Huntingdon

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REPORT OF: CHEMICAL ANALYSES

PROJECT: T05-9405-804, 94V

DATE: June 20, 1994

REPORTED TO: ECOLOGY & ENVIRONMENT INC
Attn: MARY JANE RIPP
111 W JACKSON BLVD
CHICAGO IL 60604

LABORATORY NO: 4416-94-5039
HPN: 5039

INTRODUCTION

This report presents the results of the analyses of three samples received on May 31, 1994, from a representative of Ecology & Environment, Inc. The scope of our services was limited to the parameters listed in the attached tables.

METHODOLOGY

Analyses are performed according to Huntingdon Standard Operating Procedures. The procedures are based on the references stated in the analytical results tables.

RESULTS

The results are listed in the attached tables.

DISCUSSION

According to EPA Method 8270 the Chrysene-d12 and Perylene-d12 internal standard (IS) recoveries were outside acceptable limits for samples 25147, 25147MS, 25147MSD, 25160MS, 25160MSD, 25161, 25162, 25152, and 25154. The 1,4-Dichlorobenzene-d4 and Napthalene-d8 IS also did not pass acceptance criteria for sample 25160. These samples were reinjected and the IS results noted were similar for all samples except 25160. Upon reanalysis the Chrysene-d12 and Perylene-d12 internal standards exhibited similar recoveries to sample 25160MS and 25160MSD. The reinjected results confirm that the cause of the low IS recoveries is suppression due to matrix interferences.

Samples 25160 and 25160MSD appear to have been switched prior to analysis of semivolatiles. The spiked sample can be distinguished from the non-spiked sample due to the presence of the 11 spiked compounds.

The PCB and Total Semivolatile samples were extracted using 5 grams of sample. The samples were then filtered through a 0.45 micron filter and placed on the GPC. The samples caused the prep-scale UV detector on the GPC to completely plug. The samples were reextracted using 1 gram, filtered and placed on the GPC with similar results.

In order for the samples to pass through the GPC a 1:10 dilution of the 1 gram extraction was necessary. The 1:10 dilution was done on an extract that had been previously spiked with the surrogate compounds. Therefore the surrogate values were ten times lower in solution and thus more prone to be affected by matrix interferences.

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The PCB Method Blank was run twice. In both analyses and on both columns there is a large non-PCB peak that interferes with the TCMX surrogate. This interferance does not appear in the LCS or any other samples. The probable cause of this interfering peak is contamination during preparation or concentration of the extract.

Recoveries of the PCB matrix spike and matrix spike duplicate samples could not be calculated due to the large sample dilution factor.

The TCLP Metals samples were originally run on 6/14/94. The Initial Calibration Verification (ICV) did not pass acceptance criteria for silver. Silver was reanalyzed on 6/15/94. The interferance check sample was not analyzed on 6/15/94.

A limited amount of sample was available from the TCLP leach and subsequently a matrix spike duplicate could not be performed for the RCRA metals. A sample will be releached and the MS and MSD will be analyzed. A revised report containing this information will be issused.

REMARKS

The samples were collected on May 27, 1994. If samples are not consumed in the analysis, they are held for two months from the date of sample receipt and then disposed, unless written instructions to the contrary are received.

HUNTINGDON ENGINEERING & ENVIRONMENTAL, INC.

Terry Uecker
Project Manager

Jon Berdahl
Laboratory Manager

TU/JB/jd

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TCLP METAL RESULTS

(All values are in $\mu g/L$ which is equivalent to parts-per-billion)

Client ID:	QD1	QD2	QD3			
TCT ID:	25160	25161	25162			
Parameter				PQL	Test Date	Test Method
Arsenic	ND	ND	ND	100	6/14/94	200.7
Barium	320	440	390	10	6/14/94	200.7
Cadmium	ND	ND	ND	10	6/14/94	200.7
Chromium	ND	ND	ND	10	6/14/94	200.7
Lead	ND	ND	ND	50	6/14/94	200.7
Mercury	ND	ND	ND	0.40	6/16/94	7470
Selenium	ND	ND	ND	100	6/14/94	200.7
Silver	ND	ND	ND	10	6/15/94	200.7

ND = Not Detected

PQL = Practical Quantitation Limit

Reference: Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983.

EPA Test Methods for Evaluating Solid Wastes, SW-846, November 1986, 3rd Edition.

Federal Register, Volume 55, Number 126, June 1990, 40CFR, Method 1311.

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TCLP METAL RESULTS

Client ID: QD3

TCT ID: 25162 MS

Parameter		PQL	Test Date	Test Method
Arsenic	99% Rec	100	6/14/94	200.7
Barium	88% Rec	10	6/14/94	200.7
Cadmium	85% Rec	10	6/14/94	200.7
Chromium	89% Rec	10	6/14/94	200.7
Lead	93% Rec	50	6/14/94	200.7
Mercury	92% Rec	0.40	6/16/94	7470
Selenium	109% Rec	100	6/14/94	200.7
Silver	95% Rec	10	6/15/94	200.7

ND = Not Detected

PQL = Practical Quantitation Limit

Reference: Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983.

EPA Test Methods for Evaluating Solid Wastes, SW-846, November 1986, 3rd Edition.

Federal Register, Volume 55, Number 126, June 1990, 40CFR, Method 1311.

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TCLP METAL RESULTS

Client ID: QD3

TCT ID: 25162 MSD

Parameter		PQL	Test Date	Test Method
Mercury	9.5% RPD	0.40	6/16/94	7470

ND = Not Detected

PQL = Practical Quantitation Limit

RPD = Relative Percent Difference

Reference: EPA Test Methods for Evaluating Solid Wastes, SW-846, November 1986, 3rd Edition.

Federal Register, Volume 55, Number 126, June 1990, 40CFR, Method 1311.

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TCLP METAL RESULTS

(All values are in μg/L which is equivalent to parts-per-billion)

Client ID:	ICV	ICB	ICSAB			
TCT ID:						
Parameter				**PQL**	**Test Date**	**Test Method**
Arsenic	98% Rec	ND	95% Rec	100	6/14/94	6010
Barium	101% Rec	ND	92% Rec	10	6/14/94	6010
Cadmium	101% Rec	ND	88% Rec	10	6/14/94	6010
Chromium	101% Rec	ND	90% Rec	10	6/14/94	6010
Lead	101% Rec	ND	102% Rec	50	6/14/94	6010
Mercury	105% Rec	ND	NA	0.40	6/16/94	7470
Selenium	99% Rec	ND	98% Rec	100	6/14/94	6010
Silver	103% Rec	ND	---[1]	10	6/15/94	6010

[1]ICSAB not run for silver

PQL = Practical Quantitation Limit
NA = Not Applicable
ND = Not Detected

Note: Serial dilution relative percent difference cannot be calculated. Compounds of interest are below reportable levels.

Reference: Federal Register, Volume 55, Number 126, June 1990, 40CFR, Method 1311.

EPA Test Methods for Evaluating Solid Waste, SW-846, November 1986, 3rd Edition.

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TCLP METAL RESULTS

(All values are in $\mu g/L$ which is equivalent to parts-per-billion)

Client ID:	CCV	CCB	PBW			
TCT ID:						
Parameter				PQL	Test Date	Test Method
Arsenic	99% Rec	ND	ND	100	6/14/94	6010
Barium	102% Rec	ND	ND	10	6/14/94	6010
Cadmium	100% Rec	ND	ND	10	6/14/94	6010
Chromium	100% Rec	ND	ND	10	6/14/94	6010
Lead	99% Rec	ND	ND	50	6/14/94	6010
Mercury	110% Rec	ND	---	0.40	6/16/94	7470
Selenium	101% Rec	ND	ND	100	6/14/94	6010
Silver	99% Rec	ND	ND	10	6/15/94	6010

PQL = Practical Quantitation Limit
NA = Not Applicable
ND = Not Detected

Note: Serial dilution relative percent difference cannot be calculated. Compounds of interest are below reportable levels.

Reference: Federal Register, Volume 55, Number 126, June 1990, 40CFR, Method 1311.

EPA Test Methods for Evaluating Solid Waste, SW-846, November 1986, 3rd Edition.

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TCLP METAL RESULTS

(All values are in μg/L which is equivalent to parts-per-billion)

Client ID:	LCW	CCV	CCB			
TCT ID:						
Parameter				PQL	Test Date	Test Method
Arsenic	95% Rec	98	ND	100	6/14/94	6010
Barium	98% Rec	100	ND	10	6/14/94	6010
Cadmium	98% Rec	100	ND	10	6/14/94	6010
Chromium	100% Rec	100	ND	10	6/14/94	6010
Lead	97% Rec	99	ND	50	6/14/94	6010
Mercury	---	---	---	0.40	6/16/94	7470
Selenium	97% Rec	100	ND	100	6/14/94	6010
Silver	100% Rec	98	ND	10	6/15/94	6010

PQL = Practical Quantitation Limit
NA = Not Applicable
ND = Not Detected

Note: ICP was calibrated with a blank and one standard at 10 ppm. Mercury was calibrated with a blank and four standards at 0.05, 0.10, 0.30, and 0.50 μg.

Reference: Federal Register, Volume 55, Number 126, June 1990, 40CFR, Method 1311.

EPA Test Methods for Evaluating Solid Waste, SW-846, November 1986, 3rd Edition.

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TCLP METAL RESULTS

(All values are in $\mu g/L$ which is equivalent to parts-per-billion)

Client ID: ICSAB CCV CCB

TCT ID:

Parameter				PQL	Test Date	Test Method
Arsenic	97% Rec	99% Rec	ND	100	6/14/94	6010
Barium	92% Rec	101% Rec	ND	10	6/14/94	6010
Cadmium	90% Rec	101% Rec	ND	10	6/14/94	6010
Chromium	92% Rec	102% Rec	ND	10	6/14/94	6010
Lead	105% Rec	101% Rec	ND	50	6/14/94	6010
Mercury	---	---	---	0.40	6/16/94	7470
Selenium	94% Rec	101% Rec	ND	100	6/14/94	6010
Silver	---[1]	---	---	10	6/15/94	6010

[1]ICSAB not run for silver

PQL = Practical Quantitation Limit
NA = Not Applicable
ND = Not Detected

Note: ICP was calibrated with a blank and one standard at 10 ppm. Mercury was calibrated with a blank and four standards at 0.05, 0.10, 0.30, and 0.50 μg.

Reference: Federal Register, Volume 55, Number 126, June 1990, 40CFR, Method 1311.

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POLYCHLORINATED BIPHENYL RESULTS
EPA METHOD 8080

(All values are in $\mu g/Kg$ which is equal to parts-per-billion)

Client ID: **Blank**

TCT ID:

Parameter:		**PQL**
PCB 1016	ND	17
PCB 1221	ND	17
PCB 1232	ND	17
PCB 1242	ND	17
PCB 1248	ND	17
PCB 1254	ND	17
PCB 1260	ND	17
% Surrogate #1 Recovery:	---%[1]	
% Surrogate #2 Recovery:	45%	

Date Extracted: 6/9/94

Date Analyzed: 6/14/94

[1]Low surrogate recovery due to interfering non-PCB peak.

All results are reported on a dry weight basis.

PQL = Practical Quantitation Limit
ND = Not Detected
Surrogate #1 = TCMX (2,4,5,6-tetrachloro-m-xylene)
Surrogate #2 = DCB (decachlorobiphenyl)

Reference: EPA Test Methods for Evaluating Solid Waste, SW-846, November 1986, 3rd Edition.

