EPA Region 5 Records Ctr.
350874

LPC 0298050006-Coles
Western Lion Landfill
SF/Tech
ILSFN0507808
9-15-99

CERCLA
Integrated Site Assessment Analytical Results

Illinois Environmental Protection Agency

2200 Churchill Road
P. O. Box 19276
Springfield, IL 62794-9276

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JUL 29 1999

Subject: Review of Region 5 Data for **Western Lion Landfill**

From: Charles T. Elly, Director Chuck Elly
Region 5 Central Regional Laboratory

To: IEPA

RECEIVED
AUG 02 1999
IEPA - BUL - ERPL

Attached are the results for: **Western Lion Landfill**
CRL request number: **990066**
Analyzed for: **VOA (Organics)**
Results are reported for sample designations: 99IE07S01 to S12, D01(X-203), D01(X-204)
(14 soil samples)

Results Status:
(X) Acceptable for Use
(X) Data Qualified but acceptable for use for compounds listed below
( ) Data Unacceptable for Use

(X) Sewer Disposal Criteria Met; Exceptions: none
Comments on Data Quality by Reviewer:

All samples were preserved with sodium bisulfate in the lab within the 48-hours holding time. Data for several compounds were qualified for reasons listed below. Please read case narrative for detailed explanation:
1. Initial calibrations(IC) did not meet % RSD criteria for acetone, methylene chloride and carbon disulfate. All samples have been flagged "J" for these three compounds.

2. Continuing calibration(CC) of 5/28/99 did not meet %D criteria for chloromethane, methylene chloride, carbon disulfide, & 1,2,4–trichlorobenzene. These five compounds were flagged as either UJ or J for samples analyzed on 5/28/99.
3. Two of four method blanks analyzed with the samples were positive for acetone. Concentration of acetone in any of the associated samples was flagged as B. CMT 7/28/99

Comments by Laboratory Director or Quality Control Coordinator

Nidia Fuentes 07/19/99

Peer and Task Monitor Date (X) Reviewed ( ) Unreviewed

Chi M. Tang Chi M Tang 7/28/99

Organic Team Leader Date (X) Reviewed ( ) Unreviewed

7/28/99

QC Coordinator and Date (X) Reviewed ( ) Unreviewed

Sylvia Griffin

Data Management Coordinator and Date Received

Date Transmitted JUL 29 1999

Please sign and date this form below and return it with any comments to:

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
SL - 10C

Received by and Date

Comments:

990066 501020

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH SUPERFUND SAMPLE DATE 5/17/99 LAB ARRIVAL DATE 5/18/99 DUE DATE 6/22/99

DU NUMBER 501 DATA SET NUMBER 990066 STUDY WESTERN LION LF PRIORITY N CONTRACTOR IEPA

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17684	WATER ABN ORGANICS SCAN UG/L TOX 17674	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 216622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
99IE07S01	X101 5-135513-14-15			X	
99IE07S02	X102 5-135517-18-19			X	
99IE07S03	X103 5-135521-22-23			X	
99IE07S04	X104 5-135525-26-27			X	
99IE07S05	X105 5-135529-30-31			X	
99IE07S06	X106 5-135533-34-35			X	
99IE07S07	X107 5-135537-38-39			X	

Anthony Guglietta 6/7/99

[illegible] 6/2/99

990066 50102D

ENVIRONMENTAL PROTECTION AGENCY
FOR THE TEAM: TOXIC SUBSTANCES

DIVISION/BRANCH SUPERFUND SAMPLE DATE 5/18/99 LAB ARRIVAL DATE 5/19/99 DUE DATE 6/23/99

DU NUMBER 501 DATA SET NUMBER 990066 STUDY WESTERN LION LANDFILL PRIORITY N CONTRACTOR IEPA

CRL LOG NUMBER	SAMPLE DESCRIPTION	WATER VOLATILE ORGANICS SCAN UG/L TOX 17684	WATER ABN ORGANICS SCAN UG/L TOX 17674	SEDIMENTS SOLIDS VOLATILE ORGANICS SCAN MG/KG (DRY) TOX 216622	SEDIMENTS SOLIDS ABN ORGANICS SCAN MG/KG (DRY) TOX 215722
99IB07S08	X108 5-135541-42-43			X	
99IB07S09	X109 5-135545-46-47			X	
99IB07S10	X201 5-135549-50-51			X	
99IB07S11	X202 5-135553-54-55			X	
99IB07D01	5-135557-58-59 + 5-135-X203/X204 561-62-63			X	
99IB07S12	X205 5-135565-66-67			X	

Anthony Geglotto 6/7/99

CASE NARRATIVE

DATE: June 7, 1999

PROJECT NAME: Samples from the Western Lion Landfill: Analysis of Volatile Organic Analytes (VOA) Using SW-846 Method 5035 and CRL Method **624VOC**

ANALYST: Anthony Gugliotta, Lockheed/ESAT ag

REVIEWERS: Ziyad Rajabi, Lockheed/ESAT Task Leader
Dennis Miller, ESAT Team Manager
Nidia Fuentes, EPA CRL Task Monitor

Work Assignment Number: 05-98-3-02 TDF: 5102-130

I. CASE DESCRIPTION:

The laboratory received 14 soil samples (X-101 to X-109 and X-201 to X-205) from the Western Lion Landfill (CRL Case 990066) in good condition. The samples were preserved according Method 5035 within the 48-hour limit specified on 5/18/99 and 5/19/99. All samples were analyzed by a modified version of CRL Method 624VOC (revised 12/15/95) using GC/MS#5 on 5/27/99 and 5/28/99. All site samples were analyzed within the sample holding time requirements. The holding time QC criterion for soil samples is 14 days from the time of collection. No other problems were observed.

II. INSTRUMENT QUALITY CONTROLS:

1. **Instrument Performance Checks (IPC):** On each day of analysis, a GC/MS IPC using *p*-BFB was made on GC/MS#5 to determine if acceptable EPA tuning criteria were met. The QC criteria are the same as those found in the Statement of Work under the EPA's Contract Laboratory Program. All criteria were met, no problems were observed.

2. **Initial Calibrations (IC):** An acceptable five-point IC is required for all target compounds before samples can be analyzed. The QC criterion for the IC states that each analyte's %RSD must be ≤30%. One initial calibration was required for this case. The five calibration levels for this method are at 5, 25, 100, 150 and 200 ng.

The initial calibration was generated on GC/MS#5 on 5/27/99. All QC criteria were acceptable for all target compounds in the initial calibration except acetone (31.0 %RSD), methylene chloride (37.6 %RSD) and carbon disulfide (37.2 %RSD).

Acetone, methylene chloride and carbon disulfide were flagged as estimated (J or UJ) for all samples and blanks associated with this IC. No other problems were observed.

3. **Continuing Calibrations (CC):** Three continuing calibrations were used for this case.

The first continuing calibration was the mid-level standard of the initial calibration. In the continuing calibration of 5/27/99 (052799IC100 on GC/MS#5 at 11:19), all QC criteria were acceptable for all target compounds. No problems were observed.

In the continuing calibration of 5/27/99 at 20:57 (052799CC100 on GC/MS#5), all QC criteria were acceptable for all target compounds. No problems were observed.

In the continuing calibration of 5/28/99 at 07:34 (052799IC100 on GC/MS#5), all QC criteria were acceptable for all target compounds except chloromethane (52.9 %D), methylene chloride (44.9 %D), carbon disulfide (33.2 %D) and 1,2,4-trichlorobenzene (35.9 %D). Chloromethane, methylene chloride, carbon disulfide and 1,2,4-trichlorobenzene were flagged as estimated (J or UJ) for all samples and blanks associated with this CC. No other problems were observed.

4. **Internal Standard (IS) Area and Retention Time (RT) Summary:** The QC criterion states that the areas of ISs must be within a factor of two of the IS area of the corresponding CC. The RT of the IS for samples must also be within 30 seconds of the RT of the IS for the corresponding CC.

All internal standard areas and retention times met the QC requirements. No problems were observed.

III. METHOD QUALITY CONTROL:

1. **Method Blank Results:** A Lab Blank [5 g of reagent sand and 5 mL of $NaHSO_4$ solution (1 g/5 mL) spiked with internal standards and surrogates] was analyzed on each day to check the GC/MS, purge and trap systems and reagents for laboratory contamination (see Form I VOA). All QC data for the Lab Blanks were acceptable.

In the first Lab Blank of 5/27/99 (Lab Blank 1 at 14:47), no target compounds were detected, but one TIC was reported. The concentration of this TIC in any of the associated samples has been flagged as "B" found in blank). See Forms I and IV.

In the second Lab Blank of 5/27/99 (Lab Blank 2 at 21:30),

acetone and two TICs were detected. The concentration of acetone or any of these TICs in any of the associated samples has been flagged as "B" found in blank). See Forms I and IV.

In the Lab Blank of 5/28/99 (Lab Blank 3), acetone was detected, but no TICs were reported. The concentration of acetone in any of the associated samples has been flagged as "B" found in blank). See Forms I and IV.

2. **Surrogate Spike Compound Results:** The surrogate spike compound recovery data were within the QC limits for all soil samples. See Form II VOA-1.

3. **Laboratory Control Sample (LCS):** In samples Laboratory Control Sample (Lab Spike), all recoveries were within the QC limits, except *trans*-1,2-dichloroethene which had a high recovery (160%). *trans*-1,2-Dichloroethene was not detected in any of the sample of this case; therefore, no qualification is necessary based on this Lab Spike. See Form III VOA-2.

IV. SAMPLE RESULTS:

All samples were preserved with sodium bisulfate within the 48-hour holding time.

In sample X-103 (99IE07S03), the concentration of benzene exceeded the upper limit of the calibration range and was flagged "E." Benzene was not detected in the medium-level analysis; therefore, no summary form was created for this sample. No other dilutions were required.

Samples X-102, X-108, X-203 and X-204 required reanalyses due to unacceptable internal standard areas. The reanalyses had acceptable IS areas and were reported.

The laboratory met the qualitative and quantitative analysis requirements for TCLs and TICs.

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Level: (low/med) LOW

	EPA SAMPLE NO.	SMC1 (BEN) #	SMC2 (TOL) #	SMC3 (BFB) #	TOT OUT
01	LAB SPIKE	102	96	93	0
02	LAB SPIKEMS	101	96	97	0
03	LAB SPIKEMSD	101	97	93	0
04	X-101	100	95	83	0
05	X-103	95	91	88	0
06	X-104	100	96	93	0
07	X-105	101	101	90	0
08	X-106	100	99	90	0
09	X-107	98	94	85	0
10	X-109	100	98	87	0
11	X-201	101	98	87	0
12	X-202	99	97	87	0
13	X-205	101	97	82	0
14	LAB BLANK3	98	96	92	0
15	X-102	94	95	81	0
16	X-108	95	96	91	0
17	X-203	95	95	88	0
18	X-204	96	95	86	0

				QC LIMITS
SMC1	(BEN)	=	BENZENE-D6	(70-130)
SMC2	(TOL)	=	TOLUENE-D8	(70-130)
SMC3	(BFB)	=	p-BROMOFLUOROBENZENE	(70-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D System Monitoring Compound diluted out

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK1

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LAB BLANK

Sample wt/vol: 5.0 (g/ml) G Lab File ID: 05279910.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. 0 Date Analyzed: 05/27/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	15	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	25	U J
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U J
75-15-0	Carbon disulfide	5	U J
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	25	U
156-59-2	cis-1,2-Dichloroethene	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
594-20-7	2,2-Dichloropropane	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon tetrachloride	5	U
71-43-2	Benzene	5	U
74-95-3	Dibromomethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
108-88-3	Toluene	5	U
142-28-9	1,3-Dichloropropane	5	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
127-18-4	Tetrachloroethene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
108383/106423	m- &/or p-Xylene	5	U
75-25-2	Bromoform	5	U

ag 6/7/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK1

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LAB BLANK

Sample wt/vol: 5.0 (g/ml) G Lab File ID: 05279910.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. 0 Date Analyzed: 05/27/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5	U
95-47-6	o-Xylene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
87-68-3	Hexachlorobutadiene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LAB BLANK1

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LAB BLANK

Sample wt/vol: 5.0 (g/ml) G Lab File ID: 05279910.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. 0 Date Analyzed: 05/27/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 1

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown Siloxane	21.51	5	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK2

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: LAB BLANK

Sample wt/vol: 5.0 (g/ml) G Lab File ID: 05279922.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. 0 Date Analyzed: 05/27/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	15	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	14	J
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U J
75-15-0	Carbon disulfide	5	U J
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	25	U
156-59-2	cis-1,2-Dichloroethene	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
594-20-7	2,2-Dichloropropane	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon tetrachloride	5	U
71-43-2	Benzene	5	U
74-95-3	Dibromomethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
108-88-3	Toluene	5	U
142-28-9	1,3-Dichloropropane	5	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
127-18-4	Tetrachloroethene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
108383/106423	m- &/or p-Xylene	5	U
75-25-2	Bromoform	5	U

ag 6/7/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK2

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LAB BLANK

Sample wt/vol: 5.0 (g/ml) G Lab File ID: 05279922.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. 0 Date Analyzed: 05/27/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or ug/Kg)	UG/KG	Q
100-42-5	Styrene	5	U
95-47-6	o-Xylene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
87-68-3	Hexachlorobutadiene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LAB BLANK2

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LAB BLANK

Sample wt/vol: 5.0 (g/ml) G Lab File ID: 05279922.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. 0 Date Analyzed: 05/27/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 2

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown siloxane	17.89	44	J
2.	unknown siloxane	21.52	3	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK3

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LAB BLANK

Sample wt/vol: 5.0 (g/ml) G Lab File ID: 05279944.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. 0 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	15	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	14	J
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U J
75-15-0	Carbon disulfide	5	U J
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	25	U
156-59-2	cis-1,2-Dichloroethene	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
594-20-7	2,2-Dichloropropane	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon tetrachloride	5	U
71-43-2	Benzene	5	U
74-95-3	Dibromomethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
108-88-3	Toluene	5	U
142-28-9	1,3-Dichloropropane	5	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
127-18-4	Tetrachloroethene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
108383/106423	m- &/or p-Xylene	5	U
75-25-2	Bromoform	5	U

ag 6/7/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LAB BLANK3

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: LAB BLANK

Sample wt/vol: 5.0 (g/ml) G Lab File ID: 05279944.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. 0 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	5	U
95-47-6	o-Xylene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	tert-Butylbenzene	5	U
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
87-68-3	Hexachlorobutadiene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

LAB BLANK3

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: LAB BLANK

Sample wt/vol: 5.0 (g/ml) G Lab File ID: 05279944.D

Level: (low/med) LOW Date Received: 05/27/99

% Moisture: not dec. 0 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 0

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-101

ab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S01

Sample wt/vol: 2.5 (g/ml) G Lab File ID: 05279924.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 23 Date Analyzed: 05/27/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	26	U
75-01-4	Vinyl chloride	26	U
74-83-9	Bromomethane	38	U
75-00-3	Chloroethane	26	U
67-64-1	Acetone	59	JB
75-35-4	1,1-Dichloroethene	13	U
75-09-2	Methylene chloride	13	U J
75-15-0	Carbon disulfide	9	J
156-60-5	trans-1,2-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
78-93-3	2-Butanone	64	U
156-59-2	cis-1,2-Dichloroethene	13	U
74-97-5	Bromochloromethane	13	U
67-66-3	Chloroform	13	U
594-20-7	2,2-Dichloropropane	13	U
107-06-2	1,2-Dichloroethane	13	U
71-55-6	1,1,1-Trichloroethane	13	U
563-58-6	1,1-Dichloropropene	13	U
56-23-5	Carbon tetrachloride	13	U
71-43-2	Benzene	8	J
74-95-3	Dibromomethane	13	U
79-01-6	Trichloroethene	13	U
78-87-5	1,2-Dichloropropane	13	U
75-27-4	Bromodichloromethane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
108-10-1	4-Methyl-2-pentanone	26	U
10061-02-6	trans-1,3-Dichloropropene	13	U
79-00-5	1,1,2-Trichloroethane	13	U
108-88-3	Toluene	22	
142-28-9	1,3-Dichloropropane	13	U
591-78-6	2-Hexanone	26	U
124-48-1	Dibromochloromethane	13	U
106-93-4	1,2-Dibromoethane	13	U
127-18-4	Tetrachloroethene	13	U
630-20-6	1,1,1,2-Tetrachloroethane	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	9	J
108383/106423	m- &/or p-Xylene	8	J
75-25-2	Bromoform	13	U

dg 6/1/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-101

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S01

Sample wt/vol: 2.5 (g/ml) G Lab File ID: 05279924.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 23 Date Analyzed: 05/27/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	13	U
95-47-6	o-Xylene	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U
96-18-4	1,2,3-Trichloropropane	13	U
98-82-8	Isopropylbenzene	13	U
108-86-1	Bromobenzene	13	U
103-65-1	n-Propylbenzene	13	U
95-49-8	2-Chlorotoluene	13	U
106-43-4	4-Chlorotoluene	13	U
108-67-8	1,3,5-Trimethylbenzene	13	U
98-06-6	tert-Butylbenzene	13	U
95-63-6	1,2,4-Trimethylbenzene	13	U
135-98-8	sec-Butylbenzene	13	U
541-73-1	1,3-Dichlorobenzene	13	U
99-87-6	p-Isopropyltoluene	13	U
106-46-7	1,4-Dichlorobenzene	13	U
95-50-1	1,2-Dichlorobenzene	13	U
104-51-8	n-Butylbenzene	13	U
96-12-8	1,2-Dibromo-3-chloropropane	13	U
120-82-1	1,2,4-Trichlorobenzene	13	U
91-20-3	Naphthalene	13	U
87-68-3	Hexachlorobutadiene	13	U
87-61-6	1,2,3-Trichlorobenzene	13	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-101

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S01

Sample wt/vol: 2.5 (g/ml) G Lab File ID: 05279924.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 23 Date Analyzed: 05/27/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.25	74	J
2.	unknown	3.53	26	J
3.	unknown	3.78	30	J
4.	unknown	4.53	31	J
5. 000109-66-0	Pentane	4.88	23	JN
6. 000096-17-3	Butanal, 2-methyl-	6.70	13	JN
7.	Methylcyclohexane	9.91	13	J
8. 000066-25-1	N-HEXANAL $$ CAPROALDEHY	13.12	68	JN
9.	unknown siloxane	17.89	190	J B
10.	unknown siloxane	21.51	14	J B

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-102

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S02

Sample wt/vol: 5.8 (g/ml) G Lab File ID: 05279951.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 18 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U J
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	16	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	67	B J
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U J
75-15-0	Carbon disulfide	5	U J
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	26	U
156-59-2	cis-1,2-Dichloroethene	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
594-20-7	2,2-Dichloropropane	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon tetrachloride	5	U
71-43-2	Benzene	3	J
74-95-3	Dibromomethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
108-88-3	Toluene	5	U
142-28-9	1,3-Dichloropropane	5	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
127-18-4	Tetrachloroethene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	10	
100-41-4	Ethylbenzene	5	U
108383/106423	m- &/or p-Xylene	5	U
75-25-2	Bromoform	5	U

ag 6/1/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-102

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S02

Sample wt/vol: 5.8 (g/ml) G Lab File ID: 05279951.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 18 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or ug/Kg)	UG/KG	Q
100-42-5	Styrene	5	U
95-47-6	o-Xylene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	tert-Butylbenzene	3	J
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U
87-68-3	Hexachlorobutadiene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

ag 6/7/99

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-102

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S02

Sample wt/vol: 5.8 (g/ml) G Lab File ID: 05279951.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 18 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 5

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000075-07-0	Acetaldehyde	4.00	4	JN
2.	unknown	13.13	16	J
3.	unknown siloxane	17.90	150	J
4.	unknown siloxane	21.52	10	J
5.	unknown hydrocarbon	25.18	8	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-103

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S03

Sample wt/vol: 3.6 (g/ml) G Lab File ID: 05279926.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 16 Date Analyzed: 05/27/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	17	U
75-01-4	Vinyl chloride	17	U
74-83-9	Bromomethane	25	U
75-00-3	Chloroethane	17	U
67-64-1	Acetone	98	BJ
75-35-4	1,1-Dichloroethene	8	U
75-09-2	Methylene chloride	8	UJ
75-15-0	Carbon disulfide	7	J
156-60-5	trans-1,2-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
78-93-3	2-Butanone	42	U
156-59-2	cis-1,2-Dichloroethene	8	U
74-97-5	Bromochloromethane	8	U
67-66-3	Chloroform	8	U
594-20-7	2,2-Dichloropropane	8	U
107-06-2	1,2-Dichloroethane	8	U
71-55-6	1,1,1-Trichloroethane	8	U
563-58-6	1,1-Dichloropropene	8	U
56-23-5	Carbon tetrachloride	8	U
71-43-2	Benzene	610	E
74-95-3	Dibromomethane	8	U
79-01-6	Trichloroethene	8	U
78-87-5	1,2-Dichloropropane	8	U
75-27-4	Bromodichloromethane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
108-10-1	4-Methyl-2-pentanone	17	U
10061-02-6	trans-1,3-Dichloropropene	8	U
79-00-5	1,1,2-Trichloroethane	8	U
108-88-3	Toluene	11	
142-28-9	1,3-Dichloropropane	8	U
591-78-6	2-Hexanone	17	U
124-48-1	Dibromochloromethane	8	U
106-93-4	1,2-Dibromoethane	8	U
127-18-4	Tetrachloroethene	8	U
630-20-6	1,1,1,2-Tetrachloroethane	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	17	
108383/106423	m- &/or p-Xylene	7	J
75-25-2	Bromoform	8	U

QG 6/7/99

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-103

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S03

Sample wt/vol: 3.6 (g/ml) G Lab File ID: 05279926.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 16 Date Analyzed: 05/27/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	8	U
95-47-6	o-Xylene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
96-18-4	1,2,3-Trichloropropane	8	U
98-82-8	Isopropylbenzene	13	
108-86-1	Bromobenzene	8	U
103-65-1	n-Propylbenzene	8	U
95-49-8	2-Chlorotoluene	8	U
106-43-4	4-Chlorotoluene	8	U
108-67-8	1,3,5-Trimethylbenzene	8	U
98-06-6	tert-Butylbenzene	58	
95-63-6	1,2,4-Trimethylbenzene	8	U
135-98-8	sec-Butylbenzene	8	U
541-73-1	1,3-Dichlorobenzene	8	U
99-87-6	p-Isopropyltoluene	8	U
106-46-7	1,4-Dichlorobenzene	8	U
95-50-1	1,2-Dichlorobenzene	8	U
104-51-8	n-Butylbenzene	8	U
96-12-8	1,2-Dibromo-3-chloropropane	8	U
120-82-1	1,2,4-Trichlorobenzene	8	U
91-20-3	Naphthalene	8	U
87-68-3	Hexachlorobutadiene	8	U
87-61-6	1,2,3-Trichlorobenzene	8	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-103

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S03

Sample wt/vol: 3.6 (g/ml) G Lab File ID: 05279926.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 16 Date Analyzed: 05/27/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000106-97-8	Butane	3.77	10	JN
2. 000075-07-0	Acetaldehyde (CAS) $$ Ethanal	4.01	8	JN
3. 000078-78-4	Butane, 2-methyl- (CAS) $$ Isope	4.52	12	JN
4.	unknown hexane isomer	6.07	8	J
5.	Methylcyclohexane	9.91	12	J
6. 000066-25-1	Hexanal (CAS) $$ n-Hexanal	13.12	21	JN
7.	unknown siloxane	17.90	96	J B
8.	C3-benzene	19.44	15	J
9.	unknown terpene	20.33	22	J
10.	C5-benzene	21.38	28	J

ag 6/7/99

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-104

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S04

Sample wt/vol: 4.7 (g/ml) G Lab File ID: 05279927.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 29 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	15	U
75-01-4	Vinyl chloride	15	U
74-83-9	Bromomethane	23	U
75-00-3	Chloroethane	15	U
67-64-1	Acetone	42	B J
75-35-4	1,1-Dichloroethene	8	U
75-09-2	Methylene chloride	8	U J
75-15-0	Carbon disulfide	8	U J
156-60-5	trans-1,2-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
78-93-3	2-Butanone	38	U
156-59-2	cis-1,2-Dichloroethene	8	U
74-97-5	Bromochloromethane	8	U
67-66-3	Chloroform	8	U
594-20-7	2,2-Dichloropropane	8	U
107-06-2	1,2-Dichloroethane	8	U
71-55-6	1,1,1-Trichloroethane	8	U
563-58-6	1,1-Dichloropropene	8	U
56-23-5	Carbon tetrachloride	8	U
71-43-2	Benzene	8	U
74-95-3	Dibromomethane	8	U
79-01-6	Trichloroethene	8	U
78-87-5	1,2-Dichloropropane	8	U
75-27-4	Bromodichloromethane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
108-10-1	4-Methyl-2-pentanone	15	U
10061-02-6	trans-1,3-Dichloropropene	8	U
79-00-5	1,1,2-Trichloroethane	8	U
108-88-3	Toluene	8	U
142-28-9	1,3-Dichloropropane	8	U
591-78-6	2-Hexanone	15	U
124-48-1	Dibromochloromethane	8	U
106-93-4	1,2-Dibromoethane	8	U
127-18-4	Tetrachloroethene	8	U
630-20-6	1,1,1,2-Tetrachloroethane	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
108383/106423	m- &/or p-Xylene	8	U
75-25-2	Bromoform	8	U

cg 6/7/99

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-104

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S04

Sample wt/vol: 4.7 (g/ml) G Lab File ID: 05279927.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 29 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	8	U
95-47-6	o-Xylene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
96-18-4	1,2,3-Trichloropropane	8	U
98-82-8	Isopropylbenzene	8	U
108-86-1	Bromobenzene	8	U
103-65-1	n-Propylbenzene	8	U
95-49-8	2-Chlorotoluene	8	U
106-43-4	4-Chlorotoluene	8	U
108-67-8	1,3,5-Trimethylbenzene	8	U
98-06-6	tert-Butylbenzene	8	U
95-63-6	1,2,4-Trimethylbenzene	8	U
135-98-8	sec-Butylbenzene	8	U
541-73-1	1,3-Dichlorobenzene	8	U
99-87-6	p-Isopropyltoluene	8	U
106-46-7	1,4-Dichlorobenzene	8	U
95-50-1	1,2-Dichlorobenzene	8	U
104-51-8	n-Butylbenzene	8	U
96-12-8	1,2-Dibromo-3-chloropropane	8	U
120-82-1	1,2,4-Trichlorobenzene	8	U
91-20-3	Naphthalene	8	U
87-68-3	Hexachlorobutadiene	8	U
87-61-6	1,2,3-Trichlorobenzene	8	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-104

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S04

Sample wt/vol: 4.7 (g/ml) G Lab File ID: 05279927.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 29 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 7

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 75-71-8	Dichlorodifluoromethane	3.30	20	~~JN~~
2. 000066-25-1	Hexanal (CAS) $$ n-Hexanal	13.13	6	JN
3.	unknown cyclohexane	16.71	5	J
4.	unknown siloxane	17.89	97	J B
5. 000000-00-0	1,1'-BIPHENYL	18.38	33	JN
6. 000101-84-8	Benzene, 1,1'-oxybis-	19.93	160	JN
7.	unknown siloxane	21.52	7	J B

ag 6/7/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-105

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S05

Sample wt/vol: 5.4 (g/ml) G Lab File ID: 05279928.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 16 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
75-01-4	Vinyl chloride	11	U
74-83-9	Bromomethane	17	U
75-00-3	Chloroethane	11	U
67-64-1	Acetone	66	B J
75-35-4	1,1-Dichloroethene	6	U
75-09-2	Methylene chloride	6	U J
75-15-0	Carbon disulfide	12	J
156-60-5	trans-1,2-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
78-93-3	2-Butanone	28	U
156-59-2	cis-1,2-Dichloroethene	6	U
74-97-5	Bromochloromethane	6	U
67-66-3	Chloroform	6	U
594-20-7	2,2-Dichloropropane	6	U
107-06-2	1,2-Dichloroethane	6	U
71-55-6	1,1,1-Trichloroethane	6	U
563-58-6	1,1-Dichloropropene	6	U
56-23-5	Carbon tetrachloride	6	U
71-43-2	Benzene	6	
74-95-3	Dibromomethane	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-10-1	4-Methyl-2-pentanone	11	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
108-88-3	Toluene	9	
142-28-9	1,3-Dichloropropane	6	U
591-78-6	2-Hexanone	11	U
124-48-1	Dibromochloromethane	6	U
106-93-4	1,2-Dibromoethane	6	U
127-18-4	Tetrachloroethene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
108383/106423	m- &/or p-Xylene	4	J
75-25-2	Bromoform	6	U

Dg 6/1/99

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-105

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S05

Sample wt/vol: 5.4 (g/ml) G Lab File ID: 05279928.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 16 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	6	U
95-47-6	o-Xylene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
96-18-4	1,2,3-Trichloropropane	6	U
98-82-8	Isopropylbenzene	6	U
108-86-1	Bromobenzene	6	U
103-65-1	n-Propylbenzene	6	U
95-49-8	2-Chlorotoluene	6	U
106-43-4	4-Chlorotoluene	6	U
108-67-8	1,3,5-Trimethylbenzene	6	U
98-06-6	tert-Butylbenzene	6	U
95-63-6	1,2,4-Trimethylbenzene	6	U
135-98-8	sec-Butylbenzene	6	U
541-73-1	1,3-Dichlorobenzene	6	U
99-87-6	p-Isopropyltoluene	6	U
106-46-7	1,4-Dichlorobenzene	6	U
95-50-1	1,2-Dichlorobenzene	6	U
104-51-8	n-Butylbenzene	6	U
96-12-8	1,2-Dibromo-3-chloropropane	6	U
120-82-1	1,2,4-Trichlorobenzene	6	U
91-20-3	Naphthalene	6	U
87-68-3	Hexachlorobutadiene	6	U
87-61-6	1,2,3-Trichlorobenzene	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-105

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S05

Sample wt/vol: 5.4 (g/ml) G Lab File ID: 05279928.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 16 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1.	unknown	3.25	46	J
2.	unknown	3.53	22	J
3.	unknown	3.78	22	J
4. 000078-78-4	Butane, 2-methyl- (CAS) $$ Isope	4.53	23	JN
5. 000109-66-0	Pentane	4.88	19	JN
6. 000123-38-6	Propanal (CAS) $$ Propionaldehy	5.44	11	JN
7. 000096-17-3	Butanal, 2-methyl-	6.70	12	JN
8.	Methylcyclohexane	9.91	12	J
9. 000066-25-1	N-HEXANAL $$ CAPROALDEHY	13.12	49	JN
10.	unknown siloxane	17.89	55	J B

ag 6/7/99

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-106

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S06

Sample wt/vol: 5.9 (g/ml) G Lab File ID: 05279929.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 24 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	11	U
75-01-4	Vinyl chloride	11	U
74-83-9	Bromomethane	17	U
75-00-3	Chloroethane	11	U
67-64-1	Acetone	96	B J
75-35-4	1,1-Dichloroethene	6	U
75-09-2	Methylene chloride	6	U J
75-15-0	Carbon disulfide	23	J
156-60-5	trans-1,2-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
78-93-3	2-Butanone	18	J
156-59-2	cis-1,2-Dichloroethene	6	U
74-97-5	Bromochloromethane	6	U
67-66-3	Chloroform	6	U
594-20-7	2,2-Dichloropropane	6	U
107-06-2	1,2-Dichloroethane	6	U
71-55-6	1,1,1-Trichloroethane	6	U
563-58-6	1,1-Dichloropropene	6	U
56-23-5	Carbon tetrachloride	6	U
71-43-2	Benzene	4	J
74-95-3	Dibromomethane	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-10-1	4-Methyl-2-pentanone	11	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
108-88-3	Toluene	11	
142-28-9	1,3-Dichloropropane	6	U
591-78-6	2-Hexanone	11	U
124-48-1	Dibromochloromethane	6	U
106-93-4	1,2-Dibromoethane	6	U
127-18-4	Tetrachloroethene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	27	
108383/106423	m- &/or p-Xylene	110	
75-25-2	Bromoform	6	U

AG 6/1/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-106

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S06

Sample wt/vol: 5.9 (g/ml) G Lab File ID: 05279929.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 24 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	6	U
95-47-6	o-Xylene	48	
79-34-5	1,1,2,2-Tetrachloroethane	6	U
96-18-4	1,2,3-Trichloropropane	6	U
98-82-8	Isopropylbenzene	6	U
108-86-1	Bromobenzene	6	U
103-65-1	n-Propylbenzene	6	U
95-49-8	2-Chlorotoluene	6	U
106-43-4	4-Chlorotoluene	6	U
108-67-8	1,3,5-Trimethylbenzene	6	U
98-06-6	tert-Butylbenzene	6	U
95-63-6	1,2,4-Trimethylbenzene	5	J
135-98-8	sec-Butylbenzene	6	U
541-73-1	1,3-Dichlorobenzene	6	U
99-87-6	p-Isopropyltoluene	3	J
106-46-7	1,4-Dichlorobenzene	6	U
95-50-1	1,2-Dichlorobenzene	6	U
104-51-8	n-Butylbenzene	6	U
96-12-8	1,2-Dibromo-3-chloropropane	6	U
120-82-1	1,2,4-Trichlorobenzene	6	U
91-20-3	Naphthalene	4	J
87-68-3	Hexachlorobutadiene	6	U
87-61-6	1,2,3-Trichlorobenzene	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-106

