N.
N.D

153904

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

Client's Sample ID.....GS-C304-101 (1:2 DILUTION)
TCT Sample ID.....25147
Analysis Date.....6/14/94 15:52
Filename.....S406141
Injected By.....CML
Total Amount Extracted...0.0011 kg
% Moisture..... 20.6 %
ICAL Date.....5/24/94
CCAL Filename.....S406148
Method Blank ID.....BLANK-060994A
Extraction Date.....6/09/94

DRAFT

NATIVE ISOMERS	CONC. ng/kg		LOD ng/kg
2378-TCDF	INT		INT
TOTAL TCDF	INT		-----
2378-TCDD	INT		INT
TOTAL TCDD	INT		-----
12378-PeCDF	INT		INT
23478-PeCDF	INT		INT
TOTAL PeCDF	INT		-----
12378-PeCDD	INT		INT
TOTAL PeCDD	INT		-----
123478-HxCDF	550000	**	-----
123678-HxCDF	310000	**	-----
234678-HxCDF	170000		-----
123789-HxCDF	210000		-----
TOTAL HxCDF	1700000	**	-----
123478-HxCDD	1100		-----
123678-HxCDD	3900		-----
123789-HxCDD	1900		-----
TOTAL HxCDD	19000		-----
1234678-HpCDF	380000	**	-----
1234789-HpCDF	540000		-----
TOTAL HpCDF	1000000	**	-----
1234678-HpCDD	200000		-----
TOTAL HpCDD	390000		-----
OCDF	650000		-----
OCDD	1200000	**	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	INT
2378-TCDD-13C....	2.00	INT
12378-PeCDF-13C..	2.00	INT
23478-PeCDF-13C..	2.00	INT
12378-PeCDD-13C..	2.00	INT
123478-HxCDF-13C.	2.00	INT
123678-HxCDF-13C.	2.00	75
234678-HxCDF-13C.	2.00	101
123789-HxCDF-13C.	2.00	INT
123478-HxCDD-13C.	2.00	94
123678-HxCDD-13C.	2.00	82
1234678-HpCDF-13C	2.00	79
1234789-HpCDF-13C	2.00	79
1234678-HpCDD-13C	2.00	78
OCDD-13C.....	4.00	62
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	INT

Total 2378-TCDD
Equivalence: >137740 ng/kg
(Using ITE Factors/DB-5 Data)

2000 RESIDENTIAL ng/kg
20,000 COMM/INDUS.

- DRAFT DOCUMENT -
NOT VALIDATED

**Saturated signal.

All values are expressed on a dry weight basis.

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable
INT = Interference

TCT Invoice Number....4411 94-5037

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

Client's Sample ID.....GS-C4-102 (1:2 DILUTION)
TCT Sample ID.....25150
Analysis Date.....6/9/94 01:14
Filename.....S40608Q
Injected By.....MCH
Total Amount Extracted...0.0109 kg
% Moisture.....6.6 %
ICAL Date.....5/24/94
CCAL Filename.....S40608N
Method Blank ID.....BLANK-060294
Extraction Date.....6/2/94

DRAFT

NATIVE ISOMERS	CONC. ng/kg	LOD ng/kg
2378-TCDF	ND	3000
TOTAL TCDF	11000	-----
2378-TCDD	59	-----
TOTAL TCDD	3500	-----
12378-PeCDF	1300	-----
23478-PeCDF	2500	-----
TOTAL PeCDF	8600	-----
12378-PeCDD	170	-----
TOTAL PeCDD	1600	-----
123478-HxCDF	1700	-----
123678-HxCDF	780	-----
234678-HxCDF	720	-----
123789-HxCDF	100	-----
TOTAL HxCDF	7200	-----
123478-HxCDD	180	-----
123678-HxCDD	430	-----
123789-HxCDD	380	-----
TOTAL HxCDD	5900	-----
1234678-HpCDF	2700	-----
1234789-HpCDF	270	-----
TOTAL HpCDF	6900	-----
1234678-HpCDD	8100	-----
TOTAL HpCDD	16000	-----
OCDF	9600	-----
OCDD	45000 ***	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	79
2378-TCDD-13C....	2.00	80
12378-PeCDF-13C..	2.00	76
23478-PeCDF-13C..	2.00	80
12378-PeCDD-13C..	2.00	81
123478-HxCDF-13C.	2.00	81
123678-HxCDF-13C.	2.00	72
234678-HxCDF-13C.	2.00	75
123789-HxCDF-13C.	2.00	78
123478-HxCDD-13C.	2.00	84
123678-HxCDD-13C.	2.00	71
1234678-HpCDF-13C	2.00	80
1234789-HpCDF-13C	2.00	72
1234678-HpCDD-13C	2.00	80
OCDD-13C.....	4.00	89
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	INT

Total 2378-TCDD Equivalence: 2053 ng/kg
(Using ITE Factors/DB-5 Data)

·DRAFT DOCUMENT·
NOT VALIDATED

***Value obtained from runfile S40613D.

All values are expressed on a dry weight basis.

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable
INT = Interference

TCT Invoice Number....4411 94-5037

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

Client's Sample ID.....GS-C6-103 (1:2 DILUTION)
TCT Sample ID.....25152
Analysis Date.....6/14/94 16:43
Filename.....S40614J
Injected By.....CML
Total Amount Extracted...0.0013 kg
% Moisture..... 19.4 %
ICAL Date.....5/24/94
CCAL Filename.....S40614B
Method Blank ID.....BLANK-061094
Extraction Date.....6/10/94

DRAFT

NATIVE ISOMERS	CONC. ng/kg	LOD ng/kg
2378-TCDF	240 *	-----
TOTAL TCDF	54000	-----
2378-TCDD	210	-----
TOTAL TCDD	18000	-----
12378-PeCDF	220	-----
23478-PeCDF	830	-----
TOTAL PeCDF	17000	-----
12378-PeCDD	1100	-----
TOTAL PeCDD	1100	-----
123478-HxCDF	ND	46000
123678-HxCDF	1200	-----
234678-HxCDF	1700	-----
123789-HxCDF	680	-----
TOTAL HxCDF	34000	-----
123478-HxCDD	1700	-----
123678-HxCDD	7400	-----
123789-HxCDD	4000	-----
TOTAL HxCDD	50000	-----
1234678-HpCDF	34000	-----
1234789-HpCDF	4500	-----
TOTAL HpCDF	140000	-----
1234678-HpCDD	270000	-----
TOTAL HpCDD	530000	-----
OCDF	160000	-----
OCDD	2300000	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	66
2378-TCDD-13C....	2.00	67
12378-PeCDF-13C..	2.00	57
23478-PeCDF-13C..	2.00	54
12378-PeCDD-13C..	2.00	75
123478-HxCDF-13C.	2.00	69
123678-HxCDF-13C.	2.00	57
234678-HxCDF-13C.	2.00	64
123789-HxCDF-13C.	2.00	80
123478-HxCDD-13C.	2.00	71
123678-HxCDD-13C.	2.00	65
1234678-HpCDF-13C	2.00	55
1234789-HpCDF-13C	2.00	75
1234678-HpCDD-13C	2.00	62
OCDD-13C.....	4.00	INT
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	INT

Total 2378-TCDD
Equivalence: 8423 ng/kg
(Using ITE Factors/DB-5 Data)

DRAFT DOCUMENT.
NOT VALIDATED

* Value may include contributions from other TCDF isomers.

All values are expressed on a dry weight basis.

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable
INT = Interference

TCT Invoice Number....4411 94-5037

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

Client's Sample ID.....GS-B6-104 (1:2 DILUTION)
TCT Sample ID.....25154
Analysis Date.....6/14/94 14:59
Filename.....S40614H
Injected By.....CML
Total Amount Extracted...0.0011 kg
% Moisture..... 83.0 %
ICAL Date.....5/24/94
CCAL Filename.....S40614B
Method Blank ID.....BLANK-060994A
Extraction Date.....6/09/94

DRAFT

NATIVE ISOMERS	CONC. ng/kg	LOD ng/kg
2378-TCDF	ND	830
TOTAL TCDF	110000	-----
2378-TCDD	190	-----
TOTAL TCDD	36000	-----
12378-PeCDF	ND	5400
23478-PeCDF	970	-----
TOTAL PeCDF	58000	-----
12378-PeCDD	ND	3200
TOTAL PeCDD	12000	-----
123478-HxCDF	3100	-----
123678-HxCDF	ND	12000
234678-HxCDF	6300	-----
123789-HxCDF	ND	4400
TOTAL HxCDF	200000	-----
123478-HxCDD	9600	-----
123678-HxCDD	29000	-----
123789-HxCDD	20000	-----
TOTAL HxCDD	230000	-----
1234678-HpCDF	310000	-----
1234789-HpCDF	13000	-----
TOTAL HpCDF	1100000	-----
1234678-HpCDD	1300000	-----
TOTAL HpCDD	2700000	-----
OCDF	1400000	-----
OCDD	7700000 **	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	85
2378-TCDD-13C....	2.00	104
12378-PeCDF-13C..	2.00	70
23478-PeCDF-13C..	2.00	81
12378-PeCDD-13C..	2.00	89
123478-HxCDF-13C.	2.00	99
123678-HxCDF-13C.	2.00	74
234678-HxCDF-13C.	2.00	79
123789-HxCDF-13C.	2.00	80
123478-HxCDD-13C.	2.00	101
123678-HxCDD-13C.	2.00	76
1234678-HpCDF-13C	2.00	74
1234789-HpCDF-13C	2.00	80
1234678-HpCDD-13C	2.00	82
OCDD-13C.....	4.00	67
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	95

Total 2378-TCDD
Equivalence: 32805 ng/kg
(Using ITE Factors/DB-5 Data)

- DRAFT DOCUMENT -
NOT VALIDATED

**Saturated signal.

All values are expressed on a dry weight basis.

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable

TCT Invoice Number....4411 94-5037

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

Client's Sample ID.....GS-D2V-105
TCT Sample ID.....25155
Analysis Date.....6/8/94 16:56
Filename.....S40608I
Injected By.....CML
Total Amount Extracted... 0.90 L
% Moisture.....NA %
ICAL Date.....5/24/94
CCAL Filename.....S40608I
Method Blank ID.....BLANK-060394A
Extraction Date.....6/3/94

DRAFT

NATIVE ISOMERS	CONC. ng/L	LOD ng/L
2378-TCDF	ND	0.0047
TOTAL TCDF	ND	-----
2378-TCDD	ND	0.0031
TOTAL TCDD	ND	-----
12378-PeCDF	ND	0.0098
23478-PeCDF	ND	0.0049
TOTAL PeCDF	ND	-----
12378-PeCDD	ND	0.0061
TOTAL PeCDD	ND	-----
123478-HxCDF	ND	0.0072
123678-HxCDF	ND	0.0052
234678-HxCDF	ND	0.0068
123789-HxCDF	ND	0.0054
TOTAL HxCDF	ND	-----
123478-HxCDD	ND	0.0073
123678-HxCDD	ND	0.0077
123789-HxCDD	ND	0.0095
TOTAL HxCDD	ND	-----
1234678-HpCDF	0.0057	-----
1234789-HpCDF	ND	0.0100
TOTAL HpCDF	0.0350	-----
1234678-HpCDD	ND	0.0300
TOTAL HpCDD	0.0200	-----
OCDF	0.0280	-----
OCDD	0.2100	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	76
2378-TCDD-13C....	2.00	77
12378-PeCDF-13C..	2.00	74
23478-PeCDF-13C..	2.00	76
12378-PeCDD-13C..	2.00	75
123478-HxCDF-13C.	2.00	90
123678-HxCDF-13C.	2.00	75
234678-HxCDF-13C.	2.00	81
123789-HxCDF-13C.	2.00	87
123478-HxCDD-13C.	2.00	89
123678-HxCDD-13C.	2.00	76
1234678-HpCDF-13C	2.00	85
1234789-HpCDF-13C	2.00	86
1234678-HpCDD-13C	2.00	85
OCDD-13C.....	4.00	80
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	68

Total 2378-TCDD
Equivalence: 0.0003 ng/L
(Using ITE Factors/DB-5 Data)

- DRAFT DOCUMENT -
NOT VALIDATED

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable

TCT Invoice Number....4411 94-5037

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

Client's Sample ID.....GS-DIX-106 (1:2 DILUTION)
TCT Sample ID.....25156
Analysis Date.....6/9/94 04:03
Filename.....S40608T
Injected By.....MCH
Total Amount Extracted...0.0108 kg
% Moisture..... 2.3 %
ICAL Date.....5/24/94
CCAL Filename.....S40608N
Method Blank ID.....BLANK-060294
Extraction Date.....6/2/94

DRAFT

NATIVE ISOMERS	CONC. ng/kg	LOD ng/kg
2378-TCDF	120 *	-----
TOTAL TCDF	1600	-----
2378-TCDD	36	-----
TOTAL TCDD	380	-----
12378-PeCDF	ND	6900
23478-PeCDF	180	-----
TOTAL PeCDF	5800	-----
12378-PeCDD	ND	300
TOTAL PeCDD	260	-----
123478-HxCDF	870	-----
123678-HxCDF	630	-----
234678-HxCDF	1100	-----
123789-HxCDF	160	-----
TOTAL HxCDF	28000	-----
123478-HxCDD	730	-----
123678-HxCDD	2100	-----
123789-HxCDD	1200	-----
TOTAL HxCDD	16000	-----
1234678-HpCDF	26000	-----
1234789-HpCDF	2200	-----
TOTAL HpCDF	76000	-----
1234678-HpCDD	88000	-----
TOTAL HpCDD	180000	-----
OCDF	130000	-----
OCDD	490000 **	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	74
2378-TCDD-13C....	2.00	86
12378-PeCDF-13C..	2.00	73
23478-PeCDF-13C..	2.00	73
12378-PeCDD-13C..	2.00	72
123478-HxCDF-13C.	2.00	92
123678-HxCDF-13C.	2.00	81
234678-HxCDF-13C.	2.00	82
123789-HxCDF-13C.	2.00	84
123478-HxCDD-13C.	2.00	[illegible]
123678-HxCDD-13C.	2.00	[illegible]
1234678-HpCDF-13C	2.00	82
1234789-HpCDF-13C	2.00	75
1234678-HpCDD-13C	2.00	86
OCDD-13C.....	4.00	**121
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	INT

Total 2378-TCDD
Equivalence: 2599 ng/kg
(Using ITE Factors/DB-5 Data)

- DRAFT DOCUMENT -
NOT VALIDATED

* Value may include contributions from other TCDF isomers.
**Values obtained from runfile S40613G. (Native signal was saturated.)
All values are expressed on a dry weight basis.

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD - Limit of Detection
ND = Not Detected
NA = Not Applicable
INT = Interference

TCT Invoice Number....4411 94-5037

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

Client's Sample ID.....GS-DIX-107 (1:10 DILUTION)
TCT Sample ID.....25157
Analysis Date.....6/10/94 15:11
Filename.....S40610H
Injected By.....CML
Total Amount Extracted...0.0111 kg
% Moisture..... 7.1 %
ICAL Date.....5/24/94
CCAL Filename.....S40610B
Method Blank ID.....BLANK-060294
Extraction Date.....6/2/94

DRAFT

NATIVE ISOMERS	CONC. ng/kg		LOD ng/kg
2378-TCDF	ND		550
TOTAL TCDF	11000		-----
2378-TCDD	410		-----
TOTAL TCDD	3500		-----
12378-PeCDF	ND		97000
23478-PeCDF	1300		-----
TOTAL PeCDF	55000		-----
12378-PeCDD	3600		-----
TOTAL PeCDD	12000		-----
123478-HxCDF	7800		-----
123678-HxCDF	8400		-----
234678-HxCDF	15000		-----
123789-HxCDF	880		-----
TOTAL HxCDF	190000		-----
123478-HxCDD	7600		-----
123678-HxCDD	32000		-----
123789-HxCDD	12000		-----
TOTAL HxCDD	200000		-----
1234678-HpCDF	190000	**	-----
1234789-HpCDF	24000		-----
TOTAL HpCDF	220000	**	-----
1234678-HpCDD	480000	**	-----
TOTAL HpCDD	940000	**	-----
OCDF	1600000	**	-----
OCDD	2100000	**	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	86
2378-TCDD-13C....	2.00	96
12378-PeCDF-13C..	2.00	84
23478-PeCDF-13C..	2.00	108
12378-PeCDD-13C..	2.00	87
123478-HxCDF-13C.	2.00	INT
123678-HxCDF-13C.	2.00	INT
234678-HxCDF-13C.	2.00	74
123789-HxCDF-13C.	2.00	123
123478-HxCDD-13C.	2.00	90
123678-HxCDD-13C.	2.00	80
1234678-HpCDF-13C	2.00	106
1234789-HpCDF-13C	2.00	83
1234678-HpCDD-13C	2.00	82
OCDD-13C.....	4.00	INT
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	INT

Total 2378-TCDD
Equivalence: 21868 ng/kg
(Using ITE Factors/DB-5 Data)

- DRAFT DOCUMENT -
NOT VALIDATED

**Saturated signals.

All values are expressed on a dry weight basis.