LABORATORY NO: 4416-94-5039

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POLYCHLORINATED BIPHENYL RESULTS
EPA METHOD 8080

(All values are in μg/Kg which is equal to parts-per-billion)

Client ID: QD1

TCT ID: 25160

Parameter:		**PQL**
PCB 1016	ND	11,000,000
PCB 1221	ND	11,000,000
PCB 1232	ND	11,000,000
PCB 1242	ND	11,000,000
PCB 1248	ND	11,000,000
PCB 1254	ND	11,000,000
PCB 1260	180,000,000[2]	11,000,000
% Surrogate #1 Recovery:	---%[1]	
% Surrogate #2 Recovery:	---%[1]	

Date Extracted: 6/9/94

Date Analyzed: 6/14/94

[1]Low surrogate (diluted out)
[2]Reported value not confirmed within 25% RPD

All results are reported on a dry weight basis.

PQL = Practical Quantitation Limit
ND = Not Detected
Surrogate #1 = TCMX (2,4,5,6-tetrachloro-m-xylene)
Surrogate #2 = DCB (decachlorobiphenyl)

Reference: EPA Test Methods for Evaluating Solid Waste, SW-846, November 1986, 3rd Edition.

LABORATORY NO: 4416-94-5039

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POLYCHLORINATED BIPHENYL RESULTS
EPA METHOD 8080

(All values are in μg/Kg which is equal to parts-per-billion)

Client ID: QD2

TCT ID: 25161

Parameter:		**PQL**
PCB 1016	ND	21,000,000
PCB 1221	ND	21,000,000
PCB 1232	ND	21,000,000
PCB 1242	ND	21,000,000
PCB 1248	ND	21,000,000
PCB 1254	ND	21,000,000
PCB 1260	260,000,000	21,000,000
% Surrogate #1 Recovery:	---%[1]	
% Surrogate #2 Recovery:	---%[1]	

Date Extracted: 6/9/94

Date Analyzed: 6/14/94

[1]Low surrogate (diluted out)

All results are reported on a dry weight basis.

PQL = Practical Quantitation Limit
ND = Not Detected
Surrogate #1 = TCMX (2,4,5,6-tetrachloro-m-xylene)
Surrogate #2 = DCB (decachlorobiphenyl)

Reference: EPA Test Methods for Evaluating Solid Waste, SW-846, November 1986, 3rd Edition.

LABORATORY NO: 4416-94-5039

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POLYCHLORINATED BIPHENYL RESULTS
EPA METHOD 8080

(All values are in μg/Kg which is equal to parts-per-billion)

Client ID: QD3

TCT ID: 25162

Parameter:		**PQL**
PCB 1016	ND	23,000,000
PCB 1221	ND	23,000,000
PCB 1232	ND	23,000,000
PCB 1242	ND	23,000,000
PCB 1248	ND	23,000,000
PCB 1254	ND	23,000,000
PCB 1260	230,000,000[2]	23,000,000
% Surrogate #1 Recovery:	---%[1]	
% Surrogate #2 Recovery:	---%[1]	

Date Extracted: 6/9/94

Date Analyzed: 6/14/94

[1]Low surrogate (diluted out)
[2]Reported value not confirmed

All results are reported on a dry weight basis.

PQL = Practical Quantitation Limit
ND = Not Detected
Surrogate #1 = TCMX (2,4,5,6-tetrachloro-m-xylene)
Surrogate #2 = DCB (decachlorobiphenyl)

Reference: EPA Test Methods for Evaluating Solid Waste, SW-846, November 1986, 3rd Edition.

LABORATORY NO: 4416-94-5039

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ORGANOCHLORINE PESTICIDE/PCB RESULTS
EPA METHOD 8080

(All values are in μg/kg which is equal to parts-per-billion)

Client ID:	**CCAL Ch. 25**	**CCAL Ch. 26**	
TCT ID:			
Compounds:			**PQL**
Aldrin	94%	97%	0.83
alpha-BHC	103%	113%	0.83
beta-BHC	90%	105%	0.83
delta-BHC	92%	102%	0.83
gamma-BHC (Lindane)	105%	107%	0.83
4,4'-DDD	100%	126%	1.7
4,4'-DDE	92%	112%	1.7
4,4'-DDT	109%	119%	1.7
Dieldrin	106%	110%	1.7
alpha-Endosulfan	95%	110%	0.83
beta-Endosulfan	100%	105%	1.7
Endosulfan Sulfate	106%	97%	1.7
Endrin	126%	122%	1.7
Endrin Aldehyde	90%	101%	1.7
Heptachlor	102%	105%	0.83
Heptachlor Epoxide	94%	96%	0.83
4,4'-Methoxychlor	101%	101%	8.3
gamma-Chlordane	96%	105%	17
alpha-Chlordane	90%	102%	17
PCB 1260	62%	70%	17
% Surrogate #1 Recovery:	112%	112%	
% Surrogate #2 Recovery:	84%	105%	
Date Extracted:			
Date Analyzed:	6/13/94	6/13/94	

PQL = Practical Quantitation Limit
ND = Not Detected

Surrogate #1 = TCMX (2,4,5,6-tetrachloro-m-xylene)
Surrogate #2 = DCB (decachlorobiphenyl)

Reference: EPA Test Methods for Evaluating Solid Waste, SW-846, November 1986, 3rd Edition.

LABORATORY NO: 4416-94-5039

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POLYCHLORINATED BIPHENYL RESULTS
EPA METHOD 8080

Client ID: CCAL

TCT ID:

Parameter:

PCB 1260	103% Recovery
% Surrogate #1 Recovery:	99% Recovery
% Surrogate #2 Recovery:	98% Recovery

Date Analyzed: 6/14/94

PQL = Practical Quantitation Limit
ND = Not Detected
Surrogate #1 = TCMX (2,4,5,6-tetrachloro-m-xylene)
Surrogate #2 = DCB (decachlorobiphenyl)

Reference: EPA Test Methods for Evaluating Solid Waste, SW-846, November 1986, 3rd Edition.

LABORATORY NO: 4416-94-5039

QUALITY CONTROL LIMITS

Parameter/Matrix	Control Limit
Chlorinated Pesticides/PCBs - EPA 8080	
Surrogates: TCMX	33-129
Spikes:	
Lindane	49-151
Heptachlor	39-141
Aldrin	43-133
Deieldrin	51-141
Endrin	61-133
4,4'-DDT	13-169
Arochlor 1254	61-127

LABORATORY NO: 4416-94-5039

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LEACH SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Matrix Spiked: QD1

HPN:	HSN:	QD1	QD1 MS	QD1 MSD
INST: VGTRIO2C	Filename:	4157K16	4160K13	4160K14
	Date Extracted:	06/05/94	06/08/94	06/08/94
	Date Analyzed:	06/06/94	06/09/94	06/09/94

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
Pyridine	330	0	170	52	35-130
1,4-Dichlorobenzene	330	0	160	48	36- 97
o-Cresol	330	0	240	73	27-123
m- and/or p-Cresol	650	0	440	68	35-130
Hexachloroethane	330	0	140	42	35-130
Nitrobenzene	330	0	270	82	35-130
Hexachloro-1,3-butadien	330	0	150	45	35-130
2,4,6-Trichlorophenol	330	0	300	91	35-130
2,4,5-Trichlorophenol	330	0	300	91	35-130
2,4-Dinitrotoluene	330	0	310	94	24- 96
Hexachlorobenzene	330	0	290	88	35-130
Pentachlorophenol	330	0	580	176 *	9 -103

(Continued)

3C

LEACH SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY (Continued)

Matrix Spiked: QD1

HPN:	HSN:	QD1	QD1 MS	QD1 MSD
INST: VGTRIO2C	Filename:	4157K16	4160K13	4160K14
	Date Extracted:	06/05/94	06/08/94	06/08/94
	Date Analyzed:	06/06/94	06/09/94	06/09/94

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Pyridine	330	170	52	1	35	35-130
1,4-Dichlorobenzene	330	170	52	7	28	36- 97
o-Cresol	330	240	73	0	40	27-123
m- and/or p-Cresol	650	430	66	3	35	35-130
Hexachloroethane	330	160	48	12	35	35-130
Nitrobenzene	330	280	85	4	35	35-130
Hexachloro-1,3-butadien	330	160	48	5	35	35-130
2,4,6-Trichlorophenol	330	290	88	3	35	35-130
2,4,5-Trichlorophenol	330	320	97	6	35	35-130
2,4-Dinitrotoluene	330	310	94	0	38	24- 96
Hexachlorobenzene	330	310	94	7	35	35-130
Pentachlorophenol	330	740	224 *	24	50	9 -103

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

RPD: 0 out of 12 outside limits
Spike Recovery: 2 out of 24 outside limits

COMMENTS: _____

EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

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Client ID:	BLANK	Lab ID (HSN):	BLANK
Matrix:	LEACH	Filename:	4160K08
Date Sampled:		Sample Size:	200 mL
Date Received:		Extract Vol.:	1000 uL
Date Extracted:	06/08/94	Dil. Factor:	1
Date Analyzed:	06/09/94		
Date Leached:			

Compounds:	ug/L (PPB)	EQL
Pyridine	50 U	50
1,4-Dichlorobenzene	50 U	50
o-Cresol	50 U	50
m- and/or p-Cresol	50 U	50
Hexachloroethane	50 U	50
Nitrobenzene	50 U	50
Hexachloro-1,3-butadiene	50 U	50
2,4,6-Trichlorophenol	50 U	50
2,4,5-Trichlorophenol	130 U	130
2,4-Dinitrotoluene	50 U	50
Hexachlorobenzene	50 U	50
Pentachlorophenol	130 U	130

Surrogate Recovery		QC LIMITS
2-Fluorophenol	59%	21-110%
Phenol-d5	36%	10-110%
2-Chlorophenol-d4	88%	33-110%
1,2-Dichlorobenzene-d4	54%	16-110%
Nitrobenzene-d5	84%	35-114%
2-Fluorobiphenyl	69%	43-116%
2,4,6-Tribromophenol	74%	10-123%
Terphenyl-d14	101%	33-141%

TCLP = Toxicity Characteristic Leaching Procedure
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank

Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

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EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

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Client ID:	LAB SPIKE	Lab ID (HSN):	LAB SPIKE
Matrix:	LEACH	Filename:	4160K11
Date Sampled:		Sample Size:	200 mL
Date Received:		Extract Vol.:	1000 uL
Date Extracted:	06/08/94	Dil. Factor:	1
Date Analyzed:	06/09/94		
Date Leached:			

Compounds:	ug/L (PPB)	EQL
Pyridine	180	50
1,4-Dichlorobenzene	160	50
o-Cresol	250	50
m- and/or p-Cresol	460	50
Hexachloroethane	140	50
Nitrobenzene	300	50
Hexachloro-1,3-butadiene	160	50
2,4,6-Trichlorophenol	270	50
2,4,5-Trichlorophenol	270	130
2,4-Dinitrotoluene	270	50
Hexachlorobenzene	320	50
Pentachlorophenol	460 E	130

Surrogate Recovery		QC LIMITS
2-Fluorophenol	55%	21-110%
Phenol-d5	36%	10-110%
2-Chlorophenol-d4	84%	33-110%
1,2-Dichlorobenzene-d4	55%	16-110%
Nitrobenzene-d5	85%	35-114%
2-Fluorobiphenyl	59%	43-116%
2,4,6-Tribromophenol	86%	10-123%
Terphenyl-d14	102%	33-141%