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S06

Sample wt/vol: 5.9 (g/ml) G Lab File ID: 05279929.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 24 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000074-98-6	Propane	3.25	37	JN
2. 000075-28-5	Propane, 2-methyl-	3.53	14	JN
3. 000106-97-8	Butane	3.77	15	JN
4. 000078-78-4	Butane, 2-methyl- (CAS) $$ Isope	4.53	15	JN
5. 000109-66-0	Pentane	4.88	11	JN
6.	unknown hexane isomer	6.70	8	J
7.	unknown	7.48	10	J
8. 000109-99-9	Tetrahydrofuran	8.03	11	JN
9.	Methylcyclohexane	9.90	10	J
10.	unknown siloxane	17.89	62	J B

ag 6/7/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-107

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S07

Sample wt/vol: 5.4 (g/ml) G Lab File ID: 05279930.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 17 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
75-01-4	Vinyl chloride	11	U
74-83-9	Bromomethane	17	U
75-00-3	Chloroethane	11	U
67-64-1	Acetone	71	BJ
75-35-4	1,1-Dichloroethene	6	U
75-09-2	Methylene chloride	6	UJ
75-15-0	Carbon disulfide	3	J
156-60-5	trans-1,2-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
78-93-3	2-Butanone	13	J
156-59-2	cis-1,2-Dichloroethene	6	U
74-97-5	Bromochloromethane	6	U
67-66-3	Chloroform	6	U
594-20-7	2,2-Dichloropropane	6	U
107-06-2	1,2-Dichloroethane	6	U
71-55-6	1,1,1-Trichloroethane	6	U
563-58-6	1,1-Dichloropropene	6	U
56-23-5	Carbon tetrachloride	6	U
71-43-2	Benzene	4	J
74-95-3	Dibromomethane	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-10-1	4-Methyl-2-pentanone	11	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
108-88-3	Toluene	7	
142-28-9	1,3-Dichloropropane	6	U
591-78-6	2-Hexanone	11	U
124-48-1	Dibromochloromethane	6	U
106-93-4	1,2-Dibromoethane	6	U
127-18-4	Tetrachloroethene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
108383/106423	m- &/or p-Xylene	3	J
75-25-2	Bromoform	6	U

ag 6/7/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-107

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S07

Sample wt/vol: 5.4 (g/ml) G Lab File ID: 05279930.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 17 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	6	U
95-47-6	o-Xylene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
96-18-4	1,2,3-Trichloropropane	6	U
98-82-8	Isopropylbenzene	6	U
108-86-1	Bromobenzene	6	U
103-65-1	n-Propylbenzene	6	U
95-49-8	2-Chlorotoluene	6	U
106-43-4	4-Chlorotoluene	6	U
108-67-8	1,3,5-Trimethylbenzene	6	U
98-06-6	tert-Butylbenzene	6	U
95-63-6	1,2,4-Trimethylbenzene	6	U
135-98-8	sec-Butylbenzene	6	U
541-73-1	1,3-Dichlorobenzene	6	U
99-87-6	p-Isopropyltoluene	6	U
106-46-7	1,4-Dichlorobenzene	6	U
95-50-1	1,2-Dichlorobenzene	6	U
104-51-8	n-Butylbenzene	6	U
96-12-8	1,2-Dibromo-3-chloropropane	6	U
120-82-1	1,2,4-Trichlorobenzene	6	U
91-20-3	Naphthalene	6	U
87-68-3	Hexachlorobutadiene	6	U
87-61-6	1,2,3-Trichlorobenzene	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-107

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S07

Sample wt/vol: 5.4 (g/ml) G Lab File ID: 05279930.D

Level: (low/med) LOW Date Received: 05/18/99

% Moisture: not dec. 17 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000074-98-6	Propane	3.25	32	JN
2. 000075-28-5	Propane, 2-methyl- (CAS) $$ Iso	3.53	13	JN
3. 000106-97-8	Butane	3.77	14	JN
4. 000078-78-4	Butane, 2-methyl- (CAS) $$ Isope	4.53	15	JN
5. 000109-66-0	Pentane	4.88	13	JN
6. 000107-83-5	Pentane, 2-methyl-	6.08	6	JN
7.	unknown hexane isomer	6.70	8	J
8. 000108-87-2	Cyclohexane, methyl-	9.91	9	JN
9. 000066-25-1	Hexanal (CAS) $$ n-Hexanal	13.12	9	JN
10.	unknown siloxane	17.89	75	J B

ag 6/7/99

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-108

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S08

Sample wt/vol: 5.8 (g/ml) G Lab File ID: 05279952.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 14 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	10	U J
75-01-4	Vinyl chloride	10	U
74-83-9	Bromomethane	15	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	53	B J
75-35-4	1,1-Dichloroethene	5	U
75-09-2	Methylene chloride	5	U J
75-15-0	Carbon disulfide	5	U J
156-60-5	trans-1,2-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
78-93-3	2-Butanone	14	J
156-59-2	cis-1,2-Dichloroethene	5	U
74-97-5	Bromochloromethane	5	U
67-66-3	Chloroform	5	U
594-20-7	2,2-Dichloropropane	5	U
107-06-2	1,2-Dichloroethane	5	U
71-55-6	1,1,1-Trichloroethane	5	U
563-58-6	1,1-Dichloropropene	5	U
56-23-5	Carbon tetrachloride	5	U
71-43-2	Benzene	3	J
74-95-3	Dibromomethane	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-10-1	4-Methyl-2-pentanone	10	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
108-88-3	Toluene	5	J
142-28-9	1,3-Dichloropropane	5	U
591-78-6	2-Hexanone	10	U
124-48-1	Dibromochloromethane	5	U
106-93-4	1,2-Dibromoethane	5	U
127-18-4	Tetrachloroethene	5	U
630-20-6	1,1,1,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
108383/106423	m- &/or p-Xylene	5	U
75-25-2	Bromoform	5	U

ag 6/7/99

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-108

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S08

Sample wt/vol: 5.8 (g/ml) G Lab File ID: 05279952.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 14 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
100-42-5	Styrene	5	U
95-47-6	o-Xylene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
96-18-4	1,2,3-Trichloropropane	5	U
98-82-8	Isopropylbenzene	5	U
108-86-1	Bromobenzene	5	U
103-65-1	n-Propylbenzene	5	U
95-49-8	2-Chlorotoluene	5	U
106-43-4	4-Chlorotoluene	5	U
108-67-8	1,3,5-Trimethylbenzene	5	U
98-06-6	tert-Butylbenzene	6	
95-63-6	1,2,4-Trimethylbenzene	5	U
135-98-8	sec-Butylbenzene	5	U
541-73-1	1,3-Dichlorobenzene	5	U
99-87-6	p-Isopropyltoluene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
95-50-1	1,2-Dichlorobenzene	5	U
104-51-8	n-Butylbenzene	5	U
96-12-8	1,2-Dibromo-3-chloropropane	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U J
91-20-3	Naphthalene	5	U
87-68-3	Hexachlorobutadiene	5	U
87-61-6	1,2,3-Trichlorobenzene	5	U

ag 6/1/99

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-108

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S08

Sample wt/vol: 5.8 (g/ml) G Lab File ID: 05279952.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 14 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000075-28-5	Propane, 2-methyl-	3.53	7	JN
2. 000106-97-8	Butane	3.77	8	JN
3. 000078-78-4	Butane, 2-methyl-	4.54	8	JN
4. 000109-66-0	Pentane	4.89	8	JN
5.	unknown	7.48	6	J
6. 000108-87-2	Methylcyclohexane	9.91	7	JN
7.	unknown siloxane	17.89	66	J
8.	C3-benzene	19.16	7	J
9.	unknown terpene	20.33	28	J
10.	unknown terpene	20.99	10	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-109

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S09

Sample wt/vol: 6.2 (g/ml) G Lab File ID: 05279932.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 11 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	9	U
75-01-4	Vinyl chloride	9	U
74-83-9	Bromomethane	14	U
75-00-3	Chloroethane	9	U
67-64-1	Acetone	18	JB
75-35-4	1,1-Dichloroethene	4	U
75-09-2	Methylene chloride	4	U J
75-15-0	Carbon disulfide	4	J
156-60-5	trans-1,2-Dichloroethene	4	U
75-34-3	1,1-Dichloroethane	4	U
78-93-3	2-Butanone	23	U
156-59-2	cis-1,2-Dichloroethene	4	U
74-97-5	Bromochloromethane	4	U
67-66-3	Chloroform	4	U
594-20-7	2,2-Dichloropropane	4	U
107-06-2	1,2-Dichloroethane	4	U
71-55-6	1,1,1-Trichloroethane	4	U
563-58-6	1,1-Dichloropropene	4	U
56-23-5	Carbon tetrachloride	4	U
71-43-2	Benzene	4	J
74-95-3	Dibromomethane	4	U
79-01-6	Trichloroethene	4	U
78-87-5	1,2-Dichloropropane	4	U
75-27-4	Bromodichloromethane	4	U
10061-01-5	cis-1,3-Dichloropropene	4	U
108-10-1	4-Methyl-2-pentanone	9	U
10061-02-6	trans-1,3-Dichloropropene	4	U
79-00-5	1,1,2-Trichloroethane	4	U
108-88-3	Toluene	6	
142-28-9	1,3-Dichloropropane	4	U
591-78-6	2-Hexanone	9	U
124-48-1	Dibromochloromethane	4	U
106-93-4	1,2-Dibromoethane	4	U
127-18-4	Tetrachloroethene	4	U
630-20-6	1,1,1,2-Tetrachloroethane	4	U
108-90-7	Chlorobenzene	4	U
100-41-4	Ethylbenzene	2	J
108383/106423	m- &/or p-Xylene	4	J
75-25-2	Bromoform	4	U

ag 6/7/99

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-109

ab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S09

Sample wt/vol: 6.2 (g/ml) G Lab File ID: 05279932.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 11 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or ug/Kg)	UG/KG	Q
100-42-5	Styrene	4	U
95-47-6	o-Xylene	4	U
79-34-5	1,1,2,2-Tetrachloroethane	4	U
96-18-4	1,2,3-Trichloropropane	4	U
98-82-8	Isopropylbenzene	4	U
108-86-1	Bromobenzene	4	U
103-65-1	n-Propylbenzene	4	U
95-49-8	2-Chlorotoluene	4	U
106-43-4	4-Chlorotoluene	4	U
108-67-8	1,3,5-Trimethylbenzene	4	U
98-06-6	tert-Butylbenzene	4	U
95-63-6	1,2,4-Trimethylbenzene	4	U
135-98-8	sec-Butylbenzene	4	U
541-73-1	1,3-Dichlorobenzene	4	U
99-87-6	p-Isopropyltoluene	4	U
106-46-7	1,4-Dichlorobenzene	4	U
95-50-1	1,2-Dichlorobenzene	4	U
104-51-8	n-Butylbenzene	4	U
96-12-8	1,2-Dibromo-3-chloropropane	4	U
120-82-1	1,2,4-Trichlorobenzene	4	U
91-20-3	Naphthalene	4	U
87-68-3	Hexachlorobutadiene	4	U
87-61-6	1,2,3-Trichlorobenzene	4	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-109

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S09

Sample wt/vol: 6.2 (g/ml) G Lab File ID: 05279932.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 11 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000074-98-6	Propane	3.26	26	JN
2. 000075-28-5	Propane, 2-methyl- (CAS) $$ Iso	3.53	8	JN
3. 000106-97-8	Butane	3.78	10	JN
4. 000078-78-4	Butane, 2-methyl- (CAS) $$ Isope	4.53	11	JN
5. 000109-66-0	Pentane	4.89	9	JN
6.	unknown hexane isomer	6.71	6	J
7.	unknown hydrocarbon	7.48	5	J
8. 000108-87-2	Methylcyclohexane	9.91	9	JN
9. 000066-25-1	Hexanal (CAS) $$ n-Hexanal	13.12	13	JN
10.	unknown siloxane	17.89	43	J B

cg 6/7/99

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-201

ab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S10

Sample wt/vol: 5.4 (g/ml) G Lab File ID: 05279933.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 30 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
75-01-4	Vinyl chloride	13	U
74-83-9	Bromomethane	20	U
75-00-3	Chloroethane	13	U
67-64-1	Acetone	89	B J
75-35-4	1,1-Dichloroethene	7	U
75-09-2	Methylene chloride	7	U J
75-15-0	Carbon disulfide	7	U J
156-60-5	trans-1,2-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
78-93-3	2-Butanone	33	U
156-59-2	cis-1,2-Dichloroethene	7	U
74-97-5	Bromochloromethane	7	U
67-66-3	Chloroform	7	U
594-20-7	2,2-Dichloropropane	7	U
107-06-2	1,2-Dichloroethane	7	U
71-55-6	1,1,1-Trichloroethane	7	U
563-58-6	1,1-Dichloropropene	7	U
56-23-5	Carbon tetrachloride	7	U
71-43-2	Benzene	7	U
74-95-3	Dibromomethane	7	U
79-01-6	Trichloroethene	7	U
78-87-5	1,2-Dichloropropane	7	U
75-27-4	Bromodichloromethane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
108-10-1	4-Methyl-2-pentanone	13	U
10061-02-6	trans-1,3-Dichloropropene	7	U
79-00-5	1,1,2-Trichloroethane	7	U
108-88-3	Toluene	4	J
142-28-9	1,3-Dichloropropane	7	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	7	U
106-93-4	1,2-Dibromoethane	7	U
127-18-4	Tetrachloroethene	7	U
630-20-6	1,1,1,2-Tetrachloroethane	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
108383/106423	m- &/or p-Xylene	7	U
75-25-2	Bromoform	7	U

AG 6/7/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-201

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S10

Sample wt/vol: 5.4 (g/ml) G Lab File ID: 05279933.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 30 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	7	U
95-47-6	o-Xylene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
96-18-4	1,2,3-Trichloropropane	7	U
98-82-8	Isopropylbenzene	7	U
108-86-1	Bromobenzene	7	U
103-65-1	n-Propylbenzene	7	U
95-49-8	2-Chlorotoluene	7	U
106-43-4	4-Chlorotoluene	7	U
108-67-8	1,3,5-Trimethylbenzene	7	U
98-06-6	tert-Butylbenzene	7	U
95-63-6	1,2,4-Trimethylbenzene	7	U
135-98-8	sec-Butylbenzene	7	U
541-73-1	1,3-Dichlorobenzene	7	U
99-87-6	p-Isopropyltoluene	7	U
106-46-7	1,4-Dichlorobenzene	7	U
95-50-1	1,2-Dichlorobenzene	7	U
104-51-8	n-Butylbenzene	7	U
96-12-8	1,2-Dibromo-3-chloropropane	7	U
120-82-1	1,2,4-Trichlorobenzene	7	U
91-20-3	Naphthalene	7	U
87-68-3	Hexachlorobutadiene	7	U
87-61-6	1,2,3-Trichlorobenzene	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-201

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S10

Sample wt/vol: 5.4 (g/ml) G Lab File ID: 05279933.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 30 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 6

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000075-07-0	Acetaldehyde (CAS) $$ Ethanal	4.01	7	JN
2.	unknown	7.48	4	J
3. 000110-62-3	Pentanal	9.99	6	JN
4. 000066-25-1	Hexanal (CAS) $$ n-Hexanal	13.12	40	JN
5.	unknown siloxane	17.89	72	J B
6.	unknown	24.23	4	J

ag 6/1/99

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-202

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S11

Sample wt/vol: 3.8 (g/ml) G Lab File ID: 05279934.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 23 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	17	U
75-01-4	Vinyl chloride	17	U
74-83-9	Bromomethane	26	U
75-00-3	Chloroethane	17	U
67-64-1	Acetone	33	JB
75-35-4	1,1-Dichloroethene	9	U
75-09-2	Methylene chloride	9	U J
75-15-0	Carbon disulfide	47	J
156-60-5	trans-1,2-Dichloroethene	9	U
75-34-3	1,1-Dichloroethane	9	U
78-93-3	2-Butanone	43	U
156-59-2	cis-1,2-Dichloroethene	9	U
74-97-5	Bromochloromethane	9	U
67-66-3	Chloroform	9	U
594-20-7	2,2-Dichloropropane	9	U
107-06-2	1,2-Dichloroethane	9	U
71-55-6	1,1,1-Trichloroethane	9	U
563-58-6	1,1-Dichloropropene	9	U
56-23-5	Carbon tetrachloride	9	U
71-43-2	Benzene	4	J
74-95-3	Dibromomethane	9	U
79-01-6	Trichloroethene	9	U
78-87-5	1,2-Dichloropropane	9	U
75-27-4	Bromodichloromethane	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
108-10-1	4-Methyl-2-pentanone	17	U
10061-02-6	trans-1,3-Dichloropropene	9	U
79-00-5	1,1,2-Trichloroethane	9	U
108-88-3	Toluene	6	J
142-28-9	1,3-Dichloropropane	9	U
591-78-6	2-Hexanone	17	U
124-48-1	Dibromochloromethane	9	U
106-93-4	1,2-Dibromoethane	9	U
127-18-4	Tetrachloroethene	9	U
630-20-6	1,1,1,2-Tetrachloroethane	9	U
108-90-7	Chlorobenzene	9	U
100-41-4	Ethylbenzene	9	U
108383/106423	m- &/or p-Xylene	9	U
75-25-2	Bromoform	9	U

eg 6/7/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-202

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S11

Sample wt/vol: 3.8 (g/ml) G Lab File ID: 05279934.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 23 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	9	U
95-47-6	o-Xylene	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
96-18-4	1,2,3-Trichloropropane	9	U
98-82-8	Isopropylbenzene	9	U
108-86-1	Bromobenzene	9	U
103-65-1	n-Propylbenzene	9	U
95-49-8	2-Chlorotoluene	9	U
106-43-4	4-Chlorotoluene	9	U
108-67-8	1,3,5-Trimethylbenzene	9	U
98-06-6	tert-Butylbenzene	9	U
95-63-6	1,2,4-Trimethylbenzene	9	U
135-98-8	sec-Butylbenzene	9	U
541-73-1	1,3-Dichlorobenzene	9	U
99-87-6	p-Isopropyltoluene	9	U
106-46-7	1,4-Dichlorobenzene	9	U
95-50-1	1,2-Dichlorobenzene	9	U
104-51-8	n-Butylbenzene	9	U
96-12-8	1,2-Dibromo-3-chloropropane	9	U
120-82-1	1,2,4-Trichlorobenzene	9	U
91-20-3	Naphthalene	9	U
87-68-3	Hexachlorobutadiene	9	U
87-61-6	1,2,3-Trichlorobenzene	9	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-202

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S11

Sample wt/vol: 3.8 (g/ml) G Lab File ID: 05279934.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 23 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 10

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000115-07-1	1-Propene (CAS) $$ Propene	3.25	56	JN
2. 000075-28-5	Propane, 2-methyl- (CAS) $$ Iso	3.53	21	JN
3. 000106-97-8	Butane	3.77	23	JN
4. 000078-78-4	Butane, 2-methyl- (CAS) $$ Isope	4.53	23	JN
5. 000109-66-0	Pentane	4.88	15	JN
6. 000107-83-5	Pentane, 2-methyl-	6.08	9	JN
7.	unknown hexane isomer	6.70	9	J
8.	unknown hydrocarbon	7.48	8	J
9. 000108-87-2	Methylcyclohexane	9.91	14	JN
10.	unknown siloxane	17.89	50	J B

ag 6/7/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-203

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07D01

Sample wt/vol: 4.7 (g/ml) G Lab File ID: 05279953.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 21 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	14	U J
75-01-4	Vinyl chloride	14	U
74-83-9	Bromomethane	20	U
75-00-3	Chloroethane	14	U
67-64-1	Acetone	45	B J
75-35-4	1,1-Dichloroethene	7	U
75-09-2	Methylene chloride	7	U J
75-15-0	Carbon disulfide	5	J
156-60-5	trans-1,2-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
78-93-3	2-Butanone	34	U
156-59-2	cis-1,2-Dichloroethene	7	U
74-97-5	Bromochloromethane	7	U
67-66-3	Chloroform	7	U
594-20-7	2,2-Dichloropropane	7	U
107-06-2	1,2-Dichloroethane	7	U
71-55-6	1,1,1-Trichloroethane	7	U
563-58-6	1,1-Dichloropropene	7	U
56-23-5	Carbon tetrachloride	7	U
71-43-2	Benzene	7	U
74-95-3	Dibromomethane	7	U
79-01-6	Trichloroethene	7	U
78-87-5	1,2-Dichloropropane	7	U
75-27-4	Bromodichloromethane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
108-10-1	4-Methyl-2-pentanone	14	U
10061-02-6	trans-1,3-Dichloropropene	7	U
79-00-5	1,1,2-Trichloroethane	7	U
108-88-3	Toluene	7	U
142-28-9	1,3-Dichloropropane	7	U
591-78-6	2-Hexanone	14	U
124-48-1	Dibromochloromethane	7	U
106-93-4	1,2-Dibromoethane	7	U
127-18-4	Tetrachloroethene	7	U
630-20-6	1,1,1,2-Tetrachloroethane	7	U
108-90-7	Chlorobenzene	8	
100-41-4	Ethylbenzene	7	U
108383/106423	m- &/or p-Xylene	7	U
75-25-2	Bromoform	7	U

gg 6/1/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-203

ab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07D01

Sample wt/vol: 4.7 (g/ml) G Lab File ID: 05279953.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 21 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
100-42-5	Styrene	7	U
95-47-6	o-Xylene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
96-18-4	1,2,3-Trichloropropane	7	U
98-82-8	Isopropylbenzene	7	U
108-86-1	Bromobenzene	7	U
103-65-1	n-Propylbenzene	7	U
95-49-8	2-Chlorotoluene	7	U
106-43-4	4-Chlorotoluene	7	U
108-67-8	1,3,5-Trimethylbenzene	7	U
98-06-6	tert-Butylbenzene	7	U
95-63-6	1,2,4-Trimethylbenzene	7	U
135-98-8	sec-Butylbenzene	7	U
541-73-1	1,3-Dichlorobenzene	7	U
99-87-6	p-Isopropyltoluene	7	U
106-46-7	1,4-Dichlorobenzene	8	
95-50-1	1,2-Dichlorobenzene	7	U
104-51-8	n-Butylbenzene	7	U
96-12-8	1,2-Dibromo-3-chloropropane	7	U
120-82-1	1,2,4-Trichlorobenzene	7	U J
91-20-3	Naphthalene	7	U
87-68-3	Hexachlorobutadiene	7	U
87-61-6	1,2,3-Trichlorobenzene	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-203

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07D01

Sample wt/vol: 4.7 (g/ml) G Lab File ID: 05279953.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 21 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 4

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000106-97-8	Butane	3.77	6	JN
2. 001066-40-6	Silanol, trimethyl-	7.47	5	JN
3.	unknown siloxane	17.90	76	J
4.	unknown siloxane	21.52	4	J

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-204

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07D01

Sample wt/vol: 5.0 (g/ml) G Lab File ID: 05279954.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 18 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U J
75-01-4	Vinyl chloride	12	U
74-83-9	Bromomethane	18	U
75-00-3	Chloroethane	12	U
67-64-1	Acetone	47	B J
75-35-4	1,1-Dichloroethene	6	U
75-09-2	Methylene chloride	6	U J
75-15-0	Carbon disulfide	11	J
156-60-5	trans-1,2-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
78-93-3	2-Butanone	31	U
156-59-2	cis-1,2-Dichloroethene	6	U
74-97-5	Bromochloromethane	6	U
67-66-3	Chloroform	6	U
594-20-7	2,2-Dichloropropane	6	U
107-06-2	1,2-Dichloroethane	6	U
71-55-6	1,1,1-Trichloroethane	6	U
563-58-6	1,1-Dichloropropene	6	U
56-23-5	Carbon tetrachloride	6	U
71-43-2	Benzene	4	J
74-95-3	Dibromomethane	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-10-1	4-Methyl-2-pentanone	12	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
108-88-3	Toluene	6	U
142-28-9	1,3-Dichloropropane	6	U
591-78-6	2-Hexanone	12	U
124-48-1	Dibromochloromethane	6	U
106-93-4	1,2-Dibromoethane	6	U
127-18-4	Tetrachloroethene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	6	U
108-90-7	Chlorobenzene	7	
100-41-4	Ethylbenzene	6	U
108383/106423	m- &/or p-Xylene	6	U
75-25-2	Bromoform	6	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-204

b Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07D01

Sample wt/vol: 5.0 (g/ml) G Lab File ID: 05279954.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 18 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND (ug/L or ug/Kg)	UG/KG	Q
100-42-5	Styrene	6	U
95-47-6	o-Xylene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
96-18-4	1,2,3-Trichloropropane	6	U
98-82-8	Isopropylbenzene	6	U
108-86-1	Bromobenzene	6	U
103-65-1	n-Propylbenzene	6	U
95-49-8	2-Chlorotoluene	6	U
106-43-4	4-Chlorotoluene	6	U
108-67-8	1,3,5-Trimethylbenzene	6	U
98-06-6	tert-Butylbenzene	6	U
95-63-6	1,2,4-Trimethylbenzene	6	U
135-98-8	sec-Butylbenzene	6	U
541-73-1	1,3-Dichlorobenzene	6	U
99-87-6	p-Isopropyltoluene	6	U
106-46-7	1,4-Dichlorobenzene	7	
95-50-1	1,2-Dichlorobenzene	6	U
104-51-8	n-Butylbenzene	6	U
96-12-8	1,2-Dibromo-3-chloropropane	6	U
120-82-1	1,2,4-Trichlorobenzene	6	U J
91-20-3	Naphthalene	6	U
87-68-3	Hexachlorobutadiene	6	U
87-61-6	1,2,3-Trichlorobenzene	6	U

ag 6/7/99

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-204

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07D01

Sample wt/vol: 5.0 (g/ml) G Lab File ID: 05279954.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 18 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

(ug/L or ug/Kg) UG/KG

Number TICs found: 7

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000075-28-5	Propane, 2-methyl-	3.53	9	JN
2. 000106-97-8	Butane	3.77	9	JN
3. 000078-78-4	Butane, 2-methyl-	4.53	5	JN
4. 000109-66-0	Pentane	4.88	4	JN
5.	unknown	7.47	5	J
6. 000108-87-2	Methylcyclohexane	9.91	5	JN
7.	unknown siloxane	17.89	71	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-205

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S12

Sample wt/vol: 5.4 (g/ml) G Lab File ID: 05279937.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 28 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
75-01-4	Vinyl chloride	13	U
74-83-9	Bromomethane	19	U
75-00-3	Chloroethane	13	U
67-64-1	Acetone	36	B J
75-35-4	1,1-Dichloroethene	6	U
75-09-2	Methylene chloride	6	U J
75-15-0	Carbon disulfide	38	J
156-60-5	trans-1,2-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
78-93-3	2-Butanone	32	U
156-59-2	cis-1,2-Dichloroethene	6	U
74-97-5	Bromochloromethane	6	U
67-66-3	Chloroform	6	U
594-20-7	2,2-Dichloropropane	6	U
107-06-2	1,2-Dichloroethane	6	U
71-55-6	1,1,1-Trichloroethane	6	U
563-58-6	1,1-Dichloropropene	6	U
56-23-5	Carbon tetrachloride	6	U
71-43-2	Benzene	6	U
74-95-3	Dibromomethane	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-10-1	4-Methyl-2-pentanone	13	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
108-88-3	Toluene	6	U
142-28-9	1,3-Dichloropropane	6	U
591-78-6	2-Hexanone	13	U
124-48-1	Dibromochloromethane	6	U
106-93-4	1,2-Dibromoethane	6	U
127-18-4	Tetrachloroethene	6	U
630-20-6	1,1,1,2-Tetrachloroethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
108383/106423	m- &/or p-Xylene	6	U
75-25-2	Bromoform	6	U

ag 6/7/99

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

X-205

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S12

Sample wt/vol: 5.4 (g/ml) G Lab File ID: 05279937.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 28 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

CAS NO.	COMPOUND		Q
100-42-5	Styrene	6	U
95-47-6	o-Xylene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
96-18-4	1,2,3-Trichloropropane	6	U
98-82-8	Isopropylbenzene	6	U
108-86-1	Bromobenzene	6	U
103-65-1	n-Propylbenzene	6	U
95-49-8	2-Chlorotoluene	6	U
106-43-4	4-Chlorotoluene	6	U
108-67-8	1,3,5-Trimethylbenzene	6	U
98-06-6	tert-Butylbenzene	6	U
95-63-6	1,2,4-Trimethylbenzene	6	U
135-98-8	sec-Butylbenzene	6	U
541-73-1	1,3-Dichlorobenzene	6	U
99-87-6	p-Isopropyltoluene	6	U
106-46-7	1,4-Dichlorobenzene	6	U
95-50-1	1,2-Dichlorobenzene	6	U
104-51-8	n-Butylbenzene	6	U
96-12-8	1,2-Dibromo-3-chloropropane	6	U
120-82-1	1,2,4-Trichlorobenzene	6	U
91-20-3	Naphthalene	6	U
87-68-3	Hexachlorobutadiene	6	U
87-61-6	1,2,3-Trichlorobenzene	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

X-205

Lab Name: Western Lion LF Contract: ESAT

Lab Code: 5-CRL Case No.: 990066 SAS No.: _____ SDG No.: _____

Matrix: (soil/water) SOIL Lab Sample ID: 99IE07S12

Sample wt/vol: 5.4 (g/ml) G Lab File ID: 05279937.D

Level: (low/med) LOW Date Received: 05/19/99

% Moisture: not dec. 28 Date Analyzed: 05/28/99

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

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

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

Number TICs found: 6

CAS NO.	COMPOUND NAME	RT	EST. CONC.	Q
1. 000075-28-5	Propane, 2-methyl- (CAS) $$ Iso	3.53	5	JN
2. 000106-97-8	Butane	3.77	5	JN
3. 000078-78-4	Butane, 2-methyl- (CAS) $$ Isope	4.53	5	JN
4. 001066-40-6	Silanol, trimethyl-	7.50	5	JN
5.	unknown siloxane	17.89	56	J B
6.	unknown siloxane	24.23	6	J

ag 6/7/99

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Data
Received for Review on July 9, 1999

FROM: Stephen L. Ostrodka, Chief (HSRL-5J) for Steve Ostrodka
Superfund Technical Support Section Richard L Byrnes 6/3/99

TO: Data User: IEPA

We have reviewed the data for the following case:

SITE NAME: Weston Lion LF (IL)

CASE NUMBER: 27024 SDG NUMBER: ECRH2

Number and Type of Samples: 1 (water)

Sample Numbers: ECRH2

Laboratory: Rollins Hrs. for Review: 5+0.5 wL

Following are our findings:

the data is usable and acceptable with the qualifications described in the attached narrative.
Richard L Byrnes

RECEIVED
AUG 18 1999
IEPA-BOL-FSRS

CC: Cecilia Moore
Region 5 TPO
Mail Code: SM-5J

NARRATIVE

Contractor: Rollins
Site: Weston Lion LF (IL)

Case: 27024
SDG: ECRH2

This case consists of 1 low concentration water sample ECRH2. This sample was collected on May 18th, 1999 and were received by the laboratory on May 19th, 1999. This sample was analyzed for the volatiles, semi-volatiles, and pesticide/PCB organic analytes. The sample was analyzed according to CLP Low Concentration Water (OLC02.1).

The VOA analyses were not performed within the technical holding time of 14 days after sample collection, for preserved water samples; therefore, the results are qualified. Semi-volatile sample ECRH2 and the pesticide/PCB sample were extracted within the 7 day holding time for water samples, and analyzed within the 40 day hold time; therefore, the results are acceptable. Semi-volatile sample ECRH2RE was extracted outside of the 7 day hold time but was analyzed within the 40 day hold time; therefore, the results are qualified.

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

Reviewed by: M. Kaminsky Lockheed-Martin ESAT
Date: July 30, 1999

NARRATIVE

Contractor: Rollins
Site: Weston Lion LF (IL)

Case: 27024
SDG: ECRH2

1.HOLDING TIMES

This case consists of 1 low concentration water sample ECRH2. This sample was collected on May 18th, 1999 and were received by the laboratory on May 19th, 1999. This sample was analyzed for the volatiles, semi-volatiles, and pesticide/PCB organic analytes. The sample was analyzed according to CLP Low Concentration Water (OLC02.1).

The VOA analyses were not performed within the technical holding time of 14 days after sample collection, for preserved water samples; therefore, the results are qualified "J" for positive hits and non-detects are qualified "UJ". Semi-volatile sample ECRH2 and the pesticide/PCB sample was also extracted within the 7 day holding time for water samples, and analyzed within the 40 day hold time; therefore, the results are acceptable. Semi-volatile sample ECRH2RE was extracted outside of the 7 day hold time but was analyzed within the 40 day hold time; therefore, the results are qualified "J" for positive hits and non-detects are qualified "UJ".

2.GC/MS TUNING

All GC/MS tuning complied with the mass list and ion abundance criteria for BFB, and all samples were analyzed within the 12 hour periods for instrument performance checks.

All GC/MS tuning complied with the mass list and ion abundance criteria for DFTPP, and all samples were analyzed within the 12 hour periods for instrument performance checks. GC Resolution Check Mixes met the 60% resolution criteria. Endrin and DDT degradation checks using PEM MIX on RTX-CLPEST and RTX-CLP2 columns were <20%; therefore, the results are acceptable. The Florisil Cartridge Check met QC criteria; therefore, the results are acceptable.

3.CALIBRATION

Initial and continuing calibrations of the volatile, semi-volatile, and pesticide/PCBs were evaluated for the target compound list and outliers are recorded on the forms included as part of the narrative.

4.BLANKS

VOA:

The volatile water holding blank blanks VHBLK22 was found to contain neither TCLs or TICs. The volatile blank VBLK21 was found to contain the common laboratory chemical methylene chloride, the chemical 1,2,4-trichlorobenzene, and no TICs. The presence of this common laboratory chemical, methylene chloride, in any sample associated with this blank is considered undetected (U) if less than 10 times the blank concentration. The presence of this laboratory chemical, 1,2,4-trichlorobenzene, in any sample associated with this blank is considered

Reviewed by: M. Kaminsky Lockheed-Martin ESAT
Date: July 30, 1999

NARRATIVE

Contractor: Rollins Case: 27024
Site: Weston Lion LF (IL) SDG: ECRH2

undetected (U) if less than 5 times the blank concentration. The volatile method blank summary (Form IV VOA) lists the samples associated with these blanks.

SVOA:

The semi-volatile water blank SBLKS1 was found to contain the common laboratory chemicals butyl benzylphthalate and bis (2-ethylhexyl)phthalate and no TICs. The presence of these common laboratory chemicals in any sample associated with this blank is considered undetected (U) if less than 10 times the blank concentration. The semi-volatile water blank SBLKS3 was found to contain the common laboratory chemical bis (2-ethylhexyl)phthalate and no TICs. The presence of this common laboratory chemical in any sample associated with this blank is considered undetected (U) if less than 10 times the blank concentration. The semi-volatile method blank summary (Form IV SVOA) lists the samples associated with these blanks.

PESTICIDE/PCB:

The pesticide blank PBLKR9 was found to be clean. The pesticide/PCB blank summary (Form IV PEST) lists the samples associated with this blank.

5.SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

VOA:

The volatile water system monitoring compounds were within the QC limits for all samples; therefore the results are acceptable.

SVOA:

Three semi-volatile acid surrogates and one base neutral surrogate had 0% recovery for samples ECRH2 and ECRH2RE. Therefore, positive results in these two samples are flagged "J" and non-detects are flagged "R".

