXTR03			00612B75A	2
BNA	EWP60	LSD		LOW	SOIL	1.00	93/07/07	19:12	EWP60	DB5.625	EXTR03	SBLK1B		00722CDDC	2
BNA	EWP60MS	LF1		LOW	SOIL	1.00	93/07/07	19:48	EWP60MS	DB5.625	EXTR03	SBLK1B		00877C037	2
BNA	EWP60MSD	LF2		LOW	SOIL	1.00	93/07/07	20:24	EWP60MSD	DB5.625	EXTR03	SBLK1B		00966D612	2
BNA		LPC			0	1.00	93/07/12	08:53	3DF0712	DB5.625	EXTR03	SBLK1B		01055E80C	2
BNA	SSTD050B	CLC			0	1.00	93/07/12	10:05	3SML0712A	DB5.625	EXTR03	SBLK1B		010593BE0	2
BNA	EWP61			LOW	SOIL	4.00	93/07/12	10:45	EWP61	DB5.625	EXTR03	SBLK1B		011462596	2
PEST		MNC			0					RTX1701	HP5890XA			000022E42	3
PEST	FLO942935	FLO			0		92/12/06	00:00	FLO942935	RTX1701	HP5890XA			0013159F5	3
PEST	GPC1006	GPC			0		93/06/28	12:00	GPC1006	RTX1701	HP5890XA			001444EBF	3
PEST	RESCX1	LPC			0		93/07/19	17:25	RESCX1	RTX1701	HP5890XA			00152E136	3
PEST	PEMX1	CLE		LOW	0		93/07/19	18:20	PEMX1	RTX1701	HP5890XA			001740147	3
PEST	AR1660X1	CLS		LOW	0	0.00	93/07/19	19:15	AR1660X1	RTX1701	HP5890XA			003019B8F	3
PEST	AR1221X1	CLS		LOW	0	0.00	93/07/19	20:09	AR1221X1	RTX1701	HP5890XA			004282D29	3
PEST	AR1232X1	CLS		LOW	0	0.00	93/07/19	21:04	AR1232X1	RTX1701	HP5890XA			00555BCF8	3
PEST	AR1242X1	CLS		LOW	0	0.00	93/07/19	21:59	AR1242X1	RTX1701	HP5890XA			006824CFE	3
PEST	AR1248X1	CLS		LOW	0	0.00	93/07/19	22:54	AR1248X1	RTX1701	HP5890XA			00809DD7A	3
PEST	AR1254X1	CLS		LOW	0	0.00	93/07/19	23:49	AR1254X1	RTX1701	HP5890XA			009366E29	3
PEST	TOXAPHX1	CLS		LOW	0	0.00	93/07/20	00:44	TOXAPHX1	RTX1701	HP5890XA			00063FF3C	3
PEST	INDALX1	CLM		LOW	0	0.00	93/07/20	01:39	INDALX1	RTX1701	HP5890XA			00190909D	3
PEST	INDBLX1	CLM		LOW	0	0.00	93/07/20	02:34	INDBLX1	RTX1701	HP5890XA			003172C8B	3
PEST	INDAMX1	CLM		LOW	0	0.00	93/07/20	03:29	INDAMX1	RTX1701	HP5890XA			00444C3A1	3
PEST	INDBMX1	CLM		LOW	0	0.00	93/07/20	04:24	INDBMX1	RTX1701	HP5890XA			005715855	3
PEST	INDAHX1	CLM		LOW	0	0.00	93/07/20	05:18	INDAHX1	RTX1701	HP5890XA			00698EB59	3
PEST	INDBHX1	CLM		LOW	0	0.00	93/07/20	06:13	INDBHX1	RTX1701	HP5890XA			0082582EA	3
PEST	PIBLKX1	LIB		LOW	WATER	0.00	93/07/20	07:08	PIBLKX1	RTX1701	HP5890XA			009521BAF	3
PEST	PEMX2	CLE		LOW	0	1.00	93/07/20	08:03	PEMX2	RTX1701	HP5890XA			00080027B	3

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

== FILE SKELETON ==
LAB: WADS SDG: EWP60

FRACTION	SAMPLE	QC	SQ	LEVEL	MATRIX	DILUTION	ANALYSIS DATE	ANALYSIS TIME	LAB FILE/ SAMP_ID	COL_ID	INSTID	MB_FID	SB_FID	REC_REF	RUN
PEST	PBLK1	LRB		LOW	SOIL	1.00	93/07/20	08:58	PBLK1	RTX1701	HP5890XA			002079AC9	3
PEST	EWP60MS	LF1		LOW	SOIL	1.00	93/07/20	09:53	EWP60MS	RTX1701	HP5890XA	PBLK1	PBLKS	003365A11	3
PEST	EWP60	LSD		LOW	SOIL	1.00	93/07/20	10:48	EWP60	RTX1701	HP5890XA	PBLK1	PBLKS1	004658C33	3
PEST	EWP60MSD	LF2		LOW	SOIL	1.00	93/07/20	11:43	EWP60MSD	RTX1701	HP5890XA	PBLK1	PBLKS1	00594AF09	3
PEST	EWP61			LOW	SOIL	1.00	93/07/20	12:38	EWP61	RTX1701	HP5890XA	PBLK1	PBLKS1	00723E941	3
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	13:32	ZZZZZ	RTX1701	HP5890XA	PBLK1	PBLKS1	008520EEE	3
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	14:27	ZZZZZ	RTX1701	HP5890XA			009811B52	3
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	15:22	ZZZZZ	RTX1701	HP5890XA			001102491	3
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	16:17	ZZZZZ	RTX1701	HP5890XA			002392DC9	3
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	17:12	ZZZZZ	RTX1701	HP5890XA			003683259	3
PEST	PIBLKX2	LIB		LOW	WATER	1.00	93/07/20	18:07	PIBLKX2	RTX1701	HP5890XA			004973F09	3
PEST	INDAMX2	CLE		LOW	0	1.00	93/07/20	19:02	INDAMX2	RTX1701	HP5890XA			006252201	3
PEST	INDBMX2	CLE		LOW	0	0.00	93/07/20	19:57	INDBMX2	RTX1701	HP5890XA			00752B2C9	3
PEST		MNC			0					RTX5	HP5890XB			000022DAF	4
PEST	FLO942935	FLO			0		92/12/06	00:00	FLO942935	RTX5	HP5890XB			001315C19	4
PEST	GPC1006	GPC			0		93/06/28	12:00	GPC1006	RTX5	HP5890XB			0014450E3	4
PEST	RESCX1	LPC			0		93/07/19	17:25	RESCX1	RTX5	HP5890XB			00152E35A	4
PEST	PEMX1	CLE		LOW	0		93/07/19	18:20	PEMX1	RTX5	HP5890XB			001740380	4
PEST	AR1660X1	CLS		LOW	0	0.00	93/07/19	19:15	AR1660X1	RTX5	HP5890XB			003019C98	4
PEST	AR1221X1	CLS		LOW	0	0.00	93/07/19	20:09	AR1221X1	RTX5	HP5890XB			004282E62	4
PEST	AR1232X1	CLS		LOW	0	0.00	93/07/19	21:04	AR1232X1	RTX5	HP5890XB			00555BF00	4
PEST	AR1242X1	CLS		LOW	0	0.00	93/07/19	21:59	AR1242X1	RTX5	HP5890XB			006824F9C	4
PEST	AR1248X1	CLS		LOW	0	0.00	93/07/19	22:54	AR1248X1	RTX5	HP5890XB			00809E05B	4
PEST	AR1254X1	CLS		LOW	0	0.00	93/07/19	23:49	AR1254X1	RTX5	HP5890XB			00936710A	4
PEST	TOXAPHX1	CLS		LOW	0	0.00	93/07/20	00:44	TOXAPHX1	RTX5	HP5890XB			000630215	4
PEST	INDALX1	CLM		LOW	0	0.00	93/07/20	01:39	INDALX1	RTX5	HP5890XB			001909379	4
PEST	INDBLX1	CLM		LOW	0	0.00	93/07/20	02:34	INDBLX1	RTX5	HP5890XB			00317313D	4
PEST	INDAMX1	CLM		LOW	0	0.00	93/07/20	03:29	INDAMX1	RTX5	HP5890XB			00444CC3C	4
PEST	INDBMX1	CLM		LOW	0	0.00	93/07/20	04:24	INDBMX1	RTX5	HP5890XB			005716116	4
PEST	INDAHX1	CLM		LOW	0	0.00	93/07/20	05:18	INDAHX1	RTX5	HP5890XB			00698F440	4
PEST	INDBHX1	CLM		LOW	0	0.00	93/07/20	06:13	INDBHX1	RTX5	HP5890XB			008258CA7	4
PEST	PIBLKX1	LIB		LOW	WATER	0.00	93/07/20	07:08	PIBLKX1	RTX5	HP5890XB			0095226A6	4
PEST	PEMX2	CLE		LOW	0	1.00	93/07/20	08:03	PEMX2	RTX5	HP5890XB			000800D98	4
PEST	PBLK1	LRB		LOW	SOIL	1.00	93/07/20	08:58	PBLK1	RTX5	HP5890XB			00207A604	4
PEST	EWP60MS	LF1		LOW	SOIL	1.00	93/07/20	09:53	EWP60MS	RTX5	HP5890XB	PBLK1	PBLKS	003366563	4
PEST	EWP60	LSD		LOW	SOIL	1.00	93/07/20	10:48	EWP60	RTX5	HP5890XB	PBLK1	PBLKS1	004659654	4
PEST	EWP60MSD	LF2		LOW	SOIL	1.00	93/07/20	11:43	EWP60MSD	RTX5	HP5890XB	PBLK1	PBLKS1	00594B6E3	4
PEST	EWP61			LOW	SOIL	1.00	93/07/20	12:38	EWP61	RTX5	HP5890XB	PBLK1	PBLKS1	00723EF4D	4
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	13:32	ZZZZZ	RTX5	HP5890XB	PBLK1	PBLKS1	008521729	4
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	14:27	ZZZZZ	RTX5	HP5890XB			0098123DF	4
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	15:22	ZZZZZ	RTX5	HP5890XB			001102D3A	4
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	16:17	ZZZZZ	RTX5	HP5890XB			0023936D7	4
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	17:12	ZZZZZ	RTX5	HP5890XB			003683B36	4
PEST	PIBLKX2	LIB		LOW	WATER	1.00	93/07/20	18:07	PIBLKX2	RTX5	HP5890XB			004974A19	4
PEST	INDAMX2	CLE		LOW	0	1.00	93/07/20	19:02	INDAMX2	RTX5	HP5890XB			006252D42	4
PEST	INDBMX2	CLE		LOW	0	0.00	93/07/20	19:57	INDBMX2	RTX5	HP5890XB			00752C02C	4

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR

ORGANICS
RESOLUTION OF CONTRACT COMPLIANCE SCREENING (CCS) RESULTS

LABORATORY CODE : WADS
REGION : 5
DATE MAILED :

CASE: 20247
SDG_NO. : EWP60
RECONCILED BY : AM/CM

RESPONSE DATE : 28JUL93
RECONCILIATION DATE :

ATTACHED ARE COPIES OF CCS SUMMARIES WHICH SHOW THE STATUS OF RELEVANT SAMPLES AFTER INCORPORATION OF LABORATORY RESPONSE TO SCREENING. PROBLEM CODES WHICH NO LONGER APPLY ARE MARKED WITH AN (X) CODE .

FRACTION	CRITERION	COMMENTS
VOA	TR.3	ON TR, LRD IS SHOWN AS 06-23-93. ON FORMS 1A/1E, LRD IS REPORTED AS 06-25-93. R.

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

MANUAL SCREENING DEFECT REPORT
BY FRACTION

LAB: WADS SDG: EWP60 CASE: 20247

VOLATILES	SAMPLE:EWP60

CRITERION TR. TRAFFIC REPORT

TR.3.1.1 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1A>. (B-8/B-32/B-33)*

TR.3.1.2 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1E>. (B-8/B-32/B-33)*

VOLATILES	SAMPLE:EWP60MS

CRITERION TR. TRAFFIC REPORT

TR.3.1.1 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1A>. (B-8/B-32/B-33)*

TR.3.1.2 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1E>. (B-8/B-32/B-33)*

VOLATILES	SAMPLE:EWP60MSD

CRITERION TR. TRAFFIC REPORT

TR.3.1.1 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1A>. (B-8/B-32/B-33)*

TR.3.1.2 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1E>. (B-8/B-32/B-33)*

VOLATILES	SAMPLE:EWP61

CRITERION TR. TRAFFIC REPORT

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

MANUAL SCREENING DEFECT REPORT
BY FRACTION

LAB: WADS SDG: EWP60 CASE: 20247

VOLATILES SAMPLE:EWP61 (Continued)

TR.3.1.1 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1A>. (B-8/B-32/B-33)*

TR.3.1.2 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1E>. (B-8/B-32/B-33)*

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. _____ CERCLIS No. OH

Case No. 20347 Site Name Location: Systech

Contractor or EPA Lab: Ensco-Wads Data User: PRC

No. of Samples: 2 Date Samples or Data Received: 7-28-93

Have Chain-of-Custody records been received? YES ✓ NO ____
Have traffic reports or packing lists been received? YES ✓ NO ____
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ____
If no, which traffic report or packing list numbers are missing?

_____ _____ _____ _____
_____ _____ _____ _____

Are basic data forms in? YES ✓ NO ____
No. of samples claimed: 2 No. of samples received: 2

Received by: Lynette Burnett Date: 7-29-93

Received by LSSS: Dorothy M. May Date: 8/02/93

Review started: 8-9-93 Reviewer Signature: KMinczuk

Total time spent on review: 4 Date review completed: 8-10-93

Copied by: Jeannette Pritchett Date: Aug 19, 1993

Mailed to user by: Lynette Burnett Date: 8-20-93

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

AUG 25 1993

Data received by: Mildred Fuhrer Date: _____

Data review received by: _____ Date: _____
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

_____

_____

Received by Data Mgmt. Coordinator for Files Date: _____

PRC Environmental Management, Inc.
233 North Michigan Avenue
Suite 1621
Chicago, IL 60601
312-856-8700
Fax 312-938-0118

PRC

July 1, 1993

Mr. Brian Freeman
U.S. Environmental Protection Agency
Central Regional Laboratory
536 South Clark Street, 10th Floor
Chicago, IL 60605

Re: Systech Site, Case No. 20247

Mr. Freeman:

I have enclosed the following documents for samples collected at the Systech Site during the week of June 21, 1993:

- CRL Sample Data Reports
- ITR Report/COC Records
- OTR Report/COC Records

The samples were shipped under Case No. 20247. If you have any questions, please call me at (312) 856-8752.

Sincerely,

Mildred Yarbrough

Mildred Yarbrough
Sample Coordinator

contains recycled fiber and is recyclable

PRC Environmental Management, Inc.
233 North Michigan Avenue
Suite 1621
Chicago, IL 60601
312-856-8700
Fax 312-938-0118

July 1, 1993

Ms. Loren Minnich
U.S. EPA Contract Laboratory Program
Sample Management Office
300 North Lee Street
Alexandria, VA 22314

Re: Systech Site, Case No. 20247

Ms. Minnich:

I have enclosed the following documents for samples collected at the Systech Site during the week of June 21, 1993:

- CRL Sample Data Reports
- ITR Report/COC Records
- OTR Report/COC Records

The samples were shipped under Case No. 20247. If you have any questions, please call me at (312) 856-8752.

Sincerely,

Mildred Yarbrough
Sample Coordinator

contains recycled fiber and is recyclable

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS
THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

CASE NUMBER/SAS No. 20247 SITE NAME Systech LABORATORY TMA/Skinner + Sherman DATE SHIPPED 6/22/93, 6/25/93

SUPERFUND DU NUMBER SS1 ZZ EPA RPM or OSC (S.M.S.)/(CES) OHD 030 935 852 PAGE 1 OF 1

ACTIVITY NUMBER TFA 102

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS													SEDIMENTS or SOILS										
			ACID BASE NEUTRAL CPDS ORGANIC SCAN UG L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG L PES 17144	WATER CHLORINATED PESTICIDES UG L PES17134	TOTAL METALS IN WATER UG L MET1111	WATER CYANIDE UG L MIN74919	NITRATE NITRITE MG L MIN7284	AMMONIA MG L MIN7294	RESIDUE FILTERABLE TDS MG L MIN7362	RESIDUE NON-FILT TSS MG L MIN7372			ACID BASE NEUTRAL CPDS ORGANIC SCAN MG KG TOX21572	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG KG TOX2156622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG KG 211322	TOTAL METALS MG KG MET413	CYANIDE MG KG MIN44930	EP TOXICITY METALS MG KG	AMMONIA MG KG MIN42925				
BZF69S03		MEWR 86					X	X																		
BZF69S04		MEWR 82					X	X																		
BZF69S05		MEWR 88					X	X																		
BZF69S06		MEWR 89					X	X																		
BZF69S07		MEWR 90					X	X																		
BZF69D07		MEWR 91					X	X																		
BZF69S08		MEWR 92					X	X																		
BZF69S09		MEWR 87					X	X																		
BZF69S10		MEWR 85					X	X																		
BZF69S11		MEWR 93					X	X																		
BZF69R02		MEWR 94					X	X																		
BZF69S12		MEWR 81					X	X																		
BZF69S13		MEWR 83					X	X																		
BZF69D13		MEWR 84					X	X																		
BZF69R03		MEWR 95					X	X																		
BZF69S14		MEWR 74																	X	X						
BZF69S15		MEWR 73																	X	X						
BZF69S16	"	MEWR 75																	X	X						
BZF69S17		MEWR 76																	X	X						
BZF69S18		MEWR 77																	X	X						

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): Guy Montfort

Airbill Number: 548437384 5

Non-Superfund Program

Sampler Signature: Guy J. Montfort

5. Ship To: TMA/Skinner + Sherman Labs
300 Second Avenue
Waltham, MA 02254
ATTN: Richard Purdy

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	X		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI	O&M	OIL
			NPLD	UST

6. Preservative (Enter In Column D)
1. HCl
2. HNO_3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only: Nitrate/ Nitrite	Low Conc. only: Fluoride	High only: pH	High only: Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
MEWR 86	2	L	G	2	X							009567	W132	6/21/93 1645		EWP68	
MEWR 86				3			X					009568	W132	↓		↓	
MEWR 82				2	X							009543	W133	1845		EWP64	
MEWR 82				3			X					009544	W133	↓		↓	
MEWR 88				2	X							009585	W181	1805		EWP70	
MEWR 88				3			X					009586	W181	↓		↓	
MEWR 89				2	X							009591	W182	1220		EWP71	
MEWR 89				3			X					009592	W182	↓		↓	
MEWR 90				2	X							009597	W183	1355		EWP72	
MEWR 90	↓	↓	↓	3			X					009598	W183	↓		↓	

Shipment for Case complete? (Y/N): Y

Page 1 of 2

Sample used for a spike and/or duplicate: MEWR 87

Additional Sampler Signatures: Trisha Miller

Chain of Custody Seal Number: 140211, 140212

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine Kirchman	Christine Kirchman	6/22/93 1145	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-6), previous edition which may be used

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United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable)

Case No. 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): Guy Montfort

Airbill Number: 5484373845

Non-Superfund Program

Sampler Signature: Guy P. Montfort

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	☑		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		LSI ☑	O&M	OIL
			NPLD	UST

5. Ship To: TMA/Skinner + Sherman, 300 Second Ave, Waltham, MA 02254

ATTN: Richard Purdy

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only: Nitrate/Nitrite	Low Conc. only: Fluoride	High only: pH	High only: Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
MEWR 91	2	L	G	2	X							009603	W183D	6/21/93 1355		EWP 73	D(MEWR90)
MEWR 91	↓	↓	↓	3			X					009604	W183D	↓ ↓		↓	↓

Shipment for Case complete? (Y/N) Y

Page 1 of 2 2

Sample used for a spike and/or duplicate: MEWR 87

Additional Sampler Signatures: Gabriel J. Rood, Trisha Miller

Chain of Custody Seal Number: 140211, 140212

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine J. Kirschman	Christine J. Kirschman	6/22/93 1145	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature) ☐ Declined

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United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable)

Case No. 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): Guy Montfort

Airbill Number: 5484373849

Non-Superfund Program

Sampler Signature: Guy P. Montfort

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	✓		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI ✓	O&M	OIL
			NPLD	UST

5. Ship To: TMA/Skinner + Sherman, 300 Second Avenue, Waltham, MA 02254

ATTN: Richard Purdy

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only Nitrate/Nitrite	Low Conc. only Fluoride	High only pH	High only Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
MEWR92	2	L	G	2	Y							009609	W184	6/21/93 1325		EWP 74	
↓	↓	↓	↓	3			Y					009610	W184	↓		↓	
MEWR87				2	Y							009579	W185	1640		EWP69	
↓				3		Y	Y					009580	W185	↓		↓	
MEWR85				2	Y							009561	W186	1620		EWP67	
↓				3		Y	Y					009562	W186	↓		↓	
MEWR93				2	Y							009615	W187	1120		EWP75	
↓	↓			3		Y	Y					009616	W187	↓		↓	
MEWR94	4			2	Y							009621	EB-1	1530		EWP76	B
↓	↓	↓	↓	3		Y	Y					009622	EB-1	↓		↓	B

Shipment for Case complete? (Y/N) Y

Page 1 of 2

Sample used for a spike and/or duplicate: MEWR 87, MEWR 73

Additional Sampler Signatures: [signature], Trisha Miller

Chain of Custody Seal Number: 140213, 140214

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine Kuschman	Christine Kuschman	6/22/93 1150	

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none

Split Samples ☐ Accepted (Signature) ☐ Declined

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EPA Inorganic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): Christine Hirschman

Airbill Number: 5484373845

Non-Superfund Program

Sampler Signature: Christine Hirschman

5. Ship To: TMA/Skinner & Sherman, 300 Second Avenue, Waltham, MA 02254, ATTN: Richard Purdy

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	✓		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI	O&M	OIL
			NPLD	UST

6. Preservative (Enter in Column D): 1. HCl; 2. HNO_3; 3. NaOH; 4. H_2SO_4; 5. $K_2CR_2O_7$; 6. Ice only; 7. Other (Specify); N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Rinsate; 5. Soil/Sediment; 6. Oil (High only); 7. Waste (High only); 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp/ Grab	D Preservative from Box 6	E RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only: Nitrate/ Nitrite	Low Conc. only: Fluoride	High only: pH	High only: Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank, S = Spike, D = Duplicate, PE = Perform. Eval., — = Not a QC Sample)
MEWR 73	5	L	G	N	X		X					009504	SD-1	6/21/93 1158		EWP55	
MEWR 74	↓	↓	↓	↓	X		X					009508	SD-2	0945		EWP56	
MEWR 75					X		X					009512	SD-3	1003		EWP57	
MEWR 76					X		X					009516	SD-4	1030		EWP58	
MEWR 77	↓	↓	↓	↓	X		X					009520	SD-5	↓ 1045		EWP59	

Shipment for Case complete? (Y/N): (Y)

Page 1 of 2

Sample used for a spike and/or duplicate: MEWR 73

Additional Sampler Signatures: Christine Hirschman

Chain of Custody Seal Number: 140213, 140214

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Christine Hirschman	6/22/93 1155				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples: ☐ Accepted (Signature) ☐ Declined

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SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

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349302

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/25/93	Fed ex

Regional Information: TFA 102

Sampler (Name): GUY MONTFORT

Airbill Number: 715866774O

Non-Superfund Program

Sampler Signature: Guy F. Montfort

5. Ship To: TMA/SKINNER & SHERMAN LABS, 300 SECOND AVE WALTHAM, MA 02254 ATTN: RICHARD PURDY

Site Name: SYSTECH

3. Type of Activity: SF (Lead), PRP, ST, FED; Pre-Remedial: PA, SSI, ESI; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST

City, State: FRANKLIN

Site Spill ID: ZZ

6. Preservative (Enter in Column D): 1. HCl 2. HNO_3 3. NaOH 4. H_2SO_4 5. $K_2CR_2O_7$ 6. Ice only 7. Other (Specify) N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

C. CLP Sample Numbers (from labels)	A. Enter # from Box 7	B. Conc. Low Med High	C. Sample Type: Comp./ Grab	D. Preservative from Box 6	E. RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only: Nitrate/ Nitrite	Low Conc. only: Fluoride	High only: pH	High only: Conductivity	F. Regional Specific Tracking Number or Tag Numbers	G. Station Location Number	H. Mo/Day/ Year/Time Sample Collection	I. Sampler Initials	J. Corresp. CLP Org. Samp. No.	K. Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
MEWR81	2	L	G	2	X							5-009537	W139	6/25/93 1145	GDM	EWP63	
MEWR81				3			X					5-009538	W139	6/25/93 1145		EWP63	
MEWR83				2	X							5-009549	W140	1015		EWP65	
MEWR83				3			X					5-009550	W140	1015		EWP65	
MEWR84				2	X							5-009555	W140D	1015		EWP66	D(MEWR83)
MEWR84				3			X					5-009556	W140D	1015		EWP66	D(MEWR83)
MEWR95	2	L	G	2	X							5-009627	EB-2	6/25/93 1215		EWP77	B
MEWR95	2	L	G	3			X					5-009628	EB-2	6/25/93 1215		EWP77	B

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: MEWR 87

Additional Sampler Signatures: Gail J. Rood

Chain of Custody Seal Number: 140219, 140220

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy F. Montfort	6/25/93 1500	Christopher P. Coppel	Christopher P. Coppel	6/25/93 1520	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples: ☐ Accepted (Signature) ☐ Declined

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Inorg-1

349306

ORGANICS/INORGANICS

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ASE NUMBER/SAS No. 20247 SITE NAME Systech LABORATORY American Analytizal + Technical Services DATE SHIPPED 6/22/93

JPERFUND DU NUMBER SS1ZZ EPA RPM or OSC (S.M.S.)/(CES) CENCUS # OHD 030 935 852 PAGE 1 OF 1

CTIVITY NUMBER TFA 102

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS												SEDIMENTS or SOILS										
			ACID BASE NEUTRAL CPDS ORGANIC SCAN UG L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG L PES 17144	WATER CHLORINATED PESTICIDES UG L PES17134	TOTAL METALS IN WATER UG L MET111	WATER CYANIDE UG L MIN74919	NITRATE NITRITE MG L MIN7284	AMMONIA MG L MIN7294	RESIDUE, FILTERABLE TDS MG L MIN7362	RESIDUE NON-FILT TSS MG L MIN7372			ACID-BASE NEUTRAL CPDS ORGANIC SCAN MG KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG KG TOX215E22	SEDIMENTS POLYCHLORINATED BIPHENYLS MG KG PES[illegible]	SEDIMENTS CHLORINATED PESTICIDES MG KG [illegible]	TOTAL METALS MG KG MET[illegible]	CYANIDE MG KG MIN4J930	EP TOXICITY METALS MG KG	AMMONIA MG KG MIN[illegible]				
32F69301		MEWR 78																	X	X						
32F69302		MEWR 79																	X	X						

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): Christine Hirschman

Airbill Number: 715866961 41

Non-Superfund Program

Sampler Signature: Christine Hirschman

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: 77

3. Type of Activity

Lead	Pre-Remedial	Remedial	Removal
SF ☑		RIFS ☐	CLEM ☐
PRP ☐	PA ☐	RD ☐	REMA ☐
ST ☐	SSI ☐	RA ☐	REM ☐
FED ☐	ESI ☑	O&M ☐	OIL ☐
		NPLD ☐	UST ☐

5. Ship To: American Analytical + Technical Svcs
1700 West Albany, Suite A
Broken Arrow, OK 74012
ATTN: Steve Markham

6. Preservative (Enter in Column D)
1. HCl
2. HNO_3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only: Nitrate/ Nitrite	Low Conc. only: Fluoride	High only: pH	High only: Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
MEWR 78	5	L	C	N	X		X					009524	SS-1	6/21/93 1130		EWP60	
MEWR 79	↓	↓	↓	↓	X		X					009528	SS-2	↓ 1107		EWP61	

Q = QC Sample (Spike/Duplicate)
B = Blank S = Spike
D = Duplicate
PE = Perform. Eval.
— = Not a QC Sample

Shipment for Case complete? (Y/N): (Y)

Page 1 of 1

Sample used for a spike and/or duplicate: MEWR 78

Additional Sampler Signatures:

Chain of Custody Seal Number: 140203, 140204

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Christine Hirschman	6/22/93 1025				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

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349301

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS
THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

CASE NUMBER/SAS No. 20247 SITE NAME Systech LABORATORY Southwest Research Institute DATE SHIPPED 6/22/93; 6/25/93

SUPERFUND DU NUMBER SSI ZZ EPA RPM or OSC (S.M.S.)/(ICES) OHD 030 935 852 PAGE 1 OF 2

ACTIVITY NUMBER TFA 102

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS												SEDIMENTS or SOILS											
			ACID BASE NEUTRAL CPDS ORGANIC SCAN UG L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG L PES17144	WATER CHLORINATED PESTICIDES UG L PES17134	TOTAL METALS IN WATER UG L MET1111	WATER CYANIDE UG L MIN74919	NITRATE NITRITE MG L MIN7284	AMMONIA MG L MIN7294	RESIDUE FILTERABLE TDS MG L MIN7362	RESIDUE NON-FILT TSS MG L MIN7372			ACID BASE NEUTRAL CPDS ORGANIC SCAN MG KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG KG 211322	TOTAL METALS MG KG MET413	CYANIDE MG KG MIN44930	EP TOXICITY METALS MG KG	AMMONIA MG KG MIN42925				
3ZF69S03	EWP 68		X	X	X	X																				
3ZF69S04	EWP 64		X	X	X	X																				
3ZF69S05	EWP 70		X	X	X	X																				
3ZF69S06	EWP 71		X	X	X	X																				
3ZF69S07	EWP 72		X	X	X	X																				
3ZF69D07	EWP 73		X	X	X	X																				
3ZF69S08	EWP 74		X	X	X	X																				
3ZF69S09	EWP69		X	X	X	X																				
3ZF69S10	EWP 67		X	X	X	X																				
3ZF69S11	EWP 75		X	X	X	X																				
3ZF69R01	EWP 79			X																						
3ZF69R02	EWP 76		X	X	X	X																				
3ZF69S12	EWP63		X	X	X	X																				
3ZF69S13	EWP65		X	X	X	X																				
3ZF69D13	EWP 66		X	X	X	X																				
3ZF69R03	EWP 77		X	X	X	X																				
3ZF69R04	EWP80			X																						
3ZF69S14	EWP56														X	X	X	X								
3ZF69S15	EWP55														X	X	X	X								
3ZF69S16	EWP57														X	X	X	X								

ORGANICS/INORGANICS

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CASE NUMBER/SAS No. 20247 SITE NAME Systech LABORATORY Southwest Research Institute DATE SHIPPED 6/22/93; 6/25/93

SUPERFUND DU NUMBER 551ZZ EPA RPM or OSC (S.M.S.)/(CES) CERCLIS # OHD 030935 852 PAGE 2 OF 2

ACTIVITY NUMBER TFA 102

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS												SEDIMENTS or SOILS											
			ACID BASE NEUTRAL CPDS ORGANIC SCAN UG L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG L PES 17144	WATER CHLORINATED PESTICIDES UG L PES17134	TOTAL METALS IN WATER UG L MET111	WATER CYANIDE UG L MIN74919	NITRATE NITRITE MG L MIN7284	AMMONIA MG L MIN7294	RESIDUE, FILTERABLE TDS MG L MIN7382	RESIDUE NON-FILT TSS MG L MIN7372			ACID BASE NEUTRAL CPDS ORGANIC SCAN MG KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG KG PES	SEDIMENTS CHLORINATED PESTICIDES MG KG	TOTAL METALS MG KG MET	CYANIDE MG KG MIN4839	EP TOXICITY METALS MG KG	AMMONIA MG KG MIN2934				
BZF69S17	EWP 58														X	X	X	X								
BZF69S18	EWP 59														X	X	X	X								

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PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1: Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Federal Express

Regional Information	Sampler (Name)	Airbill Number
TFA 102	Guy Montfort	5184373171

Non-Superfund Program	Sampler Signature	5. Ship To
	Guy Montfort	Southwest Research Institute 6220 Culebra Road San Antonio, TX 78238 ATTN: Joe Pan

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	☑		RIFS ☐	CLEM ☐
PRP	☐	PA ☐	RD ☐	REMA ☐
ST	☐	SSI ☐	RA ☐	REM ☐
FED	☐	ESI ☑	O&M ☐	OIL ☐
			NPLD ☐	UST ☐

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/ PCB	High only: ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
EWP 68	2	L	G	1	X				009563-009564	W132	6/21/93 1645		MEWR 86	
EWP 64					X				009539-009540	W133	1846		MEWR 82	
EWP 70					X				009581-009582	W181	1805		MEWR 88	
EWP 71					X				009587-009588	W182	1220		MEWR 89	
EWP 72					X				009593-009594	W183	1355		MEWR 90	
EWP 73					X				009599-009600	W183D	1355		MEWR 91	D(EWP 72)
EWP 74					X				009605-009606	W184	1325		MEWR 92	
EWP 69					X				009569-009570	W185	1640		MEWR 87	
EWP 67					X				009557-009558	W186	1620		MEWR 85	
EWP 75					X				009611-009612	W187	1120		MEWR 93	

Shipment for Case complete? (Y/N): N

Page 1 of 2

Sample used for a spike and/or duplicate: EWP 69

Additional Sampler Signatures: Guy Montfort, Linda Miller

Chain of Custody Seal Number: 140205, 140206

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Linda Miller	6/21/93 2000	Christine Kluschman	Christine Kluschman	6/22/93 1220	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

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Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Federal Express

Regional Information	Sampler (Name)	Airbill Number
TFA 102	Guy Montfort	548437317 1

Non-Superfund Program	Sampler Signature	5. Ship To
	Guy P. Montfort	Southwest Research Institute 6220 Culebra Road San Antonio, TX 78238 ATTN: Joe Pan

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	✓		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI	O&M	OIL
			NPLD	UST

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp / Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High only: ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EWP79	4	L	G	1	X				009635-009636	TB-1	6/21/93 0810		—	Trip Blank
EWP76	↓			↓	X				009617-009618	EB-1	1530		MEWR94	B
EWP55	5			N	X	X	X		009501-009502 009503	SD-1	1158		MEWR73	
EWP56					X	X	X		009505-009506 009507	SD-2	0945		MEWR74	
EWP57					X	X	X		009509-009510 009511	SD-3	1003		MEWR75	
EWP58					X	X	X		009513-009514 009515	SD-4	1050		MEWR76	
EWP59	↓	↓	↓	↓	X	X	X		009517-009518 009519	SD-5	1045		MEWR77	

Shipment for Case complete? (Y/N): Y

Page 1 of 2

Sample used for a spike and/or duplicate: EWP55

Additional Sampler Signatures: Trisha Miller

Chain of Custody Seal Number: 140205, 140206

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine Ruschman	Christine Ruschman	6/22/93 1220	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples: ☐ Accepted (Signature) ☐ Declined

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Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/25/93	Fed Ex

Regional Information	Sampler (Name)	Airbill Number
TFA 102	GUY MONTFORT	715866 7762

Non-Superfund Program	Sampler Signature	5. Ship To
	Guy F. Montfort	SOUTHWEST RESEARCH INSTITUTE 6220 CULEBRA ROAD SAN ANTONIO, TX 78238 ATTN: JOE PAN

Site Name	City, State	Site Spill ID
SYSTECH	FRANKLIN, OH	22

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	X		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI X	O&M	OIL
			NPLD	UST

6. Preservative (Enter in Column D)
1. HCl
2. HNO_3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	E: BNA	E: Pest/ PCB	E: High only ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
EWP 63	2	L	G	1	X				5-009533, 009534	W139	6/25/93 1145	GDM	MEWR81	
EWP 65	↓	↓	↓	↓	X				5-009545, 009546	W140	1015	↓	MEWR83	
EWP 66					X				5-009551, 009552	W140D	1015		MEWR84	D(EWP65)
EWP 77				↓	X				5-009623, 009624	EB-2	1215		MEWR95	B
EWP 77				N		X	X		5-009625, 009626	EB-2	1215		MEWR95	B
EWP 80	↓	↓	↓	1	X				5-190968, 190969	TB-2	↓ 0800	↓	—	Trip Blanks

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWP 69

Additional Sampler Signatures: Chris Wood

Chain of Custody Seal Number: 140223, 140224

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy F. Montfort	6/25/93 1500	Christopher Cappel	Christopher Cappel	6/25/93 1520	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

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Org-1

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Contract Laboratory Program Sample Management Office
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Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information	Sampler (Name)	Airbill Number
TFA 102	Trisha Miller	548437317 1

Non-Superfund Program	Sampler Signature	5. Ship To
	Trisha Miller	Southwest Research Institute 6220 Culebra Road San Antonio, TX 78238 ATTN: Joe Pan

Site Name	City, State	Site Spill ID
Systech	Franklin, OH	77

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	X		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI	O&M	OIL
			NPLD	UST

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis VOA	BNA	Pest/ PCB	High only ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EWD69	2	L	G	N		X	X		009575-009578	W185	6/21/93 1640		MEWR87	
EWD67	↓	↓	↓	↓		X	X		009559-009560	W186	↓ 1620		MEWR85	

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWD69

Additional Sampler Signatures:

Chain of Custody Seal Number: 140217, 140218

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine Russ	Christine Kirschman	6/22/93 1345	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

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O345395

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Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): Guy Montfort

Airbill Number: 5484373171

Non-Superfund Program:

Sampler Signature: Guy F. Montfort

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: ZZ

3. Type of Activity: Lead / Pre-Remedial / Remedial / Removal

SF ☑ PRP ☐ ST ☐ FED ☐ PA ☐ SSI ☐ LSI ☑ RIFS ☐ RD ☐ RA ☐ O&M ☐ NPLD ☐ CLEM ☐ REMA ☐ REM ☐ OIL ☐ UST ☐

5. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238

ATTN: Joe Pan

6. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. $NaHSO_4$ 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EWP 68	2	L	G	N		X	X		009565-009566	W132	6/21/93 1645		MEWR 86	
EWP 64	↓	↓	↓	↓		X	X		009541-009542	W133	↓ 1846		MEWR 82	
EWP 76	↓	↓	↓	↓		X	X		009619-009620	EB-1	↓ 1530		MEWR 94	B

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWP 69

Additional Sampler Signatures: Trisha Miller

Chain of Custody Seal Number: 140215, 140216

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine Huschman	Christine Huschman	6/22/93 1355	

Relinquished by: (Signature) | Date / Time | Received for Laboratory by: (Signature) | Date / Time | Remarks: Is custody seal intact? Y/N/none

Split Samples ☐ Accepted (Signature) ☐ Declined

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Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code: | Account Code:

2. Region No.: 5 | Sampling Co.: PRC

4. Date Shipped: 6/22/93 | Carrier: Fed Ex

Regional Information: TFA 102

Sampler (Name): Guy Montfort

Airbill Number: 548437317 1

Non-Superfund Program:

Sampler Signature: Guy P. Montfort

5. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238, ATTN: Joe Pan

Site Name: Systech

City, State: Franklin, OH | Site Spill ID: 22

3. Type of Activity: Lead / Pre-Remedial / Remedial / Removal

	Lead	Pre-Remedial	Remedial	Removal
SF			RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI ✓	O&M	OIL
			NPLD	UST

6. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H2SO4 5. Other (Specify) 6. Ice only N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/ PCB	High only: ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EWP71	2	L	G	N		X	X		009589-009590	W182	6/21/93 1220		MEWK89	
EWP72	↓	↓	↓	↓		X	X		009595-009596	W183	↓ 1355		MEWK90	
EWP73	↓	↓	↓	↓		X	X		009601-009602	W183S	↓ 1355		MEWK91	D(EWP72)

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWP69

Additional Sampler Signatures: Samuel J. Cook

Chain of Custody Seal Number: 140207, 140208

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy P. Montfort	6/21/93 2000	Christine Fuschman	Christine Fuschman	6/22/93 1335	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples: ☐ Accepted (Signature) ☐ Declined

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Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information	Sampler (Name)	Airbill Number
TFA 102	Guy Montfort	5424373171

Non-Superfund Program	Sampler Signature
	Guy P. Montfort

Site Name	City, State	Site Spill ID
Systech	Franklin, OH	ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial		Removal	
SF	☒	PA	☐	RIFS	☐	CLEM	☐
PRP	☐	SSI	☐	RD	☐	REMA	☐
ST	☐	ESI	☒	RA	☐	REM	☐
FED	☐			O&M	☐	OIL	☐
				NPLD	☐	UST	☐

5. Ship To:
Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78238
ATTN: Joe Pan

6. Preservative (Enter in Column D)
1. HCl
2. HNO_3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	E: BNA	E: Pest/ PCB	E: High only ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EWP70	2	L	G	N		X	X		009583-009584	W181	6/21/93 1805		MEWR88	
EWP74	↓	↓	↓	↓		X	X		009607-009608	W184	↓ 1325		MEWR92	
EWP75	↓	↓	↓	↓		X	X		009613-009614	W187	↓ 1120		MEWR93	

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWP69

Additional Sampler Signatures:

Chain of Custody Seal Number: 140209, 140210

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy P. Montfort	6/22/93 2005	Christine Kirchman	Christine Kirchman	6/22/93 1325	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

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EPA Organic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/25/93	Fed Ex

Regional Information	Sampler (Name)	Airbill Number
TFA 102	Guy Montfort	715866775 1

Non-Superfund Program	Sampler Signature	5. Ship To
	Guy Montfort	Southwest Research Institute 6220 Culebra Road San Antonio, TX 78238 ATTN: Joe Pan

Site Name: SYSTECH

City, State: Franklin, OH

Site Spill ID: 22

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	X		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI X	O&M	OIL
			NPLD	UST

6. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. $NaHSO_4$ 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis VOA	E BNA	E Pest/ PCB	E High only ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EWP 63	2	L	G	N		X	X		5-009535	W139	6/25/93 1145	GDM	MEWR81	
EWP 63	↓	↓	↓	↓		X	X		5-009536	W139	1145	↓	MEWR81	
EWP 65						X	X		5-009547	W140	1015		MEWR83	
EWP65						X	X		5-009548	W140	1015		MEWR83	
EWP66						X	X		5-009553	W140D	1015		MEWR84	D(EWP65)
EWP66	↓	↓	↓	↓		X	X		5-009554	W140D	↓ 1015	↓	MEWR84	D(EWP65)

Shipment for Case complete? (Y) N

Page 1 of 1

Sample used for a spike and/or duplicate: EWP 69

Additional Sampler Signatures: Gabriel Wood

Chain of Custody Seal Number: 140221, 140222

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy Montfort	6/25/93 1500	Christopher P. Coppel	Christopher P. Coppel	6/25/93 1520	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

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CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS
THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

ASE NUMBER/SAS No. 20247 SITE NAME Systech LABORATORY Wadsworth/ Alert DATE SHIPPED 6/22/93

OHD 030 985 852

UPERFUND DU NUMBER S91 ZZ EPA RPM or OSC (S.M.S.)/(CES) PAGE 1 OF 1

ACTIVITY NUMBER TFA 102

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS: ACID BASE NEUTRAL CPDS ORGANIC SCAN UG L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG L PES 17144	WATER CHLORINATED PESTICIDES UG L PES17134	TOTAL METALS IN WATER UG L MET111	WATER CYANIDE UG L MIN74919	NITRATE NITRITE MG L MIN7284	AMMONIA MG L MIN7294	RESIDUE FILTERABLE TDS MG L MIN7362	RESIDUE NON-FILT TSS MG L MIN7372			SEDIMENTS or SOILS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN MG KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG KG 211322	TOTAL METALS MG KG MET413	CYANIDE MG KG MIN44930	EP TOXICITY METALS MG KG	AMMONIA MG KG MIN42925				
3ZF69S01	EWP 60														X	X	X	X								
3ZF69S02	EWP 61														X	X	X	X								

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Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): Christine Hirschman

Airbill Number: 715866962630

Non-Superfund Program

Sampler Signature: Christine Hirschman

5. Ship To: Wadsworth/Alert Laboratories, Inc.
4101 Shuffel Drive, N.W.
North Canton, OH 44720
ATTN: Mark Nebiolo

Site Name: Systech

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	✓		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI ✓	O&M	OIL
			NPLD	UST

City, State: Franklin, OH

Site Spill ID: ZZ

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	E: BNA	E: Pest/ PCB	E: High only ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
EWP60	5	L	G	N	X				009521-009522	SS-1	6/21/93 1130		MEWR78	
EWP60	↓	↓	C	↓		X	X		009523	↓	↓		↓	
EWP61			G		X				009525-009526	SS-2	1107		MEWR79	
EWP61	↓	↓	C	↓		X	X		009527	↓	↓		↓	

K Qualifier for Designated Field QC: B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWP60

Additional Sampler Signatures:

Chain of Custody Seal Number: 140201, 140202

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Christine Hirschman	6/22/93 1015				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

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International Specialists in the Environment

Date Received for Review 7/7 Date Review Completed 7/8

To: Tom Sullivan

From: Zena Gold-Kaufman ZGK

Subject: Systech Liquid Treatment

PAN: OH 0574 Case # 7265

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	# 5	Low Soil
	Low Water	6	Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status Completed!!

Incomplete, awaiting: 2 inorg drinking waters

FIT Data Review Findings:

Estimated data - soil - Sb, Pb plasma, Tin. ~~Tin~~ Antimony is usable for HRS purposes

Estimated data - water - Tl, Sn, Cu, Fe

Unusable data - water - Cr, Co, ~~Cu~~, ~~Fe~~, ~~Tl~~, S

✓ Compounds were detected in sample(s); see enclosed Chemical Evaluation Form.

Book No. 6 Page No. 104

sampled 5/13

recycled paper

ecology and environment, inc.
CHICAGO, ILLINOIS

CHEMICAL EVALUATION FORM

SITE NAME: Systech Liquid PAN# OH0574 DATE: 7/8

CASE # 7265 UNITS= mg/Kg REVIEWER: ZGK

TOX/ PERS	COMPOUND	CRDL	3-5x CRDL	MEM 274	MEM 275	MEM 276	MEM 277	MEM 278	MEM 281 (ug/L)	MEM 282
	Chromium	3		12	28	144	39	151		
	Copper	3		16	50	96	32	230		
	Lead	5		35						
	Mercury	.2		0.2	0.2	0.3		2.8		
	Arsenic	10			8.3	6.1		7.7	27	66
	Cyanide	.26			0.42	10	0.70			
	Nickel	11			20	97				
	Cadmium	4				4.6		10		
	Tin	40					~~24~~	24		

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

M E M O R A N D U M

DATE: July 8, 1987
TO: File
FROM: Zena Gold-Kaufman
SUBJECT: Systech Liquid Treatment
PAN# OH0574

The reviewer for the 5 low soil inorganic data results correctly notes that the spike recovery for antimony is biased low, and qualifies the data with a J (estimated). For the 6 low water samples the spike recoveries for thallium and tin are all biased low and that data is also qualified with a J (estimated). he data is usable for HRS purposes in that the consequences are that the values may underestimate the actual concentration.

92F:6X

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 7-2-87

SUBJECT: Review of Region V CLP Data
Received for Review on 6/17/87

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory Jay Thacker

TO: Data User: Pat

RECEIVED JUL 07 1987

We have reviewed the data for the following case(s).

SITE NAME: Sentinel Liquid Treatment SMO case No. 3765

EPA Data Set No. 5F4023 No. of Samples: 11 D.U./Activity Numbers 4905/17200

CRL No. 87F507502 - 87F507007

SMO Traffic No. MEM274 - MEM284

CLP Laboratory: Accutabs Hrs. Required for Review: 3

Following are our findings: This review covers 5 low soil samples and 6 low water samples analyzed for metals and cyanide.
For soil samples. Spike recoveries for Sb(52%) Pb$_p$(393%) Sn(142%) are shown above. Detection limit for Sb could be elevated. all Sb data are estimate all Sn, Pb$_p$ data are estimated.
For water samples Field blank showed contamination for Fe. all data lower than 5 x 140ug/L are estimated. spike recoveries for Cr(112%), Co(114%), Cu(11 Fe(10%), Tl(62%), Sn(64%) are shown above. all Cr, Co data are unusable. Detection limits for Tl, Sn could be elevated. all Tl, Sn data or estimated(UJ) all Cu, Fe data are estimate all other QC audits are acceptable.

Ida Hsi
7.2.87

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

Case Narrative
Case 7265
QC 141+142

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The analysis of Na, Mg, Ca, K, Al and Ba by flame AA require addition of LaCs or KCl for suppression of ionization. For this reason, the resulting sample has a 1.1 dilution factor following the addition. The reportable detection limit is the IDL multiplied by 1.1. These levels are still below the CRDL.

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

Date 6/12/87

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COVER PAGE
INORGANIC ANALYSES DATA PACKAGE

Lab Name Accu-Lab Research Case No. 7265

SOW No. 784 Q.C. Report No. 141 + 142

Sample Numbers

EPA No.	Lab ID No.	EPA No.	Lab ID No.
MEM-274	141-7265-5-1	MEM 283	142-7265-6-5
MEM 275	141-7265-5-2	MEM 284	142-7265-6-6
MEM 276	141-7265-5-3		
MEM 277	141-7265-5-4		
MEM 278	141-7265-5-5		
MEM 279	142-7265-6-1		
MEM 280	142-7265-6-2		
MEM 281	142-7265-6-3		
MEM 282	142-7265-6-4		

Comments: Background correction used during analysis of all elements at wavelengths less than 350 nm.

ICP Interelement and background corrections applied? Yes ____ No ____.

If yes, corrections applied before _____ or after _____ generation of raw data.

Footnotes:

NR - not required by contract at this time

Form I:

Value - If the result is a value greater than or equal to the instrument detection limit but less than the contract required detection limit, report the value in brackets (i.e., [10]). Indicate the analytical method used with P (for ICP/Flame AA) or F (for furnace).

U - Indicates element was analyzed for but not detected. Report with the detection limit value (e.g., 10U).

E - Indicates a value estimated or not reported due to the presence of interference. Explanatory note included on cover page.

S - Indicates value determined by Method of Standard Addition.

R - Indicates spike sample recovery is not within control limits.

* - Indicates duplicate analysis is not within control limits.

+ - Indicates the correlation coefficient for method of standard addition is less than 0.995

141+142-7265-5-0011

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Form I

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

EPA Sample No. MEM 274

Date 6/12/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Accu-Labs Research CASE NO. 7265

SOW NO. 784

LAB SAMPLE ID. NO. 141-7265-5-1 QC REPORT NO. 141

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

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

1.	Aluminum	8140 P	13.	Magnesium	19300 P
2.	Antimony	36 UF 'R' UJ	14.	Manganese	589 P
3.	Arsenic	6.0 UF	15.	Mercury	~~0.15~~ (0.2)
4.	Barium	65 UP	16.	Nickel	[16] P
5.	Beryllium	1.2 UP	17.	Potassium	[1240] P
6.	Cadmium	2.4 UP	18.	Selenium	3.0 UF
7.	Calcium	~~64900~~ P	19.	Silver	2.4 UP
8.	Chromium	(12 P)	20.	Sodium	[118] P
9.	Cobalt	18 UP	21.	Thallium	6.0 UF
10.	Copper	(16 P)	22.	Tin	24 UF 'R' UJ
11.	Iron	~~14200~~ P	23.	Vanadium	30 UF
12.	Lead	(35 F)	24.	Zinc	71 P
Cyanide		0.30 U	Percent Solids (%)		84

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

Comments: ____

Lab Manager Cathy Shugarts

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Form I

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

EPA Sample No. MEM 275

Date 6/12/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Accu-Labs Research CASE NO. 7265

SOW NO. 784

LAB SAMPLE ID. NO. 141-7265-5-2 QC REPORT NO. 141+142

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

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

1.	Aluminum	8660 P	13.	Magnesium	12800 P
2.	Antimony	32 UF 'R' UJ	14.	Manganese	601 P
3.	Arsenic	(8.3) F	15.	Mercury	~~0.14~~ (0.2)
4.	Barium	113 P	16.	Nickel	(20) P
5.	Beryllium	1.1 UP	17.	Potassium	[2402] P
6.	Cadmium	2.1 UP	18.	Selenium	2.7 UF
7.	Calcium	34900 P	19.	Silver	2.1 UP
8.	Chromium	(28) P	20.	Sodium	[113] P
9.	Cobalt	16 UP	21.	Thallium	5.3 UF
10.	Copper	(50) P	22.	Tin	21 UF 'R' UJ
11.	Iron	17500 P	23.	Vanadium	27 UF
12.	Lead	183 P 'R' J	24.	Zinc	151 P
Cyanide		(0.42)	Percent Solids (%)		94

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

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Lab Manager Cathy Thugarta

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EPA Sample No.
MEM 276

Date 6-12-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Accu-Labs Research CASE NO. 7265

SOW NO. 784

LAB SAMPLE ID. NO. 141-7265-5-3 QC REPORT NO. 141+142

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

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

1.	Aluminum	6790 P	13.	Magnesium	32000 P
2.	Antimony	31 UF 'R' UJ	14.	Manganese	436 P
3.	Arsenic	(6.1) F	15.	Mercury	(0.3)
4.	Barium	[57] P	16.	Nickel	(97) P
5.	Beryllium	1.0 UP	17.	Potassium	[840] P
6.	Cadmium	(4.6) P	18.	Selenium	2.6 UF
7.	Calcium	112000 P	19.	Silver	2.1 UP
8.	Chromium	(144) P	20.	Sodium	[168] P
9.	Cobalt	15 UP	21.	Thallium	5.2 UF
10.	Copper	(96) P	22.	Tin	21 UF 'R' J
11.	Iron	14200 P	23.	Vanadium	26 UF
12.	Lead	558 P 'R' J	24.	Zinc	6940 P
Cyanide		(10)	Percent Solids (%)		97

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

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Lab Manager Cathy Shugart

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703/557-2490 FTS: 8-557-2490

EPA Sample No. MEM 277

Date 6-12-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Accu-Labs Research CASE NO. 7265

SOW NO. 784

LAB SAMPLE ID. NO. 141-7265-5-4 QC REPORT NO. 141+142

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

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

1.	Aluminum	2480 P	13.	Magnesium	42400 P
2.	Antimony	31 UF 'R' UJ	14.	Manganese	558 P
3.	Arsenic	5.1 UF	15.	Mercury	(0.1)
4.	Barium	56 UP	16.	Nickel	10 UP
5.	Beryllium	1.0 UP	17.	Potassium	[594 J] P
6.	Cadmium	2.0 UP	18.	Selenium	2.6 UF
7.	Calcium	243000 P	19.	Silver	2.0 UP
8.	Chromium	(39) P	20.	Sodium	[216 J] P
9.	Cobalt	15 UP	21.	Thallium	5.1 UF
10.	Copper	(32) P	22.	Tin	20 UF 'R' J
11.	Iron	9220 P	23.	Vanadium	26 UF
12.	Lead	194 P 'R' J	24.	Zinc	218 P
Cyanide		(0.70)	Percent Solids (%)		98

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

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Lab Manager Cathy Sturgeon

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EPA Sample No. MEM 278

Date 6-12-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Accu-Labs Research CASE NO. 7265

SOW NO. 784

LAB SAMPLE ID. NO. 141-7265-5-5 QC REPORT NO. 141+142

Elements Identified and Measured

Concentration: Low X Medium ____

Matrix: Water ____ Soil X Sludge ____ Other ____

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

1.	Aluminum	5790 P	13.	Magnesium	21800 P
2.	Antimony	32 U F 'R' UJ	14.	Manganese	362 P
3.	Arsenic	(7.7) F	15.	Mercury	(2.8)
4.	Barium	229 P	16.	Nickel	11 U P
5.	Beryllium	1.0 U P	17.	Potassium	[630] P
6.	Cadmium	(10) P	18.	Selenium	2.6 U F
7.	Calcium	74500 P	19.	Silver	2.1 U P
8.	Chromium	(151) P	20.	Sodium	[115] P
9.	Cobalt	16 U P	21.	Thallium	5.3 U F
10.	Copper	(230) P	22.	Tin	(24) F 'R' 'S' J
11.	Iron	18800 P	23.	Vanadium	26 U F
12.	Lead	808 P 'R' J	24.	Zinc	1230 P
Cyanide		0.26 U	Percent Solids (%)		95

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

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Lab Manager Cathy Shugarts

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EPA Sample No. MEM 279

Date 6-12-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Accu-Labs Research CASE NO. 7265

SOW NO. 784

LAB SAMPLE ID. NO. 142-7265-6-1 QC REPORT NO. 141-142

Elements Identified and Measured

Concentration: Low X Medium _____

Matrix: Water X Soil _____ Sludge _____ Other _____

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

1.	Aluminum	176 U P	13.	Magnesium	33700 P
2.	Antimony	60 U F	14.	Manganese	1280 P
3.	Arsenic	10 U F	15.	Mercury	0.2 U
4.	Barium	220 P	16.	Nickel	[20] P
5.	Beryllium	2 U P	17.	Potassium	5390 P
6.	Cadmium	4 U P	18.	Selenium	5 U F
7.	Calcium 132000	~~50600~~ P	19.	Silver	4 U P
8.	Chromium	3 U P 'R' R	20.	Sodium	77000 P
9.	Cobalt	30 U P 'R' R	21.	Thallium	10 U F 'R' UJ
10.	Copper	3 U P 'R' J	22.	Tin	40 U F 'R' UJ
11.	Iron	720 P 'R' J	23.	Vanadium	50 U F
12.	Lead	5 U F	24.	Zinc	23 P
	Cyanide	5 U		Percent Solids (%)	

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

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Lab Manager Cathy Shugarts

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EPA Sample No. MEM 280

Date 6/12/87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Accu-Labs Research CASE NO. 7265

SOW NO. 784

LAB SAMPLE ID. NO. 142-7265-6-2 QC REPORT NO. 141+142

Elements Identified and Measured

Concentration: Low X Medium _____

Matrix: Water X Soil _____ Sludge _____ Other _____

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

1.	Aluminum	176 U P	13.	Magnesium	27300 P
2.	Antimony	60 U F	14.	Manganese	370 P
3.	Arsenic	10 U F	15.	Mercury	0.2 U
4.	Barium	[110] P	16.	Nickel	20 U P
5.	Beryllium	[2] P	17.	Potassium	[4180] P
6.	Cadmium	4 U P	18.	Selenium	5 U F
7.	Calcium	89100 P	19.	Silver	4 U P
8.	Chromium	3 U P 'R' R	20.	Sodium	51700 P
9.	Cobalt	30 U P 'R' R	21.	Thallium	10 U F 'R' UJ
10.	Copper	[8] P 'R' J	22.	Tin	40 U F 'R' UJ
11.	Iron	1610 P 'R' J	23.	Vanadium	50 U F
12.	Lead	5 U F	24.	Zinc	21 P
	Cyanide	5 U		Percent Solids (%)	

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

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Lab Manager Cathy Shugart

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U.S. EPA Contract Laboratory Program
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703/557-2490 FTS: 8-557-2490

EPA Sample No. MEM 281

Date 6-12-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Accu-Labs Research CASE NO. 7265

SOW NO. 784

LAB SAMPLE ID. NO. 142-7265-6-3 QC REPORT NO. 141+142

Elements Identified and Measured

Concentration: Low X Medium _____

Matrix: Water X Soil _____ Sludge _____ Other _____

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

1.	Aluminum	176U P	13.	Magnesium	27500 P
2.	Antimony	60U F	14.	Manganese	991 P
3.	Arsenic	(27) F	15.	Mercury	0.2U
4.	Barium	330 P	16.	Nickel	20U P
5.	Beryllium	2U P	17.	Potassium	[4180] P
6.	Cadmium	([4] P)	18.	Selenium	5U F
7.	Calcium	96800 P	19.	Silver	4U P
8.	Chromium	3U P 'R' R	20.	Sodium	72600 P
9.	Cobalt	30U P 'R' R	21.	Thallium	10U F 'R' UJ
10.	Copper	[5] P 'R' J	22.	Tin	40U F 'R' UJ
11.	Iron	5600 P 'R' J	23.	Vanadium	50U F
12.	Lead	5U F	24.	Zinc	25 P
	Cyanide	5U		Percent Solids (%)	

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

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Lab Manager Cathy Thurgarten

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EPA Sample No. MEM 282

Date 6-12-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Accu-Labs Research CASE NO. 7265

SOW NO. 784

LAB SAMPLE ID. NO. 142-7265-6-4 QC REPORT NO. 141+142

Elements Identified and Measured

Concentration: Low X Medium _____

Matrix: Water X Soil _____ Sludge _____ Other _____

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

1.	Aluminum	176 UP	13.	Magnesium	26500 P
2.	Antimony	60 UF	14.	Manganese	596 P
3.	Arsenic	(66) ~~69~~ F 'S'	15.	Mercury	0.2 U
4.	Barium	440 P	16.	Nickel	20 UP
5.	Beryllium	2 UP	17.	Potassium	5060 P
6.	Cadmium	4 UP	18.	Selenium	5 UF
7.	Calcium	121000 P	19.	Silver	4 UP
8.	Chromium	3 UP 'R' R	20.	Sodium	55000 P
9.	Cobalt	30 UP 'R' R	21.	Thallium	10 UF 'R' UJ
10.	Copper	[6] P 'R' J	22.	Tin	40 UF 'R' UJ
11.	Iron	14800 P 'R' J	23.	Vanadium	50 UF
12.	Lead	5 UF	24.	Zinc	50 P
	Cyanide	5 U		Percent Solids (%)	

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

Comments: _____

Lab Manager Cathy Shugarts

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Form I

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

EPA Sample No.
MEM 283

Date 6-12-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Accu-Labs Research CASE NO. 7265

SOW NO. 784

LAB SAMPLE ID. NO. 142-7265-6-5 QC REPORT NO. 141+142

Elements Identified and Measured

Concentration: Low X Medium _____

Matrix: Water X Soil _____ Sludge _____ Other _____

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

1. Aluminum	176 UP	13. Magnesium	[187] P
2. Antimony	60 UF	14. Manganese	4U P
3. Arsenic	10 UF	15. Mercury	0.2 U
4. Barium	110 UP	16. Nickel	20 UP
5. Beryllium	2U P	17. Potassium	[110] P
6. Cadmium	4U P	18. Selenium	5UF
7. Calcium	[880] P	19. Silver	4U P
8. Chromium	[3] P 'R' R	20. Sodium	[1100] P
9. Cobalt	30U P 'R' R	21. Thallium	10 UF 'R' UJ
10. Copper	[10] P 'R' J	22. Tin	40 UF 'R' UJ
11. Iron	140 P 'R' J	23. Vanadium	50 UF
12. Lead	5UF	24. Zinc	[11] P
Cyanide	5U	Percent Solids (%)	

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

Comments: _____

Lab Manager Cathy Shugarts

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Sample Management Office
P.O. Box 818 - Alexandria, VA 22313
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EPA Sample No. MEM284

Date 6-12-87

INORGANIC ANALYSIS DATA SHEET

LAB NAME Accu-Labs Research CASE NO. 7265

SOW NO. 784

LAB SAMPLE ID. NO. 142-7265-6-6 QC REPORT NO. 141+142

Elements Identified and Measured

Concentration: Low X Medium _____

Matrix: Water X Soil _____ Sludge _____ Other _____

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

1.	Aluminum	176 U P	13.	Magnesium	34200 P
2.	Antimony	60 U F	14.	Manganese	1320 P
3.	Arsenic	10 U F	15.	Mercury	0.2 U
4.	Barium	330 P	16.	Nickel	20 U P
5.	Beryllium	2 U P	17.	Potassium	5500 P
6.	Cadmium	4 U P	18.	Selenium	5 U F
7.	Calcium	121000 P	19.	Silver	4 U P
8.	Chromium	3 U P 'R' R	20.	Sodium	75900 P
9.	Cobalt	30 U P 'R' R	21.	Thallium	10 U F 'R' UJ
10.	Copper	[7] P 'R' J	22.	Tin	40 U F 'R' UJ
11.	Iron	540 P 'R' J	23.	Vanadium	50 U F
12.	Lead	5 U F	24.	Zinc	25 P
	Cyanide	5 U		Percent Solids (%)	

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

Comments: _____

Lab Manager Cathy Thigpen

QC EXCEPTION SUMMARY REPORT

CASE # 7265
DATA SET # 4023
LAB Q.C.# 141-142
DATE: 7.2.87

SITE Septech Liquid Trust
LAB Accutabs
REVIEWED BY Ida Levin

MATRIX: 6W+SS
CONC. : LL

WATER SAMPLE SPK. MEM284
WATER SAMPLE DUP. MEM279
SOIL SAMPLE SPK. MEM278
SOIL SAMPLE DUP. MEM274

	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER/ COMMENTS
	Holding Time	Cal Blanks	Init Calver	Contin. Calver	Prep Blk AQ	Prep Blk SOL	ICS %R	LCS % AQ	LCS % SOL	Sol Dup RPD	Sol Spk. %R	AQ Dup RPD	AQ Spk. %R	Ser Dilu AQ	Ser Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blind Blank	Blind Spike %R	Split Sample RPD	
Aluminum																								
Antimony											52													
Arsenic																								
Barium																								
Beryllium																								
Cadmium																								
Calcium																								
Chromium										1			12											
Cobalt													14											
Copper													11											
Iron													10					140						
Lead											393(p)													
Magnesium																								
Manganese																								
Mercury																								
Nickel																								
Potassium																								
Selenium																								
Silver																								
Sodium																								
Thallium													62											
Tin											142		64											
Vanadium																								
Zinc																								
Cyanide																								

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Form III A

Q. C. Report No. 141+142

BLANKS

LAB NAME ACCU-LABS RESEARCH CASE NO. 7265

DATE 6-12-87 UNITS mg/L for soil+water

Matrix soil and water.

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank Soil 1	Preparation Blank water 2
Metals:							
1. Aluminum	0.16U	0.16U	0.16U			0.176U	0.176U
2. Antimony	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U
3. Arsenic	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U	0.005U
4. Barium	0.1U	0.1U	0.1U			0.11U	0.11U
5. Beryllium	0.002U	0.002U	0.002U			0.002U	0.002U
6. Cadmium	0.004U	0.004U	0.004U			0.004U	0.004U
7. Calcium	0.1U	0.1U	0.1U			[0.11]	[0.22]
8. Chromium	0.003U	0.003U	0.003U			0.003U	0.003U
9. Cobalt	0.03U	0.03U	0.03U			0.03U	0.03U
10. Copper	0.003U	0.003U	0.003U			0.003U	0.003U
11. Iron	0.02U	0.02U	0.02U			0.02U	0.02U
12. Lead	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U
13. Magnesium	0.05U	0.05U	0.05U			0.055U	0.055U
14. Manganese	0.004U	0.004U	0.004U			0.004U	0.004U
15. Mercury	0.0001U	[0.0001]	0.0001U	0.0001U	[0.0001]	0.0001U	[0.0001]
16. Nickel	0.02U	0.02U	0.02U			0.02U	0.02U
17. Potassium	0.1U	0.1U	0.1U			0.11U	0.11U
18. Selenium	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U
19. Silver	0.004U	0.004U	0.004U			0.004U	0.004U
20. Sodium	0.1U	0.1U	0.1U			0.11U	0.11U
21. Thallium	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U	0.002U
22. Tin	0.007U	0.007U	0.007U	0.007U	0.007U	0.007U	[0.014]
23. Vanadium	0.007U	0.007U	0.007U	0.007U	0.007U	0.007U	0.007U
24. Zinc	0.004U	0.004U	0.004U			0.004U	0.004U
Other: Lead(Flame)	0.03U	0.03U				0.03U	
Cyanide	0.005U	0.005U	0.005U			0.005U	0.005U

Form III B

Q. C. Report No. 141+142

BLANKS

LAB NAME ACCU-LABS RESEARCH CASE NO. 7265

DATE 6-12-87 UNITS mg/L

Matrix soil+water

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Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum							
2. Antimony							
3. Arsenic							
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9. Cobalt							
10. Copper							
11. Iron							
12. Lead							
13. Magnesium							
14. Manganese							
15. Mercury		0.0001				0.0001 U	
16. Nickel							
17. Potassium							
18. Selenium		0.002U	0.002U				
19. Silver							
20. Sodium							
21. Thallium							
22. Tin		0.007U	0.007U				
23. Vanadium							
24. Zinc							
Other:							
Cyanide							

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Form III C

Q. C. Report No. 141+142

BLANKS Analytical Spikes

LAB NAME ACCU-LABS RESEARCH CASE NO. 7265

DATE 6-12-87 UNITS mg/L

Matrix soil and water

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum							
2. Antimony	0.005U	0.005U	0.005U	0.005U	0.005U		
3. Arsenic	0.005U	0.005U	0.005U	0.005U			
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9. Cobalt							
10. Copper							
11. Iron							
12. Lead	0.002U	0.002U	0.002U	0.002U			
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium							
18. Selenium	0.002U	0.002U	0.002U	0.002U			
19. Silver							
20. Sodium							
21. Thallium	0.002U	0.002U	0.002U	0.002U			
22. Tin	0.007U	0.007U	0.007U	0.007U			
23. Vanadium	0.007U	0.007U	0.007U	0.007U			
24. Zinc							
Other:							
Cyanide							

Form III D

Q. C. Report No. 141+142

BLANKS MSA

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LAB NAME ACCU-LABS RESEARCH

CASE NO. 7265

DATE 6-12-87

UNITS mg/kg (for soil & water)

Matrix soil and water

Preparation Compound	Initial Calibration Blank Value	Continuing Calibration Blank Value 1	2	3	4	Preparation Blank 1	2
Metals:							
1. Aluminum							
2. Antimony							
3. Arsenic	0.005U	0.005U					
4. Barium							
5. Beryllium							
6. Cadmium							
7. Calcium							
8. Chromium							
9. Cobalt							
10. Copper							
11. Iron							
12. Lead	0.002U	0.002U					
13. Magnesium							
14. Manganese							
15. Mercury							
16. Nickel							
17. Potassium							
18. Selenium							
19. Silver							
20. Sodium							
21. Thallium	0.002U	0.002U					
22. Tin	0.007U	0.007U	0.007U				
23. Vanadium	0.007U	0.007U					
24. Zinc							
Other:							
Cyanide							

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Form V D

Q. C. Report No. 141+142

SPIKE SAMPLE RECOVERY

LAB NAME ACCU-LABS RESEARCH

CASE NO. 7265

EPA Sample No. MEM 284

DATE 6-12-87

Lab Sample ID No. 142-7265-6-6

Units ug/L

Matrix water

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]	
Metals:						
1. Aluminum	75-125	2110	176 U	2000	106	
2. Antimony	-	47	5 U	50	94	
3. Arsenic	-	23	5 U	20	106	
4. Barium	-	2200	330	2000	94	
5. Beryllium	-	50	2 U	50	100	
6. Cadmium	-	53	4 U	50	106	
7. Calcium	-	220000	121000	100000	99	
8. Chromium	-	25	3 U	200	12	'R'
9. Cobalt	-	70	30 U	500	14	'R'
10. Copper	-	34	[7]	250	11	'R'
11. Iron	-	640	540	1000	10	'R'
12. Lead	-	19	2 U	20	95	
13. Magnesium	-	75900	34200	50000	83	
14. Manganese	-	1530	1320	200	105	
15. Mercury	-	1.0	0.2 U	1.0	100	
16. Nickel	-	410	20 U	400	102	
17. Potassium	-	57200	5500	50000	103	
18. Selenium	-	11	2 U	10	110	
19. Silver	-	54	4 U	50	108	
20. Sodium	-	176000	75900	100000	100	
21. Thallium	-	31	2 U	50	62	'R'
22. Tin	-	129	7 U	200	64	'R'
23. Vanadium	-	55	7 U	50	110	
24. Zinc	-	232	25	200	104	
Other:						
Cyanide	-					

[1] %R = [(SSR - SR)/SA] x 100

"R" - out of control

Comments: _____

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Form V E

Q. C. Report No. 141 + 142

SPIKE SAMPLE RECOVERY

LAB NAME ACCU-LABS RESEARCH

DATE 6-12-87

CASE NO. 7265

EPA Sample No. MEM281

Lab Sample ID No. 142-7265-6-3

Units ug/L

Matrix water

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]
Metals:					
1. Aluminum	75-125				
2. Antimony	-				
3. Arsenic	-				
4. Barium	-				
5. Beryllium	-				
6. Cadmium	-				
7. Calcium	-				
8. Chromium	-				
9. Cobalt	-				
10. Copper	-				
11. Iron	-				
12. Lead	-				
13. Magnesium	-				
14. Manganese	-				
15. Mercury	-				
16. Nickel	-				
17. Potassium	-				
18. Selenium	-				
19. Silver	-				
20. Sodium	-				
21. Thallium	-				
22. Tin	-				
23. Vanadium	-				
24. Zinc	-				
Other:					
Cyanide	-	98	5U	100	98

[1] %R = [(SSR - SR)/SA] x 100

"R" - out of control

Comments:

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Form V A

Q. C. Report No. 141+142

SPIKE SAMPLE RECOVERY

LAB NAME ACCU-LABS RESEARCH

DATE 6-12-87

CASE NO. 7265

EPA Sample No. MEM278

Lab Sample ID No. 141-7265-5-5

Units mg/kg wet wt.

Matrix Soil

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]	
Metals:						
1. Aluminum	75-125	—	—	—	NR	
2. Antimony	-	13	2.5U	25	52	'R'
3. Arsenic	-	29	7.3	20	109	
4. Barium	-	1280	218	1000	106	
5. Beryllium	-	25	1.0U	25	100	
6. Cadmium	-	35	10	25	100	
7. Calcium	-	—	—	—	NR	
8. Chromium	-	243	143	100	100	
9. Cobalt	-	252	15U	250	101	
10. Copper	-	370	219	125	121	
11. Iron	-	—	—	—	NR	
12. Lead	-					
13. Magnesium	-	—	—	—	NR	
14. Manganese	-	609	344	250	106	
15. Mercury	-	7.6	2.6	5.0	100	
16. Nickel	-	257	5U	250	103	
17. Potassium	-	—	—	—	NR	
18. Selenium	-	6.0	1.0U	5.0	120	
19. Silver	-	25	2.0	25	92	
20. Sodium	-	—	—	—	NR	
21. Thallium	-	21	1.0U	25	84	
22. Tin	-	164	22	100	142	'R'
23. Vanadium	-	40	13	25	108	
24. Zinc	-	1500	1170	250	132	'R' Sample more than 4x
Other: Lead (Flame)		1750	767	250	393	'R'
Cyanide	-					

[1] %R = [(SSR - SR)/SA] x 100

"R" - out of control

Comments: _____

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Form V B

Q. C. Report No. 141+142

SPIKE SAMPLE RECOVERY

LAB NAME ACCU-LABS RESEARCH

CASE NO. 7265

DATE 6-12-87

EPA Sample No. MEM 275

Lab Sample ID No. 141-7265-5-2

Units mg/kg wet wt

Matrix Soil

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]
Metals:					
1. Aluminum	75-125				
2. Antimony	-				
3. Arsenic	-				
4. Barium	-				
5. Beryllium	-				
6. Cadmium	-				
7. Calcium	-				
8. Chromium	-				
9. Cobalt	-				
10. Copper	-				
11. Iron	-				
12. Lead	-				
13. Magnesium	-				
14. Manganese	-				
15. Mercury	-	0.63	0.16	0.50	94
16. Nickel	-				
17. Potassium	-				
18. Selenium	-				
19. Silver	-				
20. Sodium	-				
21. Thallium	-				
22. Tin	-				
23. Vanadium	-				
24. Zinc	-				
Other:					
Cyanide	-				

[1] %R = [(SSR - SR)/SA] x 100

"R"- out of control

Comments:

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Form V C

Q. C. Report No. 141+142

SPIKE SAMPLE RECOVERY

LAB NAME ACCU-LABS RESEARCH

CASE NO. 7265

DATE 6-12-87

EPA Sample No. MEM 377

Lab Sample ID No. 141-7265-6-4

Units mg/kg wet wt

Matrix soil

Compound	Control Limit %R	Spiked Sample Result (SSR)	Sample Result (SR)	Spiked Added (SA)	%R[1]
Metals:					
1. Aluminum	75-125				
2. Antimony	-				
3. Arsenic	-				
4. Barium	-				
5. Beryllium	-				
6. Cadmium	-				
7. Calcium	-				
8. Chromium	-				
9. Cobalt	-				
10. Copper	-				
11. Iron	-				
12. Lead	-				
13. Magnesium	-				
14. Manganese	-				
15. Mercury	-				
16. Nickel	-				
17. Potassium	-				
18. Selenium	-				
19. Silver	-				
20. Sodium	-				
21. Thallium	-				
22. Tin	-				
23. Vanadium	-				
24. Zinc	-				
Other:					
Cyanide	-	5.3	0.7	5.0	92

[1] %R = [(SSR - SR)/SA] x 100

"R"- out of control

Comments:

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Form VI A

Q. C. Report No. 141+142

DUPLICATES

LAB NAME Accu-Labs Research

CASE NO. 7265

EPA Sample No. MEM 224

DATE 6-12-87

Lab Sample ID No. 141-7265-5-1

Units mg/kg dry wt

Matrix Soil

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. Aluminum		8140	9090	11
2. Antimony		36 U	36 U	NC
3. Arsenic		6.0 U	6.0 U	NC
4. Barium		65 U	65 U	NC
5. Beryllium		1.2 U	1.2 U	NC
6. Cadmium		2.4 U	2.4 U	NC
7. Calcium		64900	69900	7.4
8. Chromium		12	11	8.7
9. Cobalt		18 U	18 U	NC
10. Copper		16	18	12
11. Iron		14200	14500	2.1
12. Lead		35	36	2.8
13. Magnesium		19300	20000	3.6
14. Manganese		589	604	2.5
15. Mercury		0.2	0.2	0
16. Nickel		[16]	[12]	NC
17. Potassium		[1240]	[1240]	NC
18. Selenium		3.0 U	3.0 U	NC
19. Silver		2.4 U	2.4 U	NC
20. Sodium		[118]	[127]	NC
21. Thallium		6.0 U	6.0 U	NC
22. Tin		24 U	24 U	NC
23. Vanadium		30 U	30 U	NC
24. Zinc		71	79	11
Other:				
Cyanide		0.3 U	0.3 U	NC

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S + D)/2)] x 100

NC = Non calculable RPD due to value(s) less than CRDL

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Form VI B

Q. C. Report No. 141+142

DUPLICATES

LAB NAME Accu-Labs Research

DATE 6-12-87

CASE NO. 7265

EPA Sample No. MEM 278

Lab Sample ID No. 141-7265-5-5

Units mg/kg dry wt

Matrix Soil

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. Aluminum				
2. Antimony				
3. Arsenic				
4. Barium				
5. Beryllium				
6. Cadmium				
7. Calcium				
8. Chromium				
9. Cobalt				
10. Copper				
11. Iron				
12. Lead				
13. Magnesium				
14. Manganese				
15. Mercury		2.8	2.7	3.6
16. Nickel				
17. Potassium				
18. Selenium				
19. Silver				
20. Sodium				
21. Thallium				
22. Tin				
23. Vanadium				
24. Zinc				
Other:				
Cyanide				

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S + D)/2)] x 100

NC - Non calculable RPD due to value(s) less than CRDL

RECEIVED JUL 07

Form VI C

Q. C. Report No. 141+142

DUPLICATES

LAB NAME Accu-Labs Research

CASE NO. 7265

EPA Sample No. MEM 289

DATE 6-12-87

Lab Sample ID No. 142-7265-6-1

Units ug/L

Matrix water

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. Aluminum		176 U	176 U	NC
2. Antimony		60 U	60 U	NC
3. Arsenic		10 U	10 U	NC
4. Barium		220	220	0
5. Beryllium		2 U	2 U	NC
6. Cadmium		4 U	4 U	NC
7. Calcium		132000	132000	0
8. Chromium		3 U	3 U	NC
9. Cobalt		30 U	30 U	NC
10. Copper		3 U	3 U	NC
11. Iron		720	710	1.4
12. Lead		5 U	5 U	NC
13. Magnesium		33700	34100	1.2
14. Manganese		1290	1290	0
15. Mercury				
16. Nickel		[20]	[20]	NC
17. Potassium		5390	5830	7.8
18. Selenium		5 U	5 U	NC
19. Silver		4 U	4 U	NC
20. Sodium		77000	74800	2.9
21. Thallium		10 U	10 U	NC
22. Tin		40 U	40 U	NC
23. Vanadium		50 U	50 U	NC
24. Zinc		23	26	12
Other:				
Cyanide		5 U	5 U	NC

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S + D)/2)] x 100

NC = Not calculable RPD due to value(s) less than CRDL

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Form VI D

Q. C. Report No. 141+142

DUPLICATES

LAB NAME Accu Labs Research

CASE NO. 7265

EPA Sample No. MEM 280

DATE 6-12-87

Lab Sample ID No. 142-7265-6-2

Units ug/L

Matrix Water

Compound	Control Limit[1]	Sample(S)	Duplicate(D)	RPD[2]
Metals:				
1. Aluminum				
2. Antimony				
3. Arsenic				
4. Barium				
5. Beryllium				
6. Cadmium				
7. Calcium				
8. Chromium				
9. Cobalt				
10. Copper				
11. Iron				
12. Lead				
13. Magnesium				
14. Manganese				
15. Mercury		0.2U	0.2U	NC
16. Nickel				
17. Potassium				
18. Selenium				
19. Silver				
20. Sodium				
21. Thallium				
22. Tin				
23. Vanadium				
24. Zinc				
Other:				
Cyanide				

* Out of Control

[1] To be added at a later date.

[2] RPD = [|S - D|/((S + D)/2)] x 100

NC - Not calculable RPD due to value(s) less than CRDL

RECEIVED JUL 07 1987

Form VII A

Q.C. Report No. 141+142

INSTRUMENT DETECTION LIMITS AND

LABORATORY CONTROL SAMPLE

LAB NAME ACCU-LABS RESEARCH CASE NO. 7265

DATE 6-12-87 LCS UNITS ug/L mg/kg

(Circle One)

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l ICP/AA	Instrument Detection Limits (IDL)-ug/l Furnace	Lab Control Sample True	Lab Control Sample Found	Lab Control Sample %R
Metals:						
1. Aluminum	200	160		1.97	2.06	105
2. Antimony	60		5	0.109	0.098	90
3. Arsenic	10		5	0.049	0.052	106
4. Barium	200	100		2.12	2.09	99
5. Beryllium	5	2		0.527	0.522	99
6. Cadmium	5	4		0.488	0.522	107
7. Calcium	5000	100		51.8	50	96
8. Chromium	10	3		0.529	0.475	90
9. Cobalt	50	30		0.496	0.470	95
10. Copper	25	3		0.524	0.533	102
11. Iron	100	20		2.06	1.87	91
12. Lead	5		2	0.098	0.098	100
13. Magnesium	5000	50		25.5	22.1	87
14. Manganese	15	4		0.520	0.543	104
15. Mercury	0.2	0.1		0.050	0.053	106
16. Nickel	40	20		0.495	0.500	101
17. Potassium	5000	100		51.3	49.5	96
18. Selenium	5		2	0.098	0.100	102
19. Silver	10	4		0.495	0.506	102
20. Sodium	5000	100		50.3	49.5	98
21. Thallium	10		2	0.097	0.100	103
22. Tin	40		7	0.050	0.046	92
23. Vanadium	50		7	0.52	0.45	86
24. Zinc	20	4		3.07	3.01	98
Other: Lead (Flame)		30		5.16	5.5	107
Cyanide	10	5		10.224	10.226	101

Form VII B

Q.C. Report No. 141+142

INSTRUMENT DETECTION LIMITS AND

LABORATORY CONTROL SAMPLE

RECEIVED JUL 10 1987

LAB NAME ACCU-LABS RESEARCH CASE NO. 7265

DATE 6-12-87 LCS UNITS (ug/L) mg/kg

(Circle One)

Compound	Required Detection Limits (CRDL)-ug/l	Instrument Detection Limits (IDL)-ug/l		Lab Control Sample		
		ICP/(AA)	Furnace	True	Found	%R
Metals:						
1. Aluminum	200	160		1970	2210	112
2. Antimony	60		5	109	102	94
3. Arsenic	10		5	49	45	92
4. Barium	200	100		2120	1980	93
5. Beryllium	5	2		527	541	103
6. Cadmium	5	4		488	541	111
7. Calcium	5000	100		51800	50600	98
8. Chromium	10	3		529	483	91
9. Cobalt	50	30		496	510	103
10. Copper	25	3		524	562	107
11. Iron	100	20		2060	1910	93
12. Lead	5		2	98	96	98
13. Magnesium	5000	50		25500	23200	91
14. Manganese	15	4		520	541	104
15. Mercury	0.2	0.1		50	52	104
16. Nickel	40	20		495	520	105
17. Potassium	5000	100		51300	49500	96
18. Selenium	5		2	98	106	98
19. Silver	10	4		495	519	105
20. Sodium	5000	100		50300	50600	101
21. Thallium	10		2	97	100	103
22. Tin	40		7	50	55	110
23. Vanadium	50		7	520	475	91
24. Zinc	20	4		3070	3030	99
Other:						
Cyanide	10	5		224	226	101

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

Date Received for Review 7/6/87 Date Review Completed 7/7/87
To: Tom Sullivan TGK
From: Zena Gold-Kaufman
Subject: Systech Liquid Treatment

PAN: OH0574 Case # 7265

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 5	Low Soil	#	Low Soil
6	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status Completed!!

✓ Incomplete, awaiting: 6 inorganic soil, 2 inorg. drinking waters 5 inorganic groundwater

FIT Data Review Findings:

many compounds detected.

✓ Compounds were detected in sample(s); see enclosed Chemical Evaluation Form.

Book No. 6 Page No. 104

Sampled 5/13

recycled paper

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CHEMICAL EVALUATION FORM

SITE NAME: Systech PAN# OH0574 DATE: 7/7/87

CASE # 7265 UNITS= ug/l REVIEWER: ZGF

TOX/ PERS	COMPOUND	CRDL	3-5x CRDL	EL 689	EL 691	EL 692	EL 694			
	1,2-Dichloropropane	5	15-25	15			16			
	Vinyl Chloride	10	30-50		29					
	Chloroethane	10	30-50		39					
	1,1 Dichloroethane	5	15-25		45					
	1,1,1-Trichloroethane	5	15-25		15					
	1,2 Dichloropropane	5	15-25		190					
	Ethyl benzene	200	600-1000		7	2700				
	Total xylene	200	600-1000			9400				
	4-methylphenol	10	30-50			12				
	Naphthalene	10	30-50			18				

ecology and environment, inc.
CHICAGO, ILLINOIS

CHEMICAL EVALUATION FORM

SITE NAME: Systech Liquid PAN# OH0574 DATE: 7/7/87

CASE # 7265 UNITS= µg/Kg REVIEWER: ZGK

TOX/ PERS	COMPOUND	CRDL	3-5x CRDL	EL 685	EL 686	EL 687	EL 688			
	Toluene	5	15-25	6			6			
	phenanthrene	330	990-1650	920						
	Fluoranthene	330		3100						
	Pyrene	330		2400						
	Benzo(a) Anthracene	330		1500						
	chrysene	330		1900						
	Benzo(b) Fluoranthene	330		2700						
	Benzo(a) Pyrene	330		2000						
	Benzo(g,h,i)Perylene	330	↓	1200						
	Trichloroethene	5	15-25		120	6	9			
	Tetrachloroethene	5	15-25		150	10				
	Butylbenzylphthalate	330	990-1650		1800		1700			
	Di-n-Octyl Phthalate	330	990-1650		7400		1700			
	1,1,1-Trichloro-ethane	5	15-25				17			
	Carbon Tetrachloride	5	15-25				16			
	Isophorone	330	990-1650				6900			

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 7/1/87

RECEIVED JUL 0 6 1987

SUBJECT: Review of Region V CLP Data
Received for Review on 6/18/87

FROM: Curtis Ross, Director (5SCRL) Patrick J. Clunilla
Central Regional Laboratory

TO: Data User: Jet

We have reviewed the data for the following case(s).

SITE NAME: Systech Liquid Treatment SMO case No. 7265

EPA Data Set No. SF4023 No. of Samples: 11 D.U./Activity Numbers 1985/C72100

CRL No. 87F507502 - 87F507510

SMO Traffic No. EL684 - EL694

CLP Laboratory: Clayton Hrs. Required for Review: 16

Following are our findings:

This data set consists of eleven samples, five soils and six waters, that were analyzed for full organics.

All sample holding times were met and GC/MS tuning requirements observed, column degradation and linearity requirements observed. Initial calibrations, and continuing calibrations were performed and criteria met.

The compounds found in the blanks were below the current required detection limit except for acetone (which was less than five times the CRDL) and 2 Butanone which was above its CRDL.

All soil surrogate recoveries were within QC limits but samples EL 686, 687 & 688 contained interferences that ~~blocked~~ prevented the calculation of dibutyl chlorendate recoveries for the pesticide fraction.

Water surrogate recoveries for volatiles were within QC limits. Semivolatile surrogate recoveries had 2 out of 60 compounds outside of QC limits and the pesticide (water) surrogate recoveries were all within limits.

Soil matrix spike/matrix spike Duplicate recoveries were within QC limits for volatiles and Semivolatiles. Soil MS/MSD relative percent difference for volatiles and Base/neutral fractions were within QC limits but one out of five of the Acid compounds were outside of the QC limits. Unspiked sample interferences prevented the calculation of MS/MSD recovery and RPD values for Soils.

Water MS/MSD recoveries were within QC limits for all parameters, water MS/MSD relative percent difference values were within QC limits for VOAs, Base/neutrals and Pesticide fractions, the acid fraction had two out of five compounds outside of QC limits.

The over quality of this data is good.

R Gruber

(✓) Data are acceptable for use.
( ) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

INST: #2B

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE# 7265 CONTRACTOR Clayton

	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	870511 16:13			870514 10:51											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane					25.98	J									
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone		35.03	J		49.69	J									
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	.0217		J	.0271	53.73	J									
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate					26.86	J									
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone					31.87	J									
2-Hexanone					39.18	J									
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

EL-689
EL-690
EL-693

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE# 7265 CONTRACTOR Clayton

RECEIVED EL 06 1987

	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	870518 13:32			870518 15:27			870519 10:07			870520 00:52					
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane								70.97	J		93.07	J			
Bromomethane								24.25	J						
Vinyl Chloride															
Chloroethane															
Methylene Chloride								39.37	J		93.19	J			
Acetone					34.33	J					46.87	J			
Carbon Disulfide											25.22	J			
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	.0909		J	.0909		J	.0909	33.97	J	.0909		J			
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate								82.93	J		30.80	J			
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether								26.99	J						
Bromoform															
4-Methyl-2-Pentanone								26.93	J						
2-Hexanone								31.40	J						
Tetrachloroethene															
1,1,2,2-Tetrachloroethane				.0059		J									
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

EL-694	EL-694	EL-685
EL-691	EL-697	EL-696
EL-692	EL-688	

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE# 7265 CONTRACTOR Clayton

RECEIVED JUL 06 1987

	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	870518 15:27			870527 17:43			870528 17:04			870529 15:04			870601 15:55		
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol		31.8	J												
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene								31.59	J		38.00	J		25.77	J
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene														25.03	J
3-Nitroaniline															
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol														28.17	J
Dibenzofuran															

AFFECTED SAMPLES:

EL-684	EL-690	EL-692
EL-687		EL-693
EL-686		
EL-685		
EL-688		

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS

CASE# 7265 CONTRACTOR Clayton

RECEIVED 6/87

	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	870518 02:12			870527 16:37			870525 15:44			870529 13:57			870601 14:55		
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline		35.87	J												
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene														27.78	J
Pentachlorophenol															
Phenanthrene														32.23	J
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene		41.14	J		33.11	J		27.92	J		34.95	J		34.08	J
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene														26.96	J
Benzo(k)Fluoranthene					30.14	J									
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene														42.01	J

SEE PAGE 1 FOR AFFECTED SAMPLES.

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE# 7265 CONTRACTOR Clayton

RECEIVED JUL 06 1987

	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	870607 16:12			870608 19:52			870610 12:16								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol					60.2	J									
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether					29.23	J		35.76	J						
4-Methylphenol															
N-Nitroso-Di-n-Propylamine		31.05	J												
Hexachloroethane															
Nitrobenzene								25.71	J						
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline								68.12	J						
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline					29.22	J		39.69	J						
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline								29.83	J						
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol															
Dibenzofuran															

AFFECTED SAMPLES:

	EL-691	EL-689 RE
		EL-694 RE

* These flags should be applied to the analytes on the sample data sheets.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS

CASE# 7265 CONTRACTOR Clayton

RECEIVED JUL 0 8 1987

	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	870607 12:34			870608 18:41			870610 10:52								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene		30.6	J												
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

* These flags should be applied to the analytes on the sample data sheets.

7265 · 5-021-01

Clayton Environmental Consultants, Inc.

22345 Roethel Drive • Novi, Michigan 48050 • (313) 344-1770

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CASE NARRATIVE

Case No.: 7265, Region V
SMO Nos.: EL 684-694
Contract No.: 68-01-7100

Case Summary

Case 7265 was delivered on two days; five low-level soil samples were received on May 13 and six low-level water samples were received on May 14, 1987 for full organic analyses.

Gel permeation chromatography cleanup (GPC) was performed on the BNA/pesticide fraction of the soil samples. This procedure resulted in a dilution factor of two, since only one-half of the extract was prepared.

A laboratory contaminant was detected in the pesticide fraction of EL 691 Matrix Spike (MS), which affected the recovery for endrin. This contaminant did not appear in the unspiked sample or the matrix spike duplicate (MSD), and endrin was not detected in the samples. Ms. Jan Pels, from Region V, was contacted on May 22, and she advised us to report the results since the contaminant did not appear to affect the quality of the data.

Surrogate recoveries in the BNA fraction of water samples EL 689 and EL 694 were below 10%, therefore as outlined in sections 4.4.2.1.1, 4.4.2.1.2, and 4.4.2.1.3 in the Statement of Work (SOW), the following steps were taken by the laboratory to correct the problem:

- All calculations were checked to verify the low recoveries.
- The samples were rerun to verify the surrogate results.
- The samples were re-extracted on June 10, 1987, and re-analyzed.

The re-analysis (following re-extraction) provided recovery results within the contract-required limits, therefore, as specified in SOW Section 4.4.2.1.3.1, only the data from the reanalysis has been reported..

Dibutyl chlorendate could not be calculated in the pesticide fraction of soil samples EL 686-688, MBlank I (L/S), EL 688MS and MSD, and water sample EL 691MS because of a co-eluting peak.

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7265 • 5-021-02

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We were unable to calculate pesticide MS and MSD recoveries in soil sample EL 688 because of a matrix interference in the unspiked sample.

The number labeled "dilution factor" on the quantitation reports for the VOA and BNA analyses is a calculation factor which takes into account, based on the sample matrix: percent moisture, sample size, unit conversions, and dilutions, to derive the final concentration.

The Hewlett Packard GC/MS data system used by Clayton has a combined NBS/WILEY library. The data system prints the mass spectra for all tentatively identified compounds (TIC's) and the top three library matches. When no library matches are found, the data system prints "NO DATA BASE ENTRIES RETRIEVED".

Standards

The instrument was tuned to meet the abundance criteria for BFB and DFTPP before any standards, blanks, or samples were analyzed. Initial and continuing calibration data of the SPCC and CCC for VOA's and BNA's are within the contract-required QC limits.

Percent-difference and retention time shifts for all pesticide compounds were within contract-required criteria for the primary run which was used for quantitation.

Pesticide Linearity and Degradation

Linearity and degradation criteria are within the contract-required QC limits for the packed column which was used for quantitation.

Surrogate Recoveries

Surrogate recoveries are within QC limits for all blanks and samples except:

	Compound	% Rec	QC Range
BNA			
EL 691	2-fluorophenol	17	21-100
EL 691MSD	2-fluorophenol	19	21-100

7265 · 5-021-03

RECEIVED JUL 06 1987

Matrix Spike/Matrix Spike Duplicate

Matrix spike and matrix spike duplicate recovery data are within QC limits for all compounds except:

		RPD	QC Limit
EL 688 MS/MSD	4-nitrophenol	78	50
El 691 MS/MSD	pentachlorophenol	57	50
	4-nitrophenol	69	50

Blanks

Blank results are recorded on the Method Blank Summary form for all compounds; the following HSL compounds were detected above the contract-required detection limit (CRDL).

	Compound	Concentration (ug/kg)	CRDL (ug/kg)
VOA			
MBlank I	acetone	15	10
	2-butanone	12	10

Additional Flags

The following are laboratory flags which are used in addition to those identified by the EPA:

N= Instrument detection limit exceeded the CRDL, therefore instrument detection limit was used
M= Matrix spike compound.
A= Indicates a pesticide value less than the dilution-corrected limit of detection but greater than the CRDL.

Daryl Strandbergh
Project Manager, CLP

Date: 6/12/87

7265 · 5-003-08

In Reference to Case No(s):
7265

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

RECEIVED JUL 06 1987

Date of Call: May 13, 1987

Laboratory Name: Clayton Environmental
Lab Contact: Audrey McNary
Region: SMO
Regional Contact: Leslie Braun

Call Initiated By: ✓ Laboratory ___ ~~Region~~ SMO

In reference to data for the following sample number(s):

Summary of Questions/Issues Discussed:

(1) Rec'd Case 7265 with only 5 soil samples. We were expecting 5 waters.
(2) Case number not on sample tags.

Summary of Resolution:

(1) Case is not complete. Six water samples to be shipped 5/13/87
(2) Add Case No. to sample tags, date & initial.

Audrey McNary
Signature

05/13/87
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

7265 · 5-003-03

In Reference to Case No(s):

7265

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

RECEIVED JUL 0 6 1987

Date of Call: May 22, 1987

Laboratory Name: Clayton

Lab Contact: Daryl Strandbergh

Region: V

Regional Contact: Jan Pels

Call Initiated By: X Laboratory ___ Region

In reference to data for the following sample number(s):

Summary of Questions/Issues Discussed:

A laboratory contaminant was found in the MSD of the pesticide fraction. The contaminant affects the recovery results for endrin. The contaminant was not found in the unspiked sample or the MS. Endrin was not found in the samples. Will region V accept the data with a note in the narrative.

Summary of Resolution:

The contaminant does not seem to affect the quality of the data. Report the results and note in narrative about the problem. Region V will accept the data.

Daryl Strandbergh
Signature

5/22/87
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

7265 • 5-003-01

In Reference to Case No(s):

7265

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

RECEIVED JUL 0 6 1987

Date of Call: May 7, 1987

Laboratory Name: Clayton

Lab Contact: Daryl Strandbergh

Region: SMO

Regional Contact: Leslie Brown

Call Initiated By: ___ Laboratory X ~~Region~~ SMO

In reference to data for the following sample number(s):

Summary of Questions/Issues Discussed:

Case 7265 consisting of 5 S/W & 4 S/S for full organics is scheduled to ship May 12 or 13 from region V under contract 68-01-7100.

Summary of Resolution:

Daryl Strandbergh
Signature

5/7/87
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

SOIL SURROGATE PERCENT RECOVERY SUMMARY

Case No. 7265 **Contract Laboratory** Clayton Environmental **Contract No.** 68-01-7100

Low ✓ **Medium** _____

le #	SMO TRAFFIC NO.	VOLATILE: TOLUENE-D8 (81-117)	VOLATILE: BFB (74-121)	VOLATILE: 1,2 DICHLORO ETHANE-D4 (70-121)	SEMI-VOLATILE: NITRO-BENZENE-D5 (23-120)	SEMI-VOLATILE: 2-FLUORO-BIPHENYL (30-115)	SEMI-VOLATILE: TERPHENYL-D14 (18-137)			SEMI-VOLATILE: PHENOL-D5 (24-113)	SEMI-VOLATILE: 2-FLUORO-PHENOL (25-121)	SEMI-VOLATILE: 2,4,6 TRIBROMO PHENOL (19-122)	PESTICIDE: DIBUTYL-CHLORENDATE ** (20-150)
	EL-684	112 ✓	95 ✓	89 ✓	56	58	78			49	43	62	103
	EL-685	117 ✓	95 ✓	93 ✓	54	57	85			47	40	57	102
	EL-686	108 ✓	92 ✓	110 ✓	56	63	104			48	41	58	+
	EL-687	110 ✓	94 ✓	90 ✓	50	50	97			40	39	58	+
	EL-688	113 ✓	83 ✓	109 ✓	60	61	81			49	38	54	+
877	MBLK I (L/S)	99 ✓	99 ✓	93 ✓	63	59	78			50	51	50	+
893	MBLK II (L/S)	100 ✓	95 ✓	108 ✓	NR	NR	NR			NR	NR	NR	NR
	EL688MS	114 ✓	90 ✓	87 ✓	58	63	92			50	51	45	+
	EL688MSD	115 ✓	84 ✓	97 ✓	55	55	95			44	44	46	+

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 27 ; outside of QC limits

Semi-Volatiles: 0 out of 48 ; outside of QC limits

Pesticides: 0 out of 2 ; outside of QC limits

7/85

Comments: Evaluation Std. Mix C (Run # 1087) used to calculate DBC recoveries.
+ Unable to calculate due to interference peaks in the samples.