TCLP = Toxicity Characteristic Leaching Procedure
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank

Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

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EPA METHOD 8270

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TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID:	QD1 MS	Lab ID (HSN):	QD1 MS
Matrix:	LEACH	Filename:	4160K13
Date Sampled:	05/27/94	Sample Size:	200 mL
Date Received:	05/31/94	Extract Vol.:	1000 uL
Date Extracted:	06/08/94	Dil. Factor:	1
Date Analyzed:	06/09/94		
Date Leached:	06/02/94		

Compounds:	ug/L (PPB)	EQL
Pyridine	170	50
1,4-Dichlorobenzene	160	50
o-Cresol	240	50
m- and/or p-Cresol	440	50
Hexachloroethane	140	50
Nitrobenzene	270	50
Hexachloro-1,3-butadiene	150	50
2,4,6-Trichlorophenol	300	50
2,4,5-Trichlorophenol	300	130
2,4-Dinitrotoluene	310	50
Hexachlorobenzene	290	50
Pentachlorophenol	580 E	130

Surrogate Recovery		QC LIMITS
2-Fluorophenol	50%	21-110%
Phenol-d5	33%	10-110%
2-Chlorophenol-d4	82%	33-110%
1,2-Dichlorobenzene-d4	51%	16-110%
Nitrobenzene-d5	82%	35-114%
2-Fluorobiphenyl	65%	43-116%
2,4,6-Tribromophenol	113%E	10-123%
Terphenyl-d14	100%	33-141%

TCLP = Toxicity Characteristic Leaching Procedure
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank

Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN:

EPA METHOD 8270

Huntingdon

TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID:	QD1 MSD	Lab ID (HSN):	QD1 MSD
Matrix:	LEACH	Filename:	4160K14
Date Sampled:	05/27/94	Sample Size:	200 mL
Date Received:	05/31/94	Extract Vol.:	1000 uL
Date Extracted:	06/08/94	Dil. Factor:	1
Date Analyzed:	06/09/94		
Date Leached:	06/02/94		

Compounds:	ug/L (PPB)	EQL
Pyridine	170	50
1,4-Dichlorobenzene	170	50
o-Cresol	240	50
m- and/or p-Cresol	430	50
Hexachloroethane	160	50
Nitrobenzene	280	50
Hexachloro-1,3-butadiene	160	50
2,4,6-Trichlorophenol	290	50
2,4,5-Trichlorophenol	320	130
2,4-Dinitrotoluene	310	50
Hexachlorobenzene	310	50
Pentachlorophenol	740 E	130

Surrogate Recovery		QC LIMITS
2-Fluorophenol	50%	21-110%
Phenol-d5	33%	10-110%
2-Chlorophenol-d4	79%	33-110%
1,2-Dichlorobenzene-d4	53%	16-110%
Nitrobenzene-d5	79%	35-114%
2-Fluorobiphenyl	61%	43-116%
2,4,6-Tribromophenol	114%E	10-123%
Terphenyl-d14	111%	33-141%

TCLP = Toxicity Characteristic Leaching Procedure
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank

Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN:

EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	BLANK	Lab ID (HSN):	BLANK
Matrix:	LEACH	Filename:	4157K10
Date Sampled:		Sample Size:	200 mL
Date Received:		Extract Vol.:	1000 uL
Date Extracted:	06/05/94	Dil. Factor:	1
Date Analyzed:	06/06/94		
Date Leached:			

Compounds:	ug/L (PPB)	EQL
Pyridine	50 U	50
1,4-Dichlorobenzene	50 U	50
o-Cresol	50 U	50
m- and/or p-Cresol	50 U	50
Hexachloroethane	50 U	50
Nitrobenzene	50 U	50
Hexachloro-1,3-butadiene	50 U	50
2,4,6-Trichlorophenol	50 U	50
2,4,5-Trichlorophenol	130 U	130
2,4-Dinitrotoluene	50 U	50
Hexachlorobenzene	50 U	50
Pentachlorophenol	130 U	130

Surrogate Recovery		QC LIMITS
2-Fluorophenol	54%	21-110%
Phenol-d5	33%	10-110%
2-Chlorophenol-d4	83%	33-110%
Nitrobenzene-d5	96%	35-114%
2-Fluorobiphenyl	69%	43-116%
2,4,6-Tribromophenol	82%	10-123%
Terphenyl-d14	109%	33-141%

TCLP = Toxicity Characteristic Leaching Procedure
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank

Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN:

EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	LCS	Lab ID (HSN):	LCS
Matrix:	LEACH	Filename:	4157K13
Date Sampled:		Sample Size:	200 mL
Date Received:		Extract Vol.:	1000 uL
Date Extracted:	06/05/94	Dil. Factor:	1
Date Analyzed:	06/06/94		
Date Leached:			

Compounds:	ug/L (PPB)	EQL
Pyridine	190	50
1,4-Dichlorobenzene	170	50
o-Cresol	230	50
m- and/or p-Cresol	430	50
Hexachloroethane	140	50
Nitrobenzene	290	50
Hexachloro-1,3-butadiene	160	50
2,4,6-Trichlorophenol	290	50
2,4,5-Trichlorophenol	300	130
2,4-Dinitrotoluene	290	50
Hexachlorobenzene	300	50
Pentachlorophenol	370	130

Surrogate Recovery		QC LIMITS
2-Fluorophenol	46%	21-110%
Phenol-d5	32%	10-110%
2-Chlorophenol-d4	75%	33-110%
Nitrobenzene-d5	80%	35-114%
2-Fluorobiphenyl	70%	43-116%
2,4,6-Tribromophenol	94%	10-123%
Terphenyl-d14	107%	33-141%

TCLP = Toxicity Characteristic Leaching Procedure
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank

Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN:

EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	LCSD	Lab ID (HSN):	LCSD
Matrix:	LEACH	Filename:	4157K14
Date Sampled:		Sample Size:	200 mL
Date Received:		Extract Vol.:	1000 uL
Date Extracted:	06/05/94	Dil. Factor:	1
Date Analyzed:	06/06/94		
Date Leached:			

Compounds:	ug/L (PPB)	EQL
Pyridine	190	50
1,4-Dichlorobenzene	190	50
o-Cresol	250	50
m- and/or p-Cresol	450	50
Hexachloroethane	160	50
Nitrobenzene	310	50
Hexachloro-1,3-butadiene	180	50
2,4,6-Trichlorophenol	300	50
2,4,5-Trichlorophenol	300	130
2,4-Dinitrotoluene	300	50
Hexachlorobenzene	310	50
Pentachlorophenol	350	130

Surrogate Recovery		QC LIMITS
2-Fluorophenol	51%	21-110%
Phenol-d5	34%	10-110%
2-Chlorophenol-d4	75%	33-110%
Nitrobenzene-d5	89%	35-114%
2-Fluorobiphenyl	69%	43-116%
2,4,6-Tribromophenol	93%	10-123%
Terphenyl-d14	114%	33-141%

TCLP = Toxicity Characteristic Leaching Procedure
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank

Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN:

EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	QD1	Lab ID (HSN):	QD1
Matrix:	LEACH	Filename:	4157K16
Date Sampled:	05/27/94	Sample Size:	200 mL
Date Received:	05/31/94	Extract Vol.:	1000 uL
Date Extracted:	06/05/94	Dil. Factor:	1
Date Analyzed:	06/06/94		
Date Leached:	06/02/94		

Compounds:	ug/L (PPB)	EQL
Pyridine	50 U	50
1,4-Dichlorobenzene	50 U	50
o-Cresol	50 U	50
m- and/or p-Cresol	50 U	50
Hexachloroethane	50 U	50
Nitrobenzene	50 U	50
Hexachloro-1,3-butadiene	50 U	50
2,4,6-Trichlorophenol	50 U	50
2,4,5-Trichlorophenol	130 U	130
2,4-Dinitrotoluene	50 U	50
Hexachlorobenzene	50 U	50
Pentachlorophenol	130 U	130

Surrogate Recovery		QC LIMITS
2-Fluorophenol	45%	21-110%
Phenol-d5	30%	10-110%
2-Chlorophenol-d4	72%	33-110%
Nitrobenzene-d5	86%	35-114%
2-Fluorobiphenyl	74%	43-116%
2,4,6-Tribromophenol	88%	10-123%
Terphenyl-d14	101%	33-141%

TCLP = Toxicity Characteristic Leaching Procedure
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank
Y = Associated internal standard failed method criteria

Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN:

EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	QD2	Lab ID (HSN):	QD2
Matrix:	LEACH	Filename:	4157K17
Date Sampled:	05/27/94	Sample Size:	200 mL
Date Received:	05/31/94	Extract Vol.:	1000 uL
Date Extracted:	06/05/94	Dil. Factor:	1
Date Analyzed:	06/06/94		
Date Leached:	06/02/94		

Compounds:	ug/L (PPB)	EQL
Pyridine	50 U	50
1,4-Dichlorobenzene	50 U	50
o-Cresol	50 U	50
m- and/or p-Cresol	50 U	50
Hexachloroethane	50 U	50
Nitrobenzene	50 U	50
Hexachloro-1,3-butadiene	50 U	50
2,4,6-Trichlorophenol	6.3 J	50
2,4,5-Trichlorophenol	130 U	130
2,4-Dinitrotoluene	50 U	50
Hexachlorobenzene	50 U	50
Pentachlorophenol	16 J	130

Surrogate Recovery		QC LIMITS
2-Fluorophenol	52%	21-110%
Phenol-d5	36%	10-110%
2-Chlorophenol-d4	79%	33-110%
Nitrobenzene-d5	92%	35-114%
2-Fluorobiphenyl	74%	43-116%
2,4,6-Tribromophenol	103%	10-123%
Terphenyl-d14	130%	33-141%

TCLP = Toxicity Characteristic Leaching Procedure
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank
Y = Associated internal standard failed method criteria

Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN:

EPA METHOD 8270

Huntingdon

TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID:	QD3	Lab ID (HSN):	QD3
Matrix:	LEACH	Filename:	4157K18
Date Sampled:	05/27/94	Sample Size:	200 mL
Date Received:	05/31/94	Extract Vol.:	1000 uL
Date Extracted:	06/05/94	Dil. Factor:	1
Date Analyzed:	06/06/94		
Date Leached:	06/02/94		

Compounds:	ug/L (PPB)	EQL
Pyridine	50 U	50
1,4-Dichlorobenzene	50 U	50
o-Cresol	50 U	50
m- and/or p-Cresol	50 U	50
Hexachloroethane	50 U	50
Nitrobenzene	50 U	50
Hexachloro-1,3-butadiene	50 U	50
2,4,6-Trichlorophenol	50 U	50
2,4,5-Trichlorophenol	130 U	130
2,4-Dinitrotoluene	50 U	50
Hexachlorobenzene	50 U	50
Pentachlorophenol	130 U	130

Surrogate Recovery		QC LIMITS
2-Fluorophenol	52%	21-110%
Phenol-d5	36%	10-110%
2-Chlorophenol-d4	75%	33-110%
Nitrobenzene-d5	90%	35-114%
2-Fluorobiphenyl	71%	43-116%
2,4,6-Tribromophenol	101%	10-123%
Terphenyl-d14	138%	33-141%