PESTICIDE/PCB:

The pesticide surrogate compounds were within the QC limits for all samples, therefore, the results are acceptable.

6. LABORATORY CONTROL SAMPLE

VOA:

All recoveries for the volatile water samples were within QC limits; therefore, the results are acceptable.

SVOA:

All recoveries for the semi-volatile water samples were within QC limits; therefore, the results are acceptable.

PESTICIDE/PCB:

Reviewed by: M. Kaminsky Lockheed-Martin ESAT
Date: July 30, 1999

NARRATIVE

Contractor: Rollins
Site: Weston Lion LF (IL)

Case: 27024
SDG: ECRH2

All recoveries for the pesticide water samples were within QC limits; therefore, the results are acceptable.

7.FIELD BLANKS AND FIELD DUPLICATES
None were listed on the COC.

8.INTERNAL STANDARDS

VOA:

Internal standard retention times and areas met QC requirements, so no qualification is needed.

SVOA:

Internal standard retention times and areas met QC requirements, so no qualification is needed.

9.COMPOUND IDENTIFICATION
After reviewing the mass spectra and chromatograms it appears that all VOA, SVOA, and pesticide/PCB compounds were properly identified.

10.COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS
All CRQLs were properly reported and one dilution was performed All target compounds were properly reported.

11.SYSTEM PERFORMANCE
GC/MS baseline and pesticide baselines indicated acceptable performance.

12.ADDITIONAL INFORMATION
Volatile sample ECRH2 was found to contain levels of chloroform and chloromethane over the calibration range. The value for these compound should be taken from the diluted sample.

Reviewed by: M. Kaminsky Lockheed-Martin ESAT
Date: July 30, 1999

CALIBRATION OUTLIERS
LOW CONCENTRATION WATER VOLATILE TCL COMPOUNDS
(Page 1 of 1)

CASE\SAS#: 27024
COLUMN: DB624
HEATED PURGE (Y/N):

LABORATORY: REI
SITENAME: Weston

Instrument#		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		5/27 1040			5/27 1150											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Chloromethane	0.01															
Bromomethane	0.10	0243	35.2	J												
Vinyl chloride	0.10															
Chloroethane	0.01	0165	36.8	J												
Methylene chloride	0.01															
Acetone	0.01															
Carbon disulfide	0.01															
1,1-Dichloroethene	0.10															
1,1-Dichloroethane	0.20															
cis-1,2-Dichloroethene	0.10															
trans-1,2-Dichloroethene	0.10															
Chloroform	0.20															
1,2-Dichloroethane	0.10															
2-Butanone	0.01															
Bromochloromethane	0.10															
1,1,1-Trichloroethane	0.10															
Carbon tetrachloride	0.10															
Bromodichloromethane	0.20															
1,2-Dichloropropane	0.01															
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															
1,2-Dibromoethane	0.10															
Toluene	0.40															
Chlorobenzene	0.50															
Ethylbenzene	0.10															
Styrene	0.30															
Xylene (total)	0.30															
1,2-Dibromo-3-chloropropane	0.10															
1,3-Dichlorobenzene	0.60															
1,4-Dichlorobenzene	0.50															
1,2-Dichlorobenzene	0.40															
Bromofluorobenzene	0.40															

Samples affected:
VBLK21
ECRH2
VLCS21
ECRH2DL
VHBLK21

Reviewer's Init/Date: MK 7-26-99

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

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

CALIBRATION OUTLIER
LOW CONCENTRATION WATER SEMIVOLATILE TCL COMPOUNDS
(Page 1 of 2)

CASE\SAS#: 27624 LABORATORY: REI
COLUMN: SITE NAME: Walton

Instrument# 5971 025		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		5/24 1517			5/24 1631			6/02 0103								
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
Phenol	0.80															
bis(2-chloroethyl) Ether	0.70															
2-Chlorophenol	0.70															
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	0205	60.1	J												
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	0141	41.6	J												
4-Nitrophenol	0.01															
Dibenzofuran	0.80															
2,4-Dinitrotoluene	0.20															

Affected samples:						
			SBLKS1	SBLKS3		
			SLCSN7	ECRH2		
				ECRH2 RE		

Reviewer's Ini:/Date: MK 7-21-99

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

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

CALIBRATION OUTLIER
LOW CONCENTRATION WATER SEMIVOLATILE TCL COMPOUNDS
(Page 2 of 2)

CASE\SAS#: 27042
COLUMN:

LABORATORY: REI
SITE NAME: Walsh

Instrument# 5971025		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		5/24 1517			5/24 1631			6/02 0103								
	#	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															
Di-n-butylphthalate	0.01															
Fluoranthene	0.60															
Pyrene	0.60															
Butylbenzylphthalate	0.01															
3,3'-Dichlorobenzidine	0.01	0343	34.8	J												
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)fluoranthene	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	1395			1771	26.9	J									
2,4,6-Tribromophenol	0.01															

Reviewer's Init/Date: MK 7-2-99

J/R = All positive results are estimated "J" and non-detected results are unusable "R"

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

CASE\SAS#: 27024
COLUMN: RTX CLPEST

LABORATORY: KEI
SITE NAME: Weston

Instrument# 3400C		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6-17-99 1526			6-17 2324											
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
alpha-BHC	0.01															
beta-BHC	0.40															
delta-BHC	0.90															
gamma-BHC	0.01															
Heptachlor	0.01															
Aldrin	0.01															
Heptachlor epoxide	0.10															
Endosulfan I	0.10															
Dieldrin	0.05															
4, 4'-DDE	0.70															
Endrin	0.70															
Endosulfan II	0.01															
4, 4'-DDD	0.60															
Endosulfan sulfate	0.60															
4, 4'-DDT	0.01															
Methoxychlor	0.01															
Endrin ketone	0.80															
Endrin aldehyde	0.70															
alpha chlordane	0.01															
gamma chlordane	0.01															
Arochlor 1016																
Arochlor 1221																
Arochlor 1232																
Arochlor 1242																
Arochlor 1248																
Arochlor 1254																
Arochlor 1260																

Affected samples:

	PBLK R9			
	PLCS N5			
	ECRN2			

Reviewer's Init/Date: MK 7-21-99

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

CASE\SAS#: 27024
COLUMN: RTX-CLP2

LABORATORY: REI
SITE NAME: Waste

Instrument#		Initial Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.			Contin. Cal.		
Date/Time:		6-17	1525		6-17	2224										
	#	rf	%rsd	*	rf	%d	*	rf	%d	*	rf	%d	*	rf	%d	*
alpha-BHC	0.01															
beta-BHC	0.40															
delta-BHC	0.90															
gamma-BHC	0.01															
Heptachlor	0.01															
Aldrin	0.01															
Heptachlor epoxide	0.10															
Endosulfan I	0.10															
Dieldrin	0.05															
4, 4'-DDE	0.70															
Endrin	0.70															
Endosulfan II	0.01															
4, 4'-DDD	0.60															
Endosulfan sulfate	0.60															
4, 4'-DDT	0.01															
Methoxychlor	0.01															
Endrin ketone	0.80															
Endrin aldehyde	0.70															
alpha chlordane	0.01															
gamma chlordane	0.01															
Arochlor 1016																
Arochlor 1221																
Arochlor 1232																
Arochlor 1242																
Arochlor 1248																
Arochlor 1254																
Arochlor 1260																

Affected samples:

	PBLK RG			
	PLCS MS			
	ECR HZ			

Reviewer's Init/Date: MK 7-21-95

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: 1422

Case No: 27024 Site Name Location: Weston Lion LF

Contractor or EPA Lab: Rollins Data User: IEPA

No. of Samples: 1 Date Sampled or Data Received: 7-9-99

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: 1 No. of samples received: 1

Received by: Lynette Burnett Date: 7-9-99

Received by LSSS: Lynette Burnett Date: 7-9-99

Review started: 7-21-99 Reviewer Signature: [illegible]

Total time spent on review: [illegible] Date review completed: 7-26-99

Copied by: Lynette Burnett Date: 8-10-99

Mailed to user by: Lynette Burnett Date: 8-10-99

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Dioxin Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
SAS Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

_____

_____

Received by Data Mgmt. Coordinator for Files. Data: _____

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ECRH2

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: 129798 Date Received: 05/19/99

Sample Volume: 1000.00 (mL) Date Extracted: 05/21/99

Concentrated Extract Volume: 2000(uL) Date Analyzed: 06/18/99

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

1LCD

LOW CONC. WATER PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKR9

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: MB052099 Date Received:

Sample Volume: 1000.00 (mL) Date Extracted: 05/21/99

Concentrated Extract Volume: 2000(uL) Date Analyzed: 06/17/99

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y Extraction: (SepF/Cont) SEPF

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
319-84-6	alpha-BHC	0.010	U
319-85-7	beta-BHC	0.010	U
319-86-8	delta-BHC	0.010	U
58-89-9	gamma-BHC (Lindane)	0.010	U
76-44-8	Heptachlor	0.010	U
309-00-2	Aldrin	0.010	U
1024-57-3	Heptachlor epoxide	0.010	U
959-98-8	Endosulfan I	0.010	U
60-57-1	Dieldrin	0.020	U
72-55-9	4,4'-DDE	0.020	U
72-20-8	Endrin	0.020	U
33213-65-9	Endosulfan II	0.020	U
72-54-8	4,4'-DDD	0.020	U
1031-07-8	Endosulfan sulfate	0.020	U
50-29-3	4,4'-DDT	0.020	U
72-43-5	Methoxychlor	0.10	U
53494-70-5	Endrin ketone	0.020	U
7421-93-4	Endrin aldehyde	0.020	U
5103-71-9	alpha-Chlordane	0.010	U
5103-74-2	gamma-Chlordane	0.010	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.20	U
11104-28-2	Aroclor-1221	0.40	U
11141-16-5	Aroclor-1232	0.20	U
53469-21-9	Aroclor-1242	0.20	U
12672-29-6	Aroclor-1248	0.20	U
11097-69-1	Aroclor-1254	0.20	U
11096-82-5	Aroclor-1260	0.20	U

4LCC

LOW CONC. WATER PESTICIDE METHOD BLANK SUMMARY

EPA SAMPLE NO.

PBLKR9

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Date Extracted: 05/21/99 Lab Sample ID: MB052099

Date Analyzed (1): 06/17/99 Date Analyzed (2): 06/17/99

Time Analyzed (1): 2314 Time Analyzed (2): 2314

Instrument ID (1): 3400C Instrument ID (2): 3400D

GC Column (1): RTX-CLPEST ID: 0.32(mm) GC Column (2): RTX-CLP2 ID: 0.32(mm)

Sulfur Cleanup (Y/N) Y Extraction:(SepF/Cont) SEPF

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	ECRH2	129798	06/18/99	06/18/99
02	PLCSN5	LCS052099	06/18/99	06/18/99
03				
04				
05				
06				
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				

COMMENTS:

3LCC

LOW CONC. WATER PESTICIDE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

PLCSN5

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: LCS052099 LCS Lot No.: A006181

LCS Aliquot: 1000 (uL) Date Extracted: 05/21/99

Concentrated Extract Volume: 2000(uL) Date Analyzed: 06/18/99

Injection Volume: 1 (uL) Dilution Factor: 1.0

Sulfur Cleanup: (Y/N) Y

Instrument ID(1): 3400C GC Column(1):RTX-CLPESTICIDES ID:0.32 (mm)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
gamma-BHC (Lindane)	0.050	0.048	96	50-120
Heptachlor epoxide	0.050	0.038	76	50-150
Dieldrin	0.10	0.080	80	30-130
4,4'-DDE	0.10	0.084	84	50-150
Endrin	0.10	0.086	86	50-120
Endosulfan sulfate	0.10	0.051	51	50-120
gamma-Chlordane	0.050	0.047	94	30-130

Instrument ID(2): 3400D GC Column(2):RTX-CLP2 ID:0.32 (mm)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	%REC #	QC LIMITS
gamma-BHC (Lindane)	0.050	0.046	92	50-120
Heptachlor epoxide	0.050	0.044	88	50-150
Dieldrin	0.10	0.082	82	30-130
4,4'-DDE	0.10	0.081	81	50-150
Endrin	0.10	0.086	86	50-120
Endosulfan sulfate	0.10	0.050	50	50-120
gamma-Chlordane	0.050	0.044	88	30-130

Column to be used to flag LCS recovery with an asterisk.
* Values outside of QC limits.
LCS Recovery: 0 outside limits out of 14 total.

COMMENTS:

2LCC
LOW CONC. WATER PESTICIDE SURROGATE RECOVERY

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

GC Column(1): RTX-CLPEST ID: 0.32 (mm) GC Column(2): RTX-CLP2 ID: 0.32 (mm)

	EPA SAMPLE NO.	TCX(1) %REC #	TCX(2) %REC #	DCB(1) %REC #	DCB(2) %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	ECRH2	128	76	43	41			0
02	PBLKR9	90	91	38	37			0
03	PLCSN5	90	90	42	39			0
04								
05								
06								
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

QC LIMITS

		%REC
S1 TCX	= Tetrachloro-m-xylene	(30-150)
S2 DCB	= Decachlorobiphenyl	(30-150)

Column to be used to flag recovery values.
* Values outside of QC limits.
D Surrogate diluted out.

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SLCSN7

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: _____ SDG No.: ECRH2

Lab Sample ID: SLCSN7 Date Received: _____

Lab File ID: SLCSN7.D Date Extracted: 05/20/99

Sample Volume: 1000 (ML) Date Analyzed: 05/24/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. ug/L	Q

1LCC

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SLCSN7

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: SLCSN7 Date Received:

Lab File ID: SLCSN7.D Date Extracted: 05/20/99

Sample Volume: 1000 (ML) Date Analyzed: 05/24/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	12	
84-66-2	Diethylphthalate	16	
7005-72-3	4-Chlorophenyl phenyl ether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine(1)	14	~~B~~
101-55-3	4-Bromophenyl phenyl ether	5	U
118-74-1	Hexachlorobenzene	15	
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butyl benzyl phthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl) phthalate	5 ~~X~~	UJB mmk
117-84-0	Di-n-octylphthalate	5	U 7-21-99
205-99-2	Benzo(b) fluoranthene	5	U
207-08-9	Benzo(k) fluoranthene	5	U
50-32-8	Benzo(a) pyrene	14	
193-39-5	Indeno (1,2,3-cd) pyrene	5	U
53-70-3	Dibenz (ah) anthracene	5	U
191-24-2	Benzo (ghi) perylene	5	U

(1) - Cannot be separated from Diphenylamine

1LCB

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SLCSN7

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: _____ SDG No.: ECRH2

Lab Sample ID: SLCSN7 Date Received: _____

Lab File ID: SLCSN7.D Date Extracted: 05/20/99

Sample Volume: 1000 (ML) Date Analyzed: 05/24/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	24	
111-44-4	bis(2-Chloroethyl) ether	13	
95-57-8	2-Chlorophenol	28	
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis-(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	n-Nitroso-di-n-propylamine	13	
67-72-1	Hexachloroethane	12	
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	15	
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(2-chloroethoxy) methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	15	
106-47-8	4-Chloroaniline	21	
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	32	
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronapthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenapththylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECRH2RE

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: ECRH2RE Date Received: 05/19/99

Lab File ID: 129798RE.D Date Extracted: 05/27/99

Sample Volume: 1000 (ML) Date Analyzed: 06/02/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

Number TICs found: 2

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. ug/L	Q
1. 001561-86-0	2-Chlorocyclohexanol	6.40	683	JN
2. 000822-86-6	Cyclohexane, 1,2-dichloro-, trans-	6.99	2500	JN

1LCC

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ECRH2RE

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: ECRH2RE Date Received: 05/19/99

Lab File ID: 129798RE.D Date Extracted: 05/27/99

Sample Volume: 1000 (ML) Date Analyzed: 06/02/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl phenyl ether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine(1)	5	U
101-55-3	4-Bromophenyl phenyl ether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butyl benzyl phthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl) phthalate	5	U
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b) fluoranthene	5	U
207-08-9	Benzo(k) fluoranthene	5	U
50-32-8	Benzo(a) pyrene	5	U
193-39-5	Indeno (1,2,3-cd) pyrene	5	U
53-70-3	Dibenz (ah) anthracene	5	U
191-24-2	Benzo (ghi) perylene	5	U

(1) - Cannot be separated from Diphenylamine

1LCB

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ECRH2RE

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: ECRH2RE Date Received: 05/19/99

Lab File ID: 129798RE.D Date Extracted: 05/27/99

Sample Volume: 1000 (ML) Date Analyzed: 06/02/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl) ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis-(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	n-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(2-chloroethoxy) methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronapthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenapththylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECRH2

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: _____ SDG No.: ECRH2

Lab Sample ID: ECRH2 Date Received: 05/19/99

Lab File ID: 129798B.D Date Extracted: 05/20/99

Sample Volume: 1000 (ML) Date Analyzed: 06/02/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

Number TICs found: 2

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC. ug/L	Q
1.	001561-86-0	2-Chlorocyclohexanol	6.38	700	JN
2	000822-86-6	Cyclohexane, 1,2-dichloro-, trans-	7.01	3000	JN

1LCC

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ECRH2

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: _____ SDG No.: ECRH2

Lab Sample ID: ECRH2 Date Received: 05/19/99

Lab File ID: 129798B.D Date Extracted: 05/20/99

Sample Volume: 1000 (ML) Date Analyzed: 06/02/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl phenyl ether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine(1)	5	U
101-55-3	4-Bromophenyl phenyl ether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butyl benzyl phthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl) phthalate	1	J
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b) fluoranthene	5	U
207-08-9	Benzo(k) fluoranthene	5	U
50-32-8	Benzo(a) pyrene	5	U
193-39-5	Indeno (1,2,3-cd) pyrene	5	U
53-70-3	Dibenz (ah) anthracene	5	U
191-24-2	Benzo (ghi) perylene	5	U

(1) - Cannot be separated from Diphenylamine

1LCB

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

ECRH2

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: _____ SDG No.: ECRH2

Lab Sample ID: ECRH2 Date Received: 05/19/99

Lab File ID: 129798B.D Date Extracted: 05/20/99

Sample Volume: 1000 (ML) Date Analyzed: 06/02/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl) ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis-(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	n-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(2-chloroethoxy) methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronapthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenapththylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKS3

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: SBLKS3 Date Received:

Lab File ID: SBLKS3.D Date Extracted: 05/27/99

Sample Volume: 1000 (ML) Date Analyzed: 06/02/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. ug/L	Q

1LCC

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKS3

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: SBLKS3 Date Received:

Lab File ID: SBLKS3.D Date Extracted: 05/27/99

Sample Volume: 1000 (ML) Date Analyzed: 06/02/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl phenyl ether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine(1)	5	U
101-55-3	4-Bromophenyl phenyl ether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butyl benzyl phthalate	5	U
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl) phthalate	1	J
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b) fluoranthene	5	U
207-08-9	Benzo(k) fluoranthene	5	U
50-32-8	Benzo(a) pyrene	5	U
193-39-5	Indeno (1,2,3-cd) pyrene	5	U
53-70-3	Dibenz (ah) anthracene	5	U
191-24-2	Benzo (ghi) perylene	5	U

(1) - Cannot be separated from Diphenylamine

1LCB

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKS3

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: SBLKS3 Date Received:

Lab File ID: SBLKS3.D Date Extracted: 05/27/99

Sample Volume: 1000 (ML) Date Analyzed: 06/02/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl) ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis-(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	n-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(2-chloroethoxy) methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronapthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenapththylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

1LCF

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKS1

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: _____ SDG No.: ECRH2

Lab Sample ID: SBLKS1 Date Received: _____

Lab File ID: SBLKS1.D Date Extracted: 05/20/99

Sample Volume: 1000 (ML) Date Analyzed: 05/24/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST. CONC. ug/L	Q

1LCC

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKS1

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: SBLKS1 Date Received:

Lab File ID: SBLKS1.D Date Extracted: 05/20/99

Sample Volume: 1000 (ML) Date Analyzed: 05/24/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
51-28-5	2,4-Dinitrophenol	20	U
100-02-7	4-Nitrophenol	20	U
132-64-9	Dibenzofuran	5	U
121-14-2	2,4-Dinitrotoluene	5	U
84-66-2	Diethylphthalate	5	U
7005-72-3	4-Chlorophenyl phenyl ether	5	U
86-73-7	Fluorene	5	U
100-01-6	4-Nitroaniline	20	U
534-52-1	4,6-Dinitro-2-methylphenol	20	U
86-30-6	n-Nitrosodiphenylamine(1)	5	U
101-55-3	4-Bromophenyl phenyl ether	5	U
118-74-1	Hexachlorobenzene	5	U
87-86-5	Pentachlorophenol	20	U
85-01-8	Phenanthrene	5	U
120-12-7	Anthracene	5	U
84-74-2	Di-n-butylphthalate	5	U
206-44-0	Fluoranthene	5	U
129-00-0	Pyrene	5	U
85-68-7	Butyl benzyl phthalate	0.5	J
91-94-1	3,3'-Dichlorobenzidine	5	U
56-55-3	Benzo(a) anthracene	5	U
218-01-9	Chrysene	5	U
117-81-7	bis(2-Ethylhexyl) phthalate	0.9	J
117-84-0	Di-n-octylphthalate	5	U
205-99-2	Benzo(b) fluoranthene	5	U
207-08-9	Benzo(k) fluoranthene	5	U
50-32-8	Benzo(a) pyrene	5	U
193-39-5	Indeno (1,2,3-cd) pyrene	5	U
53-70-3	Dibenz (ah) anthracene	5	U
191-24-2	Benzo (ghi) perylene	5	U

(1) - Cannot be separated from Diphenylamine

1LCB

EPA SAMPLE NO.

LOW CONC. WATER SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SBLKS1

Lab Name: REI Contract: 68-D6-0061

Lab Code ROLLIN Case No.: 27024 SAS No.: _____ SDG No.: ECRH2

Lab Sample ID: SBLKS1 Date Received: _____

Lab File ID: SBLKS1.D Date Extracted: 05/20/99

Sample Volume: 1000 (ML) Date Analyzed: 05/24/99

Concentrated Extract Volume: 1000 (uL) Dilution Factor: 1.0

Injection Volume: 1.0 (uL)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl) ether	5	U
95-57-8	2-Chlorophenol	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis-(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	n-Nitroso-di-n-propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
111-91-1	bis(2-chloroethoxy) methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronapthalene	5	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	5	U
208-96-8	Acenapththylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U
99-09-2	3-Nitroaniline	20	U
83-32-9	Acenaphthene	5	U

4LCB

LOW CONC. WATER SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKS3

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: SBLKS3 Date Extracted: 05/27/99

Lab File ID: SBLKS3.D Date Analyzed: 06/02/99

Instrument ID: 5971-025 Time Analyzed: 02:57

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	ECRH2RE	ECRH2RE	129798RE.D	06/02/99

COMMENTS:

4LCB

LOW CONC. WATER SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKS1

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: _____ SDG No.: ECRH2

Lab Sample ID: SBLKS1 Date Extracted: 05/20/99

Lab File ID: SBLKS1.D Date Analyzed: 05/24/99

Instrument ID: 5971-025 Time Analyzed: 18:26

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SLCSN7	SLCSN7	SLCSN7.D	05/24/99
02	ECRH2	ECRH2	129798B.D	06/02/99

COMMENTS:

3LCB

LOW CONC. WATER SEMIVOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

SLCSN7

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: SLCSN7 LCS Lot No.:

Lab File ID: SLCSN7.D Date Extracted: 05/20/99

LCS Aliquot: 1000 (ul) Date Analyzed: 05/24/99

Concentrated Extract Volume: 1000 (ul) Dilution Factor: 1

Injection Volume: 1 (ul)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	% REC #	QC LIMITS
Phenol	40	23.94	60	40 - 120
bis(2-Chloroethyl) ether	20	12.96	65	50 - 110
2-Chlorophenol	40	28.22	71	50 - 110
n-Nitroso-di-n-propylamine	20	12.89	64	30 - 110
Hexachloroethane	20	11.55	58	20 - 110
Isophorone	20	15.46	77	50 - 110
Naphthalene	20	14.73	74	30 - 110
4-Chloroaniline	40	21.47	54	10 - 120
2,4,6-Trichlorophenol	40	31.53	79	40 - 120
2,4-Dinitrotoluene	20	11.75	59	30 - 120
Diethylphthalate	20	16.37	82	50 - 120
n-Nitrosodiphenylamine	20	14.30	72	30 - 110
Hexachlorobenzene	20	15.33	77	40 - 120
Benzo(a) pyrene	20	14.29	71	50 - 120

Column to be used to flag LCS recovery with an asterisk

* Values outside of QC limits

LCS Recovery: 0 outside limits out of 14 total

COMMENTS:

2LCB

LOW CONC. WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

	EPA SAMPLE NO.	NBZ # %REC #	FBP # %REC #	TPH # %REC #	PHL # %REC #	2-FP # %REC #	TBP # %REC #	OTHER	TOT OUT
01	SBLKS1	63	63	61	61	66	61		0
02	SLCSN7	74	72	68	66	55	69		0
03	SBLKS3	89	86	74	56	61	70		0
04	ECRH2	*	58	22	*	*	*		4
05	ECRH2RE	*	76	56	*	*	*		4

			QC LIMITS
NBZ	=	d5-Nitrobenzene	(23-120)
FBP	=	2-Fluorobiphenyl	(30-115)
TPH	=	d14-Terphenyl	(18-140)
PHL	=	d5-Phenol	(15-115)
2-FP	=	2-Fluorophenol	(15-121)
TBP	=	2,4,6-Tribromophenol	(15-130)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogate diluted out

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECRH2DL

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: ECRH2DL Date Received: 05/19/99

Lab File ID: 129798V1.D Date Analyzed: 05/27/99

Purge Volume: 10.0 (ml) Dilution Factor: 10.0

GC Column: DB624 ID: 0.53 (mm) Length: 75 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q

1LCA

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

ECRH2DL

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: ECRH2DL Date Received: 05/19/99

Lab File ID: 129798V1.D Date Analyzed: 05/27/99

Purge Volume: 10.0 (ml) Dilution Factor: 10.0

GC Column: DB624 ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	124	D
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2.0 ~~08~~	JBD U
67-64-1	Acetone	50	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis 1,2-Dichloroethene	10	U
156-60-5	trans 1,2-Dichloroethene	10	U
67-66-3	Chloroform	165	D
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	50	U
74-97-5	Bromochloromethane	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	7	JD
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	50	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
106-93-4	1,2-Dibromoethane	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
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
96-12-8	1,2-Dibromo-3-chloropropane	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U

MK 7-21-99

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

ECRH2

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: ECRH2 Date Received: 05/19/99

Lab File ID: 129798V.D Date Analyzed: 05/27/99

Purge Volume: 10.0 (ml) Dilution Factor: 1.0

GC Column: DB624 ID: 0.53 (mm) Length: 75 (m)

Number TICs found: 4

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q
1.	Unknown	2.60	3	J
2.	Unknown	3.28	15	J
3.	Unknown	13.91	8	J
4.	Unknown	16.60	4	J

1LCA

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

ECRH2

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: ECRH2 Date Received: 05/19/99

Lab File ID: 129798V.D Date Analyzed: 05/27/99

Purge Volume: 10.0 (ml) Dilution Factor: 1.0

GC Column: DB624 ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	159	E
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	
75-09-2	Methylene Chloride	1	JBU
67-64-1	Acetone	9	
75-15-0	Carbon Disulfide	0.8	J
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.3	J
156-59-2	cis 1,2-Dichloroethene	1	U
156-60-5	trans 1,2-Dichloroethene	1	U
67-66-3	Chloroform	171	E
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	0.7	J
75-27-4	Bromodichloromethane	8	
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis 1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans 1,3-Dichloropropene	1	U
75-25-2	Bromoform	0.5	J
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VHBLK22

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: VHBLK22 Date Received: 05/19/99

Lab File ID: VHBLK22.D Date Analyzed: 05/27/99

Purge Volume: 10.0 (ml) Dilution Factor: 1.0

GC Column: DB624 ID: 0.53 (mm) Length: 75 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q

1LCA

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

VHBLK22

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: VHBLK22 Date Received: 05/19/99

Lab File ID: VHBLK22.D Date Analyzed: 05/27/99

Purge Volume: 10.0 (ml) Dilution Factor: 1.0

GC Column: DB624 ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	~~2.0~~	JB V mK 7-21-99
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis 1,2-Dichloroethene	1	U
156-60-5	trans 1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis 1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans 1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U

1LCE

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK21

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: VBLK21 Date Received:

Lab File ID: VWBE27J1.D Date Analyzed: 05/27/99

Purge Volume: 10.0 (ml) Dilution Factor: 1.0

GC Column: DB624 ID: 0.53 (mm) Length: 75 (m)

Number TICs found: 0

CAS NUMBER	COMPOUND NAME	RT	EST.CONC. (ug/L)	Q

1LCA

EPA SAMPLE NO.

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK21

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

Lab Sample ID: VBLK21 Date Received:

Lab File ID: VWBE27J1.D Date Analyzed: 05/27/99

Purge Volume: 10.0 (ml) Dilution Factor: 1.0

GC Column: DB624 ID: 0.53 (mm) Length: 75 (m)

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis 1,2-Dichloroethene	1	U
156-60-5	trans 1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis 1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans 1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U
120-82-1	1,2,4-Trichlorobenzene	0.8	J

4LCA

LOW CONC. WATER VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK21

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: _____ SDG No.: ECRH2

Lab Sample ID: VBLK21 Date Analyzed: 05/27/99

Lab File ID: VWBE27J1.D Time Analyzed: 14:11

Instrument ID: 5971-010

GC Column: DB624 ID: 0.53 (mm) Length: 75 (m)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES AND LCS:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	ECRH2	ECRH2	129798V.D	15:57
02	VLCS21	VLCS21	LCSJ0527.D	16:32
03	ECRH2DL	ECRH2DL	129798V1.D	20:42
04	VHBLK22	VHBLK22	VHBLK22.D	21:17

COMMENTS:

3LCA
LOW CONC. WATER VOLATILE LAB CONTROL SAMPLE RECOVERY

EPA SAMPLE NO.

VLCS21

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: _____ SDG No.: ECRH2

Lab Sample ID: VLCS21 LCS Lot No.: LA76098

Lab File ID: LCSJ0527.D Date Analyzed: 5/27/99

Purge volume: 10.0 (ml) Dilution Factor: 1

LCS Aliquot 10.0 (ul)

COMPOUND	AMOUNT ADDED (ng)	AMOUNT RECOVERED (ng)	% REC #	QC LIMITS
1,4-Dichlorobenzene	50	52.60	105	60 - 140
1,2-Dibromoethane	50	51.20	102	60 - 140
cis 1,3-Dichloropropene	50	50.90	102	60 - 140
Vinyl Chloride	50	56.90	114	60 - 140
Tetrachloroethene	50	54.80	110	60 - 140
1,2-Dichloroethane	50	55.30	111	60 - 140
Carbon Tetrachloride	50	55.70	111	60 - 140
1,2-Dichloropropane	50	52.90	106	60 - 140
Trichloroethene	50	56.50	113	60 - 140
1,1,2-Trichloroethane	50	53.10	106	60 - 140
Benzene	50	54.40	109	60 - 140
Bromoform	50	51.60	103	60 - 140

Column to be used to flag LCS recovery with an asterisk

* Values outside of QC limits

LCS Recovery: 0 outside of limits out of 12 total

COMMENTS:

2LCA

LOW CONC. WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: REI Contract: 68-D6-0061

Lab Code: ROLLIN Case No.: 27024 SAS No.: SDG No.: ECRH2

	EPA SAMPLE NO.	BFB %REC#	OTHER	TOT OUT
01	VBLK21	108		0
02	ECRH2	99		0
03	VLCS21	103		0
04	ECRH2DL	102		0
05	VHBLK22	98		0

			QC LIMITS % REC
BFB	=	Bromofluorobenzene	(80-120)

Column to be used to flag recovery values

* Values outside of contract required QC limits

-A Laboratory Control Sample was analyzed with this SDG. Please see FORM III LCP for results.

-Some of the calibration curve data, continuing calibration curve data, tune data, run logs and blank sample data are copies. The originals are with other EPA cases that had samples analyzed on the same days or under the same calibration curve.

Pesticide/PCB Summary

The sample did not reveal target analytes below or at the CRQL. Please see all FORM I LCP for results. Please see FORM's I LCV for results. Please note that the Channel A column id was abbreviated from RTX-CLPESTICIDES to RTX-CLPEST because of character limitations in the software.

Any technical questions regarding the data presented in this deliverable should be addressed to the individual whosé name appears at the end of this case narrative. Any manual integrations/compound identifications were done so on account the automatic software either failing to properly identify/quantitate the analyte of interest. The location of the pH values for the volatile fraction are contained within the analytical run logs located within the Miscellaneous Data Section of the Complete Sample File (CSF).

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 implied or detailed above. Release of the information contained in this hardcopy data package has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

J. Shawn Letwin

7/1/99

J. Shawn Letwin
Project Manager
JSL

DATE

75102

Sample Analysis - Semivolatile

Sample analysis was performed without incident except as noted below and within holding times except as noted below. Sample Chain of Custody was maintained, and sample(s) were analyzed according to EPA SOW OLC02.1. Quality control results are summarized as follows:

-Analyses of surrogates were performed on all sample(s). Please see FORM II LCSV for results.

-The method blank(s) did have target analytes detected at or below the CRQL. No Tentatively Identified Compounds (TICs) were detected. Please see method blank FORM's I LCSV-1, LCSV-2 and LCSV-TIC for results.

-A Laboratory Control Sample (LCS) was analyzed with this SDG. Please see Form III LCSV for results.

-EICP areas and retention times were within QA/QC windows except as noted below. Please see FORM's VIII LCSV-1 and LCSV-2 for results.

-Some of the calibration curve data, continuing calibration curve data, tune data and blank sample data are copies. The originals are with other EPA cases that had samples analyzed on the same days or under the same calibration curve.

Semivolatile Summary

The surrogates and EICP's were not within limits for the original extract and re-extract for ECRH2 as seen in the analytical run on June 1, 1999. Unfortunately, the analyst did not generate a run log nor a quantitation report for the original run of ECRH2. The sample revealed Target Compounds above and/or below the CRQL. TIC's were detected in the sample. Please see FORM's I LCSV-1, LCSV-2, and LCSV-TIC for results.

Sample Analysis - Pesticide/PCB

Sample analysis was performed without incident and within holding times except as noted below. Chain of Custody was maintained, and sample(s) were analyzed according to EPA SOW OLC02.1. Quality control results are summarized as follows:

-Analyses of surrogates were performed on all sample(s); please see FORM II LCP for results.