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable
INT = Interference

TCT Invoice Number....4411 94-5037

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

Client's Sample ID.....GS-DIX-108
TCT Sample ID.....25158
Analysis Date.....6/10/94 11:13
Filename.....S40610D
Injected By.....CML
Total Amount Extracted...0.0112 kg
% Moisture..... 5.8 %
ICAL Date.....5/24/94
CCAL Filename.....S40610B
Method Blank ID.....BLANK-060294
Extraction Date.....6/2/94

DRAFT

NATIVE ISOMERS	CONC. ng/kg	LOD ng/kg
2378-TCDF	2.5 *	-----
TOTAL TCDF	28.0	-----
2378-TCDD	1.4	-----
TOTAL TCDD	63.0	-----
12378-PeCDF	ND	35.0
23478-PeCDF	ND	3.4
TOTAL PeCDF	43.0	-----
12378-PeCDD	4.8	-----
TOTAL PeCDD	27.0	-----
123478-HxCDF	7.0	-----
123678-HxCDF	5.6	-----
234678-HxCDF	6.7	-----
123789-HxCDF	2.1	-----
TOTAL HxCDF	80.0	-----
123478-HxCDD	6.7	-----
123678-HxCDD	18.0	-----
123789-HxCDD	14.0	-----
TOTAL HxCDD	130.0	-----
1234678-HpCDF	180.0	-----
1234789-HpCDF	14.0	-----
TOTAL HpCDF	640.0	-----
1234678-HpCDD	510.0	-----
TOTAL HpCDD	940.0	-----
OCDF	900.0	-----
OCDD	4300.0	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	70
2378-TCDD-13C....	2.00	77
12378-PeCDF-13C..	2.00	73
23478-PeCDF-13C..	2.00	79
12378-PeCDD-13C..	2.00	88
123478-HxCDF-13C.	2.00	81
123678-HxCDF-13C.	2.00	72
234678-HxCDF-13C.	2.00	87
123789-HxCDF-13C.	2.00	95
123478-HxCDD-13C.	2.00	91
123678-HxCDD-13C.	2.00	80
1234678-HpCDF-13C	2.00	83
1234789-HpCDF-13C	2.00	92
1234678-HpCDD-13C	2.00	96
OCDD-13C.....	4.00	83
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	64

Total 2378-TCDD
Equivalence: 22 ng/kg
(Using ITE Factors/DB-5 Data)

- DRAFT DOCUMENT -
NOT VALIDATED

* Value may include contributions from other TCDF isomers.

All values are expressed on a dry weight basis.

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable

TCT Invoice Number....4411 94-5037

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

Client's Sample ID.....G6-DIX-109 (1:2 DILUTION)
TCT Sample ID.....25189
Analysis Date.....6/9/94 02:18
Filename.....S40608R
Injected By.....MCH
Total Amount Extracted...0.0125 kg
% Moisture..... 21.2 %
ICAL Date.....5/24/94
CCAL Filename.....S40608N
Method Blank ID.....BLANK-060294
Extraction Date.....6/2/94

DRAFT

NATIVE ISOMERS	CONC. ng/kg	LOD ng/kg
2378-TCDF	17.0 *	-----
TOTAL TCDF	180.0	-----
2378-TCDD	ND	5.2
TOTAL TCDD	190.0	-----
12378-PeCDF	ND	180.0
23478-PeCDF	20.0	-----
TOTAL PeCDF	210.0	-----
12378-PeCDD	16.0	-----
TOTAL PeCDD	160.0	-----
123478-HxCDF	33.0	-----
123678-HxCDF	30.0	-----
234678-HxCDF	39.0	-----
123789-HxCDF	9.8	-----
TOTAL HxCDF	360.0	-----
123478-HxCDD	31.0	-----
123678-HxCDD	72.0	-----
123789-HxCDD	58.0	-----
TOTAL HxCDD	670.0	-----
1234678-HpCDF	640.0	-----
1234789-HpCDF	58.0	-----
TOTAL HpCDF	2300.0	-----
1234678-HpCDD	2200.0	-----
TOTAL HpCDD	4400.0	-----
OCDF	4100.0	-----
OCDD	21000.0 **	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	79
2378-TCDD-13C....	2.00	86
12378-PeCDF-13C..	2.00	74
23478-PeCDF-13C..	2.00	81
12378-PeCDD-13C..	2.00	74
123478-HxCDF-13C.	2.00	65
123678-HxCDF-13C.	2.00	84
234678-HxCDF-13C.	2.00	89
123789-HxCDF-13C.	2.00	87
123478-HxCDD-13C.	2.00	90
123678-HxCDD-13C.	2.00	82
1234678-HpCDF-13C	2.00	85
1234789-HpCDF-13C	2.00	85
1234678-HpCDD-13C	2.00	90
OCDD-13C.....	4.00	80
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	79

Total 2378-TCDD
Equivalence: 101 ng/kg
(Using ITE Factors/DB-5 Data)

DRAFT DOCUMENT - NOT VALIDATED

* Value may include contributions from other TCDF isomers.
**Value obtained from runfile S40613E.
All values are expressed on a dry weight basis.

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable

TCT Invoice Number....4411 94-503

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

TCT Sample ID.....BLANK-060294
Analysis Date.....6/8/94 21:03
Filename.....S40608M
Injected By.....MCH
Total Amount Extracted...0.0102 kg
% Moisture.....NA %
ICAL Date.....5/24/94
CCAL Filename.....S40608D
Method Blank ID.....NA
Extraction Date.....6/2/94

DRAFT

NATIVE ISOMERS	CONC. ng/kg	LOD ng/kg
2378-TCDF	ND	1.1
TOTAL TCDF	ND	-----
2378-TCDD	ND	2.1
TOTAL TCDD	ND	-----
12378-PeCDF	ND	2.4
23478-PeCDF	ND	1.9
TOTAL PeCDF	ND	-----
12378-PeCDD	ND	1.6
TOTAL PeCDD	ND	-----
123478-HxCDF	ND	1.9
123678-HxCDF	ND	1.6
234678-HxCDF	ND	1.6
123789-HxCDF	ND	2.7
TOTAL HxCDF	ND	-----
123478-HxCDD	ND	2.4
123678-HxCDD	ND	3.1
123789-HxCDD	ND	2.2
TOTAL HxCDD	ND	-----
1234678-HpCDF	4.9	-----
1234789-HpCDF	ND	1.8
TOTAL HpCDF	18.0	-----
1234678-HpCDD	15.0	-----
TOTAL HpCDD	27.0	-----
OCDF	20.0	-----
OCDD	49.0	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	45
2378-TCDD-13C....	2.00	51
12378-PeCDF-13C..	2.00	62
23478-PeCDF-13C..	2.00	61
12378-PeCDD-13C..	2.00	61
123478-HxCDF-13C.	2.00	100
123678-HxCDF-13C.	2.00	82
234678-HxCDF-13C.	2.00	87
123789-HxCDF-13C.	2.00	72
123478-HxCDD-13C.	2.00	[illegible]
123678-HxCDD-13C.	2.00	[illegible]
1234678-HpCDF-13C	2.00	[illegible]
1234789-HpCDF-13C	2.00	[illegible]
1234678-HpCDD-13C	2.00	93
OCDD-13C.....	4.00	76
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	49

Total 2378-TCDD Equivalence: 0.27 ng/kg
(Using ITE Factors/DB-5 Data)

DRAFT DOCUMENT - NOT VALIDATED

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable

TCT Invoice Number....4411 94-5037

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

TCT Sample ID.....BLANK-060394A
Analysis Date.....6/8/94 14:17
Filename.....S40608F
Injected By.....CML
Total Amount Extracted... 1.00 L
% Moisture.....NA %
ICAL Date.....5/24/94
CCAL Filename.....S40608D
Method Blank ID.....NA
Extraction Date.....6/3/94

DRAFT

NATIVE ISOMERS	CONC. ng/L	LOD ng/L
2378-TCDF	ND	0.0045
TOTAL TCDF	ND	-----
2378-TCDD	ND	0.0066
TOTAL TCDD	ND	-----
12378-PeCDF	ND	0.0038
23478-PeCDF	ND	0.0040
TOTAL PeCDF	ND	-----
12378-PeCDD	ND	0.0110
TOTAL PeCDD	ND	-----
123478-HxCDF	ND	0.0039
123678-HxCDF	ND	0.0035
234678-HxCDF	ND	0.0070
123789-HxCDF	ND	0.0046
TOTAL HxCDF	ND	-----
123478-HxCDD	ND	0.0093
123678-HxCDD	ND	0.0055
123789-HxCDD	ND	0.0042
TOTAL HxCDD	ND	-----
1234678-HpCDF	ND	0.0054
1234789-HpCDF	ND	0.0092
TOTAL HpCDF	ND	-----
1234678-HpCDD	ND	0.0097
TOTAL HpCDD	ND	-----
OCDF	0.0080	-----
OCDD	0.0440	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	70
2378-TCDD-13C....	2.00	75
12378-PeCDF-13C..	2.00	76
23478-PeCDF-13C..	2.00	78
12378-PeCDD-13C..	2.00	73
123478-HxCDF-13C.	2.00	86
123678-HxCDF-13C.	2.00	75
234678-HxCDF-13C.	2.00	80
123789-HxCDF-13C.	2.00	88
123478-HxCDD-13C.	2.00	78
123678-HxCDD-13C.	2.00	76
1234678-HpCDF-13C	2.00	89
1234789-HpCDF-13C	2.00	94
1234678-HpCDD-13C	2.00	93
OCDD-13C.....	4.00	80
1234-TCDD-13C....	2.00	[illegible]
123789-HxCDD-13C.	2.00	[illegible]
2378-TCDD-37Cl4..	0.20	[illegible]

Total 2378-TCDD
Equivalence: 0.0001 ng/L
(Using ITE Factors/DB-5 Data)

DRAFT DOCUMENT - NOT VALIDATED

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable

TCT Invoice Number....4411 94-5037

****
TWIN CITY TESTING CORPORATION
* PCDD/PCDF SPIKE RESULTS *
****

Client....ECOLOGY & ENVIRONMENT

TCT Sample ID.....SPIKE-060294
Analysis Date.....6/8/94 19:57
Filename.....S40608L
Sample Injected By.....MCH
Total Amount Extracted.....0.0100 kg
% Moisture.....NA
ICAL Date.....5/24/94
CCAL Filename.....S40608D
Method Blank ID.....BLANK-060294
Extraction Date.....6/2/94

DRAFT

NATIVE ISOMERS	Qs (ng)	Qm (ng)	% REC
2378-TCDF	0.20	0.19	93
2378-TCDD	0.20	0.23	113
12378-PeCDF	1.00	1.09	109
23478-PeCDF	1.00	1.02	102
12378-PeCDD	1.00	1.14	114
123478-HxCDF	1.00	1.11	111
123678-HxCDF	1.00	1.20	120
234678-HxCDF	1.00	1.11	111
123789-HxCDF	1.00	1.13	113
123478-HxCDD	1.00	1.11	111
123678-HxCDD	1.00	1.08	108
123789-HxCDD	1.00	1.06	106
1234678-HpCDF	1.00	1.01	101
1234789-HpCDF	1.00	1.11	111
1234678-HpCDD	1.00	1.16	116
OCDF	2.00	2.10	105
OCDD	2.00	2.30	115

INTERNAL STANDARD	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	92
2378-TCDD-13C....	2.00	78
12378-PeCDF-13C..	2.00	90
23478-PeCDF-13C..	2.00	96
12378-PeCDD-13C..	2.00	99
123478-HxCDF-13C.	2.00	101
123678-HxCDF-13C.	2.00	98
234678-HxCDF-13C.	2.00	91
123789-HxCDF-13C.	2.00	87
123478-HxCDD-13C.	2.00	92
123678-HxCDD-13C.	2.00	83
1234678-HpCDF-13C	2.00	86
1234789-HpCDF-13C	2.00	90
1234678-HpCDD-13C	2.00	92
OCDD-13C.....	4.00	83
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	76

- DRAFT DOCUMENT -
NOT VALIDATED

Qs = Quantity Spiked
Qm = Quantity Measured
REC = Recovery (Expressed as Percent)
NA = Not Applicable

TCT Invoice Number....4411 94-5037

****
TWIN CITY TESTING CORPORATION
* PCDD/PCDF SPIKE RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

TCT Sample ID.....SPIKE-060394B
Analysis Date.....6/8/94 13:12
Filename.....840608E
Sample Injected By.....CML
Total Amount Extracted..... 1.00 L
% Moisture.....NA
ICAL Date.....5/24/94
CCAL Filename.....840608D
Method Blank ID.....BLANK-060394A
Extraction Date.....6/3/94

DRAFT

NATIVE ISOMERS	Qs (ng)	Qm (ng)	% REC
2378-TCDF	0.20	0.23	117
2378-TCDD	0.20	0.21	105
12378-PeCDF	1.00	1.16	116
23478-PeCDF	1.00	1.19	119
12378-PeCDD	1.00	1.16	116
123478-HxCDF	1.00	1.15	115
123678-HxCDF	1.00	1.25	125
234678-HxCDF	1.00	1.10	110
123789-HxCDF	1.00	1.15	115
123478-HxCDD	1.00	1.13	113
123678-HxCDD	1.00	1.14	114
123789-HxCDD	1.00	1.18	118
1234678-HpCDF	1.00	1.14	114
1234789-HpCDF	1.00	1.20	120
1234678-HpCDD	1.00	1.19	119
OCDF	2.00	2.39	120
OCDD	2.00	2.40	120

INTERNAL STANDARD	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	73
2378-TCDD-13C....	2.00	78
12378-PeCDF-13C..	2.00	00
23478-PeCDF-13C..	2.00	80
12378-PeCDD-13C..	2.00	87
123478-HxCDF-13C.	2.00	83
123678-HxCDF-13C.	2.00	76
234678-HxCDF-13C.	2.00	88
123789-HxCDF-13C.	2.00	87
123478-HxCDD-13C.	2.00	88
123678-HxCDD-13C.	2.00	72
1234678-HpCDF-13C	2.00	89
1234789-HpCDF-13C	2.00	[illegible]
1234678-HpCDD-13C	2.00	[illegible]
OCDD-13C.....	4.00	[illegible]
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	74

- DRAFT DOCUMENT -
NOT VALIDATED

Qs - Quantity Spiked
Qm - Quantity Measured
REC = Recovery (Expressed as Percent)
NA = Not Applicable

TCT Invoice Number....4411 04-5037

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

TCT Sample ID.....BLANK-060994A
Analysis Date.....6/14/94 12:02
Filename.....S40614E
Injected By.....CML
Total Amount Extracted...0.0101 kg
% Moisture.....NA %
ICAL Date.....5/24/94
CCAL Filename.....S40614B
Method Blank ID.....NA
Extraction Date.....6/9/94

DRAFT

NATIVE ISOMERS	CONC. ng/kg	LOD ng/kg
2378-TCDF	ND	0.29
TOTAL TCDF	ND	-----
2378-TCDD	ND	0.39
TOTAL TCDD	ND	-----
12378-PeCDF	ND	0.65
23478-PeCDF	ND	0.33
TOTAL PeCDF	ND	-----
12378-PeCDD	ND	0.68
TOTAL PeCDD	ND	-----
123478-HxCDF	ND	0.60
123678-HxCDF	ND	0.75
234678-HxCDF	ND	0.45
123789-HxCDF	ND	0.63
TOTAL HxCDF	ND	-----
123478-HxCDD	ND	0.50
123678-HxCDD	ND	0.83
123789-HxCDD	ND	0.89
TOTAL HxCDD	ND	-----
1234678-HpCDF	ND	0.87
1234789-HpCDF	ND	0.55
TOTAL HpCDF	1.9	-----
1234678-HpCDD	5.5	-----
TOTAL HpCDD	10.0	-----
OCDF	3.4	-----
OCDD	78.0	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	60
2378-TCDD-13C....	2.00	69
12378-PeCDF-13C..	2.00	63
23478-PeCDF-13C..	2.00	67
12378-PeCDD-13C..	2.00	73
123478-HxCDF-13C.	2.00	72
123678-HxCDF-13C.	2.00	64
234678-HxCDF-13C.	2.00	73
123789-HxCDF-13C.	2.00	73
123478-HxCDD-13C.	2.00	80
123678-HxCDD-13C.	2.00	69
1234678-HpCDF-13C	2.00	67
1234789-HpCDF-13C	2.00	67
1234678-HpCDD-13C	2.00	75
OCDD-13C.....	4.00	65
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	57

Total 2378-TCDD
Equivalence: 0.14 ng/kg
(Using ITE Factors/DB-5 Data)

DRAFT DOCUMENT - NOT VALIDATED

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD - Limit of Detection
ND = Not Detected
NA = Not Applicable

TCT Invoice Number....4411 94-5037

****
TWIN CITY TESTING CORPORATION
*METHOD 8290 ANALYSIS RESULTS *
****
Client....ECOLOGY & ENVIRONMENT

DRAFT

TCT Sample ID.....BLANK-061094
Analysis Date.....6/14/94 13:23
Filename.....S40614F
Injected By.....CML
Total Amount Extracted...0.0100 kg
% Moisture.....NA %
ICAL Date.....5/24/94
CCAL Filename.....S40614B
Method Blank ID.....NA
Extraction Date.....6/10/94

NATIVE ISOMERS	CONC. ng/kg	LOD ng/kg
2378-TCDF	ND	1.40
TOTAL TCDF	ND	-----
2378-TCDD	ND	1.10
TOTAL TCDD	ND	-----
12378-PeCDF	ND	0.76
23478-PeCDF	ND	0.92
TOTAL PeCDF	ND	-----
12378-PeCDD	ND	1.80
TOTAL PeCDD	ND	-----
123478-HxCDF	ND	1.30
123678-HxCDF	ND	1.40
234678-HxCDF	ND	1.10
123789-HxCDF	ND	1.90
TOTAL HxCDF	ND	-----
123478-HxCDD	ND	1.60
123678-HxCDD	ND	1.40
123789-HxCDD	ND	1.40
TOTAL HxCDD	ND	-----
1234678-HpCDF	ND	0.94
1234789-HpCDF	ND	1.60
TOTAL HpCDF	ND	-----
1234678-HpCDD	1.30	-----
TOTAL HpCDD	2.60	-----
OCDF	0.85	-----
OCDD	25.00	-----

INTERNAL STANDARDS	ng's ADDED	PERCENT RECOVERY
2378-TCDF-13C....	2.00	21
2378-TCDD-13C....	2.00	28
12378-PeCDF-13C..	2.00	39
23478-PeCDF-13C..	2.00	46
12378-PeCDD-13C..	2.00	52
123478-HxCDF-13C.	2.00	70
123678-HxCDF-13C.	2.00	57
234678-HxCDF-13C.	2.00	68
123789-HxCDF-13C.	2.00	70
123478-HxCDD-13C.	2.00	79
123678-HxCDD-13C.	2.00	65
1234678-HpCDF-13C	2.00	71
1234789-HpCDF-13C	2.00	79
1234678-HpCDD-13C	2.00	82
OCDD-13C.....	4.00	81
1234-TCDD-13C....	2.00	NA
123789-HxCDD-13C.	2.00	NA
2378-TCDD-37Cl4..	0.20	28

