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

EPA Region 5 Records Ctr.
343109

CRL Receipt Date 10/5 FIT Receipt Date 11/16 Review Completed 12/8/89

TO: Barrett
FROM: Mary Gzyra
SUBJECT: Wasteland LF
PAN: IL0246SA (1 hour charged for review) Case # 12635

Sample Description

Organics (VOA, ABN, Pest/PCB)		Inorganics (Metals, Cyanide)	
#_____	Low Soil	#9	Low Soil
_____	Low Water	_____	Low Water
_____	Drinking Water	_____	Drinking Water
_____	Other	_____	Other

Project Data Status XXX Completed!!

_____ Incomplete, awaiting_____

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

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

Book No. 9 Page No._____ Date Sampled 8/30

0759:2

recycled paper

3/12/88

Table 4- (Cont.)

Physical State	Waste Characteristic	Category***	CT Memo	Sample Collection Information and Parameters	Sample Number 1	2	3	4	5	6	7	8	9	10	11	12
				Analyte Detected (values in mg/kg or µg/L)	MEPN 21	22	23	24	25	26	27	28	29			
Solid	A,D	MES	CSC/CWC	aluminum	16100	10300	11700	13400	3810	11900	2950	10600	9460			
Solid	A,D	MES	HM	antimony								8.9 JNB				
Solid	A,D	MES	HM	arsenic	13 JN	9.8 JN	7.6 JN	4.2 JN	4.7 JN	2.6 JN	6.8 JN	10.6 JN	7.7 JN			
Solid	A,D	MES	CSC/CWC	barium	136	185	137	209	44.1 B	137	121	326	101			
Solid	A,D	MES	M	beryllium	0.92 B	0.85 B	1.1 B	1.1 B	0.51 JB	1.0 B	0.58 JB	1.7	0.62 JB			
Solid	A,D	MES	HM	cadmium		3.7	2.0	3.4	2.1	2.5	1.1 B	5.4	1.6			
Solid	D	MES	CSC/CWC	calcium	12900	85600	57200	68100	134000	28900	56900	17100	38300			
Solid	A,D	MES	HM	chromium	38.4 J*N	32.9 J*N	31.8 J*N	27.1 J*N	21.3 J*N	48 J*N	17 J*N	33.4 J*N	53.8 J*N			
Solid	A,D	MES	HM	cobalt	11.4 B	11 B	10.5 B	14.7	6.3 B	10.3 B	9.9 B	10.3 B	10.8 B			
Solid	A,D	MES	HM	copper	34.2	183	40.3	110	18.4	105	40.6	251	38.7			
Solid	A,D	MES	HM,CSC;CWC	iron	34700	40600	23800	35200	15100	23600	74600	62500	22000			
Solid	A,D	MES	HM	lead	25.8	229	95.5	187	30.2	236	40.5	776	142			
Solid	A,D	MES	CSC/CWC	magnesium	8940	38500	33100	39700	80400	17400	35200	7670	23600			
Solid	A,D	MES	HM	manganese	653	1000	607	908	418	329	414	3860	714			
Liquid	A,D	MES	HM	mercury		0.3	0.3	0.4	0.5	1.5		0.8	0.1			
Solid	A,D	MES	HM	nickel	32.4 J*	38.7 J*	46.8 J*	57.1 J*	16.4 J*	34.3 J*	28.6 J*	99.2 J*	91.6 J*			
Solid	D	MES	CSC,CWC	potassium	1240 B	1810	1730	2100	796 B	1770	2020	847 B	1840			
Solid	A,D	MES	M	selenium		0.35 JWB				0.39 JWB						
Solid	A,D	MES	HM	silver				1.2 JNB								
Solid	D	MES	CSC,CWC	sodium				1700								
Solid	A,D	MES	HM	thallium												
Solid	A,D	MES	HM	vanadium	37	27.8	28.2	34.7	14 B	25.3	26.1	40.5	25.3			
Solid	A,D	MES	CWL,CSC,HM	zinc	68.9	633	165	741	57.6	349	122	2840	127			
Solid	A	IOC	IOC	cyanide												

-- Not detected.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11·9·89

SUBJECT: Review of Region V CLP Data Received for Review on Oct 5, 89

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

TO: Data User: Pat

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

SITE NAME: Wastel land landfill SMO Case No. 12635

EPA Data Set No. SF6633 No. of Samples: 9 D.U./Activity Numbers TFA/TFA102

CRL No. 89FB31534 - 42

SMO Traffic No. MGFN21 - 29

CLP Laboratory: RMAL Hrs. Required for Review: 6.5 + 0.5 qwb 11/8/8

Following are our findings:

The laboratory's portion of case 12635 (QC# 88736) contains 9 low level soil samples analyzed for total metals and total cyanide.

See Next Page

DKruse 11/3/89

( ) 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

DATA QUALIFIERS

Contractor: RMAL

Case 12635

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

ICAP Analyses: The matrix spike recoveries for Sb (23.2%) and Ag (73.7%) are out of control. Sb in sample MEFN28 and Ag in MEFN24 are estimated (J) due to low bias. All remaining Sb data are less than IDL and are unusable (R). All remaining Ag data are estimated (UJ) due to possible elevation of the detection limit.

The duplicate RPD (155.1%) and matrix spike recovery (70.3%) for Cr are out of control. All Cr data are estimated (J) due to poor precision and low bias.

The duplicate RPDs for Al (29.6%), Ni (144.5%), and Zn (21.7%) were flagged * by the laboratory. The RPDs for Al and Zn do not exceed the technical criteria for soils. All Al and Zn data are acceptable. All Ni data are estimated (J) due to poor precision.

CCVs for Be (0.6 ppb) exceeded the IDL. Be in samples MEFN25, 27 and 29 are estimated (J) due to contamination.

Reviewed by: D Kane 11/3/89

DATA QUALIFIERS

Contractor: RMAL

Case 12635

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

GFAA Analyses: The matrix spike recovery for As (40.5%) indicates a low bias, therefore all As data are ~~estim~~ estimated (J).

The following Se results were flagged (W) by the lab which indicates interference: MEFN 22, 23 and 25-29. Se results for MEFN 22, 26 are estimated (J). All of the remaining Se results mentioned above are estimated (UJ).

Other Qualifiers: All Hg and CN data are acceptable.

Reviewed by: D Kruse 11/3/89

DPO: [ ] ACTION [X] FYI Region 5

INORGANIC REGIONAL DATA ASSESSMENT SUMMARY

CASE NO. 12635 LABORATORY RMAL

SDG NO. MEFN21 DATA USER FIT

SOW 2/87 REVIEW COMPLETION DATE 11/3/89

NO. OF SAMPLES ____ WATER 9 SOIL ____ OTHER -

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

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

QC EXCEPTION SUMMARY REPORT

CASE # 12635
DATA SET # 6633
LAB Q.C.# 88734
DATE: 11/2/95

SITE Wasteland L.F.
LAB RMAL
REVIEWED BY D. Bruce

MATRIX: Soil
CONC. : Low
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	Ind Calver	Contin Calver	Prep Blk AQ	Prep Blk SOL	ICS %R	LCS % AQ	LCS % SOL	Sol Dup RPD	Sol Spk %R	AQ Dup RPD	AQ Spk %R	Ser Dilu AQ	Ser Dilu SOL	GFAA Dup	GFAA Spike	Blank	Dup RPD	Spike %R	Blnd Blank	Blnd Spike %R	Spike Sample RPD	
Aluminum										29.6														
Antimony											23.2													
Arsenic											40.5													
Barium																								
Beryllium		.6																						
Cadmium																								
Calcium																								
Chromium										155.1	70.3													
Cobalt																								
Copper																								
Iron																								
Lead																								
Magnesium																								
Manganese																								
Mercury																								
Nickel										144.5														
Potassium																								
Selenium																								
Silver											73.7													
Sodium																								
Thallium																								
Tin																								
Vanadium																								
Zinc										81.7														
Cyanide																								

No Field Dups or DIKS

U.S. EPA - CLP

00001

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

SOW No.: 7/87

EPA Sample No.	Lab Sample ID.
MEFN21	
MEFN21D	
MEFN21S	
MEFN22	
MEFN23	
MEFN24	
MEFN25	
MEFN26	
MEFN27	
MEFN28	
MEFN29	

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

Were ICP interelement corrections applied? Yes/No YES

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

Comments:
NINE LOW SOIL SAMPLES FOR TOTAL METALS AND CYANIDE ANALYSIS.
RMA QC#88736

Release of the data contained in this hardcopy data package and in the computer readable data submitted on floppy diskette have been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Lab Manager: Gary Gibson

Date: 10/03/89

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00002

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFN21

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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

Level (low/med): LOW Date Received: 08/31/89

% Solids: 66.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	16100		*	P
7440-36-0	Antimony	7.5	U	N	P
7440-38-2	Arsenic	13.0		N	F
7440-39-3	Barium	136			P
7440-41-7	Beryllium	0.92	B		P
7440-43-9	Cadmium	1.1	U		P
7440-70-2	Calcium	12900			P
7440-47-3	Chromium	38.4		*N	P
7440-48-4	Cobalt	11.4	B		P
7440-50-8	Copper	34.2			P
7439-89-6	Iron	34700			P
7439-92-1	Lead	25.8			F
7439-95-4	Magnesium	8940			P
7439-96-5	Manganese	653			P
7439-97-6	Mercury	0.2	U		CV
7440-02-0	Nickel	32.4		*	P
7440-09-7	Potassium	1240	B		P
7482-49-2	Selenium	0.30	U		F
7440-22-4	Silver	1.2	U	N	P
7440-23-5	Sodium	515	U		P
7440-28-0	Thallium	0.61	U		F
7440-62-2	Vanadium	37.0			P
7440-66-6	Zinc	68.9		*	P
	Cyanide	0.76	U		AS

Color Before: GREEN Clarity Before: _____ Texture: COARSE

Color After: GREEN Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP 00003

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFN22

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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

Level (low/med): LOW Date Received: 08/31/89

% Solids: 56.9

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10300		*	P
7440-36-0	Antimony	8.7	U	N	P
7440-38-2	Arsenic	9.8		N	F
7440-39-3	Barium	185			P
7440-41-7	Beryllium	0.85	B		P
7440-43-9	Cadmium	3.7			P
7440-70-2	Calcium	85600			P
7440-47-3	Chromium	32.9		*N	P
7440-48-4	Cobalt	11.0	B		P
7440-50-8	Copper	183			P
7439-89-6	Iron	40600			P
7439-92-1	Lead	229			P
7439-95-4	Magnesium	38500			P
7439-96-5	Manganese	1000			P
7439-97-6	Mercury	0.3			CV
7440-02-0	Nickel	38.7		*	P
7440-09-7	Potassium	1810			P
7482-49-2	Selenium	0.35	B	W	F
7440-22-4	Silver	1.4	U	N	P
7440-23-5	Sodium	598	U		P
7440-28-0	Thallium	0.70	U		F
7440-62-2	Vanadium	27.8			P
7440-66-6	Zinc	633		*	P
	Cyanide	0.88	U		AS

Color Before: GREEN Clarity Before: _____ Texture: COARSE

Color After: GREEN Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

00004

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFN23

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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

Level (low/med): LOW Date Received: 08/31/89

% 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	11700		*	P
7440-36-0	Antimony	6.5	U	N	P
7440-38-2	Arsenic	7.6		N	F
7440-39-3	Barium	137			P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	2.0			P
7440-70-2	Calcium	57200			P
7440-47-3	Chromium	31.8		*N	P
7440-48-4	Cobalt	10.5	B		P
7440-50-8	Copper	40.3			P
7439-89-6	Iron	23800			P
7439-92-1	Lead	95.5			P
7439-95-4	Magnesium	33100			P
7439-96-5	Manganese	607			P
7439-97-6	Mercury	0.3			CV
7440-02-0	Nickel	46.8		*	P
7440-09-7	Potassium	1730			P
7482-49-2	Selenium	0.26	U	W	F
7440-22-4	Silver	1.0	U	N	P
7440-23-5	Sodium	445	U		P
7440-28-0	Thallium	0.52	U		F
7440-62-2	Vanadium	28.2			P
7440-66-6	Zinc	165		*	P
	Cyanide	0.65	U		AS

Color Before: GREY Clarity Before: _____ Texture: COARSE

Color After: GREY Clarity After: _____ Artifacts: _____

Comments:

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1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFN24

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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

Level (low/med): LOW Date Received: 08/31/89

% Solids: 68.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13400		*	P
7440-36-0	Antimony	7.2	U	N	P
7440-38-2	Arsenic	4.2		N	F
7440-39-3	Barium	209			P
7440-41-7	Beryllium	1.1	B		P
7440-43-9	Cadmium	3.4			P
7440-70-2	Calcium	68100			P
7440-47-3	Chromium	27.1		*N	P
7440-48-4	Cobalt	14.7			P
7440-50-8	Copper	110			P
7439-89-6	Iron	35200			P
7439-92-1	Lead	187			P
7439-95-4	Magnesium	39700			P
7439-96-5	Manganese	908			P
7439-97-6	Mercury	0.4			CV
7440-02-0	Nickel	57.1		*	P
7440-09-7	Potassium	3100			P
7482-49-2	Selenium	0.29	U		F
7440-22-4	Silver	1.2	B	N	P
7440-23-5	Sodium	1700			P
7440-28-0	Thallium	0.58	U		F
7440-62-2	Vanadium	34.7			P
7440-66-6	Zinc	741		*	P
	Cyanide	0.73	U		AS

Color Before: GREEN Clarity Before: _____ Texture: COARSE
Color After: GREEN Clarity After: _____ Artifacts: _____

Comments:

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1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFN25

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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

Level (low/med): LOW Date Received: 08/31/89

% Solids: 60.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3810		*	P
7440-36-0	Antimony	8.2	U	N	P
7440-38-2	Arsenic	4.7		N	F
7440-39-3	Barium	44.1	B		P
7440-41-7	Beryllium	0.51	B		P
7440-43-9	Cadmium	2.1			P
7440-70-2	Calcium	134000			P
7440-47-3	Chromium	21.3		*N	P
7440-48-4	Cobalt	6.3	B		P
7440-50-8	Copper	18.4			P
7439-89-6	Iron	15100			P
7439-92-1	Lead	30.2			F
7439-95-4	Magnesium	80400			P
7439-96-5	Manganese	418			P
7439-97-6	Mercury	0.5			CV
7440-02-0	Nickel	16.4		*	P
7440-09-7	Potassium	796	B		P
7482-49-2	Selenium	0.33	U	W	F
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	567	U		P
7440-28-0	Thallium	0.67	U		F
7440-62-2	Vanadium	14.0	B		P
7440-66-6	Zinc	57.6		*	P
	Cyanide	0.83	U		AS

Color Before: BLACK Clarity Before: _____ Texture: COARSE
Color After: BLACK Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFN26

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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

Level (low/med): LOW Date Received: 08/31/89

% Solids: 61.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11900		*	P
7440-36-0	Antimony	8.0	U	N	P
7440-38-2	Arsenic	7.6		N	F
7440-39-3	Barium	137			P
7440-41-7	Beryllium	1.0	B		P
7440-43-9	Cadmium	2.5			P
7440-70-2	Calcium	28900			P
7440-47-3	Chromium	48.0		*N	P
7440-48-4	Cobalt	10.3	B		P
7440-50-8	Copper	105			P
7439-89-6	Iron	23600			P
7439-92-1	Lead	236			P
7439-95-4	Magnesium	17400			P
7439-96-5	Manganese	329			P
7439-97-6	Mercury	1.5			CV
7440-02-0	Nickel	34.3		*	P
7440-09-7	Potassium	1770			P
7482-49-2	Selenium	0.39	B	W	F
7440-22-4	Silver	1.3	U	N	P
7440-23-5	Sodium	552	U		P
7440-28-0	Thallium	0.65	U		F
7440-62-2	Vanadium	25.3			P
7440-66-6	Zinc	349		*	P
	Cyanide	0.81	U		AS

Color Before: GREEN Clarity Before: _____ Texture: COARSE
Color After: GREEN Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

00008

1

EPA SAMPLE NO.