TCLP = Toxicity Characteristic Leaching Procedure
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank
Y = Associated internal standard failed method criteria

Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN:

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	LAB. BLANK	Lab ID (HSN):	
Matrix:	SOIL	Filename:	4164P05
Date Sampled:		Sample Size:	30 grams
Date Received:		Extract Vol.:	500 uL
Date Extracted:	06/10/94	Dil. Factor:	1
Date Analyzed:	06/13/94	GPC Factor:	2
		% Moisture:	0

Compounds:	ug/Kg (PPB)	EQL
Phenol	330 U	330
bis(2-Chloroethyl)ether	330 U	330
2-Chlorophenol	330 U	330
1,3-Dichlorobenzene	330 U	330
1,4-Dichlorobenzene	330 U	330
1,2-Dichlorobenzene	330 U	330
2-Methylphenol	330 U	330
2,2'-oxybis(1-Chloropropane)	330 U	330
4-Methylphenol	330 U	330
N-Nitroso-di-n-propylamine	330 U	330
Hexachloroethane	330 U	330
Nitrobenzene	330 U	330
Isophorone	330 U	330
2-Nitrophenol	330 U	330
2,4-Dimethylphenol	330 U	330
bis(2-Chloroethoxy)methane	330 U	330
2,4-Dichlorophenol	330 U	330
1,2,4-Trichlorobenzene	330 U	330
Naphthalene	330 U	330
4-Chloroaniline	330 U	330
Hexachlorobutadiene	330 U	330
4-Chloro-3-methylphenol	330 U	330
2-Methylnaphthalene	330 U	330
Hexachlorocyclopentadiene	330 U	330
2,4,6-Trichlorophenol	330 U	330
2,4,5-Trichlorophenol	830 U	830
2-Chloronaphthalene	330 U	330
2-Nitroaniline	830 U	830
Dimethylphthalate	330 U	330
Acenaphthylene	330 U	330
2,6-Dinitrotoluene	330 U	330
3-Nitroaniline	830 U	830
Acenaphthene	330 U	330
2,4-Dinitrophenol	830 U	830
4-Nitrophenol	830 U	830
Dibenzofuran	330 U	330
2,4-Dinitrotoluene	330 U	330
Diethylphthalate	330 U	330
4-Chlorophenyl-phenylether	330 U	330
Fluorene	330 U	330
4-Nitroaniline	830 U	830
4,6-Dinitro-2-methylphenol	830 U	830

(continued)

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID: LAB. BLANK Lab ID (HSN):
Matrix: SOIL Filename: 4164P05

Compounds:	ug/Kg (PPB)	EQL
N-Nitrosodiphenylamine	330 U	330
4-Bromophenyl-phenylether	330 U	330
Hexachlorobenzene	330 U	330
Pentachlorophenol	830 U	830
Phenanthrene	330 U	330
Anthracene	330 U	330
Carbazole	330 U	330
Di-n-butylphthalate	330 U	330
Fluoranthene	330 U	330
Pyrene	330 U	330
Butylbenzylphthalate	330 U	330
3,3'-Dichlorobenzidine	330 U	330
Benz(a)anthracene	330 U	330
Chrysene	330 U	330
bis(2-Ethylhexyl)phthalate	330 U	330
Di-n-octylphthalate	330 U	330
Benzo(b)fluoranthene	330 U	330
Benzo(k)fluoranthene	330 U	330
Benzo(a)pyrene	330 U	330
Indeno(1,2,3-cd)pyrene	330 U	330
Dibenz(a,h)anthracene	330 U	330
Benzo(g,h,i)perylene	330 U	330

Surrogate Recovery		QC LIMITS
2-Fluorophenol	80%	25-121%
Phenol-d5	80%	24-113%
2-Chlorophenol-d4	80%	20-130%
1,2-Dichlorobenzene-d4	77%	20-130%
Nitrobenzene-d5	74%	23-120%
2-Fluorobiphenyl	77%	30-115%
2,4,6-Tribromophenol	80%	19-122%
Terphenyl-d14	91%	18-137%

TCL = Target Coumpound List EPA Contract Laboratory Program (OLM01)
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank

Note: All results are reported on a dry weight basis.
Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN:

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	QD1	Lab ID (HSN):	25160MSD RI
Matrix:	SOIL	Filename:	4164P09
Date Sampled:	05/27/94	Sample Size:	1 grams
Date Received:	05/31/94	Extract Vol.:	500 uL
Date Extracted:	06/09/94	Dil. Factor:	10
Date Analyzed:	06/13/94	GPC Factor:	2
		% Moisture:	6.4

Compounds:	ug/Kg (PPB)		EQL
Phenol	69000	JD	110000
bis(2-Chloroethyl)ether	110000	UD	110000
2-Chlorophenol	67000	JD	110000
1,3-Dichlorobenzene	110000	UD	110000
1,4-Dichlorobenzene	49000	JD	110000
1,2-Dichlorobenzene	110000	UD	110000
2-Methylphenol	110000	UD	110000
2,2'-oxybis(1-Chloropropane)	110000	UD	110000
4-Methylphenol	110000	UD	110000
N-Nitroso-di-n-propylamine	42000	JD	110000
Hexachloroethane	110000	UD	110000
Nitrobenzene	110000	UD	110000
Isophorone	110000	UD	110000
2-Nitrophenol	110000	UD	110000
2,4-Dimethylphenol	110000	UD	110000
bis(2-Chloroethoxy)methane	110000	UD	110000
2,4-Dichlorophenol	110000	UD	110000
1,2,4-Trichlorobenzene	51000	JD	110000
Naphthalene	110000	UD	110000
4-Chloroaniline	110000	UD	110000
Hexachlorobutadiene	110000	UD	110000
4-Chloro-3-methylphenol	67000	JD	110000
2-Methylnaphthalene	110000	UD	110000
Hexachlorocyclopentadiene	110000	UD	110000
2,4,6-Trichlorophenol	110000	UD	110000
2,4,5-Trichlorophenol	270000	UD	270000
2-Chloronaphthalene	110000	UD	110000
2-Nitroaniline	270000	UD	270000
Dimethylphthalate	110000	UD	110000
Acenaphthylene	110000	UD	110000
2,6-Dinitrotoluene	110000	UD	110000
3-Nitroaniline	270000	UD	270000
Acenaphthene	44000	JD	110000
2,4-Dinitrophenol	270000	UD	270000
4-Nitrophenol	24000	JD	270000
Dibenzofuran	110000	UD	110000
2,4-Dinitrotoluene	40000	JD	110000
Diethylphthalate	110000	UD	110000
4-Chlorophenyl-phenylether	110000	UD	110000
Fluorene	110000	UD	110000
4-Nitroaniline	270000	UD	270000
4,6-Dinitro-2-methylphenol	270000	UD	270000

(continued)

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID: QD1 Lab ID (HSN): 25160MSD RI
Matrix: SOIL Filename: 4164P09

Compounds:	ug/Kg (PPB)			EQL
N-Nitrosodiphenylamine	110000	UD		110000
4-Bromophenyl-phenylether	110000	UD		110000
Hexachlorobenzene	110000	UD		110000
Pentachlorophenol	20000	JD		270000
Phenanthrene	110000	UD		110000
Anthracene	110000	UD		110000
Carbazole	110000	UD		110000
Di-n-butylphthalate	110000	UD		110000
Fluoranthene	110000	UD		110000
Pyrene	87000	JD	Y	110000
Butylbenzylphthalate	110000	UD	Y	110000
3,3'-Dichlorobenzidine	110000	UD	Y	110000
Benz(a)anthracene	110000	UD	Y	110000
Chrysene	110000	UD	Y	110000
bis(2-Ethylhexyl)phthalate	110000	UD	Y	110000
Di-n-octylphthalate	110000	UD	Y	110000
Benzo(b)fluoranthene	110000	UD	Y	110000
Benzo(k)fluoranthene	110000	UD	Y	110000
Benzo(a)pyrene	110000	UD	Y	110000
Indeno(1,2,3-cd)pyrene	110000	UD	Y	110000
Dibenz(a,h)anthracene	110000	UD	Y	110000
Benzo(g,h,i)perylene	110000	UD	Y	110000

Surrogate Recovery				QC LIMITS
2-Fluorophenol	70%	JD		25-121%
Phenol-d5	89%	JD		24-113%
2-Chlorophenol-d4	85%	JD		20-130%
1,2-Dichlorobenzene-d4	91%	JD		20-130%
Nitrobenzene-d5	87%	JD		23-120%
2-Fluorobiphenyl	111%	JD		30-115%
2,4,6-Tribromophenol	50%	JD		19-122%
Terphenyl-d14	161%	JD	Y	18-137%

TCL = Target Coumpound List EPA Contract Laboratory Program (OLM01)
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank
D = Analysis at a secondary Dilution factor
Y = Associated internal standard failed method criteria
Note: All results are reported on a dry weight basis.
Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN: 5039

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	QD1	Lab ID (HSN):	25160RI
Matrix:	SOIL	Filename:	4164P10
Date Sampled:	05/27/94	Sample Size:	1 grams
Date Received:	05/31/94	Extract Vol.:	500 uL
Date Extracted:	06/09/94	Dil. Factor:	10
Date Analyzed:	06/13/94	GPC Factor:	2
		% Moisture:	6.4

Compounds:	ug/Kg (PPB)		EQL
Phenol	110000	UD	110000
bis(2-Chloroethyl)ether	110000	UD	110000
2-Chlorophenol	110000	UD	110000
1,3-Dichlorobenzene	110000	UD	110000
1,4-Dichlorobenzene	110000	UD	110000
1,2-Dichlorobenzene	110000	UD	110000
2-Methylphenol	110000	UD	110000
2,2'-oxybis(1-Chloropropane)	110000	UD	110000
4-Methylphenol	110000	UD	110000
N-Nitroso-di-n-propylamine	110000	UD	110000
Hexachloroethane	110000	UD	110000
Nitrobenzene	110000	UD	110000
Isophorone	110000	UD	110000
2-Nitrophenol	110000	UD	110000
2,4-Dimethylphenol	110000	UD	110000
bis(2-Chloroethoxy)methane	110000	UD	110000
2,4-Dichlorophenol	110000	UD	110000
1,2,4-Trichlorobenzene	110000	UD	110000
Naphthalene	110000	UD	110000
4-Chloroaniline	110000	UD	110000
Hexachlorobutadiene	110000	UD	110000
4-Chloro-3-methylphenol	110000	UD	110000
2-Methylnaphthalene	110000	UD	110000
Hexachlorocyclopentadiene	110000	UD	110000
2,4,6-Trichlorophenol	110000	UD	110000
2,4,5-Trichlorophenol	270000	UD	270000
2-Chloronaphthalene	110000	UD	110000
2-Nitroaniline	270000	UD	270000
Dimethylphthalate	110000	UD	110000
Acenaphthylene	110000	UD	110000
2,6-Dinitrotoluene	110000	UD	110000
3-Nitroaniline	270000	UD	270000
Acenaphthene	110000	UD	110000
2,4-Dinitrophenol	270000	UD	270000
4-Nitrophenol	270000	UD	270000
Dibenzofuran	110000	UD	110000
2,4-Dinitrotoluene	110000	UD	110000
Diethylphthalate	110000	UD	110000
4-Chlorophenyl-phenylether	110000	UD	110000
Fluorene	110000	UD	110000
4-Nitroaniline	270000	UD	270000
4,6-Dinitro-2-methylphenol	270000	UD	270000