Total 2378-TCDD
Equivalence: 0.039 ng/kg
(Using ITE Factors/DB-5 Data)

- DRAFT DOCUMENT -
NOT VALIDATED

CONC= Concentration (Totals include 2378-substituted isomers.)
LOD = Limit of Detection
ND = Not Detected
NA = Not Applicable

TCT Invoice Number....4411 94-5037

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*********************************
*TWIN CITY TESTING CORPORATION*
*   PCDD/PCDF SPIKE RESULTS   *
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Client....ECOLOGY & ENVIRONMENT

Client's Sample ID.....GS-DIX-108-MS
TCT Sample ID.....25158-MS
Analysis Date.....6/14/94 10:15
Filename.....S40614C
Sample Injected By.....CML
Total Amount Extracted.....0.0110 kg
% Moisture..... 5.8 %
ICAL Date.....5/24/94
CCAL Filename.....S40614B
Method Blank ID.....BLANK-060994A
Extraction Date.....6/9/94

DRAFT

NATIVE ISOMERS	Qs (ng)	Qm (ng)	% REC	INTERNAL STANDARD	ng's ADDED	PERCENT RECOVERY
2378-TCDF	0.20	0.22	111	2378-TCDF-13C....	2.00	68
				2378-TCDD-13C....	2.00	73
				12378-PeCDF-13C..	2.00	65
2378-TCDD	0.20	0.22	110	23478-PeCDF-13C..	2.00	72
				12378-PeCDD-13C..	2.00	79
				123478-HxCDF-13C.	2.00	80
12378-PeCDF	1.00	1.32	132 *	123678-HxCDF-13C.	2.00	71
23478-PeCDF	1.00	0.97	97	234678-HxCDF-13C.	2.00	78
				123789-HxCDF-13C.	2.00	87
				123478-HxCDD-13C.	2.00	82
12378-PeCDD	1.00	1.11	111	123678-HxCDD-13C.	2.00	77
				1234678-HpCDF-13C	2.00	87
				1234789-HpCDF-13C	2.00	91
123478-HxCDF	1.00	1.09	109	1234678-HpCDD-13C	2.00	90
123678-HxCDF	1.00	1.10	110	OCDD-13C.....	4.00	80
234678-HxCDF	1.00	1.06	106			
123789-HxCDF	1.00	1.07	107	1234-TCDD-13C....	2.00	NA
				123789-HxCDD-13C.	2.00	NA
123478-HxCDD	1.00	1.08	108	2378-TCDD-37Cl4..	0.20	63
123678-HxCDD	1.00	1.15	115			
123789-HxCDD	1.00	1.18	118			
1234678-HpCDF	1.00	2.62	262			
1234789-HpCDF	1.00	1.05	105			
1234678-HpCDD	1.00	5.99	599			
OCDF	2.00	11.19	559			
OCDD	2.00	44.94	2247			

DRAFT DOCUMENT - NOT VALIDATED

Qs = Quantity Spiked
Qm = Quantity Measured
REC = Recovery (Expressed as Percent)
NA = Not Applicable

* PCDPE Coelution.

TCT Invoice Number....4411 94-5037

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*********************************
*TWIN CITY TESTING CORPORATION*
*   PCDD/PCDF SPIKE RESULTS   *
*********************************
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Client....ECOLOGY & ENVIRONMENT

Client's Sample ID.....GS-DIX-108-MSD
TCT Sample ID.....25158-MSD
Analysis Date.....6/14/94 11:04
Filename.....S40614D
Sample Injected By.....CML
Total Amount Extracted.....0.0111 kg
% Moisture..... 5.8 %
ICAL Date.....5/24/94
CCAL Filename.....S40614B
Method Blank ID.....BLANK-060994A
Extraction Date.....6/9/94

DRAFT

NATIVE ISOMERS	Qs (ng)	Qm (ng)	% REC	INTERNAL STANDARD	ng's ADDED	PERCENT RECOVERY
2378-TCDF	0.20	0.23	114	2378-TCDF-13C....	2.00	85
				2378-TCDD-13C....	2.00	79
				12378-PeCDF-13C..	2.00	94
2378-TCDD	0.20	0.23	114	23478-PeCDF-13C..	2.00	104
				12378-PeCDD-13C..	2.00	104
				123478-HxCDF-13C.	2.00	90
12378-PeCDF	1.00	1.35	135 *	123678-HxCDF-13C.	2.00	74
23478-PeCDF	1.00	0.96	96	234678-HxCDF-13C.	2.00	77
				123789-HxCDF-13C.	2.00	88
				123478-HxCDD-13C.	2.00	78
12378-PeCDD	1.00	1.07	107	123678-HxCDD-13C.	2.00	64
				1234678-HpCDF-13C	2.00	101
				1234789-HpCDF-13C	2.00	98
123478-HxCDF	1.00	1.16	116	1234678-HpCDD-13C	2.00	103
123678-HxCDF	1.00	1.12	112	OCDD-13C.....	4.00	86
234678-HxCDF	1.00	1.05	105			
123789-HxCDF	1.00	1.07	107	1234-TCDD-13C....	2.00	NA
				123789-HxCDD-13C.	2.00	NA
123478-HxCDD	1.00	1.03	103	2378-TCDD-37Cl4..	0.20	73
123678-HxCDD	1.00	1.20	120			
123789-HxCDD	1.00	1.55	155			
1234678-HpCDF	1.00	2.76	276			
1234789-HpCDF	1.00	1.13	113			
1234678-HpCDD	1.00	6.07	607			
OCDF	2.00	13.54	677			
OCDD	2.00	48.57	2428			

- DRAFT DOCUMENT -
NOT VALIDATED

Qs = Quantity Spiked
Qm = Quantity Measured
REC = Recovery (Expressed as Percent)
NA - Not Applicable

* PCDPE Coelution.

TCT Invoice Number....4411 94-5037

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*********************************
*TWIN CITY TESTING CORPORATION*
* PCDF/PCDD ANALYSIS RESULTS   *
*********************************
      Client....ECOLOGY & ENVIRONMENT
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MS/MSD RECOVERY RELATIVE PERCENT DIFFERENCE (RPD) RESULTS

MS ID.....GS-DIX-108-MS
MS Filename.....S40614C
MSD ID.....GS-DIX-108-MSD
MSD Filename.....S40614D

DRAFT

COMPOUND	MS REC,%	MSD REC,%	RPD,%
2378-TCDF	111	114	2.7
2378-TCDD	110	114	3.6
12378-PeCDF	132	135	2.2
23478-PeCDF	97	96	1.0
12378-PeCDD	111	107	3.7
123478-HxCDF	109	116	6.2
123678-HxCDF	110	112	1.8
234678-HxCDF	106	105	0.9
123789-HxCDF	107	107	0.0
123478-HxCDD	108	103	4.7
123678-HxCDD	115	120	4.3
123789-HxCDD	118	155	27.1
1234678-HpCDF	262	276	5.2
1234789-HpCDF	105	113	7.3
1234678-HpCDD	599	607	1.3
OCDF	559	677	19.1
OCDD	2247	2428	7.7

-DRAFT DOCUMENT-
NOT VALIDATED

MS = Matrix Spike
MSD = Matrix Spike Duplicate
REC = Percent Recovered
RPD = The difference between the two values divided by the average.

TCT Invoice Number....4411 94-5037

EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	GS-C304-101	Lab ID (HSN):	GS-C304-101
Matrix:	LEACH	Filename:	4157K15
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

- DRAFT DOCUMENT -
NOT VALIDATED

Surrogate Recovery		QC LIMITS
2-Fluorophenol	48%	21-110%
Phenol-d5	31%	10-110%
2-Chlorophenol-d4	75%	33-110%
Nitrobenzene-d5	92%	35-114%
2-Fluorobiphenyl	70%	43-116%
2,4,6-Tribromophenol	96%	10-123%
Terphenyl-d14	136%	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:

Huntingdon

EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID:	GS-C304-101MS	Lab ID (HSN):	GS-C304-101MS
Matrix:	LEACH	Filename:	4160K15
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	180	50
1,4-Dichlorobenzene	180	50
o-Cresol	250	50
m- and/or p Cresol	440	50
Hexachloroethane	170	50
Nitrobenzene	280	50
Hexachloro-1,3-butadiene	160	50
2,4,6-Trichlorophenol	290	50
2,4,5-Trichlorophenol	300	13[illegible]
2,4-Dinitrotoluene	290	50
Hexachlorobenzene	310	50
Pentachlorophenol	620 E	130

DRAFT DOCUMENT
NOT VALIDATED

Surrogate Recovery		QC LIMITS
2-Fluorophenol	51%	21-110%
Phenol-d5	33%	10-110%
2-Chlorophenol-d4	81%	33-110%
1,2-Dichlorobenzene-d4	55%	16-110%
Nitrobenzene-d5	84%	35-114%
2-Fluorobiphenyl	64%	43-116%
2,4,6-Tribromophenol	107%	10-123%
Terphenyl-d14	112%	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:

Huntingdon

EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID:	GS-C304-101MSD	Lab ID (HSN):	GS-C304-101MSD
Matrix:	LEACH	Filename:	4160K16
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	150	50
o-Cresol	220	50
m- and/or p-Cresol	390	50
Hexachloroethane	130	50
Nitrobenzene	270	50
Hexachloro-1,3-butadiene	140	50
2,4,6-Trichlorophenol	270	50
2,4,5-Trichlorophenol	280	130
2,4-Dinitrotoluene	260	50
Hexachlorobenzene	310	50
Pentachlorophenol	650 E	130

- DRAFT DOCUMENT -
NOT VALIDATED

Surrogate Recovery		QC LIMITS
2-Fluorophenol	45%	21-110%
Phenol-d5	30%	10-110%
2-Chlorophenol-d4	75%	33-110%
1,2-Dichlorobenzene-d4	48%	16-110%
Nitrobenzene-d5	74%	35-114%
2-Fluorobiphenyl	55%	43-116%
2,4,6-Tribromophenol	105%	10-123%
Terphenyl-d14	104%	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:

Huntingdon

EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID:	GS-C4-102	Lab ID (HSN):	GS-C4-102
Matrix:	LEACH	Filename:	4157K19
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	5 J	50
m- and/or p-Cresol	320	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

DRAFT DOCUMENT.
NOT VALIDATED

Surrogate Recovery		QC LIMITS
2-Fluorophenol	43%	21-110%
Phenol-d5	32%	10-110%
2-Chlorophenol-d4	69%	33-110%
Nitrobenzene-d5	91%	35-114%
2-Fluorobiphenyl	89%	43-116%
2,4,6-Tribromophenol	134%E	10-123%
Terphenyl-d14	195%E	Y 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:

Huntingdon

EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID:	GS-C4-102 RI	Lab ID (HSN):	GS-C4-102 RI
Matrix:	LEACH	Filename:	4158K04
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:	06/07/94		
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	330	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

DRAFT DOCUMENT.
NOT VALIDATED

Surrogate Recovery		QC LIMITS
2-Fluorophenol	43%	21-110%
Phenol-d5	34%	10-110%
2-Chlorophenol-d4	73%	33-110%
Nitrobenzene-d5	86%	35-114%
2-Fluorobiphenyl	96%	43-116%
2,4,6-Tribromophenol	129%E	10-123%
Terphenyl-d14	172%E	Y 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:	GS-C6-103	Lab ID (HSN):	GS-C6-103
Matrix:	LEACH	Filename:	4157K20
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:	06/07/94		
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	26 J	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

DRAFT DOCUMENT.
NOT VALIDATED

Surrogate Recovery		QC LIMITS
2-Fluorophenol	41%	21-110%
Phenol-d5	28%	10-110%
2-Chlorophenol-d4	66%	33-110%
Nitrobenzene d5	77%	35-114%
2-Fluorobiphenyl	72%	43-116%
2,4,6-Tribromophenol	102%	10-[illegible]
Terphenyl-d14	129%	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:

Huntingdon

EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID:	GS-B6-104	Lab ID (HSN):	GS-B6-104
Matrix:	LEACH	Filename:	4157K23
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:	06/07/94		
Date Leached:	06/02/94		

Compounds:	ug/L (PPB)		EQL
Pyridine	50 U		50
1,4-Dichlorobenzene	50 U		50
o-Cresol	14 J	X	50
m- and/or p-Cresol	52	X	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	46 J		130
2,4-Dinitrotoluene	50 U		50
Hexachlorobenzene	50 U		50
Pentachlorophenol	130 U		130

DRAFT DOCUMENT - NOT VALIDATED

Surrogate Recovery		QC LIMITS
2-Fluorophenol	0%U	X 21-110%
Phenol-d5	0%U	X 10-110%
2-Chlorophenol-d4	31%	X 33-110%
Nitrobenzene-d5	90%	35-114%
2-Fluorobiphenyl	86%	43-116%
2,4,6-Tribromophenol	71%	10-123%
Terphenyl-d14	180%E	Y 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
X = Interferences present

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:	GS-B6-104 DL1	Lab ID (HSN):	GS-B6-104 DL1
Matrix:	LEACH	Filename:	4157K22
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:	10
Date Analyzed:	06/07/94		
Date Leached:	06/02/94		

Compounds:	ug/L (PPB)	EQL
Pyridine	500 UD	500
1,4-Dichlorobenzene	500 UD	500
o-Cresol	500 UD	500
m- and/or p-Cresol	65 JD	500
Hexachloroethane	500 UD	500
Nitrobenzene	500 UD	500
Hexachloro-1,3-butadiene	500 UD	500
2,4,6-Trichlorophenol	500 UD	500
2,4,5-Trichlorophenol	1300 UD	1300
2,4-Dinitrotoluene	500 UD	500
Hexachlorobenzene	500 UD	500
Pentachlorophenol	1300 UD	1300

DRAFT DOCUMENT.
NOT VALIDATED

Surrogate Recovery		QC LIMITS
2-Fluorophenol	45%JD	21-110%
Phenol-d5	33%JD	10-110%
2-Chlorophenol-d4	77%JD	33-110%
Nitrobenzene-d5	86%JD	35-114%
2-Fluorobiphenyl	81%JD	43-116%
2,4,6-Tribromophenol	99%JD	10-123%
Terphenyl-d14	113%JD	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
D - Analysis at a secondary Dilution factor

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

HPN:

HPN/Client: 5037
Project Manager: Terry

ORGANOCHLORINE PESTICIDE/PCB RESULTS
EPA METHOD 8080

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

TCT ID:			25147	PQL	
Parameter:				(38000*)	POL
Aldrin			ND	31000	0.83
alpha-BHC					0.83
beta-BHC					0.83
delta-BHC					0.83
gamma-BHC (Lindane)				31000	0.83
4,4'-DDD				64000	1.7
4,4'-DDE					1.7
4,4'-DDT					1.7
Dieldrin				64000	1.7
alpha-Endosulfan				31000	0.83
beta-Endosulfan				64000	1.7
Endosulfan Sulfate			ND		1.7
Endrin			190,000 ⊛ ⊕		1.7
Endrin Aldehyde			ND	64,000	1.7
Heptachlor				31000	0.83
Heptachlor Epoxide				31000	0.83
4,4'-Methoxychlor				310,000	8.3
Technical Chlordane				640,000	17
Toxaphene					17
PCB 1016					17
PCB 1221					17
PCB 1232					17
PCB 1242					17
PCB 1248					17
PCB 1254			ND	640,000	17
PCB 1260				3,200,000	17
% Surrogate #1 Recovery:			—— *		
% Surrogate #2 Recovery:			—— *		
Date Extracted:			6-9-94		
Date Analyzed:			6-13-94		

DRAFT DOCUMENT - NOT VALIDATED

All results are reported on a dry weight basis.
POL = Practical Quantitation Limit
ND = Not Detected above POL
Surrogate #1 = TCMX (2,4,5,6-tetrachloro-m-xylene)
Surrogate #2 = DCB (decachlorobiphenyl)

* Low surrogate (diluted out)
⊛ Reported value is not within 75% RPD
⊕ Chromatographic peaks within pattern of identified PCB

Analyst: [signature] Date: 6-14-94

Reviewer: [signature] Date: 6-14-94

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

C-297 (3/94)

HPN/Client: 5037
Project Manager: Terry

ORGANOCHLORINE PESTICIDE/PCB RESULTS
EPA METHOD 8080

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

TCT ID:	25150	PQL	25159	PQL (1765x)	PQL
Parameter:					
Aldrin	ND	270	ND	1500	0.83
alpha-BHC					0.83
beta-BHC					0.83
delta-BHC					0.83
gamma-BHC (Lindane)		270	ND	1500	0.83
4,4'-DDD		550	5400 ⊛	3000	1.7
4,4'-DDE			ND		1.7
4,4'-DDT					1.7
Dieldrin		550		3000	1.7
alpha-Endosulfan		270		1500	0.83
beta-Endosulfan		550		3000	1.7
Endosulfan Sulfate	ND		ND		1.7
Endrin	6900 ⊛		3100 ⊛		1.7
Endrin Aldehyde	2200 ⊛	550	ND	3000	1.7
Heptachlor	ND	270		1500	0.83
Heptachlor Epoxide		270		1500	0.83
4,4'-Methoxychlor		2700		15,000	8.3
Technical Chlordane		5500		30,000	17
Toxaphene					17
PCB 1016					17
PCB 1221			DRAFT DOCUMENT		17
PCB 1232			NOT VALIDATED		17
PCB 1242					17
PCB 1248					17
PCB 1254					17
PCB 1260	ND	5500	ND	30,000	17
% Surrogate #1 Recovery:	83%		91%		
% Surrogate #2 Recovery:	—— *		215% ★		
Date Extracted:	6-9-94		6-9-94		
Date Analyzed:	6-13-94		6-13-94		

All results are reported on a dry weight basis.
PQL = Practical Quantitation Limit
ND = Not Detected above PQL
Surrogate #1 = TCMX (2,4,5,6-tetrachloro-m-xylene)
Surrogate #2 = DCB (decachlorobiphenyl)