-The method blank(s) did not contain any target analytes at or above the CRQL.

Please see the Other Records section.

The sample was stored at 4°C and/or chemically preserved as required by EPA protocol. The samples were scheduled for full Organic Analysis.

Sample Analysis - Volatile

All sample analysis was performed within holding times and without analytical difficulties. Chain of custody was maintained, and the sample was analyzed according to EPA SOW OLC02.1. Quality control results are summarized as follows:

- Analyses of surrogates were performed on all samples; please see FORM II LCV for results.
- The method blanks did contain a few target analytes near or below the CRQL. No Tentatively Identified Compound (TICs) were detected. Please see method blank Forms I LCV-TIC for results.
- A Laboratory control sample was performed with this SDG. Please see Form III LCV for results.
- All EICP areas and retention times were within QA/QC. Please see FORM VIII LCV for results.
- Some of the data that has been provided is a copy. The originals were used in other SDG's.

Summary

The sample revealed several positively detected Target Compounds above or below the CRQL. The sample had to be rerun at a dilution because Chloromethane and Chloroform in the original run had detected concentrations which exceeded the linear range of the calibration curve. Please see FORM's I LCV for results. Please see FORM's I LCV-TIC for results.

Sample Extraction

The sample was continuous liquid-liquid extracted for Semivolatile analysis on May 20th and May 27th of 1999. The final extract(s) were given to the GCMS group on May 21st and May 28th 1999. The sample(s) were separatory funnel extracted for Pesticide/PCB analysis on May 20th 1999. All Pesticide/PCB extract(s) were processed according to CLP protocol without incident. Final extract(s) were given to the GC group on May 21, 1999.

SDG NARRATIVE

Client Name: US EPA

Project Number: 75102

CASE Number: 27024

Sample Delivery Group: ECRH2

Contract Number: 68-D6-0061

Batch Number(s): 100017321

Narrative Date: July 1, 1999

Samples: ECRH2

A total of one sample was received by REI/ENCOTEC on the 19th of May 1999, and was scheduled for full Organics Analysis. Please refer to the following table for vital information that pertains to this case.

Table 1.0

SDG #: ECRH2

	SAMPLE ANALYZED			
	Actual Samples	QC Samples	Re-Run Samples	Total Billable Analyses
Volatile Analyses	1	0	0	1
Semivolatile Analyses	1	0	1	2
Pesticide/PCB Analyses	1	0	0	2

Total Analyses: 1 Full, 1 BNA

This Deliverables Package is assembled in accordance with instructions in Section B, OLC02.1 revision of the Contract Laboratory Program - Statement of Work. A copy of this deliverable has been distributed to SMO and to Region V.

The following is a detailed description of quality control, shipment, and/or analytical problems that were encountered in the ESAT review of the sample.

Sample Login

REI/ENCOTEC received one sample from Federal Express on May 19, 1999. Standard Chain of Custody procedures were followed. The following discrepancies were noted upon receipt of the sample and traffic reports. Sample ECRG8 (Trip Blank) was not received at all. Also, no return address was included for the cooler(s). CLASS was notified immediately. We were later instructed to narrate the fact that no ECRG8 was received and to return the cooler(s) to the address provided.

United States Environmental Protection Agency
Contract Laboratory Program

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

Case No. 27024

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

2. Preservative (Enter in Column D)
1. HCl
2. HNO3
3. NaHSO4
4. H2SO4
5. Ice only
6. Other (Specify in Column D)
N. Not preserved

2. Region No. 5
Sampling Co. EPA
4. Date Shipped 5/18/99
Carrier FedEx
6. Date Received -- Received by: 5/19/99 [illegible]
Sampler (Name) [illegible]
Airbill Number [illegible]
Laboratory Contract Number 68-D6-0006
Unit Price 459.50
Sampler Signature [illegible]
5. Ship To Rollins
ATTN: [illegible]
7. Transfer to:
Date Received
Received by
Contract Number
Price

3. Purpose*
Lead: SF, PRP, ST, FED
Early Action: CLEM, PA, REM, RI, SI, ESI
Long-Term Action: FS, RD, RA, O&M, NPLD

CLP Sample Numbers (from labels)	A Matrix (from Box 1)	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative (from Box 2)	E RAS Analysis VOA	BNA	Pest/PCB	High only ARO/TOX	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Inorganic Sample No.	J Sampler Initials	K High Phases Soil/Sediment	Water-Miscible Liq.	Water-Immis. Liq.
ECRH1	2	L	G	1	X				5-016469-016473	G201	5/18/99	MEBEM9	B			
"	2	L	G	5		X			5-016474	G201	5/18/99	"				
"	2	L	G	5			X		5-016475	G201	5/18/99	"				
ECRH3	2	L	G	1	X				5-016481-016482	G202	5/18/99	MEBEN6				
"	2	L	G	5		X			5-016483	G202	5/18/99	"				
"	2	L	G	5			X		5-016484	G202	5/18/99	"				
ECRH2	2	L	G	1	X				5-139533-542	G201	5/18/99	MEBEM9	B			
"	2	L	G	5		X			5-139543-545	G201	"	"	B			
"	2	L	G	5			X		5-139546-548	G201	"	"	BC			
ECRG8	2	L	G	1	X				5-139501-502	TB	5/18/99 1400	—	BC			

Shipment for Case Complete? (Y/N) Y
Page ___ of ___
Sample(s) to be Used for Laboratory QC:
Additional Sampler Signatures:
Chain of Custody Seal Number(s): 27628 27629

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	5/18 1700	[illegible]		1st received	ECRH2
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
				Lost, received	ECRH2
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks — Is custody seal intact? Yes/None	
	5/19/99 910	[illegible]		82 5/19	ECRH2

A21-012-16 REV.

DISTRIBUTION: Blue - Region Copy; White - Lab Copy for Return to Region; Pink - CLASS Copy; Yellow - Lab Copy for Return to CLASS

EPA Form 9110-2 (2/98)

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

382540

ORGANIC DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature used in this document, the following code letters and associated definitions are provided:

VALUE - when/if the result of a value is greater than or equal to the Contract Required Quantitation Limit (CRQL).

U Indicates that the compound was analyzed for, but not detected. The sample quantitation limit corrected for dilution and percent moisture is reported.

J Indicates an estimated value. This flag is used either when estimating a concentration for a tentatively identified compound or when the data indicates the presence of a compound where the result is less than the sample quantitation limit, but greater than zero. The flag is also used to indicate a reported result having an associated QC problem.

R Indicates the data are unusable. (NOTE: The analyte may or may not be present.)

N Indicates presumptive evidence of a compound. This flag is only used for a tentatively identified compound, where the identification is based on a mass spectral library search.

P Indicates a pesticide/Aroclor target analyte when there is greater than 25% difference for the detected concentrations between the two GC columns. The lower of the two results is reported.

C Indicates pesticide results that have been confirmed by GC/MS.

B Indicates the analyte is detected in the associated blank as well as in the sample.

E Indicates compounds whose concentrations exceed the calibration range of the instrument.

D Indicates an identified compound in an analysis has been diluted. This flag alerts the data user to any differences between the concentrations reported in the two analysis.

A Indicates tentatively identified compounds that are suspected to be aldol condensation products.

G Indicates the TCLP Matrix Spike Recovery was greater than the upper limit of the analytical method.

L Indicates the TCLP Matrix Spike Recovery was less than the lower limit of the analytical method.

T Indicates the analyte is found in the associated TCLP extraction blank as well as in the sample.

X,Y,Z are reserved for laboratory defined flags.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 07-06-99

SUBJECT: **Review of Data**
Received for Review on June 21, 1999

FROM: **Stephen L. Ostrodka, Chief (SRT-4J)**
Superfund Technical Support Section /LF

TO: **Data User: IEPA**

RECEIVED
JUL 16 1999
IEPA-BOL-FSRS

We have reviewed the data for the following case:

Site name: Weston Lion LF (IL)

Case number: 27024 **SDG NUMBER:** MEBFL1

Number and Type of Samples: 7 water

Sample Numbers: MEBFL1-3, MEBFM9, MEBWK6-8

Laboratory: SWOK **Hrs. for Review:** 5 hrs + ½

Following are our findings:

Sample MEBFL2 was not properly preserved. All results are qualified based on this.
All other data are usable with the qualifications described in the attached narrative

L. Finkelberg
07-06-99

CC: Cecilia Luckett
Region 5 TPO
Mail Code: SM-5J

Case Number : 27024 **SDG Number: MEBFL1**
Site Name: Weston Lion LF (IL) **Laboratory: SWOK**

The laboratory's portion of this case contains 7 low level water samples analyzed for total metals and cyanide. The following narrative lists the out-of-control audits and their possible effect on the usability of the data.

Evidential Audit: The original sample tags, airbill, chain-of-custody are with the organic data package. The DC-1 is present in the case. All forms and raw data are originals and are present in the order as indicated on form DC-2-1.

ICP Analyses: Sample MEBFL2 was not properly preserved (pH=6.0). The Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Ni, K, Na, Tl, V and Zn data for MEBFL2 are estimated (J) due to low bias; Se and Ag data for MEBFL2 are estimated (UJ) due to possible elevation of the detection limit.

The spike recovery for Fe(148.9%) was higher than the 125% upper acceptance limit; however, the sample concentration was greater than 4X the spike amount, thus invalidating the spike as a QC audit for this analyte. The Fe data for all samples except MEBFL2 are acceptable.

The Al (242.6%) spike recovery indicates a high bias. The Al data for MEBFL1, MEBFL3, MEBFM9, MEBWK6 and MEBWK7 are estimated (J). The Al result for MEBFL2 is affected by high bias and qualified above.

The calibration blank contains Sb (3.3 μg/L). The Sb data for MEBFL1 and MEBWK6 are estimated (J) due to contamination. The Sb result for MEBFL2 is affected by contamination and qualified above.

Other Qualifiers: Sample MEBFL2 was not properly preserved (pH=6.0). The Hg result for MEBFL2 is estimated (J) due to low bias.

The Hg (74.0%) spike recovery indicates a low bias. The Hg data for MEBFL1, MEBFL3, MEBFM9, MEBWK6 and MEBWK7, MEBWK8 are estimated (UJ) due to possible elevation of the detection limit. The Hg result for MEBFL2 is affected by low bias and qualified above.

The preparation blank contains CN (4.62 μg/L). The CN data for MEBFL1, MEBFL2, MEBFL3, MEBFM9, MEBWK6, MEBWK7 and MEBWK8 are estimated (J) due to contamination.

Sample MEBWK8 is the field blank and it contains CN(4.4 μg/L). The CN data for MEBFL1, MEBFL2, MEBFL3, MEBFM9, MEBWK6 and MEBWK7 are affected by contamination and qualified above.

Reviewed by: Steffanie Tobin (Lockheed/ESAT)
Date: June 30, 1999

SOUTHWEST LABORATORY OF OKLAHOMA, INC.
AMERICAN ANALYTICAL & TECHNICAL SERVICES, INC.
1700 West Albany / Broken Arrow, Oklahoma 74012 / Office (918) 251-2858 / Fax (918) 251-2599

SDG NARRATIVE

CONTRACT: 68-D5-0136 **DATE: 6/17/99**
CASE: 27024 **SOW NO.: ILM04.0**
SDG: MEBFL1 **EPISODE NO.: 38673**

INORGANIC METAL FRACTION:

Seven water samples, one preperation blank, one lab control, one matrix spike, and one matrix duplicate were submitted for ICP, CN and Hg analysis. No major problems occurred during the digestion or analyses of these samples. Please see the DC-1 (Sample Log-In Sheet) for sample conditions and cooler temperatures at receipt. At the time of receipt cooler temperature was at 13.0, 5.0, & 10.0 degrees Celsius. The sample's analyses were completed according to the following:

SWL SOP #	Method SOP is based
SWL-IN-200	ILM03.0/04.0 (ICP digestion and analysis)
SWL-IN-203	ILM03.0/04.0 (analysis by ICP)
SWL-IN-202	ILM03.0/04.0 (analysis of Hg by cold vapor)
SWL-IN-303	ILM03.0/04.0 (Cyanide)

MEBFM7 sample jar was broken. The sample was not compromised because it was still in the plastic bag and tape was holding the jar together. Samples on traffic report 373296 and 373297 were recieved in a cooler at 13.0 degrees Celsius.

Initial and Continuing Calibration Checks: No problems.

Initial and Continuing Calibration Blanks: The following elements showed low level concentrations below the Contract Required Detection Limit in the Calibration Blanks: Sb, Hg, CN // No action required.

Linearity near the CRDL (CRA & CRI): No problems.

Preparation Blanks: The following element showed low level concentrations below the Contract Required Detection Limit in the Preparation Blank: CN // No action required.

Lab Control Spikes: No problems.

Matrix Spike: The following elements were outside the control limits of 75-125% recovery: Al, Hg // All associated samples were flagged with a "N" on Form I's. No action required.

Duplicates (LCSD and Dup): No problems.

Serial Dilution (ICP): No problems.

Sincerely,

Deborah J. Inman
Inorganic Program Manager

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.:MEBFL1

SOW No.: ILM04.0

EPA Sample No.	Lab Sample ID
_MEBFL1_____	_38673.01_____
_MEBFL2_____	_38673.02_____
_MEBFL3_____	_38673.03_____
_MEBFM9_____	_38673.18_____
_MEBWK6_____	_38673.19_____
_MEBWK7_____	_38673.20_____
_MEBWK7D_____	_38673.20D_____
_MEBWK7S_____	_38673.20S_____
_MEBWK8_____	_38673.21_____

JUN 2 1 1999

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

Signature: _____ Name: Deborah J. Inman

Date: June 17, 1999 Title: Inorganic Program Manager

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFL1

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1

Matrix (soil/water): WATER Lab Sample ID: 38673.01

Level (low/med): LOW__ Date Received: 05/19/99

% 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_	57700		N	P
7440-36-0	Antimony_	4.3	B		P
7440-38-2	Arsenic__	31.3			P
7440-39-3	Barium___	554			P
7440-41-7	Beryllium	3.1	B		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	304000			P
7440-47-3	Chromium_	159			P
7440-48-4	Cobalt___	43.2	B		P
7440-50-8	Copper___	107			P
7439-89-6	Iron_____	97900			P
7439-92-1	Lead_____	46.6			P
7439-95-4	Magnesium	150000			P
7439-96-5	Manganese	2270			P
7439-97-6	Mercury__	0.10	U	N	CV
7440-02-0	Nickel___	154			P
7440-09-7	Potassium	16800			P
7782-49-2	Selenium_	3.0	U		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	56700			P
7440-28-0	Thallium_	7.3	B		P
7440-62-2	Vanadium_	107			P
7440-66-6	Zinc_____	260			P
	Cyanide__	4.2	B		CA

Color Before: YELLOW___ Clarity Before: CLOUDY Texture: _____

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFL2

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136
Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1
Matrix (soil/water): WATER Lab Sample ID: 38673.02
Level (low/med): LOW__ Date Received: 05/19/99
% 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_	207000		N	P
7440-36-0	Antimony_	13.7	B		P
7440-38-2	Arsenic__	94.4			P
7440-39-3	Barium___	1610			P
7440-41-7	Beryllium	12.1			P
7440-43-9	Cadmium__	1.1	B		P
7440-70-2	Calcium__	1010000			P
7440-47-3	Chromium_	501			P
7440-48-4	Cobalt___	178			P
7440-50-8	Copper___	375			P
7439-89-6	Iron_____	405000			P
7439-92-1	Lead_____	171			P
7439-95-4	Magnesium	431000			P
7439-96-5	Manganese	8370			P
7439-97-6	Mercury__	0.23		N	CV
7440-02-0	Nickel___	541			P
7440-09-7	Potassium	40300			P
7782-49-2	Selenium_	3.0	U		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	63800			P
7440-28-0	Thallium_	12.1			P
7440-62-2	Vanadium_	365			P
7440-66-6	Zinc_____	1030			P
	Cyanide__	4.0	B		CA

Color Before: YELLOW___ Clarity Before: CLOUDY Texture: _____
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFL3

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136
Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1
Matrix (soil/water): WATER Lab Sample ID: 38673.03
Level (low/med): LOW__ Date Received: 05/19/99
% 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_	7580		N	P
7440-36-0	Antimony_	3.0	U		P
7440-38-2	Arsenic__	5.2	B		P
7440-39-3	Barium___	129	B		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	144000			P
7440-47-3	Chromium_	30.7			P
7440-48-4	Cobalt___	5.3	B		P
7440-50-8	Copper___	82.3			P
7439-89-6	Iron_____	13000			P
7439-92-1	Lead_____	3.9			P
7439-95-4	Magnesium	76900			P
7439-96-5	Manganese	545			P
7439-97-6	Mercury__	0.10	U	N	CV
7440-02-0	Nickel___	20.2	B		P
7440-09-7	Potassium	3980	B		P
7782-49-2	Selenium_	3.0	U		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	16600			P
7440-28-0	Thallium_	5.0	U		P
7440-62-2	Vanadium_	12.9	B		P
7440-66-6	Zinc_____	42.0			P
	Cyanide__	4.0	B		CA

Color Before: YELLOW___ Clarity Before: CLOUDY Texture: _____
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFM9

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136
Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1
Matrix (soil/water): WATER Lab Sample ID: 38673.18
Level (low/med): LOW__ Date Received: 05/19/99
% 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_	30.9	B	N	P
7440-36-0	Antimony_	3.0	U		P
7440-38-2	Arsenic__	17.3			P
7440-39-3	Barium___	3680			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium__	1.9	B		P
7440-70-2	Calcium__	31200			P
7440-47-3	Chromium_	1.0	U		P
7440-48-4	Cobalt___	1.0	U		P
7440-50-8	Copper___	37.6			P
7439-89-6	Iron_____	1090			P
7439-92-1	Lead_____	2.0	U		P
7439-95-4	Magnesium	20300			P
7439-96-5	Manganese	24.3			P
7439-97-6	Mercury__	0.10	U	N	CV
7440-02-0	Nickel___	2.0	U		P
7440-09-7	Potassium	2200	B		P
7782-49-2	Selenium_	3.0	U		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	196000			P
7440-28-0	Thallium_	5.0	U		P
7440-62-2	Vanadium_	1.0	U		P
7440-66-6	Zinc_____	427			P
	Cyanide__	2.3	B		CA

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

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBWK6

Lab Name: SOUTHWEST LABORATORIES Contract: 68-D5-0136
Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL1
Matrix (soil/water): WATER Lab Sample ID: 38673.19
Level (low/med): LOW Date Received: 05/19/99
% 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	15000		N	P
7440-36-0	Antimony	3.4	B		P
7440-38-2	Arsenic	34.9			P
7440-39-3	Barium	554			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	236000			P
7440-47-3	Chromium	20.2			P
7440-48-4	Cobalt	16.3	B		P
7440-50-8	Copper	20.7	B		P
7439-89-6	Iron	30100			P
7439-92-1	Lead	14.7			P
7439-95-4	Magnesium	101000			P
7439-96-5	Manganese	3670			P
7439-97-6	Mercury	0.10	U	N	CV
7440-02-0	Nickel	29.9	B		P
7440-09-7	Potassium	4060	B		P
7782-49-2	Selenium	3.0	U		P
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	17200			P
7440-28-0	Thallium	5.0	U		P
7440-62-2	Vanadium	26.3	B		P
7440-66-6	Zinc	82.3			P
	Cyanide	3.9	B		CA

Color Before: YELLOW Clarity Before: CLOUDY Texture:
Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBWK7

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136
Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1
Matrix (soil/water): WATER Lab Sample ID: 38673.20
Level (low/med): LOW__ Date Received: 05/19/99
% 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_	5320		N	P
7440-36-0	Antimony_	3.0	U		P
7440-38-2	Arsenic__	104			P
7440-39-3	Barium___	2640			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	101000			P
7440-47-3	Chromium_	8.3	B		P
7440-48-4	Cobalt___	4.1	B		P
7440-50-8	Copper___	11.9	B		P
7439-89-6	Iron____	13300			P
7439-92-1	Lead____	9.1			P
7439-95-4	Magnesium	64400			P
7439-96-5	Manganese	235			P
7439-97-6	Mercury__	0.10	U	N	CV
7440-02-0	Nickel___	10.1	B		P
7440-09-7	Potassium	3770	B		P
7782-49-2	Selenium_	3.0	U		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	49700			P
7440-28-0	Thallium_	5.0	U		P
7440-62-2	Vanadium_	10.9	B		P
7440-66-6	Zinc____	30.3			P
	Cyanide__	3.6	B		CA

Color Before: YELLOW___ Clarity Before: CLOUDY Texture: _____
Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBWK8

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136
Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1
Matrix (soil/water): WATER Lab Sample ID: 38673.21
Level (low/med): LOW__ Date Received: 05/19/99
% 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_	12.0	U	N	P
7440-36-0	Antimony_	3.0	U		P
7440-38-2	Arsenic__	3.0	U		P
7440-39-3	Barium___	1.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium__	1.0	U		P
7440-70-2	Calcium__	28.0	U		P
7440-47-3	Chromium_	1.0	U		P
7440-48-4	Cobalt___	1.0	U		P
7440-50-8	Copper___	2.0	U		P
7439-89-6	Iron_____	11.0	U		P
7439-92-1	Lead_____	2.0	U		P
7439-95-4	Magnesium	19.0	U		P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury__	0.10	U	N	CV
7440-02-0	Nickel___	2.0	U		P
7440-09-7	Potassium	113	U		P
7782-49-2	Selenium_	3.0	U		P
7440-22-4	Silver___	1.0	U		P
7440-23-5	Sodium___	81.9	B		P
7440-28-0	Thallium_	5.0	U		P
7440-62-2	Vanadium_	1.0	U		P
7440-66-6	Zinc_____	5.0	U		P
	Cyanide__	4.4	B		CA

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

Comments:

U.S. EPA - CLP

3
BLANKS

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1

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	12.0	U	12.0	U	12.0	U	12.0	U	12.00	U	P
Antimony	3.3	B	3.0	U	3.0	U	3.0	U	3.00	U	P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	3.00	U	P
Barium	1.0	U	1.0	U	1.0	U	1.0	U	1.00	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	1.00	U	P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U	1.00	U	P
Calcium	28.0	U	28.0	U	28.0	U	28.0	U	28.00	U	P
Chromium	1.0	U	1.0	U	1.0	U	1.0	U	1.00	U	P
Cobalt	1.0	U	1.0	U	1.0	U	1.0	U	1.00	U	P
Copper	2.0	U	2.0	U	2.0	U	2.0	U	2.00	U	P
Iron	11.0	U	11.0	U	11.0	U	11.0	U	11.00	U	P
Lead	2.0	U	2.0	U	2.0	U	2.0	U	2.00	U	P
Magnesium	19.0	U	19.0	U	19.0	U	19.0	U	19.00	U	P
Manganese	1.0	U	1.0	U	1.0	U	1.0	U	1.00	U	P
Mercury	-0.2	B	0.1	B	0.1	B	0.1	U	0.10	U	CV
Nickel	2.0	U	2.0	U	2.0	U	2.0	U	2.00	U	P
Potassium	113.0	U	113.0	U	113.0	U	113.0	U	113.00	U	P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U	3.00	U	P
Silver	1.0	U	1.0	U	1.0	U	1.0	U	1.00	U	P
Sodium	27.0	U	27.0	U	27.0	U	27.0	U	27.00	U	P
Thallium	5.0	U	5.0	U	5.0	U	5.0	U	5.00	U	P
Vanadium	1.0	U	1.0	U	1.0	U	1.0	U	1.00	U	P
Zinc	5.0	U	5.0	U	5.0	U	5.0	U	5.00	U	P
Cyanide	3.2	B	2.6	B	2.9	B	2.9	B	4.62	B	CA

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3
BLANKS

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1

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	12.0	U	12.0	U	12.0	U	12.0	U			P
Antimony	3.0	U	3.0	U	3.0	U	3.0	U			P
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium			113.0	U							P
Selenium											NR
Silver											NR
Sodium	27.0	U	27.0	U	27.0	U	27.0	U			P
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

3
BLANKS

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1

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			12.0	U	12.0	U					P
Antimony			3.0	U							P
Arsenic											NR
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead											NR
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium			27.0	U	27.0	U					P
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide											NR

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEBWK7S

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1
Matrix: __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	10175.9250		5324.8240		2000.00	242.6	N	P
Antimony	75-125	498.4900		3.0000	U	500.00	99.7		P
Arsenic	75-125	151.7190		104.4730		40.00	118.1		P
Barium	75-125	4559.4500		2637.5490		2000.00	96.1		P
Beryllium	75-125	51.4570		1.0000	U	50.00	102.9		P
Cadmium	75-125	48.6490		1.0000	U	50.00	97.3		P
Calcium									NR
Chromium	75-125	208.2600		8.2730	B	200.00	100.0		P
Cobalt	75-125	493.4230		4.0600	B	500.00	97.9		P
Copper	75-125	244.6480		11.8910	B	250.00	93.1		P
Iron		14811.9400		13323.2500		1000.00	148.9		P
Lead	75-125	29.1910		9.1140		20.00	100.4		P
Magnesium									NR
Manganese	75-125	719.2060		235.2000		500.00	96.8		P
Mercury	75-125	0.7400		0.1000	U	1.00	74.0	N	CV
Nickel	75-125	499.0830		10.0710	B	500.00	97.8		P
Potassium									NR
Selenium	75-125	10.1770		3.0000	U	10.00	101.8		P
Silver	75-125	51.2920		1.0000	U	50.00	102.6		P
Sodium									NR
Thallium	75-125	51.3290		5.0000	U	50.00	102.7		P
Vanadium	75-125	497.1450		10.9090	B	500.00	97.2		P
Zinc	75-125	521.9720		30.3070		500.00	98.3		P
Cyanide	75-125	104.1620		3.5870	B	100.00	100.6		CA

Comments:

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5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEBWK7A

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1

Matrix: ____WATER_____ 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		14699.13		5324.82		10650.0	88.0		P
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

4.0

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6
DUPLICATES

EPA SAMPLE NO.

MEBWK7D

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1

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		5324.8240		4894.1030		8.4		P
Antimony		3.0000	U	3.0000	U			P
Arsenic		104.4730		99.9380		4.4		P
Barium		2637.5490		2530.7680		4.1		P
Beryllium		1.0000	U	1.0000	U			P
Cadmium		1.0000	U	1.0000	U			P
Calcium		100522.9110		97019.2470		3.5		P
Chromium		8.2730	B	7.6720	B	7.5		P
Cobalt		4.0600	B	4.0510	B	0.2		P
Copper		11.8910	B	13.0300	B	9.1		P
Iron		13323.2500		12753.4030		4.4		P
Lead	3.0	9.1140		9.1010		0.1		P
Magnesium		64421.3200		62181.7270		3.5		P
Manganese		235.2000		226.2600		3.9		P
Mercury		0.1000	U	0.1000	U			CV
Nickel		10.0710	B	9.8870	B	1.8		P
Potassium		3771.6050	B	3539.8540	B	6.3		P
Selenium		3.0000	U	3.0000	U			P
Silver		1.0000	U	1.0000	U			P
Sodium	10000.0	49743.3340		46258.4980		7.3		P
Thallium		5.0000	U	5.0000	U			P
Vanadium		10.9090	B	10.2940	B	5.8		P
Zinc	20.0	30.3070		29.7750		1.8		P
Cyanide		3.5870	B	3.2380	B	10.2		CA

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10
Instrument Detection Limits (Quarterly)

Lab Name: SOUTHWEST_LABORATORIES Contract: 68-D5-0136
Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL1
ICP ID Number: TJA_ET2 Date: 04/08/99
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	12.0	P
Antimony	206.84		60	3.0	P
Arsenic	189.04		10	3.0	P
Barium	493.41		200	1.0	P
Beryllium	313.04		5	1.0	P
Cadmium	226.50		5	1.0	P
Calcium	317.93		5000	28.0	P
Chromium	267.72		10	1.0	P
Cobalt	228.62		50	1.0	P
Copper	324.75		25	2.0	P
Iron	271.44		100	11.0	P
Lead	220.35		3	2.0	P
Magnesium	279.08		5000	19.0	P
Manganese	257.61		15	1.0	P
Mercury			0.2		NR
Nickel	231.60		40	2.0	P
Potassium	766.49		5000	113.0	P
Selenium	196.03		5	3.0	P
Silver	328.07		10	1.0	P
Sodium	588.99		5000	27.0	P
Thallium	190.87		10	5.0	P
Vanadium	292.40		50	1.0	P
Zinc	213.86		20	5.0	P
Cyanide			10		NR

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136
Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1
ICP ID Number: _____ Date: 04/06/99
Flame AA ID Number : PS200B_____
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	254.00		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
Cyanide			10		NR

Comments:

U.S. EPA - CLP

10
Instrument Detection Limits (Quarterly)

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136
Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL1
ICP ID Number: _____ Date: 04/23/99
Flame AA ID Number : LACHAT_____
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			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
Cyanide	578.00		10	2.0	CA

Comments:

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL1

Instrument ID Number: TJA ET2_____ Method: P_

Start Date: 06/04/99 End Date: 06/04/99

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0026		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
S	1.00	0031		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
ICV	1.00	0037		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
ICB	1.00	0042		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
CRI	1.00	0048			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
ICSA	1.00	0053		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
ICSAB	1.00	0059		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
CCV	1.00	0104		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
CCB	1.00	0110		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
PBW	1.00	0115		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
LCSW	1.00	0121		X	X		X	X		X	X	X	X	X		X	X		X						X	X	
SW	2.00	0126																					X				
LCSW	1.00	0132				X			X						X						X	X		X			
MEBFL1	1.00	0137		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X		X	X	X	
MEBFL2	1.00	0143		X	X	X	X	X	X		X	X	X		X	X	X		X		X	X		X	X	X	
MEBFL3	1.00	0148		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
MEBFM9	1.00	0154		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X		X	X	X	
MEBWK6	1.00	0159		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
ZZZZZZ	1.00	0209																									
CCV	1.00	0215		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
CCB	1.00	0220		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
MEBWK8	1.00	0226		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
MEBWK7	1.00	0231		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X		X	X	X	
MEBWK7D	1.00	0237		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X		X	X	X	
MEBWK7S	1.00	0242		X	X	X	X	X	X		X	X	X	X	X		X		X		X	X		X	X	X	
MEBWK7L	1.00	0248		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X		X	X	X	
ZZZZZZ	1.00	0258																									
CRI	1.00	0303			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
ICSA	1.00	0308		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
ICSAB	1.00	0314		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
CCV	1.00	0319		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	
CCB	1.00	0325		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X		X	X	X	X	X	X	

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL1

Instrument ID Number: TJA ET2_____ Method: P_

Start Date: 06/04/99 End Date: 06/05/99

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	2333		X																			X				
S	1.00	2338		X																			X				
ICV	1.00	2344		X																			X				
ICB	1.00	2349		X																			X				
CRI	1.00	2354																									
ICSA	1.00	0000		X																			X				
ICSAB	1.00	0005		X																			X				
CCV	1.00	0011		X																			X				
CCB	1.00	0016		X																			X				
ZZZZZZ	1.00	0022																									
ZZZZZZ	1.00	0027																									
ZZZZ	2.00	0033																									
ZZZZZZ	1.00	0038																									
MEBFL1	1.00	0044																									
MEBFL2	1.00	0049																									
MEBFL3	1.00	0055																									
MEBFM9	1.00	0100																									
MEBWK6	1.00	0106																									
ZZZZZZ	1.00	0116																									
CCV	1.00	0121		X																			X				
CCB	1.00	0127		X																			X				
MEBWK8	1.00	0132																									
MEBWK7	1.00	0138																									
MEBWK7D	1.00	0143																									
MEBWK7S	1.00	0149																									
MEBWK7L	1.00	0154																									
MEBFL1	5.00	0200																					X				
ZZZZZZ	1.00	0209																									
CRI	1.00	0215																									
ICSA	1.00	0220		X																			X				
ICSAB	1.00	0226		X																			X				
CCV	1.00	0231		X																			X				

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL1

Instrument ID Number: TJA ET2_____ Method: P_

Start Date: 06/04/99 End Date: 06/05/99

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	0237		X																			X				
MEBFL2	5.00	0242																					X				
MEBFM9	10.00	0248																					X				
MEBWK7	2.00	0253																					X				
MEBWK7D	2.00	0259																					X				
MEBWK7S	2.00	0304																									
MEBWK7L	2.00	0310																					X				
MEBWK7A	1.00	0315		X																							
ZZZZZZ	1.00	0325																									
CCV	1.00	0331		X																			X				
CCB	1.00	0336		X																			X				
I	1.00	0342																									
ICSA	1.00	0347		X																			X				
ICSAB	1.00	0353		X																			X				
CCV	1.00	0358		X																			X				
CCB	1.00	0404		X																			X				

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL1

Instrument ID Number: TJA ET2_____ Method: P_

Start Date: 06/08/99 End Date: 06/08/99

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1611			X															X							
S	1.00	1617			X															X							
ICV	1.00	1622			X															X							
ICB	1.00	1628			X															X							
CRI	1.00	1651			X																						
ICSA	1.00	1704			X															X							
ICSAB	1.00	1709			X															X							
CCV	1.00	1715			X															X							
CCB	1.00	1720			X															X							
ZZZZZZ	1.00	1726																									
ZZZZZZ	1.00	1735																									
W	1.00	1741																		X							
LCSW	1.00	1746																									
LCSW	2.00	1752																		X							
ZZZZZZ	1.00	1757																									
MEBFL1	1.00	1803																		X							
MEBFL2	1.00	1808																									
MEBFL3	1.00	1814																		X							
ZZZZZZ	1.00	1824																									
CCV	1.00	1829			X															X							
CCB	1.00	1835			X															X							
MEBFM9	1.00	1840																		X							
MEBWK6	1.00	1846																		X							
MEBWK7	1.00	1851																		X							
MEBWK7D	1.00	1857																		X							
MEBWK7S	1.00	1902																									
MEBWK7L	1.00	1908																		X							
ZZZZZZ	1.00	1917																									
CRI	1.00	1923			X																						
ICSA	1.00	1928			X															X							
ICSAB	1.00	1934			X															X							
CCV	1.00	1939			X															X							

U.S. EPA - CLP

14
ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL1

Instrument ID Number: TJA ET2_____ Method: P_

Start Date: 06/08/99 End Date: 06/08/99

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	1945			X															X							
MEBWK8	1.00	1950																		X							
MEBFL2	2.00	1956																		X							
ZZZZZZ	1.00	2006																									
CRI	1.00	2011			X																						
ICSA	1.00	2017			X															X							
ICSAB	1.00	2022			X															X							
CCV	1.00	2028			X															X							
CCB	1.00	2033			X															X							