(continued)

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID: QD1 Lab ID (HSN): 25160RI
Matrix: SOIL Filename: 4164P10

Compounds:	ug/Kg (PPB)			EQL
N-Nitrosodiphenylamine	110000	UD		110000
4-Bromophenyl-phenylether	110000	UD		110000
Hexachlorobenzene	110000	UD		110000
Pentachlorophenol	270000	UD		270000
Phenanthrene	110000	UD		110000
Anthracene	110000	UD		110000
Carbazole	110000	UD		110000
Di-n-butylphthalate	110000	UD		110000
Fluoranthene	110000	UD		110000
Pyrene	110000	UD	Y	110000
Butylbenzylphthalate	110000	UD	Y	110000
3,3'-Dichlorobenzidine	110000	UD	Y	110000
Benz(a)anthracene	110000	UD	Y	110000
Chrysene	110000	UD	Y	110000
bis(2-Ethylhexyl)phthalate	110000	UD	Y	110000
Di-n-octylphthalate	110000	UD	Y	110000
Benzo(b)fluoranthene	110000	UD	Y	110000
Benzo(k)fluoranthene	110000	UD	Y	110000
Benzo(a)pyrene	110000	UD	Y	110000
Indeno(1,2,3-cd)pyrene	110000	UD	Y	110000
Dibenz(a,h)anthracene	110000	UD	Y	110000
Benzo(g,h,i)perylene	110000	UD	Y	110000

Surrogate Recovery			QC LIMITS
2-Fluorophenol	41%JD		25-121%
Phenol-d5	63%JD		24-113%
2-Chlorophenol-d4	59%JD		20-130%
1,2-Dichlorobenzene-d4	68%JD		20-130%
Nitrobenzene-d5	72%JD		23-120%
2-Fluorobiphenyl	101%JD		30-115%
2,4,6-Tribromophenol	25%JD		19-122%
Terphenyl-d14	142%JD	Y	18-137%

TCL = Target Coumpound List EPA Contract Laboratory Program (OLM01)
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank
D = Analysis at a secondary Dilution factor
Y = Associated internal standard failed method criteria
Note: All results are reported on a dry weight basis.
Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN: 5039

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	QD2	Lab ID (HSN):	25161RI
Matrix:	SOIL	Filename:	4164P11
Date Sampled:	05/27/94	Sample Size:	1 grams
Date Received:	05/31/94	Extract Vol.:	500 uL
Date Extracted:	06/09/94	Dil. Factor:	10
Date Analyzed:	06/13/94	GPC Factor:	2
		% Moisture:	4.2

Compounds:	ug/Kg (PPB)		EQL
Phenol	100000	UD	100000
bis(2-Chloroethyl)ether	100000	UD	100000
2-Chlorophenol	100000	UD	100000
1,3-Dichlorobenzene	100000	UD	100000
1,4-Dichlorobenzene	100000	UD	100000
1,2-Dichlorobenzene	100000	UD	100000
2-Methylphenol	100000	UD	100000
2,2'-oxybis(1-Chloropropane)	100000	UD	100000
4-Methylphenol	100000	UD	100000
N-Nitroso-di-n-propylamine	100000	UD	100000
Hexachloroethane	100000	UD	100000
Nitrobenzene	100000	UD	100000
Isophorone	100000	UD	100000
2-Nitrophenol	100000	UD	100000
2,4-Dimethylphenol	100000	UD	100000
bis(2-Chloroethoxy)methane	100000	UD	100000
2,4-Dichlorophenol	100000	UD	100000
1,2,4-Trichlorobenzene	100000	UD	100000
Naphthalene	100000	UD	100000
4-Chloroaniline	100000	UD	100000
Hexachlorobutadiene	100000	UD	100000
4-Chloro-3-methylphenol	100000	UD	100000
2-Methylnaphthalene	100000	UD	100000
Hexachlorocyclopentadiene	100000	UD	100000
2,4,6-Trichlorophenol	100000	UD	100000
2,4,5-Trichlorophenol	260000	UD	260000
2-Chloronaphthalene	100000	UD	100000
2-Nitroaniline	260000	UD	260000
Dimethylphthalate	100000	UD	100000
Acenaphthylene	100000	UD	100000
2,6-Dinitrotoluene	100000	UD	100000
3-Nitroaniline	260000	UD	260000
Acenaphthene	100000	UD	100000
2,4-Dinitrophenol	260000	UD	260000
4-Nitrophenol	260000	UD	260000
Dibenzofuran	100000	UD	100000
2,4-Dinitrotoluene	100000	UD	100000
Diethylphthalate	100000	UD	100000
4-Chlorophenyl-phenylether	100000	UD	100000
Fluorene	100000	UD	100000
4-Nitroaniline	260000	UD	260000
4,6-Dinitro-2-methylphenol	260000	UD	260000

(continued)

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID: QD2 Lab ID (HSN): 25161RI
Matrix: SOIL Filename: 4164P11

Compounds:	ug/Kg (PPB)			EQL
N-Nitrosodiphenylamine	100000	UD		100000
4-Bromophenyl-phenylether	100000	UD		100000
Hexachlorobenzene	100000	UD		100000
Pentachlorophenol	260000	UD		260000
Phenanthrene	100000	UD		100000
Anthracene	100000	UD		100000
Carbazole	100000	UD		100000
Di-n-butylphthalate	100000	UD		100000
Fluoranthene	100000	UD		100000
Pyrene	100000	UD	Y	100000
Butylbenzylphthalate	100000	UD	Y	100000
3,3'-Dichlorobenzidine	100000	UD	Y	100000
Benz(a)anthracene	100000	UD	Y	100000
Chrysene	100000	UD	Y	100000
bis(2-Ethylhexyl)phthalate	100000	UD	Y	100000
Di-n-octylphthalate	100000	UD	Y	100000
Benzo(b)fluoranthene	100000	UD	Y	100000
Benzo(k)fluoranthene	100000	UD	Y	100000
Benzo(a)pyrene	100000	UD	Y	100000
Indeno(1,2,3-cd)pyrene	100000	UD	Y	100000
Dibenz(a,h)anthracene	100000	UD	Y	100000
Benzo(g,h,i)perylene	100000	UD	Y	100000

Surrogate Recovery			QC LIMITS
2-Fluorophenol	63%JD		25-121%
Phenol-d5	70%JD		24-113%
2-Chlorophenol-d4	69%JD		20-130%
1,2-Dichlorobenzene-d4	69%JD		20-130%
Nitrobenzene-d5	80%JD		23-120%
2-Fluorobiphenyl	103%JD		30-115%
2,4,6-Tribromophenol	79%JD		19-122%
Terphenyl-d14	154%JD	Y	18-137%

TCL = Target Coumpound List EPA Contract Laboratory Program (OLM01)
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank
D = Analysis at a secondary Dilution factor
Y = Associated internal standard failed method criteria
Note: All results are reported on a dry weight basis.
Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	QD3	Lab ID (HSN):	25162RI
Matrix:	SOIL	Filename:	4164P12
Date Sampled:	05/27/94	Sample Size:	1 grams
Date Received:	05/31/94	Extract Vol.:	500 uL
Date Extracted:	06/09/94	Dil. Factor:	10
Date Analyzed:	06/13/94	GPC Factor:	2
		% Moisture:	10.7

Compounds:	ug/Kg (PPB)		EQL
Phenol	110000	UD	110000
bis(2-Chloroethyl)ether	110000	UD	110000
2-Chlorophenol	110000	UD	110000
1,3-Dichlorobenzene	110000	UD	110000
1,4-Dichlorobenzene	110000	UD	110000
1,2-Dichlorobenzene	110000	UD	110000
2-Methylphenol	110000	UD	110000
2,2'-oxybis(1-Chloropropane)	110000	UD	110000
4-Methylphenol	110000	UD	110000
N-Nitroso-di-n-propylamine	110000	UD	110000
Hexachloroethane	110000	UD	110000
Nitrobenzene	110000	UD	110000
Isophorone	110000	UD	110000
2-Nitrophenol	110000	UD	110000
2,4-Dimethylphenol	110000	UD	110000
bis(2-Chloroethoxy)methane	110000	UD	110000
2,4-Dichlorophenol	110000	UD	110000
1,2,4-Trichlorobenzene	110000	UD	110000
Naphthalene	110000	UD	110000
4-Chloroaniline	110000	UD	110000
Hexachlorobutadiene	110000	UD	110000
4-Chloro-3-methylphenol	110000	UD	110000
2-Methylnaphthalene	110000	UD	110000
Hexachlorocyclopentadiene	110000	UD	110000
2,4,6-Trichlorophenol	110000	UD	110000
2,4,5-Trichlorophenol	280000	UD	280000
2-Chloronaphthalene	110000	UD	110000
2-Nitroaniline	280000	UD	280000
Dimethylphthalate	110000	UD	110000
Acenaphthylene	110000	UD	110000
2,6-Dinitrotoluene	110000	UD	110000
3-Nitroaniline	280000	UD	280000
Acenaphthene	110000	UD	110000
2,4-Dinitrophenol	280000	UD	280000
4-Nitrophenol	280000	UD	280000
Dibenzofuran	110000	UD	110000
2,4-Dinitrotoluene	110000	UD	110000
Diethylphthalate	110000	UD	110000
4-Chlorophenyl-phenylether	110000	UD	110000
Fluorene	110000	UD	110000
4-Nitroaniline	280000	UD	280000
4,6-Dinitro-2-methylphenol	280000	UD	280000

(continued)

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID: QD3 Lab ID (HSN): 25162RI
Matrix: SOIL Filename: 4164P12

Compounds:	ug/Kg (PPB)			EQL
N-Nitrosodiphenylamine	110000	UD		110000
4-Bromophenyl-phenylether	110000	UD		110000
Hexachlorobenzene	110000	UD		110000
Pentachlorophenol	280000	UD		280000
Phenanthrene	110000	UD		110000
Anthracene	110000	UD		110000
Carbazole	110000	UD		110000
Di-n-butylphthalate	110000	UD		110000
Fluoranthene	110000	UD		110000
Pyrene	110000	UD	Y	110000
Butylbenzylphthalate	110000	UD	Y	110000
3,3'-Dichlorobenzidine	110000	UD	Y	110000
Benz(a)anthracene	110000	UD	Y	110000
Chrysene	110000	UD	Y	110000
bis(2-Ethylhexyl)phthalate	110000	UD	Y	110000
Di-n-octylphthalate	110000	UD	Y	110000
Benzo(b)fluoranthene	110000	UD	Y	110000
Benzo(k)fluoranthene	110000	UD	Y	110000
Benzo(a)pyrene	110000	UD	Y	110000
Indeno(1,2,3-cd)pyrene	110000	UD	Y	110000
Dibenz(a,h)anthracene	110000	UD	Y	110000
Benzo(g,h,i)perylene	110000	UD	Y	110000

Surrogate Recovery			QC LIMITS
2-Fluorophenol	43%JD		25-121%
Phenol-d5	74%JD		24-113%
2-Chlorophenol-d4	61%JD		20-130%
1,2-Dichlorobenzene-d4	76%JD		20-130%
Nitrobenzene-d5	81%JD		23-120%
2-Fluorobiphenyl	103%JD		30-115%
2,4,6-Tribromophenol	21%JD		19-122%
Terphenyl-d14	158%JD	Y	18-137%