⊛ Reported value is not confirmed within 25% RPD
★ High surrogate recovery possibly due to dilution and matrix effects
* Low surrogate recovery

Analyst: [signature] Date: 6-14-94

Reviewer: [signature] Date: 6-24-94

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

C-287 (2/94)

HPN/Client: 5037
Project Manager: Terry

ORGANOCHLORINE PESTICIDE/PCB RESULTS
EPA METHOD 8080

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

TCT ID:	25152	—	—	BLANK	
Parameter:		PQL (3700)			PQL
Aldrin	ND	310		ND	0.83
alpha-BHC					0.83
beta-BHC					0.83
delta-BHC					0.83
gamma-BHC (Lindane)	ND	310			0.83
4,4'-DDD	3500 ⊗ ⊗	630			1.7
4,4'-DDE	950 ⊗ ⊗				1.7
4,4'-DDT	ND				1.7
Dieldrin		630			1.7
alpha-Endosulfan		310			0.83
beta-Endosulfan		630			1.7
Endosulfan Sulfate	ND				1.7
Endrin	5800 ⊗ ⊗			ND	1.7
Endrin Aldehyde	ND	630		10	1.7
Heptachlor	500 ⊗	310		ND	0.83
Heptachlor Epoxide	ND	310			0.83
4,4'-Methoxychlor		3100			8.3
Technical Chlordane		6300			17
Toxaphene					17
PCB 1016					17
PCB 1221					17
PCB 1232					17
PCB 1242					17
PCB 1248					17
PCB 1254	ND	6300			17
PCB 1260	ND	32,000 6300 ⊗ DF		ND	17
% Surrogate #1 Recovery:	184% ★			59% *	
% Surrogate #2 Recovery:	22%			41%	
Date Extracted:	6-9-94			6-9-94	
Date Analyzed:	6-13-94			6-13-94	

DRAFT DOCUMENT. NOT VALIDATED

All results are reported on a dry weight basis.
PQL = Practical Quantitation Limit
ND = Not Detected above PQL
Surrogate #1 = TCMX (2,4,5,6-tetrachloro-m-xylene)
Surrogate #2 = DCB (decachlorobiphenyl)

* Low surrogate recovery due to matrix interference
★ High surrogate recovery possibly due to dilution and matrix effects
⊗ Reported value is not confirmed within 25% RPD
⊗ Chromatographic peaks within pattern of identified PCB

Analyst: [signature] Date: 6-14-94

Reviewer: [signature] Date: 6-14-94

Reference: EPA Test Methods of Evaluating Solid Wastes, SW-846, November 1986, 3rd Edition.
C-267 (3/94)

HPN/Client: 5037
Project Manager: Terry

ORGANOCHLORINE PESTICIDE/PCB RESULTS
EPA METHOD 8080

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

TCT ID:	25155		25155	BLANK	
Parameter:		PQL			**PQL**
Aldrin	ND	~~0.5~~ 0.067	ND	ND	0.025
alpha-BHC			0.030		0.025
beta-BHC			ND		0.025
delta-BHC					0.025
gamma-BHC (Lindane)		0.067			0.025
4,4'-DDD		0.13			0.050
4,4'-DDE					0.050
4,4'-DDT					0.050
Dieldrin		0.13			0.050
alpha-Endosulfan		0.067			0.025
beta-Endosulfan		0.13			0.050
Endosulfan Sulfate					0.050
Endrin					0.050
Endrin Aldehyde		0.13			0.050
Heptachlor		0.067			0.025
Heptachlor Epoxide		0.067			0.025
4,4'-Methoxychlor		0.67			0.25
Technical Chlordane		1.3			0.50
Toxaphene					0.50
PCB 1016					0.50
PCB 1221					0.50
PCB 1232					0.50
PCB 1242					0.50
PCB 1248					0.50
PCB 1254					0.50
PCB 1260	ND	1.3	ND	ND	0.50
% Surrogate #1 Recovery:	34%		34%	24%	
% Surrogate #2 Recovery:	68%		68%	97%	
Date Extracted:	6-3-94		6-3-94	6-3-94	
Date Analyzed:	6-10-94		6-10-94	6-10-94	

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

Analyst: [signature] Date: 6-14-94

Reviewer: [signature] Date: 6-14-94

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

Q-207 (3/94)

Huntingdon

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID:	GS-C304-101	Lab ID (HSN):	25147
Matrix:	SOIL	Filename:	4163P06
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:	1
Date Analyzed:	06/12/94	GPC Factor:	2
		% Moisture:	20.6

Compounds:	ug/Kg (PPB)		EQL
Phenol	3300	J	13000
bis(2 Chloroethyl)ether	13000	U	13000
2-Chlorophenol	13000	U	13000
1,3-Dichlorobenzene	13000	U	13000
1,4-Dichlorobenzene	13000	U	13000
1,2-Dichlorobenzene	13000	U	13000
2-Methylphenol	13000	U	13000
2,2'-oxybis(1-Chloropropane)	13000	U	13000
4-Methylphenol	13000	U	13000
N-Nitroso-di-n-propylamine	13000	U	13000
Hexachloroethane	13000	U	13000
Nitrobenzene	13000	U	13000
Isophorone	13000	U	13000
2-Nitrophenol	13000	U	13000
2,4-Dimethylphenol	13000	U	13000
bis(2-Chloroethoxy)methane	13000	U	13000
2,4-Dichlorophenol	13000	U	13000
1,2,4-Trichlorobenzene	13000	U	13000
Naphthalene	6000	J	13000
4-Chloroaniline	13000	U	13000
Hexachlorobutadiene	13000	U	13000
4-Chloro-3-methylphenol	13000	U	13000
2-Methylnaphthalene	13000	U	13000
Hexachlorocyclopentadiene	13000	U	13000
2,4,6-Trichlorophenol	13000	U	13000
2,4,5-Trichlorophenol	31000	U	31000
2-Chloronaphthalene	13000	U	13000
2-Nitroaniline	31000	U	31000
Dimethylphthalate	13000	U	13000
Acenaphthylene	13000	U	13000
2,6-Dinitrotoluene	13000	U	13000
3-Nitroaniline	31000	U	31000
Acenaphthene	13000	U	13000
2,4-Dinitrophenol	31000	U	31000
4-Nitrophenol	31000	U	31000
Dibenzofuran	13000	U	13000
2,4-Dinitrotoluene	13000	U	13000
Diethylphthalate	13000	U	13000
4-Chlorophenyl-phenylether	13000	U	13000
Fluorene	13000	U	13000
4-Nitroaniline	31000	U	31000
4,6-Dinitro-2-methylphenol	31000	U	31000

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID: GS-C304-101 Lab ID (HSN): 25147
Matrix: SOIL Filename: 4163P06

Compounds:	ug/Kg (PPB)		EQL
N-Nitrosodiphenylamine	13000 U		13000
4-Bromophenyl-phenylether	13000 U		13000
Hexachlorobenzene	13000 U		13000
Pentachlorophenol	2800 J		31000
Phenanthrene	13000 U		13000
Anthracene	13000 U		13000
Carbazole	13000 U		13000
Di-n-butylphthalate	13000 U		13000
Fluoranthene	13000 U		13000
Pyrene	13000 U	Y	13000
Butylbenzylphthalate	13000 U	Y	13000
3,3'-Dichlorobenzidine	13000 U	Y	13000
Benz(a)anthracene	13000 U	Y	13000
Chrysene	13000 U	Y	13000
bis(2-Ethylhexyl)phthalate	13000 U	Y	13000
Di-n-octylphthalate	13000 U	Y	13000
Benzo(b)fluoranthene	13000 U	Y	13000
Benzo(k)fluoranthene	13000 U	Y	13000
Benzo(a)pyrene	13000 U	Y	13000
Indeno(1,2,3-cd)pyrene	13000 U	Y	13000
Dibenz(a,h)anthracene	13000 U	Y	13000
Benzo(g,h,i)perylene	13000 U	Y	13000

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Surrogate Recovery			QC LIMITS
2-Fluorophenol	69%		25-121%
Phenol-d5	77%		24-113%
2-Chlorophenol-d4	72%		20-130%
1,2-Dichlorobenzene-d4	64%		20-130%
Nitrobenzene-d5	69%		23-120%
2-Fluorobiphenyl	90%		30-115%
2,4,6-Tribromophenol	70%		19-122%
Terphenyl-d14	136%	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
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: 5037

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID:	CS-C304-101	Lab ID (HSN):	25147MS
Matrix:	SOIL	Filename:	4163P07
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:	20.6

Compounds:	ug/Kg (PPB)		EQL
Phenol	85000	JD	130000
bis(2-Chloroethyl)ether	130000	UD	130000
2-Chlorophenol	84000	JD	130000
1,3-Dichlorobenzene	130000	UD	130000
1,4-Dichlorobenzene	54000	JD	130000
1,2-Dichlorobenzene	130000	UD	130000
2-Methylphenol	130000	UD	130000
2,2'-oxybis(1-Chloropropane)	130000	UD	130000
4-Methylphenol	130000	UD	130000
N-Nitroso-di-n-propylamine	51000	JD	130000
Hexachloroethane	130000	UD	130000
Nitrobenzene	130000	UD	130000
Isophorone	130000	UD	130000
2-Nitrophenol	130000	UD	130000
2,4-Dimethylphenol	130000	UD	130000
bis(2-Chloroethoxy)methane	130000	UD	130000
2,4-Dichlorophenol	130000	UD	130000
1,2,4-Trichlorobenzene	55000	JD	130000
Naphthalene	130000	UD	130000
4-Chloroaniline	130000	UD	130000
Hexachlorobutadiene	130000	UD	130000
4-Chloro-3-methylphenol	81000	JD	130000
2-Methylnaphthalene	130000	UD	130000
Hexachlorocyclopentadiene	130000	UD	130000
2,4,6-Trichlorophenol	130000	UD	130000
2,4,5-Trichlorophenol	310000	UD	310000
2-Chloronaphthalene	130000	UD	130000
2-Nitroaniline	310000	UD	310000
Dimethylphthalate	130000	UD	130000
Acenaphthylene	130000	UD	130000
2,6-Dinitrotoluene	130000	UD	130000
3-Nitroaniline	310000	UD	310000
Acenaphthene	47000	JD	130000
2,4-Dinitrophenol	310000	UD	310000
4-Nitrophenol	74000	JD	310000
Dibenzofuran	130000	UD	130000
2,4-Dinitrotoluene	55000	JD	130000
Diethylphthalate	130000	UD	130000
4-Chlorophenyl-phenylether	130000	UD	130000
Fluorene	130000	UD	130000
4-Nitroaniline	310000	UD	310000
4,6-Dinitro-2-methylphenol	310000	UD	310000

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HPN: 5037

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID: GS-C304-101 Lab ID (HSN): 25147MS
Matrix: SOIL Filename: 4163P07

Compounds:	ug/Kg (PPB)	EQL
N-Nitrosodiphenylamine	130000 UD	130000
4-Bromophenyl-phenylether	130000 UD	130000
Hexachlorobenzene	130000 UD	130000
Pentachlorophenol	99000 JD	310000
Phenanthrene	130000 UD	130000
Anthracene	130000 UD	130000
Carbazole	130000 UD	130000
Di-n-butylphthalate	130000 UD	130000
Fluoranthene	130000 UD	130000
Pyrene	67000 JD	130000
Butylbenzylphthalate	130000 UD	130000
3,3'-Dichlorobenzidine	130000 UD	130000
Benz(a)anthracene	130000 UD	130000
Chrysene	130000 UD	130000
bis(2-Ethylhexyl)phthalate	1600000 EDB	130000
Di-n-octylphthalate	130000 UD Y	130000
Benzo(b)fluoranthene	130000 UD Y	130000
Benzo(k)fluoranthene	130000 UD Y	130000
Benzo(a)pyrene	130000 UD Y	130000
Indeno(1,2,3-cd)pyrene	130000 UD Y	130000
Dibenz(a,h)anthracene	130000 UD Y	130000
Benzo(g,h,i)perylene	130000 UD Y	130000

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Surrogate Recovery		QC LIMITS
2-Fluorophenol	82%JD	25-121%
Phenol-d5	91%JD	24-113%
2-Chlorophenol-d4	89%JD	20-130%
1,2-Dichlorobenzene-d4	81%JD	20-130%
Nitrobenzene-d5	81%JD	23-120%
2-Fluorobiphenyl	92%JD	30-115%
2,4,6-Tribromophenol	91%JD	19-122%
Terphenyl-d14	121%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

Client ID:	GS-C304-101	Lab ID (HSN):	25147MSD
Matrix:	SOIL	Filename:	4163P08
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:	20.6

Compounds:	ug/Kg (PPB)		EQL
Phenol	89000	JD	130000
bis(2-Chloroethyl)ether	130000	UD	130000
2-Chlorophenol	88000	JD	130000
1,3-Dichlorobenzene	130000	UD	130000
1,4-Dichlorobenzene	57000	JD	130000
1,2-Dichlorobenzene	130000	UD	130000
2-Methylphenol	130000	UD	130000
2,2'-oxybis(1-Chloropropane)	130000	UD	130000
4-Methylphenol	130000	UD	130000
N-Nitroso-di-n-propylamine	54000	JD	130000
Hexachloroethane	130000	UD	130000
Nitrobenzene	130000	UD	130000
Isophorone	130000	UD	130000
2-Nitrophenol	130000	UD	130000
2,4-Dimethylphenol	130000	UD	130000
bis(2-Chloroethoxy)methane	130000	UD	130000
2,4-Dichlorophenol	130000	UD	130000
1,2,4-Trichlorobenzene	58000	JD	130000
Naphthalene	130000	UD	130000
4-Chloroaniline	130000	UD	130000
Hexachlorobutadiene	130000	UD	130000
4-Chloro-3-methylphenol	85000	JD	130000
2-Methylnaphthalene	130000	UD	130000
Hexachlorocyclopentadiene	130000	UD	130000
2,4,6-Trichlorophenol	130000	UD	130000
2,4,5-Trichlorophenol	310000	UD	310000
2-Chloronaphthalene	130000	UD	130000
2-Nitroaniline	310000	UD	310000
Dimethylphthalate	130000	UD	130000
Acenaphthylene	130000	UD	130000
2,6-Dinitrotoluene	130000	UD	130000
3-Nitroaniline	310000	UD	310000
Acenaphthene	47000	JD	130000
2,4-Dinitrophenol	310000	UD	310000
4-Nitrophenol	72000	JD	310000
Dibenzofuran	130000	UD	130000
2,4-Dinitrotoluene	56000	JD	130000
Diethylphthalate	130000	UD	130000
4-Chlorophenyl-phenylether	130000	UD	130000
Fluorene	130000	UD	130000
4-Nitroaniline	310000	UD	310000
4,6-Dinitro-2-methylphenol	310000	UD	310000

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HPN: 5037

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID: GS-C304-101 Lab ID (HSN): 25147MSD
Matrix: SOIL Filename: 4163P08

Compounds:	ug/Kg (PPB)		EQL
N-Nitrosodiphenylamine	130000 UD		130000
4-Bromophenyl-phenylether	130000 UD		130000
Hexachlorobenzene	130000 UD		130000
Pentachlorophenol	98000 JD		310000
Phenanthrene	130000 UD		130000
Anthracene	130000 UD		130000
Carbazole	130000 UD		130000
Di-n-butylphthalate	130000 UD		130000
Fluoranthene	130000 UD		130000
Pyrene	73000 JD		130000
Butylbenzylphthalate	130000 UD		130000
3,3'-Dichlorobenzidine	130000 UD		130000
Benz(a)anthracene	130000 UD		130000
Chrysene	130000 UD		130000
bis(2-Ethylhexyl)phthalate	130000 UD		130000
Di-n-octylphthalate	130000 UD	Y	130000
Benzo(b)fluoranthene	130000 UD	Y	130000
Benzo(k)fluoranthene	130000 UD	Y	130000
Benzo(a)pyrene	130000 UD	Y	130000
Indeno(1,2,3-cd)pyrene	130000 UD	Y	130000
Dibenz(a,h)anthracene	130000 UD	Y	130000
Benzo(g,h,i)perylene	130000 UD	Y	130000

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Surrogate Recovery		QC LIMITS
2-Fluorophenol	89%JD	25-121%
Phenol-d5	96%JD	24-113%
2-Chlorophenol-d4	95%JD	20-130%
1,2-Dichlorobenzene-d4	91%JD	20-130%
Nitrobenzene-d5	84%JD	23-120%
2-Fluorobiphenyl	94%JD	30-115%
2,4,6-Tribromophenol	89%JD	19-122%
Terphenyl-d14	129%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:	GS-C4-102	Lab ID (HSN):	25150DL
Matrix:	SOIL	Filename:	4164P06
Date Sampled:	05/27/94	Sample Size:	1 grams
Date Received:	05/31/94	Extract Vol.:	1000 uL
Date Extracted:	06/10/94	Dil. Factor:	5
Date Analyzed:	06/13/94	GPC Factor:	2
		% Moisture:	6.6

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	400000	D	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

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID: GS-C4-102 Lab ID (HSN): 25150DL
Matrix: SOIL Filename: 4164P06

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	37000 JD	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	26000 JD	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

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Surrogate Recovery		QC LIMITS
2-Fluorophenol	82%JD	25-121%
Phenol-d5	84%JD	24-113%
2-Chlorophenol-d4	83%JD	20-130%
1,2-Dichlorobenzene-d4	80%JD	20-130%
Nitrobenzene-d5	73%JD	23-120%
2-Fluorobiphenyl	85%JD	30-115%
2,4,6-Tribromophenol	95%JD	19-122%
Terphenyl-d14	109%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

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: 5037

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	GS-C6-103	Lab ID (HSN):	25152
Matrix:	SOIL	Filename:	4163P14
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:	19.4