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FORM II

7265 • 5-022-01

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WATER SURROGATE PERCENT RECOVERY SUMMARY

Case No. 7265 **Contract Laboratory** Clayton Environmental **Contract No.** 68-01-7100

	VOLATILE			SEMI-VOLATILE								PESTICIDE	
SMO TRAFFIC NO.	TOLUENE-D8 (88-110)	BFB (86-115)	1,2 DICHLORO-ETHANE-D4 (76-114)	NITRO-BENZENE-D5 (35-114)	2-FLUORO-BIPHENYL (43-116)	TERPHENYL-D14 (33-141)			PHENOL-D5 (10-94)	2-FLUORO-PHENOL (21-100)	2,4,6 TRIBROMO-PHENOL (10-123)	DIBUTYL-CHLORENDATE ** (24-154)	
EL 689	103	100	90	NR	NR	NR			NR	NR	NR	83	
EL 689RE	NR	NR	NR	83	78	84			23	37	73	NR	
EL 690	102	99	78	58	43	94			20	30	54	77	
EL 691	100	104	110	78	60	93			12	17*	47	83	
EL 692	104	101	111	65	49	91			21	32	63	75	(0.2 d.l.)
EL 693	101	97	88	70	49	98			18	26	54	80	
EL 694	103	103	98	NR	NR	NR			NR	NR	NR	83	
EL 694RE	NR	NR	NR	75	72	80			22	36	67	NR	
M Blk I	100	98	92	68	57	97			23	38	57	81	
M Blk II	99	97	98	6-11-87 ~~76~~ NR	NR	NR			NR	NR	NR	NR	
M Blk IIRE	NR	NR	NR	76	74	84			36	51	69	NR	
EL 691MS	100	98	88	72	57	94			19	25	54	+	(0.4 d.l.)
EL 691MSD	99	99	90	76	62	91			16	19*	55	83	(0.4 d.l.)

* VALUES ARE OUTSIDE OF CONTRACT REQUIRED QC LIMITS

** ADVISORY LIMITS ONLY

Volatiles: 0 out of 30 ; outside of QC limits

Semi-Volatiles: 2 out of 60 ; outside of QC limits

Pesticides: 0 out of 8 ; outside of QC limits

Comments: Evaluation Std. Mix C (Run #994) used to calculate DBC recoveries.
+ Unable to calculate due to a co-eluting interference peak.

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7265.5.022-02

SOIL MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 7265 **Contractor** Clayton Environmental **Contract No.** 68-01-7100

Low Level ✓ **Medium Level** _____

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/Kg)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS* RPD	QC LIMITS* RECOVERY
VOA SMO SAMPLE NO. EL-688	1,1-Dicholorethene	53	0	51	96	50	94	2.0	22	59-172
	Trichloroethene	53	9	51	79	50	77	2.0	24	62-137
	Chlorobenzene	53	0	53	100	52	98	1.9	21	60-133
	Toluene	53	6	62	106	68	117	9.2	21	59-139
	Benzene	53	0	55	104	53	100	3.7	21	66-142
B/N SMO SAMPLE NO. EL-688	1,2,4-Trichlorobenzene	3500	0	2100	60	1900	54	10	23	38-107
	Acenaphthene	3500	0	2200	63	2100	60	4.7	19	31-137
	2,4 Dinitrotoluene	3500	0	1700	49	1700	49	0	47	28-89
	Pyrene	3500	600	3500	83	3800	91	8.2	36	35-142
	N-Nitrosodi-n-Propylamine	3500	0	2000	57	1800	51	11	38	41-126
	1,4-Dichlorobenzene	3500	0	2000	57	1800	51	11	27	28-104
ACID SMO SAMPLE NO. EL-688	Pentachlorophenol	7000	0	4600	66	4400	63	4.4	47	17-109
	Phenol	7000	0	4500	64	3900	56	14	35	26-90
	2-Chlorophenol	7000	0	4000	57	3500	50	13	50	25-102
	4-Chloro-3-Methylphenol	7000	0	4400	63	4000	57	9.5	33	26-103
	4-Nitrophenol	7000	0	4100	59	1800	26	78*	50	11-114
PEST SMO SAMPLE NO. EL-688	Lindane	56	0	+	+	+	+	+	50	46-127
	Heptachlor	56	0	+	+	+	+	+	31	35-130
	Aldrin	56	0	+	+	+	+	+	43	34-132
	Dieldrin	140	0	+	+	+	+	+	38	31-134
	Endrin	140	0	+	+	+	+	+	45	42-139
	4,4'-DDT	140	0	+	+	+	+	+	50	23-134

*ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

RPD: VOAs 0 out of 5; outside QC limits
B/N 0 out of 6; outside QC limits
ACID 1 out of 5; outside QC limits
PEST 0 out of 0; outside QC limits

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

Comments: + Unable to calculate due to matrix interference in the ~~unspi~~ unspiked sample.

6-9-87

7265 • 5-023-01

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FORM III

7/85

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WATER MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Case No. 7265 **Contractor** Clayton Environmental **Contract No.** 68-01-7100

FRACTION	COMPOUND	CONC. SPIKE ADDED (ug/L)	SAMPLE RESULT	CONC. MS	% REC	CONC. MSD	% REC	RPD	QC LIMITS * RPD	QC LIMITS * RECOVERY
VOA SMO SAMPLE NO. EL-691	1,1-Dichloroethene	62	0	59	95	58	94	1.7	14	61-145
	Trichloroethene	62	1	55	87	55	87	0	14	71-120
	Chlorobenzene	62	0	57	92	57	92	0	13	75-130
	Toluene	62	2	59	92	58	90	1.7	13	76-125
	Benzene	62	0	55	89	57	92	3.6	11	76-127
B/N SMO SAMPLE NO. EL-691	1,2,4-Trichlorobenzene	100	0	66 ✓	66	70 ✓	70	5.9 ✓	28	39-98
	Acenaphthene	100	0	65 ✓	65	73 ✓	73	12 ✓	31	46-118
	2,4 Dinitrotoluene	100	0	77 ✓	77	83 ✓	83	7.5 ✓	38	24-96
	Pyrene	100	0	95 ✓	95	95 ✓	95	0 ✓	31	26-127
	N-Nitroso-Di-n-Propylamine	100	0	58 ✓	58	72 ✓	72	22 ✓	38	41-116
	1,4-Dichlorobenzene	100	0	56 ✓	56	66 ✓	66	16 ✓	28	36-97
ACID SMO SAMPLE NO. EL-691	Pentachlorophenol	200	0	72 ✓	36	130 ✓	65	57* ✓	50	9-103
	Phenol	200	0	45 ✓	22	35 ✓	18	25 ✓	42	12-89
	2-Chlorophenol	200	0	120 ✓	60	93 ✓	46	25 ✓	40	27-123
	4-Chloro-3-Methylphenol	200	0	130 ✓	65	110 ✓	55	17 ✓	42	23-97
	4-Nitrophenol	200	0	130 ✓	65	63 ✓	32	69* ✓	50	10-80
PEST SMO SAMPLE NO. EL-691	Lindane	0.20	0	0.18	90	0.19	95	5.4	15	56-123
	Heptachlor	0.20	0	0.20	100	0.21	105	4.9	20	40-131
	Aldrin	0.20	0	0.16+	80	0.17	85	6.1	22	40-120
	Dieldrin	0.50	0	0.47++	94	0.47	94	0	18	52-126
	Endrin	0.50	0	▲	▲	0.52	104	▲	21	56-121
	4,4'-DDT	0.50	0	0.57++	~~or~~ 114	0.53	106	7.3	27	38-127

JG 6-11-87

* ASTERISKED VALUES ARE OUTSIDE QC LIMITS.

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

RECOVERY:
- VOAs 0 out of 10 : outside QC limits
- B/N 0 out of 12 : outside QC limits
- ACID 0 out of 10 : outside QC limits
- PEST 0 out of 11 : outside QC limits

Comments:
+ Calculated using Ar/Ht ratio.
++ Calculated using manual peak height.
▲ unable to calculate due to a co-eluting interference peak.

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7265.5-023-02

METHOD BLANK SUMMARY

Case No. 7265 Region V Contractor Clayton Environmental Contract No. 68-01-7100

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	MBT. ID	CAS NUMBER	COMPOUND (NBS, TIC OR UNKNOWN)	CONC.	UNITS	CRDL
B7877 MBlk I	5-19-87	VOA	SOIL	LOW	2B	67641	ACETONE	15	ug/kg	10
B7877 MBlk I	5-19-87	VOA	SOIL	LOW	2B	78933	2-BUTANONE	12	ug/kg	10
B7893 MBlk II	5-20-87	VOA	SOIL	LOW	2B	75092	METHYLENE CHLORIDE	0.9 J	ug/kg	5
B7893 MBlk II	5-20-87	VOA	SOIL	LOW	2B	67641	ACETONE	6 J	ug/kg	10
B7893 MBlk II	5-20-87	VOA	SOIL	LOW	2B	108101	4-METHYL-2-PENTANONE	3 J	ug/kg	10
A8628 MBlk I	5-27-87	BNA	SOIL	LOW	1A	—	Unknown compound	900 J	ug/kg	—
A8628 MBlk I	5-27-87	BNA	SOIL	LOW	1A	2216300	2,5-dimethyl heptane	1000 J	ug/kg	—
A8628 MBlk I	5-27-87	BNA	SOIL	LOW	1A	123422	4-hydroxy-4-methyl-2-pentanone *	20000 J	ug/kg	—
A8628 MBlk I	5-27-87	BNA	SOIL	LOW	1A	—	dimethyl heptane	300 J	ug/kg	—
A8628 MBlk I	5-27-87	BNA	SOIL	LOW	1A	16784461	3-ethyl-2-methyl hexane	2000 J	ug/kg	—
A8628 MBlk I	5-27-87	BNA	SOIL	LOW	1A	110123	5-methyl-2-hexanone	3000 J	ug/kg	—
A8628 MBlk I	5-27-87	BNA	SOIL	LOW	1A	2216344	4-methyl octane	3000 J	ug/kg	—
A8628 MBlk I	5-27-87	BNA	SOIL	LOW	1A	2216333	3-methyl octane	4000 J	ug/kg	—
Run# 1096 MBlk I	5-30-87	Pest	SOIL	LOW	HP5733	—	No Pest/PCB's detected at or above CRDL	—	—	—

Comments:

* Possible aldol condensation product.

FORM IV 7/85

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7265.5-024-01

METHOD BLANK SUMMARY

Case No. 7265 Region V Contractor Clayton Environmental Contract No. 68-01-7100

FILE ID	DATE OF ANALYSIS	FRACTION	MATRIX	CONC. LEVEL	INST. ID	CAS NUMBER	COMPOUND (NON-TIC OR UNKNOWN)	CONC.	UNITS	CRDL
B7819 MBlkI	5-16-87	VOA	WATER	LOW	2B	75092	METHYLENE CHLORIDE	1 J	ug/L	5
B7819 MBlkI	5-16-87	VOA	WATER	LOW	2B	67641	ACETONE	7 J	ug/L	10
B7819 MBlkI	5-16-87	VOA	WATER	LOW	2B	108101	4-METHYL-2-PENTANONE	4 J	ug/L	10
B7819 MBlkI	5-16-87	VOA	WATER	LOW	2B	79345	1,1,2,2-TETRACHLOROETHANE	0.8 J	ug/L	5
B7861 MBlkII	5-18-87	VOA	WATER	LOW	2B	75092	~~METHYLENE CHLORIDE~~ JG 6-8-87 Acetone	8 J	ug/L	~~5~~ 10
A8671 MBlkI	5-29-87	BNA	water	LOW	1A	123422	4-hydroxy-4-methyl-2-pentanone*	20 J	ug/L	—
A8830 MBlkIRE	6-10-87	BNA	water	LOW	1A		No semi-volatile compounds detected	—	—	—
Run# 1014 MBlkI	5-27-87	Pest	water	LOW	HP-5733	—	No Pest/PCB's detected at or above CRDL	—	—	—

Comments:

* possible aldol condensation

AMC 6/10/87

FORM IV 7/85

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7265.5-024-02

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Sample Number
EL-684

Organics Analysis Data Sheet
(Page 1)

7265 5-028-01

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Laboratory Name: Clayton Environmental
Case No: 7265
Lab Sample ID No: B7878 (545-550)
QC Report No: NA
Sample Matrix: SOIL
Contract No: 68-01-7100
Data Release Authorized By: [signature]
Date Sample Received: 5-13-87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 5-19-87
Date Analyzed: 5-19-87
Conc/Dil Factor: 1 pH 7.8
Percent Moisture: (Not Decanted) 15.38%

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	12 U	J
74-83-9	Bromomethane	12 U	J
75-01-4	Vinyl Chloride	12 U	
75-00-3	Chloroethane	12 U	
75-09-2	Methylene Chloride	5 J	
67-64-1	Acetone	78 B	
75-15-0	Carbon Disulfide	6 U	
75-35-4	1, 1-Dichloroethene	6 U	
75-34-3	1, 1-Dichloroethane	6 U	
156-60-5	Trans-1, 2-Dichloroethene	6 U	
67-66-3	Chloroform	6 U	
107-06-2	1, 2-Dichloroethane	6 U	
78-93-3	2-Butanone	12 U	J
71-55-6	1, 1, 1-Trichloroethane	6 U	
56-23-5	Carbon Tetrachloride	6 U	
108-05-4	Vinyl Acetate	12 U	J
75-27-4	Bromodichloromethane	6 U	

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	6 U	
10061-02-6	Trans-1, 3-Dichloropropene	6 U	
79-01-6	Trichloroethene	4 J	
124-48-1	Dibromochloromethane	6 U	
79-00-5	1, 1, 2-Trichloroethane	6 U	
71-43-2	Benzene	6 U	
10061-01-5	cis-1, 3-Dichloropropene	6 U	
110-75-8	2-Chloroethylvinylether	12 U	J
75-25-2	Bromoform	6 U	
108-10-1	4-Methyl-2-Pentanone	12 U	J
591-78-6	2-Hexanone	12 U	J
127-18-4	Tetrachloroethene	6 U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	6 U	
108-88-3	Toluene	3 J	
108-90-7	Chlorobenzene	6 U	
100-41-4	Ethylbenzene	6 U	
100-42-5	Styrene	6 U	
	Total Xylenes	6 U	

(J) KG

Data Reporting Qualifiers

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

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

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

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

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

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

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

M Matrix spike compound

N Instrument limit of detection was used because it was higher than the CRDL

A Indicates a value less than the dilution corrected limit of detection but greater than the CRDL

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Form I

11/85

Laboratory Name: Clayton Environmental

Case No: 7265

RECEIVED JUL 6 1987

Sample Number: EL-684

7265 • 5-028-02

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 5/18/87

Date Analyzed: 5/28/87 (A8646)

Conc/Dil Factor: 0.5 (GPC)

Percent Moisture (Decanted): 15.38

GPC Cleanup: ☑ Yes ☐ No

Separatory Funnel Extraction: ☐ Yes

Continuous Liquid - Liquid Extraction: ☐ Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	790 U
111-44-4	bis(-2-Chloroethyl)Ether	790 U
95-57-8	2-Chlorophenol	790 U
541-73-1	1 3-Dichlorobenzene	790 U
106-46-7	1 4-Dichlorobenzene	790 U
100-51-6	Benzyl Alcohol	790 U
95-50-1	1 2-Dichlorobenzene	790 U
95-48-7	2-Methylphenol	790 U
39638-32-9	bis(2-chloroisopropyl)Ether	790 U
106-44-5	4-Methylpheno	790 U
621-64-7	N-Nitroso-Di-n-Propylamine	790 U
67-72-1	Hexachloroethane	790 U
98-95-3	Nitrobenzene	790 U
78-59-1	Isophorone	790 U
88-75-5	2-Nitrophenol	790 U
105-67-9	2 4-Dimethylphenol	790 U
65-85-0	Benzoic Acid	3900 U
111-91-1	bis(-2-Chloroethoxy)Methane	790 U
120-83-2	2 4-Dichlorophenol	790 U
120-82-1	1 2 4-Trichlorobenzene	790 U
91-20-3	Naphthalene	790 U
106-47-8	4-Chloroaniline	790 U
87-68-3	Hexachlorobutadiene	790 U
59-50-7	4-Chloro-3-Methylphenol	790 U
91-57-6	2-Methylnaphthalene	790 U
77-47-4	Hexachlorocyclopentadiene	790 U J
88-06-2	2 4 6-Trichlorophenol	790 U
95-95-4	2 4 5-Trichlorophenol	3900 U
91-58-7	2-Chloronaphthalene	790 U
88-74-4	2-Nitroaniline	3900 U
131-11-3	Dimethyl Phthalate	790 U
208-96-8	Acenaphthylene	790 U
99-09-2	3-Nitroaniline	3900 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	790 U
51-28-5	2 4-Dinitrophenol	3900 U
100-02-7	4-Nitrophenol	3900 U
132-64-9	Dibenzofuran	790 U
121-14-2	2 4-Dinitrotoluene	790 U
606-20-2	2 6-Dinitrotoluene	790 U
84-66-2	Diethylphthalate	790 U
7005-72-3	4-Chlorophenyl-phenylether	790 U
86-73-7	Fluorene	790 U
100-01-6	4-Nitroaniline	3900 U
534-52-1	4 6-Dinitro-2-Methylphenol	3900 U
86-30-6	N-Nitrosodiphenylamine (1)	790 U
101-55-3	4-Bromophenyl-phenylether	790 U
118-74-1	Hexachlorobenzene	790 U
87-86-5	Pentachlorophenol	3900 U
85-01-8	Phenanthrene	110 J
120-12-7	Anthracene	790 U
84-74-2	Di-n-Butylphthalate	790 U
206-44-0	Fluoranthene	250 J
129-00-0	Pyrene	170 J
85-68-7	Butylbenzylphthalate	790 U
91-94-1	3 3-Dichlorobenzidine	2200 U
56-55-3	Benzo(a)Anthracene	110 J
117-81-7	bis(2-Ethylhexyl)Phthalate	150 J
218-01-9	Chrysene	140 J
117-84-0	Di-n-Octyl Phthalate	790 U
205-99-2	Benzo(b)Fluoranthene	130 J
207-08-9	Benzo(k)Fluoranthene	100 J
50-32-8	Benzo(a)Pyrene	140 J
193-39-5	Indeno(1 2 3-cd)Pyrene	1000 N
53-70-3	Dibenzo(a h)Anthracene	1300 N
191-24-2	Benzo(g h i)Perylene	110 J

(J) KG

(1)-Cannot be separated from diphenylamine

Laboratory Name Clayton

Case No 7265

7265-5-028-03

Sample Number EL-684

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Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 18 May 1987

Date Analyzed: 30 May 1987

Conc/(Dil Factor): 1 x 0.5 (GPC effect)

Percent Moisture (decanted): 15.38

GPC Cleanup ☑Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	19 u
319-85-7	Beta-BHC	19 u
319-86-8	Delta-BHC	19 u
58-89-9	Gamma-BHC (Lindane)	19 u
76-44-8	Heptachlor	19 u
309-00-2	Aldrin	19 u
1024-57-3	Heptachlor Epoxide	19 u
959-98-8	Endosulfan I	19 u
60-57-1	Dieldrin	38 u
72-55-9	4,4'-DDE	38 u
72-20-8	Endrin	38 u
33213-65-9	Endosulfan II	38 u
72-54-8	4,4'-DDD	38 u
1031-07-8	Endosulfan Sulfate	38 u
50-29-3	4,4'-DDT	38 u
72-43-5	Methoxychlor	190 u
53494-70-5	Endrin Ketone	38 u
57-74-9	Chlordane	190 u
8001-35-2	Toxaphene	380 u
12674-11-2	Aroclor-1016	190 u
11104-28-2	Aroclor-1221	190 u
11141-16-5	Aroclor-1232	190 u
53469-21-9	Aroclor-1242	190 u
12672-29-6	Aroclor-1248	190 u
11097-69-1	Aroclor-1254	380 u
11096-82-5	Aroclor-1260	380 u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00 g V_t 20,000 ul / 40,000 ul Volume to GPC effect V_i 1 ul

R. Hallal 6/2/87

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a.k. 6-7-87

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Laboratory Name Clayton Environmental

Case No 7265

Sample Number ELE1684

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Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	—	NO VOLATILE COMPOUNDS DETECTED	UOA	—	—
2.	—	POSSIBLE ACETIC ACID, 1-METHYLETHYL ESTER	BNA	5.65	900 J B
3.	~~3346-30-~~ 926604	~~3,5~~ 2,5 DIMETHYL HEPTANE	BNA	6.06	700 J B
4.	123422	4-HYDROXY-4-METHYL-2-PENTANONE*	BNA	6.24	20000 J B
5.	16789461	3 ETHYL-2-METHYL HEXANE	BNA	6.54	1000 J B
6.	110123	5-METHYL-2-HEXANONE	BNA	6.59	3000 J B
7.	2216344	4-METHYL OCTANE	BNA	6.72	2000 J B
8.	2216333	3-METHYL OCTANE	BNA	6.90	3000 J B
9.	—	UNKNOWN COMPOUND	BNA	8.27	500 J
10.	4436753	3-HEXENE-2,5-DIONE	BNA	8.70	400 J
11.	—	UNKNOWN COMPOUND	BNA	9.66	800 J
12.	—	UNKNOWN COMPOUND	BNA	10.89	1000 J
13.	593453	OCTADECANE	BNA	33.99	300 J
14.	638664	OCTADECANAL	BNA	35.32	400 J
15.	—	UNKNOWN HYDROCARBON	BNA	35.85	1000 J
16.	—	OCTADECANAL	BNA	37.28	400 J
17.	—	UNKNOWN HYDROCARBON	BNA	37.90	600 J
18.	—	UNKNOWN, POSSIBLE HYDROCARBON	BNA	~~39.19~~ ~~37.97~~	300 J
19.	—	UNKNOWN COMPOUND	BNA	42.06	700 J
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

>9 6-9-87

* Possible aldol condensation product.

Sample Number
EL-685

7265 • 5-028-04

Organics Analysis Data Sheet
(Page 1)

Laboratory Name: Clayton Environmental
Case No: 7265
Lab Sample ID No: B7894 (545552)
QC Report No: NA
Sample Matrix: SOIL
Contract No: 68-01-7100
Data Release Authorized By:
Date Sample Received: 5-13-87

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Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 5-20-87
Date Analyzed: 5-20-87
Conc/(Dil Factor): 1 pH 8.4
Percent Moisture: (Not Decanted) 6.33%

CAS Number		ug/l or (ug/Kg) (Circle One)	
74-87-3	Chloromethane	11 U	J
74-83-9	Bromomethane	11 U	
75-01-4	Vinyl Chloride	11 U	
75-00-3	Chloroethane	11 U	J KG
75-09-2	Methylene Chloride	1 JB	
67-64-1	Acetone	36 B	J
75-15-0	Carbon Disulfide	5 U	J
75-35-4	1, 1-Dichloroethene	5 U	
75-34-3	1, 1-Dichloroethane	5 U	
156-60-5	Trans-1, 2-Dichloroethene	5 U	
67-66-3	Chloroform	5 U	
107-06-2	1, 2-Dichloroethane	5 U	
78-93-3	2-Butanone	12	J
71-55-6	1, 1, 1-Trichloroethane	5 U	
56-23-5	Carbon Tetrachloride	5 U	
108-05-4	Vinyl Acetate	11 U	J
75-27-4	Bromodichloromethane	5 U	

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	5 U
10061-02-6	Trans-1, 3-Dichloropropene	5 U
79-01-6	Trichloroethene	1 J
124-48-1	Dibromochloromethane	5 U
79-00-5	1, 1, 2-Trichloroethane	5 U
71-43-2	Benzene	5 U
10061-01-5	cis-1, 3-Dichloropropene	5 U
110-75-8	2-Chloroethylvinylether	11 U
75-25-2	Bromoform	5 U
108-10-1	4-Methyl-2-Pentanone	11 U
591-78-6	2-Hexanone	11 U
127-18-4	Tetrachloroethene	5 U
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U
108-88-3	Toluene	(6)
108-90-7	Chlorobenzene	5 U
100-41-4	Ethylbenzene	5 U
100-42-5	Styrene	5 U
	Total Xylenes	5 U

Data Reporting Qualifiers

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

(J) KG

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

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

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

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

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

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

N Matrix spike compound

N Instrument limit of detection was used because it was higher than the CRDL

A Indicates a value less than the dilution corrected limit of detection but greater than the CRDL

Laboratory Name Clayton Environmental

Case No 7265

Sample Number EL 685

7265 • 5 028-05

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Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 5/18/87

Date Analyzed: 5/28/87 (A8649)

Conc/Dil Factor: 0.5 (GPC)

Percent Moisture (Decanted) 6.33

GPC Cleanup ☒Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	710 U
111-44-4	bis(-2-Chloroethyl)Ether	710 U
95-57-8	2-Chlorophenol	710 U
541-73-1	1 3-Dichlorobenzene	710 U
106-46-7	1 4-Dichlorobenzene	710 U
100-51-6	Benzyl Alcohol	710 U
95-50-1	1 2-Dichlorobenzene	710 U
95-48-7	2-Methylphenol	710 U
39638-32-9	bis(2-chloroisopropyl)Ether	710 U
106-44-5	4-Methylpheno	710 U
621-64-7	N-Nitroso-Di-n-Propylamine	710 U
67-72-1	Hexachloroethane	710 U
98-95-3	Nitrobenzene	710 U
78-59-1	Isophorone	710 U
88-75-5	2-Nitrophenol	710 U
105-67-9	2, 4-Dimethylphenol	710 U
65-85-0	Benzoic Acid	3600 U
111-91-1	bis(-2-Chloroethoxy)Methane	710 U
120-83-2	2, 4-Dichlorophenol	710 U
120-82-1	1, 2, 4-Trichlorobenzene	710 U
91-20-3	Naphthalene	130 J
106-47-8	4-Chloroaniline	710 U
87-68-3	Hexachlorobutadiene	710 U
59-50-7	4-Chloro-3-Methylphenol	710 U
91-57-6	2-Methylnaphthalene	82 J
77-47-4	Hexachlorocyclopentadiene	710 U J
88-06-2	2, 4, 6-Trichlorophenol	710 U
95-95-4	2, 4, 5-Trichlorophenol	3600 U
91-58-7	2-Chloronaphthalene	710 U
88-74-4	2-Nitroaniline	3600 U
131-11-3	Dimethyl Phthalate	710 U
208-96-8	Acenaphthylene	140 J
99-09-2	3-Nitroaniline	3600 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	710 U
51-28-5	2, 4-Dinitrophenol	3600 U
100-02-7	4-Nitrophenol	3600 U
132-64-9	Dibenzofuran	710 U
121-14-2	2, 4-Dinitrotoluene	710 U
606-20-2	2, 6-Dinitrotoluene	710 U
84-66-2	Diethylphthalate	710 U
7005-72-3	4-Chlorophenyl-phenylether	710 U
86-73-7	Fluorene	710 U
100-01-6	4-Nitroaniline	3600 U
534-52-1	4, 6-Dinitro-2-Methylphenol	3600 U
86-30-6	N-Nitrosodiphenylamine (1)	710 U
101-55-3	4-Bromophenyl-phenylether	710 U
118-74-1	Hexachlorobenzene	710 U
87-86-5	Pentachlorophenol	3600 U
85-01-8	Phenanthrene	920
120-12-7	Anthracene	200 J
84-74-2	Di-n-Butylphthalate	710 U
206-44-0	Fluoranthene	3100
129-00-0	Pyrene	2400 J
85-68-7	Butylbenzylphthalate	710 U
91-94-1	3, 3-Dichlorobenzidine	2000 N
56-55-3	Benzo(a)Anthracene	1500 J
117-81-7	bis(2-Ethylhexyl)Phthalate	470 J
218-01-9	Chrysene	1900
117-84-0	Di-n-Octyl Phthalate	710 U
205-99-2	Benzo(b)Fluoranthene	2700
207-08-9	Benzo(k)Fluoranthene	710 U
50-32-8	Benzo(a)Pyrene	2000
193-39-5	Indeno(1, 2, 3-cd)Pyrene	830 J
53-70-3	Dibenz(a, h)Anthracene	240 J
191-24-2	Benzo(g, h, i)Perylene	1200

(1)-Cannot be separated from diphenylamine

205 (J) KG

Form I

7 85

Laboratory Name Clayton

Case No 7265

7265 · 5-028-06

Sample Number El-685

RECEIVED JUL 06 1987

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 18 May 1987

Date Analyzed: 1 June 1987

Conc/Dil Factor: 1 X 0.5 GPC effect

Percent Moisture (decanted) 6.33

GPC Cleanup ☑Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC		
319-85-7	Beta-BHC		
319-86-8	Delta-BHC	17u	*
58-89-9	Gamma-BHC (Lindane)	17u	*
76-44-8	Heptachlor	17u	*
309-00-2	Aldrin		
1024-57-3	Heptachlor Epoxide	17u	*
959-98-8	Endosulfan I		
60-57-1	Dieldrin	34u	*
72-55-9	4,4'-DDE	34u	*
72-20-8	Endrin	34u	*
33213-65-9	Endosulfan II	34u	*
72-54-8	4,4'-DDD	34u	*
1031-07-8	Endosulfan Sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin Ketone		
57-74-9	Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-21-9	Aroclor-1242		
12672-29-6	Aroclor-1248		
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

* only These compounds are reported at 1 dil.

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00g V_t 20,000 ul / 40,000 due to GPC effect V_i 1 ul

R. Hallal 6/4/87

206

a.K. 6-7-87

Laboratory Name Clayton

Case No 7265

7265 · 5-028-07

Sample Number EL-685

RECEIVED JUL 06 1987

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 18 May 1987

Date Analyzed: 31 May 1987

Conc/(Dil Factor): 0.5 x0.5 (GPC effect)

Percent Moisture (decanted) 6.33

GPC Cleanup ☑Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	34u	*
319-85-7	Beta-BHC		
319-86-8	Delta-BHC		
58-89-9	Gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin	34u	*
1024-57-3	Heptachlor Epoxide		
959-98-8	Endosulfan I	34u	*
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan Sulfate	68u	*
50-29-3	4,4'-DDT	68u	*
72-43-5	Methoxychlor		
53494-70-5	Endrin Ketone		
57-74-9	Chlordane		
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-21-9	Aroclor-1242		
12672-29-6	Aroclor-1248		
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

* only these compounds are reported at 0.5 dil.

V_l = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00g V_t 20,000µl (40,000µl due to GPC effect, 80,000µl due to 0.5 dil.) V_l 1µl

A.K. 6-7-87 R.H. - 6-1-87

7265 • 5-028-08

Laboratory Name Clayton

Case No 7265

Sample Number EL-685

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Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 18 May 1987

Date Analyzed: 1 June 1987

Cond/Dil Factor: 0.2 x 0.5 (Gpc effect)

Percent Moisture (decanted) 6.33

GPC Cleanup ☑Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC		*
319-85-7	Beta-BHC	85u	
319-86-8	Delta-BHC		
58-89-9	Gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor Epoxide		
959-98-8	Endosulfan I		*
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan Sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	850u	
53494-70-5	Endrin Ketone	170u	
57-74-9	Chlordane	850u	
8001-35-2	Toxaphene	1700u	
12674-11-2	Aroclor-1016	850u	
11104-28-2	Aroclor-1221	850u	
11141-16-5	Aroclor-1232	850u	
53469-21-9	Aroclor-1242	850u	
12672-29-6	Aroclor-1248	850u	
11097-69-1	Aroclor-1254	1700u	
11096-82-5	Aroclor-1260	1700u	

* Reported at 1 and 0.5 dilutions on next pages

V_t = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00 g V_t 20,000 µl / 40,000 µl due to Gpc effect / 200,000 µl due to 208 0.2 dil. V_i 1 µl

R. Hallal 6/2/87

A.K. 6-7-87

7265 • 5-029-02

Laboratory Name Clayton Environmental

Case No 7265

Sample Number
EL-685

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Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. —	UNKNOWN COMPOUND (possible hydrocarbon)	VOA	24.16	6 J
2. —	UNKNOWN COMPOUND	BNA	5.69	800 J B
3. 2216300	2,5-DIMETHYL HEPTANE	BNA	6.10	800 J B
4. 123422	4-HYDROXY-4-METHYL-2-PENTANONE *	BNA	6.28	20000 J B
5. 16789461	3-ETHYL-2-METHYL HEXANE	BNA	6.57	1000 J B
6. 110123	5-METHYL-2-HEXANONE	BNA	6.61	2000 J B
7. 2216344	4-METHYL OCTANE	BNA	6.75	2000 J B
8. 2216333	3-METHYL OCTANE	BNA	6.92	3000 J B
9. —	POSSIBLE SOLERON	BNA	8.28	800 J
10. —	UNKNOWN COMPOUND	BNA	8.70	500 J
11. —	UNKNOWN COMPOUND	BNA	9.69	300 J
12. —	UNKNOWN COMPOUND	BNA	10.92	500 J
13. 203645	4H-CYCLOPENTA[def]PHENANTHRENE	BNA	25.62	400 J
14. —	9,10-ANTHRACENE DIONE PLUS AN UNKNOWN	BNA	26.30	300 J
15. —	UNKNOWN COMPOUND	BNA	35.05	1000 J
16. —	POSSIBLE BENZO[e] PYRENE	BNA	35.96	1000 J
17.				
18.				
19.				
20.				
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

* Possible aldol condensation product.

Sample Number
EL-686

Organics Analysis Data Sheet
(Page 1)

7265 5-028-09

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Laboratory Name: Clayton Environmental
Case No: 7265
Lab Sample ID No: B7898 (545554)
QC Report No: NA
Sample Matrix: Soil
Contract No: 68-01-7100
Data Release Authorized By:
Date Sample Received: 5-13-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 5-20-87
Date Analyzed: 5-20-87
Conc/(Dil Factor): 0.4 pH 8.0
Percent Moisture: (Not Decanted) 5.67 %

CAS Number		ug/l or (ug/Kg) (Circle One)	
74-87-3	Chloromethane	27 U	J
74-83-9	Bromomethane	27 U	
75-01-4	Vinyl Chloride	27 U	
75-00-3	Chloroethane	27 U	
75-09-2	Methylene Chloride	2 J B	
67-64-1	Acetone	62 B	J
75-15-0	Carbon Disulfide	13 U	J
75-35-4	1, 1-Dichloroethene	13 U	
75-34-3	1, 1-Dichloroethane	13 U	
156-60-5	Trans-1, 2-Dichloroethene	6 J	
67-66-3	Chloroform	13 U	
107-06-2	1, 2-Dichloroethane	13 U	
78-93-3	2-Butanone	26 J	
71-55-6	1, 1, 1-Trichloroethane	11 J	
56-23-5	Carbon Tetrachloride	13 U	
108-05-4	Vinyl Acetate	27 U	J
75-27-4	Bromodichloromethane	13 U	

CAS Number		ug/l or (ug/Kg) (Circle One)
78-87-5	1, 2-Dichloropropane	13 U
10061-02-6	Trans-1, 3-Dichloropropene	13 U
79-01-6	Trichloroethene	(120)
124-48-1	Dibromochloromethane	13 U
79-00-5	1, 1, 2-Trichloroethane	13 U
71-43-2	Benzene	2 J
10061-01-5	cis-1, 3-Dichloropropene	13 U
110-75-8	2-Chloroethylvinylether	27 U
75-25-2	Bromoform	13 U
108-10-1	4-Methyl-2-Pentanone	27 U
591-78-6	2-Hexanone	27 U
127-18-4	Tetrachloroethene	(150)
79-34-5	1, 1, 2, 2-Tetrachloroethane	13 U
108-88-3	Toluene	4 J
108-90-7	Chlorobenzene	2 J
100-41-4	Ethylbenzene	13 U
100-42-5	Styrene	13 U
	Total Xylenes	13 U

(J) KG

Data Reporting Qualifiers

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

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

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

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

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

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

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

M Matrix spike compound

N Instrument limit of detection was used because it was higher than the CRDL

A Indicates a value less than the dilution corrected limit of detection but greater than the CRDL

Laboratory Name Clayton Environmental

Case No 7265

Sample Number
EL-686

7265 -0280

RECEIVED JUL 06 1987

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 5/18/87

Date Analyzed: 5/28/87

Conc/(Dil Factor): 0.25 (0.5 x 0.5-GPC)

Percent Moisture (Decanted) 5.67 %

GPC Cleanup ☒Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	1400 U
111-44-4	bis(-2-Chloroethyl)Ether	1400 U
95-57-8	2-Chlorophenol	1400 U
541-73-1	1 3-Dichlorobenzene	1400 U
106-46-7	1 4-Dichlorobenzene	1400 U
100-51-6	Benzyl Alcohol	1400 U
95-50-1	1 2-Dichlorobenzene	1400 U
95-48-7	2-Methylphenol	1400 U
39638-32-9	bis(2-chloroisopropyl)Ether	1400 U
106-44-5	4-Methylpheno	1400 U
621-64-7	N-Nitroso-Di-n-Propylamine	1400 U
67-72-1	Hexachloroethane	1400 U
98-95-3	Nitrobenzene	1400 U
78-59-1	Isophorone	650 J
88-75-5	2-Nitrophenol	1400 U
105-67-9	2 4-Dimethylphenol	1400 U
65-85-0	Benzoic Acid	7100 U
111-91-1	bis(-2-Chloroethoxy)Methane	1400 U
120-83-2	2 4-Dichlorophenol	1400 U
120-82-1	1 2 4-Trichlorobenzene	1400 U
91-20-3	Naphthalene	1400 U
106-47-8	4-Chloroaniline	1400 U
87-68-3	Hexachlorobutadiene	1400 U
59-50-7	4-Chloro-3-Methylphenol	1400 U
91-57-6	2-Methylnaphthalene	1400 U
77-47-4	Hexachlorocyclopentadiene	1400 U J
88-06-2	2 4 6-Trichlorophenol	1400 U
95-95-4	2 4 5-Trichlorophenol	7100 U
91-58-7	2-Chloronaphthalene	1400 U
88-74-4	2-Nitroaniline	7100 U
131-11-3	Dimethyl Phthalate	1400 U
208-96-8	Acenaphthylene	1400 U
99-09-2	3-Nitroaniline	7100 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	1400 U
51-28-5	2 4-Dinitrophenol	7100 U
100-02-7	4-Nitrophenol	7100 U
132-64-9	Dibenzofuran	1400 U
121-14-2	2 4-Dinitrotoluene	1400 U
606-20-2	2 6-Dinitrotoluene	1400 U
84-66-2	Diethylphthalate	1400 U
7005-72-3	4-Chlorophenyl-phenylether	1400 U
86-73-7	Fluorene	1400 U
100-01-6	4-Nitroaniline	7100 U
534-52-1	4 6-Dinitro-2-Methylphenol	7100 U
86-30-6	N-Nitrosodiphenylamine (1)	1400 U
101-55-3	4-Bromophenyl-phenylether	1400 U
118-74-1	Hexachlorobenzene	1400 U
87-86-5	Pentachlorophenol	7100 U
85-01-8	Phenanthrene	1400 U
120-12-7	Anthracene	1400 U
84-74-2	Di-n-Butylphthalate	440 J
206-44-0	Fluoranthene	160 J
129-00-0	Pyrene	320 J
85-68-7	Butylbenzylphthalate	(1500)
91-94-1	3 3-Dichlorobenzidine	4000 N
56-55-3	Benzo(a)Anthracene	1400 U
117-81-7	bis(2-Ethylhexyl)Phthalate	(15000)
218-01-9	Chrysene	220 J
117-84-0	Di-n-Octyl Phthalate	(7400)
205-99-2	Benzo(b)Fluoranthene	400 J
207-08-9	Benzo(k)Fluoranthene	1400 U
50-32-8	Benzo(a)Pyrene	1400 U
193-39-5	Indeno(1 2 3-cd)Pyrene	170 J
53-70-3	Dibenz(a h)Anthracene	2300 N
191-24-2	Benzo(g h i)Perylene	2400 N

(J) KG

(1)-Cannot be separated from diphenylamine

Laboratory Name Clayton

Case No 7265

7265 • 5-028-11

Sample Number 21-686

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Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 18 May 1987

Date Analyzed 31 May 1987

Conc/(Dil Factor) 1 X 0.5 (GPC effect

Percent Moisture (decanted) 5.67

GPC Cleanup ☑Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC		*
319-85-7	Beta-BHC	17u	
319-86-8	Delta-BHC	17u	
58-89-9	Gamma-BHC (Lindane)	17u	
76-44-8	Heptachlor	17u	
309-00-2	Aldrin		*
1024-57-3	Heptachlor Epoxide	17u	
959-98-8	Endosulfan I	17u	
60-57-1	Dieldrin	34u	
72-55-9	4,4'-DDE	34u	
72-20-8	Endrin	34u	
33213-65-9	Endosulfan II		
72-54-8	4,4'-DDD		
1031-07-8	Endosulfan Sulfate		
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor		
53494-70-5	Endrin Ketone		
57-74-9	Chlordane		*
8001-35-2	Toxaphene		
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221		
11141-16-5	Aroclor-1232		
53469-21-9	Aroclor-1242		
12672-29-6	Aroclor-1248		
11097-69-1	Aroclor-1254		
11096-82-5	Aroclor-1260		

* Reported at 0.2 dilt. on next page

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00g V_t 20,000ul (40,000ul due to GPC effect) V_i 1 ul

R. Hallal 6/3/87

264

a. R. 6-7-87

7265-5-028-12

Laboratory Name Clayton

Case No 7265

Sample Number EL-686

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Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 18 May 1987

Date Analyzed: 31 May 1987

Conc/(Dil Factor): 0.2 X 0.5 (GPC effect)

Percent Moisture (decanted) 5.67

GPC Cleanup ☑Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)	
319-84-6	Alpha-BHC	85u	*
319-85-7	Beta-BHC		
319-86-8	Delta-BHC		
58-89-9	Gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin	85u	*
1024-57-3	Heptachlor Epoxide		
959-98-8	Endosulfan I		
60-57-1	Dieldrin		
72-55-9	4,4'-DDE		
72-20-8	Endrin		
33213-65-9	Endosulfan II	170u	
72-54-8	4,4'-DDD	170u	
1031-07-8	Endosulfan Sulfate	170u	
50-29-3	4,4'-DDT	170u	
72-43-5	Methoxychlor	850u	
53494-70-5	Endrin Ketone	170u	
57-74-9	Chlordane	850u	
8001-35-2	Toxaphene	1700u	
12674-11-2	Aroclor-1016	850u	
11104-28-2	Aroclor-1221	850u	*
11141-16-5	Aroclor-1232	850u	
53469-21-9	Aroclor-1242	850u	
12672-29-6	Aroclor-1248	850u	
11097-69-1	Aroclor-1254	1700u	
11096-82-5	Aroclor-1260	1700u	

* Reported a ro. 2 dil.

V_t = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30,00g V_t 20,000µl (40,000µl due to GPC effect; 265 200,000µl due to 0.2 dil.) V_i 1µl

a.k. 6-7-87
R. Hallock 6/3/87

Laboratory Name Clayton Environmental

Case No 7265

7265 • 5-029-03

Sample Number EL-686

Organics Analysis Data Sheet
(Page 4)

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Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	—	NO VOLATILE COMPOUNDS DETECTED	VOA	—	—
2.	—	UNKNOWN COMPOUND	BNA	5.23	900 J B
3.	2216300	2,5-DIMETHYL HEPTANE	BNA	6.13	710 J B
4.	123422	4-HYDROXY-4-METHYL-2-PENTANONE*	BNA	6.29	20000 J B
5.	—	UNKNOWN, POSSIBLE HYDROCARBON MW 128	BNA	6.59	2000 J
6.	110123	5-METHYL-2-HEXANONE	BNA	6.63	2000 J B
7.	2216344	4-METHYL OCTANE	BNA	6.77	2000 J B
8.	2216333	3-METHYL OCTANE	BNA	6.95	3000 J B
9.	97858	PROPANOIC ACID, 2-METHYL, 2-METHYL PROPYL ESTER	BNA	7.93	3000 J
10.	—	UNKNOWN COMPOUND	BNA	8.70	600 J
11.	—	UNKNOWN COMPOUND	BNA	9.68	700 J
12.	90437	[1,1'-BIPHENYL]-2-OL	BNA	19.65	700 J
13.	1241947	PHOSPHORIC ACID, 2-ETHYLHEXYL DIPHENYL ESTER	BNA	31.48	3000 J
14.	—	UNKNOWN, POSSIBLE PHTHALATE	BNA	32.55	4000 J
15.	3648213	POSSIBLE 1,2-BENZENEDICARBOXYLIC ACID, DIHEPTYL ESTER	BNA	33.73	2000 J
16.	85698	1,2-BENZENEDICARBOXYLIC ACID, BUTYL 2-ETHYLHEXYL ESTER	BNA	33.83	1000 J
17.	3648213	POSSIBLE 1,2-BENZENEDICARBOXYLIC ACID, DIHEPTYL ESTER	BNA	35.57	2000 J
18.	—	UNKNOWN, POSSIBLE PHTHALATE	BNA	38.45	3000 J
19.	—	POSSIBLE 1,2-BENZENEDICARBOXYLIC ACID, DIBUTYL ESTER	BNA	40.03	800 J
20.	—	POSSIBLE 1,2-BENZENEDICARBOXYLIC ACID, BIS 2-METHYL PROPYL ESTER	BNA	41.40	1000 J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

* Possible aldol condensation product.

Sample Number
EL-687

Organics Analysis Data Sheet
(Page 1)

7265 • 5-028-13

Laboratory Name: Clayton Environmental
Case No: 7265
Lab Sample ID No: B7881 (545556)
QC Report No: NA
Sample Matrix: SOIL
Contract No: 68-01-7100
Data Release Authorized By:
Date Sample Received: 5-13-87

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Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 5-19-87
Date Analyzed: 5-19-87
Conc/Dil Factor: 1 pH 7.8
Percent Moisture: (Not Decanted) 1.72 %

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

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

(J) KG

Data Reporting Qualifiers

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

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

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

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

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

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

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

N Matrix spike compound

N Instrument limit of detection was used because it was higher than the CRDL

A Indicates a value less than the dilution corrected limit of detection but greater than the CRDL

Laboratory Name Clayton Environmental

Case No 7265

Sample Number
EL-687

7265 · 5-~~028~~-14

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Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared 5/18/87

Date Analyzed: 5/28/87 (A8647)

Conc/Dil Factor: 0.5 (GPC)

Percent Moisture (Decanted) 1.72

GPC Cleanup ☒Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	680 u
111-44-4	bis(-2-Chloroethyl)Ether	680 u
95-57-8	2-Chlorophenol	680 u
541-73-1	1 3-Dichlorobenzene	680 u
106-46-7	1 4-Dichlorobenzene	680 u
100-51-6	Benzyl Alcohol	680 u
95-50-1	1 2-Dichlorobenzene	680 u
95-48-7	2-Methylphenol	680 u
39638-32-9	bis(2-chloroisopropyl)Ether	680 u
106-44-5	4-Methylpheno	680 u
621-64-7	N-Nitroso-Di-n-Propylamine	680 u
67-72-1	Hexachloroethane	680 u
98-95-3	Nitrobenzene	680 u
78-59-1	Isophorone	680 u
88-75-5	2-Nitrophenol	680 u
105-67-9	2. 4-Dimethylphenol	680 u
65-85-0	Benzoic Acid	3400 u
111-91-1	bis(-2-Chloroethoxy)Methane	680 u
120-83-2	2 4-Dichlorophenol	680 u
120-82-1	1. 2. 4-Trichlorobenzene	680 u
91-20-3	Naphthalene	680 u
106-47-8	4-Chloroaniline	680 u
87-68-3	Hexachlorobutadiene	680 u
59-50-7	4-Chloro-3-Methylphenol	680 u
91-57-6	2-Methylnaphthalene	680 u
77-47-4	Hexachlorocyclopentadiene	680 u J
88-06-2	2. 4 6-Trichlorophenol	680 u
95-95-4	2. 4. 5-Trichlorophenol	3400 u
91-58-7	2-Chloronaphthalene	680 u
88-74-4	2-Nitroaniline	3400 u
131-11-3	Dimethyl Phthalate	680 u
208-96-8	Acenaphthylene	680 u
99-09-2	3-Nitroaniline	3400 u

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	680 u
51-28-5	2. 4-Dinitrophenol	3400 u
100-02-7	4-Nitrophenol	3400 u
132-64-9	Dibenzofuran	680 u
121-14-2	2. 4-Dinitrotoluene	680 u
606-20-2	2. 6-Dinitrotoluene	680 u
84-66-2	Diethylphthalate	680 u
7005-72-3	4-Chlorophenyl-phenylether	680 u
86-73-7	Fluorene	680 u
100-01-6	4-Nitroaniline	3400 u
534-52-1	4 6-Dinitro-2-Methylphenol	3400 u
86-30-6	N-Nitrosodiphenylamine (1)	680 u
101-55-3	4-Bromophenyl-phenylether	680 u
118-74-1	Hexachlorobenzene	680 u
87-86-5	Pentachlorophenol	3400 u
85-01-8	Phenanthrene	680 u
120-12-7	Anthracene	680 u
84-74-2	Di-n-Butylphthalate	250 J
206-44-0	Fluoranthene	680 u
129-00-0	Pyrene	680 u J
85-68-7	Butylbenzylphthalate	320 J
91-94-1	3. 3 -Dichlorobenzidine	1900 N
56-55-3	Benzo(a)Anthracene	680 u
117-81-7	bis(2-Ethylhexyl)Phthalate	2500
218-01-9	Chrysene	680 u
117-84-0	Di-n-Octyl Phthalate	680 u
205-99-2	Benzo(b)Fluoranthene	96 J
207-08-9	Benzo(k)Fluoranthene	680 u
50-32-8	Benzo(a)Pyrene	680 u
193-39-5	Indeno(1. 2. 3-cd)Pyrene	880 N
53-70-3	Dibenz(a h)Anthracene	1100 N
191-24-2	Benzo(g. h. i)Perylene	1200 N

(J) KG

(1)-Cannot be separated from diphenylamine

Laboratory Name Clayton

Case No 7265

7265F-5-028-15

Sample Number EL-687

Organics Analysis Data Sheet
(Page 3)

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Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 18 May 1987

Date Analyzed: 31 ~~May~~ 1987 R.H 6/5/87

Conc/Dil Factor: 0.5 X 0.5 (GPC effect)

Percent Moisture (decanted) 1.72

GPC Cleanup ☑Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	33u
319-85-7	Beta-BHC	33u
319-86-8	Delta-BHC	33u
58-89-9	Gamma-BHC (Lindane)	33u
76-44-8	Heptachlor	33u
309-00-2	Aldrin	33u
1024-57-3	Heptachlor Epoxide	33u
959-98-8	Endosulfan I	33u
60-57-1	Dieldrin	65u
72-55-9	4,4'-DDE	65u
72-20-8	Endrin	65u
33213-65-9	Endosulfan II	65u
72-54-8	4,4'-DDD	65u
1031-07-8	Endosulfan Sulfate	65u
50-29-3	4,4'-DDT	65u
72-43-5	Methoxychlor	330u
53494-70-5	Endrin Ketone	65u
57-74-9	Chlordane	330u
8001-35-2	Toxaphene	650u
12674-11-2	Aroclor-1016	330u
11104-28-2	Aroclor-1221	330u
11141-16-5	Aroclor-1232	330u
53469-21-9	Aroclor-1242	330u
12672-29-6	Aroclor-1248	330u
11097-69-1	Aroclor-1254	650u
11096-82-5	Aroclor-1260	650u

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00g V_t 20,000ul / 40,000ul due to GPC effect / 80,000ul due to 0.5 dil. V_i 1ul

R. Hallal 6/3/87

319

a.K 6-5-87

Laboratory Name Clayton Environmental

Case No 7265

7265 • 5-029-04

Sample Number EL-8887

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Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	—	NO VOLATILE COMPOUNDS DETECTED	VOA	—	—
2.	926829	possible 1-methylethyl ester acetic acid plus 3,5-DIMETHYLHEPTANE unknown	BNA	5.70	800 J
3.	2216300	2,5-DIMETHYL HEPTANE	BNA	6.09	800 J B
4.	123422	4-HYDROXY-4-METHYL-2-PENTANONE *	BNA	6.27	20000 J B
5.	16784461	3-ETHYL-2-METHYL HEXANE	BNA	6.57	1000 J B
6.	110123	5-METHYL-2-HEXANONE	BNA	6.62	2000 J B
7.	2216344	4-METHYL OCTANE	BNA	6.75	2000 J B
8.	2216333	3-METHYL OCTANE	BNA	6.91	3000 J B
9.	—	UNKNOWN, POSSIBLE HYDROCARBON MW 128	BNA	8.27	300 J
10.	—	UNKNOWN COMPOUND	BNA	8.68	500 J
11.	1241947	2-ETHYLHEXYL ~~DIPHENYL~~ PHOSPHONIC ACID, 2-ETHYLHEXYL DIPHENYL ESTER	BNA	31.46	300 J
12.	—	UNKNOWN COMPOUND	BNA	33.11	300 J
13.	—	POSSIBLE TRI-P-CRESYL PHOSPHATE	BNA	34.34	400 J
14.	—	UNKNOWN COMPOUND	BNA	34.48	400 J
15.	—	UNKNOWN HYDROCARBON	BNA	37.91	500 J
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
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28.					
29.					
30.					

>10 6-9-87

* Possible aldol condensation product.

Sample Number
EQL-688

Organics Analysis Data Sheet
(Page 1)

7265 5-028-16

RECEIVED JUL 06 1987

Laboratory Name: Clayton Environmental
Case No: 7265
Lab Sample ID No: B7882 (545558)
QC Report No: NA
Sample Matrix: SOIL
Contract No: 68-01-7100
Data Release Authorized By:
Date Sample Received: 5-13-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 5-19-87
Date Analyzed: 5-19-87
Conc/(Dil Factor): 1 pH 8.5
Percent Moisture: (Not Decanted) 4.91%

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	11 U	J
74-83-9	Bromomethane	11 U	J
75-01-4	Vinyl Chloride	11 U	
75-00-3	Chloroethane	11 U	
75-09-2	Methylene Chloride	3 J	
67-64-1	Acetone	36 B	
75-15-0	Carbon Disulfide	5 U	
75-35-4	1, 1-Dichloroethene	5 U	
75-34-3	1, 1-Dichloroethane	5 U	
156-60-5	Trans-1, 2-Dichloroethene	2 J	
67-66-3	Chloroform	5 U	
107-06-2	1, 2-Dichloroethane	5 U	
78-93-3	2-Butanone	11 U	J
71-55-6	1, 1, 1-Trichloroethane	(17)	
56-23-5	Carbon Tetrachloride	(10)	
108-05-4	Vinyl Acetate	11 U	J
75-27-4	Bromodichloromethane	5 U	

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5 U	
10061-02-6	Trans-1, 3-Dichloropropene	5 U	
79-01-6	Trichloroethene	(9)	
124-48-1	Dibromochloromethane	5 U	
79-00-5	1, 1, 2-Trichloroethane	5 U	
71-43-2	Benzene	5 U	
10061-01-5	cis-1, 3-Dichloropropene	5 U	
110-75-8	2-Chloroethylvinylether	11 U	J
75-25-2	Bromoform	5 U	
108-10-1	4-Methyl-2-Pentanone	11 U	J
591-78-6	2-Hexanone	11 U	J
127-18-4	Tetrachloroethene	9	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U	
108-88-3	Toluene	(6)	
108-90-7	Chlorobenzene	5 U	
100-41-4	Ethylbenzene	5 U	
100-42-5	Styrene	5 U	
	Total Xylenes	5 U	

(J) KG

Data Reporting Qualifiers

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

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

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

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

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

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

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

N Matrix spike compound

N Instrument limit of detection was used because it was higher than the CRDL

A Indicates a value less than the dilution corrected limit of detection but greater than the CRDL

Laboratory Name Clayton Environmental

Case No 7265

Sample Number EL-688

Organics Analysis Data Sheet (Page 2)

7265 • 5.028-17

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Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 5/18/87

Date Analyzed: 5/28/87

Conc/(Dil Factor): 0.25 (0.5 x 0.5 - GPC)

Percent Moisture (Decanted) 4.91%

GPC Cleanup [X] Yes [ ] No

Separatory Funnel Extraction [ ] Yes

Continuous Liquid - Liquid Extraction [ ] Yes

CAS Number		ug/l or ug/Kg (Circle One)
108-95-2	Phenol	1400 U
111-44-4	bis(-2-Chloroethyl)Ether	1400 U
95-57-8	2-Chlorophenol	1400 U
541-73-1	1 3-Dichlorobenzene	1400 U
106-46-7	1 4-Dichlorobenzene	1400 U
100-51-6	Benzyl Alcohol	1400 U
95-50-1	1 2-Dichlorobenzene	1400 U
95-48-7	2-Methylphenol	1400 U
39638-32-9	bis(2-chloroisopropyl)Ether	1400 U
106-44-5	4-Methylpheno	1400 U
621-64-7	N-Nitroso-Di-n-Propylamine	1400 U
67-72-1	Hexachloroethane	1400 U
98-95-3	Nitrobenzene	1400 U
78-59-1	Isophorone	6900
88-75-5	2-Nitrophenol	1400 U
105-67-9	2 4-Dimethylphenol	1400 U
65-85-0	Benzoic Acid	7000 U
111-91-1	bis(-2-Chloroethoxy)Methane	1400 U
120-83-2	2 4-Dichlorophenol	1400 U
120-82-1	1 2 4-Trichlorobenzene	1400 U
91-20-3	Naphthalene	190 J
106-47-8	4-Chloroaniline	1400 U
87-68-3	Hexachlorobutadiene	1400 U
59-50-7	4-Chloro-3-Methylphenol	1400 U
91-57-6	2-Methylnaphthalene	1400 U
77-47-4	Hexachlorocyclopentadiene	1400 U J
88-06-2	2 4 6-Trichlorophenol	1400 U
95-95-4	2 4 5-Trichlorophenol	7000 U
91-58-7	2-Chloronaphthalene	1400 U
88-74-4	2-Nitroaniline	7000 U
131-11-3	Dimethyl Phthalate	1400 U
208-96-8	Acenaphthylene	1400 U
99-09-2	3-Nitroaniline	7000 U

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	1400 U
51-28-5	2 4-Dinitrophenol	7000 U
100-02-7	4-Nitrophenol	7000 U
132-64-9	Dibenzofuran	1400 U
121-14-2	2 4-Dinitrotoluene	1400 U
606-20-2	2 6-Dinitrotoluene	1400 U
84-66-2	Diethylphthalate	550 J
7005-72-3	4-Chlorophenyl-phenylether	1400 U
86-73-7	Fluorene	1400 U
100-01-6	4-Nitroaniline	7000 U
534-52-1	4 6-Dinitro-2-Methylphenol	7000 U
86-30-6	N-Nitrosodiphenylamine (1)	290 J
101-55-3	4-Bromophenyl-phenylether	1400 U
118-74-1	Hexachlorobenzene	1400 U
87-86-5	Pentachlorophenol	7000 U
85-01-8	Phenanthrene	680 J
120-12-7	Anthracene	1400 U
84-74-2	Di-n-Butylphthalate	720 J
206-44-0	Fluoranthene	490 J
129-00-0	Pyrene	600 J
85-68-7	Butylbenzylphthalate	17000
91-94-1	3 3-Dichlorobenzidine	3900 N
56-55-3	Benzo(a)Anthracene	1400 U
117-81-7	bis(2-Ethylhexyl)Phthalate	7100
218-01-9	Chrysene	420 J
117-84-0	Di-n-Octyl Phthalate	1700
205-99-2	Benzo(b)Fluoranthene	870 J
207-08-9	Benzo(k)Fluoranthene	1400 U
50-32-8	Benzo(a)Pyrene	530 J
193-39-5	Indeno(1 2 3-cd)Pyrene	1800 N
53-70-3	Dibenz(a h)Anthracene	2200 N
191-24-2	Benzo(g h i)Perylene	370 J

(J) KG

(1)-Cannot be separated from diphenylamine

7265-5-028-18

Laboratory Name Clayton

Case No 7265

Sample Number EL-688

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Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 18 May 1987

Date Analyzed: 1 June 1987

Conc/(Dil Factor): 0.01 x 0.5 (GPC effect)

Percent Moisture (decanted) 4.91

GPC Cleanup ☑Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		ug/l or (ug/Kg) (Circle One)
319-84-6	Alpha-BHC	1700u
319-85-7	Beta-BHC	1700u
319-86-8	Delta-BHC	1700u
58-89-9	Gamma-BHC (Lindane)	1700u
76-44-8	Heptachlor	1700u
309-00-2	Aldrin	1700u
1024-57-3	Heptachlor Epoxide	1700u
959-98-8	Endosulfan I	1700u
60-57-1	Dieldrin	3400u
72-55-9	4,4'-DDE	3400u
72-20-8	Endrin	3400u
33213-65-9	Endosulfan II	3400u
72-54-8	4,4'-DDD	3400u
1031-07-8	Endosulfan Sulfate	3400u
50-29-3	4,4'-DDT	3400u
72-43-5	Methoxychlor	17000u
53494-70-5	Endrin Ketone	3400u
57-74-9	Chlordane	17000u
8001-35-2	Toxaphene	34000u
12674-11-2	Aroclor-1016	17000u
11104-28-2	Aroclor-1221	17000u
11141-16-5	Aroclor-1232	17000u
53469-21-9	Aroclor-1242	17000u
12672-29-6	Aroclor-1248	17000u
11097-69-1	Aroclor-1254	34000u
11096-82-5	Aroclor-1260	34000u

V_t = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s _____ or W_s 30.00g V_t 20,000 µl (40,000 µl due to GPC effect; 40,00000 due to 0.01 dilt.) V_i 1 µl

R. Hallal 6/3/87

A. Kashat 6-7-87

Laboratory Name Clayton Environmental

Case No 7265

7265 · 5-029-05

Sample Number EL 6888

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Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	—	NO VOLATILE ~~COMPOUNDS~~ DETECTED	VOA	—	—
2.	589344	3-methylhexane	VOA	24.14	8 J
3.	123422	4-HYDROXY-4-METHYL-2-PENTANONE *	BNA	6.24	20000 J B
4.	110123	5-METHYL-2-HEXANONE	BNA	6.60	3000 J B
5.	2216333	3-METHYL OCTANE	BNA	6.91	3000 J B
6.	—	POSSIBLE OCTANOIC ACID	BNA	13.55	6000 J
7.	112345	2-(2-BUTOXYETHOXY)-ETHANOL	BNA	13.82	3000 J
8.	—	UNKNOWN COMPOUND	BNA	14.55	6000 J
9.	334485	DECANOIC ACID	BNA	17.03	3000 J
10.	—	POSSIBLE HEXADECANE PLUS UNKNOWN	BNA	20.80	6000 J
11.	—	UNKNOWN COMPOUND	BNA	21.21	5000 J
12.	—	UNKNOWN COMPOUND	BNA	21.84	2000 J
13.	629787	HEPTADECANE	BNA	22.30	3000 J
14.	—	UNKNOWN COMPOUND	BNA	25.05	4000 J
15.	57103	HEXADECANOIC ACID	BNA	25.88	4000 J
16.	—	UNKNOWN COMPOUND	BNA	26.06	2000 J
17.	—	UNKNOWN COMPOUND	BNA	28.29	5000 J
18.	—	UNKNOWN COMPOUND	BNA	31.87	4000 J
19.	—	UNKNOWN COMPOUND	BNA	33.83	40000 J
20.	—	UNKNOWN COMPOUND	BNA	35.65	30000 J
21.	—	UNKNOWN COMPOUND (possible brominated)	BNA	36.93	9000 J
22.	—	UNKNOWN COMPOUND	BNA	37.60	4000 J
23.	—	UNKNOWN HYDROCARBON PLUS UNKNOWN	BNA	37.93	3000 J
24.	—	UNKNOWN COMPOUND (possibly brominated cmpd)	BNA	39.26	20000 J
25.	—	UNKNOWN COMPOUND (possibly brominated cmpd)	BNA	39.76	40000 J
26.					
27.					
28.					
29.					
30.					

AS 5/21/87

* Possible aldol condensation product.

Sample Number
OEL-689

Organics Analysis Data Sheet
(Page 1)

7265 5-028-19

Laboratory Name: Clayton Environmental
Case No: 7265
Lab Sample ID No: B7820 (545560)
QC Report No: NA
Sample Matrix: WATER
Contract No: 68-01-7100
Data Release Authorized By:
Date Sample Received: 5-13-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 5-16-87
Date Analyzed: 5-16-87
Conc/(Dil Factor): 1 pH 6-9
Percent Moisture: (Not Decanted) NA

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

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	15	
10061-02-6	Trans-1, 3-Dichloropropene	5 u	
79-01-6	Trichloroethene	4 J	
124-48-1	Dibromochloromethane	5 u	
79-00-5	1, 1, 2-Trichloroethane	5 u	
71-43-2	Benzene	5 u	
10061-01-5	cis-1, 3-Dichloropropene	5 u	
110-75-8	2-Chloroethylvinylether	10 u	
75-25-2	Bromoform	5 u	
108-10-1	4-Methyl-2-Pentanone	10 u	J
591-78-6	2-Hexanone	10 u	J
127-18-4	Tetrachloroethene	5 u	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 u	
108-88-3	Toluene	5 u	
108-90-7	Chlorobenzene	5 u	
100-41-4	Ethylbenzene	5 u	
100-42-5	Styrene	5 u	
	Total Xylenes	5 u	

Data Reporting Qualifiers

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

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

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

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

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

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

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

M Matrix spike compound

N Instrument limit of detection was used because it was higher than the CRDL

A Indicates a value less than the dilution corrected limit of detection but greater than the CRDL

Laboratory Name: Clayton Environmental

Case No: 7265

Sample Number: EP-689 RE

7265 · 5028-20

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Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 6/10/87

Date Analyzed: 6/10/87

Conc/Dil Factor: 1

Percent Moisture (Decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

CAS Number		ug/l or ug/Kg (Circle One)
83-32-9	Acenaphthene	10 u
51-28-5	2, 4-Dinitrophenol	50 u
100-02-7	4-Nitrophenol	50 u
132-64-9	Dibenzofuran	10 u
121-14-2	2, 4-Dinitrotoluene	10 u
606-20-2	2, 6-Dinitrotoluene	10 u
84-66-2	Diethylphthalate	10 u
7005-72-3	4-Chlorophenyl-phenylether	10 u
86-73-7	Fluorene	10 u
100-01-6	4-Nitroaniline	50 u
534-52-1	4, 6-Dinitro-2-Methylphenol	50 u
86-30-6	N-Nitrosodiphenylamine (1)	10 u
101-55-3	4-Bromophenyl-phenylether	10 u
118-74-1	Hexachlorobenzene	10 u
87-86-5	Pentachlorophenol	50 u
85-01-8	Phenanthrene	10 u
120-12-7	Anthracene	10 u
84-74-2	Di-n-Butylphthalate	10 u
206-44-0	Fluoranthene	10 u
129-00-0	Pyrene	10 u
85-68-7	Butylbenzylphthalate	10 u
91-94-1	3, 3'-Dichlorobenzidine	28 N
56-55-3	Benzo(a)Anthracene	10 u
117-81-7	bis(2-Ethylhexyl)Phthalate	1 J
218-01-9	Chrysene	10 u
117-84-0	Di-n-Octyl Phthalate	10 u
205-99-2	Benzo(b)Fluoranthene	11 N
207-08-9	Benzo(k)Fluoranthene	10 u
50-32-8	Benzo(a)Pyrene	10 u
193-39-5	Indeno(1, 2, 3-cd)Pyrene	13 N
53-70-3	Dibenz(a, h)Anthracene	16 N
191-24-2	Benzo(g, h, i)Perylene	17 N

(J) KG

(1)-Cannot be separated from diphenylamine

Laboratory Name Clayton

Case No 7265

Sample Number
E6689

Organics Analysis Data Sheet
(Page 3)

7265-5

~~7265-5~~ 028-21

JG 6-12-87

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Pesticide/PCBs

Concentration: Low Medium (Circle One)

Date Extracted/Prepared: 15 May 1987

Date Analyzed: 27 May 1987

Conc/Oil Factor: 1

Percent Moisture (decanted) —

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☑Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_t 10000 ul V_i 1.0 ul

415

A. Kashat 5-29-87
R. Hallal 6-8-87

7265 • 5-029-06

Laboratory Name Clayton Environmental

Case No 7265

Sample Number 689

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Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

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

7265 • 5-029-07

Laboratory Name Clayton Environmental

Case No 7265

Sample Number
EEL-689 RE

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Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	—	UNKNOWN COMPOUND	BNA	17.65	10 J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Sample Number
EL-690

Organics Analysis Data Sheet
(Page 1)

7265 5-028-22

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Laboratory Name: Clayton Environmental
Lab Sample ID No: B7821 (545562)
Sample Matrix: WATER
Data Release Authorized By: [signature]

Case No: 7265
QC Report No: NA
Contract No: 68-01-7100
Date Sample Received: 5-14-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 5-16-87
Date Analyzed: 5-16-87
Conc/(Dil Factor): 1 pH 7.1
Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10 U	J
74-83-9	Bromomethane	10 U	
75-01-4	Vinyl Chloride	10 U	
75-00-3	Chloroethane	10 U	
75-09-2	Methylene Chloride	1 J B	
67-64-1	Acetone	43 B	J
75-15-0	Carbon Disulfide	5 U	
75-35-4	1, 1-Dichloroethene	5 U	
75-34-3	1, 1-Dichloroethane	5 U	
156-60-5	Trans-1, 2-Dichloroethene	5 U	
67-66-3	Chloroform	5 U	
107-06-2	1, 2-Dichloroethane	5 U	
78-93-3	2-Butanone	10 U	J
71-55-6	1, 1, 1-Trichloroethane	5 U	
56-23-5	Carbon Tetrachloride	5 U	
108-05-4	Vinyl Acetate	10 U	J
75-27-4	Bromodichloromethane	5 U	

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

(J) KG

Data Reporting Qualifiers

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

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

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

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

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

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

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

N Matrix spike compound

N Instrument limit of detection was used because it was higher than the CRDL

432 **A** Indicates a value less than the dilution corrected limit of detection but greater than the CRDL

✓ 9

Laboratory Name: Clayton Enviromental

Case No: 7265

Sample Number: GX-690

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7265 5-028-23

Organics Analysis Data Sheet (Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 5/15/87

Date Analyzed: 5/29/87

Conc/Dil Factor: 1

Percent Moisture (Decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	10 U	
51-28-5	2,4-Dinitrophenol	50 U	
100-02-7	4-Nitrophenol	50 U	
132-64-9	Dibenzofuran	10 U	
121-14-2	2,4-Dinitrotoluene	10 U	
606-20-2	2,6-Dinitrotoluene	10 U	
84-66-2	Diethylphthalate	10 U	
7005-72-3	4-Chlorophenyl-phenylether	10 U	
86-73-7	Fluorene	10 U	
100-01-6	4-Nitroaniline	50 U	
534-52-1	4,6-Dinitro-2-Methylphenol	50 U	
86-30-6	N-Nitrosodiphenylamine (1)	10 U	
101-55-3	4-Bromophenyl-phenylether	10 U	
118-74-1	Hexachlorobenzene	10 U	
87-86-5	Pentachlorophenol	50 U	
85-01-8	Phenanthrene	10 U	
120-12-7	Anthracene	10 U	
84-74-2	Di-n-Butylphthalate	10 U	
206-44-0	Fluoranthene	10 U	
129-00-0	Pyrene	10 U	J
85-68-7	Butylbenzylphthalate	10 U	
91-94-1	3,3'-Dichlorobenzidine	28 N	
56-55-3	Benzo(a)Anthracene	10 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	10 U	
218-01-9	Chrysene	10 U	
117-84-0	Di-n-Octyl Phthalate	10 U	
205-99-2	Benzo(b)Fluoranthene	11 N	
207-08-9	Benzo(k)Fluoranthene	10 U	
50-32-8	Benzo(a)Pyrene	10 U	
193-39-5	Indeno(1,2,3-cd)Pyrene	13 N	
53-70-3	Dibenzo(a,h)Anthracene	16 N	
191-24-2	Benzo(g,h,i)Perylene	17 N	

(1)-Cannot be separated from diphenylamine

(J) KG

Laboratory Name Clayton

Case No 7265

Sample Number
EL-690

Organics Analysis Data Sheet
(Page 3)

7265 • 5-028-24

RECEIVED JUN 09 1987

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 15 May 1987

Date Analyzed: 27 May 1987

Conc/(Dil Factor): 1

Percent Moisture (decanted): <

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☑Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000ml or W_s _____ V_t 10000ul V_i 1.0 ul

A. Kashat 5-29-87
R. Hallal 6-8-87

Laboratory Name Clayton Environmental

Case No 7265

7265 · 5-029-08

Sample Number RE4-690

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Organics Analysis Data Sheet
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Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	—	NO VOLATILE COMPOUNDS DETECTED	VOA	—	—
2.		NO semivolatile compounds detected	BNA	—	—
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27.					
28.					
29.					
30.					

Sample Number
EL-881

Organics Analysis Data Sheet
(Page 1)

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RECEIVED JUL 06 1987

Laboratory Name: Clayton Environmental
Case No: 7265
Lab Sample ID No: B7863 (545565)
QC Report No: NA
Sample Matrix: WATER
Contract No: 68-01-7100
Data Release Authorized By:
Date Sample Received: 5-14-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 5-18-87
Date Analyzed: 5-18-87
Conc/Dil Factor: 0.8 pH 7.0
Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	12 U	
74-83-9	Bromomethane	12 U	
75-01-4	Vinyl Chloride	(29)	
75-00-3	Chloroethane	(39)	
75-09-2	Methylene Chloride	6 U	
67-64-1	Acetone	16 B	J
75-15-0	Carbon Disulfide	6 U	
75-35-4	1, 1-Dichloroethene	6 U	
75-34-3	1, 1-Dichloroethane	(45)	
156-60-5	Trans-1, 2-Dichloroethene	69	
67-66-3	Chloroform	6 U	
107-06-2	1, 2-Dichloroethane	6 U	
78-93-3	2-Butanone	12 U	J
71-55-6	1, 1, 1-Trichloroethane	(15)	
56-23-5	Carbon Tetrachloride	6 U	
108-05-4	Vinyl Acetate	12 U	
75-27-4	Bromodichloromethane	6 U	

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	(190)	
10061-02-6	Trans-1, 3-Dichloropropene	6 U	
79-01-6	Trichloroethene	1 J	
124-48-1	Dibromochloromethane	6 U	
79-00-5	1, 1, 2-Trichloroethane	6 U	J
71-43-2	Benzene	6 U	
10061-01-5	cis-1, 3-Dichloropropene	6 U	
110-75-8	2-Chloroethylvinylether	12 U	
75-25-2	Bromoform	6 U	
108-10-1	4-Methyl-2-Pentanone	12 U	
591-78-6	2-Hexanone	12 U	
127-18-4	Tetrachloroethene	6 U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	6 U	
108-88-3	Toluene	2 J	
108-90-7	Chlorobenzene	6 U	
100-41-4	Ethylbenzene	(7)	
100-42-5	Styrene	6 U	
	Total Xylenes	6 U	

(J) KG

Data Reporting Qualifiers

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

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

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

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

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

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

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

M Matrix spike compound

N Instrument limit of detection was used because it was higher than the CRDL

A Indicates a value less than the dilution corrected limit of detection but greater than the CRDL

Laboratory Name: Clayton Environmental

Case No: 7265

Sample Number: PBL-691

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Organics Analysis Data Sheet (Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 5/15/87

Date Analyzed: 6/8/87

Conc/Dil Factor: 1

Percent Moisture (Decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

CAS Number		(ug/l or ug/Kg (Circle One))
83-32-9	Acenaphthene	10 U
51-28-5	2,4-Dinitrophenol	50 U
100-02-7	4-Nitrophenol	50 U
132-64-9	Dibenzofuran	10 U
121-14-2	2,4-Dinitrotoluene	10 U
606-20-2	2,6-Dinitrotoluene	10 U
84-66-2	Diethylphthalate	10 U
7005-72-3	4-Chlorophenyl-phenylether	10 U
86-73-7	Fluorene	10 U
100-01-6	4-Nitroaniline	50 U
534-52-1	4,6-Dinitro-2-Methylphenol	50 U
86-30-6	N-Nitrosodiphenylamine (1)	10 U
101-55-3	4-Bromophenyl-phenylether	10 U
118-74-1	Hexachlorobenzene	10 U
87-86-5	Pentachlorophenol	50 U
85-01-8	Phenanthrene	10 U
120-12-7	Anthracene	10 U
84-74-2	Di-n-Butylphthalate	10 U
206-44-0	Fluoranthene	10 U
129-00-0	Pyrene	10 U
85-68-7	Butylbenzylphthalate	10 U
91-94-1	3,3'-Dichlorobenzidine	28 N
56-55-3	Benzo(a)Anthracene	10 U
117-81-7	bis(2-Ethylhexyl)Phthalate	4 J
218-01-9	Chrysene	10 U
117-84-0	Di-n-Octyl Phthalate	10 U
205-99-2	Benzo(b)Fluoranthene	11 N
207-08-9	Benzo(k)Fluoranthene	10 U
50-32-8	Benzo(a)Pyrene	10 U
193-39-5	Indeno(1,2,3-cd)Pyrene	13 N
53-70-3	Dibenz(a,h)Anthracene	16 N
191-24-2	Benzo(g,h,i)Perylene	17 N

(J) KG

(1)-Cannot be separated from diphenylamine

Laboratory Name Clayton

Case No 7265

Sample Number
EL-691

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7265-5-028-27

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 15 May 1987

Date Analyzed 27 May 1987

Conc/(Dil Factor) 1

Percent Moisture (decanted) —

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☑Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000ml or W_s — V_t 10000ul V_i 1.0ul

a. Kashat 5-29-87
R. Hallal 6-8-87

Laboratory Name Clayton Environmental

Case No 7265

7265 • 5-029-09

Sample Number EE-691

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Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. 115071	1-PROPENE	VOA	2.94	10 J
2. —	BACKGROUND ARGON + CO_2 (SYSTEM ARTIFACT)	VOA	8.14	40 J
3. —	UNKNOWN COMPOUND (possibly chlorinated)	VOA	11.86	8 J
4. —	unknown compound	BNA	7.82	10 J
5. —	unknown compound	BNA	17.73	50 J
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Sample Number
EL-692

Organics Analysis Data Sheet
(Page 1)

7265 5-028-28

RECEIVED JUL 0 6 1987

Laboratory Name: Clayton Environmental
Case No: 7265
Lab Sample ID No: B7867 (545569)
QC Report No: NA
Sample Matrix: WATER
Contract No: 68-01-7100
Data Release Authorized By: [signature]
Date Sample Received: 5-14-87

Volatile Compounds

Concentration: Low Medium (Circle One)
Date Extracted/Prepared: 5-18-87
Date Analyzed: 5-18-87
Conc/Dil Factor: 0.025 pH 6.9
Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)
74-87-3	Chloromethane	400 U
74-83-9	Bromomethane	400 U
75-01-4	Vinyl Chloride	400 U
75-00-3	Chloroethane	400 U
75-09-2	Methylene Chloride	39 J
67-64-1	Acetone	260 JB
75-15-0	Carbon Disulfide	200 U
75-35-4	1, 1-Dichloroethene	200 U
75-34-3	1, 1-Dichloroethane	72 J
156-60-5	Trans-1, 2-Dichloroethene	200 U
67-66-3	Chloroform	200 U
107-06-2	1, 2-Dichloroethane	200 U
78-93-3	2-Butanone	400 U J
71-55-6	1, 1, 1-Trichloroethane	200 U
56-23-5	Carbon Tetrachloride	200 U
108-05-4	Vinyl Acetate	400 U
75-27-4	Bromodichloromethane	200 U

CAS Number		ug/l or ug/Kg (Circle One)
78-87-5	1, 2-Dichloropropane	200 U
10061-02-6	Trans-1, 3-Dichloropropene	200 U
79-01-6	Trichloroethene	200 U
124-48-1	Dibromochloromethane	200 U
79-00-5	1, 1, 2-Trichloroethane	200 U
71-43-2	Benzene	200 U
10061-01-5	cis-1, 3-Dichloropropene	200 U
110-75-8	2-Chloroethylvinylether	400 U
75-25-2	Bromoform	200 U
108-10-1	4-Methyl-2-Pentanone	400 U
591-78-6	2-Hexanone	400 U
127-18-4	Tetrachloroethene	200 U J
79-34-5	1, 1, 2, 2-Tetrachloroethane	200 U
108-88-3	Toluene	3500
108-90-7	Chlorobenzene	200 U
100-41-4	Ethylbenzene	2700
100-42-5	Styrene	200 U
	Total Xylenes	9400

(J) KG

Data Reporting Qualifiers

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

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

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

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

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

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

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

M Matrix spike compound

N Instrument limit of detection was used because it was higher than the CRDL

A Indicates a value less than the dilution corrected limit of detection but greater than the CRDL

Laboratory Name: Clayton Environmental

Case No: 7265

Sample Number: EL-692

7265.5-28-29

RECEIVED JUL 06 1987

Organics Analysis Data Sheet (Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 5/15/87

Date Analyzed: 6/1/87

Conc/(Dil Factor): 1

Percent Moisture (Decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l or ug/Kg (Circle One))	
108-95-2	Phenol	10 U	
111-44-4	bis(-2-Chloroethyl)Ether	10 U	
95-57-8	2-Chlorophenol	10 U	
541-73-1	1, 3-Dichlorobenzene	10 U	
106-46-7	1, 4-Dichlorobenzene	10 U	
100-51-6	Benzyl Alcohol	10 U	
95-50-1	1, 2-Dichlorobenzene	10 U	
95-48-7	2-Methylphenol	10 U	
39638-32-9	bis(2-chloroisopropyl)Ether	10 U	
106-44-5	4-Methylphenol	(18) =	
621-64-7	N-Nitroso-Di-n-Propylamine	10 U	
67-72-1	Hexachloroethane	10 U	
98-95-3	Nitrobenzene	10 U	
78-59-1	Isophorone	10 U	
88-75-5	2-Nitrophenol	10 U	
105-67-9	2, 4-Dimethylphenol	8 J =	
65-85-0	Benzoic Acid	50 U	
111-91-1	bis(-2-Chloroethoxy)Methane	10 U	
120-83-2	2, 4-Dichlorophenol	10 U	
120-82-1	1, 2, 4-Trichlorobenzene	10 U	
91-20-3	Naphthalene	(18) =	
106-47-8	4-Chloroaniline	10 U	
87-68-3	Hexachlorobutadiene	10 U	
59-50-7	4-Chloro-3-Methylphenol	10 U	
91-57-6	2-Methylnaphthalene	10 U	
77-47-4	Hexachlorocyclopentadiene	10 U	J
88-06-2	2, 4, 6-Trichlorophenol	10 U	
95-95-4	2, 4, 5-Trichlorophenol	50 U	
91-58-7	2-Chloronaphthalene	10 U	
88-74-4	2-Nitroaniline	50 U	
131-11-3	Dimethyl Phthalate	10 U	
208-96-8	Acenaphthylene	10 U	J
99-09-2	3-Nitroaniline	50 U	

CAS Number		(ug/l or ug/Kg (Circle One))	
83-32-9	Acenaphthene	10 U	
51-28-5	2, 4-Dinitrophenol	50 U	
100-02-7	4-Nitrophenol	50 U	J
132-64-9	Dibenzofuran	10 U	
121-14-2	2, 4-Dinitrotoluene	10 U	
606-20-2	2, 6-Dinitrotoluene	10 U	
84-66-2	Diethylphthalate	10 U	
7005-72-3	4-Chlorophenyl-phenylether	10 U	
86-73-7	Fluorene	10 U	
100-01-6	4-Nitroaniline	50 U	
534-52-1	4, 6-Dinitro-2-Methylphenol	50 U	
86-30-6	N-Nitrosodiphenylamine (1)	10 U	
101-55-3	4-Bromophenyl-phenylether	10 U	
118-74-1	Hexachlorobenzene	10 U	J
87-86-5	Pentachlorophenol	50 U	
85-01-8	Phenanthrene	10 U	J
120-12-7	Anthracene	10 U	
84-74-2	Di-n-Butylphthalate	10 U	
206-44-0	Fluoranthene	10 U	
129-00-0	Pyrene	10 U	J
85-68-7	Butylbenzylphthalate	10 U	
91-94-1	3, 3'-Dichlorobenzidine	28 N	
56-55-3	Benzo(a)Anthracene	10 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	10 U	
218-01-9	Chrysene	10 U	
117-84-0	Di-n-Octyl Phthalate	10 U	
205-99-2	Benzo(b)Fluoranthene	11 N	J
207-08-9	Benzo(k)Fluoranthene	10 U	
50-32-8	Benzo(a)Pyrene	10 U	
193-39-5	Indeno(1, 2, 3-cd)Pyrene	13 N	
53-70-3	Dibenzo(a, h)Anthracene	16 N	
191-24-2	Benzo(g, h, i)Perylene	17 N	J

(1)-Cannot be separated from diphenylamine

(J) KG

Laboratory Name Clayton

Case No 7265

Sample Number
EL-692

7265 · 5-028-30

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 15 May 1987

Date Analyzed: 27 May 1987

Conc/(Dil Factor): 0.2

Percent Moisture (decanted) ———

GPC Cleanup ☐Yes ☐No

Separatory Funnel Extraction ☐Yes

Continuous Liquid - Liquid Extraction ☐Yes

CAS Number		(ug/l or ug/Kg (Circle One)
319-84-6	Alpha-BHC	0.25u
319-85-7	Beta-BHC	0.25u
319-86-8	Delta-BHC	0.25u
58-89-9	Gamma-BHC (Lindane)	0.25u
76-44-8	Heptachlor	0.25u
309-00-2	Aldrin	0.25u
1024-57-3	Heptachlor Epoxide	0.25u
959-98-8	Endosulfan I	0.25u
60-57-1	Dieldrin	0.50u
72-55-9	4,4'-DDE	0.50u
72-20-8	Endrin	0.50u
33213-65-9	Endosulfan II	0.50u
72-54-8	4,4'-DDD	0.50u
1031-07-8	Endosulfan Sulfate	0.50u
50-29-3	4,4'-DDT	0.50u
72-43-5	Methoxychlor	2.5u
53494-70-5	Endrin Ketone	0.50u
57-74-9	Chlordane	2.5u
8001-35-2	Toxaphene	5.0u
12674-11-2	Aroclor-1016	2.5u
11104-28-2	Aroclor-1221	2.5u
11141-16-5	Aroclor-1232	2.5u
53469-21-9	Aroclor-1242	2.5u
12672-29-6	Aroclor-1248	2.5u
11097-69-1	Aroclor-1254	5.0u
11096-82-5	Aroclor-1260	5.0u

V_t = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000ml or W_s ——— V_t 10000ul / 50000ul - 0.2dil V_i 1.0ul

477

G. Kaskot 5-29-87
R. Hallal 6-8-87

7265 • 5-029-10

Laboratory Name Clayton Environmental

Case No 7265

Sample Number EL-692

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Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1. —	BACKGROUND ARGON + CO_2 (SYSTEM ARTIFACT)	VOA	8.10	2000 J
2. 108883	TOLUENE	BNA	4.70	2000 J
3. 100414	ETHYL BENZENE	BNA	6.75	2000 J
4. 108383	M-XYLENE	BNA	6.98	6000 J
5. 1330207	XYLENE (O+P-XYLENE)	BNA	7.47	1000 J
6. 98828	1-METHYLETHYLBENZENE	BNA	8.16	40 J
7. 103651	PROPYLBENZENE	BNA	8.82	30 J
8. —	ETHYLMETHYLBENZENE	BNA	9.01	200 J
9. —	TRIMETHYLBENZENE	BNA	9.16	60 J
10. —	ETHYLMETHYLBENZENE	BNA	9.41	50 J
11. —	TRIMETHYLBENZENE	BNA	9.72	200 J
12. —	TRIMETHYLBENZENE	BNA	10.36	50 J
13. 496117	2,3-DIHYDRO-1H-INDENE	BNA	10.65	20 J
14. 873949	3,3,5-TRIMETHYLCYCLOHEXANONE	BNA	10.73	200 J
15. 116029	3,3,5-TRIMETHYLCYCLOHEXANOL	BNA	11.00	100 J
16. —	UNKNOWN COMPOUND	BNA	11.08	20 J
17. —	POSSIBLE DIBUTOXYMETHANOL	BNA	4.13	20 J
18. —	UNKNOWN COMPOUND (alkyl benzene)	BNA	11.32	10 J
19. —	UNKNOWN COMPOUND	BNA	12.04	10 J
20. —	TETRAMETHYLBENZENE	BNA	12.44	10 J
21. —	UNKNOWN COMPOUND	BNA	12.85	20 J
22. 824226	2,3-DIHYDRO-4-METHYL-1H-INDENE	BNA	13.08	10 J
23. —	UNKNOWN COMPOUND	BNA	17.91	10 J
24. 10544500	MOL. SULFUR	BNA	27.32	40 J
25.				
26.				
27.				
28.				
29.				
30.				

Sample Number
EL-693

Organics Analysis Data Sheet
(Page 1)

7265 • 8-028-31

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Laboratory Name: Clayton Environmental
Lab Sample ID No: B7825 (545570)
Sample Matrix: WATER
Data Release Authorized By:

Case No: 7265
QC Report No: NA
Contract No: 68-01-7100
Date Sample Received: 5-14-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 5-16-87
Date Analyzed: 5-16-87
Cond/(Dil Factor): 1 pH 8.1
Percent Moisture: (Not Decanted) NA

CAS Number		ug/l or ug/Kg (Circle One)	
74-87-3	Chloromethane	10 U	J
74-83-9	Bromomethane	10 U	
75-01-4	Vinyl Chloride	10 U	
75-00-3	Chloroethane	10 U	
75-09-2	Methylene Chloride	0.6 JB	
67-64-1	Acetone	4 JB	
75-15-0	Carbon Disulfide	5 U	
75-35-4	1, 1-Dichloroethene	5 U	
75-34-3	1, 1-Dichloroethane	5 U	
156-60-5	Trans-1, 2-Dichloroethene	5 U	
67-66-3	Chloroform	5 U	
107-06-2	1, 2-Dichloroethane	5 U	
78-93-3	2-Butanone	10 U	J
71-55-6	1, 1, 1-Trichloroethane	5 U	
56-23-5	Carbon Tetrachloride	5 U	
108-05-4	Vinyl Acetate	10 U	J
75-27-4	Bromodichloromethane	5 U	

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	5 U	
10061-02-6	Trans-1, 3-Dichloropropene	5 U	
79-01-6	Trichloroethene	5 U	
124-48-1	Dibromochloromethane	5 U	
79-00-5	1, 1, 2-Trichloroethane	5 U	
71-43-2	Benzene	5 U	
10061-01-5	cis-1, 3-Dichloropropene	5 U	
110-75-8	2-Chloroethylvinylether	10 U	
75-25-2	Bromoform	5 U	
108-10-1	4-Methyl-2-Pentanone	10 U	J
591-78-6	2-Hexanone	10 U	J
127-18-4	Tetrachloroethene	5 U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U	
108-88-3	Toluene	0.6 J	
108-90-7	Chlorobenzene	5 U	
100-41-4	Ethylbenzene	5 U	
100-42-5	Styrene	5 U	
	Total Xylenes	5 U	

(J) KG

Data Reporting Qualifiers

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

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

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

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

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

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

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

N — Matrix spike compound

N — Instrument limit of detection was used because it was higher than the CRDL

522 **A** — Indicates a value less than the dilution corrected limit of detection but greater than the CRDL

1/4

Laboratory Name: Clayton Environmental

Case No: 7265

Sample Number: BK-693

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7265 5-028-32

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 5/15/87

Date Analyzed: 6/1/87

Conc/Dil Factor: 1

Percent Moisture (Decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

CAS Number		ug/l or ug/Kg (Circle One)	
83-32-9	Acenaphthene	10 U	
51-28-5	2,4-Dinitrophenol	50 U	
100-02-7	4-Nitrophenol	50 U	J
132-64-9	Dibenzofuran	10 U	
121-14-2	2,4-Dinitrotoluene	10 U	
606-20-2	2,6-Dinitrotoluene	10 U	
84-66-2	Diethylphthalate	10 U	
7005-72-3	4-Chlorophenyl-phenylether	10 U	
86-73-7	Fluorene	10 U	
100-01-6	4-Nitroaniline	50 U	
534-52-1	4,6-Dinitro-2-Methylphenol	50 U	
86-30-6	N-Nitrosodiphenylamine (1)	10 U	
101-55-3	4-Bromophenyl-phenylether	10 U	
118-74-1	Hexachlorobenzene	10 U	
87-86-5	Pentachlorophenol	50 U	
85-01-8	Phenanthrene	10 U	
120-12-7	Anthracene	10 U	
84-74-2	Di-n-Butylphthalate	10 U	
206-44-0	Fluoranthene	10 U	
129-00-0	Pyrene	10 U	
85-68-7	Butylbenzylphthalate	10 U	
91-94-1	3,3'-Dichlorobenzidine	28 N	
56-55-3	Benzo(a)Anthracene	10 U	
117-81-7	bis(2-Ethylhexyl)Phthalate	10 U	
218-01-9	Chrysene	10 U	
117-84-0	Di-n-Octyl Phthalate	10 U	
205-99-2	Benzo(b)Fluoranthene	11 N	
207-08-9	Benzo(k)Fluoranthene	10 U	
50-32-8	Benzo(a)Pyrene	10 U	
193-39-5	Indeno(1,2,3-cd)Pyrene	13 N	
53-70-3	Dibenzo(a,h)Anthracene	16 N	
191-24-2	Benzo(g,h,i)Perylene	17 N	

(1)-Cannot be separated from diphenylamine

(J) KG

Laboratory Name Clayton

Case No 7265

Sample Number
EL-693

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7265 5-028-33

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration (Low) Medium (Circle One)

Date Extracted/Prepared 15 May 1987

Date Analyzed 27 May 1987

Conc/(Dil Factor) 1

Percent Moisture (decanted) —

GPC Cleanup ☐Yes ☑No

Separatory Funnel Extraction ☑Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000ml or W_s ____ V_t 10000ul V_i 1.0ul

524 A. Kashat 5-29-87
R. Hallal 6-8-87

7265 · 5-029-11

Laboratory Name Clayton Environmental

Case No 7265

Sample Number EL-6693

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Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	75285	2-METHYL PROPANE (ISOBUTANE)	VOA	7.06	20 J
2.	—	No semi-volatiles compound detected	BNA	—	—
3.					
4.					
5.					
6.					
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30.					

Sample Number
EL-694

Organics Analysis Data Sheet
(Page 1)

7265 • 5-028-34

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Laboratory Name: Clayton Environmental
Case No: 7265
Lab Sample ID No: B7862 (545573)
QC Report No: NA
Sample Matrix: WATER
Contract No: 68-01-7100
Data Release Authorized By:
Date Sample Received: 5-14-87

Volatile Compounds

Concentration: (Low) Medium (Circle One)
Date Extracted/Prepared: 5-18-87
Date Analyzed: 5-18-87
Cond (Dil Factor): 1 pH 6.9
Percent Moisture: (Not Decanted) NA

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

CAS Number		ug/l or ug/Kg (Circle One)	
78-87-5	1, 2-Dichloropropane	(16)	
10061-02-6	Trans-1, 3-Dichloropropene	5 U	
79-01-6	Trichloroethene	4 J	
124-48-1	Dibromochloromethane	5 U	
79-00-5	1, 1, 2-Trichloroethane	5 U	
71-43-2	Benzene	5 U	
10061-01-5	cis-1, 3-Dichloropropene	5 U	
110-75-8	2-Chloroethylvinylether	10 U	
75-25-2	Bromoform	5 U	
108-10-1	4-Methyl-2-Pentanone	10 U	
591-78-6	2-Hexanone	10 U	
127-18-4	Tetrachloroethene	5 U	
79-34-5	1, 1, 2, 2-Tetrachloroethane	5 U	J
108-88-3	Toluene	5 U	
108-90-7	Chlorobenzene	5 U	
100-41-4	Ethylbenzene	5 U	
100-42-5	Styrene	5 U	
	Total Xylenes	5 U	

(J) KG

Data Reporting Qualifiers

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

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

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

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

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

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

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

N Matrix spike compound

N Instrument limit of detection was used because it was higher than the CRDL

A Indicates a value less than the dilution corrected limit of detection but greater than the CRDL

537

Laboratory Name Clayton Environmental

Case No 7265

Sample Number EL-6941

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7265 • 5 - 02835

Organics Analysis Data Sheet
(Page 2)

Semivolatile Compounds

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared 6/10/87

Date Analyzed 6/10/87

Conc/(Dil Factor): 0.5

Percent Moisture (Decanted) NA

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

CAS Number		(ug/l or ug/Kg) (Circle One)	
83-32-9	Acenaphthene	20	u
51-28-5	2 4-Dinitrophenol	100	u
100-02-7	4-Nitrophenol	100	u
132-64-9	Dibenzofuran	20	u
121-14-2	2 4-Dinitrotoluene	20	u
606-20-2	2 6-Dinitrotoluene	20	u
84-66-2	Diethylphthalate	20	u
7005-72-3	4-Chlorophenyl-phenylether	20	u
86-73-7	Fluorene	20	u
100-01-6	4-Nitroaniline	100	u
534-52-1	4 6-Dinitro-2-Methylphenol	100	u
86-30-6	N-Nitrosodiphenylamine (1)	20	u
101-55-3	4-Bromophenyl-phenylether	20	u
118-74-1	Hexachlorobenzene	20	u
87-86-5	Pentachlorophenol	100	u
85-01-8	Phenanthrene	20	u
120-12-7	Anthracene	20	u
84-74-2	Di-n-Butylphthalate	20	u
206-44-0	Fluoranthene	20	u
129-00-0	Pyrene	20	u
85-68-7	Butylbenzylphthalate	20	u
91-94-1	3 3-Dichlorobenzidine	56	N
56-55-3	Benzo(a)Anthracene	20	u
117-81-7	bis(2-Ethylhexyl)Phthalate	380	
218-01-9	Chrysene	20	u
117-84-0	Di-n-Octyl Phthalate	20	u
205-99-2	Benzo(b)Fluoranthene	22	N
207-08-9	Benzo(k)Fluoranthene	20	u
50-32-8	Benzo(a)Pyrene	20	u
193-39-5	Indeno(1 2 3-cd)Pyrene	26	N
53-70-3	Dibenz(a h)Anthracene	32	N
191-24-2	Benzo(g h i)Perylene	34	N

(1)-Cannot be separated from diphenylamine

538 (J) KG

Laboratory Name Clayton

Case No 7265

Sample Number EL-694

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7265 • 5-028

Organics Analysis Data Sheet
(Page 3)

Pesticide/PCBs

Concentration: (Low) Medium (Circle One)

Date Extracted/Prepared: 15 May 1987

Date Analyzed: 27 May 1987

Conc/(Dil Factor): 1

Percent Moisture (decanted): C

GPC Cleanup ☐Yes ☒No

Separatory Funnel Extraction ☒Yes

Continuous Liquid - Liquid Extraction ☐Yes

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

V_i = Volume of extract injected (ul)

V_s = Volume of water extracted (ml)

W_s = Weight of sample extracted (g)

V_t = Volume of total extract (ul)

V_s 1000 ml or W_s _____ V_t 10000 ul V_i 1.0 ul

a. Kaslat 5-29-87
R. Hullal 6-8-87

Laboratory Name Clayton Environmental

Case No 7265

7265 • 5 -029-1

Sample Number EL-6947

RECEIVED JUL 1985

Organics Analysis Data Sheet
(Page 4)

Tentatively Identified Compounds

	CAS Number	Compound Name	Fraction	RT or Scan Number	Estimated Concentration (ug/l or ug/kg)
1.	———	NO VOLATILE COMPOUNDS DETECTED	VOA	———	———
2.	123795	Hexanedioic acid, Dioctyl ester	BNA	30.70	40J
3.					
4.					
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MAY 18 1987

THE MIAMI CONSERVANCY DISTRICT

38 East Monument Avenue
Dayton, Ohio 45402
513 223-1271

SUBDISTRICTS
Clear Creek Watershed • Dicks Creek – Little Muddy Creek • Pleasant Run Watershed
Southern Miami County • Water Conservation

May 13, 1987

Mr. Thomas C. Sullivan
Ecology & Environment
111 West Jackson Street
Chicago, Illinois 60604

Re: Data - Systech Area Franklin, Ohio

Dear Mr. Sullivan:

Enclosed are water level data from the four wells at the Systech site.

You already have copies of Miami Conservancy District drawings 31439, 31440, and 31441 showing the well logs for wells W132, W133, W139 and W140, two borings for the Baxter Road Bridge and the borings made by Soil and Material Engineers, Inc.

If you need additional data, please let us know.