TCL = Target Coumpound List EPA Contract Laboratory Program (OLM01)
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank
D = Analysis at a secondary Dilution factor
Y = Associated internal standard failed method criteria
Note: All results are reported on a dry weight basis.
Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

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3C

Huntingdon

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Matrix Spiked: QD1

HPN: 5039	HSN:	25160	25160MS	25160MSD
INST: VGTRIO1A	Filename:	4163P11	4163P10	4163P09
	Date Extracted:	06/09/94	06/09/94	06/09/94
	Date Analyzed:	06/13/94	06/13/94	06/13/94

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	80000	0	68000	85	26- 90
2-Chlorophenol	80000	0	68000	85	25-102
1,4-Dichlorobenzene	53000	0	45000	85	28-104
N-Nitroso-di-n-prop.(1)	53000	0	43000	81	41-126
1,2,4-Trichlorobenzene	53000	0	50000	94	38-107
4-Chloro-3-methylphenol	80000	0	68000	85	26-103
Acenaphthene	53000	0	42000	79	31-137
4-Nitrophenol	80000	0	45000	56	11-114
2,4-Dinitrotoluene	53000	0	41000	77	28- 89
Pentachlorophenol	80000	0	41000	51	17-109
Pyrene	53000	0	89000	168 *	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	80000	71000	89	5	35	26- 90
2-Chlorophenol	80000	67000	84	1	50	25-102
1,4-Dichlorobenzene	53000	49000	92	8	27	28-104
N-Nitroso-di-n-prop.(1)	53000	45000	85	5	38	41-126
1,2,4-Trichlorobenzene	53000	52000	98	4	23	38-107
4-Chloro-3-methylphenol	80000	69000	86	1	33	26-103
Acenaphthene	53000	43000	81	2	19	31-137
4-Nitrophenol	80000	27000	34	49	50	11-114
2,4-Dinitrotoluene	53000	41000	77	0	47	28- 89
Pentachlorophenol	80000	27000	34	40	47	17-109
Pyrene	53000	90000	170 *	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: 2 out of 22 outside limits

COMMENTS: Elevated pyrene recovery due to failing internal standard.

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	QD1	Lab ID (HSN):	25160
Matrix:	SOIL	Filename:	4163P11
Date Sampled:	05/27/94	Sample Size:	1 grams
Date Received:	05/31/94	Extract Vol.:	500 uL
Date Extracted:	06/09/94	Dil. Factor:	10
Date Analyzed:	06/13/94	GPC Factor:	2
		% Moisture:	6.4

Compounds:	ug/Kg (PPB)			EQL
Phenol	110000	UD	Y	110000
bis(2-Chloroethyl)ether	110000	UD	Y	110000
2-Chlorophenol	110000	UD	Y	110000
1,3-Dichlorobenzene	110000	UD	Y	110000
1,4-Dichlorobenzene	110000	UD	Y	110000
1,2-Dichlorobenzene	110000	UD	Y	110000
2-Methylphenol	110000	UD	Y	110000
2,2'-oxybis(1-Chloropropane)	110000	UD	Y	110000
4-Methylphenol	110000	UD	Y	110000
N-Nitroso-di-n-propylamine	110000	UD	Y	110000
Hexachloroethane	110000	UD	Y	110000
Nitrobenzene	110000	UD	Y	110000
Isophorone	110000	UD	Y	110000
2-Nitrophenol	110000	UD	Y	110000
2,4-Dimethylphenol	110000	UD	Y	110000
bis(2-Chloroethoxy)methane	110000	UD	Y	110000
2,4-Dichlorophenol	110000	UD	Y	110000
1,2,4-Trichlorobenzene	110000	UD	Y	110000
Naphthalene	110000	UD	Y	110000
4-Chloroaniline	110000	UD	Y	110000
Hexachlorobutadiene	110000	UD	Y	110000
4-Chloro-3-methylphenol	110000	UD	Y	110000
2-Methylnaphthalene	110000	UD	Y	110000
Hexachlorocyclopentadiene	110000	UD		110000
2,4,6-Trichlorophenol	110000	UD		110000
2,4,5-Trichlorophenol	270000	UD		270000
2-Chloronaphthalene	110000	UD		110000
2-Nitroaniline	270000	UD		270000
Dimethylphthalate	110000	UD		110000
Acenaphthylene	110000	UD		110000
2,6-Dinitrotoluene	110000	UD		110000
3-Nitroaniline	270000	UD		270000
Acenaphthene	110000	UD		110000
2,4-Dinitrophenol	270000	UD		270000
4-Nitrophenol	270000	UD		270000
Dibenzofuran	110000	UD		110000
2,4-Dinitrotoluene	110000	UD		110000
Diethylphthalate	110000	UD		110000
4-Chlorophenyl-phenylether	110000	UD		110000
Fluorene	110000	UD		110000
4-Nitroaniline	270000	UD		270000
4,6-Dinitro-2-methylphenol	270000	UD		270000

(continued)

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID: QD1 Lab ID (HSN): 25160
Matrix: SOIL Filename: 4163P11

Compounds:	ug/Kg (PPB)	EQL
N-Nitrosodiphenylamine	110000 UD	110000
4-Bromophenyl-phenylether	110000 UD	110000
Hexachlorobenzene	110000 UD	110000
Pentachlorophenol	270000 UD	270000
Phenanthrene	110000 UD	110000
Anthracene	110000 UD	110000
Carbazole	110000 UD	110000
Di-n-butylphthalate	110000 UD	110000
Fluoranthene	110000 UD	110000
Pyrene	110000 UD	110000
Butylbenzylphthalate	110000 UD	110000
3,3'-Dichlorobenzidine	110000 UD	110000
Benz(a)anthracene	110000 UD	110000
Chrysene	110000 UD	110000
bis(2-Ethylhexyl)phthalate	110000 UD	110000
Di-n-octylphthalate	110000 UD	110000
Benzo(b)fluoranthene	110000 UD	110000
Benzo(k)fluoranthene	110000 UD	110000
Benzo(a)pyrene	110000 UD	110000
Indeno(1,2,3-cd)pyrene	110000 UD	110000
Dibenz(a,h)anthracene	110000 UD	110000
Benzo(g,h,i)perylene	110000 UD	110000

Surrogate Recovery		QC LIMITS
2-Fluorophenol	43%JD	Y 25-121%
Phenol-d5	73%JD	Y 24-113%
2-Chlorophenol-d4	61%JD	Y 20-130%
1,2-Dichlorobenzene-d4	69%JD	Y 20-130%
Nitrobenzene-d5	85%JD	Y 23-120%
2-Fluorobiphenyl	107%JD	30-115%
2,4,6-Tribromophenol	29%JD	19-122%
Terphenyl-d14	96%JD	18-137%

TCL = Target Coumpound List EPA Contract Laboratory Program (OLM01)
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank
D = Analysis at a secondary Dilution factor
Y = Associated internal standard failed method criteria
Note: All results are reported on a dry weight basis.
Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	QD1	Lab ID (HSN):	25160MS
Matrix:	SOIL	Filename:	4163P10
Date Sampled:	05/27/94	Sample Size:	1 grams
Date Received:	05/31/94	Extract Vol.:	500 uL
Date Extracted:	06/09/94	Dil. Factor:	10
Date Analyzed:	06/13/94	GPC Factor:	2
		% Moisture:	6.4

Compounds:	ug/Kg (PPB)		EQL
Phenol	68000	JD	110000
bis(2-Chloroethyl)ether	110000	UD	110000
2-Chlorophenol	68000	JD	110000
1,3-Dichlorobenzene	110000	UD	110000
1,4-Dichlorobenzene	45000	JD	110000
1,2-Dichlorobenzene	110000	UD	110000
2-Methylphenol	110000	UD	110000
2,2'-oxybis(1-Chloropropane)	110000	UD	110000
4-Methylphenol	110000	UD	110000
N-Nitroso-di-n-propylamine	43000	JD	110000
Hexachloroethane	110000	UD	110000
Nitrobenzene	110000	UD	110000
Isophorone	110000	UD	110000
2-Nitrophenol	110000	UD	110000
2,4-Dimethylphenol	110000	UD	110000
bis(2-Chloroethoxy)methane	110000	UD	110000
2,4-Dichlorophenol	110000	UD	110000
1,2,4-Trichlorobenzene	50000	JD	110000
Naphthalene	110000	UD	110000
4-Chloroaniline	110000	UD	110000
Hexachlorobutadiene	110000	UD	110000
4-Chloro-3-methylphenol	68000	JD	110000
2-Methylnaphthalene	110000	UD	110000
Hexachlorocyclopentadiene	110000	UD	110000
2,4,6-Trichlorophenol	110000	UD	110000
2,4,5-Trichlorophenol	270000	UD	270000
2-Chloronaphthalene	110000	UD	110000
2-Nitroaniline	270000	UD	270000
Dimethylphthalate	110000	UD	110000
Acenaphthylene	110000	UD	110000
2,6-Dinitrotoluene	110000	UD	110000
3-Nitroaniline	270000	UD	270000
Acenaphthene	42000	JD	110000
2,4-Dinitrophenol	270000	UD	270000
4-Nitrophenol	45000	JD	270000
Dibenzofuran	110000	UD	110000
2,4-Dinitrotoluene	41000	JD	110000
Diethylphthalate	110000	UD	110000
4-Chlorophenyl-phenylether	110000	UD	110000
Fluorene	110000	UD	110000
4-Nitroaniline	270000	UD	270000
4,6-Dinitro-2-methylphenol	270000	UD	270000

(continued)

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID: QD1 Lab ID (HSN): 25160MS
Matrix: SOIL Filename: 4163P10

Compounds:	ug/Kg (PPB)			EQL
N-Nitrosodiphenylamine	110000	UD		110000
4-Bromophenyl-phenylether	110000	UD		110000
Hexachlorobenzene	110000	UD		110000
Pentachlorophenol	41000	JD		270000
Phenanthrene	110000	UD		110000
Anthracene	110000	UD		110000
Carbazole	110000	UD		110000
Di-n-butylphthalate	110000	UD		110000
Fluoranthene	110000	UD		110000
Pyrene	89000	JD	Y	110000
Butylbenzylphthalate	110000	UD	Y	110000
3,3'-Dichlorobenzidine	110000	UD	Y	110000
Benz(a)anthracene	110000	UD	Y	110000
Chrysene	110000	UD	Y	110000
bis(2-Ethylhexyl)phthalate	110000	UD	Y	110000
Di-n-octylphthalate	110000	UD	Y	110000
Benzo(b)fluoranthene	110000	UD	Y	110000
Benzo(k)fluoranthene	110000	UD	Y	110000
Benzo(a)pyrene	110000	UD	Y	110000
Indeno(1,2,3-cd)pyrene	110000	UD	Y	110000
Dibenz(a,h)anthracene	110000	UD	Y	110000
Benzo(g,h,i)perylene	110000	UD	Y	110000

Surrogate Recovery				QC LIMITS
2-Fluorophenol	78%	JD		25-121%
Phenol-d5	91%	JD		24-113%
2-Chlorophenol-d4	87%	JD		20-130%
1,2-Dichlorobenzene-d4	87%	JD		20-130%
Nitrobenzene-d5	87%	JD		23-120%
2-Fluorobiphenyl	112%	JD		30-115%
2,4,6-Tribromophenol	60%	JD		19-122%
Terphenyl-d14	169%	JD	Y	18-137%