Compounds:	ug/Kg (PPB)		EQL
Phenol	120000	UD	120000
bis(2-Chloroethyl)ether	120000	UD	120000
2-Chlorophenol	120000	UD	120000
1,3-Dichlorobenzene	120000	UD	120000
1,4-Dichlorobenzene	120000	UD	120000
1,2-Dichlorobenzene	120000	UD	120000
2-Methylphenol	120000	UD	120000
2,2'-oxybis(1-Chloropropane)	120000	UD	120000
4-Methylphenol	120000	UD	120000
N-Nitroso-di-n-propylamine	120000	UD	120000
Hexachloroethane	120000	UD	120000
Nitrobenzene	120000	UD	120000
Isophorone	120000	UD	120000
2-Nitrophenol	120000	UD	120000
2,4-Dimethylphenol	120000	UD	120000
bis(2-Chloroethoxy)methane	120000	UD	120000
2,4-Dichlorophenol	120000	UD	120000
1,2,4-Trichlorobenzene	120000	UD	120000
Naphthalene	170000	D	120000
4-Chloroaniline	120000	UD	120000
Hexachlorobutadiene	120000	UD	120000
4-Chloro-3-methylphenol	120000	UD	120000
2-Methylnaphthalene	14000	JD	120000
Hexachlorocyclopentadiene	120000	UD	120000
2,4,6-Trichlorophenol	120000	UD	120000
2,4,5-Trichlorophenol	310000	UD	310000
2-Chloronaphthalene	120000	UD	120000
2-Nitroaniline	310000	UD	310000
Dimethylphthalate	120000	UD	120000
Acenaphthylene	120000	UD	120000
2,6-Dinitrotoluene	120000	UD	120000
3-Nitroaniline	310000	UD	310000
Acenaphthene	120000	UD	120000
2,4-Dinitrophenol	310000	UD	310000
4-Nitrophenol	310000	UD	310000
Dibenzofuran	120000	UD	120000
2,4-Dinitrotoluene	120000	UD	120000
Diethylphthalate	120000	UD	120000
4-Chlorophenyl-phenylether	120000	UD	120000
Fluorene	120000	UD	120000
4-Nitroaniline	310000	UD	310000
4,6-Dinitro-2-methylphenol	310000	UD	310000

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HPN: 5037

Huntingdon

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID: GS-C6-103 Lab ID (HSN): 25152
Matrix: SOIL Filename: 4163P14

Compounds:	ug/Kg (PPB)			EQL
N-Nitrosodiphenylamine	120000	UD		120000
4-Bromophenyl-phenylether	120000	UD		120000
Hexachlorobenzene	120000	UD		120000
Pentachlorophenol	310000	UD		310000
Phenanthrene	78000	JD		120000
Anthracene	120000	UD		120000
Carbazole	120000	UD		120000
Di-n-butylphthalate	120000	UD		120000
Fluoranthene	17000	JD		120000
Pyrene	180000	D	Y	120000
Butylbenzylphthalate	120000	UD	Y	120000
3,3'-Dichlorobenzidine	120000	UD	Y	120000
Benz(a)anthracene	40000	JD	Y	120000
Chrysene	110000	JD	Y	120000
bis(2-Ethylhexyl)phthalate	120000	UD	Y	120000
Di-n-octylphthalate	120000	UD	Y	120000
Benzo(b)fluoranthene	24000	JD	Y	120000
Benzo(k)fluoranthene	120000	UD	Y	120000
Benzo(a)pyrene	25000	JD	Y	120000
Indeno(1,2,3-cd)pyrene	120000	UD	Y	120000
Dibenz(a,h)anthracene	120000	UD	Y	120000
Benzo(g,h,i)perylene	120000	UD	Y	120000

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Surrogate Recovery				QC LIMITS
2-Fluorophenol	86%	JD		25-121%
Phenol-d5	95%	JD		24-113%
2-Chlorophenol-d4	89%	JD		20-130%
1,2-Dichlorobenzene-d4	88%	JD		20-130%
Nitrobenzene-d5	90%	JD		23-120%
2-Fluorobiphenyl	107%	JD		30-115%
2,4,6-Tribromophenol	73%	JD		19-122%
Terphenyl-d14	150%	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:	GS-C6-103	Lab ID (HSN):	25152RI
Matrix:	SOIL	Filename:	4164P08
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:	19.4

Compounds:	ug/Kg (PPB)		EQL
Phenol	120000	UD	120000
bis(2-Chloroethyl)ether	120000	UD	120000
2-Chlorophenol	120000	UD	120000
1,3-Dichlorobenzene	120000	UD	120000
1,4-Dichlorobenzene	120000	UD	120000
1,2-Dichlorobenzene	120000	UD	120000
2-Methylphenol	120000	UD	120000
2,2'-oxybis(1-Chloropropane)	120000	UD	120000
4-Methylphenol	120000	UD	120000
N-Nitroso-di-n-propylamine	120000	UD	120000
Hexachloroethane	120000	UD	120000
Nitrobenzene	120000	UD	120000
Isophorone	120000	UD	120000
2-Nitrophenol	120000	UD	120000
2,4-Dimethylphenol	120000	UD	120000
bis(2-Chloroethoxy)methane	120000	UD	120000
2,4-Dichlorophenol	120000	UD	120000
1,2,4-Trichlorobenzene	120000	UD	120000
Naphthalene	170000	D	120000
4-Chloroaniline	120000	UD	120000
Hexachlorobutadiene	120000	UD	120000
4-Chloro-3-methylphenol	120000	UD	120000
2-Methylnaphthalene	15000	JD	120000
Hexachlorocyclopentadiene	120000	UD	120000
2,4,6-Trichlorophenol	120000	UD	120000
2,4,5-Trichlorophenol	310000	UD	310000
2-Chloronaphthalene	120000	UD	120000
2-Nitroaniline	310000	UD	310000
Dimethylphthalate	120000	UD	120000
Acenaphthylene	120000	UD	120000
2,6-Dinitrotoluene	120000	UD	120000
3-Nitroaniline	310000	UD	310000
Acenaphthene	120000	UD	120000
2,4-Dinitrophenol	310000	UD	310000
4-Nitrophenol	310000	UD	310000
Dibenzofuran	120000	UD	120000
2,4-Dinitrotoluene	120000	UD	120000
Diethylphthalate	120000	UD	120000
4-Chlorophenyl-phenylether	120000	UD	120000
Fluorene	120000	UD	120000
4-Nitroaniline	310000	UD	310000
4,6-Dinitro-2-methylphenol	310000	UD	310000

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID: GS-C6-103 Lab ID (HSN): 25152RI
Matrix: SOIL Filename: 4164P08

Compounds:	ug/Kg (PPB)		EQL
N-Nitrosodiphenylamine	120000	UD	120000
4-Bromophenyl-phenylether	120000	UD	120000
Hexachlorobenzene	120000	UD	120000
Pentachlorophenol	310000	UD	310000
Phenanthrene	76000	JD	120000
Anthracene	120000	UD	120000
Carbazole	120000	UD	120000
Di-n-butylphthalate	120000	UD	120000
Fluoranthene	20000	JD	120000
Pyrene	180000	D Y	120000
Butylbenzylphthalate	120000	UD Y	120000
3,3'-Dichlorobenzidine	120000	UD Y	120000
Benz(a)anthracene	45000	JD Y	120000
Chrysene	110000	JD Y	120000
bis(2-Ethylhexyl)phthalate	24000	JDBY	120000
Di-n-octylphthalate	120000	UD Y	120000
Benzo(b)fluoranthene	25000	JD Y	120000
Benzo(k)fluoranthene	120000	UD Y	120000
Benzo(a)pyrene	24000	JD Y	120000
Indeno(1,2,3-cd)pyrene	120000	UD Y	120000
Dibenz(a,h)anthracene	120000	UD Y	120000
Benzo(g,h,i)perylene	46000	JD Y	120000

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Surrogate Recovery		QC LIMITS
2-Fluorophenol	86%JD	25-121%
Phenol d5	90%JD	24-113%
2-Chlorophenol-d4	93%JD	20-130%
1,2-Dichlorobenzene-d4	88%JD	20-130%
Nitrobenzene-d5	82%JD	23-120%
2-Fluorobiphenyl	101%JD	30-115%
2,4,6-Tribromophenol	81%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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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID:	GS-B6-104	Lab ID (HSN):	25154
Matrix:	SOIL	Filename:	4163P15
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:	83

Compounds:	ug/Kg (PPB)		EQL
Phenol	97000	JD	590000
bis(2-Chloroethyl)ether	590000	UD	590000
2-Chlorophenol	590000	UD	590000
1,3-Dichlorobenzene	590000	UD	590000
1,4-Dichlorobenzene	590000	UD	590000
1,2-Dichlorobenzene	590000	UD	590000
2-Methylphenol	590000	UD	590000
2,2'-oxybis(1-Chloropropane)	590000	UD	590000
4-Methylphenol	590000	UD	590000
N-Nitroso-di-n-propylamine	590000	UD	590000
Hexachloroethane	590000	UD	590000
Nitrobenzene	590000	UD	590000
Isophorone	590000	UD	590000
2-Nitrophenol	590000	UD	590000
2,4-Dimethylphenol	590000	UD	590000
bis(2-Chloroethoxy)methane	590000	UD	590000
2,4-Dichlorophenol	260000	JD	590000
1,2,4-Trichlorobenzene	590000	UD	590000
Naphthalene	5200000	ED	590000
4-Chloroaniline	1700000	D	590000
Hexachlorobutadiene	590000	UD	590000
4-Chloro-3-methylphenol	590000	UD	590000
2-Methylnaphthalene	130000	JD	590000
Hexachlorocyclopentadiene	590000	UD	590000
2,4,6-Trichlorophenol	200000	JD	590000
2,4,5-Trichlorophenol	1500000	UD	1500000
2-Chloronaphthalene	590000	UD	590000
2-Nitroaniline	1500000	UD	1500000
Dimethylphthalate	590000	UD	590000
Acenaphthylene	590000	UD	590000
2,6-Dinitrotoluene	590000	UD	590000
3-Nitroaniline	1500000	UD	1500000
Acenaphthene	590000	UD	590000
2,4-Dinitrophenol	1500000	UD	1500000
4-Nitrophenol	1500000	UD	1500000
Dibenzofuran	590000	UD	590000
2,4-Dinitrotoluene	590000	UD	590000
Diethylphthalate	590000	UD	590000
4-Chlorophenyl-phenylether	590000	UD	590000
Fluorene	590000	UD	590000
4-Nitroaniline	1500000	UD	1500000
4,6-Dinitro-2-methylphenol	1500000	UD	1500000

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Huntingdon

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID: GS-B6-104 Lab ID (HSN): 25154
Matrix: SOIL Filename: 4163P15

Compounds:	ug/Kg (PPB)			EQL
N-Nitrosodiphenylamine	200000	JD		590000
4-Bromophenyl-phenylether	590000	UD		590000
Hexachlorobenzene	590000	UD		590000
Pentachlorophenol	280000	JD		1500000
Phenanthrene	340000	JD		590000
Anthracene	590000	UD		590000
Carbazole	590000	UD		590000
Di-n-butylphthalate	590000	UD		590000
Fluoranthene	74000	JD		590000
Pyrene	1000000	D	Y	590000
Butylbenzylphthalate	590000	UD	Y	590000
3,3'-Dichlorobenzidine	590000	UD	Y	590000
Benz(a)anthracene	440000	JD	Y	590000
Chrysene	1200000	D	Y	590000
bis(2-Ethylhexyl)phthalate	590000	UD	Y	590000
Di-n-octylphthalate	590000	UD	Y	590000
Benzo(b)fluoranthene	370000	JD	Y	590000
Benzo(k)fluoranthene	590000	UD	Y	590000
Benzo(a)pyrene	330000	JD	Y	590000
Indeno(1,2,3-cd)pyrene	590000	UD	Y	590000
Dibenz(a,h)anthracene	590000	UD	Y	590000
Benzo(g,h,i)perylene	310000	JD	Y	590000

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Surrogate Recovery				QC LIMITS
2-Fluorophenol	75%	JD		25-121%
Phenol-d5	87%	JD		24-113%
2-Chlorophenol-d4	81%	JD		20-130%
1,2-Dichlorobenzene-d4	74%	JD		20-130%
Nitrobenzene-d5	78%	JD		23-120%
2-Fluorobiphenyl	94%	JD		30-115%
2,4,6-Tribromophenol	65%	JD		19-122%
Terphenyl-d14	176%	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:	GS-B6-104	Lab ID (HSN):	25154DL
Matrix:	SOIL	Filename:	4164P07
Date Sampled:	05/27/94	Sample Size:	1 grams
Date Received:	05/27/94	Extract Vol.:	500 uL
Date Extracted:	06/09/94	Dil. Factor:	40
Date Analyzed:	06/13/94	GPC Factor:	2
		% Moisture:	83

Compounds:	ug/Kg (PPB)		EQL
Phenol	2400000	UD	2400000
bis(2-Chloroethyl)ether	2400000	UD	2400000
2-Chlorophenol	2400000	UD	2400000
1,3-Dichlorobenzene	2400000	UD	2400000
1,4-Dichlorobenzene	2400000	UD	2400000
1,2-Dichlorobenzene	2400000	UD	2400000
2-Methylphenol	2400000	UD	2400000
2,2'-oxybis(1-Chloropropane)	2400000	UD	2400000
4-Methylphenol	2400000	UD	2400000
N-Nitroso-di-n-propylamine	2400000	UD	2400000
Hexachloroethane	2400000	UD	2400000
Nitrobenzene	2400000	UD	2400000
Isophorone	2400000	UD	2400000
2-Nitrophenol	2400000	UD	2400000
2,4-Dimethylphenol	2400000	UD	2400000
bis(2-Chloroethoxy)methane	2400000	UD	2400000
2,4-Dichlorophenol	250000	JD	2400000
1,2,4-Trichlorobenzene	2400000	UD	2400000
Naphthalene	7000000	D	2400000
4-Chloroaniline	1100000	JD	2400000
Hexachlorobutadiene	2400000	UD	2400000
4-Chloro-3-methylphenol	2400000	UD	2400000
2-Methylnaphthalene	2400000	UD	2400000
Hexachlorocyclopentadiene	2400000	UD	2400000
2,4,6-Trichlorophenol	2400000	UD	2400000
2,4,5-Trichlorophenol	5900000	UD	5900000
2-Chloronaphthalene	2400000	UD	2400000
2-Nitroaniline	5900000	UD	5900000
Dimethylphthalate	2400000	UD	2400000
Acenaphthylene	2400000	UD	2400000
2,6-Dinitrotoluene	2400000	UD	2400000
3-Nitroaniline	5900000	UD	5900000
Acenaphthene	2400000	UD	2400000
2,4-Dinitrophenol	5900000	UD	5900000
4-Nitrophenol	5900000	UD	5900000
Dibenzofuran	2400000	UD	2400000
2,4-Dinitrotoluene	2400000	UD	2400000
Diethylphthalate	2400000	UD	2400000
4-Chlorophenyl-phenylether	2400000	UD	2400000
Fluorene	2400000	UD	2400000
4-Nitroaniline	5900000	UD	5900000
4,6 Dinitro-2-methylphenol	5900000	UD	5900000

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HPN: 5037

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

Client ID: G8-B6-104 Lab ID (HSN): 25154DL
Matrix: SOIL Filename: 4164P07

Compounds:	ug/Kg (PPB)		EQL
N-Nitrosodiphenylamine	2400000	UD	2400000
4-Bromophenyl-phenylether	2400000	UD	2400000
Hexachlorobenzene	2400000	UD	2400000
Pentachlorophenol	5900000	UD	5900000
Phenanthrene	340000	JD	2400000
Anthracene	2400000	UD	2400000
Carbazole	2400000	UD	2400000
Di-n-butylphthalate	2400000	UD	2400000
Fluoranthene	2400000	UD	2400000
Pyrene	730000	JD	2400000
Butylbenzylphthalate	2400000	UD	2400000
3,3'-Dichlorobenzidine	2400000	UD	2400000
Benz(a)anthracene	440000	JD	2400000
Chrysene	1300000	JD	2400000
bis(2-Ethylhexyl)phthalate	2400000	UD	2400000
Di-n-octylphthalate	2400000	UD	2400000
Benzo(b)fluoranthene	420000	JD	2400000
Benzo(k)fluoranthene	2400000	UD	2400000
Benzo(a)pyrene	350000	JD	2400000
Indeno(1,2,3-cd)pyrene	2400000	UD	2400000
Dibenz(a,h)anthracene	2400000	UD	2400000
Benzo(g,h,i)perylene	360000	JD	2400000

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Surrogate Recovery		QC LIMITS
2-Fluorophenol	75%JD	25-121%
Phenol-d5	83%JD	24-113%
2-Chlorophenol-d4	80%JD	20-130%
1,2-Dichlorobenzene-d4	76%JD	20-130%
Nitrobenzene-d5	72%JD	23-120%
2-Fluorobiphenyl	88%JD	30-115%
2,4,6-Tribromophenol	75%JD	19-122%
Terphenyl-d14	136%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

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: 5037

TCL SEMIVOLATILE ORGANIC COMPOUND ANALYSIS
EPA METHOD 8270

Huntingdon

Client ID:	GS-D2W-105	Lab ID (HSN):	25155
Matrix:	WATER	Filename:	4160P13
Date Sampled:	05/27/94	Sample Size:	375 mL
Date Received:	05/31/94	Extract Vol.:	1000 uL
Date Extracted:	06/03/94	Dil. Factor:	1
Date Analyzed:	06/09/94		