Very truly yours,

THE WATER CONSERVATION SUBDISTRICT
OF THE MIAMI CONSERVANCY DISTRICT

By: James L. Rozelle
General Manager & Chief Engineer

PMP:ly

Enclosures

cc: Mr. Thomas Whittmann
(with enclosures)

Board of Directors

WILLIAM H. HOBART, JR. THOMAS B. RENTSCHLER B. LYLE SHAFER

THE MIAMI CONSERVANCY DISTRICT
WATER CONSERVATION SUBDISTRICT

WATER LEVEL MEASUREMENTS

NAME	DATE	TIME	TAPE AT MEAS.PT.	WET TAPE	DEPTH BMP	WATER ELEV.		REF. ELEV.	dBASE RECORD	
W 132	771114	1302	0.00	0.00	15.95	660.22		676.17	1475	1
W 132	771116	1547	0.00	0.00	15.98	660.19		676.17	1008	2
W 132	771208	1102	16.00	-1.62	14.38	661.79		676.17	1009	3
W 132	771208	1122	17.00	-2.11	14.89	661.28	ON	676.17	1476	4
W 132	771208	1132	17.50	-2.62	14.88	661.29	ON	676.17	1477	5
W 132	780329	1455	15.00	-.68	14.32	661.85		676.17	1010	6
W 132	780614	0940	16.50	-1.05	15.45	660.72		676.17	1011	7
W 132	780725	1310	17.00	-.97	16.03	660.14		676.17	1012	8
W 132	780731	1142	17.50	-1.87	15.63	660.54		676.17	1013	9
W 132	780807	1037	17.00	-1.09	15.91	660.26		676.17	1014	10
W 132	780814	1110	17.00	-1.33	15.67	660.50		676.17	1015	11
W 132	780818	1037	16.50	-.63	15.87	660.30		676.17	1016	12
W 132	780821	0946	18.00	-2.04	15.96	660.21		676.17	1017	13
W 132	780828	1330	17.00	-.95	16.05	660.12		676.17	1018	14
W 132	780905	1200	18.50	-1.34	17.16	659.01		676.17	1019	15
W 132	780911	1152	18.50	-.75	17.75	658.42		676.17	1020	16
W 132	780918	1115	17.00	-1.42	15.58	660.59		676.17	1021	17
W 132	781002	1425	18.50	-2.33	16.17	660.00		676.17	1022	18
W 132	781009	1210	18.00	-1.66	16.34	659.83		676.17	1023	19
W 132	781016	1430	17.50	-1.85	15.65	660.52		676.17	517	20
W 132	781023	1300	18.00	-2.13	15.87	660.30		676.17	518	21
W 132	781030	1410	20.00	-4.12	15.88	660.29		676.17	519	22
W 132	781106	1540	17.00	-1.00	16.00	660.17		676.17	520	23
W 132	781113	1510	17.00	-.98	16.02	660.15		676.17	521	24
W 132	781130	1145	16.50	-.81	15.69	660.48		676.17	1478	25
W 132	781130	1347	16.50	-.81	15.69	660.48	PT	676.17	1536	26
W 132	781130	1440	17.20	-1.50	15.70	660.47	PT	676.17	1537	27
W 132	781130	1529	16.50	-.79	15.71	660.46	PT	676.17	1538	28
W 132	781130	1602	16.50	-.79	15.71	660.46	RCV	676.17	1539	29
W 132	781204	1320	15.00	-.43	14.57	661.60		676.17	522	30
W 132	781211	1445	15.00	-1.28	13.72	662.45		676.17	523	31
W 132	790227	1604	14.00	-.88	13.12	663.05		676.17	524	32
W 132	790424	1405	16.50	-1.45	15.05	661.12		676.17	525	33
W 132	790620	1230	17.50	-1.39	16.11	660.06		676.17	526	34
W 132	790807	1055	16.50	-.98	15.52	660.65		676.17	527	35
W 132	791018	1040	17.00	-2.13	14.87	661.30		676.17	528	36
W 132	791212	1057	20.50	-5.70	14.80	661.37		676.17	529	37
W 132	791214	1037	20.50	-5.70	14.80	661.37		676.17	530	38
W 132	800115	1005	19.50	-5.71	13.79	662.38		676.17	531	39
W 132	800214	1205	21.00	-5.82	15.18	660.99		676.17	532	40
W 132	801217	1205	17.00	-1.12	15.88	660.29		676.17	533	41
W 132	810601	1404	15.00	-.42	14.58	661.59		676.17	534	42
W 132	830210	1126	16.00	-1.14	14.86	661.31		676.17	535	43
W 132	841011	1000	16.00	-.92	15.08	661.09		676.17	536	44
W 132	860307	0959	22.50	-8.81	13.69	662.48		676.17	537	45

THE MIAMI CONSERVANCY DISTRICT
WATER CONSERVATION SUBDISTRICT

WATER LEVEL MEASUREMENTS

NAME	DATE	TIME	TAPE AT MEAS.PT.	WET TAPE	DEPTH BMP	WATER ELEV.	REF. ELEV.	dBASE RECORD	
W 132	860610	1343	17.00	-1.36	15.64	660.53	676.17	538	46
W 132	861027	1527	21.00	-5.22	15.78	660.39	676.17	569	47
W 132	861111	1301	16.60	-.70	15.90	660.27	676.17	1479	48
W 132	861211	1303	22.00	-8.05	13.95	662.22	676.17	1561	49

THE MIAMI CONSERVANCY DISTRICT
WATER CONSERVATION SUBDISTRICT

WATER LEVEL MEASUREMENTS

NAME	DATE	TIME	TAPE AT MEAS.PT.	WET TAPE	DEPTH BMP	WATER ELEV.		REF. ELEV.	dBASE RECORD	
W 133	771114	1258	0.00	0.00	16.40	659.92		676.32	1480	1
W 133	771115	1425	18.00	-1.62	16.38	659.94		676.32	1024	2
W 133	771208	1134	16.50	-1.31	15.19	661.13		676.32	1025	3
W 133	780329	1427	16.50	-1.24	15.26	661.06		676.32	1026	4
W 133	780614	0913	17.00	-.90	16.10	660.22		676.32	1027	5
W 133	780725	1250	18.50	-2.00	16.50	659.82		676.32	1028	6
W 133	780731	1101	17.00	-.89	16.11	660.21		676.32	1029	7
W 133	780807	1230	19.50	-3.05	16.45	659.87		676.32	1030	8
W 133	780814	1020	17.50	-1.20	16.30	660.02		676.32	1031	9
W 133	780818	1112	17.00	-.55	16.45	659.87		676.32	1032	10
W 133	780821	0845	17.50	-1.00	16.50	659.82		676.32	1033	11
W 133	780828	1153	18.50	-2.15	16.35	659.97		676.32	1034	12
W 133	780905	1110	17.50	-1.47	16.03	660.29		676.32	1035	13
W 133	780911	1056	18.50	-2.13	16.37	659.95		676.32	1036	14
W 133	780918	1027	18.50	-2.33	16.17	660.15		676.32	1037	15
W 133	781002	1415	18.50	-1.91	16.59	659.73		676.32	1038	16
W 133	781009	1130	18.00	-1.25	16.75	659.57		676.32	1039	17
W 133	781016	1350	18.00	-1.84	16.16	660.16		676.32	539	18
W 133	781023	1200	17.50	-1.16	16.34	659.98		676.32	540	19
W 133	781030	1325	17.50	-1.14	16.36	659.96		676.32	541	20
W 133	781106	1500	18.00	-1.58	16.42	659.90		676.32	542	21
W 133	781113	1445	19.00	-2.55	16.45	659.87		676.32	543	22
W 133	781130	1149	17.50	-1.35	16.15	660.17		676.32	1481	23
W 133	781130	1349	16.60	-.43	16.17	660.15	PT	676.32	1531	24
W 133	781130	1445	17.60	-1.40	16.20	660.12	PT	676.32	1532	25
W 133	781130	1531	16.60	-.39	16.21	660.11	PT	676.32	1533	26
W 133	781130	1604	16.60	-.39	16.21	660.11	RCV	676.32	1534	27
W 133	781130	1647	16.60	-.40	16.20	660.12	RCV	676.32	1535	28
W 133	781204	1200	16.00	-1.42	14.58	661.74		676.32	544	29
W 133	781211	1310	16.00	-1.00	15.00	661.32		676.32	545	30
W 133	790227	1520	15.00	-.49	14.51	661.81		676.32	546	31
W 133	790424	1450	17.00	-1.14	15.86	660.46		676.32	547	32
W 133	790620	1131	19.00	-3.45	15.55	660.77		676.32	548	33
W 133	790807	1005	18.00	-1.82	16.18	660.14		676.32	549	34
W 133	791018	0958	16.00	-.74	15.26	661.06		676.32	550	35
W 133	791214	1010	22.00	-6.84	15.16	661.16		676.32	551	36
W 133	800115	1123	20.50	-5.78	14.72	661.60		676.32	552	37
W 133	800214	1210	21.00	-5.32	15.68	660.64		676.32	553	38
W 133	801217	1145	18.00	-1.65	16.35	659.97		676.32	554	39
W 133	810601	1108	0.00	0.00	15.33	660.99		676.32	1482	40
W 133	830210	0959	17.50	-1.68	15.82	660.50		676.32	555	41
W 133	841011	1305	17.50	-1.14	16.36	659.96		676.32	556	42
W 133	860307	0918	15.73	-.30	15.43	660.89		676.32	557	43
W 133	861027	1531	22.00	-5.58	16.42	659.90		676.32	570	44
W 133	861111	1207	20.00	-3.66	16.34	659.98		676.32	1483	45

THE MIAMI CONSERVANCY DISTRICT
WATER CONSERVATION SUBDISTRICT

WATER LEVEL MEASUREMENTS

NAME	DATE	TIME	TAPE AT MEAS.PT.	WET TAPE	DEPTH BMP	WATER ELEV.	REF. ELEV.	dBASE RECORD	
W 133	861211	1307	23.50	-8.13	15.37	660.95	676.32	1562	46

THE MIAMI CONSERVANCY DISTRICT
WATER CONSERVATION SUBDISTRICT

WATER LEVEL MEASUREMENTS

NAME	DATE	TIME	TAPE AT MEAS.PT.	WET TAPE	DEPTH BMP	WATER ELEV.		REF. ELEV.	dBASE RECORD	
W 139	771114	1313	14.00	-1.19	12.81	659.84		672.65	1490	1
W 139	771115	1327	14.00	-1.28	12.72	659.93		672.65	1046	2
W 139	771208	1201	13.00	-1.44	11.56	661.09		672.65	1047	3
W 139	780329	1354	13.00	-1.31	11.69	660.96		672.65	1048	4
W 139	780614	1012	14.00	-1.32	12.68	659.97		672.65	1049	5
W 139	780808	1605	19.00	-3.31	15.69	656.96	ON	672.65	1050	6
W 139	780808	1612	17.00	-3.85	13.15	659.50	RCV	672.65	1051	7
W 139	780828	1040	20.00	-.65	19.35	653.30	ON	672.65	1052	8
W 139	780828	1100	14.00	-1.13	12.87	659.78	RCV	672.65	1053	9
W 139	780918	1002	14.00	-.51	13.49	659.16	ON	672.65	1054	10
W 139	781002	1300	14.00	-.99	13.01	659.64		672.65	1055	11
W 139	781002	1330	16.00	-1.75	14.25	658.40	ON	672.65	1056	12
W 139	781106	1410	15.00	-2.14	12.86	659.79		672.65	558	13
W 139	781113	1405	14.50	-1.58	12.92	659.73		672.65	559	14
W 139	781130	1151	13.50	-.91	12.59	660.06		672.65	1491	15
W 139	781130	1352	13.50	-.90	12.60	660.05	PT	672.65	1526	16
W 139	781130	1430	11.50	-.40	11.10	661.55	RCV	672.65	560	17
W 139	781130	1447	13.50	-.84	12.66	659.99	PT	672.65	1527	18
W 139	781130	1533	13.50	-.84	12.66	659.99	PT	672.65	1528	19
W 139	781130	1608	13.50	-.86	12.64	660.01	RCV	672.65	1529	20
W 139	781130	1645	13.50	-.86	12.64	660.01	RCV	672.65	1530	21
W 139	781211	1230	12.00	-.52	11.48	661.17		672.65	561	22
W 139	861027	1539	25.00	-11.04	13.96	659.76		673.72	571	23
W 139	861111	1146	22.13	-8.21	13.92	659.80		673.72	1492	24
W 139	861211	1259	15.00	-2.04	12.96	660.76		673.72	1564	25

THE MIAMI CONSERVANCY DISTRICT
WATER CONSERVATION SUBDISTRICT

WATER LEVEL MEASUREMENTS

NAME	DATE	TIME	TAPE AT MEAS.PT.	WET TAPE	DEPTH BMP	WATER ELEV.		REF. ELEV.	dBASE RECORD	
W 140	781130	1154	20.00	-.02	19.98	660.31		680.29	1493	1
W 140	781130	1340	25.00	3.97	28.97	651.32	ON	680.29	1517	2
W 140	781130	1356	30.00	-1.38	28.62	651.67	ON	680.29	1518	3
W 140	781130	1402	30.00	-.55	29.45	650.84	ON	680.29	1519	4
W 140	781130	1544	30.00	-1.47	28.53	651.76	ON	680.29	1520	5
W 140	781130	1546	20.00	1.54	21.54	658.75	RCV	680.29	1521	6
W 140	781130	1547	20.00	0.50	20.50	659.79	RCV	680.29	1522	7
W 140	781130	1548	20.00	0.14	20.14	660.15	RCV	680.29	1523	8
W 140	781130	1550	20.00	0.00	20.00	660.29	RCV	680.29	1524	9
W 140	781130	1552	20.00	-.02	19.98	660.31	RCV	680.29	1525	10
W 140	801217	1015	22.00	-1.90	20.10	660.19		680.29	562	11
W 140	810601	1058	21.00	-1.85	19.15	661.14		680.29	563	12
W 140	810810	0907	22.00	-1.62	20.38	659.91		680.29	564	13
W 140	830210	1156	21.50	-1.93	19.57	660.72		680.29	565	14
W 140	841011	1455	20.00	-.21	19.79	660.50		680.29	566	15
W 140	860307	1148	28.00	-8.89	19.11	661.18		680.29	567	16
W 140	860610	1304	24.00	-3.87	20.13	660.16		680.29	568	17
W 140	861027	1535	25.00	-4.32	20.68	659.61		680.29	572	18
W 140	861111	1052	24.00	-3.80	20.20	660.09		680.29	1494	19
W 140	861211	1311	20.00	-1.04	18.96	661.33		680.29	1565	20

Copy to Systech Trial 9/10/96

RECEIVED SEP 12 1986

FRANKLIN CITY COUNCIL

PRELIMINARY ENVIRONMENTAL SAMPLING STUDY

INACTIVE SYSTECH WASTE PROCESSING SITE

Franklin, Ohio

S&ME Project No. 024-86-123

8/21/86

SOIL & MATERIAL ENGINEERS, INC. CINCINNATI BRANCH

225 Corporate Court, Fairfield, OH 45014, Phone (513) 874-4111

August 21, 1986

Franklin City Council
35 E. 4th Street
Franklin, Ohio 45005

Attention: Mr. Donald Martin
Franklin City Manager

Regarding: Preliminary Environmental Sampling Study
Inactive SYSTECH Waste Processing Site
Franklin, Ohio
S&ME Project No. 024-86-123

Gentlemen:

This letter transmits the results of soil and groundwater analyses completed by our analytical laboratory subcontractor, PCS of Miamisburg, Ohio, for the SYSTECH site. Analyses included the priority pollutant list of volatile organic compounds, PCB's (polychlorinated biphenyls), and selected solvents thought to have been reclaimed or handled by SYSTECH based on our discussion with principals of that firm. A brief history of the SYSTECH site operations follows.

SITE HISTORY

In 1974, Systems Technology Corporation (SYSTECH) established the SYSTECH Waste Treatment Center at Franklin, Ohio to treat liquid industrial wastes. The SYSTECH Waste Treatment Center was constructed by modifying the abandoned Franklin Sewage Treatment Plant and was used in conjunction with the City of Franklin Solid Waste and Fiber Recovery Plant and the Miami Conservancy District Franklin Area Wastewater Treatment Plant (Figure 1). After years of operation by the City of Franklin, the old Franklin Sewage Treatment Plant had been replaced by

the new Regional Plant and subsequently was deeded to the Water Conservation Subdistrict of the Miami Conservancy District. In February of 1974, it was leased by the Subdistrict, with the approval of the City of Franklin, to SYSTECH.

The SYSTECH Waste Treatment Center was designed for the treatment of liquid waste prior to disposal, the recovery of organic solvents, and the conduct of in-house environmental research projects. The liquid waste treatment and solvent recovery operations were designed to process acids and bases, water/oil emulsions such as cutting, plating wastes, and other select compatible liquid wastes. The in-house environmental research projects, which included two U.S.E.P.A. contracts, were completely separate operations from the other processes at the site.

To obtain a better understanding of the SYSTECH Waste Treatment Center, a plot plan (Figure 2, located in Appendix IV) of the site is divided into 7 areas where similar activities are believed to have occurred. The activities at each area are summarized below. Area 1 was the liquid waste disposal process location. Area 2 was the below grade truck stall and unloading dock. Area 3 was a drum storage location which was graded. Area 4 was the solvent recovery facility and solvent storage location. Areas 5 and 6 were the digestor and lysimeter research facilities, respectively. Area 7 was backfilled and used primarily for equipment storage.

The liquid waste treatment process (Area 1) operated between the summer of 1975 and August of 1978 in the following manner. The primary clarifier, trickling filters, and the dosing

chamber from the old Franklin Sewage Treatment Plant were all converted to receiving and storage facilities. The final clarifier was modified for treatment purposes. Strong acids and bases were stored in the primary clarifiers and transferred to the treatment tanks through buried pipes. Oily wastes were stored in the trickling filters and could be transferred to the treatment tanks through a pipe that was used to connect the trickling filters to the final clarifier in the "old plant." Oil accumulations at the surface of the trickling filters were vacuumed off, placed in tank trucks, and sent off-site to oil reprocessors. The dosing chambers were modified so that small quantities of plating wastes could be stored and treated in them. Liquids in the dosing chamber were transferred to the treatment tanks by a pump and line that discharged into the lines serving the oily waste storage tanks. Only one batch of plating wastes was ever treated in the dosing chambers. The other batches of plating wastes were processed in the treatment tanks.

The treatment processes for the liquid wastes were performed on a batch basis. The waste was transferred to the treatment tanks after sufficient volumes of the material had accumulated. Each batch consisted of approximately 25,000 gallons and generally 4 batches were processed a day for a total of 100,000 gallons of treated wastes per day. These treated wastes were then transferred to the District's Franklin Area Treatment Plant for final treatment and disposal.

The solvent recovery process (Area 4) was operable between May of 1976 to August of 1978. Incoming solvents were stored in drums in Area 3 and in tanks numbered 12-14 and 18-24, and were

transferred to in-process Tanks 5-8 and 10 and 11, and then to the solvent recovery operations building shown in Area 4. Here a "wiped thin film evaporation process" was used to recover the solvents. The residues from this process were sent off-site for disposal. The clean solvents were either drummed or stored in Tanks 9, 25-31 prior to sale to solvent users.

The in-house environmental research projects for the U.S.E.P.A. were performed at the old sludge digestor (Area 5) and at five lysimeters shown in Area 6. The digestor was used to study the feasibility of producing gaseous and solid fuels from mixed solid waste residual and sewage sludge, while simultaneously studying the mixing characteristics of the solid waste and sewage sludge. Under a totally separate U.S.E.P.A. contract, five totally sealed solid waste lysimeters were constructed to study the production of gases and leachate from solid waste under varying conditions.

According to Mr. Thomas Whittman, all surface runoff and underground piping at the SYSTECH Waste Treatment Center was directed toward the treatment tanks or to sumps onsite which drained to the treatment tanks. In addition, the fill material at the drum storage area (Area 3) was graded so that surface runoff would be toward drainage sumps on the property.

In August of 1978, the SYSTECH Waste Treatment Center at Franklin, Ohio ceased all operations. Over the next several months, all equipment and buildings used in the operations were removed from the site. All that remains at this time are the pump building, primary clarifier, trickling filters, dosing chamber, and final clarifier from the old Franklin Sewage

Treatment Plant and which were used in SYSTECH'S operations. In addition, the truck stall, unloading dock, and foundation structures (which were part of the old City of Franklin sludge drying beds) remain.

In 1982, Systems Technology Corporation (SYSTECH) sold its subsidiary, SYSTECH Liquid Treatment Corporation (STLC) to TRICIL USA, Inc. SLTC was subsequently renamed Tricil Environmental Services, Inc. (TESI).

According to Mr. Thomas Whittman, President of SYSTECH, and Mr. Carl Evers, Vice-president of TESI, no buried underground storage tanks of any kind existed at the SYSTECH Waste Treatment Center in Franklin. They also said that they were unaware of any uncontained spills and that SYSTECH did not dispose of wastes on site.

FIELD INVESTIGATION

Field investigations at the SYSTECH Waste Processing Site were conducted by Soil & Material Engineers, Inc. (S&ME) on two occasions. During the first investigation, conducted in March 1986, four existing monitor wells were sampled to evaluate chemical contamination levels in the groundwater. Results of this investigation are contained in S&ME's report dated May 30, 1986.

During the second investigation conducted in June 1986, soil samples for chemical analysis were obtained from 3 new soil borings and one surface location at the site. The three soil borings were drilled by S&ME at the site on June 9, 1986. The

soil borings were located in areas suspected to be contaminated and are shown in Figure 1. Two of the existing monitor wells were resampled in June to assess potential PCB contamination and to supplement data acquired in March, 1986.

Each soil boring was advanced to the first saturated zone encountered. Soil samples were collected at 2-1/2 foot intervals to total depths ranging from 11.5 feet to 16.5 feet. The strata penetrated were examined and described in the field by a qualified geologist. The geologic logs for the three borings are presented in Appendix II.

In addition to the three soil borings drilled, S&ME obtained water samples from two onsite monitor wells, Well #132 and Well #140, and a surface soil sample from location #4 (Figure 1). Well #132 was resampled (after the first sample was broken in the laboratory to facilitate an analysis for solvent chemicals in the groundwater). However, the second sample was also broken in the laboratory and no analysis was performed.

PCB, as Arochlor 1248, was found in groundwater at a concentration of 69 parts per billion (ppb) from Well #132 during sampling on March 7, 1986. Therefore, additional samples were taken to further investigate for PCB's at the SYSTECH site. A groundwater sample and a surface soil sample were obtained from Well #140 and location #4, respectively, and analyzed for PCB's. In addition, samples from near the ground surface and from a depth range of 2-1/2 to 4 feet in each of the 3 borings were tested for PCB's.

LABORATORY RESULTS

PCB levels in the groundwater sample in Well #140 was less than 1 part per billion (ppb) while PCB levels in the 7 soil samples (from Borings 1,2,3, and location #4) were all less than one part per million (ppm). Detection limits in water for PCB's are greater than 1 ppb, while in soil, the detection limit is greater than 1 ppm. The Environmental Protection Agency has not yet published a health advisory on PCB's in groundwater or soil; however, we do not view low concentrations of PCB's in groundwater or soil as an apparent health risk.

The volatile organic compounds and solvents tested for in the three soil borings are shown in the laboratory data sheets in Appendix III. The Headspace Method [1], USEPA Method 5020, was used to detect volatile organic compounds in the soil samples. In Boring-1, seven soil samples (B-1A through B-1G) were analyzed. Results indicated the concentrations to be less than 1 ppm for each volatile organic compound and solvent at every depth in the boring. A summary of the analytical results for Borings 2 and 3, where concentrations exceeded the detection limit of 1 ppm are presented in Table 1.

Methylene chloride was detected in both Borings 2 and 3 at concentrations of 1.1 and 1.2 parts per million (ppm), respectively. Methylene chloride is used in the manufacture of aerosols, paint stripping and solvent degreasing, extraction of naturally occurring heat sensitive substances, and in the manufacture of synthetic fibers [2]. In June of this year, EPA proposed a concentration of 8.6 ppm as the regulatory level above which methylene chloride would be designated a hazardous

waste by the toxic characteristic leaching procedure (TCLP) (3). This procedure is a laboratory method used to determine the concentrations of chemicals leaching from a substance under simulated field conditions. Since detected levels (Table 1) were found to be below the proposed TCLP limit, we conclude that methylene chloride does not appear to pose a risk to public health and safety under present land-use conditions at and neighboring the SYSTECH site.

Toluene was detected in one sample in Boring-2 and in 2 samples in Boring-3 (Table 1). Concentrations of toluene ranged from 1.4 ppm in Boring-2 to 6.8 and 7.2 ppm in Boring-3. Toluene is used in solvent recovery plants, is a solvent for paints and coatings, and is a component of gasoline (2). In June of this year, EPA proposed a concentration of 14.4 ppm as the regulatory level above which toluene would be designated a hazardous waste by the toxic characteristic leaching procedure (TCLP) (3). Based on the results presented in Table 1, we conclude that toluene does not appear to present a risk to public health and safety under present land-use conditions at and neighboring the SYSTECH site.

Xylene was detected in Borings 2 and 3 at concentrations of 8.4 and 4.5 ppm, respectively. Table 1 presents the depths at which this chemical was detected. Xylene is used in solvent recovery plants and protective coatings manufacturing, as well as other types of manufacturing (2).
No regulatory level has been proposed or established by rule for designating xylene a hazardous waste by toxic characteristic. However, the EPA has established a level of 2.2 ppm as the adjusted acceptable daily intake (AADI) for xylene (4)

The AADI values represent the daily intake of any toxic substance by an average adult weight, 70 kg, consuming 2 liters of drinking water per day, yielding no observed adverse effects. The published AADI values invariably contain a factor of uncertainty or "Safety Factor" ranging from 100 to 5000, and are usually calculated on the assumption that the AADI exposure level will occur over the span of a person's lifetime. Based on the results presented in Table 1, it appears that xylene could potentially pose a moderate risk to public health and safety under present land-use conditions at and neighboring the SYSTECH site.

Acetone was found only in Borings 2 and 3 at concentrations of 2.3 and 2.4 ppm, respectively (Table 1). Acetone is used in paints, varnishes, lacquer manufacturing, organic chemical manufacturing, pharmaceutical manufacturing, and sealant and adhesive manufacturing [2]. No regulatory level has been proposed or established by rule for designating acetone a hazardous waste by toxic characteristic. However, repeated exposure to acetone vapors above 750 ppm [6] could cause chronic conjunctivitis and other illnesses in humans. Thus, on the basis of the results presented in Table 1, we conclude that acetone does not appear to pose a risk to public health and safety under present land-use conditions at and neighboring the SYSTECH site.

Tetrachloroethylene was detected in Boring 3 at a depth of 0-1.5 feet and a concentration of 2.8 ppm. Tetrachloroethylene is used for metal degreasing, paint removers and printing inks manufacturing, and as a solvent for fats, greases, and waxes [2]. In June of this year, EPA proposed a concentration of 0.1

ppm as the regulatory level above which tetrachlorethylene would be designated a hazardous waste the the toxic characteristic leaching procedure (TCLP) [3]. Based on the results presented in Table 1, we conclude that tetrachlorethylene may potentially present a moderate risk to public health and safety under present land-use conditions at and neighboring the SYSTECH site.

Ethyl acetate was found in Boring 3 at a depth of 0-1.5 feet and at a concentration of 4.6 ppm. No regulatory level has been proposed or established by rule for designating ethyl acetate a hazardous waste by the toxic characteristic leaching procedure (TCLP), nor has the EPA established a health advisory for exposure via the drinking waster pathway. However, the time-weighted-average (TWA) for ethyl acetate is 400 ppm, which represents the concentrations to which nearly all workers may be repeatedly exposed, day after day, without adverse effect [6]. The TWA for ethyl acetate is more than 9 times greater than the level found in Boring-3. On that basis, we conclude that the levels of this substance found at the site do not appear to represent a risk to public health and safety under present land-use conditions at and neighboring the SYSTECH site.

Methanol was also found in Boring 3 at a depth of 0-1.5 feet. The concentration at this depth was 3.7 ppm, as shown in Table 1. Methanol is used as a solvent and denaturant for ethanol [2]. These are but two of its many uses. No regulatory level has been proposed or established by rule for designating methanol a hazardous waste by the toxic characteristic leaching procedure. Exposure to concentration in the atmosphere of 500

ppm are known to produce symptoms of illness in humans [6]. Since levels of methanol in the soil are much less than this, we conclude that this substance does not appear to pose a risk to public health and safety under present land-use conditions at and neighboring the SYSTECH site.

Trichloroethylene was detected at a depth of 2.5-4.0 feet in Boring-3. As shown in Table 1, its concentration at this depth was 2.5 ppm. Some uses of trichloroethylene include dry cleaning operations, metal degreasing, and as solvents for fats, grease, and waxes [2]. In June of this year, EPA proposed a concentration of 0.07 ppm as the regulatory level above which trichlorethylene would be designated a hazardous waste by toxic characteristic leaching procedure (TCLP) [3]. Therefore, based on the results presented in Table 1, we conclude that trichloroethylene may potentially present a moderate risk to public health and safety under present land-use conditions at and neighboring the SYSTECH site.

Hexane was also detected at the same depth as trichloroethylene in Boring-3, but at a concentration of 1.5 ppm. U.S.E.P.A. has not designated hexane a hazardous substance under CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act, or "Superfund"), nor a listed hazardous waste, or a hazardous constituent under RCRA (Resource Conservation and Recovery Act) [5][7]. The TWA for n-Hexane is 50 ppm [6]. Thus, on the basis of the results presented in Table 1, we conclude that methanol does not appear to pose a risk to public health and safety under present land-use conditions at and neighboring the SYSTECH site.

Chlorobenzene was found at a depth of 10.0-11.5 feet in Boring-3. Its concentration was 2.1 ppm. Chlorobenzene is used in solvent recovery plants and as an intermediate in dyestuffs manufacturing [2]. In June of this year, EPA proposed a concentration of 1.4 ppm as the regulatory level above which chlorobenzene would be designated a hazardous waste by toxic characteristic leaching procedure (TCLP) [3]. Since the concentration of chlorobenzene in Boring-3 exceeds this proposed levels, we conclude that chlorobenzene may potentially present a moderate risk to public health and safety under present land-use conditions at and neighboring the SYSTECH site.

SUMMARY

During S&ME's "Preliminary Environmental Sampling Study" of the abandoned SYSTECH site in Franklin, Ohio, 4 existing monitor wells, 3 new soil borings, and one surface soil location were sampled to determine "gross" contamination at the site. The groundwater samples were analyzed for volatile organic compounds, the 8 "RCRA Metals", and PCB's. The soil samples were analyzed for volatile organic compounds and PCB's.

Results of the groundwater analyses in this report and the S&ME report dated May 30, 1986 showed levels of most of the volatile organic compounds to be low or even below the detection limit of the test performed. Although some of the compounds tested did slightly exceed either U.S.E.P.A Drinking Water Standards or the AADI levels, the levels do not appear to represent an apparent health risk. PCB's were tested in 2 groundwater samples and 7 soil samples at the site. All levels were below

the detection limits for the tests performed except in one case. A concentration of 69 ppb of PCB was found in Well #132. As this area is not used as a drinking water supply and the Miami Conservancy District controls the land-use for this site, we conclude that there does not appear to be a health risk due to levels of PCB's detected in this well. Results of the groundwater analyses are presented in page 2 of S&ME's report to Franklin City Council, dated May 30, 1986.

Results of the soil analyses at the site indicate generally low concentrations of volatile organic compounds. A few of these chemicals (chlorobenzene, trichloroethylene, and tetrachlororethylene) did exceed the proposed levels for designating the material a hazardous waste. These chemicals do not appear to be widespread at the site since none were detected in all 3 borings. Results of chemical analyses for the soil samples are presented in Table 1 of this report.

It appears that while a small number of chemical compounds may have slightly elevated concentrations in the groundwater or the soil, it does not appear that these chemicals are pervasive over the entire SYSTECH site. However, this site has not been fully characterized, and the full extent of contamination and risks to public health and safety can not be assessed without additional field data not only within the site, but in areas surrounding it. In addition, if the land-use at the abandoned SYSTECH site or adjacent properties were to change, a health ssessment may be appropriate to evaluate risks to human health nd the environment.

The following are attached and complete this report:

I) References
II) Geologic boring logs
III) Laboratory data sheets from PCS
IV) Plot plan of the Former SYSTECH Treatment Center

Respectfully submitted,

SOIL & MATERIAL ENGINEERS, INC.

Jon C. McDaniel

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Hydrogeologist

Peter H. Feldhausen

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Chief Hydrogeologist

JCM:cmr

pollution control science, inc.
testing, sampling & analysis
6015 Manning Road, Miamisburg, Ohio 45342
(513) 866-5908

Report Date: 7-15-86
Date Rec'd: 6-10-86
PCS Sample#: 63890-63909
Client P.O.#:
Inv#/Acct#/PN: 10643 311

MR. JON McDANIEL
SOIL & MATERIALS ENGINEERS, INC.
225 CORPORATE COURT
FAIRFIELD, OH 45014

ACCREDITED BY THE AMERICAN INDUSTRIAL HYGIENE ASSOCIATION
OHIO EPA APPROVED LABORATORY
MEMBER OF THE AMERICAN COUNCIL OF INDEPENDENT LABORATORIES

#63890
VOA Water Sample Well #132 Sampled 6/10 By JCM

Acetone	*
Cyclohexane	*
Ethanol	*
Ethyl Acetate	*
Hexane	*
Iso-propanol	*
Iso-propyl Acetate	*
Methanol	*
Methyl Ethyl Ketone	*
Xylenes	*

#63891
Water Sample Well #140 Sampled 6/10 By Jon McDaniel

Polychlorinated Biphenyls	<1 ug/L

#63892
Soil Sample #4 Sampled 6/10 By Jon McDaniel

Polychlorinated Biphenyls	<1 ppm

*No analysis performed, sample bottle was broken

David Robinson/sa
LABORATORY SUPERVISOR

The information contained herein is the confidential property of our clients. Disclosure of such data, statement or conclusion requires written approval.

REFERENCES

(1) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, U.S.E.P.A. Manual, SW-846, July, 1982.

(2) Handbook of Environmental Data on Organic Chemicals, 2nd Edition, Karel Verschueren, 1983 by Van Nostrand Reinhold Company, Inc.

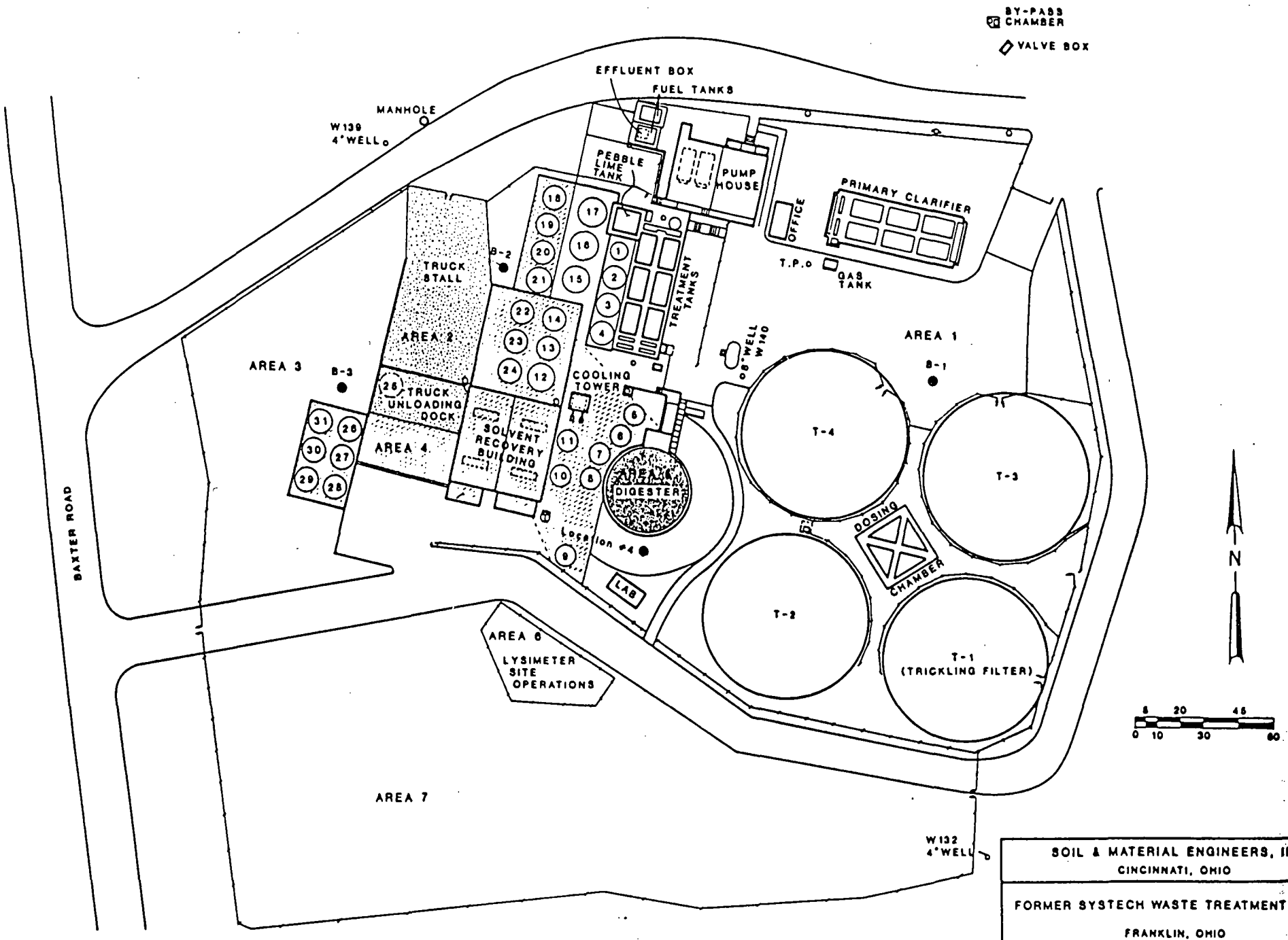
(3) Proposed Rules, Federal Register, Volume 51, No. 114, June 13, 1986, p. 21652.

(4) Final Draft Water Document for Xylene, U.S.E.P.A. Office of Drinking Water, March, 1985 (PB86-117942).

(5) Code of Federal Regulations, Title 40, Part 300, Office of the Federal Register National Archives and Records Administration, July 1, 1985.

(6) NIOSH Pocket Guide to Chemical Hazards, U.S. Department of Health and Human Services, September, 1985.

(7) Code of Federal Regulations, Title 40, Part 261, Office of the Federal Register National Archives and Records Administration, July 1, 1985.



B-boring

SOIL & MATERIAL ENGINEERS, INC. CINCINNATI, OHIO	
FORMER SYSTECH WASTE TREATMENT CENTER FRANKLIN, OHIO	
SCALE: -	DRAWN BY: LAZENBY
DATE: 3/11/88	APPR. BY:

CHEMICALS IN SOIL SAMPLES AT SYSTECH SITE

	Sample #	Sample Depth	Sample Elevation	Chemical	Concentration
Boring-2	B-2D	7.5-9.0 ft.	664.8-663.3 ft.	Methylene Chloride	1.1 ppm
				Toluene	1.4 ppm
				Xylenes	8.4 ppm
	B-2E	10.0-11.5 ft.	662.3-660.8 ft.	Acetone	2.3 ppm
Boring-3	B-3A	0.0-1.5 ft.	671.0-669.5 ft.	Methylene Chloride	1.2 ppm
				1,1,2,2 Tetrachloroethylene	2.8 ppm
				Acetone	2.4 ppm
				Ethyl Acetate	4.6 ppm
				Methanol	3.7 ppm
				Toluene	6.8 ppm
	B-3B	2.5-4.0 ft.	668.5-667.0 ft.	Trichloroethylene	2.5 ppm
				Hexane	1.5 ppm
				Toluene	7.2 ppm
	B-3E	10.0-11.5 ft.	661.0-658.5 ft.	Chlorobenzene	2.1 ppm
				Xylenes	4.5 ppm

#63893
Soil Sample B-1A Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	<1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm
Polychlorinated Biphenyls	<1 ppm

#63894
Soil Sample B-1B Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	<1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm
Polychlorinated Biphenyls	<1 ppm

#63895
Soil Sample B-1C Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	<1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm

#63896
Soil Sample B-1D Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	<1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm

#63897
Soil Sample B-1E Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	<1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm

#63898
Soil Sample B-1F Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	<1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm

#63899
Soil Sample B-1G Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	<1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm

#63900
Soil Sample B-2A Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	<1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm
Polychlorinated Biphenyls	<1 ppm

#63901
Soil Sample B-2B Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	<1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm
Polychlorinated Biphenyls	<1 ppm

#63903
Soil Sample B-2D Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	1.1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	1.4 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	8.4 ppm

#63904

Soil Sample B-2E Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	<1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	2.3 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm

#63905
Soil Sample B-3A Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	1.2 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	2.8 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	<1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	2.4 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	4.6 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	3.7 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm
Polychlorinated Biphenyls	<1 ppm

NOTE: 9 unknown peaks were detected which totalled 6.8 ppm as Toluene

#63906
Soil Sample B-3B Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	2.5 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	1.4 ppm.
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	1.5 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm
Polychlorinated Biphenyls	<1 ppm

NOTE: 16 unknown peaks were detected which totalled 7.2 ppm as Toluene. Possibly a petroleum distillate.

#63907
Soil Sample B-3C Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	<1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm
Polychlorinated Biphenyls	<1 ppm

#63908
Soil Sample B-3D Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	<1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	<1 ppm
Polychlorinated Biphenyls	<1 ppm

#63909
Soil Sample B-3E Sampled 6/9 By Jon McDaniel

Chloromethane	<1 ppm
Vinyl Chloride	<1 ppm
Chloroethane	<1 ppm
Bromomethane	<1 ppm
Acrolein	<1 ppm
Acrylonitrile	<1 ppm
Methylene Chloride	<1 ppm
1,1-Dichloroethylene	<1 ppm
1,1-Dichloroethane	<1 ppm
trans-1,2-Dichloroethylene	<1 ppm
Chloroform	<1 ppm
1,2-Dichloroethane	<1 ppm
1,1,1-Trichloroethane	<1 ppm
Carbon Tetrachloride	<1 ppm
Bromodichloromethane	<1 ppm
1,2-Dichloropropane	<1 ppm
trans-1,3-Dichloropropene	<1 ppm
Trichloroethylene	<1 ppm
Benzene	<1 ppm
cis-1,3-Dichloropropene	<1 ppm
1,1,2-Trichloroethane	<1 ppm
Dibromochloromethane	<1 ppm
Bromoform	<1 ppm
1,1,2,2-Tetrachloroethylene	<1 ppm
1,1,2,2-Tetrachloroethane	<1 ppm
Toluene	2.1 ppm
Chlorobenzene	<1 ppm
Ethylbenzene	<1 ppm
2-Chloroethyl Vinyl Ether	<1 ppm
Acetone	<1 ppm
Cyclohexane	<1 ppm
Ethanol	<1 ppm
Ethyl Acetate	<1 ppm
Hexane	<1 ppm
Iso-propanol	<1 ppm
Iso-propyl Acetate	<1 ppm
Methanol	<1 ppm
Methyl Ethyl Ketone	<1 ppm
Xylenes	4.5 ppm

AUG 27 1987

TRICIL

August 25, 1987

Mr. Thomas C. Sullivan
Ecology and Environment, Inc.
111 West Jackson Blvd.
Chicago, IL 60604

Dear Mr. Sullivan:

In response to your request for volumes of waste received into Systech's Franklin Treatment Facility, we submit the following. In many cases, the receiving documentation did not identify a specific waste, but rather used terms such as "liquid waste", "waste materials", "spent solvent", etc. The total volume received during the life of the facility is estimated to be almost 31.4 million gallons. In all cases, volumes are gallons/1000.

Aqueous Waste	7,882
Chrome waste (acids, rinses, etc.)	282
Metal working coolants & soluble oils	7,512
Cyanide contaminated wastes	30
Diatomaceus earth slurry (used in filtering vegetable oil)	3,927
Oil/water mixtures	324
Phenol contaminated water	955
Slurries	47
Styrene Rinse Water	2,127
Waste Acids	7,063
Waste Caustic	544
Spent Solvents	694
TOTAL	31,388

The solvent category is broken down as follows:

Acetone	9.8
1,1,1-Trichloroethane	10.5
Ethanol	13.7
Butyl Cellosolve	1.2
Chlorinated solvents	1.2
Freon	1.5
Heptane	7.9

Kerosene	21
Lacquer Thinner	6.3
MEK	21
Methylene Chloride	3.1
MIBK	2
Naphtha	8.4
Paint Thinner	166.1
Perchloroethylene	2.1
Stoddard Solvent	12.5
Toluene	23.8
Trichloroethylene	23.2
Xylene	5.9
Mixes or unspecified solvents	353
TOTAL	694

If you have any questions, please feel free to contact me.

Sincerely,
Tricil Environmental Services Inc.

Carl A. Evers
Vice President

sh

ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

September 4, 1987

Mr. Carl Evers
Tricil Environmental Services, Inc.
131 N. Ludlow, Suite 510
Dayton, OH 45402

Dear Mr. Evers:

I recently received the data Tricil gathered on the volumes of waste handled at the old Systech Liquid Waste Treatment facility in Franklin, Ohio.

Thank you for putting this information together, your effort and cooperation in this matter are greatly appreciated.

Sincerely,

ECOLOGY & ENVIRONMENT, INC.

Thomas C. Sullivan

Thomas C. Sullivan

19S:6F

recycled paper

ALE RNC JDP

SYSTECH®

specialists in environmental technology

SYSTEMS TECHNOLOGY CORPORATION
245 North Valley Road
Xenia, Ohio 45385
Area Code 513/372-8077

September 12, 1978

Mr. James Pennino
District Geologist
Ohio EPA
Southwest District
7 East Fourth Street
Dayton, Ohio 45402

Dear Mr. Pennino:

Attached are the analytical results of the second thirty day samples taken from Franklin test well W-139 on August 18, 1978. A copy has been sent to Donald Williams of M.C.D. We are continuing to pump and monitor the well under the direction of M.C.D.

Cumulative pumping of this well as of 4:45 p.m., September 8, 1978, has amounted to 1,937,265 gallons.

Respectfully,

SYSTEMS TECHNOLOGY CORPORATION

John A. Andrejcio

John A. Andrejcio
Process Development

JAA/tr

Enclosure

HOWARD
LABORATORIES, INC.

3601 S. DIXIE
DAYTON, OHIO 45439
(513) 294-6856

RECEIVED SEP 1 1978

September 6, 1978

ANALYTICAL RESULTS No. 1028

SYSTEMS TECHNOLOGY CORPORATION

Sample: W-139 - Rec'd 8-18-78 - John Andrejcio - P.O. #57494-685-28

Carbon Dioxide	385	mg/l
Chloride	164	"
Sulfate	2.40	"
Nitrate	1.00	"
Hydrogen Sulfide	0.02	"
Cyanide	< 0.005	"
Dissolved Solids	676	"
COD	260	"

Metals:

Calcium	115,500	ug/l
Magnesium	37,550	"
Sodium	143,500	"
Nickel	18	"
Chromium	7	"
Arsenic	137	"
Copper	2	"
Cadmium	< 1	"
Lead	< 1	"
Iron	9,750	"
Zinc	49	"

General Organic Scan:

Methanol	23.3	mg/l
Hexane	3.87	"
Toluene	5.86	"

Approved

specialists in environmental technology
SYSTEMS TECHNOLOGY CORPORATION
245 North Valley Road
Xenia, Ohio 45385
Area Code 513/372-8077

November 6, 1978

Mr. James Pennino
District Geologist
Ohio E.P.A.
Southwest District
7 East Fourth Street
Dayton, Ohio 45402

Dear Mr. Pennino:

Attached are the analytical results of Franklin well W-139, sampled October 5, 1978. The scheduled sampling during September was delayed due to a pump malfunction. A copy has been sent to Donald Williams of M.C.D. We are continuing to pump and monitor the well under the direction of the Conservancy District.

Respectfully,

SYSTEMS TECHNOLOGY CORPORATION

John A. Andrejcio
Process Development

JAA/tar
Attachment

RECEIVED OCT 3 01978

HOWARD LABORATORIES, INC.

3601 S. DIXIE
DAYTON, OHIO 45439
(513) 294-6856

October 26, 1978

ANALYTICAL RESULTS No. 1243

SYSTEMS TECHNOLOGY CORPORATION

Sample: Well Water - W-139 - Rec'd 10-5-78 - John Andrejcio - P.O. #58026-685-28

Carbon Dioxide	112	mg/l
Chlorides	167	"
Sulfate	4.29	"
Nitrate	1.34	"
Hydrogen Sulfide	<0.003	"
Cyanide	<0.002	"
Dissolved Solids	920	"
COD	353	"

Metals:

Calcium	78	mg/l
Magnesium	37.8	"
Sodium	103.6	"
Nickel	6	ug/l
Chromium	80	"
Arsenic	19.5	"
Copper	2	"
Cadmium	2	"
Lead	6	"
Iron	16,500	"
Zinc	18	"

General Organic Scan:

Isopropyl Alcohol	14.9	mg/l
Ethyl Acetate	19.5	"
Methyl Isobutyl Ketone	6.1	"
Xylenes	9.4	"

No unidentified peaks.

Approved

Table 1

Systech Groundwater Analyses

November 29, 1977

RECEIVED
DEC 29 1977
OHIO ENVIRONMENTAL PROTECTION AGENCY
SOUTH WEST DISTRICT

Well Number		W132	W133	W139
Date		77-11-16	77-11-15	77-11-15
Time		1538	1425	1327
Pump Rate	GPM	75	18	18
Pumping Time	Minutes	120	30	30
Water Temp.	°C	17	16.5	16
Field Alkalinity	mg/l	234*	395	640
CO_2	mg/l	-	97	314
pH, lab.		7.5	7.4	6.6
Conductivity, lab	µmhos	1231	1179	1928
Turbidity	units	-	1.8	12.1
Hardness	mg/l	342	280	870
Chloride, Cl	mg/l	142	137	176
Sulphate, SO_4	mg/l	22	59.2	
Phosphorus, Total -P	mg/l	.29	.04	.23
Kjeldal Nitrogen	mg/l	1.86	.63	6.2
Ammonia Nitrogen (NH_3-N)	mg/l	1.40	.26	.48
Nitrate+Nitrite (NO_2+NO_3-N)	mg/l	1.16	.02	0.0
Total Solids	mg/l	780	721	1993
Dissolved Solids	mg/l	718	706	1873
Fecal Coliform	#/100ml	<10	<1	<10
Phenol	mg/l	<.002	<.002	<.002
Cyanide	mg/l	.09	.02	.30
MBAS	mg/l	.005	.005	.010
Total Organic Carbon	mg/l	24	7.0	920
BOD_5	mg/l	17	3.4	710
COD Low	mg/l	40	15.9	-
COD High	mg/l	-	-	2560
Calcium, Ca	mg/l	114	104	246
Magnesium, Mg	mg/l	35	37	56
Sodium, Na	mg/l	81	72	52
Potassium, K	mg/l	9.9	8.8	15
Iron, Fe	mg/l	26.800	.250	12.950
Manganese, Mn	mg/l	1.238	.604	3.130
Nickel, Ni	mg/l	.012	.013	.025
Chromium, Cr	mg/l	.022	.015	.008
Zinc, Zn	mg/l	.161	.053	.038
Copper, Cu	mg/l	.009	.009	.009
Cadmium, Cd	mg/l	.006	.007	.009
Mercury, Hg	mg/l	0	0	0
Lead, Pb	mg/l	.014	.009	.021

*Lab

Table 2

SYSTECH GROUNDWATER QUALITY

December 22, 1977

Well Number		W132	W133	W139
Date		12-08-77	12-08-77	12-08-77
Time		1102	1134	1201
Pump Rate, gpm		18	18	18
Pumping Time, Minutes		30	6	6
Water Temperature, °C		13	15.5	15.5
Alkalinity, Field	mg/l	390	415	701
CO_2	mg/l	96	129	273
pH, Field		6.9	6.8	6.7
pH, Lab		7.1	7.3	6.6
Conductivity, Lab	µmhos	1145	1214	1598
Kjeldal Nitrogen	mg/l	1.48	1.32	5.60
Total Solids	mg/l	765	787	1619
Dissolved Solids	mg/l	699	764	1487
TOC	mg/l	13.0	10.0	380
COD, Low	mg/l		3.1	
COD, High	mg/l	48		1808
Cyanide	mg/l	.06	.01	.20
Oil and Grease	mg/l	0	0	0
Well Yield gallons per minute / foot - drawdown		36.0	66.7	21.2

Table 3

Well Number	W132		W133		W139	
Elevation of Land Surface	675.05		674.49		669.25	
Date	Depth (BLS)	Elevation	Depth (BLS)	Elevation	Depth (BLS)	Elevation
11-14-77	-	-	14.57	659.92	9.41	659.84
11-15-77	-	-	14.55	659.94	9.32	659.93
11-16-77	13.86	660.19	-	-	-	-
12-08-77	12.26	661.79	12.36	662.13	8.16	661.09

THE MIAMI CONSERVANCY DISTRICT
COMPUTATION SHEET

SUBJECT GROUNDWATER DATA

PAGE 1

Sta. NO.

QUADRANGLE FRANKLIN

A.F. PHOTO 60, 2-14-76

COMPUTED BY PMP DATE 11-17-77 CHECKED BY

Well No. W132 County WARREN Township FRANKLIN Section R5, T.1 Sec 1
River Mile Tributary Subarea River Basin
Lat Long State Coord. Zone S: x y
Location: 6' east of fence at Southeast corner of SYSTECH plant area, 54 ft. South SE clarifier, 55 ft. north of north edge of Rt. 73

Elevation of MP Elev. Land Surface Land Surface Corr. -2.12 **
MP Top of 4" PVC casing.
WELL:
Total Depth* 21.22 Depth Cased* 10.92 Drilling Method Cable Bedrock Depth* ——
Casing Type 4" PVC Plastic Diameter 4" Screen 10' 4" PVC-0.020 slot
Pump Intake Setting* Gravel Pack
Pump Capacity Pump Type Hp
Date Drilled 11-8-77 By: Wm Dane
Owner: Miami Conservancy District
AQUIFER CHARACTERISTICS:
Material Origin
Permeability gpd/ft² Special Cap. Storage Coeff.
REMARKS: **6' of 6" dia steel casing left. Top casing 0.21 above 4" PVC

*Feet below land surface.

Water Level								Well Log		
Date	Time	Tape	Cut	Depth, B.M.P. ft.	Land Surf. Corr		Sea L. Elev. ft.	Depth from ft.	to ft.	Description
								0	10	Fill & rubble
								10	14	yellow clay, sand, and gravel
								14	18	Dark gray, well graded coarse sand to cobbles, trace clay
								18	21	gray, medium sand to cobbles, some silt & clay
								21	32	gray silt, some clay dry firm easy drilling, streaks of dark organic matter & very fine sand
11/14/77	1305	22.85	+0.70	23.55	2.33	21.22		Bottom of well		
	1302	18.00	-1.94	16.16	2.33	13.83		Water surface		
11/16	1547	18.00	-1.81	16.19	2.33	13.86		"		"

THE MIAMI CONSERVANCY DISTRICT
COMPUTATION SHEET

SUBJECT GROUNDWATER DATA PAGE 1

Sta. NO.

QUADRANGLE FRANKLIN

AIR PHOTO 60, 2-14-76

COMPUTED BY _____ DATE _____ CHECKED BY _____

Well No. W 133 County WARREN Township FRANKLIN Section R. 5, T. 1 Sec 1
River Mile _____ Tributary _____ Subarea _____ River Basin _____
Lat _____ Long _____ State Coord. Zone S: x _____ y _____
Location: 9 ft. west of NW. corner of dog pound, 60 ft. South of Clear Creek, 90 ft. NE. of old Franklin STR office At SYSTECH, FRANKLIN, Ohio

Elevation of MP _____ Elev. Land Surface _____ Land Surface Corr. -1.83 **
MP Top 4" PVC Casing
WELL:
Total Depth* 25.10 Depth Cased* 14.8 Drilling Method Cable Bedrock Depth* _____
Casing Type PVC Plastic Diameter 4" Screen 10ft - 0.020 SLOT PVC
Pump Intake Setting* _____ Gravel Pack _____
Pump Capacity _____ Pump Type _____ Hp _____
Date Drilled Nov. 9, 1977 By: Wm Crane
Owner: Miami Conservancy District
AQUIFER CHARACTERISTICS:
Material _____ Origin _____
Permeability _____ gpd/ft² Special Cap. _____ Storage Coeff. _____
REMARKS: ** 8 ft. 6" dia steel casing left to protect PVC. Top 6" 0.27" above PVC

*Feet below land surface.

Water Level								Well Log		
Date	Time	Tape	Cut	Depth, B.M.P. ft.	LAND Surf. Corr	Depth BLS ft.	Sea L. Elev. ft.	Depth from ft.	Depth to ft.	Description
								0	11	Fill & rubble
								11	13	Br. Gravel & cobbles, silt, fine Sand
								13	15	Br. Coarse Gravel, cobbles, Sand, silt seams
								15	18.5	Br., Coarse gravel, cobbles, fr. Sand, 1" yellow clay seams
								18.5	20	Clean pea gravel, cobbles
								20	24	Clean pea gravel, cobbles, some Sand
								24	31	gray silty clay, some gravel
11/9/77	1257	26.50	+0.70	27.20	2.10	25.10	Bottom	of well		
		13.00	-1.33	16.67	2.10	14.57		Water- surface		

THE MIAMI CONSERVANCY DISTRICT
COMPUTATION SHEET

SUBJECT GROUNDWATER DATA

PAGE 1

Sta. NO.

Quadrangle: FRANKLIN

Air Photo: 60, 2-14-76

COMPUTED BY PMP DATE 11-14-77 CHECKED BY

Well No. W139 County WARREN Township FRANKLIN Section R.5, T.1 Sect 1
River Mile Tributary Subarea River Basin
Lat Long State Coord. Zone S: x y
Location: 142' west of old FRANKLIN STP office, 67 ft. south of Clear Creek, 150 ft. east of east edge of Baxter Drive, on North side of driveway at gate to Sycamore [illegible] recovery truck dock, FRANKLIN, Ohio

Elevation of MP Elev. Land Surface Land Surface Corr. -3.40
MP Top 4" PVC Casing
WELL:
Total Depth* 24.55 Depth Cased* 9.6 Drilling Method Cable Bedrock Depth* —
Casing Type PVC Plastic Diameter 4" Screen 9.9' - 0.020" slot PVC
Pump Intake Setting* Gravel Pack
Pump Capacity Pump Type Hp
Date Drilled Nov. 11, 1977 By: Wm Crane
Owner: Miami Conservancy District
AQUIFER CHARACTERISTICS:
Material Origin
Permeability gpd/ft^2 Special Cap. Storage Coeff.
REMARKS: 9 ft. of 6" steel casing left to protect pipe.

*Feet below land surface.

Water Level								Well Log		
Date	Time	Tape	Cut	Depth, B.M.P. ft.	Land Surf. Corr.	Depth BLS Ft.	Sea L. Elev. ft.	Depth from ft.	Depth to ft.	Description
								0	5	Road bed fill
								5	8	Brown dirty sand & gravel (Med.)
								8	11	Br. Clean sand & gravel, some cobbles
								11	15	Gray pea gravel & cobbles
								15	19.5	Br. sand & gravel with cobbles
								19.5	26.5	Gray clay with some gravel
11/14/77	1312	27.25	+0.70	27.95	-3.40	24.55		Bottom of well		
11/14		14.00	-1.19	12.81	-3.40	9.41		water surface		

4

Partial History of the Abandoned Franklin Sewage Treatment Plant

Approximately
1938 to 1970 - Sewage Treatment Plant owned and operated by the City of Franklin, Ohio

1970 to 1973 - Miami Conservancy District becomes owner of the site.

February 1974 - Systems Technology Corporation (1969) which changed its name to Systech Liquid Treatment Corporation in 1979 and then to Tricil Environmental Services, Inc., in 1983 leased the site from the Miami Conservancy District (1974-78). Systech Corporation was organized in 1979 and was the parent of Systech Liquid Treatment Corporation. The stock of Systech Liquid Treatment Corporation was sold to Tricil, Inc. in May 1982.

Feb. 1974
to Aug. 1978 - The following operations were performed at the site: a) treatment of liquid inorganic wastes b) recovery of organic solvents and c) research projects for the U.S. Environmental Protection Agency. For a more detailed explanation of the operations see Soil and Material Engineers Inc. report dated August 21, 1986, pages 1 through 5.

November 1977
to Aug. 1980 - Ground water investigation and remediation program conducted. (See letter reports from Walter Meinert dated October 23, 1978 and June 17, 1980 plus letter from Miami Conservancy dated August 21, 1980, attached).

August 1978
to Aug. 1981 - Operations ceased in August 1978. From 1978 to 1981 remaining waste were processed, residuals disposed of, equipment dismantled, ground water program conducted and the site permanently closed.

August 1981
to Present - Site not utilized. Miami Conservancy District maintains site.

May 30, 1986 - Preliminary report of Soil and Material Engineering Inc. regarding Franklin site. (copy attached)

Aug. 21, 1986 - Additional report of Soils and Material Engineer Inc. regarding Franklin site. (copy attached)

OhioEPA
State of Ohio Environmental Protection Agency

P.O. Box 1049, 361 E. Broad Street
Columbus, Ohio 43266-1049
(614) 466-8565

Richard F. Celeste
Governor

November 28, 1986

Re: SYSTECH LIQUID TREATMENT CORP.

RECEIVED
DEC 03 1986
Ohio Environmental Protection Agency
SOUTHWEST DISTRICT

James L. Rozelle, General Manager
Miami Conservancy District
38 E. Monument Avenue
Dayton, Ohio 45402

Dear Mr. Rozelle:

Ohio EPA has completed the enclosed preliminary assessment as part of our ongoing process to identify and remedy hazardous materials problems in Ohio. We are providing you with a copy of this information because of your identified owner and/or operator status.

Ohio EPA will ultimately screen (or "preliminarily assess") over 800 sites included on U.S. EPA's Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) list of 22,000+ sites nationwide. This screening is based upon readily available information, and is used to prioritize sites for additional investigation as outlined in the National Contingency Plan (see 40 CFR Part 300). The Unregulated Sites staff conduct additional activities based upon the priority assigned in the preliminary assessment (none, low, medium, high). A site inspection with sampling sufficient to characterize the site may follow the preliminary assessment. Actions subsequent to the site inspection - if warranted - include Superfund listing and remedial actions.

The preliminary assessments are put in our files when they are completed and sent to U.S. EPA. We are giving you this information to better enable you to address any possible inquiries from the public. We welcome any additional information or comments and ask that you contact the Unregulated Sites staff at the following offices:

Central	Columbus	614/462-6733 or 462-8934
Northeast	Twinsburg	216/425-9171
Southwest	Dayton	513/449-6357
Northwest	Bowling Green	419/352-8461
Southeast	Logan	614/385-8501

You might also wish to contact our Public Interest Center at 1-614-466-8508.

Sincerely,

Charles M. Taylor, Chief
Division of Solid & Hazardous Waste Management

CMT/ara

1842S

Preliminary Assessment Narrative

Date: Systech Liquid Treatment Corporation
Company: OHD 030835852
I.D.: 3/20/86

The Systech Liquid Treatment Plant is located on the corner of Baxter Road and St. Route 73. Clear Creek flows just north of the site. Further north is the Miami Conservancy District's Wastewater Treatment Plant and the Great Miami River. The City of Franklin is about a quarter mile north of the site and Middletown is about three miles southwest of the facility. Franklin's well field is approximately 7,000 feet northeast of the site. According to Jim Pennino, former OEPA geologist, the site lies on the valley train aquifer of the Great Miami River.

Systech, in operation from 1974-1978, was a liquid waste treatment facility located in Franklin's old sewage treatment plant which operated from 1930's - 1972. Miami Conservancy District leased the property to Systech in 1972. The facility processed acids, bases, water/oil emulsions, fluids and washer compounds, plating wastes, and other select compatible liquid wastes. The treated liquid wastes were pumped to the Miami Conservancy Wastewater Treatment Plant for final treatment and discharge. Two employees died while cleaning a tank containing cyanide sludges.

In 1978, two 12,000 gallon tanks of solvents (such as acrylates, benzene, and toluene) were drained into their (Systech's) dike. Materials were removed, however, complaints of odors were received from as far away as Middletown for over two weeks. Systech installed monitoring wells in November 1977. Synthetic organics (methanol-23.3 mg/l, toluene-5.86 mg/l, methylethylketone-6.1 mg/l, xylenes-9.4 mg/l, isopropyl alcohol-14.9 mg/l, ethyl acetate-19.5 mg/l) were detected in these wells. On August 18, 1978 and October 5, 1978 contaminated water was pumped out of well #139 (see attached map) until August 21, 1980. A groundwater study was performed by Walter Meinert, P.E. Consulting Engineer and Dr. David Howard of Howard Laboratories, Inc. from 1978-1980 to determine the extent and source(s) of contamination. Since levels of contamination decreased, Meinert and Howard concluded that contamination was contained local and pumping should be discontinued. At that time, representatives of the Southwest District, Ohio EPA and the Miami Conservancy District agreed with that decision.

The City of Franklin contracted Soils & Materials Engineers in 1986 to determine if the groundwater is still contaminated and if so, the source of contamination. Four monitoring wells were sampled onsite (MW-132,MW-133, MW-139, MW-140) by Soils & Materials Staff and Paul Plummer of Miami Conservancy district on March 7, 1986. The analyses indicated that chromium exceeded USEPA Primary Drinking Water Standards (DWS) in MW-133 (128 ppb) and MW-139 (52 ppb). Monitoring well 139 also contained high concentrations of toluene (16,000 ppb), ethylbenzene (7800 ppb) and xylene (2510 ppb).

Polychlorinated biphenyls (69 ppb expressed as Arochlor 1248) were detected in monitor well 132 (Note that these wells are not in the same lens as Franklin municipal wells). These concentrations are high enough to warrant further investigations. Soils & Materials plan to drill 3 soil borings onsite to determine the source(s) of contamination.

A high State and FIT priority is recommended for this site because of the observed release in the groundwater and the proximity of Franklin's municipal water supply. A FIT investigation is recommended to evaluate the reliability of the older monitor wells, to verify contamination and to scope further studies.

M95

DATE	TIME	STORET NUMBER	PARAMETER	UNITS	WELL NUMBER W139	WELL NUMBER W140	LABORATORY	REMARKS
1/17/79		81552	ACETONE	mg/l	ND	ND	HOWARD LABS	Pumped 24 hrs prior to
		81562	BUTANOL	mg/l	24.9	22.2	#1630	sampling. One unident-
		81585	ETHYL ACETATE	mg/l	64.2	ND		ified peak.
		81590	HEXANE	mg/l	ND	ND		
		81310	ISOPROPYL ALCOHOL	mg/l	36.5	ND		
		81695	METHANOL	mg/l	19.4	.9		
		81595	METHYL ETHYL KETONE	mg/l	ND	ND		
			PROPANOL	mg/l	ND	ND		
		34010	TOLUENE	mg/l	ND	ND		
		39180	TRICHLOROETHYLENE	mg/l	ND	ND		
		34506	1,1,1 TRICHLOROETHANE	mg/l	ND	ND		
4/17/79		81552	ACETONE	mg/l	ND	ND	HOWARD LABS	One unidentified peak
		81562	BUTANOL	mg/l	ND	ND	#2204	in W139. Iron and
		81585	ETHYL ACETATE	mg/l	10.1	ND		sulfur bacteria pre-
		81590	HEXANE	mg/l	ND	ND		sent.
		81310	ISOPROPYL ALCOHOL	mg/l	4.4	ND		
		81695	METHANOL	mg/l	1.8	.4		
		81595	METHYL ETHYL KETONE	mg/l	ND	ND		
		81596	METHYL ISOBUTYL KETONE	mg/l	ND	ND		
			PROPANOL	mg/l	4.8	ND		
		34010	TOLUENE	mg/l	ND	ND		
		39180	TRICHLOROETHYLENE	mg/l	ND	ND		
		34506	1,1,1 TRICHLOROETHANE	mg/l	ND	ND		
		34020	XYLENES	mg/l	ND	ND		
9/17/79		81552	ACETONE	mg/l	ND	ND	HOWARD LABS	
		81562	BUTANOL	mg/l	ND	ND	#3150	
		81585	ETHYL ACETATE	mg/l	3.1	ND		
		81590	HEXANE	mg/l	ND	ND		
		81310	ISOPROPANOL	mg/l	ND	ND		
		81695	METHANOL	mg/l	TRACE	TRACE		
		81595	METHYL ETHYL KETONE	mg/l	ND	ND		
			PROPANOL	mg/l	2	ND		
		34010	TOLUENE	mg/l	ND	ND		
		39180	TRICHLOROETHYLENE	mg/l	ND	ND		
		34506	1,1,1 TRICHLOROETHANE	mg/l	ND	ND		
12/14/79			ACETIC ACID		TRACE	TRACE	HOWARD LABS	No volatile organics
		77063	BUTYIC ACID		TRACE		#4016	present.
		77031	PROPIONIC ACID		TRACE	TRACE		Pumps turned off.
2/19/80			NO SYNTHETIC ORGANICS GREATER THAN 1 mg/l (none detected)				HOWARD LABS	Pumps turned on 2/14/80.
								Pumping ended 8/21/80.

ND Not detected. (<1 mg/l)
NOTE: Units for Storet numbers listed are in micrograms per liter (ug/l).
Storet numbers were not assigned by laboratory furnishing analyses.

Shane

GROUND WATER QUALITY DATA
SYSTECH

B:GWQSYSTEC PAGE 1

DATE	TIME	STORET NUMBER	PARAMETER	UNITS	WELL NUMBER W139	WELL NUMBER W140	LABORATORY/ SAMPLE NO.	REMARKS
2/07/78			WEATHERED GASOLINE		*		OH DEPT HEALTH	
3/06/78			TOTAL ORGANIC CARBON	mg/l	750		HOWARD LABS	
		81552	ACETONE	mg/l	91.1		#595	
		81562	BUTANOL	mg/l	14			
		81585	ETHYL ACETATE	mg/l	51			
		81695	METHANOL	mg/l	58.3			
		81595	METHYL ETHYL KETONE	mg/l	103.7			
		34010	TOLUENE	mg/l	21.4			
		39180	TRICHLOROETHYLENE	mg/l	8.8			
		34506	1,1,1 TRICHLOROETHANE	mg/l	.33			
		77097	CYCLOHEXANONE		ND			
		77004	ETHYL ALCOHOL		ND			
			HEPTANE		ND			
		81590	HEXANE		ND			
			ISO BUTYL ACETATE		ND			
			ISOPROPYL ACETATE		ND			
		81310	ISOPROPYL ALCOHOL		ND			
		34423	METHYLENE CHLORIDE		ND			
		81596	METHYL ISOBUTYL KETONE		ND			
		77189	N-BUTYL ACETATE		ND			
			N-PROPYL ACETATE		ND			
		81604	PENTANE		ND			
			PERCHLOROETHYLENE		ND			
			PROPYL ALCOHOL		ND			
5/19/78		81552	ACETONE	mg/l	19.9		HOWARD LABS	15th day of pumping
		81590	HEXANE	mg/l	13.1		#772	
		81695	METHANOL	mg/l	36.1			
			PROPANOL	mg/l	35.6			
		34506	1,1,1 TRICHLOROETHANE	mg/l	5.3			
								14 Unidentified peaks
7/19/78		81585	ETHYL ACETATE	mg/l	77.6		HOWARD LABS	Total scan for 151
		81590	HEXANE	mg/l	11.9		#897	specific compounds
		81695	METHANOL	mg/l	4.9			including priority
		81595	METHYL ETHYL KETONE	mg/l	66.3			pollutants.
		34010	TOLUENE	mg/l	1.7			4 Unidentified peaks.
8/18/78		81590	HEXANE	mg/l	3.87		HOWARD LABS	
		81695	METHANOL	mg/l	23.3		#1028	
		34010	TOLUENE	mg/l	5.86			2 Unidentified peaks.
10/05/78		81585	ETHYL ACETATE	mg/l	19.5		HOWARD LABS	Pumped 24 hrs. prior
		81310	ISOPROPYL ALCOHOL	mg/l	14.9		#1243	to sampling. No un-
		81596	METHYL ISOBUTYL KETONE	mg/l	6.1			identified peaks.
		34020	XYLENES	mg/l	9.4			

ND Not detected. (<1 mg/l)

SYSTECH INTER-OFFICE CORRESPONDENCE

To Jim Pennino Date 21 August 78

Subject Analysis of W139

The attached analysis is of the sample of Well 139 taken on 18 July 1978. Should you have any questions, please call our Mr. John Andrejcis.

By

VERBAL ORDERS DON'T GO

HOWARD LABORATORIES, INC.

3601 S. DIXIE
DAYTON, OHIO 45439
(513) 294-6856

RECEIVED AUG 1 1978

August 9, 1978

ANALYTICAL RESULTS No. 897

SYSTEMS TECHNOLOGY CORPORATION

Sample: Well Water - W-139 - Rec'd 7-19-78 - John Andrejcio - P.O. #57179-685-28

Carbon Dioxide	341	mg/l
Chloride	180	"
Sulfate	3.50	"
Nitrate	1.40	"
Hydrogen Sulfide	<0.10	"
Cyanide	<0.002	"
Dissolved Solids	1,218	"
COD	907	"

Metals:

Calcium	212	mg/l
Magnesium	51.6	"
Sodium	103	"
Nickel	46	ug/l
Chromium	13	"
Copper	2	"
Cadmium	15	"
Lead	<1	"
Iron	91,000	"
Arsenic	134	"

General Organic Scan:

Methyl Ethyl Ketone	66.3	mg/l
Ethyl Acetate	77.6	"
Toluene	1.7	"
Hexane	11.9	"
Methanol	4.9	"

Total scan was for 151 specific compounds including the priority pollutants, We recommend that since none of the samples have contained any of the priority pollutants that the analysis for priority pollutants be eliminated.

Approved

HOWARD LABORATORIES, INC.

3601 S. DIXIE
DAYTON, OHIO 45439
(513) 294-6856

RECEIVED AUG 1 1978

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Total scan was for 151 specific compounds including the priority pollutants. We recommend that since none of the samples have contained any of the priority pollutants that the analysis for priority pollutants be eliminated.

Approved

specialists in environmental technology
SYSTEMS TECHNOLOGY CORPORATION
245 North Valley Road
Xenia, Ohio 45385
Area Code 513/372-8077

July 3, 1978

Mr. James D. Pennino
District Geologist
Ohio EPA
Southwest District
7 E. Fourth Street
Dayton, Ohio 45402

Dear Mr. Pennino:

Attached are the mid-pumping analytical results from the W-139 test well located at Franklin, Ohio. Parameters tested for those are listed in your March 31, 1978, letter to Tom Wittmann.

Thirty-day results will be forthcoming.

Respectfully,

SYSTEMS TECHNOLOGY CORPORATION

John A. Andrejcio
Process Development

JAA/tr
Enclosure

RECEIVED
JUL 6 1978
OHIO ENVIRONMENTAL PROTECTION AGENCY
SOUTH WEST DISTRICT

ANALYTICAL RESULTS
15th DAY OF PUMPING
TEST WELL W-139

pH	6.8
Carbon Dioxide	100.00 mg/l
Chloride	120.10 mg/l
Sulfate	4.00 mg/l
Nitrate	1.36 mg/l
Hydrogen Sulfide	None Detected
Total Dissolved Solids	850 mg/l
Cyanide	None Detected
Chemical Oxygen Demand	520 mg/l
Magnesium	596.0 mg/l
Sodium	100.8 mg/l
Iron	35.0 mg/l
Nickel	63 ug/l
Chromium	14 ug/l
Aresenic	5 ug/l
Zinc	15 ug/l
Copper	7 ug/l
Cadmium	6 ug/l
Lead	48 ug/l
Calcium	508 mg/l

General Organic Scan:

Methanol	36.1 mg/l
Propanol	35.6 mg/l
Acetone	19.9 mg/l
Hexane	13.1 mg/l
1,1,1 Trichloroethane	5.3 mg/l

No other identifiable peaks.

RECEIVED
JUL 6 1978
OHIO ENVIRONMENTAL PROTECTION AGENCY
SOUTH WEST DISTRICT

SYSTECH INTER-OFFICE CORRESPONDENCE

SYSTECH

To Jim Pennino

Date 21 August 78

Subject Analysis of W139

The attached analysis is of the sample of Well 139 taken on 18 July 1978. Should you have any questions, please call our Mr. John Andreycio.

By [signature]

VERBAL ORDERS DON'T GO

HOWARD LABORATORIES, INC.

3601 S. DIXIE
DAYTON, OHIO 45439
(513) 294-6856

RECEIVED AUG 1 1978

August 9, 1978

ANALYTICAL RESULTS No. 897

SYSTEMS TECHNOLOGY CORPORATION

Sample: Well Water - W-139 - Rec'd 7-19-78 - John Andrejcio - P.O. #57179-685-28

Carbon Dioxide	341	mg/l
Chloride	180	"
Sulfate	3.50	"
Nitrate	1.40	"
Hydrogen Sulfide	<0.10	"
Cyanide	<0.002	"
Dissolved Solids	1,218	"
COD	907	"

Metals:

Calcium	212	mg/l
Magnesium	51.6	"
Sodium	103	"
Nickel	46	ug/l
Chromium	13	"
Copper	2	"
Cadmium	15	"
Lead	<1	"
Iron	91,000	"
Arsenic	134	"

General Organic Scan:

Methyl Ethyl Ketone	66.3	mg/l
Ethyl Acetate	77.6	"
Toluene	1.7	"
Hexane	11.9	"
Methanol	4.9	"

Total scan was for 151 specific compounds including the priority pollutants. We recommend that since none of the samples have contained any of the priority pollutants that the analysis for priority pollutants be eliminated.

Approved

HOWARD LABORATORIES, INC.

3601 S. DIXIE
DAYTON, OHIO 45439
(513) 294-6856

RECEIVED AUG 1 1978

August 9, 1978

ANALYTICAL RESULTS No. 897

SYSTEMS TECHNOLOGY CORPORATION

Sample: Well Water - W-139 - Rec'd 7-19-78 - John Andrejcio - P.O. #57179-685-28

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Approved

SYSTECH®

specialists in environmental technology
SYSTEMS TECHNOLOGY CORPORATION
245 North Valley Road
Xenia, Ohio 45385
Area Code 513/372-8077

July 3, 1978

Mr. James D. Pennino
District Geologist
Ohio EPA
Southwest District
7 E. Fourth Street
Dayton, Ohio 45402

Dear Mr. Pennino:

Attached are the mid-pumping analytical results from the W-139 test well located at Franklin, Ohio. Parameters tested for those are listed in your March 31, 1978, letter to Tom Wittmann.

Thirty-day results will be forthcoming.

Respectfully,

SYSTEMS TECHNOLOGY CORPORATION

John A. Andrejcio
Process Development

JAA/tr
Enclosure

RECEIVED
JUL 6 1978
OHIO ENVIRONMENTAL PROTECTION AGENCY
SOUTH WEST DISTRICT

ANALYTICAL RESULTS
15th DAY OF PUMPING
TEST WELL W-139

pH	6.8
Carbon Dioxide	100.00 mg/l
Chloride	120.10 mg/l
Sulfate	4.00 mg/l
Nitrate	1.36 mg/l
Hydrogen Sulfide	None Detected
Total Dissolved Solids	850 mg/l
Cyanide	None Detected
Chemical Oxygen Demand	520 mg/l
Magnesium	596.0 mg/l
Sodium	100.8 mg/l
Iron	35.0 mg/l
Nickel	63 ug/l
Chromium	14 ug/l
Aresenic	5 ug/l
Zinc	15 ug/l
Copper	7 ug/l
Cadmium	6 ug/l
Lead	48 ug/l
Calcium	508 mg/l

General Organic Scan:

Methanol	36.1 mg/l
Propanol	35.6 mg/l
Acetone	19.9 mg/l
Hexane	13.1 mg/l
1,1,1 Trichloroethane	5.3 mg/l

No other identifiable peaks.

RECEIVED
JUL 6 1978
OHIO ENVIRONMENTAL PROTECTION AGENCY
SOUTH WEST DISTRICT

WELL LOG AND DRILLING REPORT

Well #5

DRILLER'S COPY

NO CARBON PAPER NECESSARY— SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

454760

County [illegible] Township [illegible] Section of Township [illegible]

Owner [illegible] Address Franklin, Ohio

Location of property Well No. 5 - Rt. 73 into Franklin to stoplight at River. Then straight across [illegible] left approx. ½ mile on left

CONSTRUCTION DETAILS

Casing diameter [illegible] Length of casing [illegible]

Type of screen Stainless Length of screen [illegible]

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate ..... G.P.M. Duration of test ..... hrs.

Drawdown ..... ft. Date

Static level-depth to water 15 ft.

Quality (clear, cloudy, taste, odor) clear

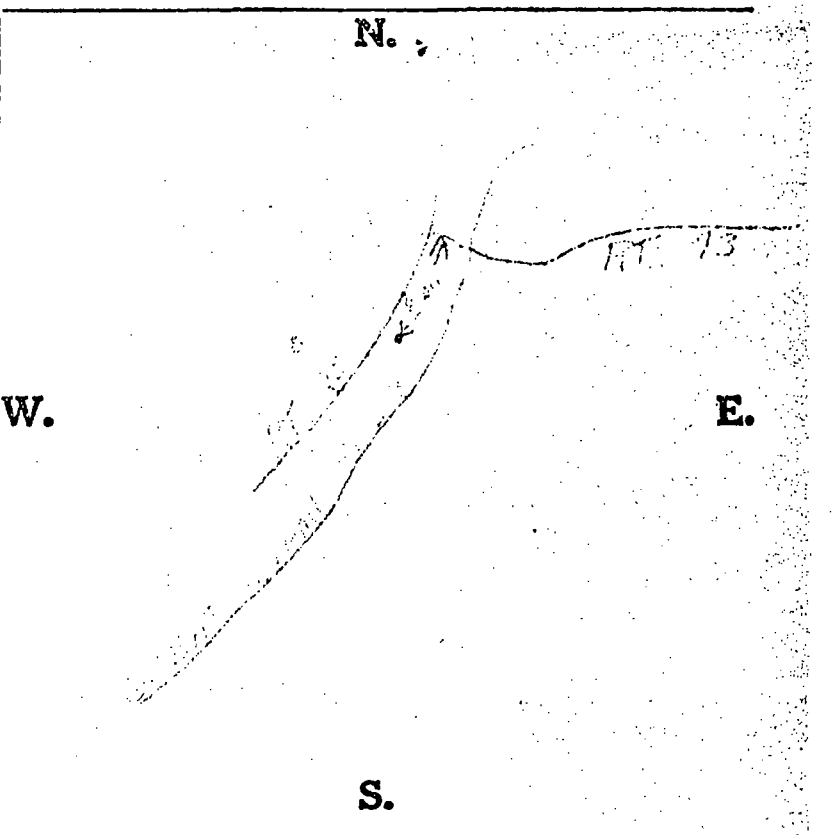
Pump installed by

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
[illegible]	0 Feet	3 Ft.
[illegible]	3	1
[illegible]	1	30
[illegible]	30	24

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



Drilling Firm [illegible] Drilling Inc.

Date 4-22-74

Address 701 Broadway, Swanton, Ohio

Signed [illegible], President

*If additional space is needed to complete well log, use next consecutive numbered form.

WELL LOG

m	To	Formation
	3	Fill
	9	Silty sand
	30	Big stones & gravel
	24	Coarse gravel with some big stones

RKS:

WELL LOG

DUNBAR DRILLING INC.

SWANTON, OHIO

Customer: City of Franklin

Address: Franklin, Ohio

Job Name: Same

Location: New well to replace #5 well - 12 ft. North of old well

Well No.

Strainer: Overall Length 20' Dia. 12 Ft. of Slot 20

Slot Size No. .125 Fittings welded

Mfd. By Johnson Material Stainless Steel

Pipe: No. Ft. 64' Size 16" Wt. 5/16 lb. Type T.E.

No. Ft. Size " Wt. lb. Type

No. Ft. Size " Wt. lb. Type

Drive Shoe: Size " Size " Size "

Static Water Level 15 Ft. Completed depth of well 84 ft.

Surging and Developing: Total Time Hrs.

GPM	PUMPING LEVEL	LENGTH OF TEST	TEMPERATURE
	Ft.	Hrs.	°F.
	Ft.	Hrs.	°F.
	Ft.	Hrs.	°F.
	Ft.	Hrs.	°F.

REMARKS: Drilled with Kelly rig

30" - 12" screen & 16" riser pipe - casing capped.

FILTER GRAVEL

Filter gravel.

Date Started 2-25-74 Date Completed 3-6-74

DRILLER	HELPER	HELPER
Russell McGeare	Jon Hopkins	

Well #6

LATHE & BOWLER, INC.
Memphis, Tenn.

ORDER NO. 139-62, DATE 11 June 19 62

REFER TO QUOTATION NO. _____

PLEASE ENTER OUR ORDER FOR THE FOLLOWING PUMP:

SHIP TO City of Franklin

STREET ADDRESS _____

CITY AND STATE Franklin, Ohio

ROUTE Best VIA: FREIGHT / EXPRESS / Motor / COLLECT / PREPAID SHIPPING DATE DESIRED at once 19__

PUMPING CONDITIONS

INSIDE DIA. OF WELL 12 INCHES	LIFT IN WELL _____ FEET	CAPACITY OF PUMP 750 G. P. M.
DEPTH OF WELL _____ FEET	LIFT ABOVE _____ FEET	SPEED OF PUMP 1750 R. P. M.
STATIC WATER LEVEL _____ FEET	COLUMN FRICTION _____ FEET	H. P. OF PRIME MOVER 50
DRAWDOWN _____ FEET	TOTAL DYNAMIC HEAD 185 ± FEET	IS WATER O. K. _____

GEAR DRIVE OR MOTOR SPECIFICATIONS

Ladder & Cast

MAKE _____, SIZE 50 H.P., 1750 R.P.M. 220/440 VOLTS, 3 PHASE, 60 CYCLES, TYPE HU-3, FRAME 365UP 365VP

MOTOR {WILL / WILL NOT} HAVE NON-REVERSE RATCHET. COVERED BY OUR ORDER NO. 140-62 TO L&B enclosed

QUANTITY	MATERIAL:
1	[illegible] PUMP HEAD WITH 8 INCH OUTLET. WITH BASE PLATE / WITHOUT BASE PLATE {STAINLESS STEEL / CARBON STEEL} DRIVE SHAFT
	NO. _____ BEARING ASSEMBLY.
	_____ " DIAMETER FLAT PULLEY.
	_____ " PITCH DIAMETER VEE BELT PULLEY WITH _____ GROOVES FOR _____ TYPE BELTS.
	_____ x _____ DISCHARGE NIPPLE.
	_____ DRESSER COUPLING.
	_____ " UNDER GROUND DISCHARGE WITH {WELDED STEEL COUPLING THREADED OUTLET / WELDED STEEL NIPPLE WITH CAST IRON FLANGE / CAST IRON THREADED TEE / CAST IRON FLANGED TEE} CENTER LINE OF DISCHARGE
	TO BE _____ FT. _____ INCHES BELOW TOP OF PUMP FOUNDATION.
1	60 FEET DISCHARGE COLUMN, BASE PLATE TO MAIN BEARING ☑, SUCTION FLANGE ☐.
	IN LENGTHS OF 10 FT.
	SIZE OF SHAFTING 1-9/16", MATERIAL Carbon steel
	SIZE OF TUBING -, MATERIAL _____
	SIZE OF DISCHARGE PIPE 3", MATERIAL steel
	TYPE OF CONNECTIONS: FLANGED ☐, SCREW COUPLED ☑.
1	10 INCH, TYPE [illegible] 5 STAGE PUMP BOWL.
	WITH / WITHOUT DRAIN PORTS. {BRONZE / CAST IRON} BOWLS. {BRONZE / CAST IRON} IMPELLERS. {NON-CORROSIVE / CARBON STEEL} COLLETS.
1	10 FEET OF 3" SUCTION PIPE, MATERIAL steel
-	_____ INCH SUCTION STRAINER, TYPE _____

FULL DIAMETER
TRIM TO MEET ABOVE CONDITIONS
TRIM TO NOT OVERLOAD
HP MOTOR AT _____ GPM
x TRIM TO MEET CURVE NO. _____

LUBRICATION—OIL HAND PRESSURE ☐, OIL MANUAL DRIP FEED ☐, WATER, WITH CUTLESS RUBBER BEARINGS ☑, OIL SOLENOID DRIP FEED ☐ TO BE OPERATED WITH _____ VOLT CURRENT.

REMARKS AND SPECIAL MATERIAL _____

ORDER NO. 139-62 [illegible] 6-11-62 [illegible] LAYNE OHIO

PERFORMANCE CHART

DATE 11-1-[illegible]

DISCHARGE COLUMN	8x1 3/16	IMPELLER	5T13	PUMP NO	4561D
SUCTION PIPE	8	FILING	ORD	ORDER NO	63-[illegible]
LIQUID	WATER	DIAMETER	FULL	CUSTOMER	CITY OF [illegible]
ALL BRONZE BOWL				SUBSIDIARY	LAYNE OHIO

SIZE OF PUMP 10

TYPE OF PUMP FIGURE 12C

NUMBER OF STAGES 5

R. P. M. 1760

HEAD-CAPACITY

BOWL TESTED AS RECEIVED

STANDARD LATERAL

EFFICIENCY

OLD PUMP

STD LATERAL

HORSE POWER

PER CENT EFFICIENCY

BRAKE HORSE POWER

U. S. GALLONS PER MINUTE (BY 8 x 4 VENTURI)

WELL LOG AND DRILLING REPORT

CUSTOMER'S CO.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio 43212

PLEASE USE PENCIL OR TYPEWRITER

DO NOT USE INK.

Nº 342987

Municipal

County Warren Township Franklin Section of Township

Owner City of Franklin Address Franklin, Ohio

Location of property Near Test well on Oxford Road

CONSTRUCTION DETAILS

24" well

Casing diameter 24" Length of casing 90'

Type of screen Red Brass Length of screen 34'

Type of pump Vertical Turbine (Test)

Capacity of pump 1600 gpm

Depth of pump setting

Date of completion Oct. 18, 1967

BAILING OR PUMPING TEST

Pumping Rate 1449 G.P.M. Duration of test 7 hrs.

Drawdown 7 ft. Date Oct. 18, 1967

Static level-depth to water 16'6" ft.

Quality (clear, cloudy, taste, odor) Clear

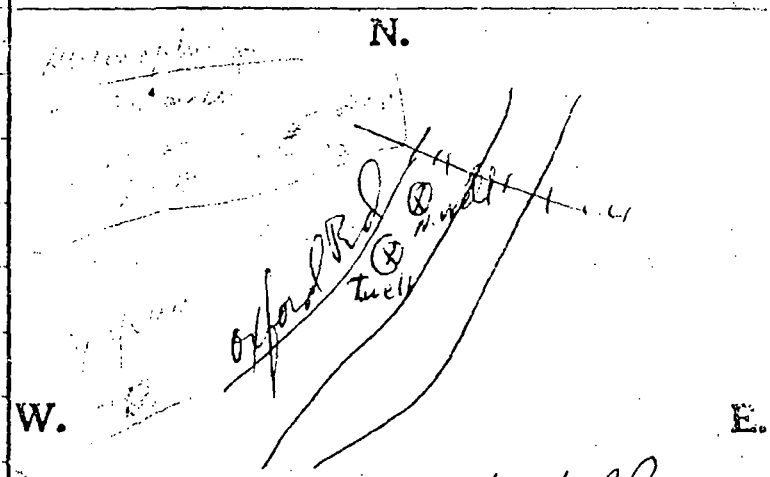
Pump installed by C.O. Burgess

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Top Soil & Sand	0 Feet	9 Ft.
cl & few gravel + wood	9	17
Little sand & pea gravel	17	37
Coarse sand & gravel	37	50
" " "	50	62
" " "	62	70
" " "	70	74
Blue clay (lime chips)	74	76
Coarse sand & gravel	76	80 (dirty)
" " "	80	85 "
Tough greenish blue cl	85	90

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Moodys Dayton, O. Date November 13, 1967

Address Signed

*If additional space is needed to complete well log, use next consecutive numbered form.

Well #7

DUNBAR DRILLING, INC.

TURBINE PUMP RECORD

CUSTOMER City of Franklin DATE INSTALLED Nov. 20, 1970

ADDRESS Franklin, Ohio

JOB NAME Water Works Dept.

LOCATION Dayton-Oxford Road

WELL NO. 7 WELL DIA. 20 " WELL DEPTH 112 ' STATIC LEVEL 24'

PUMP SER. NO. GC-12954 CONDITIONS 1100 GPM 220' HEAD

MOTOR: 75 HP 1800 RPM 3 PHASE 60 CYCLE 460 VOLT

MFR. G.E. SER. NO. EMJ513505 TYPE K Code G

MODEL 5K625BX81A FRAME B365TP16 DR. CPLG. BORE 1½"

THRUST BRG. 629A219G1 RADIAL BRG. 5903493P13

GEAR DRIVE: SIZE 2BC RATIO 1 TO 1 MFR. Amarillo

SER. NO. 73801 DRIVE COUPLING BORE 1½"

BELT DRIVE: MODEL _____ PUL. DIA. _____ MFR. _____

SER. NO. _____ DRIVE COUPLING BORE _____

HEAD: MFR. Johnston SIZE 16"x8 (a) ST. BOX DIA. 1½"

COLUMN: LENGTH 50' DIA. 8" MATERIAL Std. JOhnston

LINESHAFT: LENGTH 50' DIA. 1½" MATERIAL Std. Johnston

BEARING CENTERS 10 FEET.

BOWLS: MFR. Johnston MATERIAL Std. NO. STAGES 4

SIZE 12CS IMPELLER NO. Full Dia.

SUCTION PIPE: LENGTH 6" DIA. 8" MATERIAL Std.

STRAINER: SIZE None TYPE _____

AIRLINE: LENGTH 55' SIZE ½" Plastic GAUGE 70'

TEST RECORD

88 amps

G. P. M.	PUMPING LEVEL	HEAD ABOVE	TOTAL HEAD	IMPELLER ADJUSTM.	AMPERES	LENGTH OF TEST
				4½ faces	80-89-85	6/12/73

REMARKS: (a) 3" spacer between head and gear drive with stuffing box shaft 1/2" below top of discharge head.

INSTALLED BY: Don Dailey

HELPER: Pat Parsons HELPER: Clarence Lake

SPECIFICATION DATA

	MOTOR SHAFT	BELT HEAD SHAFT	GEAR HEAD SHAFT	COMBINATION DRIVE SHAFT
SIZE				1½"
LENGTH				74½"
TOP THREAD				10T.RHx6"
KEYWAY				3/8"x8½
CENTER KEYWAY				
BOTTOM THREAD				10T.LHx1-7/8"
MATERIAL				Std.

	TOP		INTERMEDIATE		BOTTOM	
	COLUMN	SHAFT	COLUMN	SHAFT	COLUMN	SHAFT
SIZE	8"	1½"	8"	1½"	8"	1½"
LENGTH	59½"	63¾"	9'-11½"	10'-0"	59½"	60"
TOP THREAD	8RHx2	10LHx1-7/8	8RHx2	10LHx1-7/8	8RHx2	10LHx1-7/8
BOTTOM THREAD	"	"	"	"	"	"
MATERIAL	Std.	Std.	Std.	Std.	Std.	Std.

POWER UNIT		FLEXIBLE DRIVE SHAFT		FLANGES
MAKE	Chrysler	MAKE	Watson-Spicer	
MODEL	H-440	SIZE	W1-41	W1-41
SERIAL NO.	E0-94574	BORE ENGINE	"	2¼"
P.T.O. SHAFT DIA.	2½"	BORE GEAR		1-7/8"

REMARKS:

WELL LOG

From	To	Formation
0	10	Silt & sand
10	19	Sand & lots of big rocks
19	66	Sand & gravel & rocks
66	[illegible]	Clay & stones
100	101	Find gravel & coarse sand

REMARKS: Had trouble with big rocks to 66'

WELL LOG

DUNBAR DRILLING INC.

SWANTON, OHIO

Customer: City of Franklin, Ohio

Address

Job Name New Well

Location [illegible] Southwest of [illegible] Well

Well No.

Strainer: Overall Length 35' 6" Dia. 1800 Ft. of Slot

Slot Size No. 100 Fittings Welded

Mfd. By Johnson Material Stainless

Pipe: No. Ft. Size " Wt. lb. Type

No. Ft. 61'6" Size 20 " Wt. 1/2" wall lb. Type

No. Ft. 13'5" Size 12 " Wt. 3/8 lb. Type

Drive Shoe: Size " Size " Size "

Static Water Level 12.77' Ft. Completed depth of well 1

Surging and Developing: Total Time Hrs.

GPM	PUMPING LEVEL	LENGTH OF TEST	TE
1840	27'3" Ft.	28 Hrs.	
	Ft.	Hrs.	
	Ft.	Hrs.	
	Ft.	Hrs.	

REMARKS: Gravel wall well [illegible] screen [illegible] ton filter gravel filled [illegible] above screen, backfilled with sand & cemented to top of well

Date Started 7-30-70 Date Completed [illegible]-13-70

DRILLER	HELPER	HELPER
Russell McFacre	Don Boyd	John Cavenor
	Jackson Finley	

Well #8

INVOICE

DUNBAR DRILLING INC.

NO. 13081

PRACTICAL ENGINEERED INSTALLATIONS

307 BROADWAY SWANTON, OHIO 43558 PHONE 826-3070 (AREA CODE 419)

DATE November 30, 1978

City of Franklin
35 East 4th Street
Franklin, Ohio 45005

YOUR P. O. ORDER NO.	REQUISITION NO.	OUR ORDER NO.	TERMS
		B-6728	Net

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
	Furnished labor and material to pull Fairbanks Morse Fire Pump at the St. Regis Plant, No. 8 well, and convert from an oil lubed lineshaft to a water lubed line shaft.		
	1 - 1-1/2" x 41-1/4" Stainless Steel Motor Shaft		
	1 - 1-1/2" x 1-7/16" x 58-1/2" Bottom Shaft		
	1 - 1-1/2" x 61-1/4" Top Shaft		
	60' of 8" x 1-1/2" Johnston Column and Shaft		
	70' - 1/4" Plastic Altitude Line with accessories		
	8 - 3/4" x 3" Bolts and nuts		
	12 - 7/8" x 2" Cap Screws		
	6 - 3/4" x 1-1/2" Cap Screws		
	Material		$2,217.62
	Labor		2,687.44
	TOTAL INVOICE		$4,905.06

DUNBAR DRILLING, INC.

TURBINE PUMP RECORD

CUSTOMER City of Franklin DATE INSTALLED Nov. 20, 1978

ADDRESS Franklin, Ohio

JOB NAME St. Regis Fire Pump

LOCATION Behind St. Regis Paper Mill

WELL NO. 8 WELL DIA. 12 " WELL DEPTH _____ ' STATIC LEVEL 16 '

PUMP SER. NO. PR 2443 CONDITIONS _____ GPM _____ HEAD

MOTOR: 75 HP 1755 RPM 3 PHASE 60 CYCLE 460 VOLT

MFR. Fairbanks Morse SER. NO. F 163568 TYPE Q20

MODEL _____ FRAME 2045TPV DR. CPLG. BORE 1½"

THRUST BRG. B.M. H6L1088-13 RADIAL BRG. _____

GEAR DRIVE: SIZE _____ RATIO _____ TO _____ MFR. _____

SER. NO. _____ DRIVE COUPLING BORE _____

BELT DRIVE: MODEL _____ PUL. DIA. _____ MFR. _____

SER. NO. _____ DRIVE COUPLING BORE _____

HEAD: MFR. Fairbanks Morse SIZE _____ ST. BOX DIA. 1½"

COLUMN: LENGTH 70' DIA. 8" MATERIAL Std. Johnston

LINESHAFT: LENGTH 70' DIA. 1½" MATERIAL Std. Johnston

BEARING CENTERS 10 FEET.

BOWLS: MFR. Fairbanks Morse MATERIAL Std. NO. STAGES 4

SIZE 12MC IMPELLER NO. 6920F

SUCTION PIPE: LENGTH None DIA. _____ MATERIAL _____

STRAINER: SIZE 12" TYPE Basket

AIRLINE: LENGTH 70' SIZE ¼" Plastic GAUGE Ametek

TEST RECORD 89.0

G. P. M.	PUMPING LEVEL	HEAD ABOVE	TOTAL HEAD	IMPELLER ADJUSTM.	AMPERES	LENGTH OF TEST

REMARKS: _____

INSTALLED BY: Pat Parsons

HELPER: Fred Krauss HELPER: _____

SPECIFICATION DATA

	MOTOR SHAFT	BELT HEAD SHAFT	GEAR HEAD SHAFT	COMBINATION DRIVE SHAFT
SIZE	1½"			
LENGTH	41¼"			
TOP THREAD	12RHx4"			
KEYWAY	3/8"			
CENTER KEYWAY				
BOTTOM THREAD	10LHx2"			
MATERIAL	416 S.S.			