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL1

Instrument ID Number: PS200B_____ Method: CV

Start Date: 06/08/99 End Date: 06/08/99

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0740																X									
S0.2	1.00	0743																X									
S0.5	1.00	0745																X									
S1	1.00	0748																X									
S5	1.00	0751																X									
S10	1.00	0754																X									
S1	1.00	0756																X									
ICV	1.00	0759																X									
ICB	1.00	0802																X									
CRA	1.00	0804																X									
CCV	1.00	0807																X									
B	1.00	0810																X									
ZZZZZZ	1.00	0900																									
ZZZZZZ	1.00	0902																									
ZZZZZZ	1.00	0905																									
ZZZZZZ	1.00	0908																									
PBW	1.00	0910																X									
MEBFL1	1.00	0913																X									
MEBFL2	1.00	0916																X									
MEBFL3	1.00	0918																X									
MEBFM9	1.00	0921																X									
MEBWK6	1.00	0924																X									
CCV	1.00	0926																X									
CCB	1.00	0929																X									
MEBWK7	1.00	0932																X									
MEBWK7D	1.00	0934																X									
MEBWK7S	1.00	0937																X									
MEBWK8	1.00	0940																X									
ZZZZZZ	1.00	0942																									
ZZZZZZ	1.00	0945																									
ZZZZZZ	1.00	0947																									
ZZZZZZ	1.00	0950																									

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL1

Instrument ID Number: PS200B_____ Method: CV

Start Date: 06/08/99 End Date: 06/08/99

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
ZZZZZZ	1.00	0953																									
ZZZZZZ	1.00	0955																									
CCV	1.00	0958																X									
CCB	1.00	1001																X									

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LABORATORIES___ Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL1

Instrument ID Number: LACHAT_____ Method: CA

Start Date: 05/28/99 End Date: 05/28/99

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S200	1.00	1424																									X
S150	1.00	1425																									X
S100	1.00	1426																									X
S50	1.00	1427																									X
S10	1.00	1428																									X
S5	1.00	1429																									X
S0	1.00	1430																									X
ICV	1.00	1433																									X
ICB	1.00	1434																									X
CCV	1.00	1435																									X
CCB	1.00	1436																									X
W	1.00	1438																									X
ZZZZZZ	1.00	1439																									
MEBFL1	1.00	1439																									X
MEBFL2	1.00	1440																									X
MEBFL3	1.00	1441																									X
MEBFM9	1.00	1442																									X
CCV	1.00	1442																									X
CCB	1.00	1443																									X
MEBWK6	1.00	1445																									X
MEBWK7	1.00	1446																									X
MEBWK7D	1.00	1447																									X
MEBWK7S	1.00	1447																									X
MEBWK8	1.00	1448																									X
ZZZZZZ	1.00	1449																									
CCV	1.00	1450																									X
CCB	1.00	1450																									X

EPA United States Environmental Protection Agency Contract Laboratory Program

Inorganic Traffic Report & Chain of Custody Record
(For Inorganic CLP Analyis)

Case No. 27124

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (specify in Column A)

2. 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 in Column D)
N. Not preserved

2. Region No. 5 | Sampling Co. IEPA | 4. Date Shipped 5/18/99 | Carrier Fed-X | 6. Date Received -- Received by: 5-19-99 [illegible]

Sampler (Name): Bob Casper | Airbill Number: 3197987415 | Laboratory Contract Number: 68-D8-0136 | Unit Price: $78.90

Sampler Signature: [illegible] | 5. Ship To: TUSK, 1710 W. Albany Suite C, Broken Arrow, OK 74012, ATTN: Deborah Lynn | 7. Transfer to: | Date Received

3. Purpose* Lead: SF, PRP, ST, FED; Early Action: CLEM, PA, REM, RI, SI ✓, ESI; Long-term Action: FS, RD, RA, O&M, NPLD

Received by | Contract Number | Price

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative (from Box 2) Other:	E – RAS Analysis: Diss. Metals	Total Metals	Cyanide	Low only: NO_2/NO_3	Fluoride	High only: pH	Conduct.	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Organic Sample No.	J Sampler Initials	K High Phases: Solids	Water-Miscible Liq.	Water-Immis. Liq.
MEBWK7	2	L	G	2		X						5-139427	G105	5/17/99 1200	EBWB0	BC			
" "	↓	↓	↓	3			X					5-139428	G105	5/17/99 1200	" "	BC			
* MEBWK7	↓	↓	↓	2		X						5-139429	FB	5/17/99 1200	EBWN3	BC			
" "	↓	↓	↓	3			X					5-139430	FB	5/17/99 1200	" "	BC			
MEBWK7	2	L	G	2		X						5-139431	G105	5/17/99 1200	EBWB0	BC			
MEBWK7	2	L	G	3			X					5-139431	G105	5/17/99 1200	EBWB0	BC			

Shipment for Case Complete? (Y/N) | Page ___ of ___ | Sample(s) to be Used for Laboratory QC: MEBWK7 | Additional Sampler Signatures | Chain of Custody Seal Number(s): 27630/27631

*Last Sample SDG

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[illegible]	5/18/99 17:00				
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) [illegible]	Date / Time 5-19-99 8:40	Remarks: Is custody seal intact? Y/N/none 13°C	

MEBFL1

DISTRIBUTION: Green - Region Copy; White - Lab Copy for Return to Region; Pink - CLASS Copy; Yellow - Lab Copy for Return to [illegible]

EPA Form 9110-1

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

A21-012-14 REV

EPA United States Environmental Protection Agency
Contract Laboratory Program

Inorganic Traffic Report & Chain of Custody Record
(For Inorganic CLP Analyis)

Case No. 27024

1. Matrix (Enter in Column A)
1. Surface Water
2. Ground Water
3. Leachate
4. Field QC
5. Soil/Sediment
6. Oil (High only)
7. Waste (High only)
8. Other (specify in Column A)

2. 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 in Column D)
N. Not preserved

2. Region No. 5
Sampling Co. EEPA
Sampler (Name) Bob Cooper
Sampler Signature Bob Cooper
3. Purpose*
Lead: SF, PRP, ST, FED
Early Action: CLEM, PA, REM, RI, SI (X), ESI
Long-Term Action: FS, RD, RA, O&M, NPLD

4. Date Shipped 5-18-99
Carrier Fed Ex
Airbill Number 3497987415
5. Ship To SW Labs. for OK
1700 W Albany
Broken Arrow OK 74012
ATTN: Deborah Inman

6. Date Received -- Received by 5-19-99 D. Wille
Laboratory Contract Number 68-D5-0136
Unit Price $78.90
7. Transfer to
Date Received
Received by
Contract Number
Price

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative (from Box 2) Other:	E – RAS Analysis: Diss. Metals	Total Metals	Cyanide	Low only: NO_2/NO_3	Fluoride	High only: pH	Conduct.	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Organic Sample No.	J Sampler Initials	K High Phases: Solids	Water-Miscible Liq.	Water-Immis. Liq.
MEBEM9	2	L	G			X						5-016476	G201	5/18/99 1340	ECRH2	BC			
"	2	L	G				X					5-016477	G201	5/18/99 1340	"	BC			
~~MEBEN0~~	~~2~~	~~L~~	~~G~~			~~X~~						~~5-016485~~	~~G202~~	~~5/18/99~~	~~ECRH3~~				
~~"~~	~~2~~	~~L~~	~~G~~				~~X~~					~~5-016486~~	~~G202~~	~~5/18/99~~	~~"~~				
MEBEM9	2	L	G			X						5-139476-477	G201	5-18-99 1345	ECRH2	BC			
"	2	L	G				X					5-139478-479	G201	"	"	BC			

Shipment for Case Complete? (Y/N) Y
Page ___ of ___
Sample(s) to be Used for Laboratory QC
Additional Sampler Signatures
Chain of Custody Seal Number(s) 27626/27627

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Bob Cooper	5-18 1700				
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	
		D. Wille	5-19-99 8:40	10°C	

DISTRIBUTION: Green - Region Copy; White - Lab Copy for Return to Region; Pink - CLASS Copy; Yellow - Lab Copy for Return to MEBEH

EPA Form 9110-1

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIONS

AP1-012-4, REV

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373288

EPA United States Environmental Protection Agency
Contract Laboratory Program

Inorganic Traffic Report & Chain of Custody Record
(For Inorganic CLP Analyis)

Case No. 27624

1. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (specify in Column A)

2. 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 in Column D) N. Not preserved

2. Region No.: 5
Sampling Co.: IEPA
Sampler (Name): Bob Casper
Sampler Signature: Bob Casper

3. Purpose*: Lead: SF, PRP, ST, FED; Early Action: CLEM, PA, REM, RI, SI, ESI; Long-Term Action: FS, RD, RA, O&M, NPLD

4. Date Shipped: 5/18/99
Carrier: Fed Ex
Airbill Number: 3497987415

5. Ship To: SWDK
1700 W. Albany Suite C
Broken Arrow, OK 74012
ATTN: Deborah [illegible]

6. Date Received -- Received by: 5-19-99 [signature]
Laboratory Contract Number: 68-D5-0136
Unit Price: $78.90
7. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E – RAS Analysis: Diss. Metals	Total Metals	Cyanide	Low only: NO_2/NO_3	Fluoride	High only: pH	Conduct.	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Organic Sample No.	J Sampler Initials	K High Phases: Solids	Water-Miscible Liq.	Water-Immis. Liq.
MEBFL4	5	L	G	6								5135486	X101	5/17/99-1315	ECRF4	BC			
MEBFL5	5	L	G	6								5-135488	X102	5/17/99-1400	ECRF5	BC			
MEBFL6	5	L	G	6								5-135490	X103	5/17/99-1415	ECRF6	BC			
MEBFL7	5	L	G	6								5-135492	X104	5/17/99-1500	ECRF7	BC			
MEBFL8	5	L	G	6								5-135494	X105	5/17/99-1530	ECRF8	BC			
MEBFL9	5	L	G	6								5-135496	X106	5/17/99-1715	ECRF9	BC			
MEBFM0	5	L	G	6								5-135498	X107	5/17/99-1615	ECRG0	BC			
MEBFM1	5	L	G	6								5-135500	X108	5/17/99-1000	ECRG1	BC			
MEBFM2	5	L	G	6								5-135502	X109	5/18/99-1040	ECRG2	BC			

Shipment for Case Complete? (Y/N): Y
Page ___ of ___
Sample(s) to be Used for Laboratory QC: X205 MEBFM7
Additional Sampler Signatures:
Chain of Custody Seal Number(s): 27624 / 27625

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Bob Casper	5/18/99 17:00				
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) [signature]	Date / Time: 5-19-99 8:40	Remarks: Is custody seal intact? Y/N/none 5°C	

DISTRIBUTION: Green - Region Copy; White - Lab Copy for Return to Region; Pink - CLASS Copy; Yellow - Lab Copy for Return to S; MEBFI 1

EPA Form 9110-1

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIO'

A21-012-14 REV.

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370465

Sediment Injury

EPA United States Environmental Protection Agency Contract Laboratory Program

Inorganic Traffic Report & Chain of Custody Record
(For Inorganic CLP Analyis)

Case No. 27624

1. Matrix (Enter in Column A)	2. Preservative (Enter in Column D)	2. Region No.	Sampling Co.	4. Date Shipped	Carrier	6. Date Received -- Received by:
1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (specify in Column A)	1. HCl 2. HNO3 3. NaOH 4. H_2SO_4 5. $K_2CR_2O_7$ 6. Ice only 7. Other (specify in Column D) N. Not preserved	5	IEPA	5-18-99	Fed Ex	5-19-99 [signature]

Sampler (Name): Bob Casper

Airbill Number: 3497987 ~~286~~ 415

Laboratory Contract Number: 68-D5-0136

Unit Price: $78.90

Sampler Signature: Bob Casper

3. Purpose*: Lead: SF, PRP, ST, FED; Early Action: CLEM, PA, REM, RI, X SI, ESI; Long-Term Action: FS, RD, RA, O&M, NPLD

5. Ship To: ~~American Analytical Tech~~ SWOK
1700 W Albany Suite C
Broken Arrow Ok 74012
ATTN: ~~Harry Berg~~ Deborah Inn

7. Transfer to:

Date Received:

Received by:

Contract Number:

Price:

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc. Low Med High	C Sample Type: Comp./Grab	D Preservative (from Box 2) Other:	E – RAS Analysis: Diss. Metals	Total Metals	Cyanide	Low only: NO_2/NO_3	Fluoride	High only: pH	Conduct.	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/Year/Time Sample Collection	I Corresponding CLP Organic Sample No.	J Sampler Initials	K High Phases: Solids	Water-Miscible Liq.	Water-Immis. Liq.
MEBFM3	5	L	6	6		X	X					5-135504	X201	5/18/99-1230	ECRG3	BC			
MEBFM4	5	L	6	6		X	X					5-135506	X202	5/18/99-1215	ECRG4	BC			
MEBFM5	5	L	6	6		X	X					5-135508	X203	5/18/99-1150	ECRG5	BC			
MEBFM6	5	L	6	6		X	X					5-135510	X204	5/18/99-1150	ECRG6	BC			
MEBFM7	5	L	6	6		X	X					5-135512	X205	5/18/99-1100	ECRG7	BC			

Shipment for Case Complete? (Y/N)	Page	Sample(s) to be Used for Laboratory QC	Additional Sampler Signatures	Chain of Custody Seal Number(s)
Y	___ of ___	MEBFM7 - X205		27624 / 27625

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Bob Casper	5/18/99 17:00				
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) [signature]	Date / Time 5-19-99 8:40	Remarks Is custody seal intact? Y/N/none 5°C	

DISTRIBUTION: Green - Region Copy; White - Lab Copy for Return to Region; Pink - CLASS Copy MEBF'J; Yellow - Lab Copy for Return to

EPA Form 9110-1

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIO

A21-012-4 REV

373269

EPA United States Environmental Protection Agency Contract Laboratory Program

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

Case No. 97021

1. Matrix (Enter in Column A): 1. Surface Water 2. Ground Water 3. Leachate 4. Field QC 5. Soil/Sediment 6. Oil (High only) 7. Waste (High only) 8. Other (specify in Column A)

2. 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 in Column D) N. Not preserved

2. Region No.: V
Sampling Co.: IEPA
4. Date Shipped: 5/16/99
Carrier: Fed-X
6. Date Received -- Received by: 5-19-99 [illegible]
Sampler (Name): Bob Casper
Airbill Number: 3197987415
Laboratory Contract Number: 68-D5-0136
Unit Price: $78.90
Sampler Signature: Bob Casper
5. Ship To: SWOK 1700 W Albany Suite C Broken Arrow, OK 74012 ATTN: Deborah Inman
7. Transfer to:
Date Received
Received by:
Contract Number
Price

3. Purpose*: Lead: SF, PRP, ST, FED. Early Action: CLEM, PA, REM, RI, SI, ESI. Long-Term Action: FS, RD, RA, O&M, NPLD

CLP Sample Numbers (from labels)	A Matrix (from Box 1) Other:	B Conc. Low Med High	C Sample Type: Comp./ Grab	D Preservative (from Box 2) Other:	E – RAS Analysis: Diss. Metals	Total Metals	Cyanide	Low only: NO_2/NO_3	Fluoride	High only: pH	Conduct.	F Regional Specific Tracking Number or Tag Numbers	G Station Location Identifier	H Mo/Day/ Year/Time Sample Collection	I Corresponding CLP Organic Sample No.	J Sampler Initials	K High Phases: Solids	Water-Miscible Liq.	Water-Immis. Liq.
MEBFL1	2	L	G	2		X						5-139417	G101	05/17/99	ECFP	BC			
" "				3			X					5-139418	G101		" "	BC			
MEBFL2				2		X						5-139419	G102		ECFP9	BC			
" "				3			X					5-139420	G102		"	BC			
MEBFL3				2		X						5-139421	G103	5/17/99 1130	ECFQ0	BC			
" "				3			X					5-139422	G103	5/17/99 1130	" "	BC			
MEBWK6				2		X						5-139423	G104	5/17/99 1000	EBWA9	BC			
" "				3			X					5-139424	G104	5/17/99 1000	" "	BC			
MEBWK7				2		X						5-139425	G105	5/17/99 1200	EBWB0	BC			
" "				3			X					5-139426	G105	5/17/99 1200	" "	BC			

Shipment for Case Complete? (Y/N): Y
Page ___ of ___
Sample(s) to be Used for Laboratory QC: MEBWK7
Additional Sampler Signatures:
Chain of Custody Seal Number(s): 27630/27631

CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Bob Casper	5/16/99 17:00				
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	
		[illegible]	5-19-99 8:40	13°C	

DISTRIBUTION: Green - Region Copy; White - Lab Copy for Return to Region; Pink - CLASS Copy; Yellow - Lab Copy for Return to

MEBFL1

EPA Form 9110-1

SEE REVERSE FOR ADDITIONAL STANDARD INSTRUCTIONS
*SEE REVERSE FOR PURPOSE CODE DEFINITIO

A21-012-14, REV

218

373256

DATA QUALIFIER DEFINITIONS

For the purpose of defining the flagging nomenclature utinized in this document, the following code letters and associated definitions are provide:

U Indicates the material was analyzed, 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 Indicates the associated value is an estimated quantity.

R Indicates the data are unusable. (Note: The analyte may or may not be present.)

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

E Indicates the reported value is estimated because of the presence of interferences. An explanatory note shall be included under Comments on the Cover Page (if the problem applies to all samples) or on the specific FORM I-IN (if it is an isolated problem).

M Indicates duplicate injection precision is not met.

N Indictaes the spike sample recovery is not within control limits.

S Indicates the reported value was determined by the Method of Standard Addition (MSA).

W Indicates the post-digestion spike for furnace AA analysis is out of control limits (85%-115%), while sample absorbance is less than 50% of the spike absorbance.

+ Indicates the correlation coefficient for the MSA is less than 0.995.

* Indicates the duplicate analysis is not within control limits.

Note: Entering "S", "W" or "+" is mutually exclusive. No combination of these qualifiers can appear in the same field for an analyte.

QC EXCEPTION SUMMARY REPORT

\SE\SAS#: 27024 SITE: Weston Lion LF (II) MATRIX: Water WATER SAMPLE SPK: MEBWK7

\TA SET: MEBFL1 LAB: SWOK CONC: low WATER SAMPLE DUP: MEBWK7

\B QC # MEBWK7 REVIEWED BY: Stephanie Tobin SOIL SAMPLE SPK: NA

\TE: 6/29/99 SOIL SAMPLE DUP: NA

FORM #		FORM 1	FORM 2	FORM 3	FORM 3	FORM 3	FORM 4	FORM 5	FORM 6	FORM 7	FORM 7	FORM 9	FORM 9	FORM 8	FORM 3	FIELD	FIELD	FIELD	FIELD	COMMENTS
ELEMENT	HOLD TIME pH	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 MEBWK8	DUP RPD	
ALUMINUM	MEBFL2	OK	OK			NA	OK	NA	NA	OK	NA	OK	NA	OK	242.6					
ANTIMONY				3.3																
ARSENIC																				
BARIUM																				
BERYLLIUM																				
CADMIUM																				
CALCIUM																				
CHROMIUM																				
COBALT																				
COPPER																				
IRON																				
LEAD																				
MAGNESIUM																				
MANGANESE																				
MERCURY				-0.2											74.0					
NICKEL																				
POTASSIUM																				
SELENIUM																				
SILVER																				
SODIUM																		~~81.9~~		
THALLIUM																				
TIN																				
VANADIUM																				
ZINC																				
CYANIDE					4.62													4.4		

ME ⇒ pH = 6.0

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: IL/22

Case No: 27024 Site Name Location: Weston Lion LF

Contractor or EPA Lab: SWOK Data User: IEPA

No. of Samples: 7 Date Sampled or Data Received: 6-21-99

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: 7 No. of samples received: 7

Received by: Lynette Burnett Date: 6-21-99

Received by LSSS: Lynette Burnett Date: 6-21-99

Review started: 6-24-99 Reviewer Signature: Marjorie Mattox Steffenie Tobin

Total time spent on review: 5 hrs Date review completed: 6/30/99

Copied by: Lynette Burnett 1/2 Date: 7-13-99

Mailed to user by: Lynette Burnett Date: 7-13-99

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if (
Organic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if (
Dioxin Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if (
SAS Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if (

PROBLEMS: Please indicate reasons why data are not suitable for you uses.

Received by Data Mgmt. Coordinator for Files. Data: _____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: ECRF4 CERCLIS No: IL/22

Case No: 27024 Site Name Location: Weston Lion LF

Contractor or EPA Lab: AATS Data User: IEPA

No. of Samples: 14 Date Sampled or Data Received: June 10, 1999

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: 14 No. of samples received: 14

Received by: A. C. Harvey Date: June 10, 1999

Received by LSSS: ____ Date: ____

Review started: 6/24/99 Reviewer Signature: [signature]

Total time spent on review: 9.5 Date review completed: 6/28/99

Copied by: Lynette Burnett Date: 7-13-99

Mailed to user by: Lynette Burnett Date: 7-13-99

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: ____ Date: ____

Data review received by: ____ Date: ____

Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Dioxin Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
SAS Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

Received by Data Mgmt. Coordinator for Files. Data: ____

Semivolatile Analysis Data - ECRG7

Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA

SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
123-42-2	2-PENTANONE, 4-HYDROXY-4-METHYL-	2.13	2200.000	NJA
	UNKNOWN	3.23	230.000	J
625-86-5	FURAN, 2,5-DIMETHYL-	3.35	2000.000	NJ
	UNKNOWN	3.63	130.000	J
	UNKNOWN	3.90	310.000	J
	UNKNOWN	3.93	420.000	J
	UNKNOWN	4.72	120.000	J
57-10-3	HEXADECANOIC ACID	10.15	110.000	NJ
	UNKNOWN	14.53	90.000	J
	UNKNOWN	15.50	180.000	J
	UNKNOWN	15.71	200.000	J
	UNKNOWN	15.93	130.000	J
	UNKNOWN	16.97	85.000	J
	UNKNOWN	17.26	86.000	J
	UNKNOWN PAH	18.23	530.000	J
	UNKNOWN PAH	18.37	230.000	J
	UNKNOWN	18.62	120.000	J
	UNKNOWN	19.73	200.000	J

Semivolatile Analysis Data - ECRG6

Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA

SAMPLE NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
123-42-2	2-PENTANONE, 4-HYDROXY-4-METHYL-	2.14	2100.000	NJA
	UNKNOWN	3.49	670.000	J
	UNKNOWN	3.63	160.000	J
	UNKNOWN	3.96	700.000	J
	UNKNOWN	4.15	120.000	J
	UNKNOWN	4.71	98.000	J
	UNKNOWN	4.94	120.000	J
57-10-3	HEXADECANOIC ACID	10.17	220.000	NJ
112-80-1	OLEIC ACID	11.51	120.000	NJ
	UNKNOWN	11.67	94.000	J
78-51-3	ETHANOL, 2-BUTOXY-, PHOSPHATE (3:	13.45	530.000	NJ
	UNKNOWN	15.38	90.000	J
	UNKNOWN	15.48	88.000	J
6971-40-0	17-PENTATRIACONTENE	15.60	200.000	NJ
4128-17-0	2,6,10-DODECATRIEN-1-OL, 3,7,11-T	15.94	180.000	NJ
192-97-2	BENZO[E]PYRENE	16.16	120.000	NJ
	UNKNOWN	17.26	93.000	J
14021-23-9	D-FRIEDOOLEAN-14-ENE, 3-METHOXY-,	18.24	390.000	NJ
	UNKNOWN PAH	18.38	120.000	J
	UNKNOWN	19.31	92.000	J
	UNKNOWN	19.73	220.000	J

Semivolatile Analysis Data - SBLK2

Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA

SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
123-42-2	2-PENTANONE, 4-HYDROXY-4-METHYL-	2.11	1700.000	NJA
	UNKNOWN	3.17	220.000	J
	UNKNOWN	3.48	110.000	J
	UNKNOWN AMIDE	13.07	140.000	J

Semivolatile Analysis Data - ECRF8

Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA

SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	2.20	250.000	J
	UNKNOWN	2.98	410.000	J
	UNKNOWN	3.19	2500.000	JB
	UNKNOWN	3.35	130.000	J
57-10-3	HEXADECANOIC ACID	10.15	96.000	NJ
	UNKNOWN	15.94	100.000	J
	UNKNOWN PAH	18.23	160.000	J
471-68-1	OLEAN-12-ENE	18.71	130.000	NJ
	UNKNOWN	19.45	190.000	J
	UNKNOWN	19.61	140.000	J

Semivolatile Analysis Data - ECRF4

Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA

; NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	3.23	140.000	J
	UNKNOWN	3.89	1200.000	J
544-63-8	TETRADECANOIC ACID	8.60	710.000	NJ
	UNKNOWN	9.17	260.000	J
2091-29-4	9-HEXADECENOIC ACID	10.09	3400.000	NJ
57-10-3	HEXADECANOIC ACID	10.24	4800.000	NJ
	CIS--BUTYL--VINYL-CYCLOPENTENE	10.78	400.000	J
243-42-5	BENZO[B]NAPHTHO[2,3-D]FURAN	11.48	190.000	NJ
	UNKNOWN ORGANIC ACID	11.54	520.000	J
57-11-4	OCTADECANOIC ACID	11.71	640.000	NJ
243-17-4	11H-BENZO[B]FLUORENE	12.14	150.000	NJ
82-05-3	7H-BENZ[DE]ANTHRACEN-7-ONE	13.14	160.000	NJ
337-65-9	HEXANEDIOIC ACID, MONO(2-ETHYLHEX	13.33	370.000	NJ
	UNKNOWN	13.71	130.000	J
13228-36-9	1H-INDOLE, 5-METHYL-2-PHENYL-	14.42	220.000	NJ
	UNKNOWN	14.54	110.000	J
	UNKNOWN	15.62	170.000	J
	UNKNOWN	15.97	630.000	J
198-55-0	PERYLENE	16.21	530.000	NJ
192-97-2	BENZO[E]PYRENE	16.45	200.000	NJ
	UNKNOWN	16.77	220.000	J
	UNKNOWN	16.91	260.000	J
	UNKNOWN	17.00	180.000	J
	UNKNOWN	17.51	230.000	J
	UNKNOWN	17.69	140.000	J
	UNKNOWN	17.76	420.000	J
	UNKNOWN	18.28	200.000	J
	UNKNOWN	18.69	460.000	J
	UNKNOWN	18.74	460.000	J
	UNKNOWN	18.99	220.000	J

Semivolatile Analysis Data - ECRF9

Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA

SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
625-86-5	FURAN, 2,5-DIMETHYL-	3.34	1700.000	NJ
	UNKNOWN	3.62	280.000	J
	UNKNOWN	3.80	99.000	J
	UNKNOWN	3.90	1200.000	J
541-02-6	CYCLOPENTASILOXANE, DECAMETHYL-	4.34	200.000	NJ
	UNKNOWN	7.96	100.000	J
	UNKNOWN	9.17	160.000	J
	UNKNOWN ORGANIC ACID	10.18	130.000	J
	UNKNOWN	10.83	180.000	J
	UNKNOWN	11.28	410.000	J
	UNKNOWN	11.54	130.000	J
	UNKNOWN	15.61	150.000	J
	UNKNOWN	15.97	260.000	J
506-52-5	1-HEXACOSANOL	16.18	520.000	NJ
	UNKNOWN	17.50	180.000	J
2599-01-1	TETRADECANOIC ACID, HEXADECYL EST	17.81	9600.000	NJ
	UNKNOWN PAH	17.94	450.000	J
6971-40-0	17-PENTATRIACONTENE	18.30	3400.000	NJ
	UNKNOWN	18.41	310.000	J
	UNKNOWN	18.49	120.000	J
	UNKNOWN PAH	18.65	670.000	J
540-10-3	HEXADECANOIC ACID, HEXADECYL ESTE	18.79	3400.000	NJ
	UNKNOWN	18.93	230.000	J
	UNKNOWN	18.98	150.000	J
	UNKNOWN	19.72	95.000	J
	UNKNOWN	19.81	420.000	J
	UNKNOWN	19.84	730.000	J

Semivolatile Analysis Data - ECRG4

Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA

SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	3.23	130.000	J
625-86-5	FURAN, 2,5-DIMETHYL-	3.34	2900.000	NJ
	UNKNOWN	3.89	390.000	J
	UNKNOWN	3.91	340.000	J
	UNKNOWN	6.36	1100.000	J
	UNKNOWN	6.54	100.000	J
	UNKNOWN PAH	18.27	220.000	J
	UNKNOWN	18.65	190.000	J
	UNKNOWN	18.94	140.000	J
	UNKNOWN	18.99	210.000	J
	UNKNOWN	19.76	100.000	J

Semivolatile Analysis Data - ECRG5

Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA

SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	2.96	1100.000	JB
	UNKNOWN	3.23	110.000	J
	UNKNOWN	3.63	150.000	J
	UNKNOWN	3.80	120.000	J
	UNKNOWN	3.89	270.000	J
	UNKNOWN	3.91	260.000	J
	UNKNOWN	15.97	84.000	J
	UNKNOWN	17.95	110.000	J
	UNKNOWN PAH	18.27	410.000	J
	UNKNOWN	18.42	90.000	J
	UNKNOWN	18.94	100.000	J
	UNKNOWN	18.98	120.000	J
	UNKNOWN	19.35	90.000	J
	UNKNOWN	19.77	460.000	J
	UNKNOWN	20.99	97.000	J
	UNKNOWN	21.48	450.000	J

Semivolatile Analysis Data - ECRG2
Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA
SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	3.14	1300.000	J
	UNKNOWN	3.23	120.000	J
	UNKNOWN PAH	11.48	72.000	J
	UNKNOWN	13.47	110.000	J
192-97-2	BENZO[E]PYRENE	16.20	180.000	NJ
	UNKNOWN	18.65	250.000	J

Semivolatile Analysis Data - ECRG3

Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA

SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	2.16	87.000	J
	UNKNOWN	3.15	1100.000	J
	UNKNOWN	3.23	130.000	J
	UNKNOWN	6.13	120.000	J
	UNKNOWN	6.19	250.000	J
	UNKNOWN	6.28	520.000	J
	UNKNOWN	6.33	670.000	J
	UNKNOWN	15.97	130.000	J
	UNKNOWN	17.79	160.000	J
	UNKNOWN	18.22	210.000	J
	UNKNOWN PAH	18.27	930.000	J
	UNKNOWN	18.41	210.000	J
	UNKNOWN PAH	18.75	260.000	J
	UNKNOWN	18.95	210.000	J
	UNKNOWN PAH	18.99	340.000	J
	UNKNOWN	19.27	100.000	J
	UNKNOWN	19.32	320.000	J
	UNKNOWN	19.35	240.000	J
	UNKNOWN	19.77	3300.000	J
	UNKNOWN	20.54	120.000	J
	UNKNOWN	21.24	290.000	J

Semivolatile Analysis Data - ECRF6
Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA
SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
625-86-5	FURAN, 2,5-DIMETHYL-	3.34	1900.000	NJ
	UNKNOWN	3.62	190.000	J
7379-12-6	3-HEXANONE, 2-METHYL-	3.79	280.000	NJ
	UNKNOWN	3.84	2000.000	J
	UNKNOWN	3.91	160.000	J
	UNKNOWN	4.09	81.000	J
	UNKNOWN PAH	18.26	490.000	J
	UNKNOWN PAH	18.41	100.000	J
	UNKNOWN	19.60	160.000	J
	UNKNOWN	19.64	190.000	J

Semivolatile Analysis Data - ECRG0
Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA
SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	3.15	140.000	J
625-86-5	FURAN, 2,5-DIMETHYL-	3.34	1800.000	NJ
	UNKNOWN	3.79	140.000	J
	UNKNOWN	3.87	340.000	J
	UNKNOWN	3.91	91.000	J
192-97-2	BENZO[E]PYRENE	16.20	100.000	NJ
	UNKNOWN	19.70	440.000	J

Semivolatile Analysis Data - ECRG1
Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA
SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
625-86-5	FURAN, 2,5-DIMETHYL-	3.34	1500.000	NJ
	UNKNOWN	3.63	120.000	J
	UNKNOWN	3.79	78.000	J
	UNKNOWN	3.87	170.000	J
	UNKNOWN	3.91	94.000	J
	UNKNOWN	13.47	320.000	J
	BENZO[]PYRENE	16.20	150.000	J
	UNKNOWN	18.65	170.000	J

Semivolatile Analysis Data - SBLK1
Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA
SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
123-42-2	2-PENTANONE, 4-HYDROXY-4-METHYL-	2.01	2000.000	NJA
	UNKNOWN	2.80	68.000	J
	UNKNOWN	2.98	140.000	J
	UNKNOWN	3.34	520.000	J
3658-77-3	2,5-DIMETHYL-4-HYDROXY-3(2H)-FURA	3.89	140.000	NJ
112-42-5	1-UNDECANOL	6.32	85.000	NJ
	UNKNOWN AMIDE	13.11	1600.000	J
	UNKNOWN	19.98	250.000	J

FILE NAME: ECRF4.SDG DATE: 06/11/99 TIME: 11:26 CADRE98 PAGE: 1

Semivolatile Analysis Data - ECRF7
Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA
SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
625-86-5	FURAN, 2,5-DIMETHYL-	3.34	2000.000	NJ
	UNKNOWN	3.62	330.000	J
7379-12-6	3-HEXANONE, 2-METHYL-	3.79	130.000	NJ
	UNKNOWN	3.85	650.000	J
	UNKNOWN	3.91	140.000	J
112-70-9	1-TRIDECANOL	6.31	220.000	NJ
	UNKNOWN AMIDE	11.82	140.000	J
	UNKNOWN AMIDE	13.27	140.000	J
14021-23-9	D-FRIEDOOLEAN-14-ENE, 3-METHOXY-,	18.26	1900.000	NJ
	UNKNOWN PAH	18.40	210.000	J