INORGANIC ANALYSIS DATA SHEET

MEFN27

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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

Level (low/med): LOW Date Received: 08/31/89

% Solids: 74.6

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9950		*	P
7440-36-0	Antimony	6.6	U	N	P
7440-38-2	Arsenic	6.8		N	F
7440-39-3	Barium	121			P
7440-41-7	Beryllium	0.58	B		P
7440-43-9	Cadmium	1.1	B		P
7440-70-2	Calcium	56900			P
7440-47-3	Chromium	17.0		*N	P
7440-48-4	Cobalt	9.9	B		P
7440-50-8	Copper	40.6			P
7439-89-6	Iron	74600			P
7439-92-1	Lead	40.5		S	F
7439-95-4	Magnesium	35200			P
7439-96-5	Manganese	414			P
7439-97-6	Mercury	0.1	U		CV
7440-02-0	Nickel	28.6		*	P
7440-09-7	Potassium	2000			P
7482-49-2	Selenium	0.27	U	W	F
7440-22-4	Silver	1.0	U	N	P
7440-23-5	Sodium	456	U		P
7440-28-0	Thallium	0.54	U		F
7440-62-2	Vanadium	26.1			P
7440-66-6	Zinc	122		*	P
	Cyanide	0.67	U		AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFN28

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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

Level (low/med): LOW Date Received: 08/31/89

% Solids: 90.7

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10600		*	P
7440-36-0	Antimony	8.9	B	N	P
7440-38-2	Arsenic	10.6		N	F
7440-39-3	Barium	326			P
7440-41-7	Beryllium	1.7			P
7440-43-9	Cadmium	5.4			P
7440-70-2	Calcium	17100			P
7440-47-3	Chromium	33.4		*N	P
7440-48-4	Cobalt	10.3	B		P
7440-50-8	Copper	251			P
7439-89-6	Iron	62500			P
7439-92-1	Lead	776			P
7439-95-4	Magnesium	7670			P
7439-96-5	Manganese	3860			P
7439-97-6	Mercury	0.8			CV
7440-02-0	Nickel	99.2		*	P
7440-09-7	Potassium	847	B		P
7482-49-2	Selenium	0.22	U	W	F
7440-22-4	Silver	0.86	U	N	P
7440-23-5	Sodium	375	U		P
7440-28-0	Thallium	0.44	U		F
7440-62-2	Vanadium	40.5			P
7440-66-6	Zinc	2840		*	P
	Cyanide	0.55	U		AS

Color Before: RED Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP 00010

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

MEFN29

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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

Level (low/med): LOW Date Received: 08/31/89

% Solids: 84.4

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9460		*	P
7440-36-0	Antimony	5.9	U	N	P
7440-38-2	Arsenic	7.7		N	F
7440-39-3	Barium	101			P
7440-41-7	Beryllium	0.62	B		P
7440-43-9	Cadmium	1.6			P
7440-70-2	Calcium	38300			P
7440-47-3	Chromium	53.8		*N	P
7440-48-4	Cobalt	10.8	B		P
7440-50-8	Copper	38.7			P
7439-89-6	Iron	22000			P
7439-92-1	Lead	142			P
7439-95-4	Magnesium	23600			P
7439-96-5	Manganese	714			P
7439-97-6	Mercury	0.1			CV
7440-02-0	Nickel	91.6		*	P
7440-09-7	Potassium	1840			P
7482-49-2	Selenium	0.24	U	W	F
7440-22-4	Silver	0.92	U	N	P
7440-23-5	Sodium	403	U		P
7440-28-0	Thallium	0.47	U		F
7440-62-2	Vanadium	25.3			P
7440-66-6	Zinc	127		*	P
	Cyanide	0.59	U		AS

Color Before: BROWN Clarity Before: _____ Texture: COARSE
Color After: BROWN Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

3
BLANKS

00018

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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	30.7	U	30.7	U	30.7	U	30.7	U	6.4	B	P
Antimony	24.7	U	24.7	U	24.7	U	24.7	U	4.9	U	P
Arsenic											
Barium	2.7	U	2.7	U	2.7	U	2.7	U	0.54	U	P
Beryllium	0.5	U	0.5	U	0.6	B	0.6	B	0.10	U	P
Cadmium	3.6	U	3.6	U	3.6	U	3.6	U	0.72	U	P
Calcium	94.5	U	94.5	U	94.5	U	94.5	U	18.9	U	P
Chromium	5.5	U	5.5	U	5.5	U	5.5	U	1.1	U	P
Cobalt	4.1	U	4.1	U	4.1	U	4.1	U	0.82	U	P
Copper	6.0	U	6.0	U	6.0	U	6.0	U	2.0	B	P
Iron	22.3	U	25.2	B	22.3	U	22.3	U	7.2	B	P
Lead	27.4	U	27.4	U	27.4	U	27.4	U	5.5	U	P
Magnesium	122.0	U	122.0	U	122.0	U	150.0	B	24.3	U	P
Manganese	7.8	U	7.8	U	7.8	U	7.8	U	1.6	U	P
Mercury											
Nickel	5.8	U	5.8	U	5.8	U	5.8	U	1.2	U	P
Potassium	161.0	U	161.0	U	161.0	U	161.0	U	32.2	U	P
Selenium											
Silver	3.9	U	3.9	U	3.9	U	3.9	U	0.78	U	P
Sodium	1700.0	U	1700.0	U	1700.0	U	1700.0	U	340	U	P
Thallium											
Vanadium	5.5	U	5.5	U	5.5	U	5.5	U	1.1	U	P
Zinc	1.0	U	1.0	U	1.6	B	1.9	B	1.7	B	P
Cyanide											

U.S. EPA - CLP

3
BLANKS

00019

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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			30.7	U	30.7	U	30.7	U			P
Antimony			24.7	U	24.7	U	24.7	U			P
Arsenic											
Barium			2.7	U	2.7	U	2.7	U			P
Beryllium			0.5	U	0.5	U	0.9	B			P
Cadmium			3.6	U	3.6	U	3.6	U			P
Calcium			94.5	U	94.5	U	94.5	U			P
Chromium			5.5	U	5.5	U	5.5	U			P
Cobalt			4.1	U	4.1	U	4.1	U			P
Copper			6.0	U	6.0	U	6.0	U			P
Iron			22.3	U	22.3	U	22.3	U			P
Lead			27.4	U	27.4	U	27.4	U			P
Magnesium			122.0	U	122.0	U	122.0	U			P
Manganese			7.8	U	7.8	U	7.8	U			P
Mercury											
Nickel			5.8	U	-6.1	B	5.8	U			P
Potassium			161.0	U	161.0	U	161.0	U			P
Selenium											
Silver			3.9	U	3.9	U	3.9	U			P
Sodium			1700.0	U	1700.0	U	1700.0	U			P
Thallium											
Vanadium			5.5	U	5.5	U	5.5	U			P
Zinc			2.2	B	1.0	U	1.0	U			P
Cyanide											

U.S. EPA - CLP

00020

3
BLANKS

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

Preparation Blank Matrix (soil/water): SOIL

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic	1.0	U	1.0	U	1.0	U	1.0	U	0.20	U	F
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead	1.0	U	1.0	U	1.0	U	1.0	U	0.20	U	F
Magnesium											
Manganese											
Mercury	0.2	U	0.2	U	0.2	U	0.2	U	0.10	U	CV
Nickel											
Potassium											
Selenium	1.0	U	1.0	U	1.0	U	1.0	U	0.20	U	F
Silver											
Sodium											
Thallium	2.0	U	2.0	U	2.0	U	2.0	U	0.40	U	F
Vanadium											
Zinc											
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	0.50	U	AS

U.S. EPA - CLP

3
BLANKS

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

Preparation Blank Matrix (soil/water): SOIL

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

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic			1.0	U							F
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			1.0	U	1.0	U					F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium			1.0	U							F
Silver											
Sodium											
Thallium			2.0	U	2.0	U					F
Vanadium											
Zinc											
Cyanide											

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

00023
EPA SAMPLE NO.

MEFN21S

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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		18400		16100					NR
Antimony	75-125	35.1		7.5	U	151.5	23.2	N	P
Arsenic	75-125	17.9		13.0		12.1	40.5	N	F
Barium	75-125	723		136		606.1	96.8		P
Beryllium	75-125	15.4		0.92	B	15.2	95.3		P
Cadmium	75-125	13.7		1.1	U	15.2	90.1		P
Calcium		16000		12900					NR
Chromium	75-125	81.0		38.4		60.6	70.3	N	P
Cobalt	75-125	159		11.4	B	151.5	97.4		P
Copper	75-125	99.3		34.2		75.8	85.9		P
Iron		33700		34700					NR
Lead	75-125	168		24.5		151.5	94.7		P
Magnesium		11100		8940					NR
Manganese		802		653		151.5	98.3		P
Mercury	75-125	0.9		0.2	U	0.8	112.5		CV
Nickel	75-125	172		32.4		151.5	92.1		P
Potassium		1400	B	1240	B				NR
Selenium	75-125	2.3		0.30	U	3.0	76.7		F
Silver	75-125	11.2		1.2	U	15.2	73.7	N	P
Sodium		515	U	515	U				NR
Thallium	75-125	14.4		0.61	U	15.2	94.7		F
Vanadium	75-125	181		37.0		151.5	95.0		P
Zinc	75-125	212		68.9		151.5	94.5		P
Cyanide	75-125	6.2		0.76	U	7.6	81.6		AS

Comments:
THALLIUM SPIKE SAMPLE RESULT IS DETERMINED BY MSA.

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEFN21S

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead		22.7		25.8		6.1	-50.8		F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments:

U.S. EPA - CLP 00025

5B
POST DIGEST SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

MEFN21A

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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		113.50		24.70	U	120.0	94.6		P
Arsenic									NR
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium		401.40		126.65		255.0	107.7		P
Cobalt									NR
Copper									NR
Iron									NR
Lead									NR
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc									NR
Cyanide									NR

Comments:

U.S. EPA - CLP

6 DUPLICATES 00026

EPA SAMPLE NO.

MEFN21D

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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

% Solids for Sample: 66.0 % Solids for Duplicate: 69.7

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum		16100		21700		29.6	*	P
Antimony		7.5	U	7.5	U			P
Arsenic	3.0	13.0		12.4		4.7		F
Barium	60.6	136		172		23.4		P
Beryllium		0.92	B	1.3	B	34.2		P
Cadmium		1.1	U	1.1	U			P
Calcium		12900		12800		0.8		P
Chromium		38.4		304		155.1	*	P
Cobalt	15.2	11.4	B	16.4		36.0		P
Copper	7.6	34.2		38.7		12.3		P
Iron		34700		41400		17.6		P
Lead		24.5		29.7		19.2		P
Magnesium		8940		9480		5.9		P
Manganese		653		774		17.0		P
Mercury		0.2	U	0.2	U			CV
Nickel	12.1	32.4		201		144.5	*	P
Potassium	1515	1240	B	1650		28.4		P
Selenium		0.30	U	0.30	U			F
Silver		1.2	U	1.2	U			P
Sodium		515	U	515	U			P
Thallium		0.61	U	0.61	U			F
Vanadium	15.2	37.0		51.1		32.0		P
Zinc		68.9		85.7		21.7	*	P
Cyanide		0.76	U	0.76	U			AS

U.S. EPA - CLP

6
DUPLICATES

EPA SAMPLE NO.

MEFN21D

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

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

% Solids for Sample: 66.0 % Solids for Duplicate: 69.7

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

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead		25.8		25.6		0.8		F
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								

U.S. EPA - CLP

11
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

ICP ID Number: JA9000 Date: 07/21/89

Flame AA ID Number: _____

Furnace AA ID Number: _____

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum	237.31		200	30.7	P
Antimony	206.84		60	24.7	P
Arsenic			10		
Barium	233.53		200	2.7	P
Beryllium	313.04		5	0.5	P
Cadmium	228.80		5	3.6	P
Calcium	370.60		5000	94.5	P
Chromium	267.72		10	5.5	P
Cobalt	228.62		50	4.1	P
Copper	324.75		25	6.0	P
Iron	259.84		100	22.3	P
Lead	220.35		5	27.4	P
Magnesium	279.08		5000	122	P
Manganese	294.92		15	7.8	P
Mercury	253.70		0.2	0.1	CV
Nickel	231.60		40	5.8	P
Potassium	766.49		5000	161	P
Selenium			5		
Silver	328.07		10	3.9	P
Sodium	330.24		5000	1700	P
Thallium			10		
Vanadium	292.40		50	5.5	P
Zinc	213.80		20	1.0	P

Comments:
SPECTRO PRODUCTS HG-3 SPECTROPHOTOMETER USED FOR MANUAL COLD VAPOR DETERMINATION

U.S. EPA - CLP

11
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

ICP ID Number: JA9000 Date: 07/21/89

Flame AA ID Number: _____

Furnace AA ID Number: PE2380

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		
Antimony			60		
Arsenic	193.70	BD	10	2.0	F
Barium			200		
Beryllium			5		
Cadmium			5		
Calcium			5000		
Chromium			10		
Cobalt			50		
Copper			25		
Iron			100		
Lead	283.30	BD	5	1.0	F
Magnesium			5000		
Manganese			15		
Mercury			0.2		
Nickel			40		
Potassium			5000		
Selenium	196.03	BD	5	2.0	F
Silver			10		
Sodium			5000		
Thallium	276.80	BD	10	2.0	F
Vanadium			50		
Zinc			20		

Comments:
SPECTRO PRODUCTS HG-3 SPECTROPHOTOMETER USED FOR MANUAL COLD VAPOR DETERMINATION

U.S. EPA - CLP

11
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: ROCKY MOUNTAIN ANALYTICAL Contract: 68-01-7476

Lab Code: ENSECO Case No.: 12635 SAS No.: _____ SDG No.: MEFN21

ICP ID Number: JA9000 Date: 07/21/89

Flame AA ID Number: _____

Furnace AA ID Number: Z5000/5100

Analyte	Wave-length (nm)	Back-ground	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		
Antimony			60		
Arsenic	193.70	BZ	10	1.0	F
Barium			200		
Beryllium			5		
Cadmium			5		
Calcium			5000		
Chromium			10		
Cobalt			50		
Copper			25		
Iron			100		
Lead	283.30	BZ	5	1.0	F
Magnesium			5000		
Manganese			15		
Mercury			0.2		
Nickel			40		
Potassium			5000		
Selenium	196.03	BZ	5	1.0	F
Silver			10		
Sodium			5000		
Thallium			10		
Vanadium			50		
Zinc			20		

Comments:
SPECTRO PRODUCTS HG-3 SPECTROPHOTOMETER USED FOR MANUAL COLD VAPOR DETERMINATION

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

CRL Receipt Date 10/6 FIT Receipt Date 11/13 Review Completed 11/14/87

TO: Barrett
FROM: Mary Gzyra
SUBJECT: Wasteland LF
PAN: IL0024 6SA (1 hour charged for review) Case # 12635

Sample Description

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

Project Data Status _____ Completed!!