	TOP		INTERMEDIATE		BOTTOM	
	COLUMN	SHAFT	COLUMN	SHAFT	COLUMN	SHAFT
SIZE	8"	1½"	8"	1½"	8"	1½"
LENGTH	59¼"	61¼"	9'-11¼"	10'-0"	59¼"	58½"
TOP THREAD	Weld flange	10LHx2"	8RHx2¼"	10LHx2"	8RHx2¼"	10LHx2"
BOTTOM THREAD	8RHx2¼"	"	"	"	Weld flange	12LHx2"
MATERIAL	Std.	416S.S.	Std.	S.S.	Std.	S.S.

POWER UNIT		FLEXIBLE DRIVE SHAFT		FLANGES
MAKE		MAKE		
MODEL		SIZE		
SERIAL NO.		BORE ENGINE		
P.T.O. SHAFT DIA.		BORE GEAR		

REMARKS:

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

Date Received for Review 7/6/87 Date Review Completed 7/7/87

To: Tom Sullivan
From: Brenda R. Jones
Subject: Systech Liquid Treatment

PAN: FOH0514ST Case # 7265

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	#	Low Soil
	Low Water		Low Water
2	Drinking Water		Drinking Water
	Other		Other

Project Data Status

Completed!!

✓✓ Incomplete, awaiting:

FIT Data Review Findings:

1) No compounds detected in VOA and Pest/PCB fractions
2) A/B/N fractions lost by the lab during extraction

Compounds were detected in sample(s); see enclosed Chemical Evaluation Form.

Book No. 6 Page No. 105

recycled paper

RECEIVED JUN 18 1987

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH SUPERFUND HIT SAMPLE DATE 5/13/87 LAB ARRIVAL DATE 5/14/87 DUE DATE 6/4/87

DU NUMBER YA05 C76100 DATA SET NUMBER 3960 STUDY Systech Liquid PRIORITY N CONTRACTOR CRL

CRL LOG NUMBER	SAMPLE DESCRIPTION Sample # TAG-#	WATER VOLATILE ORGANICS SCAN UG/L TOX 17564	WATER ABN ORGANICS SCAN UG/L TOX 17574	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 215622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
87FS06R02	Blank 5-36612 5-36613	L } Completed 6/12/87			
87FS06S12	RW1 5-36604 5-36648 5-36649 5-36602	L } TCL 5-29 6/12/87			
87FS06R02	Blank 5-36611		L		
87FS06S12	RW1 5-36650 5-36601		L		

VOLATILE ORGANIC ANALYSIS DATA SHEET
U.S. EPA - Region V, Central Regional Laboratory

Study Name: SYSTECH LIQUID
Sample # : 87FS06 S12

Data Set #: SF-3960
Matrix : WATER

RECEIVED JUN 18 1987

	CAS #	Compounds	Concentration (PPB)	
1.	74-87-3	Chloromethane	10	U
2.	74-83-9	Bromomethane	10	U
3.	75-01-4	Vinyl Chloride	10	U
4.	75-00-3	Chloroethane	1.5	U
5.	75-09-2	Methylene Chloride	1.0	U
6.	107-02-8	Acrolein	100	U
7.	67-64-1	Acetone	75	U
8.	107-37-1	Acrylonitrile	50	U
9.	75-15-0	Carbon Disulfide	3.0	U
10.	75-35-4	1,1-Dichloroethene	1.5	U
11.	75-35-3	1,1-Dichloroethane	1.5	U
12.	156-60-5	trans-1,2-Dichloroethene	1.5	U
13.	67-66-3	Chloroform	1.5	U
14.	78-93-3	2-Butanone	50	U
15.	107-06-2	1,2-Dichloroethane	1.5	U
16.	71-55-6	1,1,1-Trichloroethane	1.5	U
17.	56-23-5	Carbon Tetrachloride	1.5	U
18.	108-05-4	Vinyl Acetate	15	U
19.	75-27-4	Bromodichloromethane	1.5	U
20.	78-87-5	1,2-Dichloropropane	1.5	U
21.	10061-02-6	trans-1,3-Dichloropropene	1.0	U
22.	79-01-6	Trichloroethene	1.5	U
23.	71-43-2	Benzene	1.5	U
24.	124-48-1	Dibromochloromethane	1.5	U
25.	79-00-5	1,1,2-Trichloroethane	1.5	U
26.	10061-01-5	cis-1,3-Dichloropropene	2.0	U
27.	110-75-8	2-Chloroethyl Vinyl Ether	1.5	U
28.	75-25-2	Bromoform	1.5	U
29.	108-10-1	4-Methyl-2-pentanone	3.0	U
30.	519-78-6	2-Hexanone	3.6	U
31.	127-18-4	Tetrachloroethene	1.5	U
32.	79-34-5	1,1,2,2-Tetrachloroethane	1.5	U
33.	108-88-3	Toluene	1.5	U
34.	108-90-7	Chlorobenzene	1.5	U
35.	100-41-4	Ethylbenzene	1.5	U
36.	100-42-5	Styrene	1.0	U
37.	108-38-3	m-Xylene	2.0	U
38.		o/p-Xylene (total)	2.5	U

Data Qualifiers:
U -Compound was analyzed for but not detected. The value reported is the method detection limit for reagent water.
SLC -Suspected Laboratory Contaminant.
SFC -Suspected Field Contaminant.

VOLATILE ORGANIC ANALYSIS DATA SHEET
U.S. EPA - Region V, Central Regional Laboratory

Study Name: SYSTECH LIQUID
Sample # : 87FS06 R02

Data Set #: SF-3960
Matrix : WATER

RECEIVED JUN 1 8 1987

	CAS #	Compounds	Concentration (PPB)	
1.	74-87-3	Chloromethane	10	U
2.	74-83-9	Bromomethane	10	U
3.	75-01-4	Vinyl Chloride	10	U
4.	75-00-3	Chloroethane	1.5	U
5.	75-09-2	Methylene Chloride	1.0	U
6.	107-02-8	Acrolein	100	U
7.	67-64-1	Acetone	75	U
8.	107-37-1	Acrylonitrile	50	U
9.	75-15-0	Carbon Disulfide	3.0	U
10.	75-35-4	1,1-Dichloroethene	1.5	U
11.	75-35-3	1,1-Dichloroethane	1.5	U
12.	156-60-5	trans-1,2-Dichloroethene	1.5	U
13.	67-66-3	Chloroform	1.5	U
14.	78-93-3	2-Butanone	50	U
15.	107-06-2	1,2-Dichloroethane	1.5	U
16.	71-55-6	1,1,1-Trichloroethane	1.5	U
17.	56-23-5	Carbon Tetrachloride	1.5	U
18.	108-05-4	Vinyl Acetate	15	U
19.	75-27-4	Bromodichloromethane	1.5	U
20.	78-87-5	1,2-Dichloropropane	1.5	U
21.	10061-02-6	trans-1,3-Dichloropropene	1.0	U
22.	79-01-6	Trichloroethene	1.5	U
23.	71-43-2	Benzene	1.5	U
24.	124-48-1	Dibromochloromethane	1.5	U
25.	79-00-5	1,1,2-Trichloroethane	1.5	U
26.	10061-01-5	cis-1,3-Dichloropropene	2.0	U
27.	110-75-8	2-Chloroethyl Vinyl Ether	1.5	U
28.	75-25-2	Bromoform	1.5	U
29.	108-10-1	4-Methyl-2-pentanone	3.0	U
30.	519-78-6	2-Hexanone	3.6	U
31.	127-18-4	Tetrachloroethene	1.5	U
32.	79-34-5	1,1,2,2-Tetrachloroethane	1.5	U
33.	108-88-3	Toluene	1.5	U
34.	108-90-7	Chlorobenzene	1.5	U
35.	100-41-4	Ethylbenzene	1.5	U
36.	100-42-5	Styrene	1.0	U
37.	108-38-3	m-Xylene	2.0	U
38.		o/p-Xylene (total)	2.5	U

Data Qualifiers:
- U -Compound was analyzed for but not detected. The value reported is the method detection limit for reagent water.
- SLC -Suspected Laboratory Contaminant.
- SFC -Suspected Field Contaminant.

VOLATILE ORGANIC ANALYSIS DATA SHEET
U.S. EPA - Region V, Central Regional Laboratory

Study Name: SYSTECH LIQUID
Sample # : 87FS06 R02

Data Set #: SF-3960
Matrix : WATER

RECEIVED JUN 18 1987

TENTATIVELY IDENTIFIED COMPOUNDS	ESTIMATED CONC.(PPB)
2-METHYL PROPANE	95

ENVIRONMENTAL PROTECTION AGENCY, REGION V BASIC DATA FORM:

DIVISION/BRANCH: ESD Sampling Date: 5/13/87 (Month Day Year) Arrival Date: 5/14/87 (Month Day Year) Analysis Due Date: 6/4/87 (Month Day Year)

Sample #\
D.U. Number: Y905 Group # : 3960 Activity # : C7600 Study: Systech Equip

ALL UNITS ARE MICROGRAMS PER LITER OR MILLIGRAMS PER KILOGRAM.

Sample # \ Pesticide	γ-BHC Lindane	Heptachlor	Aldrin	Heptachlor epoxide	Endosulfan I	Dieldrin	Endrin	Endosulfan II	pp-DDE	Beta-BHC	Delta-BHC	α-BHC	pp-DDD	pp-DDT	Methoxy Chlor	Endosulfan sulfate	Endrin aldehyde	Endrin ketone	T-chlordane	Toxaphene
1 S7FS06R02	<.005	<.03	<.005	<.01	<.01	<.01	<.01	<.01	<.005	<.005	<.005	<.01	<.02	<.02	<.02	<1	<.03	<.03	<.02	<1.0
2 S12	<.005	<.03	<.005	<.01	<.01	<.01	<.01	<.01	<.005	<.005	<.005	<.01	<.02	<.02	<.02	<1	<.03	<.03	<.02	<1.0
3																				
4			Alc		6/3/87															
5			4/9/87																	
6																				
7																				
8																				
9																				
10																				
11																				
12																				

RECEIVED JUN 8 1987

ENVIRONMENTAL PROTECTION AGENCY, REGION V BASIC DATA FORM: Form #1:

DIVISION/BRANCH: ESD Sampling Date: 5/13/87 (Month Day Year) Arrival Date: 5/14/87 (Month Day Year) Analysis Due Date: 6/4/87 (Month Day Y

D.U. Number: Y905 Group #: 3960 Activity #: C76100 Study: Systech Liquid

All units are micrograms per liter, milligram per kilograms or micrograms Sample Type: Water, Sediment Oil, Sludge, Wipe

#	Sample #	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor	Aroclor	Aroclor	Dibuthyl phthalate	Diethyl Hexyl phthalate	
1	87FS06R02	<.1	<.1	<.1	<.1						
2	Blk	<.1	<.1	<.1	<.1						
3											
4											
5			A/C	6/3/87							
6			M.T.	6-4-	87						
7				4/5/87							
8											
9											
10											
11											
12											
13											
14											
15											
16											

RECEIVED JUN

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

RECEIVED JUL 1987

12 JUL 1987

DATE:

SUBJECT: Review of Region 5 data for Systech Liquid

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory
for

To: Data User: FIT

CR 7/1/87

Attached are the results for:

CRL Data Set Numbers: SF-3960
Sample Numbers: 87F566R02; S12
Parameter(s): ABN
Laboratory: CRL

Results Status:

7/1/87
(X) DATA ACCEPTABLE FOR USE*.
( ) DATA QUALIFIED AS TO USE
(X) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

SAMPLES WERE LOST DURING EXTRACTION

If there are any questions regarding the data, refer them to Steve Parker, the Quality Control Coordinator, at 353-3805.

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

RECEIVED BY/DATE: Brenda R Jones 6 June 87
Comments:

cc: Contractor's Reprentative

Filed by/date:

ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

Date Received for Review: 26 May 87 Date Review Completed: 27 May 87

TO: Tom Sullivan

FROM: Brenda Robbins Jones

SUBJECT: Systech Liquid, OH0514SI

Sample Description: Case # 7265

2- water cyanides - drinking water

Project Data Status: INcomplete

FIT Data Review Findings:

NO cyanide present

Addtional Comments:

Book No. 6

Page No. 105

recycled paper

OK-DP 5/19/87 5/20/87

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: MINERALS - NUTRIENTS

DIVISION/BRANCH SUPERFUND FIT SAMPLE DATE 5/13/87 LAB ARRIVAL DATE 5/14/87 DUE DATE 6/4/87

DU NUMBER Y905 C76100 DATA SET NUMBER 3960 STUDY Sysloch Liquid PRIORITY N CONTRACTOR CRL

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER PHENOLICS UG PHENOL/L MIN 74818	WATER CYANIDE UG CN/L MIN 74919	WATER GROSS ALPHA P CI/L MIN 75020	WATER CR^{+6} UG CR^{+6}/L MIN 74616	WATER MERCURY UG HG/L MIN 74717
	Sample # TAG #					
87FS06B02	Blank 5-36608		K5 *			
87FS06S12	BW1 5-36647		K5 *			
			R.A. Barr			
			5-14-87			
			*SAMPLES	WERE RUN	USING AUTO-	UV
			METHOD	335.3		

RECEIVED MAY 26 1987

ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

Date Received for Review 29 May 87 Date Review Completed 1 June 87

To: Tom Sullivan

From: Brenda R. Jones

Subject: Systech Liquid

PAN: FOH 0574SI Case # 726S

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	#	Low Soil
	Low Water		Low Water
	Drinking Water	2	Drinking Water
	Other		Other

Project Data Status Completed!!

✓ Incomplete, awaiting: organic data results

FIT Data Review Findings:

✓ Compounds were detected in sample(s); see enclosed Chemical Evaluation Form.

Book No. 6 Page No. 107

recycled paper

ecology and environment, inc.
CHICAGO, ILLINOIS

CHEMICAL EVALUATION FORM

SITE NAME: Zytech Liquid PAN# FOH0574ST DATE: 1 JUNE 87

CASE # 7265 UNITS= ug/l REVIEWER: BWS

TOX/ PERS	COMPOUND	CRDL	3-5x CRDL	87F506 S12						
	Lead	70	210-350	6.1						
	Boron	Not listed	—	342						
	Barium	5	15-25	97.6						
	Copper	6	18-30	17.8						
	Iron	80	240-400	132						
	Lithium	10	30-50	26.9						
	Strontium	10	↓	2600						
	Zinc	40	120-200	1480						

C761ZZ
7TFA05WUZZ
5/29/87

JVM 26 May 87 5/26/87

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: METALS

DIVISION/BRANCH SUPERFUND FIT SAMPLE DATE 5/13/87 LAB ARRIVAL DATE 5/14/87 DUE DATE 6/4/87

DU NUMBER 9905 ~~C76100~~ DATA SET NUMBER 3960 STUDY Systech Liquid PRIORITY N CONTRACTOR CRL

CRL LOG NUMBER	SAMPLE DESCRIPTION Sample# TAG#	TOTAL METALS WATER TOTAL ICAP UG/L MET111	TOTAL METALS WATER AS UG/L MET161	TOTAL METALS WATER PB UG/L MET1191	TOTAL METALS WATER SB UG/L MET1201	TOTAL METALS WATER SE UG/L MET1211	TOTAL METALS WATER ~~TL~~ CD UG/L MET1221
87FS06R02	Blank 5-36607	L	L <2	L <2	L <2	L <2	L <0.2 RP
87FS06S12	RW1 5-36646	L	L <2	L 6.1	L <2	L <2	L <0.2 RP
			JRC 5/15	RNP ~~5/15/87~~ 5/19/87	DM 5/20/87	JRC 5/15	RP 5/18/87

TRANSMITTED BY
MAY 29 1987
U.S. EPA CENTRAL REGIONAL LAB

RECEIVED MAY 29 1987

C761ZZ
7TFA05W4ZZ
Y905

RECEIVED MAY 29 1987
5-27-87

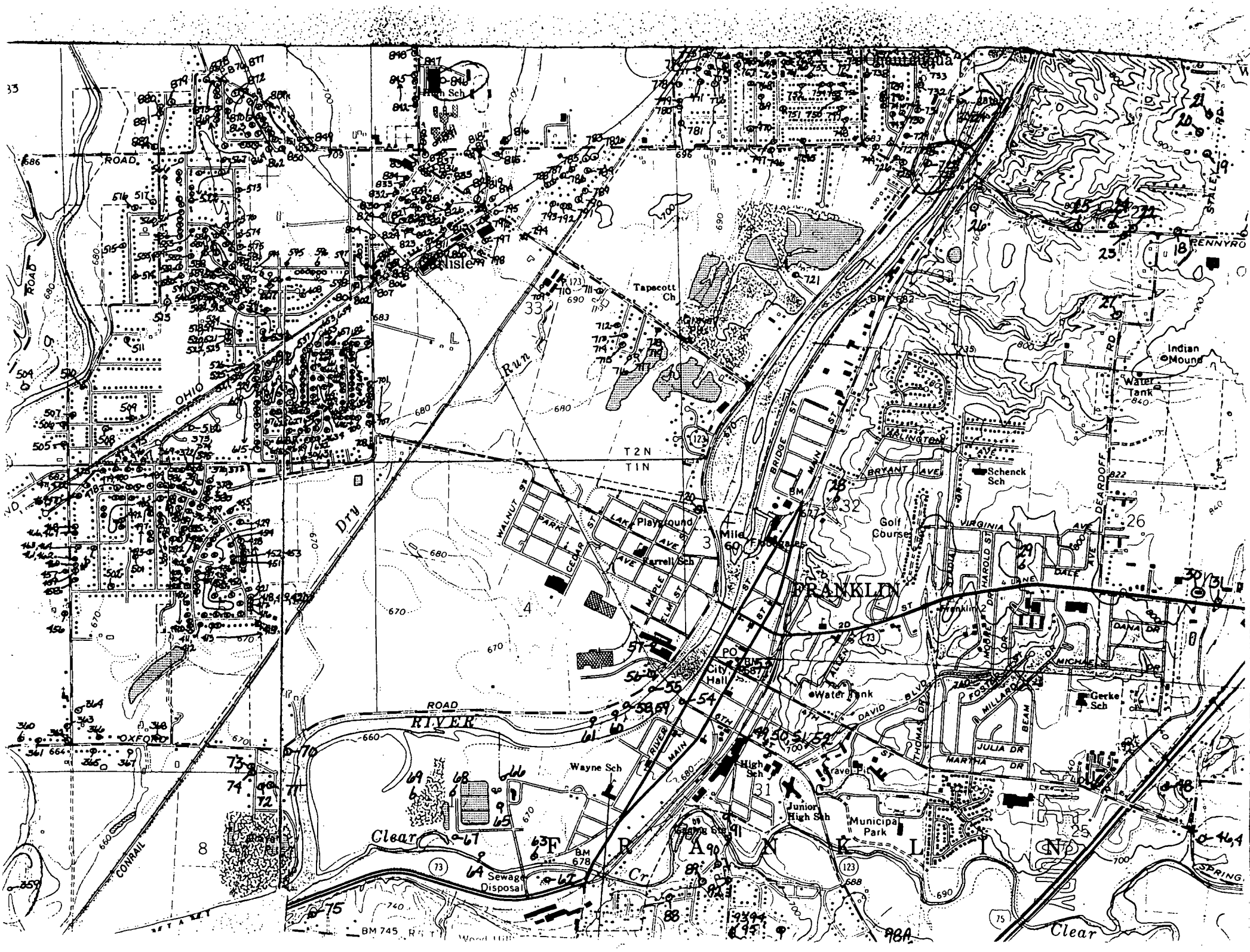
DL1:[001,054]RUN577.BRN 27-MAY-87 13:52:59 PAGE 3

DATA SET : SF3960 Systech Liquid

JVM
28 May 87
5/28/87
5/29/87

ELEMENT		FS06R02		FS06S12
AG ug/l	<	6.	<	6.
AL	<	80.	<	80.
B	<	80.		342.
BA	<	6.		97.6
BE	<	1.	<	1.
CD	<	10.	<	10.
CO	<	6.	<	6.
CR	<	8.	<	8.
CU	<	6.		17.8
FE	<	80.		132.
LI	<	10.		26.9
MN	<	5.	<	5.
MO	<	15.	<	15.
NI	<	15.	<	15.
SN	<	40.	<	40.
SR	<	10.		2600.
TI	<	25.	<	25.
V	<	5.	<	5.
Y	<	5.	<	5.
ZN	<	40.		1480.
CA mg/l	<	0.5		88.
K	<	2.		2.49
MG	<	0.1		~~42.1~~ 40. pm
NA		1.		21.6

TRANSMITTED BY
MAY 29 1987
U.S. EPA CENTRAL
REGIONAL LAB



Tapscott Ch
Indian Mound
Water Tank
Schenck Sch
Golf Course
Playground
Farrell Sch
Mile 60
FRANKLIN
City Hall
Water Tank
Gerke Sch
Wayne Sch
High Sch
Junior High Sch
Municipal Park
Gravel Pit
Sewage Disposal
Dry Run
Clear Cr
RIVER
OXFORD
CONRAIL
OHIO
ROAD
T2N
T1N
BRIDGE ST
MAIN ST
ARLINGTON AVE
BRYANT AVE
VIRGINIA AVE
DEARDOFF RD
WALNUT ST
PARK
CEDAR ST
LAKE AVE
MAPLE
ELM ST
DAVID BLVD
MARTHA DR
JULIA DR
MICHAEL DR
DANA DR
MILLARD
BEAM
THOMAS DR
FOSTER
ALLEN ST
HAROLD ST
DALE AVE
PENNYRO
STALEY
SPRING
BM 745

WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 285872

County Warren Township Franklin Section of Township

Owner J E Linses Address Middletown

Location of property Lot # [illegible] Meadowdale Sub.

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 35'

Type of screen Brass Length of screen 6'

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping Rate 24 G.P.M. Duration of test 1 hrs.

Drawdown none ft. Date Oct 1962

Static level-depth to water 18' ft.

Quality (clear, cloudy, taste, odor)

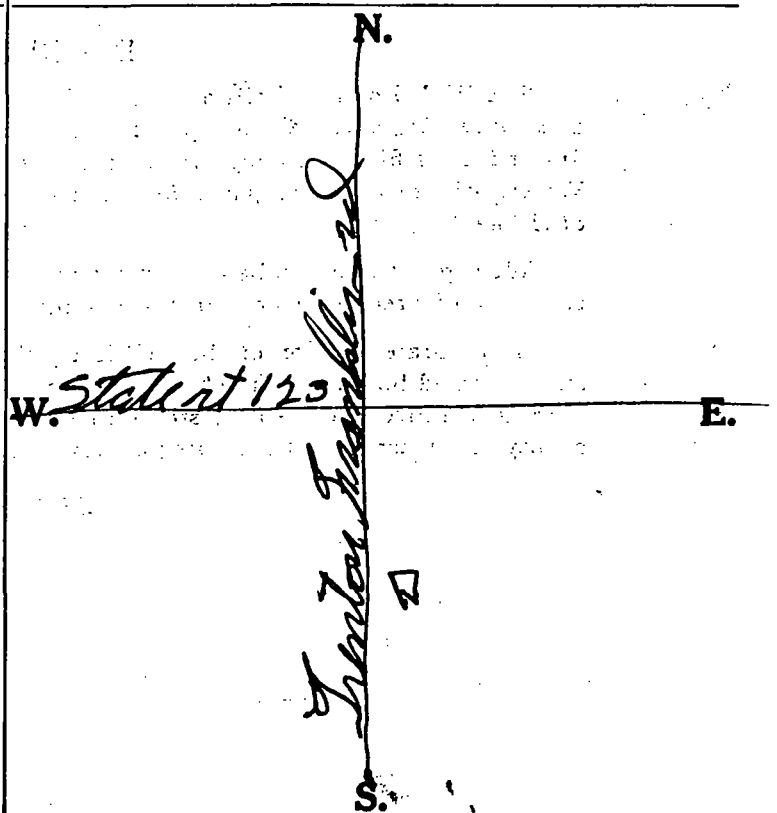
Pump installed by

WELL LOG

Formations - Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	5 Ft.
Clay		
Gravel	5	35

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Linses Well Drillers Date 11 62

Address 3116 Yankee Rd Middletown Signed L E Linses

375

WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 291688

County Warren Township Franklin Section of Township 5

Owner J. E. Lewis Address Mill Ohio

Location of property Meadowdale Estates Carlisle Ohio

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 39

Type of screen Perf Length of screen 6'

Type of pump 0

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping Rate 10 G.P.M. Duration of test 1 hrs.

Drawdown 15 ft. Date 4/18/63

Static level-depth to water 12 ft.

Quality (clear, cloudy, taste, odor) Clear

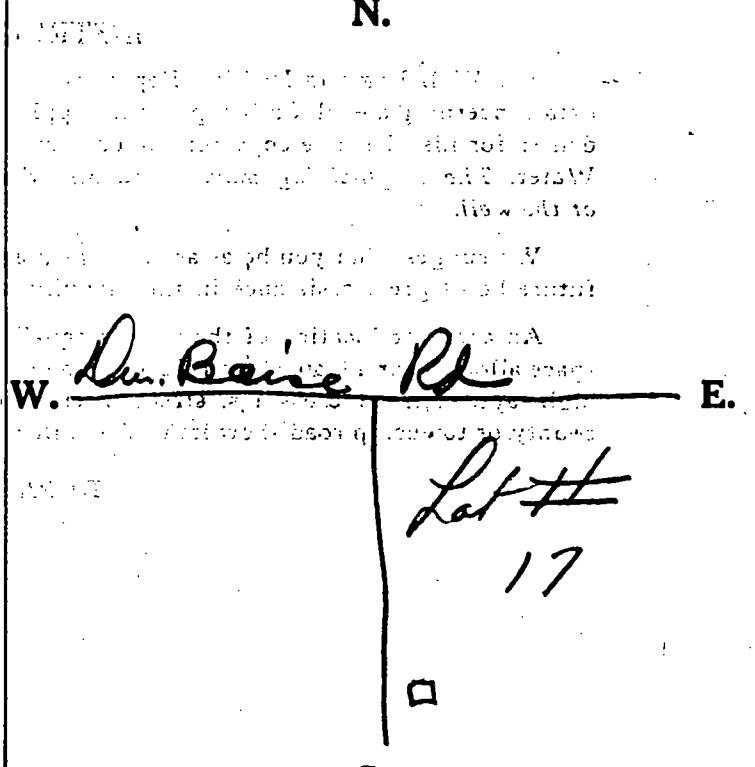
Pump installed by

WELL LOG

Formations -Sandstone, shale, limestone, gravel and clay	From	To
loam	0 Feet	4 Ft.
gravel	4	39

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Kinser Drilling Co Date 5/10/63

Address 3110 Yankee Rd Middletown Ohio Signed C E Kinser

(380)

WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 291657

County Warren Co. Township Franklin Section of Township 5 6

Owner J. E. Lewis Address Mild Ohio

Location of property Meadowdale Estates Carlisle Ohio

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 47'

Type of screen Plastic Length of screen 6'

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping Rate 10 G.P.M. Duration of test 1 hrs.

Drawdown 12 ft. Date 12/2/62

Static level-depth to water 15 ft.

Quality (clear, cloudy, taste, odor) Clear

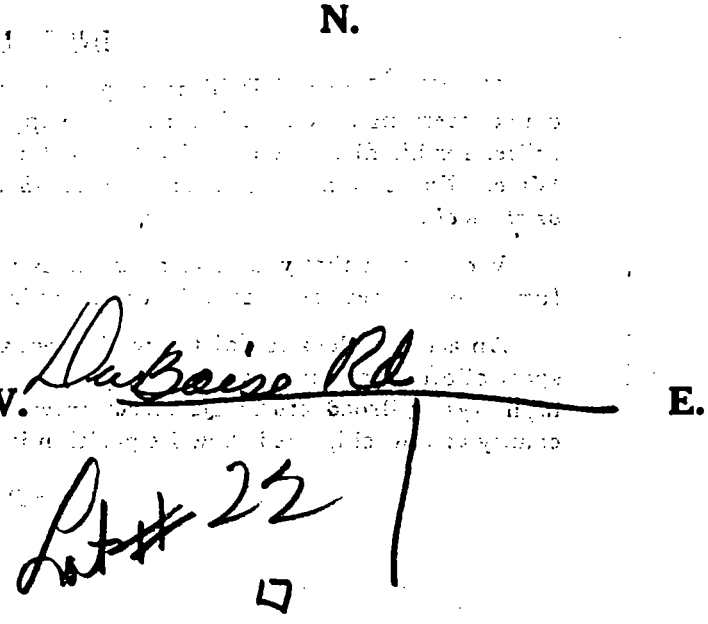
Pump installed by

WELL LOG

Formations - Sandstone, shale, limestone, gravel and clay	From	To
loam	0 Feet	3 Ft.
gravel	to 3	47

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Layne Drilling Co. Date 1/7/63

Address 3110 Yankee Rd Middletown Signed C E Lewis

(385)

WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 291697

County Warren Township Franklin Section of Township 5

Owner J E Laura Address Midd Ohio

Location of property Meadowdale Estates Carlisle Ohio

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 28'

Type of screen Perf Length of screen 6'

Type of pump X

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping Rate 10 G.P.M. Duration of test 1 hrs.

Drawdown 10 ft. Date 5/16/63

Static level-depth to water 16 ft.

Quality (clear, cloudy, taste, odor) Clear

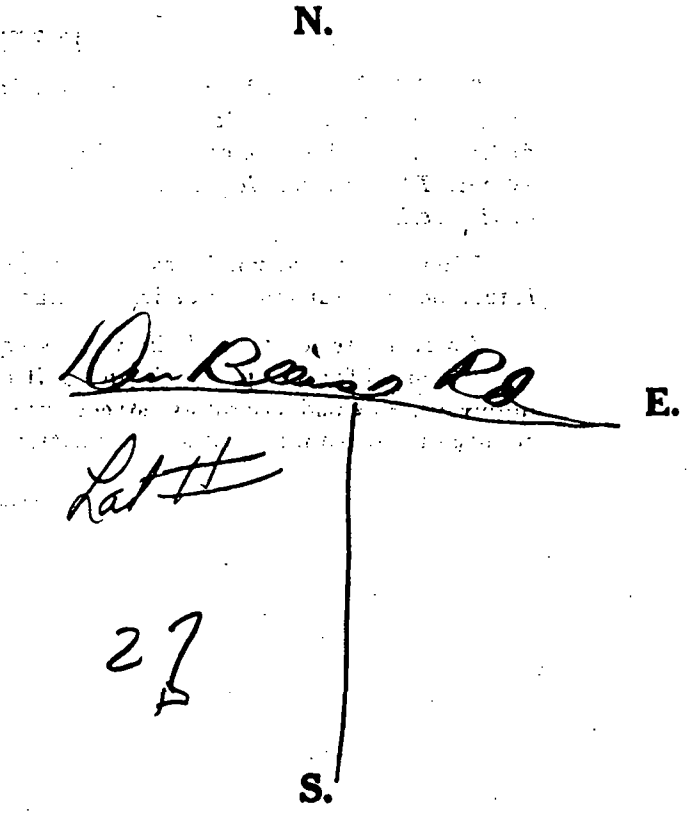
Pump installed by

WELL LOG

Formations - Sandstone, shale, limestone, gravel and clay	From	To
Clay	0 Feet	4 Ft.
Gravel	4	28

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Linser Drilling Co Date 5/29/63

Address 310 Yankee Rd Midd Ohio Signed C G Linser

390

WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 291673

County Warren Township Franklin Section of Township 56

Owner J. E. Lewis Address Mild Ohio

Location of property Meadowdale Estates Carlisle Ohio

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 33

Type of screen Gry Length of screen 6'

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping Rate 9 G.P.M. Duration of test 1 hrs.

Drawdown 4 ft. Date 3/10/63

Static level-depth to water 15 ft.

Quality (clear, cloudy, taste, odor) Clear

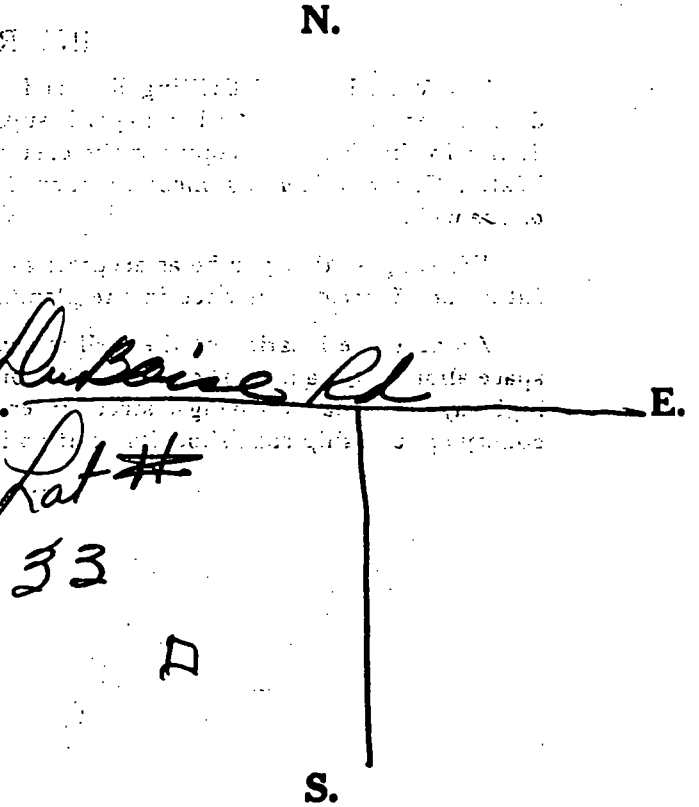
Pump installed by

WELL LOG

Formations -Sandstone, shale, limestone, gravel and clay	From	To
Loam	0 Feet	3 Ft.
Gravel	3	33'

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Kinser Drilling Co Date 3/28/62

Address 3110 Yeoman Rd Mild Ohio Signed C. E. Kinser

(395)

WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 302678

County Warren Township ~~Franklin~~ Franklin Section of Township 5

Owner J E Lewis Address

Location of property Lot # 44 Meadowvale Estates Turtle Creek

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 6'

Type of screen Perf Length of screen 10

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping Rate 15 G.P.M. Duration of test 1 hrs.

Drawdown 15' ft. Date 4 5 64

Static level-depth to water 15' ft.

Quality (clear) cloudy, taste, odor)

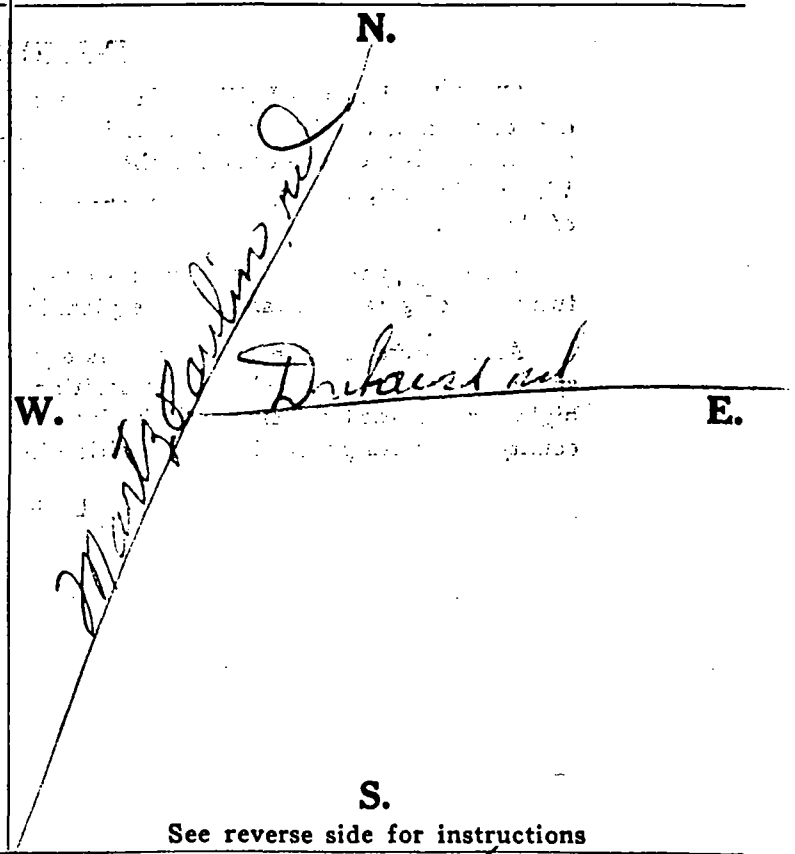
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Loam	0 Feet	5 Ft.
sand + Gravel	5	30'

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Kinney Well Drilling Date 4 5 64

Address 3110 Yankee rd Signed L C Kinney

WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No. 322142

County Warren Township Franklin Section of Township

Owner Hershel Smith Address 8167 Kaye Dr. Franklin, Ohio

Location of property Hillcrest dr. in Carlisle O. Lot # 3

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 70

Type of screen ½ Length of screen 6'

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping Rate 15 G.P.M. Duration of test 2 hrs.

Drawdown 3 ft. Date July 1 - 1965

Static level-depth to water 50 ft.

Quality (clear, cloudy, taste, odor) Clear

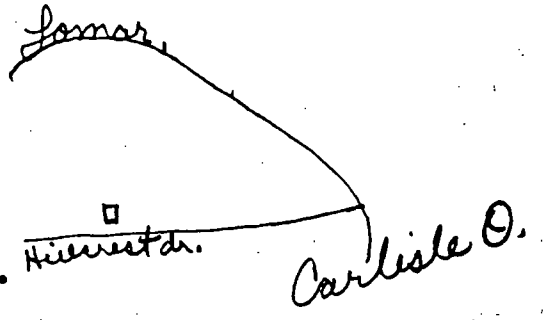
Pump installed by

WELL LOG

Formations - Sandstone, shale, limestone, gravel and clay	From	To
Clay	0 Feet	8 Ft.
Clay & gravel	8	38
sand & gravel	38	46
	70	

SKETCH SHOWING LOCATION

Locate in reference to numbered - State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Wallace L. Day Date July 05 - 65

Address 7165 Hobart ave. Franklin, Ohio Signed W. L. Day

825

WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 282386

County Warren Township ~~Carlisle~~ Franklin Section of Township

Owner George Mercer Address 5391 Arthur St. Carlisle O.

Location of property just of State Route 123 in Carlisle O. on Lomar dr.

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 58

Type of screen Key-in Length of screen 6"

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 5-23-63

BAILING OR PUMPING TEST

Pumping Rate 10 G.P.M. Duration of test 3 hrs.

Drawdown 5 ft. Date 5-23-63

Static level-depth to water 36 ft.

Quality (clear, cloudy, taste, odor) Clear

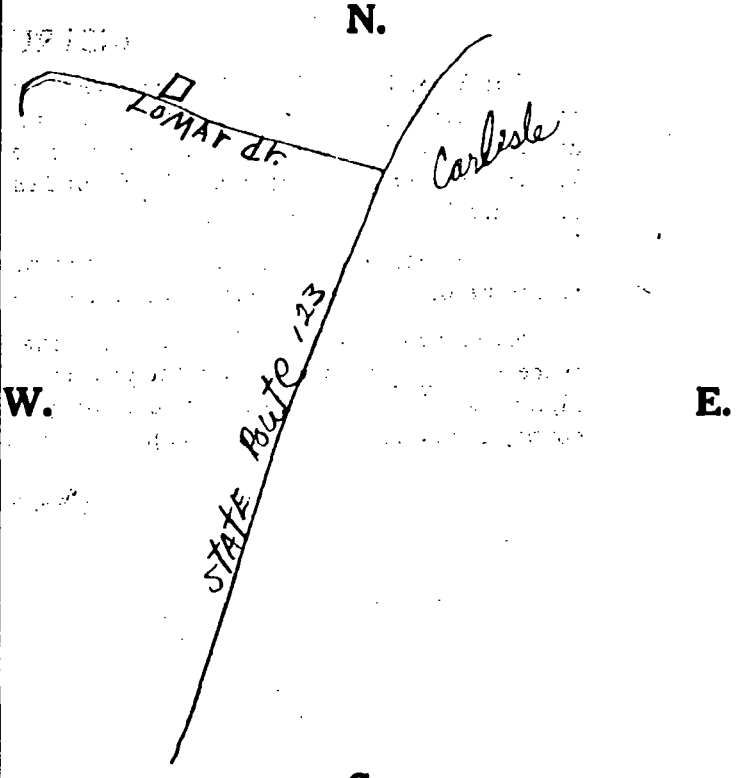
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Clay	0 Feet	6 Ft.
Clay & gravel	6	38
sand & gravel	38	58
Water 39		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Wallace L. Day

Address 7165 Hobart Ave. Franklin, Ohio

Date May 27, 1963

Signed W. L. Day

830

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 158814

County Warren Township Franklin Section of Township or Lot Number

Owner R. H. Capps Address P.O. Box 126 Carlisle

Location of property South East corner of Northern Rd + Chautauqua Road

CONSTRUCTION DETAILS

Casing diameter 6 5/8 Length of casing 63'

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

PUMPING TEST

Pumping rate 10 G.P.M. Duration of test 2 hrs

Drawdown none ft. Date 5/22/56

Developed capacity

Static level—depth to water 36 ft

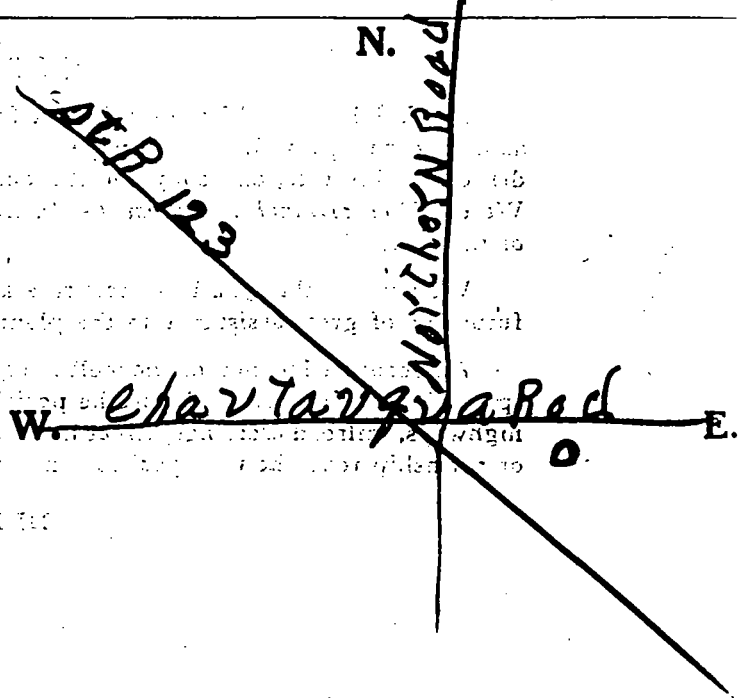
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	Ft.
Sandy clay		41
sand	41	45
Hard Pan	45	54
Sand Gravel	54	63

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm A. J. Asher Date 5/22/56

Address P.O. Box 87 Carlisle O. Signed A. J. Asher

840

WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 297638

County Warren Township Franklin Section of Township 5

Owner J E Lesius Address Middletown

Location of property Meadow dale Estates Carlysle O

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 37'

Type of screen Perf Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping Rate 14 G.P.M. Duration of test 1 hrs.

Drawdown 10' ft. Date 8 31 63

Static level-depth to water 15' ft.

Quality (clear, cloudy, taste, odor) Clear

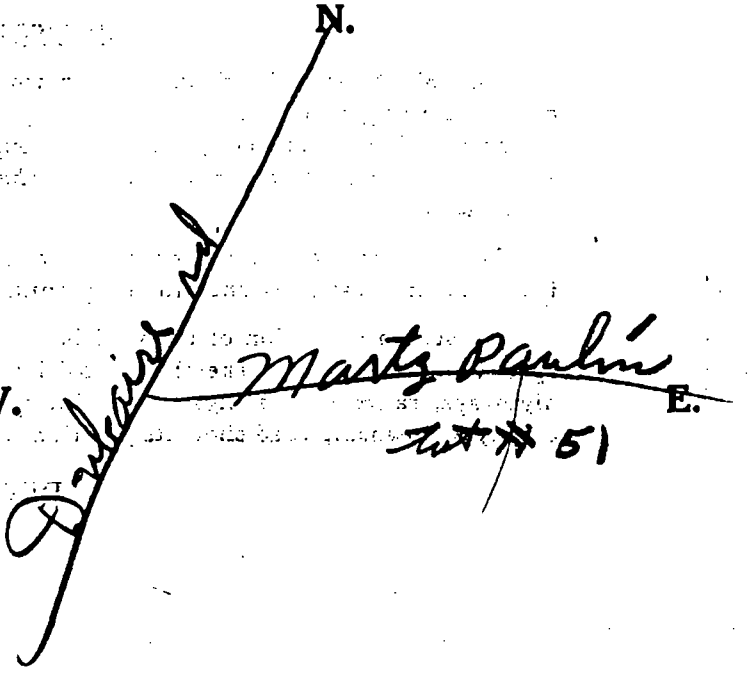
Pump installed by

WELL LOG

Formations - Sandstone, shale, limestone, gravel and clay	From	To
Loam	0 Feet	4 Ft.
Gravel	4	37

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Kinsman Sons

Address 3110 Yankee rd Middletown

Date 8 31 63

Signed L E Kinsman

405

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

№ 302685

County Warren Township ~~Middle~~ Franklin Section of Township 5

Owner J E Lewis Address Middletown O

Location of property Lot 58 Meadowdale Estates Lawrence O

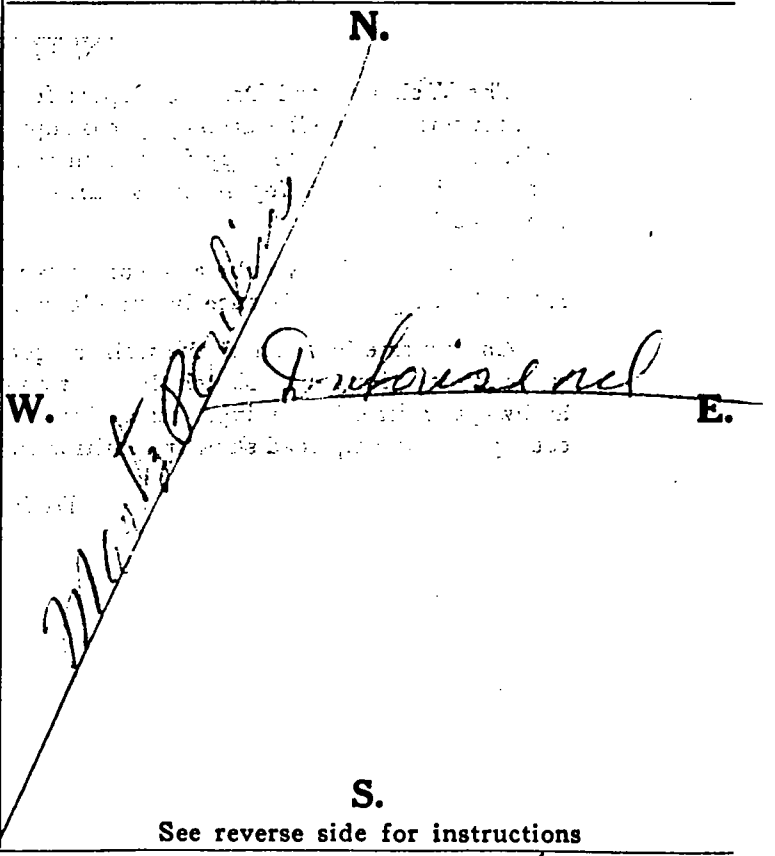
CONSTRUCTION DETAILS	BAILING OR PUMPING TEST
Casing diameter 6" Length of casing 35'	Pumping Rate 15 G.P.M. Duration of test 1 hrs.
Type of screen Pref Length of screen 6	Drawdown 18 ft. Date 11 12 64
Type of pump	Static level-depth to water 15 ft.
Capacity of pump	Quality (clear, cloudy, taste, odor)
Depth of pump setting	
Date of completion	Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Loam	0 Feet	5 Ft.
sand + gravel	5	35

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Kinser Well Drilling Date 11 12 64

Address 3110 Yankee rd Signed C E Kinser

(410)

WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 297629

County Warren Township Franklin Section of Township 5

Owner J E Lewis Address Midd Ohio

Location of property Meadowdale Estates Carlisle Ohio

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 34'

Type of screen Perf Length of screen 6'

Type of pump 0

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping Rate 12 G.P.M. Duration of test 1 hrs.

Drawdown 12 ft. Date 6/26/63

Static level-depth to water 12 ft.

Quality (clear, cloudy, taste, odor) clear

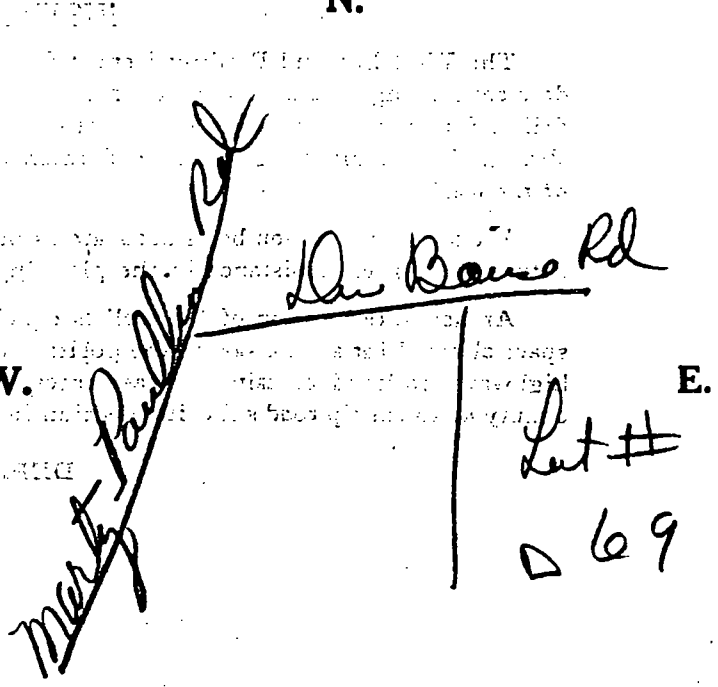
Pump installed by

WELL LOG

Formations - Sandstone, shale, limestone, gravel and clay	From	To
Clay gravel	0 Feet	4 Ft.
	4	34

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Linser Drilling Co Date 8/9/63

Address 3110 Yankee Rd Middletown Ohio Signed C E Linser

(415)

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

Nº 297640

County Warren Township Franklin Section of Township 5

Owner J E Lewis Address Middletown O

Location of property Meadow dale Estates Carlyle O -

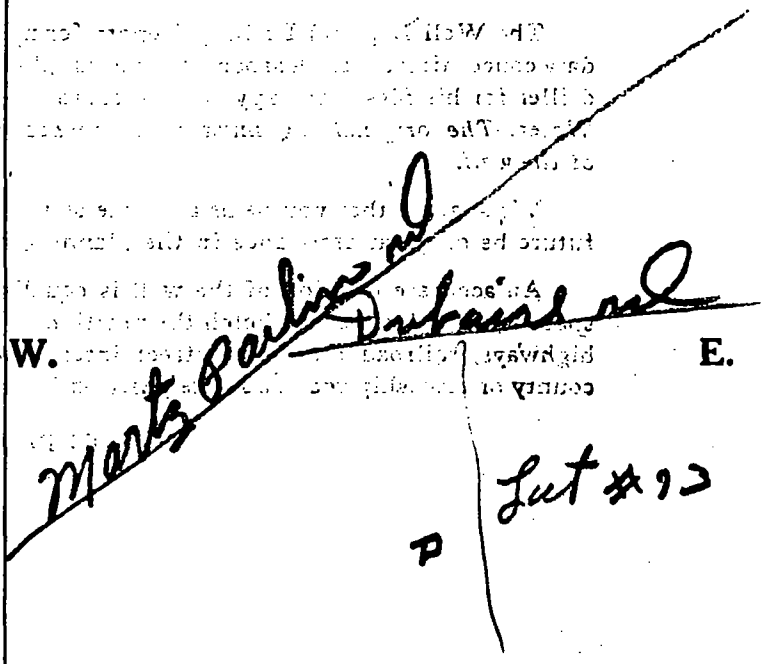
CONSTRUCTION DETAILS	BAILING OR PUMPING TEST
Casing diameter 6" Length of casing 35	Pumping Rate 14 G.P.M. Duration of test 1 hrs.
Type of screen Pvt Length of screen 6'	Drawdown 10 ft. Date 8 31 63
Type of pump	Static level-depth to water 15' ft.
Capacity of pump	Quality (clear, cloudy, taste, odor) Clear
Depth of pump setting	
Date of completion	Pump installed by

WELL LOG

Formations – Sandstone, shale, limestone, gravel and clay	From	To
Loam	0 Feet	4 Ft.
Gravel	4	35

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Kinser + Sons Date 8 31 63

Address 3110 Yankee rd Signed C E Kinser

(420)

WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 297624

County Warren Township Franklin Section of Township 5

Owner J E Lewis Address Middletown Ohio

Location of property Meadowdale Estates Carlisle Ohio

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 36'

Type of screen Perf Length of screen 6'

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST

Pumping Rate 12 G.P.M. Duration of test 1 hrs.

Drawdown 10 ft. Date 6/18/63

Static level-depth to water 14 ft.

Quality (clear, cloudy, taste, odor) Clear

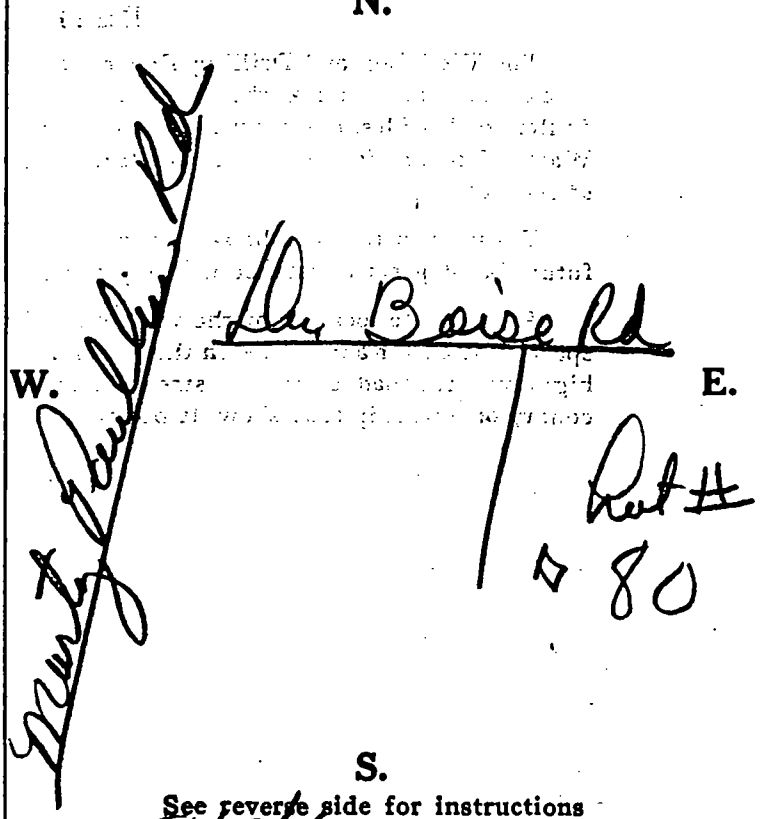
Pump installed by

WELL LOG

Formations - Sandstone, shale, limestone, gravel and clay	From	To
Loam	0 Feet	4 Ft.
Gravel	4	36

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Linser Drilling Co Date 8/9/63

Address 310 Yankee Rd Middletown Ohio Signed C C Linser

1455

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY– SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

512210

COUNTY Warren TOWNSHIP Franklin SECTION OF TOWNSHIP Lot #6

OWNER Gene Clendenin ADDRESS 6910 Scholl Rd - Franklin O -

LOCATION OF PROPERTY 1 3/4 mi South State Rte 123 Meadowlark dr - (Kimberlin acres)

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 42'

Type of screen 1/4 in Length of screen 10'

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 15 gpm Duration of test 2 hrs

Drawdown ft Date May 3, 1977

Static level (depth to water) 20 ft

Quality (clear, cloudy, taste, odor) Clear

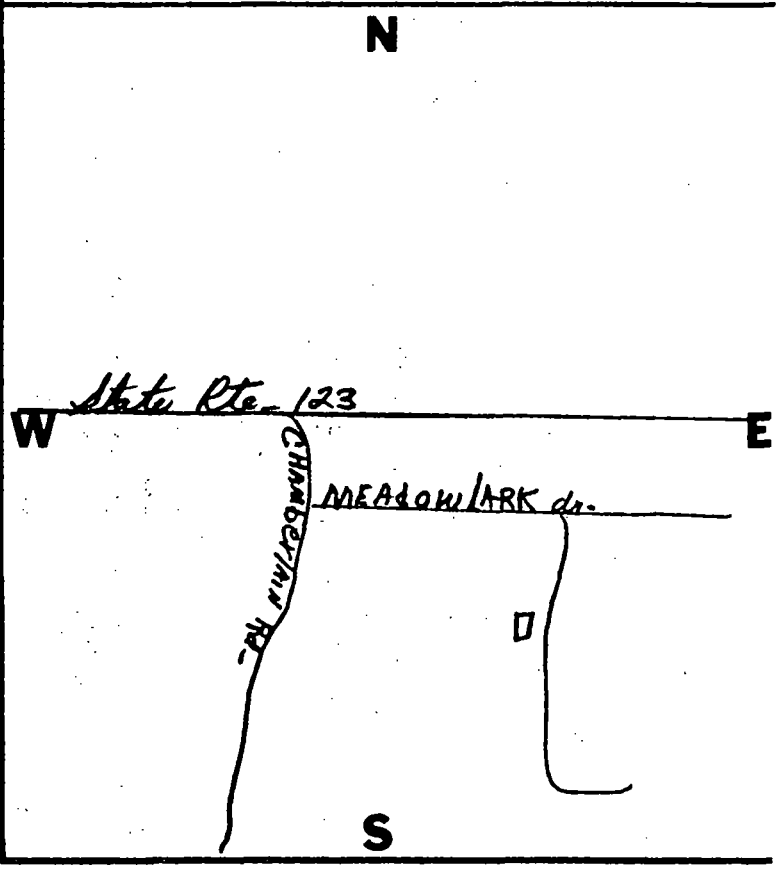
Pump installed by

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
Clay & gravel	0 ft	20 ft
sand & gravel	20	42'
Water at 28'		

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM Wallace Well Drilling

ADDRESS 7023 Hobart Ave - Franklin, Ohio 45005

DATE 5/3/77

SIGNED W. L. Day

*If additional space is needed to complete well log, use next consecutive numbered form.

520

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

NO CARBON PAPER NECESSARY– SELF-TRANSCRIBING

524757

COUNTY Warren TOWNSHIP Franklin SECTION OF TOWNSHIP 33 Lot # 13

OWNER John C. Gibson ADDRESS 9212 Heritage - Carlisle O

LOCATION OF PROPERTY 1½ mi S. State Rte 123 - Kimberlain Acres - Marie Pl.

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 42'

Type of screen 1/4 in Length of screen 10'

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 18 gpm Duration of test 2 hrs

Drawdown 9 ft Date 8/26/77

Static level (depth to water) 25' ft

Quality (clear, cloudy, taste, odor) Clear

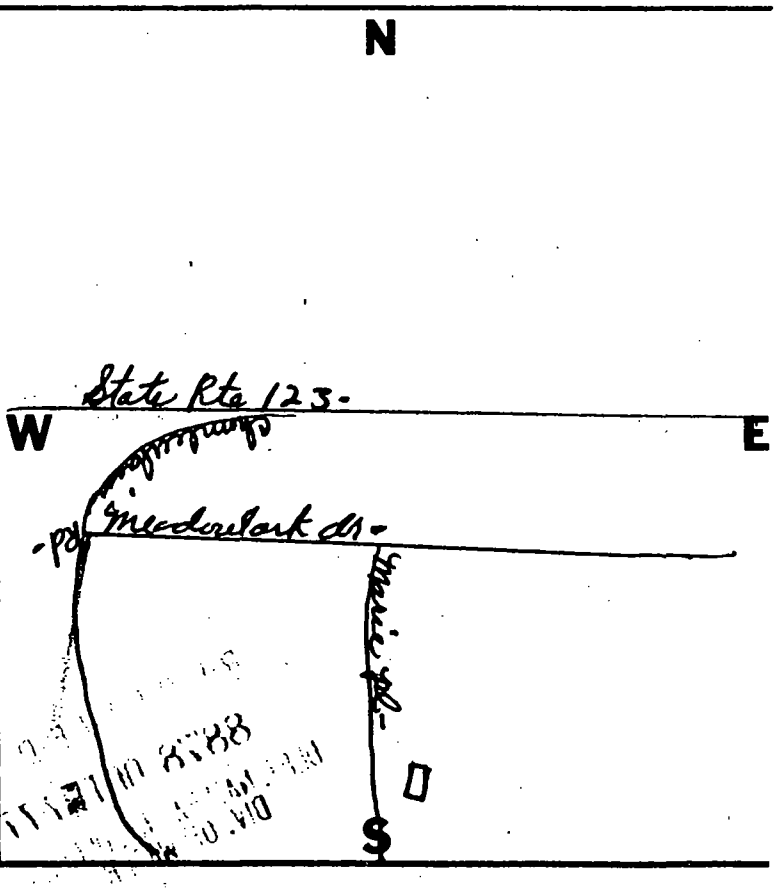
Pump installed by

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
Clay & gravel	0 ft	15 ft
Sand & gravel	15	43'
Water at 30'		

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM Wallace S. Day DATE Aug - 30, 1977

ADDRESS 7023 Holartown - Franklin O 45005 SIGNED W. S. Day

525

*If additional space is needed to complete well log, use next consecutive numbered form.

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY– SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Geological Survey
Fountain Square
Columbus, Ohio 43224 Phone (614) 466-5344

483607

COUNTY Warren TOWNSHIP Franklin SECTION OF TOWNSHIP OR LOT NUMBER #125

OWNER Gene Clendenin ADDRESS 6397 Schell - Franklin O

LOCATION OF PROPERTY 3½ W. off State Route 123 on Roberts pk. -

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 43'

Type of screen ¼ in - Length of screen 8'

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 20 gpm Duration of test 2 hrs

Drawdown ft Date 4/2/75

Static level (depth to water) 21 ft

Quality (clear, cloudy, taste, odor) Clear

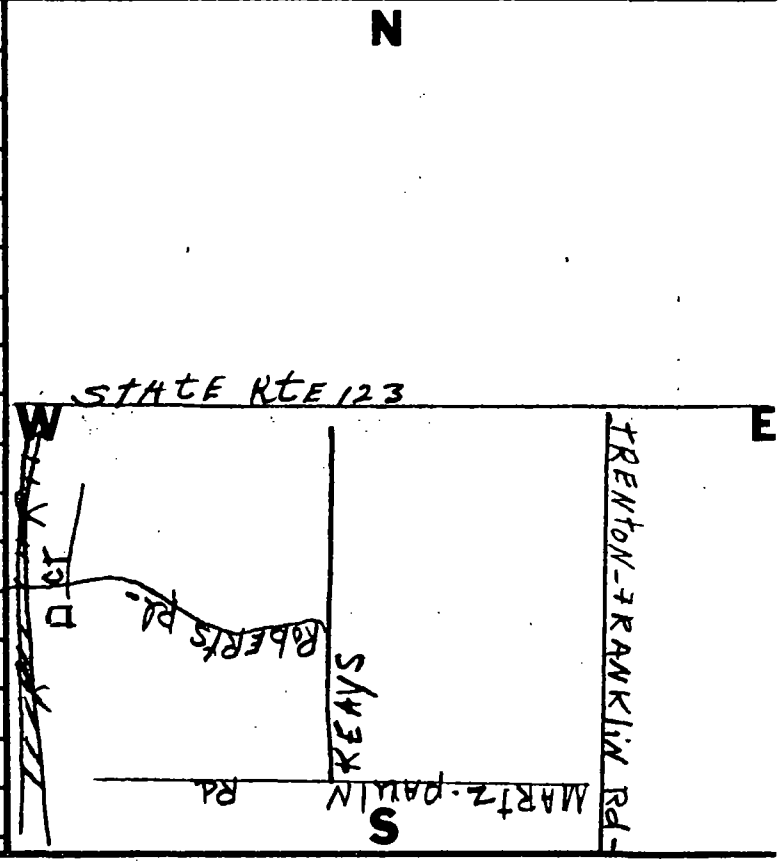
Pump installed by

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
Clay	0 ft	8 ft
Clay + gravel	8	30
sand + gravel	30	35
gravel	35	43
Water at 23'		

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM Wallace L. Day

ADDRESS 1123 Hubart ave - Franklin, Ohio 45005

DATE 4/2/75

SIGNED W. L. Day

530

*If additional space is needed to complete well log, use next consecutive numbered form.

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY– SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Geological Survey
Fountain Square
Columbus, Ohio 43224 Phone (614) 466-5344

491524

COUNTY Warren TOWNSHIP Franklin SECTION OF TOWNSHIP OR LOT NUMBER Lot # 130

OWNER Yeary & Hicks ADDRESS 8272 Mentz-Paulin Rd. Franklin O

LOCATION OF PROPERTY 3½ mi. South State Rte. 123 on Robt. Ct.

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 45'

Type of screen ¼ slot Length of screen 8'

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 18 gpm Duration of test hrs

Drawdown 10 ft Date 12/2/75

Static level (depth to water) 20 ft

Quality (clear, cloudy, taste, odor) Clear

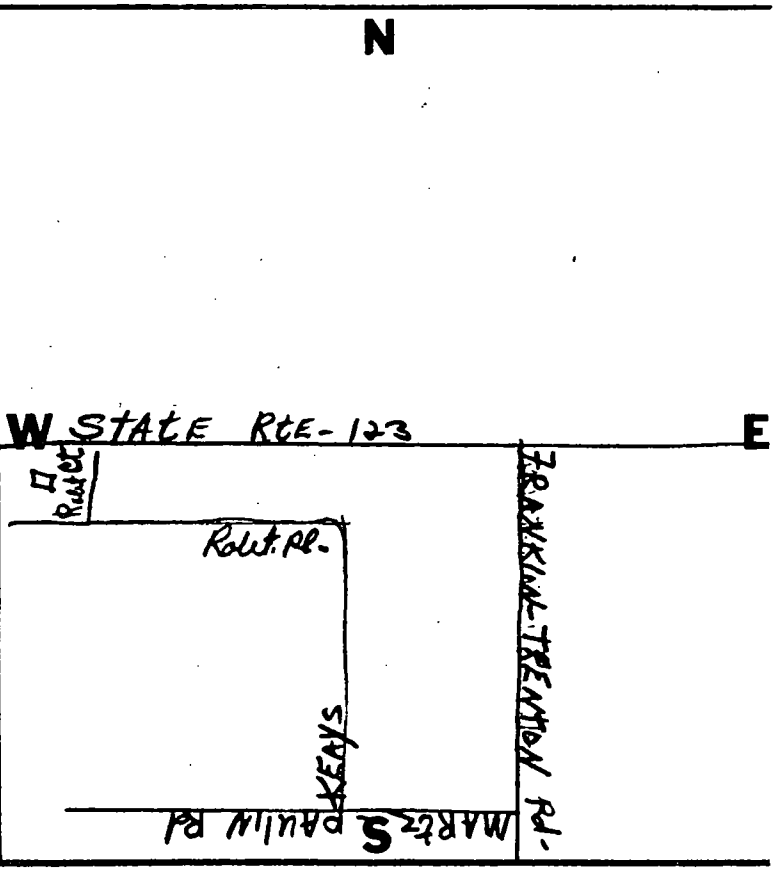
Pump installed by

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
Clay	0 ft	15 ft
Sand & gravel	15	30
Gravel	30	4
Wtr at 30'		

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM Wallace L. Day DATE 12/2/75

ADDRESS 7123 Hillcrest Ave. Franklin, Ohio 45005 SIGNED Wallace L. Day

5-35

*If additional space is needed to complete well log, use next consecutive numbered form.

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY– SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

512243

COUNTY Warren TOWNSHIP Franklin SECTION OF TOWNSHIP Lot 102 Meadowlake

OWNER Gene Clendenin ADDRESS 6915 School Rd - Franklin Oh

LOCATION OF PROPERTY 1¾ mi S. State Rte 123 - Kimberlain Acres

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 43'

Type of screen ¼ in Length of screen 10'

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 20 gpm Duration of test 2 hrs

Drawdown 8' ft Date 7/30/77

Static level (depth to water) 24 ft

Quality (clear, cloudy, taste, odor) Clear

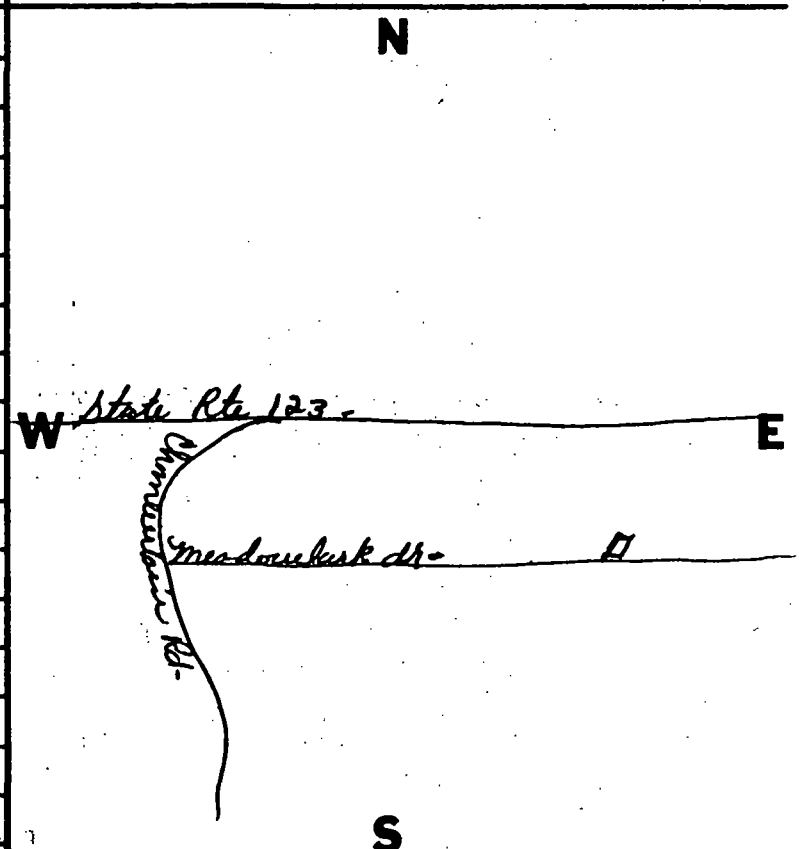
Pump installed by

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
~~Clay & Gravel~~	0 ft	~~19~~ ft
~~Clay~~ & Gravel	~~19~~ ft.	~~43~~
Sand & gravel	19	43
Water at 30'		

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM Wallace L. May DATE 7/30/77

ADDRESS 7023 Hubert Ave SIGNED W. L. May
Franklin, Ohio 45005

540

*If additional space is needed to complete well log, use next consecutive numbered form.

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY— SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

No. 415251

County Warren Township Franklin Section of Township

Owner Duff Bros Realty Address 101 S. Broad St. Middletown, O

Location of property Meadowlark Skyland Circle Sub. Div. Lot # 76

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 48'

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 11-3-70

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate 20 G.P.M. Duration of test hrs.

Drawdown None ft. Date

Static level-depth to water 25 ft.

Quality (clear, cloudy, taste, odor)

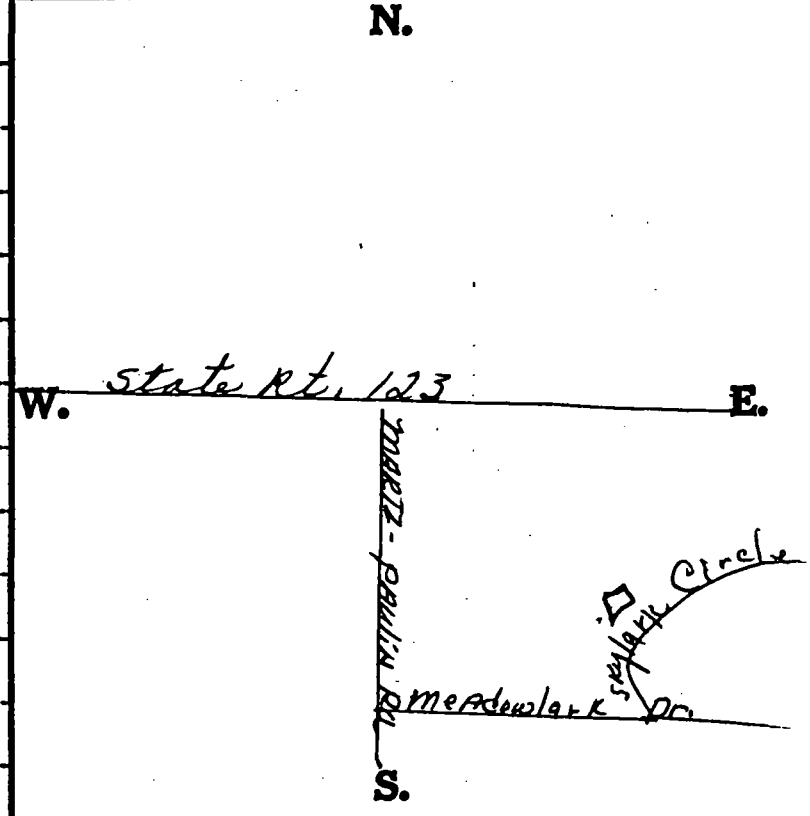
Pump installed by

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Red Clay	0 Feet	3 Ft.
Brown Clay	3	23
Sand + Gravel	23	32
Gravel	32	48
Water at 35'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



Drilling Firm Denny Fraley

Address R.R. 1 Germantown, O

Date 11-3-70

Signed Denny Fraley

(545)

*If additional space is needed to complete well log, use next consecutive numbered form.

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

Nº 322131

County Warren Township Franklin Section of Township

Owner Rev. Earl Grey Address 8682 Sue ave. Franklin, O.

Location of property 3 1/2 miles W. of Franklin in Meadowlark Sub. Lot # 42

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 38

Type of screen 4 in Length of screen 6'

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 4/26/65

BAILING OR PUMPING TEST

Pumping Rate 15 G.P.M. Duration of test 2 hrs.

Drawdown 3 ft. Date 4/26/65

Static level-depth to water 20 ft.

Quality (clear, cloudy, taste, odor) Clear

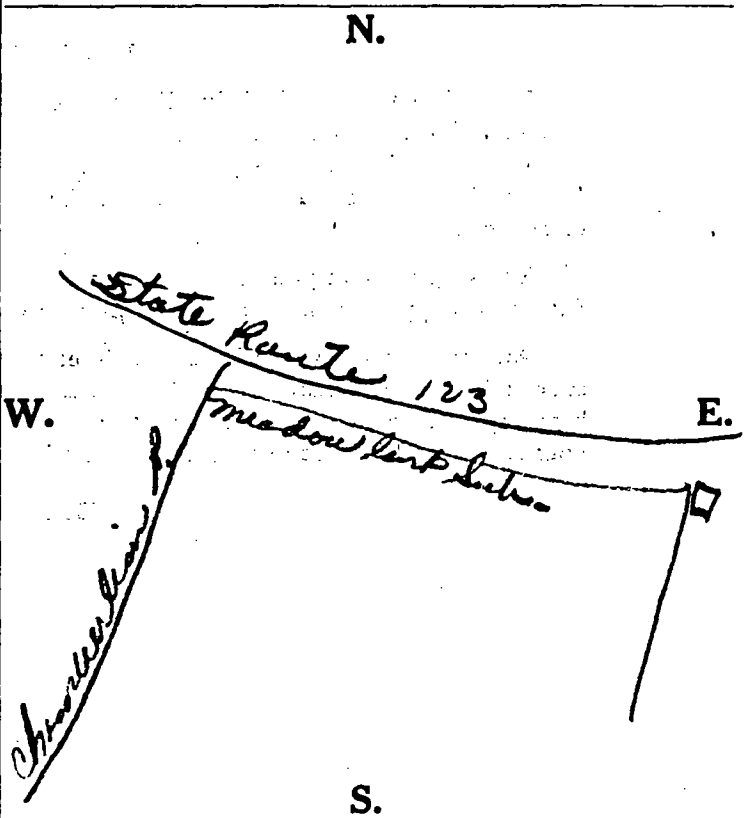
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Clay	0 Feet	4 Ft.
Clay + gravel	4	28
Sand + "	28	38
water 30		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Wallace Day ~~Date~~ Signed W. I. Day

Address 7165 Hobart ave Franklin Ohio ~~Signed~~ Date 5/31/65

(550)

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY— SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

No. 402909

County Warren Township Franklin Section of Township

Owner Harold Brown Address 9278 Mart-Pavillion Rd. Franklin O.

Location of property Meadowlark Sub. Oriole Circle Lot # 85

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 45'

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 11-24-69

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate 20 G.P.M. Duration of test hrs.

Drawdown None ft. Date

Static level-depth to water 25 ft.

Quality (clear, cloudy, taste, odor)

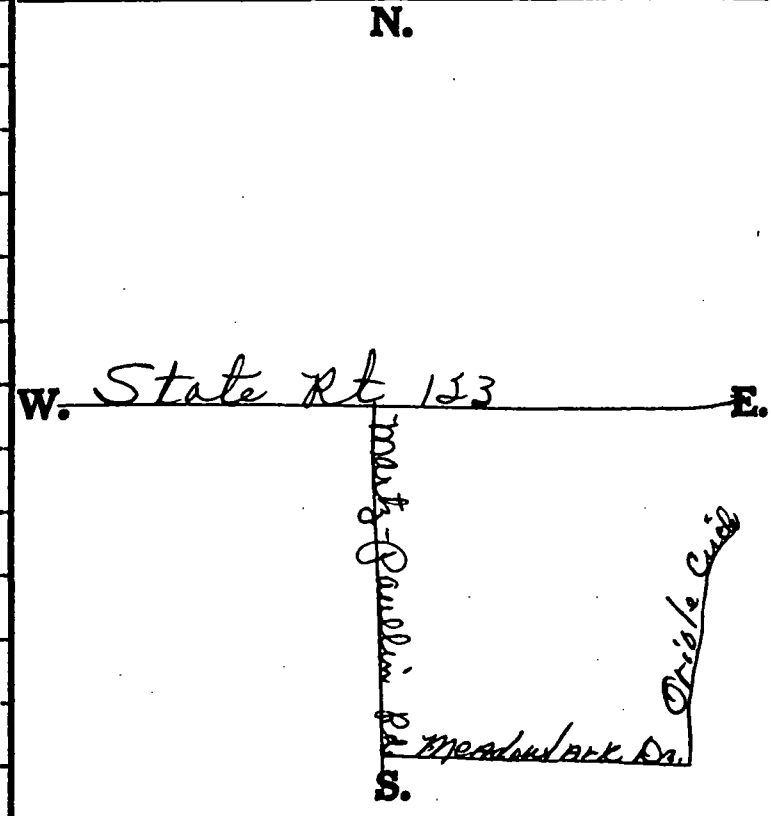
Pump installed by

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Red Clay	0 Feet	3 Ft.
Brown Clay	3	23
Sand + Gravel	23	32
Gravel	32	46
Water at 32		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



Drilling Firm Dewey Fraley Date 11-24-69

Address R.R. 1 Germantown O. Signed Dewey Fraley

*If additional space is needed to complete well log, use next consecutive numbered form.

WELL LOG AND DRILLING REPORT

NO CARBON PAPER NECESSARY– SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

593755

COUNTY Warren TOWNSHIP Franklin SECTION OF TOWNSHIP

OWNER Village of Springboro ADDRESS Route 73, Springboro, Ohio

LOCATION OF PROPERTY West Bank of Miami River in Carlisle, Ohio

CONSTRUCTION DETAILS

Casing diameter 16" Length of casing 76'

Type of screen 125 s.s. Length of screen 30'

Type of pump Byron Jackson Vertical turbine

Capacity of pump 1000 GPM

Depth of pump setting 70'

Date of completion July 1981

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 1001 gpm Duration of test 24 hrs

Drawdown 5 ft Date 3/16/81

Static level (depth to water) 16'9" ft

Quality (clear, cloudy, taste, odor) Clear

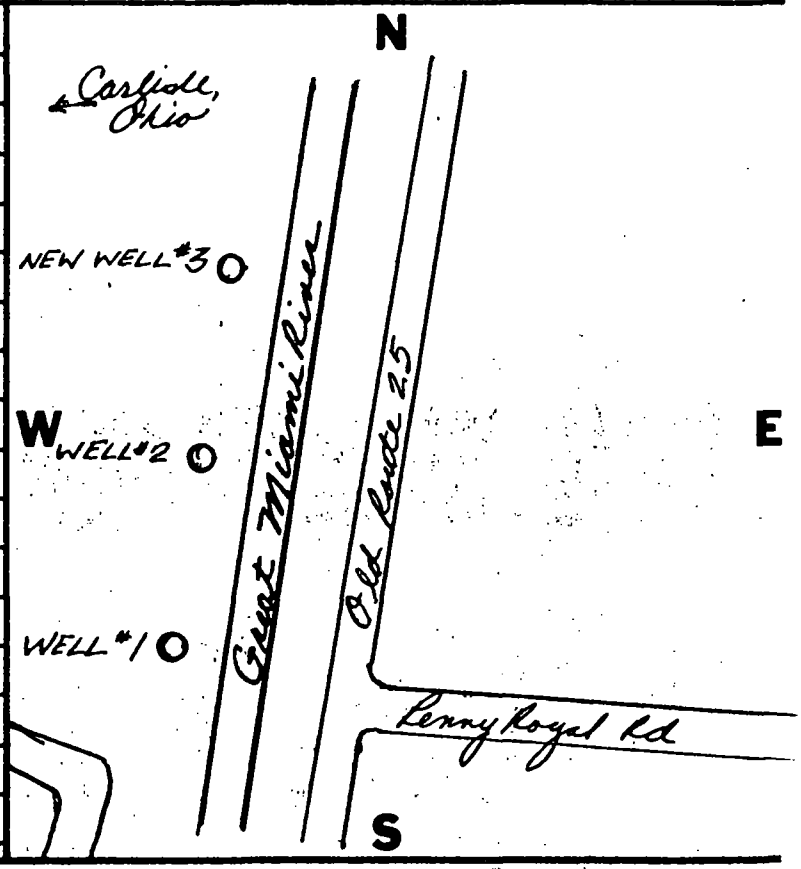
Pump installed by Moody's of Dayton, Inc.

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
Fill, topsoil, roots	0 ft	3 ft
Roots & boulders	3	8
Dry gravel	8	30
Gravel & large flat rocks	30	40
Medium Gravel	40	75
Sand & gravel	75	106
Shale, rock	106	

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM Moody's of Dayton, Inc. DATE July 8, 1981

ADDRESS 4359 Infirmary Rd., P.O. Box 123, Miamisburg, Ohio 45342 SIGNED Kenneth L. Crane

*If additional space is needed to complete well log, use next consecutive numbered form.

ORIGINAL COPY - ODNR, DIVISION OF WATER, FOUNTAIN SQ., COLS., OHIO 43224 (734)

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY- SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Geological Survey
Fountain Square
Columbus, Ohio 43224 Phone (614) 466-5344

491541

COUNTY Warren TOWNSHIP Franklin SECTION OF TOWNSHIP OR LOT NUMBER Lt # 436

OWNER Ermon Pierson ADDRESS 7100 Farmington Rd- Miamisburg O.

LOCATION OF PROPERTY 1 mile N. State Rte 123 on Dayton-Oxford Rd-

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 42'

Type of screen 1/4 in - Length of screen 7

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 20 gpm Duration of test 2 hrs

Drawdown 80 ft Date 3/10/76

Static level (depth to water) 20 ft

Quality (clear, cloudy, taste, odor) Clear

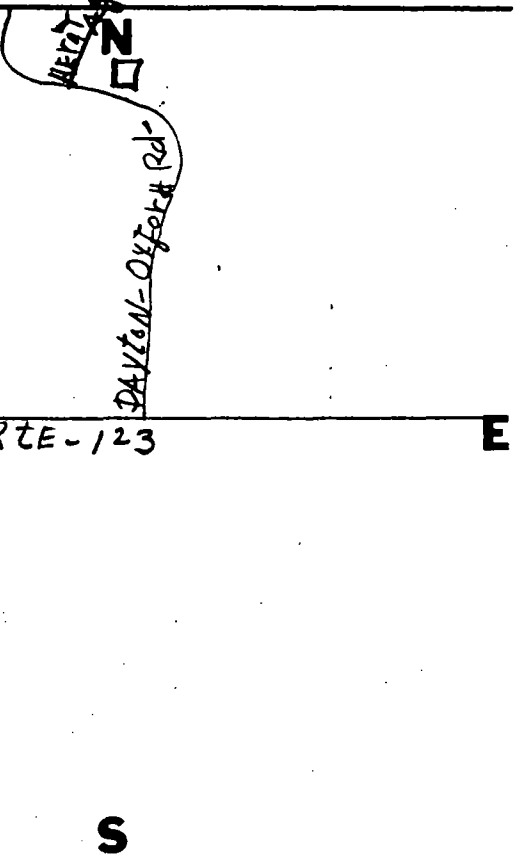
Pump installed by

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
Clay	0 ft	4 ft
Clay & gravel	4	18
Sand & gravel	18	42
		42'
Water at 30'.		

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM Wallace L. Day DATE 3/12/76

ADDRESS 7023 Hobart ave - Franklin, Ohio 45005 SIGNED W. L. Day

*If additional space is needed to complete well log, use next consecutive numbered form.

125

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY— SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

No. 402935

County Warren Township Franklin Section of Township

Owner Reed Kirkpatrick Address 9800 Heritage Rd. Franklin. Ohio

Location of property Fairview #5 Heritage Dr. Lot # 467

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 45'

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 8-19-70

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate 20' G.P.M. Duration of test hrs.

Drawdown None ft. Date

Static level-depth to water 25 ft.

Quality (clear, cloudy, taste, odor)

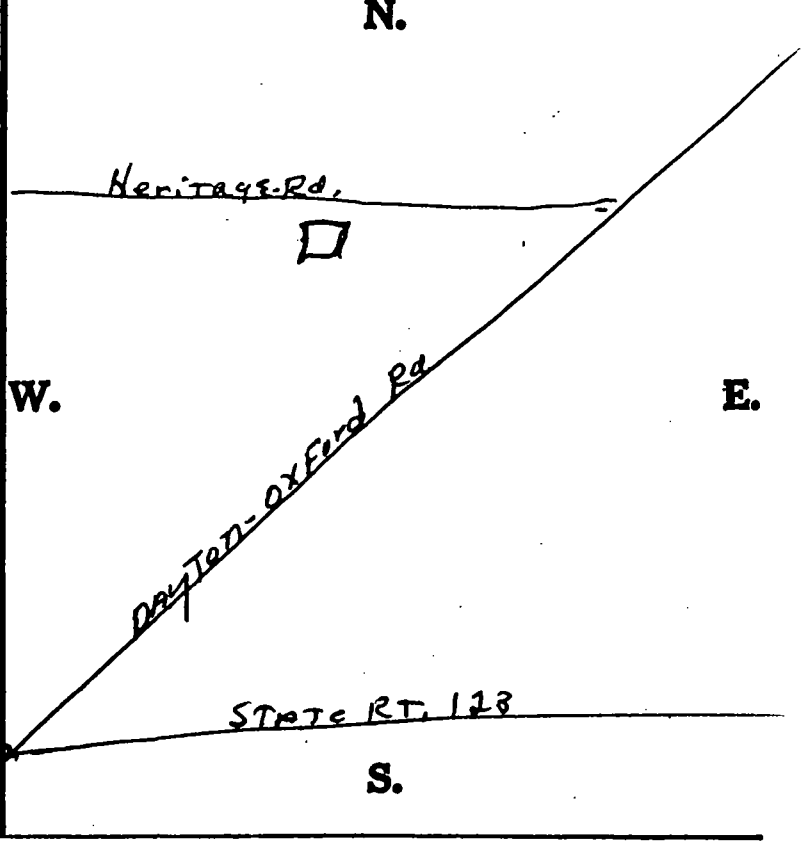
Pump installed by

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Top Soil	0 Feet	2 Ft.
Red Clay	2	7
Sand + Gravel	7	32
Gravel	32	45
Water at 33'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



Drilling Firm Dewey Fraley Date 8-19-70

Address R.R. 1 Germantown, O Signed Dewey Fraley

*If additional space is needed to complete well log, use next consecutive numbered form.

(730)

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY— SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

No. 415276

County Warren Township Franklin Section of Township

Owner Russell Kirkpatrick Address 9600 Heritage Rd. Carlisle Ohio

Location of property Fairview #5 Lot # 415 Montgomery Ave.

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 45'

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 5-22-71

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate 20 G.P.M. Duration of test hrs.

Drawdown None ft. Date

Static level-depth to water 25 ft.

Quality (clear, cloudy, taste, odor)

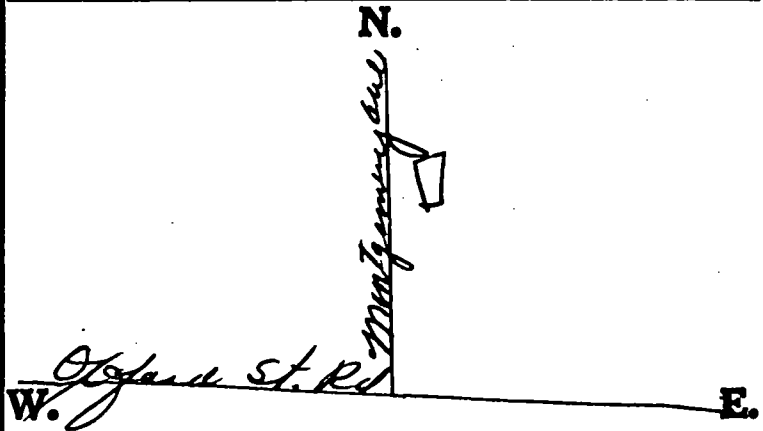
Pump installed by

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Red Clay	0 Feet	3 Ft.
Brown Clay	3	23
Sand & Gravel	23	32
Gravel	32	45
Water at 32'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



Drilling Firm Denny Fraley Date 5-22-71

Address R.R. 1 Germantown, O. Signed Denny Fraley

*If additional space is needed to complete well log, use next consecutive numbered form.

135

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY— SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

No. 386304

County Warren Township Franklin Section of Township

Owner Creed Kirkpatrick Address 121 Arthur Ave. Carlisle, Ohio

Location of property Fairview #5 Kepton Dr. Lot # 481

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 45'

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 11-1-68

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate 20 G.P.M. Duration of test hrs.

Drawdown None ft. Date

Static level-depth to water 25 ft.

Quality (clear, cloudy, taste, odor)

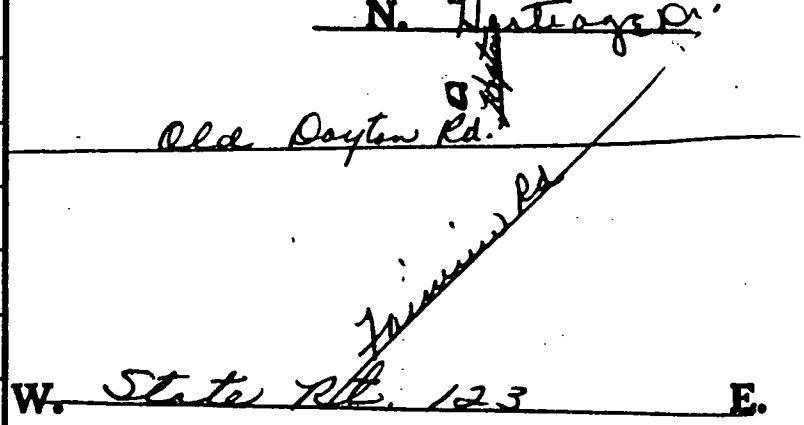
Pump installed by

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Top Soil	0 Feet	2 Ft.
Red Clay	2	7
Sand + Gravel	7	32
Gravel	32	45
water at 33'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



Drilling Firm Dewey Fraley Date 11-1-68

Address R. R. Germantown. Signed Dewey Fraley

*If additional space is needed to complete well log, use next consecutive numbered form.

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 137335

County Wayne Township Franklin Section of Township or Lot Number

Owner John K Wolfe Address 713 Dayton Road

Location of property ON Carlisle & Chautauqua Road

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 46'

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

PUMPING TEST

Pumping rate G.P.M. Duration of test hrs.

Drawdown ft. Date

Developed capacity

Static level—depth to water ft.

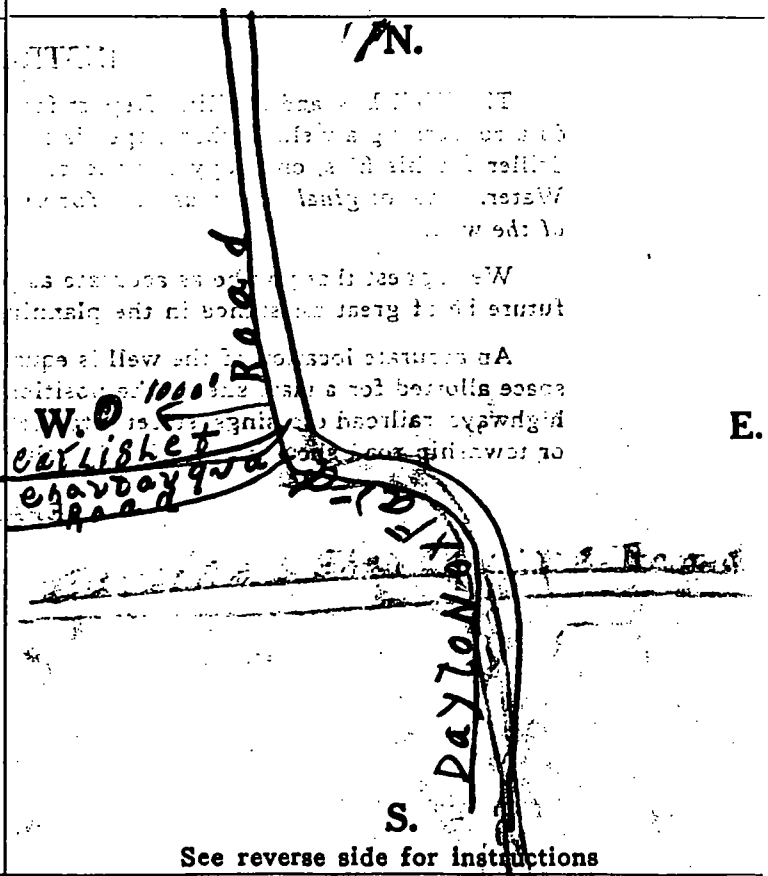
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	Ft.
Gravely Clay		27
Sand Clay Mix	27	39
Hard Pan	39	42
Sand Gravel	42	44

SKETCH SHOWING LOCATION

Locate in reference to numbered – State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm A. J. Asher Date 4/7/55

Address P.O. Box 87 Carlisle Signed A. J. Asher

745

WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 322145

County Warren Township ~~Carlisle~~ Franklin Section of Township

Owner John Gibson Address 118 Willard Ave, Carlisle O

Location of property 2½ miles N W. of Franklin just off of Oxford Rd.

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 44

Type of screen 14" Length of screen 6'

Type of pump

Capacity of pump

Depth of pump setting

Date of completion Sept 8 1965

BAILING OR PUMPING TEST

Pumping Rate 20 G.P.M. Duration of test 2 hrs.

Drawdown 4 ft. Date Aug 16-65

Static level-depth to water 29 ft.

Quality (clear, cloudy, taste, odor) Clear

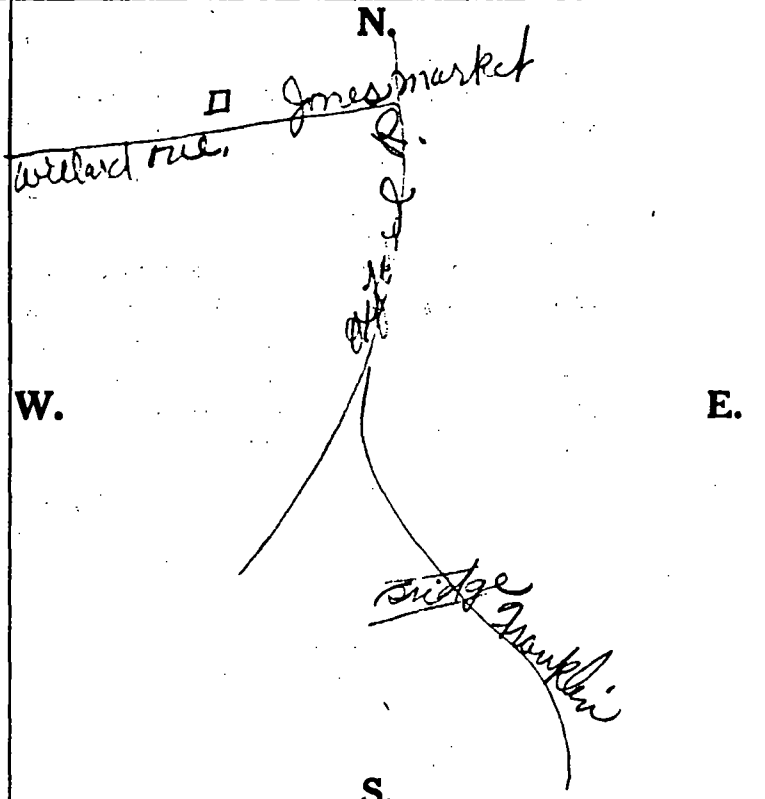
Pump installed by

WELL LOG

Formations - Sandstone, shale, limestone, gravel and clay	From	To
Clay	0 Feet	4 Ft.
Clay + Gravel	4	29
Sand + Gravel	29	44
Water at 32		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Wallace L Day Date Sept 8, 1965

Address 7165 Hobart Ave. Signed W. L. Day

150

X= 1,493,500 ± 4,000'
Y= 583,600-S

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 137008

County Warren Township Franklin Section of Township or Lot Number

Owner Wise Construction Co Address South Riverview Ave. Miamisburg Ohio

Location of property 1/2 mile South of Malg. on St. Rt. 25 to Chautauqua Road 2 miles Southwest to Author Ave. 1/2 mile West

CONSTRUCTION DETAILS

Casing diameter 6" OD Length of casing 54

Type of screen None Length of screen

Type of pump

Capacity of pump

Depth of pump setting

PUMPING TEST

Pumping rate 20 G.P.M. Duration of test 1 hrs.

Drawdown 7 ft. Date Aug. 20, 1954

Developed capacity 1200 gal. Hour

Static level—depth to water 33 ft.