TCL = Target Coumpound List EPA Contract Laboratory Program (OLM01)
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank
D = Analysis at a secondary Dilution factor
Y = Associated internal standard failed method criteria
Note: All results are reported on a dry weight basis.
Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	QD1	Lab ID (HSN):	25160MSD
Matrix:	SOIL	Filename:	4163P09
Date Sampled:	05/27/94	Sample Size:	1 grams
Date Received:	05/31/94	Extract Vol.:	500 uL
Date Extracted:	06/09/94	Dil. Factor:	10
Date Analyzed:	06/13/94	GPC Factor:	2
		% Moisture:	6.4

Compounds:	ug/Kg (PPB)		EQL
Phenol	71000	JD	110000
bis(2-Chloroethyl)ether	110000	UD	110000
2-Chlorophenol	67000	JD	110000
1,3-Dichlorobenzene	110000	UD	110000
1,4-Dichlorobenzene	49000	JD	110000
1,2-Dichlorobenzene	110000	UD	110000
2-Methylphenol	110000	UD	110000
2,2'-oxybis(1-Chloropropane)	110000	UD	110000
4-Methylphenol	110000	UD	110000
N-Nitroso-di-n-propylamine	45000	JD	110000
Hexachloroethane	110000	UD	110000
Nitrobenzene	110000	UD	110000
Isophorone	110000	UD	110000
2-Nitrophenol	110000	UD	110000
2,4-Dimethylphenol	110000	UD	110000
bis(2-Chloroethoxy)methane	110000	UD	110000
2,4-Dichlorophenol	110000	UD	110000
1,2,4-Trichlorobenzene	52000	JD	110000
Naphthalene	110000	UD	110000
4-Chloroaniline	110000	UD	110000
Hexachlorobutadiene	110000	UD	110000
4-Chloro-3-methylphenol	69000	JD	110000
2-Methylnaphthalene	110000	UD	110000
Hexachlorocyclopentadiene	110000	UD	110000
2,4,6-Trichlorophenol	110000	UD	110000
2,4,5-Trichlorophenol	270000	UD	270000
2-Chloronaphthalene	110000	UD	110000
2-Nitroaniline	270000	UD	270000
Dimethylphthalate	110000	UD	110000
Acenaphthylene	110000	UD	110000
2,6-Dinitrotoluene	110000	UD	110000
3-Nitroaniline	270000	UD	270000
Acenaphthene	43000	JD	110000
2,4-Dinitrophenol	270000	UD	270000
4-Nitrophenol	27000	JD	270000
Dibenzofuran	110000	UD	110000
2,4-Dinitrotoluene	41000	JD	110000
Diethylphthalate	110000	UD	110000
4-Chlorophenyl-phenylether	110000	UD	110000
Fluorene	110000	UD	110000
4-Nitroaniline	270000	UD	270000
4,6-Dinitro-2-methylphenol	270000	UD	270000

(continued)

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID: QD1 Lab ID (HSN): 25160MSD
Matrix: SOIL Filename: 4163P09

Compounds:	ug/Kg (PPB)			EQL
N-Nitrosodiphenylamine	110000	UD		110000
4-Bromophenyl-phenylether	110000	UD		110000
Hexachlorobenzene	110000	UD		110000
Pentachlorophenol	27000	JD		270000
Phenanthrene	110000	UD		110000
Anthracene	110000	UD		110000
Carbazole	110000	UD		110000
Di-n-butylphthalate	110000	UD		110000
Fluoranthene	110000	UD		110000
Pyrene	90000	JD	Y	110000
Butylbenzylphthalate	110000	UD	Y	110000
3,3'-Dichlorobenzidine	110000	UD	Y	110000
Benz(a)anthracene	110000	UD	Y	110000
Chrysene	110000	UD	Y	110000
bis(2-Ethylhexyl)phthalate	110000	UD	Y	110000
Di-n-octylphthalate	110000	UD	Y	110000
Benzo(b)fluoranthene	110000	UD	Y	110000
Benzo(k)fluoranthene	110000	UD	Y	110000
Benzo(a)pyrene	110000	UD	Y	110000
Indeno(1,2,3-cd)pyrene	110000	UD	Y	110000
Dibenz(a,h)anthracene	110000	UD	Y	110000
Benzo(g,h,i)perylene	110000	UD	Y	110000

Surrogate Recovery				QC LIMITS
2-Fluorophenol	71%	JD		25-121%
Phenol-d5	93%	JD		24-113%
2-Chlorophenol-d4	87%	JD		20-130%
1,2-Dichlorobenzene-d4	95%	JD		20-130%
Nitrobenzene-d5	90%	JD		23-120%
2-Fluorobiphenyl	114%	JD		30-115%
2,4,6-Tribromophenol	46%	JD		19-122%
Terphenyl-d14	177%	JD	Y	18-137%

TCL = Target Coumpound List EPA Contract Laboratory Program (OLM01)
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank
D = Analysis at a secondary Dilution factor
Y = Associated internal standard failed method criteria
Note: All results are reported on a dry weight basis.
Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	QD2	Lab ID (HSN):	25161
Matrix:	SOIL	Filename:	4163P12
Date Sampled:	05/27/94	Sample Size:	1 grams
Date Received:	05/31/94	Extract Vol.:	500 uL
Date Extracted:	06/09/94	Dil. Factor:	10
Date Analyzed:	06/13/94	GPC Factor:	2
		% Moisture:	4.2

Compounds:	ug/Kg (PPB)		EQL
Phenol	100000	UD	100000
bis(2-Chloroethyl)ether	100000	UD	100000
2-Chlorophenol	100000	UD	100000
1,3-Dichlorobenzene	100000	UD	100000
1,4-Dichlorobenzene	100000	UD	100000
1,2-Dichlorobenzene	100000	UD	100000
2-Methylphenol	100000	UD	100000
2,2'-oxybis(1-Chloropropane)	100000	UD	100000
4-Methylphenol	100000	UD	100000
N-Nitroso-di-n-propylamine	100000	UD	100000
Hexachloroethane	100000	UD	100000
Nitrobenzene	100000	UD	100000
Isophorone	100000	UD	100000
2-Nitrophenol	100000	UD	100000
2,4-Dimethylphenol	100000	UD	100000
bis(2-Chloroethoxy)methane	100000	UD	100000
2,4-Dichlorophenol	100000	UD	100000
1,2,4-Trichlorobenzene	100000	UD	100000
Naphthalene	100000	UD	100000
4-Chloroaniline	100000	UD	100000
Hexachlorobutadiene	100000	UD	100000
4-Chloro-3-methylphenol	100000	UD	100000
2-Methylnaphthalene	100000	UD	100000
Hexachlorocyclopentadiene	100000	UD	100000
2,4,6-Trichlorophenol	100000	UD	100000
2,4,5-Trichlorophenol	260000	UD	260000
2-Chloronaphthalene	100000	UD	100000
2-Nitroaniline	260000	UD	260000
Dimethylphthalate	100000	UD	100000
Acenaphthylene	100000	UD	100000
2,6-Dinitrotoluene	100000	UD	100000
3-Nitroaniline	260000	UD	260000
Acenaphthene	100000	UD	100000
2,4-Dinitrophenol	260000	UD	260000
4-Nitrophenol	260000	UD	260000
Dibenzofuran	100000	UD	100000
2,4-Dinitrotoluene	100000	UD	100000
Diethylphthalate	100000	UD	100000
4-Chlorophenyl-phenylether	100000	UD	100000
Fluorene	100000	UD	100000
4-Nitroaniline	260000	UD	260000
4,6-Dinitro-2-methylphenol	260000	UD	260000

(continued)

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID: QD2 Lab ID (HSN): 25161
Matrix: SOIL Filename: 4163P12

Compounds:	ug/Kg (PPB)			EQL
N-Nitrosodiphenylamine	100000	UD		100000
4-Bromophenyl-phenylether	100000	UD		100000
Hexachlorobenzene	100000	UD		100000
Pentachlorophenol	260000	UD		260000
Phenanthrene	100000	UD		100000
Anthracene	100000	UD		100000
Carbazole	100000	UD		100000
Di-n-butylphthalate	100000	UD		100000
Fluoranthene	100000	UD		100000
Pyrene	100000	UD	Y	100000
Butylbenzylphthalate	100000	UD	Y	100000
3,3'-Dichlorobenzidine	100000	UD	Y	100000
Benz(a)anthracene	100000	UD	Y	100000
Chrysene	100000	UD	Y	100000
bis(2-Ethylhexyl)phthalate	100000	UD	Y	100000
Di-n-octylphthalate	100000	UD	Y	100000
Benzo(b)fluoranthene	100000	UD	Y	100000
Benzo(k)fluoranthene	100000	UD	Y	100000
Benzo(a)pyrene	100000	UD	Y	100000
Indeno(1,2,3-cd)pyrene	100000	UD	Y	100000
Dibenz(a,h)anthracene	100000	UD	Y	100000
Benzo(g,h,i)perylene	100000	UD	Y	100000

Surrogate Recovery				QC LIMITS
2-Fluorophenol	62%	JD		25-121%
Phenol-d5	72%	JD		24-113%
2-Chlorophenol-d4	69%	JD		20-130%
1,2-Dichlorobenzene-d4	70%	JD		20-130%
Nitrobenzene-d5	82%	JD		23-120%
2-Fluorobiphenyl	106%	JD		30-115%
2,4,6-Tribromophenol	69%	JD		19-122%
Terphenyl-d14	178%	JD	Y	18-137%

TCL = Target Coumpound List EPA Contract Laboratory Program (OLM01)
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank
D = Analysis at a secondary Dilution factor
Y = Associated internal standard failed method criteria
Note: All results are reported on a dry weight basis.
Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	QD3	Lab ID (HSN):	25162
Matrix:	SOIL	Filename:	4163P13
Date Sampled:	05/27/94	Sample Size:	1 grams
Date Received:	05/31/94	Extract Vol.:	500 uL
Date Extracted:	06/09/94	Dil. Factor:	10
Date Analyzed:	06/13/94	GPC Factor:	2
		% Moisture:	10.7

Compounds:	ug/Kg (PPB)		EQL
Phenol	110000	UD	110000
bis(2-Chloroethyl)ether	110000	UD	110000
2-Chlorophenol	110000	UD	110000
1,3-Dichlorobenzene	110000	UD	110000
1,4-Dichlorobenzene	110000	UD	110000
1,2-Dichlorobenzene	110000	UD	110000
2-Methylphenol	110000	UD	110000
2,2'-oxybis(1-Chloropropane)	110000	UD	110000
4-Methylphenol	110000	UD	110000
N-Nitroso-di-n-propylamine	110000	UD	110000
Hexachloroethane	110000	UD	110000
Nitrobenzene	110000	UD	110000
Isophorone	110000	UD	110000
2-Nitrophenol	110000	UD	110000
2,4-Dimethylphenol	110000	UD	110000
bis(2-Chloroethoxy)methane	110000	UD	110000
2,4-Dichlorophenol	110000	UD	110000
1,2,4-Trichlorobenzene	110000	UD	110000
Naphthalene	110000	UD	110000
4-Chloroaniline	110000	UD	110000
Hexachlorobutadiene	110000	UD	110000
4-Chloro-3-methylphenol	110000	UD	110000
2-Methylnaphthalene	110000	UD	110000
Hexachlorocyclopentadiene	110000	UD	110000
2,4,6-Trichlorophenol	110000	UD	110000
2,4,5-Trichlorophenol	280000	UD	280000
2-Chloronaphthalene	110000	UD	110000
2-Nitroaniline	280000	UD	280000
Dimethylphthalate	110000	UD	110000
Acenaphthylene	110000	UD	110000
2,6-Dinitrotoluene	110000	UD	110000
3-Nitroaniline	280000	UD	280000
Acenaphthene	110000	UD	110000
2,4-Dinitrophenol	280000	UD	280000
4-Nitrophenol	280000	UD	280000
Dibenzofuran	110000	UD	110000
2,4-Dinitrotoluene	110000	UD	110000
Diethylphthalate	110000	UD	110000
4-Chlorophenyl-phenylether	110000	UD	110000
Fluorene	110000	UD	110000
4-Nitroaniline	280000	UD	280000
4,6-Dinitro-2-methylphenol	280000	UD	280000