✓ Incomplete, awaiting Soil Vol

FIT Data Review Findings:

Check Data Sheets for Transcription Errors

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

Book No. 9 Page No. _____ Date Sampled 8/30

0759:2

recycled paper

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

B 11/14/89

2070-13 Physical State*	Waste Characteristics**	Category***	SI Memo	Sample Collection Information and Parameters	>_1	>_2	>_3	>_4	>_5	>_6	>_7	>_8	>_9	>_10	>_11	>_12
				Date												
				Time												
				Organic Traffic Report Number	EFI 05	06	07	08	09	10	11	12	17			
				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						61 B						
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							1 J					
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												
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												
Liquid	A,G,E	SOL	A,CLA	toluene			3 J									
Liquid	A,D,E	SOL	HH	1,1,2,2-tetrachloroethane												
Liquid	A,D,G	SOL	HA	chlorobenzene												
Liquid	A,G	SOL	A	ethylbenzene												
Liquid	A,D,G	OCC	A	styrene												
Liquid	A,G	SOL	A	xylenes (total)												

Table 4-> Cont.

2070-13 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												
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			200 J	110 J		150 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		120 J	350 J	120 J		220 J			98 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	HH	2-nitroaniline												
Liquid	A,D	OCC	PH,CLA	dimethylphthalate												
Solid	A,D	OCC	PAH	acenaphthylene												
Solid	A,D	OCC	HA	2,6-dinitrotoluene												
Solid	A,D	OCC	HH	3-nitroaniline												
Solid	A,D	OCC	PAH	acenaphthene												
Solid	A,D,G	OCC	P	2,4-dinitrophenol												
Solid	A,D	OCC	P	4-nitrophenol												
Solid	A,D	OCC	A	dibenzofuran			110 J									
Solid	A,D	OCC	HA	2,4-dinitrotoluene												
Liquid	A,D	OCC	PH	diethylphthalate												
	A,D	OCC	HH	4-chlorophenyl-phenylether												
Solid	A,D	OCC	PAH	fluorene			100 J									
Solid	A,D,E	OCC	HH	4-nitroaniline												
Solid	A,D	OCC	P	4,6-dinitro-2-methylphenol												
Solid	A,D	OCC	HH	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		350 J	1300	1000	440 J	1100			660 J			

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			220 J	210 J	120 J	200 J			120 J			
Liquid	A,D	OCC	PH,CLA	di-n-butylphthalate								1200 J				
Solid	A,D	OCC	PAH	fluoranthene		670 J	1700	1300	1700	1300			1100			
Solid	A,D	OCC	PAH	pyrene		470 J	1600	1300	1100	1900		1000 J	730 J			
Liquid	A,D	OCC	PH,CLA	butylbenzylphthalate		500 J		610 J				2600 J				
	A,D	OCC	HA	3,3'-dichlorobenzidine												
Solid	A,D	OCC	PAH	benzo[a]anthracene		260 J	690 J	610 J	560 J	870 J			420 J			
Solid	A,D	OCC	PAH	chrysene		360 J	870 J	680 J	760 J	1100			590 J			
Liquid	A,D	OCC	PH,CLA	bis(2-ethylhexyl)phthalate	8800	4200	470 J	480	230 J		96 J	190000	200 J			
Liquid	A,D	OCC	PH,CLA	di-n-octylphthalate		300 J		360 J				5500 J				
Solid	A,D	OCC	PAH	benzo[b]fluoranthene		320 J	810 J	630 J	410 J	1200			490 J			
Solid	A,D	OCC	PAH	benzo[k]fluoranthene		360 J	800 J	540 J	500 J				600 J			
Solid	A,D,K,L	OCC	PAH	benzo[a]pyrene		260 J	730 J	530 J	340 J	1000 J			480 J			
Solid	A,D	OCC	PAH	indeno[1,2,3-cd]pyrene		240 J	490 J	360 J	220 J	740 J			400 J			
Solid	A,D	OCC	PAH	dibenzo[a,h]anthracene												
Solid	A,D	OCC	PAH	benzo[g,h,i]perylene		230 J	550 J	450 J	220 J	1000 J			400 J			
				Pesticides/PCBs												
Solid	A,D	PSD	PEST	alpha BHC												
Solid	A,D	PSD	PEST	beta BHC												
Solid	A,D	PSD	PEST	delta BHC					150							
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												
Solid	A,D,E	PSD	PEST	Dieldrin												
Solid	A,D	PSD	PEST	4,4'-DDE												
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			75			81			43			
Solid	A,D	PSD	PEST	4,4'-DDT												
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		310		420				850 J				
Liquid	A,D	OCC	PCB	Aroclor 1254		720		710				1800 J				
Liquid	A,D	OCC	PCB	Aroclor 1260												

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION V

DATE: 11/7/89

SUBJECT: Review of Region V CLP Data
Received for Review on Oct. 6-89

11/13/89

FROM: Curtis Ross, Director (5SCRL)
Central Regional Laboratory
Chuck Kelly for

TO: Data User: Fit

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

SITE NAME: Wasteland landfill SMO Case No. 12635

EPA Data Set No. SF6633 No. of Samples: 9 D.U./Activity Numbers TFA/TFA102

CRL No. 89FB31S34 - 42

SMO Traffic No. EFT05 -12, 17

CLP Laboratory: Clayton Hrs. Required for Review: 6.5 hrs
1.0
7.5 hrs total

Following are our findings:

This review covers the results of 9 soil samples for RAS organic Analysis

Qualifiers and calibration outliers are noted on the following pages of the review narrative.

John Vosinko 11/4/89
Roy F. Weston/ESAT

( ) 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

Region V

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO. 12635

SITE Waste/and land Fill

LABORATORY Clayton Novi

NO. OF SAMPLES/MATRIX (9/Soils)

SDG # EFT05

REVIEWER (IF NOT ESD) ESAT

SOW# 2/88

REVIEWER'S NAME John Vasinko

DFO: ACTION _____ FYI _____

COMPLETION DATE 11-4-89

DATA ASSESSMENT SUMMARY

		VOA	BNA	PEST	OTHER
1.	HOLDING TIMES	O	O	O	
2.	GC/MS TUNE/INSTR. PERFORM.	O	O	—	
3.	CALIBRATIONS	O	O	O	
4.	BLANKS	O	O	O	
5.	SURROGATES	O	O	O	
6.	MATRIX SPIKE/DUP	O	O	O	
7	OTHER QC	—	—	—	
8	INTERNAL STANDARDS	O	O	—	
9	COMPOUND IDENTIFICATION	—	—	—	
10.	SYSTEM PERFORMANCE	—	—	—	
11.	OVERALL ASSESSMENT	O	O	O	

O = Data had no problems/or qualified due to minor problems.
M = Data qualified due to major problems.
Z = Data unacceptable.
X = Problems, but do not affect data.

ACTION ITEMS: _____

AREAS OF CONCERN: The Semi-Volatile Samples: (EFT05, EFT06, EFT07, EFT08, EFT09, EFT10, EFT11, EFT17) All report a large number of TIC compounds.

NOTABLE PERFORMANCE: _____

DATA QUALIFIERS

Contractor: Clayton Novi

Case 12635

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

① Holding time

All samples met holding time requirements.

② GC/MS tuning

All (BFB) and (DFTPP) tuning criteria have been achieved.

③ Calibration

The volatile and semi-volatile outliers for the initial and continuing calibration are noted on the calibration outlier forms which follow. Also, no outliers for the pesticide calibrations were noted.

④ Blanks

A) Volatile

The volatile blank (VBLKE1) reports detectable amounts of Methylene chloride and Acetone. The samples associated with this blank: (EFT05, EFT06, EFT07, EFT11, EFT12) all report detectable amounts of both methylene chloride and Acetone at concentrations that are less than 10 times the amount found in the blank. Therefore, in the samples listed above, the compounds Methylene chloride and Acetone have been flagged (U) as undetected. The sample (EFT08) reports detectable amounts of methylene chloride at a concentration less than 10 time the amount in the blank and Acetone at a concentration greater than 10 times the amount in the blank. Therefore, in sample (EFT08) methylene chloride has been flagged (U)

Reviewed by: John Vasinko

Phone: (312) 353-8304

Date: 11-4-89

DATA QUALIFIERS

Contractor: Clayton NOVI

Case 12635

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

(4) Blanks (cont.)
undetected and Acetone has been left unflagged and should be considered present in the sample.
The Volatile blank (VBLK E2) reports detectable amounts of methylene chloride and Acetone. The samples associated with this blank (EFT17, EFT09) both report detectable amounts of methylene chloride and Acetone at concentrations that are less than 10 times the amount found in the blank. Therefore, in the samples listed above, the compounds methylene chloride and Acetone have been flagged (u) as undetected.
The Volatile blank (VBLK E3) reports detectable amounts of Acetone. The samples associated with this blank (EFT17 MS, EFT17 MSD) both report detectable amounts of Acetone at concentrations that are less than 10 times the amount found in the blank. Therefore, the compound Acetone, in the samples listed above have been flagged (u) as undetected.
B) Semi-Volatile
The Semi-Volatile blank (SBLKS1) reports no detectable amounts of TLC compound contamination.
C) Pesticide
The pesticide blanks (PBLKS1, PBLKM1) both report no detectable amounts of contamination

(5) Surrogate Recovery
A) Volatile
All Volatile samples report all surrogate recoveries

Reviewed by: John Vasinko
Phone: (312) 353-8309
Date: 11-4-89

DATA QUALIFIERS

Contractor: Clayton NOVI

Case 12635

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

(5) Surrogate Recovery (cont.)
to be well within Q.C. limits.
B) Semi-Volatile
All semi-volatile samples report all surrogate recoveries to be well within Q.C. limits
C) Pesticide
All pesticide samples report all surrogate recoveries to be well within Q.C. limits.

(6) Matrix Spike / Matrix Spike duplicate
A) Volatile (EFT 17 MS/MSD)
Both the matrix spike and matrix spike duplicate report all recoveries and RPD values to be well within Q.C. limits
B) Semi-Volatile (EFT 17 MS/MSD)
Both the semi-volatile matrix spike and matrix spike duplicate report all recoveries and RPD values to be well within Q.C. limits.
C) Pesticide, Medium level (EFT12 MS/MSD)
The pesticide matrix spike reports high (135%) recovery for the spiked compound DDT. The matrix spike duplicate reports all recoveries and RPD values to be well within the Q.C. limits. The above listed out-of-control condition is, in my professional judgement, sample specific and should have no effect on the unspiked samples. Therefore, No Action is to be taken with the unspiked samples with the exception sample (EFT12). In sample (EFT12) the results for DDT should be flagged (J) if positive

Reviewed by: John Vasinko
Phone: (312) 353-8309
Date: 11/4/89

DATA QUALIFIERS

Contractor: Clayton NOVI

Case 12635

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

(6) Matrix Spike/Matrix Spike duplicate (cont.)
And (UJ) for a non-detect.
c) Pesticide, Low level (EFT17 MS/MSD)
The Pesticide Low level matrix spike and matrix spike duplicate both report all recoveries and RPD values that are well within Q.C. limits.

(7) Field Duplicates
No field duplicates or field blanks were supplied with this data set.

(8) Internal Standard performance
A) Volatile
All volatile samples report all internal standard areas and retention times to be well within Q.C. limits
B) Semi-Volatile
All semi-volatile samples report all internal standard areas and retention times to be well within Q.C. limits.

(9) Compound Quantitation and reported detection limits
The analytical results for this case have been calculated correctly based on the appropriate internal standards, quantitation ion and relative responce factor. Also, the CRQL's have been adjusted to reflect the sample size, dilution factor and percent moisture of the sample.

Reviewed by: John Vasinko
Phone: (312) 353-8309
Date: 11-4-89

DATA QUALIFIERS

Contractor: Clayton NOVI

Case 12635

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

(10) Addition case specific problems

The Semi-volatile samples (EFT05, EFT06, EFT07, EFT08, EFT09, EFT10, EFT11, EFT17) All report A large number of tic compounds.

Reviewed by: John Vasinko

Phone: (312) 353-8309

Date: 11-4-89

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION V
CALIBRATION OUTLIERS
VOLATILE HSL COMPOUNDS

CASE/SAS # 12835 CONTRACTOR Clayton NOVI

Instrument # 5E	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	6/26/89 425			9/6/89 417			9/6/89 1727			9/7/89 1537					
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
Chloromethane	.995			.301	69.8	J	.711	28.5	J	.374	62.4	J			
Bromomethane	1.214			.832	29.8	J				.837	31.1	J			
Vinyl Chloride															
Chloroethane															
Methylene Chloride															
Acetone	1.227			.731	40.4	J	.716	41.7	J						
Carbon Disulfide															
1,1-Dichloroethane															
1,1-Dichloroethene															
Trans-1,2-Dichloroethene															
Chloroform															
2-Butanone	.358			.235	34.4	J	.117	67.3	J						
1,2-Dichloroethane															
1,1,1-Trichloroethane															
Carbon Tetrachloride	.481						.607	26.2	J	.604	25.6	J			
Vinyl Acetate	.468			.620	32.5	J				.718	53.4	J			
Bromodichloromethane															
1,2-Dichloropropane															
Trans-1,3-Dichloropropene															
Trichloroethene															
Dibromochloromethane	.578						.733	26.8	J						
1,1,2-Trichloroethane															
Benzene															
cis-1,3-Dichloropropene															
2-Chloroethylvinylether															
Bromoform	.310						.456	47.1	J	.452	45.8	J			
4-Methyl-2-Pentanone	1.169			.843	27.9	J	.513	56.1	J						
2-Hexanone	.965			.639	33.1	J	.407	57.4	J						
Tetrachloroethene															
1,1,2,2-Tetrachloroethane															
Toluene															
Chlorobenzene															
Ethylbenzene															
Styrene															
m-Xylene															
o/p-Xylene															

AFFECTED * SAMPLES:

VBIKE1	VBIKE2	VBIKE3
EFT05	EFT11	EFT17MS
EFT06	EFT09	EFT17MSD
EFT07		
EFT08		
EFT10		
EFT11		
EFT12		

Reviewer's Initials/Date: J.V. 11/7

* 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 # 12835 CONTRACTOR Clayton NOVI

Instrument # 6F	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	9/11/89 459			9/12/89 630			9/12/89 2130			9/14/89 1:11					
	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	3.23						4.238	25.9	J						
4-Methylphenol															
N-Nitroso-Di-n-Propylamine															
Hexachloroethane															
Nitrobenzene															
Isophorone															
2-Nitrophenol															
2,4-Dimethylphenol															
Benzoic Acid															
bis(2-Chloroethoxy)Methane															
2,4-Dichlorophenol															
1,2,4-Trichlorobenzene															
Naphthalene															
4-Chloroaniline															
Hexachlorobutadiene															
4-Chloro-3-Methylphenol															
2-Methylnaphthalene															
Hexachlorocyclopentadiene															
2,4,6-Trichlorophenol															
2,4,5-Trichlorophenol															
2-Chloronaphthalene															
2-Nitroaniline															
Dimethyl Phthalate															
Acenaphthylene															
3-Nitroaniline	.241	34.6	J				.335	39.0	J	.391	62.2	J			
Acenaphthene															
2,4-Dinitrophenol	.186									.249	33.9	J			
4-Nitrophenol	.098						.120	29.6	J	.139	41.8	J			
Dibenzofuran															

AFFECTED SAMPLES:

SBIK51	EFT09	EFT12
EFT11	EFT08	
EFT01	EFT10	
EFT17	EFT17 MS	
EFT05	EFT17 MSD	
EFT06		

Reviewer Initials/Date: A.V. / 11-4-89

* 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 # 12835 CONTRACTOR Clayton NOVI

Instrument # 6F	Init. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.			Cont. Cal.		
DATE/TIME:	9/11/89 4:59			9/12/89 6:3[illegible]			9/12/89 2:30			9/14/89 1:1[illegible]					
	RF	%RSD	*	RF	%D	*	RF	%D	*	RF	%D	*	RF	%D	*
2,4-Dinitrotoluene															
2,6-Dinitrotoluene															
Diethylphthalate	1.379						1.045	26.5	J						
4-Chlorophenyl-phenylether	.499						.628	25.9	J						
Fluorene	.990						1.331	34.4	J						
4-Nitroaniline	.157	47.7	J				.208	32.5	J	.400	99.9	J			
4,6-Dinitro-2-Methylphenol															
N-Nitrosodiphenylamine															
4-Bromophenyl-phenylether															
Hexachlorobenzene															
Pentachlorophenol															
Phenanthrene															
Anthracene															
Di-n-Butylphthalate															
Fluoranthene															
Pyrene	2.27									2.99	31.7	J			
Butylbenzylphthalate															
Benzo(a)Anthracene															
Bis(2-Ethylhexyl)Phthalate															
Chrysene															
Di-n-Octyl Phthalate															
Benzo(b)Fluoranthene															
Benzo(k)Fluoranthene															
Benzo(a)Pyrene															
Indeno(1,2,3-cd)Pyrene															
Dibenz(a,h)Anthracene															
Benzo(g,h,i)Perylene															

SEE PAGE 1 FOR AFFECTED SAMPLES.

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

Reviewer's Initials/Date: J. Vasinko 11-4-89

8/87

For reporting results to the USEPA, the following contract specific qualifiers are to be used. The seven qualifiers defined below are not subject to modification by the laboratory. Up to five qualifiers may be reported on Form I for each compound.

The seven EPA-defined qualifiers to be used are as follows:

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

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

and df = dilution factor

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

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

For soil samples subjected to GPC clean-up procedures, the CRQL is also multiplied by 2, to account for the fact that only half of the extract is recovered.

J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero. For example, if the sample quantitation limit is 10 ug/L, but a concentration of 3 ug/L is calculated, report it as 3J. The sample quantitation limit must be adjusted for both dilution and percent moisture as discussed for the U flag, so that if a sample with 24% moisture and a 1 to 10 dilution factor has a calculated concentration of 300 ug/L and a sample quantitation limit of 430 ug/kg, report the concentration as 300J on Form I.

C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. Single component pesticides ≥10 ng/ul in the final extract shall be confirmed by GC/MS.

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

E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. This flag will not apply to pesticides/PCBs analyzed by GC/EC methods. If one or more compounds have a response greater than full scale, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form I for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate Forms I. The Form I for the diluted sample shall have the "DL" suffix appended to the sample number. NOTE: For total xylenes, where three isomers are quantified as two peaks, the calibration range of each peak should be considered separately, e.g., a diluted analysis is not required for total xylenes unless the concentration of either peak separately exceeds 200 ug/L.

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

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

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

The combination of flags "BU" or "UB" is expressly prohibited. Blank contaminants are flagged "B" only when they are also detected in the sample.

If analyses at two different dilution factors are required (see Exhibit D), follow the data reporting instructions given in Exhibit D and with the "D" and "E" flags above.

F-6633

SEP 0 8 1989

CENTRAL REGIONAL LABORATORY SAMPLE DATA REPORT
ORGANICS/INORGANICS

Sample date 8/30/89
Log in date 10/25/89
Due date 11/08/89

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

CASE NUMBER/SAS No. 1[illegible] SITE NAME Wastewater Lagoon LABORATORY Clayton/RMAL DATE SHIPPED 8/30

SUPERFUND DU NUMBER TPA-102 EPA RPM or OSC (S.M.S.V.CES) CERCUS NUMBER FLD 980 902 250 PAGE 1 OF 1

ACTIVITY NUMBER ZZ

CRL LOG NUMBER	ORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	INORGANIC TRAFFIC REPORT NUMBER or SAS Packing List No.	WATER OR LIQUIDS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN UG/L TOX17374	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG/L TOX17344	WATER POLYCHLORINATED BIPHENYLS UG/L PES 17144	WATER CHLORINATED PESTICIDES UG/L PES17134	TOTAL METALS IN WATER UG/L MET111	WATER CYANIDE UG/L MIN74919	NITRATE/NITRITE UG/L MIN7294	AMMONIA UG/L MIN7294	RESIDUE, FILTERABLE TDS MG/L MIN7262	RESIDUE, NON-FILT TSS MG/L MIN7272	SEDIMENTS or SOILS: ACID-BASE NEUTRAL CPDS ORGANIC SCAN UG/KG TOX215772	VOLATILE ORGANIC ANALYSIS ORGANIC SCAN UG/KG TOX215422	SEDIMENTS POLYCHLORINATED BIPHENYLS UG/KG PES214477	SEDIMENT CHLORINATED PESTICIDES UG/KG 211322	TOTAL METALS UG/KG MET413	CYANIDE UG/KG MIN4159	EP TOXICITY METALS UG/KG	AMMONIA UG/KG MIN4725
89F831534	EPT 05	MEFN 21											X	X	X	X	X	X		
35	06	22																		
36	07	23																		
37	08	24																		
38	09	25																		
39	10	26																		
40	11	27																		
41	12	28																		
89F8315.42	EPT 17	MEFN 29																		

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

EPA

Organic Traffic Report
(For CLP Use Only)

Case Number: 1[illegible]35
SAS No. (if applicable):

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

2. Region Number: Sampling Co: F37
Sampler (Name): Ronnie Galmore
3. Ship To: [illegible] Navy
4. Date Shipped: Airbill Number: 3144500962
Carrier: F
Triple volume required for matrix spike/duplicate aqueous sample.
Ship medium and high concentration samples in paint cans.
See reverse for additional instructions.
5. Date Received: 31 August 1989 Received by: Claudette N. Gilmore
Laboratory Contract Number: 68-D9-0035
Unit Price: $810.00
6. Transfer to:
Date Received:
Received by:
Contract Number:
Price:

CLP Sample Number (From labels)	(A) Sample Description (From box 1)	(B) Concentration L=low M=med H=high	(C) RAS Analysis VOA	BNA	Pest/PCB	(D) Special Handling	(E) Station Location	(F) Date/Time of Sample Collection	(G) Corresponding CLP Inorganic Sample Number	(H) Sample Condition on Receipt	(I) High Conc. Phases (Check below) Soil	Water—MIS Liq.	Non Water—MIS Liq.
EF7 05	5	L	X	X	X		01		MEFN 01	INTACT			
EF7 06	5	L	X	X	X		02		MEFN 02				
EF7 07	5	L	X	X	X		03		MEFN 03				
EF7 08	5	L	X	X	X		04		MEFN 04				
EF7 09	5	L	X	X	X		05		MEFN 05				
EF7 10	5	L	X	X	X		06		MEFN 06				
EF7 11	5	L	X	X	X		07		MEFN 07				
EF7 12	5	L	X	X	X		08		MEFN 08				
*EF7 13	5	L	X	X	X		09		MEFN 09				

Shipment is Complete!!

*SDG FINAL SAMPLE

EPA Form 9110-2 (8-88) Replaces EPA Form 2075-7, which may be used. Blue - SMO Copy; Pink - [illegible]

074

126635 • 5-031-01

Clayton Environmental Consultants, Inc.

22345 Roethel Drive • Novi, Michigan 48050 • (313) 344-1770

CASE NARRATIVE

Case No.: 12635
EPA Nos.: EFT05-EFT12, AND EFT17
SDG No.: EFT05
Contract No.: 68-D9-0035

Case Summary

Case 12635 was received on August 31, 1989 and consisted of nine (9) soil samples to be analyzed for full organics.

In the initial screening of the samples, it was determined that the pesticide fraction of Sample EFT12 would be prepared and analyzed as a medium level soil.

In the pesticide fraction of Samples EFT06, 07, 08, 09, 10, 12, and 17, several pesticide/PCB compounds were detected in the packed (primary) analysis, and confirmed in the capillary (confirmation) analysis. However, these compounds had concentrations below the GC/MS instrument limit of detection; therefore, they were not confirmed by GC/MS.

The Hewlett Packard GC/MS data systems used by Clayton has a combined NBS/WILEY library. The data system prints the mass spectra for all tentatively identified compounds (TIC's) and the top three library matches. When no library matches are found, the data system prints "NO DATA BASE ENTRIES RETRIEVED".

Standards

The instrument was tuned to meet the abundance criteria for BFB and DFTPP before any standards, blanks, or samples were analyzed. Initial and continuing calibration data of the SPCC and CCC for VOA's and BNA's are within the contract-required QC limits.

Other Locations: Pleasanton, CA • Cypress, CA • Edison, NJ • Atlanta, GA • Windsor, Ontario • Toronto, Ontario • London, U.K.
A Marsh & McLennan Company

Pesticide Linearity and Degradation

Linearity and degradation criteria are within the contract-required QC limits for the packed column which was used for quantitation.

Percent-difference and retention time shifts for all pesticide compounds were within contract-required criteria for the primary run which was used for quantitation.

Surrogate Recoveries

Surrogate recovery results are reported on Form II, and can be found in the QC Summary Data Packages.

Matrix Spike/Matrix Spike Duplicate

Matrix spike and matrix spike duplicate recovery data are reported on Form III, and can be found in the QC Summary Data Packages.

Blanks

The method blanks and corresponding samples are reported on the Method Blank Summary, Form IV, and can be found in the QC Summary data packages.

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

Allen Schinsky
Project Manager, CLP

10/4/89
Date

2B
SOIL VOLATILE SURROGATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (TOL)#	S2 (BFB)#	S3 (DCE)#	OTHER	TOT OUT
01	EFT05	98	98	95		0
02	EFT06	106	96	100		0
03	EFT07	102	91	95		0
04	EFT08	91	90	84		0
05	EFT09	112	88	105		0
06	EFT10	105	96	98		0
07	EFT11	110	87	92		0
08	EFT12	116	86	94		0
09	EFT17	116	82	101		0
10	EFT17MS	111	87	92		0
11	EFT17MSD	110	88	94		0
12	VBLKE1	96	97	98		0
13	VBLKE2	111	101	108		0
14	VBLKE3	91	89	88		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: CLAYTON NOVI Contract: 68-09-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ)#	S2 (FBP)#	S3 (TPH)#	S4 (PHL)#	S5 (2FP)#	S6 (TBP)#	OTHER	TOT OUT
01	EFT05	63	68	78	60	48	81		0
02	EFT06	78	91	82	71	58	94		0
03	EFT07	69	75	90	75	64	70		0
04	EFT08	84	82	95	75	97	88		0
05	EFT09	67	91	83	65	64	92		0
06	EFT10	61	66	87	69	66	74		0
07	EFT11	62	84	80	58	54	83		0
08	EFT12	44	76	82	64	63	44		0
09	EFT17	80	88	77	72	65	90		0
10	EFT17MS	64	74	77	63	60	73		0
11	EFT17MSD	54	69	79	63	58	74		0
12	SBLKS1	85	91	87	79	65	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

12635 · 5-300-01

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2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Level:(low/med) LOW

	EPA SAMPLE NO.	S1 (DBC)#	OTHER
01	PBLKS1	122	0
02	EFT05	83	0
03	EFT06	81	0
04	EFT07	94	0
05	EFT08	86	0
06	EFT09	124	0
07	EFT10	133	0
08	EFT11	128	0
09	EFT17	104	0
10	EFT17MS	113	0
11	EFT17MSD	115	0

ADVISORY QC LIMITS

S1 (DBC) = Dibutlychlorendate (24-150)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

09/08/87

595

FORM II PEST-2 1/87 Rev.

12635 • 5-300-02

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2F

SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Level:(low/med) MED

	EPA SAMPLE NO.	S1 (DBC)#	OTHER
01	PBLKM1	90	0
02	EFT12	115	0
03	EFT12MS	78	0
04	EFT12MSD	113	0

ADVISORY QC LIMITS

S1 (DBC) = Dibutlychlorendate (24-150)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

09/28/84

596

FORM II PEST-2 1/87 Rev.

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix Spike - EPA Sample No.: EFT17 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	58.8	0	34.9	59	59-172
Trichloroethene	58.8	0	44.5	76	62-137
Benzene	58.8	0	56.6	96	66-142
Toluene	58.8	0	65.6	112	59-139
Chlorobenzene	58.8	0	63.3	108	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	58.8	34.4	59	0	22	59-172
Trichloroethene	58.8	44.8	76	0	24	62-137
Benzene	58.8	54.8	93	3	21	66-142
Toluene	58.8	61.3	104	7	21	59-139
Chlorobenzene	58.8	58.5	99	9	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: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix Spike - EPA Sample No.: EFT17 Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
Phenol	7850	0	5700	73	26- 90
2-Chlorophenol	7850	0	4790	61	25-102
1,4-Dichlorobenzene	3920	0	2460	63	28 104
N-Nitroso-di-n-prop.(1)	3920	0	2660	68	41 126
1,2,4-Trichlorobenzene	3920	0	2880	73	38 107
4-Chloro-3-methylphenol	7850	0	5960	76	26 103
Acenaphthene	3920	0	2810	72	31-137
4-Nitrophenol	7850	0	5230	67	11-114
2,4-Dinitrotoluene	3920	0	2420	62	28- 89
Pentachlorophenol	7850	0	4360	56	17-109
Pyrene	3920	733	4500	96	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	7850	4610	59	21	35	26- 90
2-Chlorophenol	7850	4390	56	9	50	25-102
1,4-Dichlorobenzene	3920	2560	65	-3	27	28 104
N-Nitroso-di-n-prop.(1)	3920	2570	66	3	38	41 126
1,2,4-Trichlorobenzene	3920	2520	64	13	23	38 107
4-Chloro-3-methylphenol	7850	6100	78	-3	33	26 103
Acenaphthene	3920	3000	77	-7	19	31-137
4-Nitrophenol	7850	5770	74	-10	50	11-114
2,4-Dinitrotoluene	3920	2530	65	-5	47	28- 89
Pentachlorophenol	7850	6220	79	-34	47	17-109
Pyrene	3920	4460	95	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:

12635 • 5-301-01

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3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix Spike - EPA Sample No.: EFT12 Level:(low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC LIMITS REC.
gamma-BHC (Lindane)	2440	0	2130	87	46-127
Heptachlor	2440	0	2300	94	35-130
Aldrin	2440	0	2640	108	34-132
Dieldrin	6100	0	5870	96	31-134
Endrin	6100	0	6500	107	42-139
4,4'-DDT	6100	0	8260	135 *	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	2440	2010	82	6	50	46-127
Heptachlor	2440	2120	87	8	31	35-130
Aldrin	2440	2420	99	9	43	34-132
Dieldrin	6100	5630	92	4	38	31-134
Endrin	6100	6180	101	6	45	42-139
4,4'-DDT	6100	8090	133	1	50	23-134

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

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 1 out of 12 outside limits

10/02/89

COMMENTS:
SEE NARRATIVE FOR AROCLOR 1248 AND 1254 QUANT INFORMATION

12635 · 5-301-02

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3F

SOIL PESTICIDE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix Spike - EPA Sample No.: EFT17 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)	62.6	0	54.6	87	46-127
Heptachlor	62.6	0	54.8	88	35-130
Aldrin	62.6	0	55.2	88	34-132
Dieldrin	156	0	131	84	31-134
Endrin	156	0	168	108	42-139
4,4'-DDT	156	0	176	113	23-134

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
gamma-BHC (Lindane)	62.6	54.9	88	-1	50	46-127
Heptachlor	62.6	53.3	85	3	31	35-130
Aldrin	62.6	57.6	92	-4	43	34-132
Dieldrin	156	131	84	0	38	31-134
Endrin	156	167	107	1	45	42-139
4,4'-DDT	156	183	117	-3	50	23-134

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

* Values outside of QC limits

RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

COMMENTS:

10/02/89

FORM III PEST-2 8/87 Rev.

12635 · 5-102-01

4A

VOLATILE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Lab File ID: E7405 Lab Sample ID: 765882

Date Analyzed: 09/06/89 Time Analyzed: 0653

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

Instrument ID: 5E

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EFT05	765864	E7406	0806
02	EFT06	765866	E7407	0907
03	EFT07	765868	E7408	1004
04	EFT08	765870	E7409	1100
05	EFT10	765874	E7410	1151
06	EFT11	765876	E7411	1247
07	EFT12	765878	E7412	1338

COMMENTS:

12635 · 5-102-02

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Lab File ID: E7416 Lab Sample ID: 765882

Date Analyzed: 09/06/89 Time Analyzed: 1838

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

Instrument ID: 5E

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EFT09	765872	E7422	0053
02	EFT17	765880	E7417	2001

COMMENTS:

078

FORM IV VOA 1/87 Rev.

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Lab File ID: E7437 Lab Sample ID: 765882

Date Analyzed: 09/07/89 Time Analyzed: 1937

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

Instrument ID: 5E

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EFT17MS	765880	E7438	2101
02	EFT17MSD	765880	E7439	2231

COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Lab File ID: F6134 Lab Sample ID: 765892

Date Extracted: 09/05/89 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed: 09/12/89 Time Analyzed: 0745

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

Instrument ID: 6F

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	EFT05	765883	F6142	09/12/89
02	EFT06	765884	F6143	09/12/89
03	EFT07	765885	F6149	09/12/89
04	EFT08	765886	F6150	09/13/89
05	EFT09	765887	F6138	09/12/89
06	EFT10	765888	F6151	09/13/89
07	EFT11	765889	F6135	09/12/89
08	EFT12	765890	F6173	09/14/89
09	EFT17	765891	F6140	09/12/89
10	EFT17MS	765891	F6152	09/13/89
11	EFT17MSD	765891	F6153	09/13/89

COMMENTS:

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Φe

4C

PESTICIDE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Lab Sample ID: 765892 Lab File ID: _____

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

Date Extracted: 09/05/89 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed (1): 09/12/89 Date Analyzed (2): 09/~~18~~ 19/89 QB 10-04-89

Time Analyzed (1): 1922 Time Analyzed (2): ~~1628~~ 10:00

Instrument ID (1): D09 Instrument ID (2): D08A

GC Column ID (1): 2250-2401 GC Column ID (2): DB-1701

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EFT05	765883	09/13/89	09/18/89
02	EFT06	765884	09/13/89	09/18/89
03	EFT07	765885	09/13/89	09/18/89
04	EFT08	765886	09/13/89	09/18/89
05	EFT09	765887	09/13/89	09/20/89
06	EFT10	765888	09/13/89	09/18/89
07	EFT11	765889	09/13/89	09/19/89
08	EFT17	765891	09/12/89	09/18/89
09	EFT17MS	765891MS	09/12/89	09/18/89
10	EFT17MSD	765891MSD	09/12/89	09/18/89

COMMENTS:

09/28/89

599

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4C
PESTICIDE METHOD BLANK SUMMARY

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Lab Sample ID: 765890 2 RH 09/28/89 Lab File ID: _____

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

Date Extracted: 09/05/89 Extraction:(SepF/Cont/Sonc) SONC

Date Analyzed (1): 09/12/89 Date Analyzed (2): 09/19/89

Time Analyzed (1): 1957 Time Analyzed (2): 0100

Instrument ID (1): D09 Instrument ID (2): D08A

GC Column ID (1): 2250-2401 GC Column ID (2): DB-1701

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

	EPA SAMPLE NO.	LAB SAMPLE ID	DATE ANALYZED 1	DATE ANALYZED 2
01	EFT12	765890	09/13/89	09/19/89
02	EFT12MS	765890MS	09/13/89	09/19/89
03	EFT12MSD	765890MSD	09/13/89	09/19/89

COMMENTS:

✓ 09/28/89

600

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKE1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765882

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7405

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. ____ Date Analyzed: 09/06/89

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	6	
67-64-1	Acetone	21	
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	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-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
10061-02-6	Trans-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

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKE1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765882

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7405

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. ____ Date Analyzed: 09/06/89

Column (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 71238	1-Propanol (ACN)(9CI)	12.27	8.4	J

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKE2

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765882

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7416

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. ____ Date Analyzed: 09/06/89

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	2	J
67-64-1	Acetone	24	
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	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-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
10061-02-6	Trans-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.

VBLKE2

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765882

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7416

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. ____ Date Analyzed: 09/06/89

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

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKE3

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765882

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7437

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. ____ Date Analyzed: 09/07/89

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	5	U
67-64-1	Acetone	11	
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	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-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
10061-02-6	Trans-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.

VBLKE3

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765882

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7437

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. ____ Date Analyzed: 09/07/89

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.

SBLKS1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765892

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6134

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) Y pH: 6.0 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
606-20-2	2,6-Dinitrotoluene	660	U

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKS1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765892

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6134

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) Y pH: 6.0 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
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
218-01-9	Chrysene	660	U
117-81-7	bis(2-Ethylhexyl)Phthalate	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

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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKS1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765892

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6134

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. ____ dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

Number TICs found: 3

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown ketone	4.77	2300	J
2. 123422	4-hydroxy-4-methyl-2-pentano	5.27	43000	AJ
3.	Unknown, possible ketone	6.37	570	J

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKS1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765892

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

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

% Moisture: not dec. __ dec. __ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) Y pH: 6.0 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	gamma-BHC (Lindane)	16	U
~~77~~ 76-44-8	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	~~beta~~ 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

GB 10-3-89

GB 10-4-89

10/02/89

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1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

PBLKM1

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765892 ~~765893~~ KWH 9-29-89

Sample wt/vol: 1.0 (g/mL) G Lab File ID: _____

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

% Moisture: not dec. __ dec. __ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	120	U
319-85-7	beta-BHC	120	U
319-86-8	delta-BHC	120	U
58-89-9	gamma-BHC (Lindane)	120	U
76-44-8	Heptachlor	120	U
309-00-2	Aldrin	120	U
1024-57-3	Heptachlor epoxide	120	U
959-98-8	Endosulfan I	120	U
60-57-1	Dieldrin	240	U
72-55-9	4,4'-DDE	240	U
72-20-8	Endrin	240	U
33213-65-9	Endosulfan II	240	U
72-54-8	4,4'-DDD	240	U
1031-07-8	Endosulfan sulfate	240	U
50-29-3	4,4'-DDT	240	U
72-43-5	Methoxychlor	1200	U
53494-70-5	Endrin ketone	240	U
5103-71-9	alpha-Chlordane	1200	U
5103-74-2	~~beta~~ gamma-Chlordane	1200	U
8001-35-2	Toxaphene	2400	U
12674-11-2	Aroclor-1016	1200	U
11104-28-2	Aroclor-1221	1200	U
11141-16-5	Aroclor-1232	1200	U
53469-21-9	Aroclor-1242	1200	U
12672-29-6	Aroclor-1248	1200	U
11097-69-1	Aroclor-1254	2400	U
11096-82-5	Aroclor-1260	2400	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT05

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765864

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7406

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 33 Date Analyzed: 09/06/89

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	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	7 ~~6~~	~~B~~ U
67-64-1	Acetone	21	~~B~~ U
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	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	15	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-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
10061-02-6	Trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Total Xylenes	7	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT05

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765864

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7406

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 33 Date Analyzed: 09/06/89

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

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT06

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765866

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7407

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 44 Date Analyzed: 09/06/89

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	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	13	~~B~~ U
67-64-1	Acetone	44	~~B~~ U
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	1,2-Dichloroethene (total)	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
10061-01-5	cis-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
10061-02-6	Trans-1,3-Dichloropropene	9	U
75-25-2	Bromoform	9	U
108-10-1	4-Methyl-2-Pentanone	18	U
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

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT06

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765866

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7407

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 44 Date Analyzed: 09/06/89

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

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT07

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765868

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7408

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 26 Date Analyzed: 09/06/89

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	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	12	~~B~~ u
67-64-1	Acetone	24	~~B~~ u
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	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-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
10061-02-6	Trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	3	J
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Total Xylenes	7	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT07

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765868

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7408

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 26 Date Analyzed: 09/06/89

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

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT08

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765870

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7409

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 32 Date Analyzed: 09/06/89

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	27	~~B~~ U
67-64-1	Acetone	130	~~B~~ U
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	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	15	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-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
10061-02-6	Trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Total Xylenes	7	U

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT08

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765870

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7409

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 32 Date Analyzed: 09/06/89

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

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT09

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765872

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7422

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 31 Date Analyzed: 09/07/89

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	7 ~~B~~	~~B~~ U
67-64-1	Acetone	34	~~B~~ U
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	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-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
10061-02-6	Trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Total Xylenes	7	U

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT09

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765872

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7422

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 31 Date Analyzed: 09/07/89

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

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT10

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765874

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7410

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 39 Date Analyzed: 09/06/89

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

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

CAS NO.	COMPOUND		Q
74-87-3	Chloromethane	16	U
74-83-9	Bromomethane	16	U
75-01-4	Vinyl Chloride	16	U
75-00-3	Chloroethane	16	U
75-09-2	Methylene Chloride	61	~~B~~
67-64-1	Acetone	89	~~B~~
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-35-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (total)	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	16	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	16	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-02-6	Trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	16	U
591-78-6	2-Hexanone	16	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Total Xylenes	8	U

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT10

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765874

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7410

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 39 Date Analyzed: 09/06/89

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

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT11

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765876

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7411

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 24 Date Analyzed: 09/06/89

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

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

CAS NO.	COMPOUND		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	~~B~~ u
67-64-1	Acetone	18	~~B~~ u
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	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	1	J
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
10061-01-5	cis-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
10061-02-6	Trans-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	7	U
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

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT11

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765876

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7411

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 24 Date Analyzed: 09/06/89

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

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT12

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765878

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7412

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 18 Date Analyzed: 09/06/89

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	8	~~B~~
67-64-1	Acetone	12~~10~~	~~B~~
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	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-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
10061-02-6	Trans-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	6	U
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

JLU 11-4-89

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1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT12

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765878

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7412

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 18 Date Analyzed: 09/06/89

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

12635 · 5-110-09

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT17

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765880

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7417

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 15 Date Analyzed: 09/06/89

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	9	~~B~~ u
67-64-1	Acetone	25	~~B~~ 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	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-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
10061-02-6	Trans-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	6	U
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

J.U 11-4-89

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1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT17

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765880

Sample wt/vol: 5.0 (g/mL) G Lab File ID: E7417

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 15 Date Analyzed: 09/06/89

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

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT05

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765883

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6142

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 33 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

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	990	U
111-44-4	bis(2-Chloroethyl)Ether	990	U
95-57-8	2-Chlorophenol	990	U
541-73-1	1,3-Dichlorobenzene	990	U
106-46-7	1,4-Dichlorobenzene	990	U
100-51-6	Benzyl Alcohol	990	U
95-50-1	1,2-Dichlorobenzene	990	U
95-48-7	2-Methylphenol	990	U
39638-32-9	bis(2-Chloroisopropyl)Ether	990	U
106-44-5	4-Methylphenol	990	U
621-64-7	N-Nitroso-Di-n-Propylamine	990	U
67-72-1	Hexachloroethane	990	U
98-95-3	Nitrobenzene	990	U
78-59-1	Isophorone	990	U
88-75-5	2-Nitrophenol	990	U
105-67-9	2,4-Dimethylphenol	990	U
65-85-0	Benzoic Acid	4800	U
111-91-1	bis(2-Chloroethoxy)Methane	990	U
120-83-2	2,4-Dichlorophenol	990	U
120-82-1	1,2,4-Trichlorobenzene	990	U
91-20-3	Naphthalene	990	U
106-47-8	4-Chloroaniline	990	U
87-68-3	Hexachlorobutadiene	990	U
59-50-7	4-Chloro-3-Methylphenol	990	U
91-57-6	2-Methylnaphthalene	990	U
77-47-4	Hexachlorocyclopentadiene	990	U
88-06-2	2,4,6-Trichlorophenol	990	U
95-95-4	2,4,5-Trichlorophenol	4800	U
91-58-7	2-Chloronaphthalene	990	U
88-74-4	2-Nitroaniline	4800	U
131-11-3	Dimethyl Phthalate	990	U
208-96-8	Acenaphthylene	990	U
606-20-2	2,6-Dinitrotoluene	990	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT05

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765883

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6142

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 33 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

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	4800	U
83-32-9	Acenaphthene	990	U
51-28-5	2,4-Dinitrophenol	4800	U
100-02-7	4-Nitrophenol	4800	U
132-64-9	Dibenzofuran	990	U
121-14-2	2,4-Dinitrotoluene	990	U
84-66-2	Diethylphthalate	990	U
7005-72-3	4-Chlorophenyl-phenylether	990	U
86-73-7	Fluorene	990	U
100-10-6	4-Nitroaniline	4800	U
534-52-1	4,6-Dinitro-2-Methylphenol	4800	U
86-30-6	N-Nitrosodiphenylamine (1)	990	U
101-55-3	4-Bromophenyl-phenylether	990	U
118-74-1	Hexachlorobenzene	990	U
87-86-5	Pentachlorophenol	4800	U
85-01-8	Phenanthrene	990	U
120-12-7	Anthracene	990	U
84-74-2	Di-n-Butylphthalate	990	U
206-44-0	Fluoranthene	990	U
129-00-0	Pyrene	990	U
85-68-7	Butylbenzylphthalate	990	U
91-94-1	3,3'-Dichlorobenzidine	2000	U
56-55-3	Benzo(a)Anthracene	990	U
218-01-9	Chrysene	990	U
117-81-7	bis(2-Ethylhexyl)Phthalate	8800	
117-84-0	Di-n-Octyl Phthalate	990	U
205-99-2	Benzo(b)Fluoranthene	990	U
207-08-9	Benzo(k)Fluoranthene	990	U
50-32-8	Benzo(a)Pyrene	990	U
193-39-5	Indeno(1,2,3-cd)Pyrene	990	U
53-70-3	Dibenz(a,h)Anthracene	990	U
191-24-2	Benzo(g,h,i)Perylene	990	U

(1) - Cannot be separated from Diphenylamine

12635 · 5-211-01

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT05

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765883

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6142

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 33 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

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

Number TICs found: 16

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown ketone	4.77	3300	~~BJ~~ W
2. 123422	4-hydroxy-4-methyl-2-pentano	5.27	56000	~~ABJ~~ W
3.	Unknown	6.35	810	J
4.	Possible trimethyl hexane	6.60	1500	J
5. 4436753	3-Hexene-2,5-dione (8CI9CI)	6.92	1500	J
6.	Unknown, possible ketone	7.67	2100	J
7.	Unknown, possible ketone	7.95	660	J
8.	Unknown, possible ketone	8.67	1600	J
9. 10544500	Mol. sulfur	15.87	410	J
10.	Unknown, possible aromatic	26.64	780	J
11. 563042	Phosphoric acid, tris(3-meth	27.54	430	J
12. 629801	Hexadecanal (ACN)(9CI)	28.66	570	J
13.	Unknown hydrocarbon	29.22	680	J
14. 7225641	Heptadecane, 9-octyl	31.62	640	J
15.	Unknown	35.17	2800	J
16.	Unknown	35.69	1200	J

JLG 11-4-89

12635 • 5-210-03

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT06

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765884

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6143

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 44 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) Y pH: 8.0 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	120	J
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
606-20-2	2,6-Dinitrotoluene	1200	U

12635 • 5-2/0-04

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT06

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765884

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6143

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 44 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) Y pH: 8.0 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
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	350	J
120-12-7	Anthracene	1200	U
84-74-2	Di-n-Butylphthalate	1200	U
206-44-0	Fluoranthene	670	J
129-00-0	Pyrene	470	J
85-68-7	Butylbenzylphthalate	500	J
91-94-1	3,3'-Dichlorobenzidine	2400	U
56-55-3	Benzo(a)Anthracene	260	J
218-01-9	Chrysene	360	J
117-81-7	bis(2-Ethylhexyl)Phthalate	4200	
117-84-0	Di-n-Octyl Phthalate	300	J
205-99-2	Benzo(b)Fluoranthene	320	J
207-08-9	Benzo(k)Fluoranthene	360	J
50-32-8	Benzo(a)Pyrene	260	J
193-39-5	Indeno(1,2,3-cd)Pyrene	240	J
53-70-3	Dibenz(a,h)Anthracene	1200	U
191-24-2	Benzo(g,h,i)Perylene	230	J

(1) - Cannot be separated from Diphenylamine

12635 • 5- 211-02

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT06

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765884

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6143

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 44 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.0

Number TICs found: 23

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown ketone	4.72	1300	J
2.		Unknown ketone	4.80	3000	~~BJ~~ u
3.	123422	4-hydroxy-4-methyl-2-pentano	5.30	74000	AB~~J~~ u
4.		Unknown, possible ketone	6.37	1200	B~~J~~ u
5.		Possible trimethyl hexane	6.62	2500	J
6.	4436753	3-Hexene-2,5-dione (8CI9CI)	6.93	2600	J
7.		Unknown, possible ketone	7.68	3200	J
8.		UNKNOWN	8.69	1800	J
9.		Unknown	15.64	710	J
10.	10544500	Mol. sulfur	15.94	650	J
11.		Unknown, possible octadecyne	22.04	3100	J
12.		Unknown hydrocarbon coelutin	22.20	690	J
13.		Unknown	23.17	1000	J
14.		Unknown hydrocarbon	23.52	650	J
15.		Unknown hydrocarbon, possibl	24.09	860	J
16.	54833237	10-methyl eicosane	25.82	1700	J
17.		Unknown hydrocarbon	26.62	970	J
18.	593497	Heptacosane	27.42	2000	J
19.	629970	Docosane	28.27	1700	J
20.	629801'	Hexadecanal (ACN)(9CI)	28.69	2900	J
21.		Unknown hydrocarbon	29.24	3800	J
22.	7225641	9-octyl heptadecane	31.64	2500	J
23.	83476	.gamma.-Sitosterol	36.59	3100	J

SJV 11-4-89

12635 • 5-20-05

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT07

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765885

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6149

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 26 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

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	890	U
111-44-4	bis(2-Chloroethyl)Ether	890	U
95-57-8	2-Chlorophenol	890	U
541-73-1	1,3-Dichlorobenzene	890	U
106-46-7	1,4-Dichlorobenzene	890	U
100-51-6	Benzyl Alcohol	890	U
95-50-1	1,2-Dichlorobenzene	890	U
95-48-7	2-Methylphenol	890	U
39638-32-9	bis(2-Chloroisopropyl)Ether	890	U
106-44-5	4-Methylphenol	890	U
621-64-7	N-Nitroso-Di-n-Propylamine	890	U
67-72-1	Hexachloroethane	890	U
98-95-3	Nitrobenzene	890	U
78-59-1	Isophorone	890	U
88-75-5	2-Nitrophenol	890	U
105-67-9	2,4-Dimethylphenol	890	U
65-85-0	Benzoic Acid	4300	U
111-91-1	bis(2-Chloroethoxy)Methane	890	U
120-83-2	2,4-Dichlorophenol	890	U
120-82-1	1,2,4-Trichlorobenzene	890	U
91-20-3	Naphthalene	200	J
106-47-8	4-Chloroaniline	890	U
87-68-3	Hexachlorobutadiene	890	U
59-50-7	4-Chloro-3-Methylphenol	890	U
91-57-6	2-Methylnaphthalene	350	J
77-47-4	Hexachlorocyclopentadiene	890	U
88-06-2	2,4,6-Trichlorophenol	890	U
95-95-4	2,4,5-Trichlorophenol	4300	U
91-58-7	2-Chloronaphthalene	890	U
88-74-4	2-Nitroaniline	4300	U
131-11-3	Dimethyl Phthalate	890	U
208-96-8	Acenaphthylene	890	U
606-20-2	2,6-Dinitrotoluene	890	U

12635 • 5-210-06

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT07

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765885

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6149

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 26 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

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	4300	U
83-32-9	Acenaphthene	890	U
51-28-5	2,4-Dinitrophenol	4300	U
100-02-7	4-Nitrophenol	4300	U
132-64-9	Dibenzofuran	110	J
121-14-2	2,4-Dinitrotoluene	890	U
84-66-2	Diethylphthalate	890	U
7005-72-3	4-Chlorophenyl-phenylether	890	U
86-73-7	Fluorene	100	J
100-10-6	4-Nitroaniline	4300	U
534-52-1	4,6-Dinitro-2-Methylphenol	4300	U
86-30-6	N-Nitrosodiphenylamine (1)	890	U
101-55-3	4-Bromophenyl-phenylether	890	U
118-74-1	Hexachlorobenzene	890	U
87-86-5	Pentachlorophenol	4300	U
85-01-8	Phenanthrene	1300	
120-12-7	Anthracene	220	J
84-74-2	Di-n-Butylphthalate	890	U
206-44-0	Fluoranthene	1700	
129-00-0	Pyrene	1600	
85-68-7	Butylbenzylphthalate	890	U
91-94-1	3,3'-Dichlorobenzidine	1800	U
56-55-3	Benzo(a)Anthracene	690	J
218-01-9	Chrysene	870	J
117-81-7	bis(2-Ethylhexyl)Phthalate	470	J
117-84-0	Di-n-Octyl Phthalate	890	U
205-99-2	Benzo(b)Fluoranthene	810	J
207-08-9	Benzo(k)Fluoranthene	800	J
50-32-8	Benzo(a)Pyrene	730	J
193-39-5	Indeno(1,2,3-cd)Pyrene	490	J
53-70-3	Dibenz(a,h)Anthracene	890	U
191-24-2	Benzo(g,h,i)Perylene	550	J

(1) - Cannot be separated from Diphenylamine

12635 • 5-24-03

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT07

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765885

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6149

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 26 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

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

Number TICs found: 23

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

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		Unknown ketone	4.77	3900	~~BJ~~ U
2.	123422	4-hydroxy-4-methyl-2-pentano	5.25	61000	~~ABJ~~ U
3.		Unknown, possible ketone	6.32	920	~~BJ~~ U
4.		Possible trimethyl benzene	6.57	2900	J
5.	4436753	3-Hexene-2,5-dione (8CI9CI)	6.87	1700	J
6.		Unknown, possible ketone	7.62	2200	J
7.		Unknown, possible ketone	8.64	940	J
8.	15869939	Octane, 3,5-dimethyl- (8CI9C	9.42	600	J
9.	1120214	Undecane (8CI9CI)	11.04	770	J
10.		Unknown hydrocarbon, possibl	12.15	430	J
11.	629505	Tridecane (8CI9CI)	12.55	780	J
12.		Unknown hydrocarbon	13.99	460	J
13.		Unknown hydrocarbon	17.94	960	J
14.		Possible benzo fluorene or m	23.74	430	J
15.		Possible nonadecane coelutin	24.02	570	J
16.	54833237	Eicosane, 10-methyl- (9CI)	25.74	570	J
17.		Unknown hydrocarbon	26.57	460	J
18.	629787	Heptadecane (8CI9CI)	27.34	650	J
19.		Unknown hydrocarbon	28.22	670	J
20.		UNKNOWN	28.62	590	J
21.		Unknown hydrocarbon	29.16	1700	J
22.	192972	Benzo[e]pyrene (8CI9CI)	29.57	570	J
23.		Unknown hydrocarbon	31.54	1100	J

J.U. 11-4-89

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT08

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765886

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6150

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 32 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	970	U
111-44-4	bis(2-Chloroethyl)Ether	970	U
95-57-8	2-Chlorophenol	970	U
541-73-1	1,3-Dichlorobenzene	970	U
106-46-7	1,4-Dichlorobenzene	970	U
100-51-6	Benzyl Alcohol	970	U
95-50-1	1,2-Dichlorobenzene	970	U
95-48-7	2-Methylphenol	970	U
39638-32-9	bis(2-Chloroisopropyl)Ether	970	U
106-44-5	4-Methylphenol	970	U
621-64-7	N-Nitroso-Di-n-Propylamine	970	U
67-72-1	Hexachloroethane	970	U
98-95-3	Nitrobenzene	970	U
78-59-1	Isophorone	970	U
88-75-5	2-Nitrophenol	970	U
105-67-9	2,4-Dimethylphenol	970	U
65-85-0	Benzoic Acid	4700	U
111-91-1	bis(2-Chloroethoxy)Methane	970	U
120-83-2	2,4-Dichlorophenol	970	U
120-82-1	1,2,4-Trichlorobenzene	970	U
91-20-3	Naphthalene	110	J
106-47-8	4-Chloroaniline	970	U
87-68-3	Hexachlorobutadiene	970	U
59-50-7	4-Chloro-3-Methylphenol	970	U
91-57-6	2-Methylnaphthalene	120	J
77-47-4	Hexachlorocyclopentadiene	970	U
88-06-2	2,4,6-Trichlorophenol	970	U
95-95-4	2,4,5-Trichlorophenol	4700	U
91-58-7	2-Chloronaphthalene	970	U
88-74-4	2-Nitroaniline	4700	U
131-11-3	Dimethyl Phthalate	970	U
208-96-8	Acenaphthylene	970	U
606-20-2	2,6-Dinitrotoluene	970	U

FORM I SV-1 1/87 Rev.

12635 • 5-210-08

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT08

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765886

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6150

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 32 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4700	U
83-32-9	Acenaphthene	970	U
51-28-5	2,4-Dinitrophenol	4700	U
100-02-7	4-Nitrophenol	4700	U
132-64-9	Dibenzofuran	970	U
121-14-2	2,4-Dinitrotoluene	970	U
84-66-2	Diethylphthalate	970	U
7005-72-3	4-Chlorophenyl-phenylether	970	U
86-73-7	Fluorene	970	U
100-10-6	4-Nitroaniline	4700	U
534-52-1	4,6-Dinitro-2-Methylphenol	4700	U
86-30-6	N-Nitrosodiphenylamine (1)	970	U
101-55-3	4-Bromophenyl-phenylether	970	U
118-74-1	Hexachlorobenzene	970	U
87-86-5	Pentachlorophenol	4700	U
85-01-8	Phenanthrene	1000	
120-12-7	Anthracene	210	J
84-74-2	Di-n-Butylphthalate	970	U
206-44-0	Fluoranthene	1300	
129-00-0	Pyrene	1300	
85-68-7	Butylbenzylphthalate	610	J
91-94-1	3,3'-Dichlorobenzidine	1900	U
56-55-3	Benzo(a)Anthracene	610	J
218-01-9	Chrysene	680	J
117-81-7	bis(2-Ethylhexyl)Phthalate	4800	
117-84-0	Di-n-Octyl Phthalate	360	J
205-99-2	Benzo(b)Fluoranthene	530	J
207-08-9	Benzo(k)Fluoranthene	540	J
50-32-8	Benzo(a)Pyrene	530	J
193-39-5	Indeno(1,2,3-cd)Pyrene	360	J
53-70-3	Dibenz(a,h)Anthracene	970	U
191-24-2	Benzo(g,h,i)Perylene	450	J

(1) - Cannot be separated from Diphenylamine

12635 · 5-211-04

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT08

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765886

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6150

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 32 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.0

Number TICs found: 23

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown ketone	4.72	1000	J
2.	Unknown ketone	4.80	3900	~~BJ~~ u
3. 123422	4-hydroxy-4-methyl-2-pentano	5.28	74000	AB~~J~~ u
4.	Unknown, possible ketone	6.33	970	~~BJ~~ u
5.	Possible trimethyl hexane	6.57	1600	J
6. 4436753	3-Hexene-2,5-dione (8CI9CI)	6.88	2600	J
7.	Unknown, possible ketone	7.63	2100	J
8.	Unknown, possible ketone	7.93	1100	J
9.	Unknown, possible ketone	8.64	880	J
10.	Unknown hydrocarbon	17.94	750	J
11.	Unknown hydrocarbon	23.12	1100	J
12.	Unknown hydrocarbon	23.47	990	J
13.	Unknown hydrocarbon	24.04	1100	J
14. 54833237	10-methyl eicosane	25.77	1700	J
15.	Unknown phthalate	26.24	950	J
16.	Unknown hydrocarbon	26.59	1600	J
17. 593497	Heptacosane	27.39	1700	J
18.	Unknown hydrocarbon	29.19	1000	J
19.	Unknown hydrocarbon	31.17	3200	J
20.	Possible ester of tetradecan	32.62	4500	J
21.	Unknown	33.39	1200	J
22.	Unknown	34.34	2200	J
23. 540103	Hexadecanoic acid, hexadecyl	36.39	1500	J

J.u 11-4-89

12635 • 5-210-09

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT09

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765887

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6138

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 31 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

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	960	U
111-44-4	bis(2-Chloroethyl)Ether	960	U
95-57-8	2-Chlorophenol	960	U
541-73-1	1,3-Dichlorobenzene	960	U
106-46-7	1,4-Dichlorobenzene	960	U
100-51-6	Benzyl Alcohol	960	U
95-50-1	1,2-Dichlorobenzene	960	U
95-48-7	2-Methylphenol	960	U
39638-32-9	bis(2-Chloroisopropyl)Ether	960	U
106-44-5	4-Methylphenol	960	U
621-64-7	N-Nitroso-Di-n-Propylamine	960	U
67-72-1	Hexachloroethane	960	U
98-95-3	Nitrobenzene	960	U
78-59-1	Isophorone	960	U
88-75-5	2-Nitrophenol	960	U
105-67-9	2,4-Dimethylphenol	960	U
65-85-0	Benzoic Acid	4600	U
111-91-1	bis(2-Chloroethoxy)Methane	960	U
120-83-2	2,4-Dichlorophenol	960	U
120-82-1	1,2,4-Trichlorobenzene	960	U
91-20-3	Naphthalene	960	U
106-47-8	4-Chloroaniline	960	U
87-68-3	Hexachlorobutadiene	960	U
59-50-7	4-Chloro-3-Methylphenol	960	U
91-57-6	2-Methylnaphthalene	960	U
77-47-4	Hexachlorocyclopentadiene	960	U
88-06-2	2,4,6-Trichlorophenol	960	U
95-95-4	2,4,5-Trichlorophenol	4600	U
91-58-7	2-Chloronaphthalene	960	U
88-74-4	2-Nitroaniline	4600	U
131-11-3	Dimethyl Phthalate	960	U
208-96-8	Acenaphthylene	960	U
606-20-2	2,6-Dinitrotoluene	960	U

12635 • 5-21U-10

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT09

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765887

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6138

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 31 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

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	4600	U
83-32-9	Acenaphthene	960	U
51-28-5	2,4-Dinitrophenol	4600	U
100-02-7	4-Nitrophenol	4600	U
132-64-9	Dibenzofuran	960	U
121-14-2	2,4-Dinitrotoluene	960	U
84-66-2	Diethylphthalate	960	U
7005-72-3	4-Chlorophenyl-phenylether	960	U
86-73-7	Fluorene	960	U
100-10-6	4-Nitroaniline	4600	U
534-52-1	4,6-Dinitro-2-Methylphenol	4600	U
86-30-6	N-Nitrosodiphenylamine (1)	960	U
101-55-3	4-Bromophenyl-phenylether	960	U
118-74-1	Hexachlorobenzene	960	U
87-86-5	Pentachlorophenol	4600	U
85-01-8	Phenanthrene	440	J
120-12-7	Anthracene	120	J
84-74-2	Di-n-Butylphthalate	960	U
206-44-0	Fluoranthene	1700	
129-00-0	Pyrene	1100	
85-68-7	Butylbenzylphthalate	960	U
91-94-1	3,3'-Dichlorobenzidine	1900	U
56-55-3	Benzo(a)Anthracene	560	J
218-01-9	Chrysene	760	J
117-81-7	bis(2-Ethylhexyl)Phthalate	230	J
117-84-0	Di-n-Octyl Phthalate	960	U
205-99-2	Benzo(b)Fluoranthene	410	J
207-08-9	Benzo(k)Fluoranthene	500	J
50-32-8	Benzo(a)Pyrene	340	J
193-39-5	Indeno(1,2,3-cd)Pyrene	220	J
53-70-3	Dibenz(a,h)Anthracene	960	U
191-24-2	Benzo(g,h,i)Perylene	220	J

(1) - Cannot be separated from Diphenylamine

12635 • 5-2-11-05

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT09

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765887

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6138

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 31 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

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

Number TICs found: 23

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown ketone	4.77	3400	~~BJ~~ u
2.	4-hydroxy-4-methyl-2-pentano	5.27	56000	~~ABJ~~ u
3.	Unknown, possible ketone	6.37	790	~~BJ~~ u
4.	Possible trimethyl hexane	6.62	640	J
5. 4436753	3-Hexene-2,5-dione (8CI9CI)	6.90	1200	J
6.	Unknown, possible ketone	7.65	790	J
7.	Unknown, possible substitute	8.55	1000	J
8. 10544500	Mol. sulfur	15.92	520	J
9.	Unknown, possible ketone	17.62	650	J
10.	Naphthalene, -trichloro coel	18.64	630	J
11.	Naphthalene, -trichloro- coe	19.55	440	J
12. 54833237	Eicosane, 10-methyl- (9CI)	25.79	1200	J
13.	Unknown hydrocarbon	26.62	610	J
14. 593497	Heptacosane (8CI9CI)	27.39	2300	J
15. 629970	Docosane (8CI9CI)	28.27	640	J
16. 629801	Hexadecanal (ACN)(9CI)	28.67	1900	J
17.	Unknown hydrocarbon	29.24	6100	J
18. 638664	Octadecanal (9CI)	30.92	1500	J
19. 7225641	Heptadecane, 9-octyl- (8CI9C	31.64	3300	J
20.	Octadecenal (9CI)	34.06	1100	J
21. 83476	.gamma.-Sitosterol	36.56	3400	J
22.	Unknown	38.14	850	J
23.	Unknown	39.92	700	J

J.W. 11-4-89

12 8 . . 5-210-11

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT10

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765888

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6151

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 39 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

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	1100	U
111-44-4	bis(2-Chloroethyl)Ether	1100	U
95-57-8	2-Chlorophenol	1100	U
541-73-1	1,3-Dichlorobenzene	1100	U
106-46-7	1,4-Dichlorobenzene	1100	U
100-51-6	Benzyl Alcohol	1100	U
95-50-1	1,2-Dichlorobenzene	1100	U
95-48-7	2-Methylphenol	1100	U
39638-32-9	bis(2-Chloroisopropyl)Ether	1100	U
106-44-5	4-Methylphenol	1100	U
621-64-7	N-Nitroso-Di-n-Propylamine	1100	U
67-72-1	Hexachloroethane	1100	U
98-95-3	Nitrobenzene	1100	U
78-59-1	Isophorone	1100	U
88-75-5	2-Nitrophenol	1100	U
105-67-9	2,4-Dimethylphenol	1100	U
65-85-0	Benzoic Acid	5200	U
111-91-1	bis(2-Chloroethoxy)Methane	1100	U
120-83-2	2,4-Dichlorophenol	1100	U
120-82-1	1,2,4-Trichlorobenzene	1100	U
91-20-3	Naphthalene	150	J
106-47-8	4-Chloroaniline	1100	U
87-68-3	Hexachlorobutadiene	1100	U
59-50-7	4-Chloro-3-Methylphenol	1100	U
91-57-6	2-Methylnaphthalene	220	J
77-47-4	Hexachlorocyclopentadiene	1100	U
88-06-2	2,4,6-Trichlorophenol	1100	U
95-95-4	2,4,5-Trichlorophenol	5200	U
91-58-7	2-Chloronaphthalene	1100	U
88-74-4	2-Nitroaniline	5200	U
131-11-3	Dimethyl Phthalate	1100	U
208-96-8	Acenaphthylene	1100	U
606-20-2	2,6-Dinitrotoluene	1100	U

12635 -210-12

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT10

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765888

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6151

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 39 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

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	5200	U
83-32-9	Acenaphthene	1100	U
51-28-5	2,4-Dinitrophenol	5200	U
100-02-7	4-Nitrophenol	5200	U
132-64-9	Dibenzofuran	1100	U
121-14-2	2,4-Dinitrotoluene	1100	U
84-66-2	Diethylphthalate	1100	U
7005-72-3	4-Chlorophenyl-phenylether	1100	U
86-73-7	Fluorene	1100	U
100-10-6	4-Nitroaniline	5200	U
534-52-1	4,6-Dinitro-2-Methylphenol	5200	U
86-30-6	N-Nitrosodiphenylamine (1)	1100	U
101-55-3	4-Bromophenyl-phenylether	1100	U
118-74-1	Hexachlorobenzene	1100	U
87-86-5	Pentachlorophenol	5200	U
85-01-8	Phenanthrene	100	
120-12-7	Anthracene	200	J
84-74-2	Di-n-Butylphthalate	1100	U
206-44-0	Fluoranthene	1300	
129-00-0	Pyrene	1900	
85-68-7	Butylbenzylphthalate	1100	U
91-94-1	3,3'-Dichlorobenzidine	2200	U
56-55-3	Benzo(a)Anthracene	870	J
218-01-9	Chrysene	1100	
117-81-7	bis(2-Ethylhexyl)Phthalate	1100	U
117-84-0	Di-n-Octyl Phthalate	1100	U
205-99-2	Benzo(b)Fluoranthene	1200	
207-08-9	Benzo(k)Fluoranthene	1100	U
50-32-8	Benzo(a)Pyrene	1000	J
193-39-5	Indeno(1,2,3-cd)Pyrene	740	J
53-70-3	Dibenz(a,h)Anthracene	1100	U
191-24-2	Benzo(g,h,i)Perylene	1000	J

(1) - Cannot be separated from Diphenylamine

12635 · 5-211-06

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT10

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765888

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6151

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 39 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) Y pH: 7.0 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 hydrocarbon	4.78	5200	~~BJ~~ u
2. 123422	4-hydroxy-4-methyl-2-pentano	5.27	73000	AB~~J~~ u
3.	Unknown, possible ketone	6.35	1200	~~BJ~~ u
4.	Possible trimethyl hexane	6.58	2600	J
5. 4436753	3-Hexene-2,5-dione (8CI9CI)	6.88	2900	J
6.	Unknown, possible ketone	7.62	3700	J
7.	Unknown	8.49	490	J
8.	Unknown, possible ketone	8.64	2300	J
9.	Unknown, possible methyl phe	20.77	590	J
10.	Phenanthrene, dimethyl- (8CI	21.97	550	J
11.	Unknown, possible substitute	22.54	900	J
12.	Unknown hydrocarbon	27.37	700	J
13.	Unknown hydrocarbon	29.17	3000	J
14. 7225641	Heptadecane, 9-octyl- (8CI9C	31.56	2800	J

S.V. 11-4-89

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT11

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765889

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6135

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 24 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) Y pH: 6.0 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
606-20-2	2,6-Dinitrotoluene	870	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT11

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765889

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6135

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 24 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) Y pH: 6.0 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
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
218-01-9	Chrysene	870	U
117-81-7	bis(2-Ethylhexyl)Phthalate	96	J
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

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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT11

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765889

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6135

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 24 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

Number TICs found: 22

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown ketone	4.73	2600	~~BJ~~ u
2. 123422	4-hydroxy-4-methyl-2-pentano	5.23	48000	AB~~J~~ u
3.	Unknown, possible ester of h	5.38	1700	J
4.	Unknown, possible ketone	6.33	640	~~BJ~~ u
5.	Possible trimethyl hexane	6.58	1400	J
6. 4436753	3-Hexene-2,5-dione (8CI9CI)	6.92	930	J
7.	Unknown, possible ketone	7.63	860	J
8.	Unknown, possible substitute	8.52	390	J
9.	Unknown, possible ketone	13.35	2600	J
10.	Unknown, possible diene	18.22	400	J
11.	Unknown, possible ester of o	20.44	800	J
12.	Unknown, possible hydrocarbo	23.17	470	J
13.	Unknown, possible diene	23.82	360	J
14.	Unknown hydrocarbon	27.39	380	J
15. 629801	Hexadecanal	28.67	4300	J
16.	Unknown hydrocarbon	29.22	610	J
17.	Unknown hydrocarbon	31.64	600	J
18.	UNKNOWN	32.87	860	J
19.	Unknown	33.97	2100	J
20.	Unknown	34.74	980	J
21.	UNKNOWN	36.57	1500	J
22.	Unknown	36.74	3700	J

J.U 11-4-89

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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT11

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765889

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6135

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 24 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 1.0

Number TICs found: 22

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown ketone	4.73	2600	~~BJ~~ u
2. 123422	4-hydroxy-4-methyl-2-pentano	5.23	48000	A~~BJ~~ u
3.	Unknown, possible ester of h	5.38	1700	J
4.	Unknown, possible ketone	6.33	640	J
5.	Possible trimethyl hexane	6.58	1400	J
6. 4436753	3-Hexene-2,5-dione (8CI9CI)	6.92	930	J
7.	Unknown, possible ketone	7.63	860	J
8.	Unknown, possible substitute	8.52	390	J
9.	Unknown, possible ketone	13.35	2600	J
10.	Unknown, possible diene	18.22	400	J
11.	Unknown, possible ester of o	20.44	800	J
12.	Unknown, possible hydrocarbo	23.17	470	J
13.	Unknown, possible diene	23.82	360	J
14.	Unknown hydrocarbon	27.39	380	J
15. 629801	Hexadecanal	28.67	4300	J
16.	Unknown hydrocarbon	29.22	610	J
17.	Unknown hydrocarbon	31.64	600	J
18.	UNKNOWN	32.87	860	J
19.	Unknown	33.97	2100	J
20.	Unknown	34.74	980	J
21.	UNKNOWN	36.57	1500	J
22.	Unknown	36.74	3700	J

S.V. 11-4-89

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT12

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765890

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6173

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 18 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/14/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 20

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	16000	U
111-44-4	bis(2-Chloroethyl)Ether	16000	U
95-57-8	2-Chlorophenol	16000	U
541-73-1	1,3-Dichlorobenzene	16000	U
106-46-7	1,4-Dichlorobenzene	16000	U
100-51-6	Benzyl Alcohol	16000	U
95-50-1	1,2-Dichlorobenzene	16000	U
95-48-7	2-Methylphenol	16000	U
39638-32-9	bis(2-Chloroisopropyl)Ether	16000	U
106-44-5	4-Methylphenol	16000	U
621-64-7	N-Nitroso-Di-n-Propylamine	16000	U
67-72-1	Hexachloroethane	16000	U
98-95-3	Nitrobenzene	16000	U
78-59-1	Isophorone	16000	U
88-75-5	2-Nitrophenol	16000	U
105-67-9	2,4-Dimethylphenol	16000	U
65-85-0	Benzoic Acid	78000	U
111-91-1	bis(2-Chloroethoxy)Methane	16000	U
120-83-2	2,4-Dichlorophenol	16000	U
120-82-1	1,2,4-Trichlorobenzene	16000	U
91-20-3	Naphthalene	16000	U
106-47-8	4-Chloroaniline	16000	U
87-68-3	Hexachlorobutadiene	16000	U
59-50-7	4-Chloro-3-Methylphenol	16000	U
91-57-6	2-Methylnaphthalene	16000	U
77-47-4	Hexachlorocyclopentadiene	16000	U
88-06-2	2,4,6-Trichlorophenol	16000	U
95-95-4	2,4,5-Trichlorophenol	78000	U
91-58-7	2-Chloronaphthalene	16000	U
88-74-4	2-Nitroaniline	78000	U
131-11-3	Dimethyl Phthalate	16000	U
208-96-8	Acenaphthylene	16000	U
606-20-2	2,6-Dinitrotoluene	16000	U

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1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT12

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765890

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6173

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 18 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/14/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 20

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	78000	U
83-32-9	Acenaphthene	16000	U
51-28-5	2,4-Dinitrophenol	78000	U
100-02-7	4-Nitrophenol	78000	U
132-64-9	Dibenzofuran	16000	U
121-14-2	2,4-Dinitrotoluene	16000	U
84-66-2	Diethylphthalate	16000	U
7005-72-3	4-Chlorophenyl-phenylether	16000	U
86-73-7	Fluorene	16000	U
100-10-6	4-Nitroaniline	78000	U
534-52-1	4,6-Dinitro-2-Methylphenol	78000	U
86-30-6	N-Nitrosodiphenylamine (1)	16000	U
101-55-3	4-Bromophenyl-phenylether	16000	U
118-74-1	Hexachlorobenzene	16000	U
87-86-5	Pentachlorophenol	78000	U
85-01-8	Phenanthrene	16000	U
120-12-7	Anthracene	16000	U
84-74-2	Di-n-Butylphthalate	1200	J
206-44-0	Fluoranthene	16000	U
129-00-0	Pyrene	1000	J
85-68-7	Butylbenzylphthalate	2600	J
91-94-1	3,3'-Dichlorobenzidine	32000	U
56-55-3	Benzo(a)Anthracene	16000	U
218-01-9	Chrysene	16000	U
117-81-7	bis(2-Ethylhexyl)Phthalate	190000	
117-84-0	Di-n-Octyl Phthalate	5500	J
205-99-2	Benzo(b)Fluoranthene	16000	U
207-08-9	Benzo(k)Fluoranthene	16000	U
50-32-8	Benzo(a)Pyrene	16000	U
193-39-5	Indeno(1,2,3-cd)Pyrene	16000	U
53-70-3	Dibenz(a,h)Anthracene	16000	U
191-24-2	Benzo(g,h,i)Perylene	16000	U

(1) - Cannot be separated from Diphenylamine

12635 • 5-211-08

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT12

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765890

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6173

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 18 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/14/89

GPC Cleanup: (Y/N) Y pH: 6.0 Dilution Factor: 20

Number TICs found: 2

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 123422	4-hydroxy-4-methyl-2-pentano	4.97	71000	AB~~J~~
2.	Unknown, possible substitute	22.64	7300	J

S.U. 11-4-89

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1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT17

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765891

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6140

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 15 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

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	98	J
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
606-20-2	2,6-Dinitrotoluene	780	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT17

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765891

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6140

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 15 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

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
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	660	J
120-12-7	Anthracene	120	J
84-74-2	Di-n-Butylphthalate	780	U
206-44-0	Fluoranthene	1100	
129-00-0	Pyrene	730	J
85-68-7	Butylbenzylphthalate	780	U
91-94-1	3,3'-Dichlorobenzidine	1600	U
56-55-3	Benzo(a)Anthracene	420	J
218-01-9	Chrysene	590	J
117-81-7	bis(2-Ethylhexyl)Phthalate	200	J
117-84-0	Di-n-Octyl Phthalate	780	U
205-99-2	Benzo(b)Fluoranthene	490	J
207-08-9	Benzo(k)Fluoranthene	600	J
50-32-8	Benzo(a)Pyrene	480	J
193-39-5	Indeno(1,2,3-cd)Pyrene	400	J
53-70-3	Dibenz(a,h)Anthracene	780	U
191-24-2	Benzo(g,h,i)Perylene	400	J

(1) - Cannot be separated from Diphenylamine

12635 · 5-211-09

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

EFT17

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765891

Sample wt/vol: 30.0 (g/mL) G Lab File ID: F6140

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 15 dec. ____ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

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

Number TICs found: 22

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	Unknown ketone	4.82	3100	~~BJ~~ u
2. 123422	4-hydroxy-4-methyl-2-pentano	5.32	53000	AB~~J~~ u
3.	Unknown, possible ketone	6.37	850	~~BJ~~ u
4.	Possible dimethylhexane	6.60	1600	J
5. 4436753	3-Hexene-2,5-dione (8CI9CI)	6.92	480	J
6.	Unknown, possible ketone	7.67	910	J
7.	Unknown, possible ketone	8.67	730	J
8.	Unknown hydrocarbon	24.07	520	J
9. 54833237	Eicosane, 10-methyl- (9CI)	25.79	610	J
10. 593497	Heptacosane (8CI9CI)	27.39	1500	J
11. 629970	Docosane	28.27	770	J
12. 629801	Hexadecanal (ACN)(9CI)	28.67	8500	J
13.	Unknown hydrocarbon	29.24	5400	J
14.	Unknown hydrocarbon	29.29	7100	J
15. 192972	Benzo[e]pyrene (8CI9CI)	29.66	630	J
16.	Unknown hydrocarbon	30.32	460	J
17. 638664	Octadecanal (9CI)	30.92	2000	J
18. 7225641	9-octyl heptadecane	31.64	4900	J
19.	Unknown hydrocarbon	31.79	630	J
20.	Unknown	32.84	1300	J
21.	Octadecenal	34.06	1100	J
22.	Unknown hydrocarbon	35.01	1500	J

JLV 11-4-89

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT05

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765883

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

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 33 dec. __ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

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	24	U
319-85-7	beta-BHC	24	U
319-86-8	delta-BHC	24	U
58-89-9	gamma-BHC (Lindane)	24	U
~~77~~ 76-44-8	Heptachlor	24	U
309-00-2	Aldrin	24	U
1024-57-3	Heptachlor epoxide	24	U
959-98-8	Endosulfan I	24	U
60-57-1	Dieldrin	48	U
72-55-9	4,4'-DDE	48	U
72-20-8	Endrin	48	U
33213-65-9	Endosulfan II	48	U
72-54-8	4,4'-DDD	48	U
1031-07-8	Endosulfan sulfate	48	U
50-29-3	4,4'-DDT	48	U
72-43-5	Methoxychlor	240	U
53494-70-5	Endrin ketone	48	U
5103-71-9	alpha-Chlordane	240	U
5103-74-2	~~beta~~ gamma-Chlordane	240	U
8001-35-2	Toxaphene	480	U
12674-11-2	Aroclor-1016	240	U
11104-28-2	Aroclor-1221	240	U
11141-16-5	Aroclor-1232	240	U
53469-21-9	Aroclor-1242	240	U
12672-29-6	Aroclor-1248	240	U
11097-69-1	Aroclor-1254	480	U
11096-82-5	Aroclor-1260	480	U

10-3-89

10-4-89

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT06

Lab Name: CLAYTON NOVI Contract: 68-D9-~~0036~~ 0035 KWH 9-25-89

Lab Code: ~~CLAYTON~~ CLAYTN KWH 9-25-89 Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765884

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

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 44 dec. __ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	29	U
319-85-7	beta-BHC	29	U
319-86-8	delta-BHC	29	U
58-89-9	gamma-BHC (Lindane)	29	U
~~77~~ 76-44-8	Heptachlor	29	U
309-00-2	Aldrin	29	U
1024-57-3	Heptachlor epoxide	29	U
959-98-8	Endosulfan I	29	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	290	U
53494-70-5	Endrin ketone	57	U
5103-71-9	alpha-Chlordane	290	U
5103-74-2	~~beta~~ gamma-Chlordane	290	U
8001-35-2	Toxaphene	570	U
12674-11-2	Aroclor-1016	290	U
11104-28-2	Aroclor-1221	290	U
11141-16-5	Aroclor-1232	290	U
53469-21-9	Aroclor-1242	290	U
12672-29-6	Aroclor-1248	310	
11097-69-1	Aroclor-1254	720	
11096-82-5	Aroclor-1260	570	U

GB 10-3-89

DE 10-4-89

RH 09/28/89

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT07

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765885

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

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 26 dec. __ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

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	22	U
319-85-7	beta-BHC	22	U
319-86-8	delta-BHC	22	U
58-89-9	gamma-BHC (Lindane)	22	U
~~77~~ 76-44-8	Heptachlor	22	U
309-00-2	Aldrin	22	U
1024-57-3	Heptachlor epoxide	22	U
959-98-8	Endosulfan I	22	U
60-57-1	Dieldrin	43	U
72-55-9	4,4'-DDE	43	U
72-20-8	Endrin	43	U
33213-65-9	Endosulfan II	43	U
72-54-8	4,4'-DDD	43	U
1031-07-8	Endosulfan sulfate	75	
50-29-3	4,4'-DDT	43	U
72-43-5	Methoxychlor	220	U
53494-70-5	Endrin ketone	43	U
5103-71-9	alpha-Chlordane	220	U
5103-74-2	~~beta~~ gamma-Chlordane	220	U
8001-35-2	Toxaphene	430	U
12674-11-2	Aroclor-1016	220	U
11104-28-2	Aroclor-1221	220	U
11141-16-5	Aroclor-1232	220	U
53469-21-9	Aroclor-1242	220	U
12672-29-6	Aroclor-1248	220	U
11097-69-1	Aroclor-1254	430	U
11096-82-5	Aroclor-1260	430	U

QD 10-3-89

QD 10-4-89

10/2/89

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ΦΘ 1D EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EFT08

b Name: CLAYTON NOVI Contract: 68-D9-~~0036~~ 0035 KWH 9-25-89

Lab Code: ~~CLAYTON~~ CLAYTN KWH 9-25-89 Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765886

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

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 32 dec. __ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) Y pH: 8.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	24	U
319-85-7	beta-BHC	24	U
319-86-8	delta-BHC	24	U
58-89-9	gamma-BHC (Lindane)	24	U
~~77~~ 76-44-8	Heptachlor	24	U
309-00-2	Aldrin	24	U
1024-57-3	Heptachlor epoxide	24	U
959-98-8	Endosulfan I	24	U
60-57-1	Dieldrin	47	U
72-55-9	4,4'-DDE	47	U
72-20-8	Endrin	47	U
33213-65-9	Endosulfan II	47	U
72-54-8	4,4'-DDD	47	U
1031-07-8	Endosulfan sulfate	47	U
50-29-3	4,4'-DDT	47	U
72-43-5	Methoxychlor	240	U
53494-70-5	Endrin ketone	47	U
5103-71-9	alpha-Chlordane	240	U
5103-74-2	~~beta~~ gamma-Chlordane	240	U
8001-35-2	Toxaphene	470	U
12674-11-2	Aroclor-1016	240	U
11104-28-2	Aroclor-1221	240	U
11141-16-5	Aroclor-1232	240	U
53469-21-9	Aroclor-1242	240	U
12672-29-6	Aroclor-1248	420	
11097-69-1	Aroclor-1254	710	
11096-82-5	Aroclor-1260	470	U

GB 10-3-89

GB 10-4-89

R 10 09/28/89

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT09

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765887

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

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 31 dec. __ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 5.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	120	U
319-85-7	beta-BHC	120	U
319-86-8	delta-BHC	150	
58-89-9	gamma-BHC (Lindane)	120	U
~~77~~76-44-8	Heptachlor	120	U
309-00-2	Aldrin	120	U
1024-57-3	Heptachlor epoxide	120	U
959-98-8	Endosulfan I	120	U
60-57-1	Dieldrin	230	U
72-55-9	4,4'-DDE	230	U
72-20-8	Endrin	230	U
33213-65-9	Endosulfan II	230	U
72-54-8	4,4'-DDD	230	U
1031-07-8	Endosulfan sulfate	230	U
50-29-3	4,4'-DDT	230	U
72-43-5	Methoxychlor	1200	U
53494-70-5	Endrin ketone	230	U
5103-71-9	alpha-Chlordane	1200	U
5103-74-2	~~beta~~ gamma-Chlordane	1200	U
8001-35-2	Toxaphene	2300	U
12674-11-2	Aroclor-1016	1200	U
11104-28-2	Aroclor-1221	1200	U
11141-16-5	Aroclor-1232	1200	U
53469-21-9	Aroclor-1242	1200	U
12672-29-6	Aroclor-1248	1200	U
11097-69-1	Aroclor-1254	2300	U
11096-82-5	Aroclor-1260	2300	U

DB 10-38

DB 10-4-89

09/28/89

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT10

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765888

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

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 39 dec. __ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

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	26	U
319-85-7	beta-BHC	26	U
319-86-8	delta-BHC	26	U
58-89-9	gamma-BHC (Lindane)	26	U
~~77~~ 76-44-8	Heptachlor	26	U
309-00-2	Aldrin	26	U
1024-57-3	Heptachlor epoxide	26	U
959-98-8	Endosulfan I	26	U
60-57-1	Dieldrin	52	U
72-55-9	4,4'-DDE	52	U
72-20-8	Endrin	52	U
33213-65-9	Endosulfan II	52	U
72-54-8	4,4'-DDD	52	U
1031-07-8	Endosulfan sulfate	81	
50-29-3	4,4'-DDT	52	U
72-43-5	Methoxychlor	260	U
53494-70-5	Endrin ketone	52	U
5103-71-9	alpha-Chlordane	260	U
5103-74-2	~~beta~~ gamma-Chlordane	260	U
8001-35-2	Toxaphene	520	U
12674-11-2	Aroclor-1016	260	U
11104-28-2	Aroclor-1221	260	U
11141-16-5	Aroclor-1232	260	U
53469-21-9	Aroclor-1242	260	U
12672-29-6	Aroclor-1248	260	U
11097-69-1	Aroclor-1254	520	U
11096-82-5	Aroclor-1260	520	U

DB 10-3-89

DB 10-4-89

09/28/89

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT11

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765889

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

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 24 dec. __ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) Y pH: 6.0 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	gamma-BHC (Lindane)	21	U
~~77~~76-44-8	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	~~beta~~ 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

09/18/89

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EPA SAMPLE NO.

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EFT12

Name: CLAYTON NOVI Contract: 68-D9-~~0036~~ 0035 KWH 9-28-89

Lab Code: ~~CLAYTON~~ CLAYTN KWH 9-28-89 Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765890

Sample wt/vol: 1.0 (g/mL) G Lab File ID: _____

Level: (low/med) MED Date Received: 08/31/89

% Moisture: not dec. 18 dec. __ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/13/89

GPC Cleanup: (Y/N) N pH: 6.0 Dilution Factor: 1.00

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	150	U
319-85-7	beta-BHC	150	U
319-86-8	delta-BHC	150	U
58-89-9	gamma-BHC (Lindane)	150	U
BB 10-5-89 ~~77~~ 76-44-8	Heptachlor	150	U
309-00-2	Aldrin	150	U
1024-57-3	Heptachlor epoxide	150	U
959-98-8	Endosulfan I	150	U
60-57-1	Dieldrin	290	U
72-55-9	4,4'-DDE	290	U
72-20-8	Endrin	290	U
33213-65-9	Endosulfan II	290	U
72-54-8	4,4'-DDD	290	U
1031-07-8	Endosulfan sulfate	290	U
50-29-3	4,4'-DDT	290	U
72-43-5	Methoxychlor	1500	U
53494-70-5	Endrin ketone	290	U
5103-71-9	alpha-Chlordane	1500	U
BB 10-5-89 5103-74-2	~~beta~~ gamma-Chlordane	1500	U
8001-35-2	Toxaphene	2900	U
12674-11-2	Aroclor-1016	1500	U
11104-28-2	Aroclor-1221	1500	U
11141-16-5	Aroclor-1232	1500	U
53469-21-9	Aroclor-1242	1500	U
12672-29-6	Aroclor-1248	850	J
11097-69-1	Aroclor-1254	1800	J
11096-82-5	Aroclor-1260	2900	U

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1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

EFT17

Lab Name: CLAYTON NOVI Contract: 68-D9-0035

Lab Code: CLAYTN Case No.: 12635 SAS No.: _____ SDG No.: EFT05

Matrix: (soil/water) SOIL Lab Sample ID: 765891

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

Level: (low/med) LOW Date Received: 08/31/89

% Moisture: not dec. 15 dec. __ Date Extracted: 09/05/89

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 09/12/89

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	gamma-BHC (Lindane)	19	U
~~77~~ 76-44-8	Heptachlor	19	U
309-00-2	Aldrin	19	U
1024-57-3	Heptachlor epoxide	19	U
959-98-8	Endosulfan I	19	U
60-57-1	Dieldrin	38	U
72-55-9	4,4'-DDE	38	U
72-20-8	Endrin	38	U
33213-65-9	Endosulfan II	38	U
72-54-8	4,4'-DDD	38	U
1031-07-8	Endosulfan sulfate	43	
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	~~beta~~ 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

10/03/89

10-4-89

10/02/89

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