US EPA RECORDS CENTER REGION 5
559549

SAMPLING DATA

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 2/27 FIT Receipt Date 4/13 Review Completed 4/16/90

TO: Spangler
FROM: Mary Gzyra
SUBJECT: Murrell LF
PAN: IL0492SA (1 hour charged for review) Case # 13623

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	# 6	Low Soil
	Low Water		Low Water
	Drinking Water		Drinking Water
	Other		Other

Project Data Status ✓ Completed!!

_____ Incomplete, awaiting _____

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

✓ Compounds were detected in sample(s); see enclosed sheet.

Book No. 9 Page No. _____ Date Sampled 2/21

0759:2

recycled paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 4-10-90

SUBJECT: Review of Region V CLP Data Received for Review on March 27, 1990 4/13/90

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory Jay Thakkar

TO: Data User: Pit

We have reviewed the data for the following case(s).

SITE NAME: Murrell Landfill SMO Case No. 13623

EPA Data Set No. SF 7030 No. of Samples: 6 D.U./Activity Numbers IFA/IFA08

CRL No. 90FT0532-37

SMO Traffic No. MCHT30-35

CLP Laboratory: OWOK Hrs. Required for Review: 6.5 + 1/2 QK 4/9/90

Following are our findings.

See next page MF 4/6/90

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Dr. Alfred Haeberer/Joan Fisk/Gary Ward, EPA Support Services
Ross K. Robeson, EMSL-Las Vegas
Jay Thakkar, CLP Sample Management Office

Below are the out of control audits for case 13623 which contained 6 soil samples(MEHT30-35) analyzed for total metals and total cyanide.

LAB: SWOK SITE: MURRELL LANDFILL

ICP ANALYSES: The reviewer corrected the preparation blank for Zn on form 3.

The matrix spike of Cu(72.9%) and Sb(21.6%) are out of control.
The duplicate of Cu(123.1%) indicates poor precision and is flagged "*" by the lab.
All Cu data are estimated(J) due to poor precision and a low bias.
All Sb data are unusable(R).

The lab flagged "*" on the duplicate of Cr(+/- 2 X CRDL),Fe(126.3), Ni(+/- 2 X CRDL),Mn(53.6%), and Zn(22.8%) however the duplicate limits for soils(35% RPD and +/- 2 X CRDL) were not exceeded for Zn and Ni. All Ni and Zn data are acceptable.

The lab flagged "E" on the following for the ICP serial dilution: Al(11%),Ca(12.4%),Fe(10.2%), and Mn(10.2%).

All Fe and Mn data are estimated(J) due to poor precision and interference.
All Cr data are estimated(J) due to poor precision.
All Al and Ca data are estimated(J) due to interference.

The preparation blank for Na(30.407 mg/kg) indicates contamination. For Na, MEHT31,35 are estimated(J) due to contamination.

GFAA ANALYSES: The lab flagged "W" on Se(MEHT31,33) and Tl(MEHT30-33,35).
All data mentioned above for Se and Tl are estimated(UJ) due to interference.

The reviewer corrected form 1 for Pb(MEHT35). The duplicate of Pb(19.9%) is flagged "*" by the lab however the duplicate limits for soils(35% RPD) was not exceeded. All Pb data are acceptable.

OTHER QUALIFIERS: All Hg and CN data are acceptable.

Reviewed by: M. Fletcher M. Fletcher
Date: 4/6/90

QC EXCEPTION SUMMARY REPORT

CASE # 13623
DATA SET 7030
LAB Q.C.
DATE: 4/6/90

SITE Murphy NDFL
LAB Swak
REVIEWED BY M. Hatcher

MATRIX: Land
CONC. : Soil
MATRIX:
CONC. :

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK.
SOIL SAMPLE DUP.

	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER/ COMMENTS
	Holding Time	Cal Blanks	Std Calves	Contin Calves	Prep Blk AQ	Prep Blk SOL	ICS Blk	ICS % AQ	ICS % SOL	Sol Dup RPD	Sol Spk %	AQ Dup RPD	AQ Spk %	Ser Dilu AQ	Ser Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %	Blank Blank	Blank Spike %	Spike Sample RPD	
Aluminum															11									
Antimony											91.10													
Arsenic																								
Barium																								
Beryllium																								
Cadmium															124									
Calcium															125									
Chromium										74.4														
Cobalt																								
Copper										123.1	72.9													
										126.3					104.2									
Iron																								
Magnesium										53.6														
Manganese															110.3									
Mercury																								
Nickel																								
Potassium																								
Selenium																								
Silver																								
Sodium						30.41																		
Thallium																								
Tin																								
Vanadium																								
Zinc																								
Cyanide																								

Wilkey 11 Mett 30-33, 35
See 33 p1

DPO: [ ] ACTION [ ] FYI Region 5

INORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO. 13623 LABORATORY FIT SWOK

SDG NO. MFAT30 DATA USER FIT

SOW 7/88 REVIEW COMPLETION DATE 4/6/90

NO. OF SAMPLES _____ WATER 6 SOIL _____ OTHER

REVIEWER [ ] ESD [✓] ESAT [ ] OTHER, CONTRACT/CONTRACTOR _____

	ICP	AA	Hg	CYANIDE
1. HOLDING TIMES	O	O	O	O
2. INITIAL CALIBRATIONS				
3. CONTINUING CALIBRATIONS				
4. FIELD BLANKS ('F' = not applicable)				
5. LABORATORY BLANKS	X			
6. ICS	O			
7. LCS	O			
8. DUPLICATE ANALYSIS	M			
9. MATRIX SPIKE	X			
10. MSA				
11. SERIAL DILUTION	M			
12. SAMPLE VERIFICATION	O			
13. REGIONAL QC ('F' = not applicable)				
14. OVERALL ASSESSMENT	M			

O = No problems or minor problems that do not affect data usability.
X = No more than *about* 5% of the data points are qualified as either estimated or unusable.
M = More than *about* 5% of the data points are qualified as estimated.
Z = More than *about* 5% of the data points are qualified as unusable.

DPO ACTION ITEMS: _____

AREAS OF CONCERN: _____

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COVER PAGE - INORGANIC ANALYSIS DATA PACKAGE

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

SOW No.: 7/88

EPA Sample No.	Lab Sample ID
MEHT30	202801
MEHT30D	202801D
MEHT30S	202801S
MEHT31	202802
MEHT32	202803
MEHT33	202804
MEHT34	202905
MEHT35	202806

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 his disignee, as verified by the following signatures.

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

Date: **March 23, 1990** Title: **Inorganics Program Manager**

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

002

MEHT30

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

Matrix (soil/water): SOIL Lab Sample ID: 202801

Level (low/med): LOW Date Received: 2/23/90

% Solids: 65.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4090.00		E	P
7440-36-0	Antimony	16.70	U	N	P
7440-38-2	Arsenic	6.10			F
7440-39-3	Barium	78.30			P
7440-41-7	Beryllium	.37	B		P
7440-43-9	Cadmium	1.50	U		P
7440-70-2	Calcium	10700.00		E	P
7440-47-3	Chromium	7.20		*	P
7440-48-4	Cobalt	7.10	B		P
7440-50-8	Copper	55.10		N*	P
7439-89-6	Iron	10100.00		E*	P
7439-92-1	Lead	26.90		S*	F
7439-95-4	Magnesium	3930.00			P
7439-96-5	Manganese	980.00		E*	P
7439-97-6	Mercury	.15	U		CV
7440-02-0	Nickel	12.20		*	P
7440-09-7	Potassium	813.00	B		P
7782-49-2	Selenium	.92	B		F
7440-22-4	Silver	.91	U		P
7440-23-5	Sodium	194.00	B		P
7440-28-0	Thallium	.61	U	W	F
7440-62-2	Vanadium	13.80	B		P
7440-66-6	Zinc	87.10		*	P
	Cyanide	3.40	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

003

MEHT31

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

Matrix (soil/water): SOIL Lab Sample ID: 202802

Level (low/med): LOW Date Received: 2/23/90

% Solids: 78.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6740.00		E	P
7440-36-0	Antimony	13.70	U	N	P
7440-38-2	Arsenic	5.70			F
7440-39-3	Barium	67.30			P
7440-41-7	Beryllium	.41	B		P
7440-43-9	Cadmium	1.20	U		P
7440-70-2	Calcium	1490.00		E	P
7440-47-3	Chromium	9.10		*	P
7440-48-4	Cobalt	8.80	B		P
7440-50-8	Copper	26.80		N*	P
7439-89-6	Iron	11700.00		E*	P
7439-92-1	Lead	33.20		S*	F
7439-95-4	Magnesium	1680.00			P
7439-96-5	Manganese	662.00		E*	P
7439-97-6	Mercury	.11	U		CV
7440-02-0	Nickel	10.70		*	P
7440-09-7	Potassium	887.00	B		P
7782-49-2	Selenium	.51	U	W	F
7440-22-4	Silver	.75	U		P
7440-23-5	Sodium	143.00	B		P
7440-28-0	Thallium	.51	U	W	F
7440-62-2	Vanadium	17.40			P
7440-66-6	Zinc	60.80		*	P
	Cyanide	2.60	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

004

MEHT32

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

Matrix (soil/water): SOIL Lab Sample ID: 202803

Level (low/med): LOW Date Received: 2/23/90

% Solids: 45.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3870.00		E	P
7440-36-0	Antimony	23.80	U	N	P
7440-38-2	Arsenic	4.40			F
7440-39-3	Barium	88.20			P
7440-41-7	Beryllium	.43	U		P
7440-43-9	Cadmium	2.20	U		P
7440-70-2	Calcium	9810.00		E	P
7440-47-3	Chromium	17.80		*	P
7440-48-4	Cobalt	3.30	B		P
7440-50-8	Copper	76.20		N*	P
7439-89-6	Iron	56300.00		E*	P
7439-92-1	Lead	192.00		*	F
7439-95-4	Magnesium	2190.00			P
7439-96-5	Manganese	655.00		E*	P
7439-97-6	Mercury	.23			CV
7440-02-0	Nickel	27.90		*	P
7440-09-7	Potassium	1140.00	B		P
7782-49-2	Selenium	.88	U		F
7440-22-4	Silver	1.30	U		P
7440-23-5	Sodium	276.00	B		P
7440-28-0	Thallium	.88	U	W	F
7440-62-2	Vanadium	8.70	B		P
7440-66-6	Zinc	458.00		*	P
	Cyanide	24.60			C

Color Before: BLACK Clarity Before: Texture: FINE

Color After: YELLOW Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

005

MEHT33

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

Matrix (soil/water): SOIL Lab Sample ID: 202804

Level (low/med): LOW Date Received: 2/23/90

% Solids: 81.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6150.00		E	P
7440-36-0	Antimony	13.50	U	N	P
7440-38-2	Arsenic	9.60			F
7440-39-3	Barium	139.00			P
7440-41-7	Beryllium	.65	B		P
7440-43-9	Cadmium	14.10			P
7440-70-2	Calcium	29.50	B	E	P
7440-47-3	Chromium	60.40		*	P
7440-48-4	Cobalt	7.60	B		P
7440-50-8	Copper	465.00		N*	P
7439-89-6	Iron	86600.00		E*	P
7439-92-1	Lead	251.00		*	F
7439-95-4	Magnesium	2190.00			P
7439-96-5	Manganese	886.00		E*	P
7439-97-6	Mercury	.12	U		CV
7440-02-0	Nickel	174.00		*	P
7440-09-7	Potassium	912.00	B		P
7782-49-2	Selenium	.48	U	W	F
7440-22-4	Silver	.74	U		P
7440-23-5	Sodium	232.00	B		P
7440-28-0	Thallium	.48	U	W	F
7440-62-2	Vanadium	12.90			P
7440-66-6	Zinc	1755.97			P
	Cyanide	2.40	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

005

MEHT34

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

Matrix (soil/water): SOIL Lab Sample ID: 202905

Level (low/med): LOW Date Received: 2/23/90

% Solids: 68.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12600.00		E	P
7440-36-0	Antimony	16.00	U	N	P
7440-38-2	Arsenic	12.20			F
7440-39-3	Barium	231.00			P
7440-41-7	Beryllium	1.50			P
7440-43-9	Cadmium	1.50	U		P
7440-70-2	Calcium	171000.00		E	P
7440-47-3	Chromium	16.80		*	P
7440-48-4	Cobalt	6.10	B		P
7440-50-8	Copper	33.20		N*	P
7439-89-6	Iron	14700.00		E*	P
7439-92-1	Lead	53.50		S*	F
7439-95-4	Magnesium	4090.00			P
7439-96-5	Manganese	568.00		E*	P
7439-97-6	Mercury	2.20			CV
7440-02-0	Nickel	15.60		*	P
7440-09-7	Potassium	1750.00			P
7782-49-2	Selenium	8.95		S	F
7440-22-4	Silver	.87	U		P
7440-23-5	Sodium	654.00	B		P
7440-28-0	Thallium	.58	U		F
7440-62-2	Vanadium	29.30			P
7440-66-6	Zinc	160.00		*	P
	Cyanide	2.60	U		C

Color Before: GRAY Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

007

MEHT35

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

Matrix (soil/water): SOIL Lab Sample ID: 202806

Level (low/med): LOW Date Received: 2/23/90

% Solids: 76.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5610.00		E	P
7440-36-0	Antimony	14.10	U	N	P
7440-38-2	Arsenic	1.60	B		F
7440-39-3	Barium	72.30			P
7440-41-7	Beryllium	.47	B		P
7440-43-9	Cadmium	1.30	U		P
7440-70-2	Calcium	1740.00		E	P
7440-47-3	Chromium	8.60		*	P
7440-48-4	Cobalt	3.70	B		P
7440-50-8	Copper	17.60		N*	P
7439-89-6	Iron	6980.00		E*	P
7439-92-1	Lead	~~23.60~~ 23.8		S*	F
7439-95-4	Magnesium	1180.00	B		P
7439-96-5	Manganese	557.00		E*	P
7439-97-6	Mercury	.11	U		CV
7440-02-0	Nickel	8.00	B	*	P
7440-09-7	Potassium	613.00	B		P
7782-49-2	Selenium	.59	B		F
7440-22-4	Silver	.77	U		P
7440-23-5	Sodium	114.00	B		P
7440-28-0	Thallium	.52	U	W	F
7440-62-2	Vanadium	14.30			P
7440-66-6	Zinc	52.10		*	P
	Cyanide	2.20	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: Artifacts:

Comments:

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3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

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	21.0	U	21.0	U	21.0	U	21.0	U	4.200	U	P
Antimony	55.0	U	55.0	U	55.0	U	55.0	U	11.000	U	P
Arsenic	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	F
Barium	4.0	U	4.0	U	4.0	U	4.0	U	.800	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	.200	U	P
Cadmium	5.0	U	5.0	U	5.0	U	5.0	U	1.000	U	P
Calcium	24.0	U	24.0	U	24.0	U	24.0	U	4.800	U	P
Chromium	4.0	B	4.0	U	4.0	U	4.0	U	.800	U	P
Cobalt	6.0	U	6.0	U	6.0	U	6.0	U	1.200	U	P
Copper	-4.0	B	4.0	U	4.0	U	4.0	U	-.845	B	P
Iron	13.7	B	14.5	B	35.5	B	22.1	B	2.400	U	P
Lead	2.0	U	2.0	U	2.0	U	2.0	U	.400	U	F
Magnesium	32.0	U	32.0	U	32.0	U	32.0	U	6.400	U	P
Manganese	3.0	U	3.0	U	3.0	U	3.2	B	.600	U	P
Mercury	.2	U	.2	U	.2	U			.100	U	CV
Nickel	19.0	U	19.0	U	19.0	U	19.0	U	3.800	U	P
Potassium	528.0	U	528.0	U	528.0	U	528.0	U	105.600	U	P
Selenium	2.0	U	2.0	U	2.0	U			-.544	B	F
Silver	3.0	U	4.8	B	4.8	B	4.0	B	.600	U	P
Sodium	35.0	U	35.0	U	35.0	U	35.0	U	30.407	B	P
Thallium	2.0	U	2.0	U	2.0	U	2.0	U	.400	U	F
Vanadium	3.0	U	3.0	U	3.0	U	3.0	U	.600	U	P
Zinc	4.0	U	4.0	U	4.0	U	4.0	U	.8 ~~4.000~~	U	P
Cyanide	10.0	U	10.0	U	10.0	U			1.000	U	C

mF 4/5/91

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BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

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											
Antimony											
Arsenic			5.0	U	5.0	U					F
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			2.0	U	2.0	U	2.0	U			F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium			2.0	U	2.0	U	2.0	U			F
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

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											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			2.0	U	2.0	U	2.0	U			F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium			2.0	U	2.0	U	2.0	U			F
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

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											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium			2.0	U	2.0	U	2.0	U			F
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

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											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium			2.0	U	2.0	U	2.0	U			F
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

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											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium			2.0	U	2.0	U	2.0	U			F
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

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											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium			2.0	U							F
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

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											
Antimony	55.0	U	55.0	U	55.0	U	55.0	U			P
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium	24.0	U	24.0	U	24.0	U	24.0	U			P
Chromium											
Cobalt											
Copper	4.0	U	4.0	U	4.0	U	4.0	U			P
Iron											
Lead	2.0	U	2.0	U	2.0	U					F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium	2.0	U	2.0	U	2.0	B	2.0	U			F
Silver											
Sodium											
Thallium											
Vanadium											
Zinc	4.0	U	4.0	U	4.0	U	4.0	U			P
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

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											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium			2.0	U							F
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

3
BLANKS

Lab name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

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											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead	2.0	U	2.0	U	2.9	B					F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEHT30S

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

Matrix: SOIL Level (low/med): LOW

% Solids for Sample: 65.4

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony	75-125	33.0440		16.6530	U	152.91	21.6	N	P
Arsenic	75-125	20.0000		6.1162		12.23	113.5		F
Barium	75-125	667.4266		78.2957		611.62	96.3		P
Beryllium	75-125	14.8015		.3679	B	15.29	94.4		P
Cadmium	75-125	18.8921		1.5139	U	15.29	123.6		P
Calcium									NR
Chromium	75-125	65.0873		7.1812		61.16	94.7		P
Cobalt	75-125	150.3031		7.0861	B	152.91	93.7		P
Copper	75-125	110.8392		55.0959		76.45	72.9	N	P
Iron									NR
Lead		37.2630		26.9083		6.12	169.2		F
Magnesium									NR
Manganese		1273.0706		979.5410		152.91	192.0		P
Mercury	75-125	.6672		.1529	U	.70	95.3		CV
Nickel	75-125	161.8330		12.1766		152.91	97.9		P
Potassium									NR
Selenium	75-125	3.5963		.9235	B	3.06	87.3		F
Silver	75-125	13.4343		.9100	U	15.29	87.9		P
Sodium									NR
Thallium	75-125	12.2018		.6116	U	15.29	79.8		F
Vanadium	75-125	159.6110		13.8439	B	152.91	95.3		P
Zinc	75-125	230.7638		87.1363		152.91	93.9		P
Cyanide	75-125	31.2819		3.4438	U	31.86	98.2		C

Comments:

U.S. EPA - CLP

5B

POST DIGEST SPIKE SAMPLE RECOVERY

037

EPA SAMPLE NO.

MEHT30A

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

Matrix: SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		94.06		55.00	U	120.0	78.4		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper		589.54		181.97		400.0	101.9		P
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									

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEHT30D

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

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

% Solids for Sample: 65.4 % Solids for Duplicate: 62.1

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	%RPD	Q	M
Aluminum		4093.4379		4875.7080		17.4		P
Antimony		16.6530	U	16.4898	U			P
Arsenic	3.1	6.1162		3.9755		42.4		F
Barium	60.6	78.2957		98.9301		23.3		P
Beryllium		.3679	B	.4748	B	25.4		P
Cadmium	1.5	1.5139	U	1.4991	U			P
Calcium		10671.5580		11303.5340		5.8		P
Chromium	3.0	7.1812		16.6389		79.4	*	P
Cobalt		7.0861	B	7.5871	B	6.8		P
Copper		55.0959		231.3253		123.1	*	P
Iron		10138.0740		44880.4300		126.3	*	P
Lead	.9	26.9083		22.0413		19.9	*	F
Magnesium	1513.9	3930.6831		3875.8982		1.4		P
Manganese		979.5410		1697.0776		53.6	*	P
Mercury	.2	.1529	U	.1330	U			CV
Nickel	12.1	12.1766		27.9828		78.7	*	P
Potassium		813.1518	B	789.9778	B	2.9		P
Selenium		.9235	B	1.1131	B	18.6		F
Silver		.9083	U	.8994	U			P
Sodium		194.1444	B	210.9695	B	8.3		P
Thallium		.6116	U	.6116	U			F
Vanadium	15.1	13.8439	B	17.1090		21.1		P
Zinc		87.1363		109.5043		22.8	*	P
Cyanide		3.4438	U	2.9518	U			C

10
INSTRUMENT DETECTION LIMITS (QUARTRLY)

042

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

ICP ID Number: TJA61 Date: 1/15/90

Flame AA ID Number: BUCK

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		200	21.0	P
Antimony	217.58		60	55.0	P
Arsenic			10		
Barium	493.41		200	4.0	P
Beryllium	313.04		5	1.0	P
Cadmium	228.80		5	5.0	P
Calcium	317.93		5000	24.0	P
Chromium	267.72		10	4.0	P
Cobalt	228.62		50	6.0	P
Copper	324.75		25	4.0	P
Iron	249.94		100	12.0	P
Lead			3		
Magnesium	279.08		5000	32.0	P
Manganese	357.61		15	3.0	P
Mercury	253.70		0.2	.2	CV
Nickel	221.60		40	19.0	P
Potassium	766.49		5000	528.0	P
Selenium			5		
Silver	328.07		10	3.0	P
Sodium	588.99		5000	35.0	P
Thallium			10		
Vanadium	292.40		50	3.0	P
Zinc	213.86		20	4.0	P

Comments:

10
INSTRUMENT DETECTION LIMITS (QUARTRLY)

043

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

ICP ID Number: Date: 1/15/90

Flame AA ID Number:

Furnace AA ID Number: TJA22

Analyte	Wave-length (nm)	Back ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		
Antimony			60		
Arsenic			10		
Barium			200		
Beryllium			5		
Cadmium			5		
Calcium			5000		
Chromium			10		
Cobalt			50		
Copper			25		
Iron			100		
Lead	283.30	BS	3	2.0	F
Magnesium			5000		
Manganese			15		
Mercury			0.2		
Nickel			40		
Potassium			5000		
Selenium			5		
Silver			10		
Sodium			5000		
Thallium	176.80	BS	10	2.0	F
Vanadium			50		
Zinc			20		

Comments:

10

INSTRUMENT DETECTION LIMITS (QUARTRLY)

044

Lab Name: SOUTHWEST LAB OF OK Contract: 68-D9-0089

Lab Code: SWOK Case No.: 13623 SAS No.: SDG No.: MEHT30

ICP ID Number: Date: 1/15/90

Flame AA ID Number:

Furnace AA ID Number: PE5000

Analyte	Wave-length (nm)	Back ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		
Antimony			60		
Arsenic	193.70	BZ	10	5.0	F
Barium			200		
Beryllium			5		
Cadmium			5		
Calcium			5000		
Chromium			10		
Cobalt			50		
Copper			25		
Iron			100		
Lead			3		
Magnesium			5000		
Manganese			15		
Mercury			0.2		
Nickel			40		
Potassium			5000		
Selenium	196.00	BZ	5	2.0	F
Silver			10		
Sodium			5000		
Thallium			10		
Vanadium			50		
Zinc			20		

Comments:

Murrell Landfill
FIL0492SA
Taylor 2-21-90

Zy 4/16/90.

Table 4- (Cont.)

Soil

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number S 1 MEHT 30	S 2 31	S 3 32	S 4 33	S 5 34	S 6 35	7	8	9	10	11	12
				Analyte Detected (values in mg/kg or µg/L)												
Solid	A,D	MES	CSC/CWC	aluminum	4090 JE	6740 JE	3870 JE	6150 JE	12600 JE	5610 JE						
Solid	A,D	MES	HM	antimony												
Solid	A,D	MES	HM	arsenic	6.1	5.7	4.4	9.6	12.2	1.6 B						
Solid	A,D	MES	CSC/CWC	barium	78.3	67.3	88.2	139	231	72.3						
Solid	A,D	MES	M	beryllium	0.37 B	0.41 B		0.65 B	1.5	0.47 B						
Solid	A,D	MES	HM	cadmium				14.1								
Solid	D	MES	CSC/CWC	calcium	20700 JE	1490 JE	9810 JE	29.5 JEB	171000 JE	1740 JE						
Solid	A,D	MES	HM	chromium	7.2 J*	9.1 J*	17.8 J*	60.4 J*	16.8 J*	8.6 J*						
Solid	A,D	MES	HM	cobalt	7.1 B	8.8 B	3.3 B	7.6 B	6.1 B	3.7 B						
Solid	A,D	MES	HM	copper	55.1 JN*	26.8 JN*	76.2 JN*	465 JN*	33.2 JN*	17.6 JN*						
Solid	A,D	MES	HM,CSC;CWC	iron	10100 JE*	11700 JE*	56300 JE*	86600 JE*	14700 JE*	6980 JE*						
Solid	A,D	MES	HM	lead	26.9	33.2	192	251	53.5	23.8						
Solid	A,D	MES	CSC/CWC	magnesium	3930	1680	2190	2190	4090	1180 B						
Solid	A,D	MES	HM	manganese	980 JE*	662 JE*	655 JE*	886 JE*	528 JE*	557 JE*						
Liquid	A,D	MES	HM	mercury			0.23		2.2							
Solid	A,D	MES	HM	nickel	12.2	10.7	27.9	174	15.6	8.0 B						
Solid	D	MES	CSC,CWC	potassium	813 B	287 B	1140 B	912 B	1750	613 B						
Solid	A,D	MES	M	selenium	0.92 B				6.95	0.59 B						
Solid	A,D	MES	HM	silver												
Solid	D	MES	CSC,CWC	sodium	194 B	143 JB	276 B	232 B	654 B	114 JB						
Solid	A,D	MES	HM	thallium												
Solid	A,D	MES	HM	vanadium	13.8 B	19.4	8.7 B	12.9	29.3	14.3						
Solid	A,D	MES	CWL,CSC,HM	zinc	87.1	60.8	458	1756	160	52.1						
Solid	A	IOC	IOC	cyanide			24.6									

— Not detected.

Table 4- (Cont.)

COMPOUND QUALIFIERS	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected at or above the CRDL.
J	Indicates an estimated value.	Compound value may be semiquantitative.
UJ	Quantitation limit is estimated due to a quality control (QC) protocol.	Compound was not detected if value is <CRDL, e.g., 10U UJ. If a value is reported with a UJ above CRDL and it is <5x blank concentration (10x for common laboratory artifacts), the compound is detected but may be a laboratory artifact and not attributable to the sample.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/µL in the final extract shall be confirmed by GC/MS.	Compound was confirmed by GC/MS and is qualitative. Use pesticide/PCB listed values. Single components pesticides >10 ng/µL in the final extract shall be confirmed by GC/MS.
B	This flag is used when the compound is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semiquantitative if it is <5x the blank concentration (<10x the blank concentrations for common laboratory artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semiquantitative. There should be another analysis with a D qualifier, which is to be used.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRDL. Data is quantitative.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a laboratory artifact in the TICs only.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

ANALYTE QUALIFIERS		DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to interference. See laboratory narrative.	Analyte or element was not detected, or value may be semiquantitative.
S	S	Analysis by Method of Standard Additions.	Value is quantitative.
R	N	Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative. See spike results and laboratory narrative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be quantitative or semiquantitative.
+	+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC protocol.	Value may be semiquantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected at or above the CRDL.
	M	Duplicate injection precision not met.	Value may be semiquantitative.
	W	Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semiquantitative.
	R	Results are unusable due to a major violation of QC protocols.	Analyte value is not usable.

Source: Ecology and Environment, Inc. 1989.

ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 2/22 FIT Receipt Date 3/20 Review Completed 3/24/90

TO: Sponge

FROM: Mary Gzyra

SUBJECT: Murrell LF

PAN: IL0492SA (1 hour charged for review) Case # 13623

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	#	Low Soil
	Low Water		Low Water
6	Drinking Water		Drinking Water
	Other		Other

Project Data Status _____ Completed!!

✓ Incomplete, awaiting DW results, Soil org & results

FIT Data Review Findings:

NO COMPOUNDS DETECTED

Check Data Sheets for Transcription Errors

_____ Compounds were detected in sample(s); see enclosed sheet.

Book No. 9 Page No. _____ Date Sampled 2/21

0759:2

recycled paper

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: MAR 19 1990

SUBJECT: Review of Region 5 data for Murrell Landfill

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory

To: Data User:

Attached are the results for:

CRL Data Set Numbers: SF6986
Sample Numbers: 90FT0951R-521, 018, and 90FT01R78 (6)
Parameter(s): VOA WATERS
Laboratory: US EPA CRL/WESTON PSAT

Results Status:

(X) DATA ACCEPTABLE FOR USE*
( ) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

If there are any questions regarding the data, refer them to ~~Steve Parker,~~ David A. Payne, the Quality Control Coordinator, at 353-3805.

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

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

TRANSMITTED BY
MAR 19 1990
U.S. EPA CENTRAL REGIONAL LAB

RECEIVED BY/DATE: 3/20/90

Comments:

DATA SET	SITE	DU/ACT.
SF6986	Murrell Landfill	TFA302

SAMPLES	PARAMETER(S)
90FT09S18-21,018,01R98	VOA/WATER

SAMPLED	RECEIVED	DUE	LAB
2/21/90	2/22/90	3/15/90	CRL/WESTON ESAT

SHIPPED	DATA RECEIVED	CONTRACT

TEAM LEADER	SECTION CHIEF	QC COORD.	DATA COORD.
[illegible]			

C ints By Reviewer:

THE DATA ARE ACCEPTABLE FOR USE.

DATA MANAGEMENT COORDINATOR

CEIVED TRANSMITTED

CLERICAL SUPPORT

RECEIVED COMPLETED

( ) /IEWED ( ) UNREVIEWED TEAM LEADER/DATE Robin Palmerchuk 3/14/90

( ) VIEWED ( ) UNREVIEWED SECTION CHIEF/DATE

( ) VIEWED ( ) UNREVIEWED QC COORDINATOR/DATE

VIEWED BY CONTRACT COORDINATOR/DATE

CEIVED 3/19/90 TRANSMITTED 3/19/90 DATA MANAGEMENT COORDINATOR [illegible]

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

METH BLNK

ıdy Name: MURRELL LF | 2
:a Set: SF6986 Date Received: 02/22/90
ı File ID: >KH141 Date Analyzed: 2/27/90
:rix: (soil/water) WATER Dilution Factor: 1.0
ıple wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	IU	
74-83-9	Bromomethane	3.	IU	
75-01-4	Vinyl Chloride	3.	IU	
75-00-3	Chloroethane	3.	IU	
75-09-2	Methylene Chloride	1.	IU	X
107-02-8	Acrolein	75.	IU	
67-64-1	Acetone	50.	IU	X
107-13-1	Acrylonitrile	50.	IU	
75-15-0	Carbon Disulfide	2.	IU	
75-35-4	1,1-Dichloroethene	1.	IU	
75-34-3	1,1-Dichloroethane	1.	IU	
156-60-5	1,2-Dichloroethene (total)	1.	IU	
67-66-3	Chloroform	1.	IU	
107-02-2	1,2-Dichloroethane	1.	IU	
78-93-3	2-Butanone	20.	IU	
71-55-6	1,1,1-Trichloroethane	1.	IU	
56-23-5	Carbon Tetrachloride	1.	IU	
108-05-4	Vinyl Acetate	10.	IU	
75-27-4	Bromodichloromethane	1.	IU	
78-87-5	1,2-Dichloropropane	1.	IU	
10061-01-5	cis-1,3-Dichloropropene	1.	IU	
79-01-6	Trichloroethene	1.	IU	
71-43-2	Benzene	1.	IU	
124-48-1	Dibromochloromethane	1.	IU	
10061-02-6	trans-1,3-Dichloropropene	1.	IU	
79-00-5	1,1,2-Trichloroethane	1.	IU	
110-75-8	2-Chloroethyl Vinylether	1.	IU	X
75-25-2	Bromoform	1.	IU	
108-10-1	4-Methyl-2-pentanone	4.	IU	
591-78-6	2-Hexanone	4.	IU	
127-18-4	Tetrachloroethene	1.	IU	
79-34-5	1,1,2,2-Tetrachloroethane	1.	IU	
108-88-3	Toluene	1.	IU	
108-90-7	Chlorobenzene	1.	IU	
100-41-4	Ethylbenzene	1.	IU	
100-42-5	Styrene	2.	IU	
108-38-3	Meta Xylene	2.	IU	
95-47-6	O-&/or P-Xylene	2.	IU	

ta Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES NO

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

METH BLNK

Name: MURRELL LF Contract: ESAT

Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

ix: (soil/water) WATER Lab Sample ID: METH BLNK

le wt/vol: 20 (g/mL) mL Lab File ID: >KH141

l: (low/med) LOW Date Received: 02/22/90

Date Analyzed: 02/27/90

Dilution Factor: 1.00000

nber TICs found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Uknown	20.48	6.	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
0.				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
0.				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
0.				

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

METH BLNK

ıdy Name: MURRELL LF
a Set: SF6986
File ID: >CJ186
rix: (soil/water) WATER
ıple wt/vol: 20 mL

12
Date Received: 02/22/90
Date Analyzed: 2/28/90
Dilution Factor: 1.0
Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	IU	
74-83-9	Bromomethane	3.	IU	
75-01-4	Vinyl Chloride	3.	IU	
75-00-3	Chloroethane	3.	IU	
75-09-2	Methylene Chloride	1.	IU	X
107-02-8	Acrolein	75.	IU	
67-64-1	Acetone	50.	IU	
107-13-1	Acrylonitrile	50.	IU	
75-15-0	Carbon Disulfide	2.	IU	
75-35-4	1,1-Dichloroethene	1.	IU	
75-34-3	1,1-Dichloroethane	1.	IU	
156-60-5	1,2-Dichloroethene (total)	1.	IU	
67-66-3	Chloroform	1.	IU	
107-02-2	1,2-Dichloroethane	1.	IU	
78-93-3	2-Butanone	20.	IU	
71-55-6	1,1,1-Trichloroethane	1.	IU	
56-23-5	Carbon Tetrachloride	1.	IU	
108-05-4	Vinyl Acetate	10.	IU	
75-27-4	Bromodichloromethane	1.	IU	
78-87-5	1,2-Dichloropropane	1.	IU	
10061-01-5	cis-1,3-Dichloropropene	1.	IU	
79-01-6	Trichloroethene	1.	IU	
71-43-2	Benzene	1.	IU	
124-48-1	Dibromochloromethane	1.	IU	
10061-02-6	trans-1,3-Dichloropropene	1.	IU	
79-00-5	1,1,2-Trichloroethane	1.	IU	
110-75-8	2-Chloroethyl Vinylether	1.	IU	X
75-25-2	Bromoform	1.	IU	
108-10-1	4-Methyl-2-pentanone	4.	IU	
591-78-6	2-Hexanone	4.	IU	
127-18-4	Tetrachloroethene	1.	IU	
79-34-5	1,1,2,2-Tetrachloroethane	1.	IU	
108-88-3	Toluene	1.	IU	
108-90-7	Chlorobenzene	1.	IU	
100-41-4	Ethylbenzene	1.	IU	
100-42-5	Styrene	2.	IU	
108-38-3	Meta Xylene	2.	IU	
95-47-6	O-&/or P-Xylene	2.	IU	

ta Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES NO

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

METH BLNK

Name: MURRELL LF Contract: ESAT

Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

rix: (soil/water) WATER Lab Sample ID: METH BLNK

ple wt/vol: 20 (g/mL) mL Lab File ID: >CJ186

el: (low/med) LOW Date Received: 02/22/90

Date Analyzed: 02/28/90

Dilution Factor: 1.00000

mber TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Uknown	20.49	6.	J
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
0.				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
0.				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
0.				

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT01R98

udy Name: MURRELL LF | 2
:a Set: SF6986 Date Received: 02/22/90
; File ID: >KH144 Date Analyzed: 2/27/90
trix: (soil/water) WATER Dilution Factor: 1.0
mple wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene_Chloride	1.	U	X
107-02-8	Acrolein	75.	U	X
67-64-1	Acetone	50.	U	X
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene_(total)	1.	U	
67-66-3	Chloroform	1.	U	X
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	U	
71-55-6	1,1,1-Trichloroethane	1.	U	
56-23-5	Carbon Tetrachloride	1.	U	
108-05-4	Vinyl Acetate	10.	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	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	X
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl_Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	U	
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	
108-88-3	Toluene	1.	U	X
108-90-7	Chlorobenzene	1.	U	
100-41-4	Ethylbenzene	1.	U	
100-42-5	Styrene	2.	U	
108-38-3	Meta Xylene	2.	U	X
95-47-6	O-&/or P-Xylene	2.	U	X

ta Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES NO

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

90FT01R98

Name: MURRELL LF Contract: ESAT

Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

ix: (soil/water) WATER Lab Sample ID: 90FT01R98

le wt/vol: 20 (g/mL) mL Lab File ID: >KH144

l: (low/med) LOW Date Received: 02/22/90

Date Analyzed: 02/27/90

Dilution Factor: 1.00000

mber TICs found: 2 CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Uknown	6.68	4.	J
2.	Uknown	20.51	2.	J
3.				
4.				
5.				
6.				
7.				
8.				
9.				
0.				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
0.				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
0.				

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT01R98

ıdy Name: MURRELL LF | 2
a Set: SF6986 Date Received: 02/22/90
File ID: >KH153 Date Analyzed: 2/28/90
rix: (soil/water) WATER Dilution Factor: 1.0
ıple wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	IU	X
74-83-9	Bromomethane	3.	IU	
75-01-4	Vinyl Chloride	3.	IU	
75-00-3	Chloroethane	3.	IU	
75-09-2	Methylene_Chloride	1.	IU	X
107-02-8	Acrolein	75.	IU	X
67-64-1	Acetone	50.	IU	
107-13-1	Acrylonitrile	50.	IU	
75-15-0	Carbon Disulfide	2.	IU	
75-35-4	1,1-Dichloroethene	1.	IU	
75-34-3	1,1-Dichloroethane	1.	IU	
156-60-5	1,2-Dichloroethene_(total)	1.	IU	
67-66-3	Chloroform	1.	IU	X
107-02-2	1,2-Dichloroethane	1.	IU	
78-93-3	2-Butanone	20.	IU	
71-55-6	1,1,1-Trichloroethane	1.	IU	
56-23-5	Carbon Tetrachloride	1.	IU	
108-05-4	Vinyl Acetate	10.	IU	
75-27-4	Bromodichloromethane	1.	IU	
78-87-5	1,2-Dichloropropane	1.	IU	
10061-01-5	cis-1,3-Dichloropropene	1.	IU	
79-01-6	Trichloroethene	1.	IU	
71-43-2	Benzene	1.	IU	
124-48-1	Dibromochloromethane	1.	IU	
10061-02-6	trans-1,3-Dichloropropene	1.	IU	
79-00-5	1,1,2-Trichloroethane	1.	IU	
110-75-8	2-Chloroethyl_Vinylether	1.	IU	X
75-25-2	Bromoform	1.	IU	
108-10-1	4-Methyl-2-pentanone	4.	IU	
591-78-6	2-Hexanone	4.	IU	
127-18-4	Tetrachloroethene	1.	IU	
79-34-5	1,1,2,2-Tetrachloroethane	1.	IU	
108-88-3	Toluene	1.	IU	X
108-90-7	Chlorobenzene	1.	IU	
100-41-4	Ethylbenzene	1.	IU	
100-42-5	Styrene	2.	IU	
108-38-3	Meta Xylene	2.	IU	
95-47-6	O-&/or P-Xylene	2.	IU	

ta Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

90FT01R98

Name: MURRELL LF Contract: ESAT

Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

rix: (soil/water) WATER Lab Sample ID: 90FT01R98

ple wt/vol: 20 (g/mL) mL Lab File ID: >KH153

el: (low/med) LOW Date Received: 02/22/90

Date Analyzed: 02/28/90

Dilution Factor: 1.00000

mber TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Uknown	20.51	3.	J
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
0.					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
0.					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
0.					

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S18

udy Name: MURRELL LF | 2
ta Set: SF6986 Date Received: 02/22/90
b File ID: >KH145 Date Analyzed: 2/27/90
trix: (soil/water) WATER Dilution Factor: 1.0
mple wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene Chloride	1.	U	X
107-02-8	Acrolein	75.	U	
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	X
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene (total)	1.	U	
67-66-3	Chloroform	1.	U	
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	U	
71-55-6	1,1,1-Trichloroethane	1.	U	
56-23-5	Carbon Tetrachloride	1.	U	
108-05-4	Vinyl Acetate	10.	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	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	U	
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	
108-88-3	Toluene	1.	U	
108-90-7	Chlorobenzene	1.	U	
100-41-4	Ethylbenzene	1.	U	
100-42-5	Styrene	2.	U	
108-38-3	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

ta Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09D18

ıdy Name: MURRELL LF | 2
a Set: SF6986 Date Received: 02/22/90
File ID: >KH149 Date Analyzed: 2/27/90
rix: (soil/water) WATER Dilution Factor: 1.0
ıple wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	X
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene Chloride	1.	U	X
107-02-8	Acrolein	75.	U	
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene (total)	1.	U	
67-66-3	Chloroform	1.	U	
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	U	
71-55-6	1,1,1-Trichloroethane	1.	U	
56-23-5	Carbon Tetrachloride	1.	U	
108-05-4	Vinyl Acetate	10.	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	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	U	
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	
108-88-3	Toluene	1.	U	
108-90-7	Chlorobenzene	1.	U	
100-41-4	Ethylbenzene	1.	U	
100-42-5	Styrene	2.	U	
108-38-3	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

ta Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S19

tudy Name: MURRELL LF | 2
ata Set: SF6986 Date Received: 02/22/90
ab File ID: >KH146 Date Analyzed: 2/27/90
atrix: (soil/water) WATER Dilution Factor: 1.0
ample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene_Chloride	1.	U	X
107-02-8	Acrolein	75.	U	
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	X
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene_(total)	1.	U	
67-66-3	Chloroform	1.	U	
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	U	
71-55-6	1,1,1-Trichloroethane	1.	U	
56-23-5	Carbon Tetrachloride	1.	U	
108-05-4	Vinyl Acetate	10.	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	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl_Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	U	
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	
108-88-3	Toluene	1.	U	
108-90-7	Chlorobenzene	1.	U	
100-41-4	Ethylbenzene	1.	U	
100-42-5	Styrene	2.	U	
108-38-3	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

ata Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S20

tudy Name: MURRELL LF 1 2
ata Set: SF6986 Date Received: 02/22/90
ab File ID: >KH147 Date Analyzed: 2/27/90
atrix: (soil/water) WATER Dilution Factor: 1.0
ample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L		Q
74-87-3	Chloromethane	3.	IU	
74-83-9	Bromomethane	3.	IU	
75-01-4	Vinyl Chloride	3.	IU	
75-00-3	Chloroethane	3.	IU	
75-09-2	Methylene Chloride	1.	IU	X
107-02-8	Acrolein	75.	IU	
67-64-1	Acetone	50.	IU	
107-13-1	Acrylonitrile	50.	IU	
75-15-0	Carbon Disulfide	2.	IU	X
75-35-4	1,1-Dichloroethene	1.	IU	
75-34-3	1,1-Dichloroethane	1.	IU	
156-60-5	1,2-Dichloroethene (total)	1.	IU	
67-66-3	Chloroform	1.	IU	X
107-02-2	1,2-Dichloroethane	1.	IU	
78-93-3	2-Butanone	20.	IU	
71-55-6	1,1,1-Trichloroethane	1.	IU	
56-23-5	Carbon Tetrachloride	1.	IU	
108-05-4	Vinyl Acetate	10.	IU	
75-27-4	Bromodichloromethane	1.	IU	
78-87-5	1,2-Dichloropropane	1.	IU	
10061-01-5	cis-1,3-Dichloropropene	1.	IU	
79-01-6	Trichloroethene	1.	IU	
71-43-2	Benzene	1.	IU	
124-48-1	Dibromochloromethane	1.	IU	
10061-02-6	trans-1,3-Dichloropropene	1.	IU	
79-00-5	1,1,2-Trichloroethane	1.	IU	
110-75-8	2-Chloroethyl Vinylether	1.	IU	X
75-25-2	Bromoform	1.	IU	
108-10-1	4-Methyl-2-pentanone	4.	IU	
591-78-6	2-Hexanone	4.	IU	
127-18-4	Tetrachloroethene	1.	IU	
79-34-5	1,1,2,2-Tetrachloroethane	1.	IU	
108-88-3	Toluene	1.	IU	
108-90-7	Chlorobenzene	1.	IU	
100-41-4	Ethylbenzene	1.	IU	
100-42-5	Styrene	2.	IU	
108-38-3	Meta Xylene	2.	IU	
95-47-6	O-&/or P-Xylene	2.	IU	

ata Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

90FT09S20

b Name: MURRELL LF Contract: ESAT

b Code: CHICAGOIL Case No.: SF6986 SAS No.: TFA302 SDG No.: ------

trix: (soil/water) WATER Lab Sample ID: 90FT09S20

mple wt/vol: 20 (g/mL) mL Lab File ID: >KH147

vel: (low/med) LOW Date Received: 02/22/90

Date Analyzed: 02/27/90

Dilution Factor: 1.00000

lumber TICs found: 1

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Uknown	12.85	1.	J
2.					
3.					
4.					
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U.S. EPA - REGION V
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S21

tudy Name: MURRELL LF | 2
ata Set: SF6986 Date Received: 02/22/90
ab File ID: >KH148 Date Analyzed: 2/27/90
atrix: (soil/water) WATER Dilution Factor: 1.0
ample wt/vol: 20 mL Level:(low/med) LOW

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L	Q	
74-87-3	Chloromethane	3.	U	
74-83-9	Bromomethane	3.	U	
75-01-4	Vinyl Chloride	3.	U	
75-00-3	Chloroethane	3.	U	
75-09-2	Methylene_Chloride	1.	U	X
107-02-8	Acrolein	75.	U	
67-64-1	Acetone	50.	U	
107-13-1	Acrylonitrile	50.	U	
75-15-0	Carbon Disulfide	2.	U	X
75-35-4	1,1-Dichloroethene	1.	U	
75-34-3	1,1-Dichloroethane	1.	U	
156-60-5	1,2-Dichloroethene_(total)	1.	U	
67-66-3	Chloroform	1.	U	
107-02-2	1,2-Dichloroethane	1.	U	
78-93-3	2-Butanone	20.	U	
71-55-6	1,1,1-Trichloroethane	1.	U	
56-23-5	Carbon Tetrachloride	1.	U	
108-05-4	Vinyl Acetate	10.	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	
71-43-2	Benzene	1.	U	
124-48-1	Dibromochloromethane	1.	U	
10061-02-6	trans-1,3-Dichloropropene	1.	U	
79-00-5	1,1,2-Trichloroethane	1.	U	
110-75-8	2-Chloroethyl_Vinylether	1.	U	X
75-25-2	Bromoform	1.	U	
108-10-1	4-Methyl-2-pentanone	4.	U	
591-78-6	2-Hexanone	4.	U	
127-18-4	Tetrachloroethene	1.	U	
79-34-5	1,1,2,2-Tetrachloroethane	1.	U	
108-88-3	Toluene	1.	U	
108-90-7	Chlorobenzene	1.	U	
100-41-4	Ethylbenzene	1.	U	
100-42-5	Styrene	2.	U	
108-38-3	Meta Xylene	2.	U	
95-47-6	O-&/or P-Xylene	2.	U	

ata Qualifiers: U = Compounds were analyzed but not detected. The value reported is the method detection limit for reagent water; J = Estimated; D=Diluted Sample; X = Result rejected for failing mass spectral confirmation; E = Concentration exceeded calibration range; B_ = Contaminant found in laboratory method blank; ARE THERE TICs ? (Circle) YES/NO

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

DATE: MAR 14 1990

SUBJECT: Review of Region 5 data for Murrell Landfill

FROM: Curtis Ross, Director
Region 5 Central Regional Laboratory
BABU PARVEHURI
508

To: Data User:

Attached are the results for:

CRL Data Set Numbers: 5F6986
Sample Numbers: 90FT0518, 519, 520, 521, D18 and 90FT01R92
Parameter(s): ORGANICS - ABNs
Laboratory: 5SCRL - ESD - USEPA

Results Status:

(✓) DATA ACCEPTABLE FOR USE* Babu...
( ) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

If there are any questions regarding the data, refer them to ~~Steve Parker~~, David A. Payne, the Quality Control Coordinator, at 353-3805.

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

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

TRANSMITTED BY
MAR 14 1990
U.S. EPA CENTRAL
REGIONAL LAB

RECEIVED BY/DATE: 3/16/90

Comments:

ATA SET	SITE	DU/ACT.
SF 6986	Murrell Landfill -	TFA302

AMPLES	PARAMETER(S)
90FT04318, 319, 320, 321, 018 and 90FT04R98	ORGANICS - ABNs

LED	RECEIVED	DUE	LAB
2/21/90	2/22/90	3/15/90	SSCRL- USEPA

HIPPED	DATA RECEIVED	CONTRACT

EAM LEADER	SECTION CHIEF	QC COORD.	DATA COORD.

Comments By Reviewer:

THE DATA ARE ACCEPTABLE FOR USE.