FILE NAME: ECRF4.SDG DATE: 06/11/99 TIME: 11:26 CADRE98 PAGE: 2

Semivolatile Analysis Data - ECRF5
Tentatively Identified Compounds

CASE NO: 27024 LABORATORY: SWL-TULSA
SDG NO: ECRF4

CAS NUMBER	COMPOUND NAME	RT	ESTIMATED CONCENTRATION	Q
	UNKNOWN	2.13	230.000	J
625-86-5	FURAN, 2,5-DIMETHYL-	3.34	2400.000	NJ
	UNKNOWN	3.62	240.000	J
123-19-3	4-HEPTANONE	3.79	340.000	NJ
	UNKNOWN	3.85	750.000	J
	UNKNOWN	3.88	1200.000	J
4630-07-3	NAPHTHALENE, 1,2,3,5,6,7,8,8A-OCT	18.26	500.000	NJ
	UNKNOWN	18.40	100.000	J
	UNKNOWN	19.76	120.000	J

FILE NAME: ECRF4.SDG DATE: 06/11/99 TIME: 11:26 CADRE98 PAGE: 3

Case #: 27024 SDG: ECRF4
Site: WESTON LION LANDFILL
Lab. : AATS
Reviewer:
Date:

Sample Number:	PBLKSA									
Sampling Location:										
Matrix:	Soil									
Units:	ug/kg									
Date Sampled:										
Time Sampled:										
%Moisture:										
PH:	7									
Dilution Factor:	1.0									
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	1.7	U								
beta-BHC	1.7	U								
delta-BHC	1.7	U								
gamma-BHC (Lindane)	1.7	U								
Heptachlor	1.7	U								
Aldrin	1.7	U								
Heptachlor Epoxide	1.7	U								
Endosulfan I	1.7	U								
Dieldrin	3.3	U								
4,4'-DDE	3.3	U								
Endrin	3.3	U								
Endosulfan II	3.3	U								
4,4'-DDD	3.3	U								
Endosulfan Sulfate	3.3	U								
4,4'-DDT	3.3	U								
Methoxychlor	17	U								
Endrin Ketone	3.3	U								
Endrin Aldehyde	3.3	U								
alpha-Chlordane	1.7	U								
gamma-Chlordane	1.7	U								
Toxaphene	170	U								
Aroclor-1016	33	U								
Aroclor-1221	67	U								
Aroclor-1232	33	U								
Aroclor-1242	33	U								
Aroclor-1248	33	U								
Aroclor-1254	33	U								
Aroclor-1260	33	U								

Case #: 27024 SDG: ECRF4
Site: WESTON LION LANDFILL
Lab. : AATS
Reviewer:
Date:

Sample Number:	ECRG6DL		ECRG7		ECRG7DL		ECRG7MS		ECRG7MSD	
Sampling Location:	X204		X205		X205		X205		X205	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Date Sampled:	05/18/99		05/18/99		05/18/99		05/18/99		05/18/99	
Time Sampled:	11:50		11:00		11:00		11:00		11:00	
%Moisture:	27		26		26		26		26	
PH:	5.4		5.7		5.7		5.7		5.7	
Dilution Factor:	100.0		10.0		100.0		10.0		10.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	220	U	22	U	220	U	21	U	22	U
beta-BHC	220	U	22	U	220	U	21	U	22	U
delta-BHC	220	U	22	U	220	U	21	U	22	U
gamma-BHC (Lindane)	220	U	22	U	220	U	15	J	16	J
Heptachlor	220	U	22	U	220	U	18	J	19	J
Aldrin	220	U	22	U	220	U	15	J	16	J
Heptachlor Epoxide	220	U	22	U	220	U	21	U	22	U
Endosulfan I	220	U	22	U	220	U	21	U	22	U
Dieldrin	420	U	42	U	420	U	31	J	34	J
4,4'-DDE	420	U	42	U	420	U	42	U	44	U
Endrin	420	U	42	U	420	U	34	J	37	J
Endosulfan II	420	U	42	U	420	U	42	U	44	U
4,4'-DDD	420	U	42	U	420	U	42	U	44	U
Endosulfan Sulfate	420	U	42	U	420	U	42	U	44	U
4,4'-DDT	420	U	42	UJ	420	U	20	J	20	J
Methoxychlor	2200	U	220	UJ	2200	U	210	UJ	220	UJ
Endrin Ketone	420	U	42	U	420	U	42	U	44	U
Endrin Aldehyde	420	U	42	U	420	U	42	U	44	U
alpha-Chlordane	220	U	22	U	220	U	21	U	22	U
gamma-Chlordane	220	U	22	U	220	U	21	U	22	U
Toxaphene	22000	U	2200	U	22000	U	2100	U	2200	U
Aroclor-1016	4200	U	420	U	4200	U	420	U	440	U
Aroclor-1221	8600	U	850	U	8500	U	850	U	890	U
Aroclor-1232	4200	U	420	U	4200	U	420	U	440	U
Aroclor-1242	4200	U	420	U	4200	U	420	U	440	U
Aroclor-1248	4200	U	420	U	4200	U	420	U	440	U
Aroclor-1254	4200	U	420	U	4200	U	420	U	440	U
Aroclor-1260	4200	U	420	U	4200	U	420	U	440	U

Analytical Results (Qualified Data) Page __ of __

Case #: 27024 SDG: ECRF4
Site: WESTON LION LANDFILL
Lab. : AATS
Reviewer:
Date:

Sample Number:	ECRG4		ECRG4DL		ECRG5		ECRG5DL		ECRG6	
Sampling Location:	X202		X202		X203		X203		X204	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Date Sampled:	05/18/99		05/18/99		05/18/99		05/18/99		05/18/99	
Time Sampled:	12:15		12:15		11:50		11:50		11:50	
%Moisture:	35		35		23		23		27	
PH:	6.1		6.1		5.6		5.6		5.4	
Dilution Factor:	10.0		100.0		10.0		100.0		10.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	24	U	240	U	20	U	200	U	22	R
beta-BHC	24	U	240	U	20	U	200	U	22	R
delta-BHC	24	U	240	U	20	U	200	U	22	R
gamma-BHC (Lindane)	24	U	240	U	20	U	200	U	22	R
Heptachlor	24	U	240	U	20	U	200	U	22	R
Aldrin	24	U	240	U	20	U	200	U	22	R
Heptachlor Epoxide	24	U	240	U	20	U	200	U	22	R
Endosulfan I	24	U	240	U	20	U	200	U	22	R
Dieldrin	47	U	470	U	39	U	390	U	42	R
4,4'-DDE	47	U	470	U	39	U	390	U	42	R
Endrin	47	U	470	U	39	U	390	U	42	R
Endosulfan II	47	U	470	U	39	U	390	U	42	R
4,4'-DDD	47	U	470	U	39	U	390	U	42	R
Endosulfan Sulfate	47	U	470	U	39	U	390	U	42	R
4,4'-DDT	47	UJ	470	U	39	UJ	390	U	42	R
Methoxychlor	240	UJ	2400	U	200	UJ	2000	U	220	R
Endrin Ketone	47	U	470	U	39	U	390	U	42	R
Endrin Aldehyde	47	U	470	U	39	U	390	U	42	R
alpha-Chlordane	24	U	240	U	20	U	200	U	22	R
gamma-Chlordane	24	U	240	U	20	U	200	U	22	R
Toxaphene	2400	U	24000	U	2000	U	20000	U	2200	R
Aroclor-1016	470	U	4700	U	390	U	3900	U	420	R
Aroclor-1221	950	U	9500	U	800	U	8000	U	860	R
Aroclor-1232	470	U	4700	U	390	U	3900	U	420	R
Aroclor-1242	470	U	4700	U	390	U	3900	U	420	R
Aroclor-1248	470	U	4700	U	390	U	3900	U	420	R
Aroclor-1254	470	U	4700	U	390	U	3900	U	420	R
Aroclor-1260	470	U	4700	U	390	U	3900	U	420	R

Case #: 27024 SDG: ECRF4
Site: WESTON LION LANDFILL
Lab. : AATS
Reviewer:
Date:

Sample Number:	ECRG1DL		ECRG2		ECRG2DL		ECRG3		ECRG3DL	
Sampling Location:	X108		X109		X109		X201		X201	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Date Sampled:	05/18/99		05/18/99		05/18/99		05/18/99		05/18/99	
Time Sampled:	10:00		10:40		10:40		12:30		12:30	
%Moisture:	15		12		12		27		27	
PH:	5.7		6.5		6.5		6		6	
Dilution Factor:	100.0		10.0		100.0		10.0		100.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	190	U	18	U	180	U	22	U	220	U
beta-BHC	190	U	18	U	180	U	22	U	220	U
delta-BHC	190	U	18	U	180	U	22	U	220	U
gamma-BHC (Lindane)	190	U	18	U	180	U	22	U	220	U
Heptachlor	190	U	18	U	180	U	22	U	220	U
Aldrin	190	U	18	U	180	U	22	U	220	U
Heptachlor Epoxide	190	U	18	U	180	U	22	U	220	U
Endosulfan I	190	U	18	U	180	U	22	U	220	U
Dieldrin	370	U	35	U	350	U	42	U	420	U
4,4'-DDE	370	U	35	U	350	U	42	U	420	U
Endrin	370	U	35	U	350	U	42	U	420	U
Endosulfan II	370	U	35	U	350	U	42	U	420	U
4,4'-DDD	370	U	35	U	350	U	42	U	420	U
Endosulfan Sulfate	370	U	35	U	350	U	42	U	420	U
4,4'-DDT	370	U	35	UJ	350	U	42	UJ	420	U
Methoxychlor	1900	U	180	UJ	1800	U	220	UJ	2200	U
Endrin Ketone	370	U	35	U	350	U	42	U	420	U
Endrin Aldehyde	370	U	35	U	350	U	42	U	420	U
alpha-Chlordane	190	U	18	U	180	U	22	U	220	U
gamma-Chlordane	190	U	18	U	180	U	22	U	220	U
Toxaphene	19000	U	1800	U	18000	U	2200	U	22000	U
Aroclor-1016	3700	U	350	U	3500	U	420	U	4200	U
Aroclor-1221	7600	U	710	U	7100	U	860	U	8600	U
Aroclor-1232	3700	U	350	U	3500	U	420	U	4200	U
Aroclor-1242	3700	U	350	U	3500	U	420	U	4200	U
Aroclor-1248	3700	U	350	U	3500	U	420	U	4200	U
Aroclor-1254	3700	U	350	U	3500	U	420	U	4200	U
Aroclor-1260	3700	U	350	U	3500	U	420	U	4200	U

Case #: 27024 SDG: ECRF4
Site: WESTON LION LANDFILL
Lab. : AATS
Reviewer:
Date:

Sample Number:	ECRF9		ECRF9DL		ECRG0		ECRG0DL		ECRG1	
Sampling Location:	X106		X106		X107		X107		X108	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Date Sampled:	05/17/99		05/17/99		05/17/99		05/17/99		05/18/99	
Time Sampled:	15:45		15:45		16:15		16:15		10:00	
%Moisture:	23		23		16		16		15	
PH:	5.8		5.8		5.6		5.6		5.7	
Dilution Factor:	10.0		100.0		10.0		100.0		10.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	21	U	210	U	19	U	190	U	19	U
beta-BHC	21	U	210	U	19	U	190	U	19	U
delta-BHC	21	U	210	U	19	U	190	U	19	U
gamma-BHC (Lindane)	21	U	210	U	19	U	190	U	19	U
Heptachlor	21	U	210	U	19	U	190	U	19	U
Aldrin	21	U	210	U	19	U	190	U	19	U
Heptachlor Epoxide	21	U	210	U	19	U	190	U	19	U
Endosulfan I	21	U	210	U	19	U	190	U	19	U
Dieldrin	40	U	400	U	37	U	370	U	37	U
4,4'-DDE	40	U	400	U	37	U	370	U	37	U
Endrin	40	U	400	U	37	U	370	U	37	U
Endosulfan II	40	U	400	U	37	U	370	U	37	U
4,4'-DDD	40	U	400	U	37	U	370	U	37	U
Endosulfan Sulfate	40	U	400	U	37	U	370	U	37	U
4,4'-DDT	40	UJ	400	U	37	UJ	370	U	37	UJ
Methoxychlor	210	UJ	2100	U	190	UJ	1900	U	190	UJ
Endrin Ketone	40	U	400	U	37	U	370	U	37	U
Endrin Aldehyde	40	U	400	U	37	U	370	U	37	U
alpha-Chlordane	21	U	210	U	19	U	190	U	19	U
gamma-Chlordane	21	U	210	U	19	U	190	U	19	U
Toxaphene	2100	U	21000	U	1900	U	19000	U	1900	U
Aroclor-1016	400	U	4000	U	370	U	3700	U	370	U
Aroclor-1221	820	U	8200	U	750	U	7500	U	760	U
Aroclor-1232	400	U	4000	U	370	U	3700	U	370	U
Aroclor-1242	400	U	4000	U	370	U	3700	U	370	U
Aroclor-1248	400	U	4000	U	370	U	3700	U	370	U
Aroclor-1254	400	U	4000	U	370	U	3700	U	370	U
Aroclor-1260	400	U	4000	U	370	U	3700	U	370	U

Analytical Results (Qualified Data)

Case #: 27024 SDG: ECRF4
Site: WESTON LION LANDFILL
Lab. : AATS
Reviewer:
Date:

Sample Number:	ECRF6DL		ECRF7		ECRF7DL		ECRF8		ECRF8DL	
Sampling Location:	X103		X104		X104		X105		X105	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Date Sampled:	05/17/99		05/17/99		05/17/99		05/17/99		05/17/99	
Time Sampled:	14:15		15:00		15:00		15:30		15:30	
%Moisture:	16		26		26		17		17	
PH:	5.5		5.7		5.7		6.2		6.2	
Dilution Factor:	100.0		10.0		100.0		10.0		100.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	190	U	22	U	220	U	20	U	200	U
beta-BHC	190	U	22	U	220	U	20	U	200	U
delta-BHC	190	U	22	U	220	U	20	U	200	U
gamma-BHC (Lindane)	190	U	22	U	220	U	20	U	200	U
Heptachlor	190	U	22	U	220	U	20	U	200	U
Aldrin	190	U	22	U	220	U	20	U	200	U
Heptachlor Epoxide	190	U	22	U	220	U	20	U	200	U
Endosulfan I	190	U	22	U	220	U	20	U	200	U
Dieldrin	370	U	43	U	430	U	38	U	380	U
4,4'-DDE	370	U	43	U	430	U	38	U	380	U
Endrin	370	U	43	U	430	U	38	U	380	U
Endosulfan II	370	U	43	U	430	U	38	U	380	U
4,4'-DDD	370	U	43	U	430	U	38	U	380	U
Endosulfan Sulfate	370	U	43	U	430	U	38	U	380	U
4,4'-DDT	370	U	43	UJ	430	U	38	UJ	380	U
Methoxychlor	1900	U	220	UJ	2200	U	200	UJ	2000	U
Endrin Ketone	370	U	43	U	430	U	38	U	380	U
Endrin Aldehyde	370	U	43	U	430	U	38	U	380	U
alpha-Chlordane	190	U	22	U	220	U	20	U	200	U
gamma-Chlordane	190	U	22	U	220	U	20	U	200	U
Toxaphene	19000	U	2200	U	22000	U	2000	U	20000	U
Aroclor-1016	3700	U	430	U	4300	U	380	U	3800	U
Aroclor-1221	7400	U	880	U	8800	U	770	U	7700	U
Aroclor-1232	3700	U	430	U	4300	U	380	U	3800	U
Aroclor-1242	3700	U	430	U	4300	U	380	U	3800	U
Aroclor-1248	3700	U	430	U	4300	U	380	U	3800	U
Aroclor-1254	3700	U	430	U	4300	U	380	U	3800	U
Aroclor-1260	3700	U	430	U	4300	U	380	U	3800	U

Ca #: 27024
Site: WESTON LION LANDFILL
Lab. : AATS
Reviewer:
Date:

SDG: ECRF4
Number of Soil Samples : 14
Number of Water Samples : 0

Sample Number:	ECRF4		ECRF4DL		ECRF5		ECRF5DL		ECRF6	
Sampling Location:	X101		X101		X102		X102		X103	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Date Sampled:	05/17/99		05/17/99		05/17/99		05/17/99		05/17/99	
Time Sampled:	13:45		13:45		14:00		14:00		14:15	
%Moisture:	25		25		18		18		16	
PH:	6		6		5.9		5.9		5.5	
Dilution Factor:	10.0		100.0		10.0		100.0		10.0	
Pesticide/PCB Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
alpha-BHC	22	U	220	U	20	U	200	U	19	U
beta-BHC	22	U	220	U	20	U	200	U	19	U
delta-BHC	22	U	220	U	20	U	200	U	19	U
gamma-BHC (Lindane)	22	U	220	U	20	U	200	U	19	U
Heptachlor	22	U	220	U	20	U	200	U	19	U
Aldrin	22	U	220	U	20	U	200	U	19	U
Heptachlor Epoxide	22	U	220	U	20	U	200	U	19	U
Endosulfan I	22	U	220	U	20	U	200	U	19	U
Dieldrin	44	U	440	U	40	U	400	U	37	U
4,4'-DDE	44	U	440	U	40	U	400	U	37	U
Endrin	44	U	440	U	40	U	400	U	37	U
Endosulfan II	44	U	440	U	40	U	400	U	37	U
4,4'-DDD	44	U	440	U	40	U	400	U	37	U
Endosulfan Sulfate	44	U	440	U	40	U	400	U	37	U
4,4'-DDT	44	UJ	440	U	40	UJ	400	U	37	UJ
Methoxychlor	220	UJ	2200	U	200	UJ	2000	U	190	UJ
Endrin Ketone	44	U	440	U	40	U	400	U	37	U
Endrin Aldehyde	44	U	440	U	40	U	400	U	37	U
alpha-Chlordane	22	U	220	U	20	U	200	U	19	U
gamma-Chlordane	22	U	220	U	20	U	200	U	19	U
Toxaphene	2200	U	22000	U	2000	U	20000	U	1900	U
Aroclor-1016	440	U	4400	U	400	U	4000	U	370	U
Aroclor-1221	890	U	8900	U	810	U	8100	U	740	U
Aroclor-1232	440	U	4400	U	400	U	4000	U	370	U
Aroclor-1242	440	U	4400	U	400	U	4000	U	370	U
Aroclor-1248	440	U	4400	U	400	U	4000	U	370	U
Aroclor-1254	440	U	4400	U	400	U	4000	U	370	U
Aroclor-1260	440	U	4400	U	400	U	4000	U	370	U

Sample Number:	ECRG7MSD		SBLK1		SBLK2					
Sampling Location:	X205									
Matrix:	Soil		Soil		Soil					
Units:	ug/kg		ug/kg		ug/kg					
Date Sampled:	05/18/99									
Time Sampled:	11:00									
%Moisture:										
PH:	5.7		7		7					
Dilution Factor:	1.0		1.0		1.0					
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Acenaphthene	1600		330	U	330	U				
2,4-Dinitrophenol	1000	U	830	UJ	830	U				
4-Nitrophenol	2800		830	UJ	830	U				
Dibenzofuran	410	U	330	U	330	U				
2,4-Dinitrotoluene	1500		330	U	330	U				
Diethylphthalate	410	U	330	U	330	U				
4-Chlorophenyl-phenylethe	410	U	330	U	330	U				
Fluorene	410	U	330	U	330	U				
4-Nitroaniline	1000	U	830	UJ	830	U				
4,6-Dinitro-2-methylphenc	1000	U	830	UJ	830	U				
N-Nitrosodiphenylamine	410	U	330	U	330	U				
4-Bromophenyl-phenylether	410	U	330	U	330	U				
Hexachlorobenzene	410	U	330	U	330	U				
Pentachlorophenol	2700		830	U	830	U				
Phenanthrene	32	J	330	U	330	U				
Anthracene	410	U	330	U	330	U				
Carbazole	410	U	330	U	330	U				
Di-n-butylphthalate	410	U	330	U	330	U				
Fluoranthene	59	J	330	U	330	U				
Pyrene	2100		330	U	330	U				
Butylbenzylphthalate	52	J	330	U	330	U				
3,3'-Dichlorobenzidine	410	U	330	U	330	U				
Benzo(a)anthracene	35	J	330	U	330	U				
Chrysene	44	J	330	U	330	U				
bis(2-Ethylhexyl)phthalat	58	J	330	U	50	J				
Di-n-octylphthalate	410	U	330	UJ	330	U				
Benzo(b)fluoranthene	51	J	330	U	330	U				
Benzo(k)fluoranthene	43	J	330	U	330	U				
Benzo(a)pyrene	41	J	330	U	330	U				
Indeno(1,2,3-cd)pyrene	410	U	330	U	330	U				
Dibenz(a,h)anthracene	410	U	330	U	330	U				
Benzo(g,h,i)perylene	410	U	330	U	330	U				

Case #: 27024 SDG: ECRF4
Site: WESTON LION LANDFILL
Lab. : AATS
Reviewer: R. Kuhajda
Date: June 28, 1999

Sample Number:	ECRG7MSD		SBLK1		SBLK2					
Sampling Location:	X205									
Matrix:	Soil		Soil		Soil					
Units:	ug/kg		ug/kg		ug/kg					
Date Sampled:	05/18/99									
Time Sampled:	11:00									
%Moisture:	26									
PH:	5.7		7		7					
Dilution Factor:	1.0		1.0		1.0					
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Phenol	2200		330	U	330	U				
bis(2-Chloroethyl)ether	410	U	330	U	330	U				
2-Chlorophenol	2500		330	U	330	U				
1,3-Dichlorobenzene	410	U	330	U	330	U				
1,4-Dichlorobenzene	1400		330	U	330	U				
1,2-Dichlorobenzene	410	U	330	U	330	U				
2-Methylphenol	410	U	330	U	330	U				
2,2'-oxybis(1-chloropropa	410	U	330	U	330	U				
4-Methylphenol	410	U	330	U	330	U				
N-Nitroso-di-n-propylamir	1400		330	U	330	U				
Hexachloroethane	410	U	330	U	330	U				
Nitrobenzene	410	U	330	U	330	U				
Isophorone	410	U	330	U	330	U				
2-Nitrophenol	410	U	330	U	330	U				
2,4-Dimethylphenol	410	U	330	U	330	U				
bis(2-Chloroethoxy)methar	410	U	330	U	330	U				
2,4-Dichlorophenol	410	U	330	U	330	U				
1,2,4-Trichlorobenzene	1700		330	U	330	U				
Naphthalene	410	U	330	U	330	U				
4-Chloroaniline	410	U	330	U	330	U				
Hexachlorobutadiene	410	U	330	U	330	U				
4-Chloro-3-methylphenol	2800		330	U	330	U				
2-Methylnaphthalene	410	U	330	U	330	U				
Hexachlorocyclopentadiene	410	U	330	U	330	U				
2,4,6-Trichlorophenol	410	U	330	U	330	U				
2,4,5-Trichlorophenol	1000	U	830	U	830	U				
2-Chloronaphthalene	410	U	330	U	330	U				
2-Nitroaniline	1000	U	830	U	830	U				
Dimethylphthalate	410	U	330	U	330	U				
Acenaphthylene	410	U	330	U	330	U				
2,6-Dinitrotoluene	410	U	330	U	330	U				
3-Nitroaniline	1000	U	830	U	830	U				

Sample Number:	ECRG4		ECRG5		ECRG6		ECRG7		ECRG7MS	
Sampling Location:	X202		X203		X204		X205		X205	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Date Sampled:	05/18/99		05/18/99		05/18/99		05/18/99		05/18/99	
Time Sampled:	12:15		11:50		11:50		11:00		11:00	
%Moisture:										
PH:	6.1		5.6		5.4		5.7		5.7	
Dilution Factor:	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Acenaphthene	480	U	400	U	430	U	420	UJ	1300	
2,4-Dinitrophenol	1200	UJ	1000	UJ	1100	U	1000	U	1100	U
4-Nitrophenol	1200	UJ	1000	UJ	1100	U	1000	U	2200	
Dibenzofuran	480	U	400	U	430	U	420	U	430	U
2,4-Dinitrotoluene	480	U	400	U	430	U	420	U	1200	
Diethylphthalate	480	U	400	U	430	U	420	U	430	U
4-Chlorophenyl-phenylethe	480	U	400	U	430	U	420	U	430	U
Fluorene	480	U	400	U	430	U	420	U	430	U
4-Nitroaniline	1200	UJ	1000	UJ	1100	U	1000	U	1100	U
4,6-Dinitro-2-methylphenc	1200	UJ	1000	UJ	1100	U	1000	U	1100	U
N-Nitrosodiphenylamine	480	U	400	U	430	U	420	U	430	U
4-Bromophenyl-phenylethe	480	U	400	U	430	U	420	U	430	U
Hexachlorobenzene	480	U	400	U	430	U	420	U	430	U
Pentachlorophenol	1200	U	1000	U	1100	U	1000	U	2000	
Phenanthrene	480	U	400	U	50	J	24	J	430	U
Anthracene	480	U	400	U	430	U	420	U	430	U
Carbazole	480	U	400	U	430	U	420	U	430	U
Di-n-butylphthalate	480	U	400	U	430	U	420	U	430	U
Fluoranthene	480	U	400	U	75	J	51	J	42	J
Pyrene	480	U	400	U	78	J	54	J	1600	
Butylbenzylphthalate	61	J	62	J	62	J	47	J	48	J
3,3'-Dichlorobenzidine	480	U	400	U	430	U	420	U	430	U
Benzo(a)anthracene	480	U	400	U	42	J	28	J	26	J
Chrysene	480	U	400	U	47	J	33	J	30	J
bis(2-Ethylhexyl)phthalat	160	J	310	J	630		54	J	53	J
Di-n-octylphthalate	480	UJ	400	UJ	430	U	420	U	430	U
Benzo(b)fluoranthene	480	U	400	U	53	J	42	J	35	J
Benzo(k)fluoranthene	480	U	400	U	43	J	32	J	35	J
Benzo(a)pyrene	480	U	400	U	47	J	31	J	28	J
Indeno(1,2,3-cd)pyrene	480	U	400	U	430	U	420	U	430	U
Dibenz(a,h)anthracene	480	U	400	U	430	U	420	U	430	U
Benzo(g,h,i)perylene	480	U	400	U	430	U	420	U	430	U

Case #: 27024 SDG: ECRF4
Site: WESTON LION LANDFILL
Lab. : AATS
Reviewer: R. Kuhajda
Date: June 28, 1999

Sample Number:	ECRG4		ECRG5		ECRG6		ECRG7		ECRG7MS	
Sampling Location:	X202		X203		X204		X205		X205	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Date Sampled:	05/18/99		05/18/99		05/18/99		05/18/99		05/18/99	
Time Sampled:	12:15		11:50		11:50		11:00		11:00	
%Moisture:	35		23		27		26		26	
PH:	6.1		5.6		5.4		5.7		5.7	
Dilution Factor:	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Phenol	480	U	400	U	430	U	420	U	1900	
bis(2-Chloroethyl)ether	480	U	400	U	430	U	420	U	430	U
2-Chlorophenol	480	U	400	U	430	U	420	U	2300	
1,3-Dichlorobenzene	480	U	400	U	430	U	420	U	430	U
1,4-Dichlorobenzene	480	U	26	J	26	J	420	U	1200	
1,2-Dichlorobenzene	480	U	400	U	430	U	420	U	430	U
2-Methylphenol	480	U	400	U	430	U	420	U	430	U
2,2'-oxybis(1-chloropropa	480	U	400	U	430	U	420	U	430	U
4-Methylphenol	480	U	400	U	430	U	420	U	430	U
N-Nitroso-di-n-propylamir	480	U	400	U	430	U	420	UJ	1000	
Hexachloroethane	480	U	400	U	430	U	420	U	430	U
Nitrobenzene	480	U	400	U	430	U	420	U	430	U
Isophorone	480	U	400	U	430	U	420	U	430	U
2-Nitrophenol	480	U	400	U	430	U	420	U	430	U
2,4-Dimethylphenol	480	U	400	U	430	U	420	U	430	U
bis(2-Chloroethoxy)methar	480	U	400	U	430	U	420	U	430	U
2,4-Dichlorophenol	480	U	400	U	430	U	420	U	430	U
1,2,4-Trichlorobenzene	480	U	400	U	430	U	420	U	1400	
Naphthalene	480	U	400	U	430	U	420	U	430	U
4-Chloroaniline	480	U	400	U	430	U	420	U	430	U
Hexachlorobutadiene	480	U	400	U	430	U	420	U	430	U
4-Chloro-3-methylphenol	480	U	400	U	430	U	420	U	2400	
2-Methylnaphthalene	480	U	400	U	430	U	420	U	430	U
Hexachlorocyclopentadiene	480	U	400	U	430	U	420	U	430	U
2,4,6-Trichlorophenol	480	U	400	U	430	U	420	U	430	U
2,4,5-Trichlorophenol	1200	U	1000	U	1100	U	1000	U	1100	U
2-Chloronaphthalene	480	U	400	U	430	U	420	U	430	U
2-Nitroaniline	1200	U	1000	U	1100	U	1000	U	1100	U
Dimethylphthalate	480	U	400	U	430	U	420	U	430	U
Acenaphthylene	480	U	400	U	430	U	420	U	430	U
2,6-Dinitrotoluene	480	U	400	U	430	U	420	U	430	U
3-Nitroaniline	1200	U	1000	U	1100	U	1000	U	1100	U

Sample Number:	ECRF9		ECRG0		ECRG1		ECRG2		ECRG3	
Sampling Location:	X106		X107		X108		X109		X201	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Date Sampled:	05/17/99		05/17/99		05/18/99		05/18/99		05/18/99	
Time Sampled:	15:45		16:15		10:00		10:40		12:30	
%Moisture:										
PH:	5.8		5.6		5.7		6.5		6	
Dilution Factor:	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Acenaphthene	410	U	390	U	25	J	31	J	420	U
2,4-Dinitrophenol	1000	UJ	980	UJ	920	UJ	880	UJ	1100	UJ
4-Nitrophenol	1000	UJ	980	UJ	920	UJ	880	UJ	1100	UJ
Dibenzofuran	410	U	390	U	360	U	350	U	420	U
2,4-Dinitrotoluene	410	U	390	U	360	U	350	U	420	U
Diethylphthalate	410	U	390	U	360	U	350	U	420	U
4-Chlorophenyl-phenylethe	410	U	390	U	360	U	350	U	420	U
Fluorene	410	U	390	U	23	J	20	J	420	U
4-Nitroaniline	1000	UJ	980	UJ	920	UJ	880	UJ	1100	UJ
4,6-Dinitro-2-methylphenc	1000	UJ	980	UJ	920	UJ	880	UJ	1100	UJ
N-Nitrosodiphenylamine	410	U	390	U	360	U	350	U	420	U
4-Bromophenyl-phenylether	410	U	390	U	360	U	350	U	420	U
Hexachlorobenzene	410	U	390	U	360	U	350	U	420	U
Pentachlorophenol	1000	U	980	U	920	U	880	U	1100	U
Phenanthrene	100	J	150	J	260	J	280	J	420	U
Anthracene	410	U	390	U	52	J	64	J	420	U
Carbazole	410	U	390	U	360	U	350	U	420	U
Di-n-butylphthalate	410	U	390	U	360	U	350	U	420	U
Fluoranthene	160	J	300	J	420		540		420	U
Pyrene	140	J	240	J	390		460		420	U
Butylbenzylphthalate	75	J	48	J	45	J	48	J	61	J
3,3'-Dichlorobenzidine	410	U	390	U	360	U	350	U	420	U
Benzo(a)anthracene	92	J	120	J	210	J	290	J	32	J
Chrysene	80	J	160	J	200	J	290	J	420	U
bis(2-Ethylhexyl)phthalat	250	J	58	J	140	J	53	J	70	J
Di-n-octylphthalate	410	UJ	390	UJ	360	UJ	350	UJ	420	UJ
Benzo(b)fluoranthene	71	J	120	J	200	J	310	J	420	U
Benzo(k)fluoranthene	68	J	130	J	160	J	200	J	420	U
Benzo(a)pyrene	81	J	130	J	200	J	290	J	420	U
Indeno(1,2,3-cd)pyrene	410	U	110	J	160	J	250	J	420	U
Dibenz(a,h)anthracene	410	U	390	U	360	U	350	U	420	U
Benzo(g,h,i)perylene	410	U	96	J	130	J	180	J	420	U

Case #: 27024 SDG: ECRF4
Site: WESTON LION LANDFILL
Lab. : AATS
Reviewer: R. Kuhajda
Date: June 28, 1999

Sample Number:	ECRF9		ECRG0		ECRG1		ECRG2		ECRG3	
Sampling Location:	X106		X107		X108		X109		X201	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Date Sampled:	05/17/99		05/17/99		05/18/99		05/18/99		05/18/99	
Time Sampled:	15:45		16:15		10:00		10:40		12:30	
%Moisture:	23		16		15		12		27	
PH:	5.8		5.6		5.7		6.5		6	
Dilution Factor:	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Phenol	410	U	390	U	360	U	350	U	420	U
bis(2-Chloroethyl)ether	410	U	390	U	360	U	350	U	420	U
2-Chlorophenol	410	U	390	U	360	U	350	U	420	U
1,3-Dichlorobenzene	410	U	390	U	360	U	350	U	420	U
1,4-Dichlorobenzene	410	U	390	U	360	U	350	U	420	U
1,2-Dichlorobenzene	410	U	390	U	360	U	350	U	420	U
2-Methylphenol	410	U	390	U	360	U	350	U	420	U
2,2'-oxybis(1-chloropropa	410	U	390	U	360	U	350	U	420	U
4-Methylphenol	410	U	390	U	360	U	350	U	420	U
N-Nitroso-di-n-propylamir	410	U	390	U	360	U	350	U	420	U
Hexachloroethane	410	U	390	U	360	U	350	U	420	U
Nitrobenzene	410	U	390	U	360	U	350	U	420	U
Isophorone	410	U	390	U	360	U	350	U	420	U
2-Nitrophenol	410	U	390	U	360	U	350	U	420	U
2,4-Dimethylphenol	410	U	390	U	360	U	350	U	420	U
bis(2-Chloroethoxy)methar	410	U	390	U	360	U	350	U	420	U
2,4-Dichlorophenol	410	U	390	U	360	U	350	U	420	U
1,2,4-Trichlorobenzene	410	U	390	U	360	U	350	U	420	U
Naphthalene	410	U	390	U	360	U	350	U	420	U
4-Chloroaniline	410	U	390	U	360	U	350	U	420	U
Hexachlorobutadiene	410	U	390	U	360	U	350	U	420	U
4-Chloro-3-methylphenol	410	U	390	U	360	U	350	U	420	U
2-Methylnaphthalene	410	U	390	U	360	U	350	U	420	U
Hexachlorocyclopentadiene	410	U	390	U	360	U	350	U	420	U
2,4,6-Trichlorophenol	410	U	390	U	360	U	350	U	420	U
2,4,5-Trichlorophenol	1000	U	980	U	920	U	880	U	1100	U
2-Chloronaphthalene	410	U	390	U	360	U	350	U	420	U
2-Nitroaniline	1000	U	980	U	920	U	880	U	1100	U
Dimethylphthalate	410	U	390	U	360	U	350	U	420	U
Acenaphthylene	410	U	390	U	360	U	350	U	420	U
2,6-Dinitrotoluene	410	U	390	U	360	U	350	U	420	U
3-Nitroaniline	1000	U	980	U	920	U	880	U	1100	U