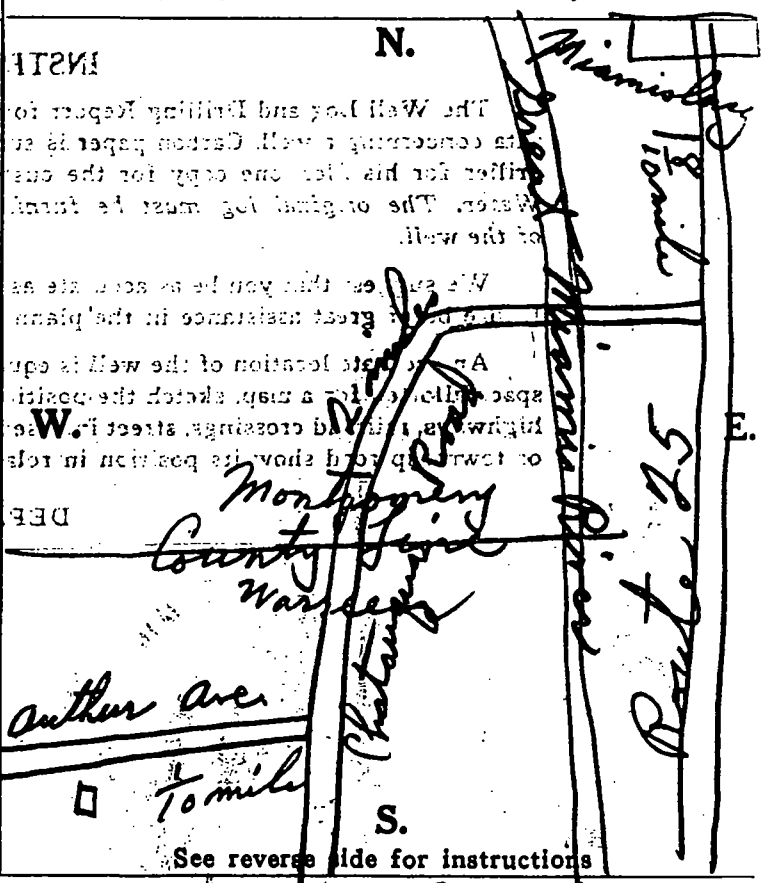
Pump installed by owner

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Clay	0 Feet	4 Ft.
Clay & Gravel	4	7
Sand & Gravel	7	54
water at 45'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Chas. E. Thomas & Sons Date Aug. 20, 1954

Address R 1 Miamisburg Ohio Signed Chas. E. Thomas

755

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

Nº 172711

County Warren Township Franklin Section of Township or Lot Number 163

Owner Hilton Rhule Address Dail Franklin O

Location of property Fairview Plat 2 miles north west of Franklin O

CONSTRUCTION DETAILS	PUMPING TEST
Casing diameter 6" OD Length of casing 40	Pumping rate 18.00 G.P.M. Duration of test 1 hrs.
Type of screen Length of screen	Drawdown 9 ft. Date 7-17-1957
Type of pump	Developed capacity 18.00
Capacity of pump	Static level—depth to water 21 ft.
Depth of pump setting	Pump installed by

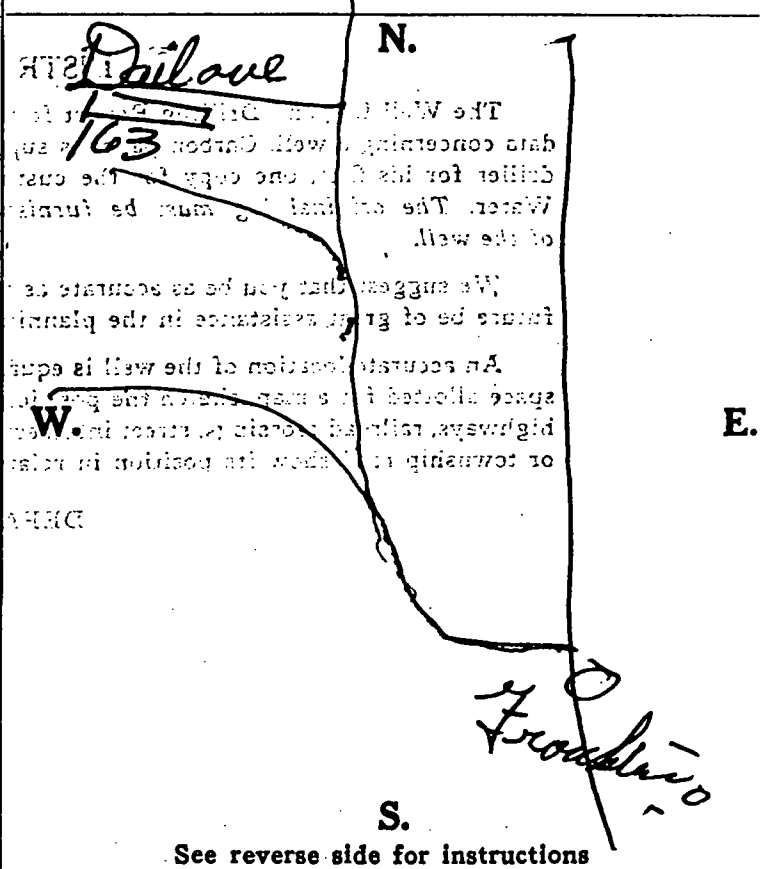
WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Top Soil	0 Feet	4 Ft.
Sand & Gravel	4	40

Water at 40

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Wm H. Brinegar Date 7-17-1957

Address 9664 Roberts Drive Signed William H Brinegar

Franklin O

760

ORIGINAL

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio

PLEASE USE PENCIL OR TYPEWRITER. DO NOT USE INK.

No. 236659

County Warren Township Franklin Section of Township 27 Fairview Sub

Owner Lou Whitt Address Lot 235 Dale avenue

Location of property 2½ miles N. west of Franklin in Fairview Sub.

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 39'

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 9, 2, 59

BAILING OR PUMPING TEST

Pumping rate 20 G.P.M. Duration of test 6 hrs.

Drawdown 4 ft. Date 9, 2, 59

Developed capacity

Static level—depth to water 19 ft.

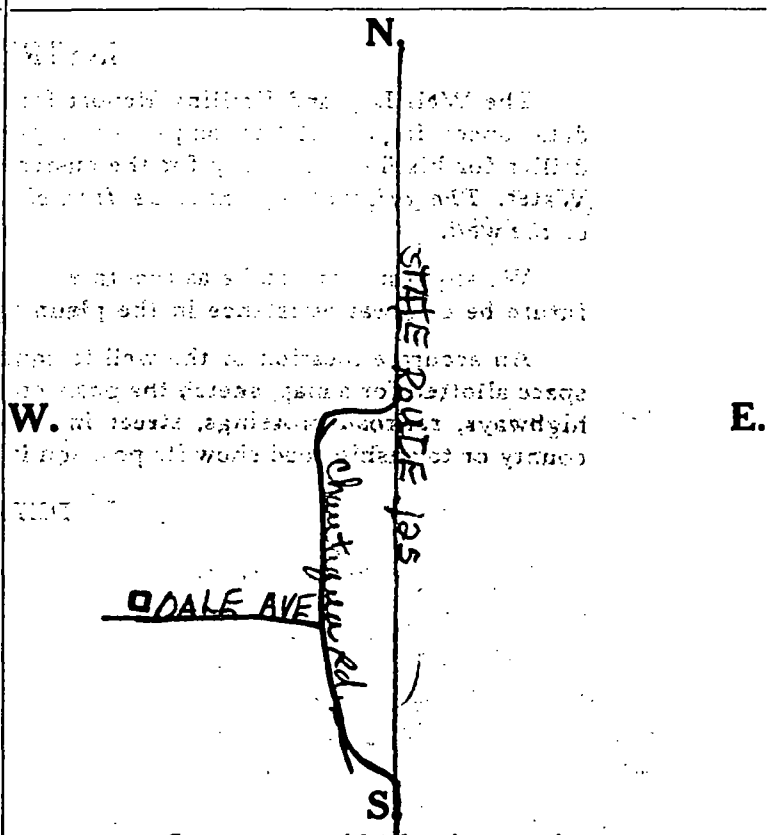
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Clay	0 Feet	8 Ft.
Clay & gravel	8	23
gray shale	23	56
Water at 39		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Wallace I Day

Address 124 Second Street Franklin, Ohio

Date October 2, 1959

Signed W. I Day

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1500 Dublin Road
Columbus, Ohio

No. 183334

County Warren Township Franklin Section of Township Lot # 222 Carlisle Road + Janet Ave

Owner Horace H. Mallicoat Address R#6 E. Main St., Franklin, Ohio

Location of property Carlisle Road + Janet Ave. Lot #

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 44 Ft.
Type of screen Perforated Casing Length of screen
Type of pump
Capacity of pump
Depth of pump setting
Date of completion

BAILING OR PUMPING TEST

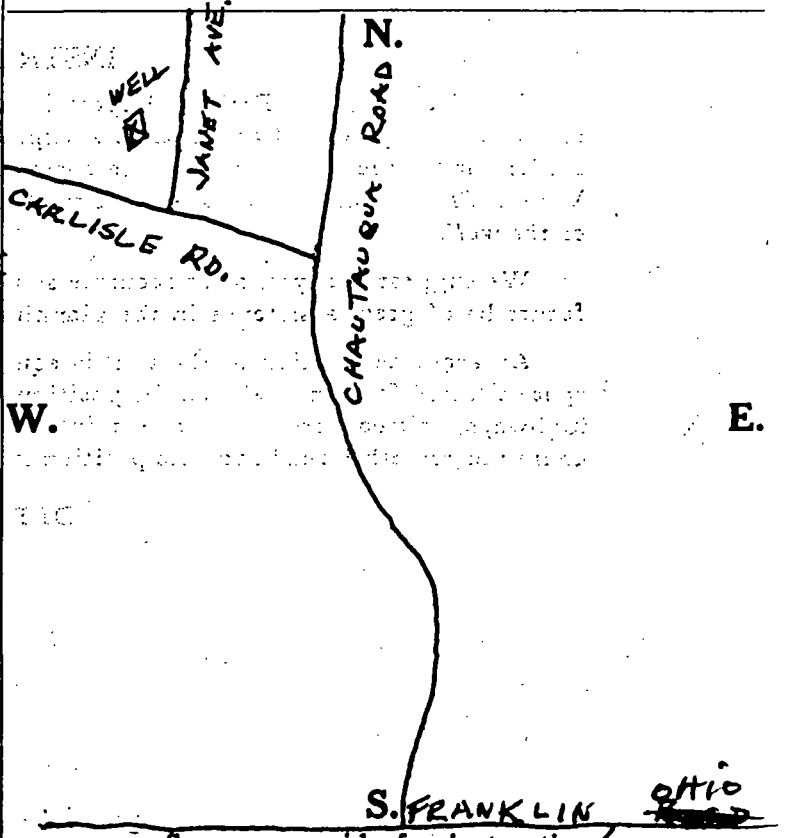
Pumping rate 20 G.P.M. Duration of test 1 hrs.
Drawdown ft. Date 7-18-56
Developed capacity 1200 G.P.H.
Static level—depth to water 20 ft.
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	Ft.
Topsoil	0	3
Sand + gravel	3	25
Sand + gravel with Water Bearing Strata	25	44

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Elmer Miller
Address Rt. 1, Germantown, Ohio

Date July 18 1956
Signed Elmer Miller

170

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 158839

County Wayne Township Franklin Section of Township or Lot Number

Owner James Gross Address Carlisle ohio

Location of property Vandever Sub East of Ba RR South of Gross Lumber co

CONSTRUCTION DETAILS

Casing diameter 6 5/8 Length of casing 70'

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

PUMPING TEST

Pumping rate 20 G.P.M. Duration of test 3 hrs.

Drawdown 2 ft. Date 4/24/57

Developed capacity 1200 G.P.H.

Static level—depth to water 28 ft.

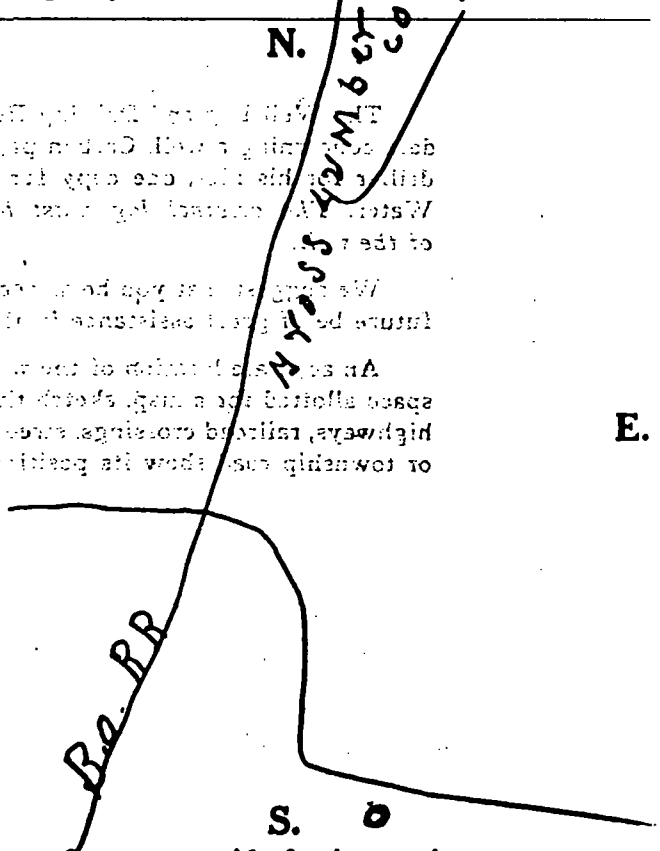
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	Ft.
Grey clay		28
Grey clay sand Mix	28	30
Grey clay	30	44
Grey sand gravel	44	70

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm W. J. Asher Date 4/24/57

Address P.O. Box 87 Carlisle O Signed A. J. Asher

800

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 137340

County WAYNE Township FRANKLIN Section of Township or Lot Number

Owner JAS ELEMMONS Address JOHN STREET CARLISLE

Location of property IN NAVIL ADITON ON JOHN ST THIRD HOUSE NORTHOF BARETT STORE

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 85'

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

PUMPING TEST

Pumping rate G.P.M. Duration of test hrs

Drawdown ft. Date

Developed capacity

Static level—depth to water ft

Pump installed by

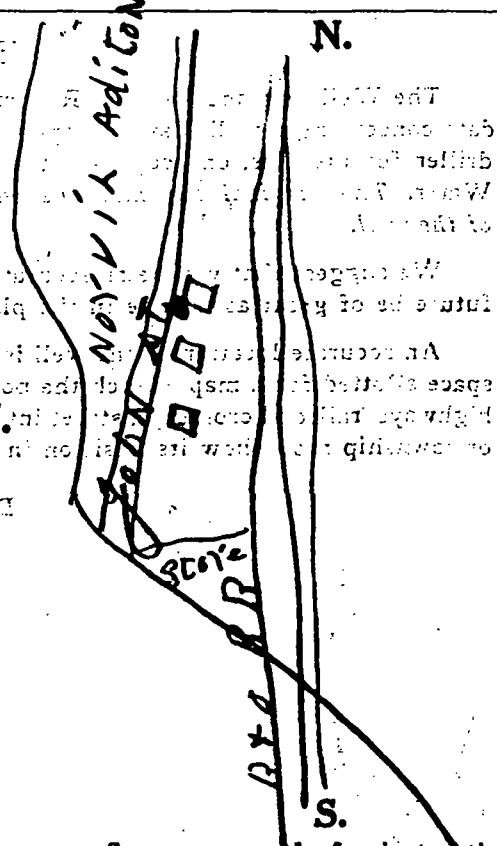
WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	Ft.
GRAVELY CLAY		25'
HARD PAN	26'	27
GREY SAND CLAY MIX	27	33
BROWN CLAY	33	51
GREY SAND GRAVEL CLAY MIX	51	72
RED CLAY	72	79
RED SAN GRAVEL	79	86'

1½ FRACED 6' IN BOTTOM JOINT 9 HOLES

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm A. F. Ashen Date 5/5/56

Address P.O. Box 89 Carlisle O Signed A. F. Ashen

805

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY— SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

No. 380340

County Warren Township Franklin Section of Township

Owner John Norrod Address 493 park Dr. Carlisle Ohio

Location of property 1/4 mile west of State Route 123

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 48

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate 20 G.P.M. Duration of test 2 hrs.

Drawdown 5 ft. Date 3/23/72

Static level-depth to water 20 ft.

Quality (clear, cloudy, taste, odor) Clear

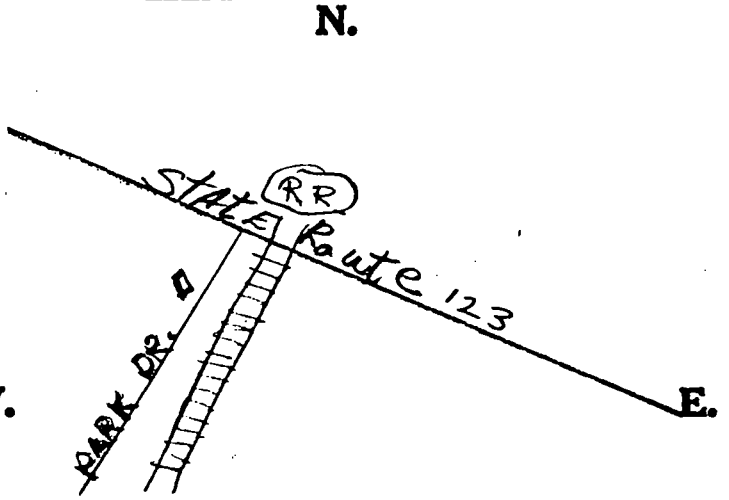
Pump installed by

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Clay	0 Feet	15 Ft.
Clay + gravel	15	25
sand + gravel	25	30
Clay + gravel	30	50
Water at 25'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



Drilling Firm Wallace J. Day Date 3/24/72

Address 7165 Hobart ave- Franklin, Ohio Signed W. J. Day

*If additional space is needed to complete well log, use next consecutive numbered form.

WELL LOG AND DRILLING REPORT

NO CARBON PAPER NECESSARY– SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

619951

COUNTY WARREN TOWNSHIP FRANKLIN SECTION OF TOWNSHIP

OWNER O.R. EAGLE ADDRESS

LOCATION OF PROPERTY 712 CENTRAL AVE CARLISLE OHIO

CONSTRUCTION DETAILS

Casing diameter 5 3/4 Length of casing

Type of screen NONE Length of screen

Type of pump SUB

Capacity of pump 10

Depth of pump setting 50

Date of completion 9-12-83

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 13 gpm Duration of test 1 hrs

Drawdown NONE ft Date

Static level (depth to water) 34 ft

Quality (clear, cloudy, taste, odor) CLEAR

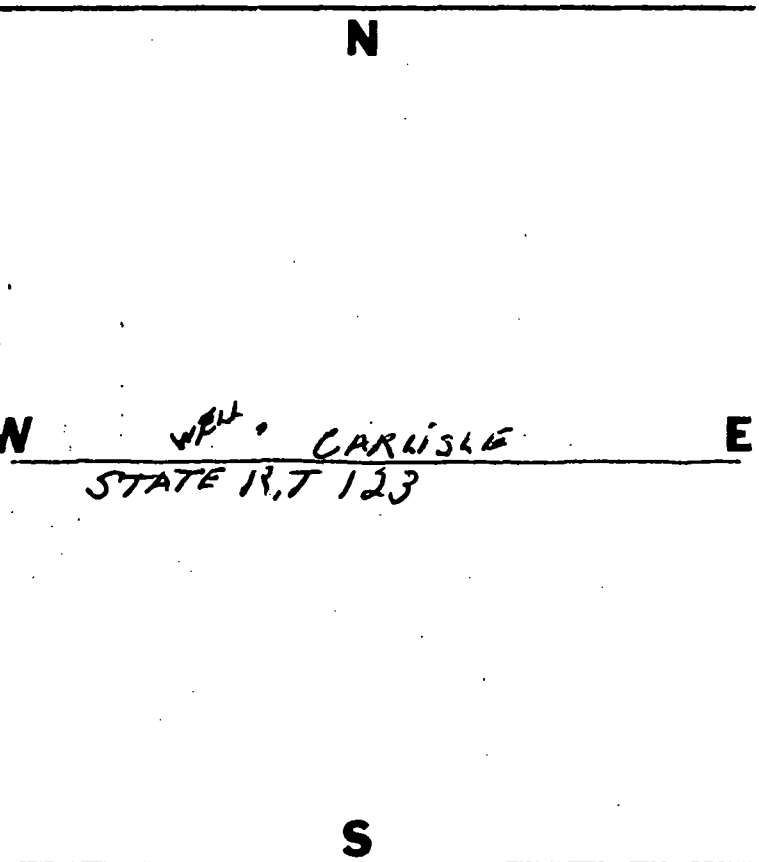
Pump installed by BARRETT WELL DRILLING

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
CLAY	0 ft	5 ft
SAND AND GRAVEL	5	55

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.



DRILLING FIRM BARRETT WELL DRILLING DATE 9-12-83

ADDRESS 7785 LYN DRIVE SIGNED Bradley Barrett

*If additional space is needed to complete well log, use next consecutive numbered form.

ORIGINAL COPY - ODNR, DIVISION OF WATER, FOUNTAIN SQ., COLS., OHIO 43224

835

X= 1,487,500 ± 4.0001
Y= 582,600-S

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

Nº 111180

County Warren Township Franklin Section of Township or Lot Number

Owner George R. Price Sr. Address P.O. Box 68 Carlisle

Location of property 1/4 Mile East of Carlisle School on Chautauqua Road

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 65'

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

PUMPING TEST

Pumping rate G.P.M. Duration of test hrs.

Drawdown ft. Date

Developed capacity

Static level—depth to water ft.

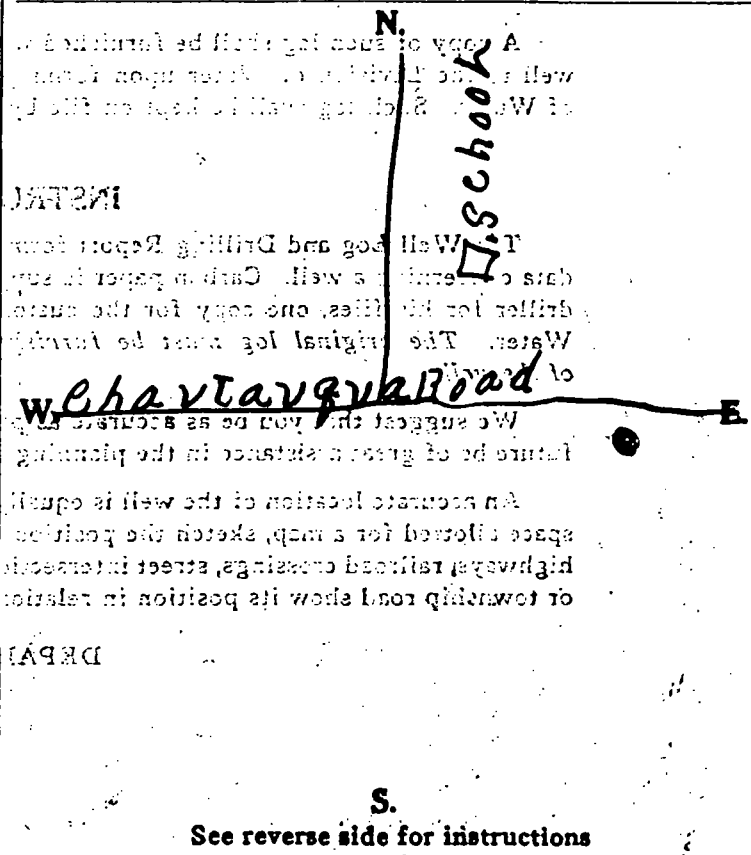
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	Ft.
Gravely Clay		32
Gravely sand clay Mix	32	35'
Brown Clay	35'	55'
Gravely Clay Mix	55'	69'8"

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm A. J. Asher Date 4/1/54

Address P.O. Box 87 Carlisle Signed A. J. Asher

(815)

WELL LOG AND DRILLING REPORT

NO CARBON PAPER NECESSARY– SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Fountain Square
Columbus, Ohio 43224

608345

COUNTY WAREN TOWNSHIP Franklin SECTION OF TOWNSHIP

OWNER DONALD SCHRADER ADDRESS 674 W CENTRAL

LOCATION OF PROPERTY 674 W. CENTRAL CARLISLE OHIO

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing

Type of screen NONE Length of screen

Type of pump SUB

Capacity of pump 8

Depth of pump setting 49

Date of completion @ 7-15-83

BAILING OR PUMPING TEST
(specify one by circling)

Test rate 12 gpm Duration of test 1 hrs

Drawdown NONE ft Date

Static level (depth to water) 32 ft

Quality (clear, cloudy, taste, odor) CLEAR

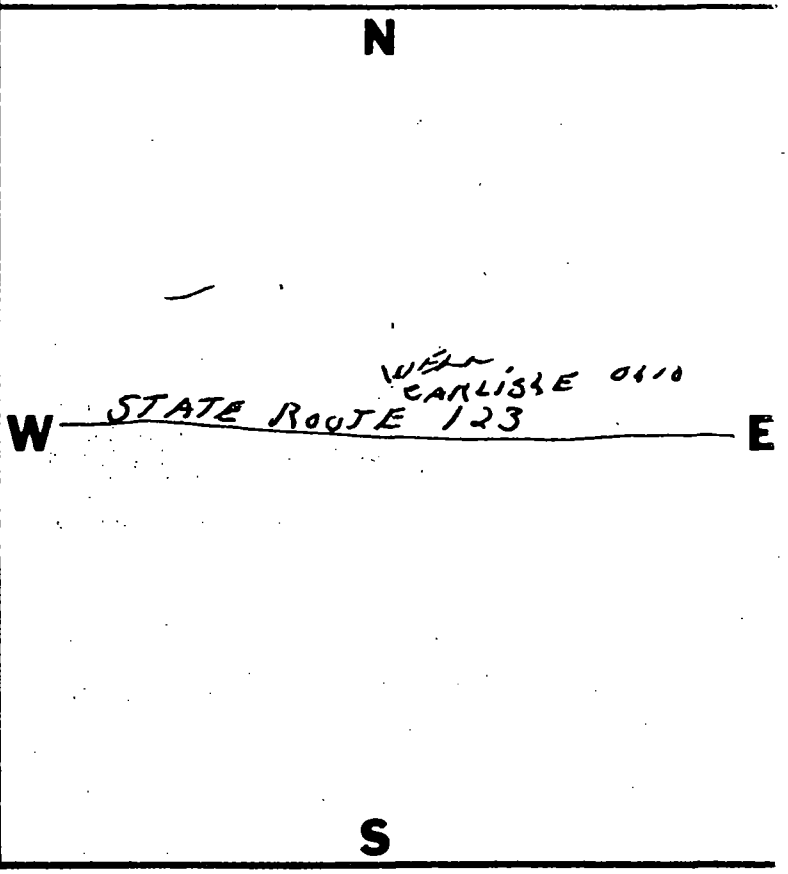
Pump installed by BARRETT WELL DRILLING

WELL LOG*

Formations: sandstone, shale, limestone, gravel, clay	From	To
CLAY	0 ft	4 ft
SAND AND GRAVE	4	58
WATER AT 32		

SKETCH SHOWING LOCATION

Locate in reference to numbered state highways, street intersections, county roads, etc.

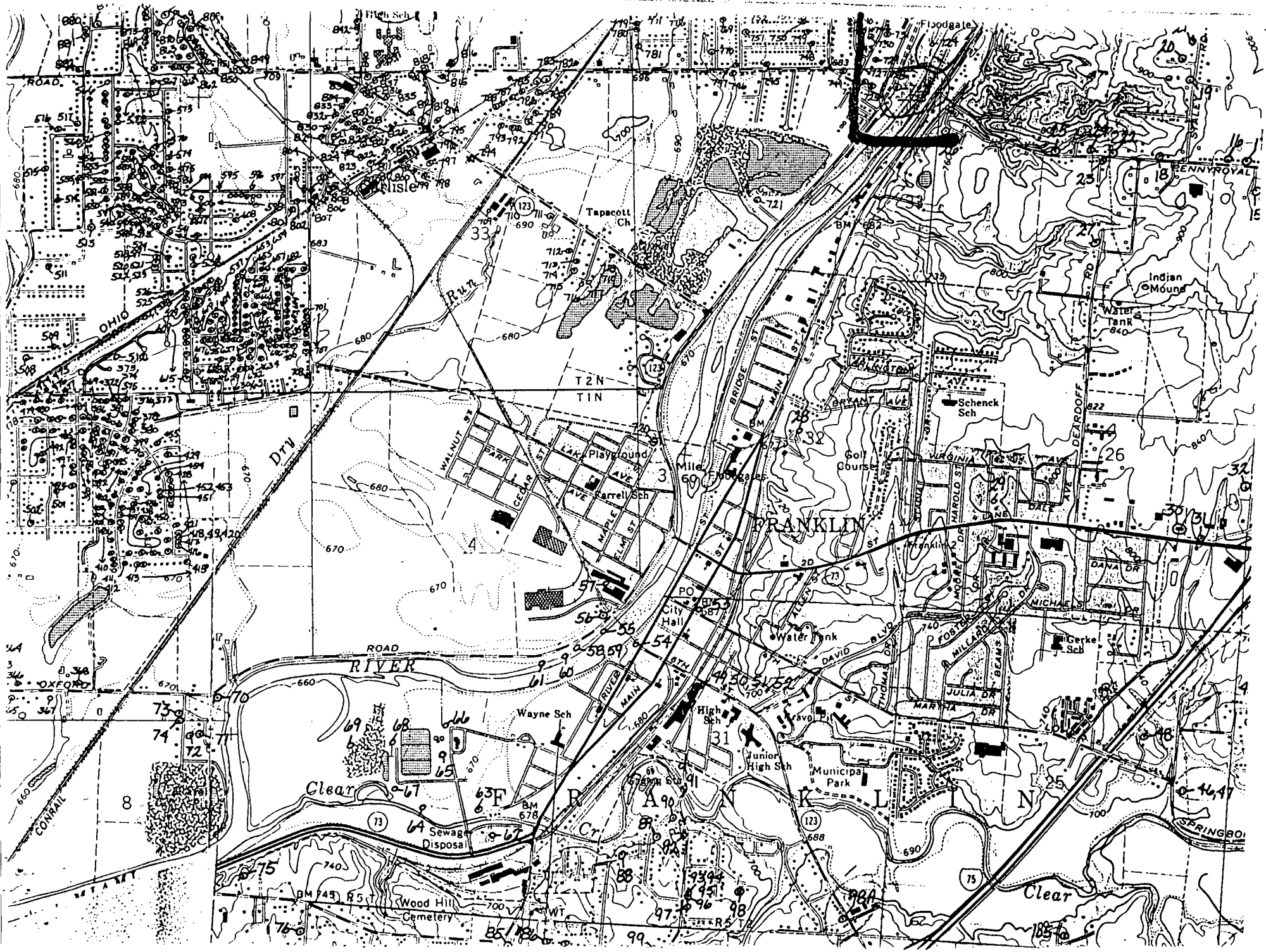


DRILLING FIRM BARRETT WELL DRILLING DATE 7-15-83

ADDRESS 7285 LYN DRIVE SIGNED Barclay Barrett

*If additional space is needed to complete well log, use next consecutive numbered form.

ORIGINAL COPY - ODNR, DIVISION OF WATER, FOUNTAIN SQ., COLS., OHIO 43224 820



Floodgate
Carlisle
Tapscott Ch
Indian Mound
Water Tank
Schenck Sch
Golf Course
Playground
Farrell Sch
Mile 69
Floodgates
FRANKLIN
City Hall
Water Tank
Gerke Sch
Wayne Sch
High Sch
Junior High Sch
Municipal Park
Sewage Disposal
Wood Hill Cemetery
Dry Run
Clear Cr
RIVER
ROAD
OHIO
CONRAIL
OXFORD
T2N
T1N
WALNUT ST
PARK
CEDAR ST
LAKE AVE
MAPLE
ELM ST
BRIDGE ST
MAIN ST
BRYANT AVE
VIRGINIA AVE
DEARDOFF RD
DANA DR
MICHAELS DR
DAVID BLVD
JULIA DR
MARTHA DR
THOMAS DR
FOSTER
MILLARD
BEAMS
HAROLD ST
MOORE DR
ALLEN ST
RIVER
MAIN
6TH
SPRINGBO

PLEASE USE PENCIL
OR TYPEWRITER
DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

№ 300546

County Warren Township Franklin Section of Township

Owner John Wolfe Address 405 Hanna ave

Location of property 405 Hanna ave Franklin, Ohio

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 43

Type of screen ½ Length of screen 4

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 7/8/64

BAILING OR PUMPING TEST

Pumping Rate 10 G.P.M. Duration of test 2 hrs.

Drawdown 4 ft. Date 7/8/64

Static level-depth to water 22 ft.

Quality (clear, cloudy, taste, odor)

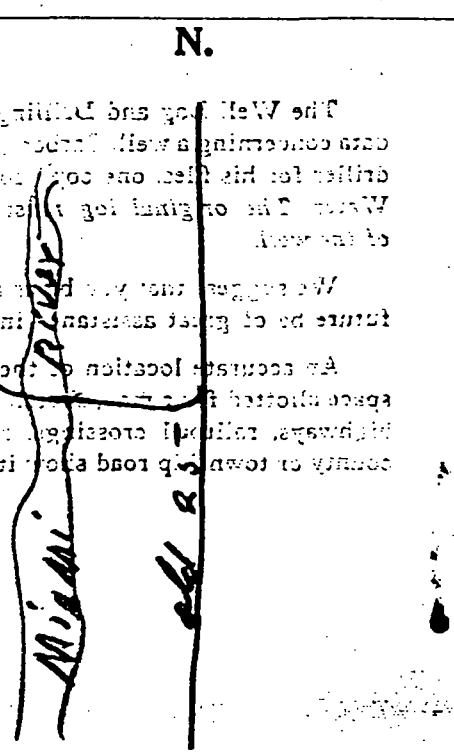
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Clay	0 Feet	5 Ft.
Clay gravel	5	23
Sand	23	43
Water 24 in 43		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Wallace Day

Address 2165 Hobart ave

Date Sept 13, 1964

Signed Wallace J Day

720

PLEASE USE PENCIL OR TYPEWRITER
DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio 43212

No. 342976

County Warren Township Franklin Section of Township

Owner City of Franklin Address Franklin, Ohio

Location of property On Alford Rd., so of Pumping Sta., 850 ft. frm R.R. Bridge, 100 ft. frm river

Test Well CONSTRUCTION DETAILS

Casing diameter 8" Length of casing 105 ft.
Type of screen Length of screen
Type of pump
Capacity of pump
Depth of pump setting
Date of completion 9/29/66

BAILING OR PUMPING TEST

Pumping Rate G.P.M. Duration of test hrs.
Drawdown ft. Date
Static level-depth to water ft.
Quality (clear, cloudy, taste, odor)

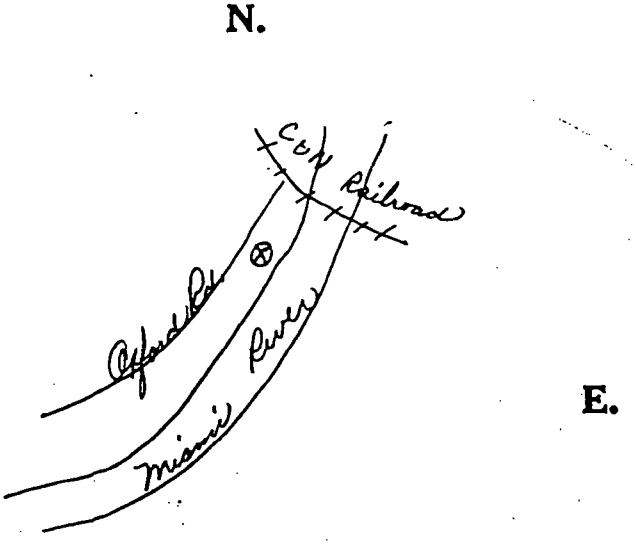
Pump installed by

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Sand	0 Feet	25 Ft.
Gravel	25	30
Hard coarse gravel & coarse sand	30	65
Hard coarse gravel & medium sand	65	93
Brown clay w/ slate strks	93	100
Blue shale	100	105

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm MOODY'S OF DAYTON, INC.
150 North Dixie Drive
Vandalia, Ohio
SINCE 1891
Address

Date 9/29/66
Signed Ed. Wagner - President

*If additional space is needed to complete well log, use next consecutive numbered form.

55

10,500 ± 3,000'
71,500-5

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

№ 90284

County Warren Township Franklin Section of Township or Lot Number

Owner Sarah C Burdge Address Oxford Road

Location of property ¼ mile south of 123 on Oxford R.D.

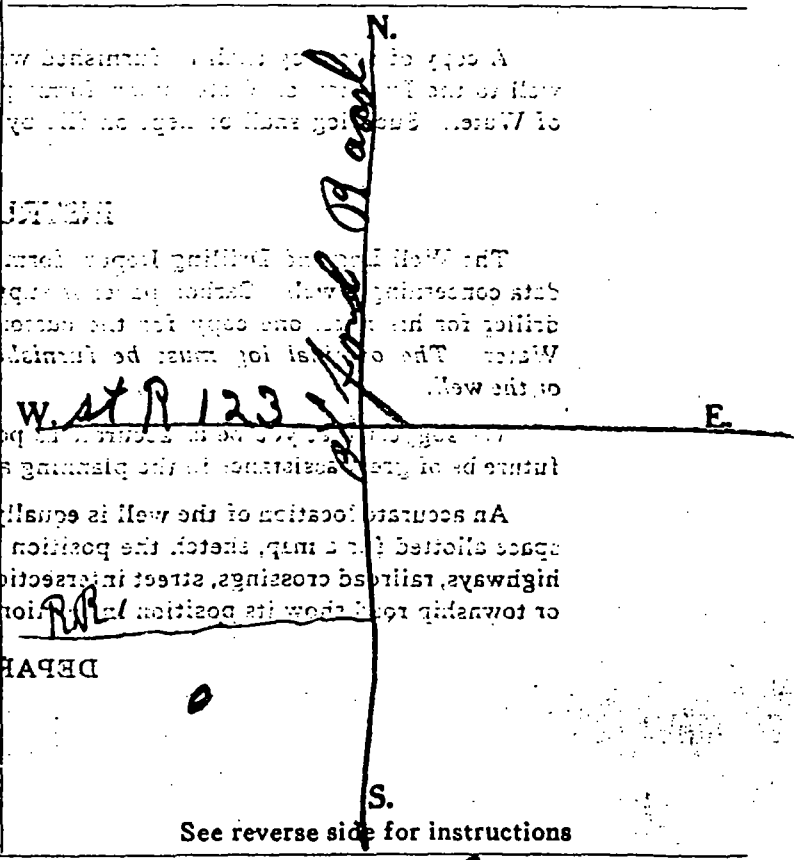
CONSTRUCTION DETAILS	PUMPING TEST
Casing diameter 8" Length of casing	Pumping rate G.P.M. Duration of test hrs.
Type of screen Length of screen	Drawdown ft. Date
Type of pump	Developed capacity
Capacity of pump	Static level—depth to water ft.
Depth of pump setting	Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
	0 Feet	Ft.
Gravely clay		27
Sand Gravel	27	35
Brown gravely clay	35	49
Sand Gravel	49	56

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm A. J. Asher Date [redacted]

Address P.O. Box 87 Carlisle Signed 7/25/52

A. J. Asher

WELL LOG AND DRILLING REPORT

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1500 Dublin Road
Columbus, Ohio

No. 183363

County Wayren Township Franklin Section of Township

Owner Miami Valley Coated Paper Co Address Franklin, Ohio

Location of property Rear of plant-West bank of Miami River, South 2 blocks of bridge

CONSTRUCTION DETAILS

Casing diameter 8" Length of casing 71

Type of screen Johnson Length of screen 10'

Type of pump D.W. Turbine

Capacity of pump 175 G.P.M.

Depth of pump setting 50'

Date of completion

BAILING OR PUMPING TEST

Pumping rate ✓ G.P.M. Duration of test hrs.

Drawdown ft. Date

Developed capacity

Static level—depth to water 19 ft.

Pump installed by Will be by us

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Clay	0 Feet	12 Ft.
Gravel-dry	12	28
Sand & gravel Water bearing	28	81

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.

N.

W. E.

S.

See reverse side for instructions

Drilling Firm W. M. Baker & Son, Inc. Date 10/20/56

Address Cols, Ohio Signed W. H. Boger

(57)

WELL LOG AND DRILLING REPORT

ORIGINAL

NO CARBON PAPER NECESSARY— SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

454760

County ~~MONTGOMERY~~ Warren Township ~~WARREN~~ Franklin Section of Township 4

Owner CITY OF FRANKLIN Address Franklin, Ohio

Location of property Well No. 5 - Rt. 73 into Frankain to stoplight at River. Then straight across ~~river to first road turn left approx. ½ mile on left.~~

CONSTRUCTION DETAILS

Casing diameter 16" Length of casing 64'
Type of screen STAINLESS Length of screen 20'
Type of pump
Capacity of pump
Depth of pump setting
Date of completion

BAILING OR PUMPING TEST
(Specify one by circling)

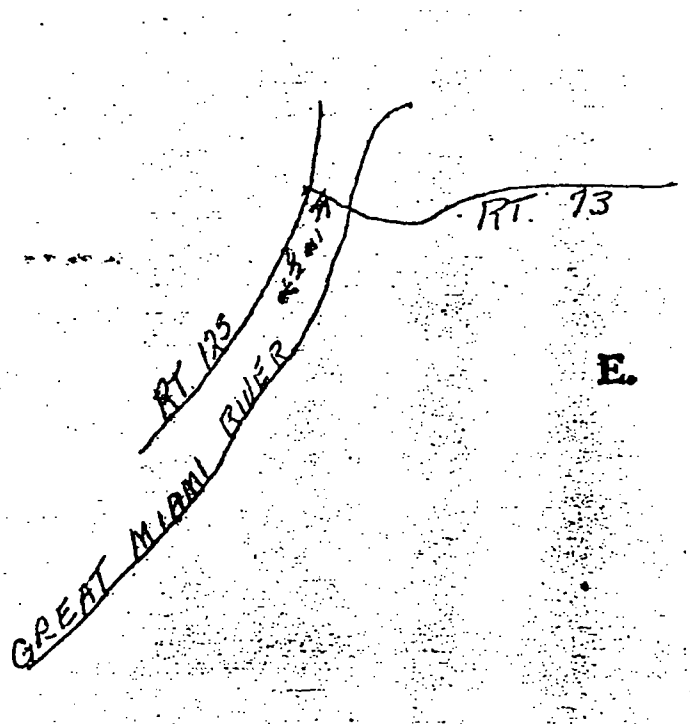
Test Rate G.P.M. Duration of test hrs.
Drawdown ft. Date
Static level-depth to water 15 ft.
Quality (clear, cloudy, taste, odor) clear
Pump installed by

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Fill	0 Feet	3 Ft.
Silty Sand	3	9
Large Stones + Gravel	9	30
Coarse gravel + Stones	30	84

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



Drilling Firm Dunbar Drilling Inc.
Address 307 Broadway, Swanton, Ohio
Date 4-22-74
Signed Dale R. Dunbar
Dale R. Dunbar, President

*If additional space is needed to complete well log, use next consecutive numbered form.

58 59

ORIGINAL

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio 43212

PLEASE USE PENCIL OR TYPEWRITER
DO NOT USE INK.

No. 342987

County Warren Township Franklin Section of Township

Owner City of Franklin Address Franklin, Ohio

Location of property Near Test Well on Dyford Rd.

24" well CONSTRUCTION DETAILS

Casing diameter 24" Length of casing 90'
Type of screen Red Brand Length of screen 35'
Type of pump Vertical Turbine (Test)
Capacity of pump 1600 G.P.M.
Depth of pump setting
Date of completion Oct. 18, 1967

BAILING OR PUMPING TEST

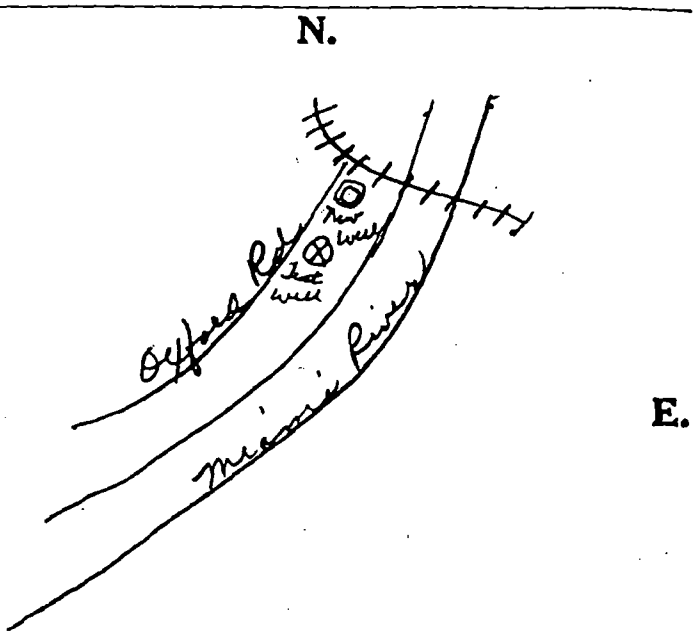
Pumping Rate 449 G.P.M. Duration of test 7 hrs.
Drawdown 7 ft. Date Oct. 18, 1967
Static level-depth to water 16' 6" ft.
Quality (clear, cloudy, taste, odor) Clear
Pump installed by C. O. Burgess

WELL LOG*

Formations Sandstone, shale, limestone, gravel and clay	From	To
Top soil & sand	0 Feet	9 Ft.
Clay & few gravel & Wood	9	17
Little Sand & few gravel	17	37
Coarse " & Coarse "	37	50
" " " & " "	50	62
" " " "	62	70
" " " "	70	74
Blue Clay (Lime Chips)	74	76
Fine Sand & few gravel (dty)	76	80
" " & " " "	80	85
Light greenish blue Clay	85	90

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Moody's of Dayton, Inc. Date November 13, 1967
Address P.O. Box 155, Vandalia, Ohio 45377 Signed V. C. Caspee

*If additional space is needed to complete well log, use next consecutive numbered form.

WE[illegible] LOG AND DRILLING RE[illegible]ORT

ORIGINAL

NO CARBON PAPER NECESSARY— SELF-TRANSCRIBING

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
65 S. Front St., Rm. 815 Phone (614) 469-2646
Columbus, Ohio 43215

No. 395597

County Warren Township Franklin Section of Township

Owner Village of Franklin, Ohio Address N. 4th St., Franklin, O. 45005

Location of property 100' off Oxford (SE.), 1100' from RR

CONSTRUCTION DETAILS

Casing diameter 6" Length of casing 166

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

Date of completion 29 October 1969

BAILING OR PUMPING TEST
(Specify one by circling)

Test Rate G.P.M. Duration of test hrs.

Drawdown ft. Date

Static level-depth to water approx. 10 ft.

Quality (clear, cloudy, taste, odor)

Pump installed by

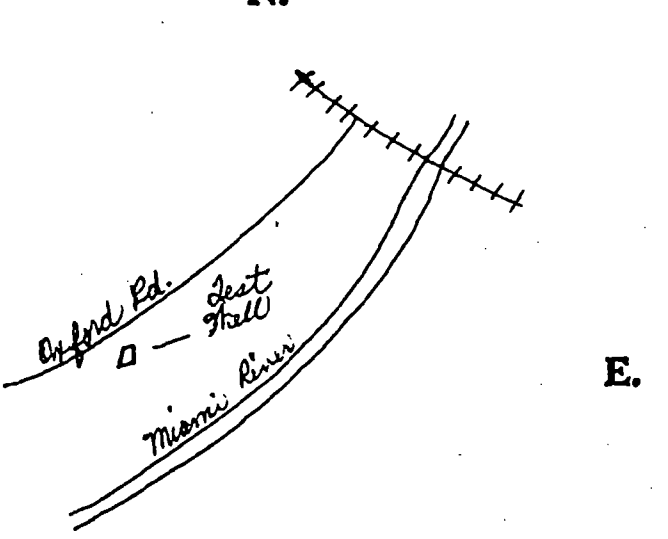
WELL LOG*

Test Hole

Formations Sandstone, shale, limestone, gravel and clay	From	To
Sandy till	0 Feet	15 Ft.
Dirty sand & gravel	15	25
Coarse sand & med. gravel	25	60
Sandy clay with few gravels	60	65
Sand & gravel	65	69
Hard clay (good formation)	69	75
Coarse sand & Coarse gravel	75	96
Gray clay	96	126
Boulders	126	130
Good coarse sand & co. gravel	130	166

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



Drilling Firm MOODY'S OF DAYTON, INC.
P. O. Box 155 Area Code 513
Vandalia, Ohio 45377 898-3969

Address

Date 17 March 1970

Signed Barbara Cason

(61)

*If additional space is needed to complete well log, use next consecutive numbered form.

FILE COPY

FROST ASSOCIATES

P.O. Box 495, Essex, Connecticut 06426
(203) 767-1254 Fax (203) 767-7069

Jan 25, 1994

To: PRC Environmental Management Inc.
644 Linn Street, Suite 719
Cincinnati, Ohio

Attn: Guy Montfort

Fr: Frost Associates
P.O. Box 495
Essex, Conn 06426

Tel: (203) 767-1254
Fax: (203) 767-7069

Sub: Systech Site
Franklin, Warren Cty, OH

Job: 030-003625

Site Longitude: 84-18-58.98 84.316383
Site Latitude : 39-32-58.68 39.549629

The CENTRACTS report below identifies the population, households, and private water wells of each Block Group that lies within, or partially within, the 4, 3, 2, 1, .5, and .25, mile "rings" of the latitude and longitude coordinates above. CENTRACTS may have up to ten radii of any length. 1000 block groups, and 15000 block group sides.

CENTRACTS uses the 1990 Block Group population and Block Group house count data found in the Census Bureau's 1990 STF-1A files. The sources of water supply data are from the Bureau's 1990 STF-3A files. The boundary line coordinates of the Block Groups were extracted from the Census Bureau's 1990 TIGER/Line Files.

CENTRACTS reports are created with programs written by Frost Associates, P.O. Box 495, Essex, Conn. The code was written using Microsoft's Quick-Basic Ver. 4.5.

Latitude and Longitude coordinates identifying a site are entered in degrees and decimal degrees. One or more county files holding Block Group boundary lines are selected for use by CENTRACTS by determining whether the site coordinates fall within the minimum and maximum Lat\Lon coordinates of each county in the state.

Each Block Group line segment has Lat\Lon coordinates representing the "From" and "To" ends of that line. All coordinates from the selected county files are read and converted from degrees, decimal degrees to X\Y miles from the site location. Each line segment is then examined whether it lies within or partially within the maximum ring from the site.

The unique Block Group ID numbers of each line segment that lie within the maximum ring are retained. All Block Group boundary lines matching the Block Group numbers are then extracted from the respective county files to obtain all sides of the in cluded Block Groups. Boundary records are then sorted in adjacent side order to determine the shape and area of each Block Group polygon.

A method to solve for the area of a polygon is to take one-half the sum of the pro ducts obtained by multiplying each X-coordinate by the difference between the adja

Systech Site
Franklin, Warren County, OH

========== Site Data ==========

Population:	48755.00
Households:	18691.64
Drilled Wells:	295.46
Dug Wells:	2956.71
Other Water Sources:	50.49

========== Partial (RING) data ==========

---- Within Ring: 4 Mile(s) and 3 Mile(s) ----

Population:	18658.10
Households:	7467.91
Drilled Wells:	101.83
Dug Wells:	633.17
Other Water Sources:	36.88

** Population On Private Wells: 1836.34

---- Within Ring: 3 Mile(s) and 2 Mile(s) ----

Population:	14928.08
Households:	5554.78
Drilled Wells:	89.91
Dug Wells:	1475.97
Other Water Sources:	2.62

** Population On Private Wells: 4208.21

---- Within Ring: 2 Mile(s) and 1 Mile(s) ----

Population:	11880.96
Households:	4410.92
Drilled Wells:	82.35
Dug Wells:	715.59
Other Water Sources:	5.74

** Population On Private Wells: 2149.25

---- Within Ring: 1 Mile(s) and .5 Mile(s) ----

Population:	2422.01
Households:	930.61
Drilled Wells:	13.96
Dug Wells:	94.09
Other Water Sources:	3.54

** Population On Private Wells: 281.21

Systech Site
Franklin, Warren County, OH

---- Within Ring: .5 Mile(s) and .25 Mile(s) ----

Population:	630.38
Households:	238.62
Drilled Wells:	6.17
Dug Wells:	31.34
Other Water Sources:	1.38

** Population On Private Wells: 99.10

---- Within Ring: .25 Mile(s) and 0 Mile(s) ----

Population:	235.47
Households:	88.81
Drilled Wells:	1.25
Dug Wells:	6.55
Other Water Sources:	0.33

** Population On Private Wells: 20.68

** Total Population On Private Wells: 8594.80

PRC Environmental Management, Inc.
233 North Michigan Avenue
Suite 1621
Chicago, IL 60601
312-856-8700
Fax 312-938-0118

PRC

FILE COPY

July 1, 1993

Mr. Brian Freeman
U.S. Environmental Protection Agency
Central Regional Laboratory
536 South Clark Street, 10th Floor
Chicago, IL 60605

Re: Systech Site, Case No. 20247

Mr. Freeman:

I have enclosed the following documents for samples collected at the Systech Site during the week of June 21, 1993:

- CRL Sample Data Reports
- ITR Report/COC Records
- OTR Report/COC Records

The samples were shipped under Case No. 20247. If you have any questions, please call me at (312) 856-8752.

Sincerely,

Mildred Yarbrough
Sample Coordinator

contains recycled fiber and is recyclable

PRC Environmental Management, Inc.
233 North Michigan Avenue
Suite 1621
Chicago, IL 60601
312-856-8700
Fax 312-938-0118

PRC

July 1, 1993

Ms. Loren Minnich
U.S. EPA Contract Laboratory Program
Sample Management Office
300 North Lee Street
Alexandria, VA 22314

Re: Systech Site, Case No. 20247

Ms. Minnich:

I have enclosed the following documents for samples collected at the Systech Site during the week of June 21, 1993:

- CRL Sample Data Reports
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Sincerely,

Mildred Yarbrough

Mildred Yarbrough
Sample Coordinator

contains recycled fiber and is recyclable

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS
THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

CASE NUMBER/SAS No. 20247 SITE NAME Systech LABORATORY TMA/Skinner + Sherman DATE SHIPPED 6/22/93; 6/25/93

SUPERFUND DU NUMBER SS1 ZZ EPA RPM or OSC (S M S)/(CES) OHD 030 935 852 PAGE 1 OF 1

ACTIVITY NUMBER TFA 102

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS												SEDIMENTS or SOILS									
			ACID BASE NEUTRAL CPDS ORGANIC SCAN UG L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG L PES 17144	WATER CHLORINATED PESTICIDES UG L PES17134	TOTAL METALS IN WATER UG L MET1111	WATER CYANIDE UG L MIN74919	NITRATE NITRITE MG L MIN7284	AMMONIA MG L MIN7294	RESIDUE FILTERABLE TDS MG L MIN7362	RESIDUE NON-FILT TSS MG L MIN7372			ACID BASE NEUTRAL CPDS ORGANIC SCAN MG KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG KG 211322	TOTAL METALS MG KG MET413	CYANIDE MG KG MIN44930	EP TOXICITY METALS MG KG	AMMONIA MG KG MIN42925				
3ZF69S03		MEWR 86					X	X																
3ZF69S04		MEWR 82					X	X																
3ZF69S05		MEWR 88					X	X																
3ZF69S06		MEWR 89					X	X																
3ZF69S07		MEWR 90					X	X																
3ZF69D07		MEWR 91					X	X																
3ZF69S08		MEWR 92					X	X																
3ZF69S09		MEWR 87					X	X																
3ZF69S10		MEWR 85					X	X																
3ZF69S11		MEWR 93					X	X																
3ZF69R02		MEWR 94					X	X																
3ZF69S12		MEWR 81					X	X																
3ZF69S13		MEWR 83					X	X																
3ZF69D13		MEWR 84					X	X																
3ZF69R03		MEWR 95					X	X																
3ZF69S14		MEWR 74																	X	X				
3ZF69S15		MEWR 73																	X	X				
3ZF69S16	"	MEWR 75																	X	X				
3ZF69S17		MEWR 76																	X	X				
3ZF69S18		MEWR 77																	X	X				

EPA Inorganic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): Guy Montfort

Airbill Number: 548437384 5

Non-Superfund Program:

Sampler Signature: Guy J. Montfort

Site Name: Systech

3. Type of Activity — Lead: SF ☑, PRP ☐, ST ☐, FED ☐; Pre-Remedial: PA ☐, SSI ☐, ESI ☑; Remedial: RIFS ☐, RD ☐, RA ☐, O&M ☐, NPLD ☐; Removal: CLEM ☐, REMA ☐, REM ☐, OIL ☐, UST ☐

5. Ship To: TMA/Skinner + Sherman Labs
300 Second Avenue
Waltham, MA 02254
ATTN: Richard Purdy

City, State: Franklin, OH

Site Spill ID: ZZ

6. Preservative (Enter in Column D): 1. HCl 2. HNO_3 3. NaOH 4. H_2SO_4 5. $K_2CR_2O_7$ 6. Ice only 7. Other (Specify) N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Metals Cyanide	Low Conc. only Nitrate/ Nitrite	Low Conc. only Fluoride	High only pH	High only Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
MEWR 86	2	L	G	2	X							009567	W132	6/21/93 1645		EWP68	
MEWR 86				3			X					009568	W132	↓		↓	
MEWR 82				2	X							009543	W133	1845		EWP64	
MEWR 82				3			X					009544	W133	↓		↓	
MEWR 88				2	X							009585	W131	1805		EWP70	
MEWR 88				3			X					009586	W181	↓		↓	
MEWR 89				2	X							009591	W182	1220		EWP71	
MEWR 89				3			X					009592	W182	↓		↓	
MEWR 90				2	X							009597	W183	1355		EWP72	
MEWR 90	↓	↓	↓	3			X					009598	W183	↓		↓	

Shipment for Case complete? (Y/N): Y

Page 1 of 2

Sample used for a spike and/or duplicate: MEWR 87

Additional Sampler Signatures: Gabriel Rodriguez, Trisha Miller

Chain of Custody Seal Number: 140211, 140212

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine Buchman	Christine Buchman	6/22/93 1145	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-6), previous edition which may be used

DISTRIBUTION:
Green - Region Copy Pink - SMO Copy White - Lab Copy for return to Region Yellow - Lab Copy for Return to SMO

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

Inorg-1

I 349303

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

SAS No. (if applicable)

Case No. 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): Guy Montfort

Airbill Number: 5484373845

Non-Superfund Program

Sampler Signature: Guy P. Montfort

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	☑		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		LSI ☑	O&M	OIL
			NPLD	UST

5. Ship To: TMA/Skinner + Sherman, 300 Second Ave, Waltham, MA 02254

ATTN: Richard Purdy

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only: Nitrate/Nitrite	Low Conc. only: Fluoride	High only: pH	High only: Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
MEWR 91	2	L	G	2	X							009603	W183D	6/21/93 1355		EWP 73	D(MEWR90)
MEWR 91	↓	↓	↓	3			X					009604	W183D	↓ ↓		↓	↓

Shipment for Case complete? (Y/N) Y

Page 1 of 2

Sample used for a spike and/or duplicate: MEWR 87

Additional Sampler Signatures: Gabriel J. Rood, Trisha Miller

Chain of Custody Seal Number: 140211, 140212

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine J Kuchman	Christine J Kuchman	6/22/93 1145	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-6), previous edition which may be used

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SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

I 349304

Inorg-1

EPA Inorganic Traffic Report & Chain of Custody Record

(For Inorganic CLP Analysis)

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

SAS No. (if applicable):

Case No.: 20247

1. Project Code: | Account Code:

2. Region No.: 5 | Sampling Co.: PRC

4. Date Shipped: 6/22/93 | Carrier: Fed Ex

Regional Information: TFA 102

Sampler (Name): Guy Montfort

Airbill Number: 5484373849

Non-Superfund Program

Sampler Signature: Guy T. Montfort

5. Ship To: TMA/Skinner + Sherman
300 Second Avenue
Waltham, MA 02254
ATTN: Richard Purdy

Site Name: Systech

City, State: Franklin, OH | Site Spill ID: ZZ

3. Type of Activity:

	Lead	Pre-Remedial	Remedial	Removal
SF	☑		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI ☑	O&M	OIL
			NPLD	UST

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp / Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only: Nitrate/Nitrite	Low Conc. only: Fluoride	High only: pH	High only: Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
MEWR-92	2	L	G	2	Y							009609	W184	6/21/93 1325		EWP74	
↓				3			Y					009610	W184	↓		↓	
MEWR-87				2	Y							009579	W185	1640		EWP69	
↓				3		Y	Y					009580	W185	↓		↓	
MEWR-85				2	Y							009561	W186	1620		EWP67	
↓				3		Y	Y					009562	W186	↓		↓	
MEWR-93				2	Y							009615	W187	1120		EWP75	
↓				3		Y	Y					009616	W187	↓		↓	
MEWR-94	4			2	Y							009621	EB-1	1530		EWP76	B
↓	↓	↓	↓	3		Y	Y					009622	EB-1	↓		↓	B

Shipment for Case complete? (Y/N): (Y)

Page 1 of 2

Sample used for a spike and/or duplicate: MEWR 87, MEWR 73

Additional Sampler Signatures: Guy Montfort, Trisha Miller

Chain of Custody Seal Number: 140213, 140214

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine Ruschman	Christine Ruschman	6/22/93 1150	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-6); previous edition which may be used

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SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

Inorg-1

I 349305

EPA — Inorganic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code: | Account Code:

2. Region No.: 5 | Sampling Co.: PRC

4. Date Shipped: 6/22/93 | Carrier: Fed Ex

Regional Information: TFA 102

Sampler (Name): Christine Hirschman

Airbill Number: 548437338 45

Non-Superfund Program:

Sampler Signature: Christine Hirschman

5. Ship To: TMA/Skinner + Sherman
300 Second Avenue
Waltham, MA 02254
ATTN: Richard Purdy

Site Name: Systech

City, State: Franklin, OH | Site Spill ID: ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	X		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI X	O&M	OIL
			NPLD	UST

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only Nitrate/ Nitrite	Low Conc. only Fluoride	High only pH	High only Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
MEWR 73	5	L	G	N	X		X					009504	SD-1	6/21/93 1158		EWP55	
MEWR 74	↓	↓	↓	↓	X		X					009508	SD-2	0945		EWP56	
MEWR 75					X		X					009512	SD-3	1003		EWP57	
MEWR 76					X		X					009516	SD-4	1030		EWP58	
MEWR 77	↓	↓	↓	↓	X		X					009520	SD-5	↓ 1045		EWP59	

Shipment for Case complete? (Y/N): (Y)

Page 1 of 2

Sample used for a spike and/or duplicate: MEWR 73

Additional Sampler Signatures:

Chain of Custody Seal Number: 140213, 140214

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Christine Hirschman	6/22/93 1155				

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none

Split Samples: ☐ Accepted (Signature) ☐ Declined

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SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

Inorg-1

I 349302

EPA Inorganic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/25/93	Fed ex

Regional Information: TFA 102

Sampler (Name): GUY MONTFORT

Airbill Number: 715866774O

Non-Superfund Program:

Sampler Signature: G. F. Montfort

Site Name: SYSTECH

City, State: FRANKLIN

Site Spill ID: ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	X		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI	O&M	OIL
			NPLD	UST

5. Ship To
TMA/SKINNER & SHERMAN LABS.
300 SECOND AVE
WALTHAM, MA 02254
ATTN: RICHARD PURDY

6. Preservative (Enter in Column D)
1. HCl
2. HNO_3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E - RAS Analysis: Metals Total	Metals Dissolved	Low Conc. only Cyanide	Low Conc. only Nitrate/ Nitrite	Low Conc. only Fluoride	High only pH	High only Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
MEWR81	2	L	G	2	X							5-009537	W139	6/25/93 1145	GDM	EWP63	
MEWR81				3			X					5-009538	W139	6/25/93 1145		EWP63	
MEWR83				2	X							5-009549	W140	1015		EWP65	
MEWR83				3			X					5-009550	W140	1015		EWP65	
MEWR84				2	X							5-009555	W140D	1015		EWP66	D(MEWR83)
MEWR84				3			X					5-009556	W140D	1015		EWP66	D(MEWR83)
MEWR95	2	L	G	2	X							5-009627	EB-2	6/25/93 1215		EWP77	B
MEWR95	2	L	G	3			X					5-009628	EB-2	6/25/93 1215		EWP77	B

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: MEWR 87

Additional Sampler Signatures: Gil J Rood

Chain of Custody Seal Number: 140219, 140220

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
G. F. Montfort	6/25/93 1500	Christopher P. Coppel	Christopher P. Coppel	6/25/93 1520	

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-6); previous edition which may be used

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SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

Inorg-1

1 349306

ORGANICS/INORGANICS

THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

CASE NUMBER/SAS No. 20247 SITE NAME: Systech LABORATORY: American Analytical + Technical Services DATE SHIPPED: 6/22/93

SUPERFUND DU NUMBER: 5S1ZZ EPA RPM or OSC (S.M.S.)/(CES): CERCLIS # OHD 030 935 852 PAGE 1 OF 1

ACTIVITY NUMBER: TFA 102

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS												SEDIMENTS or SOILS											
			ACID BASE NEUTRAL CPDS ORGANIC SCAN UG/L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG/L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG/L PES17144	WATER CHLORINATED PESTICIDES UG/L PES17134	TOTAL METALS IN WATER UG/L MET1111	WATER CYANIDE UG/L MIN74919	NITRATE NITRITE MG/L MIN7284	AMMONIA MG/L MIN7294	RESIDUE, FILTERABLE TDS MG/L MIN7382	RESIDUE NON-FILT TSS MG/L MIN7372			ACID BASE NEUTRAL CPDS ORGANIC SCAN MG/KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG/KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG/KG PES[illegible]	SEDIMENTS CHLORINATED PESTICIDES MG/KG [illegible]	TOTAL METALS MG/KG MET[illegible]	CYANIDE MG/KG MIN4930	EP TOXICITY METALS MG/KG	AMMONIA MG/KG MIN[illegible]				
32F69501		MEWR78																X	X							
32F69502		MEWR79																X	X							

EPA Inorganic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

(For Inorganic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information	Sampler (Name)	Airbill Number
TFA 102	Christine Hirschman	715866916411

Non-Superfund Program	Sampler Signature	5. Ship To
	Christine Hirschman	American Analytical + Technical Svcs 1700 West Albany, Suite A Broken Arrow, OK 74012 ATTN: Steve Markham

Site Name	City, State	Site Spill ID
Systech	Franklin, OH	ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	☑		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI	O&M	OIL
			NPLD	UST

6. Preservative (Enter in Column D)
1. HCl
2. HNO_3
3. NaOH
4. H_2SO_4
5. $K_2CR_2O_7$
6. Ice only
7. Other (Specify)
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: Metals Total	Metals Dissolved	Cyanide	Low Conc. only Nitrate/ Nitrite	Low Conc. only Fluoride	High only pH	High only Conductivity	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Org. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
MEWR78	5	L	C	N	X		X					009524	SS-1	6/21/93 1130		EWP60	
MEWR79	↓	↓	↓	↓	X		X					009528	SS-2	↓ 1107		EWP61	

B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample

Shipment for Case complete? (Y/N)	Page 1 of 1	Sample used for a spike and/or duplicate	Additional Sampler Signatures	Chain of Custody Seal Number
(Y)/N		MEWR78		140203, 140204

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Christine Hirschman	6/22/93 1025				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

EPA Form 9110-1 (Rev. 5-91) Replaces EPA Form (2075-6), previous edition which may be used

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SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

Inorg-1

349301

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS
THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

CASE NUMBER/SAS No. 20247 SITE NAME Systech LABORATORY Southwest Research Institute DATE SHIPPED 6/22/93; 6/25/93

SUPERFUND DO NUMBER SS1 ZZ EPA RPM or OSC (S.M.S.)/(CES) OHD 030 935 852 PAGE 1 OF 2

ACTIVITY NUMBER TFA 102

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS												SEDIMENTS or SOILS											
			ACID BASE NEUTRAL CPDS ORGANIC SCAN UG L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG L PES 17144	WATER CHLORINATED PESTICIDES UG L PES17134	TOTAL METALS IN WATER UG L MET111	WATER CYANIDE UG L MIN74919	NITRATE NITRITE MG L MIN7284	AMMONIA MG L MIN7294	RESIDUE FILTERABLE TDS MG L MIN7362	RESIDUE NON-FILT TSS MG L MIN7372			ACID BASE NEUTRAL CPDS ORGANIC SCAN MG KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG KG 211322	TOTAL METALS MG KG MET413	CYANIDE MG KG MIN44930	EP TOXICITY METALS MG KG	AMMONIA MG KG MIN42925				
13ZF69S03	EWP 68		X	X	X	X																				
13ZF69S04	EWP 64		X	X	X	X																				
13ZF69S05	EWP 70		X	X	X	X																				
13ZF69S06	EWP 71		X	X	X	X																				
13ZF69S07	EWP 72		X	X	X	X																				
13ZF69D07	EWP 73		X	X	X	X																				
13ZF69S08	EWP 74		X	X	X	X																				
13ZF69S09	EWP69		X	X	X	X																				
13ZF69S10	EWP 67		X	X	X	X																				
13ZF69S11	EWP 75		X	X	X	X																				
13ZF69R01	EWP 79			X																						
13ZF69R02	EWP 76		X	X	X	X																				
13ZF69S12	EWP 63		X	X	X	X																				
13ZF69S13	EWP 65		X	X	X	X																				
13ZF69D13	EWP 66		X	X	X	X																				
13ZF69R03	EWP 77		X	X	X	X																				
13ZF69R04	EWP 80			X																						
13ZF69S14	EWP 56														X	X	X	X								
13ZF69S15	EWP 55														X	X	X	X								
13ZF69S16	EWP 57														X	X	X	X								

ORGANICS/INORGANICS

THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

ASE NUMBER/SAS No. 20247 SITE NAME: Systech LABORATORY: Southwest Research Institute DATE SHIPPED: 6/22/93; 6/25/93

UPERFUND DU NUMBER: 05122 EPA RPM or OSC (S.M.S.)/(CES): CERCLIS #: OHD 030935 852 PAGE 2 OF 2

CTIVITY NUMBER: TFA 102

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS														SEDIMENTS or SOILS													
			ACID BASE NEUTRAL CPDS ORGANIC SCAN UG/L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG/L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG/L PES17144	WATER CHLORINATED PESTICIDES UG/L PES17134	TOTAL METALS IN WATER UG/L MET111	WATER CYANIDE UG/L MIN74919	NITRATE NITRITE MG/L MIN7284	AMMONIA MG/L MIN7294	RESIDUE, FILTERABLE TDS MG/L MIN7362	RESIDUE NON-FILT TSS MG/L MIN7372			ACID BASE NEUTRAL CPDS ORGANIC SCAN MG/KG TOX2715722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG/KG TOX2715622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG/KG PES	SEDIMENTS CHLORINATED PESTICIDES MG/KG	TOTAL METALS MG/KG MET	CYANIDE MG/KG MIN4930	EP TOXICITY METALS MG/KG	AMMONIA MG/KG MIN2925						
BZF69S17	EWP 58														X	X	X	X											
BZF69S18	EWP 59														X	X	X	X											

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Federal Express

Regional Information	Sampler (Name)	Airbill Number
TFA 102	Guy Montfort	5184373171

Non-Superfund Program	Sampler Signature	5. Ship To
	Guy Montfort	Southwest Research Institute 6220 Culebra Road San Antonio, TX 78238 ATTN: Joe Pan

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	☑		RIFS ☐	CLEM ☐
PRP	☐	PA ☐	RD ☐	REMA ☐
ST	☐	SSI ☐	RA ☐	REM ☐
FED	☐	ESI ☑	O&M ☐	OIL ☐
			NPLD ☐	UST ☐

6. Preservative (Enter in Column D)
1. HCl
2. HNO_3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	E: BNA	E: Pest/ PCB	E: High only ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
EWP 68	2	L	G	1	X				009563-009564	W132	6/21/93 1645		MEWR 86	
EWP 64					X				009539-009540	W133	1846		MEWR 82	
EWP 70					X				009581-009582	W181	1805		MEWR 88	
EWP 71					X				009587-009588	W182	1220		MEWR 89	
EWP 72					X				009593-009594	W183	1355		MEWR 90	
EWP 73					X				009599-009600	W183D	1355		MEWR 91	D (EWP 72)
EWP 74					X				009605-009606	W184	1325		MEWR 92	
EWP 69					X				009569-009570	W185	1640		MEWR 87	
EWP 67					X				009557-009558	W186	1620		MEWR 85	
EWP 75	↓	↓	↓	↓	X				009611-009612	W187	↓ 1120		MEWR 93	

Shipment for Case complete? (Y/N): N

Page 1 of 2

Sample used for a spike and/or duplicate: EWP 69

Additional Sampler Signatures: Guy Montfort, Trisha Miller

Chain of Custody Seal Number: 140205, 140206

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/24/93 2000	Christine Huschman	Christine Huschman	6/22/93 1220	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

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Org-1

O 350411

EPA — Organic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Federal Express

Regional Information	Sampler (Name)	Airbill Number
TFA 102	Guy Montfort	548437317 1

Non-Superfund Program	Sampler Signature	5. Ship To
	Guy P. Montfort	Southwest Research Institute 6220 Culebra Road San Antonio, TX 78238 ATTN: Joe Pan

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	✓		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI	O&M	OIL
		NPLD		UST

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/ PCB	High only: ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EWP79	4	L	G	1	X				009635-009636	TB-1	6/21/93 0800		—	Trip Blank
EWP76	↓	|	|	↓	X				009617-009618	EB-1	| 1530		MEWR94	B
EWP55	5	|	|	N	X	X	X		009501-009502 009503	SD-1	| 1158		MEWR73	
EWP56	|	|	|	|	X	X	X		009505-009506 009507	SD-2	| 0945		MEWR74	
EWP57	|	|	|	|	X	X	X		009509-009510 009511	SD-3	| 1003		MEWR75	
EWP58	|	|	|	|	X	X	X		009513-009514 009515	SD-4	| 1050		MEWR76	
EWP59	↓	↓	↓	↓	X	X	X		009517-009518 009519	SD-5	↓ 1045		MEWR77	

Shipment for Case complete? (Y/N): (Y)

Page 1 of 2

Sample used for a spike and/or duplicate: EWP55

Additional Sampler Signatures: Trisha Miller

Chain of Custody Seal Number: 140205, 140206

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine Kuschman	Christine Kuschman	6/22/93 1220	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples: ☐ Accepted (Signature) ☐ Declined

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EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/25/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): GUY MONTFORT

Airbill Number: 7158667762

Non-Superfund Program

Sampler Signature: Guy F. Montfort

Site Name: SYSTECH

City, State: FRANKLIN, DH

Site Spill ID: 22

3. Type of Activity: Lead: SF [X]; PRP [ ]; ST [ ]; FED [ ]; Pre-Remedial: PA [ ]; SSI [ ]; ESI [X]; Remedial: RIFS [ ]; RD [ ]; RA [ ]; O&M [ ]; NPLD [ ]; Removal: CLEM [ ]; REMA [ ]; REM [ ]; OIL [ ]; UST [ ]

5. Ship To: SOUTHWEST RESEARCH INSTITUTE
6220 CULEBRA ROAD
SAN ANTONIO, TX 78238
ATTN: JOE PAN

6. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. $NaHSO_4$ 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EWP 63	2	L	G	1	X				5-009533, 009534	W139	6/25/93 1145	GDM	MEWR 81	
EWP 65	↓	↓	↓	↓	X				5-009545, 009546	W140	↓ 1015	↓	MEWR 83	
EWP 66	↓	↓	↓	↓	X				5-009551, 009552	W140D	↓ 1015	↓	MEWR 84	D(EWP 65)
EWP 77	↓	↓	↓	↓	X				5-009623, 009624	EB-2	↓ 1215	↓	MEWR 95	B
EWP 77	↓	↓	↓	N		X	X		5-009625, 009626	EB-2	↓ 1215	↓	MEWR 95	B
EWP 80	↓	↓	↓	1	X				5-190968, 190969	TB-2	↓ 0800	↓	—	Trip Blanks

Shipment for Case complete? (Y/N) Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWP 69

Additional Sampler Signatures: [signature]

Chain of Custody Seal Number: 140223, 140224

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy F. Montfort	6/25/93 1500	Christopher P. Coppel	Christopher P. Coppel	6/25/93 1520	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples [ ] Accepted (Signature) [ ] Declined

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PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information	Sampler (Name)	Airbill Number
TFA 102	Trisha Miller	548437317 1

Non-Superfund Program	Sampler Signature	5. Ship To
	Trisha Miller	Southwest Research Institute 6220 Culebra Road San Antonio, TX 78238 ATTN: Joe Pan

Site Name	City, State	Site Spill ID
Systech	Franklin, OH	77

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	☒		RIFS ☐	CLEM ☐
PRP	☐	PA ☐	RD ☐	REMA ☐
ST	☐	SSI ☐	RA ☐	REM ☐
FED	☐	ESI ☒	O&M ☐	OIL ☐
			NPLD ☐	UST ☐

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis VOA	BNA	Pest/ PCB	High only ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EWD 69	2	L	G	N		X	X		009575-009570	W185	6/21/93 1640		MEWR 87	
EWD 67	↓	↓	↓	↓		X	X		009559-009560	W186	↓ 1620		MEWR 85	

Shipment for Case complete? (Y/N)	Page 1 of 1	Sample used for a spike and/or duplicate	Additional Sampler Signatures	Chain of Custody Seal Number
Y		EWD 69		140217, 140218

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine Ruschman	Christine Ruschman	6/22/93 1345	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

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O345395

Org-1

EPA — Organic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information	Sampler (Name)	Airbill Number
TFA 102	Guy Montfort	548437317 1

Non-Superfund Program	Sampler Signature	5. Ship To
	Guy T. Montfort	Southwest Research Institute 6220 Culebra Road San Antonio, TX 78238 ATTN: Joe Pan

Site Name	City, State	Site Spill ID
Systech	Franklin, OH	EE

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	☒		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		LSI	O&M	OIL
			NPLD	UST

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/ PCB	High only: ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
EWP 68	2	L	G	N		X	X		009565-009566	W132	6/21/93 1645		MEWR86	
EWP 64	↓	↓	↓	↓		X	X		009541-009542	W133	↓ 1846		MEWR82	
EWP 76	↓	↓	↓	↓		X	X		009619-009620	EB-1	↓ 1530		MEWR94	B

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWP 69

Additional Sampler Signatures: Trisha Miller

Chain of Custody Seal Number: 140215, 140216

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine Huschmann	Christine Huschmann	6/22/93 1355	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

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Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): Guy Montfort

Airbill Number: 5484373171

Non-Superfund Program:

Sampler Signature: Guy P. Montfort

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: ZZ

3. Type of Activity: Lead: SF [X], PRP [ ], ST [ ], FED [ ]; Pre-Remedial: PA [ ], SSI [ ], ESI [X]; Remedial: RIFS [ ], RD [ ], RA [ ], O&M [ ], NPLD [ ]; Removal: CLEM [ ], REMA [ ], REM [ ], OIL [ ], UST [ ]

5. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238, ATTN: Joe Pan

6. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. $NaHSO_4$ 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC (B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample)
EWP 71	2	L	G	N		X	X		009589-009590	W182	6/21/93 1220		MEWR89	
EWP 72	↓	↓	↓	↓		X	X		009595-009596	W183	↓ 1355		MEWR90	
EWP 73	↓	↓	↓	↓		X	X		009601-009602	W183D	↓ 1355		MEWR91	D(EWP 72)

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWP 69

Additional Sampler Signatures: Samuel J. Rook

Chain of Custody Seal Number: 140207, 140208

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy P. Montfort	6/22/93 2000	Christine Kuschman	Christine Kuschman	6/22/93 1335	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	

Split Samples: [ ] Accepted (Signature) [ ] Declined

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EPA Organic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
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PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): Guy Montfort

Airbill Number: 548437317 1

Non-Superfund Program

Sampler Signature: Guy P. Montfort

5. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238, ATTN: Joe Pan

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	☒		RIFS ☐	CLEM ☐
PRP	☐	PA ☐	RA ☐	REM ☐
ST	☐	SSI ☐	O&M ☐	OIL ☐
FED	☐	ESI ☒	NPLD ☐	UST ☐

6. Preservative (Enter in Column D): 1. HCl; 2. HNO3; 3. $NaHSO_4$; 4. H_2SO_4; 5. Other (Specify); 6. Ice only; N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Rinsate; 5. Soil/Sediment; 6. Oil (High only); 7. Waste (High only); 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/ PCB	High only ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
EWP70	2	L	G	N		X	X		009583-009584	W181	6/21/93 1805		MEWR88	
EWP74	↓	↓	↓	↓		X	X		009607-009608	W184	1325		MEWR92	
EWP75	↓	↓	↓	↓		X	X		009613-009614	W187	1120		MEWR93	

K Enter Appropriate Qualifier for Designated Field QC: B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWP69

Additional Sampler Signatures: Mallard J. Cook

Chain of Custody Seal Number: 140209, 140210

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Mallard J. Cook	6/22/93 2005	Christine Kirchman	Christine Kirchman	6/22/93 1325	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)

☐ Declined

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O 350415

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Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/25/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): Guy Montfort

Airbill Number: 715866775/

Non-Superfund Program

Sampler Signature: Guy Montfort

5. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238, ATTN: Joe Pan

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: 22

3. Type of Activity

	Lead	Pre-Remedial	Remedial		Removal	
SF	X		RIFS		CLEM	
PRP		PA	RD		REMA	
ST		SSI	RA		REM	
FED		ESI	O&M		OIL	
			NPLD		UST	

6. Preservative (Enter in Column D): 1. HCl; 2. HNO3; 3. $NaHSO_4$; 4. H_2SO_4; 5. Other (Specify); 6. Ice only; N. Not preserved

7. Sample Description (Enter in Column A): 1. Surface Water; 2. Ground Water; 3. Leachate; 4. Rinsate; 5. Soil/Sediment; 6. Oil (High only); 7. Waste (High only); 8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/ PCB	High only ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
EWP 63	2	L	G	N		X	X		5-009535	W139	6/25/93 1145	GDM	MEWR81	
EWP 63	↓	↓	↓	↓		X	X		5-009536	W139	1145	↓	MEWR81	
EWP 65						X	X		5-009547	W140	1015		MEWR83	
EWP65						X	X		5-009548	W140	1015		MEWR83	
EWP66						X	X		5-009553	W140D	1015		MEWR84	D(EWP65)
EWP66	↓	↓	↓	↓		X	X		5-009554	W140D	↓ 1015	↓	MEWR84	D(EWP65)

Shipment for Case complete? (Y) (N)

Page 1 of 1

Sample used for a spike and/or duplicate: EWP 69

Additional Sampler Signatures: Gabriel Wood

Chain of Custody Seal Number: 140221; 140222

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy Montfort	6/25/93 1500	Christopher P. Coppel	Christopher P. Coppel	6/25/93 1520	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)

☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

DISTRIBUTION: Blue - Region Copy; Pink - SMO Copy; White - Lab Copy for Return to Region; Yellow - Lab Copy for Return to SMO

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

Org-1

O 350416

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS
THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

CASE NUMBER/SAS No. 20247 SITE NAME Systech LABORATORY Wadsworth/ Alert DATE SHIPPED 6/22/93

SUPERFUND DO NUMBER S91ZZ EPA RPM or OSC (S M S)/(CES) OHD 030 ~~955~~ 852 PAGE 1 OF 1

ACTIVITY NUMBER TFA 102

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER	WATER OR LIQUIDS												SEDIMENTS or SOILS											
			ACID BASE NEUTRAL CPDS ORGANIC SCAN UG L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG L PES 17144	WATER CHLORINATED PESTICIDES UG L PES17134	TOTAL METALS IN WATER UG L MET111	WATER CYANIDE UG L MIN74919	NITRATE NITRITE MG L MIN7284	AMMONIA MG L MIN7294	RESIDUE FILTERABLE TDS MG L MIN7362	RESIDUE NON-FILT TSS MG L MIN7372			ACID BASE NEUTRAL CPDS ORGANIC SCAN MG KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG KG 211322	TOTAL METALS MG KG MET413	CYANIDE MG KG MIN44930	EP TOXICITY METALS MG KG	AMMONIA MG KG MIN42935				
3ZF69501	EWP 60														X	X	X	X								
3ZF69502	EWP 61														X	X	X	X								

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Project Code	Account Code	2. Region No.	Sampling Co.	4. Date Shipped	Carrier
		5	PRC	6/22/93	Fed Ex

Regional Information: TFA 102

Sampler (Name): Christine Hirschman

Airbill Number: 715866962630

Non-Superfund Program

Sampler Signature: Christine Hirschman

5. Ship To: Wadsworth/Alert Laboratories, Inc.
4101 Shuffel Drive, N.W.
North Canton, OH 44720
ATTN: Mark Nebiolo

Site Name: Systech

City, State: Franklin, OH

Site Spill ID: ZZ

3. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	☑		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI ☒	O&M	OIL
			NPLD	UST

6. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. $NaHSO_4$
4. H_2SO_4
5. Other (Specify)
6. Ice only
N. Not preserved

7. Sample Description (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Rinsate
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (Specify)

CLP Sample Numbers (from labels)	A Enter # from Box 7	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	E: BNA	E: Pest/ PCB	E: High only ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Enter Appropriate Qualifier for Designated Field QC
EWP60	5	L	G	N	X				009521-009522	SS-1	6/21/93 1130		MEWR78	
EWP60	↓	↓	C	↓		X	X		009523	↓	↓		↓	
EWP61			G		X				009525-009526	SS-2	1107		MEWR79	
EWP61	↓	↓	C	↓		X	X		009527	↓	↓		↓	

K: B = Blank S = Spike D = Duplicate PE = Perform. Eval. — = Not a QC Sample

Shipment for Case complete? (Y/N)

Page 1 of 1

Sample used for a spike and/or duplicate: EWP 60

Additional Sampler Signatures

Chain of Custody Seal Number: 140201, 140202

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Christine Hirschman	6/22/93 1015				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	

Split Samples ☐ Accepted (Signature)
☐ Declined

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

DISTRIBUTION:
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5

550413

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SEP 20 1993
PRC - EMI
CINCINNATI

SEP 07 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 8/31/93

SUBJECT: **Review of Region V CLP Data Received for Review on** Aug 3, 1993

FROM: **Charles T. Elly, Director (SL-10C)** MSP for Charles T Elly
Central Regional Laboratory

TO: **Data User:** PRC

We have reviewed the data for the following case.

SITE NAME: Systech (OH)

CASE and/or SAS NUMBER: 20247 (2) **SDG NUMBER:** EWP64

Number and Type of Samples: 17 (water)

CLP Sample Numbers: EWP69, -67-76, 79, 77, 80

CLP Laboratory: SWRI **Hrs. for Review** 16+3 = 19 w/w

Following are our findings:

The data are acceptable for use with qualification.

Mumtaz Pasha
8/31/93

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PRC - EMI
CINCINNATI

RECEIVED
SEP 17 1993
PRC - EMI
CINCINNATI

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

Seventeen (17) water samples, numbered EWP63-77 and EWP79-80, were collected June 21 and 25, 1993. The Southwest Research Institute of San Antonio, Texas received the samples on June 23 and 26, 1993 in good condition following CLP SOW OLM01.8 (8/91). Fifteen of the seventeen samples were analyzed for low level organics - Volatiles (VOA), Semi-Volatiles (SVOA) and Pesticide/PCBs (Pest/PCB). The remaining two, EWP79 and 80 were analyzed for VOCs only.

Sample EWP69 was used as the low level spike for all three fractions.

Samples EWP76 and 77 were identified as field blanks; EWP66 and 73 were identified as field duplicates; and EWP79 and 80 were identified as trip blanks.

VOA samples were all analyzed within the holding time of fourteen (14) days for preserved water samples; therefore, the results are acceptable. Both SVOA and Pest/PCB samples were extracted within the seven (7) days holding time for water samples and the extracts promptly analyzed; therefore, the results are acceptable.

The reviewer's narrative and data qualifiers are noted in the following pages.

Reviewed by: M. Cecilia Luckett MCL Lockheed/ESAT
Date: August 19, 1993

Below is a summary of the out-of-control audits and the possible effect on the data for this case.

1. HOLDING TIME.

Southwest Research Institute of San Antonio, Texas received seventeen (17) water samples on June 23 and 26, 1993 in good condition per the CLP SOW OLM01.8 (8/91). Fifteen of the seventeen water samples were analyzed for full organics. The remaining two, EWP79 and 80, were analyzed for VOCs only.

All VOA analyses were completed within the fourteen (14) days holding time for preserved water samples; therefore, the results are acceptable.

All SVOA and Pest/PCB extractions were completed within the seven (7) days holding time for water samples and the extracts promptly analyzed; therefore, the results are acceptable.

2. GC/MS TUNING AND GC PERFORMANCE.

GC/MS tuning complied with the mass list and ion abundance criteria for BFB and DFTPP, with the exception of the BFB tune performed June 28, 1993 at 13:15. The tune indicates the samples were normalized to m/z 174 (100.0%) instead of m/z 95 (95.5%). All samples were analyzed within the twelve (12) hour periods for BFB and DFTPP instrument performance checks as well; therefore, the results are acceptable.

The DDT and Endrin degradation checks using the PEMs of the DB-608 and DB-1701 columns were both < 20.0% and the combined breakdowns were < 30.0%; therefore, the results are acceptable. All of the % resolutions from the Resolution Check Mixture were ≥ 60.0%; therefore, the results are acceptable.

The Florisil Cartridge Check met the required QC criteria; therefore, the results are acceptable.

Reviewed by: M. Cecilia Luckett MCL Lockheed/ESAT
Date: August 19, 1993

3. CALIBRATION.

Initial and continuing calibration of VOA and SVOA standards were evaluated for the Target Compounds List (TCLs) and outliers were recorded on the outlier forms included as a part of this narrative.

The retention time window, % RSD for the initial and the % RPD for the continuing calibration (PEM) standards for Pest/PCB analysis met the required QC limits. In addition, none of the %Ds from the Calibration Verification Summary exceeded the maximum 25.0%.

4. METHOD BLANK.

VBLK01, VBLK02, VBLK03 and VBLK04 are the low level water VOA method blanks. All four method blanks reported no TCLs and no TICs; therefore, the results are acceptable.

SBLK01 and SBLK02 are the low level water SVOA method blanks. SBLK01 reported one (1) TCL, Di-n-octylphthalate, a common laboratory contaminant, and one (1) TIC. The presence of Di-n-octylphthalate in any of the samples associated with SBLK01 should be flagged as non-detected (U) when the concentration is less than (<) ten (10) times the blank results. The presence of the TIC in any of the samples associated with SBLK01 is flagged as non-detected (U) when the concentration is less than (<) five (5) times the blank results. Please refer to Form-IV SVOA (SBLK01) for a list of associated samples. SBLK02 reported two (2) TCLs, bis(2-Ethylhexyl)phthalate and Di-n-octylphthalate, common laboratory contaminants, and two (2) TICs. The presence of bis(2-Ethylhexyl)phthalate or Di-n-octylphthalate in any of the samples associated with SBLK02 should be flagged as non-detected (U) when the concentration is less than (<) ten (10) times the blank results. The presence of the TICs in any of the samples associated with SBLK02 should be flagged as non-detected (U) when the concentration is less than (<) five (5) times the blank results. Please refer to Form IV-SVOA (SBLK02) for a list of associated samples.

Reviewed by: M. Cecilia Luckett MCL **Lockheed/ESAT**
Date: August 19, 1993

4. METHOD BLANK.
(continued)

For the Pest/PCB fraction, there were four (4) instrument blanks for columns DB-608 and DB-1701. PBLK01 and PBLK02 are the low level water Pest/PCB method blanks. PBLK01 reported no target compounds or Aroclor/Toxaphene above the CRQL; therefore, the results are acceptable. PBLK02 reported one (1) TCL, Aroclor-1232. The presence of Aroclor-1232 in any of the samples associated with PBLK02 should be flagged as non-detected (U) when the concentration is less than (<) five (5) times the blank results. Please refer to Form IV-Pest/PCB (PBLK02) for a list of associated samples.

5. SURROGATE (SYSTEM MONITORING COMPOUND) RECOVERY.

The low level water system monitoring compound recoveries for the VOA fraction were all well within the required QC limits; therefore, the results are acceptable.

In the SVOA fraction, sample EWP74 and SBLK02 reported S2(FBP) = 2-Fluorobiphenyl in the base/neutral fraction low outside the required QC limits. Qualification is not required because only one surrogate in one fraction did not meet QC criteria.

For the Pest/PCB fraction, the retention times of Tetrachloro-m-xylene (TCX) and Decachlorobiphenyl (DCB) were well within the required $\pm$ 0.05 and $\pm$ 0.10 minutes of the mean retention time determined from the initial calibration, respectively.

In the Pest/PCB fraction, the following samples reported surrogate recoveries low outside the required QC limits: EWP64 and 76 - TCX1 and TCX2; EWP68 - TCX2, DCB1 and DCB2; EWP68MSD and 75 - TCX1, TCX2, DCB1 and DCB2; EWP67, 69, 69MS, 70, 71 and 74 - DCB1 and DCB2; EWP72 - DCB2. Positive results associated with all of the samples noted above should be flagged as estimated (J) and non-detected results as estimated (UJ).

Reviewed by: M. Cecilia Luckett MCL Lockheed/ESAT
Date: August 19, 1993

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE.

Sample EWP69 was used as the low level spike for all three fractions.

In the VOA fraction, the % RPDs for Benzene and Chlorobenzene were reported high outside the required QC limits. The presence of Benzene or Chlorobenzene in the unspiked sample should be flagged as estimated (J); non-detected results do not require qualification.

In the SVOA fraction, EWP69MS reported the % recovery for 1,4-Dichlorobenzene and 1,2,4-Trichlorobenzene low outside the required QC limits. The presence of 1,4-Dichlorobenzene or 1,2,4-Trichlorobenzene in the unspiked sample should be flagged as estimated (J) and non-detected results as estimated (UJ). In addition, EWP69MS and EWP69MSD reported the % recovery for 4-Nitrophenol high outside the required QC limits but less than (<) 100%. Because the % recovery was less than (<) 100%, no qualification is required.

In the Pest/PCB fraction, the % RPDs for all the spike compounds (gamma-BHC(Lindane), Heptachlor, Aldrin, Dieldrin, Endrin and 4,4'-DDT) were reported high outside the required QC limits. The presence of any of these compounds in the unspiked sample should be flagged as estimated (J); non-detected results do not require qualification.

7. FIELD BLANK AND FIELD DUPLICATE.

Samples EWP76 and 77 were identified as field blanks; EWP66 and 73 were identified as field duplicates; and EWP79 and 80 were identified as trip blanks. The following table summarizes the number of TCLs and TICs reported for each sample:

Sample ID #	VOA		SVOA		Pest/PCB
	TCL	TIC	TCL	TIC	TCL
EWP66(FD)	1	0	0	5	0
EWP73(FD)	0	0	0	10	0
EWP76(FB)	1	0	0	4	0
EWP77(FB)	1	0	1	5	0
EWP79(TB)	0	0	-	-	-
EWP80(TB)	1	0	-	-	-

Reviewed by: M. Cecilia Luckett MCL Lockheed/ESAT
Date: August 19, 1993

8. INTERNAL STANDARDS.

The internal standards retention times and area counts for the VOA and SVOA fractions were all within the required QC limits; therefore, the results are acceptable.

9. COMPOUND IDENTIFICATION.

Target compounds and TICs were identified by "best fit" library search method.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS.

VOA, SVOA, and Pest/PCB Target Compounds (TCLs) and Tentatively Identified Compounds (TICs) were properly quantitated; therefore, the results are acceptable.

11. SYSTEM PERFORMANCE.

GC/MS baseline indicated acceptable performance.

GC baseline counts indicated acceptable performance.

Reviewed by: M. Cecilia Luckett MCL Lockheed/ESAT
Date: August 19, 1993

12. OVERALL CASE ASSESSMENT.

The table below summarizes the number of target compounds outside the CRQL and the number of tentatively identified compounds associated with these samples. In the VOA fraction, EWP63 reported a concentration value for Xylene (total) which exceeded the calibration range. Accordingly, the results from the diluted reanalyses will be used to validate the data. Please note that some of the SVOA samples reported an excessive number of TIC compounds.

Sample ID #	# of Hits				
	VOA		SVOA		Pest/PCB
	TCL	TIC	TCL	TIC	TCL
EWP63	5	0	1	20	2
EWP63DL	3	0	-	-	-
EWP64	0	0	0	4	0
EWP65	0	0	0	4	0
EWP66(FD)	1	0	0	5	0
EWP67	1	0	0	6	1
EWP68	1	0	1	20	4
EWP69	0	0	0	11	1
EWP70	0	0	1	10	0
EWP71	1	0	0	2	1
EWP72	0	0	0	10	0
EWP73(FD)	0	0	0	10	0
EWP74	1	0	0	3	0
EWP75	0	0	0	3	1
EWP76(FB)	1	0	0	4	0
EWP77(FB)	1	0	1	5	0
EWP79(TB)	0	0	-	-	-
EWP80(TB)	1	0	-	-	-

(-) No analysis was performed.
(FB) Results from field blank analysis.
(FD) Results from field duplicate analysis.
(TB) Results from trip blank analysis.
(DL) Results from diluted reanalysis.

Reviewed by: M. Cecilia Luckett MCL **Lockheed/ESAT**
Date: August 19, 1993

CL 8-19-93

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 20247(2)
COLUMN: SP-1000

CONTRACTOR: SWRI
SITE NAME: Systech (OH)

Instrument# FINNE		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6-23-93/05:54			6-28-93/13:20			6-29-93/05:45			6-30-93/17:06			7-1-93/08:40		
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01	0.880			0.813			1.327	-50.8	J	0.855			0.959		
Bromomethane	0.10	1.098			1.117			0.711	35.2	J	1.047			1.067		
Vinyl chloride	0.10															
Chloroethane	0.01	0.623			0.670			0.781	-25.4	J	0.691			0.862	-38.4	J
Methylene chloride	0.01	1.289			1.196			1.409			1.557			1.616	-25.4	J
Acetone	0.01	0.522			0.362	30.7	J	0.434			0.285	45.4	J	0.424		
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
1,2-Dichloroethene (total)		1.483			1.686			1.747			1.783			1.921	-29.5	J
Chloroform	0.20															
1,2-Dichloroethane	0.10	2.420			1.538	36.4	J	2.214			2.234			2.402		
2-Butanone	0.01															
1,1,1-Trichloroethane	0.10	0.640			0.459	28.3	J	0.552			0.585			0.613		
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane																
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01															
2-Hexanone	0.01															
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50	0.563			0.547			0.690			0.738	-31.1	J	0.771	-36.9	J
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
Toluene-d8																
Bromofluorobenzene																
1,2-Dichloroethane-d4		2.199			1.306	40.6	J	2.167			1.841			1.819		

Samples affected:

VBLK01	VBLK02	VBLK03	VBLK04
EWP64 EWP72	EWP74	EWP63	EWP80
67 " 73	75	65	" 63DL
68	76	66	
69	79	77	
69MS			
69MSD			
70			
71			

Reviewer's Init/Date: CL/8-19-93

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CL
8-19-93

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 20247(2)
COLUMN:

CONTRACTOR: SWRI
SITE NAME: Systech (OH)

Instrument# FINN4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6-11-93/13:56			7-21-93/16:21			7-22-93/16:30								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
1,3-Dichlorobenzene																
1,4-Dichlorobenzene																
1,2-Dichlorobenzene																
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01	2.831			2.216			2.076	26.7	J						
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxyl)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20	0.360			0.452	-25.6	J	0.451	-25.3	J						
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01															
4-Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples:

SBLK01	EWP67
EWP64	68
69	70
69MS	71
69MSD	72
SBLK02	73
EWP63	74
65	75
66	76
77	

Reviewer's Init/Date: CL/8-19-93

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CL 8-19-93

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 20247(2)
COLUMN:

CONTRACTOR: SWRI
SITE NAME: Systech (OH)

Instrument# FINN4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6-11-93/13:56			7-21-93/16:21			7-22-93/16:30								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01															
4,6-Dinitro-2-methylphenol	0.01															
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0.05															
Phenanthrene	0.70															
Anthracene	0.70															
Carbazole																
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01															
3,3'-Dichlorobenzidine	0.01															
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01															
Di-n-octyl phthalate	0.01															
Benzo(b)fluoranthene	0.70															
Benzo(k)fpuoranthene	0.70															
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthrancene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60															
2,4,6-Tribromophenol	0.01	0.134			0.178	-32.8	J	0.161								
2-Chlorophenol-d4																
1,2-Dichlorobenzene-d4																

Reviewer's Init/Date: CL/8-19-93

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

ESAT-3-025.2 1/93

CALIBRATION OUTLIERS
PEST/PCB TCL COMPOUNDS

CASE\SAS#: 20247(2) CONTRACTOR: SWRI

Column: DB-608

Instrument#: HP5890D	Init. Cal.		Cont. Cal.		Cont. Cal.		Cont.Cal	
Date/Time	7-14-93/12:51		7-14-93/11:55		7-15-93/01:11		7-15-93/18:02	
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								
Affected samples:					PBLK01	EWP73	EWP68	
					EWP69		74	
					69MS		75	
					69MSD		76	
					64		PBLK02	
					67		EWP63	
					70		65	
					71		66	
					72		77	

Pest/PCB

Reviewer's Initial/Date CL/8-19-93

3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

CALIBRATION OUTLIERS
PEST/PCB TCL COMPOUNDS

CASE\SAS#: 20247(2) CONTRACTOR: SWRI

Column: DB-1701

Instrument#: HP5890D	Init. Cal.		Cont. Cal.		Cont. Cal.		Cont. Cal	
Date/Time	7-14-93/12:51		7-14-93/11:55		7-15-93/01:11		7-15-93/18:02	
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples:				
			PBLK01	EWP68
			EWP69	74
			69MS	75
			69MSD	76
			64	PBLK02
			67	EWP63
			70	65
			71	66
			72	77
		Pest/PCB	73	

Reviewer's Initial/Date CL/8-19-93

3/90 Rev

* These flags should be applied to the analytes on the Sample Data Sheets.

DATA REPORTING QUALIFIERS
(page 1)

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

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL), report the value.