ATA MANAGEMENT COORDINATOR

ECEIVED	TRANSMITTED		
✓ VIEWED	( ) UNREVIEWED	Barbara Pabuchuk TEAM LEADER/DATE 3/14/90	
) REVIEWED	( ) UNREVIEWED	SECTION CHIEF/DATE	
) VIEWED	( ) UNREVIEWED	QC COORDINATOR/DATE	

CLERICAL SUPPORT

RECEIVED	COMPLETED

EVIEWED BY CONTRACT COORDINATOR/DATE

RECEIVED	TRANSMITTED	DATA MANAGEMENT COORDINATOR
3/14/90	3/14/90	[illegible]

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

METHODBLANK

Study Name: MURRELL LANDFILL [illegible] 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: METHODBLANK

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: [illegible]BP143

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L--	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	7.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	30.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	2.	U
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
[illegible]-58-7	2-Chloronaphthalene	2.	U
[illegible]-74-4	2-Nitroaniline	7.	U
[illegible]	Dimethylphthalate	2.	U
[illegible]	Acenaphthylene	2.	U
[illegible]	[illegible]	[illegible]	U

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

METHODBLANK

Study Name: MURRELL LANDFILL 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: METHODBLANK

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP143

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L--	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	2.	U N.F.
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[✓]

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT01R98

Study Name: MURRELL LANDFILL - 1 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT01R98

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP153

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q	
108-95-2	Phenol	2.	U	
111-44-4	bis(2-Chloroethyl)Ether	2.	U	
95-57-8	2-Chlorophenol	2.	U	
541-73-1	1,3-Dichlorobenzene	2.	U	
106-46-7	1,4-Dichlorobenzene	2.	U	
100-51-6	Benzyl alcohol	2.	U	
95-50-1	1,2-Dichlorobenzene	3.	U	
95-48-7	2-Methylphenol	1.	U	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U	
106-44-5	4-Methylphenol	1.	U	
621-64-7	N-Nitroso-Di-n-propylamine	2.	U	X
67-72-1	Hexachloroethane	2.	U	
98-95-3	Nitrobenzene	3.	U	
78-59-1	Isophorone	3.	U	
88-75-5	2-Nitrophenol	2.	U	
105-67-9	2,4-Dimethylphenol	2.	U	
65-85-0	Benzoic acid	30.	U	
111-91-1	bis(2-Chloroethoxy)methane	3.	U	
120-83-2	2,4-Dichlorophenol	2.	U	
120-82-1	1,2,4-Trichlorobenzene	2.	U	
91-20-3	Naphthalene	2.	U	
106-47-8	4-Chloroaniline	2.	U	
87-68-3	Hexachlorobutadiene	2.	U	
59-50-7	4-Chloro-3-methylphenol	2.	U	
91-57-6	2-Methylnaphthalene	2.	U	
77-47-4	Hexachlorocyclopentadiene	2.	U	
88-06-2	2,4,6-Trichlorophenol	2.	U	
95-95-4	2,4,5-Trichlorophenol	2.	U	
91-58-7	2-Chloronaphthalene	2.	U	
88-74-4	2-Nitroaniline	3.	U	
131-11-3	Dimethylphthalate	2.	U	
208-96-8	Acenaphthylene	2.	U	
606-20-2	2,6-Dinitrotoluene	1.	U	

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT01R98

Study Name: MURRELL LANDFILL - I 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT01R98

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP153

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	3.	~~B~~
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[✓]

3/20/90

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S18

Study Name: MURRELL LANDFILL [illegible] 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S18

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP144

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L--		Q
108-95-2	Phenol	2.	U	
111-44-4	bis(2-Chloroethyl)Ether	2.	U	
95-57-8	2-Chlorophenol	2.	U	
541-73-1	1,3-Dichlorobenzene	2.	U	
106-46-7	1,4-Dichlorobenzene	2.	U	
100-51-6	Benzyl alcohol	2.	U	
95-50-1	1,2-Dichlorobenzene	3.	U	
95-48-7	2-Methylphenol	1.	U	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U	
106-44-5	4-Methylphenol	1.	U	
621-64-7	N-Nitroso-Di-n-propylamine	2.	U	X
67-72-1	Hexachloroethane	2.	U	
98-95-3	Nitrobenzene	3.	U	
78-59-1	Isophorone	3.	U	
88-75-5	2-Nitrophenol	2.	U	
105-67-9	2,4-Dimethylphenol	2.	U	
65-85-0	Benzoic acid	30.	U	
111-91-1	bis(2-Chloroethoxy)methane	3.	U	
120-83-2	2,4-Dichlorophenol	2.	U	
120-82-1	1,2,4-Trichlorobenzene	2.	U	
91-20-3	Naphthalene	2.	U	
106-47-8	4-Chloroaniline	2.	U	
87-68-3	Hexachlorobutadiene	2.	U	
59-50-7	4-Chloro-3-methylphenol	2.	U	
91-57-6	2-Methylnaphthalene	2.	U	
77-47-4	Hexachlorocyclopentadiene	2.	U	
88-06-2	2,4,6-Trichlorophenol	2.	U	
95-95-4	2,4,5-Trichlorophenol	2.	U	
91-58-7	2-Chloronaphthalene	2.	U	
88-74-4	2-Nitroaniline	3.	U	
131-11-3	Dimethylphthalate	2.	U	
208-96-8	Acenaphthylene	2.	U	
606-20-2	2,6-Dinitrotoluene	1.	U	

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
90FT09S18

Study Name: MURRELL LANDFILL 12 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S18

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP144

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L--	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	7.	~~B~~
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[✓]

3/20/90

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09D18

Study Name: MURRELL LANDFILL ,I 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09D18

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP145

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L--		Q
108-95-2	Phenol	2.	U	
111-44-4	bis(2-Chloroethyl)Ether	2.	U	
95-57-8	2-Chlorophenol	2.	U	
541-73-1	1,3-Dichlorobenzene	2.	U	
106-46-7	1,4-Dichlorobenzene	2.	U	
100-51-6	Benzyl alcohol	2.	U	
95-50-1	1,2-Dichlorobenzene	3.	U	
95-48-7	2-Methylphenol	1.	U	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U	
106-44-5	4-Methylphenol	1.	U	
621-64-7	N-Nitroso-Di-n-propylamine	2.	U	X
67-72-1	Hexachloroethane	2.	U	
98-95-3	Nitrobenzene	3.	U	
78-59-1	Isophorone	3.	U	
88-75-5	2-Nitrophenol	2.	U	
105-67-9	2,4-Dimethylphenol	2.	U	
65-85-0	Benzoic acid	30.	U	X
111-91-1	bis(2-Chloroethoxy)methane	3.	U	
120-83-2	2,4-Dichlorophenol	2.	U	
120-82-1	1,2,4-Trichlorobenzene	2.	U	
91-20-3	Naphthalene	2.	U	
106-47-8	4-Chloroaniline	2.	U	
87-68-3	Hexachlorobutadiene	2.	U	
59-50-7	4-Chloro-3-methylphenol	2.	U	
91-57-6	2-Methylnaphthalene	2.	U	
77-47-4	Hexachlorocyclopentadiene	2.	U	
88-06-2	2,4,6-Trichlorophenol	2.	U	
95-95-4	2,4,5-Trichlorophenol	2.	U	
91-58-7	2-Chloronaphthalene	2.	U	
88-74-4	2-Nitroaniline	3.	U	
131-11-3	Dimethylphthalate	2.	U	
208-96-8	Acenaphthylene	2.	U	
606-20-2	2,6-Dinitrotoluene	1.	U	

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09D18

Study Name: MURRELL LANDFILL - 1 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09D18

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP145

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	IU
83-32-9	Acenaphthene	2.	IU
51-28-5	2,4-Dinitrophenol	15.	IU
100-02-7	4-Nitrophenol	2.	IU
132-64-9	Dibenzofuran	1.	IU
121-14-2	2,4-Dinitrotoluene	1.	IU
84-66-2	Diethylphthalate	1.	IU
7005-72-3	4-Chlorophenyl-phenylether	1.	IU
86-73-7	Fluorene	1.	IU
100-01-6	4-Nitroaniline	3.	IU
534-52-1	4,6-Dinitro-2-methylphenol	15.	IU
86-30-6	N-Nitrosodiphenylamine (1)	2.	IU
101-55-3	4-Bromophenyl-phenylether	2.	IU
118-74-1	Hexachlorobenzene	2.	IU
87-86-5	Pentachlorophenol	2.	IU
85-01-8	Phenanthrene	1.	IU
120-12-7	Anthracene	3.	IU
84-74-2	Di-n-butylphthalate	2.	IU
206-44-0	Fluoranthene	2.	IU
129-00-0	Pyrene	2.	IU
85-68-7	Butylbenzylphthalate	4.	IU
56-55-3	Benzo(a)anthracene	2.	IU
218-01-9	Chrysene	2.	IU
117-81-7	bis(2-Ethylhexyl)phthalate	3.	~~B~~
117-84-0	Di-n-octylphthalate	2.	IU
205-99-2	Benzo(b)fluoranthene	2.	IU
207-08-9	Benzo(k)fluoranthene	2.	IU
50-32-8	Benzo(a)pyrene	2.	IU
193-39-5	Indeno(1,2,3-cd)pyrene	4.	IU
53-70-3	Dibenzo(a,h)anthracene	3.	IU
191-24-2	Benzo(g,h,i)perylene	4.	IU

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[✓]

3/30/90

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S19

Study Name: MURRELL LANDFILL 2 ,I 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S19

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP146

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L--	Q
108-95-2	Phenol	2.	U
111-44-4	bis(2-Chloroethyl)Ether	2.	U
95-57-8	2-Chlorophenol	2.	U
541-73-1	1,3-Dichlorobenzene	2.	U
106-46-7	1,4-Dichlorobenzene	2.	U
100-51-6	Benzyl alcohol	2.	U
95-50-1	1,2-Dichlorobenzene	3.	U
95-48-7	2-Methylphenol	1.	U
39638-32-9	bis(2-chloroisopropyl)ether	3.	U
106-44-5	4-Methylphenol	1.	U
621-64-7	N-Nitroso-Di-n-propylamine	2.	U
67-72-1	Hexachloroethane	2.	U
98-95-3	Nitrobenzene	3.	U
78-59-1	Isophorone	3.	U
88-75-5	2-Nitrophenol	2.	U
105-67-9	2,4-Dimethylphenol	2.	U
65-85-0	Benzoic acid	30.	U
111-91-1	bis(2-Chloroethoxy)methane	3.	U
120-83-2	2,4-Dichlorophenol	2.	U
120-82-1	1,2,4-Trichlorobenzene	2.	U
91-20-3	Naphthalene	2.	U
106-47-8	4-Chloroaniline	2.	U
87-68-3	Hexachlorobutadiene	2.	U
59-50-7	4-Chloro-3-methylphenol	2.	U
91-57-6	2-Methylnaphthalene	2.	U
77-47-4	Hexachlorocyclopentadiene	2.	U
88-06-2	2,4,6-Trichlorophenol	2.	U
95-95-4	2,4,5-Trichlorophenol	2.	U
91-58-7	2-Chloronaphthalene	2.	U
88-74-4	2-Nitroaniline	3.	U
131-11-3	Dimethylphthalate	2.	U
208-96-8	Acenaphthylene	2.	U
606-20-2	2,6-Dinitrotoluene	1.	U

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S19

Study Name: MURRELL LANDFILL - >I 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S19

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP146

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L--	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	3.	B
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[✓]

3/30/90

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
90FT09S20

Study Name: MURRELL LANDFILL 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S20

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP147

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L--		Q
108-95-2	Phenol	2.	U	
111-44-4	bis(2-Chloroethyl)Ether	2.	U	
95-57-8	2-Chlorophenol	2.	U	
541-73-1	1,3-Dichlorobenzene	2.	U	
106-46-7	1,4-Dichlorobenzene	2.	U	
100-51-6	Benzyl alcohol	2.	U	
95-50-1	1,2-Dichlorobenzene	3.	U	
95-48-7	2-Methylphenol	1.	U	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U	
106-44-5	4-Methylphenol	1.	U	
621-64-7	N-Nitroso-Di-n-propylamine	2.	U	X
67-72-1	Hexachloroethane	2.	U	
98-95-3	Nitrobenzene	3.	U	
78-59-1	Isophorone	3.	U	
88-75-5	2-Nitrophenol	2.	U	
105-67-9	2,4-Dimethylphenol	2.	U	
65-85-0	Benzoic acid	30.	U	X
111-91-1	bis(2-Chloroethoxy)methane	3.	U	
120-83-2	2,4-Dichlorophenol	2.	U	
120-82-1	1,2,4-Trichlorobenzene	2.	U	
91-20-3	Naphthalene	2.	U	
106-47-8	4-Chloroaniline	2.	U	
87-68-3	Hexachlorobutadiene	2.	U	
59-50-7	4-Chloro-3-methylphenol	2.	U	
91-57-6	2-Methylnaphthalene	2.	U	
77-47-4	Hexachlorocyclopentadiene	2.	U	
88-06-2	2,4,6-Trichlorophenol	2.	U	
95-95-4	2,4,5-Trichlorophenol	2.	U	
91-58-7	2-Chloronaphthalene	2.	U	
88-74-4	2-Nitroaniline	3.	U	
131-11-3	Dimethylphthalate	2.	U	
208-96-8	Acenaphthylene	2.	U	
606-20-2	2,6-Dinitrotoluene	1.	U	

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
90FT09S20

Study Name: MURRELL LANDFILL - 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S20

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP147

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
99-09-2	3-Nitroaniline	3.	U
83-32-9	Acenaphthene	2.	U
51-28-5	2,4-Dinitrophenol	15.	U
100-02-7	4-Nitrophenol	2.	U
132-64-9	Dibenzofuran	1.	U
121-14-2	2,4-Dinitrotoluene	1.	U
84-66-2	Diethylphthalate	1.	U
7005-72-3	4-Chlorophenyl-phenylether	1.	U
86-73-7	Fluorene	1.	U
100-01-6	4-Nitroaniline	3.	U
534-52-1	4,6-Dinitro-2-methylphenol	15.	U
86-30-6	N-Nitrosodiphenylamine (1)	2.	U
101-55-3	4-Bromophenyl-phenylether	2.	U
118-74-1	Hexachlorobenzene	2.	U
87-86-5	Pentachlorophenol	2.	U
85-01-8	Phenanthrene	1.	U
120-12-7	Anthracene	3.	U
84-74-2	Di-n-butylphthalate	2.	U
206-44-0	Fluoranthene	2.	U
129-00-0	Pyrene	2.	U
85-68-7	Butylbenzylphthalate	4.	U
56-55-3	Benzo(a)anthracene	2.	U
218-01-9	Chrysene	2.	U
117-81-7	bis(2-Ethylhexyl)phthalate	4.	~~B~~
117-84-0	Di-n-octylphthalate	2.	U
205-99-2	Benzo(b)fluoranthene	2.	U
207-08-9	Benzo(k)fluoranthene	2.	U
50-32-8	Benzo(a)pyrene	2.	U
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U
53-70-3	Dibenzo(a,h)anthracene	3.	U
191-24-2	Benzo(g,h,i)perylene	4.	U

(1) - Cannot be separated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES[ ] NO[✓]

3/20/90

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
90FT09S21

Study Name: MURRELL LANDFILL ,I 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S21

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: ->BP148

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L--		Q
108-95-2	Phenol	2.	U	
111-44-4	bis(2-Chloroethyl)Ether	2.	U	
95-57-8	2-Chlorophenol	2.	U	
541-73-1	1,3-Dichlorobenzene	2.	U	
106-46-7	1,4-Dichlorobenzene	2.	U	
100-51-6	Benzyl alcohol	2.	U	
95-50-1	1,2-Dichlorobenzene	3.	U	
95-48-7	2-Methylphenol	1.	U	
39638-32-9	bis(2-chloroisopropyl)ether	3.	U	
106-44-5	4-Methylphenol	1.	U	
621-64-7	N-Nitroso-Di-n-propylamine	2.	U	X
67-72-1	Hexachloroethane	2.	U	
98-95-3	Nitrobenzene	3.	U	
78-59-1	Isophorone	3.	U	
88-75-5	2-Nitrophenol	2.	U	
105-67-9	2,4-Dimethylphenol	2.	U	
65-85-0	Benzoic acid	30.	U	
111-91-1	bis(2-Chloroethoxy)methane	3.	U	
120-83-2	2,4-Dichlorophenol	2.	U	
120-82-1	1,2,4-Trichlorobenzene	2.	U	X
91-20-3	Naphthalene	2.	U	
106-47-8	4-Chloroaniline	2.	U	
87-68-3	Hexachlorobutadiene	2.	U	
59-50-7	4-Chloro-3-methylphenol	2.	U	
91-57-6	2-Methylnaphthalene	2.	U	
77-47-4	Hexachlorocyclopentadiene	2.	U	
88-06-2	2,4,6-Trichlorophenol	2.	U	
95-95-4	2,4,5-Trichlorophenol	2.	U	
91-58-7	2-Chloronaphthalene	2.	U	
88-74-4	2-Nitroaniline	3.	U	
131-11-3	Dimethylphthalate	2.	U	
208-96-8	Acenaphthylene	2.	U	
606-20-2	2,6-Dinitrotoluene	1.	U	

U.S. EPA - REGION V
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

90FT09S21

Study Name: MURRELL LANDFILL | 2 SFUND

Lab Code: CHICAGOIL Case No.: SF6986 SAS No.: MURRLAN SDG No.: TFA302

Matrix: (soil/water) WATER — Lab Sample ID: 90FT09S21

Sample wt/vol: 1000 (g/mL) mL — Lab File ID: >BP148

Level: (low/med) LOW — Date Received: 02/22/90

% Moisture: not dec.____ dec. ____ — Date Extracted: 02/23/90

Extraction: (Sepf/Cont/Sonc) SEPF — Date Analyzed: 3/01/90

GPC Cleanup: (Y/N) N pH: 7.2 — Dilution Factor: 1.00000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L--		Q
99-09-2	3-Nitroaniline	3.	U	
83-32-9	Acenaphthene	2.	U	
51-28-5	2,4-Dinitrophenol	15.	U	
100-02-7	4-Nitrophenol	2.	U	
132-64-9	Dibenzofuran	1.	U	
121-14-2	2,4-Dinitrotoluene	1.	U	
84-66-2	Diethylphthalate	1.	U	
7005-72-3	4-Chlorophenyl-phenylether	1.	U	
86-73-7	Fluorene	1.	U	
100-01-6	4-Nitroaniline	3.	U	
534-52-1	4,6-Dinitro-2-methylphenol	15.	U	
86-30-6	N-Nitrosodiphenylamine (1)	2.	U	
101-55-3	4-Bromophenyl-phenylether	2.	U	
118-74-1	Hexachlorobenzene	2.	U	
87-86-5	Pentachlorophenol	2.	U	
85-01-8	Phenanthrene	1.	U	
120-12-7	Anthracene	3.	U	
84-74-2	Di-n-butylphthalate	2.	U	X
206-44-0	Fluoranthene	2.	U	
129-00-0	Pyrene	2.	U	
85-68-7	Butylbenzylphthalate	4.	U	
56-55-3	Benzo(a)anthracene	2.	U	
218-01-9	Chrysene	2.	U	
117-81-7	bis(2-Ethylhexyl)phthalate	3.	~~B~~	U 3/20/90
117-84-0	Di-n-octylphthalate	2.	U	
205-99-2	Benzo(b)fluoranthene	2.	U	
207-08-9	Benzo(k)fluoranthene	2.	U	
50-32-8	Benzo(a)pyrene	2.	U	
193-39-5	Indeno(1,2,3-cd)pyrene	4.	U	
53-70-3	Dibenzo(a,h)anthracene	3.	U	
191-24-2	Benzo(g,h,i)perylene	4.	U	

(1) - Cannot be seperated from Diphenylamine

TENTATIVELY IDENTIFIED COMPOUNDS YES( ) NO( ) ✓

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION 5
CHICAGO, ILLINOIS

MAR 14 1990

DATE:

SUBJECT: Review of Region 5 data for Murrell Landfill

FROM: Curtis Ross, Director L. Evangelista for
Region 5 Central Regional Laboratory

To: - Data User:

Attached are the results for:

CRL Data Set Numbers: SF 6986
Sample Numbers: 90FT09 S18 – 21; D18 & R98
Parameter(s): PCB/Pest
Laboratory: CRL

Data Status:

(✓) DATA ACCEPTABLE FOR USE*
( ) DATA QUALIFIED AS TO USE
( ) DATA UNACCEPTABLE FOR USE

* For data acceptability requirements, refer to the method capability statement for the methods referenced.

Comments by the Quality Control Coordinator:

If there are any questions regarding the data, refer them to ~~Steve Parker,~~ Dave Payne the Quality Control Coordinator, at ~~353-3805.~~ 886-1970

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

Sylvia Griffin
Data Management Coordinator
Region 5 Central Regional Laboratory
(5SCRL)

TRANSMITTED BY
MAR 14 1990
U.S. EPA CENTRAL REGIONAL LAB

RECEIVED BY/DATE: 3/16/90
Comments:

ATA SET	SITE	OU/ACT.
SF 6986	Murray Landfill	TFA 902

AMPLES	PARAMETER(S)
90 FT09$18-21; D18 + R98	PCB/Pesticides

AMPLED	RECEIVED	DUE	LAB
2/21/90	2/22/90	3/15/90	CRL

IPPED	DATA RECEIVED	CONTRACT

AM LEADER	SECTION CHIEF	QC COORD	DATA COORD.

omments By Reviewer:

Data are acceptable for use.

ATA MANAGEMENT COORDINATOR

ECEIVED	TRANSMITTED		CLERICAL SUPPORT - RECEIVED	COMPLETED
✓ VIEWED	( ) UNREVIEWED	TEAM LEADER/DATE L Evangelista 3/14/90		
) VIEWED	( ) UNREVIEWED	SECTION CHIEF/DATE		
) VIEWED	( ) UNREVIEWED	QC COORDINATOR/DATE		

EVIEWED BY CONTRACT COORDINATOR/DATE

ECEIVED	TRANSMITTED	DATA MANAGEMENT COORDINATOR
3/14/90	3/14/90	[signature]

ENVIRONMENTAL PROTECTION AGENCY, REGION V BASIC FORM 1A

DIVISION/BRANCH: ESD Sampling Date: 2/21/90 Arrival Date: 2/22/90 Analysis Due Date: 3/12/90

Sample#, SF

D.U. Number: TFA302 Group# 6986 Activity#: Murrell Study: Murrell Landfill

ALL UNITS ARE MICROGRAMS PER LITER OR MILLIGRAMS PER KILOGRAM. Sample type: Water

Sample # \ Pesticide	Y-BHC Lindane	Heptachlor	Aldrin	Heptachlor Epoxide	Endosulfan I	Dieldrin	Endrin	Endosulfan II	pp-DDE	Beta-BHC	Delta-BHC	Alpha-BHC	pp-DDD	pp-DDT	Methoxychlor	Endosulfan Sulfate	Endrin Aldehyde	Endrin Ketone	T-Chlordane	Toxaphene
1. 90FT09 $18	0.002U	0.03U	0.002U	0.01U	0.01U	0.01U	0.01U	0.01U	0.02U	0.02U	0.02U	0.02U	0.04U	0.02U	0.02U	0.13U	0.05U	0.03U	0.2U	1.0U
2. 90FT09D18	0.002U	0.03U	0.002U	0.01U	0.01U	0.01U	0.01U	0.01U	0.02U	0.02U	0.02U	0.02U	0.04U	0.02U	0.02U	0.13U	0.05U	0.03U	0.2U	1.0U
3. 90FT09$19	0.002U	0.03U	0.002U	0.01U	0.01U	0.01U	0.01U	0.01U	0.02U	0.02U	0.02U	0.02U	0.04U	0.02U	0.02U	0.13U	0.05U	0.03U	0.2U	1.0U
4. 90FT0 $20	0.002U	0.03U	0.002U	0.01U	0.01U	0.01U	0.01U	0.01U	0.02U	0.02U	0.02U	0.02U	0.04U	0.02U	0.02U	0.13U	0.05U	0.03U	0.2U	1.0U
5. 90FT09 $21	0.002U	0.03U	0.002U	0.01U	0.01U	0.01U	0.01U	0.01U	0.02U	0.02U	0.02U	0.02U	0.04U	0.02U	0.02U	0.13U	0.05U	0.03U	0.2U	1.0U
6. 90F01 R9B	0.002U	0.03U	0.002U	0.01U	0.01U	0.01U	0.01U	0.01U	0.02U	0.02U	0.02U	0.02U	0.04U	0.02U	0.02U	0.13U	0.05U	0.03U	0.2U	1.0U
7.																				
8.					AU 3/12/90															
9.					LC 3/14/90															
10.																				
11.																				
12.																				
13.																				

ENVIRONMENTAL PROTECTION AGENCY, REGION V BASIC DATA FORM: Form #1:

DIVISION/BRANCH: ESD Sampling Date: 2/21/90 (Month Day Year) Arrival Date: 2/22/90 (Month Day Year) Analysis Due Date: 3/12/90 (Month Da

D.U. Number: TFA302 Group #: SF6986 Activity #: Murrell Landfill Study:

All units are micrograms per liter milligram per kilograms or micrograms Sample Type: Water, Sediment Oil, Sludge

#	Sample #	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor	Aroclor	Aroclor	Dibuthyl phthalate	Diethyl Hexyl phthalate
1	90FT09$18	0.24	0.24	0.24	0.24					
2	90FT09D18	0.24	0.24	0.24	0.24					
3	90FT09$19	0.24	0.24	0.24	0.24					
4	90FT09$20	0.24	0.24	0.24	0.24					
5	90FT09$24	0.24	0.24	0.24	0.24					
6	90FT01R98	0.24	0.24	0.24	0.24					
7										
8					AL 3/12/90					
9					LE 3/14/90					
10										
11										
12										
13										
14										
15										
16										

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

CRL Receipt Date 3/9 FIT Receipt Date 3/28 Review Completed 3/28/90

TO: Spearsogler
FROM: Mary Gzyra
SUBJECT: Thurrell LF
PAN: IL0492SA (1 hour charged for review) Case # 13623/5077

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#	Low Soil	#	Low Soil
	Low Water		Low Water
	Drinking Water	6	Drinking Water
	Other		Other

Project Data Status _____ Completed!!

✓ Incomplete, awaiting Soil org & inorg

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

✓ Compounds were detected in sample(s); see enclosed sheet.

Book No. 9 Page No. _____ Date Sampled 2/21

0759:2

recycled paper

3/28/90

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	1 (NEW 36)	2 (Dup 37)	3 (38)	4 (39)	5 (40)	6 (BLK 41)	7	8	9	10	11	12
				Analyte Detected (values in mg/kg or µg/L)												
Solid	A,D	MES	CSC/CWC	aluminum		43.6 B	34.6 B									
Solid	A,D	MES	HM	antimony												
Solid	A,D	MES	HM	arsenic					8.1							
Solid	A,D	MES	CSC/CWC	barium	85.3	81.8	114	68.8	145							
Solid	A,D	MES	M	beryllium												
Solid	A,D	MES	HM	cadmium			0.16 B	0.33 JB		0.11 JB						
Solid	D	MES	CSC/CWC	calcium	132000	132000	127000	135000	131000							
Solid	A,D	MES	HM	chromium												
Solid	A,D	MES	HM	cobalt												
Solid	A,D	MES	HM	copper			12.3									
Solid	A,D	MES	HM,CSC;CWC	iron	118	113	2300	316	1200							
Solid	A,D	MES	HM	lead												
Solid	A,D	MES	CSC/CWC	magnesium	56500	57000	62900	73100	68300							
Solid	A,D	MES	HM	manganese	73.9	72	123	107	170							
Liquid	A,D	MES	HM	mercury												
Solid	A,D	MES	HM	nickel												
Solid	D	MES	CSC,CWC	potassium	2090 J	2290 J	1880 JB	2180 J	3160							
Solid	A,D	MES	M	selenium												
Solid	A,D	MES	HM	silver												
Solid	D	MES	CSC,CWC	sodium	16500	16700	17800	26900	28500	140 B						
Solid	A,D	MES	HM	thallium												
Solid	A,D	MES	HM	vanadium												
Solid	A,D	MES	CWL,CSC,HM	zinc	57.8	73	18.8 B	142	122							
Solid	A	IOC	IOC	cyanide												

— Not detected.

Table 4- (Cont.)

COMPOUND QUALIFIERS	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected at or above the CRQL.
J	Indicates an estimated value.	Compound value may be semiquantitative.
UJ	Quantitation limit is estimated due to a quality control (QC) protocol.	Compound was not detected if value is at CRQL, e.g., 10U UJ. If a value is reported with a UJ above CRQL and it is <5x blank concentration (10x for common laboratory artifacts), the compound is detected but may be a laboratory artifact and not attributable to the sample.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µL in the final extract shall be confirmed by GC/MS.	Compound was confirmed by GC/MS and is quantitative. Use pesticide/PCB listed value.
B	This flag is used when the compound is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semiquantitative if it is <5x the blank concentration (<10x the blank concentrations for common laboratory artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will <u>not</u> apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semiquantitative. There should be another analysis with a D qualifier, which is to be used.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL. Data is quantitative.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a laboratory artifact in the TICs only.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

ANALYTE QUALIFIERS		DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to interference. See laboratory narrative.	Analyte or element was not detected, or value may be semiquantitative.
S	S	Analysis by Method of Standard Additions.	Value is quantitative.
R	N	Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be quantitative or semiquantitative.
+	+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC protocol.	Value may be semiquantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected at or above the CRDL.
	M	Duplicate injection precision not met.	Value may be semiquantitative.
	W	Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semiquantitative.
	R	Results are unusable due to a major violation of QC protocols.	Analyte value is not usable.

Source: Ecology and Environment, Inc. 1989.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 3-28-90

SUBJECT: Review of Region V CLP Data Received for Review on March 9, 1990

FROM: Curtis Ross, Director (5SCRL) Central Regional Laboratory Jay Tucker

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: Murrell Landfill SMO case No. 13623 SAS 5077E

EPA Data Set No. _____ No. of Samples: 6 D.U./Activity Numbers _____

CRL No. _____

SMO Traffic No. MEHT 36-41

CLP Laboratory: Centec Hrs. Required for Review: 4.0 TME

Following are our findings:

The laboratory's portion of case 13623, SAS 5077E contains 6 low level water samples analyzed for total metals and cyanide.

(see next page)

Therese Lombard
3-22-90

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Duane Geuder, Quality Assurance Officer, EPA Support Services
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

EPA FORM 1320-6 (Rev. 5/87)

DATA QUALIFIERS

Contract Lab: Centec

Case No.: 13623
SAS No.: 5077E

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

ICAP ANALYSIS:

The CCB2 was found to contain K (488.5 ug/l). Therefore, K in MEHT36-39 are estimated (J) due to contamination.

The laboratory incorrectly entered the control limits for all ICAP metals on Form 5A. The correct control limits of 85-115% were entered by the reviewer.

GFAA ANALYSIS:

The laboratory incorrectly flagged the CCB1 for Cd on Form 3. The correct flag of (U) was entered by the reviewer.

The CCB2 was found to contain Cd (0.2 ug/l). Therefore, Cd in MEHT39 and 41 are estimated (J) due to contamination.

OTHER QUALIFIERS:

The laboratory incorrectly entered the control limits for Hg and CN on Form 5A. The correct control limits of 80-120% were entered by the reviewer.

NOTE: Reviewer initially changed the CN and Hg results on Form 5A. However, the original results were correct, and the reviewer made appropriate changes.

The correlation coefficient for Hg (r<.995) is out of control. Therefore all Hg data are estimated (UJ) due to poor linearity of the standard curve.

All CN data are acceptable.

Samples MEHT36 and 37 are field duplicates which show good correlation.

Sample MEHT41 was a field blank which did not contain any contamination that would affect any other sample data.

Therese Lombard

Reviewed by: Therese Lombard
3-22-90

QC EXCEPTION SUMMARY REPORT

CASE # 13623, SAS SOTTE
DATA SET #
LAB Q.C.#
DATE:

SITE Murrell Landfill
LAB Contec
REVIEWED BY Therese Lombard

MATRIX: water
CONC. : Low -

WATER SAMPLE SPK.
WATER SAMPLE DUP.
SOIL SAMPLE SPK.
SOIL SAMPLE DUP.

	OK	OK	OK	OK			OK	OK		OK		OK	OK			OK									
	OVERALL CASE QC									MATRIX SPECIFIC QC						SAMPLE SPECIFIC QC		FIELD QC			REGIONAL QC			OTHER/ COMMENTS
	Holding Time	Cal Blanks	Init Calver	Contin. Calver	Prep. Blk AQ	Prep Blk SOL	ICS %R	LCS % AQ	LCS % SOL	Sol Dup RPD	Sol Spk. %R	AQ Dup RPD	AQ Spk. %R	Ser Dilu AQ	Ser Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blind Blank	Blind Spike %R	Split Sample RPD	
luminum		33.0																						
ntimony																								
rsenic																								
arium																								
eryllium																								
admium		0.2																						
alcium					27.9																			
hromium																								
oblt																								
upper																								
on																								
ad																								
agnesium					68.1																			
anganese																								
ercury																								
ckel																								
otassium		488.5																						
lenium																								
ver																								
dium					64.0																			
allium																								
n																								
anadium																								
nc																								
anide																								

Field Blank MEHT 41
Field Dups MEHT 36 + 37

DPO: [ ] ACTION [X] FYI

Region V

INORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO. 13623, SAS 5077E LABORATORY Centec

SDG NO. MEHT36 DATA USER FIT

SOW 7/88 REVIEW COMPLETION DATE 3-22-90

NO. OF SAMPLES 6 WATER ____ SOIL ____ OTHER ____

REVIEWER [ ] ESD [X] ESAT [ ] OTHER, CONTRACT/CONTRACTOR ____

	ICP	AA	Hg	CYANIDE
1. HOLDING TIMES	O	O	O	O
2. INITIAL CALIBRATIONS	O	O	O	O
3. CONTINUING CALIBRATIONS	O	O	O	O
4. FIELD BLANKS ('F' = not applicable)	O	X	O	O
5. LABORATORY BLANKS	TMC 3/12/90 ~~O~~ X	X	O	O
6. ICS	O			
7. LCS	O	O		
8. DUPLICATE ANALYSIS	O	O	O	O
9. MATRIX SPIKE	O	O	O	O
10. MSA		O		
11. SERIAL DILUTION	O			
12. SAMPLE VERIFICATION	O	O	O	O
13. REGIONAL QC ('F' = not applicable)	F	F	F	F
14. OVERALL ASSESSMENT	X	X	O	O

O = No problems or minor problems that do not affect data usability.
X = No more than *about* 5% of the data points are qualified as either estimated or unusable.
M = More than *about* 5% of the data points are qualified as estimated.
Z = More than *about* 5% of the data points are qualified as unusable.

DPO ACTION ITEMS: ____

AREAS OF CONCERN: ____

U.S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

SOW No.: 7/88

EPA Sample No.	Lab Sample ID.
MEHT36	97217
MEHT37	97218
MEHT38	97219
MEHT38D	97219D
MEHT38S	97219S
MEHT39	97220
MEHT39S	97220S
MEHT40	97221
MEHT41	97222

RECEIVED
MAR 0 1990
US EPA CENTRAL REGIONAL LAB
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

Were ICP interelement corrections applied? Yes/No NO

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: Cheryl Daniel Name: CHERYL M DANIEL

Date: 03/08/90 Title: PROJECT MANAGER

2

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MEHT36

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

Matrix (soil/water): WATER Lab Sample ID: 97217

Level (low/med): LOW Date Received: 02/22/90

% 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	32.0	U		P
7440-36-0	Antimony	3.0	U	S	F
7440-38-2	Arsenic	2.0	U	S	F
7440-39-3	Barium	85.7			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	0.10	U	S	F
7440-70-2	Calcium	132000			P
7440-47-3	Chromium	8.0	U		P
7440-48-4	Cobalt	10.0	U		P
7440-50-8	Copper	7.0	U		P
7439-89-6	Iron	118			P
7439-92-1	Lead	1.0	U	S	F
7439-95-4	Magnesium	56500			P
7439-96-5	Manganese	72.9			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	14.0	U		P
7440-09-7	Potassium	2090			P
7782-49-2	Selenium	2.0	U	S	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	16500			P
7440-28-0	Thallium	2.0	U	S	F
7440-62-2	Vanadium	10.0	U		P
7440-66-6	Zinc	57.8			P
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

3

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MEHT37

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

Matrix (soil/water): WATER Lab Sample ID: 97218

Level (low/med): LOW Date Received: 02/22/90

% 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	43.6	B		P
7440-36-0	Antimony	3.0	U	S	F
7440-38-2	Arsenic	2.0	U	S	F
7440-39-3	Barium	86.8			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	0.10	U	S	F
7440-70-2	Calcium	132000			P
7440-47-3	Chromium	8.0	U		P
7440-48-4	Cobalt	10.0	U		P
7440-50-8	Copper	7.0	U		P
7439-89-6	Iron	113			P
7439-92-1	Lead	1.0	U	S	F
7439-95-4	Magnesium	57000			P
7439-96-5	Manganese	72.0			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	14.0	U		P
7440-09-7	Potassium	2290			P
7782-49-2	Selenium	2.0	U	S	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	16700			P
7440-28-0	Thallium	2.0	U	S	F
7440-62-2	Vanadium	10.0	U		P
7440-66-6	Zinc	73.0			P
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MEHT38

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

Matrix (soil/water): WATER Lab Sample ID: 97219

Level (low/med): LOW Date Received: 02/22/90

% 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	34.6	B		P
7440-36-0	Antimony	3.0	U	S	F
7440-38-2	Arsenic	2.0	U	S	F
7440-39-3	Barium	114			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	0.16	B	S	F
7440-70-2	Calcium	127000			P
7440-47-3	Chromium	8.0	U		P
7440-48-4	Cobalt	10.0	U		P
7440-50-8	Copper	12.3			P
7439-89-6	Iron	2300			P
7439-92-1	Lead	1.0	U	S	F
7439-95-4	Magnesium	62900			P
7439-96-5	Manganese	123			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	14.0	U		P
7440-09-7	Potassium	1880	B		P
7782-49-2	Selenium	2.0	U	S	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	17800			P
7440-28-0	Thallium	2.0	U	S	F
7440-62-2	Vanadium	10.0	U		P
7440-66-6	Zinc	18.8	B		P
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MEHT39

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

Matrix (soil/water): WATER Lab Sample ID: 97220

Level (low/med): LOW Date Received: 02/22/90

% 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	32.0	U		P
7440-36-0	Antimony	3.0	U	S	F
7440-38-2	Arsenic	2.0	U	S	F
7440-39-3	Barium	68.8			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	0.33	B	S	F
7440-70-2	Calcium	135000			P
7440-47-3	Chromium	8.0	U		P
7440-48-4	Cobalt	10.0	U		P
7440-50-8	Copper	7.0	U		P
7439-89-6	Iron	386			P
7439-92-1	Lead	1.0	U	S	F
7439-95-4	Magnesium	73100			P
7439-96-5	Manganese	107			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	14.0	U		P
7440-09-7	Potassium	2180			P
7782-49-2	Selenium	2.0	U	S	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	26900			P
7440-28-0	Thallium	2.0	U	S	F
7440-62-2	Vanadium	10.0	U		P
7440-66-6	Zinc	142			P
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MEHT40

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

Matrix (soil/water): WATER Lab Sample ID: 97221

Level (low/med): LOW Date Received: 02/22/90

% 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	32.0	U		P
7440-36-0	Antimony	3.0	U	S	F
7440-38-2	Arsenic	8.1		S	F
7440-39-3	Barium	145			P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	0.10	U	S	F
7440-70-2	Calcium	131000			P
7440-47-3	Chromium	8.0	U		P
7440-48-4	Cobalt	10.0	U		P
7440-50-8	Copper	7.0	U		P
7439-89-6	Iron	1200			P
7439-92-1	Lead	1.0	U	S	F
7439-95-4	Magnesium	69300			P
7439-96-5	Manganese	170			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	14.0	U		P
7440-09-7	Potassium	3160			P
7782-49-2	Selenium	2.0	U	S	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	28500			P
7440-28-0	Thallium	2.0	U	S	F
7440-62-2	Vanadium	10.0	U		P
7440-66-6	Zinc	122			P
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

1

U.S. EPA - CLP

EPA SAMPLE NO.

1

INORGANIC ANALYSIS DATA SHEET

MEHT41

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

Matrix (soil/water): WATER Lab Sample ID: 97222

Level (low/med): LOW Date Received: 02/22/90

% 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	32.0	U		P
7440-36-0	Antimony	3.0	U	S	F
7440-38-2	Arsenic	2.0	U	S	F
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	0.11	B	S	F
7440-70-2	Calcium	20.0	U		P
7440-47-3	Chromium	8.0	U		P
7440-48-4	Cobalt	10.0	U		P
7440-50-8	Copper	7.0	U		P
7439-89-6	Iron	6.0	U		P
7439-92-1	Lead	1.0	U	S	F
7439-95-4	Magnesium	59.0	U		P
7439-96-5	Manganese	1.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	14.0	U		P
7440-09-7	Potassium	463	U		P
7782-49-2	Selenium	2.0	U	S	F
7440-22-4	Silver	5.0	U		P
7440-23-5	Sodium	140	B		P
7440-28-0	Thallium	2.0	U	S	F
7440-62-2	Vanadium	10.0	U		P
7440-66-6	Zinc	9.0	U		P
	Cyanide	10.0	U		C

Color Before: COLORLESS Clarity Before: CLEAR Texture:

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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3
BLANKS

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

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	32.0	U	32.0	U	32.0	U	33.0	B	-55.0	B	P
Antimony											
Arsenic											
Barium	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	P
Beryllium	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	P
Cadmium											
Calcium	20.0	U	20.0	U	20.0	U	20.0	U	27.9	B	P
Chromium	8.0	U	8.0	U	8.0	U	8.0	U	8.0	U	P
Cobalt	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	P
Copper	7.0	U	7.0	U	7.0	U	7.0	U	7.0	U	P
Iron	6.0	U	6.0	U	6.0	U	6.0	U	6.0	U	P
Lead											
Magnesium	59.0	U	59.0	U	59.0	U	59.0	U	68.1	B	P
Manganese	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	P
Mercury	0.2	U	0.2	U	0.2	U			0.2	U	CV
Nickel	14.0	U	14.0	U	14.0	U	14.0	U	14.0	U	P
Potassium	463.0	U	463.0	U	488.5	B	463.0	U	463.0	U	P
Selenium											
Silver	5.0	U	5.0	U	5.0	U	5.0	U	5.0	U	P
Sodium	52.0	U	52.0	U	52.0	U	52.0	U	64.0	B	P
Thallium											
Vanadium	10.0	U	10.0	U	10.0	U	10.0	U	10.0	U	P
Zinc	9.0	U	9.0	U	9.0	U	9.0	U	9.0	U	P
Cyanide	10.0	U	10.0	U	10.0	U			10.0	U	C

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BLANKS

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

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											
Antimony	3.0	U	3.0	U	3.0	U					F
Arsenic	2.0	U	2.0	U	2.0	U					F
Barium											
Beryllium											
Cadmium	0.1	U	0.1	~~B~~ JMC 3/22/90 U	0.2	B					F
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead	1.0	U	1.0	U	1.0	U					F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium	2.0	U	2.0	U							F
Silver											
Sodium											
Thallium	2.0	U	2.0	U	2.0	U					F
Vanadium											
Zinc											
Cyanide											

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BLANKS

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

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											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead											
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium	2.0	U	2.0	U							F
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEHT38S

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

Matrix (soil/water): WATER Level (low/med): LOW
% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum	~~75-125~~	1872.6200		34.6000	B	2000.00	91.9		P
Antimony									NR
Arsenic									NR
Barium	~~75-125~~	2074.7200		113.5600		2000.00	98.1		P
Beryllium	75-125	48.5300		1.0000	U	50.00	97.1		P
Cadmium									NR
Calcium	~~75-125~~	172108.5700		126664.2300		50000.00	90.9		P
Chromium	~~75-125~~	201.0300		8.0000	U	200.00	100.5		P
Cobalt	~~75-125~~	488.7200		10.0000	U	500.00	97.7		P
Copper	~~75-125~~	259.9200		12.3200		250.00	99.0		P
Iron	~~75-125~~	3257.1700		2299.2600		1000.00	95.8		P
Lead									NR
Magnesium	~~75-125~~	85622.3600		62878.0500		25000.00	91.0		P
Manganese	~~75-125~~	325.7200		123.4200		200.00	101.2		P
Mercury	75-125	~~1.100~~ ~~0.8000~~ 0.800		0.2000	U	1.00	~~110.00~~ ~~80.0~~ 80.0		CV TMC 3/22/90
Nickel	~~75-125~~	390.6400		14.0000	U	400.00	97.7		P
Potassium	~~75-125~~	22320.3300		1883.3900	B	20000.00	102.2		P
Selenium									NR
Silver	~~75-125~~	47.3500		5.0000	U	50.00	94.7		P
Sodium	~~75-125~~	66787.4600		17777.0200		50000.00	98.0		P
Thallium									NR
Vanadium	~~75-125~~	482.9400		10.0000	U	500.00	96.6		P
Zinc	~~75-125~~	212.3300		18.7800	B	200.00	96.8		P
Cyanide									NR

Comments: Control limits for all ICAP metals = 85-115%
" " " Hg = 80-120%. TMC 3/22/90

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5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEHT39S

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

Matrix (soil/water): WATER Level (low/med): LOW
% Solids for Sample: 0.0

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

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc	80-120	85.000					85.0		NR
Cyanide	~~75-125~~	~~1.100~~ ~~85.0000~~		10.0000	U	100.00	~~110~~ ~~85.0~~		C

Comments:

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DUPLICATES

EPA SAMPLE NO.

MEHT38D

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

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		34.6000	B	32.0000	U	200.0		P
Antimony		3.0000	U	3.0000	U			F
Arsenic		2.0000	U	2.0000	U			F
Barium	50.0	113.5600		114.3200		0.7		P
Beryllium		1.0000	U	1.0000	U			P
Cadmium		0.1568	B	0.1000	U	200.0		F
Calcium		126664.2300		125675.9700		0.8		P
Chromium		8.0000	U	8.0000	U			P
Cobalt		10.0000	U	10.0000	U			P
Copper	10.0	12.3200		10.9400		11.9		P
Iron		2299.2600		2304.8100		0.2		P
Lead		1.0000	U	1.0000	U			F
Magnesium		62878.0500		63035.2600		0.2		P
Manganese		123.4200		121.6400		1.5		P
Mercury		0.2000	U	0.2000	U			CV
Nickel		14.0000	U	14.0000	U			P
Potassium		1883.3900	B	1973.2600	B	4.7		P
Selenium		2.0000	U	2.0000	U			F
Silver		5.0000	U	5.0000	U			P
Sodium		17777.0200		17586.3300		1.1		P
Thallium		2.0000	U	2.0000	U			F
Vanadium		10.0000	U	10.0000	U			P
Zinc		18.7800	B	17.0400	B	9.7		P
Cyanide		10.0000	U	12.5000	U			C

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

ICP ID Number: Date: 01/23/90

Flame AA ID Number:

Furnace AA ID Number: Z5100

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			100.0		
Antimony			5.0		
Arsenic	193.70	BZ	5.0	2.0	F
Barium			50.0		
Beryllium			5.0		
Cadmium	228.80	BZ	0.5	0.1	F
Calcium			1000.0		
Chromium			10.0		
Cobalt			10.0		
Copper			10.0		
Iron			100.0		
Lead			2.0		
Magnesium			1000.0		
Manganese			10.0		
Mercury			0.2		
Nickel			20.0		
Potassium			2000.0		
Selenium	196.00	BZ	2.0	2.0	F
Silver			5.0		
Sodium			1000.0		
Thallium	276.80	BZ	2.0	2.0	F
Vanadium			10.0		
Zinc			20.0		

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

ICP ID Number: PLASMAII Date: 01/23/90

Flame AA ID Number:

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	308.22		100.0	32.0	P
Antimony			5.0		
Arsenic			5.0		
Barium	455.39		50.0	1.0	P
Beryllium	313.04		5.0	1.0	P
Cadmium			0.5		
Calcium	317.93		1000.0	20.0	P
Chromium	205.56		10.0	8.0	P
Cobalt	228.62		10.0	10.0	P
Copper	324.75		10.0	7.0	P
Iron	259.94		100.0	6.0	P
Lead			2.0		
Magnesium	279.08		1000.0	59.0	P
Manganese	257.61		10.0	1.0	P
Mercury			0.2		
Nickel	231.60		20.0	14.0	P
Potassium	766.46		2000.0	463.0	P
Selenium			2.0		
Silver	328.07		5.0	5.0	P
Sodium	589.58		1000.0	52.0	P
Thallium			2.0		
Vanadium	292.40		10.0	10.0	P
Zinc	213.86		20.0	9.0	P

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

ICP ID Number: Date: 01/23/90

Flame AA ID Number:

Furnace AA ID Number: Z5000

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			100.0		
Antimony	217.60		5.0	3.0	F
Arsenic			5.0		
Barium			50.0		
Beryllium			5.0		
Cadmium			0.5		
Calcium			1000.0		
Chromium			10.0		
Cobalt			10.0		
Copper			10.0		
Iron			100.0		
Lead	283.30	BZ	2.0	1.0	F
Magnesium			1000.0		
Manganese			10.0		
Mercury			0.2		
Nickel			20.0		
Potassium			2000.0		
Selenium			2.0		
Silver			5.0		
Sodium			1000.0		
Thallium			2.0		
Vanadium			10.0		
Zinc			20.0		

Comments:

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INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Centec Analytical Svcs Contract: 68-D9-0078

Lab Code: CENTEC Case No.: 13623 SAS No.: 5077-E SDG No.: MEHT36

ICP ID Number: Date: 01/23/90

Flame AA ID Number: PE50B

Furnace AA ID Number:

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			100.0		
Antimony			5.0		
Arsenic			5.0		
Barium			50.0		
Beryllium			5.0		
Cadmium			0.5		
Calcium			1000.0		
Chromium			10.0		
Cobalt			10.0		
Copper			10.0		
Iron			100.0		
Lead			2.0		
Magnesium			1000.0		
Manganese			10.0		
Mercury	253.70		0.2	0.2	CV
Nickel			20.0		
Potassium			2000.0		
Selenium			2.0		
Silver			5.0		
Sodium			1000.0		
Thallium			2.0		
Vanadium			10.0		
Zinc			20.0		

Comments:

Jeff Taylor

DRINKING WATER MEMO SITE Mursell LF PAN # FIL0492SBW

1. The drinking water memo has been checked.

2. A copy has been sent to Bill Messenger.

3. Please document control and file the drinking water memo under the correct TDD.

4. File the analytical data with the rest of the analytical data under the correct TDD.

5. Copper results were mislabelled as Cobalt.

6.

7.

8.

9.

10. Thanks

Reggie Suga

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

DRINKING WATER MEMORANDUM
WELL OWNER'S LOG

DATE: 4/17/90

TO: State Contact

STATE: ILLINOIS

FROM: Jeff Taylor

SUBJECT: Drinking Water Sample Results

SITE NAME: Murrell Landfill

CERCLA ID#: ILD980901540

TDD: F05-8612-070

PAN: FIL04925B (W)

NAME	ADDDRESS	CITY STATE ZIP
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Non - Responsive

E & E EDP DATE 4/17/90

State Contact:

Received By:

Date:

Note:
Return a signed copy to Reggie Suga at Ecology and Environment, Inc., within 5 working days. Thank you.

4-18-90

QA016(8/31/89)

recycled paper

RW 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive

[redacted]

Ci 22 Code

Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-070 ; PAN: FIL0492
Yellow: Recipient
Pink: U.S. EPA

RW 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive [redacted]

Telephone Number

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

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U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-071 ; PAN: FTL049258
Yellow: Recipient
Pink: U.S. EPA

RW3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information:

Non - Responsive

[redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

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U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:

White: FIT Site File; TDD No.: F05-8612-070 ; PAN: FIL0+9254
Yellow: Recipient
Pink: U.S. EPA

RWH

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date:

Recipient Information:

Non - Responsive

[redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

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U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-071 ; PAN: FIL0492SB
Yellow: Recipient
Pink: U.S. EPA

RW4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information:

Non - Responsive

[redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

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U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:

White: FIT Site File; TDD No.: F05-8612-071 ; PAN: FIL0492SB
Yellow: Recipient
Pink: U.S. EPA

METHT 40
521

Sample: RW4

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — DIVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Results (ug/L)	Lab Blank (ug/L)	Comments	Standards: Status Reg. A	Standards: MCLG (ug/L)	Standards: MCL (ug/L)	Standards: Status RA A	Health Advisories: 10-kg Child: One-Day (ug/L)	10-kg Child: Ten-Day (ug/L)	10-kg Child: Longer-Term (ug/L)	70-kg Adult: Longer-Term (ug/L)	70-kg Adult: RfD (mg/kg/day)	70-kg Adult: DWEL (ug/L)	70-kg Adult: Lifetime (ug/L)	ug/L at 10^{-6} Cancer Risk	Cancer Group
Inorganic Analytes																	
Volatile Organics																	
CHLOROETHANE	1,S				L	-	-	-	D	-	-	-	-	-	-	-	-
BROMOETHANE	1,S				-	-	-	-	D	-	-	-	-	-	-	-	-
VINYL CHLORIDE	1,S				R	-	2000	2	R	3000	3000	10	90	-	-	1,S	A
CHLOROETHANE	1,S				L	-	-	-	D	-	-	-	90	-	-	-	-
METHYLENE CHLORIDE	1				L	-	-	-	R	10000	2000	-	-	60	2000	300	B2
ACETONE	S																
CARBON DISULFIDE	S																
1,1-DICHLOROETHENE	1,S				R	-	7	7	R	2000	1000	1000	4000	9	400	7	-	C
1,1-DICHLOROETHANE	1,S				L	-	-	-	D	-	-	-	-	-	-	-	-
1,2-DICHLOROETHENE (TOTAL)	1,S				R	-	70	70	R	4000	1000	1000	1000	10	400	70	-	D
CHLOROFORM	1,S				L	100	-	-	D	-	-	-	-	10	-	-	600	B2
1,2-DICHLOROETHANE	1,S				R	-	2000	5	R	700	700	700	2600	-	-	-	40	B2
2-BUTANONE (MEK)	S				-	-	-	-	R	80000	8000	3000	8000	30	800	200	-	D
1,1,1-TRICHLOROETHANE	1,S				R	-	200	200	R	100000	40000	40000	100000	90	1000	200	-	D
CARBON TETRACHLORIDE	1,S				R	-	2000	5	R	4000	200	70	300	0.7	30	-	30	B2
VINYL ACETATE	S																
BROMODICHLOROMETHANE	1,S				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,2-DICHLOROPROPANE	1,S				R	-	2000	5	R	-	90	-	-	-	-	-	60	B2
CIS-1,3-DICHLOROPROPENE	2				L	-	-	-	R	30	30	30	100	0.3	10	-	20	B2
TRICHLOROETHENE	1,S				R	-	2000	5	R	-	-	-	-	7	300	-	300	B2
DIBROMOCHLOROMETHANE	1,S				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,1,2-TRICHLOROETHANE	1,S				-	-	-	-	D	-	-	-	-	30	-	-	-	-
BENZENE	1,S				R	-	2000	5	R	200	200	-	-	-	-	-	100	A

DATA Report
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page 10 of 16

MEHT 40
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Sample: RW4

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Calculated	Science Reg. A	Recommended Airport (ug/L)	Recommended Wells (ug/L)	Recommended MCL (ug/L)	Science RA A	Health Advisories 10-kg Child One-Day (ug/L)	10-kg Child Ten-Day (ug/L)	10-kg Child Longer-Term (ug/L)	70-kg Adult Longer-Term (ug/L)	70-kg Adult RfD (ug/kg/day)	70-kg Adult DWEL (ug/L)	70-kg Adult Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
CONTROL PARAMETERS																		
Volatile Organics (cont)																		
TRANS-1,3-DICHLOROPROPENE	1				L	-	-	-	F	30	30	30	100	0.3	10	-	20	D2
BROMOFORM	1,S				L	100	-	-	P	-	-	-	-	20	-	-	-	-
4-METHYL-2-PENTANONE	1,S																	
2-HEXANONE	S																	
TETRACHLOROETHENE	1,S				P	-	ZERO	S	F	2000	2000	1000	5000	10	500	-	70	D2
TOLUENE	1,S			40.0	P	-	2000	2000	P	20000	3000	3000	10000	300	10000	2000	-	-
1,1,2,2-TETRACHLOROETHANE	1,S				L	-	-	-	D	-	-	-	-	-	-	-	-	-
CHLOROBENZENE	1,S			100.0	P	-	100	100	F	2000	2000	2000	2000	20	700	100	-	D
ETHYLBENZENE	1,S			30.0	P	-	700	700	P	30000	3000	1000	3000	100	3000	700	-	D
STYRENE	1			10.0	P	-	ZERO	S	F	20000	2000	2000	7000	200	7000	-	1	D2
XYLENES (TOTAL)	1,S			20.0	P	-	10000	10000	P	40000	40000	40000	10000	2000	60000	10000	-	D
2-CHLOROETHYL VINYL ETHER	1,S																	
ACROLEIN	2S																	
ACRYLONITRILE	2S				L	-	-	-	-	-	-	-	-	-	-	-	-	-

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page 2 of 16

MEHT 40
S21
RW4

Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Analyte Collection Introduction and Percolate	Detection Limit (ug/l)	Detection Limit (ug/l)	Detection Limit (ug/l)	Detection Limit (ug/l)	Detection Limit (ug/l)	Detection Limit (ug/l)	Detection Limit (ug/l)	Detection Limit (ug/l)	Health Advisories 1-Day Child (ug/l)	Health Advisories 1-Day Child (ug/l)	Health Advisories 1-Day Child (ug/l)	Health Advisories 10-Day Child (ug/l)	Health Advisories 10-Day Child (ug/l)	Health Advisories 10-Day Child (ug/l)	Health Advisories 10-Day Child (ug/l)	Health Advisories 10-Day Child (ug/l)	Cancer Group
Semivolatile Organics																	
PHENOL	3				-	-	-	-	B	-	-	-	-	40	-	-	-	-
BIS(2-CHLOROETHYL)ETHER	1,3																
2-CHLOROPHENOL	3				L	-	-	-	B	-	-	-	-	3	200	-	-	-
1,3-DICHLOROBENZENE	3				P	-	600	600	R	9000	9000	9000	30000	89	3000	600	-	D
1,4-DICHLOROBENZENE	3				R	-	75	75	R	10000	10000	10000	40000	100	4000	75	-	C
BENZYL ALCOHOL	3																
1,2-DICHLOROBENZENE	3,3				P	-	600	600	R	9000	9000	9000	30000	89	3000	600	-	D
2-METHYLPHENOL	1																
N-NITROSO-DI-N-DIPROPYLAMINE	1,3																
HEXACHLOROETHANE	3																
NITROBENZENE	3,3																
ISOPHORONE	3,3				L	-	-	-	B	-	-	-	-	130	-	-	-	-
2-NITROPHENOL	3																
2,4-DIMETHYLPHENOL	3																
BENZOIC ACID	30																
BIS(2-CHLOROETHOXY)METHANE	3,3																
2,4-DICHLOROPHENOL	3				L	-	-	-	B	-	-	-	-	3	100	-	-	-
1,2,4-TRICHLOROBENZENE	3				-	-	-	-	D	-	-	-	-	20	-	-	-	-
NAPHTHALENE	3				-	-	-	-	B	-	-	-	-	410	-	-	-	-
4-CHLOROANILINE	3																
HEXACHLOROBUTADIENE	3,3				-	-	-	-	B	-	-	-	-	3	-	-	5	C
4-CHLORO-3-METHYLPHENOL	1,3																
2-METHYLNAPHTHALENE	3																

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page 3 of 16

METHOD
5.21

Sample: RW4

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Identification Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Status Reg. A	Standards MRDLG (ug/L)	MCLG (ug/L)	MCL (ug/L)	Risk Rel A	10-kg Child Oral-Rat (ug/L)	10-kg Child Non-Rat (ug/L)	10-kg Child Longer-Term (ug/L)	Health Advisories 70-kg Adult Longer-Term (ug/L)	70-kg Adult RfD (ug/kg/day)	70-kg Adult DWEL (ug/L)	70-kg Adult LifetimeHA (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
CHLORINATED PESTICIDES																		
Semivolatile Organics (cont)																		
HEXACHLOROCYCLOPENTADIENE	2				L	-	-	-	-	-	-	-	-	7	-	-	-	-
2,4,6-TRICHLOROPHENOL	1.5																	
2,4,5-TRICHLOROPHENOL	1.5																	
2-CHLORONAPHTHALENE	1.5																	
2-NITROANILINE	1																	
DIMETHYLPHTHALATE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-	D
ACENAPHTHYLENE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
2,6-DINITROTOLUENE	1																	
3-NITROANILINE	2.5																	
ACENAPHTHENE	1.5																	
2,4-DINITROPHENOL	(15)																	
4-NITROPHENOL	1.5																	
DIBENZOFURAN	1																	
2,4-DINITROTOLUENE	1				L	-	-	-	D	-	-	-	-	-	-	-	-	-
DIETHYLPHTHALATE	1				-	-	-	-	D	-	-	-	-	800	-	-	-	D
4-CHLOROPHENYL-PHENYLETHER	1																	
FLUORENE	1								L	-	-	-	-	-	-	-	-	D
4-NITROANILINE	2																	
4,6-DINITRO-2-METHYLPHENOL	(15)																	
N-NITROSODIPHENYLAMINE A																		
DIPHENYLAMINE A	1.5																	
4-BROMOPHENYL-PHENYLETHER	1.5																	
HEXACHLOROBENZENE	1.5				-	-	-	-	P	30	30	30	200	0.0	30	-	3	B2

Form 17
page 4 of 16

MEHT 40
521
RWH

Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Target Contaminant Introduction and Parameters	Concentration Limits (ug/L)	Toxicity Limits (ug/L)	Risk Dilution	Comments	Tolerance Dose A	Dilution Factor (ug/L)	Dilution Factor (ug/L)	Dilution Factor (ug/L)	Dilution Factor A	Dilution Factor (ug/L)	Dilution Factor (ug/L)	Dilution Factor (ug/L)	Dilution Factor (ug/L)	Dilution Factor (ug/L)	Dilution Factor (ug/L)	Dilution Factor (ug/L)	Dilution Factor (ug/L)	Cancer Group
GENERAL MATRIX																		
Semivolatile Organics (cont)																		
PENTACHLOROPHENOL	3			30.0	P	-	200	200	R	1000	300	300	1000	30	1000	200	-	B
PHENANTHRENE	1				L	-	-	-	-	-	-	-	-	-	-	-	-	-
ANTHRACENE	3,S				L	-	-	-	-	-	-	-	-	-	-	-	-	D
DI-N-BUTYLPHTHALATE	3				L	-	-	-	-	-	-	-	-	100	-	-	-	B
FLUORANTHENE	1,S																	
PYRENE	1,S				L	-	-	-	-	-	-	-	-	-	-	-	-	B
BUTYLBENZYLPHTHALATE	3,S				L	-	-	-	-	-	-	-	-	200	-	-	-	C
BENZO(A)ANTHRACENE AA					L	-	-	-	-	-	-	-	-	-	-	-	-	D2
CHRYSENE AA	1,S				L	-	-	-	-	-	-	-	-	-	-	-	-	D2
BIS(2-ETHYLHEXYL)PHTHALATE	1				-	-	-	-	R	-	-	-	-	20	-	-	-	D2
DI-N-OCTYLPHTHALATE	1,S																	
DIBENZO(A)FLUORANTHENE AAA					L	-	-	-	-	-	-	-	-	-	-	-	-	D2
BENZO(B)FLUORANTHENE AAA	1,S				L	-	-	-	-	-	-	-	-	-	-	-	-	D2
BENZO(A)PYRENE	3				L	-	-	-	-	-	-	-	-	-	-	-	-	D2
INDENO(1,2,3-C,D)PYRENE	3,S				L	-	-	-	-	-	-	-	-	-	-	-	-	D2
DIBENZO(A,H)ANTHRACENE	3,S				L	-	-	-	-	-	-	-	-	-	-	-	-	D2
BENZO(G,H,I)PERYLENE	4				L	-	-	-	-	-	-	-	-	-	-	-	-	D
4-METHYLPHENOL	1																	
BIS(2-CHLOROISOPROPYL)ETHER	3,S				-	-	-	-	R	-	-	-	-	-	-	-	-	-
ANILINE	1,S																	
1,2-DIPHENYLHYDRAZINE	1																	

Form 17
Page 5 of 16

MEHT HO
521
RW4

Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 2 APRIL 1989

Sample Collection Information (as Performed)	Detection Limit (ug/L)	Sample Double (ug/L)	Log Dilution	Comments	Reference Dog. A	Reference HA(DW) (ug/L)	Reference HA(S) (ug/L)	Reference HA(L) (ug/L)	Dilution HA A	10-19 Child Ten-Day (ug/L)	10-19 Child Lifetime (ug/L)	10-19 Child Lifetime-Toxo (ug/L)	20-59 Adult Lifetime-Toxo (ug/L)	20-59 Adult DWEL (ug/L)	20-59 Adult Lifetime (ug/L)	20-59 Adult ug/L at 10-4 Cancer Risk	Cancer Group
PESTICIDES/PCBs																	
Pesticides/PCBs																	
ALPHA BHC	(0.010)																
BETA BHC	(0.005)																
DELTA BHC	(0.005)																
GAMMA BHC (LINDANE)	0.005				P	4	0.2	0.2	P	1000	1000	30	100	0.2	10	0.2	3	C
HEPTACHLOR	0.030				P	-	2000	0.4	P	10	10	5	5	0.3	20	-	0.8	B2
ALDRIN	0.005																
HEPTACHLOR EPOXIDE	0.005				P	-	2000	0.2	P	10	-	0.1	0.1	0.013	0.4	-	0.4	B2
ENDOSULFAN I	0.010																
DIELDRIN	0.010				L	-	-	-	P	0.5	0.5	0.5	2	0.05	2	-	0.2	B2
4,4'-DDE	(0.005)																
ENDRIN	0.010				L	0.2	-	-	P	20	5	5	20	0.015	2	0.3	-	E
ENDOSULFAN II	0.010																
4,4'-DDD	(0.020)																
ENDOSULFAN SULFATE	(0.10)																
4,4'-DDT	0.020																
METHOXYCHLOR (FARMATE)	0.020				P	100	400	400	P	4000	2000	300	2000	50	2000	400	-	D
ENDRIN ALDEHYDE	(0.020)																
ENDRIN KETONE	(0.020)																
CHLORDANE	(0.020)				P	-	2000	3	P	60	60	0.5	0.5	0.045	2	-	3	B2
ALPHA CHLORDANE	0.020																
GAMMA CHLORDANE	0.020																
TOXAPHENE	(0.25)				P	3	2000	3	P	300	10	-	-	100	-	-	3	B2
AROCLOR 1016	0.10				P	-	2000	0.3	P	-	-	1	1	-	-	-	0.3	B2

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Page 6 of 16

MEHT 40
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Sample: RW4

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Results (ug/L)	Lab Dilut. (ug/L)	Comments	Status Reg. A	Standards (ug/L)	MCLG (ug/L)	MCL (ug/L)	Status HA A	10-kg Child One-Day (ug/L)	Ten-Day (ug/L)	Longer-Term (ug/L)	70-kg Adult Longer-Term (ug/L)	RfD (mg/kg/day)	DWEL (ug/L)	Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
ORGANIC CHEMICALS																		
Pesticides/PCBs (cont)																		
AROCLOR 1221	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1232	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1242	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1248	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1254	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1260	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2

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RW4

Sample:

CHEMICAL DATA AND ISOLATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Results (ug/L)	Lab Blank (ug/L)	Cancer Risk	Blank Qual. A	Risk Factors Hazard (ug/L)	Risk Factors Acute (ug/L)	Risk Factors Chronic (ug/L)	Blank Qual. B	10-kg Criteria 365-Day Risk (ug/L)	10-kg Criteria 70-Day Risk (ug/L)	10-kg Criteria Lifetime Risk (ug/L)	Health Advisories Lifetime Risk (ug/L)	Health Advisories 70-kg Adult Risk (ug/L)	Health Advisories Lifetime Risk (ug/L)	Health Advisories ug/L at 10-4 Cancer Risk	Cancer Group
Analyte Detected	Method																	
ALUMINUM	P	100			50 0	L	-	-	-	B	-	-	-	-	-	-	-	-
ANTIMONY	F	5				L	-	-	-	B	-	-	-	-	0.4	-	-	-
ARSENIC	F	5	8.1			P	50	2000	30	B	-	-	-	-	1	-	50	3
BARIUM	P	50	145			P	1000	3000	3000	E	3000	3000	3000	3000	-	-	3000	-
BERYLLIUM	F	5				L	-	-	-	B	-	-	-	-	5	-	-	-
CADMIUM	F	0.5				P	10	5	5	E	10	10	5	20	0.5	20	5	-
CALCIUM	P	1000	131000															
CHROMIUM	F	10				P	50	100	100	E	1000	1000	200	000	5	200	100	-
COBALT	P	10																
COPPER	P	10			1000 0													
IRON	P	100	1200		300 0													
LEAD (at source)	F	2				P	-	2000	5	-	-	-	-	-	-	-	-	-
LEAD (at tap)	F	2				P	50	2000	22	-	-	-	-	-	-	-	-	-
MAGNESIUM	P	1000	69300															
MANGANESE	P	10	170		50 0	-	-	-	-	-	-	-	-	-	-	-	-	-
MERCURY	CV	0.2				P	2	2	2	E	-	-	-	-	0.3	10	2	-
NICKEL	P	20				L	-	-	-	E	1000	1000	2000	600	20	600	200	-
POTASSIUM	P	2000	3160															
SELENIUM	F	2				P	10	50	50	-	-	-	-	-	-	-	-	-
SILVER	P	5			50 0	L	50	-	-	B	-	-	-	-	2	-	-	-
SODIUM	P	1000	28500			L	-	-	-	B	-	-	-	-	-	20000	-	-
THALLIUM	F	2				L	-	-	-	B	-	-	-	-	0.07	-	-	-
ZINC	P	40																

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RW4

Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — DIVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Vector Reg. A	Vector MCDW (ug/L)	Vector MCDG (ug/L)	Vector MCL (ug/L)	Sector MA A	10-kg Child One-Day (ug/L)	10-kg Child Ten-Day (ug/L)	10-kg Child Longer-Term (ug/L)	70-kg Adult Longer-Term (ug/L)	70-kg Adult RfD (ug/kg/day)	70-kg Adult DWEL (ug/L)	70-kg Adult Lifetime (ug/L)	ug/l at 10-4 Cancer Risk	Cancer Group
Cobalt Detected																			
Analyte Detected (cont)																			
VANADIUM	P	10				L	-	-	-	D	-	-	-	-	20	-	-	-	-
ZINC	P	20	122		5000 #	L	-	-	-	D	-	-	-	-	-	-	-	-	-
CYANIDE	C	10				L	-	-	-	E	200	200	200	800	22	800	200	-	D
BORON	P	80																	
LITHIUM	P	10																	
MOLYBDENUM	P	15																	
TITANIUM	P	25																	
STRONTIUM	P	10																	
TIN	P	5																	

Detection Limits:
A Those Two Parameters Are Reported As A Total
AA Those Two Parameters Are Reported As A Total
AAA Those Two Parameters Are Reported As A Total
Values In Parentheses Are Estimates. Actual Values Are Being Determined At This Time.

NT - Not Tested For

Secondary Maximum contaminant Levels

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ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to interference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	S	Analysis by Method of Standard Additions.	Value may be quantitative.
N	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value may be biased.
( )	D	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	W	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

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II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to interference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	S	Analysis by Method of Standard Additions.	Value may be quantitative.
N	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	D	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	W	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnace AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnace AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

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D. Analytical Method Qualifiers for Inorganic

"P" for ICP

"A" for Flame AA

"F" for Furnance AA

"CV" for Manual Cold Vapor AA

"AV" for Automated Cold Vapor AA

"AS" for Semi-automated Spectrophotometric

"C" for Manual Spectrophotometric

"T" for Titrimetric

"NR" if the analyte is not required to be analyzed.

DESCRIPTION AND QUALIFIERS

The following are descriptions of the 19 columns listed on the table and the qualifiers to clarify the analytical and health related values.

Column	Description
1. Sample Collection Information and Parameters.	The compounds and analytes analyzed for on this water sample.
2. Detection Limits	The detection limits that a laboratory must meet as part of the analytical service contact.
3. Sample Results	The value determined by this analysis.
4. Lab Blank	Laboratory contamination that may be found in the laboratory blank. A quality control check.
5. Comments	The water reviewer's comments on the usability of the value in the Sample Results column.
6. Status Reg	F-final D-draft L-listed for regulation P-proposed (Phase II draft proposal, based on levels proposed in 1985).

7. NIPDWR- National Interim Primary Drinking Water Regulations: refers to the interim regulatory requirements under the Safe Drinking Water Act (SDWA) of 1974. The NIPDWR specified maximum allowable levels for 22 different contaminants at the consumer's drinking water tap. These interim standards, known as Maximum Contaminant Levels (MCL), were promulgated for 22 contaminants in March 1975, with the intention of revising and promulgating the final National Primary Drinking Water Regulations (NPDWR) a few years later. The values listed in this column are the original MCLs assigned under the interim regulations. The NPDWRs were effected under the SDWA Amendments of June 19, 1986. These revised regulations specify MCLs or treatment techniques for additional contaminants. At this time, 8 additional contaminants (synthetic volatile organic chemicals) have also been

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assigned MCLs. (Code of Federal Regulations, Chapter 40, part 141, et seq.)

8. MCLG- Maximum Contaminant Level Goal: Under the National Primary Drinking Water Regulations, the term MCLG now replaces the previous term RMCL or recommended Maximum Contaminant Levels. Under the 1986 SDWA Amendments, any NPDWR which establishes an MCL must also simultaneously publish an MCLG at the time of proposed rulemaking and promulgation. The MCLG is the maximum level of a contaminant at which no known or anticipated adverse human health effects would occur, and which include an adequate margin of safety. MCLGs are nonenforceable health goals.

9. MCL- Maximum Contaminant Level: Derived from the MCLG, the MCL is the maximum permissible level of a contaminant in drinking water which is delivered to the consumers' tap and used by the general public for drinking. MCLs are legally enforceable. The standards reflect the best achievable levels considering the occurrence, relative source contribution factors, monitoring capability, cost of treatment, available technology and health effects. The standards listed in this column for each contaminant under the NIPDWR are either newly promulgated or revised from the NIPDWR. In a few cases, the enforceable standard has changed; however, in most cases (when comparing columns headed NIPDWR and MCL) the existing interim standard has been revised or has been newly developed.

10. Status HA

F-final
D-draft
L-listed for regulation
P-proposed (Phase II draft proposal, based on levels proposed in 1985).

Health Advisories

The Health Advisory (HA) program is sponsored by the Office of Drinking Water (ODW), and provides information on the health effects, analytical methods and treatment technology useful for dealing with drinking water contamination. Health advisories describe nonregulatory concentrations of drinking water contaminants at which adverse health effects would not be anticipated to occur over specific exposure durations. Health advisories contain a margin of safety, to protect sensitive members of the population. The Health Advisories are developed for one-day, ten-day, longer term and lifetime exposures based on data describing non carcinogenic endpoints of toxicity. The advisories are intended to serve as informal technical guidance to assist Federal, State, and local officials when emergency spills or contaminant situations occur. THEY ARE NOT CONSTRUED AS LEGALLY ENFORCEABLE FEDERAL STANDARDS AND ARE SUBJECT TO CHANGE AS NEW INFORMATION BECOMES AVAILABLE.

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Health Advisory values for the adult are derived in the same way as for the 10-kg child. Again, certain assumptions are made: The adult is assumed to weigh 70-kg and consume 2 liters of water per day.

10-KG Child

11. 1 day

12. 10 day

13. Longer term

The child is assumed to be a more sensitive population entity. Included in this assumption, is that the body weight of a child is 10 kg and that one liter of water per day is ingested. Under these and other assumption specific to the available toxicological data bases, Health Advisory values have been derived and listed in the respective columns for one-day, ten-day and longer term exposures. Longer term is defined as approximately 7 years, or 10 percent of an individual's lifetime.

70-KG Adult

14. Longer term

As with the 10-kg child, longer term exposure is approximately 7 years or 10 percent of an individual's lifetime.

15. RfD

Reference Dose: formerly known as the Acceptable Daily Intake (ADI), the RfD is an estimate of a daily exposure to the human population (including sensitive subpopulations) that is likely to be without appreciable risk or deleterious effects over a lifetime. The RfD is expressed in units of daily dose.

16. DWEL

Drinking Water Equivalent Lifetime: The medium-specific (i.e., drinking water) lifetime exposure level, assuming 100 percent exposure from that medium, at which adverse noncarcinogenic health effects would not be expected to occur. The DWEL is derived from multiplying the RfD by the adult body weight (70kg) and divided by the adult daily water consumption (2 liters/day)

17. Lifetime

Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. If data are unavailable, a value of 20 percent is assumed for synthetic organic chemical contaminants and a value of 10 percent assumed for inorganic chemical contaminants. The lifetime Health Advisory is determined by multiplying the DWEL by the relative source contribution from drinking water.

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18. µg/L as 10^{-4} Cancer Risk — This column contains values indicating the concentration of the particular contaminant in drinking water that would produce as 10^{-4} excess lifetime cancer risk. Simply stated, if a group of 10,000 persons was exposed to the contaminant at its respective concentration listed in this column, then one individual in the group might be expected to develop cancer (above background incidence) solely from exposure to that contaminant in drinking water.

19. Cancer Group — The Office of Health and Environmental Assessment (OHEA) within EPA's Office of Research and Development (ORD) has developed guidelines for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on the weight of evidence:

Group A - Human carcinogen
Group B - Probable human carcinogen
Group B consists of two sub-classifications:
B_1 - limited human evidence but sufficient animal evidence
B_2 - Sufficient animal evidence, but inadequate or no human evidence
Group C - Possible human carcinogen
Group D - Not classified as to human carcinogenicity
Group E - Evidence of noncarcinogenicity for humans

Qualifiers Used For The Health Related Table

NA - not applicable
PS - performance standard 0.5 NTU - 1.0 NTU
TT - treatment technique
☆☆ - no more than 5% of the samples may be positive. For systems collecting fewer than 40 samples/month, no more than 1% may be positive.
☆☆☆ - guidance
✧ - large discrepancies between Lifetime and Longer term HA values may occur because of the Agency's conservative policies, especially with regard to carcinogenicity, relative source contribution, and less than lifetime exposures in chronic toxicity testing. These factors can result in a cumulative UF (uncertainty factor) of 10 to 1,000 when calculating a Lifetime HA.

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RW 3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive

[redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-010 ; PAN: FIL049254
Yellow: Recipient
Pink: U.S. EPA

MEHT 39

S 20

Sample: RW3

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

DIVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Diff. (ug/L)	Comments	Standards Status Reg. A	Standards MCLG (ug/L)	Standards MCL (ug/L)	Standards MCL	Status MA A	Health Advisories 10-kg Child One-Day (ug/L)	10-kg Child Ten-Day (ug/L)	10-kg Child Longer-Term (ug/L)	70-kg Adult Longer-Term (ug/L)	70-kg Adult RfD (ug/kg/day)	70-kg Adult RfDL (ug/L)	70-kg Adult Lifetime (ug/L)	ug/L at 10-6 Cancer Risk	Cancer Group
GENERAL PARAMETERS																		
Volatile Organics																		
CHLOROMETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
BROMOMETHANE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
VINYL CHLORIDE	1.5				P	-	2000	2	P	3000	3000	10	50	-	-	-	1.5	A
CHLOROETHANE	1.5				L	-	-	-	D	-	-	-	50	-	-	-	-	-
METHYLENE CHLORIDE	1				L	-	-	-	P	10000	2000	-	-	60	2000	-	300	B2
ACETONE	5																	
CARBON DISULFIDE	2																	
1,1-DICHLOROETHENE	1.5				P	-	7	7	P	2000	1000	1000	4000	9	400	7	-	C
1,1-DICHLOROETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
1,2-DICHLOROETHENE (TOTAL)	1.5				P	-	70	70	P	4000	1000	1000	1000	10	400	70	-	D
CHLOROFORM	1.5				L	100	-	-	D	-	-	-	-	10	-	-	600	B2
1,2-DICHLOROETHANE	1.5				P	-	2000	5	P	700	700	700	2600	-	-	-	40	B2
2-BUTANONE (MEK)	5				-	-	-	-	P	80000	8000	3000	9000	50	900	200	-	D
1,1,1-TRICHLOROETHANE	1.5				P	-	200	200	P	100000	40000	40000	100000	90	1000	200	-	D
CARBON TETRACHLORIDE	1.5				P	-	2000	5	P	4000	200	70	300	0.7	20	-	30	B2
VINYL ACETATE	5																	
BROMODICHLOROMETHANE	1.5				L	100	-	-	D	-	-	-	-	3	-	-	-	-
1,2-DICHLOROPROPANE	1.5				P	-	2000	5	P	-	50	-	-	-	-	-	60	B2
CIS-1,3-DICHLOROPROPENE	2				L	-	-	-	P	30	30	30	100	0.3	10	-	20	B2
TRICHLOROETHENE	1.5				P	-	2000	5	P	-	-	-	-	7	300	-	300	B2
BROMOFORM	1.5				L	100	-	-	D	-	-	-	-	3	-	-	-	-
1,1,2-TRICHLOROETHANE	1.5				-	-	-	-	D	-	-	-	-	30	-	-	-	-
BENZENE	1.5				P	-	2000	5	P	200	200	-	-	-	-	-	100	A

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S 20

Sample: RW3

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	LOD Dilut (ug/L)	Concentration	Standard Source Reg. A	Standard HRDS (ug/L)	Standard HRDS (ug/L)	Standard HRL (ug/L)	Health Advisories HA A	10-kg Child One-Day (ug/L)	10-kg Child Ten-Day (ug/L)	10-kg Child Longer-Term (ug/L)	70-kg Adult Longer-Term (ug/L)	70-kg Adult RfD (ug/kg/day)	70-kg Adult DWEL (ug/L)	70-kg Adult Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
CHLORINATED HYDROCARBONS																		
Volatile Organics (cont)																		
TRANS-1,3-DICHLOROPROPENE	1				L	-	-	-	P	30	30	30	100	0.3	10	-	20	B2
DIBROMOCHM	1,S				L	100	-	-	D	-	-	-	-	20	-	-	-	-
4-METHYL-2-PENTANONE	1,S																	
2-HEXANONE	S																	
TETRACHLOROETHENE	1,S				P	-	ZERO	S	P	2000	2000	1000	5000	10	300	-	70	B2
TOLUENE	1,S			40.0	P	-	2000	2000	P	20000	3000	3000	10000	300	10000	2000	-	-
1,1,2,2-TETRACHLOROETHANE	1,S				L	-	-	-	D	-	-	-	-	-	-	-	-	-
CHLOROBENZENE	1,S			100.0	P	-	100	100	P	2000	2000	2000	2000	20	700	100	-	D
ETHYLBENZENE	1,S			30.0	P	-	700	700	P	30000	3000	1000	3000	100	3000	700	-	D
STYRENE	1			10.0	P	-	ZERO	S	P	20000	2000	2000	7000	200	7000	-	1	B2
XYLENES (TOTAL)	1,S			20.0	P	-	10000	10000	P	40000	40000	40000	10000	2000	60000	10000	-	D
2-CHLOROETHYL VINYL ETHER	1,S																	
ACROLEIN	2S																	
ACRYLONITRILE	2S				L	-	-	-	-	-	-	-	-	-	-	-	-	-

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MEHT 39
S20
RW3

Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Basic Collection Information and Parameters	Reference Limits (ug/L)	Reference Limits (ug/L)	Reference Limits (ug/L)	Reference Limits	Reference Reg. A	Reference Alpha (ug/L)	Reference Beta (ug/L)	Reference Rad (ug/L)	Risk Rank A	10-kg Child Day=Day (ug/L)	10-kg Child Day=Day (ug/L)	10-kg Child Cancer=Term (ug/L)	70-kg Adult Cancer=Term (ug/L)	70-kg Adult RfD (mg/kg/day)	70-kg Adult Dwel (ug/L)	70-kg Adult Effected (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Collection Detection																		
Semivolatile Organics																		
PHENOL	3				-	-	-	-	D	-	-	-	-	40	-	-	-	-
BIS(2-CHLOROETHYL)ETHER	1,3																	
2-CHLOROPHENOL	3				L	-	-	-	D	-	-	-	-	5	200	-	-	-
1,3-DICHLOROBENZENE	3				P	-	600	600	F	9000	9000	9000	30000	89	3000	600	-	D
1,4-DICHLOROBENZENE	3				P	-	75	75	F	10000	10000	10000	40000	100	4000	75	-	C
BENZYL ALCOHOL	3																	
1,2-DICHLOROBENZENE	3,5				P	-	600	600	F	9000	9000	9000	30000	89	3000	600	-	D
2-METHYLPHENOL	1																	
N-NITROSO-DI-N-DIPROPYLAMINE	1,3																	
HEXACHLOROETHANE	3																	
NITROBENZENE	3,5																	
ISOPHORONE	3,5				L	-	-	-	D	-	-	-	-	130	-	-	-	-
2-NITROPHENOL	3																	
2,4-DIMETHYLPHENOL	3																	
BENZOIC ACID	39																	
BIS(2-CHLOROETHOXY)METHANE	3,5																	
2,4-DICHLOROPHENOL	3				L	-	-	-	D	-	-	-	-	3	100	-	-	-
1,2,4-TRICHLOROBENZENE	3				-	-	-	-	D	-	-	-	-	20	-	-	-	-
NAPHTHALENE	3				-	-	-	-	D	-	-	-	-	410	-	-	-	-
4-CHLOROANILINE	3																	
HEXACHLOROBUTADIENE	3,5				-	-	-	-	D	-	-	-	-	3	-	-	5	C
4-CHLORO-3-METHYLPHENOL	1,3																	
2-METHYLNAPHTHALENE	3																	

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Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Drinking Water Reg. A	Recreation Water (ug/L)			Drinking Water Rec. A	10-kg Child Water (ug/L)			Drinking Water Criteria Longer-Term (ug/L)	70-kg Adult Water (ug/L)				Level of 10-6 Cancer Risk	Cancer Group
										Day-Day	Year-Day	Longer-Term		DWD	DWEL	LIFETIME			
[illegible]																			
Semivolatile Organics (cont)																			
HEXACHLOROCYCLOPENTADIENE	3				1	-	-	-	-	-	-	-	-	7	-	-	-	-	-
2,4,6-TRICHLOROPHENOL	1.9																		
2,4,5-TRICHLOROPHENOL	1.9																		
2-CHLORONAPHTHALENE	1.9																		
2-NITROANILINE	1																		
DIMETHYLPHTHALATE	1.9				1	-	-	-	-	-	-	-	-	-	-	-	-	-	0
ACENAPHTHYLENE	1.9				-	-	-	-	0	-	-	-	-	-	-	-	-	-	-
2,6-DINITROTOLUENE	1																		
3-NITROANILINE	2.9																		
ACENAPHTHENE	1.9																		
2,4-DINITROPHENOL	(19)																		
4-NITROPHENOL	1.9																		
DIBENZOFURAN	1																		
2,4-DINITROTOLUENE	1				1	-	-	-	0	-	-	-	-	-	-	-	-	-	-
DIETHYLPHTHALATE	1				-	-	-	-	0	-	-	-	-	800	-	-	-	-	0
4-CHLOROPHENYL-PHENYLETHER	1																		
FLUORENE	1								1	-	-	-	-	-	-	-	-	-	0
4-NITROANILINE	3																		
4,6-DINITRO-2-METHYLPHENOL	(19)																		
N-NITROSODIPHENYLAMINE 0																			
DIPHENYLAMINE 0	1.9																		
4-BROMOPHENYL-PHENYLETHER	1.9																		
HEXACHLOROBENZENE	1.9				-	-	-	-	0	50	50	50	200	0.0	30	-	3		B2

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Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Semivolatile Organics (cont)																			
PENTACHLOROPHENOL	3			39.0	P	-	200	200	F	1000	300	300	1000	30	1000	200	-	D
PHENANTHRENE	1				L	-	-	-	-	-	-	-	-	-	-	-	-	-
ANTHRACENE	2,3				L	-	-	-	-	-	-	-	-	-	-	-	-	D
DI-N-BUTYLPHTHALATE	2				L	-	-	-	-	-	-	-	-	100	-	-	-	D
FLUORANTHENE	1,3																	
PYRENE	1,3				L	-	-	-	-	-	-	-	-	-	-	-	-	D
BUTYLBENZYLPHTHALATE	2,3				L	-	-	-	-	-	-	-	-	200	-	-	-	C
BENZO(A)ANTHRACENE AA					L	-	-	-	-	-	-	-	-	-	-	-	-	D2
CHRYSENE AA	1,3				L	-	-	-	-	-	-	-	-	-	-	-	-	D2
BIS(2-ETHYLHEXYL)PHTHALATE	1				-	-	-	-	R	-	-	-	-	20	-	-	-	D2
DI-N-OCTYLPHTHALATE	1,3																	
BENZO(B)FLUORANTHENE AAA					L	-	-	-	-	-	-	-	-	-	-	-	-	D2
BENZO(K)FLUORANTHENE AAA	1,3				L	-	-	-	-	-	-	-	-	-	-	-	-	D2
BENZO(A)PYRENE	3				L	-	-	-	-	-	-	-	-	-	-	-	-	D2
INDENO(1,2,3-C,D)PYRENE	2,3				L	-	-	-	-	-	-	-	-	-	-	-	-	D2
DIBENZO(A,H)ANTHRACENE	2,3				L	-	-	-	-	-	-	-	-	-	-	-	-	D2
BENZO(G,H,I)PERYLENE	4				L	-	-	-	-	-	-	-	-	-	-	-	-	D
4-METHYLPHENOL	1																	
BIS(2-CHLOROISOPROPYL)ETHER	2,3				-	-	-	-	R	-	-	-	-	-	-	-	-	-
ANILINE	1,3																	
1,2-DIPHENYLHYDRAZINE	1																	

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Doplo:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits				Reference Dose	Reference Dose			Drinking Water A	10-Kg Child			70-Kg Adult					Cancer Group
										One-Day	Ten-Day	Longer-Term	Longer-Term	RfD	DWEL	LTHR	ug/L at 10-6 Cancer Risk	
	(ug/L)	(ug/L)	(ug/L)			(ug/L)	(ug/L)	(ug/L)		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/Kg/day)	(ug/L)	(ug/L)		
PESTICIDES/PCBs																		
ALPHA BHC	(0.010)																	
BETA BHC	(0.005)																	
DELTA BHC	(0.005)																	
GAMMA BHC (LINDANE)	0.005				P	4	0.3	0.3	P	1000	1000	30	100	0.3	10	0.3	3	C
HEPTACHLOR	0.030				P	-	2000	0.4	P	10	10	5	5	0.5	20	-	0.8	D2
ALDRIN	0.005																	
HEPTACHLOR EPOXIDE	0.005				P	-	2000	0.3	P	10	-	0.1	0.1	0.013	0.4	-	0.4	D2
ENDOSULFAN I	0.010																	
DIELDRIN	0.010				L	-	-	-	P	0.5	0.5	0.5	3	0.05	3	-	0.2	D2
4,4'-DDE	(0.005)																	
ENDRIN	0.010				L	0.3	-	-	P	20	5	5	20	0.015	3	0.3	-	E
ENDOSULFAN II	0.010																	
4,4'-DDD	(0.020)																	
ENDOSULFAN SULFATE	(0.10)																	
4,4'-DDT	0.020																	
METHOXYCHLOR (MARIOATE)	0.020				P	100	400	400	P	6000	2000	500	2000	50	2000	400	-	D
ENDRIN ALDEHYDE	(0.030)																	
ENDRIN KETONE	(0.030)																	
CHLORDANE	(0.020)				P	-	2000	3	P	60	60	0.5	0.5	0.043	3	-	3	D2
ALPHA CHLORDANE	0.020																	
GAMMA CHLORDANE	0.020																	
TOXAPHENE	(0.25)				P	5	2000	5	P	300	40	-	-	100	-	-	3	D2
AROCLOR 1016	0.10				P	-	2000	0.5	P	-	-	1	1	-	-	-	0.3	D2

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Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — DIVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collected: Information and Parameters	Extractable Biotic (ug/L)	Sample Result (ug/L)	Lab Dilnd	Comment	Detect Flag A	Detection Limit (ug/L)	LOQ (ug/L)	LOD (ug/L)	Detect Flag A	Health Advisory Day=Day (ug/L)	Health Advisory Yon=Day (ug/L)	Health Advisory Longer-Term (ug/L)	Health Advisory Longer-Term (ug/L)	Health Advisory DTB (ug/L/day/wt)	Health Advisory RfDL (ug/L)	Health Advisory Effective (ug/L)	Wgt of 10-0 Carcinogen Risk	Carcinogen Group
Pesticides/PCBs (cont)																		
AROCLOR 1221	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1232	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1242	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1248	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1254	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2
AROCLOR 1260	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	B2

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Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Detection Limits (ug/L)	Sample Results (ug/L)	Lab Blank (ug/L)	Comments	Screen Reg. A	Screen Hazard (ug/L)	Screen Risk (ug/L)	Screen Risk (ug/L)	Screen Reg. A	10-Day Criteria One-Day (ug/L)	10-Day Criteria Ten-Day (ug/L)	10-Day Criteria Lifetime Cancer Risk Toxic (ug/L)	Health Advisories Lifetime Cancer Risk Toxic (ug/L)	Health Advisories DID (ug/kg/day)	70-Kg Adult Daily Dose (ug/L)	Health Advisories Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Analyte Selected	Method																		
ALUMINUM	P	100			50 Q	L	-	-	-	B	-	-	-	-	-	-	-	-	-
ANTIMONY	F	3				L	-	-	-	B	-	-	-	-	0.4	-	-	-	-
ARSENIC	F	3				P	50	ZERO	30	B	-	-	-	-	1	-	50	3	A
BARIUM	P	50	68.8			P	1000	3000	3000	F	3000	3000	3000	3000	-	-	3000	-	D
BERYLLIUM	F	3				L	-	-	-	B	-	-	-	-	5	-	-	-	B2
CADMIUM	F	0.5	0.33 JB			P	10	5	5	F	40	40	5	20	0.5	20	5	-	B
CALCIUM	P	1000	135000																
CHROMIUM	F	10				P	50	100	100	F	1000	1000	200	000	5	200	100	-	B
COBALT	P	10																	
COPPER	P	10			1000 Q														
IRON	P	100	386		300 Q														
LEAD (at source)	F	3				P	-	ZERO	5	-	-	-	-	-	-	-	-	-	-
LEAD (at tap)	F	3				P	50	ZERO	15	-	-	-	-	-	-	-	-	-	-
MAGNESIUM	P	1000	73100																
MANGANESE	P	10	107		50 Q	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MERCURY	CV	0.2				P	2	2	2	F	-	-	-	-	0.3	10	2	-	D
NICKEL	P	20				L	-	-	-	F	1000	1000	2000	600	20	600	200	-	D
POTASSIUM	P	2000	2180 J																
SELENIUM	F	2				P	10	50	50	-	-	-	-	-	-	-	-	-	-
SILVER	P	5			50 Q	L	50	-	-	B	-	-	-	-	3	-	-	-	-
SODIUM	P	1000	26900			L	-	-	-	B	-	-	-	-	-	20000	-	-	-
THALLIUM	F	2				L	-	-	-	B	-	-	-	-	0.07	-	-	-	-
TIN	P	40																	

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Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — DIVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Qualifiers	Standard Reg. A	Standard Hazardous (ug/L)	Standard MCLG (ug/L)	Standard MCL (ug/L)	Standard MA A	Health Advisories 10-kg Child One-Day (ug/L)	10-kg Child Ten-Day (ug/L)	10-kg Child Longer-Term (ug/L)	70-kg Adult Longer-Term (ug/L)	70-kg Adult RfD (mg/kg/day)	70-kg Adult DWEL (ug/L)	Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
Inorganic Analytes																		
Analyte Detected (cont)																		
VANADIUM P	10				L	-	-	-	D	-	-	-	-	20	-	-	-	-
ZINC P	20	142		5000 #	L	-	-	-	D	-	-	-	-	-	-	-	-	-
CYANIDE C	10				L	-	-	-	E	200	200	200	800	22	800	200	-	D
BORON P	80																	
LITHIUM P	10																	
MOLYBDENUM P	15																	
TITANIUM P	25																	
STRONTIUM P	10																	
YTTRIUM P	5																	

Detection Limits:
A Those Two Parameters Are Reported As A Total
AA Those Two Parameters Are Reported As A Total
AAA Those Two Parameters Are Reported As A Total
Values In Parentheses Are Estimates. Actual Values Are Being Determined At This Time.

NT - Not Tested For

Secondary Maximum contaminant Levels

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ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to interference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	S	Analysis by Method of Standard Additions.	Value may be quantitative.
N	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	D	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	R	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnace AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnace AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NA" if the analyte is not required to be analyzed.

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II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE		DEFINITION	INTERPRETATION
OLD	NEW		
E	E	Estimated or not reported due to interference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	S	Analysis by Method of Standard Additions.	Value may be quantitative.
N	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	M	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnance AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnance AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"NR" if the analyte is not required to be analyzed.

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D. Analytical Method Qualifiers for Inorganic

"P" for ICP

"A" for Flame AA

"F" for Furnance AA

"CV" for Manual Cold Vapor AA

"AV" for Automated Cold Vapor AA

"AS" for Semi-automated Spectrophotometric

"C" for Manual Spectrophotometric

"T" for Titrimetric

"NA" if the analyte is not required to be analyzed.

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DESCRIPTION AND QUALIFIERS

The following are descriptions of the 19 columns listed on the table and the qualifiers to clarify the analytical and health related values.

Column	Description
1. Sample Collection Information and Parameters.	The compounds and analytes analyzed for on this water sample.
2. Detection Limits	The detection limits that a laboratory must meet as part of the analytical service contact.
3. Sample Results	The value determined by this analysis.
4. Lab Blank	Laboratory contamination that may be found in the laboratory blank. A quality control check.
5. Comments	The water reviewer's comments on the usability of the value in the Sample Results column.
6. Status Reg	F-final D-draft L-listed for regulation P-proposed (Phase II draft proposal, based on levels proposed in 1985).

7. NIPDWR- National Interim Primary Drinking Water Regulations: refers to the interim regulatory requirements under the Safe Drinking Water Act (SDWA) of 1974. The NIPDWR specified maximum allowable levels for 22 different contaminants at the consumer's drinking water tap. These interim standards, known as Maximum Contaminant Levels (MCL), were promulgated for 22 contaminants in March 1975, with the intention of revising and promulgating the final National Primary Drinking Water Regulations (NPDWR) a few years later. The values listed in this column are the original MCLs assigned under the interim regulations. The NPDWRs were effected under the SDWA Amendments of June 19, 1986. These revised regulations specify MCLs or treatment techniques for additional contaminants. At this time, 8 additional contaminants (synthetic volatile organic chemicals) have also been

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assigned MCLs. (Code of Federal Regulations, Chapter 40, part 141, et seq.)

8. MCLG- Maximum Contaminant Level Goal: Under the National Primary Drinking Water Regulations, the term MCLG now replaces the previous term RMCL or recommended Maximum Contaminant Levels. Under the 1986 SDWA Amendments, any NPDWR which establishes an MCL must also simultaneously publish an MCLG at the time of proposed rulemaking and promulgation. The MCLG is the maximum level of a contaminant at which no known or anticipated adverse human health effects would occur, and which include an adequate margin of safety. MCLGs are nonenforceable health goals.

9. MCL- Maximum Contaminant Level: Derived from the MCLG, the MCL is the maximum permissible level of a contaminant in drinking water which is delivered to the consumers' tap and used by the general public for drinking. MCLs are legally enforceable. The standards reflect the best achievable levels considering the occurrence, relative source contribution factors, monitoring capability, cost of treatment, available technology and health effects. The standards listed in this column for each contaminant under the NIPDWR are either newly promulgated or revised from the NIPDWR. In a few cases, the enforceable standard has changed; however, in most cases (when comparing columns headed NIPDWR and MCL) the existing interim standard has been revised or has been newly developed.

10. Status HA

F-final
D-draft
L-listed for regulation
P-proposed (Phase III draft proposal, based on levels proposed in 1985).

Health Advisories

The Health Advisory (HA) program is sponsored by the Office of Drinking Water (ODW), and provides information on the health effects, analytical methods and treatment technology useful for dealing with drinking water contamination. Health advisories describe nonregulatory concentrations of drinking water contaminants at which adverse health effects would not be anticipated to occur over specific exposure durations. Health advisories contain a margin of safety, to protect sensitive members of the population. The Health Advisories are developed for one-day, ten-day, longer term and lifetime exposures based on data describing non carcinogenic endpoints of toxicity. The advisories are intended to serve as informal technical guidance to assist Federal, State, and local officials when emergency spills or contaminant situations occur. THEY ARE NOT CONSTRUED AS LEGALLY ENFORCEABLE FEDERAL STANDARDS AND ARE SUBJECT TO CHANGE AS NEW INFORMATION BECOMES AVAILABLE.

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Health Advisory values for the adult are derived in the same way as for the 10-kg child. Again, certain assumptions are made: The adult is assumed to weigh 70-kg and consume 2 liters of water per day.

10-KG Child

11. 1 day

12. 10 day

13. Longer term

The child is assumed to be a more sensitive population entity. Included in this assumption, is that the body weight of a child is 10 kg and that one liter of water per day is ingested. Under these and other assumption specific to the available toxicological data bases, Health Advisory values have been derived and listed in the respective columns for one-day, ten-day and longer term exposures. Longer term is defined as approximately 7 years, or 10 percent of an individual's lifetime.

70-KG Adult

14. Longer term

As with the 10-kg child, longer term exposure is approximately 7 years or 10 percent of an individual's lifetime.

15. RfD

Reference Dose: formerly known as the Acceptable Daily Intake (ADI), the RfD is an estimate of a daily exposure to the human population (including sensitive subpopulations) that is likely to be without appreciable risk or deleterious effects over a lifetime. The RfD is expressed in units of daily dose.

16. DWEL

Drinking Water Equivalent Lifetime: The medium-specific (i.e., drinking water) lifetime exposure level, assuming 100 percent exposure from that medium, at which adverse noncarcinogenic health effects would not be expected to occur. The DWEL is derived from multiplying the RfD by the adult body weight (70kg) and divided by the adult daily water consumption (2 liters/day)

17. Lifetime

Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. If data are unavailable, a value of 20 percent is assumed for synthetic organic chemical contaminants and a value of 10 percent assumed for inorganic chemical contaminants. The lifetime Health Advisory is determined by multiplying the DWEL by the relative source contribution from drinking water.

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18. µg/L as 10^{-4} Cancer Risk — This column contains values indicating the concentration of the particular contaminant in drinking water that would produce as 10^{-4} excess lifetime cancer risk. Simply stated, if a group of 10,000 persons was exposed to the contaminant at its respective concentration listed in this column, then one individual in the group might be expected to develop cancer (above background incidence) solely from exposure to that contaminant in drinking water.

19. Cancer Group — The Office of Health and Environmental Assessment (OHEA) within EPA's Office of Research and Development (ORD) has developed guidelines for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on the weight of evidence:

Group A - Human carcinogen
Group B - Probable human carcinogen
Group B consists of two sub-classifications:
B_1 - limited human evidence but sufficient animal evidence
B_2 - Sufficient animal evidence, but inadequate or no human evidence
Group C - Possible human carcinogen
Group D - Not classified as to human carcinogenicity
Group E - Evidence of noncarcinogenicity for humans

Qualifiers Used For The Health Related Table

NA - not applicable
PS - performance standard 0.5 NTU - 1.0 NTU
TT - treatment technique
☆☆ - no more than 5% of the samples may be positive. For systems collecting fewer than 40 samples/month, no more than 1% may be positive.
☆☆☆ - guidance
◇ - large discrepancies between Lifetime and Longer term HA values may occur because of the Agency's conservative policies, especially with regard to carcinogenicity, relative source contribution, and less than lifetime exposures in chronic toxicity testing. These factors can result in a cumulative UF (uncertainty factor) of 10 to 1,000 when calculating a Lifetime HA.

2306:6

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RW2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive [redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-071 ; PAN: FIL049258
Yellow: Recipient
Pink: U.S. EPA

MEHT 38

Sample: RW2 S19

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — DIVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Comments	Standards Status Reg. A	Standards MRDL (ug/L)	Standards MCGL (ug/L)	Standards MCL (ug/L)	Health Advisories RA A	Health Advisories 10-kg Child One-Day (ug/L)	Health Advisories 10-kg Child Year-Day (ug/L)	Health Advisories 10-kg Child Lifetime Total (ug/L)	Health Advisories 70-kg Adult Lifetime Total (ug/L)	Health Advisories 70-kg Adult RfD (ug/kg/day)	Health Advisories 70-kg Adult DWEL (ug/L)	Health Advisories 70-kg Adult Lifetime (ug/L)	Health Advisories ug/L at 10^{-6} Cancer Risk	Cancer Group
Organic Analysis																		
Volatile Organics																		
CHLOROMETHANE	1.S				R	-	-	-	D	-	-	-	-	-	-	-	-	-
BROMOMETHANE	1.S				-	-	-	-	D	-	-	-	-	-	-	-	-	-
VINYL CHLORIDE	1.S				R	-	2000	2	R	3000	3000	10	30	-	-	-	1.S	A
CHLOROETHANE	1.S				R	-	-	-	D	-	-	-	90	-	-	-	-	-
METHYLENE CHLORIDE	1				R	-	-	-	R	10000	2000	-	-	60	2000	-	300	B2
ACETONE	S																	
CARBON DISULFIDE	S																	
1,1-DICHLOROETHENE	1.S				R	-	7	7	R	3000	1000	1000	4000	9	400	7	-	C
1,1-DICHLOROETHANE	1.S				R	-	-	-	D	-	-	-	-	-	-	-	-	-
1,2-DICHLOROETHENE (TOTAL)	1.S				R	-	70	70	R	4000	1000	1000	1000	10	400	70	-	D
CHLOROFORM	1.S				R	100	-	-	D	-	-	-	-	10	-	-	600	B2
1,2-DICHLOROETHANE	1.S				R	-	2000	5	R	700	700	700	2000	-	-	-	40	B2
2-BUTANONE (MEK)	S				-	-	-	-	R	80000	8000	3000	5000	30	500	200	-	D
1,1,1-TRICHLOROETHANE	1.S				R	-	200	200	R	100000	40000	40000	100000	90	1000	200	-	D
CARBON TETRACHLORIDE	1.S				R	-	2000	5	R	4000	200	70	500	0.7	30	-	30	B2
VINYL ACETATE	S																	
BROMODICHLOROMETHANE	1.S				R	100	-	-	D	-	-	-	-	3	-	-	-	-
1,2-DICHLOROPROPANE	1.S				R	-	2000	5	R	-	50	-	-	-	-	-	60	B2
CIS-1,3-DICHLOROPROPENE	S				R	-	-	-	R	30	30	30	100	0.3	10	-	20	B2
TRICHLOROETHENE	1.S				R	-	2000	5	R	-	-	-	-	7	300	-	300	B2
DIBROMOCHLOROMETHANE	1.S				R	100	-	-	D	-	-	-	-	2	-	-	-	-
1,1,2-TRICHLOROETHANE	1.S				-	-	-	-	D	-	-	-	-	30	-	-	-	-
BENZENE	1.S				R	-	2000	5	R	200	200	-	-	-	-	-	100	A

Data Report
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Sample: RW2

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Sample Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Calculated	Reference Source Reg. A	Reference Hybrid (ug/L)	Reference RfDs (ug/L)	Reference RfC (ug/L)	Health Advisory RA A	Health Advisory 10-Kg Child One-Day (ug/L)	Health Advisory 10-Kg Child Ten-Day (ug/L)	Health Advisory 10-Kg Child Longer-Term (ug/L)	Health Advisory 70-Kg Adult Longer-Term (ug/L)	Health Advisory 70-Kg Adult RfD (ug/kg/day)	Health Advisory 70-Kg Adult DWEL (ug/L)	Health Advisory 70-Kg Adult LifetimeCC (ug/L)	Health Advisory ug/L at 10-4 Cancer Risk	Cancer Group
GROUNDWATER																		
Volatile Organics (cont)																		
TRANS-1,3-DICHLOROPROPENE	1				L	-	-	-	P	30	30	30	100	0.3	10	-	20	D2
DOCHEXOXIN	1,S				L	100	-	-	P	-	-	-	-	20	-	-	-	-
4-METHYL-2-PENTANONE	1,S																	
2-HEXANONE	S																	
TETRACHLOROETHENE	1,S				P	-	ZERO	5	P	2000	2000	1000	3000	10	300	-	70	D2
TOLUENE	1,S			40.0	P	-	2000	2000	P	20000	3000	3000	10000	300	10000	2000	-	-
1,1,2,2-TETRACHLOROETHANE	1,S				L	-	-	-	P	-	-	-	-	-	-	-	-	-
CHLOROBENZENE	1,S			100.0	P	-	100	100	P	2000	2000	2000	2000	20	700	100	-	D
ETHYLBENZENE	1,S			30.0	P	-	700	700	P	20000	3000	1000	3000	100	3000	700	-	D
STYRENE	1			10.0	P	-	ZERO	5	P	20000	2000	2000	7000	200	7000	-	1	D2
XYLENES (TOTAL)	1,S			30.0	P	-	10000	10000	P	40000	40000	40000	10000	2000	60000	10000	-	D
2-CHLOROETHYL VINYL ETHER	1,S																	
CARBON	25																	
CARBONATE	25				L	-	-	-	-	-	-	-	-	-	-	-	-	-

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ME438

Scoplo: 3rd RWL

ANALYTICAL DATA AND RELATED HEALTH ASSESSMENT TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Basic Extraction Information and Parameters	Detection Limits (ug/L)	Basic Double (ug/L)	Blk Dlcm (ug/L)	Comments	Reason Dog. A	Reference Dlrbg (ug/L)	Rcdg (ug/L)	Rcs (ug/L)	Reason Rs A	Toxicity Ora-Rby (ug/L)	Toxicity Ion-Rby (ug/L)	Toxicity Lengsy-Toro (ug/L)	Ecotoxicity Lengsy-Toro (ug/L)	Ecotoxicity DTB (ug/L)	Ecotoxicity Dbbl (ug/L)	Ecotoxicity Ellrdlcss (ug/L)	Cpt of 10-4 Cancer Risk	Cancer Group
Semivolatile Organics																		
PHENOL	3				-	-	-	-	B	-	-	-	-	40	-	-	-	-
BIS(2-CHLOROETHYL)ETHER	1.5																	
2-CHLOROPHENOL	3				L	-	-	-	B	-	-	-	-	3	300	-	-	-
1,3-DICHLOROBENZENE	3				P	-	600	600	R	9000	9000	9000	30000	89	3000	600	-	B
1,4-DICHLOROBENZENE	3				R	-	75	75	R	10000	10000	10000	40000	100	4000	75	-	C
BENZYL ALCOHOL	3																	
1,2-DICHLOROBENZENE	3.5				P	-	600	600	R	9000	9000	9000	30000	89	3000	600	-	B
2-METHYLPHENOL	1																	
BIS(2-CHLOROISOPROPYL)ETHER	1.5																	
HEXACHLOROETHANE	3																	
NITROBENZENE	3.5																	
ISOPHORONE	3.5				L	-	-	-	B	-	-	-	-	130	-	-	-	-
2-NITROPHENOL	3																	
2,4-DIMETHYLPHENOL	3																	
BENZOIC ACID	20																	
BIS(2-CHLOROETHOXY)METHANE	3.5																	
2,4-DICHLOROPHENOL	3				L	-	-	-	B	-	-	-	-	3	100	-	-	-
1,2,4-TRICHLOROBENZENE	3				-	-	-	-	D	-	-	-	-	20	-	-	-	-
NAPHTHALENE	3				-	-	-	-	B	-	-	-	-	410	-	-	-	-
4-CHLOROANILINE	3																	
HEXACHLOROBUTADIENE	3.5				-	-	-	-	B	-	-	-	-	3	-	-	5	C
4-CHLORO-3-METHYLPHENOL	1.5																	
2-METHYLNAPHTHALENE	3																	

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Sample: RW2

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1969

Sample Collection Information and Parameters	Detection Limits (µg/L)	Sample Results (µg/L)	Lab Blank (µg/L)	Lab Blank	Standard Reg. A	Standard Mod. (µg/L)	Standard Max (µg/L)	Standard Max	Standard Max A	10-19 Years Old Boy (µg/L)	10-19 Years Old Non-Boy (µg/L)	10-19 Years Old Longer-Term (µg/L)	Adult Longer-Term (µg/L)	Adult RTD (µg/L)	Adult DWEL (µg/L)	Adult LTRTIES (µg/L)	Adult of 10-9 Cancer Risk	Cancer Group
Volatile Organics																		
Methylene Chloride	1				1	-	-	-	-	-	-	-	-	2	-	-	-	-
1,1-Dichloroethylene	1.5																	
1,1,1-Trichloroethane	1.5																	
2-Chloroethylether	1.5																	
2-Nitrophenol	1																	
Dimethylphthalate	1.5				1	-	-	-	-	-	-	-	-	-	-	-	-	B
Acenaphthylene	1.5				-	-	-	-	B	-	-	-	-	-	-	-	-	-
2,6-Dinitrotoluene	1																	
3-Nitroaniline	2.5																	
Acenaphthene	1.5																	
2,4-Dinitrophenol	(15)																	
4-Nitrophenol	1.5																	
Dibenzofuran	1																	
2,4-Dinitrotoluene	1				1	-	-	-	B	-	-	-	-	-	-	-	-	-
Diethylphthalate	1				-	-	-	-	B	-	-	-	-	800	-	-	-	B
4-Chlorophenyl-phenylether	1																	
Fluorene	1								1	-	-	-	-	-	-	-	-	B
4-Nitroaniline	3																	
4,6-Dinitro-2-methylphenol	(15)																	
N-Nitrosodiphenylamine A																		
Diphenylamine A	1.5																	
4-Bromophenyl-phenylether	1.5																	
Hexachlorobenzene	1.5				-				P	90	90	90	200	0.0	30	-	3	B2

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RW2

Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Extracts Extractables and Pesticides	Detected Limits (ug/L)	Detected Limits (ug/L)	Detected Limits (ug/L)	Comments	Detected Reg. A	Detected Advisory (ug/L)	Detected Advisory (ug/L)	Detected Advisory (ug/L)	Applicable Reg. A	Health Advisory Cancer Risk (ug/L)	Health Advisory Cancer Risk (ug/L)	Health Advisory Cancer Risk (ug/L)	Health Advisory Cancer Risk Total (ug/L)	Health Advisory Cancer Risk Total (ug/L)	Health Advisory Cancer Risk Total (ug/L)	Health Advisory Cancer Risk Total (ug/L)	Health Advisory Cancer Risk Total (ug/L)	Health Advisory Cancer Risk Total (ug/L)	Health Advisory Cancer Risk Total (ug/L)	Health Advisory Cancer Risk Total (ug/L)	Cancer Group
CONTROL MATERIAL																					
Semivolatile Organics (cont)																					
PENTACHLOROPHENOL	3			39.0	P	-	200	200	P	1000	200	200	1000	30	1000	200	-				D
PHENANTHRENE	1				L	-	-	-	-	-	-	-	-	-	-	-	-				-
ANTHRACENE	2.5				L	-	-	-	-	-	-	-	-	-	-	-	-				D
DI-N-BUTYLPHTHALATE	2				L	-	-	-	-	-	-	-	-	100	-	-	-				D
FLUORANTHENE	1.5																				
PYRENE	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-				D
BUTYLBENZYLPHTHALATE	3.5				L	-	-	-	-	-	-	-	-	200	-	-	-				C
BENZO(A)ANTHRACENE AA					L	-	-	-	-	-	-	-	-	-	-	-	-				B2
CHRYSENE AA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-				B2
BIS(2-ETHYLHEXYL)PHTHALATE	1				-	-	-	-	R	-	-	-	-	20	-	-	-				B2
DI-N-OCTYLPHTHALATE	1.5																				
BENZO(B)FLUORANTHENE AAA					L	-	-	-	-	-	-	-	-	-	-	-	-				B2
BENZO(K)FLUORANTHENE AAA	1.5				L	-	-	-	-	-	-	-	-	-	-	-	-				B2
BENZO(A)PYRENE	2				L	-	-	-	-	-	-	-	-	-	-	-	-				B2
INDENO(1,2,3-C,D)PYRENE	3.5				L	-	-	-	-	-	-	-	-	-	-	-	-				B2
DIBENZO(A,H)ANTHRACENE	2.5				L	-	-	-	-	-	-	-	-	-	-	-	-				B2
BENZO(G,H,I)PERYLENE	4				L	-	-	-	-	-	-	-	-	-	-	-	-				D
4-METHYLPHENOL	1																				
BIS(2-CHLOROISOPROPYL)ETHER	2.5				-	-	-	-	R	-	-	-	-	-	-	-	-				-
ANILINE	1.5																				
1,2-DIPHENYLHYDRAZINE	1																				

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RW2

Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Log Dilution	Comments	Screen Dog. A	Reference Dose (ug/L)	RfDo (ug/L)	RfC (ug/L)	Evidence MA A	10-kg Child Cancer-Risk Tox-Risk (ug/L)	Tox-Risk (ug/L)	Cancer-Toxic (ug/L)	Adult Cancer-Toxic (ug/L)	RfD (ug/L)	RfC (ug/L)	70-kg Adult ug/L at 10-6 Cancer Risk	Cancer Group
ORGANIC PESTICIDES																	
Pesticides/PCBs																	
ALPHA BHC	(0.010)																
BETA BHC	(0.005)																
DELTA BHC	(0.005)																
GAMMA BHC (LINDANE)	0.005				P	4	0.3	0.3	P	1000	1000	30	100	0.3	10	0.3	3	C
HEPTACHLOR	0.020				P	-	8000	0.9	P	10	10	5	5	0.5	20	-	0.8	B2
ALDRIN	0.005																
HEPTACHLOR EPOXIDE	0.005				P	-	8000	0.3	P	10	-	0.1	0.1	0.013	0.9	-	0.9	B2
ENDOSULFAN I	0.010																
DIELDRIN	0.010				P	-	-	-	P	0.5	0.5	0.5	3	0.05	3	-	0.3	B2
4,4'-DDE	(0.005)																
ENDRIN	0.010				P	0.3	-	-	P	20	5	5	20	0.015	3	0.3	-	D
ENDOSULFAN II	0.010																
4,4'-DDD	(0.020)																
ENDOSULFAN SULFATE	(0.10)																
4,4'-DDT	0.020																
METHOXYCHLOR (MARIGOLD)	0.020				P	100	400	400	P	6000	2000	500	2000	50	2000	400	-	D
ENDRIN ALDEHYDE	(0.020)																
ENDRIN KETONE	(0.020)																
CHLORDANE	(0.020)				P	-	8000	3	P	60	60	0.5	0.5	0.045	3	-	3	B2
ALPHA CHLORDANE	0.020																
GAMMA CHLORDANE	0.020																
TOXAPHENE	(0.25)				P	[illegible]	8000	3	P	300	300	[illegible]	-	100	-	-	3	B2
AROCLOR 1016	0.10				P	-	8000	0.3	P	-	-	1	1	-	-	-	0.3	B2

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RW2

Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — DIVISION 01, EFFECTIVE 3 APRIL 1989

Sample Characteristics Information and Parameters	Blanks Blank (ug/L)	Blanks Double (ug/L)	Blanks Blank	Blanks	Uncorrected Dog. A	Uncorrected Uncorr.	Uncorrected LOD	Uncorrected LOQ	Uncorrected MA A	Corrected Day-Day Yon-Day (ug/L)	Corrected Day-Day Yon-Day (ug/L)	Corrected Corrected Yoro (ug/L)	Corrected Corrected Yoro (ug/L)	Corrected DTB	Corrected DUEL	Corrected Corrected (ug/L)	Corrected Corrected (ug/L)	Corrected ug/L at 10-4 Cancer Risk	Cancer Group
CHLORINATED HYDROCARBONS																			
Pesticides/PCBs (cont)																			
AROCLOR 1221	0.10				P	-	2000	0.5	P	-	-	1	4	-	-	-	0.5	D2
AROCLOR 1232	0.10				P	-	2000	0.5	P	-	-	1	4	-	-	-	0.5	D2
AROCLOR 1242	(0.10)				P	-	2000	0.5	P	-	-	1	4	-	-	-	0.5	D2
AROCLOR 1248	(0.10)				P	-	2000	0.5	P	-	-	1	4	-	-	-	0.5	D2
AROCLOR 1254	(0.10)				P	-	2000	0.5	P	-	-	1	4	-	-	-	0.5	D2
AROCLOR 1260	(0.10)				P	-	2000	0.5	P	-	-	1	4	-	-	-	0.5	D2

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Sample:

ANALYTICAL DATA AND HOLMES HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Population		Concentration Limits (ug/L)	Sample Result (ug/L)	Lab Blank (ug/L)	Background	Screen Dog. A	Screen Dog. B (ug/L)	Screen Dog. C (ug/L)	Screen Dog. D (ug/L)	Screen Dog. E	10-65 Child Cancer-Risk Dog. A (ug/L)	10-65 Child Cancer-Risk Dog. B (ug/L)	10-65 Child Cancer-Risk Dog. C (ug/L)	70-65 Adult Cancer-Risk (ug/L)	70-65 Adult DTB (ug/L)	70-65 Adult Dose (ug/L)	70-65 Adult Exposure (ug/L)	ug/L at 10-6 Cancer Risk	Cancer Group
Contaminants Detected																			
Analytical Detected	Method																		
ALUMINUM	P	100	34.6 B		50 U	L	-	-	-	B	-	-	-	-	-	-	-	-	-
ANTIMONY	E	5				L	-	-	-	B	-	-	-	-	0.4	-	-	-	-
ARSENIC	F	5				P	50	2000	20	B	-	-	-	-	1	-	50	3	A
BARIUM	P	50	114			P	1000	5000	5000	R	5000	5000	5000	5000	-	-	5000	-	D
BERYLLIUM	F	5				L	-	-	-	B	-	-	-	-	5	-	-	-	B2
CADMIUM	F	0.5	0.16 B			P	10	5	5	R	40	40	5	20	0.5	20	5	-	D
CALCIUM	P	1000	127000																
CHROMIUM	F	10				P	50	100	100	R	1000	1000	200	C40	5	200	100	-	D
COBALT	P	10																	
COPPER	P	10	12.3		1000 U														
IRON	P	100	2300		300 U														
LEAD (at source)	F	2				P	-	2000	5	-	-	-	-	-	-	-	-	-	-
LEAD (at tap)	F	2				P	50	2000	TT	-	-	-	-	-	-	-	-	-	-
MAGNESIUM	P	1000	62900																
MANGANESE	P	10	123		50 U	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MERCURY	CV	0.2				P	2	2	2	R	-	-	-	-	0.3	10	2	-	D
NICKEL	P	20				L	-	-	-	R	1000	1000	2000	600	20	600	200	-	D
POTASSIUM	P	2000	18800 JB																
SELENIUM	F	2				P	10	50	50	-	-	-	-	-	-	-	-	-	-
SILVER	P	5			50 U	L	50	-	-	B	-	-	-	-	3	-	-	-	-
SODIUM	P	1000	17800			L	-	-	-	B	-	-	-	-	-	20000	-	-	-
THALLIUM	F	2				L	-	-	-	B	-	-	-	-	0.07	-	-	-	-
ZINC	P	40																	

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MEHT 38
S19
RW2

Samples:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — DIVISION 01, EFFECTIVE 3 APRIL 1979

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Results (ug/L)	Lab Blank (ug/L)	Comments	Water Reg. A	Water Health (ug/L)	Water Aesth (ug/L)	Water Agric (ug/L)	Drinking Reg. A	Health Advisories 10-Day Non-Cancer Toxic (ug/L)	10-Day Cancer Toxic (ug/L)	10-Day Longer-Term Toxic (ug/L)	Lifetime Cancer Toxic (ug/L)	Lifetime Toxic (ug/L)	Lifetime Cancer Risk (ug/L)	Lifetime Adult Dose (ug/L)	Lifetime Cancer Risk of 10-6 (ug/L)	Cancer Group
Inorganic Pollutants																		
Analysis Extracted (cont)																		
VANADIUM P	10				1	-	-	-	P	-	-	-	-	20	-	-	-	-
ZINC P	20	18.8 B		5000 #	1	-	-	-	P	-	-	-	-	-	-	-	-	-
CYANIDE C	10				1	-	-	-	P	200	200	200	800	22	800	200	-	D
ARSENIC P	80																	
LITHIUM P	10																	
MOLYBDENUM P	15																	
TITANIUM P	25																	
STRONTIUM P	10																	
TIN P	5																	

Detection Limits:
A Those Two Parameters Are Reported As A Total
AA Those Two Parameters Are Reported As A Total
AAA Those Two Parameters Are Reported As A Total
Values In Parentheses Are Estimates. Actual Values Are Being Extrapolated At This Time.

NT = Not Tested For

Secondary Maximum contaminant levels.

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ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analysed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to interference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	S	Analysis by Method of Standard Additions.	Value may be quantitative or semi-quantitative.
N	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
+	+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	D	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analysed for but not detected.	Compound was not detected.
	W	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnace AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

°P° for ICP
°A° for Flame AA
°F° for Furnace AA
°CV° for Manual Cold Vapor AA
°AV° for Automated Cold Vapor AA
°AS° for Semi-automated Spectrophotometric
°C° for Manual Spectrophotometric
°T° for Titrimetric
°M° if the analyte is not required to be analysed.

0110:1

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
D	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
B	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
Δ	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE		DEFINITION	INTERPRETATION
OLD	NEW		
B	B	Estimated or not reported due to interference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	S	Analysis by Method of Standard Additions.	Value may be quantitative.
N	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
✧	✧	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	D	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
R	R	Duplicate injection precision not met.	Value may be semi-quantitative.
W	W	Post digestion spike for furnace AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

°P° for ICP
°A° for Flame AA
°F° for Furnace AA
°CV° for Manual Cold Vapor AA
°AV° for Automated Cold Vapor AA
°AS° for Semi-automated Spectrophotometric
°C° for Manual Spectrophotometric
°T° for Titrimetric
°M° if the analyte is not required to be analyzed.

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D. Analytical Method Qualifiers for Inorganic

"P" for ICP

"A" for Flame AA

"F" for Furnance AA

"CV" for Manual Cold Vapor AA

"AV" for Automated Cold Vapor AA

"AS" for Semi-automated Spectrophotometric

"C" for Manual Spectrophotometric

"T" for Titrimetric

"NA" if the analyte is not required to be analyzed.

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DESCRIPTION AND QUALIFIERS

The following are descriptions of the 19 columns listed on the table and the qualifiers to clarify the analytical and health related values.

Column	Description
1. Sample Collection Information and Parameters.	The compounds and analytes analyzed for on this water sample.
2. Detection Limits	The detection limits that a laboratory must meet as part of the analytical service contact.
3. Sample Results	The value determined by this analysis.
4. Lab Blank	Laboratory contamination that may be found in the laboratory blank. A quality control check.
5. Comments	The water reviewer's comments on the usability of the value in the Sample Results column.
6. Status Reg.	F-final D-draft L-listed for regulation P-proposed (Phase II draft proposal, based on levels proposed in 1985).

7. NIPDWR- National Interim Primary Drinking Water Regulations refers to the interim regulatory requirements under the Safe Drinking Water Act (SDWA) of 1974. The NIPDWR specified maximum allowable levels for 22 different contaminants at the consumer's drinking water tap. These interim standards, known as Maximum Contaminant Levels (MCL), were promulgated for 22 contaminants in March 1975, with the intention of revising and promulgating the final National Primary Drinking Water Regulations (NPDWR) a few years later. The values listed in this column are the original MCLs assigned under the interim regulations. The NPDWRs were effected under the SDWA Amendments of June 19, 1986. These revised regulations specify MCLs or treatment techniques for additional contaminants. At this time, 8 additional contaminants (synthetic volatile organic chemicals) have also been

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assigned MCLs. (Code of Federal Regulations, Chapter 40, part 141, et seq.)

8. MCLG- Maximum Contaminant Level Goal: Under the National Primary Drinking Water Regulations, the term MCLG now replaces the previous term RMCL or recommended Maximum Contaminant Levels. Under the 1986 SDWA Amendments, any NPDWR which establishes an MCL must also simultaneously publish an MCLG at the time of proposed rulemaking and promulgation. The MCLG is the maximum level of a contaminant at which no known or anticipated adverse human health effects would occur, and which include an adequate margin of safety. MCLGs are nonenforceable health goals.

9. MCL- Maximum Contaminant Level: Derived from the MCLG, the MCL is the maximum permissible level of a contaminant in drinking water which is delivered to the consumers' tap and used by the general public for drinking. MCLs are legally enforceable. The standards reflect the best achievable levels considering the occurrence, relative source contribution factors, monitoring capability, cost of treatment, available technology and health effects. The standards listed in this column for each contaminant under the NIPDWR are either newly promulgated or revised from the NIPDWR. In a few cases, the enforceable standard has changed; however, in most cases (when comparing columns headed NIPDWR and MCL) the existing interim standard has been revised or has been newly developed.

10. Status HA

F-final
D-draft
L-listed for regulation
P-proposed (Phase III draft proposal, based on levels proposed in 1985).

Health Advisories

The Health Advisory (HA) program is sponsored by the Office of Drinking Water (ODW), and provides information on the health effects, analytical methods and treatment technology useful for dealing with drinking water contamination. Health advisories describe nonregulatory concentrations of drinking water contaminants at which adverse health effects would not be anticipated to occur over specific exposure durations. Health advisories contain a margin of safety, to protect sensitive members of the population. The Health Advisories are developed for one-day, ten-day, longer term and lifetime exposures based on data describing non carcinogenic endpoints of toxicity. The advisories are intended to serve as informal technical guidance to assist Federal, State, and local officials when emergency spills or contaminant situations occur. THEY ARE NOT CONSTRUED AS LEGALLY ENFORCEABLE FEDERAL STANDARDS AND ARE SUBJECT TO CHANGE AS NEW INFORMATION BECOMES AVAILABLE.

Health Advisory values for the adult are derived in the same way as for the 10-kg child. Again, certain assumptions are made: The adult is assumed to weigh 70-kg and consume 2 liters of water per day.

10-KG Child

11. 1 day

12. 10 day

13. Longer term

The child is assumed to be a more sensitive population entity. Included in this assumption, is that the body weight of a child is 10 kg and that one liter of water per day is ingested. Under these and other assumption specific to the available toxicological data bases, Health Advisory values have been derived and listed in the respective columns for one-day, ten-day and longer term exposures. Longer term is defined as approximately 7 years, or 10 percent of an individual's lifetime.

70-KG Adult

14. Longer term

As with the 10-kg child, longer term exposure is approximately 7 years or 10 percent of an individual's lifetime.

15. RfD

Reference Dose: formerly known as the Acceptable Daily Intake (ADI), the RfD is an estimate of a daily exposure to the human population (including sensitive subpopulations) that is likely to be without appreciable risk or deleterious effects over a lifetime. The RfD is expressed in units of daily dose.

16. DWEL

Drinking Water Equivalent Lifetime: The medium-specific (i.e., drinking water) lifetime exposure level, assuming 100 percent exposure from that medium, at which adverse noncarcinogenic health effects would not be expected to occur. The DWEL is derived from multiplying the RfD by the adult body weight (70kg) and divided by the adult daily water consumption (2 liters/day)

17. Lifetime

Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. If data are unavailable, a value of 20 percent is assumed for synthetic organic chemical contaminants and a value of 10 percent assumed for inorganic chemical contaminants. The lifetime Health Advisory is determined by multiplying the DWEL by the relative source contribution from drinking water.

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18. µg/L as 10^{-4} Cancer Risk — This column contains values indicating the concentration of the particular contaminant in drinking water that would produce as 10^{-4} excess lifetime cancer risk. Simply stated, if a group of 10,000 persons was exposed to the contaminant at its respective concentration listed in this column, then one individual in the group might be expected to develop cancer (above background incidence) solely from exposure to that contaminant in drinking water.

19. Cancer Group — The Office of Health and Environmental Assessment (OHEA) within EPA's Office of Research and Development (ORD) has developed guidelines for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on the weight of evidence:

Group A - Human carcinogen
Group B - Probable human carcinogen
  Group B consists of two sub-classifications:
    B_1 - limited human evidence but sufficient animal evidence
    B_2 - Sufficient animal evidence, but inadequate or no human evidence
Group C - Possible human carcinogen
Group D - Not classified as to human carcinogenicity
Group E - Evidence of noncarcinogenicity for humans

Qualifiers Used For The Health Related Table

NA - not applicable
PS - performance standard 0.5 NTU - 1.0 NTU
TT - treatment technique
☆☆ - no more than 5% of the samples may be positive. For systems collecting fewer than 40 samples/month, no more than 1% may be positive.
☆☆☆ - guidance
◇ - large discrepancies between Lifetime and Longer term HA values may occur because of the Agency's conservative policies, especially with regard to carcinogenicity, relative source contribution, and less than lifetime exposures in chronic toxicity testing. These factors can result in a cumulative UF (uncertainty factor) of 10 to 1,000 when calculating a Lifetime HA.

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RW 1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive

[redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-070 ; PAN: FIL0492
Yellow: Recipient
Pink: U.S. EPA

MEHT 36
S18

Sample: RW1

ANALYTICAL DATA AND DRINKING HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Sample Collection Limits (ug/L)	Sample Result (ug/L)	Lab Dilution	Comments	Standards Status Reg. A	Standards MCL (ug/L)	Standards RGDS (ug/L)	Standards RGG (ug/L)	Status MA A	Health Advisories 10-Kg Child One-Day (ug/L)	Health Advisories 10-Kg Child Ten-Day (ug/L)	Health Advisories 10-Kg Child Longer-Term (ug/L)	Health Advisories 70-Kg Adult Longer-Term (ug/L)	Health Advisories 70-Kg Adult RfD (ug/kg/day)	Health Advisories 70-Kg Adult DWEL (ug/L)	Health Advisories 70-Kg Adult Lifetime (ug/L)	Health Advisories ug/L at 10-6 Cancer Risk	Cancer Group
Regulated Volatiles																		
Volatile Organics																		
CHLOROMETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
BROMOMETHANE	1.5				-	-	-	-	D	-	-	-	-	-	-	-	-	-
VINYL CHLORIDE	1.5				R	-	2000	2	R	3000	3000	10	30	-	-	-	1.5	A
CHLOROETHANE	1.5				L	-	-	-	D	-	-	-	30	-	-	-	-	-
METHYLENE CHLORIDE	1				L	-	-	-	R	10000	2000	-	-	60	2000	-	300	B2
ACETONE	5																	
CARBON DISULFIDE	2																	
1,1-DICHLOROETHENE	1.5				R	-	7	7	R	2000	1000	1000	4000	9	400	7	-	C
1,1-DICHLOROETHANE	1.5				L	-	-	-	D	-	-	-	-	-	-	-	-	-
1,2-DICHLOROETHENE (TOTAL)	1.5				R	-	70	70	R	4000	1000	1000	1000	10	400	70	-	D
CHLOROFORM	1.5				L	100	-	-	D	-	-	-	-	10	-	-	600	B2
1,2-DICHLOROETHANE	1.5				R	-	2000	5	R	700	700	700	2600	-	-	-	40	B2
2-BUTANONE (MEK)	5				-	-	-	-	R	80000	8000	3000	5000	50	900	200	-	D
1,1,1-TRICHLOROETHANE	1.5				R	-	200	200	R	100000	40000	40000	100000	90	1000	200	-	D
CARBON TETRACHLORIDE	1.5				R	-	2000	5	R	4000	200	70	300	0.7	30	-	30	B2
VINYL ACETATE	5																	
BROMODICHLOROMETHANE	1.5				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,2-DICHLOROPROPANE	1.5				R	-	2000	5	R	-	90	-	-	-	-	-	60	B2
CIS-1,3-DICHLOROPROPENE	2				L	-	-	-	R	30	30	30	100	0.3	10	-	20	B2
TRICHLOROETHENE	1.5				R	-	2000	5	R	-	-	-	-	7	300	-	300	B2
BROMOFORM	1.5				L	100	-	-	D	-	-	-	-	2	-	-	-	-
1,1,2-TRICHLOROETHANE	1.5				-	-	-	-	D	-	-	-	-	30	-	-	-	-
BENZENE	1.5				R	-	2000	5	R	200	200	-	-	-	-	-	100	A

Data Report
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S.18

Sample: RW1

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Log Dilut.	Calculated	Screen Dog. A	Reference HRSD (ug/L)	RCRA (ug/L)	RCL (ug/L)	Screen RA A	Health Advisories 10-kg Child One-Day (ug/L)	10-kg Child Ten-Day (ug/L)	10-kg Child Longer-Term (ug/L)	70-kg Adult Longer-Term (ug/L)	70-kg Adult RfD (ug/kg/day)	70-kg Adult DWEL (ug/L)	70-kg Adult Lifetime (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
CONTROL DETECTION																		
Volatile Organics (cont)																		
TRANS-1,3-DICHLOROPROPENE	1				L	-	-	-	E	20	20	20	100	0.3	10	-	20	D2
BROMOFORM	1,S				L	100	-	-	D	-	-	-	-	20	-	-	-	-
4-METHYL-2-PENTANONE	1,S																	
2-HEXANONE	S																	
TETRACHLOROETHENE	1,S				P	-	ZERO	S	E	2000	2000	1000	5000	10	500	-	70	D2
TOLUENE	1,S			40.0	P	-	2000	2000	E	20000	2000	2000	10000	200	10000	2000	-	-
1,1,2,2-TETRACHLOROETHANE	1,S				L	-	-	-	D	-	-	-	-	-	-	-	-	-
CHLOROBENZENE	1,S			100.0	P	-	100	100	E	2000	2000	2000	2000	20	700	100	-	D
ETHYLBENZENE	1,S			30.0	P	-	700	700	E	30000	3000	1000	3000	100	3000	700	-	D
STYRENE	1			10.0	P	-	ZERO	S	E	20000	2000	2000	7000	200	7000	-	1	D2
XYLENES (TOTAL)	1,S			20.0	P	-	10000	10000	E	40000	40000	40000	10000	2000	60000	10000	-	D
2-CHLOROETHYL VINYL ETHER	1,S																	
ACROLEIN	S																	
ACRYLONITRILE	S				L	-	-	-	-	-	-	-	-	-	-	-	-	-

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MEHT 36
SITE
RW1

Sample:

ANALYTICAL DATA AND RELATED HEALTH ASSESSMENT TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Basic Collection Information and Parameters	Reference Blank (ug/L)	Basic Double (ug/L)	Lab Dilution	Reference	Reference Dog. A	Reference Airborne (ug/L)	Reference Acute (ug/L)	Reference Chronic (ug/L)	Dermal Rat A	28-Day Oral=Day (ug/L)	28-Day Ten=Day (ug/L)	28-Day Lifetime Longer=Term (ug/L)	Human Exposure Lower=Term (ug/L)	28-Day Acute (ug/L)	28-Day Chronic (ug/L)	Lifetime (ug/L)	Risk at 10-6 Cancer Risk	Cancer Group
Volatile Organics																		
Semivolatile Organics																		
PHENOL	2				-	-	-	-	D	-	-	-	-	40	-	-	-	-
BIS(2-CHLOROETHYL)ETHER	1,2																	
2-CHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	8	200	-	-	-
1,3-DICHLOROBENZENE	2				P	-	600	600	R	9000	9000	9000	30000	89	3000	600	-	D
1,4-DICHLOROBENZENE	2				P	-	75	75	R	10000	10000	10000	40000	100	4000	75	-	C
BENZYL ALCOHOL	2																	
1,2-DICHLOROBENZENE	2,3				P	-	600	600	R	9000	9000	9000	30000	89	3000	600	-	D
2-METHYLPHENOL	1																	
N-NITROSO-DI-N-DIPROPYLAMINE	1,3																	
HEXACHLOROETHANE	2																	
NITROBENZENE	2,3																	
ISOPHORONE	2,3				L	-	-	-	D	-	-	-	-	150	-	-	-	-
2-NITROPHENOL	2																	
2,4-DIMETHYLPHENOL	2																	
BENZOIC ACID	20																	
BIS(2-CHLOROETHOXY)METHANE	2,3																	
2,4-DICHLOROPHENOL	2				L	-	-	-	D	-	-	-	-	3	100	-	-	-
1,2,4-TRICHLOROBENZENE	2				-	-	-	-	D	-	-	-	-	20	-	-	-	-
NAPHTHALENE	2				-	-	-	-	D	-	-	-	-	410	-	-	-	-
4-CHLOROANILINE	2																	
HEXACHLOROBUTADIENE	2,3				-	-	-	-	D	-	-	-	-	2	-	-	9	C
4-CHLORO-3-METHYLPHENOL	1,3																	
2-METHYLNAPHTHALENE	2																	

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3-18
Sample: RW 1

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Sample Limits (ug/L)	Sample Result (ug/L)	LOD Dilut.	[illegible]	Screening Risk A	Screening HI/RQ (ug/L)	Screening HI/RQ (ug/L)	Screening HI/RQ (ug/L)	Risk A	10-kg Child One-Day (ug/L)	10-kg Child Ten-Day (ug/L)	10-kg Child Longer-Term (ug/L)	70-kg Adult Longer-Term (ug/L)	70-kg Adult HID (ug/L)	70-kg Adult RfDL (ug/L)	70-kg Adult LifetIme (ug/L)	ug/L at 10-4 Cancer Risk	Cancer Group
CHLORINE DERIVATIVES																		
Semivolatile Organics (cont)																		
HEXACHLOROCYCLOPENTADIENE	3				h	-	-	-	-	-	-	-	-	7	-	-	-	-
2,4,6-TRICHLOROPHENOL	1.9																	
2,4,5-TRICHLOROPHENOL	1.9																	
2-CHLORONAPHTHALENE	1.9																	
2-NITROANILINE	1																	
DIMETHYLPHTHALATE	1.9				h	-	-	-	-	-	-	-	-	-	-	-	-	D
ACENAPHTHYLENE	1.9				-	-	-	-	D	-	-	-	-	-	-	-	-	-
2,6-DINITROTOLUENE	1																	
3-NITROANILINE	2.9																	
ACENAPHTHENE	1.9																	
2,4-DINITROPHENOL	(15)																	
4-NITROPHENOL	1.9																	
DIBENZOFURAN	1																	
2,4-DINITROTOLUENE	1				h	-	-	-	D	-	-	-	-	-	-	-	-	-
DIETHYLPHTHALATE	1				-	-	-	-	D	-	-	-	-	800	-	-	-	D
4-CHLOROPHENYL-PHENYLETHER	1																	
FLUORENE	1								h	-	-	-	-	-	-	-	-	D
4-NITROANILINE	3																	
4,6-DINITRO-2-METHYLPHENOL	(15)																	
N-NITROSODIPHENYLAMINE A																		
DIPHENYLAMINE A	1.9																	
4-BROMOPHENYL-PHENYLETHER	1.9																	
HEXACHLOROBENZENE	1.9				-	-	-	-	R	30	30	30	200	0.0	30	-	3	B2

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Rw1

Sheet:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE

REVISION 01, EFFECTIVE 3 APRIL 1989

Volatile Extractable and Pesticides	Biotic Limit (ug/L)	Abiotic Limit (ug/L)	Dose (mg/kg)	Carcinogenicity	Tumor Log. A	Dermal Hazard (ug/L)	Acute (ug/L)	Chronic (ug/L)	Log. A	Water Quality Criteria (ug/L)	Tox-Org (ug/L)	Tox-Hum Total (ug/L)	Drinking Water Criteria Total (ug/L)	Tox-Hum (ug/L)	DTB (ug/L)	Tox-Hum (ug/L)	Effluents (ug/L)	Cancer Risk at 10-6 (ug/L)	Cancer Group
Semivolatile Organics (cont)																			
PENTACHLOROPHENOL	2			39.0	P	-	200	200	R	1000	300	300	1000	30	1000	200	-		B
PHENANTHRENE	1				L	-	-	-	-	-	-	-	-	-	-	-	-		-
ANTHRACENE	2,3				L	-	-	-	-	-	-	-	-	-	-	-	-		D
DI-N-BUTYLPHTHALATE	2				L	-	-	-	-	-	-	-	-	100	-	-	-		B
FLUORANTHENE	1,3																		
PYRENE	1,3				L	-	-	-	-	-	-	-	-	-	-	-	-		D
BUTYLBENZYLPHTHALATE	2,3				L	-	-	-	-	-	-	-	-	200	-	-	-		C
BENZO(A)ANTHRACENE AA					L	-	-	-	-	-	-	-	-	-	-	-	-		D2
CHRYSENE AA	1,3				L	-	-	-	-	-	-	-	-	-	-	-	-		D2
BIS(2-ETHYLHEXYL)PHTHALATE	1				-	-	-	-	R	-	-	-	-	20	-	-	-		D2
DI-N-OCTYLPHTHALATE	1,3																		
DIBENZO(A,H)ANTHRACENE AAA					L	-	-	-	-	-	-	-	-	-	-	-	-		D2
1,2-BENZOFLUORANTHENE AAA	1,3				L	-	-	-	-	-	-	-	-	-	-	-	-		D2
BENZO(A)PYRENE	2				L	-	-	-	-	-	-	-	-	-	-	-	-		D2
INDENO(1,2,3-C,D)PYRENE	2,3				L	-	-	-	-	-	-	-	-	-	-	-	-		D2
DIBENZO(A,H)ANTHRACENE	2,3				L	-	-	-	-	-	-	-	-	-	-	-	-		D2
BENZO(G,H,I)PERYLENE	4				L	-	-	-	-	-	-	-	-	-	-	-	-		B
4-METHYLPHENOL	1																		
BIS(2-CHLOROISOPROPYL)ETHER	2,3				-	-	-	-	R	-	-	-	-	-	-	-	-		-
ANILINE	1,3																		
1,2-DICHLOROHYDROXYBENZENE	1																		

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METH 36
S18
Rw1

Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Results (ug/L)	EPA Class	Comments	Reference Dog. A	Reference HA/DWH (ug/L)	Reference RfDo (ug/L)	Reference RfC (ug/L)	Drinking HA A	10-50 Cancer Risk Range: 1-Day Max (ug/L)	10-50 Cancer Risk Range: 10-Day Max (ug/L)	10-50 Cancer Risk Range: Lifetime Avg (ug/L)	Health Advisories: Lifetime Avg (ug/L)	Health Advisories: DWD (ug/L)	Health Advisories: DSEL (ug/L)	Health Advisories: Lifetime (ug/L)	Health Advisories: ug/L at 10-4 Cancer Risk	Cancer Group
CHLORINATED PESTICIDES																		
Pesticides/PCBs																		
ALPHA BHC	(0.010)																	
BETA BHC	(0.005)																	
DELTA BHC	(0.005)																	
GAMMA BHC (LINDANE)	0.005				P	4	0.3	0.3	R	1000	1000	30	100	0.3	10	0.3	3	C
HEPTACHLOR	0.020				P	-	5000	0.4	R	10	10	5	5	0.5	20	-	0.8	B2
ALDRIN	0.005																	
HEPTACHLOR EPOXIDE	0.005				P	-	5000	0.3	R	10	-	0.1	0.1	0.013	0.4	-	0.4	B2
ENDOSULFAN I	0.010																	
DIELDRIN	0.010				L	-	-	-	R	0.5	0.5	0.5	3	0.05	3	-	0.3	B2
4,4'-DDE	(0.005)																	
ENDRIN	0.010				L	0.3	-	-	R	20	5	5	20	0.013	3	0.3	-	E
ENDOSULFAN II	0.010																	
4,4'-DDD	(0.020)																	
ENDOSULFAN SULFATE	(0.10)																	
4,4'-DDT	0.020																	
METHOXYCHLOR (TADIATE)	0.020				P	100	400	400	R	6000	2000	300	2000	50	2000	400	-	D
ENDRIN ALDEHYDE	(0.020)																	
ENDRIN KETONE	(0.020)																	
CHLORDANE	(0.020)				P	-	5000	3	R	60	60	0.3	0.3	0.043	3	-	3	B2
ALPHA CHLORDANE	0.020																	
GAMMA CHLORDANE	0.020																	
TOXAPHENE	(0.75)				P	-	3	5000	3	R	300	90	-	-	100	-	-	3	B2
AROCLOR 1016	0.10				P	4	-	5000	0.3	R	-	10-Day Ten-Day		4	-	-	-	0.3	B2

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S18
RW 1

Sample:

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — DIVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters	Detection Limits (ug/L)	Sample Result (ug/L)	Log Dilution	Comments	Criteria Dog. A	Advisory (ug/L)	Acute (ug/L)	Chronic (ug/L)	Criteria HA A	Health Criteria Day-Day (ug/L)	Non-Day (ug/L)	Lifetime Cancer Risk (ug/L)	Health Advisory Lifetime Cancer Risk (ug/L)	DWE (ug/L)	Dual Criteria (ug/L)	Criteria (ug/L)	ug/L at 10-6 Cancer Risk	Cancer Group
Pesticides/PCBs (cont)																		
AROCLOR 1221	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	D2
AROCLOR 1232	0.10				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	D2
AROCLOR 1242	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	D2
AROCLOR 1248	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	D2
AROCLOR 1254	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	D2
AROCLOR 1260	(0.10)				P	-	ZERO	0.5	P	-	-	1	4	-	-	-	0.5	D2

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S18
RW1

Sample:

ANALYTICAL DATA AND INDICATED HEALTH ADVISORY TABLE — DIVISION 01, EFFECTIVE 3 APRIL 1989

Sample Collection Information and Parameters		Analytical Blank (ug/L)	Analytical Double (ug/L)	Lab Blank (ug/L)	Calibration	Detection Deg. A	Recovery Limits (ug/L)			Detection Deg. A	10-DS-Drill 24-Day (ug/L)			Health Advisory Levels 20-DS-Drill Cancer Yorp (ug/L)					Cancer Group
Contaminant Measured	Method																		
ALUMINUM	P	100			50 0	L	-	-	-	R	-	-	-	-	-	-	-	-	-
ANTIMONY	F	3				L	-	-	-	R	-	-	-	-	0.4	-	-	-	-
ARSENIC	F	3				P	50	2000	20	R	-	-	-	-	1	-	50	3	A
BARIUM	P	50	85.7			P	1000	3000	3000	F	3000	3000	3000	3000	-	-	3000	-	D
BERYLLIUM	F	3				L	-	-	-	R	-	-	-	-	3	-	-	-	B2
CADMIUM	F	0.3				P	10	3	3	R	40	40	3	20	0.5	20	3	-	B
CALCIUM	P	1000	132000																
CHROMIUM	F	10				P	50	100	100	R	1000	1000	200	200	3	200	100	-	D
COBALT	P	10																	
COPPER	P	10			1000 0														
IRON	P	100	118		300 0														
LEAD (at 20MGD)	F	3				P	-	2000	3	-	-	-	-	-	-	-	-	-	-
LEAD (at 200)	F	3				P	50	2000	77	-	-	-	-	-	-	-	-	-	-
MAGNESIUM	P	1000	56500																
MANGANESE	P	10	72.9		50 0	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MERCURY	CV	0.2				P	2	2	2	R	-	-	-	-	0.3	10	2	-	D
NICKEL	P	20				L	-	-	-	R	1000	1000	2000	600	20	600	200	-	D
POTASSIUM	P	2000	2090 J																
SELENIUM	F	3				P	10	50	50	-	-	-	-	-	-	-	-	-	-
SILVER	P	3			50 0	L	50	3	-	R	-	-	-	-	3	-	-	-	-
SODIUM	P	1000	16500			L	-	-	-	R	-	-	-	-	-	20000	-	-	-
THALLIUM	F	3				L	-	-	-	R	-	-	-	-	0.02	-	-	-	-
ZINC	P	20																	

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MEHT 34
S18

Sample: RW 1

ANALYTICAL DATA AND RELATED HEALTH ADVISORY TABLE — REVISION 01, EFFECTIVE 3 APRIL 1990

Sample Constituents Laboratory and Parameters	Detection Limits (mg/L)	Sample Result (mg/L)	Gas Dilution	Quantity	Bioassay Deg. A	Bioassay Deg. B (mg/L)	Bioassay Deg. C (mg/L)	Bioassay Deg. D (mg/L)	Bioassay AA A	10-Day Cohort Max-Day (mg/L)	10-Day Cohort Ten-Day (mg/L)	10-Day Cohort Lanzov-Topo (mg/L)	20-Day Adult Lanzov-Topo (mg/L)	20-Day Adult DTD (mg/kg/day)	20-Day Adult DBCL (mg/L)	20-Day Adult Lipotico (mg/L)	20-Day Adult mg/l of 10-d Cohort Diff	Cohort Group
Inorganic Analysis																		
Analyte Detected (cont)																		
VANADIUM P	10				L	-	-	-	P	-	-	-	-	20	-	-	-	-
ZINC P	20	57.8		5000 #	L	-	-	-	P	-	-	-	-	-	-	-	-	-
CYANIDE C	10				L	-	-	-	E	200	200	200	800	22	800	200	-	P
CADMIUM P	00																	
LITHIUM P	10																	
MOLYBDENUM P	15																	
TITANIUM P	25																	
STRONTIUM P	10																	
YTTRIUM P	5																	

Detection Limits:
A Those Two Parameters Are Reported As A Total
AA Those Two Parameters Are Reported As A Total
AAA Those Two Parameters Are Reported As A Total
Values In Parentheses Are Estimates. Actual Values Are Being Determined At This Site.

NR = Not Tested For

Secondary Maximum contaminant Levels

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ONLY DETECTABLE CONCENTRATIONS ARE REPORTED

II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE OLD	FOOTNOTE NEW	DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to interference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	S	Analysis by Method of Standard Additions.	Value may be quantitative.
N	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
◇	◇	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	D	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
	W	Duplicate injection precision not met.	Value may be semi-quantitative.
	W	Post digestion spike for furnace AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnace AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"M" if the analyte is not required to be analyzed.

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II. The following are the qualifiers used to define the organic and inorganic analytical data.

A. Organics

FOOTNOTE	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected.
J	Indicates an estimated value.	Compound value may be semi-quantitative.
UJ	Quantitation limit is estimated due to a Quality Control (QC) protocol.	Compound was not detected.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides >10 ng/ul in the final extract shall be confirmed by GC/MS.	Compound was confirmed by mass spectroscopy
B	This flag is used when the analyte is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semi-quantitative if it is <5x the blank concentration (<10x the blank concentrations for common lab artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semi-quantitative.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a lab artifact.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

B. Inorganics

FOOTNOTE		DEFINITION	INTERPRETATION
OLD	NEW		
E	E	Estimated or not reported due to interference. See laboratory narrative.	Compound or element was not detected or value may be semi-quantitative.
S	S	Analysis by Method of Standard Additions.	Value may be quantitative.
N	N	Spike recoveries outside QC protocols which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be semi-quantitative.
◇	◇	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	D	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC Protocol.	Value may be semi-quantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected.
W	W	Duplicate injection precision not met.	Value may be semi-quantitative.
W	W	Post digestion spike for furnace AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.	Value may be semi-quantitative.

C. Analytical Procedure Qualifiers for Inorganic Analysis

"P" for ICP
"A" for Flame AA
"F" for Furnace AA
"CV" for Manual Cold Vapor AA
"AV" for Automated Cold Vapor AA
"AS" for Semi-automated Spectrophotometric
"C" for Manual Spectrophotometric
"T" for Titrimetric
"M" if the analyte is not required to be analyzed.

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D. Analytical Method Qualifiers for Inorganic

"P" for ICP

"A" for Flame AA

"F" for Furnance AA

"CV" for Manual Cold Vapor AA

"AV" for Automated Cold Vapor AA

"AS" for Semi-automated Spectrophotometric

"C" for Manual Spectrophotometric

"T" for Titrimetric

"NR" if the analyte is not required to be analyzed.

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DESCRIPTION AND QUALIFIERS

The following are descriptions of the 19 columns listed on the table and the qualifiers to clarify the analytical and health related values.

Column	Description
1. Sample Collection Information and Parameters.	The compounds and analytes analyzed for on this water sample.
2. Detection Limits	The detection limits that a laboratory must meet as part of the analytical service contact.
3. Sample Results	The value determined by this analysis.
4. Lab Blank	Laboratory contamination that may be found in the laboratory blank. A quality control check.
5. Comments	The water reviewer's comments on the usability of the value in the Sample Results column.
6. Status Reg	F-final D-draft L-listed for regulation P-proposed (Phase II draft proposal, based on levels proposed in 1985).

7. NIPDWR- National Interim Primary Drinking Water Regulations: refers to the interim regulatory requirements under the Safe Drinking Water Act (SDWA) of 1974. The NIPDWR specified maximum allowable levels for 22 different contaminants at the consumer's drinking water tap. These interim standards, known as Maximum Contaminant Levels (MCL), were promulgated for 22 contaminants in March 1975, with the intention of revising and promulgating the final National Primary Drinking Water Regulations (NPDWR) a few years later. The values listed in this column are the original MCLs assigned under the interim regulations. The NPDWRs were effected under the SDWA Amendments of June 19, 1986. These revised regulations specify MCLs or treatment techniques for additional contaminants. At this time, 8 additional contaminants (synthetic volatile organic chemicals) have also been

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assigned MCLs. (Code of Federal Regulations, Chapter 40, part 141, et seq.)

8. MCLG- Maximum Contaminant Level Goal: Under the National Primary Drinking Water Regulations, the term MCLG now replaces the previous term RMCL or recommended Maximum Contaminant Levels. Under the 1986 SDWA Amendments, any NPDWR which establishes an MCL must also simultaneously publish an MCLG at the time of proposed rulemaking and promulgation. The MCLG is the maximum level of a contaminant at which no known or anticipated adverse human health effects would occur, and which include an adequate margin of safety. MCLGs are nonenforceable health goals.

9. MCL- Maximum Contaminant Level: Derived from the MCLG, the MCL is the maximum permissible level of a contaminant in drinking water which is delivered to the consumers' tap and used by the general public for drinking. MCLs are legally enforceable. The standards reflect the best achievable levels considering the occurrence, relative source contribution factors, monitoring capability, cost of treatment, available technology and health effects. The standards listed in this column for each contaminant under the NIPDWR are either newly promulgated or revised from the NIPDWR. In a few cases, the enforceable standard has changed; however, in most cases (when comparing columns headed NIPDWR and MCL) the existing interim standard has been revised or has been newly developed.

10. Status HA

F-final
D-draft
L-listed for regulation
P-proposed (Phase III draft proposal, based on levels proposed in 1985).

Health Advisories

The Health Advisory (HA) program is sponsored by the Office of Drinking Water (ODW), and provides information on the health effects, analytical methods and treatment technology useful for dealing with drinking water contamination. Health advisories describe nonregulatory concentrations of drinking water contaminants at which adverse health effects would not be anticipated to occur over specific exposure durations. Health advisories contain a margin of safety, to protect sensitive members of the population. The Health Advisories are developed for one-day, ten-day, longer term and lifetime exposures based on data describing non carcinogenic endpoints of toxicity. The advisories are intended to serve as informal technical guidance to assist Federal, State, and local officials when emergency spills or contaminant situations occur. THEY ARE NOT CONSTRUED AS LEGALLY ENFORCEABLE FEDERAL STANDARDS AND ARE SUBJECT TO CHANGE AS NEW INFORMATION BECOMES AVAILABLE.

Health Advisory values for the adult are derived in the same way as for the 10-kg child. Again, certain assumptions are made: The adult is assumed to weigh 70-kg and consume 2 liters of water per day.

10-KG Child

11. 1 day

12. 10 day

13. Longer term

The child is assumed to be a more sensitive population entity. Included in this assumption, is that the body weight of a child is 10 kg and that one liter of water per day is ingested. Under these and other assumption specific to the available toxicological data bases, Health Advisory values have been derived and listed in the respective columns for one-day, ten-day and longer term exposures. Longer term is defined as approximately 7 years, or 10 percent of an individual's lifetime.

70-KG Adult

14. Longer term

As with the 10-kg child, longer term exposure is approximately 7 years or 10 percent of an individual's lifetime.

15. RfD

Reference Dose: formerly known as the Acceptable Daily Intake (ADI), the RfD is an estimate of a daily exposure to the human population (including sensitive subpopulations) that is likely to be without appreciable risk or deleterious effects over a lifetime. The RfD is expressed in units of daily dose.

16. DWEL

Drinking Water Equivalent Lifetime: The medium-specific (i.e., drinking water) lifetime exposure level, assuming 100 percent exposure from that medium, at which adverse noncarcinogenic health effects would not be expected to occur. The DWEL is derived from multiplying the RfD by the adult body weight (70kg) and divided by the adult daily water consumption (2 liters/day)

17. Lifetime

Lifetime Health Advisory: This value is determined by factoring in other sources of exposure to the particular contaminant. The relative source contribution from drinking water is based on actual exposure data. If data are unavailable, a value of 20 percent is assumed for synthetic organic chemical contaminants and a value of 10 percent assumed for inorganic chemical contaminants. The lifetime Health Advisory is determined by multiplying the DWEL by the relative source contribution from drinking water.

Form 17 page 12 of 16

18. µg/L as 10^{-4} Cancer Risk — This column contains values indicating the concentration of the particular contaminant in drinking water that would produce as 10^{-4} excess lifetime cancer risk. Simply stated, if a group of 10,000 persons was exposed to the contaminant at its respective concentration listed in this column, then one individual in the group might be expected to develop cancer (above background incidence) solely from exposure to that contaminant in drinking water.

19. Cancer Group — The Office of Health and Environmental Assessment (OHEA) within EPA's Office of Research and Development (ORD) has developed guidelines for carcinogen risk assessment. These guidelines discuss weighing the evidence that a substance is a carcinogen, and classifying the chemical into one of five groups, based on the weight of evidence:

Group A - Human carcinogen
Group B - Probable human carcinogen
  Group B consists of two sub-classifications:
    B_1 - limited human evidence but sufficient animal evidence
    B_2 - Sufficient animal evidence, but inadequate or no human evidence
Group C - Possible human carcinogen
Group D - Not classified as to human carcinogenicity
Group E - Evidence of noncarcinogenicity for humans

Qualifiers Used For The Health Related Table

NA - not applicable
PS - performance standard 0.5 NTU - 1.0 NTU
TT - treatment technique
☆☆ - no more than 5% of the samples may be positive. For systems collecting fewer than 40 samples/month, no more than 1% may be positive.
☆☆☆ - guidance
◇ - large discrepancies between Lifetime and Longer term HA values may occur because of the Agency's conservative policies, especially with regard to carcinogenicity, relative source contribution, and less than lifetime exposures in chronic toxicity testing. These factors can result in a cumulative UF (uncertainty factor) of 10 to 1,000 when calculating a Lifetime HA.

2306:6

Form 17
page 13 of 16

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive [redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-070 ; PAN: FIL049254
Yellow: Recipient
Pink: U.S. EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive

[redacted]

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William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-070 ; PAN: FIL0492
Yellow: Recipient
Pink: U.S. EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive

[redacted]

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U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-071 ; PAN: FIL04925B
Yellow: Recipient
Pink: U.S. EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive

[redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

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U. S. EPA Identification Number ILD980901540

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William Messenger, Chief
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230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-071 ; PAN: FIL04925B
Yellow: Recipient
Pink: U.S. EPA

ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

January 15, 1990

Mr./Mrs. Reuben Murrell
Hill Road RR#8 BOX 153
Decatur, IL 62522

Re: Site Name: Murrell Landfill
TDD No.: F05-8612-070
PAN: FIL0492SB
U.S. EPA No.: ILD980901540

Dear Mr./Mrs. Murrell:

This letter is in response to your recent inquiry requesting additional information concerning our firm. Ecology and Environment, Inc., has been retained by the U.S. Environmental Protection Agency under contract 68-01-7347 for the purpose of evaluating candidate sites for the National Priorities List under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

Information supplied to the U.S. EPA through CERCLA notifications as required by Section 103(c) of CERCLA has identified the property in question as a possible candidate for the National Priorities List. As part of our evaluation, the U.S. EPA has asked us to perform an on-site inspection of the property in question. This is the reason for my request to visit your facility on February 21, 1990.

I have attached a copy of the Letter of Introduction provided by the U.S. EPA for Ecology and Environment, Inc., employees engaged in field investigation work, which outlines the statutory basis for such inspections. Also, attached is a copy of the confidentiality memorandum that all Ecology and Environment, Inc., employees have signed. So you have a better understanding of the questions we need to ask, I have also attached a copy of the site inspection form.

If you require additional information or if a change in plans is necessary, please do not hesitate to call me.

Sincerely,

Karen M. Spangler

Karen M. Spangler
Enclosures

4355:2

recycled paper

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / F05-8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION RW1

SAMPLING DATE 2/21/90 SAMPLING TIME 0920

CRL # 90FT09518

[redacted] E

INORGANIC TRAFFIC NUMBER MENT 36

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
3, 1 liter amber	Extractables	5-083850 -52	H9205303
3, 40 ml.	VOA	53-55	B9269033
1 liter plastic	metals	56	9286013
1 liter plastic	CN^-	57	9286013

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: HNO_3 was added to metals as preservative and NaOH to CN^- samples were also iced

INSTRUMENT READINGS

pH 6.<10

CONDUCTIVITY 600 umhos

TEMPERATURE 16°

J.T.
Sample description sheets for you & copies of traffic reports & chain of custody
Tom

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / F05-8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION DUPLICATE

SAMPLING DATE 2/21/90 SAMPLING TIME 0920

CRL # 90FT09018

[redacted] E

INORGANIC TRAFFIC NUMBER MEKT 37

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
3, 1 liter amber	Extractables	5-083858-60	H9205303
		[redacted]	
3, 40 ml.	VOA	61-63	B9269033
1 liter plastic	metals	64	9286013
1 liter plastic	CN⁻	65	9286013

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: HNO_3 was added to metals as preservative and NaOH to CN^- samples were also iced

INSTRUMENT READINGS

pH 6.40

CONDUCTIVITY 600 µmohs

TEMPERATURE 11°

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / F05-8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION RW2

SAMPLING DATE 2/21/90 SAMPLING TIME 1505

CRL # 90FT09519

[redacted] E

INORGANIC TRAFFIC NUMBER MEMT 38

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
3, 1 liter amber	extractables	5-083866 - 68	H9205303
3, 40 ml.	VOA	69 - 71	B9269033
1 liter plastic	metals	72	9286013
1 liter plastic	CN^-	73	9286013

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: HNO_3 was added to metals as preservative and NaOH to CN^- samples were also iced

INSTRUMENT READINGS

pH 7.42

CONDUCTIVITY 410 µmhos

TEMPERATURE 12°C

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / FOS-8612-070

CASE NUMBER 8077E

SAMPLE #/STATION LOCATION RW3 tmsd

SAMPLING DATE 2/21/90 SAMPLING TIME 0910

CRL# 90FT09320

[redacted] E

INORGANIC TRAFFIC NUMBER MEHT 39

	BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
RW3	3, 1 liter amber	Extractables	5-072751-53	H9241083
	3, 40 ml	VOA	54-56	B9269033
	1 liter plastic	metals	57	9286013
	" " "	CN^-	58	"
	5, 1 liter amber		59-63	H9241083
	5, 40 ml.		64-68	B9269033

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: HNO_3 was added to metals as preservative and NaOH to CN^- samples were also iced

INSTRUMENT READINGS

pH 6.46

CONDUCTIVITY 675 umhos

TEMPERATURE 12°c

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / F05-9612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION RW4

SAMPLING DATE 2/21/90 SAMPLING TIME 0930

CRL # 90ET09521

[redacted] E

INORGANIC TRAFFIC NUMBER ME HT 40

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
3, 1 liter amber	Extractables	5077276 9 - 71	M9241083
3, 40 ml.	VOA	72 - 74	B9269033
1 liter plastic	metals	75	9286013
1 liter plastic	CN⁻	76	9286013

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: HNO_3 was added to metals as preservative and NaOH to CN^- samples were also iced

INSTRUMENT READINGS

pH 6.30

CONDUCTIVITY 560 µmhos

TEMPERATURE 11°C

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / F05-8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION Blank

SAMPLING DATE 2/21/90 SAMPLING TIME 1030

CRL # 90FT01R98

[redacted] E

INORGANIC TRAFFIC NUMBER MEHT 41

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
3, 1 liter amber	Extractables	5-072777 - 79	H9205303
3, 40 ml.	VOA	80 - 82	B9269033
1 liter plastic	metals	83	9286013
1 liter plastic	CN^-	84	9286013

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: HNO_3 was added to metals as preservative and NaOH to CN^- samples were also iced

INSTRUMENT READINGS

pH 5.10

CONDUCTIVITY 0 umohs

TEMPERATURE 10°C

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / FOS- 8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION S1

SAMPLING DATE 2/21/90 SAMPLING TIME 1300

ORGANIC TRAFFIC NUMBER EJJ 72

INORGANIC TRAFFIC NUMBER MEHT 30

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz.	Extractables	5 - 083826	9276023
120 ml.	VOA	27	D9053023
120 ml.	VOA	28	"
8 oz.	Metals/CN⁻	29	9276023

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Greenish Brown wet sand (sediment sample)

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: All samples were iced prior to shipment

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / FOS- 8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION S2

SAMPLING DATE 2/21/90 SAMPLING TIME 1306

ORGANIC TRAFFIC NUMBER EJJ 73

INORGANIC TRAFFIC NUMBER MEHT 31

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz.	Extractables	5 - 083830	9276023
120 ml.	VOA	31	D9053023
120 ml.	VOA	32	"
8 oz.	Metals/CN⁻	33	9276023

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Brown / Black moist silty soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: All samples were iced prior to shipment

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / FOS- 8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION 53

SAMPLING DATE 2/21/90 SAMPLING TIME 1335

ORGANIC TRAFFIC NUMBER EJJ 74

INORGANIC TRAFFIC NUMBER MEHT 32

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz.	Extractables	5 - 083834	9276023
120 ml.	VOA	35	D9053023
120 ml.	VOA	36	"
8 oz.	metals/CN⁻	37	9276023

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: moist black silty soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: All samples were iced prior to shipment

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / FOS- 8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION 54

SAMPLING DATE 2/21/90 SAMPLING TIME 1430

ORGANIC TRAFFIC NUMBER EJJ 75

INORGANIC TRAFFIC NUMBER MEHT 33

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz.	Extractables	5 - 083838	9276023
120 ml.	VOA	39	D9053023
120 ml.	VOA	40	"
8 oz.	Metals/CN⁻	41	9276023

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Dark Brown Loam

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: All samples were iced prior to shipment

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / FOS- 8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION SS

SAMPLING DATE 2/21/90 SAMPLING TIME 1440

ORGANIC TRAFFIC NUMBER EJJ 76

INORGANIC TRAFFIC NUMBER MEHT 34

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz.	Extractables	5 - 083842	9276023
120 ml.	VOA	43	D9053023
120 ml.	VOA	44	"
8 oz.	Metals/CN⁻	45	9276023

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Dark Brown loam

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: All samples were iced prior to shipment

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# MURRELL LANDFILL / FOS- 8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION SG - BACKGROUND

SAMPLING DATE 2/21/90 SAMPLING TIME 1415

ORGANIC TRAFFIC NUMBER EJJ 77

INORGANIC TRAFFIC NUMBER MEHT 35

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz.	Extractables	5 - 0838 NG	9276023
120 ml.	VOA	47	D9053023
120 ml.	VOA	48	"
8 oz.	METALS/CN⁻	49	9276023

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: DARK BROWN LOAM

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: All samples were iced prior to shipment

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

ecology and environment, inc.

ON-SITE SAFETY MEETING

Project Morrell Landfill TDD/Tem F05-8612-070/FIL049258

Date Feb 21 1990 Time 10:30 Job No. FT1305

Address Hill rd + Jeynt rd Decatur IL

Specific Location At entrance to Morrell Ldfl

Type of Work Collect 6 soil samples, 5 residential wells for SSI

SAFETY TOPICS PRESENTED

Protective Clothing/Equipment Tyvek, labor boots, vitons, steel toe boots

Chemical Hazards oil - heavy metals, Benzene, solvents, swamp gas

Radiation Hazards NA

Physical Hazards Junk, deep ravines, animals

Emergency Procedures follow hospital map to Decatur Mem. Hosp.

Hospital/Clinic Decatur Memorial Hosp Telephone (217) 252-2022

Hospital Address 2300 N. Edwards st Decatur IL

Special Equipment none

Other none

Checklist

1. Emergency information reviewed? V and made familiar to all team members? V
2. Route to nearest hospital driven? V and its location known to all team members? V
3. Site safety plan readily available and its location known to all team members? V

Meeting shall be attended by all personnel who will be working within the exclusion area. Daily informal update meetings will be held when site tasks and/or conditions change.

ATTENDEES
(Expand on back of sheet if necessary)

Name Printed	Signature
f a	r
im Ma	
lar	
ne r	

Meeting Conducted by: Jeff Dickson (Print) [signature] (Signature)

Jeff Dickson (Site Safety Coordinator) [signature] (Team Leader)

SSS

Vehicle Safety Checklist
Ecology & Environment, Inc.
Chicago Office

Date: 2/20/90 Time: 9:00 Odometer: white - 75351 / Red 95,056

Vehicle Model: van Sub Color: white Red License Plate No. white - EPA 796 / Red EPA 1147

INTERIOR:
- ____ All Safety Belts-Proper Locking
- ____ Parking Brake

AK

START ENGINE:
- ____ Oil Pressure
- ____ Instrument Panel (Warning Lights or Buzzers)
- ____ Horn
- ____ Windshield Wiper & Washer
- ____ Heater/Defroster
- ____ Mirrors
- ____ Steering (Loose)
- ____ Interior Lights
- ____ Emergency Flashers
- ____ Starts Properly

OK

mirrors on white van are crap. dangerous

lousy Red Suburban

FRONT:
- ____ Headlights (Dim/Bright)
- ____ Turn Signals
- ____ Emergency Flashers

OK

REAR:
- ____ Tail Lights
- ____ Brake Lights
- ____ Back up Lights
- ____ Turn Signals
- ____ Emergency Flashers

OK

MECHANICAL OPERATION:
- ____ Engine (misses, knocks, etc.)
- ____ Check Oil
- ____ Water/Anti-freeze
- ____ Wiper Fluid
- ____ Brake Fluid

OK

OUTSIDE:
- ____ Tires (properly inflated)
- ____ Gas Tank Cap

OK

EMERGENCY EQUIPMENT:
- ____ Fire Extinguisher
- ____ First Aid Kit
- ____ Flags, Flares,
- ____ Spare tire (properly inflated)
- ____ Tire Changing Kit (jack, tools, etc.)

OK

REMARKS:
Change mirrors on white Van
fix Steering on Red Suburban

Jeff Dickson

TEAM MEMBER/OPERATOR: Tim Mayer / [signature]
(print name) signature

SITE NAME/ADDRESS: Murrell Landfill Joyce + Hill rds Decatur IL

PAN/JOB NUMBER: FIL 0492 SA

RETURN OF VEHICLE TO DUTY STATION

Vehicle Cleanliness: OK

Remarks:
Red Suburban goes into 4-wheel drive all by itself could be dangerous
Pulls hard to Rt. White van mirrors are Junk!

Corrections Necessary:

TEAM MEMBER/OPERATOR: Jeff Dickson Tim Mayers /
(print name) signature

Date: 2/22/90 Time: 12:00 Odometer: Red Sub. 95519 / White van. 45778

9/88
1372-6
recycled paper

ecology and environment

SITE DOSIMETER LOG

PROJECT/PAN # FIL0492SA SITE NAME Murrell Land fill

SITE SAFETY OFFICER Jeff Dickson WEEK OF 2/19/90

NAME AND DOSIM. #	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
Taylor #267		S 0 P 0	S 5 P 1				
Mayers #149		S 0 P 0	S 0 P 0				
Dickson #206		S 0 P 0	S 5 P 1				
Spangler #216		S 0 P 0	S 5 P 1				
Benford #274		S 0 P 0	S 5 P 1				

To the nearest half-hour, record time spent downrange as "S" (e.q., S:2.5hrs), time spent in active PDS operation as "P", and any time spent downrange in rescue activity as "R".

HS005(2/24/89)

ECOLOGY AND ENVIRONMENT, INC. - CHICAGO
ON-SITE SAFETY LOG

Name: Murrell Landfill
Date: Feb 21 1990

PAN #/Job #: FIL0492 SA
Weather

	Equipment (Circle All Used)	ID#	Calibration/ Operation Check	Initials and Date	Background Readings	On-Site Readings
1.	OVA	611288	marker	GRD 2/21/90	0	0
	HNu					
	Photovac Tip					
2.	O_2 Meter					
	Explosimeter					
	Combo Meter	3370171	cal gas 100% LEL	GRD 2/21/90	21% O_2 0% LEL	0 change
3.	Rad-Mini Radiation Alert Monitor 4	192525	checked with lantern mantle	GRD 2/21/90	16 beeps/min	same
4.	HCN Draeger Monitor	4119464	no colour change	GRD 2/21 90	no colour change	no change
5.	Other:					

Attendees At Site: Karen Spangler, Tom Magno, Jeff Dickson, Jeff Taylor

Protective Clothing Worn: Tyvek, Uniform, Labor Gloves, Steel toe boots

Comments on Monitoring or Protective Clothing: none

Team Leader Jeff Taylor (Name) — Jeffrey Taylor (Signature/Date)

Site Safety Officer Jeff Dickson (Name) — [signature] (Signature/Date)

Please submit original to Paul Moss, and a copy to the project file.

HS018E(12/27/89)

Field Investigation Summary

Name of Site Murrell Landfill

State Illinois

Team Leader Jeff Taylor

Date of Investigation February 21 1990

Sampling	Soil	GW	SW	RW	MuniW	MontW
Number of Samples	6			5		
Number of Sample Locations	6			4		

List Equipment Used: Shovel trowels bowls spoons

Geophysics or Other Out of the Ordinary Field Techniques:

None

Cost Saving Measures (explain): None

Attendance by State of EPA Personnel (explain): None

Other (i.e., audits, interaction with other agencies, unplanned cir-

cumstances): None

EPA

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

Organic Traffic Report
(For CLP Use Only)

Case Number: 13623
SAS No. (if applicable):

1. Type of Activity (Check one): ENF, ER, ESI, NPLD, O&M, PA, RA, RD, RIFS, SI, ST, STPA, STSI, Other (Specify)

2. Region Number: 9 Sampling Co.: FIT
Sampler (Name): Tim Mayer

4. Date Shipped: 2/21/90 Airbill Number: 1060849473
Carrier: F

Non-Superfund Program

Site Name: Murrell Landfill
City, State: Decatur Il.
Site Spill ID

3. Ship To: S3
3348 Carmel Mtn. Rd.
San Diego, CA 92121
ATTN. Elaine Walters

Triple volume required for matrix spike/duplicate aqueous sample.

Ship medium and high concentration samples in paint cans.

See reverse for additional instructions.

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

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number
EJJ 72	5	L	X	X	X				IMEHT 30
EJJ 73	5	L	X	X	X				IMEHT 31
EJJ 74	5	L	X	X	X				IMEHT 32
EJJ 75	5	L	X	X	X				IMEHT 33
EJJ 76	5	L	X	X	X				IMEHT 34
EJJ 77	5	L	X	X	X				IMEHT 35
						shipment is complete			

Shipment CS/15 not complete

EPA Form 9110-2 (8-88) Replaces EPA Form 2075-7, which may be used. Blue - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

Coder ID # EEJ 50

CHAIN OF CUSTODY RECORD

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

PROJ. NO.: FIL0492
PROJECT NAME: F05-8612-070 CASE # 13623
SAMPLERS: (Signature)

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8oz. Extracted by	120 ml. VOA					REMARKS TAG #'s	(Low Conc. Matrix)
EJJ 72	2/21/90	1300		X	S1	3	1	2					5-083826-28	Soil
EJJ 73	2/21/90	1316		X	S2	3	1	2					5-083830-32	
EJJ 74	2/21/90	1335		X	S3	3	1	2					5-083834-36	
EJJ 75	2/21/90	1430		X	S4	3	1	2					5-083838-40	
EJJ 76	2/21/90	1440		X	S5	3	1	2					5-083842-44	
EJJ 77	2/21/90	1415		X	S6	3	1	2					5-083846-48	
													Lot #s - All 8oz. 9276023 / All 120 ml.	
											179053023, Except S6 179297023			

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	2/21/90 1800				
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: Shipped Fed Ex to S3 Airbill # 1060899493 C.O.C. #'s - 167787, 167788	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05-03784

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

Cooler ID# EE II 204

CHAIN OF CUSTODY RECORD

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

PROJ. NO.: FIL0492
PROJECT NAME: FOS-86IT-070 CASE# 13623
SAMPLERS: (Signature)

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8 oz. WET ICE						REMARKS: TAG #s	Low Conc. Matrix
MEHT 30	2/21/90	300		X	S1	1	1						5-083829	Soil
MEHT 31	2/21/90	1316		X	S2	1	1						5-083833	
MEHT 32	2/21/90	1335		X	S3	1	1						5-083837	
MEHT 33	2/21/90	1430		X	S4	1	1						5-083841	
MEHT 34	2/21/90	1440		X	S5	1	1						5-083845	
MEHT 35	2/21/90	1415		X	S6	1	1						5-083849	
													lot #s - MM - 927623	
					Shipment is complete									

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	2/21/90 1800				
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: Shipped FED Ex to UEG/B Airbill # ~~1060849506~~ 1060849484 C.O.C. #s: 167785, 167786	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05-03783

EPA

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

Inorganic Traffic Report
(For CLP Use Only)

Case Number: 13623
SAS No. (if applicable):

1. Type of Activity (Check one): [ ] ENF [ ] NPLD [ ] RA [X] SI [ ] STSI [ ] ER [ ] O&M [ ] RD [ ] ST [ ] Other *(Specify)* [ ] ESI [ ] PA [ ] RIFS [ ] STPA

2. Region Number: 2
Sampling Co.: FIT
Sampler (Name): Tim Mayers

4. Date Shipped: 2/21/90
Airbill Number: 1060849506
Carrier: F

Non-Superfund Program

Site Name: Murrell Landfill
City, State: Decatur, Il
Site Spill ID

3. Ship To: Vegas
3844 Schiff Dr.
Las Vegas NV 89103
ATTN. Ajit Joshi

Double volume required for matrix spike/duplicate aqueous sample.

Ship medium and high concentration samples in paint cans.

See reverse for additional instructions.

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

CLP Sample Number *(From labels)*	(A) Sample Description *(From box 1)*	(B) Concentration L=low M=med H=high	(C) RAS Analysis: Total Metals	(C) RAS Analysis: Cyanide	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding Organic Sample Number
MEHT 30	5	L	X	X		S1		EJJ 72
MEHT 31	5	L	X	X		S2		EJJ 73
MEHT 32	5	L	X	X		S3		EJJ 74
MEHT 33	5	L	X	X		S4		EJJ 75
MEHT 34	5	L	X	X		S5		EJJ 76
MEHT 35	5	L	X	X		S6		EJJ 77

Shipment (5) is not complete

EPA Form 9110-1 (8-88) Replaces EPA Form 2075-6, which may be used. Green - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

Cooler ID # E&E V 92

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: F1L0492
PROJECT NAME: FOS-8612-070 / CASE # 13623
SAMPLERS: (Signature) [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 liter extractables	40 ml VOA					REMARKS TAG #S	Low Conc. Matrix
109520	2/21/90	0910		X	RW3 + MSD	16	8	8					S-072751-56 & 072759-68	Water
101298	2/21/90	1030		X	BLANK	6	3	3					S-072777-82	"
													lot # S_	
					Shipment (13) is not complete								All VOA's - 13269033	
													RW3/MSD 1 liters - H9241083	
													BLANK 1 liters - H9205303	
					CRL tracking forms in cooler # E&E 251									

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	2/21/90 1800				
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: Shipped Fed Ex to CRL Airbill # - 1060849414 C.O.C. #'s - 167793, 167794	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05-03786

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

Cooler ID # E&E 251

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: FIL0492

PROJECT NAME: FOS-8612-070 / CASE# 13623 ~~SAS#~~ BM

SAMPLERS: (Signature) [signature]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 liter extractable	40 ml VOA					REMARKS TAG #S	Low Conc. Matrix
T09518	2/21/90	0910		X	RW1	6	3	3					S-083850-55	Water
T09528	2/21/90	0920		X	DUP	6	3	3					S-083858-63	
T09519	2/21/90	1505		X	RW2	6	3	3					S-083866-71	
T09521	2/21/90	0930		X	RW4	6	3	3					S-072769-74	
					Shipment (15) is not complete								lot #s – All VOA's – 139269033	
													RW1, DUP, & RW2 1 liter: H9205303	
													RW4 1 liter: H9241083	

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[signature]	2/21/90 1800				
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: Shipped Fed Ex to CRL Airbill # – 1060849914 C.O.C. #'s – 167791, 167792	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05-03785

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

Coder ID # E1E
REG. V 252

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME
FIL0492	F05-8612-070 / CASE # 13623 / SAS # 5077E

SAMPLERS: (Signature)

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	1 liter plastic (MET)	1 liter plastic (CN)					REMARKS (Low Conc. Matrix) TAG #s
Bun MEAT 36 ~~104518~~	2/21/90	0920		X	RW1	2	1	1					5-083856-57 WATER
Bun MEAT 37 ~~104519~~	2/21/90	0920		X	DUP	2	1	1					5-083864-65
Bun MEAT 38 ~~104516~~	2/21/90	1505		X	RW2	2	1	1					5-083872-73
Bun MEAT 39 ~~104520~~	2/21/90	0910		X	RW3	2	1	1					~~5-0838~~ Bun 5-072757-58
Bun MEAT 40 ~~104521~~	2/21/90	0930		X	RW4	2	1	1					5-072775-76
Bun MEAT 41 ~~104518~~	2/21/90	1030		X	BLANK	2	1	1					5-072783-84
					Shipment (15) is not complete								lot #5 - AU 9286013

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
	2/21/90 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	
					Shipped Fed Ex to Centec Airbill # 1060899462 C.O.C. # - 167789, 167790

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05-03787

EPA

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

Inorganic Traffic Report
(For CLP Use Only)

Case Number: 13623
SAS No. (If applicable): 5077E

1. Type of Activity (Check one)
- [ ] ENF [ ] NPLD [ ] RA [X] SI [ ] STSI
- [ ] ER [ ] O&M [ ] RD [ ] ST [ ] Other (Specify)
- [ ] ESI [ ] PA [ ] RIFS [ ] STPA

2. Region Number: II
Sampling Co.: FIT
Sampler (Name): Tim Mayers

4. Date Shipped: 2/21/90
Airbill Number: 1060849462
Carrier: F

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

Non-Superfund Program

Site Name: Murrell Landfill
City, State: Decatur, Il.
Site Spill ID

3. Ship To:
CENTEC
2160 Industrial Dr.
SALEM, VA 24153
ATTN. Susan Shepard

Double volume required for matrix spike/duplicate aqueous sample.

Ship medium and high concentration samples in paint cans.

See reverse for additional instructions.

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis: Total Metals	(C) RAS Analysis: Cyanide	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding Organic Sample Number
MEHT 36	2	L	X	X				90FT09518
MEHT 37	2	L	X	X				90FT09518
MEHT 38	2	L	X	X				90FT09519
MEHT 39	2	L	X	X				90FT09520
MEHT 40	2	L	X	X				90FT09521
MEHT 41	3	L	X	X				90FT01298
					Shipment is complete			

Shipment (is) is not complete

EPA Form 9110-1 (8-88) Replaces EPA Form 2075-6, which may be

- SMO Copy Pink - Region Copy White - Lab Copy for Return to Yellow - Lab Copy

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

FIT Inspection Date: February 21, 1990

CERCLIS Site Name: MURRELL LANDFILL

Site Address: Hill Road & Joint Road

Recipient Information: Non - Responsive [redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the report regarding the inspection conducted at the above-referenced property will be forwarded by the U.S. EPA within 6 months. If a copy of the inspection report is not received within 6 months of the inspection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U.S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:

White: FIT Site File; TDD No.: F05-8612-070; PAN: FIL0492
Yellow: Recipient
Pink: U.S. EPA

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U.S. EPA ID NO: ILD980901540

PROJ. ACCT. NO.: FIL0492SB

TDD: F05-8612-070

SPLIT SAMPLES: ACCEPTED( ) DECLINED(✓)

FACILITY/OCCUPANT NAME: Murrell Landfill

FACILITY/OCCUPANT ADDRESS: Hill Rd. RR8 Box 153 Decatur IL 62522

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR*	ITR*	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
S1	2/21/90	1300		EJJ72	MEHT30	S1	✓	✓	✓	✓	✓			SEDIMENT
S2	2/21/90	1316		EJJ73	MEHT31	S2	✓	✓	✓	✓	✓			SOIL
S3	2/21/90	1335		EJJ74	MEHT32	S3	✓	✓	✓	✓	✓			SOIL
S4	2/21/90	1430		EJJ75	MEHT33	S4	✓	✓	✓	✓	✓			SOIL
S5	2/21/90	1440		EJJ76	MEHT34	S5	✓	✓	✓	✓	✓			SOIL
S6	2/21/90	1415		EJJ77	MEHT35	S6	✓	✓	✓	✓	✓			SOIL

TRANSFERRED BY: Karen McSpangler 2/21/90 1600
(Signature) (Date) (Time)

RECEIVED BY:
(Signature) (Date) (Time)

TITLE

TELEPHONE

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

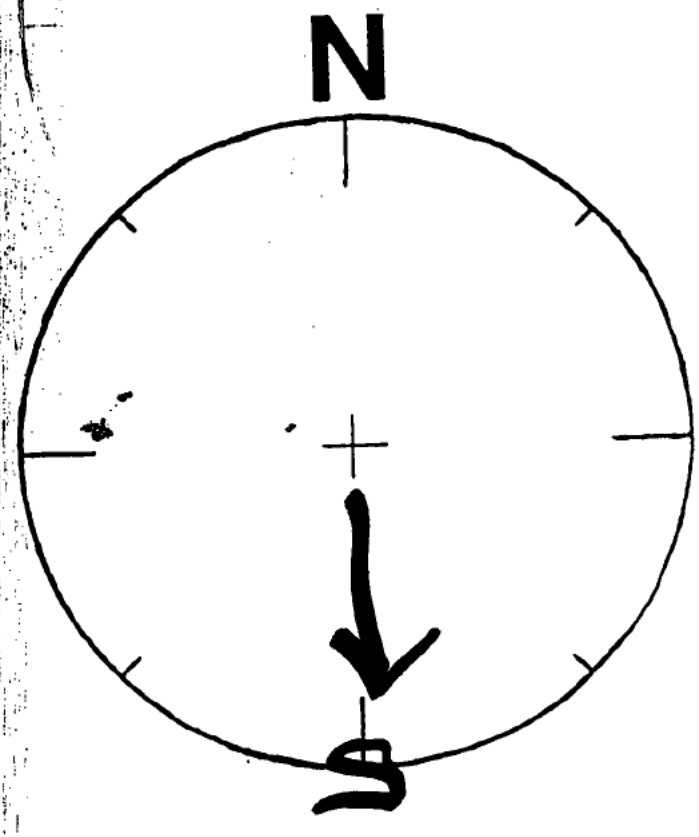
SITE MURRELL Ldfl.

CITY DECATUR STATE IL.

SAMPLE S5

DATE 2/21/90

TIME 14:40



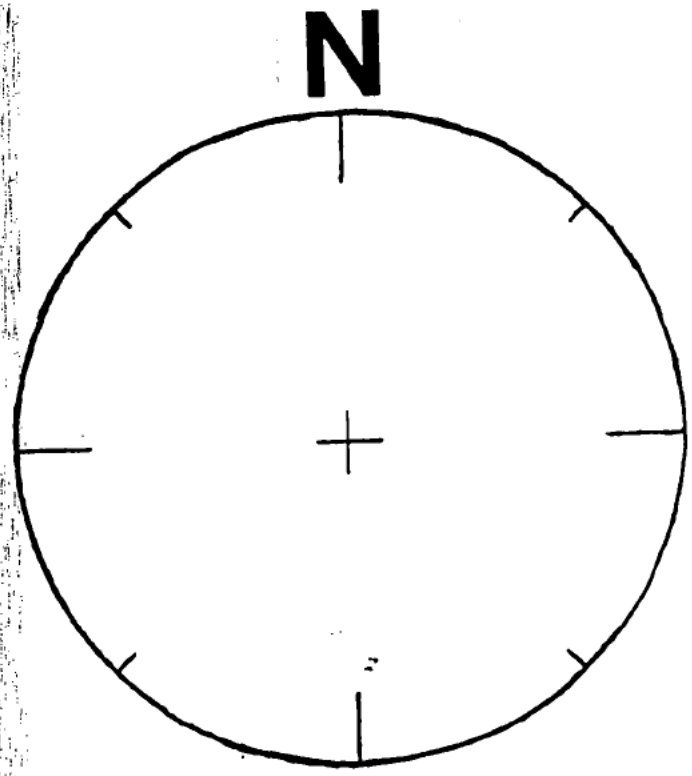
SITE MURRELL Ldfl.

CITY DECATUR STATE IL.

SAMPLE S

DATE

TIME



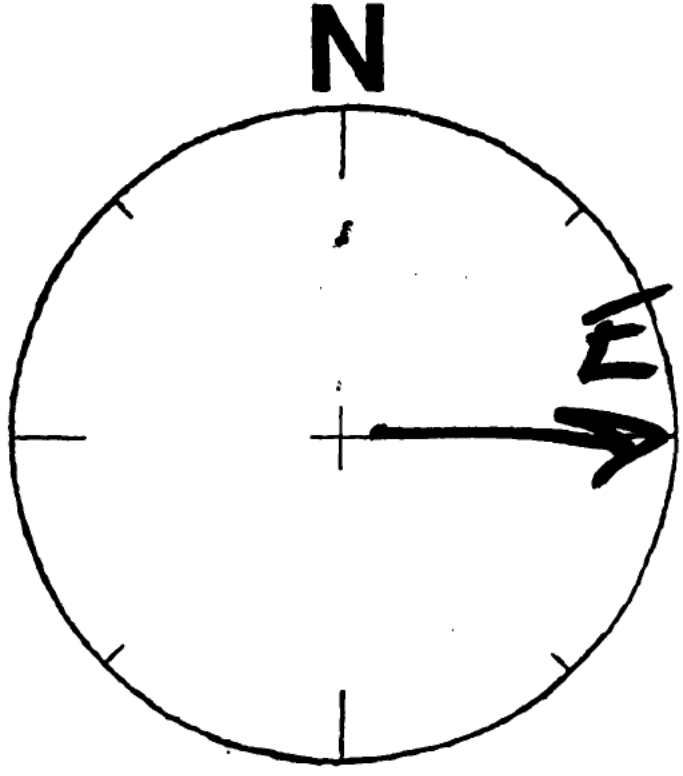
SITE ILD980901540

CITY DECATUR STATE IL.

SAMPLE RW 4

DATE 2/21/90

TIME 9:30 am



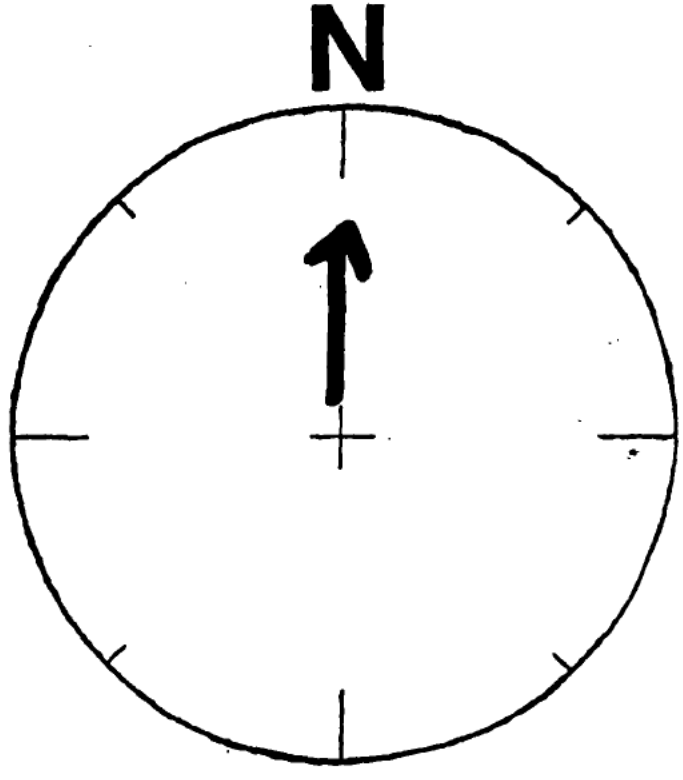
SITE ILD980901540

CITY DECATUR STATE IL.

SAMPLE RW 3

DATE 2/21/90

TIME 9 10 am



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Ecology and Environment, Inc. (E & E), has been retained by the United States Environmental Protection Agency (U.S. EPA), under contract 68-01-7347, to evaluate potential hazardous waste sites under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

As part of these site evaluations, E & E conducts groundwater quality assessments of the area surrounding a site. The location of your well is such that it will provide a useful data point in our assessment. We would like to sample your well through your outside spigot, which we assume has not been affected by water softening or treatment. There is no fee for the water sample test, and you will receive a report on the quality of your water within 6 months.

We will visit your home again tomorrow to ask your permission to sample your well. If you will not be home, your signature in the space provided below will permit us to sample the well in your absence. If we sample your well, we will leave you a receipt for the sample and also information concerning acquisition of the sample analysis data should there be a delay in its arrival. Also, if you are aware of specific information concerning your well, please provided this information in the spaces below. ~~The pink copy is for your records; please leave the white and yellow copies for us.~~

I will be staying at the Sheldon Motor Inn, Betwestern (hotel) tonight and can be reached at 877 7255 (telephone), if you have any questions. Thank you in advance for your cooperation.

Sincerely, Jeffrey Taylor

I, Jake Van Bakot (your signature) give my permission to E & E to sample my well water at an outside spigot in my absence. The well water at the outside spigot is/is not (circle one) affected by water treatment or softening. SPIGOT IS SOUTH OF THE HOUSE, ACROSS THE DRIVEWAY *

Well depth: 45 feet.

Aquifer type: sandstone, dolomite/limestone, sand and gravel (circle one), or other _____?

Depth of casing: _____ feet?

Well driller:? _____ (name),

_____ (telephone).

* OR JUST P.S. If you are not home tomorrow, please leave this letter where we may find it. JT
INSIDE FRONT BARN DOOR – 10-15 FEET TO THE RIGHT. CLOSE UP.

Andrea - this is a "maybe" site, awaiting WP approval from EPA

F I T S A M P L E P R O P O S A L F O R M R E G I O N V

DATE FORM COMPLETED 12/22/89 PAN# FIL099254 TDD# F05-8612-020 EPA I.D.# ILD980901540

SITE NAME (PRINT) Murrell Landfill CITY Decatur STATE Il.

TEAM LEADER K. Spangler SAMPLER TBA DATE SENT TO RSCC

CASE # DRINKING WATER SAS # ORGANIC INORGANIC

ROUTINE ANALYTICAL SERVICES (RAS)

LOW WATERS MONITORING WELLS FRACTION	NUMBER OF FIELD SAMPLES+ BLANKS+ DUPLICATE= TOTAL	EXPECTED DATE TO SAMPLE	LABORATORY NAME	NUMBER OF COOLERS SHIPPED	NUMBER OF SAMPLES SHIPPED	AIR BILL NUMBERS	DATE SHIPPED TO LAB
VOA							
ABNs							
PEST/PCB							
METALS							
CN							

LOW WATERS SURFACE WATERS FRACTION	NUMBER OF FIELD SAMPLES+ BLANKS+ DUPLICATE= TOTAL	EXPECTED DATE TO SAMPLE	LABORATORY NAME	NUMBER OF COOLERS SHIPPED	NUMBER OF SAMPLES SHIPPED	AIR BILL NUMBERS	DATE SHIPPED TO LAB
VOA							
ABNs							
PEST/PCB							
METALS							
CN							

LOW (SOILS/SEDIMENTS/SLUDGES) FRACTION	NUMBER OF FIELD SAMPLES+ BLANKS+ DUPLICATE= TOTAL	EXPECTED DATE TO SAMPLE	LABORATORY NAME	NUMBER OF COOLERS SHIPPED	NUMBER OF SAMPLES SHIPPED	AIR BILL NUMBERS	DATE SHIPPED TO LAB
VOA	6 = 6	wk of 1/22/90					
ABNs							
PEST/PCB							
METALS							
CN							

(RESIDENTIAL) MUNICIPAL WELL WATERS (DRINKING WATER SAMPLES)

LOW DETECTION LIMITS/FAST TURN AROUND FRACTION	NUMBER OF FIELD SAMPLES+ BLANKS+ DUPLICATE= TOTAL	EXPECTED DATE TO SAMPLE	LABORATORY NAME	NUMBER OF COOLERS SHIPPED	NUMBER OF SAMPLES SHIPPED	AIR BILL NUMBERS	DATE SHIPPED TO LAB
VOA	4 + 1 + 1 = 6	wk of 1/22/90					
ABNs							
PEST/PCB							
METALS							
CN							

SEE NEXT PAGE FOR SPECIAL ANALYTICAL SERVICE REQUEST FOR THIS SITE

SAS #

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

DRINKING WATER MEMORANDUM
WELL OWNER'S LOG

DATE: 4/17/90

TO: State Contact STATE: ILLINOIS

FROM: Jeff Taylor

SUBJECT: Drinking Water Sample Results

SITE NAME: Murrell Landfill CERCLA ID#: ILD980901540

TDD: F05-8612-070 PAN: FIL04925B (W)

NAME	ADDDRESS	CITY STATE ZIP
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Non - Responsive

RECEIVED
APR 20 1990
DIVISION OF
ENVIRONMENTAL HEALTH

E & E EDP DATE 4/17/90

State Contact:

Received By: 4-20-90
Date: Rene Benner

Note:
Return a signed copy to Reggie Suga at Ecology and Environment, Inc., within 5 working days. Thank you.

4-18-90

QA016(8/31/89)

recycled paper

ecology and environment, inc.
111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415
International Specialists in the Environment

DRINKING WATER MEMORANDUM
WELL OWNER'S LOG

DATE: 4/17/90

TO: State Contact STATE: ILLINOIS

FROM: Jeff Taylor

SUBJECT: Drinking Water Sample Results

SITE NAME: Murrell Landfill CERCLA ID#: ILD980901540

TDD: F05-8612-070 PAN: FIL049258 (W)

NAME	ADDDRESS	CITY STATE ZIP
1.		
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

Non - Responsive

E & E EDP DATE 4/17/90

State Contact:

Received By:

Date:

Note:
Return a signed copy to Reggie Suga at Ecology and Environment, Inc., within 5 working days. Thank you.

4-18-90

QA016(8/31/89)

recycled paper

RW1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information:

Non - Responsive

[redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:

White: FIT Site File; TDD No.: F05-8612-070 ; PAN: FIL0492
Yellow: Recipient
Pink: U.S. EPA

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive

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230 South Dearborn Street
Chicago, Illinois 60604
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive

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U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:

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Yellow: Recipient
Pink: U.S. EPA

RW4

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive [redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

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U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
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City: CHICAGO State: IL ZIP Required: 60604

2 To (Recipient's Name) Please Print: THOMAS LONG
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Table 4-__
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED Soil SAMPLES

4/11/90

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	S 1	S 2	S 3	S 4	S 5	S 6 Background	7	8	9	10	11	12
				Date	2/21/90	2/21/90	2/21/90	2/21/90	2/21/90	2/21/90						
				Time	13:00	13:16	13:35	14:30	14:40	14:55						
				Well Depth (Feet)												
				CRL Log Number												
				CLP Organic Traffic Report Number	EJJ 72	73	74	75	76	77						
				CLP Inorganic Traffic Report Number	MEHT 30	MEHT 31	MEHT 32	33	34	35						
				Temperature (°C)												
				Specific Conductivity (µmhos/cm)												
				pH												
				Compound Detected (values in µg/L or µg/kg)												
				Volatile Organics												
Gas	A,D,G,I	OCC	HH	chloromethane												
Gas	A,D,G,I	OCC	HH	bromomethane												
Gas	A,D,G,I	OCC	HH	vinyl chloride												
Gas	A,D,G,I	OCC	HH	chloroethane												
Liquid	A,D,H,I	SOL	HH,CLA	methylene chloride			75 JB	5 JB	22 JB							
Liquid	E,H,I,A	SOL	K,CLA	acetone	31 J											
Liquid	A,H,I	SOL	SH	carbon disulfide												
Liquid	A,D,G,I	SOL	HH	1,1-dichloroethene												
Liquid	A,D,H,G	SOL	HH	1,1-dichloroethane												
Liquid	A,D,G	SOL	HH	1,2-dichloroethene (total)	53											
Liquid	A,D	SOL	HH	chloroform												
Liquid	A,D,G	SOL	HH	1,2-dichloroethane												
Liquid	A,E,G	SOL	K,CLA	2-butanone (MEK)												
Liquid	A,D	SOL	HH	1,1,1-trichloroethane												
Liquid	A,D	SOL	HH	carbon tetrachloride												
Liquid	A,D,G	SOL	HYD	vinyl acetate												
Liquid	A,D	OCC	HH	bromodichloromethane												
Liquid	A,D,G	SOL	HH	1,2-dichloropropane												
Liquid	A,D,G	SOL	HH	cis-1,3-dichloropropene												
Liquid	A,D,G,B	SOL	HH	trichloroethene	7 J											
Liquid	A,D	OCC	HH	dibromochloromethane												
Liquid	A,D	SOL	HH	1,1,2-trichloroethane												
Liquid	A,G	SOL	A	benzene												
Liquid	A,D,G	SOL	HH	trans-1,3-dichloropropene												
Liquid	A,D	SOL	HH,CLA	bromoform												
Liquid	A,E,G	SOL	K,CLA	4-methyl-2-pentanone												
Liquid	A,E,G	SOL	K	2-hexanone												
Liquid	A,D	SOL	HH	tetrachloroethene	36	14 J	13 J									
Liquid	A,G,E	SOL	A,CLA	toluene	3 J	3 J	7 J	8	3 J							
Liquid	A,D,E	SOL	HH	1,1,2,2-tetrachloroethane												
Liquid	A,D,G	SOL	HA	chlorobenzene												
Liquid	A,G	SOL	A	ethylbenzene												
Liquid	A,D,G	OCC	A	styrene												
Liquid	A,G	SOL	A	xylenes (total)												

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Mono	Sample Collection Information and Parameters	Sample Number S 1	S 2	S 3	S 4	S 5	S 6 Background	7	8	9	10	11	12
				Semivolatile Organics												
S, thick l	A,B,E	OCC	P	phenol												
Liquid	A,D,B	OCC	HH	bis(2-chloroethyl)ether												
Liquid	A,D,B	OCC	P	2-chlorophenol												
Liquid	A,D,H	SOL	HA	1,3-dichlorobenzene												
Solid	A,D,H	OCC	HA	1,4-dichlorobenzene												
Liquid	A,D,H	SOL	A	benzyl alcohol												
Liquid	A,D,H	OCC	HA	1,2-dichlorobenzene												
Liquid	A,B	OCC	P	2-methylphenol												
	A,D	OCC	HH	bis(2-chloroisopropyl)ether												
Liquid	A,B	OCC	P	4-methylphenol												
	A	OCC	H-Amine	n-nitroso-di-n-dipropylamine												
Solid	A,D	OCC	HH	hexachloroethane												
Liquid	A,D	OCC	HA	nitrobenzene												
Liquid	A,D	OCC	H	isophorone												
Solid	A,D	OCC	P	2-nitrophenol												
Solid	A,B	OCC	P	2,4-dimethylphenol												
Solid	A	OCC	A	benzoic acid												
	A,D	OCC	HH	bis(2-chloroethoxy)methane												
Liquid	A,D	OCC	P	2,4-dichlorophenol												
Liquid	A,D	OCC	HA	1,2,4-trichlorobenzene												
Solid	A	OCC	PAH	naphthalene												
Solid	A,D	OCC	HH	4-chloroaniline												
Liquid	A,D,B	OCC	HH	hexachlorobutadiene												
Solid	A,D	OCC	P	4-chloro-3-methylphenol												
Liquid	A,D	OCC	PAH	2-methylnaphthalene												
Liquid	A,D,B	OCC	HH	hexachlorocyclopentadiene												
Solid	A,D	OCC	P	2,4,6-trichlorophenol												
Solid	A,D	OCC	P	2,4,5-trichlorophenol												
Liquid	A,D	OCC	PAH	2-chloronaphthalene												
Solid	A,D	OCC	NH	2-nitroaniline												
Liquid	A,D	OCC	PH,CLA	dimethylphthalate												
Solid	A,D	OCC	PAH	acenaphthylene												
Solid	A,D	OCC	HA	2,6-dinitrotoluene												
Solid	A,D	OCC	NH	3-nitroaniline												
Solid	A,D	OCC	PAH	acenaphthene												
Solid	A,D,G	OCC	P	2,4-dinitrophenol												
Solid	A,D	OCC	P	4-nitrophenol												
Solid	A,D	OCC	A	dibenzofuran												
Solid	A,D	OCC	NA	2,4-dinitrotoluene												
Liquid	A,D	OCC	PH	diethylphthalate												
	A,D	OCC	HH	4-chlorophenyl-phenylether												
Solid	A,D	OCC	PAH	fluorene												
Solid	A,D,E	OCC	NH	4-nitroaniline												
Solid	A,D	OCC	P	4,6-dinitro-2-methylphenol												
Solid	A,D	OCC	NH	n-nitrosodiphenylamine												
Liquid	A,D	OCC	HH	4-bromophenyl-phenylether												
Solid	A,D	OCC	HA	hexachlorobenzene												
Solid	A,D	OCC	P	pentachlorophenol												
Solid	A,D	OCC	PAH	phenanthrene												

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number 5 1	5 2	5 3	5 4	5 5	5 6 Background	7	8	9	10	11	12
				Semivolatile Organics, Cont.												
Solid	A,D	OCC	PAH	anthracene												
Liquid	A,D	OCC	PH,CLA	di-n-butylphthalate												
Solid	A,D	OCC	PAH	fluoranthene												
Solid	A,D	OCC	PAH	pyrene												
Liquid	A,D	OCC	PH,CLA	butylbenzylphthalate				1300								
	A,D	OCC	HA	3,3'-dichlorobenzidine												
Solid	A,D	OCC	PAH	benzo[a]anthracene												
Solid	A,D	OCC	PAH	chrysene												
Liquid	A,D	OCC	PH,CLA	bis(2-ethylhexyl)phthalate				390 J								
Liquid	A,D	OCC	PH,CLA	di-n-octylphthalate												
Solid	A,D	OCC	PAH	benzo[b]fluoranthene												
Solid	A,D	OCC	PAH	benzo[k]fluoranthene												
Solid	A,D,K,L	OCC	PAH	benzo[a]pyrene												
Solid	A,D	OCC	PAH	indeno[1,2,3-cd]pyrene												
Solid	A,D	OCC	PAH	dibenzo[a,h]anthracene												
Solid	A,D	OCC	PAH	benzo[q,h,i]perylene												
				Pesticides/PCBs												
Solid	A,D	PSD	PEST	alpha BHC												
Solid	A,D	PSD	PEST	beta BHC												
Solid	A,D	PSD	PEST	delta BHC												
Solid	A,D	PSD	PEST	gamma BHC (Lindane)												
Solid	A,D	PSD	PEST	Heptachlor												
Solid	A,D	PSD	PEST	Aldrin												
Solid	A,D	PSD	PEST	Heptachlor epoxide												
Solid	A,D	PSD	PEST	Endosulfan I		42 R										
Solid	A,D,E	PSD	PEST	Dieldrin												
Solid	A,D	PSD	PEST	4,4'-DDE		21 R		41								
Solid	A,D	PSD	PEST	Endrin												
Solid	A,D	PSD	PEST	Endosulfan II												
Solid	A,D	PSD	PEST	4,4'-DDD				18 J								
Solid	A,D	PSD	PEST	Endosulfan sulfate												
Solid	A,D	PSD	PEST	4,4'-DDT				69								
Solid	A,D	PSD	PEST	Methoxychlor (Mariate)												
Solid	A,D	PSD	PEST	Endrin ketone												
Solid	A,D	PSD	PEST	alpha Chlordane		130 R		390 R								
Solid	A,D	PSD	PEST	gamma Chlordane		130 R		320 R								
Solid	A,D	PSD	PEST	Toxaphene												
Liquid	A,D	OCC	PCB	Aroclor 1016												
Liquid	A,D	OCC	PCB	Aroclor 1221												
Liquid	A,D	OCC	PCB	Aroclor 1232												
Liquid	A,D	OCC	PCB	Aroclor 1242												
Liquid	A,D	OCC	PCB	Aroclor 1248												
Liquid	A,D	OCC	PCB	Aroclor 1254												
Liquid	A,D	OCC	PCB	Aroclor 1260												

Table 4- (Cont.)

COMPOUND QUALIFIERS	DEFINITION	INTERPRETATION
U	Indicates compound was analyzed for but not detected.	Compound was not detected at or above the CRDL.
J	Indicates an estimated value.	Compound value may be semiquantitative.
UJ	Quantitation limit is estimated due to a quality control (QC) protocol.	Compound was not detected if value is at CRQL, e.g., 10U UJ. If a value is reported with a UJ above CRQL and it is <5x blank concentration (10x for common laboratory artifacts), the compound is detected but may be a laboratory artifact and not attributable to the sample.
C	This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/µL in the final extract shall be confirmed by GC/MS.	Compound was confirmed by GC/MS and is quantitative. Use pesticide/PCB listed value.
B	This flag is used when the compound is found in the associated blank as well as in the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action.	Compound value may be semiquantitative if it is <5x the blank concentration (<10x the blank concentrations for common laboratory artifacts: phthalates, methylene chloride, acetone, toluene, 2-butanone).
E	This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods.	Compound value may be semiquantitative. There should be another analysis with a D qualifier, which is to be used.
D	This flag identifies all compounds identified in an analysis at a secondary dilution factor.	Alerts data user to a possible change in the CRQL. Data is quantitative.
A	This flag indicates that a TIC is a suspected aldol-condensation product.	Alerts data user of a laboratory artifact in the TICs only.
R	Results are unusable due to a major violation of QC protocol.	Compound value is not usable.

ANALYTE QUALIFIERS		DEFINITION	INTERPRETATION
E	E	Estimated or not reported due to interference. See laboratory narrative.	Analyte or element was not detected, or value may be semiquantitative.
S	S	Analysis by Method of Standard Additions.	Value is quantitative.
R	N	Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be quantitative or semiquantitative.
+	+	Correlation coefficient for standard additions is less than 0.995. See review and laboratory narrative.	Data value may be biased.
[ ]	B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
UJ		DL is estimated because of a QC protocol. DL is possibly above or below CRDL.	Compound or element was not detected.
J		Value is above CRDL and is an estimated value because of a QC protocol.	Value may be semiquantitative.
U	U	Compound was analyzed for but not detected.	Compound was not detected at or above the CRDL.
	M	Duplicate injection precision not met.	Value may be semiquantitative.
	W	Post-digestion spike for furnace AA analysis is out of control limits (35-115%), while sample absorbance is <50% of spike absorbance.	Value may be semiquantitative.
	R	Results are unusable due to a major violation of QC protocols.	Analyte value is not usable.

Source: Ecology and Environment, Inc. 1989.

Table 4-__
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED Soil SAMPLES

3 4/11/90

Sample Collection Information and Parameters	S 1	S 2	S 3	S 4	S 5	S 6 Background	7	8	9	10	11	12
Date	2/21/90	2/21/90	2/21/90	2/21/90	2/21/90	2/21/90						
Time	13:00	13:16	13:35	14:30	14:40	14:15						
Well Depth (Feet)												
CRL Log Number												
CLP Organic Traffic Report Number	EJJ 72	73	74	75	76	77						
CLP Inorganic Traffic Report Number	MEHT 30	MEHT 31	MEHT 32	33	34	35						
Temperature (°C)												
Specific Conductivity (µmhos/cm)												
pH												

Physical State*	Waste Characteristics**	Category***	SI Memo	Compound Detected (values in µg/L or µg/kg)	S 1	S 2	S 3	S 4	S 5	S 6	7	8	9	10	11	12
				Volatile Organics												
Gas	A,D,G,I	OCC	HH	chloroethane												
Gas	A,D,G,I	OCC	HH	bromomethane												
Gas	A,D,G,I	OCC	HH	vinyl chloride												
Gas	A,D,G,I	OCC	HH	chloroethane												
Liquid	A,D,H,I	SOL	HH,CLA	methylene chloride			75 JB	5 JB	22 JB							
Liquid	E,H,I,A	SOL	K,CLA	acetone	31 J											
Liquid	A,H,I	SOL	SH	carbon disulfide												
Liquid	A,D,G,I	SOL	HH	1,1-dichloroethene												
Liquid	A,D,H,G	SOL	HH	1,1-dichloroethane												
Liquid	A,D,G	SOL	HH	1,2-dichloroethene (total)	53											
Liquid	A,D	SOL	HH	chloroform												
Liquid	A,D,G	SOL	HH	1,2-dichloroethane												
Liquid	A,E,G	SOL	K,CLA	2-butanone (MEK)												
Liquid	A,D	SOL	HH	1,1,1-trichloroethane												
Liquid	A,D	SOL	HH	carbon tetrachloride												
Liquid	A,D,G	SOL	HYD	vinyl acetate												
Liquid	A,D	OCC	HH	bromodichloromethane												
Liquid	A,D,G	SOL	HH	1,2-dichloropropane												
Liquid	A,D,G	SOL	HH	cis-1,3-dichloropropene												
Liquid	A,D,G,B	SOL	HH	trichloroethene	7 J											
Liquid	A,D	OCC	HH	dibromochloromethane												
Liquid	A,D	SOL	HH	1,1,2-trichloroethane												
Liquid	A,G	SOL	A	benzene												
Liquid	A,D,G	SOL	HH	trans-1,3-dichloropropene												
Liquid	A,D	SOL	HH,CLA	bromoform												
Liquid	A,E,G	SOL	K,CLA	4-methyl-2-pentanone												
Liquid	A,E,G	SOL	K	2-hexanone												
Liquid	A,D	SOL	HH	tetrachloroethene	36	14 J	13 J									
Liquid	A,G,E	SOL	A,CLA	toluene	3 J	3 J	7 J	8	3 J							
Liquid	A,D,E	SOL	HH	1,1,2,2-tetrachloroethane												
Liquid	A,D,G	SOL	HA	chlorobenzene												
Liquid	A,G	SOL	A	ethylbenzene												
Liquid	A,D,G	OCC	A	styrene												
Liquid	A,G	SOL	A	xylenes (total)												

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number S 1	S 2	S 3	S 4	S 5	S 6 Background	7	8	9	10	11	12
				Semivolatile Organics												
S, thick 1	A,B,E	OCC	P	phenol												
Liquid	A,D,B	OCC	HH	bis(2-chloroethyl)ether												
Liquid	A,D,B	OCC	P	2-chlorophenol												
Liquid	A,D,H	SOL	HA	1,3-dichlorobenzene												
Solid	A,D,H	OCC	HA	1,4-dichlorobenzene												
Liquid	A,D,H	SOL	A	benzyl alcohol												
Liquid	A,D,H	OCC	HA	1,2-dichlorobenzene												
Liquid	A,B	OCC	P	2-methylphenol												
	A,D	OCC	HH	bis(2-chloroisopropyl)ether												
Liquid	A,B	OCC	P	4-methylphenol												
	A	OCC	H-Amine	n-nitroso-di-n-dipropylamine												
Solid	A,D	OCC	HH	hexachloroethane												
Liquid	A,D	OCC	NA	nitrobenzene												
Liquid	A,D	OCC	H	isophorone												
Solid	A,D	OCC	P	2-nitrophenol												
Solid	A,B	OCC	P	2,4-dimethylphenol												
Solid	A	OCC	A	benzoic acid												
	A,D	OCC	HH	bis(2-chloroethoxy)methane												
Liquid	A,D	OCC	P	2,4-dichlorophenol												
Liquid	A,D	OCC	HA	1,2,4-trichlorobenzene												
Solid	A	OCC	PAH	naphthalene												
Solid	A,D	OCC	HH	4-chloroaniline												
Liquid	A,D,B	OCC	HH	hexachlorobutadiene												
Solid	A,D	OCC	P	4-chloro-3-methylphenol												
Liquid	A,D	OCC	PAH	2-methylnaphthalene												
Liquid	A,D,B	OCC	HH	hexachlorocyclopentadiene												
Solid	A,D	OCC	P	2,4,6-trichlorophenol												
Solid	A,D	OCC	P	2,4,5-trichlorophenol												
Liquid	A,D	OCC	PAH	2-chloronaphthalene												
Solid	A,D	OCC	NH	2-nitroaniline												
Liquid	A,D	OCC	PH,CLA	dimethylphthalate												
Solid	A,D	OCC	PAH	acenaphthylene												
Solid	A,D	OCC	NA	2,6-dinitrotoluene												
Solid	A,D	OCC	NH	3-nitroaniline												
Solid	A,D	OCC	PAH	acenaphthene												
Solid	A,D,G	OCC	P	2,4-dinitrophenol												
Solid	A,D	OCC	P	4-nitrophenol												
Solid	A,D	OCC	A	dibenzofuran												
Solid	A,D	OCC	NA	2,4-dinitrotoluene												
Liquid	A,D	OCC	PH	diethylphthalate												
	A,D	OCC	HH	4-chlorophenyl-phenylether												
Solid	A,D	OCC	PAH	fluorene												
Solid	A,D,E	OCC	NH	4-nitroaniline												
Solid	A,D	OCC	P	4,6-dinitro-2-methylphenol												
Solid	A,D	OCC	NH	n-nitrosodiphenylamine												
Liquid	A,D	OCC	HH	4-bromophenyl-phenylether												
Solid	A,D	OCC	HA	hexachlorobenzene												
Solid	A,D	OCC	P	pentachlorophenol												
Solid	A,D	OCC	PAH	phenanthrene												

Table 4- (Cont.)

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number 1	2	3	4	5	6 Background	7	8	9	10	11	12
				Semivolatile Organics, Cont.												
Solid	A,D	OCC	PAH	anthracene												
Liquid	A,D	OCC	PH,CLA	di-n-butylphthalate												
Solid	A,D	OCC	PAH	fluoranthene												
Solid	A,D	OCC	PAH	pyrene												
Liquid	A,D	OCC	PH,CLA	butylbenzylphthalate				1300								
	A,D	OCC	HA	3,3'-dichlorobenzidine												
Solid	A,D	OCC	PAH	benzo[a]anthracene												
Solid	A,D	OCC	PAH	chrysene												
Liquid	A,D	OCC	PH,CLA	bis(2-ethylhexyl)phthalate				390 J								
Liquid	A,D	OCC	PH,CLA	di-n-octylphthalate												
Solid	A,D	OCC	PAH	benzo[b]fluoranthene												
Solid	A,D	OCC	PAH	benzo[k]fluoranthene												
Solid	A,D,K,L	OCC	PAH	benzo[a]pyrene												
Solid	A,D	OCC	PAH	indeno[1,2,3-cd]pyrene												
Solid	A,D	OCC	PAH	dibenzo[a,h]anthracene												
Solid	A,D	OCC	PAH	benzo[g,h,i]perylene												
				Pesticides/PCBs												
Solid	A,D	PSD	PEST	alpha BHC												
Solid	A,D	PSD	PEST	beta BHC												
Solid	A,D	PSD	PEST	delta BHC												
Solid	A,D	PSD	PEST	gamma BHC (Lindane)												
Solid	A,D	PSD	PEST	Heptachlor												
Solid	A,D	PSD	PEST	Aldrin												
Solid	A,D	PSD	PEST	Heptachlor epoxide												
Solid	A,D	PSD	PEST	Endosulfan I		42 R										
Solid	A,D,E	PSD	PEST	Dieldrin												
Solid	A,D	PSD	PEST	4,4'-DDE		21 R		41								
Solid	A,D	PSD	PEST	Endrin												
Solid	A,D	PSD	PEST	Endosulfan II												
Solid	A,D	PSD	PEST	4,4'-DDD				18 J								
Solid	A,D	PSD	PEST	Endosulfan sulfate												
Solid	A,D	PSD	PEST	4,4'-DDT				69								
Solid	A,D	PSD	PEST	Methoxychlor (Mariate)												
Solid	A,D	PSD	PEST	Endrin ketone												
Solid	A,D	PSD	PEST	alpha Chlordane		130 R	390 R									
Solid	A,D	PSD	PEST	gamma Chlordane		130 R	320 R									
Solid	A,D	PSD	PEST	Toxaphene												
Liquid	A,D	OCC	PCB	Aroclor 1016												
Liquid	A,D	OCC	PCB	Aroclor 1221												
Liquid	A,D	OCC	PCB	Aroclor 1232												
Liquid	A,D	OCC	PCB	Aroclor 1242												
Liquid	A,D	OCC	PCB	Aroclor 1248												
Liquid	A,D	OCC	PCB	Aroclor 1254												
Liquid	A,D	OCC	PCB	Aroclor 1260												

ecology and environment, inc.

111 WEST JACKSON BLVD., CHICAGO, ILLINOIS 60604, TEL. 312-663-9415

International Specialists in the Environment

CRL Receipt Date 3/28 FIT Receipt Date 4/6 Review Completed 4/11/90

TO: Spowgle

FROM: Mary Gzyra

SUBJECT: Thurrell LF

PAN: ILO49235A (1 hour charged for review) Case # 13623

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
# 6	Low Soil	# _____	Low Soil
_____	Low Water	_____	Low Water
_____	Drinking Water	_____	Drinking Water
_____	Other	_____	Other

Project Data Status _____ Completed!!

✓ Incomplete, awaiting Soil Mang

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

_____ Compounds were detected in sample(s); see enclosed sheet.

Book No. 9 Page No. _____ Date Sampled 2/21

0759:2

recycled paper

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 4/6/90

4/6/90

SUBJECT: Review of Region V CLP Data
Received for Review on 28 March 1990

FROM: Curtis Ross, Director (5SCRL) Patrick J. Chunilla for
Central Regional Laboratory

TO: Data User: FIT

We have reviewed the data for the following case(s).

SITE NAME: Murrell Landfill SMO Case No. 13623

EPA Data Set No. SF 7030 No. of Samples: 6 D.U./Activity Numbers TFA1/TFA102

CRL No. 90FT10 S32-37

SMO Traffic No. EJJ 72-77

CLP Laboratory: S-Cubed Hrs. Required for Review: 7.0 + 1 = 8 RK

Following are our findings.

Some data have been qualified unusable because of calibration outliers and problems with matrix spikes, surrogate recoveries, and internal standards. These last three appear to be largely the result of matrix effect problems. The lab appears to have performed the analysis of these samples at least reasonably well and to have met all contract specifications

The reviewer's narrative and data qualifiers follow.

Ronald J. Zanger

Ronald J. Zanger

Roy F. Weston, Inc.

2 April 1990

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications noted above.
( ) Data are preliminary - pending verification by Contractor Laboratory.
( ) Data are unacceptable.

cc: Dr. Alfred Haeberer/Joan Fisk/Gary Ward, EPA Support Services
Ross K. Robeson, EMSL-Las Vegas
Eric Theis, CLP Data's Management Office

Region V

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 13623 SITE Murrell Landfill

LABORATORY S-CUBED NO. OF SAMPLES/ MATRIX Six soil

SDG # EJJ 72 REVIEWER (IF NOT ESD)

SOW# 2/88 REVIEWER'S NAME Ronald J. Zanger

DPO: ACTION FYI COMPLETION DATE 2 April 1990

DATA ASSESSMENT SUMMARY

		VOA	BNA	PEST	OTHER
1.	HOLDING TIMES	O	O	O	
2.	GC/MS TUNE/INSTR. PERFORM.	O	O	O	
3.	CALIBRATIONS	O	X	O	
4.	BLANKS	O	O	O	
5.	SURROGATES	M	M	O	
6.	MATRIX SPIKE/DUP	O	M	O	
7.	OTHER QC	O	O	O	
8.	INTERNAL STANDARDS	M	O	M	
9.	COMPOUND IDENTIFICATION	O	O	M	
10.	SYSTEM PERFORMANCE	O	O	O	
11.	OVERALL ASSESSMENT	O	O	O	

O = Data had no problems/or qualified due to minor problems.
M = Data qualified due to major problems.
Z = Data unacceptable.
X = Problems, but do not affect data.

ACTION ITEMS:

AREAS OF CONCERN:

NOTABLE PERFORMANCE:

DATA QUALIFIERS

Contractor: S-CUBED

Case/SAS number: 13623

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

(1) Holding Times:

The Laboratory Sample Data Report form indicates that all samples were taken on 21 February, 1990. There is a CLP requirement that this information is to be indicated on the Organic Traffic Report, but this is rarely done. All samples apparently were extracted and analyzed within the holding time limits.

Each sample was analyzed for volatile organics within the eight-day limit. Each sample was extracted for semivolatile organics and pesticide/PCB analysis within the fifteen-day limit, and all semivolatiles and pesticide/PCB extracts were analyzed within the forty-day limit. No problems indicated.

(2) GC/MS Tuning and Mass Calibration:

All GC/MS ion abundance and percent relative abundance criteria were met, both in the bromofluorobenzene tunes for volatile organic analysis and in the decafluorotriphenylphosphine tunes for semivolatile organic analysis.

(3) Calibration:

GC/MS calibration outliers are listed on the attached forms.

(4) Method Blanks:

The volatiles method blank VBLK01 contained methylene chloride and 2-butanone, affecting EJJ72, EJJ73, EJJ74, EJJ76, and EJJ77. The voltiles method blank VBLK02 contained methylene chloride, acetone, 2-butanone, and 4-methyl-2-pentanone, affecting EJJ75MS and EJJ75MSD. The volatiles blank VBLK03 contained methylene chloride, affecting EJJ73RE, EJJ74RE, and EJJ76RE.

The semivolatiles method blank SBLK01 contained no TCL compounds and one TIC compound, affecting EJJ72, EJJ75, EJJ76, EJJ77, EJJ75MS, and EJJ75MSD.

Reviewed by: Ronald J. Zanger

Phone: (312) 353-2960

Date: 30 March 1990

DATA QUALIFIERS

Contractor: S-CUBED

Case/SAS number: 13623

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

(4) Method Blanks (continued):

The pesticide/PCB blank PBLK1 was free of interferences.

Affected samples containing less than ten times the amount of methylene chloride, acetone, or 2-butanone found in the associated blank are qualified "U", undetected, for that compound in that sample. Affected samples containing less than five times the amount of any other compound found in the associated blank are qualified "U", undetected, for that compound in that sample.

(5) Surrogate Spike Recoveries:

For the volatiles, toluene-d8 was high, outside of contract-required QC limits, for samples EJJ73 and EJJ74. These were reanalyzed and the results for EJJ73RE and EJJ74RE also had high toluene-d8 surrogate recoveries. A adverse sample matrix effect appears to be justified. Volatile organics results for these two samples are qualified estimated, "J" or "UJ", for positive and negative results, respectively.

For semivolatiles sample EJJ74MS surrogate recoveries for nitrobenzene-d5 and 2-fluorobiphenyl were high, outside of contract-required QC limits. Nitrobenzene-d5 was also high, outside of contract-required QC limits, for EJJ74MSD. Matrix spike recoveries have advisory QC limits only and usually do not directly affect the results for the unspiked samples. These matrix spikes were therefore not reanalyzed and no qualification of the data is indicated on this basis alone. The unspiked sample, EJJ74, is qualified (see (6), below) because of matrix spike problems.

(6) Matrix Spike/Matrix Spike Duplicate Recoveries:

All volatile organics and pesticide/PCB matrix spikes, matrix spike duplicates, and their associated RPD's, were within advisory QC limits.

Reviewed by: Ronald J. Zanger

Phone: (312) 353-2960

Date: 30 March 1990

DATA QUALIFIERS

Contractor: S-CUBED

Case/SAS number: 13623

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

(6) Matrix Spike/Matrix Spike Duplicate Recoveries (continued):

Two sets of semivolatile organics matrix spikes were performed for medium-level samples (EJJ74) and low-level samples (EJJ75). Both medium-level spikes of 2,4-dinitrotoluene were low, below advisory QC limits. The associated RPD is high, above advisory QC limits, as is the RPD for the pentachlorophenol results. For the unspiked sample, EJJ74, the results for 2,4-dinitrotoluene are estimated. In the low-level matrix spikes the percent recoveries for N-nitroso-di-n-propylamine and 1,2,4-trichlorobenzene were high, above advisory QC limits, for one spiked sample each. No qualification of the data is justified on the basis of limited matrix spike outliers.

(7) Field Duplicate Samples and Field Blanks:

No field duplicate samples or field blanks were included in this sample set.

(8) Internal Standards:

One semivolatile organics internal standard, perylene-d12, was slightly low, below contract-required QC limits, for EJJ74MS. One semivolatile organics internal standard outlier for one fraction is allowable without qualification of the data.

All three volatile organics internal standards (bromochloromethane, 1,4-difluorobenzene, and chlorobenzene-d5) were low, below contract-required QC limits, for EJJ73 and EJJ74. In addition, chlorobenzene-d5 was low, below contract-required QC limits, for EJJ76. These three were reanalyzed and the three internal standards for EJJ73RE and EJJ74RE had results similar to the original analysis; for EJJ76, chlorobenzene-d5 and 1,4-difluorobenzene were low, below contract-required QC limits. Volatiles results for EJJ73, EJJ74, and EJJ76 are estimated, "J" or "UJ", for positive and negative results, respectively. Volatiles samples EJJ73 and EJJ74 were also estimated because of surrogate outliers: (4) Surrogate Spike Recoveries, above.

Reviewed by: Ronald J. Zanger

Phone: (312) 353-2960

Date: 30 March 1990

DATA QUALIFIERS

Contractor: S-CUBED

Case/SAS number: 13623

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

(8) Internal Standards (continued):

Pesticides/PCB's:

In the evaluation checks for linearity, %RSD was within the 10% limit for each compound for both the primary quantitation column and confirmation column. Total Endrin and 4,4'-DDT degradation was within the 20% limit for capillary columns.

For the Individual Standards "A" and "B" the 15% criterion for continuing calibration factors was met for all compounds for the primary column; the 20% criterion was met for all compounds for the confirmation column.

No dibutylchlorendate retention times were listed EJJ73DL and EJJ74 on the primary column, and none were listed for EJJ73DL, EJJ74DL, and EJJ73 for the confirmation column. Results for EJJ73 and EJJ74 are qualified "R", unusable.

(9) Compound Quantitation and Reported Detection Limits:

A survey of the positive results reveal no errors in calculation in any fraction. Comparisons of chromatograms of positives with the results indicate that the positive values are at least in the correct range. For the soil samples the moisture content appears to have been correctly factored into positive results and detection limits. No problems indicated.

(10) Other Case-Specific Problems:

There were significant problems with the quality control for samples EJJ73, EJJ74, and EJJ75, resulting in the qualification or rejection of a substantial amount of data. These problems appear to be largely the result of matrix effect problems, particularly EJJ73 and EJJ74, for which each fraction is adversely affected. The pesticide/PCB data for these may have been salvagable as estimated if GC/MS confirmation were required; DBC retention time shifts do

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Reviewed by: Ronald J. Zanger

Phone: (312) 353-2960

Date: 2 April 1990

DATA QUALIFIERS

Contractor: S-CUBED

Case/SAS number: 13623

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

(10) Other Case-Specific Problems (continued):

not allow for reliable qualitative identification, which would have allowed for reliable identification of the positives that were quantitated by GC. Otherwise the case appears to have been very reasonably performed. Difficulties with soil samples are not ususual.

Reviewed by: Ronald J. Zanger

Phone: (312) 353-2960

Date: 2 April 1990

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 13623 CONTRACTOR S-CUBED

Instrument # HPZ	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	12/19/89 0:46			2/26/90 9:51											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone															
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone															
1,2-Dichloroethane	2.049			2.609	27.3	J									
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene	0.404			0.522	29.2	J									
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone															
2-Hexanone															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

VBLE01
EJJ 72
EJJ 73
EJJ 74
EJJ 76
EJJ 77

Reviewer's Initials/Date: PJE
30 March '90

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 13623 CONTRACTOR S-CUBED

Instrument # HP2	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	3/1/90 14:27			3/2/90 9:39											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane															
Vinyl Chloride															
Chloroethane															
Methylene Chloride	1.382	40.0	J												
Acetone	0.124	40.6	J	0.175	40.7	J									
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	0.091	51.6	J												
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride															
Vinyl Acetate															
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane															
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform															
4-Methyl-2-Pentanone															
2-Hexanone	0.161			0.150			0.121	25.0	J						
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

VBLK02	VBLK03	
EJJ75MSD	EJJ73RE	
EJJ75MS	EJJ74RE	
	EJJ76RE	

Reviewer's Initials/Date: RJZ
30 March 90

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 13623 CONTRACTOR S-CUBED

Instrument #	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	2/19/90 18:19			3/2/90 8:44			3/6/90 9:56			3/8/90 9:26			3/9/90 10:36		
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine	0.833	33.4	J	1.141	36.9	J	1.019			1.182	41.8	J	1.178	41.3	J
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid	0.124			0.159	28.3	J	0.070	43.5	J	0.150			0.038	69.2	J
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene				RJZ 30 March 90											
4-Chloro-3-Methylphenol															
2-Methylnaphthalene	0.587			0.589			0.518			0.584			0.572		
Hexachlorocyclopentadiene	0.324			0.235	27.6	J									
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline	0.274	051.7	J	0.364			0.286			0.348	26.9	J			
Acenaphthene															
2,4-Dinitrophenol	0.224			0.157	30.0	J	0.154	31.2	J	0.212			0.112	50.0	J
4-Nitrophenol	0.154			0.130			0.121			0.140			0.089	42.2	J
Dibenzofuran															

AFFECTED SAMPLES:

SBLK01	EJJ75 MSD	SBLK02	EJJ74 MS
EJJ75	EJJ75 MS	EJJ73	
EJJ72		EJJ74	
EJJ76			
EJJ77			

Reviewer Initials/Date: RJZ
30 March 1990

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 13623 CONTRACTOR S-CUBED

Instrument # HPI	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	2/19/90 18:19			3/2/90 8:44			3/6/90 9:56			3/8/90 9:26			3/9/90 10:36		
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline	0.229	51.8	J	0.085	63.0	J	0.039	83.2	J	0.315	37.7	J	0.063	72.5	J
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene	1.092			1.157			1.057			0.413			0.708	35.2	J
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene	0.807			0.948			0.830			0.812			0.564	30.1	J

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

Reviewer's Initials/Date: RJZ 30 March 90

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
(Page 1)

CASE/SAS # 13623 CONTRACTOR S-CUBED

Instrument # HP1	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	2/19/90 18:19			3/13/90 11:02											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Phenol															
bis(-2-Chloroethyl)Ether															
2-Chlorophenol															
1,3-Dichlorobenzene															
1,4-Dichlorobenzene															
Benzyl Alcohol															
1,2-Dichlorobenzene															
2-Methylphenol															
bis(2-chloroisopropyl)Ether															
4-Methylphenol															
N-Nitroso-Di-n-Propylamine	0.833	33.4	J	1.201	44.1	J									
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid	0.124				0.068	J									
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene	0.587			0.862	46.8	J									
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline	0.274	51.7	J												
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol	0.154			0.113	26.6	J									
Dibenzofuran															
				EJJ74MSD											

AFFECTED SAMPLES:

Reviewer Initials/Date: RJZ
30 March 1990

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

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
SEMIVOLATILE HSL COMPOUNDS
Page 2

CASE/SAS # 13623 CONTRACTOR S-CUBED

Instrument # HPI	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	2/19/90 18:19			3/13/90 11:02											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline	0.229	31.8	J												
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i) Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

Reviewer's Initials/Date: RJE 30 March 1990

DATA REPORTING QUALIFIERS

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

VALUE - If the result is a value greater than or equal to the detection limit, report the value.

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

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

and df = dilution factor

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

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

For soil sample subjected to GPC clean-up procedures, the CRQL is also multiplied by 2, to account for the fact that only half of the extract is recovered.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration is 3 ug/L is calculated, report it as 3J. The sample quantitation limit must be adjusted for both dilution and percent moisture as discussed for the U flag, so that if a sample with 24% moisture and a 1 to 10 dilution factor has a calculated concentration of 300 ug/L and a sample quantitation limit of 430 ug/kg, report the concentration as 300J on Form I.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides $\geq$10 ng/ul in the final extract shall be confirmed by GC/MS.

2

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

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number.

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

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

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

* TABLE 4

VOLATILE INTERNAL STANDARDS WITH CORRESPONING TCL ANALYTES ASSIGNED FOR QUANTITATION

Bromochloromethane	1,4-Difluorobenzene	Chlorobenzene-d_5
Chloromethane	2- Butanone	2-Hexanone
Bromomethane	1,1,1-Trichloroethane	4-Methyl-2-Pentanone
*Vinyl Chloride	Carbon Tetrachloride	Tetrachloroethene
Chloroethane	Vinyl Acetate	1,1,2,2-Tetrachloroethane
Methylene Chloride	Bromodichloromethane	*Toluene
Acetone	*1,2-Dichloropropane	Chlorobenzene
Carbon Disulfide	trans-1,3-Dichloropropane	*Ethylbenzene
*1,1-Dichloroethene	Trichloroethene	Styrene
1,1-Dichloroethane	Dibromochloromethane	Xylene (total)
1,2-Dichloroethene (total)	1,1,2-Trichloroethane	Bromofluorobenzene (surr)
*Chloroform	Benzene	Toluene-d_8 (surr)
1,2-Dichloroethane	cis-1,3-Dichloropropene	
1,2-Dichloroethane-d_4 (surr)	Bromoform	

(surr) = surrogate compound
*Calibration check compounds

SEMIVOLATILE INTERNAL STANDARDS WITH CORRESPONDING TCL ANALYTES ASSIGNED FOR QUANTITATION

1,4-Dichlorobenzene-d_4	Naphthalene-d_8	Acenaphthene-d_{10}	Phenanthrene-d_{10}	Chrysene-d_{12}
Phenol	Nitrobenzene	Hexachlorocyclopentadiene	4,6-Dinitro-2-methylphenol	Pyrene
bis(2-Chloroethyl) ether	Isophorone	2,4,6-Trichlorophenol	N-nitrosodiphenylamine	Butylbenzyl Phthalate
2-Chlorophenol	2-Nitrophenol	2,4,5-Trichlorophenol	1,2-Diphenylhydrazine	3,3'-Dichlorobenzidine
1,3-Dichlorobenzene	2,4-Dimethylphenol	2-Chloronaphthalene	4-Bromophenyl Phenyl Ether	Benzo(a)anthracene
1,4-Dichlorobenzene	Benzoic acid	2-Nitroaniline	Hexachlorobenzene	bis(2-ethylhe: Phthalate
Benzyl Alcohol	bis(2-Chloroethoxy)methane	Dimethyl Phthalate	Pentachlorophenol	Chrysene
1,2-Dichlorobenzene	2,4-Dichlorophenol	Acenaphthylene	Phenanthrene	Terphenyl-d_{14} (surr)
2-Methylphenol	1,2,4-Trichlorobenzene	3-Nitroaniline	Anthracene	
bis(2-Chloroisopropyl)ether	Naphthalene	Acenaphthene	Di-n-butyl Phthalate	Perylene-d_{12}
4-Methylphenol	4-Chloroaniline	2,4-Dinitrophenol	Fluoranthene	
N-nitroso-Di-n-propylamine	Hexachlorobutadiene	4-Nitrophenol		Di-n-octyl Phthalate
Hexachloroethane	4-Chloro-3-methylphenol	Dibenzofuran		Benzo(b)fluoranthene
2-Fluorophenol (surr)	2-Methylnaphthalene	2,4-Dinitrotoluene		Benzo(k)fluoranthene
Phenol-d_6 (surr)	Nitrobenzene-d_5 (surr)	2,6-Dinitrotoluene		Benzo(a)pyrene
		Diethyl Phthalate		Indeno(1,2,3-cd) pyrene
		4-Chlorophenyl-phenyl ether		Dibenz(a,h) anthracene
		Fluorene		Benzo(g,h,i)
		4-Nitroaniline		
		2-Fluorobiphenyl (surr)		
		2,4,6-Tribromo Phenol (surr)		

Surr = surrogate compound

MAR 1 1990

SUPERFUND 7030

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS

SAMPLE DATE: 2/21/90
LOG-IN DATE: 3/9/90
DUE DATE: 5/2/90

THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

CASE NUMBER/SAS No. 13623/NA SITE NAME Murrell Landfill LABORATORY 53/SLWOK DATE SHIPPED 2/21/90

SUPERFUND DU NUMBER TF4102 EPA RPM or OSC (S.M.S.I/CES) ____ CERCLIS NUMBER ILD980901540 PAGE 1 OF 2

ACTIVITY NUMBER ZZ

COL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	WATER OR LIQUIDS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN UG/L TOX17574	VOLATILE ORGANIC ANALYSES ORGANIC SCAN UG/L TOX17544	WATER POLYCHLORINATED BIPHENYLS UG/L PES 17144	WATER CHLORINATED PESTICIDES UG/L PES17134	TOTAL METALS IN WATER UG/L 04C7111	WATER CYANIDE UG/L 04C0410	NITRATE/NITRITE UG/L 04C7704	AMMONIA UG/L 04C7704	SOLIDS, PERSULFATE UG/L 04C7704	TDS MG/L 04C7702	SOLIDS, SOLUBLE TSS MG/L 04C7772			SEDIMENTS or SOILS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN UG/KG TOX17572	VOLATILE ORGANIC ANALYSES ORGANIC SCAN UG/KG TOX17542	SEDIMENTS POLYCHLORINATED BIPHENYLS UG/KG PCB17142	SEDIMENT CHLORINATED PESTICIDES UG/KG 2113	TOTAL METALS UG/KG 04T4113	CYANIDE UG/KG 04C4410	EP TOXICITY METALS UG/KG	AMMONIA UG/KG 04C4773			
9ØF 32	EJJ 72	MEHT 30														X	X	X	X	X	X				
33	73	31																							
34	74	32																							
35	75	33																							
36	76	34																							
37	77	35																							

EPA

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

Organic Traffic Report
(For CLP Use Only)

Case Number: 15673
SAS No. (if applicable): SDG EJJ72

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

2. Region Number: 9
Sampling Co.: OFFT
4. Date Shipped: 2/21/90
Airbill Number: 0600444473
5. Date Received: 2-22-90
Received by: [illegible]
Sampler (Name): Tim Mahoney
Carrier: F
Laboratory Contract Number: 68D90027
Unit Price:
3. Ship To: S3 3398 Carroll Mtn. Rd. San Diego, CA 92121 ATTN: Elaine Walters
Triple volume required for matrix spike/duplicate aqueous sample.
Ship medium and high concentration samples in paint cans.
See reverse for additional instructions.
6. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number	(H) Sample Condition on Receipt	(I) High Conc. Phases (Check below) Soil	Water—MS Liq.	Non Water—MS Liq.
EJJ 72	5	L	X	X	X				WEHT 30				
EJJ 73	5	L	X	X	X				WEHT 31	OK			
EJJ 74	5	L	X	X	X				WEHT 32				
EJJ 75	5	L	X	X	X				WEHT 33				
EJJ 76	5	L	X	X	X				WEHT 34				
EJJ 77	5	L	X	X	X				WEHT 35				
						SDG EJJ72		FINAL	SAMPLE				
						shipment 3 complete							

EPA Form 9110-2 (8-88) Replaces EPA Form 2075-7, which may be used. Blue - SMO Copy Pink - Region Copy White - Lab Copy for Return to SMO Yellow - Lab Copy

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No. 13623 SAS No.: SDG No.: EJJ72

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	EJJ72	101	89	101		0
02	EJJ73	118 *	89	105		1
03	EJJ73RE	126 *	80	102		1
04	EJJ74	132 *	79	99		1
05	EJJ74RE	145 *	110	95		1
06	EJJ75	116	87	104		0
07	EJJ75MS	109	97	105		0
08	EJJ75MSD	112	88	106		0
09	EJJ76	110	82	104		0
10	EJJ76RE	112	93	109		0
11	EJJ77	108	83	103		0
12	VBLK01	98	94	98		0
13	VBLK02	103	98	101		0
14	VBLK03	100	97	103		0
15	VBLK04	101	97	101		0
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

	QC LIMITS
S1 (TOL) = Toluene-d8	(81-117)
S2 (BFB) = Bromofluorobenzene	(74-121)
S3 (DCE) = 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

2D

SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No. 13623 SAS No.: SDG No.: EJJ72

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (FP2)#	S6 (TBP)#	OTHER	TOT OUT
01	EJJ72	38	52	61	60	50	53		0
02	EJJ75	36	52	59	56	51	53		0
03	EJJ75MS	34	38	46	34	34	43		0
04	EJJ75MSD	38	41	58	37	39	44		0
05	EJJ76	51	48	56	58	50	46		0
06	EJJ77	31	42	54	47	38	45		0
07	SBLK01	34	45	55	45	41	46		0
08									
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

		QC LIMITS
S1 (S1)	= Nitrobenzene-d5	(23-120)
S2 (S2)	= 2-Fluorobiphenyl	(30-115)
S3 (S3)	= Terphenyl-d14	(18-137)
S4 (S4)	= Phenol-d5	(24-113)
S5 (S5)	= 2-Fluorophenol	(25-121)
S6 (S6)	= 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

FORM II SV-2 1/87 Rev.

2D
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No. 13623 SAS No.: SDG No.: EJJ72

Level:(low/med) MED

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (FP2)#	S6 (TBP)#	OTHER	TOT OUT
01	EJJ73	31	46	62	40	40	44		0
02	EJJ74	35	60	97	51	52	48		0
03	EJJ74MS	21 *	29 *	39	44	44	36		2
04	EJJ74MSD	8 *	31	42	48	50	53		1
05	SBLK02	28	51	62	48	46	56		0
06									
07									
08									
09									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									

		QC LIMITS
S1 (S1)	= Nitrobenzene-d5	(23-120)
S2 (S2)	= 2-Fluorobiphenyl	(30-115)
S3 (S3)	= Terphenyl-d14	(18-137)
S4 (S4)	= Phenol-d5	(24-113)
S5 (S5)	= 2-Fluorophenol	(25-121)
S6 (S6)	= 2,4,6-Tribromophenol	(19-122)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogates diluted out

2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No. 13623 SAS No.: SDG No.: EJJ72

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (DBC)#	OTHER
01	EJJ72	39	
02	EJJ73	17 *	
03	EJJ73DL	0 *D	
04	EJJ74	0 *	
05	EJJ74DL	2 *D	
06	EJJ75	34	
07	EJJ75MS	44	
08	EJJ75MSD	87	
09	EJJ76	60	
10	EJJ77	57	
11	PBLK1	61	
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28			
29			
30			

ADVISORY QC LIMITS (20-150)

S1 (DBC) = Dibutylchlorendate

Column to be used to flag recovery values

* Values outside of contract required QC limits
D Surrogates diluted out

FORM II PEST-2 1/87 Rev.

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix Spike - EPA Sample No.: EJJ75 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
1,1-Dichloroethene	62.503	0.000	78.942	126	59-172
Trichloroethene	62.503	0.000	64.279	103	62-137
Benzene	62.503	0.000	72.641	116	66-142
Toluene	62.503	7.673	79.979	116	59-139
Chlorobenzene	62.503	0.000	75.642	121	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	62.391	74.720	120	5	22	59-172
Trichloroethene	62.391	61.081	98	5	24	62-137
Benzene	62.391	73.597	118	2	21	66-142
Toluene	62.391	78.538	114	2	21	59-139
Chlorobenzene	62.391	70.951	114	6	21	60-133

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

* Values outside of QC limits

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

Comments: _____

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix Spike - EPA Sample No.: EJJ75 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	16760.118	0.000	5565.197	33	26- 90
2-Chlorophenol	16760.118	0.000	5590.337	33	25-102
1,4-Dichlorobenzene	8380.059	0.000	2674.077	32	28-104
N-Nitroso-di-n-prop.(1)	8380.059	0.000	3335.264	40 *	41-126
1,2,4-Trichlorobenzene	8380.059	0.000	3119.058	37 *	38-107
4-Chloro-3-methylphenol	16760.118	0.000	6709.075	40	26-103
Acenaphthene	8380.059	0.000	3416.550	41	31-137
4-Nitrophenol	16760.118	0.000	8783.140	52	11-114
2,4-Dinitrotoluene	8380.059	0.000	3269.061	39	28- 89
Pentachlorophenol	16760.118	0.000	7696.246	46	17-109
Pyrene	8380.059	0.000	3573.257	43	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	16430.411	6396.359	39	17	35	26- 90
2-Chlorophenol	16430.411	6390.608	39	17	50	25-102
1,4-Dichlorobenzene	8215.206	2942.687	36	12	27	28-104
N-Nitroso-di-n-prop.(1)	8215.206	3627.835	44	10	38	41-126
1,2,4-Trichlorobenzene	8215.206	3359.198	41	10	23	38-107
4-Chloro-3-methylphenol	16430.411	7580.992	46	14	33	26-103
Acenaphthene	8215.206	3686.163	45	9	19	31-137
4-Nitrophenol	16430.411	10214.787	62	18	50	11-114
2,4-Dinitrotoluene	8215.206	3564.578	43	10	47	28- 89
Pentachlorophenol	16430.411	8480.557	52	12	47	17-109
Pyrene	8215.206	4621.875	56	26	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits

Comments: _____

3D
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix Spike - EPA Sample No.: EJJ74 Level:(low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	834376.30	0.000	400876.095	48	26- 90
2-Chlorophenol	834376.30	0.000	395327.493	47	25-102
1,4-Dichlorobenzene	417188.15	0.000	189820.609	45	28-104
N-Nitroso-di-n-prop.(1)	417188.15	0.000	201084.689	48	41-126
1,2,4-Trichlorobenzene	417188.15	0.000	235711.306	57	38-107
4-Chloro-3-methylphenol	834376.30	0.000	503921.569	60	26-103
Acenaphthene	417188.15	0.000	230204.422	55	31-137
4-Nitrophenol	834376.30	0.000	869962.453	104	11-114
2,4-Dinitrotoluene	417188.15	0.000	105006.258	25 *	28- 89
Pentachlorophenol	834376.30	0.000	284438.882	34	17-109
Pyrene	417188.15	0.000	286232.791	69	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	834376.30	428785.982	51	6	35	26- 90
2-Chlorophenol	834376.30	435377.555	52	10	50	25-102
1,4-Dichlorobenzene	417188.15	202211.097	48	6	27	28-104
N-Nitroso-di-n-prop.(1)	417188.15	208760.951	50	4	38	41-126
1,2,4-Trichlorobenzene	417188.15	259157.280	62	8	23	38-107
4-Chloro-3-methylphenol	834376.30	550229.453	66	10	33	26-103
Acenaphthene	417188.15	258740.092	62	12	19	31-137
4-Nitrophenol	834376.30	758489.779	91	13	50	11-114
2,4-Dinitrotoluene	417188.15	60867.751	15 *	50 *	47	28- 89
Pentachlorophenol	834376.30	469712.140	56	49 *	47	17-109
Pyrene	417188.15	305256.571	73	6	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 2 out of 11 outside limits
Spike Recovery: 2 out of 22 outside limits

Comments: _____

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix Spike - EPA Sample No.: EJJ75 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	33.746	0.000	22.686	67	46-127
Heptachlor	33.746	0.000	26.512	79	35-130
Aldrin	33.746	0.000	22.338	66	34-132
Dieldrin	84.365	0.000	82.039	97	31-134
Endrin	84.365	0.000	86.052	102	42-139
4,4' DDT	84.365	68.707	124.860	67	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	32.969	31.016	94	34	50	46-127
Heptachlor	32.969	34.653	105	28	31	35-130
Aldrin	32.969	28.887	88	29	43	34-132
Dieldrin	82.422	110.446	134	32	38	31-134
Endrin	82.422	107.973	131	25	45	42-139
4,4' DDT	82.422	140.942	88	27	50	23-134

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

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Comments: _____

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Lab File ID: LBF26 Lab Sample ID: LBK26

Date Analyzed: 02/26/90 Time Analyzed: 1058

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

Instrument ID: HP2

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EJJ72	EJJ72	EJJ72	1630
02	EJJ73	EJJ73	EJJ73	1713
03	EJJ74	EJJ74	EJJ74	1758
04	EJJ76	EJJ76	EJJ76	1926
05	EJJ77	EJJ77	EJJ77	2011
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COMMENTS:

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4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Lab File ID: LBM02 Lab Sample ID: LBM02

Date Analyzed: 03/02/90 Time Analyzed: 1037

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

Instrument ID: HP2

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EJJ75MS	MSJ75	MSJ75	1342
02	EJJ75MSD	MSD75	MSD75	1258
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COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Lab File ID: LBM03 Lab Sample ID: LBM03

Date Analyzed: 03/03/90 Time Analyzed: 1130

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

Instrument ID: HP2

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EJJ73RE	RRJ73	RRJ73	1224
02	EJJ74RE	RRJ74	RRJ74	1308
03	EJJ76RE	RRJ76	RRJ76	1437
04				
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COMMENTS:

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Lab File ID: LBM04 Lab Sample ID: LBM04

Date Analyzed: 03/04/90 Time Analyzed: 1124

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

Instrument ID: HP2

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EJJ75	EJJ75	RRR75	1225
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COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Lab File ID: LB306 Lab Sample ID: LB306

Date Extracted: 03/06/90 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed: 03/08/90 Time Analyzed: 1332

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

Instrument ID: HP1

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EJJ73	EJJ73	EJJ73	03/08/90
02	EJJ74	EJJ74	EJJ74	03/08/90
03	EJJ74MS	MSJ74	MSJ74	03/09/90
04	EJJ74MSD	MSD74	RMSD4	03/13/90
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COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Lab File ID: LBF26 Lab Sample ID: LBF26

Date Extracted: 02/26/90 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed: 03/02/90 Time Analyzed: 1335

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

Instrument ID: HP1

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EJJ72	EJJ72	EJJ72	03/02/90
02	EJJ75	EJJ75	EJJ75	03/02/90
03	EJJ76	EJJ76	EJJ76	03/02/90
04	EJJ77	EJJ77	EJJ77	03/02/90
05	EJJ75MS	MSJ75	MSJ75	03/06/90
06	EJJ75MSD	MSD75	MSD75	03/06/90
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COMMENTS:

4C
PESTICIDE METHOD BLANK SUMMARY

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Lab Sample ID: PBLK1 Lab File ID: Q0309020

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

Date Extracted: 02/23/90 Extraction: (SepF/Cont/Sonc) SONC

Date Analyzed (1): 03/10/90 Date Analyzed (2): 03/10/90

Time Analyzed (1): 0433 Time Analyzed (2): 0354

Instrument ID (1): III Instrument ID (2): III

GC Column ID (1): DB-1701 GC Column ID (2): DB-608

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EJJ72	EJJ72	03/10/90	03/10/90
02	EJJ73	EJJ73	03/10/90	03/10/90
03	EJJ73DL	DLJ73	03/10/90	03/10/90
04	EJJ74	EJJ74	03/10/90	03/10/90
05	EJJ74DL	DLJ74	03/10/90	03/10/90
06	EJJ75	EJJ75	03/10/90	03/10/90
07	EJJ76	EJJ76	03/10/90	03/10/90
08	EJJ77	EJJ77	03/10/90	03/10/90
09	EJJ75MS	MSJ75	03/10/90	03/10/90
10	EJJ75MSD	MSD75	03/10/90	03/10/90
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COMMENTS:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK01

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LBK26

Sample wt/vol: 5.000 (g/mL) G Lab File ID: LBF26

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

% Moisture: not dec. 0 Date Analyzed: 02/26/90

Column: (pack/cap) PACK Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	7	J
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK01

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LBK26

Sample wt/vol: 5.000 (g/mL) G Lab File ID: LBF26

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

% Moisture: not dec. 0 Date Analyzed: 02/26/90

Column: (pack/cap) PACK Dilution Factor: 1.000

Number TICs found: 0

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

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

VBLK02

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LBM02

Sample wt/vol: 5.000 (g/mL) G Lab File ID: LBM02

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

% Moisture: not dec. 0 Date Analyzed: 03/02/90

Column: (pack/cap) PACK Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	9	
67-64-1	Acetone	5	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	6	J
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	2	J
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK02

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LBM02

Sample wt/vol: 5.000 (g/mL) G Lab File ID: LBM02

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

% Moisture: not dec. 0 Date Analyzed: 03/02/90

Column: (pack/cap) PACK Dilution Factor: 1.000

Number TICs found: 0

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

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

EPA SAMPLE NO.

VBLK03

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LBM03

Sample wt/vol: 5.000 (g/mL) G Lab File ID: LBM03

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

% Moisture: not dec. 0 Date Analyzed: 03/03/90

Column: (pack/cap) PACK Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK03

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LBM03

Sample wt/vol: 5.000 (g/mL) G Lab File ID: LBM03

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

% Moisture: not dec. 0 Date Analyzed: 03/03/90

Column: (pack/cap) PACK Dilution Factor: 1.000

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK04

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LBM04

Sample wt/vol: 5.000 (g/mL) G Lab File ID: LBM04

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

% Moisture: not dec. 0 Date Analyzed: 03/04/90

Column: (pack/cap) PACK Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (Total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
591-78-6	2-Hexanone	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK04

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LBM04

Sample wt/vol: 5.000 (g/mL) G Lab File ID: LBM04

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

% Moisture: not dec. 0 Date Analyzed: 03/04/90

Column: (pack/cap) PACK Dilution Factor: 1.000

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LBF26

Sample wt/vol: 29.8 (g/mL) G Lab File ID: LBF26

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

% Moisture: not dec. 0 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup: (Y/N) Y pH: 0.0 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
100-51-6	Benzyl alcohol	660	U
95-50-1	1,2-Dichlorobenzene	660	U
95-48-7	2-Methylphenol	660	U
108-60-1	bis(2-Chloroisopropyl)ether	660	U
106-44-5	4-Methylphenol	660	U
621-64-7	N-Nitroso-di-n-propylamine	660	U
67-72-1	Hexachloroethane	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
65-85-0	Benzoic acid	3200	U
111-91-1	bis(2-Chloroethoxy)methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-20-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3200	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3200	U
131-11-3	Dimethylphthalate	660	U
208-96-8	Acenaphthylene	660	U
606-20-2	2,6-Dinitrotoluene	660	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LBF26

Sample wt/vol: 29.8 (g/mL) G Lab File ID: LBF26

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

% Moisture: not dec. 0 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup: (Y/N) Y pH: 0.0 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3200	U
83-32-9	Acenapthene	660	U
51-28-5	2,4-Dinitrophenol	3200	U
100-02-7	4-Nitrophenol	3200	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
86-73-7	Fluorene	660	U
100-01-6	4-Nitroaniline	3200	U
534-52-1	4,6-Dinitro-2-methylphenol	3200	U
86-30-6	N-Nitrosodiphenylamine (1)	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3200	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
84-74-2	Di-n-butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)anthracene	660	U
218-01-9	Chrysene	660	U
117-81-7	bis(2-Ethylhexyl)phthalate	660	U
117-84-0	Di-n-octylphthalate	660	U
205-99-2	Benzo(b)fluoranthene	660	U
207-08-9	Benzo(k)fluoranthene	660	U
50-32-8	Benzo(a)pyrene	660	U
193-39-5	Indeno(1,2,3-cd)pyrene	660	U
53-70-3	Dibenz(a,h)anthracene	660	U
191-24-2	Benzo(g,h,i)perylene	660	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK01

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LBF26

Sample wt/vol: 29.8 (g/mL) G Lab File ID: LBF26

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

% Moisture: not dec. 0 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup : (Y/N) Y pH: 0.0 Dilution Factor: 1.000

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.17	2700	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LB306

Sample wt/vol: 1.1 (g/mL) G Lab File ID: LB306

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

% Moisture: not dec. 0 dec._____ Date Extracted: 03/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/08/90

GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	18000	U
111-44-4	bis(2-Chloroethyl)ether	18000	U
95-57-8	2-Chlorophenol	18000	U
541-73-1	1,3-Dichlorobenzene	18000	U
106-46-7	1,4-Dichlorobenzene	18000	U
100-51-6	Benzyl alcohol	18000	U
95-50-1	1,2-Dichlorobenzene	18000	U
95-48-7	2-Methylphenol	18000	U
108-60-1	bis(2-Chloroisopropyl)ether	18000	U
106-44-5	4-Methylphenol	18000	U
621-64-7	N-Nitroso-di-n-propylamine	18000	U
67-72-1	Hexachloroethane	18000	U
98-95-3	Nitrobenzene	18000	U
78-59-1	Isophorone	18000	U
88-75-5	2-Nitrophenol	18000	U
105-67-9	2,4-Dimethylphenol	18000	U
65-85-0	Benzoic acid	87000	U
111-91-1	bis(2-Chloroethoxy)methane	18000	U
120-83-2	2,4-Dichlorophenol	18000	U
120-82-1	1,2,4-Trichlorobenzene	18000	U
91-20-3	Naphthalene	18000	U
106-47-8	4-Chloroaniline	18000	U
87-68-3	Hexachlorobutadiene	18000	U
59-50-7	4-Chloro-3-methylphenol	18000	U
91-57-6	2-Methylnaphthalene	18000	U
77-47-4	Hexachlorocyclopentadiene	18000	U
88-06-2	2,4,6-Trichlorophenol	18000	U
95-95-4	2,4,5-Trichlorophenol	87000	U
91-58-7	2-Chloronaphthalene	18000	U
88-74-4	2-Nitroaniline	87000	U
131-11-3	Dimethylphthalate	18000	U
208-96-8	Acenaphthylene	18000	U
606-20-2	2,6-Dinitrotoluene	18000	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK02

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LB306

Sample wt/vol: 1.1 (g/mL) G Lab File ID: LB306

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

% Moisture: not dec. 0 dec._____ Date Extracted: 03/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/08/90

GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	87000	U
83-32-9	Acenapthene	18000	U
51-28-5	2,4-Dinitrophenol	87000	U
100-02-7	4-Nitrophenol	87000	U
132-64-9	Dibenzofuran	18000	U
121-14-2	2,4-Dinitrotoluene	18000	U
84-66-2	Diethylphthalate	18000	U
7005-72-3	4-Chlorophenyl-phenylether	18000	U
86-73-7	Fluorene	18000	U
100-01-6	4-Nitroaniline	87000	U
534-52-1	4,6-Dinitro-2-methylphenol	87000	U
86-30-6	N-Nitrosodiphenylamine (1)	18000	U
101-55-3	4-Bromophenyl-phenylether	18000	U
118-74-1	Hexachlorobenzene	18000	U
87-86-5	Pentachlorophenol	87000	U
85-01-8	Phenanthrene	18000	U
120-12-7	Anthracene	18000	U
84-74-2	Di-n-butylphthalate	18000	U
206-44-0	Fluoranthene	18000	U
129-00-0	Pyrene	18000	U
85-68-7	Butylbenzylphthalate	18000	U
91-94-1	3,3'-Dichlorobenzidine	36000	U
56-55-3	Benzo(a)anthracene	18000	U
218-01-9	Chrysene	18000	U
117-81-7	bis(2-Ethylhexyl)phthalate	18000	U
117-84-0	Di-n-octylphthalate	18000	U
205-99-2	Benzo(b)fluoranthene	18000	U
207-08-9	Benzo(k)fluoranthene	18000	U
50-32-8	Benzo(a)pyrene	18000	U
193-39-5	Indeno(1,2,3-cd)pyrene	18000	U
53-70-3	Dibenz(a,h)anthracene	18000	U
191-24-2	Benzo(g,h,i)perylene	18000	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLK02

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: LB306

Sample wt/vol: 1.1 (g/mL) G Lab File ID: LB306

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

% Moisture: not dec. 0 dec._____ Date Extracted: 03/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/08/90

GPC Cleanup : (Y/N) N pH: 0.0 Dilution Factor: 1.000

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK1

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: PBLK1

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Q0309020

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

% Moisture: not dec. 0 dec.____ Date Extracted: 02/23/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/10/90

GPC Cleanup: (Y/N) N pH: 0.0 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	8.00	U
319-85-7	beta-BHC	8.00	U
319-86-8	delta-BHC	8.00	U
58-89-9	gamma-BHC (Lindane)	8.00	U
76-44-8	Heptachlor	8.00	U
309-00-2	Aldrin	8.00	U
1024-57-3	Heptachlor epoxide	8.00	U
959-98-8	Endosulfan I	8.00	U
60-57-1	Dieldrin	16.00	U
72-55-9	4,4'-DDE	16.00	U
72-20-8	Endrin	16.00	U
33213-65-9	Endosulfan II	16.00	U
72-54-8	4,4'-DDD	16.00	U
1031-07-8	Endosulfan sulfate	16.00	U
50-29-3	4,4'-DDT	16.00	U
72-43-5	Methoxychlor	79.00	U
53494-70-5	Endrin ketone	16.00	U
5103-71-9	alpha-Chlordane	79.00	U
5103-74-2	gamma-Chlordane	79.00	U
8001-35-2	Toxaphene	160.00	U
12674-11-2	Aroclor-1016	79.00	U
11104-28-2	Aroclor-1221	79.00	U
11141-16-5	Aroclor-1232	79.00	U
53469-21-9	Aroclor-1242	79.00	U
12672-29-6	Aroclor-1248	79.00	U
11097-69-1	Aroclor-1254	160.00	U
11096-82-5	Aroclor-1260	160.00	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ72

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ72

Sample wt/vol: 4.991 (g/mL) G Lab File ID: EJJ72

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 36 Date Analyzed: 02/26/90

Column: (pack/cap) PACK Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	16	U	
74-83-9	Bromomethane	16	U	
75-01-4	Vinyl Chloride	16	U	
75-00-3	Chloroethane	16	U	
75-09-2	Methylene Chloride	20	~~B~~ U	RJZ 30 March 90
67-64-1	Acetone	31		
75-15-0	Carbon Disulfide	8	U	
75-35-4	1,1-Dichloroethene	8	U	
75-34-3	1,1-Dichloroethane	8	U	
540-59-0	1,2-Dichloroethene (Total)	53		
67-66-3	Chloroform	8	U	
107-06-2	1,2-Dichloroethane	8	U	
78-93-3	2-Butanone	21	~~B~~ U	RJZ 30 March 90
71-55-6	1,1,1-Trichloroethane	8	U	
56-23-5	Carbon Tetrachloride	8	U	
108-05-4	Vinyl Acetate	16	U	
75-27-4	Bromodichloromethane	8	U	
78-87-5	1,2-Dichloropropane	8	U	
10061-02-6	trans-1,3-Dichloropropene	8	U	
79-01-6	Trichloroethene	7	J	
124-48-1	Dibromochloromethane	8	U	
79-00-5	1,1,2-Trichloroethane	8	U	
71-43-2	Benzene	8	U	
10061-01-5	cis-1,3-Dichloropropene	8	U	
75-25-2	Bromoform	8	U	
591-78-6	2-Hexanone	16	U	
108-10-1	4-Methyl-2-Pentanone	16	U	
127-18-4	Tetrachloroethene	36		
79-34-5	1,1,2,2-Tetrachloroethane	8	U	
108-88-3	Toluene	3	J	
108-90-7	Chlorobenzene	8	U	
100-41-4	Ethylbenzene	8	U	
100-42-5	Styrene	8	U	
1330-20-7	Xylene (total)	8	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ72

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ72

Sample wt/vol: 4.991 (g/mL) G Lab File ID: EJJ72

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 36 Date Analyzed: 02/26/90

Column: (pack/cap) PACK Dilution Factor: 1.000

Number TICs found: 0

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
3.					
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FORM I VOA-TIC 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ73

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ73

Sample wt/vol: 4.990 (g/mL) G Lab File ID: EJJ73

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 30 Date Analyzed: 02/26/90

Column: (pack/cap) PACK Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	28	~~B~~
67-64-1	Acetone	14	U
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (Total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
591-78-6	2-Hexanone	14	U
108-10-1	4-Methyl-2-Pentanone	14	U
127-18-4	Tetrachloroethene	6	J
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	5	J
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

RTZ
30 March 90

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ73

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ73

Sample wt/vol: 4.990 (g/mL) G Lab File ID: EJJ73

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 30 Date Analyzed: 02/26/90

Column: (pack/cap) PACK Dilution Factor: 1.000

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 00075-71-8	METHANE, DICHLORODIFLUORO	2.53	8	J
2.	UNKNOWN	30.79	9	J
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FORM I VOA-TIC 1/87 Rev.

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ73RE

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: RRJ73

Sample wt/vol: 5.000 (g/mL) G Lab File ID: RRJ73

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 30 Date Analyzed: 03/03/90

Column: (pack/cap) PACK Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	14	U	
74-83-9	Bromomethane	14	U	
75-01-4	Vinyl Chloride	14	U	
75-00-3	Chloroethane	14	U	
75-09-2	Methylene Chloride	9	~~B~~ U	RJZ 30 March 90
67-64-1	Acetone	14	U	
75-15-0	Carbon Disulfide	7	U	
75-35-4	1,1-Dichloroethene	7	U	
75-34-3	1,1-Dichloroethane	7	U	
540-59-0	1,2-Dichloroethene (Total)	7	U	
67-66-3	Chloroform	7	U	
107-06-2	1,2-Dichloroethane	7	U	
78-93-3	2-Butanone	14	U	
71-55-6	1,1,1-Trichloroethane	7	U	
56-23-5	Carbon Tetrachloride	7	U	
108-05-4	Vinyl Acetate	14	U	
75-27-4	Bromodichloromethane	7	U	
78-87-5	1,2-Dichloropropane	7	U	
10061-02-6	trans-1,3-Dichloropropene	7	U	
79-01-6	Trichloroethene	7	U	
124-48-1	Dibromochloromethane	7	U	
79-00-5	1,1,2-Trichloroethane	7	U	
71-43-2	Benzene	7	U	
10061-01-5	cis-1,3-Dichloropropene	7	U	
75-25-2	Bromoform	7	U	
591-78-6	2-Hexanone	14	U	
108-10-1	4-Methyl-2-Pentanone	14	U	
127-18-4	Tetrachloroethene	14		
79-34-5	1,1,2,2-Tetrachloroethane	7	U	
108-88-3	Toluene	3	J	
108-90-7	Chlorobenzene	7	U	
100-41-4	Ethylbenzene	7	U	
100-42-5	Styrene	7	U	
1330-20-7	Xylene (total)	7	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ73RE

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: RRJ73

Sample wt/vol: 5.000 (g/mL) G Lab File ID: RRJ73

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 30 Date Analyzed: 03/03/90

Column: (pack/cap) PACK Dilution Factor: 1.000

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	30.89	11	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ74

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ74

Sample wt/vol: 4.964 (g/mL) G Lab File ID: EJJ74

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 52 Date Analyzed: 02/26/90

Column: (pack/cap) PACK Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	21	U
74-83-9	Bromomethane	21	U
75-01-4	Vinyl Chloride	21	U
75-00-3	Chloroethane	21	U
75-09-2	Methylene Chloride	75	~~B~~ B
67-64-1	Acetone	21	U
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (Total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	21	U
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
108-05-4	Vinyl Acetate	21	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	11	U
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
591-78-6	2-Hexanone	21	U
108-10-1	4-Methyl-2-Pentanone	21	U
127-18-4	Tetrachloroethene	13	
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	7	J
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

4/4/90
RJZ
30 March 90

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ74

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ74

Sample wt/vol: 4.964 (g/mL) G Lab File ID: EJJ74

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 52 Date Analyzed: 02/26/90

Column: (pack/cap) PACK Dilution Factor: 1.000

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 00075-71-8	METHANE, DICHLORODIFLUORO-	2.57	41	J
2. 00075-69-4	METHANE, TRICHLOROFLUORO-	7.68	16	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ74RE

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: RRJ74

Sample wt/vol: 5.000 (g/mL) G Lab File ID: RRJ74

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 52 Date Analyzed: 03/03/90

Column: (pack/cap) PACK Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	21	U
74-83-9	Bromomethane	21	U
75-01-4	Vinyl Chloride	21	U
75-00-3	Chloroethane	21	U
75-09-2	Methylene Chloride	22	~~B~~
67-64-1	Acetone	21	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (Total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	21	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
108-05-4	Vinyl Acetate	21	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-02-6	trans-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
10061-01-5	cis-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
591-78-6	2-Hexanone	21	U
108-10-1	4-Methyl-2-Pentanone	21	U
127-18-4	Tetrachloroethene	13	
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	14	
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

RJE 30 March 90

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ74RE

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: RRJ74

Sample wt/vol: 5.000 (g/mL) G Lab File ID: RRJ74

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 52 Date Analyzed: 03/03/90

Column: (pack/cap) PACK Dilution Factor: 1.000

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 00075-69-4	METHANE, TRICHLOROFLUORO	7.65	20	J
2.	UNKNOWN	8.46	16	J
3.	UNKNOWN HYDROCARBON	30.67	120	J
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ75

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ75

Sample wt/vol: 5.021 (g/mL) G Lab File ID: RRR75

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 20 Date Analyzed: 03/04/90

Column: (pack/cap) PACK Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	5	J
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (Total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
591-78-6	2-Hexanone	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	8	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ75

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ75

Sample wt/vol: 5.021 (g/mL) G Lab File ID: RRR75

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 20 Date Analyzed: 03/04/90

Column: (pack/cap) PACK Dilution Factor: 1.000

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ76

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ76

Sample wt/vol: 4.994 (g/mL) G Lab File ID: EJJ76

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 40 Date Analyzed: 02/26/90

Column: (pack/cap) PACK Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	17	U
74-83-9	Bromomethane	17	U
75-01-4	Vinyl Chloride	17	U
75-00-3	Chloroethane	17	U
75-09-2	Methylene Chloride	22	B
67-64-1	Acetone	17	U
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (Total)	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	17	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	17	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-02-6	trans-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
591-78-6	2-Hexanone	17	U
108-10-1	4-Methyl-2-Pentanone	17	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	3	J
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U

4/11/90
RJE
30 March 90

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ76

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ76

Sample wt/vol: 4.994 (g/mL) G Lab File ID: EJJ76

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 40 Date Analyzed: 02/26/90

Column: (pack/cap) PACK Dilution Factor: 1.000

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ76RE

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: RRJ76

Sample wt/vol: 5.000 (g/mL) G Lab File ID: RRJ76

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 40 Date Analyzed: 03/03/90

Column: (pack/cap) PACK Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	17	U
74-83-9	Bromomethane	17	U
75-01-4	Vinyl Chloride	17	U
75-00-3	Chloroethane	17	U
75-09-2	Methylene Chloride	5	~~BJ~~ U
67-64-1	Acetone	17	U
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (Total)	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	17	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	17	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-02-6	trans-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
591-78-6	2-Hexanone	17	U
108-10-1	4-Methyl-2-Pentanone	17	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U

RJZ 30 March 90

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ76RE

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: RRJ76

Sample wt/vol: 5.000 (g/mL) G Lab File ID: RRJ76

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 40 Date Analyzed: 03/03/90

Column: (pack/cap) PACK Dilution Factor: 1.000

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ77

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ77

Sample wt/vol: 4.987 (g/mL) G Lab File ID: EJJ77

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 29 Date Analyzed: 02/26/90

Column: (pack/cap) PACK Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	14	U	
74-83-9	Bromomethane	14	U	
75-01-4	Vinyl Chloride	14	U	
75-00-3	Chloroethane	14	U	
75-09-2	Methylene Chloride	12	~~B~~ U	RJZ 30 March 90
67-64-1	Acetone	14	U	
75-15-0	Carbon Disulfide	7	U	
75-35-4	1,1-Dichloroethene	7	U	
75-34-3	1,1-Dichloroethane	7	U	
540-59-0	1,2-Dichloroethene (Total)	7	U	
67-66-3	Chloroform	7	U	
107-06-2	1,2-Dichloroethane	7	U	
78-93-3	2-Butanone	14	U	
71-55-6	1,1,1-Trichloroethane	7	U	
56-23-5	Carbon Tetrachloride	7	U	
108-05-4	Vinyl Acetate	14	U	
75-27-4	Bromodichloromethane	7	U	
78-87-5	1,2-Dichloropropane	7	U	
10061-02-6	trans-1,3-Dichloropropene	7	U	
79-01-6	Trichloroethene	7	U	
124-48-1	Dibromochloromethane	7	U	
79-00-5	1,1,2-Trichloroethane	7	U	
71-43-2	Benzene	7	U	
10061-01-5	cis-1,3-Dichloropropene	7	U	
75-25-2	Bromoform	7	U	
591-78-6	2-Hexanone	14	U	
108-10-1	4-Methyl-2-Pentanone	14	U	
127-18-4	Tetrachloroethene	7	U	
79-34-5	1,1,2,2-Tetrachloroethane	7	U	
108-88-3	Toluene	7	U	
108-90-7	Chlorobenzene	7	U	
100-41-4	Ethylbenzene	7	U	
100-42-5	Styrene	7	U	
1330-20-7	Xylene (total)	7	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ77

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ77

Sample wt/vol: 4.987 (g/mL) G Lab File ID: EJJ77

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 29 Date Analyzed: 02/26/90

Column: (pack/cap) PACK Dilution Factor: 1.000

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ72

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ72

Sample wt/vol: 30.4 (g/mL) G Lab File ID: EJJ72

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 36 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1000	U
111-44-4	bis(2-Chloroethyl)ether	1000	U
95-57-8	2-Chlorophenol	1000	U
541-73-1	1,3-Dichlorobenzene	1000	U
106-46-7	1,4-Dichlorobenzene	1000	U
100-51-6	Benzyl alcohol	1000	U
95-50-1	1,2-Dichlorobenzene	1000	U
95-48-7	2-Methylphenol	1000	U
108-60-1	bis(2-Chloroisopropyl)ether	1000	U
106-44-5	4-Methylphenol	1000	U
621-64-7	N-Nitroso-di-n-propylamine	1000	U
67-72-1	Hexachloroethane	1000	U
98-95-3	Nitrobenzene	1000	U
78-59-1	Isophorone	1000	U
88-75-5	2-Nitrophenol	1000	U
105-67-9	2,4-Dimethylphenol	1000	U
65-85-0	Benzoic acid	4900	U
111-91-1	bis(2-Chloroethoxy)methane	1000	U
120-83-2	2,4-Dichlorophenol	1000	U
120-82-1	1,2,4-Trichlorobenzene	1000	U
91-20-3	Naphthalene	1000	U
106-47-8	4-Chloroaniline	1000	U
87-68-3	Hexachlorobutadiene	1000	U
59-50-7	4-Chloro-3-methylphenol	1000	U
91-57-6	2-Methylnaphthalene	1000	U
77-47-4	Hexachlorocyclopentadiene	1000	U
88-06-2	2,4,6-Trichlorophenol	1000	U
95-95-4	2,4,5-Trichlorophenol	4900	U
91-58-7	2-Chloronaphthalene	1000	U
88-74-4	2-Nitroaniline	4900	U
131-11-3	Dimethylphthalate	1000	U
208-96-8	Acenaphthylene	1000	U
606-20-2	2,6-Dinitrotoluene	1000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ72

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ72

Sample wt/vol: 30.4 (g/mL) G Lab File ID: EJJ72

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 36 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4900	U
83-32-9	Acenapthene	1000	U
51-28-5	2,4-Dinitrophenol	4900	U
100-02-7	4-Nitrophenol	4900	U
132-64-9	Dibenzofuran	1000	U
121-14-2	2,4-Dinitrotoluene	1000	U
84-66-2	Diethylphthalate	1000	U
7005-72-3	4-Chlorophenyl-phenylether	1000	U
86-73-7	Fluorene	1000	U
100-01-6	4-Nitroaniline	4900	U
534-52-1	4,6-Dinitro-2-methylphenol	4900	U
86-30-6	N-Nitrosodiphenylamine (1)	1000	U
101-55-3	4-Bromophenyl-phenylether	1000	U
118-74-1	Hexachlorobenzene	1000	U
87-86-5	Pentachlorophenol	4900	U
85-01-8	Phenanthrene	1000	U
120-12-7	Anthracene	1000	U
84-74-2	Di-n-butylphthalate	1000	U
206-44-0	Fluoranthene	1000	U
129-00-0	Pyrene	1000	U
85-68-7	Butylbenzylphthalate	1000	U
91-94-1	3,3'-Dichlorobenzidine	2000	U
56-55-3	Benzo(a)anthracene	1000	U
218-01-9	Chrysene	1000	U
117-81-7	bis(2-Ethylhexyl)phthalate	1000	U
117-84-0	Di-n-octylphthalate	1000	U
205-99-2	Benzo(b)fluoranthene	1000	U
207-08-9	Benzo(k)fluoranthene	1000	U
50-32-8	Benzo(a)pyrene	1000	U
193-39-5	Indeno(1,2,3-cd)pyrene	1000	U
53-70-3	Dibenz(a,h)anthracene	1000	U
191-24-2	Benzo(g,h,i)perylene	1000	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ72

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ72

Sample wt/vol: 30.4 (g/mL) G Lab File ID: EJJ72

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 36 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup : (Y/N) Y pH: 7.6 Dilution Factor: 1.000

Number TICs found: 7

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.19	4200	~~JB~~ U RJZ
2.	UNKNOWN	36.03	1800	J 30 March
3.	UNKNOWN HYDROCARBON	37.90	4400	J
4.	UNKNOWN	39.87	1400	J
5.	UNKNOWN HYDROCARBON	39.90	2400	J
6.	UNKNOWN	43.44	830	J
7.	UNKNOWN	43.49	860	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ73

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ73

Sample wt/vol: 1.1 (g/mL) G Lab File ID: EJJ73

Level: (low/med) MED Date Received: 02/22/90

% Moisture: not dec. 30 dec._____ Date Extracted: 03/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/08/90

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	26000	U
111-44-4	bis(2-Chloroethyl)ether	26000	U
95-57-8	2-Chlorophenol	26000	U
541-73-1	1,3-Dichlorobenzene	26000	U
106-46-7	1,4-Dichlorobenzene	26000	U
100-51-6	Benzyl alcohol	26000	U
95-50-1	1,2-Dichlorobenzene	26000	U
95-48-7	2-Methylphenol	26000	U
108-60-1	bis(2-Chloroisopropyl)ether	26000	U
106-44-5	4-Methylphenol	26000	U
621-64-7	N-Nitroso-di-n-propylamine	26000	U
67-72-1	Hexachloroethane	26000	U
98-95-3	Nitrobenzene	26000	U
78-59-1	Isophorone	26000	U
88-75-5	2-Nitrophenol	26000	U
105-67-9	2,4-Dimethylphenol	26000	U
65-85-0	Benzoic acid	120000	U
111-91-1	bis(2-Chloroethoxy)methane	26000	U
120-83-2	2,4-Dichlorophenol	26000	U
120-82-1	1,2,4-Trichlorobenzene	26000	U
91-20-3	Naphthalene	26000	U
106-47-8	4-Chloroaniline	26000	U
87-68-3	Hexachlorobutadiene	26000	U
59-50-7	4-Chloro-3-methylphenol	26000	U
91-57-6	2-Methylnaphthalene	26000	U
77-47-4	Hexachlorocyclopentadiene	26000	U
88-06-2	2,4,6-Trichlorophenol	26000	U
95-95-4	2,4,5-Trichlorophenol	120000	U
91-58-7	2-Chloronaphthalene	26000	U
88-74-4	2-Nitroaniline	120000	U
131-11-3	Dimethylphthalate	26000	U
208-96-8	Acenaphthylene	26000	U
606-20-2	2,6-Dinitrotoluene	26000	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ73

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ73

Sample wt/vol: 1.1 (g/mL) G Lab File ID: EJJ73

Level: (low/med) MED Date Received: 02/22/90

% Moisture: not dec. 30 dec._____ Date Extracted: 03/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/08/90

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	120000	U
83-32-9	Acenapthene	26000	U
51-28-5	2,4-Dinitrophenol	120000	U
100-02-7	4-Nitrophenol	120000	U
132-64-9	Dibenzofuran	26000	U
121-14-2	2,4-Dinitrotoluene	26000	U
84-66-2	Diethylphthalate	26000	U
7005-72-3	4-Chlorophenyl-phenylether	26000	U
86-73-7	Fluorene	26000	U
100-01-6	4-Nitroaniline	120000	U
534-52-1	4,6-Dinitro-2-methylphenol	120000	U
86-30-6	N-Nitrosodiphenylamine (1)	26000	U
101-55-3	4-Bromophenyl-phenylether	26000	U
118-74-1	Hexachlorobenzene	26000	U
87-86-5	Pentachlorophenol	120000	U
85-01-8	Phenanthrene	26000	U
120-12-7	Anthracene	26000	U
84-74-2	Di-n-butylphthalate	26000	U
206-44-0	Fluoranthene	26000	U
129-00-0	Pyrene	26000	U
85-68-7	Butylbenzylphthalate	26000	U
91-94-1	3,3'-Dichlorobenzidine	51000	U
56-55-3	Benzo(a)anthracene	26000	U
218-01-9	Chrysene	26000	U
117-81-7	bis(2-Ethylhexyl)phthalate	26000	U
117-84-0	Di-n-octylphthalate	26000	U
205-99-2	Benzo(b)fluoranthene	26000	U
207-08-9	Benzo(k)fluoranthene	26000	U
50-32-8	Benzo(a)pyrene	26000	U
193-39-5	Indeno(1,2,3-cd)pyrene	26000	U
53-70-3	Dibenz(a,h)anthracene	26000	U
191-24-2	Benzo(g,h,i)perylene	26000	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ73

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ73

Sample wt/vol: 1.1 (g/mL) G Lab File ID: EJJ73

Level: (low/med) MED Date Received: 02/22/90

% Moisture: not dec. 30 dec._____ Date Extracted: 03/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/08/90

GPC Cleanup : (Y/N) N pH: 6.1 Dilution Factor: 1.000

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	25.89	45000	J
2.	UNKNOWN	26.51	49000	J
3.	UNKNOWN	26.54	55000	J
4.	UNKNOWN	27.78	50000	J
5.	UNKNOWN	27.93	47000	J
6.	UNKNOWN	27.96	48000	J
7.	UNKNOWN	28.03	59000	J
8.	UNKNOWN	28.45	47000	J
9.	UNKNOWN	28.61	45000	J
10.	UNKNOWN	29.51	49000	J
11.	UNKNOWN	29.82	52000	J
12.	UNKNOWN	30.54	51000	J
13.	UNKNOWN	31.03	45000	J
14.	UNKNOWN	31.11	55000	J
15.	UNKNOWN	31.17	46000	J
16.	UNKNOWN	31.51	50000	J
17.	UNKNOWN	33.22	58000	J
18.	UNKNOWN	33.50	46000	J
19.	UNKNOWN	33.89	45000	J
20.	UNKNOWN	34.10	58000	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ74

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ74

Sample wt/vol: 1.0 (g/mL) G Lab File ID: EJJ74

Level: (low/med) MED Date Received: 02/22/90

% Moisture: not dec. 52 dec._____ Date Extracted: 03/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/08/90

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	41000	U
111-44-4	bis(2-Chloroethyl)ether	41000	U
95-57-8	2-Chlorophenol	41000	U
541-73-1	1,3-Dichlorobenzene	41000	U
106-46-7	1,4-Dichlorobenzene	41000	U
100-51-6	Benzyl alcohol	41000	U
95-50-1	1,2-Dichlorobenzene	41000	U
95-48-7	2-Methylphenol	41000	U
108-60-1	bis(2-Chloroisopropyl)ether	41000	U
106-44-5	4-Methylphenol	41000	U
621-64-7	N-Nitroso-di-n-propylamine	41000	U
67-72-1	Hexachloroethane	41000	U
98-95-3	Nitrobenzene	41000	U
78-59-1	Isophorone	41000	U
88-75-5	2-Nitrophenol	41000	U
105-67-9	2,4-Dimethylphenol	41000	U
65-85-0	Benzoic acid	200000	U
111-91-1	bis(2-Chloroethoxy)methane	41000	U
120-83-2	2,4-Dichlorophenol	41000	U
120-82-1	1,2,4-Trichlorobenzene	41000	U
91-20-3	Naphthalene	41000	U
106-47-8	4-Chloroaniline	41000	U
87-68-3	Hexachlorobutadiene	41000	U
59-50-7	4-Chloro-3-methylphenol	41000	U
91-57-6	2-Methylnaphthalene	41000	U
77-47-4	Hexachlorocyclopentadiene	41000	U
88-06-2	2,4,6-Trichlorophenol	41000	U
95-95-4	2,4,5-Trichlorophenol	200000	U
91-58-7	2-Chloronaphthalene	41000	U
88-74-4	2-Nitroaniline	200000	U
131-11-3	Dimethylphthalate	41000	U
208-96-8	Acenaphthylene	41000	U
606-20-2	2,6-Dinitrotoluene	41000	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ74

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ74

Sample wt/vol: 1.0 (g/mL) G Lab File ID: EJJ74

Level: (low/med) MED Date Received: 02/22/90

% Moisture: not dec. 52 dec._____ Date Extracted: 03/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/08/90

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	200000	U
83-32-9	Acenapthene	41000	U
51-28-5	2,4-Dinitrophenol	200000	U
100-02-7	4-Nitrophenol	200000	U
132-64-9	Dibenzofuran	41000	U
121-14-2	2,4-Dinitrotoluene	41000	U
84-66-2	Diethylphthalate	41000	U
7005-72-3	4-Chlorophenyl-phenylether	41000	U
86-73-7	Fluorene	41000	U
100-01-6	4-Nitroaniline	200000	U
534-52-1	4,6-Dinitro-2-methylphenol	200000	U
86-30-6	N-Nitrosodiphenylamine (1)	41000	U
101-55-3	4-Bromophenyl-phenylether	41000	U
118-74-1	Hexachlorobenzene	41000	U
87-86-5	Pentachlorophenol	200000	U
85-01-8	Phenanthrene	41000	U
120-12-7	Anthracene	41000	U
84-74-2	Di-n-butylphthalate	41000	U
206-44-0	Fluoranthene	41000	U
129-00-0	Pyrene	41000	U
85-68-7	Butylbenzylphthalate	41000	U
91-94-1	3,3'-Dichlorobenzidine	83000	U
56-55-3	Benzo(a)anthracene	41000	U
218-01-9	Chrysene	41000	U
117-81-7	bis(2-Ethylhexyl)phthalate	41000	U
117-84-0	Di-n-octylphthalate	41000	U
205-99-2	Benzo(b)fluoranthene	41000	U
207-08-9	Benzo(k)fluoranthene	41000	U
50-32-8	Benzo(a)pyrene	41000	U
193-39-5	Indeno(1,2,3-cd)pyrene	41000	U
53-70-3	Dibenz(a,h)anthracene	41000	U
191-24-2	Benzo(g,h,i)perylene	41000	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ74

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ74

Sample wt/vol: 1.0 (g/mL) G Lab File ID: EJJ74

Level: (low/med) MED Date Received: 02/22/90

% Moisture: not dec. 52 dec._____ Date Extracted: 03/06/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/08/90

GPC Cleanup : (Y/N) N pH: 8.0 Dilution Factor: 1.000

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	24.74	190000	J
2.	UNKNOWN	24.80	190000	J
3.	UNKNOWN	24.86	150000	J
4.	UNKNOWN	25.46	180000	J
5.	UNKNOWN	25.50	150000	J
6.	UNKNOWN	25.59	190000	J
7.	UNKNOWN	25.78	150000	J
8.	UNKNOWN	25.94	150000	J
9.	UNKNOWN	26.05	230000	J
10.	UNKNOWN	26.13	150000	J
11.	UNKNOWN	27.80	190000	J
12.	UNKNOWN	29.61	440000	J
13.	UNKNOWN	31.01	250000	J
14.	UNKNOWN	31.62	400000	J
15.	UNKNOWN	32.90	210000	J
16.	UNKNOWN	33.33	310000	J
17.	UNKNOWN	33.91	220000	J
18.	UNKNOWN	33.94	260000	J
19.	UNKNOWN	34.01	320000	J
20.	UNKNOWN	34.30	150000	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ75

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ75

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EJJ75

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 20 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup: (Y/N) Y pH: 8.6 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	820	U
111-44-4	bis(2-Chloroethyl)ether	820	U
95-57-8	2-Chlorophenol	820	U
541-73-1	1,3-Dichlorobenzene	820	U
106-46-7	1,4-Dichlorobenzene	820	U
100-51-6	Benzyl alcohol	820	U
95-50-1	1,2-Dichlorobenzene	820	U
95-48-7	2-Methylphenol	820	U
108-60-1	bis(2-Chloroisopropyl)ether	820	U
106-44-5	4-Methylphenol	820	U
621-64-7	N-Nitroso-di-n-propylamine	820	U
67-72-1	Hexachloroethane	820	U
98-95-3	Nitrobenzene	820	U
78-59-1	Isophorone	820	U
88-75-5	2-Nitrophenol	820	U
105-67-9	2,4-Dimethylphenol	820	U
65-85-0	Benzoic acid	4000	U
111-91-1	bis(2-Chloroethoxy)methane	820	U
120-83-2	2,4-Dichlorophenol	820	U
120-82-1	1,2,4-Trichlorobenzene	820	U
91-20-3	Naphthalene	820	U
106-47-8	4-Chloroaniline	820	U
87-68-3	Hexachlorobutadiene	820	U
59-50-7	4-Chloro-3-methylphenol	820	U
91-57-6	2-Methylnaphthalene	820	U
77-47-4	Hexachlorocyclopentadiene	820	U
88-06-2	2,4,6-Trichlorophenol	820	U
95-95-4	2,4,5-Trichlorophenol	4000	U
91-58-7	2-Chloronaphthalene	820	U
88-74-4	2-Nitroaniline	4000	U
131-11-3	Dimethylphthalate	820	U
208-96-8	Acenaphthylene	820	U
606-20-2	2,6-Dinitrotoluene	820	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ75

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ75

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EJJ75

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 20 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup: (Y/N) Y pH: 8.6 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4000	U
83-32-9	Acenapthene	820	U
51-28-5	2,4-Dinitrophenol	4000	U
100-02-7	4-Nitrophenol	4000	U
132-64-9	Dibenzofuran	820	U
121-14-2	2,4-Dinitrotoluene	820	U
84-66-2	Diethylphthalate	820	U
7005-72-3	4-Chlorophenyl-phenylether	820	U
86-73-7	Fluorene	820	U
100-01-6	4-Nitroaniline	4000	U
534-52-1	4,6-Dinitro-2-methylphenol	4000	U
86-30-6	N-Nitrosodiphenylamine (1)	820	U
101-55-3	4-Bromophenyl-phenylether	820	U
118-74-1	Hexachlorobenzene	820	U
87-86-5	Pentachlorophenol	4000	U
85-01-8	Phenanthrene	820	U
120-12-7	Anthracene	820	U
84-74-2	Di-n-butylphthalate	820	U
206-44-0	Fluoranthene	820	U
129-00-0	Pyrene	820	U
85-68-7	Butylbenzylphthalate	1300	
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)anthracene	820	U
218-01-9	Chrysene	820	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	J
117-84-0	Di-n-octylphthalate	820	U
205-99-2	Benzo(b)fluoranthene	820	U
207-08-9	Benzo(k)fluoranthene	820	U
50-32-8	Benzo(a)pyrene	820	U
193-39-5	Indeno(1,2,3-cd)pyrene	820	U
53-70-3	Dibenz(a,h)anthracene	820	U
191-24-2	Benzo(g,h,i)perylene	820	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ75

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ75

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EJJ75

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 20 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup : (Y/N) Y pH: 8.6 Dilution Factor: 1.000

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.19	3700	~~JB~~ U RJZ
2.	UNKNOWN	35.58	910	J 30 March 90
3.	UNKNOWN	35.91	890	J
4.	UNKNOWN	36.23	1000	J
5.	UNKNOWN	36.52	1200	J
6.	UNKNOWN	36.89	1100	J
7.	UNKNOWN	37.04	980	J
8.	UNKNOWN	37.21	1200	J
9.	UNKNOWN	37.27	1500	J
10.	UNKNOWN	37.30	1000	J
11.	UNKNOWN	37.40	1000	J
12.	UNKNOWN	37.62	980	J
13.	UNKNOWN	37.66	1100	J
14.	UNKNOWN	37.68	1100	J
15.	UNKNOWN	37.88	1000	J
16.	UNKNOWN	37.92	1200	J
17.	UNKNOWN	37.95	1100	J
18.	UNKNOWN	38.70	1300	J
19.	UNKNOWN	39.07	1200	J
20.	UNKNOWN	39.09	1300	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ76

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ76

Sample wt/vol: 30.3 (g/mL) G Lab File ID: EJJ76

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 40 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1100	U
111-44-4	bis(2-Chloroethyl)ether	1100	U
95-57-8	2-Chlorophenol	1100	U
541-73-1	1,3-Dichlorobenzene	1100	U
106-46-7	1,4-Dichlorobenzene	1100	U
100-51-6	Benzyl alcohol	1100	U
95-50-1	1,2-Dichlorobenzene	1100	U
95-48-7	2-Methylphenol	1100	U
108-60-1	bis(2-Chloroisopropyl)ether	1100	U
106-44-5	4-Methylphenol	1100	U
621-64-7	N-Nitroso-di-n-propylamine	1100	U
67-72-1	Hexachloroethane	1100	U
98-95-3	Nitrobenzene	1100	U
78-59-1	Isophorone	1100	U
88-75-5	2-Nitrophenol	1100	U
105-67-9	2,4-Dimethylphenol	1100	U
65-85-0	Benzoic acid	5300	U
111-91-1	bis(2-Chloroethoxy)methane	1100	U
120-83-2	2,4-Dichlorophenol	1100	U
120-82-1	1,2,4-Trichlorobenzene	1100	U
91-20-3	Naphthalene	1100	U
106-47-8	4-Chloroaniline	1100	U
87-68-3	Hexachlorobutadiene	1100	U
59-50-7	4-Chloro-3-methylphenol	1100	U
91-57-6	2-Methylnaphthalene	1100	U
77-47-4	Hexachlorocyclopentadiene	1100	U
88-06-2	2,4,6-Trichlorophenol	1100	U
95-95-4	2,4,5-Trichlorophenol	5300	U
91-58-7	2-Chloronaphthalene	1100	U
88-74-4	2-Nitroaniline	5300	U
131-11-3	Dimethylphthalate	1100	U
208-96-8	Acenaphthylene	1100	U
606-20-2	2,6-Dinitrotoluene	1100	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ76

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ76

Sample wt/vol: 30.3 (g/mL) G Lab File ID: EJJ76

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 40 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	5300	U
83-32-9	Acenapthene	1100	U
51-28-5	2,4-Dinitrophenol	5300	U
100-02-7	4-Nitrophenol	5300	U
132-64-9	Dibenzofuran	1100	U
121-14-2	2,4-Dinitrotoluene	1100	U
84-66-2	Diethylphthalate	1100	U
7005-72-3	4-Chlorophenyl-phenylether	1100	U
86-73-7	Fluorene	1100	U
100-01-6	4-Nitroaniline	5300	U
534-52-1	4,6-Dinitro-2-methylphenol	5300	U
86-30-6	N-Nitrosodiphenylamine (1)	1100	U
101-55-3	4-Bromophenyl-phenylether	1100	U
118-74-1	Hexachlorobenzene	1100	U
87-86-5	Pentachlorophenol	5300	U
85-01-8	Phenanthrene	1100	U
120-12-7	Anthracene	1100	U
84-74-2	Di-n-butylphthalate	1100	U
206-44-0	Fluoranthene	1100	U
129-00-0	Pyrene	1100	U
85-68-7	Butylbenzylphthalate	1100	U
91-94-1	3,3'-Dichlorobenzidine	2200	U
56-55-3	Benzo(a)anthracene	1100	U
218-01-9	Chrysene	1100	U
117-81-7	bis(2-Ethylhexyl)phthalate	1100	U
117-84-0	Di-n-octylphthalate	1100	U
205-99-2	Benzo(b)fluoranthene	1100	U
207-08-9	Benzo(k)fluoranthene	1100	U
50-32-8	Benzo(a)pyrene	1100	U
193-39-5	Indeno(1,2,3-cd)pyrene	1100	U
53-70-3	Dibenz(a,h)anthracene	1100	U
191-24-2	Benzo(g,h,i)perylene	1100	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ76

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ76

Sample wt/vol: 30.3 (g/mL) G Lab File ID: EJJ76

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 40 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup : (Y/N) Y pH: 8.0 Dilution Factor: 1.000

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.20	5400	JB U RJZ
2.	UNKNOWN HYDROCARBON	37.90	760	J 30 March 9
3.	UNKNOWN HYDROCARBON	39.88	500	J
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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ77

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ77

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EJJ77

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 29 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup: (Y/N) Y pH: 6.2 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	920	U
111-44-4	bis(2-Chloroethyl)ether	920	U
95-57-8	2-Chlorophenol	920	U
541-73-1	1,3-Dichlorobenzene	920	U
106-46-7	1,4-Dichlorobenzene	920	U
100-51-6	Benzyl alcohol	920	U
95-50-1	1,2-Dichlorobenzene	920	U
95-48-7	2-Methylphenol	920	U
108-60-1	bis(2-Chloroisopropyl)ether	920	U
106-44-5	4-Methylphenol	920	U
621-64-7	N-Nitroso-di-n-propylamine	920	U
67-72-1	Hexachloroethane	920	U
98-95-3	Nitrobenzene	920	U
78-59-1	Isophorone	920	U
88-75-5	2-Nitrophenol	920	U
105-67-9	2,4-Dimethylphenol	920	U
65-85-0	Benzoic acid	4500	U
111-91-1	bis(2-Chloroethoxy)methane	920	U
120-83-2	2,4-Dichlorophenol	920	U
120-82-1	1,2,4-Trichlorobenzene	920	U
91-20-3	Naphthalene	920	U
106-47-8	4-Chloroaniline	920	U
87-68-3	Hexachlorobutadiene	920	U
59-50-7	4-Chloro-3-methylphenol	920	U
91-57-6	2-Methylnaphthalene	920	U
77-47-4	Hexachlorocyclopentadiene	920	U
88-06-2	2,4,6-Trichlorophenol	920	U
95-95-4	2,4,5-Trichlorophenol	4500	U
91-58-7	2-Chloronaphthalene	920	U
88-74-4	2-Nitroaniline	4500	U
131-11-3	Dimethylphthalate	920	U
208-96-8	Acenaphthylene	920	U
606-20-2	2,6-Dinitrotoluene	920	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ77

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ77

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EJJ77

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 29 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup: (Y/N) Y pH: 6.2 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4500	U
83-32-9	Acenapthene	920	U
51-28-5	2,4-Dinitrophenol	4500	U
100-02-7	4-Nitrophenol	4500	U
132-64-9	Dibenzofuran	920	U
121-14-2	2,4-Dinitrotoluene	920	U
84-66-2	Diethylphthalate	920	U
7005-72-3	4-Chlorophenyl-phenylether	920	U
86-73-7	Fluorene	920	U
100-01-6	4-Nitroaniline	4500	U
534-52-1	4,6-Dinitro-2-methylphenol	4500	U
86-30-6	N-Nitrosodiphenylamine (1)	920	U
101-55-3	4-Bromophenyl-phenylether	920	U
118-74-1	Hexachlorobenzene	920	U
87-86-5	Pentachlorophenol	4500	U
85-01-8	Phenanthrene	920	U
120-12-7	Anthracene	920	U
84-74-2	Di-n-butylphthalate	920	U
206-44-0	Fluoranthene	920	U
129-00-0	Pyrene	920	U
85-68-7	Butylbenzylphthalate	920	U
91-94-1	3,3'-Dichlorobenzidine	1800	U
56-55-3	Benzo(a)anthracene	920	U
218-01-9	Chrysene	920	U
117-81-7	bis(2-Ethylhexyl)phthalate	920	U
117-84-0	Di-n-octylphthalate	920	U
205-99-2	Benzo(b)fluoranthene	920	U
207-08-9	Benzo(k)fluoranthene	920	U
50-32-8	Benzo(a)pyrene	920	U
193-39-5	Indeno(1,2,3-cd)pyrene	920	U
53-70-3	Dibenz(a,h)anthracene	920	U
191-24-2	Benzo(g,h,i)perylene	920	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EJJ77

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ77

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EJJ77

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 29 dec._____ Date Extracted: 02/26/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/02/90

GPC Cleanup : (Y/N) Y pH: 6.2 Dilution Factor: 1.000

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	7.19	4900	JB U
2.	UNKNOWN	36.01	1700	J
3.	UNKNOWN HYDROCARBON	37.88	2900	J
4.	UNKNOWN	39.86	1900	J
5.	UNKNOWN HYDROCARBON	42.41	570	J
6.				
7.				
8.				
9.				
10.				
11.				
12.				
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FORM I SV-TIC 1/87 Rev.

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ72

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ72

Sample wt/vol: 30.4 (g/mL) G Lab File ID: Q0309028

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 36 dec._____ Date Extracted: 02/23/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/10/90

GPC Cleanup: (Y/N) N pH: 7.6 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	12.00	U
319-85-7	beta-BHC	12.00	U
319-86-8	delta-BHC	12.00	U
58-89-9	gamma-BHC (Lindane)	12.00	U
76-44-8	Heptachlor	12.00	U
309-00-2	Aldrin	12.00	U
1024-57-3	Heptachlor epoxide	12.00	U
959-98-8	Endosulfan I	12.00	U
60-57-1	Dieldrin	25.00	U
72-55-9	4,4'-DDE	25.00	U
72-20-8	Endrin	25.00	U
33213-65-9	Endosulfan II	25.00	U
72-54-8	4,4'-DDD	25.00	U
1031-07-8	Endosulfan sulfate	25.00	U
50-29-3	4,4'-DDT	25.00	U
72-43-5	Methoxychlor	120.00	U
53494-70-5	Endrin ketone	25.00	U
5103-71-9	alpha-Chlordane	120.00	U
5103-74-2	gamma-Chlordane	120.00	U
8001-35-2	Toxaphene	250.00	U
12674-11-2	Aroclor-1016	120.00	U
11104-28-2	Aroclor-1221	120.00	U
11141-16-5	Aroclor-1232	120.00	U
53469-21-9	Aroclor-1242	120.00	U
12672-29-6	Aroclor-1248	120.00	U
11097-69-1	Aroclor-1254	250.00	U
11096-82-5	Aroclor-1260	250.00	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ73

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ73

Sample wt/vol: 29.6 (g/mL) G Lab File ID: Q0309034

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 30 dec._____ Date Extracted: 02/23/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/10/90

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	12.00	U
319-85-7	beta-BHC	12.00	U
319-86-8	delta-BHC	12.00	U
58-89-9	gamma-BHC (Lindane)	21.00	
76-44-8	Heptachlor	12.00	U
309-00-2	Aldrin	12.00	U
1024-57-3	Heptachlor epoxide	12.00	U
959-98-8	Endosulfan I	12.00	U
60-57-1	Dieldrin	23.00	U
72-55-9	4,4'-DDE	18.00	J
72-20-8	Endrin	23.00	U
33213-65-9	Endosulfan II	23.00	U
72-54-8	4,4'-DDD	23.00	U
1031-07-8	Endosulfan sulfate	23.00	U
50-29-3	4,4'-DDT	23.00	U
72-43-5	Methoxychlor	120.00	U
53494-70-5	Endrin ketone	23.00	U
5103-71-9	alpha-Chlordane	93.00	J
5103-74-2	gamma-Chlordane	120.00	U
8001-35-2	Toxaphene	230.00	U
12674-11-2	Aroclor-1016	120.00	U
11104-28-2	Aroclor-1221	120.00	U
11141-16-5	Aroclor-1232	120.00	U
53469-21-9	Aroclor-1242	120.00	U
12672-29-6	Aroclor-1248	120.00	U
11097-69-1	Aroclor-1254	230.00	U
11096-82-5	Aroclor-1260	230.00	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ73DL

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: DLJ73

Sample wt/vol: 29.6 (g/mL) G Lab File ID: Q0309021

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 30 dec._____ Date Extracted: 02/23/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/10/90

GPC Cleanup: (Y/N) N pH: 6.1 Dilution Factor: 10.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	120.00	U
319-85-7	beta-BHC	120.00	U
319-86-8	delta-BHC	120.00	U
58-89-9	gamma-BHC (Lindane)	120.00	U
76-44-8	Heptachlor	120.00	U
309-00-2	Aldrin	120.00	U
1024-57-3	Heptachlor epoxide	120.00	U
959-98-8	Endosulfan I	42.00	JD
60-57-1	Dieldrin	230.00	U
72-55-9	4,4'-DDE	21.00	JD
72-20-8	Endrin	230.00	U
33213-65-9	Endosulfan II	230.00	U
72-54-8	4,4'-DDD	230.00	U
1031-07-8	Endosulfan sulfate	230.00	U
50-29-3	4,4'-DDT	230.00	U
72-43-5	Methoxychlor	1200.00	U
53494-70-5	Endrin ketone	230.00	U
5103-71-9	alpha-Chlordane	130.00	JD
5103-74-2	gamma-Chlordane	130.00	JD
8001-35-2	Toxaphene	2300.00	U
12674-11-2	Aroclor-1016	1200.00	U
11104-28-2	Aroclor-1221	1200.00	U
11141-16-5	Aroclor-1232	1200.00	U
53469-21-9	Aroclor-1242	1200.00	U
12672-29-6	Aroclor-1248	1200.00	U
11097-69-1	Aroclor-1254	2300.00	U
11096-82-5	Aroclor-1260	2300.00	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ74

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ74

Sample wt/vol: 29.5 (g/mL) G Lab File ID: Q0309035

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 52 dec._____ Date Extracted:02/23/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/10/90

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	17.00	U
319-85-7	beta-BHC	17.00	U
319-86-8	delta-BHC	17.00	U
58-89-9	gamma-BHC (Lindane)	17.00	U
76-44-8	Heptachlor	17.00	U
309-00-2	Aldrin	470.00	E
1024-57-3	Heptachlor epoxide	17.00	U
959-98-8	Endosulfan I	17.00	U
60-57-1	Dieldrin	34.00	U
72-55-9	4,4'-DDE	34.00	U
72-20-8	Endrin	34.00	U
33213-65-9	Endosulfan II	34.00	U
72-54-8	4,4'-DDD	34.00	U
1031-07-8	Endosulfan sulfate	34.00	U
50-29-3	4,4'-DDT	34.00	U
72-43-5	Methoxychlor	170.00	U
53494-70-5	Endrin ketone	34.00	U
5103-71-9	alpha-Chlordane	170.00	U
5103-74-2	gamma-Chlordane	170.00	U
8001-35-2	Toxaphene	340.00	U
12674-11-2	Aroclor-1016	170.00	U
11104-28-2	Aroclor-1221	170.00	U
11141-16-5	Aroclor-1232	170.00	U
53469-21-9	Aroclor-1242	170.00	U
12672-29-6	Aroclor-1248	170.00	U
11097-69-1	Aroclor-1254	340.00	U
11096-82-5	Aroclor-1260	340.00	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ74DL

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: DLJ74

Sample wt/vol: 29.5 (g/mL) G Lab File ID: Q0309022

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 52 dec._____ Date Extracted:02/23/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/10/90

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor:10.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	170.00	U
319-85-7	beta-BHC	170.00	U
319-86-8	delta-BHC	170.00	U
58-89-9	gamma-BHC (Lindane)	170.00	U
76-44-8	Heptachlor	170.00	U
309-00-2	Aldrin	170.00	U
1024-57-3	Heptachlor epoxide	170.00	U
959-98-8	Endosulfan I	170.00	U
60-57-1	Dieldrin	340.00	U
72-55-9	4,4'-DDE	340.00	U
72-20-8	Endrin	340.00	U
33213-65-9	Endosulfan II	340.00	U
72-54-8	4,4'-DDD	340.00	U
1031-07-8	Endosulfan sulfate	340.00	U
50-29-3	4,4'-DDT	340.00	U
72-43-5	Methoxychlor	1700.00	U
53494-70-5	Endrin ketone	340.00	U
5103-71-9	alpha-Chlordane	390.00	JD
5103-74-2	gamma-Chlordane	320.00	JD
8001-35-2	Toxaphene	3400.00	U
12674-11-2	Aroclor-1016	1700.00	U
11104-28-2	Aroclor-1221	1700.00	U
11141-16-5	Aroclor-1232	1700.00	U
53469-21-9	Aroclor-1242	1700.00	U
12672-29-6	Aroclor-1248	1700.00	U
11097-69-1	Aroclor-1254	3400.00	U
11096-82-5	Aroclor-1260	3400.00	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ75

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ75

Sample wt/vol: 30.0 (g/mL) G Lab File ID: Q0309025

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 20 dec._____ Date Extracted: 02/23/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/10/90

GPC Cleanup: (Y/N) N pH: 8.6 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	10.00	U
319-85-7	beta-BHC	10.00	U
319-86-8	delta-BHC	10.00	U
58-89-9	gamma-BHC (Lindane)	10.00	U
76-44-8	Heptachlor	10.00	U
309-00-2	Aldrin	10.00	U
1024-57-3	Heptachlor epoxide	10.00	U
959-98-8	Endosulfan I	10.00	U
60-57-1	Dieldrin	20.00	U
72-55-9	4,4'-DDE	41.00	
72-20-8	Endrin	20.00	U
33213-65-9	Endosulfan II	20.00	U
72-54-8	4,4'-DDD	18.00	J
1031-07-8	Endosulfan sulfate	20.00	U
50-29-3	4,4'-DDT	69.00	
72-43-5	Methoxychlor	100.00	U
53494-70-5	Endrin ketone	20.00	U
5103-71-9	alpha-Chlordane	100.00	U
5103-74-2	gamma-Chlordane	100.00	U
8001-35-2	Toxaphene	200.00	U
12674-11-2	Aroclor-1016	100.00	U
11104-28-2	Aroclor-1221	100.00	U
11141-16-5	Aroclor-1232	100.00	U
53469-21-9	Aroclor-1242	100.00	U
12672-29-6	Aroclor-1248	100.00	U
11097-69-1	Aroclor-1254	200.00	U
11096-82-5	Aroclor-1260	200.00	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ76

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ76

Sample wt/vol: 30.2 (g/mL) G Lab File ID: Q0309029

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 40 dec._____ Date Extracted: 02/23/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/10/90

GPC Cleanup: (Y/N) N pH: 8.0 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	13.00	U
319-85-7	beta-BHC	13.00	U
319-86-8	delta-BHC	13.00	U
58-89-9	gamma-BHC (Lindane)	13.00	U
76-44-8	Heptachlor	13.00	U
309-00-2	Aldrin	13.00	U
1024-57-3	Heptachlor epoxide	13.00	U
959-98-8	Endosulfan I	13.00	U
60-57-1	Dieldrin	26.00	U
72-55-9	4,4'-DDE	26.00	U
72-20-8	Endrin	26.00	U
33213-65-9	Endosulfan II	26.00	U
72-54-8	4,4'-DDD	26.00	U
1031-07-8	Endosulfan sulfate	26.00	U
50-29-3	4,4'-DDT	26.00	U
72-43-5	Methoxychlor	130.00	U
53494-70-5	Endrin ketone	26.00	U
5103-71-9	alpha-Chlordane	130.00	U
5103-74-2	gamma-Chlordane	130.00	U
8001-35-2	Toxaphene	260.00	U
12674-11-2	Aroclor-1016	130.00	U
11104-28-2	Aroclor-1221	130.00	U
11141-16-5	Aroclor-1232	130.00	U
53469-21-9	Aroclor-1242	130.00	U
12672-29-6	Aroclor-1248	130.00	U
11097-69-1	Aroclor-1254	260.00	U
11096-82-5	Aroclor-1260	260.00	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EJJ77

Lab Name: S-CUBED Contract: 68-D9-0027

Lab Code: S3 Case No.: 13623 SAS No.: SDG No.: EJJ72

Matrix: (soil/water) SOIL Lab Sample ID: EJJ77

Sample wt/vol: 29.8 (g/mL) G Lab File ID: Q0309033

Level: (low/med) LOW Date Received: 02/22/90

% Moisture: not dec. 29 dec._____ Date Extracted: 02/23/90

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 03/10/90

GPC Cleanup: (Y/N) N pH: 6.2 Dilution Factor: 1.000

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	11.00	U
319-85-7	beta-BHC	11.00	U
319-86-8	delta-BHC	11.00	U
58-89-9	gamma-BHC (Lindane)	11.00	U
76-44-8	Heptachlor	11.00	U
309-00-2	Aldrin	11.00	U
1024-57-3	Heptachlor epoxide	11.00	U
959-98-8	Endosulfan I	11.00	U
60-57-1	Dieldrin	23.00	U
72-55-9	4,4'-DDE	23.00	U
72-20-8	Endrin	23.00	U
33213-65-9	Endosulfan II	23.00	U
72-54-8	4,4'-DDD	23.00	U
1031-07-8	Endosulfan sulfate	23.00	U
50-29-3	4,4'-DDT	23.00	U
72-43-5	Methoxychlor	110.00	U
53494-70-5	Endrin ketone	23.00	U
5103-71-9	alpha-Chlordane	110.00	U
5103-74-2	gamma-Chlordane	110.00	U
8001-35-2	Toxaphene	230.00	U
12674-11-2	Aroclor-1016	110.00	U
11104-28-2	Aroclor-1221	110.00	U
11141-16-5	Aroclor-1232	110.00	U
53469-21-9	Aroclor-1242	110.00	U
12672-29-6	Aroclor-1248	110.00	U
11097-69-1	Aroclor-1254	230.00	U
11096-82-5	Aroclor-1260	230.00	U

S-CUBED
A Division of Maxwell Laboratories, Inc.

March 26, 1990 *Volume 1 of 3*

NARRATIVE CASE 13623
S-CUBED CONTRACT NO. 68D90027

This case consists of the following samples reported under SDG:EJJ72

EJJ72, EJJ73, EJJ74, EJJ75, EJJ76, EJJ77

Matrix: EJJ75 (Low ABN, Pesticide, and VOA)
EJJ74 (Medium ABN)

The volatile internal standard and surrogate data were noncompliant for soil samples EJJ73, EJJ74, and EJJ76, and so two sets of data are provided for each.The MS/MSD data for volatile samples EJJ75MS and EJJ75MSD were compliant. Volatile targets included 1,2-dichloroethene, trichloroethene, tetrachloroethene, acetone, and MEK. Freon constituents were found as TICs in some volatile analyses.

The semivolatile samples were characterized by large background levels of hydrocarbons. Samples EJJ73 and EJJ74 required medium level extraction. The extraction holding times were noncompliant for all medium semivolatile samples as the allowable limit was exceeded by two days. The ABN matrix spike compounds were double spiked into EJJ74MS and EJJ74MSD. The percent recovery information on Form 3 was produced using the actual spiking level.

The recovery of nitrobenzene-d_5 was low in the MS and MSD analyses for EJJ74 and 2-fluorobiphenyl was low in the EJJ74MS analysis. The internal standard perylene-d_{12} was noncompliant for EJJ74MS (this sample was re-spiked with the internal standard solution, re-analyzed and failed again). The quantitation report for the re analysis of EJJ74MS is attached to the narrative.Also, the recovery of 2,4-dinitrotoluene was low for both the MS and MSD of EJJ74. The low soil semivolatile surrogate data were all compliant, however the recovery of N-nitroso-di-n-propylamine (40%) and 1,2,4-trichlorobenzene (37%) were noncompliant in the low soil analysis of EJJ75MS. There were very few ABN targets detected, however many TICs were found (most were identified as unknown).

The pesticide analyses were problematic due to large numbers of interfering chromatographic peaks. This made interpretation of the pesticide data for SDG EJJ72 difficult. The sample data for samples EJJ73, EJJ73DL, EJJ74, and EJJ74DL are especially inconsistent. For example, Aldrin was found at 470 µg/kg in sample EJJ74 but was not reported in the 1:10 dilution of EJJ74. a- and g-Chlordane were detected in EJJ74DL but were not found in the undiluted analysis. The surrogate recovery of DBC was noncompliant for pesticide samples EJJ73,

P.O. Box 1620, La Jolla, California 92038-1620 3398 Carmel Mountain Road, San Diego, California 92121-1095
Tel: (619) 453-0060 TWX: 910-337-1253 FAX: (619) 755-0474

EJJ73DL, EJJ74, and EJJ74DL. The MS/MSD pesticide data were all compliant and all standard data were within QC limits.

Please note that S-CUBED uses megabore capillary for pesticide analysis, thus the action limit for DBC percent difference is 1.5% rather than 0.3%. S-CUBED also experience interferences with the benzoic acid quantitation mass of 322 from 2,4-dimethylphenol. Although the top of the chromatographic peak of these compounds are separated by about 1 minute, benzoic acid exhibits a high level of *fronting* which causes coelution of these two compounds. Consequently, it is considerably more accurate to use the base peak of 305 for the quantitation of benzoic acid. Also note that S-CUBED uses an "X" flag to indicate the matrix spike compounds.

I certify that this data packed is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer readable data submitted on floppy diskette has been authorized by the laboratory manager or his designee, as verified by the the following signature.

Mark D Hatcher

Date: 3/26/90

Mark Hatcher, Acting Project Manager

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO: ILD [illegible] 1640

PROJ. ACCT. NO.: FILO4TC3B

TDD: FES-862-170

SPLIT SAMPLES: ACCEPTED( ) DECLINED(✓)

FACILITY/OCCUPANT NAME: [illegible] LANDFILL

FACILITY/OCCUPANT ADDRESS: Hill Rd. [illegible] Box 153 Decatur IL 62522

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR#	ITR#	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
S1	6/1/90	1100		[illegible]	[illegible]	1	✓	✓	✓	✓	✓			[illegible]
S2	6/1/90	1116		[illegible]	[illegible]	2	✓	✓	✓	✓	✓			[illegible]
S3	6/1/90	1155		[illegible]	[illegible]	3	✓	✓	✓	✓	✓			[illegible]
S4	6/1/90	1130		[illegible]	[illegible]	4	✓	✓	✓	✓	✓			[illegible]
S5	6/1/90	1110		[illegible]	[illegible]	5	✓	✓	✓	✓	✓			[illegible]
S6	6/1/90	1115		[illegible]	[illegible]	6	✓	✓	✓	✓	✓			[illegible]

TRANSFERRED BY: [illegible] 6/1/90 11:00

(Signature) (Date) (Time)

RECEIVED BY:

(Signature) (Date) (Time)

DISTRIBUTION
- WHITE: FIT SITE FILE
- YELLOW: FACILITY/OCCUPANT
- GREEN: FIT SAMPLE MANAGEMENT
- PINK: U.S. EPA

TITLE

TELEPHONE

To Bill Messenger

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

FIT Inspection Date: February 21, 1990

CERCLIS Site Name: MUNICIPAL LANDFILL

Site Address:

Recipient Inf

Non - Responsive

[redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the report regarding the inspection conducted at the above-referenced property will be forwarded by the U.S. EPA within 6 months. If a copy of the inspection report is not received within 6 months of the inspection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U.S. EPA Identification Number ILD 980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:

White: FIT Site File; TDD No.: F05-8612-19r ; PAN: FILC492
Yellow: Recipient
Pink: U.S. EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive [redacted]

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U. S. EPA Identification Number ILD980901540

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William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:

White: FIT Site File; TDD No.: F05-8612-071 ; PAN: FIL04125B
Yellow: Recipient
Pink: U.S. EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive [redacted]

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U. S. EPA Identification Number ILD980701540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-070 ; PAN: FIL0492SA
Yellow: Recipient
Pink: U.S. EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive

[redacted]

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U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-070 ; PAN: FIL0492
Yellow: Recipient
Pink: U.S. EPA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information:

Non - Responsive

[redacted]

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It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:

White: FIT Site File; TDD No.: F05-8612-071 ; PAN: F7LC41255
Yellow: Recipient
Pink: U.S. EPA

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO ILD 980901540

PROJ. ACCT. NO. FIL0472SB

TDD F05-8612-070

SPLIT SAMPLES ACCEPTED( ) DECLINED(✓)

FACILITY/OCCUPANT NAME [illegible] LANDFILL

FACILITY/OCCUPANT ADDRESS Hill Rd. [illegible] Box 153 Decatur IL 62522

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR*	ITR*	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
S1	7/21/10	1300		[illegible]	[illegible]	S1	✓	✓	✓	✓	✓			[illegible]
S2	7/21/10	1316		[illegible]	[illegible]	S2	✓	✓	✓	✓	✓			[illegible]
S3	7/21/10	1355		[illegible]	[illegible]	S3	✓	✓	✓	✓	✓			[illegible]
S4	7/21/10	1420		[illegible]	[illegible]	S4	✓	✓	✓	✓	✓			[illegible]
S5	7/21/10	1410		[illegible]	[illegible]	S5	✓	✓	✓	✓	✓			[illegible]
S6	7/21/10	1415		[illegible]	[illegible]	S6	✓	✓	✓	✓	✓			[illegible]

TRANSFERRED BY [illegible] 7/21/10 1400

(Signature) (Date) (Time)

RECEIVED BY:

(Signature) (Date) (Time)

TITLE TELEPHONE

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

~~Andrea - this is~~ "~~maybe~~" ~~site, awaiting WP approv~~ from EPA

FIT SAMPLE PROPOSAL FORM REGION V

DATE FORM COMPLETED 12/22/89 PAN# FIL0992SA TDD# F05-8612-070 EPA I.D.# ILD980901540

SITE NAME (PRINT) Murrell Landfill CITY Decatur STATE Il.

TEAM LEADER K. Spangler SAMPLER ~~TBA~~ Tim Mayers DATE SENT TO RSCC

CASE # 13623 DRINKING WATER SAS # ORGANIC NA INORGANIC 5077E

ROUTINE ANALYTICAL SERVICES (RAS)

LOW WATERS FRACTION	MONITORING WELLS NUMBER OF FIELD SAMPLES+ BLANKS+ DUPLICATE= TOTAL	EXPECTED DATE TO SAMPLE	LABORATORY NAME	NUMBER OF COOLERS SHIPPED	NUMBER OF SAMPLES SHIPPED	AIR BILL NUMBERS	DATE SHIPPED TO LAB
VOA							
ABNs							
PEST/PCB							
METALS							
CN							

LOW WATERS FRACTION	SURFACE WATERS NUMBER OF FIELD SAMPLES+ BLANKS+ DUPLICATE= TOTAL	EXPECTED DATE TO SAMPLE	LABORATORY NAME	NUMBER OF COOLERS SHIPPED	NUMBER OF SAMPLES SHIPPED	AIR BILL NUMBERS	DATE SHIPPED TO LAB
VOA							
ABNs							
PEST/PCB							
METALS							
CN							

LOW SOILS/SEDIMENTS/SLUDGES FRACTION	NUMBER OF FIELD SAMPLES+ BLANKS+ DUPLICATE= TOTAL	EXPECTED DATE TO SAMPLE	LABORATORY NAME	NUMBER OF COOLERS SHIPPED	NUMBER OF SAMPLES SHIPPED	AIR BILL NUMBERS	DATE SHIPPED TO LAB
VOA	6 = 6	wk of 2/28/90	S3	1	6	1060849475	2-21-90
ABNs		Sample 2/28					
PEST/PCB			Vegas	1	6	1060849484	
METALS							
CN							

4968271534 ~~Hand Hipped to Smrk~~ Complete

RESIDENTIAL/MUNICIPAL WELL WATERS (DRINKING WATER SAMPLES)

LOW DETECTION LIMITS/FAST TURN AROUND FRACTION	NUMBER OF FIELD SAMPLES+ BLANKS+ DUPLICATE= TOTAL	EXPECTED DATE TO SAMPLE	LABORATORY NAME	NUMBER OF COOLERS SHIPPED	NUMBER OF SAMPLES SHIPPED	AIR BILL NUMBERS	DATE SHIPPED TO LAB
VOA	4 + 1 + 1 = 6	wk of 2/28/90	CRL	2	6	1060849414	2-21-90
ABNs							
PEST/PCB			CENTEC	1	6	1060849462	
METALS							
CN							

Complete

SEE NEXT PAGE FOR SPECIAL ANALYTICAL SERVICE REQUEST FOR THIS SITE

SAS #

Paperwork Request ✓ RW Confirm ✓

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / F05-8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION RW1

SAMPLING DATE 2/21/90 SAMPLING TIME 0920

CRL # 90FT09518

[redacted] E

INORGANIC TRAFFIC NUMBER MEMT 36

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
3, 1 liter amber	Extractables	5-083850-52	M9205303
3, 40 ml.	VOA	53-55	B9269033
1 liter plastic	metals	56	9286013
1 liter plastic	CN^-	57	9286013

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: HNO_3 was added to metals as preservative and NaOH to CN^- samples were also iced

INSTRUMENT READINGS

pH 6.10

CONDUCTIVITY 600 umhos

TEMPERATURE 10°

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / F05-9612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION Duplicate

SAMPLING DATE 2/21/90 SAMPLING TIME 0920

CRL # 90FT09018

[redacted] E

INORGANIC TRAFFIC NUMBER MEKT 37

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
3, 1 liter amber	extractables	5-083858-60	H9205303
3, 40 ml.	VOA	61-63	B9269033
1 liter plastic	metals	64	9286013
1 liter plastic	CN^-	65	9286013

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: HNO_3 was added to metals as preservative and NaOH to CN^- samples were also iced

INSTRUMENT READINGS

pH 6.40

CONDUCTIVITY 600 µmohs

TEMPERATURE 11°

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / F05-9612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION RW2

SAMPLING DATE 2/21/90 SAMPLING TIME 1505

CRL # 90FT09519

[redacted] E

INORGANIC TRAFFIC NUMBER MEMT 38

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
3, 1 liter amber	extractables	5-083866 - 68	H9205303
3, 40 ml.	VOA	69 - 71	B9269033
1 liter plastic	metals	72	9286013
1 liter plastic	CN^-	73	9286013

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: HNO_3 was added to metals as preservative and NaOH to CN^- samples were also iced

INSTRUMENT READINGS

pH 7.42

CONDUCTIVITY 410 µmhos

TEMPERATURE 12°c

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / F05-8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION RW3 + MSD

SAMPLING DATE 2/21/90 SAMPLING TIME 0910

CRL# 90FT09520

[redacted] E

INORGANIC TRAFFIC NUMBER MEHT 39

	BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
RW3	3 1 liter amber	Extractables	5-072751-53	H9241083
	3 40 ml	VOA	54-56	B9269033
	1 liter plastic	metals	57	9286013
	" " "	CN^-	58	"
	5 1 liter amber		59-63	H9241083
	5 40 ml.		64-68	B9269033

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: CLEAR

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: HNO_3 was added to metals as preservative and NaOH to CN^- samples were also iced

INSTRUMENT READINGS

pH 6.46

CONDUCTIVITY 675 umhos

TEMPERATURE 12°C

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / F05-9612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION RW4

SAMPLING DATE 2/21/90 SAMPLING TIME 0930

CRL # 90FT09521

[redacted] E

INORGANIC TRAFFIC NUMBER MEHT 40

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
3, 1 liter amber	extractables	5077276 9 - 71	M9241083
3, 40 ml.	VOA	72 - 74	B9269033
1 liter plastic	metals	75	9286013
1 liter plastic	CN^-	76	9286013

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: HNO_3 was added to metals as preservative and NaOH to CN^- samples were also iced

INSTRUMENT READINGS

pH 6.30

CONDUCTIVITY 560 umhos

TEMPERATURE 11°C

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / F05-9612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION Blank

SAMPLING DATE 2/21/90 SAMPLING TIME 1030

CRL # 90FT01R98

[redacted] E

INORGANIC TRAFFIC NUMBER MEHT 41

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
3, 1 liter amber	Extractables	5-072777 - 79	H9205303
3, 40 ml.	VOA	80 - 82	B9269033
1 liter plastic	metals	83	9286013
1 liter plastic	CN^-	84	9286013

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: clear

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: HNO_3 was added to metals as preservative and NaOH to CN^- samples were also iced

INSTRUMENT READINGS

pH 5.10

CONDUCTIVITY 0 µmohs

TEMPERATURE 10°C

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / FOS- 8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION S1

SAMPLING DATE 2/21/90 SAMPLING TIME 1300

ORGANIC TRAFFIC NUMBER EJJ 72

INORGANIC TRAFFIC NUMBER MEHT 30

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz.	Extractables	5 - 083826	9276023
120 ml.	VOA	27	D9053023
120 ml.	VOA	28	"
8 oz.	METALS/CN⁻	29	9276023

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Greenish Brown wet sand (sediment sample)

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: All samples were iced prior to shipment

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / FOS- 8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION S2

SAMPLING DATE 2/21/90 SAMPLING TIME 1316

ORGANIC TRAFFIC NUMBER EJJ 73

INORGANIC TRAFFIC NUMBER MEHT 31

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz.	Extractables	5 - 083830	9276023
120 ml.	VOA	31	D9053023
120 ml.	VOA	32	"
8 oz.	METALS/CN⁻	33	9276023

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Brown / Black moist silty soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: All samples were iced prior to shipment

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / FOS- 8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION S3

SAMPLING DATE 2/21/90 SAMPLING TIME 1335

ORGANIC TRAFFIC NUMBER EJJ 74

INORGANIC TRAFFIC NUMBER MEHT 32

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz.	Extractables	5 - 083834	9276023
120 ml.	VOA	35	D9053023
120 ml.	VOA	36	"
8 oz.	METALS/CN⁻	37	9276023

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: moist black silty soil

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: All samples were iced prior to shipment

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / FOS- 8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION 54

SAMPLING DATE 2/21/90 SAMPLING TIME 1430

ORGANIC TRAFFIC NUMBER EJJ 75

INORGANIC TRAFFIC NUMBER MEHT 33

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz.	Extractables	5 - 083838	9276023
120 ml.	VOA	39	D9053023
120 ml.	VOA	40	"
8 oz.	Metals/CN⁻	41	9276023

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Dark Brown Loam

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: All samples were iced prior to shipment

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / FOS- 8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION SS

SAMPLING DATE 2/21/90 SAMPLING TIME 1440

ORGANIC TRAFFIC NUMBER EJJ 76

INORGANIC TRAFFIC NUMBER MEHT 34

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz.	Extractables	5 - 083842	9276023
120 ml.	VOA	43	D9053023
120 ml.	VOA	44	"
8 oz.	METALS/CN⁻	45	9276023

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Dark Brown loam

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: All samples were iced prior to shipment

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Murrell Landfill / FOS- 8612-070

CASE NUMBER 5077E

SAMPLE #/STATION LOCATION SG - BACKGROUND

SAMPLING DATE 2/21/90 SAMPLING TIME 1415

ORGANIC TRAFFIC NUMBER EJJ 77

INORGANIC TRAFFIC NUMBER MEHT 35

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
8 oz.	Extractables	5 - 083846	9276023
120 ml.	VOA	47	D9053023
120 ml.	VOA	48	"
8 oz.	METALS/CN⁻	49	9276023

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Dark Brown Loam

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT: All samples were iced prior to shipment

INSTRUMENT READINGS NA

pH

CONDUCTIVITY

TEMPERATURE

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

RECORD CODE: L P C S M 0 1 (1–7) TRANS CODE: A (8)

REPORT DUE DATE 10/15/85 (36 M / D / Y 41) FEDERAL ID NUMBER

SITE INVENTORY NUMBER 1 1 5 8 0 2 0 0 1 1 (9–18) MONITOR POINT NUMBER 6 1 0 5 (19–22) (see Instructions)

REGION C CO. MACON DATE COLLECTED 07/16/85 (23 M / D / Y 28)

DECATUR / WATER DEPT. IEPA LAB (x or Blank) (see Instructions) 29

LOCATION RESPONSIBLE PARTY

FOR IEPA USE ONLY COMPLAINT NO.

DATE RECEIVED 07/22/85 (42 M / D / Y 47)

SAMPLING PURPOSE CODE (see Instructions) 48

TIME CARD PROGRAM CODE 49 — 52 & UNIT CODE 53

BACKGROUND SAMPLE (X) 54 TIME COLLECTED (24 HR CLOCK) 1 4 (55 H)

UNABLE TO COLLECT SAMPLE (see Instructions) 59

MONITOR POINT SAMPLED BY (see Instructions) D 60 OTHER (SPECIFY)

SAMPLE FIELD FILTERED - INORGANICS (X) X 61 ORGANICS (X)

SAMPLE APPEARANCE MODERATELY TURBID (63)

COLLECTOR COMMENTS 103 — 102

142

SPECIAL INSTRUCTIONS TO LAB

David L. Jordan	D L J	Decatur Water Dept	David L. Jordan	Decatur Water Dept
COLLECTED BY	INITIALS 143 145	DIVISION OR COMPANY	TRANSPORTED BY	DIVISION OR COMPANY

LAB USE ONLY

LAB SAMPLE NO. 8503 LAB NAME City of Decatur Water Department LAB ID NO. 0 0 3 C (146–149)

DATE RECEIVED 7/16/85 AND ADDRESS South Water Treatment Plant

TIME RECEIVED 2:15 PM 1100 Lincoln Park Drive Decatur IL 62521

SAMPLE TEMP OKAY Y (Y/N) SAMPLE PROPERLY PRESERVED Y (Y/N) DATE COMPLETED 7/17/85 FORWARD 7/17/85

LAB COMMENTS 150 — 199

Craig M. Cummins

SUPERVISOR SIGNATURE

RECORD CODE L P C S M 0 2 (1–7) TRANS CODE A (8)

	FIELD MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER	REQUIRED	REPLICATE	< OR >	VALUE	REPORT LEVEL
X	DEPTH TO WATER (ft. below LS)	7 2 0 1 9 (30–34)	35	36	37	1.92 (38–47)	2 (46)
	ELEVATION OF GW SURFACE (ft. ref MSL)	7 1 9 9 3					
	TOTAL WELL DEPTH (ft. below LS)	7 2 0 0 8					
	ALKALINITY TOTAL (mg/l as CaCO3) - Field	0 0 4 3 1					
	REDOX POTENTIAL (millivolt) - Field	0 0 0 9 0					
	pH (units) - Field	0 0 4 0 0					
	SPEC CONDUCTANCE (umhos) - Field	0 0 0 9 4					
X	TEMP OF WATER SAMPLE (°F) - Field	0 0 0 1 1				64.4	1

RECEIVED JUL 22 1985 IEPA-DLPC

This Agency is authorized to require this information under Illinois Revised Statutes, 1979, Chapter 111 1/2, Section 1004 and 1021. Disclosure of this information is required. Failure to do so may result in a civil penalty up to $25,000 for each day the failure continues, a fine up to $1,000.00 and imprisonment up to one year. This form has been approved by the Forms Management Center.

IEPA/DLPC

CHEMICAL ANALYSIS FORM

RECORD CODE L P C S M 0 2 (1–7) TRANS CODE A (8)

SITE INVENTORY NUMBER 1 1 5 8 0 2 0 0 1 1 (9–18)

MONITOR POINT NUMBER G 1 0 5 (19–22)

REGION C CO. MACON

DATE COLLECTED 07/16/85 (23 M D Y 28)

DECATUR / WATER DEPT.

LOCATION / RESPONSIBLE PARTY

IEPA LAB (x or Blank) (29)

LAB MEASUREMENTS CONSTITUENT DESCRIPTION AND REQUIRED UNIT OF MEASURE	STORET NUMBER	INVALID	QUALITY	< OR >	VALUE	REPORTING LEVEL: DIGITS TO L OR R	REPORTING LEVEL: LINE OF DECIMAL
CHLORIDE, MG/L	00940				465	1	R
IRON FE, DISS UG/L	01046				150	3	L
RESIDUE DISS-180 C MG/L	70300				539	1	L

RECEIVED
JUL 22 1985
IEPA-DLPC

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name B - 5 (North-central area) (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 1 1 5 8 0 2 1 1 (16)

MONITOR POINT NUMBER (17) G 1 0 5 (20) DATE COLLECTED (21) 0 7 3 1 8 0 (26)

MACON Co. - LPC REGION (27) C

DECATUR (Location) / DECATUR WATER DEPARTMENT (Responsible Party)

Legal (1); Illegal (2); Indicate One: (28) 1 Board Order (X) (29)

Time Collected 10:35 a.m. p.m. Unable to collect sample (X) (30)

Stick-up (31) 0 (33) 3.0 ft. Depth to water (from T.O.C.) (34) 7.0 (36) ft.

Sample temp. (37) 1 9 ° (39) C Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) _____ (41) 1

Sample Appearance: TINGED YELLOW

Collector comments:

J. GRALIKER — Collected by; DECATUR WATER DEPT — Div. or Company

J GRALIKER — Transported by; DECATUR WATER DEPT — Div. or Company

LAB USE ONLY

Lab No. 058 0150

Date Rec'd 7-31-80

Rec'd by JG Time 10:45 a.m. p.m.

Sample temp. acceptable (YES) NO

Sample properly preserved (YES) NO

Date completed 7-31-80

Date forwarded

James Gralikar — Supervisor Signature

Name Decatur Water Dept.

Address of Lab Lincoln Park Dr. Decatur, Ill. 62523

LPCSM020 Lab Comments:

(27) — (36)

(37) — (46)

(47) — (56)

(57) — (66)

(67) — (76)

Private Lab (X) X (77)

IEPA Lab (X) (78)

LPCSM030

		PARAMETERS*	PPM*
27		Alkalinity[1]	
31		Ammonia as N	
37		Arsenic As	
44		Barium Ba	
49		BOD -5	
53		Boron B	
58		Cadmium Cd	
64		Calcium Ca	
69		COD	
73	X	Chloride Cl	270

LPCSM040

27		Chromium Cr (tot)	
33		Chromium Cr^{+6}	
39		Copper Cu	
45		Cyanide CN	
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61		Hardness $CaCO_3$	
65	X	Iron Fe	0
70		Lead Pb	

LPCSM050

27		Magnesium Mg	
32		Manganese Mn	
38		Mercury Hg	
46		Nickel Ni	
51		Nitrate-nitrite N	
56		Oil and Grease	
60		pH (Units)	
63		Phenolics	
70		Phosphorus P	
76		Potassium K	

LPCSM060

27	X	R.O.E. (180°C)	246
31		Selenium Se	
38		Silver Ag	
44		Sodium Na	
49		SC (umhos/cm)	
53		Sulfate SO_4	
58		Zinc Zn	
63			

RECEIVED AUG 05 1980 E.P.A. — D.L.P.C. STATE OF ILLINOIS

*Analyses are to be performed on filtered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1]Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

DIVISION OF LAND/NOISE POLLUTION CONTROL
CHEMICAL ANALYSIS FORM

WE2

* Key for Determining Type of Monitoring Point

(S) Surface Water	(G) Ground Water	(L) Leachate	(X) Special
(1) Upstream	(1) Monitor Well	(1) Flow or seep	(1) Soil
(2) Mid-site	(2) Private well	(2) Pond	(2) Waste
(3) Downstream	(3) Spring	(3) Collection System	(3) Other
(4) Run-off	(4) Lysimeter		
(5) Impounded	(5) Public W S		

Name B - 5 (North-central area) (Private Well, Stream, Spring, Impounded Water only)

(1) L P C S M 0 1 0 (8) SITE INVENTORY NUMBER (9) 1 1 5 8 0 2 1 1 (16)

MONITOR POINT NUMBER (17) G 1 0 5 (20) DATE COLLECTED (21) 0 5 0 9 8 0 (26)

MACON Co. - LPC REGION (27) C

DECATUR (Location) / DECATUR WATER DEPARTMENT (Responsible Party)

Legal (1); Illegal (2); Indicate One: (28) 1 Board Order (X) (29)

Time Collected 10:50 a.m. p.m. Unable to collect sample (X) (30)

Stick-up (31) 0 (33) 3.0 ft. Depth to water (from T.O.C.) (34) 2.3 (36) ft.

Sample temp. (37) 57 ° (39) F Background (X). . . . (40)

Ground water sampled by (Indicate one): (1) Bailing; (2) Pumping; (3) Other (Specify) _____ (41) 1

Sample Appearance: SLIGHTLY YELLOWISH & SLIGHTLY CLOUDY

Collector comments:

J. GRALIKER Collected by — DECATUR WATER DEPT Div. or Company

Transported by — Div. or Company

LAB USE ONLY

Lab No. 058 0150

Date Rec'd 5/8/80

Rec'd by JG. Time 11 a.m. p.m.

Sample temp. acceptable YES NO

Sample properly preserved YES NO

Date completed 5/8/80

Date forwarded 5/13/80

James Gralikes
Supervisor Signature

Name CITY OF DECATUR WATER DEPT
Address LINCOLN PARK DRIVE
of Lab DECATUR IL 62521

LPCSM020
Lab Comments:

(27) — (36)

(37) — (46)

(47) — (56)

(57) — (66)

(67) — (76)

Private Lab (X) X (77)

IEPA Lab (X) (78)

LPCSM030

		PARAMETERS*	PPM*
27		Alkalinity[1]	
31		Ammonia as N	
37		Arsenic As	
44		Barium Ba	
49		BOD -5	
53		Boron B	
58		Cadmium Cd	
64		Calcium Ca	
69		COD	
73	X	Chloride Cl	48

LPCSM040

27		Chromium Cr (tot)	
33		Chromium Cr^{+6}	
39		Copper Cu	
45		Cyanide CN	
52		Fecal Coli (#/100 ml)	
56		Fluoride F	
61		Hardness $CaCO_3$	
65	X	Iron Fe	0
70		Lead Pb	

LPCSM050

27		Magnesium Mg	
32		Manganese Mn	
38		Mercury Hg	
46		Nickel Ni	
51		Nitrate-nitrite N	
56		Oil and Grease	
60		pH (Units)	
63		Phenolics	
70		Phosphorus P	
76		Potassium K	

LPCSM060

27	X	R.O.E. (180°C)	250
31		Selenium Se	
38		Silver Ag	
44		Sodium Na	
49		Sp. Cond. (umhos/cm)	
53		Sulfate SO_4	
58		Zinc Zn	
63			

*Analyses are to be performed on filtered samples. *Values exceeding no. of places shown are reported in the lab comments section; tests requested but not run should also be explained in the lab comments section.

[1] Alkalinity is to be determined as ppm of $CaCO_3$ at pH 4.5.

RECEIVED
JUN 02 1980
I.E.P.A. — D.L.P.C.
STATE OF ILLINOIS

RW1

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information:

Non - Responsive

[redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

A copy of the sample analysis of samples collected from your property will be forwarded by the U.S. EPA within 6 months. If a copy of the sample analysis is not received within 6 months of the sample collection date noted above, a written request may be sent to the U.S. EPA representative indicated below.

It is essential to include the U.S. EPA Identification Number listed below to ensure that your request is properly referenced.

U. S. EPA Identification Number | ILD980901540 |

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:

White: FIT Site File; TDD No.: F05-8612-070 ; PAN: FIL0492
Yellow: Recipient
Pink: U.S. EPA

RW 2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive

[redacted]

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William Messenger, Chief
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United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:
White: FIT Site File; TDD No.: F05-8612-071 ; PAN: FIL04925B
Yellow: Recipient
Pink: U.S. EPA

RW3

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information:

Non - Responsive

[redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

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U. S. EPA Identification Number ILD980901540

Address requests to:

William Messenger, Chief
Pre-Remedial Unit (5HR11)
United States Environmental Protection Agency
230 South Dearborn Street
Chicago, Illinois 60604
(312) 353-1057

Distribution:

White: FIT Site File; TDD No.: F05-8612-070 ; PAN: FIL049254
Yellow: Recipient
Pink: U.S. EPA

RWH

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

Sample Collection Date: 2/21/90

Recipient Information: Non - Responsive

[redacted]

Ecology and Environment, Inc. has been retained by the United States Environmental Protection Agency (U.S. EPA) under contract 68-01-7347 for the purpose of evaluating sites under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), and the Superfund Amendments and Reauthorization Act (SARA).

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White: FIT Site File; TDD No.: F05-8612-071 ; PAN: FIL04925B
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Pink: U.S. EPA

ILLINOIS DEPARTMENT OF
PUBLIC HEALTH
A Healthier Today For A Better Tomorrow

Bernard J. Turnock, M.D., Director

#904209001H

April 23, 1990

Anna Brown
RR 8, Box 161
Decatur, IL 62522

Dear Ms. Brown:

The United States Environmental Protection Agency (USEPA) has requested that staff from this department review the analytical results of the water sample taken from you supply, and comment on the potential health effects posed by continued consumption of this water.

The results of the USEPA analyses for both organic and inorganic parameters indicated no occurrence of any compounds at levels exceeding current health standards or guidelines. Manganese was detected above a current secondary standard. Secondary standards are not health based, but are set to address aesthetic issues (e.g. color, odor, etc.). Sodium was measured at 16.5 parts per million (ppm) which is approaching the health guideline of 20 ppm. This may be a concern if consumers of the water have a history of high blood pressure or are on a low-sodium diet. If either of these circumstances exist, or may exist in the future, their physician should be made aware of the situation.

Please find enclosed a pamphlet which discusses some of the commonly found substances (e.g. iron) in drinking water and available treatment. Also note that the use of a zeolite water softener may add more sodium to your drinking water and may be a concern (as stated above).

Other than the caution about sodium, we see no reason to alter the use of water from this well. Please feel free to contact me if questions remain or further information is required.

Sincerely,

Bruce C. Barrow

Bruce C. Barrow, MA
Environmental Toxicology Program

Enclosure

cc: William Messenger, USEPA, Region 5
Paul Purseglove, IEPA-LPC
Division of Environmental Health, Region 6
Central Office File

ILLINOIS DEPARTMENT OF
PUBLIC HEALTH
A Healthier Today For A Better Tomorrow

Bernard J. Turnock, M.D., Director

#904209001H

April 23, 1990

Mr. Kleiss
RR 8, Box 128A
Decatur, IL 62522

Dear Mr. Kleiss:

The United States Environmental Protection Agency (USEPA) has requested that staff from this department review the analytical results of the water sample taken from you supply, and comment on the potential health effects posed by continued consumption of this water.

The results of the USEPA analyses for both organic and inorganic parameters indicated no occurrence of any compounds at levels exceeding current health standards or guidelines. Iron and manganese were detected above current secondary standards. Secondary standards are not health based, but are set to address aesthetic issues (e.g. color, odor, etc.). Sodium was measured at 17.8 parts per million (ppm) which is approaching the health guideline of 20 ppm. This may be a concern if consumers of the water have a history of high blood pressure or are on a low-sodium diet. If either of these circumstances exist, or may exist in the future, their physician should be made aware of the situation.

Please find enclosed a pamphlet which discusses some of the commonly found substances (e.g. iron) in drinking water and available treatment. Also note that the use of a zeolite water softener may add more sodium to your drinking water and may be a concern (as stated above).

Other than the caution about sodium, we see no reason to alter the use of water from this well. Please feel free to contact me if questions remain or further information is required.

Sincerely,

Bruce C. Barrow

Bruce C. Barrow, MA
Environmental Toxicology Program

Enclosure

cc: William Messenger, USEPA, Region 5
Paul Purseglove, IEPA-LPC
Division of Environmental Health, Region 6
Central Office File

ILLINOIS DEPARTMENT OF
PUBLIC HEALTH
A Healthier Today For A Better Tomorrow

Bernard J. Turnock, M.D., Director

#904209001H

RECEIVED
APR 26 1990

April 23, 1990

RECEIVED
APR 26 1990
TECHNICAL SUPPORT SECTION

Julie A. Babit
RR 8, Box 163
Decatur, IL 62522

Remedial Unit

Dear Ms. Babit:

The United States Environmental Protection Agency (USEPA) has requested that staff from this department review the analytical results of the water sample taken from your supply, and comment on the potential health effects posed by continued consumption of this water.

The results of the USEPA analyses for both organic and inorganic parameters indicate sodium at 26.9 parts per million (ppm) and would be a concern if consumers of the water have a history of high blood pressure or are on a low-sodium diet. If either of these circumstances exist, or may exist in the future, the physician should be made aware of the situation. The recommended health guideline for sodium is 20 ppm. Iron and manganese were detected above current secondary standards. Secondary standards are not health based, but are set to address aesthetic issues (e.g. color, odor, etc.). All other compounds detected were below current health standards or guidelines.

Please find enclosed a pamphlet which discusses some of the commonly found substances (e.g. iron) in drinking water and available treatment. Also note that the use of a zeolite water softener may add more sodium to your drinking water and may be a concern (as stated above).

Other than the caution about sodium, we see no reason to alter the pattern of use of the water from this well. Please feel free to contact me if questions remain or further information is required.

Sincerely,

Bruce C. Barrow

Bruce C. Barrow, MA
Environmental Toxicology Program

Enclosure
cc: William Messenger, USEPA, Region 5
Paul Purseglove, IEPA-LPC
Division of Environmental Health, Region 6
Central Office File

ILLINOIS DEPARTMENT OF
PUBLIC HEALTH
A Healthier Today For A Better Tomorrow

Bernard J. Turnock, M.D., Director

#904209001H

April 23, 1990

Mr. Charlie Ross
RR 8, Box 158
Decatur, IL 62522

Dear Mr. Ross:

The United States Environmental Protection Agency (USEPA) has requested that staff from this department review the analytical results of the water sample taken from your supply, and comment on the potential health effects posed by continued consumption of this water.

The results of the USEPA analyses for both organic and inorganic parameters indicate sodium at 28.5 parts per million (ppm) and would be a concern if consumers of the water have a history of high blood pressure or are on a low-sodium diet. If either of these circumstances exist, or may exist in the future, the physician should be made aware of the situation. The recommended health guideline for sodium is 20 ppm. Iron and manganese were detected above current secondary standards. Secondary standards are not health based, but are set to address aesthetic issues (e.g. color, odor, etc.). All other compounds detected were below current health standards or guidelines.

Please find enclosed a pamphlet which discusses some of the commonly found substances (e.g. iron) in drinking water and available treatment. Also note that the use of a zeolite water softener may add more sodium to your drinking water and may be a concern (as stated above).

Other than the caution about sodium, we see no reason to alter the pattern of use of the water from this well. Please feel free to contact me if questions remain or further information is required.

Sincerely,

Bruce C. Barrow

Bruce C. Barrow, MA
Environmental Toxicology Program

Enclosure
cc: William Messenger, USEPA, Region 5
Paul Purseglove, IEPA-LPC
Division of Environmental Health, Region 6
Central Office File