Sample Number:	ECRF4		ECRF5		ECRF6		ECRF7		ECRF8	
Sampling Location:	X101		X102		X103		X104		X105	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Date Sampled:	05/17/99		05/17/99		05/17/99		05/17/99		05/17/99	
Time Sampled:	13:45		14:00		14:15		15:00		15:30	
%Moisture:										
PH:	6		5.9		5.5		5.7		7	
Dilution Factor:	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Acenaphthene	59	J	380	U	370	U	420	U	390	U
2,4-Dinitrophenol	1000	UJ	950	UJ	930	UJ	1000	UJ	980	U
4-Nitrophenol	1000	UJ	950	UJ	930	UJ	1000	UJ	980	U
Dibenzofuran	420	U	380	U	370	U	420	U	390	U
2,4-Dinitrotoluene	420	U	380	U	370	U	420	U	390	U
Diethylphthalate	420	U	380	U	370	U	420	U	390	U
4-Chlorophenyl-phenylethe	420	U	380	U	370	U	420	U	390	U
Fluorene	49	J	380	U	370	U	420	U	390	U
4-Nitroaniline	1000	UJ	950	UJ	930	UJ	1000	UJ	980	U
4,6-Dinitro-2-methylphenc	1000	UJ	950	UJ	930	UJ	1000	UJ	980	U
N-Nitrosodiphenylamine	420	U	380	U	370	U	420	U	390	U
4-Bromophenyl-phenylether	420	U	380	U	370	U	420	U	390	U
Hexachlorobenzene	420	U	380	U	370	U	420	U	390	U
Pentachlorophenol	1000	U	950	U	930	U	1000	U	980	U
Phenanthrene	550		380	U	90	J	420	U	55	J
Anthracene	160	J	380	U	370	U	420	U	390	U
Carbazole	57	J	380	U	370	U	420	U	390	U
Di-n-butylphthalate	420	U	380	U	370	U	420	U	390	U
Fluoranthene	860		380	U	98	J	420	U	71	J
Pyrene	660		380	U	100	J	420	U	72	J
Butylbenzylphthalate	76	J	380	U	25	J	54	J	390	U
3,3'-Dichlorobenzidine	420	U	380	U	370	U	420	U	390	U
Benzo(a)anthracene	480		380	U	370	U	420	U	34	J
Chrysene	460		380	U	52	J	420	U	41	J
bis(2-Ethylhexyl)phthalat	230	J	380	U	100	J	420	U	390	U
Di-n-octylphthalate	420	UJ	380	UJ	370	UJ	420	UJ	390	U
Benzo(b)fluoranthene	440		380	U	58	J	420	U	36	J
Benzo(k)fluoranthene	310	J	380	U	25	J	420	U	37	J
Benzo(a)pyrene	450		380	U	45	J	420	U	33	J
Indeno(1,2,3-cd)pyrene	310	J	380	U	370	U	420	U	390	U
Dibenz(a,h)anthracene	74	J	380	U	370	U	420	U	390	U
Benzo(g,h,i)perylene	240	J	380	U	370	U	420	U	20	J

C #: 27024
Site:
Lab. :
Reviewer:
Date:

SDG: ECRF4
WESTON LION LANDFILL
AATS
R. Kuhajda
June 28, 1999

Number of Soil Samples : 14
Number of Water Samples : 0

Sample Number:	ECRF4		ECRF5		ECRF6		ECRF7		ECRF8	
Sampling Location:	X101		X102		X103		X104		X105	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	ug/kg		ug/kg		ug/kg		ug/kg		ug/kg	
Date Sampled:	05/17/99		05/17/99		05/17/99		05/17/99		05/17/99	
Time Sampled:	13:45		14:00		14:15		15:00		15:30	
%Moisture:	25		18		16		26		17	
PH:	6		5.9		5.5		5.7		7	
Dilution Factor:	1.0		1.0		1.0		1.0		1.0	
Semivolatile Compound	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Phenol	420	U	380	U	370	U	420	U	390	U
bis(2-Chloroethyl)ether	420	U	380	U	370	U	420	U	390	U
2-Chlorophenol	420	U	380	U	370	U	420	U	390	U
1,3-Dichlorobenzene	420	U	380	U	370	U	420	U	390	U
1,4-Dichlorobenzene	420	U	380	U	370	U	420	U	390	U
1,2-Dichlorobenzene	420	U	380	U	370	U	420	U	390	U
2-Methylphenol	420	U	380	U	370	U	420	U	390	U
2,2'-oxybis(1-chloropropa	420	U	380	U	370	U	420	U	390	U
4-Methylphenol	420	U	380	U	370	U	420	U	390	U
N-nitroso-di-n-propylamir	420	U	380	U	370	U	420	U	390	U
Hexachloroethane	420	U	380	U	370	U	420	U	390	U
Nitrobenzene	420	U	380	U	370	U	420	U	390	U
Isophorone	420	U	380	U	370	U	420	U	390	U
2-Nitrophenol	420	U	380	U	370	U	420	U	390	U
2,4-Dimethylphenol	420	U	380	U	370	U	420	U	390	U
bis(2-Chloroethoxy)methar	420	U	380	U	370	U	420	U	390	U
2,4-Dichlorophenol	420	U	380	U	370	U	420	U	390	U
1,2,4-Trichlorobenzene	420	U	380	U	370	U	420	U	390	U
Naphthalene	420	U	380	U	370	U	420	U	390	U
4-Chloroaniline	420	U	380	U	370	U	420	U	390	U
Hexachlorobutadiene	420	U	380	U	370	U	420	U	390	U
4-Chloro-3-methylphenol	420	U	380	U	370	U	420	U	390	U
2-Methylnaphthalene	420	U	380	U	370	U	420	U	390	U
Hexachlorocyclopentadiene	420	U	380	U	370	U	420	U	390	U
2,4,6-Trichlorophenol	420	U	380	U	370	U	420	U	390	U
2,4,5-Trichlorophenol	1000	U	950	U	930	U	1000	U	980	U
2-Chloronaphthalene	420	U	380	U	370	U	420	U	390	U
2-Nitroaniline	1000	U	950	U	930	U	1000	U	980	U
Dimethylphthalate	420	U	380	U	370	U	420	U	390	U
Acenaphthylene	63	J	380	U	37	J	420	U	39	J
2,6-Dinitrotoluene	420	U	380	U	370	U	420	U	390	U
3-Nitroaniline	1000	U	950	U	930	U	1000	U	980	U

CADRE Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The anlayte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification.
NJ	The analysis indicates the present of an analyte for which there is presumptive evidence to make a tentative identification and the associated numerical value represents its approximate concentration.
R	The data are unusable. (The compound may or may not be present)
H	Sample result is estimated and biased high.
L	Sample result is estimated and biased low.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: June 28, 1999

SUBJECT: Review of Data
Received for Review on June 10, 1999

FROM: Stephen L. Ostrodka, Chief (SRT-4J)
Superfund Technical Support Section

for Steve Ostrodka
Richard L Bojnik
7/8/99

TO: Data User: IEPA

We have reviewed the data for the following case:

SITE NAME: Weston Lion LF (IL)

CASE NUMBER: 27024 SDG NUMBER: ECRF4

Number and Type of Samples: 14 soils

Sample Numbers: ECFR4-9, ECRG0-7

Laboratory: AATS Hrs. for Review: 9.5 + 1.0 wd

Following are our findings:

the data are usable and acceptable with the qualifications described in the attached narrative.

Richard L Bojnik

RECEIVED
JUL 16 1999
IEPA-BOL-FSRS

CC: Regional TPO
Cecilia Moore
SM-5J

C: Number :27024
Site Name: Weston Lion LF

SDG Number: ECRF4
Laboratory: AATS

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

Fourteen soil samples, numbered ECRF4 through 9 and ECRG0 through 7, were collected on May 17 and 18, 1999. The lab received the samples on May 19, 1999 in good condition. All samples were analyzed for semivolatile and pesticide/PCB organic analytes. All.were analyzed according to CLP SOW OLM03.2.

Reviewed By: Robert D. Kuhajda
Date: June 28, 1999

Case Number :27024 **SDG Number: ECRF4**
Site Name: Weston Lion LF **Laboratory: AATS**

1. HOLDING TIME

No problems found for this qualification.

2. GC/MS TUNING AND GC INSTRUMENT PERFORMANCE

No problems found for this qualification.

3. CALIBRATION

The following semivolatile samples are associated with a continuing calibration percent difference (%D) outside primary criteria. Hits are qualified "J" and non-detects are qualified "UJ".

2,4-Dinitrophenol; 4-Nitrophenol; 4-Nitroaniline;
4,6-Dinitro-2-methylphenol; Di-n-octylphthalate
ECRF4, ECRF5, ECRF6, ECRF7, ECRF9, ECRG0
ECRG1, ECRG2, ECRG3, ECRG4, ECRG5, SBLK1

The RPD in the pesticide fraction between the nominal and the calculated amount of an analyte in the midpoint INDA/INDB exceeded criteria. Hits are qualified "J" and non-detects are qualified "UJ".

ECRF4, ECRF5, ECRF6, ECRF7, ECRF8, ECRF9, ECRG0, ECRG1, ECRG2,
ECRG3, ECRG4, ECRG5, ECRG6, ECRG7, ECRG7MS, ECRG7MSD
4,4'-DDT, Methoxychlor

4. BLANKS

The following semivolatile samples have analyte concentrations reported below the CRQL and less than or equal to ten times (10X) the associated method blank concentration. Reported sample concentrations have been elevated to the CRQL. Hits are qualified "U" and non-detects are not flagged.

bis(2-Ethylhexyl)phthalate
ECRF8

5. SYSTEM MONITORING COMPOUND AND SURROGATE RECOVERY

In the semivolatile sample ECRG3 the surrogate phenol-d5 recovery was below the QC limits. One surrogate out of control limits per fraction is acceptable. No qualification is required. The following pesticide samples have surrogate percent recoveries which exceed the upper limit of the

Reviewed By: Robert D. Kuhajda
Date: June 28, 1999

Case Number :27024 **SDG Number: ECRF4**
Si Name: Weston Lion LF **Laboratory: AATS**

criteria window. Hits are qualified "J" and non-detects are not flagged.

ECRF4, ECRG2

The following pesticide sample has a surrogate with 0%R. Hits are qualified "J" and non-detects are flagged "R" because the surrogate recovery was less than 10%.
ECRG6

The laboratory flagged only out of control surrogates at the lower dilution level as "D", diluted out. The surrogates were obviously present in the raw data. Flagging only out of control data as "diluted out" is very bad laboratory practice.

Sample ECRG6 reported one surrogate with 0%R. The peak was present in the raw data. The analyst did not look at the data. All pesticide data is suspect, other peaks for target compounds may have been missed.

6. MATRIX SPIKE/MATRIX SPIKE DUPLICATE

The relative percent difference (RPD) between the following semivolatile matrix spike and matrix spike duplicate recoveries is outside criteria. Hits are qualified "J" and non-detects are flagged "UJ" in the unspiked sample.

ECRG7MS, ECRG7MSD
N-Nitroso-di-n-propylamine, Acenaphthene

7. FIELD BLANK AND FIELD DUPLICATE

No field blank was submitted. Sample ECRG0 is a field duplicate of sample ECRG1. Results are not qualified based upon the results of the field blank or field duplicates.

8. INTERNAL STANDARDS

No problems found for this qualification.

9. COMPOUND IDENTIFICATION

After reviewing the mass spectra and chromatograms it appears that all SVOA, and Pesticide/PCB compounds were properly identified.

10. COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS

Reviewed By: Robert D. Kuhajda
Date: June 28, 1999

Case Number :27024 **SDG Number: ECRF4**
Site Name: Weston Lion LF **Laboratory: AATS**

The following semivolatile samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

ECRF4
Acenaphthylene, Acenaphthene, Fluorene, Anthracene
Carbazole, Butylbenzylphthalate, bis(2-Ethylhexyl)phthalate,
Benzo(k)fluoranthene
Indeno(1,2,3-cd)pyrene, Dibenz(a,h)anthracene,
Benzo(g,h,i)perylene

ECRF6
Acenaphthylene, Phenanthrene, Fluoranthene, Pyrene
Butylbenzylphthalate, Chrysene, bis(2-Ethylhexyl)phthalate,
Benzo(b)fluoranthene
Benzo(k)fluoranthene, Benzo(a)pyrene

ECRF7
Butylbenzylphthalate

ECRF8
Acenaphthylene, Phenanthrene, Fluoranthene, Pyrene
Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene
Benzo(k)fluoranthene, Benzo(a)pyrene, Benzo(g,h,i)perylene

ECRF9
Phenanthrene, Fluoranthene, Pyrene, Butylbenzylphthalate
Benzo(a)anthracene, Chrysene, bis(2-Ethylhexyl)phthalate,
Benzo(b)fluoranthene
Benzo(k)fluoranthene, Benzo(a)pyrene

ECRG0
Phenanthrene, Fluoranthene, Pyrene, Butylbenzylphthalate
Benzo(a)anthracene, Chrysene, bis(2-Ethylhexyl)phthalate,
Benzo(b)fluoranthene
Benzo(k)fluoranthene, Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene,
Benzo(g,h,i)perylene

ECRG1
Acenaphthene, Fluorene, Phenanthrene, Anthracene
Butylbenzylphthalate, Benzo(a)anthracene, Chrysene,
bis(2-Ethylhexyl)phthalate
Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene,
Indeno(1,2,3-cd)pyrene
Benzo(g,h,i)perylene

ECRG2
Acenaphthene, Fluorene, Phenanthrene, Anthracene

Reviewed By: Robert D. Kuhajda
Date: June 28, 1999

Case Number :27024 **SDG Number: ECRF4**
Site Name: Weston Lion LF **Laboratory: AATS**

Butylbenzylphthalate, Benzo(a)anthracene, Chrysene,
bis(2-Ethylhexyl)phthalate
Benzo(b)fluoranthene, Benzo(k)fluoranthene, Benzo(a)pyrene,
Indeno(1,2,3-cd)pyrene
Benzo(g,h,i)perylene

ECRG3
Butylbenzylphthalate, Benzo(a)anthracene,
bis(2-Ethylhexyl)phthalate

ECRG4
Butylbenzylphthalate, bis(2-Ethylhexyl)phthalate

ECRG5
1,4-Dichlorobenzene, Butylbenzylphthalate,
bis(2-Ethylhexyl)phthalate

ECRG6
1,4-Dichlorobenzene, Phenanthrene, Fluoranthene, Pyrene
Butylbenzylphthalate, Benzo(a)anthracene, Chrysene,
Benzo(b)fluoranthene
Benzo(k)fluoranthene, Benzo(a)pyrene

ECRG7
Phenanthrene, Fluoranthene, Pyrene, Butylbenzylphthalate
Benzo(a)anthracene, Chrysene, bis(2-Ethylhexyl)phthalate,
Benzo(b)fluoranthene
Benzo(k)fluoranthene, Benzo(a)pyrene

ECRG7MS
Fluoranthene, Butylbenzylphthalate, Benzo(a)anthracene, Chrysene
bis(2-Ethylhexyl)phthalate, Benzo(b)fluoranthene,
Benzo(k)fluoranthene, Benzo(a)pyrene

ECRG7MSD
Phenanthrene, Fluoranthene, Butylbenzylphthalate,
Benzo(a)anthracene
Chrysene, bis(2-Ethylhexyl)phthalate, Benzo(b)fluoranthene,
Benzo(k)fluoranthene
Benzo(a)pyrene

SBLK2
bis(2-Ethylhexyl)phthalate

The following pesticide samples have analyte concentrations below the quantitation limit (CRQL). All results below the CRQL are qualified "J".

Reviewed By: Robert D. Kuhajda
Date: June 28, 1999

Case Number :27024
Site Name: Weston Lion LF

SDG Number: ECRF4
Laboratory: AATS

ECRG7MS
gamma-BHC (Lindane), Heptachlor, Aldrin, Dieldrin
Endrin, 4,4'-DDT

ECRG7MSD
gamma-BHC (Lindane), Heptachlor, Aldrin, Dieldrin
Endrin, 4,4'-DDT

11. SYSTEM PERFORMANCE

GC/MS baseline indicated acceptable performance. The GC baseline for the pesticide analysis was acceptable.

12. ADDITIONAL INFORMATION

The laboratory flagged only out of control surrogates at the lower dilution level as "D", diluted out in the pesticide fraction. The surrogates were obviously present in the raw data. Flagging only out of control data as "diluted out" is very bad laboratory practice.

Sample ECRG0 reported one surrogate with 0%R. The peak was present in the raw data. The analyst did not look at the data. All pesticide data is suspect, other peaks for target compounds may have been missed.

Reviewed By: Robert D. Kuhajda
Date: June 28, 1999

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 06-29-99

SUBJECT: **Review of Data**
Received for Review on June 18, 1999

FROM: **Stephen L. Ostrodka, Chief (SRT-4J)** / LF
Superfund Technical Support Section

TO: Data User: IEPA

We have reviewed the data by CADRE for the following case:

Site name: Weston Lion LF (IL)

Case number: 27024 **SDG number:** MEBFL4

Number and Type of Samples: 14 soil samples

Sample Numbers: MEBFL4-MEBFL9, MEBFM0-MEBFM7

Laboratory: SWOK **Hrs. for Review:** 9 hrs + ½

Following are our findings:

All data are usable with the qualifications described in the attached narrative.

L. Finkelberg
06-29-99

CC: Cecilia Luckett
Region 5 TPO
Mail Code: SM-5J

Case Number: 27024 **SDG Number: MEBFL4**
Site Name: Weston Lion LF (IL) **Laboratory: SWOK**

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

Fourteen (14) soil samples, numbered MEBFL4-MEBFL9, MEBFM0-MEBFM7 were collected on 05/17-18/99. The lab received the samples on 05/19/99 in good condition. All samples were analyzed for metals and cyanide. All samples were analyzed using CLP SOW ILM04.0 analysis procedure.

Mercury analysis was performed using a Cold Vapor AA Technique. Cyanide analysis was performed using MIDI Distillation procedure. The remaining inorganic analyses were performed using an Inductively Coupled Plasma-Atomic Emission Spectrometric procedure.

Prepared By: Steffanie Tobin (Lockheed/ESAT)
Date: June 23, 1999

Case Number: 27024
Site Name: Weston Lion LF (IL)

SDG Number: MEBFL4
Laboratory: SWOK

1. HOLDING TIME:

HOLDING TIME CRITERIA

Inorganic

	-- Holding Time --		------- pH -------	
	Primary	Expanded	Primary	Expanded
Metals	180	0	2.0	0.0
Mercury	28	0	2.0	0.0
Cyanide	14	0	12.0	0.0

DC-280: The following inorganic soil samples were reviewed for holding time violations using criteria developed for water samples.

MEBFL4, MEBFL5, MEBFL6, MEBFL7, MEBFL8, MEBFL9, MEBFM0, MEBFM1, MEBFM2, MEBFM3, MEBFM4, MEBFM5, MEBFM6, MEBFM7

No problems were found for this qualification.

2. CALIBRATIONS:

CALIBRATION CRITERIA

Inorganic

Percent Recovery Limits

	--- Primary ---		-- Expanded ---	
	Low	High	Low	High
Cyanide	85.00	115.00	70.00	130.00
AA	90.00	110.00	75.00	125.00
ICP	90.00	110.00	75.00	125.00
Mercury	80.00	120.00	65.00	135.00

No problems were found for this qualification.

3. BLANKS:

LABORATORY BLANKS CRITERIA

Case Number: 27024 **SDG Number: MEBFL4**
Site Name: Weston Lion LF (IL) **Laboratory: SWOK**

The following inorganic samples are associated with a negative blank concentration whose absolute value is greater than the instrument detection limit (IDL). The sample concentration is greater than the IDL and less than five times the absolute value of the blank concentration. Hits are qualified "J". Some non-detect concentration readings are sufficiently high that the negative blank reading may have caused the IDL to be elevated. These non-detects are flagged "UJ".

Mercury
MEBFL4, MEBFL6, MEBFL7 , MEBFM3
MEBFM4, MEBFM5, MEBFM6, MEBFM7

DC-284: The following inorganic samples are associated with a blank concentration which is greater than the instrument detection limit (IDL). The sample concentration is also greater than the IDL and less than five times the blank concentration. Hits are qualified "J" and non-detects are not flagged.

Cyanide
MEBFL4, MEBFL5, MEBFL6, MEBFL7, MEBFL8, MEBFL9,
MEBFM1, MEBFM3, MEBFM5, MEBFM6, MEBFM7

DC-338: During review of the following inorganic samples, the reported IDL/default CRDL value was used for cyanide.

MEBFL4, MEBFL5, MEBFL6, MEBFL7, MEBFL8, MEBFL9, MEBFM0,
MEBFM1, MEBFM2, MEBFM3, MEBFM4, MEBFM5, MEBFM6, MEBFM7

4. MATRIX SPIKE/MATRIX SPIKE DUPLICATE AND LAB CONTROL SAMPLE:

MATRIX SPIKE CRITERIA

Inorganic

Percent Recovery Limits

Upper	125.0
Lower	75.0
Extreme lower	30.0

DC-267: The following inorganic samples are associated with a matrix spike recovery which is high (>125%). Hits are qualified "J" and non-detects are not flagged.

Lead
MEBFL4, MEBFL5, MEBFL6, MEBFL7, MEBFL8, MEBFL9, MEBFM0,
MEBFM1, MEBFM2, MEBFM3, MEBFM4, MEBFM5, MEBFM6, MEBFM7

Case Number: 27024 **SDG Number: MEBFL4**
Site Name: Weston Lion LF (IL) **Laboratory: SWOK**

DC-268: The following inorganic samples are associated with a matrix spike recovery which is low (30-74 %) indicating that sample results may be biased low. Hits are qualified "J" and non-detects are qualified "UJ".

Arsenic
MEBFL4, MEBFL5, MEBFL6, MEBFL7, MEBFL8, MEBFL9, MEBFM0, MEBFM1, MEBFM2, MEBFM3, MEBFM4, MEBFM5, MEBFM6, MEBFM7

Cyanide
MEBFL4, MEBFL5, MEBFL6, MEBFL7, MEBFL8, MEBFL9, MEBFM0, MEBFM1, MEBFM2, MEBFM3, MEBFM4, MEBFM5, MEBFM6, MEBFM7

5. LABORATORY AND FIELD DUPLICATE

DC-256: The following inorganic samples are associated with duplicate results which did not meet relative percent difference (RPD) control. Hits and non-detects are qualified "J".

Aluminum
MEBFL4, MEBFL5, MEBFL6, MEBFL7, MEBFL8, MEBFL9
MEBFM0, MEBFM1, MEBFM2, MEBFM3, MEBFM4, MEBFM5
MEBFM6, MEBFM7

Lead
MEBFL4, MEBFL5, MEBFL6, MEBFL7, MEBFL8, MEBFL9
MEBFM0, MEBFM1, MEBFM2, MEBFM3, MEBFM4, MEBFM5
MEBFM6, MEBFM7

DC-330: The following inorganic samples are associated with duplicate results which did not meet absolute difference criteria. Hits and non-detects are qualified "J".

Zinc
MEBFL4, MEBFL5, MEBFL6, MEBFL7, MEBFL8, MEBFL9
MEBFM0, MEBFM1, MEBFM2, MEBFM3, MEBFM4, MEBFM5
MEBFM6, MEBFM7

6. ICP ANALYSIS

No problems were found for this qualification.

7. GFAA ANALYSIS

NA

Prepared By: Steffanie Tobin (Lockheed/ESAT)
Date: June 23, 1999

Case Number: 27024
Site Name: Weston Lion LF (IL)

SDG Number: MEBFL4
Laboratory: SWOK

8. SAMPLE RESULTS

All data, except those qualified above, are acceptable.

Prepared By: Steffanie Tobin (Lockheed/ESAT)
Date: June 23, 1999

Analytical Results (Qualified Data)

Case #: 27024
Site:
Lab. :
Reviewer:
Date:

SDG: MEBFL4
WESTON LION LANDFILL
SWOK
S. Tobin
06/23/99

Sample Number:	MEBFL4		MEBFL5		MEBFL6		MEBFL7		MEBFL8	
Sampling Location:	X101		X102		X103		X104		X105	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Date Sampled:	05/17/99		05/17/99		05/17/99		05/17/99		05/17/99	
Time Sampled:	13:45		14:00		14:55		15:00		15:30	
% Solids:	83.7		80.4		82.2		74.0		83.2	
Dilution Factor:	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aluminum	5210	J	9750	J	10700	J	21400	J	10100	J
Antimony	0.72	U	0.75	U	0.73	U	1.1		0.71	U
Arsenic	5.2	J	4.5	J	8.1	J	11.0	J	6.0	J
Barium	62.4		93.6		68.2		137		58.4	
Beryllium	0.30		0.60		0.61		0.98		0.51	
Cadmium	0.24	U	0.25	U	0.24	U	0.26	U	0.24	U
Calcium	37200		6880		22100		5330		26200	
Chromium	11.3		13.4		16.6		24.6		13.9	
Cobalt	5.1		6.9		9.0		13.6		7.0	
Copper	17.4		17.0		14.5		19.8		11.9	
Iron	11200		15200		21000		30600		16000	
Lead	17.2	J	13.2	J	17.7	J	20.5	J	10.2	J
Magnesium	10700		4380		9220		5420		13000	
Manganese	378		439		586		686		501	
Mercury	0.06	UJ	0.06	U	0.06	UJ	0.06	UJ	0.06	U
Nickel	12.0		17.1		17.2		26.1		18.0	
Potassium	1100		1100		1460		1610		1440	
Selenium	0.72	U	0.75	U	0.73	U	0.77	U	0.71	U
Silver	0.24	U	0.25	U	0.24	U	0.26	U	0.24	U
Sodium	358		417		473		502		385	
Thallium	1.2	U	1.2	U	1.2	U	1.3	U	1.2	U
Vanadium	13.1		21.4		27.6		41.2		22.0	
Zinc	61.7	J	49.3	J	52.6	J	66.0	J	40.7	J
Cyanide	0.14	J	0.32	J	0.26	J	0.80	J	0.12	J

Analytical Results (Qualified Data)

Case #: 27024 SDG: MEBFL4
Site: WESTON LION LANDFILL
Lab. : SWOK
Reviewer: S. Tobin
Date: 06/23/99

Sample Number:	MEBFL9		MEBFM0		MEBFM1		MEBFM2		MEBFM3	
Sampling Location:	X106		X107		X108		X109		X201	
Matrix:	Soil		Soil		Soil		Soil		Soil	
Units:	mg/kg		mg/kg		mg/kg		mg/kg		mg/kg	
Date Sampled:	05/17/99		05/17/99		05/18/99		05/18/99		05/18/99	
Time Sampled:	15:15		16:15		10:00		10:40		12:30	
% Solids:	75.7		84.9		82.0		87.7		66.7	
Dilution Factor:	1.0		1.0		1.0		1.0		1.0	
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aluminum	8950	J	10400	J	7440	J	5760	J	9540	J
Antimony	0.79	U	0.69		0.73	U	0.65	U	0.90	U
Arsenic	6.4	J	6.8	J	5.1	J	4.1	J	6.9	J
Barium	70.4		61.2		43.3		43.9		124	
Beryllium	0.52		0.55		0.43		0.33		0.64	
Cadmium	0.26	U	0.22	U	0.24	U	0.22	U	0.30	U
Calcium	33800		39900		52800		35200		4710	
Chromium	13.7		14.8		12.2		9.3		14.4	
Cobalt	7.7		9.7		7.4		6.6		11.9	
Copper	14.2		13.1		11.4		8.5		14.5	
Iron	18400		17000		13900		11000		17800	
Lead	12.2	J	11.5	J	11.5	J	8.2	J	22.5	J
Magnesium	16200		20700		24100		16100		3280	
Manganese	503		523		584		403		755	
Mercury	0.05	U	0.06	U	0.06	U	0.06	U	0.08	UJ
Nickel	18.6		20.3		15.2		13.1		15.8	
Potassium	1960		1820		1750		1110		1140	
Selenium	0.79	U	0.67	U	0.73	U	0.65	U	0.90	U
Silver	0.26	U	0.22	U	0.24	U	0.22	U	0.30	U
Sodium	1160		560		525		330		338	
Thallium	1.3	U	1.1	U	1.2	U	1.1	U	1.5	U
Vanadium	20.2		21.6		16.0		12.9		27.0	
Zinc	55.2	J	44.5	J	40.6	J	27.8	J	58.2	J
Cyanide	0.25	J	0.12	UJ	0.24	J	0.11	UJ	0.25	J

Analytical Results (Qualified Data)

Case #: 27024
Site:
Lab. :
Reviewer:
Date:

SDG: MEBFL4
WESTON LION LANDFILL
SWOK
S. Tobin
06/23/99

Sample Number:	MEBFM4		MEBFM5		MEBFM6		MEBFM7			
Sampling Location:	X202		X203		X204		X205			
Matrix:	Soil		Soil		Soil		Soil			
Units:	mg/kg		mg/kg		mg/kg		mg/kg			
Date Sampled:	05/18/99		05/18/99		05/18/99		05/18/99			
Time Sampled:	12:15		11:50		09:50		11:00			
% Solids:	71.3		76.0		76.0		75.9			
Dilution Factor:	1.0		1.0		1.0		1.0			
ANALYTE	Result	Flag	Result	Flag	Result	Flag	Result	Flag	Result	Flag
Aluminum	11900	J	10300	J	10300	J	3250	J		
Antimony	0.82	U	0.77	U	0.77	U	0.79	U		
Arsenic	8.4	J	5.6	J	8.2	J	12.9	J		
Barium	87.8		99.7		122		40.2			
Beryllium	0.73		0.54		0.62		0.26	U		
Cadmium	0.27	U	0.26	U	0.26	U	0.26	U		
Calcium	28500		21200		15900		3740			
Chromium	19.3		23.8		18.8		5.4			
Cobalt	10.1		6.7		7.6		12.6			
Copper	17.0		25.7		21.6		6.6			
Iron	23700		14700		17800		9980			
Lead	14.9	J	21.1	J	25.3	J	9.8	J		
Magnesium	12900		11300		8940		2080			
Manganese	547		258		295		96.1			
Mercury	0.06	UJ	0.06	UJ	0.06	UJ	0.06	UJ		
Nickel	20.8		16.2		23.5		8.4			
Potassium	2000		1460		1310		388			
Selenium	0.82	U	0.77	U	0.77	U	0.79	U		
Silver	0.27	U	0.26	U	0.26	U	0.26	U		
Sodium	451		370		376		272			
Thallium	1.4	U	1.3	U	1.3	U	1.3	U		
Vanadium	28.4		22.2		28.8		12.2			
Zinc	66.1	J	55.3	J	65.0	J	26.2	J		
Cyanide	0.13	UJ	0.17	J	0.19	J	0.13	J		

CADRE Data Qualifier Sheet

Qualifiers	Data Qualifier Definitions
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The analyte was positively identified; the associated numerical value is an approximate concentration of the analyte in the sample.
UJ	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the action limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R	The data are unusable. (The compound may or may not be present)

QC EXCEPTION SUMMARY REPORT

ASE\SAS#: 27024 SITE: Weston lion LF MATRIX: Soil WATER SAMPLE SPK: NA

ATA SET: MEBFL4 LAB: SWOK CONC: low WATER SAMPLE DUP: NA

AB QC # MEBFM7 REVIEWED BY: Steffanie Tobin SOIL SAMPLE SPK: MEBFM7

ATE: 6/22/99 SOIL SAMPLE DUP: MEBFM7

FORM #		FORM 1	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	OK	OK	OK	12.2	NA	~~2.503~~	OK		70.3	NA	OK	NA	OK	NA	NA					
ANTIMONY																				
ARSENIC								48.6	~~50.4~~											
BARIUM																				
BERYLLIUM																				
CADMIUM																				
CALCIUM																				
CHROMIUM									~~59.5~~											
COBALT																				
COPPER																				
IRON									~~21.6~~											
LEAD								336.0	59.5											
MAGNESIUM				~~20.0~~																
MANGANESE									~~27.6~~											
MERCURY				-0.2/0.1																
NICKEL																				
POTASSIUM																				
SELENIUM																				
SILVER																				
SODIUM																				
THALLIUM																				
TIN																				
VANADIUM																				
ZINC									38.7											
CYANIDE				3.2		0.128		39.4												

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

ESD Central Regional Laboratory
Data Tracking Form for Contract Samples

Data Set No: _____ CERCLIS No: 14/22

Case No: 27024 Site Name Location: Weston Lion LF

Contractor or EPA Lab: SWOK Data User: IEPA

No. of Samples: 14 Date Sampled or Data Received: 6/18/99

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: 14 No. of samples received: 14

Received by: Lynette Burnett Date: 6/18/99

Received by LSSS: Lynette Burnett Date: 6/18/99

Review started: 6/22/99 Reviewer Signature: Steffanie Tobin

Total time spent on review: 9 hrs Date review completed: 6/23/99

Copied by: Lynette Burnett Date: 7-6-99

Mailed to user by: Lynette Burnett Date: 7-6-99

DATA USER:
Please fill in the blanks below and return this form to:
Sylvia Griffen, Data mgmt. Coordinator, Region V, 5SCRL

Data received by: _____ Date: _____

Data review received by: _____ Date: _____

Inorganic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Organic Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
Dioxin Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK
SAS Data Complete [ ] Suitable for Intended Purpose [ ] ✓ if OK

PROBLEMS: Please indicate reasons why data are not suitable for your uses.

_____

_____

Received by Data Mgmt. Coordinator for Files. Data: _____

Regional Transmittal Form

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE:

SUBJECT: Review of Data
Received for Review on June 18, 1999

FROM: Stephen L. Ostrodka, Chief (HSRL-5J)
Superfund Technical Support Section

TO: Data User: IEPA

We have reviewed the data for the following case:

SITE NAME: Weston Lion LF (IL)

CASE NUMBER: 27024 SDG NUMBER: MEBFL4

Number and Type of Samples: 14 (Soil)

Sample Numbers: MEBFL4-9 MEBFM0-7

Laboratory: SWOK Hrs. for Review:

Following are our findings:

RECEIVED
JUN 25 1999
IEPA/BOL

CC: Cecilia Moore
Region 5 TPO
Mail Code: SM-5J

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COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

1

Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.:MEBFL4

SOW No.: ILM04

EPA Sample No.	Lab Sample ID
MEBFL4	38673.04
MEBFL5	38673.05
MEBFL6	38673.06
MEBFL7	38673.07
MEBFL8	38673.08
MEBFL9	38673.09
MEBFM0	38673.10
MEBFM1	38673.11
MEBFM2	38673.12
MEBFM3	38673.13
MEBFM4	38673.14
MEBFM5	38673.15
MEBFM6	38673.16
MEBFM7	38673.17
MEBFM7D	38673.17D
MEBFM7S	38673.17S

JUN 1 8 1999

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: Deborah J. Inman

Date: June 16, 1999 Title: Inorganics Program Manager

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFL4

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.04

Level (low/med): LOW Date Received: 05/19/99

% Solids: 83.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5210		*	P
7440-36-0	Antimony	0.72	U		P
7440-38-2	Arsenic	5.2		N*	P
7440-39-3	Barium	62.4			P
7440-41-7	Beryllium	0.30	B		P
7440-43-9	Cadmium	0.24	U		P
7440-70-2	Calcium	37200			P
7440-47-3	Chromium	11.3		*	P
7440-48-4	Cobalt	5.1	B		P
7440-50-8	Copper	17.4			P
7439-89-6	Iron	11200		*	P
7439-92-1	Lead	17.2		N*	P
7439-95-4	Magnesium	10700			P
7439-96-5	Manganese	378		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	12.0			P
7440-09-7	Potassium	1100	B		P
7782-49-2	Selenium	0.72	U		P
7440-22-4	Silver	0.24	U		P
7440-23-5	Sodium	358	B		P
7440-28-0	Thallium	1.2	U		P
7440-62-2	Vanadium	13.1			P
7440-66-6	Zinc	61.7		*	P
	Cyanide	0.14	B	N	CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSES DATA SHEET

3

EPA SAMPLE NO.

MEBFL5

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.05

Level (low/med): LOW Date Received: 05/19/99

% Solids: 80.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9750		*	P
7440-36-0	Antimony	0.75	U		P
7440-38-2	Arsenic	4.5		N*	P
7440-39-3	Barium	93.6			P
7440-41-7	Beryllium	0.60	B		P
7440-43-9	Cadmium	0.25	U		P
7440-70-2	Calcium	6880			P
7440-47-3	Chromium	13.4		*	P
7440-48-4	Cobalt	6.9	B		P
7440-50-8	Copper	17.0			P
7439-89-6	Iron	15200		*	P
7439-92-1	Lead	13.2		N*	P
7439-95-4	Magnesium	4380			P
7439-96-5	Manganese	439		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	17.1			P
7440-09-7	Potassium	1100	B		P
7782-49-2	Selenium	0.75	U		P
7440-22-4	Silver	0.25	U		P
7440-23-5	Sodium	417	B		P
7440-28-0	Thallium	1.2	U		P
7440-62-2	Vanadium	21.4			P
7440-66-6	Zinc	49.3		*	P
	Cyanide	0.32	B	N	CA

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFL6

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.06

Level (low/med): LOW Date Received: 05/19/99

% Solids: 82.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10700		*	P
7440-36-0	Antimony	0.73	U		P
7440-38-2	Arsenic	8.1		N*	P
7440-39-3	Barium	68.2			P
7440-41-7	Beryllium	0.61	B		P
7440-43-9	Cadmium	0.24	U		P
7440-70-2	Calcium	22100			P
7440-47-3	Chromium	16.6		*	P
7440-48-4	Cobalt	9.0	B		P
7440-50-8	Copper	14.5			P
7439-89-6	Iron	21000		*	P
7439-92-1	Lead	17.7		N*	P
7439-95-4	Magnesium	9220			P
7439-96-5	Manganese	586		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	17.2			P
7440-09-7	Potassium	1460			P
7782-49-2	Selenium	0.73	U		P
7440-22-4	Silver	0.24	U		P
7440-23-5	Sodium	473	B		P
7440-28-0	Thallium	1.2	U		P
7440-62-2	Vanadium	27.6			P
7440-66-6	Zinc	52.6		*	P
	Cyanide	0.26	B	N	CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFL7

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.07

Level (low/med): LOW Date Received: 05/19/99

% Solids: 74.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	21400		*	P
7440-36-0	Antimony	1.1	B		P
7440-38-2	Arsenic	11.0		N*	P
7440-39-3	Barium	137			P
7440-41-7	Beryllium	0.98	B		P
7440-43-9	Cadmium	0.26	U		P
7440-70-2	Calcium	5330			P
7440-47-3	Chromium	24.6		*	P
7440-48-4	Cobalt	13.6			P
7440-50-8	Copper	19.8			P
7439-89-6	Iron	30600		*	P
7439-92-1	Lead	20.5		N*	P
7439-95-4	Magnesium	5420			P
7439-96-5	Manganese	686		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	26.1			P
7440-09-7	Potassium	1610			P
7782-49-2	Selenium	0.77	U		P
7440-22-4	Silver	0.26	U		P
7440-23-5	Sodium	502	B		P
7440-28-0	Thallium	1.3	U		P
7440-62-2	Vanadium	41.2			P
7440-66-6	Zinc	66.0		*	P
	Cyanide	0.80		N	CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFL8

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: _____ SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.08

Level (low/med): LOW Date Received: 05/19/99

% Solids: 83.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10100		*	P
7440-36-0	Antimony	0.71	U		P
7440-38-2	Arsenic	6.0		N*	P
7440-39-3	Barium	58.4			P
7440-41-7	Beryllium	0.51	B		P
7440-43-9	Cadmium	0.24	U		P
7440-70-2	Calcium	26200			P
7440-47-3	Chromium	13.9		*	P
7440-48-4	Cobalt	7.0	B		P
7440-50-8	Copper	11.9			P
7439-89-6	Iron	16000		*	P
7439-92-1	Lead	10.2		N*	P
7439-95-4	Magnesium	13000			P
7439-96-5	Manganese	501		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	18.0			P
7440-09-7	Potassium	1440			P
7782-49-2	Selenium	0.71	U		P
7440-22-4	Silver	0.24	U		P
7440-23-5	Sodium	385	B		P
7440-28-0	Thallium	1.2	U		P
7440-62-2	Vanadium	22.0			P
7440-66-6	Zinc	40.7		*	P
	Cyanide	0.12	B	N	CA

Color Before: BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFL9

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.09

Level (low/med): LOW Date Received: 05/19/99

% Solids: 75.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8950		*	P
7440-36-0	Antimony	0.79	U		P
7440-38-2	Arsenic	6.4		N*	P
7440-39-3	Barium	70.4			P
7440-41-7	Beryllium	0.52	B		P
7440-43-9	Cadmium	0.26	U		P
7440-70-2	Calcium	33800			P
7440-47-3	Chromium	13.7		*	P
7440-48-4	Cobalt	7.7	B		P
7440-50-8	Copper	14.2			P
7439-89-6	Iron	18400		*	P
7439-92-1	Lead	12.2		N*	P
7439-95-4	Magnesium	16200			P
7439-96-5	Manganese	503		*	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	18.6			P
7440-09-7	Potassium	1960			P
7782-49-2	Selenium	0.79	U		P
7440-22-4	Silver	0.26	U		P
7440-23-5	Sodium	1160	B		P
7440-28-0	Thallium	1.3	U		P
7440-62-2	Vanadium	20.2			P
7440-66-6	Zinc	55.2		*	P
	Cyanide	0.25	B	N	CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFM0

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.10

Level (low/med): LOW Date Received: 05/19/99

% Solids: 84.9

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	0.69	B		P
7440-38-2	Arsenic	6.8		N*	P
7440-39-3	Barium	61.2			P
7440-41-7	Beryllium	0.55	B		P
7440-43-9	Cadmium	0.22	U		P
7440-70-2	Calcium	39900			P
7440-47-3	Chromium	14.8		*	P
7440-48-4	Cobalt	9.7	B		P
7440-50-8	Copper	13.1			P
7439-89-6	Iron	17000		*	P
7439-92-1	Lead	11.5		N*	P
7439-95-4	Magnesium	20700			P
7439-96-5	Manganese	523		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	20.3			P
7440-09-7	Potassium	1820			P
7782-49-2	Selenium	0.67	U		P
7440-22-4	Silver	0.22	U		P
7440-23-5	Sodium	560	B		P
7440-28-0	Thallium	1.1	U		P
7440-62-2	Vanadium	21.6			P
7440-66-6	Zinc	44.5		*	P
	Cyanide	0.12	U	N	CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

FORM I - IN

ILMO2.1

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFM1

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.11

Level (low/med): LOW Date Received: 05/19/99

% Solids: 82.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7440		*	P
7440-36-0	Antimony	0.73	U		P
7440-38-2	Arsenic	5.1		N*	P
7440-39-3	Barium	43.3	B		P
7440-41-7	Beryllium	0.43	B		P
7440-43-9	Cadmium	0.24	U		P
7440-70-2	Calcium	52800			P
7440-47-3	Chromium	12.2		*	P
7440-48-4	Cobalt	7.4	B		P
7440-50-8	Copper	11.4			P
7439-89-6	Iron	13900		*	P
7439-92-1	Lead	11.5		N*	P
7439-95-4	Magnesium	24100			P
7439-96-5	Manganese	584		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	15.2			P
7440-09-7	Potassium	1750			P
7782-49-2	Selenium	0.73	U		P
7440-22-4	Silver	0.24	U		P
7440-23-5	Sodium	525	B		P
7440-28-0	Thallium	1.2	U		P
7440-62-2	Vanadium	16.0			P
7440-66-6	Zinc	40.6		*	P
	Cyanide	0.24	B	N	CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFM2

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.12

Level (low/med): LOW Date Received: 05/19/99

% Solids: 87.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5760		*	P
7440-36-0	Antimony	0.65	U		P
7440-38-2	Arsenic	4.1		N*	P
7440-39-3	Barium	43.9			P
7440-41-7	Beryllium	0.33	B		P
7440-43-9	Cadmium	0.22	U		P
7440-70-2	Calcium	35200			P
7440-47-3	Chromium	9.3		*	P
7440-48-4	Cobalt	6.6	B		P
7440-50-8	Copper	8.5			P
7439-89-6	Iron	11000		*	P
7439-92-1	Lead	8.2		N*	P
7439-95-4	Magnesium	16100			P
7439-96-5	Manganese	403		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	13.1			P
7440-09-7	Potassium	1110			P
7782-49-2	Selenium	0.65	U		P
7440-22-4	Silver	0.22	U		P
7440-23-5	Sodium	330	B		P
7440-28-0	Thallium	1.1	U		P
7440-62-2	Vanadium	12.9			P
7440-66-6	Zinc	27.8		*	P
	Cyanide	0.11	U	N	CA

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

FORM I - IN

ILMO2.1

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO. 11

MEBFM3

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.13

Level (low/med): LOW Date Received: 05/19/99

% Solids: 66.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9540		*	P
7440-36-0	Antimony	0.90	U		P
7440-38-2	Arsenic	6.9		N*	P
7440-39-3	Barium	124			P
7440-41-7	Beryllium	0.64	B		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	4710			P
7440-47-3	Chromium	14.4		*	P
7440-48-4	Cobalt	11.9	B		P
7440-50-8	Copper	14.5			P
7439-89-6	Iron	17800		*	P
7439-92-1	Lead	22.5		N*	P
7439-95-4	Magnesium	3280			P
7439-96-5	Manganese	755		*	P
7439-97-6	Mercury	0.07	U		CV
7440-02-0	Nickel	15.8			P
7440-09-7	Potassium	1140	B		P
7782-49-2	Selenium	0.90	U		P
7440-22-4	Silver	0.30	U		P
7440-23-5	Sodium	338	B		P
7440-28-0	Thallium	1.5	U		P
7440-62-2	Vanadium	27.0			P
7440-66-6	Zinc	58.2		*	P
	Cyanide	0.25	B	N	CA

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

FORM I - IN

ILMO2.1

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFM4

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.14

Level (low/med): LOW Date Received: 05/19/99

% Solids: 71.3

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11900		*	P
7440-36-0	Antimony	0.82	U		P
7440-38-2	Arsenic	8.4		N*	P
7440-39-3	Barium	87.8			P
7440-41-7	Beryllium	0.73	B		P
7440-43-9	Cadmium	0.27	U		P
7440-70-2	Calcium	28500			P
7440-47-3	Chromium	19.3		*	P
7440-48-4	Cobalt	10.1	B		P
7440-50-8	Copper	17.0			P
7439-89-6	Iron	23700		*	P
7439-92-1	Lead	14.9		N*	P
7439-95-4	Magnesium	12900			P
7439-96-5	Manganese	547		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	20.8			P
7440-09-7	Potassium	2000			P
7782-49-2	Selenium	0.82	U		P
7440-22-4	Silver	0.27	U		P
7440-23-5	Sodium	451	B		P
7440-28-0	Thallium	1.4	U		P
7440-62-2	Vanadium	28.4			P
7440-66-6	Zinc	66.1		*	P
	Cyanide	0.13	U	N	CA

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

FORM I - IN

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1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFM5

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.15

Level (low/med): LOW Date Received: 05/19/99

% Solids: 76.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10300		*	P
7440-36-0	Antimony	0.77	U		P
7440-38-2	Arsenic	5.6		N*	P
7440-39-3	Barium	99.7			P
7440-41-7	Beryllium	0.54	B		P
7440-43-9	Cadmium	0.26	U		P
7440-70-2	Calcium	21200			P
7440-47-3	Chromium	23.8		*	P
7440-48-4	Cobalt	6.7	B		P
7440-50-8	Copper	25.7			P
7439-89-6	Iron	14700		*	P
7439-92-1	Lead	21.1		N*	P
7439-95-4	Magnesium	11300			P
7439-96-5	Manganese	258		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	16.2			P
7440-09-7	Potassium	1460			P
7782-49-2	Selenium	0.77	U		P
7440-22-4	Silver	0.26	U		P
7440-23-5	Sodium	370	B		P
7440-28-0	Thallium	1.3	U		P
7440-62-2	Vanadium	22.2			P
7440-66-6	Zinc	55.3		*	P
	Cyanide	0.17	B	N	CA

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFM6

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.16

Level (low/med): LOW Date Received: 05/19/99

% Solids: 76.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10300		*	P
7440-36-0	Antimony	0.77	U		P
7440-38-2	Arsenic	8.2		N*	P
7440-39-3	Barium	122			P
7440-41-7	Beryllium	0.62	B		P
7440-43-9	Cadmium	0.26	U		P
7440-70-2	Calcium	15900			P
7440-47-3	Chromium	18.8		*	P
7440-48-4	Cobalt	7.6	B		P
7440-50-8	Copper	21.6			P
7439-89-6	Iron	17800		*	P
7439-92-1	Lead	25.3		N*	P
7439-95-4	Magnesium	8940			P
7439-96-5	Manganese	295		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	23.5			P
7440-09-7	Potassium	1310			P
7782-49-2	Selenium	0.77	U		P
7440-22-4	Silver	0.26	U		P
7440-23-5	Sodium	376	B		P
7440-28-0	Thallium	1.3	U		P
7440-62-2	Vanadium	28.8			P
7440-66-6	Zinc	65.0		*	P
	Cyanide	0.19	B	N	CA

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

FORM I - IN

ILMO2.1

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MEBFM7

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

Matrix (soil/water): SOIL Lab Sample ID: 38673.17

Level (low/med): LOW Date Received: 05/19/99

% 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	3250		*	P
7440-36-0	Antimony	0.79	U		P
7440-38-2	Arsenic	12.9		N*	P
7440-39-3	Barium	40.2	B		P
7440-41-7	Beryllium	0.26	U		P
7440-43-9	Cadmium	0.26	U		P
7440-70-2	Calcium	3740			P
7440-47-3	Chromium	5.4		*	P
7440-48-4	Cobalt	12.6	B		P
7440-50-8	Copper	6.6	B		P
7439-89-6	Iron	9980		*	P
7439-92-1	Lead	9.8		N*	P
7439-95-4	Magnesium	2080			P
7439-96-5	Manganese	96.1		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	8.4	B		P
7440-09-7	Potassium	388	B		P
7782-49-2	Selenium	0.79	U		P
7440-22-4	Silver	0.26	U		P
7440-23-5	Sodium	272	B		P
7440-28-0	Thallium	1.3	U		P
7440-62-2	Vanadium	12.2	B		P
7440-66-6	Zinc	26.2		*	P
	Cyanide	0.13	B	N	CA

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments:

3
BLANKS

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.: MEBFL4

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	12.0	U	12.2	B	12.0	U	12.0	U	-2.503	B	P
Antimony	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Arsenic	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Barium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Cadmium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Calcium	28.0	U	28.0	U	28.0	U	28.0	U	5.600	U	P
Chromium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Cobalt	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Copper	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	P
Iron	11.0	U	11.0	U	11.0	U	11.0	U	2.200	U	P
Lead	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	P
Magnesium	19.0	U	20.0	B	19.0	U	19.0	U	3.800	U	P
Manganese	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Mercury	-0.2	B	0.1	B	0.1	B	0.1	U	0.050	U	CV
Nickel	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	P
Potassium	113.0	U	113.0	U	113.0	U	113.0	U	22.600	U	P
Selenium	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Silver	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Sodium	27.0	U	27.0	U	27.0	U	27.0	U	5.400	U	P
Thallium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Vanadium	1.0	U	1.0	U	1.0	U	1.0	U	0.200	U	P
Zinc	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Cyanide	2.0	U	2.0	U	2.4	B	2.0	U	0.128	B	CA

3
BLANKS

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.: MEBFL4

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			12.0	U							P
Antimony			3.0	U							P
Arsenic			3.0	U							P
Barium			1.0	U							P
Beryllium			1.0	U							P
Cadmium			1.0	U							P
Calcium			28.0	U							P
Chromium			1.0	U							P
Cobalt			1.0	U							P
Copper			2.0	U							P
Iron			11.0	U							P
Lead			2.0	U							P
Magnesium			19.0	U							P
Manganese			1.0	U							P
Mercury			0.1	U	0.1	U					CV
Nickel			2.0	U							P
Potassium			113.0	U							P
Selenium			3.0	U							P
Silver			1.0	U							P
Sodium			27.0	U							P
Thallium			5.0	U							P
Vanadium			1.0	U							P
Zinc			5.0	U							P
Cyanide			2.4	B							CA

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.: MEBFL4

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	3.0	U	3.0	U	3.0	U					P
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium											NR
Cobalt											NR
Copper											NR
Iron											NR
Lead	2.0	U	2.0	U	2.0	U					P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc											NR
Cyanide	3.2	B	2.6	B	2.9	B	2.9	B			CA

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEBFM7S

La... Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.: MEBFL4

Matrix (soil/water): SOIL__ Level (low/med): LOW___

% Solids for Sample: _75.9

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	124.7534		0.7905	U	131.75	94.7		P
Arsenic	75-125	17.9879		12.8651		10.54	48.6	N	P
Barium	75-125	581.6053		40.1982	B	527.01	102.7		P
Beryllium	75-125	14.2474		0.2635	U	13.18	108.1		P
Cadmium	75-125	13.2258		0.2635	U	13.18	100.3		P
Calcium									NR
Chromium	75-125	61.6806		5.4424		52.70	106.7		P
Cobalt	75-125	142.4646		12.6150	B	131.75	98.6		P
Copper	75-125	70.0398		6.5644	B	65.88	96.4		P
Iron									NR
Lead	75-125	27.5154		9.8074		5.27	336.0	N	P
Magnesium									NR
Manganese	75-125	212.6271		96.0522		131.75	88.5		P
Mercury	75-125	0.5929		0.0599	U	0.60	98.8		CV
Nickel	75-125	142.5310		8.4066	B	131.75	101.8		P
Potassium									NR
Selenium	75-125	2.2079		0.7905	U	2.64	83.6		P
Silver	75-125	13.9294		0.2635	U	13.18	105.7		P
Sodium									NR
Thallium	75-125	13.9671		1.3175	U	13.18	106.0		P
Vanadium	75-125	148.2353		12.1531	B	131.75	103.3		P
Zinc	75-125	158.2329		26.2105		131.75	100.2		P
Cyanide	75-125	2.1992		0.1283	B	6.40	32.4	N	CA

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEBFM7A

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

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									NR
Arsenic		152.49		48.82		100.0	103.7		P
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead		109.80		37.22		70.0	103.7		P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide		5.27	B	2.01	B	20.0	16.3		CA

Comments:

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DUPLICATES

EPA SAMPLE NO.

MEBFM7D

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4

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

% Solids for Sample: 75.9 % Solids for Duplicate: 80.6

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		3246.4553		6767.9805		70.3	*	P
Antimony		0.7905	U	0.7905	U			P
Arsenic	2.6350	12.8651		7.6867		50.4	*	P
Barium	52.7009	40.1982	B	69.2704		53.1		P
Beryllium		0.2635	U	0.3963	B	200.0		P
Cadmium		0.2635	U	0.2635	U			P
Calcium	1317.523	3743.8957		4220.2219		12.0		P
Chromium	2.6350	5.4424		10.0292		59.3	*	P
Cobalt	13.1752	12.6150	B	14.5444		14.2		P
Copper	6.5876	6.5644	B	10.6045		47.1		P
Iron		9984.7834		12400.6735		21.6	*	P
Lead		9.8074		18.1133		59.5	*	P
Magnesium	1317.523	2080.6013		2903.9758		33.0		P
Manganese		96.0522		126.8582		27.6	*	P
Mercury		0.0599	U	0.0599	U			CV
Nickel	10.5402	8.4066	B	12.8983		42.2		P
Potassium		387.8158	B	753.5794	B	64.1		P
Selenium		0.7905	U	0.7905	U			P
Silver		0.2635	U	0.2635	U			P
Sodium		272.3333	B	314.3513	B	14.3		P
Thallium		1.3175	U	1.3175	U			P
Vanadium	13.1752	12.1531	B	20.8229		52.6		P
Zinc	5.2701	26.2105		38.7842		38.7	*	P
Cyanide		0.1283	B	0.1279	U	200.0		CA

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Instrument Detection Limits (Quarterly)

Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136
Lab Code: SWOK__ Case No.: 27024 SAS No.: _____ SDG No.: MEBFL4
ICP ID Number: TJA_ET2_____ Date: 04/08/99
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	12.0	P
Antimony	217.58		60	3.0	P
Arsenic	189.04		10	3.0	P
Barium	493.41		200	1.0	P
Beryllium	313.04		5	1.0	P
Cadmium	228.80		5	1.0	P
Calcium	317.93		5000	28.0	P
Chromium	267.72		10	1.0	P
Cobalt	228.62		50	1.0	P
Copper	324.75		25	2.0	P
Iron	259.94		100	11.0	P
Lead	220.35		3	2.0	P
Magnesium	279.08		5000	19.0	P
Manganese	257.61		15	1.0	P
Mercury			0.2		NR
Nickel	221.60		40	2.0	P
Potassium	776.49		5000	113.0	P
Selenium	203.99		5	3.0	P
Silver	328.07		10	1.0	P
Sodium	588.99		5000	27.0	P
Thallium	190.86		10	5.0	P
Vanadium	292.40		50	1.0	P
Zinc	213.86		20	5.0	P
Cyanide			10		NR

Comments:

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Instrument Detection Limits (Quarterly)

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136
Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4
ICP ID Number:
Flame AA ID Number : PS200B
Furnace AA ID Number :
Date: 04/06/99

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	254.00		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
Cyanide			10		NR

Comments:

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Instrument Detection Limits (Quarterly)

Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136
Lab Code: SWOK Case No.: 27024 SAS No.: SDG No.: MEBFL4
ICP ID Number: Date: 04/23/99
Flame AA ID Number : LACHAT
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			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
Cyanide	578.00		10	2.0	CA

Comments:

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PREPARATION LOG

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.:_27024_ SAS No.: _____ SDG No.:MEBFL4

Method: P_

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	06/02/99	1.00	200
MEBFL4	06/02/99	1.00	200
MEBFL5	06/02/99	1.00	200
MEBFL6	06/02/99	1.00	200
MEBFL7	06/02/99	1.05	200
MEBFL8	06/02/99	1.02	200
MEBFL9	06/02/99	1.00	200
MEBFM0	06/02/99	1.05	200
MEBFM1	06/02/99	1.00	200
MEBFM2	06/02/99	1.05	200
MEBFM3	06/02/99	1.00	200
MEBFM4	06/02/99	1.03	200
MEBFM5	06/02/99	1.03	200
MEBFM6	06/02/99	1.02	200
MEBFM7	06/02/99	1.00	200
MEBFM7D	06/02/99	1.00	200
MEBFM7S	06/02/99	1.00	200
PBS	06/02/99	1.00	200

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PREPARATION LOG

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.:_27024_ SAS No.: _____ SDG No.:MEBFL4

Method: CV

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	06/07/99	0.22	100
MEBFL4	06/07/99	0.21	100
MEBFL5	06/07/99	0.22	100
MEBFL6	06/07/99	0.22	100
MEBFL7	06/07/99	0.22	100
MEBFL8	06/07/99	0.20	100
MEBFL9	06/07/99	0.25	100
MEBFM0	06/07/99	0.21	100
MEBFM1	06/07/99	0.22	100
MEBFM2	06/07/99	0.20	100
MEBFM3	06/07/99	0.20	100
MEBFM4	06/07/99	0.23	100
MEBFM5	06/07/99	0.21	100
MEBFM6	06/07/99	0.22	100
MEBFM7	06/07/99	0.22	100
MEBFM7D	06/07/99	0.22	100
MEBFM7S	06/07/99	0.22	100
PBS	06/07/99	0.20	100

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PREPARATION LOG

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.:_27024_ SAS No.: _____ SDG No.:MEBFL4

Method: CA

EPA Sample No.	Preparation Date	Weight (gram)	Volume (mL)
LCSS	05/26/99	1.00	50
MEBFL4	05/26/99	1.03	50
MEBFL5	05/26/99	1.05	50
MEBFL6	05/26/99	1.02	50
MEBFL7	05/26/99	1.03	50
MEBFL8	05/26/99	1.02	50
MEBFL9	05/26/99	1.03	50
MEBFM0	05/26/99	1.00	50
MEBFM1	05/26/99	1.00	50
MEBFM2	05/26/99	1.02	50
MEBFM3	05/26/99	1.02	50
MEBFM4	05/26/99	1.04	50
MEBFM5	05/26/99	1.02	50
MEBFM6	05/26/99	1.05	50
MEBFM7	05/26/99	1.03	50
MEBFM7D	05/26/99	1.03	50
MEBFM7S	05/26/99	1.03	50
PBS	05/26/99	1.00	50

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL4

Instrument ID Number: TJA ET2_____ Method: P_

Start Date: 06/06/99 End Date: 06/06/99

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	1151		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
S	1.00	1157		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICV	1.00	1202		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICB	1.00	1208		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CRI	1.00	1213			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
ICSA	1.00	1219		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSAB	1.00	1224		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV	1.00	1230		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1235		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
PBS	1.00	1241		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
LCSS	1.00	1246		X	X	X	X	X	X		X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
S	5.00	1252								X																	
MEBFL4	1.00	1257		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFL5	1.00	1303		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFL6	1.00	1308		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFL7	1.00	1314		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFL8	1.00	1319		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFL9	1.00	1325		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1335																									
CCV	1.00	1340		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCB	1.00	1346		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFM0	1.00	1351		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFM1	1.00	1357		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFM2	1.00	1402		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFM3	1.00	1408		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFM4	1.00	1413		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFM5	1.00	1419		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1428																									
CRI	1.00	1434			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
ICSA	1.00	1439		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSAB	1.00	1445		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV	1.00	1450		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL4

Instrument ID Number: TJA ET2_____ Method: P_

Start Date: 06/06/99 End Date: 06/06/99

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
CCB	1.00	1456		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFM6	1.00	1501		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFM7	1.00	1507		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFM7D	1.00	1512		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
MEBFM7S	1.00	1518			X	X	X	X	X		X	X	X		X		X		X		X	X		X	X	X	
MEBFM7L	1.00	1523		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ZZZZZZ	1.00	1533																									
CRI	1.00	1539			X	X		X	X		X	X	X		X		X		X		X	X		X	X	X	
ICSA	1.00	1544		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
ICSAB	1.00	1550		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
CCV	1.00	1555		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	
	1.00	1601		X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL4

Instrument ID Number: TJA ET2_____ Method: P_

Start Date: 06/07/99 End Date: 06/07/99

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0942				X									X												
S	1.00	0947				X									X												
ICV	1.00	0953				X									X												
ICB	1.00	0958				X									X												
CRI	1.00	1004				X									X												
ICSA	1.00	1009				X									X												
ICSAB	1.00	1015				X									X												
CCV	1.00	1020				X									X												
CCB	1.00	1026				X									X												
ZZZZZZ	1.00	1037																									
MEBFM7A	1.00	1042				X									X												
ZZZZ	1.00	1052																									
[illegible]	1.00	1058				X									X												
ICSA	1.00	1103				X									X												
ICSAB	1.00	1109				X									X												
CCV	1.00	1114				X									X												
CCB	1.00	1120				X									X												

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL4

Instrument ID Number: PS200B_____ Method: CV

Start Date: 06/08/99 End Date: 06/08/99

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S0	1.00	0740																X									
S0.2	1.00	0743																X									
S0.5	1.00	0745																X									
S1	1.00	0748																X									
S5	1.00	0751																X									
S10	1.00	0754																X									
S1	1.00	0756																X									
ICV	1.00	0759																X									
ICB	1.00	0802																X									
CRA	1.00	0804																X									
CCV	1.00	0807																X									
[illegible]	1.00	0810																X									
ZZZZZZ	1.00	0900																									
ZZZZZZ	1.00	0902																									
ZZZZZZ	1.00	0905																									
ZZZZZZ	1.00	0908																									
ZZZZZZ	1.00	0910																									
ZZZZZZ	1.00	0913																									
ZZZZZZ	1.00	0916																									
ZZZZZZ	1.00	0918																									
ZZZZZZ	1.00	0921																									
ZZZZZZ	1.00	0924																									
CCV	1.00	0926																X									
CCB	1.00	0929																X									
ZZZZZZ	1.00	0932																									
ZZZZZZ	1.00	0934																									
ZZZZZZ	1.00	0937																									
ZZZZZZ	1.00	0940																									
PBS	1.00	0942																X									
LCSS	10.00	0945																X									
MEBFL4	1.00	0947																X									
MEBFL5	1.00	0950																X									

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL4

Instrument ID Number: PS200B_____ Method: CV

Start Date: 06/08/99 End Date: 06/08/99

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
MEBFL6	1.00	0953																X									
MEBFL7	1.00	0955																X									
CCV	1.00	0958																X									
CCB	1.00	1001																X									
MEBFL8	1.00	1003																X									
MEBFL9	1.00	1006																X									
MEBFM0	1.00	1009																X									
MEBFM1	1.00	1011																X									
MEBFM2	1.00	1014																X									
MEBFM3	1.00	1017																X									
MEBFM4	1.00	1019																X									
MEBFM5	1.00	1022																X									
MEBFM6	1.00	1025																X									
MEBFM7	1.00	1027																X									
CCV	1.00	1030																X									
CCB	1.00	1033																X									
MEBFM7D	1.00	1035																X									
MEBFM7S	1.00	1038																X									
ZZZZZZ	1.00	1041																									
ZZZZZZ	1.00	1043																									
ZZZZZZ	1.00	1046																									
ZZZZZZ	1.00	1049																									
ZZZZZZ	1.00	1051																									
ZZZZZZ	1.00	1054																									
ZZZZZZ	1.00	1057																									
ZZZZZZ	1.00	1059																									
CCV	1.00	1102																X									
CCB	1.00	1105																X									

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL4

Instrument ID Number: LACHAT_____ Method: CA

Start Date: 05/27/99 End Date: 05/27/99

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S200	1.00	1255		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S150	1.00	1256		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S100	1.00	1257		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S50	1.00	1258		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S10	1.00	1259		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S5	1.00	1300		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S0	1.00	1301		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ICV	1.00	1417		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ICB	1.00	1418		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCV	1.00	1419		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCB	1.00	1419		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S	1.00	1422		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S	1.00	1422		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ZZZZZZ	1.00	1423		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
MEBFL4	1.00	1424		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEBFL5	1.00	1424		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEBFL6	1.00	1425		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCV	1.00	1426		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCB	1.00	1427		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEBFL7	1.00	1429		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEBFL8	1.00	1430		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEBFL9	1.00	1430		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEBFM0	1.00	1431		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEBFM1	1.00	1432		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEBFM2	1.00	1433		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEBFM3	1.00	1433		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEBFM4	1.00	1434		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCV	1.00	1435		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCB	1.00	1436		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEBFM5	1.00	1438		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEBFM6	1.00	1439		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
MEBFM7	1.00	1439		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL4

Instrument ID Number: LACHAT_____ Method: CA

Start Date: 05/27/99 End Date: 05/27/99

EPA Sample No.	D/F	Time	% R	Analytes																								
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
MEBFM7D_	1.00	1440																									X
MEBFM7S_	1.00	1441																									X
CCV_____	1.00	1441																									X
CCB_____	1.00	1442																									X

FORM XIV - IN ILMO2.1

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ANALYSIS RUN LOG

Lab Name: SOUTHWEST_LAB_OF_OKLAHOMA Contract: 68-D5-0136

Lab Code: SWOK__ Case No.: 27024_ SAS No.: _____ SDG No.:MEBFL4

Instrument ID Number: LACHAT_____ Method: CA

Start Date: 05/28/99 End Date: 05/28/99

EPA Sample No.	D/F	Time	% R	Analytes																							
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
S200	1.00	1424		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S150	1.00	1425		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S100	1.00	1426		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S50	1.00	1427		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S10	1.00	1428		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S5	1.00	1429		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
S0	1.00	1430		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ICV	1.00	1433		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ICB	1.00	1434		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCV	1.00	1435		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCB	1.00	1436		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ZZZZZZ	1.00	1438		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1439		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1439		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1440		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1441		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1442		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CCV	1.00	1443		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCB	1.00	1443		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
ZZZZZZ	1.00	1445		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1446		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1447		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1447		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ZZZZZZ	1.00	1448		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MEBFM7A	1.00	1449		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCV	1.00	1450		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
CCB	1.00	1450		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
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