U - Indicates compound was analyzed for but not detected. The sample Quantitation Limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if thee sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the Sample Quantitation Limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U) \times df}{D} \qquad \text{where } D = \frac{100 - \%\ \text{moisture}}{100}$$

and df = dilution factor

at 24% moisture, $D = \frac{100 - 24}{100} = 0.76$

$$\frac{(330\ U) \times 10}{.76} = 4300\ U$$ rounded to the appropriate number of significant figures

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0.5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures. Therefore, the CRQL values will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume, this fact be accounted for in reporting the Sample Quantitation Limit.

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 bur greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it is as 3J. The Sample Quantitation Limit must be adjusted for dilution as discussed for the U flag. The J flag is also applied to pesticide/Aroclor results where the pesticide/Aroclor is confirmed to be present but the concentration is less than the CRQL.

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.

DATA REPORTING QUALIFIERS
(page 2)

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two 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 identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but unsuccessful, do not apply this flag, instead use a laboratory-defined, discussed below.

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

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for the specific analysis. This flag will not apply to pesticide/PCBs analyzed by GC/MS methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I 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 Form I. The Form I 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 I for the diluted sample and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

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

X - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG Narrative. If more than one flag is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B" and "D" flags for some sample. The laboratory-defined are limited to letters "X", "Y" and "Z".

EPA

Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

(if applicable) 20247

1. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)	2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved	3. Region No. 5	Sampling Co. PRC	5. Date Shipped 6/22/93
		Carrier Fed Ex		7. Date Received -- Received by 6/23/93 Cynthia A Sauced
		Sampler (Name) Trisha Miller	Airbill Number 5484393171	Laboratory Contract Number 68-D1-0088C
		Unit Price 1048		
		Sampler Signature [signature]	6. Ship To Southwest Research Institute 6220 Culebra Road San Antonio, TX 78238 ATTN: Joe Pan	8. Transfer to
		Date Received		Received by
		Contract Number		Price

4. Type of Activity: Lead / Pre-Remedial / Remedial / Removal

SF	☑	RIFS	☐	CLEM	☐
PRP	☐	PA	☐	RD	☐
ST	☐	SSI	☐	RA	☐
FED	☐	LSI	☑	O&M	☐
				NPLD	☐
				CLEM	☐
				REMA	☐
				REM	☐
				OIL	☐
				UST	☐

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	E High Conc. Phases (Check below): Solids	Water – Mis Liq.	Non Water – Mis Liq.
EWD 69	2	L	G	N		X	X		009575-009570	W185	6/21/93 1640		MEWR 87	Intact			
EWD 67	↓	↓	↓	↓		X	X		009559-009560	W186	↓ 1620		MEWR 85	↓			

Shipment for Case complete? (Y/N)	Page 1 of 1	Sample used for a spike and/or duplicate	Additional Sampler Signatures	Chain of Custody Seal Number
Y		EWD 69	[signature]	140217, 140218

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/4/93 2300	Christine Fischman	Christine Fischman	6/22/93 1345	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	Is custody seal intact? Y/N/none
		Cynthia A Sauced	6/23/93 0850	SWR2	

Split Samples ☐ Accepted (Signature) ☐ Declined

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Org-2

EPA Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

(if applicable) 20247

1. Sample Description (Enter in Column A)	2. Preservative (Enter in Column D)	3. Region No.	Sampling Co.	5. Date Shipped	Carrier	7. Date Received -- Received by
1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)	1. HCl 2. HNO3 3. NaHSO4 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved	5	PDC	6/22/93	Fed Ex	6/23/93 Cynthia A Sauced

Sampler (Name)	Airbill Number	Laboratory Contract Number	Unit Price
Guy Montfort	5484373171	68-D1-00884	1048

Sampler Signature	6. Ship To	8. Transfer to	Date Received
[signature]	Southwest Research Institute 6220 Culebra Road San Antonio, TX 78238 ATTN: Joe Pan		

4. Type of Activity: Lead / Pre-Remedial / Remedial / Removal
SF ☑ PRP ☐ ST ☐ FED ☐ PA ☐ SSI ☐ ESI ☑ RIFS ☐ RD ☐ RA ☐ O&M ☐ NPLD ☐ CLEM ☐ REMA ☐ REM ☐ OIL ☐ UST ☐

Received by

Contract Number | Price

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below): Solids	Water - Mis Liq.	Non Water - Mis Liq.
EWP 68	2	L	G	N		X	X		009565-009566	W132	6/21/93 1645		MEWR 86	Intact			
EWP 64	↓	↓	↓	↓		X	X		009541-009542	W133	↓ 1746		MEWR 82	↓			
EWP 76	↓	↓	↓	↓		X	X		009619-009620	EB-1	↓ 1530		MEWR 94	↓			

Shipment for Case complete? (Y/N)	Page 1 of 1	Sample used for a spike and/or duplicate	Additional Sampler Signatures	Chain of Custody Seal Number
		EWP 69	[illegible]	140215, 140216

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	6/21/93	Christine Kirschman	Christine Kirschman	6/22/93 1355	

Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none
		Cynthia A Sauced	6/23/93 850	SWR 2

Split Samples ☐ Accepted (Signature)
☐ Declined

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Org-2

EPA — Organic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Sample Description (Enter In Column A): 1. Surface Water, 2. Ground Water, 3. Leachate, 4. Rinsate, 5. Soil/Sediment, 6. Oil (High only), 7. Waste (High only), 8. Other (Specify)

2. Preservative (Enter In Column D): 1. HCl, 2. HNO3, 3. NaHSO4, 4. H_2SO_4, 5. Other (Specify), 6. Ice only, N. Not preserved

3. Region No.: 5 — Sampling Co.: PRC

Sampler (Name): Chris Monfort

Sampler Signature:

4. Type of Activity — Remedial: SF, PRP, ST, FED; Pre-Remedial: PA, SSI, LSI; RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST

5. Date Shipped: 6/22/93 — Carrier: Federal Express

Airbill Number: E418473171

6. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238, ATTN: Joe Pan

7. Date Received -- Received by: 6/23/93 Cynthia A Saucedo

Laboratory Contract Number: 68-D1-0088 — Unit Price: 10.48

8. Transfer to — Date Received

Received by — Contract Number — Price

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp / Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rect	High Conc. Phases (Check below): Solids	Water - Mis Liq.	Non Water - Mis Liq.
EWP 68	2	L	G	1	X				009563-009564	W132	6/21/93 1645		MEWR86	Intact			
EWP 64	1				X				009539-009540	W133	1846		MEWR82				
EWP 70					X				009581-009582	W181	1805		MEWR88				
EWP 71					X				009587-009588	W182	1220		MEWR89				
EWP 72					X				009593-009594	W183	1355		MEWR90				
EWP 73					X				009599-009600	W183D	1355		MEWR91				
EWP 74					X				009605-009606	W184	1325		MEWR92				
EWP 69					X				009569-009570	W185	1640		MEWR87				
EWP 67					X				009557-009558	W186	1620		MEWR85				
EWP 75					X				009611-009612	W187	1120		MEWR93				

Shipment for Case complete? (Y/N): Y

Page 1 of 2

Sample used for a spike and/or duplicate: EWP 69

Additional Sampler Signatures:

Chain of Custody Seal Number: 140205, 140206

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	6/22/93 2000			6/22/93 1220	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		Cynthia A Saucedo	6/23/93	SWR2	

Split Samples: ☐ Accepted (Signature) ☐ Declined

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Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable)

Case No. 20247

1. Sample Description (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Rinsate
   5. Soil/Sediment
   6. Oil (High only)
   7. Waste (High only)
   8. Other (Specify)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. H_2SO_4
   5. Other (Specify)
   6. Ice only
   N. Not preserved

3. Region No.: 5
Sampling Co.: [illegible]
Sampler (Name): Guy Montfort
Sampler Signature: Guy F. Montfort

4. Type of Activity: Lead / Pre-Remedial / Remedial / Removal
SF / PRP / ST / FED / PA / SSI / LSI / RIFS / RD / RA / O&M / NPLD / CLEM / REMA / REM / OIL / UST

5. Date Shipped: 6/22/93
Carrier: Fed Ex
Airbill Number: 5484373171

6. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238
ATTN: Joe Pan

7. Date Received -- Received by: 6/23/93 Cynthia A Saucedo
Laboratory Contract Number: 68-01-0088C
Unit Price: 1048.

8. Transfer to
Date Received
Received by
Contract Number
Price

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below): Solids	Water -- Mis Liq.	Non Water -- Mis Liq.
EWP71	2	L	G	N		X	X		009589-009590	W182	6/21/93 1220		MEWK28	IN	AC		
EWP72	↓	↓	↓	↓		X	X		009595-009596	W183	↓ 1355		MEWK90	↓			
EWP73	↓	↓	↓	↓		X	X		009601-009602	W183D	↓ 1355		MEWK91	↓			

Shipment for Case complete? (Y/N) Y
Page 1 of 1
Sample used for a spike and/or duplicate: EWP69
Additional Sampler Signatures: [signature]
Chain of Custody Seal Number: 140207, 140208

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy F. Montfort	6/22/93 2000	Christine Hindman	Christine Hindman	6/22/93 1325	

Received for Laboratory by: (Signature) Cynthia A Saucedo
Date / Time: 6/23/93 0850
Remarks: Is custody seal intact? Y/N/none — SWR 1

Split Samples: ☐ Accepted (Signature) ☐ Declined

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Org-2

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United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 0247

1. Sample Description (Enter in Column A) 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)	2. Preservative (Enter in Column D) 1. HCl 2. HNO_3 3. NaHSO4 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved	3. Region No.: 5	Sampling Co.: PPC	5. Date Shipped: 6/22/93	Carrier: Fed Ex	7. Date Received: 6/23/93	Received by: Cynthia A Saucedo
		Sampler (Name): Guy Montfort		Airbill Number: 5184873171		Laboratory Contract Number: 68-D1-0007	Unit Price: 1348
		Sampler Signature: Guy Montfort		6. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238, ATTN: Joe Pan		8. Transfer to	Date Received
		4. Type of Activity: Lead / Pre-Remedial: SF, PRP, ST, FED; PA, SSI, ESI; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST				Received by	
						Contract Number	Price

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/ PCB	High ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	High Conc. Phases (Check below): Solids	Water – Mis Liq.	Non-Water – Mis Liq.
EWP70	2	L	G	N		X	X		009583-009584	W181	6/21/93 1805		MEWR88	Intact			
EWP74	1	L	G	N		X	X		009607-009608	W184	6/21/93 1325		MEWR92	Intact			
EWP75	1	L	G	N		X	X		009613-009614	W187	6/21/93 1120		MEWR93	Intact			

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWP69

Additional Sampler Signatures: Guy Montfort

Chain of Custody Seal Number: 140209, 140210

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy Montfort	6/22/93 2005	Christine Fitzhugh	Christine Fitzhugh	6/22/93 1325	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		Cynthia A Saucedo	6/23/93 0850	Sent	

Split Samples: ☐ Accepted (Signature) ☐ Declined

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O 350415

0014 Orig

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable): SAS

Case No.: 20247

1. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

3. Region No.: 5

Sampling Co.: PRC

Sampler (Name): Guy Montfort

Sampler Signature: [signature]

4. Type of Activity: Lead: SF [X] PRP [ ] ST [ ] FED [ ]; Pre-Remedial: PA [ ] SSI [ ] LSI [X]; Remedial: RIFS [ ] RD [ ] RA [ ] O&M [ ] NPLD [ ]; Removal: CLEM [ ] REMA [ ] REM [ ] OIL [ ] UST [ ]

5. Date Shipped: 6/25/93

Carrier: Fed Ex.

Airbill Number: 7158669751

6. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238

ATTN: Joe Pan

7. Date Received -- Received by: 6/26/93 Cynthia A Saucedo

Laboratory Contract Number: 68-01-0088C

Unit Price: 1048

8. Transfer to:

Date Received:

Received by:

Contract Number:

Price:

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below): Solids	Water - Mis Liq.	Non Water - Mis Liq.
EWP 63	2	L	G	N		X	X		5-009535	W139	6/25/93 1145	GDM	MEWR81	INTACT			
EWP 63						X	X		5-009536	W139	1145		MEWR81				
EWP 65						X	X		5-009547	W140	1015		MEWR83				
EWP 65						X	X		5-009548	W140	1015		MEWR83				
EWP 66						X	X		5-009553	W140D	1015		MEWR84				
EWP 66						X	X		5-009554	W140D	1015		MEWR84				

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWP 69

Additional Sampler Signatures: [signature]

Chain of Custody Seal Number: 140221, 140222

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Guy S. Montfort	6/25/93 1500	Christopher P. Coppel	Christopher P. Coppel	6/25/93 1520	

Received for Laboratory by: (Signature): Cynthia A Saucedo

Date / Time: 6/26/93 1018 24

Remarks: Is custody seal intact? Y/N/none: SWRI

Split Samples: [ ] Accepted (Signature) [ ] Declined

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Cooler Temp 2.2C

0015

Org-2

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EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20747

1. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

3. Region No.: 06 | Sampling Co.: PRC | 5. Date Shipped: 6/25/93 | Carrier: Fed Ex

7. Date Received -- Received by: 6/26/93 Cynthia A Smucker

Sampler (Name): G. W. Hoffman

Airbill Number: 715866677762

Laboratory Contract Number: 68-D1-0088 | Unit Price: 10.85

Sampler Signature: D. F. Mantor

6. Ship To: SOUTHWEST RESEARCH INSTITUTE, 6220 CULEBRA ROAD, SAN ANTONIO, TX 78238, ATTN: JOE PAN

8. Transfer to | Date Received

Received by

Contract Number | Price

4. Type of Activity: Lead: SF, PRP, ST, FED; Pre-Remedial: PA, SSI, LSI; Remedial: RIFS, RD, RA, O&M, NPLD; Removal: CLEM, REMA, REM, OIL, UST

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/ PCB	High ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	Corresp. CLP Inorg. Samp. No.	K Sample Condition Con Rec'd	L High Conc. Phases (Check below): Solids	Water - Mis Liq.	Non Water - Mis Liq.
EWP 63	2	L	G	1	X				5-009533, 009534	W139	6/25/93 1145	GDM	MEWR81				
EWP 65					X				5-009545, 009546	W140	1015		MEWR83				
EWP 66					X				5-009551, 009552	W140D	1015		MEWR84				
EWP 77					X				5-009623, 009624	EB-2	1215		MEWR95				
EWP 77				N		X	X		5-009625, 009626	EB-2	1215		MEWR95				
EWP 80	V	V	V	1	X				5-190968, 190969	TB-2	0800	V	—	INTACT			

INTACT: 1 VOA 40 mL Vial with HEADSPACE

Shipment for Case complete? (Y/N): Y | Page 1 of 1 | Sample used for a spike and/or duplicate: EWP 69 | Additional Sampler Signatures: [signature] | Chain of Custody Seal Number: 140223, 140224

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
D. F. Mantor	6/25/93 1500	[signature]	[signature]	6/25/93 1520	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? Y/N/none	
		Cynthia A Smucker	6/26/93 1018	SWRI	

Split Samples: ☐ Accepted (Signature) ☐ Declined

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O 350417

0016

Cynthia Temp 2.2C

017

EPA — Organic Traffic Report & Chain of Custody Record

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

(For Organic CLP Analysis)

SAS No. (If applicable):

Case No.: 20247

1. Sample Description (Enter In Column A)
1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)

2. Preservative (Enter In Column D)
1. HCl 2. HNO_3 3. $NaHSO_4$ 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved

3. Region No.: 5 | Sampling Co.: TPC

Sampler (Name): Guy Montfort

Sampler Signature: Guy P. Montfort

4. Type of Activity — Lead: SF ☑, PRP ☐, ST ☐, FED ☐ | Pre-Remedial: PA ☐, SSI ☐, ESI ☑ | Remedial: RIFS ☐, RD ☐, RA ☐, O&M ☐, NPLD ☐ | Removal: CLEM ☐, REMA ☐, REM ☐, OIL ☐, UST ☐

5. Date Shipped: 6/22/93 | Carrier: Federal Express

Airbill Number: 5484373171

6. Ship To:
Southwest Research Institute
6220 Culebra Road
San Antonio, TX 78238
ATTN: Joe Pan

7. Date Received -- Received by: 6/23/93 Cynthia A Saucedo

Laboratory Contract Number: 68-D1-0088 | Unit Price: 1048.

8. Transfer to | Date Received

Received by

Contract Number | Price

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/ PCB	High ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec'd	L High Conc. Phases (Check below): Solids	Water - Mis Liq.	Non Water - Mis Liq.
EWP79	4	L	G	1	X				009634-009636	TB-1	6/21/93 0800		—	INT	ACI		
EWP76	↓	|	|	↓	X				009617-009618	EB-1	| 1530		MEWR94	|	|	|	|
EWP55	5	|	|	N	X	X	X		009501-009502 009503	SD-1	| 1158		MEWR73	|	|	|	|
EWP56	|	|	|	|	X	X	X		009505-009506 009507	SD-2	| 0945		MEWR74	|	|	|	|
EWP57	|	|	|	|	X	X	X		009508-009510 009511	SD-3	| 1003		MEWR75	|	|	|	|
EWP58	|	|	|	|	X	X	X		009513-009514 009515	SD-4	| 1050		MEWR76	|	|	|	|
EWP59	↓	↓	↓	↓	X	X	X			009512-009518 009519	SD-5	↓ 1045		MEWR77	↓	↓	↓	↓

0016 (a)

Shipment for Case complete? (Y/N): N

Page 1 of 2

Sample used for a spike and/or duplicate: EWP55

Additional Sampler Signatures: Guy P. Montfort, Trusta Miller

Chain of Custody Seal Number: 140205, 140206

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trusta Miller	6/22/93 2000	Christina Hirschman	Christina Hirschman	6/22/93 1720	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: Is custody seal intact? (Y)/N/none	
		Cynthia A Saucedo	6/23/93 850	SWRI	

Split Samples ☐ Accepted (Signature)
☐ Declined

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0 351112

SENT BY:SwRI 08-19-93 04:31PM 5125222021→ 1501#713123538307 # 1

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Contract Laboratory Program Sample Management Office
PO Box 816 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record
(For Organic CLP Analysis)

(if applicable) 20247

1. Sample Description (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Rinsate 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (Specify)	2. Preservative (Enter in Column D): 1. HCl 2. HNO3 3. NaHSO4 4. H_2SO_4 5. Other (Specify) 6. Ice only N. Not preserved
3. Region No. 5	Sampling Co. PRC
5. Date Shipped 6/22/93	Carrier Federal Express
7. Date Received – Received by 6/23/93 Cynthia A Saucedo	
Sampler (Name) Guy Montfort	Airbill Number 5484373171
Laboratory Contract Number 68-D1-0088C	Unit Price 1048
Sampler Signature Guy P. Montfort	6. Ship To Southwest Research Institute 6220 Culebra Road San Antonio, TX 78238 ATTN: Joe Pan
8. Transfer to	Date Received
Received by	
Contract Number	Price

4. Type of Activity: Lead / Pre-Remedial / Remedial / Removal — SF ☑ PRP ☐ ST ☐ FED ☐ PA ☐ SSI ☐ ESI ☐ RIFS ☐ RD ☐ RA ☐ O&M ☐ NPLD ☐ CLEM ☐ REMA ☐ REM ☐ OIL ☐ UST ☐

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/PCB	High ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec'd	L High Conc. Phases (Check below): Solids	Water – Mis Liq.	Non Water – Mis Liq.
EWP79	4	L	0	1	X				009634-009636	TB-1	6/21/93 0800		—	Intact			
EWP76	↓			↓	X				009617-009618	FB-1	1530		MEWR 94				
EWP55	5			N	X	X	X		009501-009512 009503	SD-1	1158		MEWR 73				
EWP56					X	X	X		009503-009516 009507	SD-2	0945		MEWR 74				
EWP57					X	X	X		009509-009510 009511	SD-3	1003		MEWR 75				
EWP58					X	X	X		009513-009514 009515	SD-4	1050		MEWR 76				
EWP59	↓	↓	↓	↓	X	X	X		009517-009518 009519	SD-5	1045		MEWR 77				

Shipment for Case complete? (Y/N)	Page 1 of 2	Sample used for a spike and/or duplicate	Additional Sampler Signatures	Chain of Custody Seal Number
Y	2	EWP55	[signature] Trisha Miller	140205, 140206

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trisha Miller	6/21/93 2000	Christine Kirschman	Christine Kirschman	6/22/93 1220	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? (Y)/N/none	
		Cynthia A Saucedo	6/23/93 850	SWRI	

Split Samples ☐ Accepted (Signature) ☐ Declined

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To Cecilia Lu	From Boyd		
Co. Reg 3	Co. SwRI		
Dept.	Phone #		
Fax # 312-353-8307	Fax #		

0016 (B) 14/0

0002

CASE NARRATIVE
SwRI
CASE: 20247 SDG: EWP64

- SEVENTEEN LOW WATER SAMPLES FOR VOLATILE (VOA) COMPOUND ANALYSIS:

EWP63	EWP64	EWP65	EWP66	EWP67
EWP68	EWP69	EWP70	EWP71	EWP72
EWP73	EWP74	EWP75	EWP76	EWP77
EWP79	EWP80			

- FIFTEEN LOW WATER SAMPLES FOR SEMIVOLATILE (BNA) AND PESTICIDE (PEST) COMPOUND ANALYSIS:

EWP63	EWP64	EWP65	EWP66	EWP67
EWP68	EWP69	EWP70	EWP71	EWP72
EWP73	EWP74	EWP75	EWP76	EWP77

- QC SAMPLES: **MATRIX SPIKE/MATRIX SPIKE DUPLICATE:** EWP69

- DILUTIONS: VOA - EWP63

- The samples were received on June 26, 1993 for a thirty-five day turnaround from Verified Time of Sample Receipt (VTSR).

- All analyses performed were done so according to the requirements in the 3/90 USEPA Contract Laboratory Program Statement of Work (SOW) for Organics Analysis, Multi-media, Multi-concentration, with revisions, (OLM01.8, August 1991).

- Reference Log-In Non-Conformance dated 6-26-93. Sample identification number EWP80 (one vial) had headspace.

- Reference Telephone Conversation dated July 6, 1993. SwRI was instructed by SMO to proceed with analysis and note the above non-conformance in the case narrative.

VOLATILE COMPOUND ANALYSIS

1. Due to the low intensity of m/Z 72 for 2-Butanone, this compound was quantitated on m/Z 43. All primary quantitation ions were used for remaining compounds.

2. Manual peak integration was occasionally necessary for one or more of the following reasons:

   Not found - The peak in question was not correctly identified by the Autoquan software; therefore, it was necessary to manually add the peak to the quantitation report.

   Tailing - Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

   Splitting - Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

3. Sample EWP63 had target compounds exceeding the initial calibration range. This sample was reanalyzed at dilution to comply with the contract.

4. Samples EWP65 and EWP66 had semivolatile compounds carryover from a previous analysis. These compounds eluted as broad peaks when the temperature programmed up.

SEMIVOLATILE COMPOUND ANALYSIS

1. The retention time scan numbers were used to label the internal standards and surrogate peaks on the semivolatile GC/MS reconstructed ion chromatograms.

2. Standards and blanks were named as per the SOW revision 8/91.

3. The samples were extracted using the one step continuous liquid-liquid extraction technique. The final concentration was performed by the nitrogen blow-down procedure.

4. Manual peak integration was occasionally necessary for one or more of the following reasons:

   Not found - The peak in question was not correctly identified by the Autoquan software; therefore, it was necessary to manually add the peak to the quantitation report.

   Tailing - Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

   Splitting - Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

5. Bis (2-Ethylhexyl)phthalate was reported in sample EWP69MS and not in EWP69 unspiked (see attached spectra).

PESTICIDE COMPOUND ANALYSIS

1. The following information, related to each pesticide analysis, was included in the corresponding quantitation report, rather than the actual chromatogram:

   - Sample ID (SMO sample number from the traffic report)
   - Volume Injected (μL)
   - GC Column Identification
   - GC Instrument Identification

2. Each chromatogram was labeled both with a raw data file name which corresponded to its respective quantitation report and with a date and time of injection. All other times on chromatograms and reports were data transfer times. These injections were run in the proper sequence, but may not appear to be in proper sequence.

3. Samples EWP64, EWP67, EWP67, EWP69, EWP69MS, EWP69MSD, EWP70, EWP71, EWP72, EWP74, EWP75, and EWP76 had at least one surrogate recovery outside the advisory QC limits.

4. The EWP69MS and EWP69MSD matrix spike recoveries were within the QC recovery limits; however, the Relative Percent Difference (RPD) for the MS and MSD exceeded the QC RPD limits.

"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 floppy diskette has been authorized by the Assistant Director or his designee, as verified by the following signature."

Jo Ann Boyd

Jo Ann Boyd, Supervisor
Quality Assurance Unit

Telephone Conversation

Date: July 6, 1993

Time: 09:00

With: Jane Von Hofen
SMO
(703)519-1353

SWRI POC: Jennifer Hasdorff

Subject: Case # 20247 / Non-Conformance from 6-26-93

****

Purpose: Jane called with the following response to the Non-Conformace which we sent :

Please note that sample EWP80 (VOA) was received with headspace. Proceed with work and note in the Case Narrative.

Distribution :

Boyd
Gallamison
Gorton
File-Original

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

	EPA SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	EWP63	94	93	95		0
02	EWP63DL	98	92	99		0
03	EWP64	99	91	100		0
04	EWP65	103	103	99		0
05	EWP66	99	94	102		0
06	EWP67	103	89	97		0
07	EWP68	103	95	100		0
08	EWP69	100	91	92		0
09	EWP69MS	105	91	100		0
10	EWP69MSD	107	99	101		0
11	EWP70	103	91	94		0
12	EWP71	104	88	87		0
13	EWP72	104	94	96		0
14	EWP73	106	93	102		0
15	EWP74	106	95	83		0
16	EWP75	104	94	85		0
17	EWP76	103	93	88		0
18	EWP77	99	100	104		0
19	EWP79	102	98	88		0
20	EWP80	99	90	101		0
21	VBLK01	105	92	99		0
22	VBLK02	101	95	88		0
23	VBLK03	99	99	102		0
24	VBLK04	101	93	94		0
25						
26						
27						
28						
29						
30						

	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

0010002(a)

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix Spike - EPA Sample No.: EWP69

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50.	0.	55.	110	61-145
Trichloroethene	50.	0.	45.	90	71-120
Benzene	50.	0.	47.	94	76-127
Toluene	50.	0.	53.	106	76-125
Chlorobenzene	50.	0.	55.	110	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.	50.	100	10	14	61-145
Trichloroethene	50.	41.	82	9	14	71-120
Benzene	50.	41.	82	14*	11	76-127
Toluene	50.	47.	94	12	13	76-125
Chlorobenzene	50.	48.	96	14*	13	75-130

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To Cecilia Ludlett	From Boyd
Co. Reg 3	Co. SwRI
Dept.	Phone #
Fax # 312-353-8307	Fax #

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 2 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS:

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix Spike - EPA Sample No.: EWP69

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50.	0.	55.	110	61-145
Trichloroethene	50.	0.	45.	90	71-120
Benzene	50.	0.	47.	94	76-127
Toluene	50.	0.	53.	106	76-125
Chlorobenzene	50.	0.	55.	110	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50.	50.	100	10*	14	61-145
Trichloroethene	50.	41.	82	9*	14	71-120
Benzene	50.	41.	82	14*	11	76-127
Toluene	50.	47.	94	12*	13	76-125
Chlorobenzene	50.	48.	96	14*	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 5 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab File ID:E06283B1 Lab Sample ID:E06283B1

Date Analyzed: 6/28/93 Time Analyzed:1354

GC Column:SP-1000 ID: 2.00 (mm) Heated Purge: (Y/N) N

Instrument ID:FINNE

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWP64	E0628305	E0628305	1644
02	EWP67	E0628306	E0628306	1718
03	EWP68	E0628307	E0628307	1752
04	EWP69	E0628308	E0628308	1826
05	EWP69MS	E0628309	E0628309	1900
06	EWP69MSD	E0628310	E0628310	1934
07	EWP70	E0628311	E0628311	2008
08	EWP71	E0628312	E0628312	2042
09	EWP72	E0628313	E0628313	2116
10	EWP73	E0628314	E0628314	2150
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COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab File ID:E06293B1 Lab Sample ID:E06293B1

Date Analyzed: 6/29/93 Time Analyzed:0619

GC Column:SP-1000 ID: 2.00 (mm) Heated Purge: (Y/N) N

Instrument ID:FINNE

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWP74	E0629301	E0629301	0653
02	EWP75	E0629302	E0629302	0727
03	EWP76	E0629303	E0629303	0801
04	EWP79	E0629304	E0629304	0836
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COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.
VBLK03

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab File ID:E06303B2 Lab Sample ID:E06303B2

Date Analyzed: 6/30/93 Time Analyzed:1740

GC Column:SP-1000 ID: 2.00 (mm) Heated Purge: (Y/N) N

Instrument ID:FINNE

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWP63	E0630327	E0630327	0311
02	EWP65	E0630328	E0630328	0345
03	EWP66	E0630329	E0630329	0419
04	EWP77	E0630330	E0630330	0452
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COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK04

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab File ID:E07013B1 Lab Sample ID:E07013B1

Date Analyzed: 7/01/93 Time Analyzed:0914

GC Column:SP-1000 ID: 2.00 (mm) Heated Purge: (Y/N) N

Instrument ID:FINNE

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWP63DL	E0701302	E0701302	1021
02	EWP80	E0701301	E0701301	0948
03				
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
VBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E06283B1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E06283B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E06283B1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E06283B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E06293B1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E06293B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E06293B1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E06293B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK03

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E06303B2

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E06303B2

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 6/30/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: VBLK03

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E06303B2

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E06303B2

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 6/30/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E07013B1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E07013B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK04

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E07013B1

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E07013B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP63

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630327

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630327

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	89.	
75-09-2	Methylene Chloride	10.	U
67-64-1	Acetone	22.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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	7.	J
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	160.	
100-42-5	Styrene	10.	U
1330-20-7	Xylene (total)	800.	E

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP63

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630327

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630327

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP63DL

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0701302

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0701302

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 5.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	50.	U
74-83-9	Bromomethane	50.	U
75-01-4	Vinyl Chloride	50.	U
75-00-3	Chloroethane	74.	D
75-09-2	Methylene Chloride	50.	U
67-64-1	Acetone	50.	U
75-15-0	Carbon Disulfide	50.	U
75-35-4	1,1-Dichloroethene	50.	U
75-34-3	1,1-Dichloroethane	50.	U
540-59-0	1,2-Dichloroethene (total)	50.	U
67-66-3	Chloroform	50.	U
107-06-2	1,2-Dichloroethane	50.	U
78-93-3	2-Butanone	50.	U
71-55-6	1,1,1-Trichloroethane	50.	U
56-23-5	Carbon Tetrachloride	50.	U
75-27-4	Bromodichloromethane	50.	U
78-87-5	1,2-Dichloropropane	50.	U
10061-01-5	cis-1,3-Dichloropropene	50.	U
79-01-6	Trichloroethene	50.	U
124-48-1	Dibromochloromethane	50.	U
79-00-5	1,1,2-Trichloroethane	50.	U
71-43-2	Benzene	50.	U
10061-02-6	trans-1,3-Dichloropropene	50.	U
75-25-2	Bromoform	50.	U
108-10-1	4-Methyl-2-Pentanone	50.	U
591-78-6	2-Hexanone	50.	U
127-18-4	Tetrachloroethene	50.	U
79-34-5	1,1,2,2-Tetrachloroethane	50.	U
108-88-3	Toluene	50.	U
108-90-7	Chlorobenzene	50.	U
100-41-4	Ethylbenzene	150.	D
100-42-5	Styrene	50.	U
1330-20-7	Xylene (total)	750.	D

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP63DL

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0701302

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0701302

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 5.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP64

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628305

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP64

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628305

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP65

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630328

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630328

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

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EPA SAMPLE NO.

EWP65

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630328

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630328

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP66

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630329

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630329

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	21.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: EWP66

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630329

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630329

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP67

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628306

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628306

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	5.	J
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP67

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628306

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628306

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP68

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628307

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628307

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	9.	J
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: EWP68

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628307

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628307

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP69

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628308

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628308

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP69

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628308

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628308

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP70

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628311

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628311

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

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EPA SAMPLE NO.

EWP70

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628311

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628311

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP71

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628312

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628312

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	17.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP71

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628312

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628312

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP72

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628313

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628313

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

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EPA SAMPLE NO.

EWP72

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628313

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628313

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP73

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628314

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628314

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP73

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0628314

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0628314

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

EWP74

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629301

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP74

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629301

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP75

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629302

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP75

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629302

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP76

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629303

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	45.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP76

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629303

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP77

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630330

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630330

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	38.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP77

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0630330

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0630330

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP79

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629304

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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
540-59-0	1,2-Dichloroethene (total)	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

1E

EPA SAMPLE NO.

EWP79

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0629304

Sample wt/vol: 5.00 (g/ml) ML Lab File ID: E0629304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. Date Analyzed: 6/29/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP80

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0701301

Sample wt/vol: 5.00 (g/ml) G Lab File ID: E0701301

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	29.	
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP80

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:E0701301

Sample wt/vol: 5.00 (g/ml) G Lab File ID: E0701301

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: not dec. Date Analyzed: 7/01/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
01	EWP63	85	55	94	84	83	99	86	44	0
02	EWP64	77	58	82	74	80	94	77	48	0
03	EWP65	73	59	83	71	71	90	71	40	0
04	EWP66	79	62	86	77	81	92	77	42	0
05	EWP67	80	49	74	82	81	98	82	47	0
06	EWP68	76	53	50	76	72	86	77	55	0
07	EWP69	84	48	81	84	90	95	83	43	0
08	EWP69MS	85	60	81	92	90	92	87	48	0
09	EWP69MSD	88	58	84	94	93	94	88	47	0
10	EWP70	80	51	82	78	72	95	79	47	0
11	EWP71	74	43	72	76	67	93	76	39	0
12	EWP72	79	50	93	84	73	97	84	48	0
13	EWP73	79	52	98	84	77	99	85	51	0
14	EWP74	75	42*	83	77	68	94	76	34	1
15	EWP75	81	46	81	80	69	95	81	44	0
16	EWP76	75	55	96	77	72	91	80	54	0
17	EWP77	80	63	86	75	78	91	78	48	0
18	SBLK01	85	58	83	86	94	93	84	41	0
19	SBLK02	83	32*	82	89	98	93	87	20	1
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		QC LIMITS	
S1 (NBZ) =	Nitrobenzene-d5	(35-114)	
S2 (FBP) =	2-Fluorobiphenyl	(43-116)	
S3 (TPH) =	Terphenyl-d14	(33-141)	
S4 (PHL) =	Phenol-d5	(10-110)	
S5 (2FP) =	2-Fluorophenol	(21-110)	
S6 (TBP) =	2,4,6-Tribromophenol	(10-123)	
S7 (2CP) =	2-Chlorophenol-d4	(33-110)	(advisory)
S8 (DCB) =	1,2-Dichlorobenzene-d4	(16-110)	(advisory)

\# Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix Spike - EPA Sample No.: EWP69

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Phenol	75.	0.	56.	75	12-110
2-Chlorophenol	75.	0.	57.	76	27-123
1,4-Dichlorobenzene	50.	0.	15.	30*	36- 97
N-Nitroso-di-n-prop.(1)	50.	0.	28.	56	41-116
1,2,4-Trichlorobenzene	50.	0.	18.	36*	39- 98
4-Chloro-3-methylphenol	75.	0.	65.	87	23- 97
Acenaphthene	50.	0.	34.	68	46-118
4-Nitrophenol	75.	0.	67.	89*	10- 80
2,4-Dinitrotoluene	50.	0.	44.	88	24- 96
Pentachlorophenol	75.	0.	69.	92	9-103
Pyrene	50.	0.	41.	82	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	75.	56.	75	0	42	12-110
2-Chlorophenol	75.	59.	79	4	40	27-123
1,4-Dichlorobenzene	50.	20.	40	28	28	36- 97
N-Nitroso-di-n-prop.(1)	50.	29.	58	4	38	41-116
1,2,4-Trichlorobenzene	50.	24.	48	28	28	39- 98
4-Chloro-3-methylphenol	75.	66.	88	1	42	23- 97
Acenaphthene	50.	35.	70	3	31	46-118
4-Nitrophenol	75.	69.	92*	3	50	10- 80
2,4-Dinitrotoluene	50.	44.	88	0	38	24- 96
Pentachlorophenol	75.	70.	93	1	50	9-103
Pyrene	50.	42.	84	2	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: 0 out of 11 outside limits
Spike Recovery: 4 out of 22 outside limits

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab File ID:40721301 Lab Sample ID:40721301

Instrument ID:FINN4 Date Extracted: 6/26/93

Matrix: (soil/water) WATER Date Analyzed: 7/21/93

Level:(low/med) LOW Time Analyzed: 1914

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EWP64	40721302	40721302	7/21/93
02	EWP68	40722302	40722302	7/22/93
03	EWP69	40721303	40721303	7/21/93
04	EWP69MS	40721304	40721304	7/21/93
05	EWP69MSD	40721305	40721305	7/21/93
06	EWP70	40722303	40722303	7/22/93
07	EWP71	40722304	40722304	7/22/93
08	EWP72	40722305	40722305	7/22/93
09	EWP73	40722306	40722306	7/22/93
10	EWP74	40722307	40722307	7/22/93
11	EWP75	40722308	40722308	7/22/93
12	EWP76	40722309	40722309	7/22/93
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COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab File ID:40721306 Lab Sample ID:40721306

Instrument ID:FINN4 Date Extracted: 7/01/93

Matrix: (soil/water) WATER Date Analyzed: 7/21/93

Level:(low/med) LOW Time Analyzed: 2250

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EWP63	40721307	40721307	7/21/93
02	EWP65	40721308	40721308	7/22/93
03	EWP66	40721309	40721309	7/22/93
04	EWP67	40722301	40722301	7/22/93
05	EWP77	40721310	40721310	7/22/93
06				
07				
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COMMENTS:

0020477

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721301

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721301

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721301

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721301

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	1.	J
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP75

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722308

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722308

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020363

1F

EPA SAMPLE NO.

EWP75

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722308

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722308

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CL 8-18-93

Number TICs Found: 3 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.78	4.	BJU
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	2.	NJ
3.		Unknown	19.62	2.	J
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0020479
EPA SAMPLE NO.

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

SBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721301

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721301

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

Number TICs Found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.90	10.	J
2.					
3.					
4.					
5.					
6.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721306

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721306

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721306

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721306

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	0.6	J
117-84-0	Di-n-octylphthalate	0.5	J
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020493

1F

EPA SAMPLE NO.

SBLK02

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721306

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721306

Level: (low/med) LOW Date Received: / /

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.0

CL 8-18-93

Number TICs Found: 2

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.88	11.	~~EJ~~
2.		Unknown	19.62	2.	J
3.					
4.					
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1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP63

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721307

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721307

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	5.	J
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020013

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP63

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721307

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721307

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10 ~~0.5~~	BJ
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

CL 8-18-93

(1) - Cannot be separated from Diphenylamine

0020014

1F

EPA SAMPLE NO.

EWP63

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721307

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721307

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

Number TICs Found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	100-41-4	BENZENE, ETHYL-	5.27	150.	NJ
2.		BENZENE, DIMETHYL-	5.53	660.	NJ
3.		BENZENE, DIMETHYL-	5.95	65.	NJ
4.		BENZENE, (METHYLETHYL)-	6.63	31.	NJ
5.	103-65-1	BENZENE, PROPYL-	7.27	33.	NJ
6.		BENZENE, ETHYL,METHYL-	7.45	78.	NJ
7.		BENZENE, TRIMETHYL-	7.58	26.	NJ
8.		BENZENE, ETHYL-METHYL-	7.80	19.	NJ
9.		BENZENE, TRIMETHYL-	8.13	110.	NJ
10.		BENZENE, TRIMETHYL-	8.68	30.	NJ
11.	873-94-9	CYCLOHEXANONE, 3,3,5-TRIMETH	9.03	51.	NJ
12.	116-02-9	CYCLOHEXANOL, 3,3,5-TRIMETHY	9.30	45.	NJ
13.		BENZENE, ETHYL,DIMETHYL-	9.77	11.	NJ
14.		BENZENE, TETRAMETHYL	10.45	13.	NJ
15.		BENZENE, TETRAMETHYL-	10.52	18.	NJ
16.		Unknown	10.65	20.	J
17.		BENZENE, ETHYL,DIMETHYL-	11.08	8.	NJ
18.		Unknown	14.68	21.	J
19.		Unknown	15.12	7.	J
20.	10544-50-0	SULFUR, MOL. (S8)	22.57	6.	NJ
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP64

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721302

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP64

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721302

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020069

1F

EPA SAMPLE NO.

EWP64

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721302

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CL 8-18-93

Number TICs Found: 4 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.85	2.	BJ
2.		Unknown	7.70	3.	J
3.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	3.	NJ
4.		Unknown	19.60	2.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP65

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721308

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721308

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020086

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP65

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721308

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721308

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10 ~~0.8~~	BJU
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

CL 8-18-93

(1) - Cannot be separated from Diphenylamine

0020087

1F

EPA SAMPLE NO.

EWP65

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721308

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721308

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.9

CL 8-18-93

Number TICs Found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.93	9.	BJU
2.		Unknown	15.08	3.	J
3.	10544-50-0	SULFUR, MOL. (S8)	22.55	4.	NJ
4.		Unknown	19.62	5.	BJU
5.					
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP66

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721309

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721309

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020106

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP66

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721309

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721309

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020107

1F

EPA SAMPLE NO.

EWP66

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721309

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721309

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs Found: 5

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

CL 8-18-93

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.88	9.	BJ
2.		Unknown	15.08	4.	J
3.		PHENOL, 4-(TETRAMETHYLBUTYL)	17.60	3.	NJ
4.	10544-50-0	SULFUR, MOL. (S8)	22.57	3.	NJ
5.		Unknown	19.62	5.	BJ
6.					
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EPA SAMPLE NO.

EWP67

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722301

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020126

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP67

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722301

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	~~0.6~~	BJU
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

CL 8-18-93

(1) - Cannot be separated from Diphenylamine

0020127

1F

EPA SAMPLE NO.

EWP67

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722301

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs Found: 6 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CL 8-19-93

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.80	12.	BJU
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	2.	NJ
3.		Unknown	19.62	2.	JBU
4.		Unknown	27.25	2.	J
5.		Unknown Alkane	28.03	2.	J
6.		Unknown Alkane	28.80	2.	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP68

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722302

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP68

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722302

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	5.	J
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020151

1F

EPA SAMPLE NO.

EWP68

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722302

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

Number TICs Found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	8.67	9.	J
2.		Unknown Alkane	10.15	25.	J
3.		Unknown Hydrocarbon	10.63	10.	J
4.		Unknown Alkane	11.88	16.	J
5.		Unknown Alkane	12.13	18.	J
6.		Unknown Alkane	13.05	11.	J
7.		Unknown Alkane	14.58	26.	J
8.	544-76-3	HEXADECANE	15.77	44.	NJ
9.		Unknown	16.38	73.	J
10.		Unknown	16.95	35.	J
11.		Unknown Alkane	18.80	65.	J
12.		Unknown Alkane	19.92	65.	J
13.		Unknown Alkane	20.83	18.	J
14.	10544-50-0	SULFUR, MOL. (S8)	22.67	35.	NJ
15.		Unknown Aromatic	28.00	35.	J
16.		Unknown Aromatic	28.92	16.	J
17.		Unknown PAH MW=191	30.30	27.	J
18.		Unknown PAH MW=191	31.58	26.	J
19.		Unknown PASH MW=191	32.52	29.	J
20.		UNRESOLVED HYDROCARBON COMPL	25.83	33000.	J
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22.					
23.					
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25.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP69

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721303

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020204

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP69

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721303

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020205

1F

EPA SAMPLE NO.

EWP69

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721303

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/21/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.8

CL 8-18-93

Number TICs Found: 11 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.87	7.	BJ
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	2.	NJ
3.		Unknown Alkane	25.60	2.	J
4.	630-01-3	HEXACOSANE	27.25	10.	NJ
5.	593-49-7	HEPTACOSANE	28.03	13.	NJ
6.		Unknown Alkane	28.78	16.	J
7.		Unknown Alkane	29.53	14.	J
8.		Unknown Alkane	30.37	9.	J
9.		Unknown Alkane	31.33	6.	J
10.		Unknown Alkane	32.45	3.	J
11.		Unknown	19.62	2.	J
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0020235

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP70

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722303

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP70

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722303

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	0.6	J
117-84-0	Di-n-octylphthalate	10 ~~1~~.	BJ~~U~~
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

CL 8-18-93

(1) - Cannot be separated from Diphenylamine

0020237

EPA SAMPLE NO.

EWP70

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722303

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CL 8-18-93

Number TICs Found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.85	4.	BJ
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	2.	NJ
3.		Unknown	19.60	2.	J
4.		Unknown	27.25	8.	J
5.	593-49-7	HEPTACOSANE	28.03	9.	NJ
6.		Unknown Alkane	28.78	11.	J
7.		Unknown Alkane	29.53	10.	J
8.		Unknown Alkane	30.38	6.	J
9.		Unknown Alkane	31.33	4.	J
10.		Unknown Alkane	32.45	2.	J
11.					
12.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP71

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722304

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020270

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP71

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722304

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10 2.	BJU
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

Ch 8-18-93

(1) - Cannot be separated from Diphenylamine

0020271

1F

EPA SAMPLE NO.

EWP71

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722304

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.8

Number TICs Found: 2 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	2.	NJ
2.		Unknown	19.62	2.	J
3.					
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0020285

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP72

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722305

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP72

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722305

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020287

EPA SAMPLE NO.

EWP72

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722305

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.2

CL 8-18-93

Number TICs Found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.87	12.	BJU
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.53	3.	NJ
3.		Unknown	19.62	2.	J
4.		Unknown Alkane	25.62	4.	J
5.		Unknown Alkane	27.27	8.	J
6.		Unknown Alkane	28.05	8.	J
7.		Unknown Alkane	28.80	11.	J
8.		Unknown Alkane	29.53	8.	J
9.		Unknown Alkane	30.38	5.	J
10.		Unknown Alkane	31.35	3.	J
11.					
12.					
13.					
14.					
15.					
16.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP73

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722306

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722306

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020316

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP73

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722306

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722306

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020317

1F

EPA SAMPLE NO.

EWP73

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722306

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722306

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

Number TICs Found: 10 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CL 8-18-93

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.92	16.	BJU
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.53	2.	NJ
3.		Unknown	19.62	2.	J
4.		Unknown Alkane	25.60	3.	J
5.	630-01-3	HEXACOSANE	27.25	7.	NJ
6.		Unknown Alkane	28.03	7.	J
7.		Unknown Alkane	28.78	9.	J
8.		Unknown Alkane	29.53	7.	J
9.		Unknown Alkane	30.38	4.	J
10.		Unknown Alkane	31.33	2.	J
11.					
12.					
13.					
14.					
15.					
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0020345

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP74

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722307

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722307

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP74

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722307

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722307

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020347

1F

EPA SAMPLE NO.

EWP74

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722307

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722307

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

Number TICs Found: 3

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

CL 8-18-93

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.85	6.	BJ
2.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	3.	NJ
3.		Unknown	19.62	2.	J
4.					
5.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP75

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722308

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722308

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

0020377

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EWP76

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722309

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722309

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP76

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722309

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722309

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	10.	U
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020379

1F

EPA SAMPLE NO.

EWP76

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40722309

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40722309

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: decanted: (Y/N) Date Extracted: 6/26/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 5.7

CL 8-18-93

Number TICs Found: 4

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.88	8.	BJ
2.		Unknown	14.97	3.	J
3.		Unknown	19.62	6.	J
4.		Unknown	23.17	33.	J
5.					
6.					
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP77

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721310

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721310

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 9.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10.	U
111-44-4	bis(2-Chloroethyl)ether	10.	U
95-57-8	2-Chlorophenol	10.	U
541-73-1	1,3-Dichlorobenzene	10.	U
106-46-7	1,4-Dichlorobenzene	10.	U
95-50-1	1,2-Dichlorobenzene	10.	U
95-48-7	2-Methylphenol	10.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10.	U
106-44-5	4-Methylphenol	10.	U
621-64-7	N-Nitroso-di-n-propylamine	10.	U
67-72-1	Hexachloroethane	10.	U
98-95-3	Nitrobenzene	10.	U
78-59-1	Isophorone	10.	U
88-75-5	2-Nitrophenol	10.	U
105-67-9	2,4-Dimethylphenol	10.	U
111-91-1	bis(2-Chloroethoxy)methane	10.	U
120-83-2	2,4-Dichlorophenol	10.	U
120-82-1	1,2,4-Trichlorobenzene	10.	U
91-20-3	Naphthalene	10.	U
106-47-8	4-Chloroaniline	10.	U
87-68-3	Hexachlorobutadiene	10.	U
59-50-7	4-Chloro-3-methylphenol	10.	U
91-57-6	2-Methylnaphthalene	10.	U
77-47-4	Hexachlorocyclopentadiene	10.	U
88-06-2	2,4,6-Trichlorophenol	10.	U
95-95-4	2,4,5-Trichlorophenol	25.	U
91-58-7	2-Chloronaphthalene	10.	U
88-74-4	2-Nitroaniline	25.	U
131-11-3	Dimethylphthalate	10.	U
208-96-8	Acenaphthylene	10.	U
606-20-2	2,6-Dinitrotoluene	10.	U
99-09-2	3-Nitroaniline	25.	U
83-32-9	Acenaphthene	10.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP77

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721310

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721310

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 9.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25.	U
100-02-7	4-Nitrophenol	25.	U
132-64-9	Dibenzofuran	10.	U
121-14-2	2,4-Dinitrotoluene	10.	U
84-66-2	Diethylphthalate	10.	U
7005-72-3	4-Chlorophenyl-phenylether	10.	U
86-73-7	Fluorene	10.	U
100-01-6	4-Nitroaniline	25.	U
534-52-1	4,6-Dinitro-2-methylphenol	25.	U
86-30-6	N-Nitrosodiphenylamine (1)	10.	U
101-55-3	4-Bromophenyl-phenylether	10.	U
118-74-1	Hexachlorobenzene	10.	U
87-86-5	Pentachlorophenol	25.	U
85-01-8	Phenanthrene	10.	U
120-12-7	Anthracene	10.	U
86-74-8	Carbazole	10.	U
84-74-2	Di-n-butylphthalate	0.6	J
206-44-0	Fluoranthene	10.	U
129-00-0	Pyrene	10.	U
85-68-7	Butylbenzylphthalate	10.	U
91-94-1	3,3'-Dichlorobenzidine	10.	U
56-55-3	Benzo(a)anthracene	10.	U
218-01-9	Chrysene	10.	U
117-81-7	bis(2-Ethylhexyl)phthalate	10.	U
117-84-0	Di-n-octylphthalate	10.	U
205-99-2	Benzo(b)fluoranthene	10.	U
207-08-9	Benzo(k)fluoranthene	10.	U
50-32-8	Benzo(a)pyrene	10.	U
193-39-5	Indeno(1,2,3-cd)pyrene	10.	U
53-70-3	Dibenz(a,h)anthracene	10.	U
191-24-2	Benzo(g,h,i)perylene	10.	U

(1) - Cannot be separated from Diphenylamine

0020397

1F

EPA SAMPLE NO.

EWP77

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water) WATER Lab Sample ID:40721310

Sample wt/vol: 1000.0 (g/ml) ML Lab File ID: 40721310

Level: (low/med) LOW Date Received: 6/26/93

% Moisture: decanted: (Y/N) Date Extracted: 7/01/93

Concentrated Extract Volume: 1000.0 (uL) Date Analyzed: 7/22/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 9.5

CL 8-18-93

Number TICs Found: 5 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown	6.87	29.	BJ U
2.		Unknown	11.68	2.	J
3.	74367-33-2	PROPANOIC ACID, 2-METHYL-, 2	14.23	3.	NJ
4.	74367-34-3	PROPANOIC ACID, 2-METHYL-, 3	14.52	4.	NJ
5.		Unknown	19.62	2.	BJ U
6.					
7.					
8.					
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30.					

WATER PESTICIDE SURROGATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

GC Column(1):DB-608 ID: 0.53 (mm) GC Column(2):DB-1701 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	EWP63	69	67	68	66			0
02	EWP64	52*	55*	79	80			2
03	EWP65	69	69	75	71			0
04	EWP66	76	75	79	78			0
05	EWP67	66	70	42*	42*			2
06	EWP68	63	53*	34*	99			2
07	EWP69	65	71	42*	42*			2
08	EWP69MS	67	72	41*	44*			2
09	EWP69MSD	45*	49*	30*	28*			4
10	EWP70	71	73	55*	57*			2
11	EWP71	66	68	26*	28*			2
12	EWP72	61	64	59*	61			1
13	EWP73	61	66	63	62			0
14	EWP74	80	81	41*	41*			2
15	EWP75	46*	47*	29*	29*			4
16	EWP76	46*	46*	72	72			2
17	EWP77	91	90	106	105			0
18	PBLK01	67	71	76	77			0
19	PBLK02	69	70	93	91			0
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

3E

WATER PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Matrix Spike - EPA Sample No.: EWP69

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
gamma-BHC(Lindane)	0.50	0.0	0.37	74	56-123
Heptachlor	0.50	0.0	0.40	80	40-131
Aldrin	0.50	0.0	0.41	82	40-120
Dieldrin	1.0	0.0	0.94	94	52-126
Endrin	1.0	0.0	0.94	94	56-121
4,4'-DDT	1.0	0.0	1.0	100	38-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC(Lindane)	0.50	0.29	58	24*	15	56-123
Heptachlor	0.50	0.26	52	42*	20	40-131
Aldrin	0.50	0.24	48	52*	22	40-120
Dieldrin	1.0	0.72	72	27*	18	52-126
Endrin	1.0	0.71	71	28*	21	56-121
4,4'-DDT	1.0	0.71	71	34*	27	38-127

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 6 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.
PBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab Sample ID:PBLK01 Lab File ID:

Matrix:(soil/water) WATER Extraction:(SepF/Cont/Sonc)CONT

Sulfur Cleanup: (Y/N) N Date Extracted: 6/26/93

Date Analyzed (1): 7/15/93 Date Analyzed (2): 7/15/93

Time Analyzed (1):0857 Time Analyzed (2):0857

Instrument ID (1):HP5890O Instrument ID (2):HP5890O

GC Column (1):DB-608 ID: 0.53(mm) GC Column (2):DB-1701 ID: 0.53(mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EWP64	EWP64	7/15/93	7/15/93
02	EWP67	EWP67	7/15/93	7/15/93
03	EWP68	EWP68	7/15/93	7/15/93
04	EWP69	EWP69	7/15/93	7/15/93
05	EWP69MS	EWP69MS	7/15/93	7/15/93
06	EWP69MSD	EWP69MSD	7/15/93	7/15/93
07	EWP70	EWP70	7/15/93	7/15/93
08	EWP71	EWP71	7/15/93	7/15/93
09	EWP72	EWP72	7/15/93	7/15/93
10	EWP73	EWP73	7/15/93	7/15/93
11	EWP74	EWP74	7/15/93	7/15/93
12	EWP75	EWP75	7/15/93	7/15/93
13	EWP76	EWP76	7/15/93	7/15/93
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

0030004
EPA SAMPLE NO.

4C
PESTICIDE METHOD BLANK SUMMARY

PBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP64

Lab Sample ID:PBLK02 Lab File ID:

Matrix:(soil/water) WATER Extraction:(SepF/Cont/Sonc)CONT

Sulfur Cleanup: (Y/N) N Date Extracted: 7/01/93

Date Analyzed (1): 7/15/93 Date Analyzed (2): 7/15/93

Time Analyzed (1):2241 Time Analyzed (2):2241

Instrument ID (1):HP5890O Instrument ID (2):HP5890O

GC Column (1):DB-608 ID: 0.53(mm) GC Column (2):DB-1701 ID: 0.53(mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EWP63	EWP63	7/15/93	7/15/93
02	EWP65	EWP65	7/16/93	7/16/93
03	EWP66	EWP66	7/16/93	7/16/93
04	EWP77	EWP77	7/16/93	7/16/93
05				
06				
07				
08				
09				
10				
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COMMENTS:

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

0030248 EPA SAMPLE NO.

0030248

PBLK01 ICW 3-4-93

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: PBLK01

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: / /

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 6.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

0030253

PBLK02

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: PBLK02

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: / /

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 7/01/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 6.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	0.05	J
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030005

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP63

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP63

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/26/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 7/01/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 6.9 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.003	JP
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	0.049	J
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030012

EPA SAMPLE NO.

EWP64

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP64

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030018

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP65

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP65

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/26/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 7/01/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/16/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 6.9 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030025

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP66

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP66

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/26/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 7/01/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/16/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030032

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP67

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP67

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	0.055	JP
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030037

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP68

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP68

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.011	JP
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.011	JP
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.015	JP
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.028	JP
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030046

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EPA SAMPLE NO.

EWP69

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP69

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.8 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	0.044	J
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030051

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP70

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP70

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030056

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP71

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP71

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.8 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	0.03	J
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP72

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP72

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 8.2 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030066

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EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP73

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP73

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.9 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP74

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP74

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 7.6 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	0.043	J
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030076

EPA SAMPLE NO.

EWP75

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP75

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP76

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP76

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 6/26/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/15/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 5.7 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

0030087

1D

EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP77

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP64

Matrix: (soil/water)WATER Lab Sample ID: EWP77

Sample wt/vol: 1000 (g/ml)ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: 6/26/93

Extraction: (SepF/Cont/Sonc)CONT Date Extracted: 7/01/93

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/16/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)N pH: 9.5 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.05	U
319-85-7	beta-BHC	0.05	U
319-86-8	delta-BHC	0.05	U
58-89-9	gamma-BHC(Lindane)	0.05	U
76-44-8	Heptachlor	0.05	U
309-00-2	Aldrin	0.05	U
1024-57-3	Heptachlor epoxide	0.05	U
959-98-8	Endosulfan I	0.05	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.05	U
5103-74-2	gamma-Chlordane	0.05	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. (2) CERCLIS No. OH

Case No. 20247 Site Name Location: Systech

Contractor or EPA Lab: SWRI Data User: PRC

No. of Samples: 17 Date Samples or Data Received: 8-3-93

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 17 No. of samples received: 17

Received by: Lynette Burnett Date: 8-3-93

Received by LSSS: Dorothy M. May Date: 8/09/93

Review started: 8/18/93 Reviewer Signature: M. Cecilia Luckett

Total time spent on review: 16 hrs. Date review completed: 8-19-93

Copied by: Jeanette Pritchett Date: (illegible) 93

Mailed to user by: A D Harris Date: 9-2-93

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

Data received by Mildred Jackson Date: SEP 07 1993

Data review received by: ___ Date: ___
Inorganic Data Complete( ) Suitable for Intended Purpose( ) ✓if OK
Organic Data Complete ( ) Suitable for Intended Purpose( ) list
Dioxin Data Complete ( ) Suitable for Intended Purpose( ) prblms
SAS Data Complete ( ) Suitable for Intended Purpose( ) below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: ___

RECEIVED
SEP 20 1993
PRC - EMI
CINCINNATI

SEP 07 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 8-30-93

SUBJECT: Review of Region V CLP Data Received for Review on July 30, 1993

FROM: Charles T. Elly, Director (SL-10C)
Central Regional Laboratory Jay Thakker

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Systech (OH)

CASE and/or SAS NUMBER: 30247 (1) **SDG NUMBER:** MEWR73

Number and Type of Samples: 5 - Soils

CLP Sample Numbers: MEWR73-77

CLP Laboratory: [illegible] **Hrs. for Review** 10 hrs +1.0

Following are our findings:

Data are Acceptable for use with Qualification
JR

( ) Data are acceptable for use.
(x) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

SITE: Systech CASE: 20247(1)
LABORATORY: Skinner & Sherman Labs SDG: MEWR73

The laboratory's portion of case 20247 (1) contains five (5) low level soil samples assayed for total metals and total cyanide. The following narrative lists the out of control audits and their possible effects on the results.

EVIDENTIAL AUDIT: All forms are originals. Most of the raw data sheets are originals, those photocopied state where the originals can be found. The ICP, As, Pb, Se and Tl raw data are originals. The original Hg raw data are with case 20231, SDG#: MABJ54. The original CN raw data are with case 20209, SDG: MBDN81. The Federal Express Airbill and the chain of custody form are originals. All forms are present and in the order indicated on the Form DC-2 [inventory sheet].

ICP ANALYSES: The duplicate RPD for Sb (200%) and Ba (40.6%) were not flagged by the laboratory because the duplicate difference did not exceed the technical criterion (±2X CRDL). All Sb data are not qualified base on this basis but qualified below. All Ba data are acceptable. The matrix spike for Sb (74.%) indicates low bias. All Sb data are estimated (UJ) due to possible elevation of the detection limit.

The duplicate RPDs for Al (30.2%) and Ca (34.9%) were flagged (*) by the laboratory. However, the duplicate differences did not exceed the technical criterion (±35%) for the soil samples. All Al and Ca data are acceptable.

The duplicate RPD for Mg (35%) was flagged (*) by the laboratory and is out of control. All Mg are estimated (J) due to poor precision.

The duplicate RPDs for Cu (45%) and Mn (37.1%) are out of control; the matrix spike recovery for Cu (69.8%) and Mn (135%) indicates low and high bias, respectively. All Cu data are estimated (J) due to poor precision and low bias. All Mn data are estimated (J) due to poor precision and high bias.

Reviewed by: ST Steffanie Tobin, Lockheed/ESAT
Date: August 20, 1993

The duplicate RPD for Zn (40.5%) was flagged (*) by the laboratory and out of control. All Zn data are estimated (J) due to poor precision.

GFAA ANALYSES: The duplicate RPD for Se (200%) was not flagged by the laboratory because the duplicate difference did not exceed the technical criterion (±2X CRDL) for the soil samples. All Se data are not qualified on this basis but are qualified below. The matrix spike recovery for Se (40.3%) indicates low bias. The Se result for MEWR73 is estimated (J) due to low bias. The Se data for MEWR74 and 76 were flagged (W) by the laboratory and are estimated (UJ) due to possible elevation of the detection limit and interference. The Se results for MEWR75 is estimated (UJ) due to possible elevation of the detection limit. The Se result for MEWR77 was flagged (+) by the laboratory, because the sample, when assayed by MSA, failed to have a correlation coefficient greater than 0.995. The Se result for MEWR77 is estimated (UJ) due to interference and possible elevation of the detection limit.

The matrix spike recovery for Pb (-54%) was not flagged by the laboratory because the sample concentration was more than 4X the spike level. All Pb data are not qualified on this basis but are qualified below. The duplicate RPD for Pb (101.5%) was flagged (*) by the laboratory and out of control. All Pb data are estimated (J) due to poor precision.

The duplicate RPD for As (58.9%) was flagged (*) by the laboratory. However, the duplicate difference did not exceed the technical criterion (±2X CRDL) for the soil samples. All As data are not qualified on this basis but qualified below. The matrix spike recoveries for As (62.7%) indicate a low bias. All As data are estimated (J) due to low bias.

The Tl result for MEWF74 was flagged (W) by the laboratory and is estimated (UJ) due to interference.

OTHER ANALYSES: All CN and Hg data are acceptable.

Reviewed by: ST Steffanie Tobin, Lockheed/ESAT
Date: August 20, 1993

GLOSSARY A

Data Qualifier Definitions

For the purposes of this document the following code letters and associated definitions are provided.

U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J - The associated value is an estimated quantity.

R - The data are unusable. (Note: Analyte may or may not be present.)

UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 20247 SITE: Systech MATRIX: Soil WATER SAMPLE SPK: NA

DATA SET: MEWR73 LAB: Skinner & Sherman labs CONC: low WATER SAMPLE DUP: NA

LAB QC # _____ REVIEWED BY: Stephanie N. Tobin SOIL SAMPLE SPK: MEWR73

DATE: 8/19/93 SOIL SAMPLE DUP: MEWR73D

FORM #		FORM 2	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 5	FIELD	FIELD	FIELD	FIELD		
ELEMENT	HOLD TIME	INITIAL CALIB	CONTIN CALIB	CALIB BLANK	PREP WATER BLANK	PREP SOIL BLANK	ICS %R	SOIL SPIKE %R	SOIL DUP RPD	LCS AQ	LCS SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP RPD	AQ SPIKE %R	BLANK	DUP RPD	BLANK	DUP RPD	GFAA DUP	GFAA ANALYT SPIKE
ALUMINUM	OK	OK	OK	~~22.9~~	NA		OK		~~30.2~~*	NA	OK	NA		NA	NA						
ANTIMONY								(74)N	~~200~~												
ARSENIC								(62.7)N	(~~58.9~~)*												
BARIUM									~~40.6~~				~~20~~								
BERYLLIUM													~~100~~								
CADMIUM																					
CALCIUM									~~344~~*												
CHROMIUM													~~100~~								
COBALT													~~100~~								
COPPER								(69.8)N	(45)*												
IRON																					
LEAD									(102)*												
MAGNESIUM									~~55.~~*												
MANGANESE								(35)N	(~~37.1~~)*												
MERCURY																					
NICKEL													~~100~~								
POTASSIUM																					
SELENIUM								(40.3)N	~~200~~												
SILVER																					
SODIUM													~~14~~								
THALLIUM																					
TIN																					
VANADIUM																					
ZINC				~~4.6~~		~~1.2~~			(40)*												
CYANIDE	↓	↓	↓		↓		↓			↓	↓	↓		↓	↓						

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

SOW No.: ILM02.1

EPA Sample No.	Lab Sample ID.
MEWR73	06161-01S
MEWR73D	06161-01S2
MEWR73S	06161-01DS
MEWR74	06161-02S
MEWR75	06161-03S
MEWR76	06161-04S
MEWR77	06161-05S

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes-were raw data generated before application of background corrections?	Yes/No	NO

Comments:

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 floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Kirk D. Johnson

Date: 7/22/93 Title: USEPA Data Manager

TMA
Thermo Analytical Inc.

Skinner & Sherman Labs., Inc.
300 Second Avenue
Post Office Box 521
Waltham, MA 02254-0521
(617) 890-7200
FAX (617) 890-3883

Sonic Airbill #B22294

July 28, 1993

USEPA Contract Laboratory Program (CLP)
Sample Management Office (SMO)
300 North Lee Street, Suite 200
Alexandria, VA 22314

Attention: Data Receiver

Dear Sir:

Enclosed is the Sample Data Package for the Inorganic Analyses of Case 20247 and SDG MEWR73. The samples were analyzed under Skinner and Sherman Work Order #S306161.

Please feel free to call if there are any questions concerning the enclosed.

Sincerely,

TMA/SKINNER & SHERMAN LABORATORIES, INC.

Kirk Johnson
Contract Laboratory Program
EPA Data Manager

KDJ

Encl.
Data Audit Staff, EMSL-LV, Federal #
Chuck Elly, USEPA Region V, Federal #

EPA SAMPLE NO.

MEWR73

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Matrix (soil/water): SOIL Lab Sample ID: 06161-01S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 83.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2270		*	P
7440-36-0	Antimony	3.5	U	N	P
7440-38-2	Arsenic	6.0		N*	F
7440-39-3	Barium	28.1	B		P
7440-41-7	Beryllium	0.27	B		P
7440-43-9	Cadmium	0.33	U		P
7440-70-2	Calcium	72000		*	P
7440-47-3	Chromium	4.7			P
7440-48-4	Cobalt	2.2	B		P
7440-50-8	Copper	28.0		N*	P
7439-89-6	Iron	5880			P
7439-92-1	Lead	22.8		*	F
7439-95-4	Magnesium	23000		*	P
7439-96-5	Manganese	177		N*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	4.4	B		P
7440-09-7	Potassium	374	B		P
7782-49-2	Selenium	0.63	B	N	F
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	130	B		P
7440-28-0	Thallium	0.67	U		F
7440-62-2	Vanadium	8.6	B		P
7440-66-6	Zinc	31.2		*	P
	Cyanide	0.60	U		CA

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: BROWN Clarity After: Artifacts: YES

Comments:
ROOTS, STONES

2

EPA SAMPLE NO.

MEWR74

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Matrix (soil/water): SOIL Lab Sample ID: 06161-02S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 78.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1890		*	P
7440-36-0	Antimony	3.7	U	N	P
7440-38-2	Arsenic	3.2		N*	F
7440-39-3	Barium	53.5			P
7440-41-7	Beryllium	0.28	U		P
7440-43-9	Cadmium	0.35	U		P
7440-70-2	Calcium	69800		*	P
7440-47-3	Chromium	4.8			P
7440-48-4	Cobalt	1.7	B		P
7440-50-8	Copper	6.6		N*	P
7439-89-6	Iron	5670			P
7439-92-1	Lead	7.5		*	F
7439-95-4	Magnesium	19800		*	P
7439-96-5	Manganese	166		N*	P
7439-97-6	Mercury	0.06	B		CV
7440-02-0	Nickel	4.4	B		P
7440-09-7	Potassium	323	B		P
7782-49-2	Selenium	0.58	U	WN	F
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	124	B		P
7440-28-0	Thallium	0.73	U	W	F
7440-62-2	Vanadium	6.9	B		P
7440-66-6	Zinc	30.0		*	P
	Cyanide	0.62	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
ROOTS,STONES

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEWR75

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Matrix (soil/water): SOIL Lab Sample ID: 06161-03S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 75.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9830		*	P
7440-36-0	Antimony	4.1	U	N	P
7440-38-2	Arsenic	8.5		N*	F
7440-39-3	Barium	113			P
7440-41-7	Beryllium	0.64	B		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	51200		*	P
7440-47-3	Chromium	24.7			P
7440-48-4	Cobalt	8.2	B		P
7440-50-8	Copper	56.0		N*	P
7439-89-6	Iron	16400			P
7439-92-1	Lead	118		*	F
7439-95-4	Magnesium	18800		*	P
7439-96-5	Manganese	491		N*	P
7439-97-6	Mercury	0.28			CV
7440-02-0	Nickel	26.1			P
7440-09-7	Potassium	1310	B		P
7782-49-2	Selenium	0.59	U	N	F
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	283	B		P
7440-28-0	Thallium	0.73	U		F
7440-62-2	Vanadium	19.9			P
7440-66-6	Zinc	215		*	P
	Cyanide	0.63	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
ROOTS,STONES

EPA SAMPLE NO.

MEWR76

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Matrix (soil/water): SOIL Lab Sample ID: 06161-04S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 74.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8870		*	P
7440-36-0	Antimony	4.0	U	N	P
7440-38-2	Arsenic	6.3		N*	F
7440-39-3	Barium	43.8	B		P
7440-41-7	Beryllium	0.43	B		P
7440-43-9	Cadmium	0.38	U		P
7440-70-2	Calcium	43500		*	P
7440-47-3	Chromium	13.3			P
7440-48-4	Cobalt	7.2	B		P
7440-50-8	Copper	18.8		N*	P
7439-89-6	Iron	17700			P
7439-92-1	Lead	78.1		S*	F
7439-95-4	Magnesium	18400		*	P
7439-96-5	Manganese	568		N*	P
7439-97-6	Mercury	0.11	B		CV
7440-02-0	Nickel	17.2			P
7440-09-7	Potassium	1770			P
7782-49-2	Selenium	0.62	U	WN	F
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	158	B		P
7440-28-0	Thallium	0.78	U		F
7440-62-2	Vanadium	19.8			P
7440-66-6	Zinc	87.2		*	P
	Cyanide	0.63	U		CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
ROOTS,STONES

5

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEWR77

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Matrix (soil/water): SOIL Lab Sample ID: 06161-05S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 75.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9470		*	P
7440-36-0	Antimony	4.1	U	N	P
7440-38-2	Arsenic	6.3		N*	F
7440-39-3	Barium	87.9			P
7440-41-7	Beryllium	0.44	B		P
7440-43-9	Cadmium	0.39	U		P
7440-70-2	Calcium	30100		*	P
7440-47-3	Chromium	15.6			P
7440-48-4	Cobalt	7.4	B		P
7440-50-8	Copper	28.2		N*	P
7439-89-6	Iron	17100			P
7439-92-1	Lead	115		*	F
7439-95-4	Magnesium	13400		*	P
7439-96-5	Manganese	578		N*	P
7439-97-6	Mercury	0.18			CV
7440-02-0	Nickel	16.8			P
7440-09-7	Potassium	1660			P
7782-49-2	Selenium	0.63	U	+N	F
7440-22-4	Silver	1.3	U		P
7440-23-5	Sodium	113	B		P
7440-28-0	Thallium	0.78	U		F
7440-62-2	Vanadium	21.7			P
7440-66-6	Zinc	206		*	P
	Cyanide	1.0			CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:
ROOTS, STONES

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

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	20.9	U	22.2	B	20.9	U	20.9	U	4.180	U	P
Antimony	15.7	U	15.7	U	15.7	U	15.7	U	3.140	U	P
Arsenic	2.8	U	2.8	U	2.8	U	2.8	U	0.560	U	F
Barium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Beryllium	1.2	U	1.2	U	1.2	U	1.2	U	0.240	U	P
Cadmium	1.5	U	1.5	U	1.5	U	1.5	U	0.300	U	P
Calcium	84.0	U	84.0	U	84.0	U	84.0	U	-52.506	B	P
Chromium	5.1	U	5.1	U	5.1	U	5.1	U	1.020	U	P
Cobalt	2.5	U	2.5	U	2.5	U	2.5	U	0.500	U	P
Copper	4.0	U	4.0	U	4.0	U	4.0	U	0.800	U	P
Iron	15.5	U	15.5	U	15.5	U	15.5	U	3.100	U	P
Lead	1.4	U	1.4	U	1.4	U	1.4	U	0.280	U	F
Magnesium	40.1	U	40.1	U	40.1	U	40.1	U	8.020	U	P
Manganese	1.6	U	1.6	U	1.6	U	1.6	U	0.320	U	P
Mercury	0.1	U	0.1	U	0.1	U			0.050	U	CV
Nickel	4.7	U	4.7	U	4.7	U	4.7	U	0.940	U	P
Potassium	164.8	U	164.8	U	164.8	U	164.8	U	32.960	U	P
Selenium	2.4	U	2.4	U	2.4	U	2.4	U	0.480	U	F
Silver	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Sodium	49.2	U	49.2	U	49.2	U	49.2	U	9.840	U	P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	F
Vanadium	2.6	U	2.6	U	2.6	U	2.6	U	0.520	U	P
Zinc	3.7	U	3.7	U	3.7	U	3.7	U	1.202	B	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	0.500	U	CA

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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			20.9	U							P
Antimony			15.7	U							P
Arsenic			2.8	U	2.8	U	2.8	U			F
Barium			5.0	U							P
Beryllium			1.2	U							P
Cadmium			1.5	U							P
Calcium			84.0	U							P
Chromium			5.1	U							P
Cobalt			2.5	U							P
Copper			4.0	U							P
Iron			15.5	U							P
Lead			1.4	U	1.4	U					F
Magnesium			40.1	U							P
Manganese			1.6	U							P
Mercury											NR
Nickel			4.7	U							P
Potassium			164.8	U							P
Selenium			2.4	U	2.4	U	2.4	U			F
Silver			5.0	U							P
Sodium			49.2	U							P
Thallium			3.0	U							F
Vanadium			2.6	U							P
Zinc			4.6	B							P
Cyanide											NR

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead	1.4	U	1.4	U	1.4	U					F
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium			2.4	U							F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEWR73S

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

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

% Solids for Sample: 83.1

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	88.1843		3.4666	U	119.15	74.0	N	P
Arsenic	75-125	11.8181		5.9551		9.35	62.7	N	F
Barium	75-125	456.0651		28.1346	B	476.58	89.8		P
Beryllium	75-125	10.8399		0.2694	B	11.91	88.8		P
Cadmium	75-125	9.6818		0.3312	U	11.91	81.3		P
Calcium									NR
Chromium	75-125	48.8925		4.6788		47.66	92.8		P
Cobalt	75-125	104.0879		2.1683	B	119.15	85.5		P
Copper	75-125	69.6477		28.0440		59.57	69.8	N	P
Iron									NR
Lead		20.2133		22.7701		4.67	-54.7		F
Magnesium									NR
Manganese	75-125	338.0872		176.7893		119.15	135.4	N	P
Mercury	75-125	0.5519		0.0602	U	0.57	96.8		CV
Nickel	75-125	107.3191		4.3873	B	119.15	86.4		P
Potassium									NR
Selenium	75-125	1.5682		0.6262	B	2.34	40.3	N	F
Silver	75-125	9.8605		1.1040	U	11.91	82.8		P
Sodium									NR
Thallium	75-125	9.9322		0.6748	U	11.68	85.0		F
Vanadium	75-125	113.6815		8.5759	B	119.15	88.2		P
Zinc	75-125	129.1609		31.2258		119.15	82.2		P
Cyanide	75-125	25.6687		0.5957	U	28.38	90.4		CA

Comments:

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEWR73A

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

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

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		123.00		15.70	U	120.0	102.5		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper		444.23		127.01		260.0	122.0		P
Iron									NR
Lead									NR
Magnesium									NR
Manganese		2110.10		800.67		1600.0	81.8		P
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

6

DUPLICATES

EPA SAMPLE NO.

MEWR73D

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

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

% Solids for Sample: 83.1 % Solids for Duplicate: 80.3

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		2274.0370		1677.1195		30.2	*	P
Antimony		3.4666	U	7.9493	B	200.0		P
Arsenic	2.2	5.9551		3.2468		58.9	*	F
Barium		28.1346	B	18.6404	B	40.6		P
Beryllium		0.2694	B	0.2831	B	5.0		P
Cadmium		0.3312	U	0.3539	U			P
Calcium		72001.2365		102437.4130		34.9	*	P
Chromium	2.2	4.6788		3.9688		16.4		P
Cobalt		2.1683	B	1.8121	B	17.9		P
Copper	5.5	28.0440		17.7509		45.0	*	P
Iron		5884.3661		6309.1952		7.0		P
Lead		22.7701		69.7279		101.5	*	F
Magnesium		22972.2121		32731.6486		35.0	*	P
Manganese		176.7893		257.3323		37.1	*	P
Mercury		0.0602	U	0.0573	U			CV
Nickel		4.3873	B	3.6290	B	18.9		P
Potassium		373.9057	B	303.1075	B	20.9		P
Selenium		0.6262	B	0.5398	U	200.0		F
Silver		1.1040	U	1.1798	U			P
Sodium		129.9992	B	139.8410	B	7.3		P
Thallium		0.6748	U	0.6748	U			F
Vanadium		8.5759	B	7.0173	B	20.0		P
Zinc		31.2258		47.0919		40.5	*	P
Cyanide		0.5957	U	0.5676	U			CA

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

ICP ID Number: Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number: F2

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BS	3	1.4	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium	276.80	BS	10	3.0	F
Vanadium			50		NR
Zinc			20		NR

Comments:

F2: THERMO JARRELL-ASH VIDEO 22E (#2511)

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

ICP ID Number: Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number: F5

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	197.20	BS	10	2.8	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium	196.00	BS	5	2.4	F
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

F5: THERMO JARRELL-ASH VIDEO 21E (#2936)

U.S. EPA - CLP

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

ICP ID Number: Date: 04/15/93

Flame AA ID Number: M3

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

M3: LDC ANALYTICAL #050941

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR73

ICP ID Number: P1 Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		200	20.9	P
Antimony	206.80		60	15.7	P
Arsenic			10		NR
Barium	493.40		200	5.0	P
Beryllium	313.00		5	1.2	P
Cadmium	226.50		5	1.5	P
Calcium	317.90		5000	84.0	P
Chromium	267.70		10	5.1	P
Cobalt	228.60		50	2.5	P
Copper	324.70		25	4.0	P
Iron	259.90		100	15.5	P
Lead			3		NR
Magnesium	279.00		5000	40.1	P
Manganese	257.60		15	1.6	P
Mercury			0.2		NR
Nickel	231.60		40	4.7	P
Potassium	766.40		5000	164.8	P
Selenium			5		NR
Silver	328.00		10	5.0	P
Sodium	588.90		5000	49.2	P
Thallium			10		NR
Vanadium	292.40		50	2.6	P
Zinc	213.80		20	3.7	P

Comments:

P1: THERMO JARRELL-ASH ICAP61 (#10782)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. (1) CERCLIS No. OH

Case No. 20947 Site Name Location: Septech

Contractor or EPA Lab: Skinner Data User: PRC

No. of Samples: 5 Date Samples or Data Received: 7-30-93

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ___ NO ✓
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 5 No. of samples received: 5

Received by: A D Harris Date: 7-30-93

Received by LSSS: Dorothy M. May Date: 8/04/93

Review started: 8/19/93 Reviewer Signature: Stephanie N. Tobin

Total time spent on review: 10 hrs Date review completed: 8/20/93

Copied by: Jeanette Pritchett F1.0 BY 9-24-93 Date: Dec 30 93

Mailed to user by: A D Harris Date: 9-8-93

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

Data received by: Mildred Jackson Date: SEP 07 1993

Data review received by: ___ Date: ___
Inorganic Data Complete( ) Suitable for Intended Purpose( ) ✓ if OK
Organic Data Complete ( ) Suitable for Intended Purpose( ) list
Dioxin Data Complete ( ) Suitable for Intended Purpose( ) prblms
SAS Data Complete ( ) Suitable for Intended Purpose( ) below.

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: ___

RECEIVED
AUG 26 1993
PRC - EMI
CINCINNATI

AUG 25 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 8/18/93

SUBJECT: Review of Region V CLP Data
Received for Review on July 29, 1993

FROM: Charles T. Elly, Director (SL-10C) MSP for Charles T. Elly
Central Regional Laboratory

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Siptech (OH)

CASE and/or SAS NUMBER: 20247 SDG NUMBER: EWP60

Number and Type of Samples: 2 (Soil)

CLP Sample Numbers: EWP60-61

CLP Laboratory: Enseco - Wads/Alert Hrs. for Review 4+1 = 5 WSW

Following are our findings:

All data are acceptable to use with qualification.

Mumtaz Pasha
8/18/93

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

DATA QUALIFIERS

CONTRACTOR: W A D S **CASE:** 20247

SITE NAME: SIPTECH **SDG#:** EWP60

Below is a summary of the out-of-control audits and possible effect on the data for this case:

The laboratory received two (2) soil samples on the 25th of June 1993 in good condition for full organic analysis. All samples met the technical holding time for extraction and analysis.

The reviewer's narrative and data qualifiers are noted in the following pages.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 10 August 1993

NARRATIVE

CONTRACTOR: W A D S **CASE:** 20247

SITE NAME: SIPTECH **SDG#:** EWP60

1. HOLDING TIME

The laboratory received two (2) soil samples on the 25th of June 1993 in good condition for full organic analysis.

Analysis of the soil samples were performed according to procedure outlined in the SOW 3/90 Statement of Work (SOW) (document OLM01.8) protocol.

All Volatile soil samples were analyzed as low-level samples within fourteen (14) days technical holding time mandated for soil samples.

All Semivolatile soil samples met the technical holding time of fourteen (14) days for extraction.

All Pesticide soil samples were extracted within the fourteen (14) days technical holding time.

All Semivolatile and Pesticide extracts were promptly analyzed and met the holding time of forty (40) days. Therefore, the results are acceptable.

2. GC/MS TUNING AND GC PERFORMANCE

The GC/MS tuning complied with the mass list ion abundance criteria for BFB and DFTPP.

GC Resolution Check Mixture met the 60% resolution criteria on

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 10 August 1993

both RTX-1701 and RTX-5 columns. Therefore, the resolution is acceptable.

DDT and Endrin degradation check using PEMix on both quantitation (RTX-1701) and confirmatory (RTX-5) columns are acceptable <20%.

The Florisil Cartridge Check met the QC criteria (80-120%).

GPC calibration met the QC limit (80-110%) for all compounds on both RTX-1701 and RTX-5 columns.

3. CALIBRATION

Initial and continuing calibration of the Volatile, Semivolatile and Pesticide standards were evaluated for the target compound list (TCL) and outliers are recorded on the outlier forms included as part of this narrative.

4. METHOD BLANK

VBLK1 is the low level soil Volatile method blank. This blank contained Acetone (2 µg/KG).

Acetone is a common laboratory contaminant. The presence of Acetone in any of the associated samples is flagged as non-detected "U" when sample result is less than 10 times the blank result.

SBLK1B is the low level soil Semivolatile method blank.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 10 August 1993

CONTRACTOR: W A D S **CASE:** 20247

SITE NAME: SIPTECH **SDG#:** EWP60

SBLK1B contained Di-n-butylphthalate (43 µg/KG), bis(2-Ethylhexyl)phthalate (400 µg/KG) and eight (8) SVOA TICs.

Di-n-butylphthalate and bis(2-Ethylhexyl)phthalate are common laboratory (phthalate esters) contaminants.

The presence of phthalate esters in any of the associated samples is flagged as non-detected "U" when sample result is less than 10 times the blank result.

The presence of tentatively identified compounds in any of the associated samples is flagged as non-detected "U" when sample result is less than 5 times the blank result.

PBLK1 is the Pesticide soil method blank. This blank contained Methoxychlor (2.1 µg/KG).

Methoxychlor was not found in any of the associated samples.

There were two (2) Pesticide instrument blanks but no samples were associated with those blanks.

All instrument blanks did not contain any Pesticide residues.

5. SYSTEM MONITORING AND SURROGATE RECOVERY

The low level soil system monitoring compounds met the QC requirements.

All Semivolatile surrogate standards met the QC limit.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 10 August 1993

CONTRACTOR: W A D S **CASE:** 20247

SITE NAME: SIPTECH **SDG#:** EWP60

Water Pesticide surrogate recoveries used for instrument blanks met the QC limit.

Soil Pesticide surrogates TCX(2) Tetrachloro-m-xylene in sample EWP60MS; DCB(1) and DCB(2) Decachlorobiphenyl in sample EWP61 were outside of the QC limit.

Any positive Pesticide results in EWP60MS and EWP61 are flagged as estimated "J" and any non-detected Pesticide results are flagged with the sample quantitation limit as estimated "UJ".

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample **EWP69** was used as the soil spike for Volatile, Semivolatile and Pesticides.

All low level soil Volatile matrix spike/matrix spike duplicate and RPDs were well within the QC limit.

All low level soil Semivolatile matrix spike/matrix spike duplicate and RPDs were well within the QC limit.

Pesticide matrix spike/matrix pike duplicate for Dieldrin (MS=143%, MSD=159%) were outside the QC limit.

Any positive result for Dieldrin is flagged as estimated "J" and any non-detected 1,1-Dichloroethane result is flagged with the sample quantitation limit as estimated "UJ" in unspiked sample (EWP60).

Reviewed by:_____Krystyna Minczuk_____Lockheed/ESAT_____

Date:_____10 August 1993_____

CONTRACTOR: W A D S **CASE:** 20247

SITE NAME: SIPTECH **SDG#:** EWP60

7. FIELD BLANK AND FIELD DUPLICATE

No field blank nor field duplicate was included in SDG#: EWP60.

8. INTERNAL STANDARDS

All Volatile and Semivolatile internal standard area and RTs were well within the QC limit.

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All VOAs, SVOAs and Pesticides target compound quantitative results were properly reported. The CRQLs were adjusted to reflect sample dilutions.

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.

GC baseline indicated acceptable performance.

Reviewed by:_____Krystyna Minczuk_____Lockheed/ESAT_____

Date:_____10 August 1993_____

CONTRACTOR: W A D S **CASE:** 20247

SITE NAME: SIPTECH **SDG#:** EWP60

12. ADDITIONAL INFORMATION

A large number of SVOA TICs were noted in samples EWP60-22 and EWP61-21.

No additional specific problems was noted in this data case.

Reviewed by:_____Krystyna Minczuk_____Lockheed/ESAT_____

Date:_____10 August 1993_____

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 20247 CONTRACTOR: WADS

COLUMN: RTX 502.2 SITE NAME: Siptech

Instrument# INCO550-i		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6/02/93 8:37			6/26/93 9:19											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01	1.167			1.477	26.6	J									
Bromomethane	0.10															
Vinyl chloride	0.10															
Chloroethane	0.01															
Methylene chloride	0.01															
Acetone	0.01	.783			.980	25.2	J									
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
1,2-Dichloroethene (total)																
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01															
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane																
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01															
2-Hexanone	0.01															
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
Toluene-d8																
Bromofluorobenzene																
1,2-Dichloroethane-d4																

Samples affected:

VBLK1
EWP60
EWP60MS
EWP60MSD
EWP61

Reviewer's Init/Date: KM 8-10-93

* These flags should be applied to the analytes on the sample data sheets.

Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 20247
COLUMN:

CONTRACTOR: WADS
SITE NAME: Siptech

Instrument# EXTR03		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6/09/93 14:18			7/07/93 9:02			7/12/93 10:05								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80	1.904			1.921			1.400	26.4	J						
bis(chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
1,3-Dichlorobenzene																
1,4-Dichlorobenzene																
1,2-Dichlorobenzene																
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01	1.734			1.444			.780	55.0	J						
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxyl)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20															
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01	.248			.326	31.4	J	.301								
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01	.111			.144	29.7	J	.125								
4-Nitrophenol	0.01	.089			.141	58.4	J	.161	80.9	J						
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples:

	SBLK1B	EWP61		
	EWP60			
	EWP60MS			
	EWP60MSD			

Reviewer's Init/Date: KM 8-9-93

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 20247
COLUMN:

CONTRACTOR: WADS
SITE NAME: Siptech

Instrument# EXTR03		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6/09/93 14:19			7/07/93 9:02			7/12/93 10:05								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01	.165			.240	45.4	J	.091	44.9	J						
4,6-Dinitro-2-methylphenol	0.01															
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10															
Pentachlorophenol	0.05															
Phenanthrene	0.70															
Anthracene	0.70															
Carbazole																
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01	.524			.686	30.9	J	.611								
3,3'-Dichlorobenzidine	0.01	.241			.259			.179	25.7	J						
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01	.686			.967	41.0	J	.852								
Di-n-octyl phthalate	0.01	1.243			1.708	37.4	J	1.386								
Benzo(b)fluoranthene	0.70															
Benzo(k)fpuoranthene	0.70															
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthrancene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60															
2,4,6-Tribromophenol	0.01	.118			.171	44.9	J	.146								
2-Chlorophenol-d4																
1,2-Dichlorobenzene-d4																

Reviewer's Init/Date: KM 8-9-93

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

ESAT 3-023.2 1/95

CALIBRATION OUTLIERS
PESTICIDE/PCB TCL COMPOUNDS

CASE\SAS#: 20247 **CONTRACTOR:** WADS

Column: RTX1701 **Site Name:** Siptech

Instrument#: XA	Initial Cal.		Continue Cal.		Continue Cal.		Continue C	
Date/Time	7/19-20/93		7/20/93 18:07					
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples:

EWP60MS			
EWP60MSD			
EWP60			
EWP61			

Reviewer's Init/Date: 8-9-93 KM **BSAT-5-024.2 1/93**

* These flags should be applied to the analytes on the sample data sheets.

CALIBRATION OUTLIERS
PESTICIDE/PCB TCL COMPOUNDS

CASE\SAS#: 20247 **CONTRACTOR:** WADS

Column: RTX5 **Site Name:** Siptech

Instrument#: XB	Initial Cal.		Continue Cal.		Continue Cal.		Continue Ca	
Date/Time	7/19-20/93		7/20/93 15:07					
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC	20.6	J						
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples:

EWP60MS			
EWP60MSD			
EWP60			
EWP61			

Reviewer's Init/Date: KM 8-9-93

* These flags should be applied to the analytes on the sample data sheets.

DATA REPORTING QUALIFIERS
(page 1)

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

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL), report the value.

U - Indicates compound was analyzed for but not detected. The sample Quantitation Limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if thee sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the Sample Quantitation Limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U) \times df}{D} \qquad \text{where } D = \frac{100 - \%\ \text{moisture}}{100}$$

and df = dilution factor

at 24% moisture, $D = \frac{100 - 24}{100} = 0.76$

$\frac{(330\ U) \times 10}{.76} = 4300\ U$ rounded to the appropriate number of significant figures

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0.5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures. Therefore, the CRQL values will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume, this fact be accounted for in reporting the Sample Quantitation Limit.

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 bur greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it is as 3J. The Sample Quantitation Limit must be adjusted for dilution as discussed for the U flag. The J flag is also applied to pesticide/Aroclor results where the pesticide/Aroclor is confirmed to be present but the concentration is less than the CRQL.

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.

DATA REPORTING QUALIFIERS
(page 2)

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two 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 identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but unsuccessful, do not apply this flag, instead use a laboratory-defined, discussed below.

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

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for the specific analysis. This flag will not apply to pesticide/PCBs analyzed by GC/MS methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I 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 Form I. The Form I 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 I for the diluted sample and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

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

X - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG Narrative. If more than one flag is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B" and "D" flags for some sample. The laboratory-defined are limited to letters "X", "Y" and "Z".

EPA

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

SAS No. (if applicable):

Case No.: 20247

1. Sample Description (Enter in Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Rinsate
   5. Soil/Sediment
   6. Oil (High only)
   7. Waste (High only)
   8. Other (Specify)

2. Preservative (Enter in Column D)
   1. HCl
   2. HNO_3
   3. $NaHSO_4$
   4. H_2SO_4
   5. Other (Specify)
   6. Ice only
   N. Not preserved

3. Region No.: 5

Sampling Co.: PRC

5. Date Shipped: 6/22/93

Carrier: Fed Ex

7. Date Received -- Received by: 6/23/93 Ron Gibas

Sampler (Name): Christine Hutchman

Airbill Number: 7158669230

Laboratory Contract Number: 68-D1-0085

Unit Price: $724.00

Sampler Signature: Christine Hutchman

6. Ship To: Wadsworth/Alert Laboratories, Inc.
4101 Shuffel Drive, N.W.
North Canton, OH 44720
ATTN: Mark Nebelo

8. Transfer to

Date Received

Received by

Contract Number

Price

4. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	✓		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI ✓	O&M	OIL
			NPLD	UST

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/ PCB	High ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below): Solids	Water -- Mis Liq.	Non Water -- Mis Liq.
EWP60	5	L	G	N	X				009521-009522	SS-1	6/21/93 1130		MEWR78				
EWP60	↓	↓	C	↓		X	X		009523	↓	↓		↓				
EWP61			G		X				009525-009526	SS-2	1107		WEWR79				
EWP61	↓	↓	C	↓		X	X		009527	↓	↓		↓				

Shipment for Case complete? (Y/N): Y

Page 1 of 1

Sample used for a spike and/or duplicate: EWP60

Additional Sampler Signatures

Chain of Custody Seal Number: 140201, 140202

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Christine Hutchman	6/22/93 1015				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks Is custody seal intact? Y/N/none	
		Ron Gibas	6/23/93 1600		

Split Samples ☐ Accepted (Signature)

☐ Declined

SDG EWP60

Organic Sample Collection Requirements

"This form replaces both the individual Traffic Report and EPA Chain of Custody Record. If the sampling team elects to use an alternative chain-of-custody form, cross out the bottom portion of this record and indicate that chain-of-custody information is recorded on an alternative form."

Water Samples	Required Volume	Container Type
Extractable Analysis (Low-Level)	1 Gallon	1 X 4-Liter Amber Glass Bottle OR 2 X 80-oz Amber Glass Bottle OR 4 X 1-Liter Amber Glass Bottles
Extractable Analysis (Medium Level*)	1 Gallon	32-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)	80 ml.	2 X 40-ml. Glass Vials

*All Medium and High Level Samples to be Sealed in Metal Can for Shipment

Soil/Sediment Samples	Required Volume	Container Type
Extractable Analysis (Low or Medium Level*)	6 oz.	1 X 8-oz.Wide-Mouth Glass Jar OR
	240 ml.	2 X 4-oz. Wide-Mouth Glass Jars
Volatile Analysis (Low or Medium Level*)		2 X 120 ml. Wide-Mouth Glass Vials†

†Soil VOA Vials under study, subject to change, check to ensure proper sealing.

HIGH CONCENTRATION SAMPLE COLLECTION REQUIREMENTS

Liquid or Solid Samples	Required Volume	Container Type
Extractable and Volatile Analysis	6 oz.	1 X 8-oz.Wide-Mouth Glass Jar

1. **Organic Sample Collection Requirements**
   - Please indicate sample to spike and/or duplicate.
   - Ship medium and high concentration samples in paint cans.
   - Aqueous samples require one triple-volume sample per twenty for Matrix Spike/Matrix Spike Duplicate.
   - Oily samples must be analyzed under the Special Analytical Services (SAS) program.
   - Confirmatory analysis and Special Analytical Services (SAS) parameters may require extra volume; for SAS consult specified SAS methods for requirements.
   - Additional sample volume not required for method OLC01.

2. **Cooler and Sample Documentation**
   - Complete all sections of the Traffic Report/Chain of Custody Form - Press firmly with a ball point pen to ensure that carbon copies are legible. Check the information and correct any errors.
   - Please remember to complete the Chain of Custody information on the form.
   - Seal the two sets of laboratory Traffic Report/Chain of Custody form copies in a plastic bag. Include a return address for the cooler. Tape bag under cooler lid.
   - Overlap the lid and bottle of each sample container with custody seals.
   - Seal each container in a plastic bag.
   - Pack medium and high concentration samples in metal cans.
   - Cool low waters to 4° C. Cooling of low soils is optional. Do not cool medium or high concentration waters and soils.
   - Separate and surround cooler contents with vermiculite or equivalent packaging.
   - Seal the cooler, overlapping the lid and body with custody seals.
   - FAX SMO a copy of the Traffic Report/Chain of Custody Form as soon as possible. Send SMO the pink copy of the Traffic Report within 5 days.
   - In column E RAS analysis indicate number of sample bottles sent for analysis.

3. **Sample Shipment Reporting**
   - PHONE IN ALL SHIPMENTS IMMEDIATELY TO SMO (or to RSCC, if instructed)
     Required information:
     - Case (and/or SAS) Number
     - Date shipped
     - Number of samples by concentration and matrix
     - Carrier and airbill number
     - Next planned shipment
   - Leave your name and a number where you can be reached.
   - Information for SATURDAY DELIVERIES must be phoned in by 3:00 PM (Eastern) the preceding FRIDAY.
   - Report any delays or changes of scope (i.e., changes in number of samples to be collected, matrix changes, etc.)
   - CALL IF YOU HAVE ANY QUESTIONS

USEPA Contract Laboratory Program
Sample Management Office
P.O. Box 818
Alexandria, VA 22313
Phone: (703) 557-2490
(703) 684-5678
FAX: (703) 683-0378

WADSWORTH/ ALERT Laboratories
Division of Enseco Incorporated

Corporate and Laboratory:
4101 Shuffel Drive, NW
North Canton, OH 44720
216-497-9396
FAX 216-497-0772

SDG NARRATIVE

This narrative pertains to case number 20247, which was completed by Enseco-Wadsworth/ALERT Laboratories under contract number 68-D1-0085. The following samples are associated with this case under SDG EWP60:

EPA Sample Number	Date Sample Received
EWP60	6/23/93
EWP61	6/23/93

Since the samples for this SDG are soils, no GC/MS volatile pH measurements were necessary.

No problems were encountered during the GC/MS volatile analysis of this SDG.

During the semivolatile and pesticide/PCB extraction procedure, the concentration water bath temperature was maintained above 80°C in order to accomplish concentration within the time limit specified in the SOW.

During the GC/MS semivolatile analysis of this SDG, sample EWP61 was analyzed at a 1:4 dilution. A straight analysis could not be performed due to the high concentration of TICs which prevented adequate resolution of the target analyte peaks.

During the pesticide/PCB analysis of this SDG, the following items were noted:

1. The surrogate recoveries for samples EWP60MS AND EWP61 were outside of control limits. This was due to a matrix effect. Since the limits are advisory only, no corrective action was required.

2. The MS/MSD % recovery for Dieldrin was outside of control limits for samples EWP60MS and EWP60MSD. This also was attributed to a matrix effect.

3. No retention time for Decachlorobyphenyl could be determined for sample EWP61. This could be attributed to a coelution of multicomponent analyte peaks.

Laboratories:
Pittsburgh, PA
412-826-5477

Tampa, FL
813-621-0784

A Corning Company

"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 floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature."

Ron Gibas

Ron Gibas
CLP Manager
July 27, 1993

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	EWP60	114	71	100		0
02	EWP60MS	117	66	102		0
03	EWP60MSD	114	70	100		0
04	EWP61	126	71	99		0
05	VBLK1	105	82	97		0
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 (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

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Matrix Spike - EPA Sample No.: EWP60 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.	48.	84	59-172
Trichloroethene	57.	0.	55.	96	62-137
Benzene	57.	0.	57.	100	66-142
Toluene	57.	0.	70.	123	59-139
Chlorobenzene	57.	0.	60.	105	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	57.	49.	86	2	22	59-172
Trichloroethene	57.	54.	95	1	24	62-137
Benzene	57.	53.	93	7	21	66-142
Toluene	57.	68.	119	3	21	59-139
Chlorobenzene	57.	61.	107	2	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:

4A

VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK1

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Lab File ID:VOI8165 Lab Sample ID:VBLK1

Date Analyzed: 6/26/93 Time Analyzed:1047

GC Column:RTX502.2 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID:INCOS50-1

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWP60	E1544103	VOI8169	1341
02	EWP60MS	E1544103	VOI8170	1432
03	EWP60MSD	E1544103	VOI8171	1529
04	EWP61	E1545103	VOI8172	1632
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				

COMMENTS:

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:VBLK1

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VOI8165

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 6/26/93

GC Column:RTX502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	10.	U
67-64-1	Acetone	2.	J
75-15-0	Carbon Disulfide	10.	U
75-35-4	1,1-Dichloroethene	10.	U
75-34-3	1,1-Dichloroethane	10.	U
540-59-0	1,2-Dichloroethene(total)	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

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

VBLK1

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:VBLK1

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VOI8165

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 6/26/93

GC Column:RTX502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP60

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: E1544103

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VOI8169

Level: (low/med) LOW Date Received: 6/25/93

% Moisture: not dec. 13 Date Analyzed: 6/26/93

GC Column: RTX502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 0 (uL) Soil Aliquot Volume: 0 (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	11.	U
67-64-1	Acetone	11.	U
75-15-0	Carbon Disulfide	11.	U
75-35-4	1,1-Dichloroethene	11.	U
75-34-3	1,1-Dichloroethane	11.	U
540-59-0	1,2-Dichloroethene(total)	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	11.	U
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

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EWP60

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:E1544103

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VOI8169

Level: (low/med) LOW Date Received: 6/25/93

% Moisture: not dec. 13 Date Analyzed: 6/26/93

GC Column:RTX502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP61

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:E1545103

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VOI8172

Level: (low/med) LOW Date Received: 6/25/93

% Moisture: not dec. 11 Date Analyzed: 6/26/93

GC Column:RTX502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	11.	U
67-64-1	Acetone	11.	U
75-15-0	Carbon Disulfide	11.	U
75-35-4	1,1-Dichloroethene	11.	U
75-34-3	1,1-Dichloroethane	11.	U
540-59-0	1,2-Dichloroethene(total)	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	11.	U
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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP61

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:E1545103

Sample wt/vol: 5.00 (g/ml) G Lab File ID: VOI8172

Level: (low/med) LOW Date Received: 6/25/93

% Moisture: not dec. 11 Date Analyzed: 6/26/93

GC Column:RTX502.2 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	S7 (2CP)#	S8 (DCB)#	TOT OUT
01	EWP60	54	64	46	63	60	58	61	57	0
02	EWP60MS	72	88	61	83	83	97	85	75	0
03	EWP60MSD	70	83	57	78	83	78	83	77	0
04	EWP61	75	91	88	73	69	92	76	74	0
05	SBLK1B	63	63	88	73	74	93	70	67	0
06										
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		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(23-120)	
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)	
S3 (TPH)	= Terphenyl-d14	(18-137)	
S4 (PHL)	= Phenol-d5	(24-113)	
S5 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

\# Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Matrix Spike - EPA Sample No.: EWP60 Level: (low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	2900.	34.	2400.	81	26- 90
2-Chlorophenol	2900.	0.	2300.	79	25-102
1,4-Dichlorobenzene	2000.	0.	1400.	70	28-104
N-Nitroso-di-n-prop.(1)	2000.	0.	1500.	75	41-126
1,2,4-Trichlorobenzene	2000.	0.	1600.	80	38-107
4-Chloro-3-methylphenol	2900.	0.	2600.	90	26-103
Acenaphthene	2000.	0.	1700.	85	31-137
4-Nitrophenol	2900.	0.	1800.	62	11-114
2,4-Dinitrotoluene	2000.	0.	1400.	70	28- 89
Pentachlorophenol	2900.	0.	2400.	83	17-109
Pyrene	2000.	190.	1300.	55	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	2900.	2200.	75	8	35	26- 90
2-Chlorophenol	2900.	2300.	79	0	50	25-102
1,4-Dichlorobenzene	2000.	1400.	70	0	27	28-104
N-Nitroso-di-n-prop.(1)	2000.	1500.	75	0	38	41-126
1,2,4-Trichlorobenzene	2000.	1500.	75	6	23	38-107
4-Chloro-3-methylphenol	2900.	2400.	83	8	33	26-103
Acenaphthene	2000.	1600.	80	6	19	31-137
4-Nitrophenol	2900.	1500.	52	17	50	11-114
2,4-Dinitrotoluene	2000.	1200.	60	15	47	28- 89
Pentachlorophenol	2900.	2300.	79	5	47	17-109
Pyrene	2000.	1400.	60	9	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: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK1B

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Lab File ID:SBLK1B Lab Sample ID:92629

Instrument ID:EXTR03 Date Extracted: 6/29/93

Matrix: (soil/water) SOIL Date Analyzed: 7/07/93

Level:(low/med) LOW Time Analyzed: 1232

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EWP60	E1544	EWP60	7/07/93
02	EWP60MS	E1544MS	EWP60MS	7/07/93
03	EWP60MSD	E1544MSD	EWP60MSD	7/07/93
04	EWP61	E1545	EWP61	7/12/93
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COMMENTS:

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1B

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:92629

Sample wt/vol: 30.0 (g/ml) G Lab File ID: SBLK1B

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/07/93

Injection Volume: 2.0 (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
108-95-2	Phenol	330.	U
111-44-4	bis(2-Chloroethyl)ether	330.	U
95-57-8	2-Chlorophenol	330.	U
541-73-1	1,3-Dichlorobenzene	330.	U
106-46-7	1,4-Dichlorobenzene	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330.	U
106-44-5	4-Methylphenol	330.	U
621-64-7	N-Nitroso-di-n-propylamine	330.	U
67-72-1	Hexachloroethane	330.	U
98-95-3	Nitrobenzene	330.	U
78-59-1	Isophorone	330.	U
88-75-5	2-Nitrophenol	330.	U
105-67-9	2,4-Dimethylphenol	330.	U
111-91-1	bis(2-Chloroethoxy)methane	330.	U
120-83-2	2,4-Dichlorophenol	330.	U
120-82-1	1,2,4-Trichlorobenzene	330.	U
91-20-3	Naphthalene	330.	U
106-47-8	4-Chloroaniline	330.	U
87-68-3	Hexachlorobutadiene	330.	U
59-50-7	4-Chloro-3-methylphenol	330.	U
91-57-6	2-Methylnaphthalene	330.	U
77-47-4	Hexachlorocyclopentadiene	330.	U
88-06-2	2,4,6-Trichlorophenol	330.	U
95-95-4	2,4,5-Trichlorophenol	830.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	800.	U
131-11-3	Dimethylphthalate	330.	U
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U
99-09-2	3-Nitroaniline	800.	U
83-32-9	Acenaphthene	330.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK1B

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:92629

Sample wt/vol: 30.0 (g/ml) G Lab File ID: SBLK1B

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/07/93

Injection Volume: 2.0 (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
51-28-5	2,4-Dinitrophenol	800.	U
100-02-7	4-Nitrophenol	800.	U
132-64-9	Dibenzofuran	330.	U
121-14-2	2,4-Dinitrotoluene	330.	U
84-66-2	Diethylphthalate	330.	U
7005-72-3	4-Chlorophenyl-phenylether	330.	U
86-73-7	Fluorene	330.	U
100-01-6	4-Nitroaniline	800.	U
534-52-1	4,6-Dinitro-2-methylphenol	800.	U
86-30-6	N-Nitrosodiphenylamine (1)	330.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	800.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
86-74-8	Carbazole	330.	U
84-74-2	Di-n-butylphthalate	43.	J
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	330.	U
85-68-7	Butylbenzylphthalate	330.	U
91-94-1	3,3'-Dichlorobenzidine	330.	U
56-55-3	Benzo(a)anthracene	330.	U
218-01-9	Chrysene	330.	U
117-81-7	bis(2-Ethylhexyl)phthalate	460.	
117-84-0	Di-n-octylphthalate	330.	U
205-99-2	Benzo(b)fluoranthene	330.	U
207-08-9	Benzo(k)fluoranthene	330.	U
50-32-8	Benzo(a)pyrene	330.	U
193-39-5	Indeno(1,2,3-cd)pyrene	330.	U
53-70-3	Dibenz(a,h)anthracene	330.	U
191-24-2	Benzo(g,h,i)perylene	330.	U

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SBLK1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: 92629

Sample wt/vol: 30.0 (g/ml) G Lab File ID: SBLK1B

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/07/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0

Number TICs Found: 8

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Aldol Condensation Product	4.03	420.	JA
2.		Aldol Condensation Product	4.47	7600.	JA
3.		Aldol Condensation Product	5.53	190.	JA
4.		Aldol Condensation Product	5.88	88.	JA
5.		Aldol Condensation Product	6.00	190.	JA
6.	111-90-0	Ethanol, 2-(2-ethoxyethoxy)-	6.85	74.	JN
7.		Aldol Condensation Product	6.98	360.	JA
8.		Unknown	14.57	190.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP60

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:E1544

Sample wt/vol: 30.0 (g/ml) G Lab File ID: EWP60

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 13 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/07/93

Injection Volume: 2.0 (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
108-95-2	Phenol	34.	J
111-44-4	bis(2-Chloroethyl)ether	380.	U
95-57-8	2-Chlorophenol	380.	U
541-73-1	1,3-Dichlorobenzene	380.	U
106-46-7	1,4-Dichlorobenzene	380.	U
95-50-1	1,2-Dichlorobenzene	380.	U
95-48-7	2-Methylphenol	380.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380.	U
106-44-5	4-Methylphenol	380.	U
621-64-7	N-Nitroso-di-n-propylamine	380.	U
67-72-1	Hexachloroethane	380.	U
98-95-3	Nitrobenzene	380.	U
78-59-1	Isophorone	37.	J
88-75-5	2-Nitrophenol	380.	U
105-67-9	2,4-Dimethylphenol	380.	U
111-91-1	bis(2-Chloroethoxy)methane	380.	U
120-83-2	2,4-Dichlorophenol	380.	U
120-82-1	1,2,4-Trichlorobenzene	380.	U
91-20-3	Naphthalene	19.	J
106-47-8	4-Chloroaniline	380.	U
87-68-3	Hexachlorobutadiene	380.	U
59-50-7	4-Chloro-3-methylphenol	380.	U
91-57-6	2-Methylnaphthalene	27.	J
77-47-4	Hexachlorocyclopentadiene	380.	U
88-06-2	2,4,6-Trichlorophenol	380.	U
95-95-4	2,4,5-Trichlorophenol	920.	U
91-58-7	2-Chloronaphthalene	380.	U
88-74-4	2-Nitroaniline	920.	U
131-11-3	Dimethylphthalate	380.	U
208-96-8	Acenaphthylene	58.	J
606-20-2	2,6-Dinitrotoluene	380.	U
99-09-2	3-Nitroaniline	920.	U
83-32-9	Acenaphthene	380.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP60

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:E1544

Sample wt/vol: 30.0 (g/ml) G Lab File ID: EWP60

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 13 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/07/93

Injection Volume: 2.0 (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
51-28-5	2,4-Dinitrophenol	920.	U
100-02-7	4-Nitrophenol	920.	U
132-64-9	Dibenzofuran	380.	U
121-14-2	2,4-Dinitrotoluene	380.	U
84-66-2	Diethylphthalate	380.	U
7005-72-3	4-Chlorophenyl-phenylether	380.	U
86-73-7	Fluorene	380.	U
100-01-6	4-Nitroaniline	920.	U
534-52-1	4,6-Dinitro-2-methylphenol	920.	U
86-30-6	N-Nitrosodiphenylamine (1)	380.	U
101-55-3	4-Bromophenyl-phenylether	380.	U
118-74-1	Hexachlorobenzene	380.	U
87-86-5	Pentachlorophenol	920.	U
85-01-8	Phenanthrene	130.	J
120-12-7	Anthracene	56.	J
86-74-8	Carbazole	20.	J
84-74-2	Di-n-butylphthalate	380 ~~33.~~	JB
206-44-0	Fluoranthene	330.	J
129-00-0	Pyrene	190.	J
85-68-7	Butylbenzylphthalate	42.	J
91-94-1	3,3'-Dichlorobenzidine	380.	U
56-55-3	Benzo(a)anthracene	210.	J
218-01-9	Chrysene	230.	J
117-81-7	bis(2-Ethylhexyl)phthalate	380.	U
117-84-0	Di-n-octylphthalate	380.	U
205-99-2	Benzo(b)fluoranthene	630.	
207-08-9	Benzo(k)fluoranthene	380.	U
50-32-8	Benzo(a)pyrene	300.	J
193-39-5	Indeno(1,2,3-cd)pyrene	280.	J
53-70-3	Dibenz(a,h)anthracene	380.	U
191-24-2	Benzo(g,h,i)perylene	270.	J

KM 8-9-93

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

EWP60

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: E1544

Sample wt/vol: 30.0 (g/ml) G Lab File ID: EWP60

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 13 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/07/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs Found: 22 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Aldol Condensation Product	4.03	280.	JAB U
2.		Aldol Condensation Product	4.45	5400.	JAB U
3.		Unknown Acid	18.30	580.	J
4.		Unknown	21.08	140.	J
5.		Unknown	21.45	560.	J
6.		Unknown	22.02	300.	J
7.		Unknown	22.83	280.	J
8.		Unknown Ester	22.95	380.	J
9.		Unknown	23.83	170.	J
10.		Unknown	24.60	700.	J
11.		Unknown Hydrocarbon	25.43	700.	J
12.		Unknown Hydrocarbon	26.73	1100.	J
13.		Unknown	28.35	420.	J
14.		Unknown	28.87	240.	J
15.		Unknown	26.35	110.	J
16.		Unknown	24.90	300.	J
17.		Unknown	25.67	260.	J
18.		Unknown	27.57	200.	J
19.		Unknown	28.12	200.	J
20.		Unknown	24.12	120.	J
21.		Unknown	26.30	120.	J
22.		Unknown	21.03	76.	J
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

KF 8-4

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP61

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix: (soil/water) SOIL Lab Sample ID:E1545

Sample wt/vol: 30.0 (g/ml) G Lab File ID: EWP61

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 12 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/12/93

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1500.	U
111-44-4	bis(2-Chloroethyl)ether	1500.	U
95-57-8	2-Chlorophenol	1500.	U
541-73-1	1,3-Dichlorobenzene	1500.	U
106-46-7	1,4-Dichlorobenzene	1500.	U
95-50-1	1,2-Dichlorobenzene	1500.	U
95-48-7	2-Methylphenol	1500.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1500.	U
106-44-5	4-Methylphenol	1500.	U
621-64-7	N-Nitroso-di-n-propylamine	1500.	U
67-72-1	Hexachloroethane	1500.	U
98-95-3	Nitrobenzene	1500.	U
78-59-1	Isophorone	1500.	U
88-75-5	2-Nitrophenol	1500.	U
105-67-9	2,4-Dimethylphenol	1500.	U
111-91-1	bis(2-Chloroethoxy)methane	1500.	U
120-83-2	2,4-Dichlorophenol	1500.	U
120-82-1	1,2,4-Trichlorobenzene	1500.	U
91-20-3	Naphthalene	360.	J
106-47-8	4-Chloroaniline	1500.	U
87-68-3	Hexachlorobutadiene	1500.	U
59-50-7	4-Chloro-3-methylphenol	1500.	U
91-57-6	2-Methylnaphthalene	270.	J
77-47-4	Hexachlorocyclopentadiene	1500.	U
88-06-2	2,4,6-Trichlorophenol	1500.	U
95-95-4	2,4,5-Trichlorophenol	3600.	U
91-58-7	2-Chloronaphthalene	1500.	U
88-74-4	2-Nitroaniline	3600.	U
131-11-3	Dimethylphthalate	1500.	U
208-96-8	Acenaphthylene	740.	J
606-20-2	2,6-Dinitrotoluene	1500.	U
99-09-2	3-Nitroaniline	3600.	U
83-32-9	Acenaphthene	130.	J

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP61

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: E1545

Sample wt/vol: 30.0 (g/ml) G Lab File ID: EWP61

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 12 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/12/93

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	3600.	U
100-02-7	4-Nitrophenol	3600.	U
132-64-9	Dibenzofuran	530.	J
121-14-2	2,4-Dinitrotoluene	1500.	U
84-66-2	Diethylphthalate	1500.	U
7005-72-3	4-Chlorophenyl-phenylether	1500.	U
86-73-7	Fluorene	660.	J
100-01-6	4-Nitroaniline	3600.	U
534-52-1	4,6-Dinitro-2-methylphenol	3600.	U
86-30-6	N-Nitrosodiphenylamine (1)	1500.	U
101-55-3	4-Bromophenyl-phenylether	1500.	U
118-74-1	Hexachlorobenzene	1500.	U
87-86-5	Pentachlorophenol	3600.	U
85-01-8	Phenanthrene	6700.	
120-12-7	Anthracene	1200.	J
86-74-8	Carbazole	580.	J
84-74-2	Di-n-butylphthalate	1500.	U
206-44-0	Fluoranthene	9200.	
129-00-0	Pyrene	6400.	
85-68-7	Butylbenzylphthalate	1500.	U
91-94-1	3,3'-Dichlorobenzidine	1500.	U
56-55-3	Benzo(a)anthracene	4500.	
218-01-9	Chrysene	3900.	
117-81-7	bis(2-Ethylhexyl)phthalate	1500 84.	JB U
117-84-0	Di-n-octylphthalate	1500.	U
205-99-2	Benzo(b)fluoranthene	5400.	
207-08-9	Benzo(k)fluoranthene	2000.	
50-32-8	Benzo(a)pyrene	3300.	
193-39-5	Indeno(1,2,3-cd)pyrene	2200.	
53-70-3	Dibenz(a,h)anthracene	660.	J
191-24-2	Benzo(g,h,i)perylene	2200.	

KM 8-9-93

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

EWP61

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No.: 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: E1545

Sample wt/vol: 30.0 (g/ml) G Lab File ID: EWP61

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 12 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/12/93

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) Y pH: 7.6

Number TICs Found: 21

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Aldol Condensation Product	4.23	5200.	JAB
2.		Unknown Polyaromatic Hydroca	17.78	760.	J
3.		Unknown Polyaromatic Hydroca	17.85	1000.	J
4.		Unknown Polyaromatic Hydroca	18.02	1000.	J
5.		Unknown Polyaromatic Hydroca	18.47	840.	J
6.		Unknown Polyaromatic Hydroca	19.57	620.	J
7.		Unknown	20.83	720.	J
8.		Unknown Polyaromatic Hydroca	21.75	1500.	J
9.		Unknown Polyaromatic Hydroca	22.07	1200.	J
10.		Unknown Polyaromatic Hydroca	23.45	1000.	J
11.		Unknown Polyaromatic Hydroca	25.00	1400.	J
12.		Unknown Polyaromatic Hydroca	25.33	3200.	J
13.		Unknown Polyaromatic Hydroca	25.82	1800.	J
14.		Unknown Polyaromatic Hydroca	27.43	1000.	J
15.		Unknown Polyaromatic Hydroca	28.62	1100.	J
16.		Unknown Polyaromatic Hydroca	20.57	800.	J
17.		Unknown Polyaromatic Hydroca	20.62	660.	J
18.		Unknown Polyaromatic Hydroca	21.98	1200.	J
19.		Unknown Polyaromatic Hydroca	22.22	1000.	J
20.		Unknown	23.92	660.	J
21.		Unknown Polyaromatic Hydroca	25.58	1200.	J
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

2E

WATER PESTICIDE SURROGATE RECOVERY

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

GC Column(1):RTX1701 ID: 0.53 (mm) GC Column(2):RTX5 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PIBLKX1	110	110	95	100			0
02	PIBLKX2	110	115	90	105			0
03								
04								
05								
06								
07								
08								
09								
10								
11								
12								
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17								
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19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

2F
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

GC Column(1):RTX1701 ID: 0.53 (mm) GC Column(2):RTX5 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	EWP60	78	131	124	98			0
02	EWP60MS	92	229*	111	92			1
03	EWP60MSD	92	144	150	124			0
04	EWP61	86	99	0*	238*			2
05	PBLK1	90	83	98	98			0
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								

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Matrix Spike - EPA Sample No.: EWP60

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC(Lindane)	19.	0.0	16.	84	46-127
Heptachlor	19.	0.0	17.	89	35-130
Aldrin	19.	0.0	15.	79	34-132
Dieldrin	38.	1.6	56.	143*	31-134
Endrin	38.	0.0	38.	100	42-139
4,4'-DDT	38.	0.0	23.	61	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC(Lindane)	19.	15.	79	6	50	46-127
Heptachlor	19.	18.	95	7	31	35-130
Aldrin	19.	15.	79	0	43	34-132
Dieldrin	38.	62.	159*	11	38	31-134
Endrin	38.	40.	105	5	45	42-139
4,4'-DDT	38.	37.	97	46	50	23-134

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: 2 out of 12 outside limits

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK1

Lab Name:ENSECO-WADSWORTH/ALERT Contract:68-D1-0085

Lab Code:WADS Case No.:20247 SAS No.: SDG No.:EWP60

Lab Sample ID:92629101B Lab File ID:

Matrix:(soil/water) SOIL Extraction:(SepF/Cont/Sonc)SONC

Sulfur Cleanup: (Y/N) Y Date Extracted: 6/29/93

Date Analyzed (1): 7/20/93 Date Analyzed (2): 7/20/93

Time Analyzed (1):0858 Time Analyzed (2):0858

Instrument ID (1):HP5890XA Instrument ID (2):HP5890XB

GC Column (1):RTX1701 ID: 0.53(mm) GC Column (2):RTX5 ID: 0.53(mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EWP60	E1544101	7/20/93	7/20/93
02	EWP60MS	E1544101S	7/20/93	7/20/93
03	EWP60MSD	E1544101D	7/20/93	7/20/93
04	EWP61	E1545101	7/20/93	7/20/93
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK1

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No. 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: 92629101B

Sample wt/vol: 30.0 (g/ml) G Lab File ID:

% Moisture: 0 decanted: (Y/N) N Date Received: / /

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
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)	1.7	U
76-44-8	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
72-55-9	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	2.1	JP
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	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

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKX1

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No. 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) WATER Lab Sample ID: P1963

Sample wt/vol: 1000 (g/ml) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: / /

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: / /

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.025	U
319-85-7	beta-BHC	0.025	U
319-86-8	delta-BHC	0.025	U
58-89-9	gamma-BHC(Lindane)	0.025	U
76-44-8	Heptachlor	0.025	U
309-00-2	Aldrin	0.025	U
1024-57-3	Heptachlor epoxide	0.025	U
959-98-8	Endosulfan I	0.025	U
60-57-1	Dieldrin	0.05	U
72-55-9	4,4'-DDE	0.05	U
72-20-8	Endrin	0.05	U
33213-65-9	Endosulfan II	0.05	U
72-54-8	4,4'-DDD	0.05	U
1031-07-8	Endosulfan sulfate	0.05	U
50-29-3	4,4'-DDT	0.05	U
72-43-5	Methoxychlor	0.25	U
53494-70-5	Endrin ketone	0.05	U
7421-36-3	Endrin aldehyde	0.05	U
5103-71-9	alpha-Chlordane	0.025	U
5103-74-2	gamma-Chlordane	0.025	U
8001-35-2	Toxaphene	2.5	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	0.50	U
11096-82-5	Aroclor-1260	0.50	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLKX2

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No. 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) WATER Lab Sample ID: P1963

Sample wt/vol: 1000 (g/ml) ML Lab File ID:

% Moisture: decanted: (Y/N) Date Received: / /

Extraction: (SepF/Cont/Sonc) CONT Date Extracted: / /

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 7/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.025	U
319-85-7	beta-BHC	0.025	U
319-86-8	delta-BHC	0.025	U
58-89-9	gamma-BHC(Lindane)	0.025	U
76-44-8	Heptachlor	0.025	U
309-00-2	Aldrin	0.025	U
1024-57-3	Heptachlor epoxide	0.025	U
959-98-8	Endosulfan I	0.025	U
60-57-1	Dieldrin	0.05	U
72-55-9	4,4'-DDE	0.05	U
72-20-8	Endrin	0.05	U
33213-65-9	Endosulfan II	0.05	U
72-54-8	4,4'-DDD	0.05	U
1031-07-8	Endosulfan sulfate	0.05	U
50-29-3	4,4'-DDT	0.05	U
72-43-5	Methoxychlor	0.25	U
53494-70-5	Endrin ketone	0.05	U
7421-36-3	Endrin aldehyde	0.05	U
5103-71-9	alpha-Chlordane	0.025	U
5103-74-2	gamma-Chlordane	0.025	U
8001-35-2	Toxaphene	2.5	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	1.0	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	U
11097-69-1	Aroclor-1254	0.50	U
11096-82-5	Aroclor-1260	0.50	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP60

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No. 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: E1544101

Sample wt/vol: 30.0 (g/ml) G Lab File ID:

% Moisture: 13 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
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)	2.0	U
76-44-8	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	1.6	JP
72-55-9	4,4'-DDE	3.8	U
72-20-8	Endrin	3.8	U
33213-65-9	Endosulfan II	3.8	U
72-54-8	4,4'-DDD	3.8	U
1031-07-8	Endosulfan sulfate	3.8	U
50-29-3	4,4'-DDT	3.8	U
72-43-5	Methoxychlor	20.	U
53494-70-5	Endrin ketone	3.8	U
7421-36-3	Endrin aldehyde	3.8	U
5103-71-9	alpha-Chlordane	3.4	P
5103-74-2	gamma-Chlordane	4.1	P
8001-35-2	Toxaphene	200.	U
12674-11-2	Aroclor-1016	38.	U
11104-28-2	Aroclor-1221	77.	U
11141-16-5	Aroclor-1232	38.	U
53469-21-9	Aroclor-1242	38.	U
12672-29-6	Aroclor-1248	38.	U
11097-69-1	Aroclor-1254	110.	
11096-82-5	Aroclor-1260	38.	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP61

Lab Name: ENSECO-WADSWORTH/ALERT Contract: 68-D1-0085

Lab Code: WADS Case No. 20247 SAS No.: SDG No.: EWP60

Matrix: (soil/water) SOIL Lab Sample ID: E1545101

Sample wt/vol: 30.0 (g/ml) G Lab File ID:

% Moisture: 12 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/20/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.9	U
319-85-7	beta-BHC	1.9	U
319-86-8	delta-BHC	1.9	U
58-89-9	gamma-BHC(Lindane)	1.9	U
76-44-8	Heptachlor	1.9	U
309-00-2	Aldrin	1.9	U
1024-57-3	Heptachlor epoxide	1.9	U
959-98-8	Endosulfan I	1.9	U
60-57-1	Dieldrin	3.7	U
72-55-9	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	19.	U
53494-70-5	Endrin ketone	3.7	U
7421-36-3	Endrin aldehyde	3.7	U
5103-71-9	alpha-Chlordane	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
8001-35-2	Toxaphene	190.	U
12674-11-2	Aroclor-1016	37.	U
11104-28-2	Aroclor-1221	76.	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	29.	J
11096-82-5	Aroclor-1260	37.	U

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. _____ CERCLIS No. OH

Case No. 20247 Site Name Location: Systech

Contractor or EPA Lab: Enseco-Wads Data User: PRC

No. of Samples: 2 Date Samples or Data Received: 7-28-93

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 2 No. of samples received: 2

Received by: Lynette Burnett Date: 7-29-93

Received by LSSS: Dorothy M. May Date: 8/02/93

Review started: 8-9-93 Reviewer Signature: KMinczuk

Total time spent on review: 4 Date review completed: 8-10-93

Copied by: Jeannette Pritchett Date: Aug 19, 1993

Mailed to user by: Lynette Burnett Date: 8-20-93

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

Data received by: Mildred Andrews Date: AUG 25 1993

Data review received by: _____ Date: _____
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: _____

Systech

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM


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****                                                     ****
****        S C R E E N I N G   P A C K A G E            ****
****      S U M M A R Y   I N F O R M A T I O N          ****
****                                                     ****
****                == OLM01.8   VER. 5 ==               ****
****                                                     ****
****                  SDG:  EWP60                        ****
****                                                     ****
****                 CASE:  20247                        ****
****                                                     ****
****                  LAB:  WADS                         ****
****                                                     ****
****             CONTRACT:  68-D1-0085                   ****
****                                                     ****
****               REGION:  5                            ****
****                                                     ****
****                  DRD:  07/28/93                     ****
****                                                     ****
****     SDG RECEIPT DATE:  06/25/93                     ****
****                                                     ****
****               FORMAT:  AGENCY STANDARD              ****
****                                                     ****
****          SCREEN DATE:  07/29/93                     ****
****                                                     ****
****          MAIL DATE 1:  07/30/93                     ****
****                                                     ****
****             SCREENER:  AM/CM                        ****
****                                                     ****
*************************************************************
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U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

MAINFRAME / PC DISCREPANCY LIST
OLM01.8 VERSION 5

PCCCS OLM01.8 VERSION 5 WAS RELEASED ON JULY 15, 1993.

IF YOUR SITE HAS NOT RECEIVED A COPY PLEASE CALL USER SUPPORT AT 703-684-9025.

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

DEFECT COUNTS BY SAMPLE AND CRITERION

THIS REPORT PROVIDES A SUMMARY OF THE TECHNICAL DEFECTS PRESENT ON THE DISKETTE AND HARDCOPY DATA PACKAGE. IT IS ORGANIZED BY SAMPLE AND DEFECT. IT SUMMARIZES 1) THE FRACTIONS ANALYZED DENOTED BY A "Y" FOR YES, OR "NA" FOR NOT ANALYZED IN THE APPROPRIATE "AN" (ANALYZED) COLUMN, AND 2) THE HOLDING TIME VIOLATION FOR EXTRACTION(EX) ANALYSES (DENOTED BY THE NUMBER OF DAYS(2,3,ETC) THE SAMPLE IS OUTSIDE THE HOLDING TIME IN THE APPROPRIATE COLUMN.) THE NUMBERS UNDER THE TECHNICAL/MANUAL DEFECT COLUMNS INDICATE THE NUMBER OF NON-COMPLIANCE DEFECTS ASSOCIATED WITH THE SAMPLE UNDER THAT SPECIFIC CRITERION.

CASE: 20247 CONTRACT: 68-D1-0085 SAMPLES: 4 DATE RECEIVED: 07/28/93
LAB CODE: WADS SAS NO.: SCREENER: AM/CM DATE SCREENED: 07/29/93
SDG NO: EWP60 REGION: 5 MAIL DATE (1): 07/30/93

	HOLDING TIMES					TECHNICAL/MANUAL DEFECTS											
SAMPLE	VOA AN	BNA EX	BNA AN	PES EX	PES AN	DATA	SUR	MS/MSD	BLANK	TUNE	INIT C	CONT C	INTSTD	AN SEQ	GPCFLO	PHIT S	MANUAL
EWP60	Y		Y		Y												2
EWP60MS	Y		Y		Y												2
EWP60MSD	Y		Y		Y												2
EWP61	Y		Y		Y												2

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

DEFECT COUNTS FOR VOLATILE FRACTION

THIS REPORT PROVIDES A SUMMARY OF THE TECHNICAL DEFECTS PRESENT ON THE DISKETTE AND HARDCOPY DATA PACKAGE. IT IS ORGANIZED BY SAMPLE AND DEFECT. IT SUMMARIZES 1) THE FRACTIONS ANALYZED DENOTED BY A "Y" FOR YES, OR "NA" FOR NOT ANALYZED IN THE APPROPRIATE "AN" (ANALYZED) COLUMN, AND 2) THE HOLDING TIME VIOLATION FOR EXTRACTION(EX) ANALYSES (DENOTED BY THE NUMBER OF DAYS(2,3,ETC) THE SAMPLE IS OUTSIDE THE HOLDING TIME IN THE APPROPRIATE COLUMN.) THE NUMBERS UNDER THE TECHNICAL/MANUAL DEFECT COLUMNS INDICATE THE NUMBER OF NON-COMPLIANCE DEFECTS ASSOCIATED WITH THE SAMPLE UNDER THAT SPECIFIC CRITERION.

CASE: 20247 CONTRACT: 68-D1-0085 SAMPLES: 4 DATE RECEIVED: 07/28/93
LAB CODE: WADS SAS NO.: SCREENER: AM/CM DATE SCREENED: 07/29/93
SDG NO: EWP60 REGION: 5 MAIL DATE (1): 07/30/93

		TECHNICAL/MANUAL DEFECTS									
SAMPLE	VOA AN	DATA	SURR	MS/MSD	BLANK	TUNE	INIT C	CONT C	INTSTD		MANUAL
EWP60	Y										2
EWP60MS	Y										2
EWP60MSD	Y										2
EWP61	Y										2

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

DEFECT COUNTS FOR SEMI-VOLATILE FRACTION

THIS REPORT PROVIDES A SUMMARY OF THE TECHNICAL DEFECTS PRESENT ON THE DISKETTE AND HARDCOPY DATA PACKAGE. IT IS ORGANIZED BY SAMPLE AND DEFECT. IT SUMMARIZES 1) THE FRACTIONS ANALYZED DENOTED BY A "Y" FOR YES, OR "NA" FOR NOT ANALYZED IN THE APPROPRIATE "AN" (ANALYZED) COLUMN, AND 2) THE HOLDING TIME VIOLATION FOR EXTRACTION(EX) ANALYSES (DENOTED BY THE NUMBER OF DAYS(2,3,ETC) THE SAMPLE IS OUTSIDE THE HOLDING TIME IN THE APPROPRIATE COLUMN.) THE NUMBERS UNDER THE TECHNICAL/MANUAL DEFECT COLUMNS INDICATE THE NUMBER OF NON-COMPLIANCE DEFECTS ASSOCIATED WITH THE SAMPLE UNDER THAT SPECIFIC CRITERION.

CASE: 20247 CONTRACT: 68-D1-0085 SAMPLES: 4 DATE RECEIVED: 07/28/93
LAB CODE: WADS SAS NO.: SCREENER: AM/CM DATE SCREENED: 07/29/93
SDG NO: EWP60 REGION: 5 MAIL DATE (1): 07/30/93

		TECHNICAL/MANUAL DEFECTS								
SAMPLE	BNA EX	BNA AN	DATA	SUR R	MS/MSD	BLANK	TUNE	INIT C	CONT C	INTSTD	MANUAL
EWP60		Y									
	+		+	+	+	+	+	+	+	+	+
EWP60MS		Y									
	+		+	+	+	+	+	+	+	+	+
EWP60MSD		Y									
	+		+	+	+	+	+	+	+	+	+
EWP61		Y									
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+
	+		+	+	+	+	+	+	+	+	+

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

DEFECT COUNTS FOR PESTICIDE FRACTION

THIS REPORT PROVIDES A SUMMARY OF THE TECHNICAL DEFECTS PRESENT ON THE DISKETTE AND HARDCOPY DATA PACKAGE. IT IS ORGANIZED BY SAMPLE AND DEFECT. IT SUMMARIZES 1) THE FRACTIONS ANALYZED DENOTED BY A "Y" FOR YES, OR "NA" FOR NOT ANALYZED IN THE APPROPRIATE "AN" (ANALYZED) COLUMN, AND 2) THE HOLDING TIME VIOLATION FOR EXTRACTION(EX) ANALYSES (DENOTED BY THE NUMBER OF DAYS(2,3,ETC) THE SAMPLE IS OUTSIDE THE HOLDING TIME IN THE APPROPRIATE COLUMN.) THE NUMBERS UNDER THE TECHNICAL/MANUAL DEFECT COLUMNS INDICATE THE NUMBER OF NON-COMPLIANCE DEFECTS ASSOCIATED WITH THE SAMPLE UNDER THAT SPECIFIC CRITERION.

CASE: 20247 CONTRACT: 68-D1-0085 SAMPLES: 4 DATE RECEIVED: 07/28/93
LAB CODE: WADS SAS NO.: SCREENER: AM/CM DATE SCREENED: 07/29/93
SDG NO: EWP60 REGION: 5 MAIL DATE (1): 07/30/93

			TECHNICAL/MANUAL DEFECTS										
SAMPLE	PES EX	PES AN	DATA	SUR	MS/MSD	BLANK		INIT C	CONT C	AN SEQ	GPC FLO	PH ITS	MANUAL
EWP60		Y											
	+		+	+	+	+	+	+	+	+	+	+	
EWP60MS		Y											
	+		+	+	+	+	+	+	+	+	+	+	
EWP60MSD		Y											
	+		+	+	+	+	+	+	+	+	+	+	
EWP61		Y											
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	
	+		+	+	+	+	+	+	+	+	+	+	

U.S.E.P.A CONTRACT LABORATORY PROGRAM

SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR

ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

WARNING!

LAB RECEIPT DATE VARIES BETWEEN FRACTIONS ON THE FOLLOWING SAMPLES
PLEASE CHECK TO MAKE SURE THESE DATES ARE CORRECT

LAB=WADS SDG=EWP60 DRD=28JUL93

OBS	SAMPLE	LAB RECEIPT DATE VOLATILES	LAB RECEIPT DATE SEMIVOLATILES	LAB RECEIPT DATE PESTICIDES
1	EWP60	25JUN93	23JUN93	23JUN93
2	EWP60MS	25JUN93	23JUN93	23JUN93
3	EWP60MSD	25JUN93	23JUN93	23JUN93
4	EWP61	25JUN93	23JUN93	23JUN93

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

LAB: WADS SDG: EWP60

****
****
****
****
****
****
***** *****
***** *****
***** TECHNICAL DEFECT FREQUENCY REPORT *****
***** *****
***** NO DEFECTS FOUND *****
***** *****
****
****
****
****
****
****

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

== FILE SKELETON ==
LAB: WADS SDG: EWP60

FRACTION	SAMPLE	QC	SQ	LEVEL	MATRIX	DILUTION	ANALYSIS DATE	ANALYSIS TIME	LAB FILE/ SAMP_ID	COL_ID	INSTID	MB_FID	SB_FID	REC_REF	RUN
VOA		MNC			0					RTX502.2	INCOS50-1			000022F81	1
VOA		LPC			0		93/06/02	08:27	BFB840I	RTX502.2	INCOS50-1			00043273A	1
VOA	VSTD010B	CLM			0		93/06/02	11:25	VOI7809	RTX502.2	INCOS50-1			0004776A0	1
VOA	VSTD020B	CLM			0		93/06/02	10:45	VOI7808	RTX502.2	INCOS50-1			000926B64	1
VOA	VSTD050B	CLM			0		93/06/02	10:05	VOI7807	RTX502.2	INCOS50-1			001376029	1
VOA	VSTD100B	CLM			0		93/06/02	09:15	VOI7806	RTX502.2	INCOS50-1			0018254ED	1
VOA	VSTD200B	CLM			0		93/06/02	08:37	VOI7805	RTX502.2	INCOS50-1			00227498E	1
VOA		LPC			0		93/06/26	09:09	BFB863I	RTX502.2	INCOS50-1			002723BC9	1
VOA	VSTD050C	CLC			0		93/06/26	09:19	VOI8163	RTX502.2	INCOS50-1			002768BAC	1
VOA	VBLK1	LRB		LOW	SOIL	1.00	93/06/26	10:47	VOI8165	RTX502.2	INCOS50-1			003210F05	1
VOA	EWP60	LSD		LOW	SOIL	1.00	93/06/26	13:41	VOI8169	RTX502.2	INCOS50-1	VOI8165		00367A15E	1
VOA	EWP60MS	LF1		LOW	SOIL	1.00	93/06/26	14:32	VOI8170	RTX502.2	INCOS50-1	VOI8165		00413374A	1
VOA	EWP60MSD	LF2		LOW	SOIL	1.00	93/06/26	15:29	VOI8171	RTX502.2	INCOS50-1	VOI8165		00459D732	1
VOA	EWP61			LOW	SOIL	1.00	93/06/26	16:32	VOI8172	RTX502.2	INCOS50-1	VOI8165		00505754C	1
BNA		MNC			0					DB5.625	EXTR03			000022E65	2
BNA		LPC			0		93/06/09	13:24	3DF0609	DB5.625	EXTR03			000821FC5	2
BNA	SSTD160	CLM			0		93/06/09	14:18	3SH0609A	DB5.625	EXTR03			000867315	2
BNA	SSTD120	CLM			0		93/06/09	14:51	3SMH0609	DB5.625	EXTR03			001734212	2
BNA	SSTD080	CLM			0		93/06/09	15:25	3SM0609	DB5.625	EXTR03			002601137	2
BNA	SSTD020	CLM			0		93/06/09	16:00	3SL0609	DB5.625	EXTR03			00347DFC9	2
BNA	SSTD050	CLM			0		93/06/09	16:35	3SML0609	DB5.625	EXTR03			00434AE95	2
BNA		LPC			0		93/07/07	08:44	3DF0707	DB5.625	EXTR03			005217B1E	2
BNA	SSTD050A	CLC			0		93/07/07	09:02	3SML0707	DB5.625	EXTR03			00525CEE0	2
BNA	SBLK1B	LRB		LOW	SOIL	1.00	93/07/07	12:32	SBLK1B	DB5.625	EXTR03			00612B75A	2
BNA	EWP60	LSD		LOW	SOIL	1.00	93/07/07	19:12	EWP60	DB5.625	EXTR03	SBLK1B		00722CDDC	2
BNA	EWP60MS	LF1		LOW	SOIL	1.00	93/07/07	19:48	EWP60MS	DB5.625	EXTR03	SBLK1B		00877C037	2
BNA	EWP60MSD	LF2		LOW	SOIL	1.00	93/07/07	20:24	EWP60MSD	DB5.625	EXTR03	SBLK1B		00966D612	2
BNA		LPC			0	1.00	93/07/12	08:53	3DF0712	DB5.625	EXTR03	SBLK1B		01055E80C	2
BNA	SSTD050B	CLC			0	1.00	93/07/12	10:05	3SML0712A	DB5.625	EXTR03	SBLK1B		010593BE0	2
BNA	EWP61			LOW	SOIL	4.00	93/07/12	10:45	EWP61	DB5.625	EXTR03	SBLK1B		011462596	2
PEST		MNC			0					RTX1701	HP5890XA			000022E42	3
PEST	FLO942935	FLO			0		92/12/06	00:00	FLO942935	RTX1701	HP5890XA			0013159F5	3
PEST	GPC1006	GPC			0		93/06/28	12:00	GPC1006	RTX1701	HP5890XA			001444EBF	3
PEST	RESCX1	LPC			0		93/07/19	17:25	RESCX1	RTX1701	HP5890XA			00152E136	3
PEST	PEMX1	CLE		LOW	0		93/07/19	18:20	PEMX1	RTX1701	HP5890XA			001740147	3
PEST	AR1660X1	CLS		LOW	0	0.00	93/07/19	19:15	AR1660X1	RTX1701	HP5890XA			003019B8F	3
PEST	AR1221X1	CLS		LOW	0	0.00	93/07/19	20:09	AR1221X1	RTX1701	HP5890XA			004282D29	3
PEST	AR1232X1	CLS		LOW	0	0.00	93/07/19	21:04	AR1232X1	RTX1701	HP5890XA			00555BCF8	3
PEST	AR1242X1	CLS		LOW	0	0.00	93/07/19	21:59	AR1242X1	RTX1701	HP5890XA			006824CFE	3
PEST	AR1248X1	CLS		LOW	0	0.00	93/07/19	22:54	AR1248X1	RTX1701	HP5890XA			00809DD7A	3
PEST	AR1254X1	CLS		LOW	0	0.00	93/07/19	23:49	AR1254X1	RTX1701	HP5890XA			009366E29	3
PEST	TOXAPHX1	CLS		LOW	0	0.00	93/07/20	00:44	TOXAPHX1	RTX1701	HP5890XA			00063FF3C	3
PEST	INDALX1	CLM		LOW	0	0.00	93/07/20	01:39	INDALX1	RTX1701	HP5890XA			00190909D	3
PEST	INDBLX1	CLM		LOW	0	0.00	93/07/20	02:34	INDBLX1	RTX1701	HP5890XA			003172C8B	3
PEST	INDAMX1	CLM		LOW	0	0.00	93/07/20	03:29	INDAMX1	RTX1701	HP5890XA			00444C3A1	3
PEST	INDBMX1	CLM		LOW	0	0.00	93/07/20	04:24	INDBMX1	RTX1701	HP5890XA			005715855	3
PEST	INDAHX1	CLM		LOW	0	0.00	93/07/20	05:18	INDAHX1	RTX1701	HP5890XA			00698EB59	3
PEST	INDBHX1	CLM		LOW	0	0.00	93/07/20	06:13	INDBHX1	RTX1701	HP5890XA			0082582EA	3
PEST	PIBLKX1	LIB		LOW	WATER	0.00	93/07/20	07:08	PIBLKX1	RTX1701	HP5890XA			009521BAF	3
PEST	PEMX2	CLE		LOW	0	1.00	93/07/20	08:03	PEMX2	RTX1701	HP5890XA			00080027B	3

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

== FILE SKELETON ==
LAB: WADS SDG: EWP60

FRACTION	SAMPLE	QC	SQ	LEVEL	MATRIX	DILUTION	ANALYSIS DATE	ANALYSIS TIME	LAB FILE/ SAMP_ID	COL_ID	INSTID	MB_FID	SB_FID	REC_REF	RUN
PEST	PBLK1	LRB		LOW	SOIL	1.00	93/07/20	08:58	PBLK1	RTX1701	HP5890XA			002079AC9	3
PEST	EWP60MS	LF1		LOW	SOIL	1.00	93/07/20	09:53	EWP60MS	RTX1701	HP5890XA	PBLK1	PBLKS	003365A11	3
PEST	EWP60	LSD		LOW	SOIL	1.00	93/07/20	10:48	EWP60	RTX1701	HP5890XA	PBLK1	PBLKS1	004658C33	3
PEST	EWP60MSD	LF2		LOW	SOIL	1.00	93/07/20	11:43	EWP60MSD	RTX1701	HP5890XA	PBLK1	PBLKS1	00594AF09	3
PEST	EWP61			LOW	SOIL	1.00	93/07/20	12:38	EWP61	RTX1701	HP5890XA	PBLK1	PBLKS1	00723E941	3
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	13:32	ZZZZZ	RTX1701	HP5890XA	PBLK1	PBLKS1	008520EEE	3
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	14:27	ZZZZZ	RTX1701	HP5890XA			009811352	3
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	15:22	ZZZZZ	RTX1701	HP5890XA			001102491	3
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	16:17	ZZZZZ	RTX1701	HP5890XA			002392DC9	3
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	17:12	ZZZZZ	RTX1701	HP5890XA			003683259	3
PEST	PIBLKX2	LIB		LOW	WATER	1.00	93/07/20	18:07	PIBLKX2	RTX1701	HP5890XA			004973F09	3
PEST	INDAMX2	CLE		LOW	0	1.00	93/07/20	19:02	INDAMX2	RTX1701	HP5890XA			006252201	3
PEST	INDBMX2	CLE		LOW	0	0.00	93/07/20	19:57	INDBMX2	RTX1701	HP5890XA			00752B2C9	3
PEST		MNC			0					RTX5	HP5890XB			000022DAF	4
PEST	FLO942935	FLO			0		92/12/06	00:00	FLO942935	RTX5	HP5890XB			001315C19	4
PEST	GPC1006	GPC			0		93/06/28	12:00	GPC1006	RTX5	HP5890XB			0014450E3	4
PEST	RESCX1	LPC			0		93/07/19	17:25	RESCX1	RTX5	HP5890XB			00152E35A	4
PEST	PEMX1	CLE		LOW	0		93/07/19	18:20	PEMX1	RTX5	HP5890XB			001740380	4
PEST	AR1660X1	CLS		LOW	0	0.00	93/07/19	19:15	AR1660X1	RTX5	HP5890XB			003019C98	4
PEST	AR1221X1	CLS		LOW	0	0.00	93/07/19	20:09	AR1221X1	RTX5	HP5890XB			004282E62	4
PEST	AR1232X1	CLS		LOW	0	0.00	93/07/19	21:04	AR1232X1	RTX5	HP5890XB			00555BF00	4
PEST	AR1242X1	CLS		LOW	0	0.00	93/07/19	21:59	AR1242X1	RTX5	HP5890XB			006824F9C	4
PEST	AR1248X1	CLS		LOW	0	0.00	93/07/19	22:54	AR1248X1	RTX5	HP5890XB			00809E05B	4
PEST	AR1254X1	CLS		LOW	0	0.00	93/07/19	23:49	AR1254X1	RTX5	HP5890XB			00936710A	4
PEST	TOXAPHX1	CLS		LOW	0	0.00	93/07/20	00:44	TOXAPHX1	RTX5	HP5890XB			000630215	4
PEST	INDALX1	CLM		LOW	0	0.00	93/07/20	01:39	INDALX1	RTX5	HP5890XB			001909379	4
PEST	INDBLX1	CLM		LOW	0	0.00	93/07/20	02:34	INDBLX1	RTX5	HP5890XB			003173130	4
PEST	INDAMX1	CLM		LOW	0	0.00	93/07/20	03:29	INDAMX1	RTX5	HP5890XB			00444CC3C	4
PEST	INDBMX1	CLM		LOW	0	0.00	93/07/20	04:24	INDBMX1	RTX5	HP5890XB			005716116	4
PEST	INDAHX1	CLM		LOW	0	0.00	93/07/20	05:18	INDAHX1	RTX5	HP5890XB			00698F440	4
PEST	INDBHX1	CLM		LOW	0	0.00	93/07/20	06:13	INDBHX1	RTX5	HP5890XB			008258CA7	4
PEST	PIBLKX1	LIB		LOW	WATER	0.00	93/07/20	07:08	PIBLKX1	RTX5	HP5890XB			0095226A6	4
PEST	PEMX2	CLE		LOW	0	1.00	93/07/20	08:03	PEMX2	RTX5	HP5890XB			000800D98	4
PEST	PBLK1	LRB		LOW	SOIL	1.00	93/07/20	08:58	PBLK1	RTX5	HP5890XB			00207A604	4
PEST	EWP60MS	LF1		LOW	SOIL	1.00	93/07/20	09:53	EWP60MS	RTX5	HP5890XB	PBLK1	PBLKS	003366563	4
PEST	EWP60	LSD		LOW	SOIL	1.00	93/07/20	10:48	EWP60	RTX5	HP5890XB	PBLK1	PBLKS1	004659654	4
PEST	EWP60MSD	LF2		LOW	SOIL	1.00	93/07/20	11:43	EWP60MSD	RTX5	HP5890XB	PBLK1	PBLKS1	00594B6E3	4
PEST	EWP61			LOW	SOIL	1.00	93/07/20	12:38	EWP61	RTX5	HP5890XB	PBLK1	PBLKS1	00723EF4D	4
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	13:32	ZZZZZ	RTX5	HP5890XB	PBLK1	PBLKS1	008521729	4
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	14:27	ZZZZZ	RTX5	HP5890XB			0098123DF	4
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	15:22	ZZZZZ	RTX5	HP5890XB			001102D3A	4
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	16:17	ZZZZZ	RTX5	HP5890XB			0023936D7	4
PEST	ZZZZZ	LSD		LOW	SOIL	1.00	93/07/20	17:12	ZZZZZ	RTX5	HP5890XB			003683B36	4
PEST	PIBLKX2	LIB		LOW	WATER	1.00	93/07/20	18:07	PIBLKX2	RTX5	HP5890XB			004974A19	4
PEST	INDAMX2	CLE		LOW	0	1.00	93/07/20	19:02	INDAMX2	RTX5	HP5890XB			006252D42	4
PEST	INDBMX2	CLE		LOW	0	0.00	93/07/20	19:57	INDBMX2	RTX5	HP5890XB			00752C02C	4

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR

ORGANICS
RESOLUTION OF CONTRACT COMPLIANCE SCREENING (CCS) RESULTS

LABORATORY CODE : WADS
REGION : 5
DATE MAILED :

CASE: 20247
SDG_NO. : EWP60
RECONCILED BY : AM/CM

RESPONSE DATE : 28JUL93
RECONCILIATION DATE :

ATTACHED ARE COPIES OF CCS SUMMARIES WHICH SHOW THE STATUS OF RELEVANT SAMPLES AFTER INCORPORATION OF LABORATORY RESPONSE TO SCREENING. PROBLEM CODES WHICH NO LONGER APPLY ARE MARKED WITH AN (X) CODE .

FRACTION	CRITERION	COMMENTS
VOA	TR.3	ON TR, LRD IS SHOWN AS 06-23-93. ON FORMS 1A/1E, LRD IS REPORTED AS 06-25-93. R.

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

MANUAL SCREENING DEFECT REPORT
BY FRACTION

LAB: WADS SDG: EWP60 CASE: 20247

VOLATILES	SAMPLE:EWP60

CRITERION TR. TRAFFIC REPORT

TR.3.1.1 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1A>. (B-8/B-32/B-33)*

TR.3.1.2 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1E>. (B-8/B-32/B-33)*

VOLATILES	SAMPLE:EWP60MS

CRITERION TR. TRAFFIC REPORT

TR.3.1.1 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1A>. (B-8/B-32/B-33)*

TR.3.1.2 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1E>. (B-8/B-32/B-33)*

VOLATILES	SAMPLE:EWP60MSD

CRITERION TR. TRAFFIC REPORT

TR.3.1.1 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1A>. (B-8/B-32/B-33)*

TR.3.1.2 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1E>. (B-8/B-32/B-33)*

VOLATILES	SAMPLE:EWP61

CRITERION TR. TRAFFIC REPORT

U.S.E.P.A. CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE - OPERATED BY DYNCORP VIAR
ORGANIC CONTRACT COMPLIANCE SCREENING SYSTEM

MANUAL SCREENING DEFECT REPORT
BY FRACTION

LAB: WADS SDG: EWP60 CASE: 20247

VOLATILES SAMPLE:EWP61 (Continued)

TR.3.1.1 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1A>. (B-8/B-32/B-33)*

TR.3.1.2 Compliance cannot be determined - <Date Received> on TR is not the same as reported on Form(s) <1E>. (B-8/B-32/B-33)*

SEP 10 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 9-1-93

SUBJECT: Review of Region V CLP Data
Received for Review on July 30 1993

FROM: Charles T. Elly, Director (SL-10C)
Central Regional Laboratory Jay Thakkar

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Dystock (OH)

CASE and/or SAS NUMBER: 20247 (2) SDG NUMBER: MEWR82

Number and Type of Samples: 11 - water

CLP Sample Numbers: MEWR82, 85-94

CLP Laboratory: Chemmet Hrs. for Review 9 +0.4 T.M.

Following are our findings:

Data are Acceptable for use with Qualifications
JT

( ) Data are acceptable for use.
(x) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

SITE : SYSTECH (OH) CASE: 20247 (2)
CONTRACTOR: SKINNER SDG : MEWR82

The laboratory's portion of this case contains 11 low level water samples analyzed for total metals and cyanide. Below is a summary of the out of control audits and their possible effects on the data for this case.

EVIDENTIAL AUDIT: The original Hg raw data from pages 145 to 190 are with case 20135, SDG: MAW659 and from pages 195 to 218 are with case 20209, SDG: MBDN83. All CN raw data are with case 20135, SDG: MAW698. The original airbill and DC-1 form are with case 20247, SDG: MEWR73. The airbill 5484373849 was mislabeled on the traffic report. The corrected airbill number should be 5484373845. The lab labeled the sample numbers on pages 186 to 189 incorrectly. The corrected pages 186 to 189 were faxed by the lab and were inserted into the case by the reviewer. All of the remaining raw data, forms and documents are originals and are present in the order indicated on the DC-2 form (inventory sheet). All original sample tags are included in the case and their numbers match the numbers on the DC-1 form (log-in sheet).

ICP ANALYSES: The duplicate audit for Zn (200.0% RPD) was not flagged by the lab because the duplicate difference did not exceed the technical criterion (+/- CRDL) for water samples. All Zn results are acceptable.

The preparation blank was found to contain Be (0.69 ug/l) and the CCB was found to contain Be (0.7 ug/l). The Be results on MEWR91, 93 and 94 are estimated (J) due to contamination.

GFAA ANALYSES: The duplicate audit for Pb (40.1% RPD) was not flagged by the lab because the duplicate difference did not exceed the technical criterion (+/- CRDL) for water samples. Pb results are not qualified on this basis. The Pb results on MEWR82, 87, 90, 91, 92 and 94 were flagged (W) by the lab and are estimated (J) due to interference.

The matrix spike recovery for Se (74.1%) is out of control. The Se result on MEWR82 was flagged (+) by the lab which indicated that

Reviewed by: _____ Lockheed/ESAT
Date: 3-24-93

on MEWR82 is estimated (J) due to low bias and interference. The Se results on MEWR85 and 88 were flagged (W) by the lab and are estimated (UJ) due to a possible elevated detection limit and interference. After checking the Se raw data, the reviewer added a (W) flag to Se result for MEWR90 on Form 1. The Se result on MEWR90 is estimated (UJ) due to a possible elevated detection limit and interference. The Se results on MEWR91, 92 and 93 were flagged (W) by the lab and are estimated (J) due to low bias and interference. The Se result on MEWR86 is estimated (J) due to low bias. All of the remaining Se results are estimated (UJ) due to a possible elevated detection limit.

The matrix spike recovery for Tl (51.7%) is out of control. The Tl result on MEWR94 is estimated (UJ) due to a possible elevated detection limit. All of the remaining Tl results were flagged (W) by the lab and are estimated (UJ) due to a possible elevated detection limit and interference.

The As results on MEWR82, 93 and 94 were flagged (W) by the lab. The Se results MERW82 and 93 are estimated (J) and the Se result on MEWR94 is estimated (UJ) due to interference.

OTHER QUALIFIERS: All Hg and CN results are acceptable.

Samples MEWR90/91 are field duplicates and show good field correlation.

Sample MEWR94 is a field blank and contains Al (277 ug/l), Be (0.69 ug/l), Fe (24.1 ug/l), Pb (3.4 ug/l) and Mn (12.8 ug/l). The Al results on MEWR87 and 88; the Fe results on MEWR82, 88, 92 and 93; the Pb results on MEWR85, 86 and 93 and the Mn result on MEWR92 are estimated (J) due to field contamination. The Be results on MEWR91 and 93 and the Pb results on MEWR82, 87, 90, 91 and 92 are affected by field contamination but remain qualified as stated above.

Reviewed by: _____ Lockheed/ESAT
Date: 9-24-93

QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 20247 (2) SITE: Clytech (OH) MATRIX: Water WATER SAMPLE SPK: _____

DATA SET: _____ LAB: Skinner CONC: Low WATER SAMPLE DUP: _____

LAB QC # MEWR82 REVIEWED BY: Bari Lynn SOIL SAMPLE SPK: _____

DATE: 8-24-93 SOIL SAMPLE DUP: _____

FORM #		FORM 2	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 5	FIELD	FIELD	FIELD	FIELD	COMMENTS
ELEMENT	HOLD TIME	INITIAL CALIB	CONTIN CALIB	CALIB BLANK	PREP WATER BLANK	PREP SOIL BLANK	ICB %R	SOIL SPIKE %R	SOIL DUP RPD	ICB AQ	ICB SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP %R	AQ SPIKE %R	BLANK	DUP RPD	BLANK	DUP RPD	
ALUMINUM																		227		
ANTIMONY																				
ARSENIC																				
BARIUM																				
BERYLLIUM			0.7		0.69													0.69		
CADMIUM																				
CALCIUM																				
CHROMIUM																				
COBALT																				
COPPER																				
IRON																		24.1		
LEAD																		3.4		
MAGNESIUM																				
MANGANESE																		12.8		
MERCURY																				
NICKEL																				
POTASSIUM																				
SELENIUM															74.1					
SILVER																				
SODIUM																				
THALLIUM															51.7					
TIN																				
VANADIUM																				
ZINC																				
CYANIDE																				

GLOSSARY A

Data Qualifier Definitions

For the purposes of this document the following code letters and associated definitions are provided.

U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J - The associated value is an estimated quantity.

R - The data are unusable. (Note: Analyte may or may not be present.)

UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

In Reference to Case No(s):
20247 (2)

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM

Telephone Record Log

Date of Call: 8-23-93

Laboratory Name: Skinner

Lab Contact: Richard Purdy 617-890-7200

Region: 5

Regional Contact: Bai Yuen

Call Initiated By: ___ Laboratory ✓ Region

In reference to data for the following sample number(s):

SDG: MENR82

Summary of Questions/Issues Discussed:

1. Missing airbill 5434373849 which was listed on the traffic report.
2. Time discrepancy between HG raw data (P186) and Form 14 (P47).
3. MENR89 is missing from the raw data, but was listed on Form 14 (P47).
4. Why MENR94 for HG was digested seperately? If the HG sample was digested on 7-2-93, where was the result come from (P189)?

Summary of Resolution:

1. The airbill is mislabeled. Should be 5434373845.
2. P186-P189. Sample numbers were off by 1. The lab will fax the corrected raw data.
3. See question # 2
4. The lab could not find MENR94

Bai Yuen
Signature

8-23-93
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

SOW No.: ILM02.1

EPA Sample No.	Lab Sample ID.
MEWR82	06175-01S
MEWR85	06175-02S
MEWR86	06175-03S
MEWR87	06175-04S
MEWR87D	06175-04S2
MEWR87S	06175-04DS
MEWR88	06175-05S
MEWR89	06175-06S
MEWR90	06175-07S
MEWR91	06175-08S
MEWR92	06175-09S
MEWR93	06175-10S
MEWR94	06175-11S

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes-were raw data generated before application of background corrections?	Yes/No	NO

Comments:

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 floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: _____ Name: Kirk D. Johnson

Date: 11/27/93 Title: USEPA Data Manager

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEWR82

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-01S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	3.8	B	W	F
7440-39-3	Barium	258			P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	110000			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.3	B		P
7439-89-6	Iron	27.4	B		P
7439-92-1	Lead	4.3		W	F
7439-95-4	Magnesium	29300			P
7439-96-5	Manganese	673			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	4440	B		P
7782-49-2	Selenium	14.2		+N	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	38600			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

MEWR85

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-02S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	5.7	B		F
7440-39-3	Barium	262			P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	56200			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	6.4	B		P
7440-50-8	Copper	4.3	B		P
7439-89-6	Iron	335			P
7439-92-1	Lead	2.3	B		F
7439-95-4	Magnesium	24000			P
7439-96-5	Manganese	250			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	2070	B		P
7782-49-2	Selenium	2.4	U	WN	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	76400			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

MEWR86

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-03S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	9.6	B		F
7440-39-3	Barium	218			P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	82600			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	1170			P
7439-92-1	Lead	2.2	B		F
7439-95-4	Magnesium	25700			P
7439-96-5	Manganese	493			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	9670			P
7782-49-2	Selenium	2.6	B	SN	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	80200			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

MEWR87

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-04S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.8	B		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	2.8	U		F
7440-39-3	Barium	46.2	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	70700			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	1070			P
7439-92-1	Lead	2.8	B	W	F
7439-95-4	Magnesium	32200			P
7439-96-5	Manganese	259			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	2450	B		P
7782-49-2	Selenium	2.4	U	N	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	17400			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	10.0	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEWR88

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-05S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.5	B		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	5.3	B		F
7440-39-3	Barium	124	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	77500			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	15.7	B		P
7439-92-1	Lead	1.9	U		F
7439-95-4	Magnesium	32500			P
7439-96-5	Manganese	486			P
7439-97-6	Mercury	0.28			AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	5990			P
7782-49-2	Selenium	2.4	U	WN	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	42800			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEWR89

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-06S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	10.5			F
7440-39-3	Barium	257			P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	90400			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	1840			P
7439-92-1	Lead	1.9	U		F
7439-95-4	Magnesium	28400			P
7439-96-5	Manganese	327			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	3280	B		P
7782-49-2	Selenium	2.4	U	N	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	43000			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	4.8	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEWR90

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-07S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum	23.5	U		P	
7440-36-0	Antimony	17.9	U		P	
7440-38-2	Arsenic	14.6			F	
7440-39-3	Barium	176	B		P	
7440-41-7	Beryllium	0.50	U		P	
7440-43-9	Cadmium	1.7	U		P	
7440-70-2	Calcium	31500			P	
7440-47-3	Chromium	5.8	U		P	
7440-48-4	Cobalt	3.8	U		P	
7440-50-8	Copper	4.2	U		P	
7439-89-6	Iron	354			P	
7439-92-1	Lead	2.6	B	W	F	
7439-95-4	Magnesium	23000			P	
7439-96-5	Manganese	116			P	
7439-97-6	Mercury	0.10	U		AV	
7440-02-0	Nickel	6.1	U		P	
7440-09-7	Potassium	3280	B		P	
7782-49-2	Selenium	2.4	U	N W	F	by 3-26-93
7440-22-4	Silver	3.8	U		P	
7440-23-5	Sodium	121000			P	
7440-28-0	Thallium	2.0	U	WN	F	
7440-62-2	Vanadium	3.3	U		P	
7440-66-6	Zinc	3.4	U		P	
	Cyanide	10.0	U		CA	

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

MEWR91

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-08S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	13.7			F
7440-39-3	Barium	177	B		P
7440-41-7	Beryllium	0.69	B		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	31700			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	355			P
7439-92-1	Lead	4.5		W	F
7439-95-4	Magnesium	23100			P
7439-96-5	Manganese	117			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	3220	B		P
7782-49-2	Selenium	2.6	B	WN	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	122000			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEWR92

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-093

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	2.8	U		F
7440-39-3	Barium	106	B		P
7440-41-7	Beryllium	0.50	U		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	108000			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	5.0	B		P
7439-89-6	Iron	40.7	B		P
7439-92-1	Lead	2.8	B	W	F
7439-95-4	Magnesium	30500			P
7439-96-5	Manganese	12.2	B		P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	2930	B		P
7782-49-2	Selenium	2.7	B	WN	F
7440-22-4	Silver	3.3	U		P
7440-23-5	Sodium	48600			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.5	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEWR93

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-10S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.5	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	3.7	B	W	F
7440-39-3	Barium	317			P
7440-41-7	Beryllium	0.69	B		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	55200			P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	36.4	B		P
7439-92-1	Lead	3.3			F
7439-95-4	Magnesium	22000			P
7439-96-5	Manganese	740			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	4470	B		P
7782-49-2	Selenium	3.1	B	WN	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	65700			P
7440-28-0	Thallium	2.0	U	WN	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEWR94

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Matrix (soil/water): WATER Lab Sample ID: 06175-11S

Level (low/med): LOW Date Received: 06/23/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	277			P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	2.8	U	W	F
7440-39-3	Barium	2.5	U		P
7440-41-7	Beryllium	0.69	B		P
7440-43-9	Cadmium	1.7	U		P
7440-70-2	Calcium	192	B		P
7440-47-3	Chromium	5.8	U		P
7440-48-4	Cobalt	3.8	U		P
7440-50-8	Copper	4.2	U		P
7439-89-6	Iron	24.1	B		P
7439-92-1	Lead	3.4		W	F
7439-95-4	Magnesium	71.5	B		P
7439-96-5	Manganese	12.8	B		P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	6.1	U		P
7440-09-7	Potassium	188	U		P
7782-49-2	Selenium	2.4	U	N	F
7440-22-4	Silver	3.8	U		P
7440-23-5	Sodium	219	B		P
7440-28-0	Thallium	2.0	U	N	F
7440-62-2	Vanadium	3.3	U		P
7440-66-6	Zinc	3.4	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	23.5	U	23.5	U	23.5	U	23.5	U	23.500	U	P
Antimony	17.9	U	17.9	U	17.9	U	17.9	U	17.900	U	P
Arsenic	2.8	U	2.9	B	2.8	U	2.8	U	2.800	U	F
Barium	2.5	U	2.5	U	2.5	U	2.5	U	2.500	U	P
Beryllium	0.5	U	0.5	U	0.5	U	0.7	B	0.690	B	P
Cadmium	1.7	U	1.7	U	1.7	U	1.7	U	1.700	U	P
Calcium	-93.4	B	42.3	U	-90.7	B	-48.5	B	42.300	U	P
Chromium	5.8	U	5.8	U	5.8	U	5.8	U	5.800	U	P
Cobalt	3.8	U	3.8	U	3.8	U	3.8	U	3.800	U	P
Copper	4.2	U	4.2	U	4.2	U	4.2	U	4.200	U	P
Iron	-10.0	B	4.8	U	-9.6	B	-11.4	B	-13.440	B	P
Lead	1.9	U	1.9	U	1.9	U	1.9	U	1.900	U	F
Magnesium	46.4	U	46.4	U	46.4	U	46.4	U	46.400	U	P
Manganese	1.8	U	1.8	U	1.8	U	1.8	U	1.800	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	AV
Nickel	6.1	U	6.1	U	6.1	U	6.1	U	6.100	U	P
Potassium	187.6	U	187.6	U	187.6	U	187.6	U	187.600	U	P
Selenium	2.9	B	2.4	U	2.4	U	2.4	U	2.400	U	F
Silver	3.8	U	3.8	U	3.8	U	3.8	U	3.800	U	P
Sodium	66.2	U	66.2	U	66.2	U	66.2	U	66.200	U	P
Thallium	2.0	U	2.0	U	2.0	U	2.0	U	2.000	U	F
Vanadium	3.3	U	3.3	U	3.3	U	3.3	U	3.300	U	P
Zinc	3.4	U	3.4	U	3.4	U	3.4	U	3.400	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	CA

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			23.5	U							P
Antimony			17.9	U							P
Arsenic			2.8	U							F
Barium			2.5	U							P
Beryllium			0.7	B							P
Cadmium			1.7	U							P
Calcium			-74.2	B							P
Chromium			5.8	U							P
Cobalt			3.8	U							P
Copper			4.2	U							P
Iron			-6.9	B							P
Lead			1.9	U							F
Magnesium			46.4	U							P
Manganese			1.8	U							P
Mercury			0.1	U	0.1	U	0.1	U	0.100	U	AV
Nickel			6.1	U							P
Potassium			187.6	U							P
Selenium			2.4	U	2.4	U					F
Silver			3.8	U							P
Sodium			66.2	U							P
Thallium			2.0	U							F
Vanadium			3.3	U							P
Zinc			3.4	U							P
Cyanide											NR

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											NR
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead	1.9	U	1.9	U	1.9	U					F
Magnesium											NR
Manganese											NR
Mercury			0.1	U	0.1	U	0.1	U			AV
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											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	0.1	U	0.1	U	0.1	U	0.1	U			AV
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											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			0.1	U							AV
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

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5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEWR87S

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

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

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	1950.3000		24.7700	B	2000.00	96.3		P
Antimony	75-125	470.3000		17.9000	U	500.00	94.1		P
Arsenic	75-125	38.0775		2.8000	U	40.00	95.2		F
Barium	75-125	1947.4000		46.1500	B	2000.00	95.1		P
Beryllium	75-125	49.1700		0.5000	U	50.00	98.3		P
Cadmium	75-125	46.5600		1.7000	U	50.00	93.1		P
Calcium									NR
Chromium	75-125	188.5200		5.8000	U	200.00	94.3		P
Cobalt	75-125	454.4100		3.8000	U	500.00	90.9		P
Copper	75-125	232.1400		4.2000	U	250.00	92.9		P
Iron	75-125	2010.1000		1072.2000		1000.00	93.8		P
Lead	75-125	20.7785		2.7895	B	20.00	89.9		F
Magnesium									NR
Manganese	75-125	719.5200		258.9000		500.00	92.1		P
Mercury	75-125	0.7720		0.1000	U	1.00	77.2		AV
Nickel	75-125	457.8200		6.1000	U	500.00	91.6		P
Potassium									NR
Selenium	75-125	7.4085		2.4000	U	10.00	74.1	N	F
Silver	75-125	44.2600		3.8000	U	50.00	88.5		P
Sodium									NR
Thallium	75-125	25.8665		2.0000	U	50.00	51.7	N	F
Vanadium	75-125	466.4700		3.3000	U	500.00	93.3		P
Zinc	75-125	447.3100		9.9600	B	500.00	87.5		P
Cyanide	75-125	409.9198		10.0000	U	500.00	82.0		CA

Comments:

6

DUPLICATES

EPA SAMPLE NO.

MEWR87D

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

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

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		24.7700	B	24.2700	B	2.0		P
Antimony		17.9000	U	17.9000	U			P
Arsenic		2.8000	U	2.8000	U			F
Barium		46.1500	B	44.9100	B	2.7		P
Beryllium		0.5000	U	0.5000	U			P
Cadmium		1.7000	U	1.7000	U			P
Calcium		70731.0000		70910.0000		0.3		P
Chromium		5.8000	U	5.8000	U			P
Cobalt		3.8000	U	3.8000	U			P
Copper		4.2000	U	4.2000	U			P
Iron		1072.2000		1107.4000		3.2		P
Lead	3.0	2.7895	B	4.1890		40.1		F
Magnesium		32174.0000		32286.0000		0.3		P
Manganese		258.9000		259.5300		0.2		P
Mercury		0.1000	U	0.1000	U			AV
Nickel		6.1000	U	6.1000	U			P
Potassium		2452.7000	B	2452.7000	B	0.0		P
Selenium		2.4000	U	2.4000	U			F
Silver		3.8000	U	3.8000	U			P
Sodium	5000.0	17354.0000		17510.0000		0.9		P
Thallium		2.0000	U	2.0000	U			F
Vanadium		3.3000	U	3.3000	U			P
Zinc		9.9600	B	3.4000	U	200.0		P
Cyanide		10.0000	U	10.0000	U			CA

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

ICP ID Number: Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number: F3

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BS	3	1.9	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium	276.80	BS	10	2.0	F
Vanadium			50		NR
Zinc			20		NR

Comments:

F3: THERMO JARRELL-ASH VIDEO 22E (#2913)

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

ICP ID Number: Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number: F5

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	197.20	BS	10	2.8	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium	196.00	BS	5	2.4	F
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

F5: THERMO JARRELL-ASH VIDEO 21E (#2936)

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

ICP ID Number: Date: 04/15/93

Flame AA ID Number: M1

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	AV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

M1: TECHNICON MERCURY ANALYZER (#SS4199A-D)

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR82

ICP ID Number: P1 Date: 04/15/93

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		200	23.5	P
Antimony	206.80		60	17.9	P
Arsenic			10		NR
Barium	493.40		200	2.5	P
Beryllium	313.00		5	0.5	P
Cadmium	226.50		5	1.7	P
Calcium	317.90		5000	42.3	P
Chromium	267.70		10	5.8	P
Cobalt	228.60		50	3.8	P
Copper	324.70		25	4.2	P
Iron	259.90		100	4.8	P
Lead			3		NR
Magnesium	279.00		5000	46.4	P
Manganese	257.60		15	1.8	P
Mercury			0.2		NR
Nickel	231.60		40	6.1	P
Potassium	766.40		5000	187.6	P
Selenium			5		NR
Silver	328.00		10	3.8	P
Sodium	588.90		5000	66.2	P
Thallium			10		NR
Vanadium	292.40		50	3.3	P
Zinc	213.80		20	3.4	P

Comments:

P1: THERMO JARRELL-ASH ICAP61 (#10782)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. (2) CERCLIS No. OHD

Case No. 20247 Site Name Location: Dystech

Contractor or EPA Lab: Chemir Data User: PRC

No. of Samples: 11 Date Samples or Data Received: 7-30-93

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 11 No. of samples received: 11

Received by: A D Harris Date: 7-30-93

Received by LSSS: Dorothy M. May Date: 8/04/93

Review started: 8-20-93 Reviewer Signature: B. Lucas

Total time spent on review: 9 Date review completed: 8-24-93

Copied by: Jeanette Pritchett Date: Sept 2, 1993

Mailed to user by: Lynette Burnett Date: 9-8-93

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

Data received by: Mildred Fairclough Date: SEP 10 1993

Data review received by: _____ Date: _____
Inorganic Data Complete( ) Suitable for Intended Purpose( ) ✓ if OK
Organic Data Complete ( ) Suitable for Intended Purpose( ) list
Dioxin Data Complete ( ) Suitable for Intended Purpose( ) prblms
SAS Data Complete ( ) Suitable for Intended Purpose( ) below.

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: _____

SEP 13 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 9-1-93

SUBJECT: Review of Region V CLP Data
Received for Review on Aug 2, 1993

FROM: Charles T. Elly, Director (SL-10C)
Central Regional Laboratory Jay Thakker

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Dystech (OH)

CASE and/or SAS NUMBER: 20247 SDG NUMBER: MEWR78

Number and Type of Samples: 2 - Soils

CLP Sample Numbers: MEWR 78 -79

CLP Laboratory: Aato Hrs. for Review 7.5 hrs +0.3 T.M.

Following are our findings:

Data are Acceptable for use with Qualifications

JN

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

SITE: Systech CASE: 20247
LABORATORY: AATS SDG: MEWR78

The laboratory's portion of case 20247 contains two (2) low level soil samples assayed for total metals and total cyanide. The following narrative lists the out of control audits and their possible effects on the results.

EVIDENTIAL AUDIT: All forms are originals. Most of the raw data sheets are originals, those photocopied state where the originals can be found. The ICP, Pb, Se, Tl, Hg and CN raw data are originals. The As raw data (pg 162-164 and 172-177) are with case 20266, SDG: MFAP70. The Federal Express Airbill and the chain of custody forms are originals. All forms are present and in the order indicated on the Form DC-2 [inventory sheet].

ICP ANALYSES: The duplicate RPD for Cd (200%) was not flagged by the laboratory because the duplicate difference did not exceed the technical criterion (±2CRDL). All Cd data are acceptable.

The duplicate RPDs for Ni (80.3%), Fe (91.9%) and Mn (47.1%) are out of control. All Ni, Fe and Mn are estimated (J) due to poor precision.

The matrix spike recoveries for Cr (132%), Cu (129%) and Zn (135%) are out of control. All Cr, Cu and Zn data are estimated (J) due to high bias. The matrix spike recovery for Sb (31.3%) indicate low bias. All Sb data are estimated (UJ) due to possible elevation of the detection limit.

The serial dilution audits on Ca (11.4%), Fe (61.3%), Mg (28.4%), Mn (35.3%) and Zn (20%) are out of control. All Ca and Mg data are estimated (J) due to interference. All Fe, Mn and Zn data are affected by interference but remain qualified as stated above.

The CCB contains Na (278 µg/L). All Na data are estimated (J) due to contamination.

GFAA ANALYSES: The matrix spike recovery for Pb (200%) was not flagged by the laboratory because the sample concentration was more than 4X the spike level. All Pb data are acceptable.

Reviewed by: _____ Steffanie Tobin, Lockheed/ESAT
Date: _____ August 23, 1993

OTHER ANALYSES: All CN and Hg data are acceptable.

Reviewed by: ST Steffanie Tobin, Lockheed/ESAT
Date: August 23, 1993

GLOSSARY A

Data Qualifier Definitions

For the purposes of this document the following code letters and associated definitions are provided.

U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J - The associated value is an estimated quantity.

R - The data are unusable. (Note: Analyte may or may not be present.)

UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 20247 SITE: Systech MATRIX: Soil WATER SAMPLE SPK: NA

DATA SET: MEWR78 LAB: AATS CONC: low WATER SAMPLE DUP: NA

LAB QC # _____ REVIEWED BY: Stephanie N. Tobin SOIL SAMPLE SPK: MEWR78

DATE: 8/22/93 SOIL SAMPLE DUP: MEWR78

FORM #		FORM 2	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 5	FIELD	FIELD	FIELD	FIELD		
ELEMENT	HOLD TIME	INITIAL CALIB	CONTIN CALIB	CALIB BLANK ug/L	PREP WATER BLANK	PREP SOIL BLANK	ICS %R	SOIL SPIKE %R	SOIL DUP RPD	LCS AQ	LCS SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP RPD	AQ SPIKE %R	BLANK	DUP RPD	BLANK	DUP RPD	GFAA DUP	GFAA ANALYT SPIKE
ALUMINUM	OK	OK	OK	~~100.4~~	NA	~~24.3~~ ug/kg		~~31.3~~ N		NA	OK	NA		NA	NA						
ANTIMONY								31.3 N													
ARSENIC																					
BARIUM																					
BERYLLIUM													~~100~~								
CADMIUM									~~200~~												
CALCIUM													11.4 E								
CHROMIUM								132 N													
COBALT													~~100~~								
COPPER				~~7.8~~				129 N													
IRON						~~6.5~~			91.9*				61.3 E								
LEAD								~~200~~													
MAGNESIUM													28.4 E								
MANGANESE									47.1*				35.3 E								
MERCURY																					
NICKEL									80.3*												
POTASSIUM																					
SELENIUM																					
SILVER																					
SODIUM				278																	
THALLIUM																					
TIN																					
VANADIUM																					
ZINC				~~4.0~~		~~0.75~~	~~95.3~~	135 N					20 E								
CYANIDE																					

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE **001**

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 20247 SAS No.: _____ SDG No.: MEWR78

SOW No.: 3/90

EPA Sample No.	Lab Sample ID
MEWR78	1424701
MEWR78D	1424701D
MEWR78S	1424701S
MEWR79	1424702

Were ICP interelement corrections applied ? Yes/No YES

Were ICP background corrections applied ? Yes/No YES

If yes - were raw data generated before application of background corrections ? Yes/No NO

Comments:

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 floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Steve L. Markham Name: **Steve L. Markham**

Date: **07/27/93** Title: **Inorganic Program Manager**

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEWR78

Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

Matrix (soil/water): SOIL_ Lab Sample ID: 1424701____

Level (low/med): LOW__ Date Received: 06/23/93

% Solids: _88.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5780			P
7440-36-0	Antimony	5.4	U	N	P
7440-38-2	Arsenic	5.9			F
7440-39-3	Barium	104			P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium	0.68	U		P
7440-70-2	Calcium	129000		E	P
7440-47-3	Chromium	48.0		N	P
7440-48-4	Cobalt	5.3	B		P
7440-50-8	Copper	56.6		N	P
7439-89-6	Iron	37200		E*	P
7439-92-1	Lead	148			F
7439-95-4	Magnesium	28200		E	P
7439-96-5	Manganese	709		E*	P
7439-97-6	Mercury	0.27			CV
7440-02-0	Nickel	15.9		*	P
7440-09-7	Potassium	961	B		P
7782-49-2	Selenium	0.45	U		F
7440-22-4	Silver	1.8	U		P
7440-23-5	Sodium	170	B		P
7440-28-0	Thallium	0.68	U		F
7440-62-2	Vanadium	15.8			P
7440-66-6	Zinc	200		EN	P
	Cyanide	0.57	U		CA

Color Before: BROWN_____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEWR79

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

Matrix (soil/water): SOIL_ Lab Sample ID: 1424702____

Level (low/med): LOW__ Date Received: 06/23/93

% Solids: _91.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10400			P
7440-36-0	Antimony	5.3	U	N	P
7440-38-2	Arsenic	8.5			F
7440-39-3	Barium	132			P
7440-41-7	Beryllium	0.96	B		P
7440-43-9	Cadmium	0.66	U		P
7440-70-2	Calcium	32700		E	P
7440-47-3	Chromium	23.4		N	P
7440-48-4	Cobalt	7.7	B		P
7440-50-8	Copper	33.7		N	P
7439-89-6	Iron	17200		E*	P
7439-92-1	Lead	92.0			F
7439-95-4	Magnesium	13800		E	P
7439-96-5	Manganese	590		E*	P
7439-97-6	Mercury	0.13			CV
7440-02-0	Nickel	23.0		*	P
7440-09-7	Potassium	1720			P
7782-49-2	Selenium	0.44	U		F
7440-22-4	Silver	1.8	U		P
7440-23-5	Sodium	97.6	B		P
7440-28-0	Thallium	0.66	U		F
7440-62-2	Vanadium	25.6			P
7440-66-6	Zinc	131		EN	P
	Cyanide	0.55	U		CA

Color Before: BROWN_____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW____ Clarity After: _____ Artifacts: _____

Comments:

3
BLANKS

012

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

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	41.0	U	41.0	U	100.4	B	88.3	B	24.337	B	P
Antimony	24.0	U	24.0	U	24.0	U	24.0	U	-6.059	B	P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	F
Barium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Cadmium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Calcium	123.0	U	123.0	U	123.0	U	123.0	U	24.600	U	P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Cobalt	4.0	U	4.0	U	-4.2	B	-4.4	B	0.800	U	P
Copper	6.0	U	6.0	U	6.0	U	7.3	B	1.200	U	P
Iron	5.0	U	5.0	U	5.0	U	5.0	U	4.509	B	P
Lead	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	F
Magnesium	122.0	U	122.0	U	122.0	U	122.0	U	24.400	U	P
Manganese	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.100	U	CV
Nickel	7.0	U	7.0	U	7.0	U	7.0	U	1.400	U	P
Potassium	206.0	U	206.0	U	206.0	U	206.0	U	41.200	U	P
Selenium	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	F
Silver	8.0	U	8.0	U	8.0	U	8.0	U	1.600	U	P
Sodium	216.0	U	216.0	U	217.8	B	278.1	B	43.200	U	P
Thallium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	F
Vanadium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Zinc	2.2	B	2.7	B	4.0	B	2.3	B	0.751	B	P
Cyanide	10.0	U	10.0	U	10.0	U			0.500	U	CA

3
BLANKS

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or 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			59.5	B	60.5	B					P
Antimony			24.0	U	24.0	U					P
Arsenic	3.0	U	3.0	U	3.0	U					F
Barium			5.0	U	5.0	U					P
Beryllium			1.0	U	1.0	U					P
dmium			3.0	U	3.0	U					P
alcium			123.0	U	123.0	U					P
Chromium			5.0	U	5.0	U					P
Cobalt			4.0	U	4.0	U					P
Copper			6.0	U	6.0	U					P
Iron			5.0	U	5.0	U					P
Lead	1.0	U	1.0	U	1.0	U					F
Magnesium			122.0	U	122.0	U					P
Manganese			1.0	U	1.0	U					P
Mercury			0.2	U	0.2	U	0.2	U			CV
Nickel			7.0	U	7.0	U					P
Potassium			206.0	U	206.0	U					P
Selenium			2.0	U							F
Silver			8.0	U	8.0	U					P
Sodium			216.0	U	216.0	U					P
Thallium			3.0	U							F
Vanadium			5.0	U	5.0	U					P
Zinc			2.6	B	2.6	B					P
Cyanide											NR

3
BLANKS

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or 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	24.0	U	24.0	U	24.0	U	24.0	U			P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U			F
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium	123.0	U	123.0	U	123.0	U	123.0	U			P
Chromium	5.0	U	5.0	U	5.0	U	5.0	U			F
Cobalt											NR
Copper											NR
Iron											NR
Lead	1.0	U	1.0	U	1.0	U	1.0	U			F
Magnesium											NR
Manganese											NR
Mercury			0.2	U							CV
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc	2.0	U	2.0	U	2.0	U	2.0	U			P
Cyanide											NR

3
BLANKS

015

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

Preparation Blank Matrix (soil/water): _____

Preparation Blank Concentration Units (ug/L or 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			24.0	U							P
Arsenic											NR
Barium											NR
Beryllium											NR
dmium											NR
alcium			123.0	U							P
Chromium			5.0	U							P
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			2.0	U							P
Cyanide											NR

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
MEWR78S

Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 20247 SAS No.: _____ SDG No.: MEWR78

Matrix (soil/water): SOIL___ Level (low/med): LOW___

% Solids for Sample: _88.1

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	35.5019		5.4484	U	113.51	31.3	N	P
Arsenic	75-125	15.3235		5.8593		9.08	104.2		F
Barium	75-125	586.0014		104.4679		454.03	106.1		P
Beryllium	75-125	12.4572		0.4833	B	11.35	105.5		P
Cadmium	75-125	12.9342		0.6810	U	11.35	114.0		P
Calcium									NR
Chromium	75-125	108.0949		47.9707		45.40	132.4	N	P
Cobalt	75-125	116.9115		5.3444	B	113.51	98.3		P
Copper	75-125	129.6422		56.5825		56.75	128.7	N	P
on									NR
ead		138.4790		147.5596		4.54	-200.0		F
Magnesium									NR
Manganese		510.8052		708.7610		113.51	-174.4		P
Mercury	75-125	0.7548		0.2690		0.57	85.2		CV
Nickel	75-125	128.2048		15.9446		113.51	98.9		P
Potassium									NR
Selenium	75-125	1.8547		0.4540	U	2.27	81.7		F
Silver	75-125	11.1240		1.8161	U	11.35	98.0		P
Sodium									NR
Thallium	75-125	10.7787		0.6810	U	11.35	95.0		F
Vanadium	75-125	125.5076		15.7526		113.51	96.7		P
Zinc	75-125	353.7287		200.4202		113.51	135.1	N	P
Cyanide	75-125	6.2394		0.5675	U	5.68	109.8		CA

Comments:

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEWR78A

Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 20247 SAS No.: SDG No.: MEWR78

Matrix (soil/water) : 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		139.65		24.00	U	120.0	116.4		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium		602.29		211.31		420.0	93.1		P
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		2500.62		862.85		1800.0	89.9		P
Cyanide									NR

Comments:

6
DUPLICATES

EPA SAMPLE NO.

MEWR78D

Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

Matrix (soil/water): SOIL_ Level (low/med): _LOW__

% Solids for Sample: _88.1 % Solids for Duplicate: __87.5

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		5779.7242		5786.4379		0.1		P
Antimony		5.4484	U	5.4484	U			P
Arsenic	2.3	5.8593		7.1923		20.4		P
Barium	45.4	104.4679		108.2123		3.5		P
Beryllium		0.4833	B	0.4908	B	1.5		P
Cadmium		0.6810	U	0.9403	B	200.0		P
Calcium		128853.3859		120474.5873		6.7		P
Chromium		47.9707		51.1812		6.5		P
Cobalt		5.3444	B	4.0266	B	28.1		P
Copper		56.5825		48.9333		14.5		P
Iron		37152.2388		13757.5700		91.9	*	P
Lead		147.5596		165.7208		11.6		F
Magnesium		28204.5641		34416.8002		19.8		P
Manganese		708.7610		438.6091		47.1	*	P
Mercury	0.1	0.2690		0.3014		11.4		CV
Nickel	9.1	15.9446		37.3582		80.3	*	P
Potassium		961.3585	B	1091.0302	B	12.6		P
Selenium		0.4540	U	0.4540	U			F
Silver		1.8161	U	1.8161	U			P
Sodium		170.4068	B	292.0879	B	52.6		P
Thallium		0.6810	U	0.6810	U			F
Vanadium	11.4	15.7526		16.7153		5.9		P
Zinc		200.4202		230.0238		13.8		P
Cyanide		0.5675	U	0.5675	U			CA

10

Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

ICP ID Number: ARL3560_____ Date: 07/06/93

Flame AA ID Number : _____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	41.0	P
Antimony	217.59		60	24.0	P
Arsenic			10		NR
Barium	445.40		200	5.0	P
Beryllium	313.40		5	1.0	P
Cadmium	226.50		5	3.0	P
Calcium	317.92		5000	123.0	P
Chromium	267.72		10	5.0	P
Cobalt	228.62		50	4.0	P
Copper	324.75		25	6.0	P
Iron	259.61		100	5.0	P
Lead			3		NR
Magnesium	279.01		5000	122.0	P
Manganese	257.61		15	1.0	P
Mercury			0.2		NR
Nickel	231.60		40	7.0	P
Potassium	776.49		5000	206.0	P
Selenium			5		NR
Silver	328.07		10	8.0	P
Sodium	589.00		5000	216.0	P
Thallium			10		NR
Vanadium	292.40		50	5.0	P
Zinc	213.86		20	2.0	P

Comments:

10

Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN ANALYTICAL Contract: 68-D1-0024

Lab Code: AATS Case No.: 20247 SAS No.: SDG No.: MEWR78

ICP ID Number: Date: 04/13/93

Flame AA ID Number :

Furnace AA ID Number : VAR400A

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	193.70	BZ	10	3.0	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10

Instrument Detection Limits (Quarterly)

026

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

ICP ID Number: _____ Date: 07/04/93

Flame AA ID Number : _____

Furnace AA ID Number : PE5100A_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	193.70	BZ	10	1.0	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10
Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

ICP ID Number: _____ Date: 04/13/93

Flame AA ID Number : _____

Furnace AA ID Number : VAR400B_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BZ	3	1.0	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

1O

Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR70

ICP ID Number: _____ Date: 04/13/93

Flame AA ID Number : _____

Furnace AA ID Number : VAR400A_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BS	3	1.0	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10

Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 20247_ SAS No.: ____/____ SDG No.: MEWR78

ICP ID Number: _____ Date: 04/13/93

Flame AA ID Number : _____

Furnace AA ID Number : VAR400B_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BZ	3	1.0	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10

Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS___ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

ICP ID Number: _____ Date: 04/20/93

Flame AA ID Number : _____

Furnace AA ID Number : PE5100B_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium	196.00	BZ	5	2.0	P
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

10
Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

ICP ID Number: _____ Date: 04/16/93

Flame AA ID Number : _____

Furnace AA ID Number : TJA22A_____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium	276.80	BS	10	3.0	F
Vanadium			50		NR
Zinc			20		NR

Comments:

10
Instrument Detection Limits (Quarterly)

Lab Name: AMERICAN_ANALYTICAL_____ Contract: 68-D1-0024

Lab Code: AATS__ Case No.: 20247_ SAS No.: _____ SDG No.: MEWR78

ICP ID Number: _____ Date: 04/07/93

Flame AA ID Number : LEEMAN_____

Furnace AA ID Number : _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.2	CV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

RECEIVE

AUG 25 1993

AUG 26 1993

PRC - EMI
CINCINNATI

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 8/18/93

SUBJECT: Review of Region V CLP Data
Received for Review on July 29, 1993

FROM: Charles T. Elly, Director (SL-10C) MSP for C.T. Elly
Central Regional Laboratory

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Systech (OH)

CASE and/or SAS NUMBER: 20247 SDG NUMBER: EWP55

Number and Type of Samples: 5 (Soil)

CLP Sample Numbers: EWP55-59

CLP Laboratory: SWRI Hrs. for Review 6+1.5=7.5 WL

Following are our findings:

All of the semi volatile samples showed the presence of PNA's at below the CRQL. Pesticide fraction showed positive hits for α + γ chlordane, Dieldrin and 4,4'-DDE. None of the pesticide samples showed the presence of PCB's except ~~Aroclor~~ EWP5 in which Aroclor 1242 was detected below CRQL. All of the data should be qualified according to the attached narrative.

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

Munter
8/18/93

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

DATA QUALIFIERS

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

Below is a summary of the out-of-control audits and the possible effect on the data for this case:

The samples were collected on the 21st of June 1993. The laboratory received five (5) soil samples on the 23rd of June 1993 in good condition for Volatile, Semivolatile and Pesticide/PCB analysis.
All soil samples met the technical holding time criteria.

The reviewer's narrative and data qualifiers are noted in the following pages.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 13 August 1993

NARRATIVE

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

1. HOLDING TIME

The laboratory received five (5) soil samples on the 23rd of June 1993 in good condition for full organic analysis.

Analysis of the soil samples were performed according to procedure outlined in the SOW 3/90 Statement of Work (SOW) (document OLM01.8) protocol.

All samples were collected on the 21st of June 1993.

All Volatile soil samples were analyzed as low-level samples within the fourteen (14) day technical holding time mandated for soil samples.

All Semivolatile soil samples met the technical holding time of fourteen (14) days for extraction.

All Pesticide soil samples were extracted within the fourteen (14) days technical holding time.

All Semivolatile and Pesticide extracts were analyzed within the forty (40) days technical holding time.

2.GC/MS TUNING AND GC PERFORMANCE

The GC/MS tuning complied with the mass list and ion abundance criteria for BFB and DFTPP.

Reviewed by:_____Krystyna Minczuk_____Lockheed/ESAT_____

Date:_____13 August 1993_____

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

GC Resolution Check Mixture met the 60% resolution criteria on both DB-608 and DB-1701 columns. Therefore, the resolution is acceptable.

DDT and Endrin degradation check using PEMix on both quantitation (DB-608) and confirmatory (DB-1701) columns are acceptable <20%.

The Florisil Cartridge Check and Resolution Check met the QC criteria (80-120%).

GPC calibration met the QC limit (80-110%) for all compounds on both DB-608 and DB-1701 columns.

3.CALIBRATION

Initial and continuing calibrations of the Volatile, Semivolatile and Pesticide standards were evaluated for the target compound list (TCL) and outliers are recorded on the outlier forms included as part of this narrative.

4.METHOD BLANK

VBLK01 is low level soil Volatile method blank. This blank contained VOA target compound Bromomethane (10 µg/KG). Contamination of Bromomethane was not present in any of the associated samples.

Reviewed by:_____Krystyna Minczuk_____Lockheed/ESAT_____

Date:_____13 August 1993_____

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

SBLK1 is the low level soil Semivolatile method blank. SBLK1 did not contain any Semivolatile target compounds but reported five (5) SVOA TICs.

The presence of tentatively identified compounds in any of the associated samples is flagged as non-detected (U) when sample result is less than 5 times the blank result.

PBLK01 is the Pesticide soil method blank. This blank contained Methoxychlor (0.16 µg/KG).

The presence of Methoxychlor in any of the associated samples is flagged as non-detected (U) when sample result is less than 5 times the blank result.

There were four (4) Pesticide instrument blanks but no samples were associated with the instrument blanks.

All instrument blanks did not contain any Pesticide residues.

5.SYSTEM MONITORING AND SURROGATE RECOVERY

Low level soil Volatile system monitoring compounds met the QC requirements.

All soil Semivolatile surrogates recoveries were well within the QC limit.

Reviewed by:_____Krystyna Minczuk_____Lockheed/ESAT_____

Date:_____13 August 1993_____

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

All soil Pesticide surrogates were within the QC criteria.

6.MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Sample **EWP55** was used as the soil spike for Volatile, Semivolatile and Pesticide fractions.

All soil Volatile matrix spike/matrix spike duplicate and RPDs were well within the QC limit.

All low level soil Semivolatile matrix spike/matrix spike duplicate and RPDs met the QC limit.

All Pesticide MS/MSD and RPDs met the QC limit.

7.FIELD BLANK AND FIELD DUPLICATE

No field blank nor field duplicate was included in SDG# EWP55.

8.INTERNAL STANDARDS

All Volatile internal standard area and RTs were well within the QC limit.

Semivolatile internal standards: IS5(CRY) Chrysene d12 in samples: EWP55MS, EWP55MSD, EWP59 and IS6(PRY)

Perylene d12 in samples: EWP55MS, EWP55MSD, EWP59, EWP58,

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 13 August 1993

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

EWP58RE and EWP59RE were below the QC limit area.

Any positive SVOA results for compounds quantitated using the IS5 and IS6 are flagged as estimated (J) and any non-detected SVOA results are flagged with the sample quantitation limit as estimated (UJ).

Please, refer to Table 4 to locate those Semivolatile compounds, that are quantitated using IS5 and IS6.

9.COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all compounds were properly identified.

10.COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

All VOAs, SVOAs and Pesticides target compound quantitative results were properly reported.

11.SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance.

GC baseline indicated acceptable performance.

Reviewed by: Krystyna Minczuk Lockheed/ESAT

Date: 13 August 1993

CONTRACTOR: S W R I **CASE:** 20247

SITE NAME: SEPTECH (OH) **SDG#:** EWP55

12.ADDITIONAL INFORMATION

SVOA samples EWP58 and EWP59 failed the internal standard recoveries.

Both samples were reanalyzed as EWP58RE and EWP59RE with the similar results.

A large number of SVOA TICs were noted in all samples: EWP55 (20), EWP56 (20), EWP57 (18), EWP58 (20), EWP59 (20), EWP58RE (20) and EWP59RE (20).

No additional specific problems was noted in this data case.

Reviewed by:_____Krystyna Minczuk_____Lockheed/ESAT_____

Date:_____13 August 1993_____

CALIBRATION OUTLIERS
VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 20247
COLUMN: SP-1000
CONTRACTOR: SWRI
SITE NAME: SYSTECH (OH)

Instrument# FINNX		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		5/31/93 16:42			6/28/93 9:07											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01															
Bromomethane	0.10															
Vinyl chloride	0.10															
Chloroethane	0.01															
Methylene chloride	0.01															
Acetone	0.01	2.194	41.2	J	1.477	32.4	J									
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
1,2-Dichloroethene (total)																
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01															
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane																
cis-1,3-Dichloropropene	0.20															
Trichloroethene	0.30															
Dibromochloromethane	0.10															
1,1,2-Trichloroethane	0.10															
Benzene	0.50															
tran-1,3-Dichloropropene	0.10															
Bromoform	0.10															
4-Methyl-2-pentanone	0.01															
2-Hexanone	0.01															
Tetrachloroethene	0.20															
1,1,2,2-Tetrachloroethane	0.50															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
Toluene-d8																
Bromofluorobenzene																
1,2-Dichloroethane-d4																

Samples affected: VBLK01, EWP55-, EWP59, EWP55MS, EWP55MSD

Reviewer's Init/Date: KM 9-13-93

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 20247
COLUMN:

CONTRACTOR: SWRI
SITE NAME: SYSTECH (OH)

Instrument# FINN4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6/11/93 13:56			7/15/93 18:40			7/16/93 14:25								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
1,3-Dichlorobenzene																
1,4-Dichlorobenzene																
1,2-Dichlorobenzene																
2-Methylphenol	0.70															
2,2'-Oxybis(1-chl-propane)	0.01															
4-Methylphenol	0.60															
N-nitroso-di-n-propylamine	0.50															
Hexachloroethane	0.30															
Nitrobenzene	0.20															
Isophorone	0.40															
2-Nitrophenol	0.10															
2,4-Dimethylphenol	0.20															
bis-(2-chloroethoxyl)methane	0.30															
2,4-Dichlorophenol	0.20															
1,2,4-Trichlorobenzene	0.20															
Naphthalene	0.70															
4-Chloroaniline	0.01															
Hexachlorobutadiene	0.01															
4-Chloro-3-methylphenol	0.20															
2-Methylnaphthalene	0.40															
Hexachlorocyclopentadiene	0.01															
2,4,6-Trichlorophenol	0.20															
2,4,5-Trichlorophenol	0.20															
2-Chloronaphthalene	0.80															
2-Nitroaniline	0.01															
Dimethyl phthlate	0.01															
Acenaphthylene	1.30															
2,6-Dinitrotoluene	0.20															
3-Nitroaniline	0.01															
Acenaphthene	0.30															
2,4-Dinitrophenol	0.01	.230			.152	33.9	J	.149	35.2	J						
4-Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples:

SBLK01	EWP57	
EWP55-	EWP58RE	
EWP56	EWP59RE	
EWP55MS		
EWP55MSD		
EWP58-		
EWB59		

Reviewer's Init/Date: VM 8-13-93

* These flags should be applied to the analytes on the sample data sheets.
\# Minimum Relative Response Factor

CALIBRATION OUTLIER
SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 20247
COLUMN:

CONTRACTOR: SWRI
SITE NAME: SYSTECH (OH)

Instrument# FINN4		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6/11/93 13:56			7/15/93 18:40			7/16/93 14:25								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Diethylphthalate	0.01															
4-Chlorophenyl-phenylether	0.40															
Fluorene	0.90															
4-Nitroaniline	0.01															
4,6-Dinitro-2-methylphenol	0.01															
N-nitrosodiphenylamine	0.01															
4-Bromophenyl-phenylether	0.10															
Hexachlorobenzene	0.10	.238			.312	31.1	J	.293								
Pentachlorophenol	0.05															
Phenanthrene	0.70															
Anthracene	0.70															
Carbazole																
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01															
3,3'-Dichlorobenzidine	0.01															
Benzo(a)anthracene	0.80															
Chrysene	0.70															
bis(2-Ethylhexyl)phthalate	0.01	.909			.675	25.7	J	.694								
Di-n-octyl phthalate	0.01															
Benzo(b)fluoranthene	0.70															
Benzo(k)fpuoranthene	0.70															
Benzo(a)pyrene	0.70															
Indeno(1,2,3-cd)pyrene	0.50															
Dibenz(a,h)anthrancene	0.40															
Benzo(g,h,i)perylene	0.50															
Nitrobenzene-d5	0.01															
2-Fluorobiphenyl	0.70															
Terphenyl-d14	0.50															
Phenol-d5	0.80															
2-Fluorophenol	0.60	1.765			1.210	31.4	J	1.456								
2,4,6-Tribromophenol	0.01	.134			.176	31.3	J	.176	31.3	J						
2-Chlorophenol-d4																
1,2-Dichlorobenzene-d4																

Reviewer's Init/Date: KM 8-13-93

* These flags should be applied to the analytes on the sample data sheets.
# Minimum Relative Response Factor

CALIBRATION OUTLIERS
PESTICIDE/PCB TCL COMPOUNDS

CASE\SAS#: 20247 **CONTRACTOR:** SWRI

Column: DB-608 **Site Name:** SYSTECH (OH)

Instrument#: J	Initial Cal.		Continue Cal.		Continue Cal.		Continue Ca	
Date/Time	7/09-10/93		7/10/93 20:41		7/11/93 18:57			
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples:

	EWP55-		
	EWP59		
	EWP55MS		
	EWP55MSD		

Reviewer's Init/Date: KM 8-13-93

* These flags should be applied to the analytes on the sample data sheets.

CALIBRATION OUTLIERS
PESTICIDE/PCB TCL COMPOUNDS

CASE\SAS#: 20247 CONTRACTOR: SWRI

Column: DB-1701 Site Name: SYSTECH (OH)

Instrument#: 1	Initial Cal.		Continue Cal.		Continue Cal.		Continue Ca	
Date/Time	7/09-10 93		7/10/93 20:41		7/11/93 18:57			
	%RSD	*	%RPD	*	%RPD	*	%RPD	*
Alpha-BHC								
Beta-BHC								
Delta-BHC								
Gamma-BHC								
Heptachlor								
Aldrin								
Heptachlor epoxide								
Endosulfan I								
Dieldrin								
4,4'-DDE								
Endrin								
Endosulfan II								
4,4'-DDD								
Endosulfan sulfate								
4,4'-DDT								
Methoxychlor								
Endrin ketone								
Endrin aldehyde								
Alpha chlordane								
Gamma chlordane								
Aroclor-1016								
Aroclor-1221								
Aroclor-1232								
Aroclor-1242								
Aroclor-1248								
Aroclor-1254								
Aroclor-1260								
Toxaphene								

Affected samples:

	EWP55-		
	EWP55		
	EWP55MS		
	EWP55MSD		

Reviewer's Init/Date: KM 8-13-93

BSAT-5-024.2 1/93

* These flags should be applied to the analytes on the sample data sheets.

DATA REPORTING QUALIFIERS
(page 2)

P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two 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 identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but unsuccessful, do not apply this flag, instead use a laboratory-defined, discussed below.

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

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for the specific analysis. This flag will not apply to pesticide/PCBs analyzed by GC/MS methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I 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 Form I. The Form I 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 I for the diluted sample and all concentration values reported on that Form I are flagged with the "D" flag. This flag alerts data users that any discrepancies between the concentrations reported may be due to dilution of the sample or extract.

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

X - Other specific flags and footnotes may be required to properly define the results. If used, they must be fully described and such description attached to the Sample Data Summary Package and the SDG Narrative. If more than one flag is required, use "Y" and "Z", as needed. If more than five qualifiers are required for a sample result, use the "X" flag to combine several flags, as needed. For instance, the "X" flag might combine the "A", "B" and "D" flags for some sample. The laboratory-defined are limited to letters "X", "Y" and "Z".

DATA REPORTING QUALIFIERS
(page 1)

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

VALUE-if the results is a value greater than or equal to the Contract Required Quantitation Limit (CRQL), report the value.

U - Indicates compound was analyzed for but not detected. The sample Quantitation Limit must be corrected for dilution and for percent moisture. For example, 10 U for phenol in water if thee sample final volume is the protocol-specified final volume. If a 1 to 10 dilution of extract is necessary, the reported limit is 100 U. For a soil sample, the value must also be adjusted for percent moisture. For example, if the sample had 24% moisture and a 1 to 10 dilution factor, the Sample Quantitation Limit for phenol (330 U) would be corrected to:

$$\frac{(330\ U) \times df}{D} \qquad \text{where } D = \frac{100 - \%\ \text{moisture}}{100}$$

and df = dilution factor

at 24% moisture, $D = \frac{100 - 24}{100} = 0.76$

$$\frac{(330\ U) \times 10}{.76} = 4300\ U$$ rounded to the appropriate number of significant figures

For soil samples subjected to GPC clean-up procedures, the extract must be concentrated to 0.5 ml, and the sensitivity of the analysis is not compromised by the cleanup procedures. Therefore, the CRQL values will apply to all samples, regardless of cleanup. However, if a sample extract cannot be concentrated to the protocol-specified volume, this fact be accounted for in reporting the Sample Quantitation Limit.

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 bur greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it is as 3J. The Sample Quantitation Limit must be adjusted for dilution as discussed for the U flag. The J flag is also applied to pesticide/Aroclor results where the pesticide/Aroclor is confirmed to be present but the concentration is less than the CRQL.

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.

TABLE 4

(For Multi-Media, Multi-Concentration Analysis)

VOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

Bromochloromethane	1,4-Difluorobenzene	Chlorobenzene-d_5
Chloromethane	Bromoform	2-Hexanone
Bromomethane	1,1,1-Trichloroethane	4-Methyl-2-pentanone
Vinyl chloride	Carbon tetrachloride	Tetrachloroethene
Chloroethane	Bromodichloromethane	1,1,2,2-Tetrachloroethane
Methylene chloride	1,2-Dichloropropane	Toluene
Acetone	trans-1,3-Dichloropropene	Chlorobenzene
Carbon disulfide	Trichloroethene	Ethylbenzene
1,1-Dichloroethene	Dibromochloromethane	Styrene
1,1-Dichloroethane	1,1,2-Trichloroethane	Xylene(total)
1,2-Dichloroethene(total)	Benzene	Bromofluorobenzene(surr,smc)
Chloroform	cis-1,3-Dichloropropene	Toluene-d_8(surr,smc)
1,2-Dichloroethane		
1,2-Dichloroethane-d_4(surr,smc)		
2-Butanone		

SEMIVOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

1,4-Dichlorobenzene-d_4	Naphthalene-d_8	Acenaphthene-d_{10}	Phenanthrene-d_{10}	Chrysene-d_{12}	Perylene-d_{12}
Phenol	Nitrobenzene	Hexachlorocyclopentadiene	4,6-Dinitro-2-methylphenol	Pyrene	Di-n-octyl phthalate
bis(2-chloroethyl)ether	Isophorone	2,4,6-Trichlorophenol	N-nitroso-di-phenylamine	butylbenzyl phthalate	Benzo(b)fluoranthene
2-Chlorophenol	2-Nitrophenol	2,4,5-Trichlorophenol	Carbazole	3,3'-Dichlorobenzidine	Benzo(k)fluoranthene
1,3-Dichlorobenzene	2,4-Dimethylphenol	2-Chloronaphthalene	4-Bromophenyl phenyl ether	Benzo(a)anthracene	Benzo(a)pyrene
1,4-Dichlorobenzene	Naphthalene	2-Nitroaniline	Hexachlorobenzene	bis(2-Ethylhexyl)phthalate	Indeno(1,2,3-cd)pyrene
2,2'-Oxybis-(1-chloropropane)	bis(2-Chloroethoxy)methane	Dimethylphthalate	Pentachlorophenol	Chrysene	Dibenzo(a,h)anthracene
1,2-Dichlorobenzene	2,4-Dichlorophenol	Acenaphthylene	Phenanthrene	Terphenyl-d_{14}(surr)	Benzo(g,h,i)perylene
2-Methylphenol	1,2,4-Trichlorobenzene	3-Nitroaniline	Anthracene		
bis(2-Chloroisopropyl)ether	4-Chloroaniline	Acenaphthene	Di-n-butyl phthalate		
4-Methylphenol	Hexachlorobutadiene	2,4-Dinitrophenol	Fluoranthene		
N-nitroso-di-n-propylamine	4-Chloro-3-methylphenol	4-Nitrophenol			
Hexachloroethane	2-Methylnaphthalene	Dibenzofuran			
2-Fluorophenol(surr)	Nitrobenzene-d_5(surr)	2,4-Dinitrotoluene			
Phenol-d_6(surr)		2,6-Dinitrotoluene			
2-Chlorobenzene-d_4(surr)		Diethyl phthalate			
1,2-Dichlorobenzene-d_4(surr)		4-Chlorophenyl phenyl ether			
		Fluorene			
		4-Nitroaniline			
		2-Fluorobiphenyl(surr)			
		2,4,6-Tribromophenol(surr)			

(surr) - surrogate
(smc) - system monitoring compound

017

EPA Organic Traffic Report & Chain of Custody Record

(For Organic CLP Analysis)

United States Environmental Protection Agency
Contract Laboratory Program Sample Management Office
PO Box 818 Alexandria, VA 22313
703-557-2490 FTS 557-2490

SAS No. (If applicable):

Case No.: 20247

1. Sample Description (Enter In Column A)
   1. Surface Water
   2. Ground Water
   3. Leachate
   4. Rinsate
   5. Soil/Sediment
   6. Oil (High only)
   7. Waste (High only)
   8. Other (Specify)

2. Preservative (Enter In Column D)
   1. HCl
   2. HNO3
   3. NaHSO4
   4. H_2SO_4
   5. Other (Specify)
   6. Ice only
   N. Not preserved

3. Region No.: 5 | Sampling Co.: PRC

Sampler (Name): Guy Montfort

Sampler Signature: Guy P. Montfort

4. Type of Activity

	Lead	Pre-Remedial	Remedial	Removal
SF	✓		RIFS	CLEM
PRP		PA	RD	REMA
ST		SSI	RA	REM
FED		ESI ✓	O&M	OIL
			NPLD	UST

5. Date Shipped: 6/22/93 | Carrier: Federal Express

Airbill Number: 5484373171

6. Ship To: Southwest Research Institute, 6220 Culebra Road, San Antonio, TX 78238
ATTN: Joe Pan

7. Date Received -- Received by: 6/23/93 Cynthia A Saucedo

Laboratory Contract Number: 68-D1-0088C | Unit Price: 1048.

8. Transfer to | Date Received

Received by

Contract Number | Price

CLP Sample Numbers (from labels)	A Enter # From Box 1	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative from Box 6	E RAS Analysis: VOA	BNA	Pest/ PCB	High ARO/ TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Number	H Mo/Day/ Year/Time Sample Collection	I Sampler Initials	J Corresp. CLP Inorg. Samp. No.	K Sample Condition on Rec't	L High Conc. Phases (Check below): Solids	Water - Mis Liq.	Non Water - Mis Liq.
EWP79	4	L	G	1	X				009635 009636	TB-1	6/21/93 0800		—	INT ACT			
EWP76	↓	|	|	↓	X				009617-009618	FB-1	| 1530		MEWR94	|			
EWP55	5	|	|	N	X	X	X		009501-009502 009508	SD-1	| 1158		MEWR73	|			
EWP56	|	|	|	|	X	X	X		009505-009506 009507	SD-2	| 0945		MEWR74	|			
EWP57	|	|	|	|	X	X	X		009509-009510 009511	SD-3	| 1023		MEWR75	|			
EWP58	|	|	|	|	X	X	X		009513-009514 009515	SD-4	| 1050		MEWR76	|			
EWP59	↓	↓	↓	↓	X	X	X		009517-009518 009519	SD-5	↓ 1045		MEWR77	↓			

Shipment for Case complete? (Y/N): Y

Page 1 of 2

Sample used for a spike and/or duplicate: EWP55

Additional Sampler Signatures: Guy P. Montfort, Trista Miller

Chain of Custody Seal Number: 140205, 140206

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Trista Miller	6/22/93 2:00	Christina Hirschman	Christina Hirschman	6/22/93 1720	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature) Cynthia A Saucedo	Date / Time: 6/23/93 850	Remarks: Is custody seal intact? Y/N/none — SWRI	

Split Samples: ☐ Accepted (Signature) ☐ Declined

EPA Form 9110-2 (Rev. 5-91) Replaces EPA Form (2075-7), previous edition which may be used

DISTRIBUTION:
Blue - Region Copy Pink - SMO Copy White - Lab Copy for Return to Region Yellow - Lab Copy for Return to SMO

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS

0 351112

002

CASE NARRATIVE
SwRI
CASE: 20247 SDG: EWP55

- FIVE LOW SOIL SAMPLES FOR VOLATILE (VOA), SEMIVOLATILE (BNA), AND PESTICIDE (PEST) COMPOUND ANALYSIS:

  EWP55 EWP56 EWP57 EWP58 EWP59

- QC SAMPLES: **MATRIX SPIKE/MATRIX SPIKE DUPLICATE** - EWP5

- REANALYSIS: BNA - EWP58, EWP59

- The samples were received on June 23, 1993 for a thirty-five day turnaround from Verified Time of Sample Receipt (VTSR) of the last sample in the Sample Delivery Group (SDG).

- All analyses performed were done so according to the requirements in the 3/90 USEPA Contract Laboratory Program Statement of Work (SOW) for Organics Analysis, Multi-media, Multi-concentration, with revisions, (OLM01.8, August 1991).

- Reference Log-In Non-Conformance dated 6-23-93. The cooler was received with the temperature registered at 14°C.

- SMO's response, as noted on the Telephone Conversation dated June 28, 1993 is as follows: note in the case narrative.

VOLATILE COMPOUND ANALYSIS

1. Due to the low intensity of m/Z 72 for 2-Butanone, this compound was quantitated on m/Z 43. All primary quantitation ions were used for remaining compounds.

2. Manual peak integration was occasionally necessary for one or more of the following reasons:

   Not found - The peak in question was not correctly identified by the Autoquan software; therefore, it was necessary to manually add the peak to the quantitation report.

   Tailing - Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

   Splitting - Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

003

SEMIVOLATILE COMPOUND ANALYSIS

1. The retention time scan numbers were used to label the internal standards and surrogate peaks on the semivolatile GC/MS reconstructed ion chromatograms.

2. Standards and blanks were named as per the SOW revision 8/91.

3. Manual peak integration was occasionally necessary for one or more of the following reasons:

Not found -	The peak in question was not correctly identified by the Autoquan software; therefore, it was necessary to manually add the peak to the quantitation report.
Tailing -	Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.
Splitting -	Due to a concentration, matrix, or solvent effect, manual integration was necessary to integrate the whole peak.

4. The following Hazardous Substance List (HSL) compounds were reported in samples EWP55MS and EWP55MSD, but not detected in sample EWP55 (unspiked): Anthracene and Carbazole. Spectra were included in the case narrative.

5. Sample EWP57 contained a high level of an unknown phthalate eluting near the retention time for bis(2-ethylhexyl)-phthalate. The spectra indicated that this compound was not bis(2-ethylhexyl)phthalate. See attached spectra.

PESTICIDE COMPOUND ANALYSIS

1. The following information, related to each pesticide analysis, was included in the corresponding quantitation report, rather than the actual chromatogram:

   - Sample ID (SMO sample number from the traffic report)
   - Volume Injected (μL)
   - GC Column Identification
   - GC Instrument Identification

2. Each chromatogram was labeled both with a raw data file name which corresponded to its respective quantitation report and with a date and time of injection. All other times on chromatograms and reports were data transfer times. These injections were run in the proper sequence, but may not appear to be in proper sequence.

"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 floppy diskette has been authorized by the Assistant Director or his designee, as verified by the following signature."

Robin Ettinger

(for) **Jo Ann Boyd, Supervisor**
Quality Assurance Unit

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Level:(low/med) LOW

	EPA SAMPLE NO.	SMC1 (TOL)#	SMC2 (BFB)#	SMC3 (DCE)#	OTHER	TOT OUT
01	EWP55	94	102	105		0
02	EWP55MS	93	96	104		0
03	EWP55MSD	96	95	106		0
04	EWP56	94	102	108		0
05	EWP57	100	95	105		0
06	EWP58	93	92	108		0
07	EWP59	97	88	109		0
08	VBLK01	94	104	111		0
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	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

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix Spike - EPA Sample No.: EWP55 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	78.	0.	110.	141	59-172
Trichloroethene	78.	0.	76.	97	62-137
Benzene	78.	0.	91.	117	66-142
Toluene	78.	0.	81.	104	59-139
Chlorobenzene	78.	0.	82.	105	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	78.	110.	141	0	22	59-172
Trichloroethene	78.	78.	100	3	24	62-137
Benzene	78.	92.	118	1	21	66-142
Toluene	78.	88.	113	8	21	59-139
Chlorobenzene	78.	86.	110	5	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:

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Lab File ID:X06283B1 Lab Sample ID:X06283B1

Date Analyzed: 6/28/93 Time Analyzed:0945

GC Column:SP-1000 ID: 2.00 (mm) Heated Purge: (Y/N) Y

Instrument ID:FINNX

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EWP55	X0628301	X0628301	1023
02	EWP55MS	X0628306	X0628306	1336
03	EWP55MSD	X0628307	X0628307	1414
04	EWP56	X0628302	X0628302	1102
05	EWP57	X0628303	X0628303	1140
06	EWP58	X0628304	X0628304	1219
07	EWP59	X0628305	X0628305	1257
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COMMENTS:

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: VBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X06283B1

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X06283B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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.	
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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.: VBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X06283B1

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X06283B1

Level: (low/med) LOW Date Received: / /

% Moisture: not dec. 0 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP55

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628301

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 36 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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	16.	U
67-64-1	Acetone	16.	U
75-15-0	Carbon Disulfide	16.	U
75-35-4	1,1-Dichloroethene	16.	U
75-34-3	1,1-Dichloroethane	16.	U
540-59-0	1,2-Dichloroethene (total)	16.	U
67-66-3	Chloroform	16.	U
107-06-2	1,2-Dichloroethane	16.	U
78-93-3	2-Butanone	16.	U
71-55-6	1,1,1-Trichloroethane	16.	U
56-23-5	Carbon Tetrachloride	16.	U
75-27-4	Bromodichloromethane	16.	U
78-87-5	1,2-Dichloropropane	16.	U
10061-01-5	cis-1,3-Dichloropropene	16.	U
79-01-6	Trichloroethene	16.	U
124-48-1	Dibromochloromethane	16.	U
79-00-5	1,1,2-Trichloroethane	16.	U
71-43-2	Benzene	16.	U
10061-02-6	trans-1,3-Dichloropropene	16.	U
75-25-2	Bromoform	16.	U
108-10-1	4-Methyl-2-Pentanone	16.	U
591-78-6	2-Hexanone	16.	U
127-18-4	Tetrachloroethene	16.	U
79-34-5	1,1,2,2-Tetrachloroethane	16.	U
108-88-3	Toluene	16.	U
108-90-7	Chlorobenzene	16.	U
100-41-4	Ethylbenzene	16.	U
100-42-5	Styrene	16.	U
1330-20-7	Xylene (total)	16.	U

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EPA SAMPLE NO.

EWP55

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628301

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 36 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP56

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628302

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 23 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	13.	U
67-64-1	Acetone	13.	U
75-15-0	Carbon Disulfide	13.	U
75-35-4	1,1-Dichloroethene	13.	U
75-34-3	1,1-Dichloroethane	13.	U
540-59-0	1,2-Dichloroethene (total)	13.	U
67-66-3	Chloroform	13.	U
107-06-2	1,2-Dichloroethane	13.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	13.	U
56-23-5	Carbon Tetrachloride	13.	U
75-27-4	Bromodichloromethane	13.	U
78-87-5	1,2-Dichloropropane	13.	U
10061-01-5	cis-1,3-Dichloropropene	13.	U
79-01-6	Trichloroethene	13.	U
124-48-1	Dibromochloromethane	13.	U
79-00-5	1,1,2-Trichloroethane	13.	U
71-43-2	Benzene	13.	U
10061-02-6	trans-1,3-Dichloropropene	13.	U
75-25-2	Bromoform	13.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	13.	U
108-88-3	Toluene	13.	U
108-90-7	Chlorobenzene	13.	U
100-41-4	Ethylbenzene	13.	U
100-42-5	Styrene	13.	U
1330-20-7	Xylene (total)	13.	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP56

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628302

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 23 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP57

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628303

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 24 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	13.	U
67-64-1	Acetone	13.	U
75-15-0	Carbon Disulfide	13.	U
75-35-4	1,1-Dichloroethene	13.	U
75-34-3	1,1-Dichloroethane	13.	U
540-59-0	1,2-Dichloroethene (total)	13.	U
67-66-3	Chloroform	13.	U
107-06-2	1,2-Dichloroethane	13.	U
78-93-3	2-Butanone	13.	U
71-55-6	1,1,1-Trichloroethane	13.	U
56-23-5	Carbon Tetrachloride	13.	U
75-27-4	Bromodichloromethane	13.	U
78-87-5	1,2-Dichloropropane	13.	U
10061-01-5	cis-1,3-Dichloropropene	13.	U
79-01-6	Trichloroethene	13.	U
124-48-1	Dibromochloromethane	13.	U
79-00-5	1,1,2-Trichloroethane	13.	U
71-43-2	Benzene	13.	U
10061-02-6	trans-1,3-Dichloropropene	13.	U
75-25-2	Bromoform	13.	U
108-10-1	4-Methyl-2-Pentanone	13.	U
591-78-6	2-Hexanone	13.	U
127-18-4	Tetrachloroethene	13.	U
79-34-5	1,1,2,2-Tetrachloroethane	13.	U
108-88-3	Toluene	13.	U
108-90-7	Chlorobenzene	13.	U
100-41-4	Ethylbenzene	13.	U
100-42-5	Styrene	13.	U
1330-20-7	Xylene (total)	13.	U

1E

EPA SAMPLE NO.

EWP57

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628303

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 24 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: EWP58

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628304

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 26 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	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	14.	U
67-64-1	Acetone	14.	U
75-15-0	Carbon Disulfide	14.	U
75-35-4	1,1-Dichloroethene	14.	U
75-34-3	1,1-Dichloroethane	14.	U
540-59-0	1,2-Dichloroethene (total)	14.	U
67-66-3	Chloroform	14.	U
107-06-2	1,2-Dichloroethane	14.	U
78-93-3	2-Butanone	14.	U
71-55-6	1,1,1-Trichloroethane	14.	U
56-23-5	Carbon Tetrachloride	14.	U
75-27-4	Bromodichloromethane	14.	U
78-87-5	1,2-Dichloropropane	14.	U
10061-01-5	cis-1,3-Dichloropropene	14.	U
79-01-6	Trichloroethene	14.	U
124-48-1	Dibromochloromethane	14.	U
79-00-5	1,1,2-Trichloroethane	14.	U
71-43-2	Benzene	14.	U
10061-02-6	trans-1,3-Dichloropropene	14.	U
75-25-2	Bromoform	14.	U
108-10-1	4-Methyl-2-Pentanone	14.	U
591-78-6	2-Hexanone	14.	U
127-18-4	Tetrachloroethene	14.	U
79-34-5	1,1,2,2-Tetrachloroethane	14.	U
108-88-3	Toluene	14.	U
108-90-7	Chlorobenzene	14.	U
100-41-4	Ethylbenzene	14.	U
100-42-5	Styrene	14.	U
1330-20-7	Xylene (total)	14.	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP58

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628304

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628304

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 26 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.: EWP59

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628305

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 20 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (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.	U
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
540-59-0	1,2-Dichloroethene (total)	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

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EWP59

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:X0628305

Sample wt/vol: 5.00 (g/ml) G Lab File ID: X0628305

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: not dec. 20 Date Analyzed: 6/28/93

GC Column:SP-1000 ID: 2.00 (mm) Dilution Factor: 1.0

Soil Extract Volume:0 (uL) Soil Aliquot Volume:0 (uL)

Number TICs Found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
01	EWP55	61	72	83	69	69	80	65	51	0
02	EWP55MS	66	71	85	72	69	79	69	57	0
03	EWP55MSD	68	78	101	77	70	88	73	58	0
04	EWP56	73	78	97	76	78	89	78	67	0
05	EWP57	49	63	73	53	47	58	53	42	0
06	EWP58	56	64	78	62	58	72	61	50	0
07	EWP58RE	45	53	66	48	43	59	48	39	0
08	EWP59	55	65	86	57	55	71	58	48	0
09	EWP59RE	43	52	68	46	40	56	45	37	0
10	SBLK01	80	81	88	84	84	94	81	74	0
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		QC LIMITS	
S1 (NBZ)	= Nitrobenzene-d5	(23-120)	
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)	
S3 (TPH)	= Terphenyl-d14	(18-137)	
S4 (PHL)	= Phenol-d5	(24-113)	
S5 (2FP)	= 2-Fluorophenol	(25-121)	
S6 (TBP)	= 2,4,6-Tribromophenol	(19-122)	
S7 (2CP)	= 2-Chlorophenol-d4	(20-130)	(advisory)
S8 (DCB)	= 1,2-Dichlorobenzene-d4	(20-130)	(advisory)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix Spike - EPA Sample No.: EWP55 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	4000.	0.	2500.	62	26- 90
2-Chlorophenol	4000.	0.	2600.	65	25-102
1,4-Dichlorobenzene	2700.	0.	1400.	52	28-104
N-Nitroso-di-n-prop.(1)	2700.	0.	1700.	63	41-126
1,2,4-Trichlorobenzene	2700.	0.	1700.	63	38-107
4-Chloro-3-methylphenol	4000.	0.	2800.	70	26-103
Acenaphthene	2700.	0.	1900.	70	31-137
4-Nitrophenol	4000.	0.	1700.	42	11-114
2,4-Dinitrotoluene	2700.	0.	1700.	63	28- 89
Pentachlorophenol	4000.	0.	2400.	60	17-109
Pyrene	2700.	250.	3000.	102	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	4000.	2700.	67	8	35	26- 90
2-Chlorophenol	4000.	2700.	67	3	50	25-102
1,4-Dichlorobenzene	2700.	1400.	52	0	27	28-104
N-Nitroso-di-n-prop.(1)	2700.	1900.	70	10	38	41-126
1,2,4-Trichlorobenzene	2700.	1700.	63	0	23	38-107
4-Chloro-3-methylphenol	4000.	3200.	80	13	33	26-103
Acenaphthene	2700.	2100.	78	11	19	31-137
4-Nitrophenol	4000.	2000.	50	17	50	11-114
2,4-Dinitrotoluene	2700.	1900.	70	10	47	28- 89
Pentachlorophenol	4000.	2600.	65	8	47	17-109
Pyrene	2700.	3200.	109	7	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: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

4B

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Lab File ID:40715308 Lab Sample ID:40715308

Instrument ID:FINN4 Date Extracted: 6/29/93

Matrix: (soil/water) SOIL Date Analyzed: 7/16/93

Level:(low/med) LOW Time Analyzed: 0023

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EWP55	40715309	40715309	7/16/93
02	EWP55MS	40715310	40715310	7/16/93
03	EWP55MSD	40715311	40715311	7/16/93
04	EWP56	40715312	40715312	7/16/93
05	EWP57	40716301	40716301	7/16/93
06	EWP58	40715313	40715313	7/16/93
07	EWP58RE	40716302	40716302	7/16/93
08	EWP59	40715314	40715314	7/16/93
09	EWP59RE	40716303	40716303	7/16/93
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COMMENTS:

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715308

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715308

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330.	U
111-44-4	bis(2-Chloroethyl)ether	330.	U
95-57-8	2-Chlorophenol	330.	U
541-73-1	1,3-Dichlorobenzene	330.	U
106-46-7	1,4-Dichlorobenzene	330.	U
95-50-1	1,2-Dichlorobenzene	330.	U
95-48-7	2-Methylphenol	330.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330.	U
106-44-5	4-Methylphenol	330.	U
621-64-7	N-Nitroso-di-n-propylamine	330.	U
67-72-1	Hexachloroethane	330.	U
98-95-3	Nitrobenzene	330.	U
78-59-1	Isophorone	330.	U
88-75-5	2-Nitrophenol	330.	U
105-67-9	2,4-Dimethylphenol	330.	U
111-91-1	bis(2-Chloroethoxy)methane	330.	U
120-83-2	2,4-Dichlorophenol	330.	U
120-82-1	1,2,4-Trichlorobenzene	330.	U
91-20-3	Naphthalene	330.	U
106-47-8	4-Chloroaniline	330.	U
87-68-3	Hexachlorobutadiene	330.	U
59-50-7	4-Chloro-3-methylphenol	330.	U
91-57-6	2-Methylnaphthalene	330.	U
77-47-4	Hexachlorocyclopentadiene	330.	U
88-06-2	2,4,6-Trichlorophenol	330.	U
95-95-4	2,4,5-Trichlorophenol	800.	U
91-58-7	2-Chloronaphthalene	330.	U
88-74-4	2-Nitroaniline	800.	U
131-11-3	Dimethylphthalate	330.	U
208-96-8	Acenaphthylene	330.	U
606-20-2	2,6-Dinitrotoluene	330.	U
99-09-2	3-Nitroaniline	800.	U
83-32-9	Acenaphthene	330.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715308

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715308

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	800.	U
100-02-7	4-Nitrophenol	800.	U
132-64-9	Dibenzofuran	330.	U
121-14-2	2,4-Dinitrotoluene	330.	U
84-66-2	Diethylphthalate	330.	U
7005-72-3	4-Chlorophenyl-phenylether	330.	U
86-73-7	Fluorene	330.	U
100-01-6	4-Nitroaniline	800.	U
534-52-1	4,6-Dinitro-2-methylphenol	800.	U
86-30-6	N-Nitrosodiphenylamine (1)	330.	U
101-55-3	4-Bromophenyl-phenylether	330.	U
118-74-1	Hexachlorobenzene	330.	U
87-86-5	Pentachlorophenol	800.	U
85-01-8	Phenanthrene	330.	U
120-12-7	Anthracene	330.	U
86-74-8	Carbazole	330.	U
84-74-2	Di-n-butylphthalate	330.	U
206-44-0	Fluoranthene	330.	U
129-00-0	Pyrene	330.	U
85-68-7	Butylbenzylphthalate	330.	U
91-94-1	3,3'-Dichlorobenzidine	330.	U
56-55-3	Benzo(a)anthracene	330.	U
218-01-9	Chrysene	330.	U
117-81-7	bis(2-Ethylhexyl)phthalate	330.	U
117-84-0	Di-n-octylphthalate	330.	U
205-99-2	Benzo(b)fluoranthene	330.	U
207-08-9	Benzo(k)fluoranthene	330.	U
50-32-8	Benzo(a)pyrene	330.	U
193-39-5	Indeno(1,2,3-cd)pyrene	330.	U
53-70-3	Dibenz(a,h)anthracene	330.	U
191-24-2	Benzo(g,h,i)perylene	330.	U

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SBLK01

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715308

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715308

Level: (low/med) LOW Date Received: / /

% Moisture: 0 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.0

Number TICs Found: 5

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.65	190.	J
2.		UNKNOWN MW=112	7.08	460.	J
3.		UNKNOWN	9.08	72.	J
4.		UNKNOWN	8.02	220.	J
5.		UNKNOWN	19.57	97.	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP55

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715309

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715309

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 36 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	520.	U
111-44-4	bis(2-Chloroethyl)ether	520.	U
95-57-8	2-Chlorophenol	520.	U
541-73-1	1,3-Dichlorobenzene	520.	U
106-46-7	1,4-Dichlorobenzene	520.	U
95-50-1	1,2-Dichlorobenzene	520.	U
95-48-7	2-Methylphenol	520.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	520.	U
106-44-5	4-Methylphenol	44.	J
621-64-7	N-Nitroso-di-n-propylamine	520.	U
67-72-1	Hexachloroethane	520.	U
98-95-3	Nitrobenzene	520.	U
78-59-1	Isophorone	520.	U
88-75-5	2-Nitrophenol	520.	U
105-67-9	2,4-Dimethylphenol	520.	U
111-91-1	bis(2-Chloroethoxy)methane	520.	U
120-83-2	2,4-Dichlorophenol	520.	U
120-82-1	1,2,4-Trichlorobenzene	520.	U
91-20-3	Naphthalene	520.	U
106-47-8	4-Chloroaniline	520.	U
87-68-3	Hexachlorobutadiene	520.	U
59-50-7	4-Chloro-3-methylphenol	520.	U
91-57-6	2-Methylnaphthalene	520.	U
77-47-4	Hexachlorocyclopentadiene	520.	U
88-06-2	2,4,6-Trichlorophenol	520.	U
95-95-4	2,4,5-Trichlorophenol	1200.	U
91-58-7	2-Chloronaphthalene	520.	U
88-74-4	2-Nitroaniline	1200.	U
131-11-3	Dimethylphthalate	520.	U
208-96-8	Acenaphthylene	520.	U
606-20-2	2,6-Dinitrotoluene	520.	U
99-09-2	3-Nitroaniline	1200.	U
83-32-9	Acenaphthene	520.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP55

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715309

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715309

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 36 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1200.	U
100-02-7	4-Nitrophenol	1200.	U
132-64-9	Dibenzofuran	520.	U
121-14-2	2,4-Dinitrotoluene	520.	U
84-66-2	Diethylphthalate	520.	U
7005-72-3	4-Chlorophenyl-phenylether	520.	U
86-73-7	Fluorene	8.	J
100-01-6	4-Nitroaniline	1200.	U
534-52-1	4,6-Dinitro-2-methylphenol	1200.	U
86-30-6	N-Nitrosodiphenylamine (1)	520.	U
101-55-3	4-Bromophenyl-phenylether	520.	U
118-74-1	Hexachlorobenzene	520.	U
87-86-5	Pentachlorophenol	1200.	U
85-01-8	Phenanthrene	130.	J
120-12-7	Anthracene	520.	U
86-74-8	Carbazole	520.	U
84-74-2	Di-n-butylphthalate	520.	U
206-44-0	Fluoranthene	200.	J
129-00-0	Pyrene	250.	J
85-68-7	Butylbenzylphthalate	520.	U
91-94-1	3,3'-Dichlorobenzidine	520.	U
56-55-3	Benzo(a)anthracene	99.	J
218-01-9	Chrysene	130.	J
117-81-7	bis(2-Ethylhexyl)phthalate	90.	J
117-84-0	Di-n-octylphthalate	520.	U
205-99-2	Benzo(b)fluoranthene	240.	J
207-08-9	Benzo(k)fluoranthene	520.	U
50-32-8	Benzo(a)pyrene	94.	J
193-39-5	Indeno(1,2,3-cd)pyrene	48.	J
53-70-3	Dibenz(a,h)anthracene	520.	U
191-24-2	Benzo(g,h,i)perylene	50.	J

(1) - Cannot be separated from Diphenylamine

0020012A

1F

EPA SAMPLE NO.

EWP55

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715309

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715309

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 36 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs Found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.60	450.	JB u
2.		UNKNOWN MW=112	7.08	1200.	JB u
3.		UNKNOWN MW=112	7.27	310.	J
4.		UNKNOWN	9.20	2200.	JB u
5.		UNKNOWN HYDROCARBON	20.65	480.	J
6.	2091-29-4	9-HEXADECENOIC ACID	21.30	840.	JN
7.	57-10-3	HEXADECANOIC ACID	21.52	1700.	JN
8.		UNKNOWN	22.32	310.	J
9.	57-11-4	OCTADECANOIC ACID	23.45	460.	JN
10.	629-99-2	PENTACOSANE	26.42	1500.	JN
11.	593-49-7	HEPTACOSANE	28.02	1900.	JN
12.		UNKNOWN ALKANE	28.77	440.	J
13.		UNKNOWN HYDROCARBON	29.07	940.	J
14.		UNKNOWN ALKANE	29.53	3000.	J
15.		UNKNOWN HYDROCARBON	30.77	810.	J
16.		UNKNOWN ALKANE	31.33	2700.	J
17.		UNKNOWN HYDROCARBON	33.08	590.	J
18.		UNKNOWN ALKANE	33.80	1100.	J
19.		UNKNOWN MW=414	34.72	8500.	J
20.		UNKNOWN MW=414	35.45	3400.	J
21.					
22.					
23.					
24.					
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KM 8-13

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP56

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715312

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715312

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 23 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (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
108-95-2	Phenol	430.	U
111-44-4	bis(2-Chloroethyl)ether	430.	U
95-57-8	2-Chlorophenol	430.	U
541-73-1	1,3-Dichlorobenzene	430.	U
106-46-7	1,4-Dichlorobenzene	430.	U
95-50-1	1,2-Dichlorobenzene	430.	U
95-48-7	2-Methylphenol	430.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	430.	U
106-44-5	4-Methylphenol	430.	U
621-64-7	N-Nitroso-di-n-propylamine	430.	U
67-72-1	Hexachloroethane	430.	U
98-95-3	Nitrobenzene	430.	U
78-59-1	Isophorone	430.	U
88-75-5	2-Nitrophenol	430.	U
105-67-9	2,4-Dimethylphenol	430.	U
111-91-1	bis(2-Chloroethoxy)methane	430.	U
120-83-2	2,4-Dichlorophenol	430.	U
120-82-1	1,2,4-Trichlorobenzene	430.	U
91-20-3	Naphthalene	430.	U
106-47-8	4-Chloroaniline	430.	U
87-68-3	Hexachlorobutadiene	430.	U
59-50-7	4-Chloro-3-methylphenol	430.	U
91-57-6	2-Methylnaphthalene	430.	U
77-47-4	Hexachlorocyclopentadiene	430.	U
88-06-2	2,4,6-Trichlorophenol	430.	U
95-95-4	2,4,5-Trichlorophenol	1000.	U
91-58-7	2-Chloronaphthalene	430.	U
88-74-4	2-Nitroaniline	1000.	U
131-11-3	Dimethylphthalate	430.	U
208-96-8	Acenaphthylene	430.	U
606-20-2	2,6-Dinitrotoluene	430.	U
99-09-2	3-Nitroaniline	1000.	U
83-32-9	Acenaphthene	430.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP56

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715312

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715312

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 23 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (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
51-28-5	2,4-Dinitrophenol	1000.	U
100-02-7	4-Nitrophenol	1000.	U
132-64-9	Dibenzofuran	430.	U
121-14-2	2,4-Dinitrotoluene	430.	U
84-66-2	Diethylphthalate	430.	U
7005-72-3	4-Chlorophenyl-phenylether	430.	U
86-73-7	Fluorene	430.	U
100-01-6	4-Nitroaniline	1000.	U
534-52-1	4,6-Dinitro-2-methylphenol	1000.	U
86-30-6	N-Nitrosodiphenylamine (1)	430.	U
101-55-3	4-Bromophenyl-phenylether	430.	U
118-74-1	Hexachlorobenzene	430.	U
87-86-5	Pentachlorophenol	1000.	U
85-01-8	Phenanthrene	72.	J
120-12-7	Anthracene	430.	U
86-74-8	Carbazole	430.	U
84-74-2	Di-n-butylphthalate	430.	U
206-44-0	Fluoranthene	140.	J
129-00-0	Pyrene	150.	J
85-68-7	Butylbenzylphthalate	430.	U
91-94-1	3,3'-Dichlorobenzidine	430.	U
56-55-3	Benzo(a)anthracene	64.	J
218-01-9	Chrysene	93.	J
117-81-7	bis(2-Ethylhexyl)phthalate	37.	J
117-84-0	Di-n-octylphthalate	430.	U
205-99-2	Benzo(b)fluoranthene	160.	J
207-08-9	Benzo(k)fluoranthene	430.	U
50-32-8	Benzo(a)pyrene	75.	J
193-39-5	Indeno(1,2,3-cd)pyrene	32.	J
53-70-3	Dibenz(a,h)anthracene	430.	U
191-24-2	Benzo(g,h,i)perylene	27.	J

(1) - Cannot be separated from Diphenylamine

0020085

1F

EPA SAMPLE NO.

EWP56

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715312

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715312

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 23 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs Found: 20 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.63	950.	JB u
2.		UNKNOWN MW=112	7.07	620.	JB u
3.		UNKNOWN	8.05	740.	JB u
4.		UNKNOWN	9.18	1700.	JB
5.	143-07-7	DODECANOIC ACID	16.97	170.	JN
6.	544-76-3	HEXADECANE	17.40	120.	JN
7.	629-78-7	HEPTADECANE	18.60	130.	JN
8.		UNKNOWN ALKANE	18.67	130.	J
9.	544-63-8	TETRADECANOIC ACID	19.32	250.	JN
10.		UNKNOWN	19.57	250.	JB u
11.		UNKNOWN HYDROCARBON	20.48	270.	J
12.		UNKNOWN HYDROCARBON	20.65	300.	J
13.		UNKNOWN	20.70	290.	J
14.	2091-29-4	9-HEXADECENOIC ACID	21.33	1300.	JN
15.	57-10-3	HEXADECANOIC ACID	21.52	840.	JN
16.		UNKNOWN ALKANE	28.00	110.	J
17.		UNKNOWN ALKANE	29.52	990.	J
18.		UNKNOWN ALKANE	31.30	250.	J
19.		UNKNOWN	32.05	310.	J
20.		UNKNOWN	34.60	310.	J
21.					
22.					
23.					
24.					
25.					
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KM 8-13

KM 8-13

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP57

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716301

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 24 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430.	U
111-44-4	bis(2-Chloroethyl)ether	430.	U
95-57-8	2-Chlorophenol	430.	U
541-73-1	1,3-Dichlorobenzene	430.	U
106-46-7	1,4-Dichlorobenzene	430.	U
95-50-1	1,2-Dichlorobenzene	430.	U
95-48-7	2-Methylphenol	430.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	430.	U
106-44-5	4-Methylphenol	430.	U
621-64-7	N-Nitroso-di-n-propylamine	430.	U
67-72-1	Hexachloroethane	430.	U
98-95-3	Nitrobenzene	430.	U
78-59-1	Isophorone	35.	J
88-75-5	2-Nitrophenol	430.	U
105-67-9	2,4-Dimethylphenol	430.	U
111-91-1	bis(2-Chloroethoxy)methane	430.	U
120-83-2	2,4-Dichlorophenol	430.	U
120-82-1	1,2,4-Trichlorobenzene	430.	U
91-20-3	Naphthalene	33.	J
106-47-8	4-Chloroaniline	430.	U
87-68-3	Hexachlorobutadiene	430.	U
59-50-7	4-Chloro-3-methylphenol	430.	U
91-57-6	2-Methylnaphthalene	26.	J
77-47-4	Hexachlorocyclopentadiene	430.	U
88-06-2	2,4,6-Trichlorophenol	430.	U
95-95-4	2,4,5-Trichlorophenol	1000.	U
91-58-7	2-Chloronaphthalene	430.	U
88-74-4	2-Nitroaniline	1000.	U
131-11-3	Dimethylphthalate	430.	U
208-96-8	Acenaphthylene	110.	J
606-20-2	2,6-Dinitrotoluene	430.	U
99-09-2	3-Nitroaniline	1000.	U
83-32-9	Acenaphthene	430.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 5

EWP57

mm 7/26/93

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716301

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 24 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000.	U
100-02-7	4-Nitrophenol	1000.	U
132-64-9	Dibenzofuran	27.	J
121-14-2	2,4-Dinitrotoluene	430.	U
84-66-2	Diethylphthalate	430.	U
7005-72-3	4-Chlorophenyl-phenylether	430.	U
86-73-7	Fluorene	45.	J
100-01-6	4-Nitroaniline	1000.	U
534-52-1	4,6-Dinitro-2-methylphenol	1000.	U
86-30-6	N-Nitrosodiphenylamine (1)	430.	U
101-55-3	4-Bromophenyl-phenylether	430.	U
118-74-1	Hexachlorobenzene	430.	U
87-86-5	Pentachlorophenol	1000.	U
85-01-8	Phenanthrene	640.	
120-12-7	Anthracene	99.	J
86-74-8	Carbazole	52.	J
84-74-2	Di-n-butylphthalate	430.	U
206-44-0	Fluoranthene	1000.	
129-00-0	Pyrene	1400.	
85-68-7	Butylbenzylphthalate	190.	J
91-94-1	3,3'-Dichlorobenzidine	430.	U
56-55-3	Benzo(a)anthracene	910.	
218-01-9	Chrysene	650.	
117-81-7	bis(2-Ethylhexyl)phthalate	430.	U
117-84-0	Di-n-octylphthalate	430.	U
205-99-2	Benzo(b)fluoranthene	1400.	
207-08-9	Benzo(k)fluoranthene	430.	U
50-32-8	Benzo(a)pyrene	580.	
193-39-5	Indeno(1,2,3-cd)pyrene	270.	J
53-70-3	Dibenz(a,h)anthracene	100.	J
191-24-2	Benzo(g,h,i)perylene	290.	J

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

EWP57

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716301

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716301

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 24 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs Found: 18

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.57	760.	JB u
2.		UNKNOWN MW=112	7.00	610.	JB u
3.		UNKNOWN	7.98	720.	JB u
4.		UNKNOWN	9.13	1200.	JB
5.	70-55-3	BENZENESULFONAMIDE, 4-METHYL	18.30	230.	JN
6.		UNKNOWN ALKANE	18.63	100.	J
7.		PHENANTHRENE, METHYL-	20.98	110.	J
8.		UNKNOWN PAH	21.18	350.	J
9.	2091-29-4	9-HEXADECENOIC ACID	21.35	260.	JN
10.	57-10-3	HEXADECANOIC ACID	21.45	280.	JN
11.		UNKNOWN PHTHALATE	26.90	36000.	J
12.		UNKNOWN ALKANE	29.48	650.	J
13.		UNKNOWN ALKANE	31.25	930.	J
14.		UNKNOWN PHTHALATE	26.63	3600.	J
15.		UNKNOWN MW=112	7.22	160.	J
16.		UNKNOWN	17.85	500.	J
17.		UNKNOWN	19.53	310.	JB u
18.		UNKNOWN	24.67	120.	J
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

KM 8-13

KM 8-13-4

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP58

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715313

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715313

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 26 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (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
108-95-2	Phenol	440.	U
111-44-4	bis(2-Chloroethyl)ether	440.	U
95-57-8	2-Chlorophenol	440.	U
541-73-1	1,3-Dichlorobenzene	440.	U
106-46-7	1,4-Dichlorobenzene	440.	U
95-50-1	1,2-Dichlorobenzene	440.	U
95-48-7	2-Methylphenol	440.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	440.	U
106-44-5	4-Methylphenol	440.	U
621-64-7	N-Nitroso-di-n-propylamine	440.	U
67-72-1	Hexachloroethane	440.	U
98-95-3	Nitrobenzene	440.	U
78-59-1	Isophorone	440.	U
88-75-5	2-Nitrophenol	440.	U
105-67-9	2,4-Dimethylphenol	440.	U
111-91-1	bis(2-Chloroethoxy)methane	440.	U
120-83-2	2,4-Dichlorophenol	440.	U
120-82-1	1,2,4-Trichlorobenzene	440.	U
91-20-3	Naphthalene	440.	U
106-47-8	4-Chloroaniline	440.	U
87-68-3	Hexachlorobutadiene	440.	U
59-50-7	4-Chloro-3-methylphenol	440.	U
91-57-6	2-Methylnaphthalene	440.	U
77-47-4	Hexachlorocyclopentadiene	440.	U
88-06-2	2,4,6-Trichlorophenol	440.	U
95-95-4	2,4,5-Trichlorophenol	1100.	U
91-58-7	2-Chloronaphthalene	440.	U
88-74-4	2-Nitroaniline	1100.	U
131-11-3	Dimethylphthalate	440.	U
208-96-8	Acenaphthylene	440.	U
606-20-2	2,6-Dinitrotoluene	440.	U
99-09-2	3-Nitroaniline	1100.	U
83-32-9	Acenaphthene	440.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP58

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715313

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715313

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 26 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (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
51-28-5	2,4-Dinitrophenol	1100.	U
100-02-7	4-Nitrophenol	1100.	U
132-64-9	Dibenzofuran	440.	U
121-14-2	2,4-Dinitrotoluene	440.	U
84-66-2	Diethylphthalate	440.	U
7005-72-3	4-Chlorophenyl-phenylether	440.	U
86-73-7	Fluorene	440.	U
100-01-6	4-Nitroaniline	1100.	U
534-52-1	4,6-Dinitro-2-methylphenol	1100.	U
86-30-6	N-Nitrosodiphenylamine (1)	440.	U
101-55-3	4-Bromophenyl-phenylether	440.	U
118-74-1	Hexachlorobenzene	440.	U
87-86-5	Pentachlorophenol	1100.	U
85-01-8	Phenanthrene	170.	J
120-12-7	Anthracene	26.	J
86-74-8	Carbazole	440.	U
84-74-2	Di-n-butylphthalate	440.	U
206-44-0	Fluoranthene	280.	J
129-00-0	Pyrene	420.	J
85-68-7	Butylbenzylphthalate	440.	U
91-94-1	3,3'-Dichlorobenzidine	440.	U
56-55-3	Benzo(a)anthracene	200.	J
218-01-9	Chrysene	240.	J
117-81-7	bis(2-Ethylhexyl)phthalate	52.	J
117-84-0	Di-n-octylphthalate	440.	U
205-99-2	Benzo(b)fluoranthene	400.	J
207-08-9	Benzo(k)fluoranthene	290.	J
50-32-8	Benzo(a)pyrene	280.	J
193-39-5	Indeno(1,2,3-cd)pyrene	160.	J
53-70-3	Dibenz(a,h)anthracene	71.	J
191-24-2	Benzo(g,h,i)perylene	150.	J

(1) - Cannot be separated from Diphenylamine

0020239

1F

EPA SAMPLE NO.

EWP58

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715313

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715313

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 26 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs Found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.63	1100.	JB
2.		UNKNOWN MW=112	7.05	480.	JB
3.		UNKNOWN	8.05	860.	JB
4.		UNKNOWN	9.17	1600.	JB
5.		UNKNOWN	19.57	420.	JB
6.	2091-29-4	9-HEXADECENOIC ACID	21.30	510.	JN
7.	2091-29-4	9-HEXADECENOIC ACID	21.40	620.	JN
8.	57-10-3	HEXADECANOIC ACID	21.50	590.	JN
9.	593-49-7	HEPTACOSANE	28.00	960.	JN
10.		UNKNOWN HYDROCARBON	29.07	1400.	J
11.		UNKNOWN ALKANE	29.53	3900.	J
12.		UNKNOWN HYDROCARBON	29.60	5200.	J
13.		UNKNOWN HYDROCARBON	30.77	760.	J
14.		UNKNOWN ALKANE	31.37	6500.	J
15.		UNKNOWN MW=400	33.38	850.	J
16.		UNKNOWN ALKANE	33.78	2500.	J
17.		UNKNOWN MW=414	34.68	2100.	J
18.		UNKNOWN	34.82	1500.	J
19.		UNKNOWN	35.32	1600.	J
20.		UNKNOWN	35.55	940.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP58RE

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716302

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 26 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (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
108-95-2	Phenol	440.	U
111-44-4	bis(2-Chloroethyl)ether	440.	U
95-57-8	2-Chlorophenol	440.	U
541-73-1	1,3-Dichlorobenzene	440.	U
106-46-7	1,4-Dichlorobenzene	440.	U
95-50-1	1,2-Dichlorobenzene	440.	U
95-48-7	2-Methylphenol	440.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	440.	U
106-44-5	4-Methylphenol	440.	U
621-64-7	N-Nitroso-di-n-propylamine	440.	U
67-72-1	Hexachloroethane	440.	U
98-95-3	Nitrobenzene	440.	U
78-59-1	Isophorone	440.	U
88-75-5	2-Nitrophenol	440.	U
105-67-9	2,4-Dimethylphenol	440.	U
111-91-1	bis(2-Chloroethoxy)methane	440.	U
120-83-2	2,4-Dichlorophenol	440.	U
120-82-1	1,2,4-Trichlorobenzene	440.	U
91-20-3	Naphthalene	440.	U
106-47-8	4-Chloroaniline	440.	U
87-68-3	Hexachlorobutadiene	440.	U
59-50-7	4-Chloro-3-methylphenol	440.	U
91-57-6	2-Methylnaphthalene	440.	U
77-47-4	Hexachlorocyclopentadiene	440.	U
88-06-2	2,4,6-Trichlorophenol	440.	U
95-95-4	2,4,5-Trichlorophenol	1100.	U
91-58-7	2-Chloronaphthalene	440.	U
88-74-4	2-Nitroaniline	1100.	U
131-11-3	Dimethylphthalate	440.	U
208-96-8	Acenaphthylene	440.	U
606-20-2	2,6-Dinitrotoluene	440.	U
99-09-2	3-Nitroaniline	1100.	U
83-32-9	Acenaphthene	440.	U

0020313A

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP58RE

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716302

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 26 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (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
51-28-5	2,4-Dinitrophenol	1100.	U
100-02-7	4-Nitrophenol	1100.	U
132-64-9	Dibenzofuran	440.	U
121-14-2	2,4-Dinitrotoluene	440.	U
84-66-2	Diethylphthalate	440.	U
7005-72-3	4-Chlorophenyl-phenylether	440.	U
86-73-7	Fluorene	440.	U
100-01-6	4-Nitroaniline	1100.	U
534-52-1	4,6-Dinitro-2-methylphenol	1100.	U
86-30-6	N-Nitrosodiphenylamine (1)	440.	U
101-55-3	4-Bromophenyl-phenylether	440.	U
118-74-1	Hexachlorobenzene	440.	U
87-86-5	Pentachlorophenol	1100.	U
85-01-8	Phenanthrene	140.	J
120-12-7	Anthracene	440.	U
86-74-8	Carbazole	440.	U
84-74-2	Di-n-butylphthalate	440.	U
206-44-0	Fluoranthene	250.	J
129-00-0	Pyrene	330.	J
85-68-7	Butylbenzylphthalate	440.	U
91-94-1	3,3'-Dichlorobenzidine	440.	U
56-55-3	Benzo(a)anthracene	180.	J
218-01-9	Chrysene	190.	J
117-81-7	bis(2-Ethylhexyl)phthalate	48.	J
117-84-0	Di-n-octylphthalate	440.	U
205-99-2	Benzo(b)fluoranthene	300.	J
207-08-9	Benzo(k)fluoranthene	230.	J
50-32-8	Benzo(a)pyrene	210.	J
193-39-5	Indeno(1,2,3-cd)pyrene	97.	J
53-70-3	Dibenz(a,h)anthracene	51.	J
191-24-2	Benzo(g,h,i)perylene	100.	J

(1) - Cannot be separated from Diphenylamine

0020314

1F

EPA SAMPLE NO.

EWP58RE

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716302

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716302

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 26 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

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

Number TICs Found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.55	1200.	JB
2.		UNKNOWN MW=112	6.97	510.	JB
3.		UNKNOWN	7.98	940.	JB
4.		UNKNOWN	9.12	1600.	JB
5.	2091-29-4	9-HEXADECENOIC ACID	21.27	200.	JN
6.	2091-29-4	9-HEXADECENOIC ACID	21.35	330.	JN
7.	57-10-3	HEXADECANOIC ACID	21.47	350.	JN
8.		UNKNOWN ALKANE	27.17	310.	J
9.	593-49-7	HEPTACOSANE	27.95	550.	JN
10.		UNKNOWN ALKANE	28.70	570.	J
11.		UNKNOWN HYDROCARBON	29.00	950.	J
12.		UNKNOWN ALKANE	29.47	2800.	J
13.		UNKNOWN HYDROCARBON	29.55	3300.	J
14.		UNKNOWN ALKANE	30.27	520.	J
15.		UNKNOWN HYDROCARBON	30.68	490.	J
16.		UNKNOWN ALKANE	31.27	4500.	J
17.		UNKNOWN ALKANE	33.65	1600.	J
18.		UNKNOWN MW=414	34.55	1700.	J
19.		UNKNOWN	35.17	990.	J
20.		UNKNOWN	35.38	710.	J
21.					
22.					
23.					
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29.					
30.					

KM 8-13

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
EWP59

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715314

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715314

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 20 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410.	U
111-44-4	bis(2-Chloroethyl)ether	410.	U
95-57-8	2-Chlorophenol	410.	U
541-73-1	1,3-Dichlorobenzene	410.	U
106-46-7	1,4-Dichlorobenzene	410.	U
95-50-1	1,2-Dichlorobenzene	410.	U
95-48-7	2-Methylphenol	410.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	410.	U
106-44-5	4-Methylphenol	410.	U
621-64-7	N-Nitroso-di-n-propylamine	410.	U
67-72-1	Hexachloroethane	410.	U
98-95-3	Nitrobenzene	410.	U
78-59-1	Isophorone	410.	U
88-75-5	2-Nitrophenol	410.	U
105-67-9	2,4-Dimethylphenol	410.	U
111-91-1	bis(2-Chloroethoxy)methane	410.	U
120-83-2	2,4-Dichlorophenol	410.	U
120-82-1	1,2,4-Trichlorobenzene	410.	U
91-20-3	Naphthalene	410.	U
106-47-8	4-Chloroaniline	410.	U
87-68-3	Hexachlorobutadiene	410.	U
59-50-7	4-Chloro-3-methylphenol	410.	U
91-57-6	2-Methylnaphthalene	410.	U
77-47-4	Hexachlorocyclopentadiene	410.	U
88-06-2	2,4,6-Trichlorophenol	410.	U
95-95-4	2,4,5-Trichlorophenol	1000.	U
91-58-7	2-Chloronaphthalene	410.	U
88-74-4	2-Nitroaniline	1000.	U
131-11-3	Dimethylphthalate	410.	U
208-96-8	Acenaphthylene	410.	U
606-20-2	2,6-Dinitrotoluene	410.	U
99-09-2	3-Nitroaniline	1000.	U
83-32-9	Acenaphthene	410.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP59

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715314

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715314

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 20 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000.	U
100-02-7	4-Nitrophenol	1000.	U
132-64-9	Dibenzofuran	410.	U
121-14-2	2,4-Dinitrotoluene	410.	U
84-66-2	Diethylphthalate	410.	U
7005-72-3	4-Chlorophenyl-phenylether	410.	U
86-73-7	Fluorene	410.	U
100-01-6	4-Nitroaniline	1000.	U
534-52-1	4,6-Dinitro-2-methylphenol	1000.	U
86-30-6	N-Nitrosodiphenylamine (1)	410.	U
101-55-3	4-Bromophenyl-phenylether	410.	U
118-74-1	Hexachlorobenzene	410.	U
87-86-5	Pentachlorophenol	1000.	U
85-01-8	Phenanthrene	130.	J
120-12-7	Anthracene	20.	J
86-74-8	Carbazole	410.	U
84-74-2	Di-n-butylphthalate	410.	U
206-44-0	Fluoranthene	190.	J
129-00-0	Pyrene	310.	J
85-68-7	Butylbenzylphthalate	410.	U
91-94-1	3,3'-Dichlorobenzidine	410.	U
56-55-3	Benzo(a)anthracene	130.	J
218-01-9	Chrysene	160.	J
117-81-7	bis(2-Ethylhexyl)phthalate	41.	J
117-84-0	Di-n-octylphthalate	410.	U
205-99-2	Benzo(b)fluoranthene	330.	J
207-08-9	Benzo(k)fluoranthene	410.	U
50-32-8	Benzo(a)pyrene	150.	J
193-39-5	Indeno(1,2,3-cd)pyrene	68.	J
53-70-3	Dibenz(a,h)anthracene	410.	U
191-24-2	Benzo(g,h,i)perylene	410.	U

(1) - Cannot be separated from Diphenylamine

0020387

1F

EPA SAMPLE NO.

EWP59

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40715314

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40715314

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 20 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs Found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.63	1000.	JB
2.		UNKNOWN MW=112	7.05	380.	JB id
3.		UNKNOWN	8.05	680.	JB id
4.		UNKNOWN	9.17	1200.	JB
5.		UNKNOWN	18.25	270.	J
6.		UNKNOWN	20.25	1100.	J
7.	2091-29-4	9-HEXADECENOIC ACID	21.30	280.	JN
8.	2091-29-4	9-HEXADECENOIC ACID	21.40	260.	JN
9.	57-10-3	HEXADECANOIC ACID	21.50	350.	JN
10.		UNKNOWN ALKANE	28.02	230.	J
11.		UNKNOWN ALKANE	28.77	240.	J
12.		UNKNOWN HYDROCARBON	29.08	860.	J
13.		UNKNOWN ALKANE	29.53	2000.	J
14.		UNKNOWN HYDROCARBON	29.63	2200.	J
15.		UNKNOWN ALKANE	30.37	370.	J
16.		UNKNOWN HYDROCARBON	30.78	420.	J
17.		UNKNOWN ALKANE	31.35	3000.	J
18.		UNKNOWN	34.82	1400.	J
19.		UNKNOWN	35.43	700.	J
20.		UNKNOWN	35.57	480.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

KM 8-13

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP59RE

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716303

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 20 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	410.	U
111-44-4	bis(2-Chloroethyl)ether	410.	U
95-57-8	2-Chlorophenol	410.	U
541-73-1	1,3-Dichlorobenzene	410.	U
106-46-7	1,4-Dichlorobenzene	410.	U
95-50-1	1,2-Dichlorobenzene	410.	U
95-48-7	2-Methylphenol	410.	U
108-60-1	2,2'-oxybis(1-Chloropropane)	410.	U
106-44-5	4-Methylphenol	410.	U
621-64-7	N-Nitroso-di-n-propylamine	410.	U
67-72-1	Hexachloroethane	410.	U
98-95-3	Nitrobenzene	410.	U
78-59-1	Isophorone	410.	U
88-75-5	2-Nitrophenol	410.	U
105-67-9	2,4-Dimethylphenol	410.	U
111-91-1	bis(2-Chloroethoxy)methane	410.	U
120-83-2	2,4-Dichlorophenol	410.	U
120-82-1	1,2,4-Trichlorobenzene	410.	U
91-20-3	Naphthalene	410.	U
106-47-8	4-Chloroaniline	410.	U
87-68-3	Hexachlorobutadiene	410.	U
59-50-7	4-Chloro-3-methylphenol	410.	U
91-57-6	2-Methylnaphthalene	410.	U
77-47-4	Hexachlorocyclopentadiene	410.	U
88-06-2	2,4,6-Trichlorophenol	410.	U
95-95-4	2,4,5-Trichlorophenol	1000.	U
91-58-7	2-Chloronaphthalene	410.	U
88-74-4	2-Nitroaniline	1000.	U
131-11-3	Dimethylphthalate	410.	U
208-96-8	Acenaphthylene	410.	U
606-20-2	2,6-Dinitrotoluene	410.	U
99-09-2	3-Nitroaniline	1000.	U
83-32-9	Acenaphthene	410.	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP59RE

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716303

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 20 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000.	U
100-02-7	4-Nitrophenol	1000.	U
132-64-9	Dibenzofuran	410.	U
121-14-2	2,4-Dinitrotoluene	410.	U
84-66-2	Diethylphthalate	410.	U
7005-72-3	4-Chlorophenyl-phenylether	410.	U
86-73-7	Fluorene	410.	U
100-01-6	4-Nitroaniline	1000.	U
534-52-1	4,6-Dinitro-2-methylphenol	1000.	U
86-30-6	N-Nitrosodiphenylamine (1)	410.	U
101-55-3	4-Bromophenyl-phenylether	410.	U
118-74-1	Hexachlorobenzene	410.	U
87-86-5	Pentachlorophenol	1000.	U
85-01-8	Phenanthrene	100.	J
120-12-7	Anthracene	410.	U
86-74-8	Carbazole	410.	U
84-74-2	Di-n-butylphthalate	410.	U
206-44-0	Fluoranthene	160.	J
129-00-0	Pyrene	220.	J
85-68-7	Butylbenzylphthalate	410.	U
91-94-1	3,3'-Dichlorobenzidine	410.	U
56-55-3	Benzo(a)anthracene	100.	J
218-01-9	Chrysene	120.	J
117-81-7	bis(2-Ethylhexyl)phthalate	32.	J
117-84-0	Di-n-octylphthalate	410.	U
205-99-2	Benzo(b)fluoranthene	310.	J
207-08-9	Benzo(k)fluoranthene	410.	U
50-32-8	Benzo(a)pyrene	110.	J
193-39-5	Indeno(1,2,3-cd)pyrene	57.	J
53-70-3	Dibenz(a,h)anthracene	410.	U
191-24-2	Benzo(g,h,i)perylene	60.	J

(1) - Cannot be separated from Diphenylamine

0020458

1F

EPA SAMPLE NO.

EWP59RE

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water) SOIL Lab Sample ID:40716303

Sample wt/vol: 30.0 (g/ml) G Lab File ID: 40716303

Level: (low/med) LOW Date Received: 6/23/93

% Moisture: 20 decanted: (Y/N) N Date Extracted: 6/29/93

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 7/16/93

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.4

Number TICs Found: 20

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	6.58	820.	JB u
2.		UNKNOWN MW=112	7.02	260.	JB u
3.		UNKNOWN C10.H16	7.53	210.	J
4.		UNKNOWN	8.02	530.	JB u
5.		UNKNOWN	9.15	1100.	J
6.		UNKNOWN	18.22	160.	J
7.		UNKNOWN	20.20	600.	J
8.	2091-29-4	9-HEXADECENOIC ACID	21.27	140.	JN
9.	2091-29-4	9-HEXADECENOIC ACID	21.37	160.	JN
10.	57-10-3	HEXADECANOIC ACID	21.47	280.	JN
11.		UNKNOWN ALKANE	24.65	100.	J
12.	630-01-3	HEXACOSANE	27.18	91.	JN
13.	593-49-7	HEPTACOSANE	27.97	250.	JN
14.		UNKNOWN ALKANE	28.72	310.	J
15.		UNKNOWN HYDROCARBON	29.02	780.	J
16.		UNKNOWN ALKANE	29.47	1700.	J
17.		UNKNOWN HYDROCARBON	29.57	1600.	J
18.		UNKNOWN HYDROCARBON	30.70	350.	J
19.		UNKNOWN ALKANE	31.27	2400.	J
20.		UNKNOWN ALKANE	33.65	850.	J
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

KM p-13

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

GC Column(1):DB-608 ID: 0.53 (mm) GC Column(2):DB-1701 ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	EWP55	67	78	65	84			0
02	EWP55MS	65	68	75	79			0
03	EWP55MSD	72	77	76	79			0
04	EWP56	73	77	68	77			0
05	EWP57	77	78	96	67			0
06	EWP58	89	88	63	73			0
07	EWP59	82	82	93	106			0
08	PBLK01	85	82	91	93			0
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

	ADVISORY QC LIMITS
TCX = Tetrachloro-m-xylene	(60-150)
DCB = Decachlorobiphenyl	(60-150)

\# Column to be used to flag recovery values
* Values outside of QC limits
D Surrogates diluted out

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Matrix Spike - EPA Sample No.: EWP55

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC(Lindane)	26.	0.0	24.	92	46-127
Heptachlor	26.	0.0	25.	96	35-130
Aldrin	26.	0.0	21.	81	34-132
Dieldrin	52.	2.8	50.	91	31-134
Endrin	52.	0.51	49.	93	42-139
4,4'-DDT	52.	0.0	50.	96	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC(Lindane)	26.	27.	104	12	50	46-127
Heptachlor	26.	28.	108	12	31	35-130
Aldrin	26.	24.	92	13	43	34-132
Dieldrin	52.	57.	104	13	38	31-134
Endrin	52.	56.	107	14	45	42-139
4,4'-DDT	52.	58.	112	15	50	23-134

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:

0030003

4C
PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.:20247 SAS No.: SDG No.:EWP55

Lab Sample ID:PBLK01 Lab File ID:

Matrix:(soil/water) SOIL Extraction:(SepF/Cont/Sonc)SONC

Sulfur Cleanup: (Y/N) N Date Extracted: 6/29/93

Date Analyzed (1): 7/11/93 Date Analyzed (2): 7/11/93

Time Analyzed (1):0951 Time Analyzed (2):0951

Instrument ID (1):HP5890J Instrument ID (2):JP5890J

GC Column (1):DB-608 ID: 0.53(mm) GC Column (2):DB-1701 ID: 0.53(mm)

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EWP55	EWP55	7/11/93	7/11/93
02	EWP55MS	EWP55MS	7/11/93	7/11/93
03	EWP55MSD	EWP55MSD	7/11/93	7/11/93
04	EWP56	EWP56	7/11/93	7/11/93
05	EWP57	EWP57	7/11/93	7/11/93
06	EWP58	EWP58	7/11/93	7/11/93
07	EWP59	EWP59	7/11/93	7/11/93
08				
09				
10				
11				
12				
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15				
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19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

0030222
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

PBLK01

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water)SOIL Lab Sample ID: PBLK01

Sample wt/vol: 30.0 (g/ml)G Lab File ID:

% Moisture: 0 decanted: (Y/N) N Date Received: / /

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/11/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: 6.0 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG	Q
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)	1.7	U
76-44-8	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
72-55-9	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	0.16	JP
53494-70-5	Endrin ketone	3.3	U
7421-36-3	Endrin aldehyde	3.3	U
5103-71-9	alpha-Chlordane	1.7	U
5103-74-2	gamma-Chlordane	1.7	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

0030004
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP55

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water)SOIL Lab Sample ID: EWP55

Sample wt/vol: 30.0 (g/ml)G Lab File ID:

% Moisture: 36 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/11/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: 7.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	0.13	JP
319-85-7	beta-BHC	2.7	U
319-86-8	delta-BHC	2.7	U
58-89-9	gamma-BHC(Lindane)	2.7	U
76-44-8	Heptachlor	2.7	U
309-00-2	Aldrin	2.7	U
1024-57-3	Heptachlor epoxide	0.14	JP
959-98-8	Endosulfan I	2.7	U
60-57-1	Dieldrin	2.8	J
72-55-9	4,4'-DDE	0.46	JP
72-20-8	Endrin	0.51	JP
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	27.	U
53494-70-5	Endrin ketone	5.2	U
7421-36-3	Endrin aldehyde	5.2	U
5103-71-9	alpha-Chlordane	0.40	JP
5103-74-2	gamma-Chlordane	0.82	JP
8001-35-2	Toxaphene	270.	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

0030011
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP56

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water)SOIL Lab Sample ID: EWP56

Sample wt/vol: 30.0 (g/ml)G Lab File ID:

% Moisture: 23 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/11/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	2.2	U
319-85-7	beta-BHC	2.2	U
319-86-8	delta-BHC	2.2	U
58-89-9	gamma-BHC(Lindane)	2.2	U
76-44-8	Heptachlor	2.2	U
309-00-2	Aldrin	2.2	U
1024-57-3	Heptachlor epoxide	0.10	JP
959-98-8	Endosulfan I	2.2	U
60-57-1	Dieldrin	1.2	J
72-55-9	4,4'-DDE	0.29	J
72-20-8	Endrin	4.3	U
33213-65-9	Endosulfan II	4.3	U
72-54-8	4,4'-DDD	4.3	U
1031-07-8	Endosulfan sulfate	4.3	U
50-29-3	4,4'-DDT	4.3	U
72-43-5	Methoxychlor	22.	U
53494-70-5	Endrin ketone	4.3	U
7421-36-3	Endrin aldehyde	4.3	U
5103-71-9	alpha-Chlordane	0.17	JP
5103-74-2	gamma-Chlordane	0.36	JP
8001-35-2	Toxaphene	220.	U
12674-11-2	Aroclor-1016	43.	U
11104-28-2	Aroclor-1221	87.	U
11141-16-5	Aroclor-1232	43.	U
53469-21-9	Aroclor-1242	43.	U
12672-29-6	Aroclor-1248	43.	U
11097-69-1	Aroclor-1254	43.	U
11096-82-5	Aroclor-1260	43.	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP57

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water)SOIL Lab Sample ID: EWP57

Sample wt/vol: 30.0 (g/ml)G Lab File ID:

% Moisture: 24 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/11/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: 7.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	2.2	U
319-85-7	beta-BHC	2.2	U
319-86-8	delta-BHC	0.53	JP
58-89-9	gamma-BHC(Lindane)	2.2	U
76-44-8	Heptachlor	0.16	JP
309-00-2	Aldrin	2.2	U
1024-57-3	Heptachlor epoxide	0.46	JP
959-98-8	Endosulfan I	2.2	U
60-57-1	Dieldrin	1.7	JP
72-55-9	4,4'-DDE	0.84	JP
72-20-8	Endrin	6.8	
33213-65-9	Endosulfan II	4.3	U
72-54-8	4,4'-DDD	4.3	U
1031-07-8	Endosulfan sulfate	4.3	U
50-29-3	4,4'-DDT	4.3	U
72-43-5	Methoxychlor	22.	U
53494-70-5	Endrin ketone	2.1	JP
7421-36-3	Endrin aldehyde	4.3	U
5103-71-9	alpha-Chlordane	0.26	JP
5103-74-2	gamma-Chlordane	0.38	JP
8001-35-2	Toxaphene	220.	U
12674-11-2	Aroclor-1016	43.	U
11104-28-2	Aroclor-1221	88.	U
11141-16-5	Aroclor-1232	43.	U
53469-21-9	Aroclor-1242	32.	J
12672-29-6	Aroclor-1248	43.	U
11097-69-1	Aroclor-1254	43.	U
11096-82-5	Aroclor-1260	43.	U

0030027
EPA SAMPLE NO.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EWP58

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water)SOIL Lab Sample ID: EWP58

Sample wt/vol: 30.0 (g/ml)G Lab File ID:

% Moisture: 26 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/11/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	2.3	U
319-85-7	beta-BHC	2.3	U
319-86-8	delta-BHC	0.49	JP
58-89-9	gamma-BHC(Lindane)	2.3	U
76-44-8	Heptachlor	2.3	U
309-00-2	Aldrin	2.3	U
1024-57-3	Heptachlor epoxide	0.24	JP
959-98-8	Endosulfan I	2.3	U
60-57-1	Dieldrin	2.0	JP
72-55-9	4,4'-DDE	6.9	
72-20-8	Endrin	0.28	JP
33213-65-9	Endosulfan II	4.5	U
72-54-8	4,4'-DDD	2.8	JP
1031-07-8	Endosulfan sulfate	4.5	U
50-29-3	4,4'-DDT	8.4	
72-43-5	Methoxychlor	35.	B
53494-70-5	Endrin ketone	4.5	U
7421-36-3	Endrin aldehyde	4.5	U
5103-71-9	alpha-Chlordane	0.48	JP
5103-74-2	gamma-Chlordane	0.40	JP
8001-35-2	Toxaphene	230.	U
12674-11-2	Aroclor-1016	45.	U
11104-28-2	Aroclor-1221	91.	U
11141-16-5	Aroclor-1232	45.	U
53469-21-9	Aroclor-1242	45.	U
12672-29-6	Aroclor-1248	45.	U
11097-69-1	Aroclor-1254	45.	U
11096-82-5	Aroclor-1260	45.	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EWP59

Lab Name:SWRI Contract:68D10088

Lab Code:SWRI Case No.20247 SAS No.: SDG No.:EWP55

Matrix: (soil/water)SOIL Lab Sample ID: EWP59

Sample wt/vol: 30.0 (g/ml)G Lab File ID:

% Moisture: 20 decanted: (Y/N) N Date Received: 6/23/93

Extraction: (SepF/Cont/Sonc)SONC Date Extracted: 6/29/93

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 7/11/93

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N)Y pH: 7.4 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	2.1	U
319-85-7	beta-BHC	2.1	U
319-86-8	delta-BHC	2.1	U
58-89-9	gamma-BHC(Lindane)	2.1	U
76-44-8	Heptachlor	2.1	U
309-00-2	Aldrin	2.1	U
1024-57-3	Heptachlor epoxide	2.1	U
959-98-8	Endosulfan I	2.1	U
60-57-1	Dieldrin	0.18	JP
72-55-9	4,4'-DDE	4.1	U
72-20-8	Endrin	0.24	JP
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	0.55	JP
72-43-5	Methoxychlor	21.	U
53494-70-5	Endrin ketone	4.1	U
7421-36-3	Endrin aldehyde	4.1	U
5103-71-9	alpha-Chlordane	2.1	U
5103-74-2	gamma-Chlordane	2.1	U
8001-35-2	Toxaphene	210.	U
12674-11-2	Aroclor-1016	41.	U
11104-28-2	Aroclor-1221	84.	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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. _____ CERCLIS No. OH

Case No. 20247 Site Name Location: Systech

Contractor or EPA Lab: SWRI Data User: PRC

No. of Samples: 5 Date Samples or Data Received: 7-28-93

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 5 No. of samples received: 5

Received by: Lynette Burnett Date: 7-29-93

Received by LSSS: Dorothy M. May Date: 8/03/93

Review started: 8-13-93 L Burnett Reviewer Signature: 8-13-93

Total time spent on review: 6 Date review completed: 8-14-93

Copied by: Jeanette Pinkerell Date: Aug 18 1993

Mailed to user by: Lynette Burnett Date: 8-20-93

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

Data received by: Mildred Yarbrough Date: AUG 25 1993

Data review received by: _____ Date: _____
Inorganic Data Complete( ) Suitable for Intended Purpose( ) ✓if OK
Organic Data Complete ( ) Suitable for Intended Purpose( ) list
Dioxin Data Complete ( ) Suitable for Intended Purpose( ) prblms
SAS Data Complete ( ) Suitable for Intended Purpose( ) below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: _____

SEP 16 1993

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 9-9-93

SUBJECT: Review of Region V CLP Data
Received for Review on Aug 3, 1993

FROM: Charles T. Elly, Director (SL-10C)
Central Regional Laboratory

TO: Data User: PRC

We have reviewed the data for the following case.

SITE NAME: Sysbech (OH)

CASE and/or SAS NUMBER: 20247 (3) **SDG NUMBER:** MEWR81

Number and Type of Samples: 4 (water)

CLP Sample Numbers: MEWR81, 83-84, 95

CLP Laboratory: Skinner **Hrs. for Review** 3
0.5 L.F

Following are our findings:

All Thallium Data are unusable (R) Due to Low Spike Recovery

All Other Data are Acceptable for use with Qualification

JR

( ) Data are acceptable for use.
(x) Data are acceptable for use with qualification.
( ) Data are preliminary, pending verification by laboratory.
( ) Data are unacceptable.

cc: Edward Kantor, EMSL-Las Vegas
Julie Frankel, VIAR & Co. (SMO)

NARRATIVE

SITE : SYSTECH (OH) CASE: 20247 (3)
CONTRACTOR: SKINNER SDG : MEWR81

The laboratory's portion of this case contains 4 low level water samples analyzed for total metals and cyanide. Below is a summary of the out of control audits and their possible effects on the data for this case.

EVIDENTIAL AUDIT: The original Hg raw data are with case 20209, SDG: MBDN83. The original CN raw data are with case 20203, SDG: MAW794. The reviewer corrected the airbill number on the DC-1 form (log-in sheet). The lab included the sample tags which did not belong to this SDG into the case. The reviewer called the lab to inform them of this situation and all the wrong sample tags were sent back to the lab. The lab called the reviewer on 8-30-93 and stated that all the sample tag which belong to this case could not be located. Therefore, no sample tags are included in the case. All of the remaining forms and documents are originals and are present in the order indicated on the DC-2 form (inventory sheet).

ICP ANALYSES: The duplicate audit for Cr (200.0% RPD) was not flagged by the lab because the duplicate difference did not exceed the technical criterion (+/- CRDL) for water samples. Cr results are not qualified on this basis. The CCB was found to contain Cr (2.5 ug/l). The Cr result on MEWR81 is estimated (J) due to contamination.

The preparation blank was found to contain Fe (9.85 ug/l) and K (1453.9 ug/l) and the CCBs were found to contain Al (32.9 ug/l), Fe (8.6 ug/l), Mn (1.2 ug/l) and Zn (4.4 ug/l). The Al result on MEWR84, the Fe and Mn results on MEWR95, the Zn results on MEWR83 and 84 and all K results are estimated (J) due to contamination.

GFAA ANALYSES: The duplicate audit for Se (200.0% RPD) and the matrix spike recovery for Se (54.1%) are out of control. All Se results were flagged (W) by the lab and are estimated (UJ) due to poor precision, a possible elevated detection limit and interference.

The matrix spike recovery for Tl (25.3%) indicated low bias. The Tl results on MEWR81, 83 and 84 were flagged (W) by the lab which

Reviewed by: _____ Lockheed/ESAT
Date: 9-1-93

indicated interference. However, all Tl results are less than IDL and are unusable (R).

The duplicate audit for Pb (77.2% RPD) was not flagged by the lab because the duplicate difference did not exceed the technical criterion (+/- CRDL) for water samples. Pb results are not qualified on this basis and will be qualified below.

OTHER QUALIFIERS: All CN results are acceptable.

The duplicate audit for Hg (29.1% RPD) was not flagged by the lab because the duplicate difference did not exceed the technical criterion (+/- CRDL) for water samples. All Hg results are acceptable.

Samples MEWR83/84 are field duplicates and show good field correlation.

Sample MEWR95 is a field blank and contains Pb (0.82 ug/l). The Pb results on MEWR81, 83 and 84 are estimated (J) due to contamination.

Reviewed by: _____ Lockheed/ESAT
Date: 9-1-93

QC EXCEPTION SUMMARY REPORT

CASE\SAS#: 20247 (3) SITE: Systech MATRIX: Water WATER SAMPLE SPK:

DATA SET: LAB: Skinner CONC: Low WATER SAMPLE DUP:

LAB QC # NEWR81 REVIEWED BY: Brian Lyon SOIL SAMPLE SPK:

DATE: 8-25-93 SOIL SAMPLE DUP:

FORM #		FORM 2	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 6	FORM 5	FIELD	FIELD	FIELD	FIELD	COMMENTS
ELEMENT	HOLD TIME	INITIAL CALIB	CONTIN CALIB	CALIB BLANK	PREP WATER BLANK	PREP SOIL BLANK	ICS %R	SOIL SPIKE %R	SOIL DUP RPD	ICS AQ	ICS SOIL	SERIAL DILUTION AQUEOUS	SERIAL DILUTION SOIL	AQ DUP %R	AQ SPIKE %R	BLANK	DUP RPD	BLANK	DUP RPD	
ALUMINUM			32.9																	
ANTIMONY																				
ARSENIC																				
BARIUM																				
BERYLLIUM																				
CADMIUM																				
CALCIUM																				
CHROMIUM			2.5																	
COBALT																				
COPPER																				
IRON			8.6		9.85															
LEAD																		0.82		
MAGNESIUM																				
MANGANESE			1.2																	
MERCURY																				
NICKEL																				
POTASSIUM					1453?															
SELENIUM														200	54.1					
SILVER																				
SODIUM																				
THALLIUM															25.3					
TIN																				
VANADIUM																				
ZINC			4.4																	
CYANIDE																				

GLOSSARY A

Data Qualifier Definitions

For the purposes of this document the following code letters and associated definitions are provided.

U - The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

J - The associated value is an estimated quantity.

R - The data are unusable. (Note: Analyte may or may not be present.)

UJ - The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.

In Reference to Case No(s):

20247 (3)

Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Telephone Record Log

Date of Call: 8-25-93 / 8-30-93

Laboratory Name: Skinner

Lab Contact: Richard Purdy 617-890-7200

Region: 5

Regional Contact: Bai Yuen

Call Initiated By: ___ Laboratory ✓ Region

In reference to data for the following sample number(s):

SDG: MEWR81

Summary of Questions/Issues Discussed:

1. The airbill # on the DC-1 form was incorrect.
2. The sample tags included in the case are not belong to this case.
3. Hg raw data for MEWR85 on page 162 should be MEWR95? (Discrepancy between p162 and form 14.(p39).

Summary of Resolution:

1. The reviewer will correct the airbill # on the DC-1.
2. The lab could not find the sample tags at this moment. The reviewer sent all the tags which did not belong to this SDG back to the lab.
3. Should be MEWR95.

Signature

8-30-93
Date

Distribution: (1) Lab Copy, (2) Region Copy, (3) SMO Copy

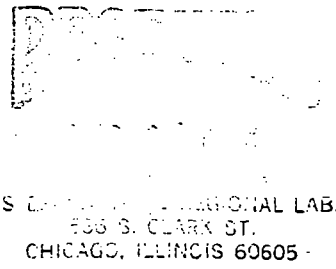
COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

SOW No.: ILM02.1

EPA Sample No.	Lab Sample ID.
MEWR81	06207-01S
MEWR81D	06207-01S2
MEWR83	06207-02S
MEWR83S	06207-02DS
MEWR84	06207-03S
MEWR95	06207-04S



US [illegible] REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

Were ICP interelement corrections applied?	Yes/No	YES
Were ICP background corrections applied?	Yes/No	YES
If yes-were raw data generated before application of background corrections?	Yes/No	NO

Comments:

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 floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Name: Kirk D. Johnson

Date: 7/29/93 Title: USEPA Data Manager

EPA SAMPLE NO.

MEWR81

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Matrix (soil/water): WATER Lab Sample ID: 06207-01S

Level (low/med): LOW Date Received: 06/26/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.8	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	50.8		S	F
7440-39-3	Barium	614			P
7440-41-7	Beryllium	0.40	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	125000			P
7440-47-3	Chromium	2.0	B		P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	2.2	U		P
7439-89-6	Iron	11700			P
7439-92-1	Lead	2.5	B		F
7439-95-4	Magnesium	32400			P
7439-96-5	Manganese	603			P
7439-97-6	Mercury	0.13	B		AV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	4760	B		P
7782-49-2	Selenium	2.4	U	WN*	F
7440-22-4	Silver	3.4	U		P
7440-23-5	Sodium	57100			P
7440-28-0	Thallium	7.0	U	WN	F
7440-62-2	Vanadium	2.3	U		P
7440-66-6	Zinc	30.3			P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

EPA SAMPLE NO.

MEWR83

INORGANIC ANALYSIS DATA SHEET

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Matrix (soil/water): WATER Lab Sample ID: 06207-02S

Level (low/med): LOW Date Received: 06/26/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.8	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	22.5			F
7440-39-3	Barium	593			P
7440-41-7	Beryllium	0.40	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	104000			P
7440-47-3	Chromium	1.8	U		P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	2.2	U		P
7439-89-6	Iron	10800			P
7439-92-1	Lead	1.0	B		F
7439-95-4	Magnesium	32000			P
7439-96-5	Manganese	1060			P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	4940	B		P
7782-49-2	Selenium	2.4	U	WN*	F
7440-22-4	Silver	3.4	U		P
7440-23-5	Sodium	57500			P
7440-28-0	Thallium	7.0	U	WN	F
7440-62-2	Vanadium	2.3	U		P
7440-66-6	Zinc	10.0	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEWR84

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Matrix (soil/water): WATER Lab Sample ID: 06207-03S

Level (low/med): LOW Date Received: 06/26/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	24.9	B		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	21.9			F
7440-39-3	Barium	596			P
7440-41-7	Beryllium	0.40	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	104000			P
7440-47-3	Chromium	1.8	U		P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	2.2	U		P
7439-89-6	Iron	10900			P
7439-92-1	Lead	1.5	B		F
7439-95-4	Magnesium	32200			P
7439-96-5	Manganese	1070			P
7439-97-6	Mercury	0.11	B		AV
7440-02-0	Nickel	3.8	B		P
7440-09-7	Potassium	4990	B		P
7782-49-2	Selenium	2.4	U	WN*	F
7440-22-4	Silver	3.4	U		P
7440-23-5	Sodium	57600			P
7440-28-0	Thallium	7.0	U	WN	F
7440-62-2	Vanadium	2.3	U		P
7440-66-6	Zinc	10.4	B		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

4

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEWR95

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Matrix (soil/water): WATER Lab Sample ID: 06207-04S

Level (low/med): LOW Date Received: 06/26/93

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.8	U		P
7440-36-0	Antimony	17.9	U		P
7440-38-2	Arsenic	2.8	U		F
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium	0.40	U		P
7440-43-9	Cadmium	1.5	U		P
7440-70-2	Calcium	35.7	U		P
7440-47-3	Chromium	1.8	U		P
7440-48-4	Cobalt	1.5	U		P
7440-50-8	Copper	2.2	U		P
7439-89-6	Iron	5.6	B		P
7439-92-1	Lead	0.82	B		F
7439-95-4	Magnesium	26.6	U		P
7439-96-5	Manganese	2.9	B		P
7439-97-6	Mercury	0.10	U		AV
7440-02-0	Nickel	3.7	U		P
7440-09-7	Potassium	130	B		P
7782-49-2	Selenium	2.4	U	WN*	F
7440-22-4	Silver	3.4	U		P
7440-23-5	Sodium	154	B		P
7440-28-0	Thallium	1.4	U	N	F
7440-62-2	Vanadium	2.3	U		P
7440-66-6	Zinc	4.1	U		P
	Cyanide	10.0	U		CA

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

5

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum	22.8	U	32.9	B	22.8	U	34.6	B	22.800	U	P
Antimony	17.9	U	17.9	U	17.9	U	17.9	U	17.900	U	P
Arsenic	2.8	U	2.8	U	2.8	U	2.8	U	2.800	U	F
Barium	1.0	U	1.3	B	1.0	U	1.3	B	1.000	U	P
Beryllium	0.4	U	0.5	B	0.5	B	0.5	B	0.400	U	P
Cadmium	1.5	U	1.5	U	2.3	B	1.9	B	1.500	U	P
Calcium	35.7	U	35.7	U	35.7	U	92.9	B	-59.480	B	P
Chromium	1.8	U	2.5	B	1.8	U	2.5	B	1.800	U	P
Cobalt	1.5	U	1.5	U	1.5	B	1.5	U	1.500	U	P
Copper	15.8	B	9.2	B	2.2	U	2.2	B	2.200	U	P
Iron	5.0	U	8.6	B	5.0	U	14.3	B	9.850	B	P
Lead	0.8	U	0.8	U	0.8	U	0.8	U	0.800	U	F
Magnesium	26.6	U	39.3	B	26.6	U	27.6	B	26.600	U	P
Manganese	0.6	U	1.2	B	1.2	B	1.4	B	0.600	U	P
Mercury	0.1	U	0.1	U	0.1	U	0.1	U	0.100	U	AV
Nickel	3.7	U	3.7	U	3.7	U	3.7	U	3.700	U	P
Potassium	85.5	U	85.5	U	85.5	U	85.5	U	1453.900	B	P
Selenium	2.4	U	2.4	U	2.4	U	2.4	U	2.400	U	F
Silver	3.4	U	3.4	U	3.4	U	3.4	U	3.400	U	P
Sodium	37.0	U	37.0	U	37.0	U	37.0	U	37.000	U	P
Thallium	1.4	U	1.4	U	1.4	U	1.4	U	1.400	U	F
Vanadium	2.3	U	2.3	U	2.3	U	2.3	U	2.300	U	P
Zinc	15.9	B	4.4	B	4.1	U	8.9	B	4.100	U	P
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	10.000	U	CA

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											NR
Arsenic			2.8	U	2.8	U	2.8	U			F
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury			0.1	U	0.1	U	0.1	U			AV
Nickel											NR
Potassium											NR
Selenium			2.4	U	2.4	U	2.4	U			F
Silver											NR
Sodium											NR
Thallium			1.4	U							F
Vanadium											NR
Zinc											NR
Cyanide			10.0	U	10.0	U	10.0	U			CA

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											NR
Arsenic			2.8	U	2.8	U					F
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury			0.1	U							AV
Nickel											NR
Potassium											NR
Selenium			2.4	U	2.4	U					F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide			10.0	U							CA

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											NR
Arsenic	2.8	U	2.8	U	2.8	U	2.8	U			F
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	2.4	U	2.4	U	2.4	U	2.4	U			F
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

Preparation Blank Matrix (soil/water):

Preparation Blank Concentration Units (ug/L or 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											NR
Arsenic			2.8	U							F
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

U.S. EPA - CLP

5A

SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEWR83S

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

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

% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	75-125	1978.7000		22.8000	U	2000.00	98.9		P
Antimony	75-125	490.3300		17.9000	U	500.00	98.1		P
Arsenic	75-125	59.1105		22.5085		40.00	91.5		F
Barium	75-125	2489.9000		593.1000		2000.00	94.8		P
Beryllium	75-125	48.6600		0.4000	U	50.00	97.3		P
Cadmium	75-125	45.3100		1.5000	U	50.00	90.6		P
Calcium									NR
Chromium	75-125	188.6700		1.8000	U	200.00	94.3		P
Cobalt	75-125	461.7800		1.5000	U	500.00	92.4		P
Copper	75-125	233.1400		2.2000	U	250.00	93.3		P
Iron		11700.0000		10765.0000		1000.00	93.5		P
Lead	75-125	19.8085		0.9985	B	20.00	94.0		F
Magnesium									NR
Manganese	75-125	1521.6000		1059.3000		500.00	92.5		P
Mercury	75-125	0.9150		0.1000	U	1.00	91.5		AV
Nickel	75-125	463.8300		3.7000	U	500.00	92.8		P
Potassium									NR
Selenium	75-125	5.4100		2.4000	U	10.00	54.1	N	F
Silver	75-125	44.0700		3.4000	U	50.00	88.1		P
Sodium									NR
Thallium	75-125	12.6490		7.0000	U	50.00	25.3	N	F
Vanadium	75-125	470.4600		2.3000	U	500.00	94.1		P
Zinc	75-125	463.2900		10.0500	B	500.00	90.6		P
Cyanide	75-125	463.6942		10.0000	U	500.00	92.7		CA

Comments:

6

DUPLICATES

EPA SAMPLE NO.

MEWR81D

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

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

% Solids for Sample: 0.0 % Solids for Duplicate: 0.0

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		22.8000	U	22.8000	U			P
Antimony		17.9000	U	17.9000	U			P
Arsenic	10.0	50.8000		49.1855		3.2		F
Barium	200.0	614.3900		624.7600		1.7		P
Beryllium		0.4000	U	0.4000	U			P
Cadmium		1.5000	U	1.5000	U			P
Calcium		124920.0000		126480.0000		1.2		P
Chromium		1.9700	B	1.8000	U	200.0		P
Cobalt		1.5000	U	1.5000	U			P
Copper		2.2000	U	2.2000	U			P
Iron		11724.0000		11877.0000		1.3		P
Lead		2.4605	B	1.0900	B	77.2		F
Magnesium		32414.0000		32741.0000		1.0		P
Manganese		603.3600		610.9800		1.3		P
Mercury		0.1340	B	0.1000	B	29.1		AV
Nickel		3.7000	U	3.7000	U			P
Potassium		4755.4000	B	4743.0000	B	0.3		P
Selenium	5.0	2.4000	U	12.1000	B	200.0	*	F
Silver		3.4000	U	3.4000	U			P
Sodium		57105.0000		57770.0000		1.2		P
Thallium		7.0000	U	7.0000	U			F
Vanadium		2.3000	U	2.3000	U			P
Zinc	20.0	30.2700		27.6700		9.0		P
Cyanide		10.0000	U	10.0000	U			CA

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

ICP ID Number: Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number: F1

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead	283.30	BS	3	0.8	F
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium	276.80	BS	10	1.4	F
Vanadium			50		NR
Zinc			20		NR

Comments:
F1: THERMO JARRELL-ASH VIDEO 22E (#2486)

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

ICP ID Number: Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number: F5

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic	197.20	BS	10	2.8	F
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury			0.2		NR
Nickel			40		NR
Potassium			5000		NR
Selenium	196.00	BS	5	2.4	F
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

F5: THERMO JARRELL-ASH VIDEO 21E (#2936)

U.S. EPA - CLP

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

ICP ID Number: Date: 04/15/93

Flame AA ID Number: M1

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		NR
Antimony			60		NR
Arsenic			10		NR
Barium			200		NR
Beryllium			5		NR
Cadmium			5		NR
Calcium			5000		NR
Chromium			10		NR
Cobalt			50		NR
Copper			25		NR
Iron			100		NR
Lead			3		NR
Magnesium			5000		NR
Manganese			15		NR
Mercury	253.70		0.2	0.1	AV
Nickel			40		NR
Potassium			5000		NR
Selenium			5		NR
Silver			10		NR
Sodium			5000		NR
Thallium			10		NR
Vanadium			50		NR
Zinc			20		NR

Comments:

M1: TECHNICON MERCURY ANALYZER (#SS4199A-D)

10

INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-D2-0039

Lab Code: SKINER Case No.: 20247 SAS No.: SDG No.: MEWR81

ICP ID Number: P2 Date: 07/15/93

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.20		200	22.8	P
Antimony	206.80		60	17.9	P
Arsenic			10		NR
Barium	493.40		200	1.0	P
Beryllium	313.00		5	0.4	P
Cadmium	226.50		5	1.5	P
Calcium	317.90		5000	35.7	P
Chromium	267.70		10	1.8	P
Cobalt	228.60		50	1.5	P
Copper	324.70		25	2.2	P
Iron	259.90		100	5.0	P
Lead			3		NR
Magnesium	279.00		5000	26.6	P
Manganese	257.60		15	0.6	P
Mercury			0.2		NR
Nickel	231.60		40	3.7	P
Potassium	766.40		5000	85.5	P
Selenium			5		NR
Silver	328.00		10	3.4	P
Sodium	588.90		5000	37.0	P
Thallium			10		NR
Vanadium	292.40		50	2.3	P
Zinc	213.80		20	4.1	P

Comments:

P2: THERMO JARRELL-ASH ICAP61 (#22982)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No. (3) CERCLIS No. OH

Case No. 20247 Site Name Location: Systech

Contractor or EPA Lab: Skinner Data User: PRC

No. of Samples: 4 Date Samples or Data Received: 8-3-93

Have Chain-of-Custody records been received? YES ✓ NO ___
Have traffic reports or packing lists been received? YES ✓ NO ___
If no, are traffic report or packing list numbers written on the chain-of-custody record? YES ✓ NO ___
If no, which traffic report or packing list numbers are missing?

Are basic data forms in? YES ✓ NO ___
No. of samples claimed: 4 No. of samples received: 4

Received by: Lynette Burnett Date: 8-3-93

Received by LSSS: Dorothy M. May Date: 8/09/93

Review started: 8-25-93 Reviewer Signature: B. Yuen

Total time spent on review: 3 Date review completed: 8-31-93

Copied by: Jeannette Pritchard 0.5 L.F. Date: Sept 14, 1993

Mailed to user by: Lynette Burnett Date: 9-14-93

DATA USERS:
Please fill in the blanks below and return this form to:
Sylvia Griffin, Data Mgmt. Coordinator, Region V, ESCRL

Data received by: Mildred Yarbrough Date: SEP 16 1993

Data review received by: ___ Date: ___
Inorganic Data Complete[ ] Suitable for Intended Purpose[ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose[ ] list
Dioxin Data Complete [ ] Suitable for Intended Purpose[ ] prblms
SAS Data Complete [ ] Suitable for Intended Purpose[ ] below.
PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files Date: ___