(continued)

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EPA METHOD 8270 **Huntingdon**
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID: QD3 Lab ID (HSN): 25162
Matrix: SOIL Filename: 4163P13

Compounds:	ug/Kg (PPB)			EQL
N-Nitrosodiphenylamine	110000	UD		110000
4-Bromophenyl-phenylether	110000	UD		110000
Hexachlorobenzene	110000	UD		110000
Pentachlorophenol	280000	UD		280000
Phenanthrene	110000	UD		110000
Anthracene	110000	UD		110000
Carbazole	110000	UD		110000
Di-n-butylphthalate	110000	UD		110000
Fluoranthene	110000	UD		110000
Pyrene	110000	UD	Y	110000
Butylbenzylphthalate	110000	UD	Y	110000
3,3'-Dichlorobenzidine	110000	UD	Y	110000
Benz(a)anthracene	110000	UD	Y	110000
Chrysene	110000	UD	Y	110000
bis(2-Ethylhexyl)phthalate	110000	UD	Y	110000
Di-n-octylphthalate	110000	UD	Y	110000
Benzo(b)fluoranthene	110000	UD	Y	110000
Benzo(k)fluoranthene	110000	UD	Y	110000
Benzo(a)pyrene	110000	UD	Y	110000
Indeno(1,2,3-cd)pyrene	110000	UD	Y	110000
Dibenz(a,h)anthracene	110000	UD	Y	110000
Benzo(g,h,i)perylene	110000	UD	Y	110000

Surrogate Recovery			QC LIMITS
2-Fluorophenol	42%JD		25-121%
Phenol-d5	78%JD		24-113%
2-Chlorophenol-d4	59%JD		20-130%
1,2-Dichlorobenzene-d4	76%JD		20-130%
Nitrobenzene-d5	86%JD		23-120%
2-Fluorobiphenyl	110%JD		30-115%
2,4,6-Tribromophenol	17%JD		19-122%
Terphenyl-d14	169%JD	Y	18-137%

TCL = Target Coumpound List EPA Contract Laboratory Program (OLM01)
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank
D = Analysis at a secondary Dilution factor
Y = Associated internal standard failed method criteria
Note: All results are reported on a dry weight basis.
Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN: 5039

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	LAB. BLANK	Lab ID (HSN):	LAB. BLANK
Matrix:	SOIL	Filename:	4166P04
Date Sampled:		Sample Size:	30 grams
Date Received:		Extract Vol.:	1000 uL
Date Extracted:	06/08/94	Dil. Factor:	1
Date Analyzed:	06/15/94		
		% Moisture:	0

Compounds:	ug/Kg (PPB)		EQL
Phenol	330	U	330
bis(2-Chloroethyl)ether	330	U	330
2-Chlorophenol	330	U	330
1,3-Dichlorobenzene	330	U	330
1,4-Dichlorobenzene	330	U	330
1,2-Dichlorobenzene	330	U	330
2-Methylphenol	330	U	330
2,2'-oxybis(1-Chloropropane)	330	U	330
4-Methylphenol	330	U	330
N-Nitroso-di-n-propylamine	330	U	330
Hexachloroethane	330	U	330
Nitrobenzene	330	U	330
Isophorone	330	U	330
2-Nitrophenol	330	U	330
2,4-Dimethylphenol	330	U	330
bis(2-Chloroethoxy)methane	330	U	330
2,4-Dichlorophenol	330	U	330
1,2,4-Trichlorobenzene	330	U	330
Naphthalene	330	U	330
4-Chloroaniline	330	U	330
Hexachlorobutadiene	330	U	330
4-Chloro-3-methylphenol	330	U	330
2-Methylnaphthalene	330	U	330
Hexachlorocyclopentadiene	330	U	330
2,4,6-Trichlorophenol	330	U	330
2,4,5-Trichlorophenol	830	U	830
2-Chloronaphthalene	330	U	330
2-Nitroaniline	830	U	830
Dimethylphthalate	330	U	330
Acenaphthylene	330	U	330
2,6-Dinitrotoluene	330	U	330
3-Nitroaniline	830	U	830
Acenaphthene	330	U	330
2,4-Dinitrophenol	830	U	830
4-Nitrophenol	57	JB	830
Dibenzofuran	330	U	330
2,4-Dinitrotoluene	330	U	330
Diethylphthalate	330	U	330
4-Chlorophenyl-phenylether	330	U	330
Fluorene	330	U	330
4-Nitroaniline	830	U	830
4,6-Dinitro-2-methylphenol	830	U	830

(continued)

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID: LAB. BLANK Lab ID (HSN): LAB. BLANK
Matrix: SOIL Filename: 4166P04

Compounds:	ug/Kg (PPB)	EQL
N-Nitrosodiphenylamine	330 U	330
4-Bromophenyl-phenylether	330 U	330
Hexachlorobenzene	330 U	330
Pentachlorophenol	830 U	830
Phenanthrene	330 U	330
Anthracene	330 U	330
Carbazole	330 U	330
Di-n-butylphthalate	330 U	330
Fluoranthene	330 U	330
Pyrene	330 U	330
Butylbenzylphthalate	330 U	330
3,3'-Dichlorobenzidine	330 U	330
Benz(a)anthracene	330 U	330
Chrysene	330 U	330
bis(2-Ethylhexyl)phthalate	330 U	330
Di-n-octylphthalate	330 U	330
Benzo(b)fluoranthene	330 U	330
Benzo(k)fluoranthene	330 U	330
Benzo(a)pyrene	330 U	330
Indeno(1,2,3-cd)pyrene	330 U	330
Dibenz(a,h)anthracene	330 U	330
Benzo(g,h,i)perylene	330 U	330

Surrogate Recovery		QC LIMITS
2-Fluorophenol	87%	25-121%
Phenol-d5	85%	24-113%
2-Chlorophenol-d4	80%	20-130%
1,2-Dichlorobenzene-d4	74%	20-130%
Nitrobenzene-d5	82%	23-120%
2-Fluorobiphenyl	75%	30-115%
2,4,6-Tribromophenol	84%	19-122%
Terphenyl-d14	90%	18-137%

TCL = Target Coumpound List EPA Contract Laboratory Program (OLM01)
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank

Note: All results are reported on a dry weight basis.
Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN:

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	LCS-1	Lab ID (HSN):	LCS-1
Matrix:	SOIL	Filename:	4166P05
Date Sampled:		Sample Size:	30 grams
Date Received:		Extract Vol.:	1000 uL
Date Extracted:	06/08/94	Dil. Factor:	1
Date Analyzed:	06/15/94		
		% Moisture:	0

Compounds:	ug/Kg (PPB)		EQL
Phenol	2000		330
bis(2-Chloroethyl)ether	330	U	330
2-Chlorophenol	2000		330
1,3-Dichlorobenzene	330	U	330
1,4-Dichlorobenzene	1200		330
1,2-Dichlorobenzene	330	U	330
2-Methylphenol	330	U	330
2,2'-oxybis(1-Chloropropane)	330	U	330
4-Methylphenol	330	U	330
N-Nitroso-di-n-propylamine	1100		330
Hexachloroethane	330	U	330
Nitrobenzene	330	U	330
Isophorone	330	U	330
2-Nitrophenol	330	U	330
2,4-Dimethylphenol	330	U	330
bis(2-Chloroethoxy)methane	330	U	330
2,4-Dichlorophenol	330	U	330
1,2,4-Trichlorobenzene	1300		330
Naphthalene	330	U	330
4-Chloroaniline	330	U	330
Hexachlorobutadiene	330	U	330
4-Chloro-3-methylphenol	2100		330
2-Methylnaphthalene	330	U	330
Hexachlorocyclopentadiene	330	U	330
2,4,6-Trichlorophenol	330	U	330
2,4,5-Trichlorophenol	830	U	830
2-Chloronaphthalene	330	U	330
2-Nitroaniline	830	U	830
Dimethylphthalate	330	U	330
Acenaphthylene	330	U	330
2,6-Dinitrotoluene	330	U	330
3-Nitroaniline	830	U	830
Acenaphthene	1200		330
2,4-Dinitrophenol	830	U	830
4-Nitrophenol	2200	B	830
Dibenzofuran	330	U	330
2,4-Dinitrotoluene	1400		330
Diethylphthalate	330	U	330
4-Chlorophenyl-phenylether	330	U	330
Fluorene	330	U	330
4-Nitroaniline	830	U	830
4,6-Dinitro-2-methylphenol	830	U	830

(continued)

HPN:

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID: LCS-1 Lab ID (HSN): LCS-1
Matrix: SOIL Filename: 4166P05

Compounds:	ug/Kg (PPB)	EQL
N-Nitrosodiphenylamine	330 U	330
4-Bromophenyl-phenylether	330 U	330
Hexachlorobenzene	330 U	330
Pentachlorophenol	2300	830
Phenanthrene	330 U	330
Anthracene	330 U	330
Carbazole	330 U	330
Di-n-butylphthalate	330 U	330
Fluoranthene	330 U	330
Pyrene	1400	330
Butylbenzylphthalate	330 U	330
3,3'-Dichlorobenzidine	330 U	330
Benz(a)anthracene	330 U	330
Chrysene	330 U	330
bis(2-Ethylhexyl)phthalate	850	330
Di-n-octylphthalate	330 U	330
Benzo(b)fluoranthene	330 U	330
Benzo(k)fluoranthene	330 U	330
Benzo(a)pyrene	330 U	330
Indeno(1,2,3-cd)pyrene	330 U	330
Dibenz(a,h)anthracene	330 U	330
Benzo(g,h,i)perylene	330 U	330

Surrogate Recovery		QC LIMITS
2-Fluorophenol	91%	25-121%
Phenol-d5	88%	24-113%
2-Chlorophenol-d4	86%	20-130%
1,2-Dichlorobenzene-d4	75%	20-130%
Nitrobenzene-d5	81%	23-120%
2-Fluorobiphenyl	78%	30-115%
2,4,6-Tribromophenol	90%	19-122%
Terphenyl-d14	97%	18-137%

TCL = Target Coumpound List EPA Contract Laboratory Program (OLM01)
EQL = Estimated Quantitation Limit (lower calibration limit)
U = Undetected at the given EQL
J = Detected below the EQL (estimated value)
E = Exceeds the upper calibration limit (estimated value)
B = Also detected in the associated Blank

Note: All results are reported on a dry weight basis.
Reference: "EPA Test Methods for Evaluating Solid Waste", SW-846, November 1986, 3rd Edition.

HPN: