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

CRL Receipt Date 5/3/89 FIT Receipt Date 5/23/89 Review Completed 6/1/89

TO: Andrea Davis
FROM: John ERVE
SUBJECT: Golf & River Landfill
PAN: FI106225B (1 hour charged for review) Case # 11716

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

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

Book No. 9 Page No. _____ Date Sampled 4/4/89

0759:2

US EPA RECORDS CENTER REGION 5
433060

recycled paper

Soil

JE 6/1/89

Table 4-> Cont.

2070-13 Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number >S1	>S2	>S3	>S4	>S5	>S6	>7	>8	>9	>10	>11	>12
				Analyte Detected (values in > mg/kg or µg/L)	MEC200	MEC201	MEC202	MEC203	MEC204	MEC205						
Solid	A,D	MES	CSC	aluminum	5440	14000	6540	8160	10500	7180						
Solid	A,D	MES	HM	antimony												
Solid	A,D	MES	HM	arsenic	5.9	8.6	4.4	6.6	7.1	5.8						
Solid	A,D	MES	CSC	barium	32.9 B	94.2	55.5	65.5	60.9	73.4						
Solid	A,D	MES	M	beryllium	.38 B	1.3	.43 B	.52 B	1.2	.45 B						
Solid	A,D	MES	HM	cadmium												
Solid	D	MES	CSC	calcium	23400	21000	25000	30200	44500	2650						
Solid	A,D	MES	HM	chromium	16.2	21.9	12.1	20.8	16.3	10.7						
Solid	A,D	MES	HM	cobalt	7.1 B	10.8 B	6.3 B	7 B	12.2	10.7 B						
Solid	A,D	MES	HM	copper	14.5	28.7	22.7	34.1	28.7	19.3						
Solid	A,D	MES	HM,CSC	iron	14900	23800	15100	16500	20800	14000						
Solid	A,D	MES	HM	lead	11.7	30.5	35.3	60.7	15.8	30.7						
Solid	A,D	MES	CSC	magnesium	14800	14000	14700	18400	24600	2260						
Solid	A,D	MES	HM	manganese	824	495	558	342	449	639						
Liquid	A,D	MES	HM	mercury												
Solid	A,D	MES	HM	nickel	13.1	30.1	14	17	27.5	13.4						
Solid	D	MES	CSC	potassium	482 B	2070	1160 B	1340	2060	1040 B						
Solid	A,D	MES	M	selenium												
Solid	A,D	MES	HM	silver												
Solid	D	MES	CSC	sodium	61.2 B	72.7 B	70.8 B	273 B	116 B	59.2 B						
Solid	A,D	MES	HM	thallium												
Solid	A,D	MES	HM	vanadium	14.1	25.2	13.8	14.6 B	19.6	16.7						
Solid	A,D	MES	CSC,HM	zinc	41.6 JE	74.1 JE	77.3 JE	116 JE	52.5 JE	59.2 JE						
Solid	A	IOC	IOC	cyanide												

— Not detected.

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MECZ00

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-W8-0006

Lab Code: SKINER Case No.: 11716 SAS No.: SDG No.: MECZ00

Matrix (soil/water): SOIL Lab Sample ID: 04034-01S

Level (low/med): LOW Date Received: 04/05/89

% Solids: 86.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5440.00			P
7440-36-0	Antimony	2.20	U	N	P
7440-38-2	Arsenic	5.90			F
7440-39-3	Barium	32.90	B		P
7440-41-7	Beryllium	0.38	B		P
7440-41-7	Cadmium	0.56	U	N	P
7440-70-2	Calcium	23400.00			P
7440-47-3	Chromium	16.20			P
7440-48-4	Cobalt	7.10	B		P
7440-50-8	Copper	14.50			P
7439-89-6	Iron	14900.00			P
7439-92-1	Lead	11.70			F
7439-95-4	Magnesium	14800.00			P
7439-96-5	Manganese	824.00			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	13.10			P
7440-09-7	Potassium	482.00	B		P
7782-49-2	Selenium	0.57	U	NW	F
7440-22-4	Silver	0.89	U		P
7440-23-5	Sodium	61.20	B		P
7440-28-0	Thallium	0.43	U	NW	F
7440-62-2	Vanadium	14.10			P
7440-66-6	Zinc	41.60		E	P
	Cyanide	1.10	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

STONES

0002

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MECZ01

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-W8-0006

Lab Code: SKINER Case No.: 11716 SAS No.: SDG No.: MECZ00

Matrix (soil/water): SOIL Lab Sample ID: 04034-02S

Level (low/med): LOW Date Received: 04/05/89

% Solids: 80.2

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	14000.00			P
7440-36-0	Antimony	2.40	U	N	P
7440-38-2	Arsenic	8.60			F
7440-39-3	Barium	94.20			P
7440-41-7	Beryllium	1.30			P
7440-41-7	Cadmium	0.62	U	N	P
7440-70-2	Calcium	21000.00			P
7440-47-3	Chromium	21.90			P
7440-48-4	Cobalt	10.80	B		P
7440-50-8	Copper	28.70			P
7439-89-6	Iron	23800.00			P
7439-92-1	Lead	30.50			F
7439-95-4	Magnesium	14000.00			P
7439-96-5	Manganese	495.00			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	30.10			P
7440-09-7	Potassium	2070.00			P
7782-49-2	Selenium	0.60	U	NW	F
7440-22-4	Silver	0.99	U		P
7440-23-5	Sodium	72.70	B		P
7440-28-0	Thallium	0.45	U	NW	F
7440-62-2	Vanadium	25.20			P
7440-66-6	Zinc	74.10		E	P
	Cyanide	1.20	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

0003

STONES AND ROOTS

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MECZ02

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-W8-0006

Lab Code: SKINER Case No.: 11716 SAS No.: SDG No.: MECZ00

Matrix (soil/water): SOIL Lab Sample ID: 04034-03S

Level (low/med): LOW Date Received: 04/05/89

% Solids: 79.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6540.00			P
7440-36-0	Antimony	2.50	U	N	P
7440-38-2	Arsenic	4.40			F
7440-39-3	Barium	55.50			P
7440-41-7	Beryllium	0.43	B		P
7440-41-7	Cadmium	0.64	U	N	P
7440-70-2	Calcium	25000.00			P
7440-47-3	Chromium	12.10			P
7440-48-4	Cobalt	6.30	B		P
7440-50-8	Copper	22.70			P
7439-89-6	Iron	15100.00			P
7439-92-1	Lead	35.30			F
7439-95-4	Magnesium	14700.00			P
7439-96-5	Manganese	558.00			P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	14.00			P
7440-09-7	Potassium	1160.00	B		P
7782-49-2	Selenium	0.60	U	NW	F
7440-22-4	Silver	1.00	U		P
7440-23-5	Sodium	70.80	B		P
7440-28-0	Thallium	0.45	U	NW	F
7440-62-2	Vanadium	13.80			P
7440-66-6	Zinc	77.30		E	P
	Cyanide	1.30	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

STONES

004

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MECZ03

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-W8-0006

Lab Code: SKINER Case No.: 11716 SAS No.: SDG No.: MECZ00

Matrix (soil/water): SOIL Lab Sample ID: 04034-04S

Level (low/med): LOW Date Received: 04/05/89

% Solids: 62.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8160.00			P
7440-36-0	Antimony	3.00	U	N	P
7440-38-2	Arsenic	6.60			F
7440-39-3	Barium	65.50			P
7440-41-7	Beryllium	0.52	B		P
7440-41-7	Cadmium	0.76	U	N	P
7440-70-2	Calcium	30200.00			P
7440-47-3	Chromium	20.80			P
7440-48-4	Cobalt	7.00	B		P
7440-50-8	Copper	34.10			P
7439-89-6	Iron	16500.00			P
7439-92-1	Lead	60.70			F
7439-95-4	Magnesium	18400.00			P
7439-96-5	Manganese	342.00			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	17.00			P
7440-09-7	Potassium	1740.00			P
7782-49-2	Selenium	0.78	U	NW	F
7440-22-4	Silver	1.20	U		P
7440-23-5	Sodium	273.00	B		P
7440-28-0	Thallium	0.59	U	NW	F
7440-62-2	Vanadium	14.60	B		P
7440-66-6	Zinc	116.00		E	P
	Cyanide	1.60	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

STONES

0005

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MECZ04

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-W8-0006

Lab Code: SKINER Case No.: 11716 SAS No.: SDG No.: MECZ00

Matrix (soil/water): SOIL Lab Sample ID: 04034-05S

Level (low/med): LOW Date Received: 04/05/89

% Solids: 85.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10500.00			P
7440-36-0	Antimony	2.30	U	N	P
7440-38-2	Arsenic	7.10			F
7440-39-3	Barium	60.90			P
7440-41-7	Beryllium	1.20			P
7440-41-7	Cadmium	0.59	U	N	P
7440-70-2	Calcium	44500.00			P
7440-47-3	Chromium	16.30			P
7440-48-4	Cobalt	12.20			P
7440-50-8	Copper	28.70			P
7439-89-6	Iron	20800.00			P
7439-92-1	Lead	15.80			F
7439-95-4	Magnesium	24600.00			P
7439-96-5	Manganese	449.00			P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	27.50			P
7440-09-7	Potassium	2060.00			P
7782-49-2	Selenium	2.90	U	N	F
7440-22-4	Silver	0.94	U		P
7440-23-5	Sodium	116.00	B		P
7440-28-0	Thallium	0.44	U	NW	F
7440-62-2	Vanadium	19.60			P
7440-66-6	Zinc	52.50		E	P
	Cyanide	1.10	U		AS

Color Before: GREY Clarity Before: Texture: MEDIUM

Color After: GREY Clarity After: Artifacts: YES

Comments:

STONES

0006

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MECZ05

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-W8-0006

Lab Code: SKINER Case No.: 11716 SAS No.: SDG No.: MECZ00

Matrix (soil/water): SOIL Lab Sample ID: 04034-06S

Level (low/med): LOW Date Received: 04/05/89

% 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	7180.00			P
7440-36-0	Antimony	2.60	U	N	P
7440-38-2	Arsenic	5.80			F
7440-39-3	Barium	73.40			P
7440-41-7	Beryllium	0.45	B		P
7440-41-7	Cadmium	0.67	U	N	P
7440-70-2	Calcium	2650.00			P
7440-47-3	Chromium	10.70			P
7440-48-4	Cobalt	10.70	B		P
7440-50-8	Copper	19.30			P
7439-89-6	Iron	14000.00			P
7439-92-1	Lead	30.70			F
7439-95-4	Magnesium	2260.00			P
7439-96-5	Manganese	639.00			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	13.40			P
7440-09-7	Potassium	1040.00	B		P
7782-49-2	Selenium	0.60	U	NW	F
7440-22-4	Silver	1.10	U		P
7440-23-5	Sodium	59.20	B		P
7440-28-0	Thallium	0.46	U	NW	F
7440-62-2	Vanadium	16.70			P
7440-66-6	Zinc	59.20		E	P
	Cyanide	1.30	U		AS

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: BROWN Clarity After: Artifacts: YES

Comments:

STONES AND ROOTS

0007

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 5-19-89

5/23/89

SUBJECT: Review of Region V CLP Data
Received for Review on 5-3-89

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

TO: Data User: Rit

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

SITE NAME: Golf and River UF SMD Case No. 11716

EPA Data Set No. SF6066 No. of Samples: 6 D.U./Activity Numbers TF-A1TFN02

CRL No. 89FD145411-46

SMD Traffic No. MR200-05

CLP Laboratory: Skinner Hrs. Required for Review: 4 1/2

DK 5/17/89

Following are our findings:

The laboratory's portion of Case 11716 consisted of 6 soil samples analyzed for total metals and CN.

continued on next page

P. Hartley
5-17-89

( ) Data are acceptable for use.
(X) Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory. See Case Summary above.
( ) Data are unacceptable.

cc: Carla Dempsey, CLP Quality Assurance Officer, Analytical Operations Branch
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

Laboratory: Skinner Case: 11716

ICP:

ICP serial dilution %D for Zn (52.7%) ~~exceeded~~ outside QC limits and all samples were flagged "E"; Zn data in all samples are estimated (J) due to interference.

Matrix spike %R for Sb (22.2%) ~~exceeded~~ outside QC limits and all samples were flagged "N"; all Sb data are <IDL and are therefore unusable.

Matrix spike %R for Cd (57.0%) ~~exceeded~~ outside QC limits and all samples were flagged "N"; Cd data in all samples are estimated (UJ) due to a possible elevated detection limit.

GFAA:

Matrix spike %R for Se (0.0%) ~~exceeded~~ outsid QC limits and all samples were flagged "N"; Se data in all samples are <IDL and are therefore unusable.

Matrix spike %R for Tl (6.7%) ~~exceeded~~ outside QC limits and all samples were flagged "N"; Tl data in all samples are <IDL and are therefore unusable.

Analytical spike %R for Tl in all samples and Se in all samples except MECZ04 exceeded QC limits and were flagged "W"; these data are qualified as above.

OTHER QUALIFIERS:

All Hg data are acceptable.

Cyanide IDL was reported as 20 ug/l. All CN data are acceptable.

DATE: 17 MAY 89
Reviewer: J. P. Hershey

J.P. Hershey

QC EXCEPTION SUMMARY REPORT

CASE # 11716
DATA SET # MEC206
LAB Q.C.# 8904034
DATE: 5-17-89

SITE Gulf & River LF
LAB SKINNER
REVIEWED BY C Hesher

MATRIX: _____
CONC. : _____
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	Bkd Calcul	Comm Calcul	Prep Blk AQ	Prep Blk SOL	ICS %R	ICS % AQ	ICS % SOL	Sol Dup RPD	Sol Spk %R	AQ Dup RPD	AQ Spk %R	Sol Dilu AQ	Sol Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blank Blank	Blank Spike %R	Spike Sample RPD	
Aluminum																								
Antimony											22.4													
Arsenic																								
Barium																								
Beryllium																								
Cadmium											57.4													
Calcium																								
Chromium																								
Cobalt																								
Copper																								
Iron																								
Lead																								
Magnesium																								
Manganese																								
Mercury																								
Nickel																								
Potassium																								
Selenium											0.0													
Silver																								
Sodium																								
Thallium											6.7													
Tin																								
Vanadium																								
Zinc															52.7									
Cyanide																								

DPO: [ ] ACTION [ ] FYI Region V

INORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO. 11716 LABORATORY SKINNER

SDG NO. MEC200 DATA USER FIT

SOW 7/87 REVIEW COMPLETION DATE 5-17-89

NO. OF SAMPLES _____ WATER 6 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)	F	F	F	F
5. LABORATORY BLANKS	O	O	O	O
6. ICS	O			
7. LCS	O	O		
8. DUPLICATE ANALYSIS	O	O	O	O
9. MATRIX SPIKE	M	Z	O	O
10. MSA		O		
11. SERIAL DILUTION	X			
12. SAMPLE VERIFICATION	O	O	O	O
13. REGIONAL QC ("F" = not applicable)				
14. OVERALL ASSESSMENT	X	Z	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: SKINNER & SHERMAN LABS. Contract: 68-W8-0006

Lab Code: SKINER Case No.: 11716 SAS No.: SDG No.: MECZ00

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
MECZ00	04034-01S
MECZ00D	04034-01S2
MECZ01	04034-02S
MECZ01S	04034-02DS
MECZ02	04034-03S
MECZ03	04034-04S
MECZ04	04034-05S
MECZ05	04034-06S

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:
ZINC SERIAL DILUTION EXCEEDS CONTROL LIMITS (E FLAG)

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.

Lab Manager: Ruth P Packy

Date: 5/2/89

U.S. EPA - CLP

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-W8-0006

Lab Code: SKINER Case No.: 11716 SAS No.: SDG No.: MECZ00

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	119.2	B	16.1	U	16.1	U	16.1	U	3.486	B	P
Antimony	10.2	U	10.2	U	10.2	U	10.2	U	2.036	U	P
Arsenic	1.3	U	1.3	U	1.3	U	1.3	U	0.260	U	F
Barium	1.0	U	1.0	U	1.0	U	1.0	U	0.204	U	P
Beryllium	1.7	U	1.7	U	1.7	U	1.7	U	0.334	U	P
Cadmium	2.6	U	2.6	U	2.6	U	2.6	U	0.520	U	P
Calcium	18.9	U	18.9	U	18.9	U	23.8	B	3.772	U	P
Chromium	4.3	U	4.3	U	4.3	U	4.3	U	0.854	U	P
Cobalt	3.6	U	3.6	U	3.6	U	3.6	U	0.712	U	P
Copper	2.5	U	2.5	U	2.7	B	2.5	U	-0.536	B	P
Iron	4.6	U	4.6	U	4.6	U	4.6	B	0.910	U	P
Lead	0.9	U	0.9	U	0.9	U	0.9	U	0.419	B	F
Magnesium	30.4	U	30.4	U	30.4	U	30.4	U	6.090	U	P
Manganese	1.0	U	1.0	U	1.0	U	3.7	B	0.202	U	P
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.100	U	CV
Nickel	4.1	U	4.1	U	4.1	U	4.1	U	0.826	U	P
Potassium	75.1	U	-177.3	B	75.1	U	-88.7	B	15.026	U	P
Selenium	2.5	U	2.5	U	2.5	U	2.5	U	0.500	U	F
Silver	4.1	U	4.1	U	4.1	U	4.1	U	0.828	U	P
Sodium	-54.4	B	-74.5	B	-100.8	B	-98.4	B	-11.690	B	P
Thallium	1.9	U	1.9	U	1.9	U	1.9	U	0.380	U	F
Vanadium	1.8	U	1.8	B	1.8	U	1.8	U	0.368	B	P
Zinc	2.6	U	2.6	U	2.6	U	2.6	U	0.514	U	P
Cyanide	20.0	U	20.0	U	20.0	U			1.000	U	AS

0013

U.S. EPA - CLP

3
BLANKS

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-W8-0006

Lab Code: SKINER Case No.: 11716 SAS No.: SDG No.: MECZ00

Preparation Blank Matrix (soil/water):

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum			16.1	U							P
Antimony			10.2	U							P
Arsenic											NR
Barium			1.3	B							P
Beryllium			1.7	U							P
Cadmium			2.6	U							P
Calcium			20.9	B							P
Chromium			4.3	U							P
Cobalt			3.6	U							P
Copper			2.5	U							P
Iron			5.1	B							P
Lead	0.9	U	0.9	U	0.9	U					F
Magnesium			30.4	U							P
Manganese			3.7	B							P
Mercury											NR
Nickel			4.1	U							P
Potassium			-139.3	B							P
Selenium	2.5	U	2.5	U							F
Silver			4.1	U							P
Sodium			-110.4	B							P
Thallium	1.9	U	1.9	U							F
Vanadium			1.8	B							P
Zinc			2.6	U							P
Cyanide											NR

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MECZ01S

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-W8-0006

Lab Code: SKINER Case No.: 11716 SAS No.: SDG No.: MECZ00

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

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	26.1118		2.4387	U	117.4	22.2	N	P
Arsenic	75-125	15.9033		8.5720		9.3	78.8		F
Barium	75-125	531.8628		94.1882		469.6	93.2		P
Beryllium	75-125	10.4377		1.2768		11.7	78.3		P
Cadmium	75-125	6.6712		0.6228	U	11.7	57.0	N	P
Calcium									NR
Chromium	75-125	61.4730		21.9265		47.0	84.1		P
Cobalt	75-125	112.6868		10.7896	B	117.4	86.8		P
Copper	75-125	80.3782		28.6508		58.7	88.1		P
Iron									NR
Lead		26.3581		30.4628		4.7	-87.3		F
Magnesium									NR
Manganese		601.9090		494.9925		117.4	91.1		P
Mercury	75-125	0.5697		0.1080	U	0.5	113.9		CV
Nickel	75-125	129.3213		30.1384		117.4	84.5		P
Potassium									NR
Selenium	75-125	0.5821	U	0.5960	U	2.3	0.0	N	F
Silver	75-125	10.5058		0.9918	U	11.7	89.8		P
Sodium									NR
Thallium	75-125	0.7730	B	0.4530	U	11.6	6.7	N	F
Vanadium	75-125	130.4508		25.2323		117.4	89.6		P
Zinc	75-125	176.1205		74.0728		117.4	86.9		P
Cyanide	75-125	6.1787		1.2117	U	6.2	99.7		AS

Comments:

U.S. EPA - CLP

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MECZ01A

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-W8-0006

Lab Code: SKINER Case No.: 11716 SAS No.: SDG No.: MECZ00

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

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony		106.87		10.18	U	120.0	89.1		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium		2.60	U	2.60	U	10.0	0.0		P
Calcium									NR
Chromium									NR
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MECZ00D

Lab Name: SKINNER & SHERMAN LABS. Contract: 68-W8-0006

Lab Code: SKINER Case No.: 11716 SAS No.: SDG No.: MECZ00

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

% Solids for Sample: 86.6 % Solids for Duplicate: 86.8

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		5440.0896		5297.8458		2.6		P
Antimony	12.8	2.1769	U	2.2159	U			P
Arsenic	2.3	5.9479		6.2346		4.7		F
Barium	42.8	32.9078	B	31.9865	B	2.8		P
Beryllium	1.1	0.3785	B	0.3853	B	1.8		P
Cadmium	1.1	0.5560	U	0.5659	U			P
Calcium		23426.1720		25970.0884		10.3		P
Chromium		16.2027		15.9051		1.9		P
Cobalt	10.7	7.0674	B	6.4495	B	9.1		P
Copper	5.3	14.5347		13.9852		3.9		P
Iron		14903.5788		14148.9203		5.2		P
Lead		11.6510		10.2291		13.0		F
Magnesium		14819.1120		16383.2926		10.0		P
Manganese		823.9683		755.1155		8.7		P
Mercury	0.1	0.0962	U	0.0909	U			CV
Nickel	8.6	13.1041		12.9840		0.9		P
Potassium	1069.2	482.1878	B	482.5504	B	0.1		P
Selenium	1.1	0.5694	U	0.5677	U			F
Silver	2.1	0.8853	U	0.9011	U			P
Sodium	1069.2	61.1818	B	56.3240	B	8.3		P
Thallium	2.3	0.4327	U	0.4315	U			F
Vanadium	10.7	14.0600		14.4445		2.7		P
Zinc		41.5534		41.5117		0.1		P
Cyanide	0.6	1.1395	U	1.1187	U			AS

0018

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

CRL Receipt Date 5/9/89 FIT Receipt Date 5/26/89 Review Completed 5/31/89

TO: Alois
FROM: Mary Gzyra
SUBJECT: Dolf & River LF
PAN: IL0672258 (1 hour charged for review) Case # 11716

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 analy.

FIT Data Review Findings:

PAH's & PEST.

Check Data Sheets for Transcription Errors

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

Book No. 9 Page No. _____ Date Sampled 4/4

0759:2

recycled paper

Table 4-_>_
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED >_____ SAMPLES

Z 5/31/89

2070-13				Sample Collection Information and Parameters	Sample Number >_1	>_2	>_3	>_4	>_5	>_6	>_7	>_8	>_9	>_10	>_11	>_12
Physical State*	Waste Characteristics**	Category***	SI Memo													
				Date												
				Time												
				Organic Traffic Report Number	EDB52	EDB53	EDB54	EDB55	EDB 56	EDB 57						
				Inorganic Traffic Report Number												
				Temperature (°C)												
				Specific Conductivity (µmhos)												
				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				18 J								
Liquid	E,H,I,A	SOL	K,CLA	acetone												
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)												
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												
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				7 J								
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	8	20	6 J		29	6 J						
Liquid	A,G,E	SOL	A,CLA	toluene												
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)			6 J									

Table 4-> Cont.

2070-13				Sample Collection Information and Parameters	Sample Number											
Physical State*	Waste CHARACTERISTICS	CATEGORY**	SI Memo		≥ 1	≥ 2	≥ 3	≥ 4	≥ 5	≥ 6	≥ 7	≥ 8	≥ 9	≥ 10	≥ 11	≥ 12
				Semivolatile Organics												
S, thick liquid	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					160 J							
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					180 J							
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		110 J			200 J							
Solid	A,D,G	OCC	P	2,4-dinitrophenol												
Solid	A,D	OCC	P	4-nitrophenol												
Solid	A,D	OCC	A	dibenzofuran					250 J							
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		120 J			400 J							
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		1400	150 J	360 J	2100							

Table 4-> Cont.

Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	Sample Number >_1	>_2	>_3	>_4	>_5	>_6	>_7	>_8	>_9	>_10	>_11	>_12
				Semivolatile Organics, Cont.												
Solid	A,D	OCC	PAH	anthracene		370 J			720 J							
Liquid	A,D	OCC	PH,CLA	di-n-butylphthalate												
Solid	A,D	OCC	PAH	fluoranthene		2700	320 J	990 J	2100							
Solid	A,D	OCC	PAH	pyrene		2200	260 J	710 J	1800							
Liquid	A,D	OCC	PH,CLA	butylbenzylphthalate												
	A,D	OCC	HA	3,3'-dichlorobenzidine												
Solid	A,D	OCC	PAH	benzo[a]anthracene		1400	130 J	430 J	950							
Solid	A,D	OCC	PAH	chrysene		1600	200 J	410 J	800							
Liquid	A,D	OCC	PH,CLA	bis(2-ethylhexyl)phthalate												
Liquid	A,D	OCC	PH,CLA	di-n-octylphthalate			110 J									
Solid	A,D	OCC	PAH	benzo[b]fluoranthene		1900	260 J	1100 J	980							
Solid	A,D	OCC	PAH	benzo[k]fluoranthene												
Solid	A,D,K,L	OCC	PAH	benzo[a]pyrene		1100	130 J	380 J	550 J							
Solid	A,D	OCC	PAH	indeno[1,2,3-cd]pyrene		1000	160 J	530 J	410 J							
Solid	A,D	OCC	PAH	dibenzo[a,h]anthracene		260 J		130 J	93 J							
Solid	A,D	OCC	PAH	benzo[g,h,i]perylene		930	160 J	550 J	330 J							
				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			2.2 JX									
Solid	A,D,E	PSD	PEST	Dieldrin												
Solid	A,D	PSD	PEST	4,4'-DDE			37 JX									
Solid	A,D	PSD	PEST	Endrin												
Solid	A,D	PSD	PEST	Endosulfan II												
Solid	A,D	PSD	PEST	4,4'-DDD												
Solid	A,D	PSD	PEST	Endosulfan sulfate												
Solid	A,D	PSD	PEST	4,4'-DDT		7.7 JX	43 JX									
Solid	A,D	PSD	PEST	Methoxychlor (Mariate)												
Solid	A,D	PSD	PEST	Endrin ketone												
Solid	A,D	PSD	PEST	alpha Chlordane												
Solid	A,D	PSD	PEST	gamma Chlordane												
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												

X denotes manually entered data

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 values.
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 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.
X	~~Cannot be confirmed by CLP protocols.~~	~~Compound may or may not be present.~~

ANALYTE QUALIFIERS		DEFINITION	INTERPRETATION
OLD	NEW		
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. 1988.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 5-23-89

5/26/89

SUBJECT: Review of Region V CLP Data
Received for Review on 5-9-89

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory, Dorothy M. May

TO: Data User: Ret

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

SITE NAME: Gold and River LF SMO Case No. 11716

EPA Data Set No. SF6886 No. of Samples: 6 D.U./Activity Numbers TFA / TFA02

CRL No. 89FD14541-46

SMO Traffic No. EDB52 - 57

CLP Laboratory: Encoff Hrs. Required for Review: 4 hr.

Following are our findings:

THE DATA REVIEW COVERS THE ANALYSIS OF 6 SOIL SAMPLES FOR VOA, ABN AND PESTICIDE/PCBS. THERE WERE NO MAJOR PROBLEMS WITH THE DATA SET WHICH WOULD CAUSE THE RESULTS TO BE LABELED UNUSABLE. HOWEVER, THERE ARE SEVERAL POINTS WHICH ARE OF IMPORTANCE TO BE DISCUSSED IN THE FOLLOWING NARRATIVE.

Robert Katzen
Weston/CSAT
5/18/89

( ) Data are acceptable for use.
(✓) Data are acceptable for use with qualifications referenced above. See Data Qualifier sheets and Calibration Outlier forms for flags and additional comments.
( ) Data are preliminary - pending verification by Contractor Laboratory. See Case Summary above.
( ) Data are unacceptable.

cc: Carla Dempsey, CLP Quality Assurance Officer, Analytical Operations Branch
James Petty, Chief Quality Assurance Research, EMSL, Las Vegas

DATA QUALIFIERS

Contractor: ENCOT

Case 11716

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

(1) HOLDING TIME

SAMPLE DATE - 4/4/89 ; DATE LAB RECEIVED - 4/5/89.

ALL HOLDING TIMES WERE SATISFACTORY.

(2) TUNING

GCMS TUNING WAS SATISFACTORY AS WAS GC INSTRUMENT PERFORMANCE.

(3) CALIBRATION

CALIBRATION OUTLIERS ARE IN THE CALIBRATION OUTLIER FILES.

(4) BLANKS

VOA: VBLK2 CONTAINED METHYLENE CHLORIDE AND ACETONE BELOW THEIR CRQL.
S-VOA: SBLK1 CONTAINED BIS(2-ETHYLHEXYL) PHTHALATE BELOW ITS CRQL.
PESTICIDES: NO PESTICIDES WERE IN THE PESTICIDE BLANKS.

RAK 5/17/89 (5) ~~QR~~ · IF ANY OF THE ABOVE TCL COMPOUNDS APPEARED IN A CORRESPONDING SAMPLE SHOWN ON FORM IV (VOA/S-VOA) AT A LEVEL LESS THAN 10X THE AMOUNT IN THE BLANK THE COMPOUND IN THE SAMPLE HAS BEEN FLAGGED WITH THE QUANT. LIMIT (U).

Reviewed by: Robert Katzer

Phone: 312-353-2917

Date: 5/18/89.

DATA QUALIFIERS

Contractor: ENCOT

Case #11716

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

(5) SURROGATE RECOVERY

VOA: ALL SOIL VOA SURROGATES ARE SATISFACTORY.
S-VOA: ALL SOIL S-VOA SURROGATES ARE SATISFACTORY.
PESTICIDES: ALL SOIL PESTICIDE SURROGATES FOR DBC WERE SATISFACTORY.

(6) MATRIX SPIKE/MATRIX SPIKE DUPLICATES

VOA: ALL SOIL VOA MS/MSD DATA ON EDB54 ARE SATISFACTORY.
ALL SOIL VOA MS/MSD DATA ON EDB53 ARE SATISFACTORY.
S-VOA: ALL SOIL S-VOA MS/MSD DATA ON EDB54 WERE WITHIN Q.C. LIMITS
PESTICIDES: ALL MS%REC. AS WELL AS MSD%REC. ON EDB54 WERE WELL BELOW Q.C. LIMITS. THE %RPD FOR U4'-DDT WAS SIGNIFICANTLY ABOVE Q.C. LIMITS.
THEREFORE, THE PESTICIDE FRACTION OF SAMPLE EDB54 IS FLAGGED ESTIMATED (J).

(7) DUPLICATES

NO DUPLICATES OR BLANKS WERE IN THIS DATASET.

(8) INTERNAL STANDARDS DATA

VOA: ALL I.S.'s (BROMOCHLOROMETHANE, 1,4-DIFLUOROBENZENE AND CHLOROBENZENE) HAD LOW AREAS - BELOW Q.C. REQUIREMENTS - FOR EDB54MS AND EDB54MSD. EDB53MS+MSD HAD CHLOROBENZENE BELOW Q.C. LIMITS FOR AREA.

Reviewed by: Robert Katzen

Phone: 312-353-2917

Date: 5/18/89.

DATA QUALIFIERS

Contractor: ENCOT

Case #1176

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

INTERNAL STANDARDS - CONTINUED:

THE CORRESPONDING COMPOUNDS WHICH UTILIZE THE VOA I.S.'S LISTED ABOVE IN THE SAMPLES EDB54MS, EDB54MSD AND EDB53MS + EDB53MSD ARE FLAGGED ESTIMATED (J). A LIST OF THESE COMPOUNDS FOLLOWS IN TABLE 4.

S-VOA: ALL S-VOA I.S.'S ARE SATISFACTORY

(9) COMPOUND QUANTITATION AND REPORTED DETECTION LIMITS THE CRQL'S HAVE BEEN ADJUSTED TO REFLECT SAMPLE DILUTIONS AND CONCENTRATIONS.

(10) ADDITIONAL CASE SPECIFIC PROBLEMS

THE CASE WAS WELL RUN WITH NO MAJOR PROBLEMS FOUND BY THE REVIEWER.

Reviewed by: Robert Ritzler

Phone: 312-353-2917

Date: 5/18/89

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V

CALIBRATION OUTLIERS

VOLATILE HSL COMPOUNDS

5 7

CASE/SAS # 11716 CONTRACTOR ENCOT

Instrument # 001	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	4/16/89			4/16/89 1645											
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane															
Bromomethane	0.663			0.464	31.3	J									
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone	0.748	23.0	J												
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone															
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															
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED SAMPLES:

VBLK1	VBLK2
EDB52	EDB53
EDB55	EDB54
EDB54MS	EDB56
EDB54MSD	EDB57
	EDB53MS
	EDB53MSD

Reviewer's Initials/Date: K.K. 5/17/89

* 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 # 11716 CONTRACTOR ENCOT

Instrument # 004	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	4/17/89			4/18/89 1634			4/26/89 0151								
	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															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid	0.122			0.114			0.175	37.8	J						
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline	0.231			0.300	29.9	J	0.271								
Acenaphthene															
2,4-Dinitrophenol															
4-Nitrophenol	0.066			0.091			0.093	40.9	J						
Dibenzofuran															

BBLK1	BBLK2
EDB52	EDB55
EDB53	
EDB54	
EDB56	
EDB57	
EDB54MS	
EDB54MSD	

AFFECTED SAMPLES:

Reviewer Initials/Date: 5/17/89.

* 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 # 11796 CONTRACTOR ENCOT

Instrument # CC4	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	4/7/20			4/14/89 16:31			4/20/89 0157								
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate															
4-Chlorophenyl-phenylether															
Fluorene															
4-Nitroaniline															
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene															
Butylbenzylphthalate															
Benzo(a)Anthracene															
bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene	2.185			2.278			1.994	35.4	J						
Benzo(k)Fluoranthene	2.535			2.373			1.911	25.2	J						
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene	1.915			1.894			1.073	46.4	J						
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: R.K. 5/17/89

8/87

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB52

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB52V

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EDB52V

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 15 Date Analyzed: 04/06/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	(Total)-1,2-Dichloroethene	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
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
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	8	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EDB52

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB52V

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EDB52V

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 15 Date Analyzed: 04/06/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB53

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB53VR

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EDB53VR

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 20 Date Analyzed: 04/07/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	24	~~B~~ U RK 5/17/89
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	(Total)-1,2-Dichloroethene	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	13	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
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	20	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EDB53

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB53VR

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EDB53VR

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 20 Date Analyzed: 04/07/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB54

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB54VR

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EDB54VR

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 21 Date Analyzed: 04/07/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	U
67-64-1	Acetone	19	~~B~~ AK 4/11/89
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	(Total)-1,2-Dichloroethene	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	13	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
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	J
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	J

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EDB54

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB54VR

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EDB54VR

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 21 Date Analyzed: 04/07/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB55

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB55V

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EDB55V

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 44 Date Analyzed: 04/07/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	18	U
74-83-9	Bromomethane	18	U
75-01-4	Vinyl Chloride	18	U
75-00-3	Chloroethane	18	U
75-09-2	Methylene Chloride	9	U
67-64-1	Acetone	18	
75-15-0	Carbon Disulfide	9	U
75-35-4	1,1-Dichloroethene	9	U
75-35-3	1,1-Dichloroethane	9	U
540-59-0	(Total)-1,2-Dichloroethene	9	U
67-66-3	Chloroform	9	U
107-06-2	1,2-Dichloroethane	9	U
78-93-3	2-Butanone	18	U
71-55-6	1,1,1-Trichloroethane	9	U
56-23-5	Carbon Tetrachloride	9	U
108-05-4	Vinyl Acetate	18	U
75-27-4	Bromodichloromethane	9	U
78-87-5	1,2-Dichloropropane	9	U
10061-02-6	Trans-1,3-Dichloropropene	9	U
79-01-6	Trichloroethene	9	U
124-48-1	Dibromochloromethane	9	U
79-00-5	1,1,2-Trichloroethane	9	U
71-43-2	Benzene	9	U
10061-01-5	cis-1,3-Dichloropropene	9	U
75-25-2	Bromoform	9	U
108-10-1	4-Methyl-2-Pentanone	7	J
591-78-6	2-Hexanone	18	U
127-18-4	Tetrachloroethene	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U
108-88-3	Toluene	9	U
108-90-7	Chlorobenzene	9	U
100-41-4	Ethylbenzene	9	U
100-42-5	Styrene	9	U
1330-20-7	Total Xylenes	9	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EDB55

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB55V

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EDB55V

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 44 Date Analyzed: 04/07/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB56

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB56VR

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EDB56VR

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 16 Date Analyzed: 04/07/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	6 ~~1~~	~~B~~ M
67-64-1	Acetone	48	~~B~~ M
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-35-3	1,1-Dichloroethane	6	U
540-59-0	(Total)-1,2-Dichloroethene	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
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
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	29	
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Total Xylenes	6	U

RK 5/2/8

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EDB56

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB56VR

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EDB56VR

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 16 Date Analyzed: 04/07/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB57

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB57VR

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EDB57VR

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 24 Date Analyzed: 04/07/89

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	7	U
67-64-1	Acetone	29	~~B~~
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-35-3	1,1-Dichloroethane	7	U
540-59-0	(Total)-1,2-Dichloroethene	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	13	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
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	6	J
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Total Xylenes	7	U

RK 5/17/89

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EDB57

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB57VR

Sample wt/vol: 5.0 (g/mL) G Lab File ID: EDB57VR

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 24 Date Analyzed: 04/07/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB52

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB52B

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EDB52B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 15 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	780	U
111-44-4	bis(2-Chloroethyl)Ether	780	U
95-57-8	2-Chlorophenol	780	U
541-73-1	1,3-Dichlorobenzene	780	U
106-46-7	1,4-Dichlorobenzene	780	U
100-51-6	Benzyl Alcohol	780	U
95-50-1	1,2-Dichlorobenzene	780	U
95-48-7	2-Methylphenol	780	U
39638-32-9	bis(2-Chloroisopropyl)Ether	780	U
106-44-5	4-Methylphenol	780	U
621-64-7	N-Nitroso-Di-n-Propylamine	780	U
67-72-1	Hexachloroethane	780	U
98-95-3	Nitrobenzene	780	U
78-59-1	Isophorone	780	U
88-75-5	2-Nitrophenol	780	U
105-67-9	2,4-Dimethylphenol	780	U
65-85-0	Benzoic Acid	3800	U
111-91-1	bis(2-Chloroethoxy)Methane	780	U
120-83-2	2,4-Dichlorophenol	780	U
120-82-1	1,2,4-Trichlorobenzene	780	U
91-20-3	Naphthalene	780	U
106-47-8	4-Chloroaniline	780	U
87-68-3	Hexachlorobutadiene	780	U
59-50-7	4-Chloro-3-Methylphenol	780	U
91-57-6	2-Methylnaphthalene	780	U
77-47-4	Hexachlorocyclopentadiene	780	U
88-06-2	2,4,6-Trichlorophenol	780	U
95-95-4	2,4,5-Trichlorophenol	3800	U
91-58-7	2-Chloronaphthalene	780	U
88-74-4	2-Nitroaniline	3800	U
131-11-3	Dimethyl Phthalate	780	U
208-96-8	Acenaphthylene	780	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB52

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB52B

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EDB52B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 15 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3800	U
83-32-9	Acenaphthene	780	U
51-28-5	2,4-Dinitrophenol	3800	U
100-02-7	4-Nitrophenol	3800	U
132-64-9	Dibenzofuran	780	U
121-14-2	2,4-Dinitrotoluene	780	U
606-20-2	2,6-Dinitrotoluene	780	U
84-66-2	Diethylphthalate	780	U
7005-72-3	4-Chlorophenyl-phenylether	780	U
86-73-7	Fluorene	780	U
100-10-6	4-Nitroaniline	3800	U
534-52-1	4,6-Dinitro-2-Methylphenol	3800	U
86-30-6	N-Nitrosodiphenylamine (1)	780	U
101-55-3	4-Bromophenyl-phenylether	780	U
118-74-1	Hexachlorobenzene	780	U
87-86-5	Pentachlorophenol	3800	U
85-01-8	Phenanthrene	780	U
120-12-7	Anthracene	780	U
84-74-2	Di-n-Butylphthalate	780	U
206-44-0	Fluoranthene	780	U
129-00-0	Pyrene	780	U
85-68-7	Butylbenzylphthalate	780	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)Anthracene	780	U
117-81-7	bis(2-Ethylhexyl)Phthalate	780	U
218-01-9	Chrysene	780	U
117-84-0	Di-n-Octyl Phthalate	780	U
205-99-2	Benzo(b)Fluoranthene	780	U
207-08-9	Benzo(k)Fluoranthene	780	U
50-32-8	Benzo(a)Pyrene	780	U
193-39-5	Indeno(1,2,3-cd)Pyrene	780	U
53-70-3	Dibenz(a,h)Anthracene	780	U
191-24-2	Benzo(g,h,i)Perylene	780	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EDB52

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB52B

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EDB52B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 15 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

Number TICs found: 5

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKANE	35.98	440	J
2.	UNKNOWN ALKANE	37.78	490	J
3.	UNKNOWN SILOXANE	38.08	400	J
4.	UNKNOWN	39.00	320	J
5.	UNKNOWN SILOXANE	39.20	350	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB53

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB53B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EDB53B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 20 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	830	U
111-44-4	bis(2-Chloroethyl)Ether	830	U
95-57-8	2-Chlorophenol	830	U
541-73-1	1,3-Dichlorobenzene	830	U
106-46-7	1,4-Dichlorobenzene	830	U
100-51-6	Benzyl Alcohol	830	U
95-50-1	1,2-Dichlorobenzene	830	U
95-48-7	2-Methylphenol	830	U
39638-32-9	bis(2-Chloroisopropyl)Ether	830	U
106-44-5	4-Methylphenol	830	U
621-64-7	N-Nitroso-Di-n-Propylamine	830	U
67-72-1	Hexachloroethane	830	U
98-95-3	Nitrobenzene	830	U
78-59-1	Isophorone	830	U
88-75-5	2-Nitrophenol	830	U
105-67-9	2,4-Dimethylphenol	830	U
65-85-0	Benzoic Acid	4000	U
111-91-1	bis(2-Chloroethoxy)Methane	830	U
120-83-2	2,4-Dichlorophenol	830	U
120-82-1	1,2,4-Trichlorobenzene	830	U
91-20-3	Naphthalene	830	U
106-47-8	4-Chloroaniline	830	U
87-68-3	Hexachlorobutadiene	830	U
59-50-7	4-Chloro-3-Methylphenol	830	U
91-57-6	2-Methylnaphthalene	830	U
77-47-4	Hexachlorocyclopentadiene	830	U
88-06-2	2,4,6-Trichlorophenol	830	U
95-95-4	2,4,5-Trichlorophenol	4000	U
91-58-7	2-Chloronaphthalene	830	U
88-74-4	2-Nitroaniline	4000	U
131-11-3	Dimethyl Phthalate	830	U
208-96-8	Acenaphthylene	830	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB53

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB53B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EDB53B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 20 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4000	U
83-32-9	Acenaphthene	110	J
51-28-5	2,4-Dinitrophenol	4000	U
100-02-7	4-Nitrophenol	4000	U
132-64-9	Dibenzofuran	830	U
121-14-2	2,4-Dinitrotoluene	830	U
606-20-2	2,6-Dinitrotoluene	830	U
84-66-2	Diethylphthalate	830	U
7005-72-3	4-Chlorophenyl-phenylether	830	U
86-73-7	Fluorene	120	J
100-10-6	4-Nitroaniline	4000	U
534-52-1	4,6-Dinitro-2-Methylphenol	4000	U
86-30-6	N-Nitrosodiphenylamine (1)	830	U
101-55-3	4-Bromophenyl-phenylether	830	U
118-74-1	Hexachlorobenzene	830	U
87-86-5	Pentachlorophenol	4000	U
85-01-8	Phenanthrene	1400	
120-12-7	Anthracene	370	J
84-74-2	Di-n-Butylphthalate	830	U
206-44-0	Fluoranthene	2700	
129-00-0	Pyrene	2200	
85-68-7	Butylbenzylphthalate	830	U
91-94-1	3,3'-Dichlorobenzidine	1700	U
56-55-3	Benzo(a)Anthracene	1400	
117-81-7	bis(2-Ethylhexyl)Phthalate	830 ~~430~~	BJ
218-01-9	Chrysene	1600	
117-84-0	Di-n-Octyl Phthalate	830	U
205-99-2	Benzo(b)Fluoranthene	1900	
207-08-9	Benzo(k)Fluoranthene	830	U
50-32-8	Benzo(a)Pyrene	1100	
193-39-5	Indeno(1,2,3-cd)Pyrene	1000	
53-70-3	Dibenz(a,h)Anthracene	260	J
191-24-2	Benzo(g,h,i)Perylene	930	

(1) - Cannot be separated from Diphenylamine

RK 5/17/6

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EDB53

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB53B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EDB53B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 20 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

Number TICs found: 8

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	205-99-2	BENZ[E] ACEPHENANTHRYLENE	35.42	2200	J
2.		UNKNOWN ALKANE	36.00	2400	J
3.		UNKNOWN	36.13	1000	J
4.		UNKNOWN SILOXANE	36.90	1500	J
5.		UNKNOWN ALKANE	37.80	2000	J
6.		UNKNOWN SILOXANE	38.07	1500	J
7.		UNKNOWN SILOXANE	39.22	1600	J
8.		UNKNOWN	39.88	800	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB54

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB54B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EDB54B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 21 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	840	U
111-44-4	bis(2-Chloroethyl)Ether	840	U
95-57-8	2-Chlorophenol	840	U
541-73-1	1,3-Dichlorobenzene	840	U
106-46-7	1,4-Dichlorobenzene	840	U
100-51-6	Benzyl Alcohol	840	U
95-50-1	1,2-Dichlorobenzene	840	U
95-48-7	2-Methylphenol	840	U
39638-32-9	bis(2-Chloroisopropyl)Ether	840	U
106-44-5	4-Methylphenol	840	U
621-64-7	N-Nitroso-Di-n-Propylamine	840	U
67-72-1	Hexachloroethane	840	U
98-95-3	Nitrobenzene	840	U
78-59-1	Isophorone	840	U
88-75-5	2-Nitrophenol	840	U
105-67-9	2,4-Dimethylphenol	840	U
65-85-0	Benzoic Acid	4100	U
111-91-1	bis(2-Chloroethoxy)Methane	840	U
120-83-2	2,4-Dichlorophenol	840	U
120-82-1	1,2,4-Trichlorobenzene	840	U
91-20-3	Naphthalene	840	U
106-47-8	4-Chloroaniline	840	U
87-68-3	Hexachlorobutadiene	840	U
59-50-7	4-Chloro-3-Methylphenol	840	U
91-57-6	2-Methylnaphthalene	840	U
77-47-4	Hexachlorocyclopentadiene	840	U
88-06-2	2,4,6-Trichlorophenol	840	U
95-95-4	2,4,5-Trichlorophenol	4100	U
91-58-7	2-Chloronaphthalene	840	U
88-74-4	2-Nitroaniline	4100	U
131-11-3	Dimethyl Phthalate	840	U
208-96-8	Acenaphthylene	840	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB54

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB54B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EDB54B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 21 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4100	U
83-32-9	Acenaphthene	840	U
51-28-5	2,4-Dinitrophenol	4100	U
100-02-7	4-Nitrophenol	4100	U
132-64-9	Dibenzofuran	840	U
121-14-2	2,4-Dinitrotoluene	840	U
606-20-2	2,6-Dinitrotoluene	840	U
84-66-2	Diethylphthalate	840	U
7005-72-3	4-Chlorophenyl-phenylether	840	U
86-73-7	Fluorene	840	U
100-10-6	4-Nitroaniline	4100	U
534-52-1	4,6-Dinitro-2-Methylphenol	4100	U
86-30-6	N-Nitrosodiphenylamine (1)	840	U
101-55-3	4-Bromophenyl-phenylether	840	U
118-74-1	Hexachlorobenzene	840	U
87-86-5	Pentachlorophenol	4100	U
85-01-8	Phenanthrene	150	J
120-12-7	Anthracene	840	U
84-74-2	Di-n-Butylphthalate	840	U
206-44-0	Fluoranthene	320	J
129-00-0	Pyrene	260	J
85-68-7	Butylbenzylphthalate	840	U
91-94-1	3,3'-Dichlorobenzidine	1700	U
56-55-3	Benzo(a)Anthracene	130	J
117-81-7	bis(2-Ethylhexyl)Phthalate	~~1250~~	~~B~~ U
218-01-9	Chrysene	200	J
117-84-0	Di-n-Octyl Phthalate	110	J
205-99-2	Benzo(b)Fluoranthene	260	J
207-08-9	Benzo(k)Fluoranthene	840	U
50-32-8	Benzo(a)Pyrene	130	J
193-39-5	Indeno(1,2,3-cd)Pyrene	160	J
53-70-3	Dibenz(a,h)Anthracene	840	U
191-24-2	Benzo(g,h,i)Perylene	160	J

RK 5/17/89

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EDB54

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB54B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: EDB54B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 21 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

Number TICs found: 20

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKANE	32.02	790	J
2.	UNKNOWN	32.98	350	J
3.	UNKNOWN ALKANE	33.05	500	J
4.	UNKNOWN ALKANE	34.08	4400	J
5.	UNKNOWN	34.25	1300	J
6.	UNKNOWN SILOXANE	34.28	1400	J
7.	UNKNOWN	35.32	930	J
8.	UNKNOWN	35.40	2400	J
9.	UNKNOWN SILOXANE	35.62	1000	J
10.	UNKNOWN ALKANE	35.98	4400	J
11.	UNKNOWN SILOXANE	36.88	1200	J
12.	UNKNOWN	37.27	1500	J
13.	UNKNOWN	37.40	2500	J
14.	UNKNOWN PNA	37.58	1100	J
15.	UNKNOWN ALKANE	37.77	2800	J
16.	UNKNOWN	37.88	880	J
17.	UNKNOWN SILOXANE	38.05	1400	J
18.	UNKNOWN	39.00	1600	J
19.	UNKNOWN SILOXANE	39.18	680	J
20.	UNKNOWN	39.83	4200	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB55

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB55BR

Sample wt/vol: 30.2 (g/mL) G Lab File ID: EDB55BR

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 44 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/20/89

GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1200	U
111-44-4	bis(2-Chloroethyl)Ether	1200	U
95-57-8	2-Chlorophenol	1200	U
541-73-1	1,3-Dichlorobenzene	1200	U
106-46-7	1,4-Dichlorobenzene	1200	U
100-51-6	Benzyl Alcohol	1200	U
95-50-1	1,2-Dichlorobenzene	1200	U
95-48-7	2-Methylphenol	1200	U
39638-32-9	bis(2-Chloroisopropyl)Ether	1200	U
106-44-5	4-Methylphenol	1200	U
621-64-7	N-Nitroso-Di-n-Propylamine	1200	U
67-72-1	Hexachloroethane	1200	U
98-95-3	Nitrobenzene	1200	U
78-59-1	Isophorone	1200	U
88-75-5	2-Nitrophenol	1200	U
105-67-9	2,4-Dimethylphenol	1200	U
65-85-0	Benzoic Acid	5700	U
111-91-1	bis(2-Chloroethoxy)Methane	1200	U
120-83-2	2,4-Dichlorophenol	1200	U
120-82-1	1,2,4-Trichlorobenzene	1200	U
91-20-3	Naphthalene	1200	U
106-47-8	4-Chloroaniline	1200	U
87-68-3	Hexachlorobutadiene	1200	U
59-50-7	4-Chloro-3-Methylphenol	1200	U
91-57-6	2-Methylnaphthalene	1200	U
77-47-4	Hexachlorocyclopentadiene	1200	U
88-06-2	2,4,6-Trichlorophenol	1200	U
95-95-4	2,4,5-Trichlorophenol	5700	U
91-58-7	2-Chloronaphthalene	1200	U
88-74-4	2-Nitroaniline	5700	U
131-11-3	Dimethyl Phthalate	1200	U
208-96-8	Acenaphthylene	1200	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB55

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB55BR

Sample wt/vol: 30.2 (g/mL) G Lab File ID: EDB55BR

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 44 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/20/89

GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	5700	U
83-32-9	Acenaphthene	1200	U
51-28-5	2,4-Dinitrophenol	5700	U
100-02-7	4-Nitrophenol	5700	U
132-64-9	Dibenzofuran	1200	U
121-14-2	2,4-Dinitrotoluene	1200	U
606-20-2	2,6-Dinitrotoluene	1200	U
84-66-2	Diethylphthalate	1200	U
7005-72-3	4-Chlorophenyl-phenylether	1200	U
86-73-7	Fluorene	1200	U
100-10-6	4-Nitroaniline	5700	U
534-52-1	4,6-Dinitro-2-Methylphenol	5700	U
86-30-6	N-Nitrosodiphenylamine (1)	1200	U
101-55-3	4-Bromophenyl-phenylether	1200	U
118-74-1	Hexachlorobenzene	1200	U
87-86-5	Pentachlorophenol	5700	U
85-01-8	Phenanthrene	360	J
120-12-7	Anthracene	1200	U
84-74-2	Di-n-Butylphthalate	1200	U
206-44-0	Fluoranthene	990	J
129-00-0	Pyrene	710	J
85-68-7	Butylbenzylphthalate	1200	U
91-94-1	3,3'-Dichlorobenzidine	2400	U
56-55-3	Benzo(a)Anthracene	430	J
117-81-7	bis(2-Ethylhexyl)Phthalate	~~580~~ 1100	~~BJ~~ U
218-01-9	Chrysene	410	J
117-84-0	Di-n-Octyl Phthalate	1200	U
205-99-2	Benzo(b)Fluoranthene	1100	J
207-08-9	Benzo(k)Fluoranthene	1200	U
50-32-8	Benzo(a)Pyrene	380	J
193-39-5	Indeno(1,2,3-cd)Pyrene	530	J
53-70-3	Dibenz(a,h)Anthracene	130	J
191-24-2	Benzo(g,h,i)Perylene	550	J

RK 5/17/89

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EDB55

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB55BR

Sample wt/vol: 30.2 (g/mL) G Lab File ID: EDB55BR

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 44 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/20/89

GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.0

Number TICs found: 9

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	27.15	1400	J
2.	UNKNOWN ALKANE	34.02	2200	J
3.	UNKNOWN	35.25	770	J
4. 205-99-2	BENZ[E] ACEPHENANTHRYLENE	35.32	940	J
5.	UNKNOWN	35.53	1000	J
6.	UNKNOWN ALKANE	35.93	2800	J
7.	UNKNOWN ALKANE	37.72	1700	J
8.	UNKNOWN	38.93	1700	J
9.	UNKNOWN	39.72	5300	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB56

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB56B

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EDB56B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 16 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	790	U
111-44-4	bis(2-Chloroethyl)Ether	790	U
95-57-8	2-Chlorophenol	790	U
541-73-1	1,3-Dichlorobenzene	790	U
106-46-7	1,4-Dichlorobenzene	790	U
100-51-6	Benzyl Alcohol	790	U
95-50-1	1,2-Dichlorobenzene	790	U
95-48-7	2-Methylphenol	790	U
39638-32-9	bis(2-Chloroisopropyl)Ether	790	U
106-44-5	4-Methylphenol	790	U
621-64-7	N-Nitroso-Di-n-Propylamine	790	U
67-72-1	Hexachloroethane	790	U
98-95-3	Nitrobenzene	790	U
78-59-1	Isophorone	790	U
88-75-5	2-Nitrophenol	790	U
105-67-9	2,4-Dimethylphenol	790	U
65-85-0	Benzoic Acid	3800	U
111-91-1	bis(2-Chloroethoxy)Methane	790	U
120-83-2	2,4-Dichlorophenol	790	U
120-82-1	1,2,4-Trichlorobenzene	790	U
91-20-3	Naphthalene	160	J
106-47-8	4-Chloroaniline	790	U
87-68-3	Hexachlorobutadiene	790	U
59-50-7	4-Chloro-3-Methylphenol	790	U
91-57-6	2-Methylnaphthalene	180	J
77-47-4	Hexachlorocyclopentadiene	790	U
88-06-2	2,4,6-Trichlorophenol	790	U
95-95-4	2,4,5-Trichlorophenol	3800	U
91-58-7	2-Chloronaphthalene	790	U
88-74-4	2-Nitroaniline	3800	U
131-11-3	Dimethyl Phthalate	790	U
208-96-8	Acenaphthylene	790	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB56

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB56B

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EDB56B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 16 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3800	U
83-32-9	Acenaphthene	200	J
51-28-5	2,4-Dinitrophenol	3800	U
100-02-7	4-Nitrophenol	3800	U
132-64-9	Dibenzofuran	250	J
121-14-2	2,4-Dinitrotoluene	790	U
606-20-2	2,6-Dinitrotoluene	790	U
84-66-2	Diethylphthalate	790	U
7005-72-3	4-Chlorophenyl-phenylether	790	U
86-73-7	Fluorene	400	J
100-10-6	4-Nitroaniline	3800	U
534-52-1	4,6-Dinitro-2-Methylphenol	3800	U
86-30-6	N-Nitrosodiphenylamine (1)	790	U
101-55-3	4-Bromophenyl-phenylether	790	U
118-74-1	Hexachlorobenzene	790	U
87-86-5	Pentachlorophenol	3800	U
85-01-8	Phenanthrene	2100	
120-12-7	Anthracene	720	J
84-74-2	Di-n-Butylphthalate	790	U
206-44-0	Fluoranthene	2100	
129-00-0	Pyrene	1800	
85-68-7	Butylbenzylphthalate	790	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)Anthracene	950	
117-81-7	bis(2-Ethylhexyl)Phthalate	790	U
218-01-9	Chrysene	800	
117-84-0	Di-n-Octyl Phthalate	790	U
205-99-2	Benzo(b)Fluoranthene	980	
207-08-9	Benzo(k)Fluoranthene	790	U
50-32-8	Benzo(a)Pyrene	550	J
193-39-5	Indeno(1,2,3-cd)Pyrene	410	J
53-70-3	Dibenz(a,h)Anthracene	93	J
191-24-2	Benzo(g,h,i)Perylene	330	J

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EDB56

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB56B

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EDB56B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 16 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.0

Number TICs found: 14

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ALKANE	11.32	460	J
2.		UNKNOWN ALKANE	13.47	440	J
3.		UNKNOWN ALKANE	13.73	320	J
4.		UNKNOWN ALKANE	14.88	260	J
5.		UNKNOWN ALKANE	15.40	600	J
6.		UNKNOWN ALKANE	17.20	510	J
7.		UNKNOWN ALKANE	18.90	530	J
8.		UNKNOWN ALKANE	22.02	630	J
9.		UNKNOWN ALKANE	22.10	1200	J
10.		UNKNOWN ALKANE	23.58	410	J
11.		UNKNOWN ALKANE	24.83	500	J
12.		UNKNOWN ALKANE	34.07	1700	J
13.		UNKNOWN ALKANE	35.98	1900	J
14.		UNKNOWN	37.73	2900	J

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB57

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB57B

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EDB57B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 24 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	870	U
111-44-4	bis(2-Chloroethyl)Ether	870	U
95-57-8	2-Chlorophenol	870	U
541-73-1	1,3-Dichlorobenzene	870	U
106-46-7	1,4-Dichlorobenzene	870	U
100-51-6	Benzyl Alcohol	870	U
95-50-1	1,2-Dichlorobenzene	870	U
95-48-7	2-Methylphenol	870	U
39638-32-9	bis(2-Chloroisopropyl)Ether	870	U
106-44-5	4-Methylphenol	870	U
621-64-7	N-Nitroso-Di-n-Propylamine	870	U
67-72-1	Hexachloroethane	870	U
98-95-3	Nitrobenzene	870	U
78-59-1	Isophorone	870	U
88-75-5	2-Nitrophenol	870	U
105-67-9	2,4-Dimethylphenol	870	U
65-85-0	Benzoic Acid	4200	U
111-91-1	bis(2-Chloroethoxy)Methane	870	U
120-83-2	2,4-Dichlorophenol	870	U
120-82-1	1,2,4-Trichlorobenzene	870	U
91-20-3	Naphthalene	870	U
106-47-8	4-Chloroaniline	870	U
87-68-3	Hexachlorobutadiene	870	U
59-50-7	4-Chloro-3-Methylphenol	870	U
91-57-6	2-Methylnaphthalene	870	U
77-47-4	Hexachlorocyclopentadiene	870	U
88-06-2	2,4,6-Trichlorophenol	870	U
95-95-4	2,4,5-Trichlorophenol	4200	U
91-58-7	2-Chloronaphthalene	870	U
88-74-4	2-Nitroaniline	4200	U
131-11-3	Dimethyl Phthalate	870	U
208-96-8	Acenaphthylene	870	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB57

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB57B

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EDB57B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 24 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4200	U
83-32-9	Acenaphthene	870	U
51-28-5	2,4-Dinitrophenol	4200	U
100-02-7	4-Nitrophenol	4200	U
132-64-9	Dibenzofuran	870	U
121-14-2	2,4-Dinitrotoluene	870	U
606-20-2	2,6-Dinitrotoluene	870	U
84-66-2	Diethylphthalate	870	U
7005-72-3	4-Chlorophenyl-phenylether	870	U
86-73-7	Fluorene	870	U
100-10-6	4-Nitroaniline	4200	U
534-52-1	4,6-Dinitro-2-Methylphenol	4200	U
86-30-6	N-Nitrosodiphenylamine (1)	870	U
101-55-3	4-Bromophenyl-phenylether	870	U
118-74-1	Hexachlorobenzene	870	U
87-86-5	Pentachlorophenol	4200	U
85-01-8	Phenanthrene	870	U
120-12-7	Anthracene	870	U
84-74-2	Di-n-Butylphthalate	870	U
206-44-0	Fluoranthene	870	U
129-00-0	Pyrene	870	U
85-68-7	Butylbenzylphthalate	870	U
91-94-1	3,3'-Dichlorobenzidine	1700	U
56-55-3	Benzo(a)Anthracene	870	U
117-81-7	bis(2-Ethylhexyl)Phthalate	870	U
218-01-9	Chrysene	870	U
117-84-0	Di-n-Octyl Phthalate	870	U
205-99-2	Benzo(b)Fluoranthene	870	U
207-08-9	Benzo(k)Fluoranthene	870	U
50-32-8	Benzo(a)Pyrene	870	U
193-39-5	Indeno(1,2,3-cd)Pyrene	870	U
53-70-3	Dibenz(a,h)Anthracene	870	U
191-24-2	Benzo(g,h,i)Perylene	870	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EDB57

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: EDB57B

Sample wt/vol: 30.1 (g/mL) G Lab File ID: EDB57B

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 24 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.0

Number TICs found: 19

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN ORGANIC ACID	32.02	420	J
2.		UNKNOWN	33.40	550	J
3.		UNKNOWN ALKANE	34.08	2200	J
4.		UNKNOWN	34.42	400	J
5.		UNKNOWN	35.40	5700	J
6.		UNKNONW SILOXANE	35.62	910	J
7.		UNKNOWN	36.00	9500	J
8.		UNKNOWN SILOXANE	36.88	1300	J
9.		UNKNOWN	37.27	2600	J
10.		UNKNOWN	37.62	2800	J
11.		UNKNOWN ALKANE	37.80	3600	J
12.		UNKNOWN	37.88	610	J
13.		UNKNOWN SILOXANE	38.07	1600	J
14.		UNKNOWN	38.92	1200	J
15.		UNKNOWN	39.03	870	J
16.		UNKNOWN SILOXANE	39.20	1200	J
17.		UNKNOWN	39.43	4800	J
18.		UNKNOWN	39.70	450	J
19.		UNKNOWN	39.83	4000	J

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB52

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: 30041

Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 15 dec. __ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/25/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	19	U
319-85-7	beta-BHC	19	U
319-86-8	delta-BHC	19	U
58-89-9	Lindane	19	U
77-44-8	Heptachlor	19	U
309-00-2	Aldrin	19	U
1024-57-3	Heptachlor epoxide	19	U
959-98-8	Endosulfan I	19	U
60-57-1	Dieldrin	37	U
72-55-9	4,4'-DDE	37	U
72-20-8	Endrin	37	U
33213-65-9	Endosulfan II	37	U
72-54-8	4,4'-DDD	37	U
1031-07-8	Endosulfan sulfate	37	U
50-29-3	4,4'-DDT	37	U
72-43-5	Methoxychlor	190	U
53494-70-5	Endrin ketone	37	U
5103-71-9	alpha-Chlordane	190	U
5103-74-2	gamma-Chlordane	190	U
8001-35-2	Toxaphene	370	U
12674-11-2	Aroclor-1016	190	U
11104-28-2	Aroclor-1221	190	U
11141-16-5	Aroclor-1232	190	U
53469-21-9	Aroclor-1242	190	U
12672-29-6	Aroclor-1248	190	U
11097-69-1	Aroclor-1254	370	U
11096-82-5	Aroclor-1260	370	U

CHECKED MAY 0 1 1989

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB53

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: 30042

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 20 dec. __ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/25/89

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	20	U
319-85-7	beta-BHC	20	U
319-86-8	delta-BHC	20	U
58-89-9	Lindane	20	U
77-44-8	Heptachlor	20	U
309-00-2	Aldrin	20	U
1024-57-3	Heptachlor epoxide	20	U
959-98-8	Endosulfan I	20	U
60-57-1	Dieldrin	40	U
72-55-9	4,4'-DDE	40	U
72-20-8	Endrin	40	U
33213-65-9	Endosulfan II	40	U
72-54-8	4,4'-DDD	40	U
1031-07-8	Endosulfan sulfate	40	U
50-29-3	4,4'-DDT	7.7	XJ
72-43-5	Methoxychlor	200	U
53494-70-5	Endrin ketone	40	U
5103-71-9	alpha-Chlordane	200	U
5103-74-2	gamma-Chlordane	200	U
8001-35-2	Toxaphene	400	U
12674-11-2	Aroclor-1016	200	U
11104-28-2	Aroclor-1221	200	U
11141-16-5	Aroclor-1232	200	U
53469-21-9	Aroclor-1242	200	U
12672-29-6	Aroclor-1248	200	U
11097-69-1	Aroclor-1254	400	U
11096-82-5	Aroclor-1260	400	U

CHECKED MAY 0 1 1989

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB54

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: 30043

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 21 dec. __ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/24/89

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	20	U
319-85-7	beta-BHC	20	U
319-86-8	delta-BHC	20	U
58-89-9	Lindane	20	U
77-44-8	Heptachlor	20	U
309-00-2	Aldrin	20	U
1024-57-3	Heptachlor epoxide	20	U
959-98-8	Endosulfan I	2.6	JX
60-57-1	Dieldrin	41	U
72-55-9	4,4'-DDE	37	JX
72-20-8	Endrin	41	U
33213-65-9	Endosulfan II	41	U
72-54-8	4,4'-DDD	41	U
1031-07-8	Endosulfan sulfate	41	U
50-29-3	4,4'-DDT	43	X
72-43-5	Methoxychlor	200	U
53494-70-5	Endrin ketone	41	U
5103-71-9	alpha-Chlordane	200	U
5103-74-2	gamma-Chlordane	200	U
8001-35-2	Toxaphene	410	U
12674-11-2	Aroclor-1016	200	U
11104-28-2	Aroclor-1221	200	U
11141-16-5	Aroclor-1232	200	U
53469-21-9	Aroclor-1242	200	U
12672-29-6	Aroclor-1248	200	U
11097-69-1	Aroclor-1254	410	U
11096-82-5	Aroclor-1260	410	U

CHECKED MAY 0 1 1989

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB55

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: 30044

Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 44 dec. __ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/25/89

GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	28	U
319-85-7	beta-BHC	28	U
319-86-8	delta-BHC	28	U
58-89-9	Lindane	28	U
77-44-8	Heptachlor	28	U
309-00-2	Aldrin	28	U
1024-57-3	Heptachlor epoxide	28	U
959-98-8	Endosulfan I	28	U
60-57-1	Dieldrin	57	U
72-55-9	4,4'-DDE	57	U
72-20-8	Endrin	57	U
33213-65-9	Endosulfan II	57	U
72-54-8	4,4'-DDD	57	U
1031-07-8	Endosulfan sulfate	57	U
50-29-3	4,4'-DDT	57	U
72-43-5	Methoxychlor	280	U
53494-70-5	Endrin ketone	57	U
5103-71-9	alpha-Chlordane	280	U
5103-74-2	gamma-Chlordane	280	U
8001-35-2	Toxaphene	570	U
12674-11-2	Aroclor-1016	280	U
11104-28-2	Aroclor-1221	280	U
11141-16-5	Aroclor-1232	280	U
53469-21-9	Aroclor-1242	280	U
12672-29-6	Aroclor-1248	280	U
11097-69-1	Aroclor-1254	570	U
11096-82-5	Aroclor-1260	570	U

CHECKED MAY 0 1 1989

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB56

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: 30045

Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 16 dec. __ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/25/89

GPC Cleanup: (Y/N) Y pH: 7.6 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	19	U
319-85-7	beta-BHC	19	U
319-86-8	delta-BHC	19	U
58-89-9	Lindane	19	U
77-44-8	Heptachlor	19	U
309-00-2	Aldrin	19	U
1024-57-3	Heptachlor epoxide	19	U
959-98-8	Endosulfan I	19	U
60-57-1	Dieldrin	38	U
72-55-9	4,4'-DDE	38	U
72-20-8	Endrin	38	U
33213-65-9	Endosulfan II	38	U
72-54-8	4,4'-DDD	38	U
1031-07-8	Endosulfan sulfate	38	U
50-29-3	4,4'-DDT	38	U
72-43-5	Methoxychlor	190	U
53494-70-5	Endrin ketone	38	U
5103-71-9	alpha-Chlordane	190	U
5103-74-2	gamma-Chlordane	190	U
8001-35-2	Toxaphene	380	U
12674-11-2	Aroclor-1016	190	U
11104-28-2	Aroclor-1221	190	U
11141-16-5	Aroclor-1232	190	U
53469-21-9	Aroclor-1242	190	U
12672-29-6	Aroclor-1248	190	U
11097-69-1	Aroclor-1254	380	U
11096-82-5	Aroclor-1260	380	U

CHECKED MAY 0 1 1989

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EDB57

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: 30046

Sample wt/vol: 30.1 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 24 dec. __ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/25/89

GPC Cleanup: (Y/N) Y pH: 7.4 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	21	U
319-85-7	beta-BHC	21	U
319-86-8	delta-BHC	21	U
58-89-9	Lindane	21	U
77-44-8	Heptachlor	21	U
309-00-2	Aldrin	21	U
1024-57-3	Heptachlor epoxide	21	U
959-98-8	Endosulfan I	21	U
60-57-1	Dieldrin	42	U
72-55-9	4,4'-DDE	42	U
72-20-8	Endrin	42	U
33213-65-9	Endosulfan II	42	U
72-54-8	4,4'-DDD	42	U
1031-07-8	Endosulfan sulfate	42	U
50-29-3	4,4'-DDT	42	U
72-43-5	Methoxychlor	210	U
53494-70-5	Endrin ketone	42	U
5103-71-9	alpha-Chlordane	210	U
5103-74-2	gamma-Chlordane	210	U
8001-35-2	Toxaphene	420	U
12674-11-2	Aroclor-1016	210	U
11104-28-2	Aroclor-1221	210	U
11141-16-5	Aroclor-1232	210	U
53469-21-9	Aroclor-1242	210	U
12672-29-6	Aroclor-1248	210	U
11097-69-1	Aroclor-1254	420	U
11096-82-5	Aroclor-1260	420	U

CHECKED MAY 0 1 1989

FORM I PEST 1/87 Rev.

*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}	Perylene-d_{12}
Phenol	Nitrobenzene	Hexachlorocyclopentadiene	4,6-Dinitro-2-methylphenol	Pyrene	Di-n-octyl Phthalate
bis(2-Chloroethyl) ether	Isophorone	2,4,6-Trichlorophenol	N-nitrosodiphenylamine	Butylbenzyl Phthalate	Benzo(b)fluoranthene
2-Chlorophenol	2-Nitrophenol	2,4,5-Trichlorophenol	1,2-Diphenylhydrazine	3,3'-Dichlorobenzidine	Benzo(k)fluoranthene
1,3-Dichlorobenzene	2,4-Dimethylphenol	2-Chloronaphthalene	4-Bromophenyl Phenyl Ether	Benzo(a)anthracene	Benzo(a)pyrene
1,4-Dichlorobenzene	Benzoic acid	2-Nitroaniline	Hexachlorobenzene	bis(2-ethylhexyl Phthalate	Indeno(1,2,3-cd) pyrene
Benzyl Alcohol	bis(2-Chloroethoxy)methane	Dimethyl Phthalate	Pentachlorophenol	Chrysene	Dibenz(a,h) anthracene
1,2-Dichlorobenzene	2,4-Dichlorophenol	Acenaphthylene	Phenanthrene	Terphenyl-d_{14} (surr)	Benzo(g,h,i) perylene
2-Methylphenol	1,2,4-Trichlorobenzene	3-Nitroaniline	Anthracene		
bis(2-Chloroisopropyl)ether	Naphthalene	Acenaphthene	Di-n-butyl Phthalate		
4-Methylphenol	4-Chloroaniline	2,4-Dinitrophenol	Fluoranthene		
N-nitroso-Di-n-propylamine	Hexachlorobutadiene	4-Nitrophenol			
Hexachloroethane	4-Chloro-3-methylphenol	Dibenzofuran			
2-Fluorophenol (surr)	2-Methylnaphthalene	2,4-Dinitrotoluene			
Phenol-d_6 (surr)	Nitrobenzene-d_5 (surr)	2,6-Dinitrotoluene			
		Diethyl Phthalate			
		4-Chlorophenyl-phenyl ether			
		Fluorene			
		4-Nitroaniline			
		2-Fluorobiphenyl (surr)			
		2,4,6-Tribromo Phenol (surr)			

surr = surrogate compound

USEPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 ALEXANDRIA, VA 22313
703/557-2490 FTS-557-2490

CASE NO: 11716

SAS NO: (IF APPLICABLE)

ORGANIC TRAFFIC REPORT

(FOR CLP USE ONLY)

TYPE OF ACTIVITY (CIRCLE ONE) ①
SUPERFUND—PA (SI) ESI RIFS RD RA ER NPLD O&M OTHER _____
NON-SUPERFUND—_____ PROGRAM

SAMPLE DESCRIPTION (ENTER IN BOX A)
1. SURFACE WATER 4. SOIL
2. GROUND WATER 5. SEDIMENT
3. LEACHATE 6. OIL (SAS)
7. WASTE (SAS)

REGION NO: V
SAMPLING COMPANY ② EIT
SAMPLER: (NAME) Bill Schaefer

SHIP TO: ③
Environmental Control Technology
3985 Research Park Dr.
Ann Arbor, MI 48108
ATTN: Mike Cannon

SAMPLING DATE: ④
BEGIN: _____ END: _____
DATE SHIPPED: _____ CARRIER: F ⑤
AIRBILL NO: 9071160092

DATE REC'D: April 5 1989 SDG NO: ⑥
REC'D BY: Michael N Cannon
LABORATORY CONTRACT NO. UNIT PRICE

TRANSFER TO: DATE REC'D: ⑦
REC'D BY: CONTRACT NO./PRICE:

report is / is not complete

CLP SAMPLE NUMBER (FROM LABELS)	Ⓐ SAMPLE DESCRIPTION (FROM BOX 1) 1 2 3 4 5 6 7	Ⓑ CONCENTRATION L = LOW/MED H = HIGH (SAS)	Ⓒ RAS ANALYSIS: VOLATILE	BASE/NEUT /ACID	PESTICIDE /PCB's		Ⓓ SPECIAL HANDLING	Ⓔ STATION LOCATION	Ⓕ SAMPLE CONDITION ON RECEIPT	Ⓖ HIGH CONC. PHASES (CHECK): SOLID	WATER—MIS LIQUID	NON WATER—MIS LIQUID
EDB 52		L	✓	✓	✓			Soil 1	OK			
EDB 53		L	✓	✓	✓			Soil 2	OK			
EDB 54		L	✓	✓	✓			Soil 3	OK			
EDB 55		L	✓	✓	✓			Soil 4	OK			
EDB 56		L	✓	✓	✓			Soil 5	OK			
EDB 57		L	✓	✓	✓			Soil 6	OK			

EPA Form 2075-7 (8-87)

WHITE — SMO COPY PINK — CLIENT COPY WHITE — LAB COPY FOR RETURN TO SMO YELLOW — LAB COPY

APR 13 1989

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS

SAMPLE DATE · 4/4
LOG IN DATE · 4/26
DUE DATE: 6/13/89

SUPERFUND 6066

THIS FORM IS TO BE USED FOR SAMPLES SENT TO CONTRACT ONLY

CASE NUMBER/SAS No. 11716 SITE NAME Gulf and River LF LABORATORY org - ENCOT inorg - SKINER DATE SHIPPED 4/4/8

SUPERFUND DU NUMBER ~~[illegible]~~ TEA EPA RPM or OSC (S.M.S.)/(CES) – CERCLIS NUMBER 1160986 12717 PAGE 1 OF

ACTIVITY NUMBER TEA102

	CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER	INORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	WATER OR LIQUIDS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN UG/L TOX17574	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG/L TOX17564	WATER POLYCHLORINATED BIPHENYLS UG/L PES17144	WATER CHLORINATED PESTICIDES UG/L PES17134	TOTAL METALS IN WATER UG/L MET111	WATER CYANIDE UG/L MIN74918	NITRATE/NITRITE UG/L MIN7284	AMMONIA MG/L MIN7284	RESIDUE, FILTERABLE TDS MG/L MIN7262	RESIDUE, NON-FILT TSS MG/L MIN7272			SEDIMENTS or SOILS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN MG/KG TOX215722	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN MG/KG TOX215622	SEDIMENTS POLYCHLORINATED BIPHENYLS MG/KG PES211422	SEDIMENT CHLORINATED PESTICIDES MG/KG 211322	TOTAL METALS MG/KG MET413	CYANIDE MG/KG MIN44930	EP TOXICITY METALS MG/KG	AMMONIA MG/KG MIN42925			
1	89FD14541	EDR52	MEC200												✓	✓	✓	✓	✓	✓					
2	42	53	01																						
3	43	54	02																						
4	44	55	03																						
5	45	56	04																						
6	46	57	05												✓	✓	✓	✓	✓	✓					

ENVIRONMENTAL
CONTROL
TECHNOLOGY
CORPORATION

3985 RESEARCH PARK DRIVE
ANN ARBOR, MICHIGAN 48108
313/761-1389

May 08, 1989

Ms. Linda Boynton
U.S. EPA Contract Laboratory Program
Sample Management Office (SMO)
209 Madison Street
Suite 200
Alexandria, VA 22314

RE: Case 11716 Diskette and Data Package Deliverable

Dear Linda,

Please find the enclosed diskette and data package deliverable for Case 11716. Additional copies of the data package are being sent to EMSL-LV and Region V.

If you have any questions about this or any other matter, please feel free to contact me.

Very truly yours,

ENVIRONMENTAL CONTROL TECHNOLOGY CORPORATION

C. M. O'Q

C. Michael O'Quinn
GC/MS Group Leader

RECEIVED
MAY 09 1989
US EPA CENTRAL REGIONAL LAB.
536 S. CLARK ST.
CHICAGO, ILLINOIS 60605

CMO/crn

Enclosure

cc: EMSL-LV
Region V

75100

NARRATIVE

Case 11716

A total of six samples were received by ENCOTEC on April 05, 1989, and were scheduled for Organics Analysis under Contract #68-D9-0033, first bid lot. Please refer to the following table for vital information that pertains to this case.

Table 1.0

SDG #: EDB52

	SAMPLE ANALYZED			
	Actual Samples	QC Samples	Re-Run Samples	Total Billable Analyses
Volatile Analyses	6	2	0	8
Semivolatile Analyses	6	2	0	8
Pesticide/PCB Analyses	6	2	0	8

Total Cumulate Billable Full Analyses: 8

This Deliverables Package is assembled in accordance with instructions in Section B, 2/88 revision of the Contract Laboratory Program - Statement of Work. A copy of this deliverable has been distributed to Region V, the Sample Management Office (SMO) and EMSL-LV. In addition a sample Summary Data Package and Diskette Deliverable has been sent to SMO.

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

Sample Control/Sample Custody

Case 11716 consisting of six low soils was received on April 05, 1989 from Federal Express courier. The Traffic Report and Chain of Custody forms were present and consistent with the sample received. The custody seals on the shipping coolers were present and intact. Three jars were received for each sample and no specific matrix spike/matrix spike duplicate sample was indicated. There were no problems or inconsistencies encountered during the receipt or login of this case.

Extraction/Sample Preparation

All samples for Case 11716 were screened low level for both the semivolatiles and pesticides and were extracted accordingly. SMO sample EDB54 was used for the matrix spike and matrix spike duplicate for the both the semivolatile and pesticides.

Volatile Analyses

The analysis of the volatile fraction of Case 11716 was performed without significant difficulties. In general QA/QC was good, with none of the surrogates or matrix spikes outside of QC windows.

SMO sample EDB55 was found to contain no target compounds. Samples EDB54 and EDB57 contained Toluene (CAS #108-88-3) at or below contract required detection limit (CRDL). Samples EDB52, EDB53, and EDB56 contained Toluene (CAS #108-88-3) at values greater than CRDL.

Semivolatile Analysis

The semivolatile samples were also analyzed without major difficulties. The method blank was found to contain Bis(2-ethyl hexyl)phthalate (CAS #117-87-7) (a common lab contaminant) below contract required detection limit (CRDL). SMO samples EDB52 and EDB57 were found to contain no HSL semivolatile compounds, however both of these samples did have significant numbers of Tentatively Identified Compounds (TICs) (see semivolatile sample data package). The rest of the samples in this case (EDB53, EDB54, EDB55, EDB56) were found to contain Polynuclear Aromatics (PNAs) at or above CRDL.

The QA/QC for the semivolatiles was excellent with no surrogate recoveries outside of contract required limits; and no relative percent differences or percent recoveries outside of contract advisory limits for the matrix spike and matrix spike duplicate.

Pesticide/PCB Analysis

The pesticide fraction of Case 11716 was analyzed with several difficulties. The surrogate recoveries were excellent with all recoveries reported within contract required limits. However, several problems were encountered with matrix spike recoveries. All twelve surrogate recoveries are reported outside of contract advisory limits. Since RPDs and surrogate recoveries are good, a procedural error is suspected in the spiking of this sample. Our records indicate that the correct spiking procedure was followed, however, the data does not confirm this fact. We would have immediately re-extracted the sample had there been a sufficient amount left. The QC sample analyzed after this sample indicates that we are getting excellent recoveries confirming a properly functioning instrument. This problem is being

investigated further. All method blanks were free of HSL Pesticide/PCBs.

The following special flags are used by ENCOTEC in the pesticide/PCB analysis.

X-flag : The X flag denotes manually entered data. This always occurs on multi-component quantitations and sometimes occurs on individual pesticides when the analyst had to correct the integration of a peak.

Z-flag : The Z flag indicates a poor agreement between values obtained on a quantitation using both columns. When the quantitation on both columns gives a ratio from 0.7 to 1.4, a confirmation is assumed. If the ratio ranges above 1.4 or below 0.7 then there is some degree of uncertainty as to the validity of the confirmation. A Z flag is then added to indicate the suspect data. If the concentration is great enough, GC/MS confirmation will also be performed. Ratios above 1.7 or below 0.5 are considered false positives unless confirmed by GC/MS when the concentration is high enough.

J-flag : The J flag is used to indicate the presence of HSL pesticides and/or PCBs below the CRDL but above the IDL (Instrument Detection Limits). In order to use this flag, the ratio as described in the Z flag MUST be between 0.7 and 1.4.

Y-flag : The Y flag is used to indicate that quantitation was performed on the secondary dilution of a sample.

Sample Summary

The following samples were determined to be free of all HSL pesticides/PCBs above CRQLs. EDB52, EDB53, EDB55, EDB56 and EDB57.

4,4'-DDT (CAS# 50-29-3) was detected in EDB53 below the CRQL and thus flagged with a J.

Sample EDB54 was positive for 4,4'-DDT (CAS# 50-29-3). Endosulfan I (CAS# 959-98-8) and 4,4'-DDE (CAS# 72-55-9) were detected below the CRQL and both were flagged with a J. The same positives were found in the corresponding MS and MSD extracts.

Any technical questions regarding the data present in this deliverable should be addressed to the individual whose name appears at the end of this case narrative.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions implied or detailed above. Release of the information contained in this hardcopy data package and in the computer - readable data submitted on floppy diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature:

C. M. O'Quinn

C. Michael O'Quinn
GC/MS Group Leader
CLP Project Manager

CMO/crn
75100

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	EDB52	98	97	94		0
02	EDB53	111	90	94		0
03	EDB54	103	97	99		0
04	EDB55	99	97	90		0
05	EDB56	111	90	96		0
06	EDB57	100	96	101		0
07	EDB53MS	106	89	108		0
08	EDB53MSD	105	84	92		0
09	EDB54MS	101	90	96		0
10	EDB54MSD	102	86	101		0
11	VBLK1	98	101	82		0
12	VBLK2	103	100	91		0

	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: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	EDB52	77	82	96	78	74	90		0
02	EDB53	73	85	92	74	70	93		0
03	EDB54	71	83	100	75	70	96		0
04	EDB55	69	91	91	77	76	100		0
05	EDB56	77	85	90	85	84	74		0
06	EDB57	73	85	85	74	72	83		0
07	EDB54MS	80	94	94	91	92	86		0
08	EDB54MSD	82	95	93	87	82	92		0
09	BBLK1	79	88	95	78	78	88		0
10	BBLK2	62	75	76	67	66	71		0

		QC LIMITS
S1 (NBZ)	= Nitrobenzene-d5	(23-120)
S2 (FBP)	= 2-Fluorobiphenyl	(30-115)
S3 (TPH)	= Terphenyl	(18-137)
S4 (PHL)	= Phenol-d5	(24-113)
S5 (2FP)	= 2-Fluorophenol	(25-121)
S6 (TBP)	= 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: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (DBC)#	OTHER
01	PBLKL1	85	0
02	PBLKL2	86	0
03	EDB52	94	0
04	EDB53	104	0
05	EDB54	99	0
06	EDB54MS	89	0
07	EDB54MSD	95	0
08	EDB55	91	0
09	EDB56	98	0
10	EDB57	86	0

ADVISORY QC LIMITS

S1 (DBC) = Dibutlychlorendate (20-150)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

CHECKED MAY 0 1 1989

FORM II PEST-2 1/87 Rev.

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ENCOTEC - AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix Spike - EPA Sample No.: EDB54 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	63.3	0	77.8	123	59-172
Trichloroethene	63.3	0	57.5	91	62-137
Benzene	63.3	0	70.3	111	66-142
Toluene	63.3	6.53	80.4	117	59-139
Chlorobenzene	63.3	0	67.5	107	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	63.3	82.3	130	-6	22	59-172
Trichloroethene	63.3	57.2	90	1	24	62-137
Benzene	63.3	69.5	110	1	21	66-142
Toluene	63.3	79.4	115	2	21	59-139
Chlorobenzene	63.3	67.5	107	0	21	60-133

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

* Values outside of QC limits

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

COMMENTS:

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ENCOTEC - AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix Spike - EPA Sample No.: EDB53 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	62.5	0	102	163	59-172
Trichloroethene	62.5	0	57.3	92	62-137
Benzene	62.5	0	69.0	110	66-142
Toluene	62.5	20.9	93.3	116	59-139
Chlorobenzene	62.5	0	66.9	107	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	62.5	94.4	151	8	22	59-172
Trichloroethene	62.5	57.1	91	1	24	62-137
Benzene	62.5	67.6	108	2	21	66-142
Toluene	62.5	88.6	108	7	21	59-139
Chlorobenzene	62.5	65.9	105	2	21	60-133

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

* Values outside of QC limits

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

COMMENTS:

3D

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ENCOTEC - AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix Spike - EPA Sample No.: EDB54 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	16700	0	9190	55	26- 90
2-Chlorophenol	16700	0	14600	87	25-102
1,4-Dichlorobenzene	8350	0	4630	55	28 104
N-Nitroso-di-n-prop.(1)	8350	0	6230	75	41 126
1,2,4-Trichlorobenzene	8350	0	6400	77	38 107
4-Chloro-3-methylphenol	16700	0	13700	82	26 103
Acenaphthene	8350	0	4890	59	31-137
4-Nitrophenol	16700	0	16900	101	11-114
2,4-Dinitrotoluene	8350	0	4540	54	28- 89
Pentachlorophenol	16700	0	13500	81	17-109
Pyrene	8350	264	6980	80	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	16700	8440	51	8	35	26- 90
2-Chlorophenol	16700	13400	80	8	50	25-102
1,4-Dichlorobenzene	8350	4320	52	6	27	28 104
N-Nitroso-di-n-prop.(1)	8350	5950	71	5	38	41 126
1,2,4-Trichlorobenzene	8350	6600	79	-3	23	38 107
4-Chloro-3-methylphenol	16700	14000	84	-2	33	26 103
Acenaphthene	8350	4960	59	0	19	31-137
4-Nitrophenol	16700	18100	108	-7	50	11-114
2,4-Dinitrotoluene	8350	4800	57	-5	47	28- 89
Pentachlorophenol	16700	13800	83	-2	47	17-109
Pyrene	8350	6880	79	1	36	35-142

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS:

3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix Spike - EPA Sample No.: EDB54 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)	67.4	0	13.5	20 *	46-127
Heptachlor	67.4	0	4.51	7 *	35-130
Aldrin	67.4	0	7.16	11 *	34-132
Dieldrin	168	0	17.8	11 *	31-134
Endrin	168	0	25.9	15 *	42-139
4,4'-DDT	168	43.0	55.4	7 *	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	67.4	10.8	16 *	22	50	46-127
Heptachlor	67.4	4.73	7 *	0	31	35-130
Aldrin	67.4	7.24	11 *	0	43	34-132
Dieldrin	168	18.7	11 *	0	38	31-134
Endrin	168	35.7	21 *	-33	45	42-139
4,4'-DDT	168	47.3	3 *	80 *	50	23-134

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

* Values outside of QC limits

RPD: 1 out of 6 outside limits
Spike Recovery: 12 out of 12 outside limits

COMMENTS:

CHECKED MAY 0 1 1989

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: ENCOTEC - AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Lab File ID: VSB0406A Lab Sample ID: VSB0406A

Date Analyzed: 04/06/89 Time Analyzed: 2047

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

Instrument ID: 001

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EDB52	EDB52V	EDB52V	2224
02	EDB55	EDB55V	EDB55V	0049
03	EDB54MS	EDB54VM	EDB54VM	0314
04	EDB54MSD	EDB54VD	EDB54VD	0403

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: ENCOTEC - AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Lab File ID: VSB0407A Lab Sample ID: VSB0407A

Date Analyzed: 04/07/89 Time Analyzed: 1736

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

Instrument ID: 001

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EDB53	EDB53VR	EDB53VR	1828
02	EDB54	EDB54VR	EDB54VR	1917
03	EDB56	EDB56VR	EDB56VR	2005
04	EDB57	EDB57VR	EDB57VR	2054
05	EDB53MS	EDB53VM	EDB53VM	2142
06	EDB53MSD	EDB53VD	EDB53VD	2230

COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: ENCOTEC - AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Lab File ID: LSB0405 Lab Sample ID: LSB0405

Date Extracted: 04/05/89 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed: 04/18/89 Time Analyzed: 1728

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

Instrument ID: 004

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EDB52	EDB52B	EDB52B	04/18/89
02	EDB53	EDB53B	EDB53B	04/18/89
03	EDB54	EDB54B	EDB54B	04/18/89
04	EDB55	EDB55BR	EDB55BR	04/20/89
05	EDB56	EDB56B	EDB56B	04/18/89
06	EDB57	EDB57B	EDB57B	04/18/89

COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: ENCOTEC - AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Lab File ID: LSB0410B Lab Sample ID: LSB0410B

Date Extracted: 04/10/89 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed: 04/20/89 Time Analyzed: 0239

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

Instrument ID: 004

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EDB54MS	EDB54BM	EDB54BM	04/19/89
02	EDB54MSD	EDB54BD	EDB54BD	04/19/89

COMMENTS:

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Lab Sample ID: MB040589-2 Lab File ID: _____

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

Date Extracted: 04/05/89 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed (1): 04/24/89 Date Analyzed (2): _____

Time Analyzed (1): 2019 Time Analyzed (2): _____

Instrument ID (1): 3600-1 Instrument ID (2): _____

GC Column ID (1): DB-608 GC Column ID (2): _____

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EDB52	30041	04/25/89	04/25/89
02	EDB53	30042	04/25/89	04/25/89
03	EDB54	30043	04/24/89	04/25/89
04	EDB55	30044	04/25/89	04/25/89
05	EDB56	30045	04/25/89	04/26/89
06	EDB57	30046	04/25/89	04/26/89

COMMENTS:

CHECKED MAY 0 1 1989

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Lab Sample ID: MB041089-1 Lab File ID: _____

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

Date Extracted: 04/05/89 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed (1): 04/24/89 Date Analyzed (2): _____

Time Analyzed (1): 2057 Time Analyzed (2): _____

Instrument ID (1): 3600-1 Instrument ID (2): _____

GC Column ID (1): DB-608 GC Column ID (2): _____

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EDB54MS	30043MS	04/24/89	04/25/89
02	EDB54MSD	30043MSD	04/24/89	04/25/89

COMMENTS:

CHECKED MAY 0 1 1989

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK1

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: VSB0406A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VSB0406A

Level: (low/med) LOW Date Received: 04/06/89

% Moisture: not dec. 0 Date Analyzed: 04/06/89

Column: (pack/cap) PACK Dilution Factor: 1.0

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
75-35-3	1,1-Dichloroethane	5	U
540-59-0	(Total)-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
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
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
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	Total Xylenes	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK1

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: VSB0406A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VSB0406A

Level: (low/med) LOW Date Received: 04/06/89

% Moisture: not dec. 0 Date Analyzed: 04/06/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLK2

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: VSB0407A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VSB0407A

Level: (low/med) LOW Date Received: 04/07/89

% Moisture: not dec. 0 Date Analyzed: 04/07/89

Column: (pack/cap) PACK Dilution Factor: 1.0

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	4	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-35-3	1,1-Dichloroethane	5	U
540-59-0	(Total)-1,2-Dichloroethene	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
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
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
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	Total Xylenes	5	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLK2

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: VSB0407A

Sample wt/vol: 5.0 (g/mL) G Lab File ID: VSB0407A

Level: (low/med) LOW Date Received: 04/07/89

% Moisture: not dec. 0 Date Analyzed: 04/07/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BBLK1

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: LSB0405

Sample wt/vol: 30.0 (g/mL) G Lab File ID: LSB0405

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 0 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

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
39638-32-9	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	Dimethyl Phthalate	660	U
208-96-8	Acenaphthylene	660	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BBLK1

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: LSB0405

Sample wt/vol: 30.0 (g/mL) G Lab File ID: LSB0405

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 0 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3200	U
83-32-9	Acenaphthene	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
606-20-2	2,6-Dinitrotoluene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
86-73-7	Fluorene	660	U
100-10-6	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
117-81-7	bis(2-Ethylhexyl)Phthalate	140	J
218-01-9	Chrysene	660	U
117-84-0	Di-n-Octyl Phthalate	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.

BBLK1

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: LSB0405

Sample wt/vol: 30.0 (g/mL) G Lab File ID: LSB0405

Level: (low/med) LOW Date Received: 04/05/89

% Moisture: not dec. 0 dec. ____ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/18/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BBLK2

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: LSB0410B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: LSB0410B

Level: (low/med) LOW Date Received: 04/10/89

% Moisture: not dec. 0 dec. ____ Date Extracted: 04/10/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/20/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

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
39638-32-9	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	Dimethyl Phthalate	660	U
208-96-8	Acenaphthylene	660	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

BBLK2

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: LSB0410B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: LSB0410B

Level: (low/med) LOW Date Received: 04/10/89

% Moisture: not dec. 0 dec. ____ Date Extracted: 04/10/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/20/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3200	U
83-32-9	Acenaphthene	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
606-20-2	2,6-Dinitrotoluene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
86-73-7	Fluorene	660	U
100-10-6	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
117-81-7	bis(2-Ethylhexyl)Phthalate	660	U
218-01-9	Chrysene	660	U
117-84-0	Di-n-Octyl Phthalate	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.

BBLK2

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: LSB0410B

Sample wt/vol: 30.0 (g/mL) G Lab File ID: LSB0410B

Level: (low/med) LOW Date Received: 04/10/89

% Moisture: not dec. 0 dec. ____ Date Extracted: 04/10/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/20/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKL1

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: MB040589-2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

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

% Moisture: not dec. __ dec. __ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/24/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	16	U
319-85-7	beta-BHC	16	U
319-86-8	delta-BHC	16	U
58-89-9	Lindane	16	U
77-44-8	Heptachlor	16	U
309-00-2	Aldrin	16	U
1024-57-3	Heptachlor epoxide	16	U
959-98-8	Endosulfan I	16	U
60-57-1	Dieldrin	32	U
72-55-9	4,4'-DDE	32	U
72-20-8	Endrin	32	U
33213-65-9	Endosulfan II	32	U
72-54-8	4,4'-DDD	32	U
1031-07-8	Endosulfan sulfate	32	U
50-29-3	4,4'-DDT	32	U
72-43-5	Methoxychlor	160	U
53494-70-5	Endrin ketone	32	U
5103-71-9	alpha-Chlordane	160	U
5103-74-2	gamma-Chlordane	160	U
8001-35-2	Toxaphene	320	U
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	160	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	U
11097-69-1	Aroclor-1254	320	U
11096-82-5	Aroclor-1260	320	U

CHECKED MAY 1 1989

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKL2

Lab Name: ENCOTEC-AA Contract: 68-D9-0033

Lab Code: ENCOT Case No.: 11716 SAS No.: _____ SDG No.: EDB52

Matrix: (soil/water) SOIL Lab Sample ID: MB041089-1

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

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

% Moisture: not dec. __ dec. __ Date Extracted: 04/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 04/24/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	16	U
319-85-7	beta-BHC	16	U
319-86-8	delta-BHC	16	U
58-89-9	Lindane	16	U
77-44-8	Heptachlor	16	U
309-00-2	Aldrin	16	U
1024-57-3	Heptachlor epoxide	16	U
959-98-8	Endosulfan I	16	U
60-57-1	Dieldrin	32	U
72-55-9	4,4'-DDE	32	U
72-20-8	Endrin	32	U
33213-65-9	Endosulfan II	32	U
72-54-8	4,4'-DDD	32	U
1031-07-8	Endosulfan sulfate	32	U
50-29-3	4,4'-DDT	32	U
72-43-5	Methoxychlor	160	U
53494-70-5	Endrin ketone	32	U
5103-71-9	alpha-Chlordane	160	U
5103-74-2	gamma-Chlordane	160	U
8001-35-2	Toxaphene	320	U
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	160	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	U
11097-69-1	Aroclor-1254	320	U
11096-82-5	Aroclor-1260	320	U

CHECKED MAY 0 1 1989

STATE OF ILLINOIS
Department of
Registration and Education
JOAN G ANDERSON
DIRECTOR, SPRINGFIELD
BOARD OF NATURAL RESOURCES
AND CONSERVATION
JOAN G ANDERSON ..... CHAIRMAN
BIOLOGY ..... THOMAS PARK
CHEMISTRY ..... H. S GUTOWSKY
ENGINEERING ..... ROBERT H. ANDERSON
FORESTRY ..... STANLEY K. SHAPIRO
GEOLOGY ..... LAURENCE L. SLOSS
SOUTHERN ILLINOIS UNIVERSITY ..... JOHN C. GUYON
UNIVERSITY OF ILLINOIS ..... WILLIAM L. EVERITT

Illinois State Water Survey

WATER RESOURCES BUILDING • MAIL: BOX 232, URBANA, ILLINOIS 61801 • AREA CODE 217
605 E. SPRINGFIELD, CHAMPAIGN PHONE 333-2210

WILLIAM C. ACKERMANN, CHIEF

April 14, 1977

WELL PRODUCTION TEST

~~CITY OF NORTHBROOK, WELL #1~~ well rebuilt - see 1980 inventory form

by

Milaeger Well and Pump Co., Inc.

Owner:	Zenith Radio Corporation
Location:	2000'N., 2000'W. of SE corner Sec. 32, T.42N. R.12E.
Date Completed:	June 1974
Date of Test:	July 8,9,10, 1974
Length of Test:	15 min. on 7/8 30 hours 7/9-7/10
Aquifer:	Sandstone

WELL DATA

PUMPED WELL

Well No:	1
Driller:	Milaeger Well and Pump Co., Inc.
Drill Cuttings:	----
Depth:	1345 ft.
Hole Record:	30" 0-170'; 19" 170-307'; 15" 307-849'; 10" 849-1345'
Casing Record:	30" 0-170'; 16" 0-307'(cememted in); 12" 461-769'; 10" 706-849'
Screen Record:	---
Pump and Power:	Diesel engines
Ground Elevation at Well:	660'
Measuring Point:	---
Sample:	---
Temperature of Water:	---
Nonpumping Level:	590'

WELL INVENTORY well rebuilt - see 1980 inventory form

Well No. COK 42N12E-32.6f
Owners No. 2

Location Glenview County Cook

Feet from Sec. Cor. 1500'S, 1900' E / NW cor

Owner Zenith Radio Corp

Drilling Co. Milaeger Well + Pump Co Permit No.

Date Drilled Aug 1975 Depth 1368 Method

Hole Record 19" 0 - 1020', 15" 1020 - 1174', 12" 1174 - 1368'

Casing Record 20" 0 - 297', 16" 0 - 1016', 12" 989 - 1174'

Screen Record None

Gravel Pack Record None

Chief Aquifer Sandstone

Land Survace Elevation 662

Test Data:

Static Level ____ below MP on ____
Pumping Level ____ below MP on ____
after pumping for ____ hours
at ____ gpm.
MP for test

Permanent Airline, Pump and Power

Use

Analysis Temp.

Data Collected by

Date

Remarks: Well was not shot

LOG		
Formation	Depth (ft)	
Clay	0	52
Sand + gravel	52	72
Gravel + clay	72	112
Gravel	112	134
Lime streak	134	135
Shale	135	155
Shale with lime streaks	155	175
Lime	175	195
Shale with lime streaks	195	218
Gray shale	218	300
Brown lime	300	650
Brown sandstone	650	790
Lime	790	1020
Lime + sandstone	1020	1226±
Sandstone	1226±	1368

Note: log does not agree with log shown on Milaeger's construction recor
Drillers location: 2000 N, 10' W, SE cor, SW¼ Sec 31
Caves encountered in 30' sections between 636-678 and 812-872

Data	Loc.	Test	D	P	W	C	
✓	RB	✓	✓	✓	✓	✓	

SWS-N2W

well rebuilt - see 1980 inventory form

ZENITH RADIO CORPORATION

WELL NO. 1

Formation	From	To
Clay	0	25
Gravel and clay	25	57
Gravel	57	80
Gravel and clay	80	126
Limestone and gravel	126	135
Gravel and clay	135	152
Clay and gravel	152	165
Gray shale	165	177
Brown lime	177	182
Gray shale	182	274
Brown lime	274	605
Sandstone	605	790
Lime and sandstone	790	805
Shale	805	809
Sandy lime	809	855
Shale	855	860
Sandstone	860	875
Lime	875	916
Sandy lime	916	1074
Sandstone with shale streaks	1074	1145
Sandy lime	1145	1185
Sandstone	1185	1324
Sandstone with shale streaks	1324	1345

STATE OFFICE BUILDING, SPRINGFIELD,
AL /WATER SURVEYS SECTION. BE SURE TO

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed August 5, 1977

10. Property owner J. G. PECK Well No. 4-77
Address 150 N. EAST RIVER RD. DES PLAINES
Driller T. SZYMANSKI License No. 102-108
11. Permit No. 62607 Date 6-24-77
12. Water from LIMESTONE (Formation) 13. County COOK
at depth 134 to 275 ft.
14. Screen: Diam. _____ in.
Length: _____ ft. Slot _____
Sec. 9
Twp. 41N
Rge. 12E
Elev. _____

15. Casing and Liner Pipe

Diam (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	GAL. #15	0	134

SHOW LOCATION IN SECTION PLAT
SE SW SE
(permit)

16. Size Hole below casing 4 7/8 in.
17. Static level 208 ft. below casing top which is ONE ft. above ground level. Pumping level 208 ft. when pumping at 10 gpm for 1.5 hours. Sub pump set at 257'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
TOP SOIL	3	3
SAND + GRAVEL	15	18
GRAVEL + CLAY	51	69
SAND	8	77
SAND + GRAVEL	17	94
CLAY + GRAVEL	39	133
SAND + GRAVEL	01	134
LIMESTONE	141	275

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Ted Szymanski (Partner) DATE 8, 5, 77

COUNTY No. 26015

COOK 9-41N-12E

CONSUMER HEALTH PROTECTION, 535 WEST
61. DO NOT DETACH GEOLOGICAL/WATER
E PROPER LOCATI

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed December 2, 1977

10. Property owner George Busch Well No.
Address 310 E. River Rd., Des Plaines
Driller D. R. Hoover License No. 102-78
11. Permit No. 68986 Date 11-4-77
12. Water from — (Formation) 13. County Cook
at depth — to — ft.
14. Screen: Diam. — in.
Length: _____ ft. Slot _____
Sec. 9
Twp. 41N
Rge. 12E
Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	New Galv. T&C	0	171
	14.81 ppf.		

SHOW LOCATION IN SECTION PLAT
50'NL, 300'WL
SE NW SE
(permit)

16. Size Hole below casing: 5 in.
17. Static level _____ ft. below casing top which is _____ ft. above ground level. Pumping level _____ ft. when pumping at _____ gpm for _____ hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Clay	9	9
Sandy clay	3	12
Hardpan	142	154
Gravel & limestone (no water)	7	161
Gravel & clay	10	171
Shale	69	240

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Donny L. Hoover for DATE 1-30-78

COUNTY No 26014

COOK 9-41N-12E

761. DO NOT DETACH GEOLOGICAL/WATER
E PROPER WELL LOCATION

(well Log # 1)

Not using dug deeper TAKE Samples

827-1286

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 10-25-78

10. Property owner Hoyt L Wilkinson Well No. _____
Address 10001 Pattey Rd. Des Plaines - mailing address
Driller Patrick Liberg License No. 102-386
11. Permit No. 81036 Date Oct 30, 1978
12. Water from ~~Limestone~~ Formation SHALE 13. County Cook
at depth 170 to 280 ft.
14. Screen: Diam. _____ in.
Length: _____ ft. Slot _____
Sec. 10
Twp. 41N
Rge. 12E
Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	Black	1	280

SHOW LOCATION IN SECTION PLAT
L 16 Cent. Rd.
Acres 1st Add.
180'NL 110'WL
(permit)

16. Size Hole below casing: 5 in. NE NW SW
17. Static level 145 ft. below casing top which is _____ ft. above ground level. Pumping level 150 ft. when pumping at 10 gpm for 2 hours. Sub. pump set at 168'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top Soil	4	4
Clay	142	146
Gravel	6	152
Blue Clay & Shale	11	161
Gravel & Sand	21	182
Blue Clay & Shale	98	280

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Patrick Liberg DATE 11-9-78
by June Liberg
COOK
10-41N-12E
COUNTY NO. 26234

2-use for SSE

CONSUMER HEALTH PROTECTION, 535 WEST
761. DO NOT DETACH GEOLOGICAL/WATER
E PROPER WELL LOCATION

(well Log #2)

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 6-15-78

10. Property owner FRED SCURRY Well No. _____
Address 9525 W. Central Rd., Des Plaines, IL.
Driller J. P. LICHTER License No. 102-6
11. Permit No. 75579 Date 6/15/78
12. Water from Fine Gravel Formation 13. County Cook
at depth 173 to 174 ft.
14. Screen: Diam. _____ in.
Length: _____ ft. Slot _____
Sec. 10
Twp. 41N
Rge. 12E
Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	Black Steel	grade	179

SHOW LOCATION IN SECTION PLAT
75'SL 125'EL
SW NE NW
(permit)

16. Size Hole below casing: 5 in.
17. Static level 147 ft. below casing top which is 1 ft. above ground level. Pumping level 150 ft. when pumping at 6-8 gpm for _____ hours. Sub. pump set at 165'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Yellow Clay	10	10
Blue Clay	45	55
Hard Dry Clay	23	78
Very Sandy Clay	31	109
Gravel & Clay	48	157
Gravel (no water)	16	173
Gravel K(water)	1	174

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [signature] DATE 11/20/78
COOK
26233
827-4589
10-41N-12E

using for drinking - wants results

well log #1

DO NOT DETACH GEOLOGICAL/WATER
E PROPER WELL LOCATION

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 10-25-78

10. Property owner Hoyt DeWilkinson Well No. _____
Address 10001 Potter Rd. Des Plaines - mailing address
Driller Patrick J. Liberg License No. 102-3860
11. Permit No. 81036 Date Oct 30, 1978
12. Water from ~~Limestone~~ Formation SHALE 13. County Cook
at depth 170 to 280 ft.
14. Screen: Diam. _____ in.
Length: _____ ft. Slot _____
Sec. 10
Twp. 41N
Rge. 12E
Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	Black.	1	280

SHOW LOCATION IN SECTION PLAT
L 16 Cent. Rd.
Acres 1st Add.
180'NL 110'WL
(permit)

16. Size Hole below casing: 5 in. NE NW SW
17. Static level 145 ft. below casing top which is _____ ft. above ground level. Pumping level 150 ft. when pumping at 10 gpm for 2 hours. Sub. pump set at 168'

FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top Soil	4	4
Clay	142	146
Gravel	6	152
Blue Clay & Shale	11	161
Gravel & Sand	21	182
Blue Clay & Shale -	98	280

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Patrick Liberg DATE 11-9-78
by June Liberg
COUNTY COOK
COUNTY NO. 26234
10-41N-12E

Not using dug deeper TAKE Samples

827-1286

Nearest well

well log #2

CONSUMER HEALTH PROTECTION, 535 WEST
'61. DO NOT DETACH GEOLOGICAL WATER
E PROPER WELL LOCATION

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 6-15-78

10. Property owner FRED SCURRY Well No. _____
Address 9525 W. Central Rd., Des Plaines, IL.
Driller J. P. LICHTER License No. 102-6
11. Permit No. 75579 Date 6/15/78
12. Water from Fine Gravel Formation 13. County Cook
at depth 173 to 174 ft.
14. Screen: Diam. _____ in.
Length: _____ ft. Slot _____
Sec. 10
Twp. 41N
Rge. 12E
Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	Black Steel	grade	179

SHOW LOCATION IN SECTION PLAT
75'SL 125'EL
SW NE NW
(permit)

16. Size Hole below casing: 5 in.
17. Static level 147 ft. below casing top which is 1 ft. above ground level. Pumping level 150 ft. when pumping at 6-8 gpm for _____ hours. Sub. pump set at 165'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Yellow Clay	10	10
Blue Clay	45	55
Hard Dry Clay	23	78
Very Sandy Clay	31	109
Gravel & Clay	48	157
Gravel (no water)	16	173
Gravel K(water)	1	174

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [illegible] DATE 11/20/78
COOK 26233
827-4589
10-41N-12E

using for drinking - wants results

TO DRILLERS

REQUESTED AND MAIL ORIGINAL TO STATE NSUMER HEALTH PROTECTION, 535 WEST 761. DO NOT DETACH GEOLOGICAL/WATER E PROPER WELL LOCATION.

well log # 3
No #

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Georg Nuber Well No. 3
Address 10 N. East River Rd, Des Plaines, IL
Driller Mitchell J. Sfyma License No. 102-001088
11. Permit No. 105806 Date Dec. 3, 1982
12. Water from limestone (Formation) 13. County Cook
at depth 124' to 390 ft.
14. Screen: Diam. ____ in.
Length: ____ ft. Slot ____
Sec. 9, 2a
Twp. 41N
Rge. 12E
Elev. ____

15. Casing and Liner Pipe

Diam. (in)	Kind and Weight	From (Ft)	To (Ft.)
6"	Galv. 19.5 lb.	grade	124'

SHOW LOCATION IN SECTION PLAT
lot 3 SW SE SE

16. Size Hole below casing: 6" in.
17. Static level 180 ft. below casing top which is 2' ft. above ground level. Pumping level 221' ft. when pumping at 15 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Yellow clay	1'	1'
sand	16'	17'
blue clay	80'	97'
clay, gravel & sand	27'	124'
limestone	266'	390'
shale	10'	400'

see remarks in file

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Mitchell J. Sfyma DATE Jan 24 1983
Subcontracted to H. Effslenat.
9-41N-12E

9-COK 41N 12E

QUESTED AND MAIL ORIGINAL TO STATE UMER HEALTH PROTECTION, 535 WEST 1. DO NOT DETACH GEOLOGICAL/WATER PROPER WELL LOCATION.

No # on home

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 6/23/76

10. Property owner Georg Humbrecht Well No. ____
Address 1077 31st Ave, Bellwood Ill.
Driller [illegible] Drilling License No. 102 884
11. Permit No. 45142 Date 6-8-76
12. Water from limestone (Formation) 13. County Cook
at depth 50 to 165 ft.
14. Screen: Diam. ____ in.
Length: ____ ft. Slot ____
Sec. 9
Twp. 41N
Rge. 12E
Elev. ____

15. Casing and Liner Pipe

Diam. (in)	Kind and Weight	From (Ft.)	To (Ft.)
5	Steel Pipe	0	165
	Well Drilling		

SHOW LOCATION IN SECTION PLAT
NW NW SE
(permit)

16. Size Hole below casing: 5 in.
17. Static level ____ ft. below casing top which is 2 ft. above ground level. Pumping level ____ ft. when pumping at ____ gpm for ____ hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Overburden	165	165
Limestone at	0	165

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [illegible] DATE 6/29/76

COOK -41N-12E

761. DO NOT DETACH GEOLOGICAL/WATER
E PROPER WELL LOCATION

well log #1

GE[illegible]ICAL [illegible] WATER SURVEYS WEL[illegible] RECOR[illegible]
Completed 10-25-[illegible]

10. Property owner Hoyt D. Wilkinson Well No. _____
Address 10001 Potter Rd. Des Plaines
Driller Patrick J. Liberg License No. 102-386
11. Permit No. 81036 Date Oct 30, 1978
12. Water from ~~Limestone~~ Formation SHALE 13. County Cook
at depth 170 to 280 ft.
14. Screen: Diam. _____ in.
Length: _____ ft. Slot _____

Sec. 10
Twp. 41N
Rge. 12E
Elev. _____

15. Casing and Liner Pipe

Diam (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	Black	1	280

SHOW LOCATION IN SECTION PLAT
L 16 Cent. Rd.
Acres 1st Add.
180'NL 110'WL
NE NW SW (permit)

16. Size Hole below casing: 5 in.
17. Static level 145 ft. below casing top which is _____ ft. above ground level. Pumping level 150 ft. when pumping at 10 gpm for 2 hours. Sub. pump set at 168'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Top Soil	4	4
Clay	142	146
Gravel	6	152
Blue Clay & Shale	11	161
Gravel & Sand	21	182
Blue Clay & Shale	98	280

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Patrick Liberg DATE 11-9-78
by June Liberg
COOK

10-41N-12E

[illegible] NO. 26234

[illegible]SUMER HEALTH PROTECTION, 535 WEST
761. DO NOT DETACH GEOLOGICAL/WATER
E PROPER WELL LOCATION

well log # 2

GEOLOGICAL AND WATER SURVEYS WELL RECORD
Completed 6-15-78

10. Property owner FRED SCURRY Well No. _____
Address 9525 W. Central Rd., Des Plaines, IL.
Driller J. P. LICHTER License No. 102-6
11. Permit No. 75579 Date 6/15/78
12. Water from Fine Gravel Formation 13. County Cook
at depth 173 to 174 ft.
14. Screen: Diam. _____ in.
Length: _____ ft. Slot _____

Sec. 10
Twp. 41N
Rge. 12E
Elev. _____

15. Casing and Liner Pipe

Diam. (in.)	Kind and Weight	From (Ft.)	To (Ft.)
5	Black Steel	grade	179

SHOW LOCATION IN SECTION PLAT
75'SL 125'EL
SW NE NW
(permit)

16. Size Hole below casing: 5 in.
17. Static level 147 ft. below casing top which is 1 ft. above ground level. Pumping level 150 ft. when pumping at 6-8 gpm for _____ hours. Sub. pump set at 165'

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Yellow Clay	10	10
Blue Clay	45	55
Hard Dry Clay	23	78
Very Sandy Clay	31	109
Gravel & Clay	48	157
Gravel (no water)	16	173
Gravel K(water)	1	174

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [illegible] DATE 11/20/78
COOK

[illegible] 26233

10-41N-12E

TO DRILLERS

REQUESTED AND MAIL ORIGINAL TO STATE NSUMER HEALTH PROTECTION, 535 WEST 761. DO NOT DETACH GEOLOGICAL/WATER E PROPER WELL LOCATION.

well log #3

GEOLOGICAL AND WATER SURVEYS WELL RECORD

10. Property owner Georg Nuber Well No. 3
Address 10 N. East River Rd, Des Plaines, IL
Driller Mitchell J. Sfymanowski License No. 102-001088
11. Permit No. 105806 Date Dec. 3, 1982
12. Water from limestone Formation 13. County Cook
at depth 124' to 390' ft.
14. Screen: Diam. _____ in.
Length: _____ ft. Slot _____
Sec. 9, 2a
Twp. 41N
Rge. 12E
Elev. _____

15. Casing and Liner Pipe

Diam. (in)	Kind and Weight	From (Ft.)	To (Ft.)
6"	Galv. 19.5 lb.	grade	124'

SHOW LOCATION IN SECTION PLAT
lot 3 SW SE
SE

16. Size Hole below casing: 6" in.
17. Static level 180 ft. below casing top which is 2' ft. above ground level. Pumping level 221' ft. when pumping at 15 gpm for 4 hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Yellow clay	1'	1'
sand	16'	17'
blue clay	80'	97'
clay, gravel & sand	27'	124' A.O.C.
limestone	266'	390'
shale	10'	400'

See remarks in file

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED Mitchell J. Sfymanowski DATE Jan 24 1983
Subcontracted to H. Effslenat.
9-41N-12E

9-COK41N12E

QUESTED AND MAIL ORIGINAL TO STATE UMER HEALTH PROTECTION, 535 WEST 1. DO NOT DETACH GEOLOGICAL/WATER PROPER WELL LOCATION.

GEOLOGICAL AND WATER SURVEYS WELL RECORD

Completed 6/23/76

10. Property owner Georg Nuber Well No. _____
Address 10 N. East River Rd, Des Plaines Ill.
Driller [illegible] Drilling License No. 102-84
11. Permit No. 48142 Date 6-8-76
12. Water from limestone Formation 13. County Cook
at depth 165 to 165 ft.
14. Screen: Diam. _____ in.
Length: _____ ft. Slot _____
Sec. 9
Twp. 41N
Rge. 12E
Elev. _____

15. Casing and Liner Pipe

Diam. (in)	Kind and Weight	From (Ft.)	To (Ft.)
5	Steel Pipe	0	165
	Well Only		

SHOW LOCATION IN SECTION PLAT
NW NW SE
(permit)

16. Size Hole below casing: 5 in.
17. Static level _____ ft. below casing top which is 2 ft. above ground level. Pumping level _____ ft. when pumping at _____ gpm for _____ hours.

18. FORMATIONS PASSED THROUGH	THICKNESS	DEPTH OF BOTTOM
Overburden	165	165
Limestone at	0	165

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED [illegible] DATE 6/29/76

COUNTY No. 25343

COOK

9-41N-12E

SAMPLE PROPOSAL
FIT REGION V

1. Date Form Completed March 13, 1989
2. Account # FIL06225B TDD # F05-8710-030
   EPA I.D. # ILD980612717
3. Site Name, City, State Golf and River Landfill, Des Plaines, IL.
4. Team Leader ANDREA L. DANS Sampler Bill Schaefer
5. Number and Type of Samples:
   Soil/Sediment 6 Surface Water — Ground Water —
   Residential/Municipal Wells — Other —
   Number of Blanks — Number of Duplicates —
6. RAS Parameters Requested:
   A/B/N ✓ Pest/PCB ✓ Volatiles ✓ Metals ✓ Cyanide ✓
   SAS Parameters Requested: NONE
7. Expected Sampling Date(s): April 4, 1989
   Expected Shipping Date(s): April 4, 1989
8. Lab Used For Analysis: Organic ENCOT (soils)
   Inorganic SKINER (soils)
   SAS —
9. Case Number 11716 SAS Number —
10. Airbill Numbers:
    Organic Lab _____ # Coolers _____ # Samples _____
    Inorganic Lab _____ # Coolers _____ # Samples _____
    CRL/SAS Lab _____ # Coolers _____ # Samples _____

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: F05-8710-030
PROJECT NAME: FIL0622SB/CASE 11716
SAMPLERS: (Signature) MJF Bill Johnson MJF Mike Falter

Cooler #: 01

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8oz. Extractable	120ml VOA					REMARKS OTR	ITR	Low Conc. Matrix
S1	4/4/89	1125		✓	Soil 1	3	1	2					EDB52	MECZ00	Soil
S2	4/4/89	1135		✓	Soil 2	3	1	2					EDB53	MECZ01	Soil
S3	4/4/89	1215		✓	Soil 3	3	1	2					EDB54	MECZ02	Soil

Lot # 8oz. — F8323234

120ml — D8315064

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
MJF Bill Johnson MJF Mike Falter	4/4/89 1430				
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: ENCOT Airbill # 9071160092 Custody Seals — 19538, 19539	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05-01573

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: F05-8710-030
PROJECT NAME: FIL0622SB/CASE 11716
SAMPLERS: (Signature) MJF ~~Bill Schaefer~~ MJF Mike Falter

Cooler #: 234

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8 oz. extractable	120 ml VOA					REMARKS OTR	ITR	LOW CONC MATRIX
S4	4/4/89	1230		✓	Soil 4	3	1	2					EDB 55	MECZ 03	SOIL
S5	4/4/89	1305		✓	Soil 5	3	1	2					EDB 56	MECZ 04	SOIL
S6	4/4/89	1345		✓	Soil 6	3	1	2					EDB 57	MECZ 05	SOIL

Lot #: 8oz - F8323234

120ml - D8316084

Organic Traffic Report is in Cooler # 01

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
MJF Mike Falter ~~Bill Schaefer~~ MJF	4/4/89 1430				
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 FEDEX to: Encot Airbill # 9071160092 Custody Seals - 19540, 19541	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05-01574

USEPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 ALEXANDRIA, VA 22313
703/557-2490 FTS-557-2490

CASE NO: 11716 | SAS NO: (IF APPLICABLE)

ORGANIC TRAFFIC REPORT

(FOR CLP USE ONLY)

TYPE OF ACTIVITY (CIRCLE ONE) ①
SUPERFUND—PA (SI) ESI RIFS RD RA ER NPLD O&M OTHER _____
NON-SUPERFUND— _____ PROGRAM

SITE NAME: Golf and River Landfill
CITY, STATE: Des Plaines, IL SITE SPILL ID:

REGION NO: V SAMPLING COMPANY: ② FIT
SAMPLER: (NAME) Bill Schaefer

SHIP TO: ③ Environmental Control Technology
3985 Research Park Dr.
Ann Arbor, MI 48108
ATTN: Mike Cannert

SAMPLING DATE: ④
BEGIN: 4/4/89 END: 4/4/89

DATE SHIPPED: 4/4/89 CARRIER: F ⑤
AIRBILL NO: 9071160092

SAMPLE DESCRIPTION ⑥
(ENTER IN BOX A)
1. SURFACE WATER
2. GROUND WATER
3. LEACHATE
4. SOIL
5. SEDIMENT
6. OIL (SAS)
7. WASTE (SAS)

TRIPLE VOLUME REQUIRED FOR MATRIX SPIKE/DUPLICATE AQUEOUS SAMPLE

SHIP MEDIUM AND HIGH CONCENTRATION SAMPLES IN PAINT CANS

SEE REVERSE FOR ADDITIONAL INSTRUCTIONS

Shipment is / is not complete

CLP SAMPLE NUMBER (FROM LABELS)	SAMPLE DESCRIPTION (FROM BOX 1) 1 2 3 4 5 6	CONCENTRATION L = LOW/MED, H = HIGH (SAS)	RAS ANALYSIS: VOLATILE	BASE/NEUT /ACID	PESTICIDE /PCB's		SPECIAL HANDLING	STATION LOCATION
EDB 52	4	L	✓	✓	✓			Soil 1
EDB 53	4	L	✓	✓	✓			SOIL 2
EDB 54	4	L	✓	✓	✓			SOIL 3
EDB 55	4	L	✓	✓	✓			SOIL 4
EDB 56	4	L	✓	✓	✓			SOIL 5
EDB 57	4	L	✓	✓	✓			SOIL 6

EPA Form 2075-7 (8-87)

WHITE — SMO COPY PINK — CLIENT COPY WHITE — LAB COPY FOR RETURN TO SMO YELLOW — LAB COPY

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

Cooler # 177

PROJ. NO.: FOS-8710-030
PROJECT NAME: FIL0622SB / CASE 11716
SAMPLERS: (Signature) MJF ~~Bill Schaefer~~ MJF Mike Falter

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8 oz Metals/CN						ITR	OTR	REMARKS Low Conc Matrix
S1	4/4/89	1125		✓	Soil 1	1	1						MECZ00	EDB 52	Soil
S2	4/4/89	1135		✓	Soil 2	1	1						MECZ01	EDB 53	Soil
S3	4/4/89	1215		✓	Soil 3	1	1						MECZ02	EDB54	Soil
S4	4/4/89	1230		✓	Soil 4	1	1						MECZ03	EDB55	Soil
S5	4/4/89	1305		✓	Soil 5	1	1						MECZ04	EDB56	Soil
S6	4/4/89	1345		✓	Soil 6	1	1						MECZ05	EDB57	Soil
													Lot # 8oz - F8323234		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
MJF Mike Falter ~~Bill Schaefer~~ MJF	4/4/89 1430				
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: SKINER Airbill #: 9071160103 Custody Seals: 19542, 19543	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05-01575

USEPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 ALEXANDRIA, VA 22313
703/557-2490 FTS-557-2490

CASE NO: 11716

SAS NO: (IF APPLICABLE)

INORGANIC TRAFFIC REPORT

(FOR CLP USE ONLY)

TYPE OF ACTIVITY (CIRCLE ONE) ①
SUPERFUND—PA (SI) ESI RIFS RD RA ER
NPLD O&M OTHER _____
NON-SUPERFUND—_____ PROGRAM

SITE NAME: Golf and River Landfill
CITY, STATE: Des Plaines, IL
SITE SPILL ID:

REGION NO: V
SAMPLING COMPANY ②: FIT
SAMPLER: (NAME) ~~Bill Schaefer~~ Mike Fabio

SHIP TO: ③
Skinner & Sherman, Inc.
300 Second Ave
Waltham, MA 02254
ATTN: Marilyn Fonseca

SAMPLING DATE: ④
BEGIN: 4/4/89 END: 4/4/89

DATE SHIPPED: 4/4/89 CARRIER: F ⑤
AIRBILL NO: 9071160103

SAMPLE DESCRIPTION ⑥
(ENTER IN BOX A)
1. SURFACE WATER
2. GROUND WATER
3. LEACHATE
4. SOIL
5. SEDIMENT
6. OIL (SAS)
7. WASTE (SAS)

DOUBLE VOLUME REQUIRED FOR MATRIX SPIKE/DUPLICATE AQUEOUS SAMPLE

SHIP MEDIUM AND HIGH CONCENTRATION SAMPLES IN PAINT CANS

SEE REVERSE FOR ADDITIONAL INSTRUCTIONS

Shipment is / is not complete.

CLP SAMPLE NUMBER (FROM LABELS)	Ⓐ SAMPLE DESCRIPTION (FROM BOX 1) 1 2 3 4 5 6 7	Ⓑ CONCENTRATION L = LOW, M = MED, H = HIGH (SAS)	Ⓒ RAS ANALYSIS: TOTAL METALS	CYANIDE	DISSOLVED METALS	HIGH ONLY (SAS): SULFIDE	pH	CONDUCTIVITY	OXIDANTS	Ⓓ SPECIAL HANDLING	Ⓔ STATION LOCATION
MECZ00	4	L	✓	✓							SOIL 1
MECZ01	4	L	✓	✓							SOIL 2
MECZ02	4	L	✓	✓							SOIL 3
MECZ03	4	L	✓	✓							SOIL 4
MECZ04	4	L	✓	✓							SOIL 5
MECZ05	4	L	✓	✓							SOIL 6

EPA Form 2075-6 (8-87)

WHITE — SMO COPY PINK — CLIENT COPY WHITE — LAB COPY FOR RETURN TO SMO YELLOW — LAB COPY

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf o Rives Land Fill / FOS-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S1 / Soil Sample #1

SAMPLING DATE 4/4/89 SAMPLING TIME 1125

ORGANIC TRAFFIC NUMBER E-DB 52

INORGANIC TRAFFIC NUMBER MEC200

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/Pest	S-036801	F8323234
"	Metals/Cyanide	" 2	"
120 ml	VOA	" 3	D8315064
"	VOA	" 4	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Grey Clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf & River Landfill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S2 / Soil Sample #2

SAMPLING DATE 4/4/89 SAMPLING TIME 1135

ORGANIC TRAFFIC NUMBER E-DB53

INORGANIC TRAFFIC NUMBER MEC201

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/PEST	S-036809	F8323234
"	Metals/Cyanide	" 10	"
120ml	VOA	" 11	D8315064
"	VOA	" 12	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Grey Clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf and Pines Land Fill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S3 / Soil Sample # 3

SAMPLING DATE 4/4/89 SAMPLING TIME 1215

ORGANIC TRAFFIC NUMBER E-DB 54

INORGANIC TRAFFIC NUMBER MECZ 02

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
902	GC/MS/PP/Pest	S-036813	F P323234
"	Metals/Cyanide	" 4	"
120 ml	VOA	" 5	D8315064
"	VOA	" 6	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Grey Clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf and River Land Fill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S4 / Soil Sample #4

SAMPLING DATE 4/4/89 SAMPLING TIME 1230

ORGANIC TRAFFIC NUMBER E-DB55

INORGANIC TRAFFIC NUMBER MECZ03

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/Pest	S-036817	F8323234
"	Metals/Cyanide	" 8	"
120 ml	VOA	" 9	D8316034
"	VOA	" 20	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Grey clay ; sediment sample

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf and Rives Landfill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S5 / Soil Sample #5

SAMPLING DATE 4/4/89 SAMPLING TIME 1305

ORGANIC TRAFFIC NUMBER E-DB 56

INORGANIC TRAFFIC NUMBER MEC204

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
4 oz	GC/MS/PP/Pest	S-036821	F8323234
"	Metals/Cyanide	" 2	"
120 ml	VOA	" 3	D8316034
"	VOA	" 4	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf and River Land Fill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S6 / Soil Sample # 6

SAMPLING DATE 4/4/89 SAMPLING TIME 1345

ORGANIC TRAFFIC NUMBER E-DB57

INORGANIC TRAFFIC NUMBER MECZ05

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/Pest	S-036825	F8323234
"	Metals/Cyanide	" 6	"
120 ml	VOA	" 7	D8316034
"	VOA	" 8	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf & Rives Land Fill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S1 / Soil Sample #1

SAMPLING DATE 4/4/89 SAMPLING TIME 1125

ORGANIC TRAFFIC NUMBER E-DB 52

INORGANIC TRAFFIC NUMBER MEC200

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/Pest	S-036801	F8323234
"	Metals/Cyanide	" 2	"
120 ml	VOA	" 3	D8315064
"	VOA	" 4	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Grey Clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf & River Landfill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S2 / Soil Sample #2

SAMPLING DATE 4/4/89 SAMPLING TIME 1135

ORGANIC TRAFFIC NUMBER E-DB53

INORGANIC TRAFFIC NUMBER MEC201

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/PEST	S-036809	F8323234
"	Metals/Cyanide	" 10	"
120ml	VOA	" 11	D8315064
"	VOA	" 12	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Grey Clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf and Rives Land Fill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S3 / Soil Sample # 3

SAMPLING DATE 4/4/89 SAMPLING TIME 1215

ORGANIC TRAFFIC NUMBER E-DB 54

INORGANIC TRAFFIC NUMBER MEC2 02

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/Pest	S-036813	F P323234
"	Metals/Cyanide	" 4	"
120 ml	VOA	" 5	D8315064
"	VOA	" 6	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Grey Clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf and River Land Fill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S4 / Soil Sample #4

SAMPLING DATE 4/4/89 SAMPLING TIME 1230

ORGANIC TRAFFIC NUMBER E-DB55

INORGANIC TRAFFIC NUMBER MECZ03

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/Pest	S-036817	F8323234
"	Metals/Cyanide	" 8	"
120 ml	VOA	" 9	D8316034
"	VOA	" 20	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Grey clay ; sediment sample

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf and Rivers Landfill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S5 / Soil Sample #5

SAMPLING DATE 4/4/89 SAMPLING TIME 1305

ORGANIC TRAFFIC NUMBER E-DB56

INORGANIC TRAFFIC NUMBER MEC204

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/Pest	5-036821	F8323234
"	Metals/Cyanide	" 2	"
120 ml	VOA	" 3	D8316034
"	VOA	" 4	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf and River Land Fill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S6 / Soil Sample # 6

SAMPLING DATE 4/4/89 SAMPLING TIME 1345

ORGANIC TRAFFIC NUMBER E-DB57

INORGANIC TRAFFIC NUMBER MECZ05

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/Pest	S-036825	F8323234
"	Metals/Cyanide	" 6	"
120 ml	VOA	" 7	D8316034
"	VOA	" 8	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: FOS-8710-030
PROJECT NAME: FIL0622SB / CASE 11716
Cooler # 177

SAMPLERS: (Signature) MJF ~~Bill Schaefer~~ MJF Mike Felton

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8 oz. Metals/CN						REMARKS ITR	OTR	Low Conc Matrix
S1	4/4/89	1125		✓	Soil 1	1	1						MECZ00	EDB 52	Soil
S2	4/4/89	1135		✓	Soil 2	1	1						MECZ01	EDB 53	Soil
S3	4/4/89	1215		✓	Soil 3	1	1						MECZ02	EDB54	Soil
S4	4/4/89	1230		✓	Soil 4	1	1						MECZ03	EDB55	Soil
S5	4/4/89	1305		✓	Soil 5	1	1						MECZ04	EDB56	Soil
S6	4/4/89	1345		✓	Soil 6	1	1						MECZ05	EDB57	Soil
													Lot # 8oz - F8323234		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
MJF ~~Mike Felton~~ ~~Bill Schaefer~~ MJF	4/4/89 1430				
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	

Remarks: Shipped FEDEX to: SKINER
Airbill #: 9071160103
Custody Seals: 19542, 19543

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05-01575

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: F05-8710-030
PROJECT NAME: FIL0622SB/CASE 11716
SAMPLERS: (Signature) MJF ~~Bill Schaefer~~ MJF Mike Falter

Cooler #: 234

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8 oz. extractable	120 ml VOA					REMARKS OTR	REMARKS ITR	REMARKS Low Conc Matrix
S4	4/4/89	1230		✓	Soil 4	3	1	2					EDB 55	MECZ 03	SOIL
S5	4/4/89	1305		✓	Soil 5	3	1	2					EDB 56	MECZ 04	SOIL
S6	4/4/89	1345		✓	Soil 6	3	1	2					EDB 57	MECZ 05	SOIL
													Lot #:	8OZ - F8323234	
														120ml — D8316084	
													Organic Traffic Report is in Cooler # 02		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
MJF Mike Falter ~~Bill Schaefer~~ MJF	4/4/89 1430				
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 FEDEX to: Encot Airbill # 9071160092 Custody Seals - 19540, 19541	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05- 01574

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: F05-8710-030
PROJECT NAME: FIL0622SB/CASE 11716
SAMPLERS: (Signature) MJF ~~Bill Schroeder~~ MJF Mike Felter

Cooler # : 01

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8oz. Extractable	120ml VOA					REMARKS OTR	ITR	Low Conc. Matrix
S1	4/4/89	1125		✓	Soil 1	3	1	2					EDB52	MECZ00	Soil
S2	4/4/89	1135		✓	Soil 2	3	1	2					EDB53	MECZ01	Soil
S3	4/4/89	1215		✓	Soil 3	3	1	2					EDB54	MECZ02	Soil
					143										
													Lot # 8oz. — F8323234		
													120ml — D8315064		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
MJF ~~Bill Schroeder~~ MJF Mike Felter	4/4/89 1430				
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: ENCOT
Airbill # 9071160092
Custody Seals - 19538, 19539

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05-01573

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO ILD980612717

PROJ. ACCT. NO. FIL0622SB

TDD F05-8710-030

FACILITY/OCCUPANT NAME: Golf & River Landfill

FACILITY/OCCUPANT ADDRESS: 353 N. River Rd. of Sisters of the Holy Family Nazareth, Des Plaines, IL 60016

SPLIT SAMPLES ACCEPTED( ) DECLINED(✓)

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR*	ITR*	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
S1	4/4/89	1125	NA	EDB52	MEC200	Soil Sample 1	✓	✓	✓	✓	✓			Soil
S2	4/4/89	1135	NA	EDB53	MEC201	Soil Sample 2	✓	✓	✓	✓	✓			Soil
S3	4/4/89	1215	NA	EDB54	MEC202	Soil Sample 3	✓	✓	✓	✓	✓			Soil
S4	4/4/89	1230	NA	EDB55	MEC203	Soil Sample 4	✓	✓	✓	✓	✓			Soil
S5	4/4/89	1305	NA	EDB56	MEC204	Soil Sample 5	✓	✓	✓	✓	✓			Soil
S6	4/4/89	1315	NA	EDB57	MEC205	Soil Sample 6	✓	✓	✓	✓	✓			Soil

TRANSFERRED BY: Andrew L. Davis 4/4/89 1430; Mike Fulton 4/4/89 1430

(Signature) (Date) (Time)

RECEIVED BY: (Signature) [illegible] (Date) 4-4-89 (Time) [illegible]

TITLE: [illegible] TELEPHONE: [illegible]

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

SAMPLE PROPOSAL
FIT REGION V

1. Date Form Completed March 13, 1989
2. Account # FIL06225B TDD # F05-8710-030
   EPA I.D. # ILD980612717
3. Site Name, City, State Golf and River Landfill, Des Plaines, IL.
4. Team Leader ANDREA L. DAVIS Sampler Bill ~~Schaefer~~ [illegible]
5. Number and Type of Samples:
   Soil/Sediment 6 Surface Water — Ground Water —
   Residential/Municipal Wells — Other —
   Number of Blanks — Number of Duplicates —
6. RAS Parameters Requested:
   A/B/N ✓ Pest/PCB ✓ Volatiles ✓ Metals ✓ Cyanide ✓
   SAS Parameters Requested: NONE
7. Expected Sampling Date(s): April 4, 1989
   Expected Shipping Date(s): April 4, 1989
8. Lab Used For Analysis: Organic ENCOT (soils)
   Inorganic SKINER (soils)
   SAS —
9. Case Number 11716 SAS Number —
10. Airbill Numbers:
    Organic Lab 9071160092 ENCOT # Coolers 2 # Samples 6 soils 4/14/89
    Inorganic Lab 9071160103 Skiner # Coolers 1 # Samples 6 soils
    CRL/SAS Lab _____ # Coolers _____ # Samples _____

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF

DATE: April 4, 1989

SITE NAME ~~Sample Collection Date~~: Golf and River Landfill

Recipient Information: Sister Rosemarie
Name

353 N. River Rd.
Street Address

Des Plaines, IL. 60016
City State Zip Code

312-298-6760
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~~ Report will be forwarded by the U.S. EPA within 6 months. If a copy of the ~~sample analysis~~ Report 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 ILD980612717

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.: FIL06225B ; PAN: F05-8710-030
Yellow: Recipient
Pink: U.S. EPA

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO ILD980612717

PROJ. ACCT. NO. FIL0622SB

TDD F05-8710-030

SPLIT SAMPLES ACCEPTED( ) DECLINED(✓)

FACILITY/OCCUPANT NAME: Golf & River Landfill

FACILITY/OCCUPANT ADDRESS: 353 N. [illegible] Rd. [illegible] Des Plaines, IL 60016

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR#	ITR#	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
S1	4/4/89	1125	NA	EDB52	MEC200	Soil Sample 1	✓	✓	✓	✓	✓			Soil
S2	4/4/89	1135	NA	EDB53	MEC201	Soil Sample 2	✓	✓	✓	✓	✓			Soil
S3	4/4/89	1215	NA	EDB54	MEC202	Soil Sample 3	✓	✓	✓	✓	✓			Soil
S4	4/4/89	1230	NA	EDB55	MEC203	Soil Sample 4	✓	✓	✓	✓	✓			Soil
S5	4/4/89	1305	NA	EDB56	MEC204	Soil Sample 5	✓	✓	✓	✓	✓			Soil
S6	4/4/89	1345	NA	EDB57	MEC205	Soil Sample 6	✓	✓	✓	✓	✓			Soil

TRANSFERED BY: [illegible] 4/4/89 1430

[illegible] 4/4/89 1430

(Signature) (Date) (Time)

RECEIVED BY:

(Signature) [illegible] (Date) [illegible] (Time)

DISTRIBUTION
WHITE: FIT SITE FILE
YELLOW: FACILITY/OCCUPANT
GREEN: FIT SAMPLE MANAGEMENT
PINK: U.S. EPA

TITLE [illegible] TELEPHONE [illegible]

SAMPLE PROPOSAL
FIT REGION V

1. Date Form Completed March 13, 1989
2. Account # FIL06225B TDD # F05-8710-030
   EPA I.D. # ILD980612717
3. Site Name, City, State Golf and River Landfill, Des Plaines, IL.
4. Team Leader ANDREA L. DAMS Sampler ~~Bill Schaefer~~ MIKE FEITES
5. Number and Type of Samples:
   Soil/Sediment 6 Surface Water — Ground Water —
   Residential/Municipal Wells — Other —
   Number of Blanks — Number of Duplicates —
6. RAS Parameters Requested:
   A/B/N ✓ Pest/PCB ✓ Volatiles ✓ Metals ✓ Cyanide ✓
   SAS Parameters Requested: NONE
7. Expected Sampling Date(s): April 4, 1989
   Expected Shipping Date(s): April 4, 1989
8. Lab Used For Analysis: Organic ENCOT (soils)
   Inorganic SKINER (soils)
   SAS —
9. Case Number 11716 SAS Number —
10. Airbill Numbers:
    Organic Lab _____ # Coolers _____ # Samples _____
    Inorganic Lab _____ # Coolers _____ # Samples _____
    CRL/SAS Lab _____ # Coolers _____ # Samples _____

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street,
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: F05-8710-030
PROJECT NAME: FIL0622SB/CASE 11716
SAMPLERS: (Signature) MJF Bill Schaefer MJF Mike Fitter

Cooler # : 01

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	8oz. Extractable	120ml VOA				REMARKS OTR	ITR	Low Conc. Matrix
S1	4/4/89	1125		✓	Soil 1	3	1	2				EDB52	MECZ00	Soil
S2	4/4/89	1135		✓	Soil 2	3	1	2				EDB53	MECZ01	Soil
S3	4/4/89	1215		✓	Soil 3	3	1	2				EDB54	MECZ02	Soil

Lot # 8oz. — F8323234

120ml — D8315064

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
MJF Bill Schaefer MJF Mike Fitter	4/4/89 1430				
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 ENCOT Airbill # 9071160092 Custody Seals — 19538, 19539	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05-01573

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: F05-8710-030
PROJECT NAME: FIL0622SB/CASE 11716
Cooler #: 234

SAMPLERS: (Signature) MJF ~~Bill Schaefer~~ MJF Mike Fitter

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	6 oz. extractable	120 ml VOA					REMARKS OTR	ITR	Low Conc MATRIX
S4	4/4/89	1230		✓	Soil 4	3	1	2					EDB 55	MECZ 03	SOIL
S5	4/4/89	1305		✓	Soil 5	3	1	2					EDB 56	MECZ 04	SOIL
S6	4/4/89	1345		✓	Soil 6	3	1	2					EDB 57	MECZ 05	SOIL
													Lot #:	8oz - F8323234	
														120ml - D8316084	
													Organic Traffic Report is in Cooler # 01		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
MJF ~~Bill Schaefer~~ MJF Mike Fitter	4/4/89 1430				
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 FEDEX to: Encot
Airbill # 9071160092
Custody Seals - 19540, 19541

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05-01574

USEPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 ALEXANDRIA, VA 22313
703/557-2490 FTS-557-2490

CASE NO: 11716 | SAS NO: (IF APPLICABLE)

ORGANIC TRAFFIC REPORT

FOR CLP USE ONLY

TYPE OF ACTIVITY (CIRCLE ONE) ①
SUPERFUND—PA (SI) ESI RIFS RD RA ER
NPLD O&M OTHER _____
NON-SUPERFUND— _____ PROGRAM

SITE NAME: Golf and River Landfill
CITY, STATE: Des Plaines, IL SITE SPILL ID:

REGION NO: V SAMPLING COMPANY: ② FIT
SAMPLER: (NAME) ~~Bill Schaefer~~

SHIP TO: ③ Environmental Control Technology
3985 Research Park Dr.
Ann Arbor, MI 48108
ATTN: Mike Cannert

SAMPLING DATE: ④
BEGIN: 4/4/89 END: 4/4/89

DATE SHIPPED: 4/4/89 CARRIER: F ⑤
AIRBILL NO: 9071160092

SAMPLE DESCRIPTION ⑥
(ENTER IN BOX A)
1. SURFACE WATER
2. GROUND WATER
3. LEACHATE
4. SOIL
5. SEDIMENT
6. OIL (SAS)
7. WASTE (SAS)

TRIPLE VOLUME REQUIRED FOR MATRIX SPIKE/DUPLICATE AQUEOUS SAMPLE

SHIP MEDIUM AND HIGH CONCENTRATION SAMPLES IN PAINT CANS

SEE REVERSE FOR ADDITIONAL INSTRUCTIONS

Shipment is/ is not complete

CLP SAMPLE NUMBER (FROM LABELS)	Ⓐ SAMPLE DESCRIPTION (FROM BOX 1) 1 2 3 4 5 6	Ⓑ CONCENTRATION L - LOW/MED. H - HIGH (SAS)	Ⓒ RAS ANALYSIS VOLATILE	BASENEUT/ACID	PESTICIDE/PCB's	Ⓓ SPECIAL HANDLING	Ⓔ STATION LOCATION
EDB 52	4	L	✓	✓	✓		Soil 1
EDB 53	4	L	✓	✓	✓		SOIL 2
EDB 54	4	L	✓	✓	✓		SOIL 3
EDB 55	4	L	✓	✓	✓		SOIL 4
EDB 56	4	L	✓	✓	✓		SOIL 5
EDB 57	4	L	✓	✓	✓		SOIL 6

EPA Form 2075-7 (8-87)

WHITE — SMO COPY PINK — CLIENT COPY WHITE — LAB COPY FOR RETURN TO SMO YELLOW — LAB COPY

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 5
230 South Dearborn Street
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

Cooler # 177

PROJ. NO.: F05-8710-030
PROJECT NAME: FIL0622SB / CASE 11716
SAMPLERS: (Signature) MJF ~~Bill Schaefer~~ MJF Mike Felton

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO. OF CONTAINERS	8 oz Metals/CN					ITR	REMARKS OTR	Low Conc Matrix
S1	4/4/89	1125		✓	Soil 1	1	1					MECZ00	EDB 52	Soil
S2	4/4/89	1135		✓	Soil 2	1	1					MECZ01	EDB 53	Soil
S3	4/4/89	1215		✓	Soil 3	1	1					MECZ02	EDB54	Soil
S4	4/4/89	1230		✓	Soil 4	1	1					MECZ03	EDB55	Soil
S5	4/4/89	1305		✓	Soil 5	1	1					MECZ04	EDB56	Soil
S6	4/4/89	1345		✓	Soil 6	1	1					MECZ05	EDB57	Soil

Lot # 8oz - F8323234

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
MJF ~~Bill Schaefer~~ MJF Mike Felton	4/4/89 1430				
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 FEDEX to: SKINER Airbill #: 9071160103 Custody Seals: 19542, 19543	

Distribution: White — Accompanies Shipment; Pink — Coordinator Field Files; Yellow — Laboratory File

05-01575

USEPA CONTRACT LABORATORY PROGRAM
SAMPLE MANAGEMENT OFFICE
P.O. BOX 818 ALEXANDRIA, VA 22313
703/557-2490 FTS-557-2490

CASE NO: 11716

SAS NO: (IF APPLICABLE)

INORGANIC TRAFFIC REPORT

(FOR CLP USE ONLY)

TYPE OF ACTIVITY (CIRCLE ONE) ①
SUPERFUND—PA (SI) ESI RIFS RD RA ER
NPLD O&M OTHER _____
NON-SUPERFUND—_____ PROGRAM

SITE NAME: Golf and River Landfill
CITY, STATE: Des Plaines, IL
SITE SPILL ID:

REGION NO: V
SAMPLING COMPANY ②: FIT
SAMPLER: (NAME) ~~Bill Schaefer~~ Mike Fales

SHIP TO: ③
Skinner & Sherman, Inc.
300 Second Ave
Waltham, MA 02254
ATTN: Marilyn Fonseca

SAMPLING DATE: ④
BEGIN: 4/4/89 END: 4/4/89

DATE SHIPPED: 4/4/89 CARRIER: F ⑤
AIRBILL NO: 9071160103

SAMPLE DESCRIPTION ⑥
(ENTER IN BOX A)
1. SURFACE WATER
2. GROUND WATER
3. LEACHATE
4. SOIL
5. SEDIMENT
6. OIL (SAS)
7. WASTE (SAS)

DOUBLE VOLUME REQUIRED FOR MATRIX SPIKE/DUPLICATE AQUEOUS SAMPLE

SHIP MEDIUM AND HIGH CONCENTRATION SAMPLES IN PAINT CANS

SEE REVERSE FOR ADDITIONAL INSTRUCTIONS

Shipment is / is not complete.

CLP SAMPLE NUMBER (FROM LABELS)	Ⓐ SAMPLE DESCRIPTION (FROM BOX 1)	Ⓑ CONCENTRATION L = LOW M = MED H = HIGH (SAS)	Ⓒ RAS ANALYSIS: TOTAL METALS	CYANIDE	DISSOLVED METALS	HIGH ONLY (SAS): SULFIDE	[illegible]	CONDUCTIVITY	OXIDANTS	Ⓓ SPECIAL HANDLING	Ⓔ STATION LOCATION
MECZ00	4	L	✓	✓							Soil 1
MECZ01	4	L	✓	✓							Soil 2
MECZ02	4	L	✓	✓							Soil 3
MECZ03	4	L	✓	✓							Soil 4
MECZ04	4	L	✓	✓							Soil 5
MECZ05	4	L	✓	✓							Soil 6

EPA Form 2075-6 (8-87)

WHITE — SMO COPY PINK — CLIENT COPY WHITE — LAB COPY FOR RETURN TO SMO YELLOW — LAB COPY

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf o Rives Land Fill / FOS-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S1 / Soil Sample #1

SAMPLING DATE 4/4/89 SAMPLING TIME 1125

ORGANIC TRAFFIC NUMBER E-DB 52

INORGANIC TRAFFIC NUMBER MEC200

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/Pest	S-036801	F8323234
"	Metals/Cyanide	" 2	"
120 ml	VOA	" 3	D8315064
"	VOA	" 4	"
	-		
	-		

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Grey Clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf & River Landfill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S2 / Soil Sample #2

SAMPLING DATE 4/4/89 SAMPLING TIME 1135

ORGANIC TRAFFIC NUMBER E-DB53

INORGANIC TRAFFIC NUMBER MEC201

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/PEST	S-036809	F8323234
"	Metals/Cyanide	" 10	"
120ml	VOA	" 11	D8315064
"	VOA	" 12	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Grey Clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf and River Land Fill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S3 / Soil Sample # 3

SAMPLING DATE 4/4/89 SAMPLING TIME 1215

ORGANIC TRAFFIC NUMBER E-DB 54

INORGANIC TRAFFIC NUMBER MECZ 02

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/Pest	S-036813	F P323234
"	Metals/Cyanide	" 4	"
120 ml	VOA	" 5	D8315064
"	VOA	" 6	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Grey Clay

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf and River Land Fill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S4 / Soil Sample #4

SAMPLING DATE 4/4/89 SAMPLING TIME 1230

ORGANIC TRAFFIC NUMBER E-DB55

INORGANIC TRAFFIC NUMBER MECZ03

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/Pest	S-036817	F8323234
"	Metals/Cyanide	" 8	"
120 ml	VOA	" 9	D8316034
"	VOA	" 20	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION: Grey clay ; sediment sample

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf and Rives Landfill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S5 / Soil Sample #5

SAMPLING DATE 4/4/89 SAMPLING TIME 1305

ORGANIC TRAFFIC NUMBER E-DB56

INORGANIC TRAFFIC NUMBER MEC204

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/Pest	5-036821	F8323234
"	Metals/Cyanide	" 2	"
120 ml	VOA	" 3	D8316034
"	VOA	" 4	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

SAMPLE DESCRIPTION

SITE NAME/TDD# Golf and River Land Fill / F05-8710-030

CASE NUMBER 11716

SAMPLE #/STATION LOCATION S6 / Soil Sample # 6

SAMPLING DATE 4/4/89 SAMPLING TIME 1345

ORGANIC TRAFFIC NUMBER E-DB57

INORGANIC TRAFFIC NUMBER MECZ05

BOTTLE	ANALYSIS	TAG NUMBERS	LOT NUMBER
9 oz	GC/MS/PP/Pest	S-036825	F8323234
"	Metals/Cyanide	" 6	"
120 ml	VOA	" 7	D8316034
"	VOA	" 8	"

PHYSICAL DESCRIPTION AT TIME OF COLLECTION:

PHYSICAL CHANGES FROM TIME OF COLLECTION UNTIL SHIPMENT:

INSTRUMENT READINGS

pH

CONDUCTIVITY

TEMPERATURE

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF

DATE: April 4, 1989

SITE NAME ~~Sample Collection Date~~: Golf and River Landfill

Recipient Information: Sister Rosemarie
Name

353 N. River Rd.
Street Address

Des Plaines, IL. 60016
City State Zip Code

312-298-6760
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~~ Report will be forwarded by the U.S. EPA within 6 months. If a copy of the Report ~~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 ILD980612717

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.: FI10622SB ; PAN: F05-8710-030
Yellow: Recipient
Pink: U.S. EPA

RECEIPT FOR SAMPLES

U.S. EPA, 230 S. Dearborn St., Chicago, IL 60604

U. S. EPA ID NO ILD980612717

PROJ. ACCT. NO. FIL0622SB

TDD F05-8710-030

FACILITY/OCCUPANT NAME: Golf & River Landfill

FACILITY/OCCUPANT ADDRESS: 353 N. RIVER Rd. Des Plaines, IL 60016

Sisters of the Holy Family of Nazareth

SPLIT SAMPLES ACCEPTED( ) DECLINED(✓)

SAMPLE NUMBER	DATE	TIME	SPLIT SAMPLES (✓)	OTR*	ITR*	DESCRIPTION OF SAMPLE LOCATIONS	SEMIVOLATILES	PESTICIDES/PCBS	VOLATILES	METALS	CYANIDE			MATRIX
S1	4/4/89	1125	NA	EDB52	MEZ00	Soil Sample 1	✓	✓	✓	✓	✓			Soil
S2	4/4/89	1135	NA	EDB53	MEZ01	Soil Sample 2	✓	✓	✓	✓	✓			Soil
S3	4/4/89	1215	NA	EDB54	MEZ02	Soil Sample 3	✓	✓	✓	✓	✓			Soil
S4	4/4/89	1230	NA	EDB55	MEZ03	Soil Sample 4	✓	✓	✓	✓	✓			Soil
S5	4/4/89	1305	NA	EDB56	MEZ04	Soil Sample 5	✓	✓	✓	✓	✓			Soil
S6	4/4/89	1345	NA	EDB57	MEZ05	Soil Sample 6	✓	✓	✓	✓	✓			Soil

TRANSFERRED BY: Andrea L. Davis (Signature) 4/4/89 (Date) 1430 (Time)

Mike Felton (Signature) 4/4/89 (Date) 1430 (Time)

RECEIVED BY: Sister Janet Nash (Signature) 4-4-89 (Date) 2:15 (Time)

TITLE: Treasurer

TELEPHONE: 298-6760

DISTRIBUTION
- WHITE: FIT SITE FILE
- YELLOW: FACILITY/OCCUPANT
- GREEN: FIT SAMPLE MANAGEMENT
- PINK: U.S. EPA

Addendum to Safety Plans

1. Golf & River Landfill
2. Merton Pit

1. FOS 8710 030
2. FOS 8812 012

Please note the following changes in your safety plans

1. Mike Feltes is the sampler for Golf & River, and John Nordine will be a team member

2. Mike Feltes is the site safety officer and Mike McAteer is team leader, John Nordine will also be a team member.

Mileage = 16.9 1 WAY From O.P.

[illegible]

Cash / Station Sampling