Compounds:	ug/L (PPB)	EQL
Phenol	27 U	27
bis(2-Chloroethyl)ether	27 U	27
2-Chlorophenol	27 U	27
1,3-Dichlorobenzene	27 U	27
1,4-Dichlorobenzene	27 U	27
1,2-Dichlorobenzene	27 U	27
2-Methylphenol	27 U	27
2,2'-oxybis(1-Chloropropane)	27 U	27
4-Methylphenol	27 U	27
N-Nitroso-di-n-propylamine	27 U	27
Hexachloroethane	27 U	27
Nitrobenzene	27 U	27
Isophorone	27 U	27
2-Nitrophenol	27 U	27
2,4-Dimethylphenol	27 U	27
bis(2-Chloroethoxy)methane	27 U	27
2,4-Dichlorophenol	27 U	27
1,2,4-Trichlorobenzene	27 U	27
Naphthalene	27 U	27
4-Chloroaniline	27 U	27
Hexachlorobutadiene	27 U	27
4-Chloro-3-methylphenol	27 U	27
2-Methylnaphthalene	27 U	27
Hexachlorocyclopentadiene	27 U	27
2,4,6-Trichlorophenol	27 U	27
2,4,5-Trichlorophenol	67 U	67
2-Chloronaphthalene	27 U	27
2-Nitroaniline	8.4 J	67
Dimethylphthalate	27 U	27
Acenaphthylene	27 U	27
2,6-Dinitrotoluene	27 U	27
3-Nitroaniline	67 U	67
Acenaphthene	27 U	27
2,4-Dinitrophenol	67 U	67
4-Nitrophenol	67 U	67
Dibenzofuran	27 U	27
2,4-Dinitrotoluene	27 U	27
Diethylphthalate	27 U	27
4-Chlorophenyl-phenylether	27 U	27
Fluorene	27 U	27
4-Nitroaniline	67 U	67
4,6-Dinitro-2-methylphenol	67 U	67

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HPN: 5037

TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS
EPA METHOD 8270

Huntingdon

Client ID: GS-D2W-105 Lab ID (HSN): 25155
Matrix: WATER Filename: 4160P13

Compounds:	ug/L (PPB)	EQL
N-Nitrosodiphenylamine	27 U	27
4-Bromophenyl-phenylether	27 U	27
Hexachlorobenzene	27 U	27
Pentachlorophenol	67 U	67
Phenanthrene	27 U	27
Anthracene	27 U	27
Carbazole	27 U	27
Di-n-butylphthalate	27 U	27
Fluoranthene	27 U	27
Pyrene	27 U	27
Butylbenzylphthalate	27 U	27
3,3'-Dichlorobenzidine	27 U	27
Benz(a)anthracene	27 U	27
Chrysene	27 U	27
bis(2-Ethylhexyl)phthalate	13 J	27
Di-n-octylphthalate	27 U	27
Benzo(b)fluoranthene	27 U	27
Benzo(K)fluoranthene	27 U	27
Benzo(a)pyrene	27 U	27
Indeno(1,2,3-cd)pyrene	27 U	27
Dibenz(a,h)anthracene	27 U	27
Benzo(g,h,i)perylene	27 U	27

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Surrogate Recovery		QC LIMITS
2-Fluorophenol	57%	21-110%
Phenol-d5	50%	10-110%
2-Chlorophenol-d4	64%	33-110%
Nitrobenzene-d5	61%	35-114%
2-Fluorobiphenyl	60%	43-116%
2,4,6-Tribromophenol	79%	10-123%
Terphenyl-d14	82%	33-141%

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

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

HDN: 5037

QC SEMIVOLATILE SURROGATE RECOVERY

Lab Name: HUNTINGDON ST PAUL Method: SP8270C (OLM01 Target Cpds)

	SAMPLE NO. HSN	SAMPLE MATRIX	DATE PREPPED	DATE ANALYZED	INSTR ID	INSTRUMENT FILENAME	ANL YST
01	LAB. BLANK	SOIL	06/09/94	06/12/94	VGTRIO1	4163P04	GNM
02	LCS	SOIL	06/09/94	06/12/94	VGTRIO1	4163P05	GNM
03	25147	SOIL	06/09/94	06/12/94	VGTRIO1	4163P06	GNM
04	25147MS	SOIL	06/09/94	06/13/94	VGTRIO1	4163P07	GNM
05	25147MSD	SOIL	06/09/94	06/13/94	VGTRIO1	4163P08	GNM
06	25160MSD	SOIL	06/09/94	06/13/94	VGTRIO1	4163P09	GNM
07	25160MS	SOIL	06/09/94	06/13/94	VGTRIO1	4163P10	GNM
08	25160	SOIL	06/09/94	06/13/94	VGTRIO1	4163P11	GNM
09	25161	SOIL	06/09/94	06/13/94	VGTRIO1	4163P12	GNM
10	25162	SOIL	06/09/94	06/13/94	VGTRIO1	4163P13	GNM
11	25152	SOIL	06/09/94	06/13/94	VGTRIO1	4163P14	GNM
12	25154	SOIL	06/09/94	06/13/94	VGTRIO1	4163P15	GNM
13							
14							
15							

	SAMPLE NO. HSN	S1 (2FP)#	S2 (PHL)#	S3 (2CP)	S4 (DCB)#	S5 (NBZ)#	S6 (FBP)#	S7 (TBP)#	S8 (TPH)#	TOT OUT
01	LAB. BLANK	74	76	76	70	69	73	67	89	0
02	LCS	79	82	82	79	75	76	86	96	0
03	25147	69	77	72	64	69	90	70	136	0
04	25147MS	82	91	89	81	81	92	91	121	0
05	25147MSD	89	96	95	91	84	94	89	129	0
06	25160MSD	71	93	87	95	90	114	46	177 *	1
07	25160MS	78	91	87	87	87	112	60	169 *	1
08	25160	43	73	61	69	85	107	29	96	0
09	25161	62	72	69	70	82	106	69	178 *	1
10	25162	42	78	59	76	86	110	17 *	169 *	2
11	25152	86	95	89	88	90	107	73	150 *	1
12	25154	75	87	81	74	78	94	65	176 *	1
13										
14										
15										

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		QC LIMITS WATER	SOIL	OTHER
S1	(2FP) - 2-Fluorophenol	21-110%	25-121%	25-121%
S2	(PHL) - Phenol-d5	10-110%	24-113%	24-113%
S3	(2CP) - 2-Chlorophenol-d4	33-110%	20-130%	20-130%
S4	(DCB) - 1,2-Dichlorobenzene-d4	16-110%	20-130%	20-130%
S5	(NBZ) - Nitrobenzene-d5	35-114%	23-120%	23-120%
S6	(FBP) - 2 Fluorobiphenyl	43-116%	30-115%	30-115%
S7	(TBP) - 2,4,6-Tribromophenol	10-123%	19-122%	19-122%
S8	(TPH) - Terphenyl-d14	33-141%	18-137%	18-137%

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

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To Sam Borries	From Nabil Poyoumi
Co. EPA / OSC	Co. Chicago TAT
Dept. (217)	Phone # (312) 663-9415
Fax # (618) 35635	Fax # (312) 663-0791

[redacted]

(last FAX.)

Huntingdon

D 8270
IC COMPOUND RESULTS

ID (HSN):
Filename: 4163P04
ple Size: 30 grams
act Vol.: 500 uL
. Factor: 1
C Factor: 2
oisture: 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

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(continued)

HPN: 5037/5039

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Huntingdon

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID: LAB. BLANK Lab ID (HSN):
Matrix: SOIL Filename: 4163P04

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	110 JB	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

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Surrogate Recovery		QC LIMITS
2-Fluorophenol	74%	25-121%
Phenol-d5	76%	24-113%
2-Chlorophenol-d4	76%	20-130%
1,2-Dichlorobenzene-d4	70%	20-130%
Nitrobenzene-d5	69%	23-120%
2-Fluorobiphenyl	73%	30-115%
2,4,6-Tribromophenol	67%	19-122%
Terphenyl-d14	89%	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: 5037/5039

3C

Huntingdon

SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Matrix Spiked: SAND

HPN: 5037/5039
INST: VGTRIO1A

	HSN:	BLANK	LAB SPIKE
	Filename:	4163P04	4163P05
	Date Extracted:	06/09/94	06/09/94
	Date Analyzed:	06/12/94	06/12/94

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	2500	0	1800	72	26- 90
2-Chlorophenol	2500	0	1900	76	25-102
1,4-Dichlorobenzene	1700	0	1300	76	28-104
N-Nitroso-di-n-prop.(1)	1700	0	1200	71	41-126
1,2,4-Trichlorobenzene	1700	0	1200	71	38-107
4-Chloro-3-methylphenol	2500	0	2000	80	26-103
Acenaphthene	1700	0	1100	65	31-137
4-Nitrophenol	2500	0	2000	80	11-114
2,4-Dinitrotoluene	1700	0	1400	82	28- 89
Pentachlorophenol	2500	0	2100	84	17-109
Pyrene	1700	0	1400	82	35-142

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

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

Spike Recovery: 0 out of 11 outside limits

COMMENTS:

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Huntingdon

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID:	LCS	Lab ID (HSN):	
Matrix:	SOIL	Filename:	4163P05
Date Sampled:		Sample Size:	30 grams
Date Received:		Extract Vol.:	500 uL
Date Extracted:	06/09/94	Dil. Factor:	1
Date Analyzed:	06/12/94	GPC Factor:	2
		% Moisture:	0

Compounds:	ug/Kg (PPB)	EQL
Phenol	1800	330
bis(2-Chloroethyl)ether	330 U	330
2-Chlorophenol	1900	330
1,3-Dichlorobenzene	330 U	330
1,4-Dichlorobenzene	1300	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	1200	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	1200	330
Naphthalene	330 U	330
4-Chloroaniline	330 U	330
Hexachlorobutadiene	330 U	330
4-Chloro-3-methylphenol	2000	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	1100	330
2,4-Dinitrophenol	830 U	830
4-Nitrophenol	2000	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

DRAFT DOCUMENT NOT VALID

(continued)

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Huntingdon

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID: LCS
Matrix: SOIL

Lab ID (HSN):
Filename: 4163P05

Compounds:	ug/Kg (PPB)	EQL
N-Nitrosodiphenylamine	330 U	330
4-Bromophenyl-phenylether	330 U	330
Hexachlorobenzene	330 U	330
Pentachlorophenol	2100	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	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

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Surrogate Recovery		QC LIMITS
2-Fluorophenol	79%	25-121%
Phenol-d5	82%	24-113%
2-Chlorophenol-d4	82%	20-130%
1,2-Dichlorobenzene-d4	79%	20-130%
Nitrobenzene-d5	75%	23-120%
2-Fluorobiphenyl	76%	30-115%
2,4,6-Tribromophenol	86%	19-122%
Terphenyl-d14	96%	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: 5037/5039

Huntingdon

3C
SOIL SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Matrix Spiked: GS-C304-101

HPN: 5037	HSN:	25147	25147MS	25147MSD
INST: VGTR101A	Filename:	4163P06	4163P07	4163P08
	Date Extracted:	06/09/94	06/09/94	06/09/94
	Date Analyzed:	06/12/94	06/12/94	06/12/94

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
Phenol	94000	3300	85000	87	26- 90
2-Chlorophenol	94000	0	84000	89	25-102
1,4-Dichlorobenzene	63000	0	54000	86	28-104
N-Nitroso-di-n-prop.(1)	63000	0	51000	81	41-126
1,2,4-Trichlorobenzene	63000	0	55000	87	38-107
4-Chloro-3-methylphenol	94000	0	81000	86	26-103
Acenaphthene	63000	0	47000	75	31-137
4-Nitrophenol	94000	0	74000	79	11-114
2,4-Dinitrotoluene	63000	0	55000	87	28- 89
Pentachlorophenol	94000	2800	99000	102	17-109
Pyrene	63000	0	67000	106	35-142

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	94000	89000	91	5	35	26- 90
2-Chlorophenol	94000	88000	94	5	50	25-102
1,4-Dichlorobenzene	63000	57000	90	5	27	28-104
N-Nitroso-di-n-prop.(1)	63000	54000	86	6	38	41-126
1,2,4-Trichlorobenzene	63000	58000	92	5	23	38-107
4-Chloro-3-methylphenol	94000	85000	90	4	33	26-103
Acenaphthene	63000	47000	75	1	19	31-137
4-Nitrophenol	94000	72000	77	2	50	11-114
2,4-Dinitrotoluene	63000	56000	89	2	47	28- 89
Pentachlorophenol	94000	98000	101	1	47	17-109
Pyrene	63000	73000	116	9	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: 1 out of 22 outside limits

COMMENTS: - DRAFT DOCUMENT - NOT VALIDATED

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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)	RQL
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)

- DRAFT DOCUMENT -
NOT VALIDATED

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%

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TCL = Target Coumpound List EPA Contract Laboratory Program (CLM01)
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: 5037

QC SEMIVOLATILE SURROGATE RECOVERY

Lab Name: HUNTINGDON ST PAUL Method: EP8270C (OLM01 Target Cpds)

	SAMPLE NO. HSN	SAMPLE MATRIX	DATE PREPPED	DATE ANALYZED	INSTR ID	INSTRUMENT FILENAME	ANLYST
01	BLANK 06/10	SOIL	06/10/94	06/13/94	VGTRIO1	4164P05	GNM
02	25150DL	SOIL	06/10/94	06/13/94	VGTRIO1	4164P06	GNM
03	25154DL	SOIL	06/09/94	06/13/94	VGTRIO1	4164P07	GNM
04	25152RI	SOIL	06/09/94	06/13/94	VGTRIO1	4164P08	GNM
05	25160MSD RI	SOIL	06/09/94	06/13/94	VGTRIO1	4164P09	GNM
06	25160RI	SOIL	06/09/94	06/13/94	VGTRIO1	4164P10	GNM
07	25161RI	SOIL	06/09/94	06/13/94	VGTRIO1	4164P11	GNM
08	25162RI	SOIL	06/09/94	06/13/94	VGTRIO1	4164P12	GNM
09							
10							
11							
12							
13							
14							
15							

	SAMPLE NO. HSN	S1 (2FP)#	S2 (PHL)#	S3 (2CP)	S4 (DCB)#	S5 (NBZ)#	S6 (FBP)#	S7 (TBP)#	S8 (TPH)#	TOT OUT
01	BLANK 06/10	80	80	80	77	74	77	80	91	0
02	25150DL	82	84	83	80	73	85	95	109	0
03	25154DL	75	83	80	76	72	88	75	136	0
04	25152RI	86	90	93	88	82	101	81	158 *	1
05	25160MSD RI	70	89	85	91	87	111	50	161 *	1
06	25160RI	41	63	59	68	72	101	25	142 *	1
07	25161RI	63	70	69	69	80	103	79	154 *	1
08	25162RI	43	74	61	76	81	103	21	158 *	1
09										
10										
11										
12										
13										
14										
15										

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		QC LIMITS WATER	SOIL	OTHER
S1	(2FP) = 2-Fluorophenol	21-110%	25-121%	25-121%
S2	(PHL) = Phenol-d5	10-110%	24-113%	24-113%
S3	(2CP) = 2-Chlorophenol-d4	33-110%	20-130%	20-130%
S4	(DCB) = 1,2-Dichlorobenzene-d4	16-110%	20-130%	20-130%
S5	(NBZ) = Nitrobenzene-d5	35-114%	23-120%	23-120%
S6	(FBP) = 2-Fluorobiphenyl	43-116%	30-115%	30-115%
S7	(TBP) = 2,4,6-Tribromophenol	10-123%	19-122%	19-122%
S8	(TPH) = Terphenyl-d14	33-141%	18-137%	18-137%

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

VOLATILE ORGANIC COMPOUND RESULTS
EPA METHOD 8260/465D LIST

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

Client ID:	4154F09	4154F13
TCT ID:	MethodBlank	25155

Compounds:			PQL
Dichlorodifluoromethane	ND	ND	10
Chloromethane	ND	ND	10
Vinyl Chloride	ND	ND	10
Bromomethane	ND	ND	10
Chloroethane	ND	ND	10
Dichlorofluoromethane	ND	ND	10
Trichlorofluoromethane	ND	ND	10
Ethyl ether	ND	ND	10
1,1-Dichloroethene	ND	ND	10
1,1,2-Trichlorotrifluoroethane	ND	ND	10
Acetone	~~ND~~ 5 J B	~~ND~~ 6 J B	10
Allyl chloride	ND	ND	10
Methylene chloride	ND	ND	10
trans-1,2-Dichloroethene	ND	ND	10
Methyl tert-butyl ether	~~ND~~ 3 J	ND	10
1,1-Dichloroethane	ND	ND	10
2,2-Dichloropropane	ND	ND	10
cis-1,2-Dichloroethene	ND	ND	10
2-Butanone	ND	~~ND~~ 4 J	10
Tetrahydrofuran	ND	~~ND~~ 3 J	10
Chloroform	ND	ND	10
1,1,1-Trichloroethane	ND	ND	10
Carbon tetrachloride	ND	ND	10
1,1-Dichloropropene	ND	ND	10
Benzene	ND	ND	10
1,2-Dichloroethane	ND	ND	10
Trichloroethene	ND	ND	10
1,2-Dichloropropane	ND	ND	10
Dibromomethane	ND	ND	10
Bromodichloromethane	ND	ND	10
cis-1,3-Dichloropropene	ND	ND	10
4-Methyl-2-pentanone	ND	ND	10
Toluene	ND	ND	10
trans-1,3-Dichloropropene	ND	ND	10
1,1,2-Trichloroethane	ND	ND	10
Tetrachloroethene	ND	ND	10
1,3-Dichloropropane	ND	ND	10
Dibromochloromethane	ND	ND	10

(continued)

- DRAFT DOCUMENT - NOT VALIDATED

PQL = Practical Quantitation Limit
ND = Not Detected

LABORATORY NO: _____

VOLATILE ORGANIC COMPOUND RESULTS (CONTINUED)
EPA METHOD 8260/465D LIST

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

Client ID: Method Blank

TCT ID: 25155

Compounds:			PQL
1,2-Dibromoethane	ND	ND	10
Chlorobenzene	ND	ND	10
1,1,1,2-Tetrachloroethane	ND	ND	10
Ethylbenzene	ND	ND	10
m-/p-Xylene	ND	ND	10
o-Xylene	ND	ND	10
Styrene	ND	ND	10
Bromoform	ND	ND	10
Isopropylbenzene	ND	ND	10
Bromobenzene	ND	ND	10
1,1,2,2-Tetrachloroethane	ND	ND	10
1,2,3-Trichloropropane	ND	ND	10
Propylbenzene	ND	ND	10
2-Chlorotoluene	ND	ND	10
1,3,5-Trimethylbenzene	ND	ND	10
4-Chlorotoluene	ND	ND	10
tert-Butylbenzene	ND	ND	10
1,2,4-Trimethylbenzene	ND	ND	10
sec-Butylbenzene	ND	ND	10
1,3-Dichlorobenzene	ND	ND	10
p-Isopropyltoluene	ND	ND	10
1,4-Dichlorobenzene	ND	ND	10
n-Butylbenzene	ND	ND	10
1,2-Dichlorobenzene	ND	ND	10
1,2-Dibromo-3-chloropropane	ND	ND	10
1,2,4-Trichlorobenzene	ND	ND	10
Hexachlorobutadiene	ND	ND	10
Napthalene	ND	~~ND~~ 3 J	10
1,2,3-Trichlorobenzene	ND	ND	10
[illegible]	ND	ND	10

Surrogate Recovery:

1,2-Dichloroethane-d4	84 %	101 %	- DRAFT DOCUMENT -
Toluene-d8	92 %	102 %	NOT VALIDATED
4-Bromofluorobenzene	105%	* 119 %	

Date Analyzed: 6/3/94 6/3/94

PQL = Practical Quantitation Limit
ND = Not Detected

* surrogate recovery above acceptable limit
Note: Areas of Internal standards were maybe low high.

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

LABORATORY NO: _____

HAS 5137

5ml

VOLATILE ORGANIC COMPOUND RESULTS
EPA METHOD 8260

(All values are in µg/l, which is equivalent to parts per billion)

Client ID: 4154F22

TCT ID: 25155

Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	Matrix Spike % Recovery
1,1-Dichloroethene	50	ND 0.0	96.0	192 % *
Trichloroethene	50	ND 0.0	52.0	104 %
Benzene	50	ND 0.0	75.0	150 % *
Toluene	50	ND 0.0	62.0	124 %
Chlorobenzene	50	ND 0.0	60.0	120 %

4154F23

Compound	Spike Added	Sample Concentration	Matrix Spike Concentration	Matrix Spike Duplicate % Recovery	RPD
1,1-Dichloroethene	50	ND 0.0	101.0	202 % *	5
Trichloroethene	50	ND 0.0	51.0	102 %	2
Benzene	50	ND 0.0	79.0	158 % *	5
Toluene	50	ND 0.0	58.0	116 %	7
Chlorobenzene	50	ND 0.0	59.0	118 %	2

PQL = Practical Quantitation Limit
ND = Not Detected

J = Estimated value, found below quantitation limit

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

- DRAFT DOCUMENT -
NOT VALIDATED

* High Spike recoveries

ENSECO
A Corning Company

CHAIN OF CUSTODY RECORD

ENS-1146-A

☐ 2844 Industrial Ave., West Sacramento, CA, 95691-6435 (916) 373-1300
☐ 7440 Lincoln Way, Garden Grove, CA 92641-1232 (714) 895-5494
☒ 5601 East Slauson Ave., City of Industry, CA 91748-1281 (818) 699-1000
☐ Mobile Labs. 1 (800) ENSECO-1

DATE
LAB NUMBER 1

CLIENT: E & E
PROJECT MANAGER:
ADDRESS: 111 W. Jackson Blvd
TELEPHONE NUMBER (AREA CODE): 312 663-9415
CITY: Chicago
STATE: IL
ZIP CODE: 60604
SITE CONTACT:
PROJECT NAME: Sargent
TELEPHONE NUMBER (AREA CODE):
CONTRACT/PURCHASE ORDER/QUOTE NO.

TO-14

SAMPLE NO./IDENTIFICATION	DATE	TIME	LAB/SAMPLE NUMBER	SAMPLE TYPE: LIQ.	AIR	SOLID	NO. OF CONTAINERS					
AS-1	6/6		A-152		✓		1	✓				
AS-2	"		A-129		✓		1	✓				
AS-3	"		A-140		✓		1	✓				
AS-4	"		A-128		✓		1	✓				
AS-6	"		A-201		✓		1	✓				
BKND	"		A-229		✓		1	✓				
Trip Blank	"		9356 B		✓		1	✓				

DO THE SAMPLE(S) POSE ANY POTENTIAL HAZARD(S)? IF YES, PLEASE EXPLAIN

SAMPLING (SIGNATURE)	RELINQUISHED BY (SIGNATURE)		RELINQUISHED BY (SIGNATURE)		DATE	TIME
RECEIVED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)		DATE	TIME
RECEIVED FOR LABORATORY BY: Jilly Hinson	RECEIVED	DATE 6/8	TIME 1420	ACCEPTED	DATE	TIME

METHOD OF SHIPMENT: Fed Ex

SPECIAL INSTRUCTIONS

The delivery o
custody form c
ses specified a
unless a contr
is sited above.
SAMPLE DES
1. Storage time
(Samples will b
charge; theres
lleted rates.)
2. Sample to b
dispose of unv
posal will be b
appropriate, ac

DISTRIBUTION: WHITE - With Report; CANARY - To ENSECO; PINK - To Courier; GOLDENROD - To Sample Control

ENSECO AIR TOXIC
06/13/94 13:46 ☎818 965 1003
NOT VALIDATED
ART DOCUMENT

TO14 ANALYSIS SUMMARY

Name Field:105871-0003 Fool&Env Injection time:940610 12:41
Misc Field: 2300 ml, AS-3, 24.6/5.35 A-140
Dil Factor =.9996E+00 Final psia = _____ Calib volume = 50ml
Rpt Factor = 1.000 Initial psia = _____ Injected Vol = _____

Datafile:>A5875::D QTFile:^A5875:: IDFile:IDNEW1::QT GC/MS ID:SYSTEM 1
Continuing calibration time :940610 07:29 using the file:^A5865::SC

CP#	Δ RT	COMPOUND NAME	RESULTS PPB(v/v)	RPT LIMIT PPB(v/v)
45)	0.00	Benzyl Chloride	N.D.	2.
46)	0.00	4-Ethyl Toluene	N.D.	2.
47)	0.00	1,3,5-Trimethylbenzene	N.D.	2.
48)	.22	1,2,4-Trimethylbenzene	~~TR~~ ND	2.
49)	0.00	1,3-Dichlorobenzene	N.D.	2.
50)	0.00	1,4-Dichlorobenzene	N.D.	2.
51)	0.00	1,2-Dichlorobenzene	N.D.	2.
52)	.33	1,2,4-Trichlorobenzene	10.	4.
53)	0.00	Hexachlorobutadiene	N.D.	4.

Internal Standard Report

Name Internal Standard	Area Sample	Area Daily	50-150% Test	RT Sample	RT Daily	±0.5 -0.5 Min. Test
Bromochloromethane	130528.	129145.	Pass	6.80	6.74	Pass
1,4-Difluorobenzene	360224.	341843.	Pass	8.39	8.34	Pass
Chlorobenzene-d5	219353.	263754.	Pass	13.37	13.62	Pass

n.d. - not detected

Comments: _____

DRAFT DOCUMENT
NOT VALIDATED

Foot notes: _____

HTU: ☐ Yes ☐ MIT ☐ RR ☒ ND

Reduced By 6-13 Approved By 6/13

Quality Analytical Laboratories, Inc. Project #940912

Sample ID: HB-1 & HB-2 composite, 940912-01
PRIORITY POLLUTANT VOLATILES Method: SW-846 8260
Analysis Date: 05/06/94

% Moisture: 18

Parameter	PQL (mg/Kg)	Dry Weight Analysis (mg/Kg)
1,1-Dichloroethane	2.	U
1,1-Dichloroethene	2.	U
1,1,1-Trichloroethane	2.	U
1,1,2-Trichloroethane	2.	U
1,1,1,2-Tetrachloroethane	2.	U
1,1,2,2-Tetrachloroethane	2.	U
1,2-Dichloroethane	2.	U
1,2-Dichloropropane	2.	U
1,2,3-Trichloropropane	2.	U
1,4-Dichloro-2-butene	2.	U
2-Butanone (MEK)	10.	U
2-Chloroethyl vinyl ether	6.	UJ
2-Hexanone	10.	U
4-Methyl-2-pentanone(MIBK)	10.	U
Acetone	100.	U
Acrolein	20.	U
Acrylonitrile	20.	U
Benzene	2.	U
Bromodichloromethane	2.	U
Bromomethane	10.	U
Carbon disulfide	2.	UJ
Chlorobenzene	2.	U
Chloroethane	10.	U
Chloromethane	10.	U
cis-1,3-Dichloropropene	2.	U
Dibromochloromethane	2.	U
Dibromomethane	2.	U
Dichlorodifluoromethane	2.	U
Ethylbenzene	2.	U
Iodomethane	2.	U
Methylbenzene (Toluene)	2.	340.
Methylene Chloride	100.	UJ
Styrene	2.	U
Tetrachloroethene	2.	U
Tetrachloromethane	2.	U
cis-1,2-Dichloroethene	2.	U
trans-1,2-Dichloroethene	2.	U
trans-1,3-Dichloropropene	2.	U
Tribromomethane (Bromoform)	2.	U
Trichloroethene	2.	U
Trichlorofluoromethane	2.	U
Trichloromethane (Chloroform)	2.	U
Vinyl Acetate	10.	UJ
Vinyl Chloride	10.	U
m&p-Xylene	2.	U
O-Xylene	2.	U

DRAFT DOCUMENT
NOT VALIDATED

TO14 ANALYSIS SUMMARY

Name Field:109871-0004 Ecol&Env Injection time:940610 13:1
Misc Field: 2000 ML, AS-4 24.6/5.35 A-128 TRAP PROCE
Dil Factor =.1150E+01 Final psia = _____ Calib volume = 1000
Rpt Factor = 1.150 Initial psia = _____ Injected Vol = _____

Datafile:A58761:D QTfile:A58761: IDFile:IDMEW1:QI GCMS ID:SYSTEM 1
Continuing calibration time :940610 07:29 using the file:M6865:SC

LPS	Δ RT	COMPOUND NAME	RESULTS PPB(v/v)	RPT LIMIT PPB(v/v)
45)	0.00	Benzyl Chloride	N.D.	2.3
46)	0.00	4-Ethyl Toluene	N.D.	2.3
47)	0.00	1,3,5-Trimethylbenzene	N.D.	2.3
48)	0.00	1,2,4-Trimethylbenzene	N.D.	2.3
49)	0.00	1,3-Dichlorobenzene	N.D.	2.3
50)	0.00	1,4-Dichlorobenzene	N.D.	2.3
51)	0.00	1,2-Dichlorobenzene	N.D.	2.3
52)	.30	1,2,4-Trichlorobenzene	UD	4.6
53)	0.00	Hexachlorobutadiene	N.D.	4.6

Internal Standard Report

Name Internal Standard	Area Sample	Area Daily	50-150% Test	RT Sample	RT Daily	+0.5 Min. Test
Bromochloromethane	136894.	129149.	Pass	6.00	6.03	Pass
1,4-Difluorobenzene	361237.	341843.	Pass	8.37	8.34	Pass
Chlorobenzene-d5	239142.	263794.	Pass	13.[illegible]	13.62	Pass

n.d. - not detected

Comments: DRAFT DOCUMENT - NOT VALIDATED

Foot notes:

HTV: Yes ☐ Mil ☐ RR ☐ NO ☒

Reduced By 6-13 Approved By MHB

TO14 ANALYSIS SUMMARY

Name Field:105A71-0005 Ecol&Env Injection time:940610 14:09
Misc Field: 3250 ml, AS-5. 31.6/4.87 A-201
Dil Factor =.9983E+00 Final psia = _____ Calib volume = 50ml
Rpt Factor = 1.000 Initial psia = _____ Injected Vol = _____

Datafile:>A5877::D QTFile:^A5877:: IDFile:IDNEW1::QT GC/MS ID:SYSTEM 1
Continuing calibration time :940610 07:29 using the file:^A5865::SC

CP#	Δ RT	COMPOUND NAME	RESULTS PPB(V/V)	RPT LIMIT PPB(V/V)
45)	0.00	Benzyl Chloride	N.D.	2.
46)	0.00	4-Ethyl Toluene	N.D.	2.
47)	0.00	1,3,5-Trimethylbenzene	N.D.	2.
48)	0.00	1,2,4-Trimethylbenzene	N.D.	2.
49)	0.00	1,3-Dichlorobenzene	N.D.	2.
50)	0.00	1,4-Dichlorobenzene	N.D.	2.
51)	.24	1,2-Dichlorobenzene	ND	2.
52)	.39	1,2,4-Trichlorobenzene	4.3	4.
53)	0.00	Hexachlorobutadiene	N.D.	4.

Internal Standard Report

Name Internal Standard	Area Sample	Area Daily	50-150% Test	RT Sample	RT Daily	+0.5 -0.5 Min. Test
Bromochloromethane	126797.	129145.	Pass	6.71	6.74	Pass
1,4-Difluorobenzene	332874.	341843.	Pass	8.29	8.32	Pass
Chlorobenzene-d5	200594.	263754.	Pass	13.34	13.63	Pass

n.d. - not detected

Comments: _____

DRAFT DOCUMENT - NOT VALIDATED

Foot notes: _____

HTU: ☐ Yes ☐ MIT ☐ RR ☒ NO

Reviewed By 6-13 Approved By 6/13

TO14 ANALYSIS SUMMARY

Name Field:105871-0006 Ecol&Env Injection time:940610 14:49
Misc Field: 3300 ml, BKND. 25.6/3.89 A-299
Dil Factor =.9971E+00 Final psia = _____ Calib Volume = 500ml
Rpt Factor = 1.000 Initial psia = _____ Injected Vol = _____.

Datafile:>A5878::D QTFile:^A5878:: IDFile:IDNFW1::QT GC/MS ID:SYSTEM 1
Continuing calibration time :940610 07:29 using the file:^A5868::SC

CP#	Δ RT	COMPOUND NAME	RESULTS PPB(V/V)	RPT LIMIT PPB(V/V)
45)	0.00	Benzyl Chloride	N.D.	2.
46)	0.00	4-Ethyl Toluene	N.D.	2.
47)	0.00	1,3,5-Trimethylbenzene	N.D.	2.
48)	0.00	1,2,4-Trimethylbenzene	N.D.	2.
49)	0.00	1,3-Dichlorobenzene	N.D.	2.
50)	0.00	1,4-Dichlorobenzene	N.D.	2.
51)	0.00	1,2-Dichlorobenzene	N.D.	2.
52)	.36	1,2,4-Trichlorobenzene	~~N.D.~~ NO	4.
53)	0.00	Hexachlorobutadiene	N.D.	4.

Internal Standard Report

Name Internal Standard	Area Sample	Area Daily	50-150% Test	RT Sample	RT Daily	+0.5 -0.5 Min. Test
Bromochloromethane	130397.	129145.	Pass	6.77	6.74	Pass
1,4-Difluorobenzene	338988.	341843.	Pass	8.35	8.34	Pass
Chlorobenzene-d5	201910.	263754.	Pass	13.36	13.62	Pass

n.d. - not detected

Comments: _____

DRAFT DOCUMENT - NOT VALIDATED

Foot notes: _____

HTU: 0 0 0 4
YES MIT RR NO

Reviewed By 6-13 Approved By 6/13

TO14 ANALYSIS SUMMARY

Name Field:105871-0007 Ecol&Env Injection time:940610 15:17
Misc Field: 500 ml, TRIP BLANK 24.6/0 93568
Dil Factor =.1000E+01 Final psia = _____ Calib volume = 500ml
Rpt Factor = 1.000 Initial psia = _____ Injected Vol = _____.

Datafile:>A5879:;D QTFile:^A5879:; IDFile:(DNFW1:;QT GC/MS ID:SYSTEM 1
Continuing calibration time :940610 07:29 using the file:^A5865:;SC

CP#	Δ RT	COMPOUND NAME	RESULTS PPB(v/v)	RPT LIMIT PPB(v/v)
45)	0.00	Benzyl Chloride	N.D.	2.
46)	0.00	4-Ethyl Toluene	N.D.	2.
47)	0.00	1,3,5-Trimethylbenzene	N.D.	2.
48)	0.00	1,2,4-Trimethylbenzene	N.D.	2.
49)	0.00	1,3-Dichlorobenzene	N.D.	2.
50)	0.00	1,4-Dichlorobenzene	N.D.	2.
51)	0.00	1,2-Dichlorobenzene	N.D.	2.
52)	0.00	1,2,4-Trichlorobenzene	N.D.	4.
53)	0.00	Hexachlorobutadiene	N.D.	4.

Internal Standard Report

Name Internal Standard	Area Sample	Area Daily	50-150% Test	RT Sample	RT Daily	±0.5 min Test
Bromochloromethane	117928.	129145.	Pass	6.79	6.74	Pass
1,4-Difluorobenzene	328999.	341843.	Pass	8.40	8.34	Pass
Chlorobenzene-d5	235169.	263754.	Pass	13.67	13.62	Pass

n.d. - not detected

Comments: _____

- DRAFT DOCUMENT -
NOT VALIDATED

Foot notes: _____

HTU: ☐ TRS ☐ MIT ☐ KR ☒ NU

Reduced By 6-13 Approved By 6/13

TO14 ANALYSIS SUMMARY

Name Field:10V871-0004 Sc01&Eno Injection time:940610 13:11
Mass Field: 2000 ML, MS-4 24.6/5.35 A-128 TRAP PRUZE
Dil Factor 7.11908E+01 Final psia = _____ Calib volume = 500ml
Rpt Factor 1.190 Initial psia = _____ Injected Vol _____

Data File:A98726:0 QFile:^A98726:: (DFile:10NEW1::Q: GC/MS ID:SYSTEM 1
Continuing Calibration time :940610 07:24 Using the File:C98669::SC

CPG	Δ RT	COMPOUND NAME	RESULTS PPB(v/v)	RPT LIMIT PPB(v/v)
02)	0.00	Dichlorodifluoromethane (12)	N.D.	2.3
03)	0.00	Chloromethane	N.D.	4.6
04)	0.00	1,2-Cl 1,1,2,2-F ethane (114)	N.D.	2.3
05)	0.00	Vinyl Chloride	N.D.	2.3
06)	0.00	Bromomethane	N.D.	2.3
07)	0.00	Chloroethane	N.D.	4.6
08)	-.01	Trichlorofluoromethane (11)	ND	2.3
09)	0.00	1,1-Dichloroethene	N.D.	2.3
10)	0.00	Carbon Disulfide	N.D.	12.
11)	0.00	1,1,2-Cl 1,2,2-F ethane (113)	N.D.	2.3
12)	.02	Acetone	12.	12.
13)	0.00	Methylene Chloride	N.D.	2.3
14)	0.00	t 1,2 Dichloroethene	N.D.	2.3
15)	0.00	1,1-Dichloroethane	N.D.	2.3
16)	0.00	Vinyl Acetate	N.D.	12.
17)	0.00	c-1,2-Dichloroethene	N.D.	2.3
18)	.00	2-Butanone	ND	12.
19)	0.00	Chloroform	N.D.	2.3
20)	-.00	1,1,1-Trichloroethane	ND	2.3
21)	0.00	Carbon Tetrachloride	N.D.	2.3
22)	.02	Benzene	ND	2.3
24)	0.00	1,2-Dichloroethane	N.D.	2.3
25)	0.00	Trichloroethene	N.D.	2.3
26)	0.00	1,2-Dichloropropane	N.D.	2.3
27)	0.00	Bromodichloromethane	N.D.	2.3
28)	0.00	c-1,3-Dichloropropene	N.D.	2.3
29)	0.00	4-Methyl-2-pentanone	N.D.	4.6
30)	-.13	Toluene	ND	2.3
32)	0.00	t-1,3-Dichloropropene	N.D.	2.3
33)	0.00	1,1,2-Trichloroethane	N.D.	2.3
34)	0.00	Tetrachloroethene	N.D.	2.3
35)	0.00	2-Hexanone	N.D.	4.6
36)	0.00	Dibromochloromethane	N.D.	2.3
37)	0.00	1,2-Dibromoethane	N.D.	2.3
38)	0.00	Chlorobenzene	N.D.	2.3
39)	0.00	Ethylbenzene	N.D.	2.3
40)	.00	Total Xylenes	N.D.	2.3
41)	0.00	(o-Xylene)	-----	----
42)	0.00	Styrene	N.D.	2.3
43)	0.00	Bromoform	N.D.	2.3
44)	0.00	1,1,2,2-Tetrachloroethane	N.D.	2.3

DRAFT DOCUMENT - NOT VALIDATED

TO14 ANALYSIS SUMMARY

Name Field:109871-0004 Ecol&Env Injection time:940610 13:11
Misc Field: 2000 ML, AS-4 24.6/5.35 A-128 TRAP FROZE
Dil Factor =.1150E+01 Final psia = _____ Calib volume = 500ml
Rpt Factor = 1.150 Initial psia = _____ Injected Vol = _____.

DataFile:>A9876:10 QTFile:^A9876:: IDFile:IONEW1::QT GC/MS ID:SYSTEM 1
Continuing calibration time 940610 07:29 Using the File:^A9865::SC

CP#	Δ RT	COMPOUND NAME	RESULTS PPB(V/V)	RPT LIMIT PPB(V/V)
45)	0.00	Benzyl Chloride	N.D.	2.3
46)	0.00	4-Ethyl Toluene	N.D.	2.3
47)	0.00	1,3,5-Trimethylbenzene	N.D.	2.3
48)	0.00	1,2,4-Trimethylbenzene	N.D.	2.3
49)	0.00	1,3-Dichlorobenzene	N.D.	2.3
50)	0.00	1,4-Dichlorobenzene	N.D.	2.3
51)	0.00	1,2-Dichlorobenzene	N.D.	2.3
52)	.30	1,2,4-Trichlorobenzene	2.00	4.6
53)	0.00	Hexachlorobutadiene	N.D.	4.6

Internal Standard Report

Name Internal Standard	Area Sample	Area Daily	50-150% Test	RT Sample	RT Daily	+0.5 -0.5 Min. Test
Bromochloromethane	136894.	129149.	Pass	6.80	6.74	Pass
1,4-Difluorobenzene	361237.	341843.	Pass	8.37	8.34	Pass
Chlorobenzene-d5	239142.	263754.	Pass	13.39	13.62	Pass

N.D. - not detected

Comments: _____

DRAFT DOCUMENT
NOT VALIDATED

Foot notes: _____

RTU: ☐ Yes ☐ MIN ☐ AR ☒ NO

6-13
Reduced By

VMHB
Approved By

TO14 ANALYSIS SUMMARY

Name Field:105871-0005 EcolAEnv Injection time:940610 14:02
Misc Field: 3250 ml AS-5 31.6/4.87 A-201
Dil Factor =.9983E+00 Final psia = _____ Calib volume = 500ml
Rpt Factor = 1.000 Initial psia = _____ Injected Vol = _____.

Datafile:>A5877::D QTfile:^A5877:: IDFile:IDNEW1::QT GC/MS ID:SYSTEM 1
Continuing calibration time 940610 07:29 using the file:^A5865::SC

CP#	Δ RT	COMPOUND NAME	RESULTS PPB(V/V)	RPT LIMIT PPB(V/V)
02)	.02	Dichlorodifluoromethane (12) ----------	ND	2.
03)	.04	Chloromethane	ND	4.
04)	0.00	1,2-Cl 1,1,2,2-F ethane (114) ----------	N.D.	2.
05)	0.00	Vinyl Chloride	N.D.	2.
06)	0.00	Bromomethane ----------	N.D.	2.
07)	0.00	Chloroethane	N.D.	4.
08)	0.00	Trichlorofluoromethane (11) ----------	N.D.	2.
09)	0.00	1,1-Dichloroethane	N.D.	2.
10)	0.00	Carbon Disulfide ----------	N.D.	10.
11)	0.00	1,1,2-Cl 1,2,2-F ethane (113)	N.D.	2.
12)	.01	Acetone ----------	27.	10.
13)	0.00	Methylene Chloride	N.D.	2.
14)	0.00	t-1,2-Dichloroethene ----------	N.D.	2.
15)	0.00	1,1-Dichloroethane	N.D.	2.
16)	0.00	Vinyl Acetate ----------	N.D.	10.
17)	0.00	c-1,2-Dichloroethene	N.D.	2.
18)	-.00	2-Butanone ----------	ND	10.
19)	0.00	Chloroform	N.D.	2.
20)	0.00	1,1,1-Trichloroethane ----------	N.D.	2.
21)	0.00	Carbon Tetrachloride	N.D.	2.
23)	.04	Benzene ----------	ND	2.
24)	0.00	1,2-Dichloroethane	N.D.	2.
25)	0.00	Trichloroethene ----------	N.D.	2.
26)	0.00	1,2-Dichloropropane	N.D.	2.
27)	0.00	Bromodichloromethane ----------	N.D.	2.
28)	0.00	c-1,3-Dichloropropene	N.D.	2.
29)	0.00	4-Methyl-2-pentanone ----------	N.D.	4.
30)	-.04	Toluene	ND	2.
32)	0.00	t-1,3-Dichloropropene ----------	N.D.	2.
33)	0.00	1,1,2-Trichloroethane	N.D.	2.
34)	0.00	Tetrachloroethene ----------	N.D.	2.
35)	.11	2-Hexanone	ND	4.
36)	0.00	Dibromochloromethane ----------	N.D.	2.
37)	0.00	1,2-Dibromoethane	N.D.	2.
38)	0.00	Chlorobenzene ----------	N.D.	2.
39)	-.01	Ethylbenzene	ND	2.
40)	-.04	Total Xylenes----------	2.1	2.
41)	0.00	(o-Xylene)	-----	----
42)	0.00	Styrene ----------	N.D.	2.
43)	0.00	Bromoform	N.D.	2.
44)	0.00	1,1,2,2-Tetrachloroethane ----------	N.D.	2.

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TO14 ANALYSIS SUMMARY

Name Field:105871-0005 Ecol&Env Injection time:940610 14:07
Mine Field: 3250 ml, AS-5. 31.6/4.87 A-201
Dil Factor =.9983E+00 Final psia = _____ Calib volume = 500ml
Rpt Factor = 1.000 Initial psia = _____ Injected Vol =_____.

Data File:>A5877:1D QTfile:^A5877:1 IDFile:IDNEW1:1QT GC/MS ID:SYSTEM 1
Continuing calibration time :940610 07:29 using the file:^A5865::SC

CP#	Δ RT	COMPOUND NAME	RESULTS PPB(V/V)	RPT LIMIT PPB(V/V)
45)	0.00	Benzyl Chloride	N.D.	2.
46)	0.00	4-Ethyl Toluene	N.D.	2.
47)	0.00	1,3,5-Trimethylbenzene	N.D.	2.
48)	0.00	1,2,4-Trimethylbenzene	N.D.	2.
49)	0.00	1,3-Dichlorobenzene	N.D.	2.
50)	0.00	1,4-Dichlorobenzene	N.D.	2.
51)	.24	1,2-Dichlorobenzene	ND	2.
52)	.39	1,2,4-Trichlorobenzene	4.3	4.
53)	0.00	Hexachlorobutadiene	N.D.	4.

Internal Standard Report

Name Internal Standard	Area Sample	Area Daily	50-150% Test	RT Sample	RT Daily	+0.5 -0.5 Min. Test
Bromochloromethane	126797.	129145.	Pass	6.71	6.74	Pass
1,4-Difluorobenzene	332874.	341863.	Pass	8.29	8.34	Pass
Chlorobenzene-d5	200594.	263754.	Pass	13.34	13.62	Pass

n.d. - not detected

Comments: _____

-DRAFT DOCUMENT-
NOT VALIDATED

Feet notes! _____

HTU: ☐ Yes ☐ MIT ☐ RR ☒ NO

Reduced By 6-13

Approved By 6/13

TO14 ANALYSIS SUMMARY

Name Field:105871-0007 Ecol&Env Injection time:940610 15:17
Misc Field: 500 ml, TRIP BLANK 24.6/0 9356R
Dil Factor =.1000E+01 Final psia = _____ Calib volume = 500ml
Rpt Factor = 1.000 Initial psia = _____ Injected Vol =_____.

DataFile:>A5879::D QTFile:^A5879:: IDFile:IDNEW1::QT GC/MS ID:SYSTEM 1
Continuing calibration time 940610 07:29 using the file:^A5865::SC

CP#	Δ RT	COMPOUND NAME	RESULTS PPB(U/U)	RPT LIMIT PPB(U/U)
45)	0.00	Benzyl Chloride	N.D.	2.
46)	0.00	4-Ethyl Toluene	N.D.	2.
47)	0.00	1,3,5-Trimethylbenzene	N.D.	2.
48)	0.00	1,2,4-Trimethylbenzene	N.D.	2.
49)	0.00	1,3-Dichlorobenzene	N.D.	2.
50)	0.00	1,4-Dichlorobenzene	N.D.	2.
51)	0.00	1,2-Dichlorobenzene	N.D.	2.
52)	0.00	1,2,4-Trichlorobenzene	N.D.	4.
53)	0.00	Hexachlorobutadiene	N.D.	4.

Internal Standard Report

Name Internal Standard	Area Sample	Area Daily	50-150% Test	RT Sample	RT Daily	+0.5 -0.5 Min. Test
Bromochloromethane	117928.	129145.	Pass	6.79	6.74	Pass
1,4-Difluorobenzene	328999.	341843.	Pass	8.40	8.34	Pass
Chlorobenzene-d5	235149.	263794.	Pass	13.62	13.62	Pass

n.d. - not detected

Comments: _____

DRAFT DOCUMENT - NOT VALIDATED

Foot notes: _____

HTU: ☐ Yes ☐ HIT ☐ RR ☒ NO

Reduced By 6-13 Approved By 6/13

TO14 ANALYSIS SUMMARY

Name Field:105871-0001 Ecol&Env Injection time:940610 11:35
Misc Field: 2300 ml, AS-1, 24.6/5.35 A-152
Dil Factor =.9996E+00 Final psia = _____ Calib volume = 500ml
Rpt Factor = 1.000 Initial psia = _____ Injected Vol = _____.

Datafile:>A5873::D QTfile:^A5873:: IDFile:IDNFW1::QT GC/MS ID:SYSTEM 1
Continuing calibration time 940610 07:29 using the File:^A5865::SC

CP#	Δ RT	COMPOUND NAME	RESULTS PPB(U/U)	RPT LIMIT PPB(U/U)
02)	-.00	Dichlorodifluoromethane (12) ----------	ND(RL)	2.
03)	-.02	Chloromethane	ND(RL)	4.
04)	0.00	1,2-Cl 1,1,2,2-F ethane (114) ----------	N.D.	2.
05)	0.00	Vinyl Chloride	N.D.	2.
06)	0.00	Bromomethane ----------	N.D.	2.
07)	0.00	Chloroethane	N.D.	4.
08)	.05	Trichlorofluoromethane (11) ----------	ND(RL)	2.
09)	0.00	1,1-Dichloroethane	N.D.	2.
10)	0.00	Carbon Disulfide ----------	N.D.	10.
11)	0.00	1,1,2-Cl 1,2,2-F ethane (113)	N.D.	2.
12)	.05	Acetone ----------	87.	10.
13)	0.00	Methylene Chloride	N.D.	2.
14)	0.00	t-1,2-Dichloroethene ----------	N.D.	2.
15)	0.00	1,1-Dichloroethane	N.D.	2.
16)	0.00	Vinyl Acetate ----------	N.D.	10.
17)	0.00	c-1,2-Dichloroethene	N.D.	2.
18)	.02	2-Butanone ----------	30.	10.
19)	0.00	Chloroform	N.D.	2.
20)	0.00	1,1,1-Trichloroethane ----------	N.D.	2.
21)	0.00	Carbon Tetrachloride	N.D.	2.
23)	.00	Benzene ----------	130.	2.
24)	-.08	1,2-Dichloroethane	ND(RL)	2.
25)	-.02	Trichloroethene ----------	[illegible]	2.
26)	0.00	1,2-Dichloropropane	N.D.	2.
27)	0.00	Bromodichloromethane ----------	N.D.	2.
28)	0.00	c-1,3-Dichloropropene	N.D.	2.
29)	-.09	4-Methyl-2-pentanone ----------	ND(RL)	4.
30)	-.13	Toluene	2.1	2.
32)	0.00	t-1,3-Dichloropropene ----------	N.D.	2.
33)	0.00	1,1,2-Trichloroethane	N.D.	2.
34)	0.00	Tetrachloroethene ----------	N.D.	2.
35)	.12	2-Hexanone	ND(RL)	4.
36)	0.00	Dibromochloromethane ----------	N.D.	2.
37)	0.00	1,2-Dibromoethane	N.D.	2.
38)	.00	Chlorobenzene ----------	ND(RL)	2.
39)	-.03	Ethylbenzene	3.0	2.
40)	-.03	Total Xylenes----------	14.	2.
41)	-.07	(m-Xylene)	-----	----
42)	0.00	Styrene ----------	N.D.	2.
43)	0.00	Bromoform	N.D.	2.
44)	0.00	1,1,2,2-Tetrachloroethane ----------	N.D.	2.

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AREA 2

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

2885

REGION 5
77 West Jackson Boulevard
Chicago, Illinois 60604

CHAIN OF CUSTODY RECORD

PROJ. NO.: 94V
PROJECT NAME: TOS-9405-804
SAMPLERS (Print Name and Sign): Steven J. Shaw
Activity Code:

HM# 5059

STA NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	Analyte:	Total RCRA Metals	TCLP RCRA Metals	RCRA Hazardous	Dioxin (Fat seq)	Total SVOCs (Acq list)	TCLP SVOCs	Total VOCs (Acq list)	TCLP VOCs	HSA#	TAG NUMBERS
QD1	5/27/94	1550		X	Quicky Beach/Site Q	2-8oz		✓	✓		✓	✓					25160
QD2	5/27/94	1555		X	Quicky Beach/Site Q	2-8oz		✓	✓		✓	✓					25161
QD3	5/27/94	1600		X	Quicky Beach/Site Q	2-8oz		✓	✓		✓	✓					25162

Verbal: 2 week turnaround
Hardcopy: 3 week turnaround
QA Level II Data Package

Send Results to:
Mary Jane Ripp
Ecology & Environment, Inc.
1A W. Jackson Blvd.
Chicago, IL 60604
Tel. No. (312) 663-9415
Fax No. (312) 663-1890

· DRAFT DOCUMENT
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Relinquished by (Signature)	Date / Time	Received by (Signature)
Steven J. Shaw	5/27/94 1900	[illegible] 5-31-94 1660
Relinquished by (Signature)	Date / Time	Received by (Signature)
Relinquished by (Signature)	Date / Time	Received for Laboratory by (Signature) / Date / Time

Ship To: Twin City Testing Corporation
737 Pelham Blvd.
St. Paul, MN 55114
ATTN: Terry Uecker
Airbill Number: Federal Express Airbill No. 286 752 6270
Chain of Custody Seal Numbers: C-C Nos. 170777 & 170776

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

Printed on Recycle [illegible] Soy Based Ink

OK [illegible] isom temp

5-22614

Huntingdon

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

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)			SQL
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

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(continued)

HPN: 5039

Huntingdon

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

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

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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.

HPN: 5039

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

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(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

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

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(continued)

HPN: 5039

Huntingdon

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID: QD1
Matrix: SOIL

Lab ID (HSN): 25160MS
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

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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.

HPN: 5039

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

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

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HPN: 5039

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

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

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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.

HPN: 5039

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

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

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

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

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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

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID: QD3
Matrix: SOIL

Lab ID (HSN): 25162
Filename: 4163D13

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

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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.

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EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

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

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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.

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EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

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

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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.

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EPA METHOD 8270
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

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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.

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EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

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

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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.

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EPA METHOD 8270
TCLP SEMIVOLATILE ORGANIC COMPOUND RESULTS

Huntingdon

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

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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
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

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Huntingdon

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID: QD1 Lab ID (HSN): 25160RI
Matrix: SOIL Filename: 4154P10

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

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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.

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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
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

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EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

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

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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.

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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

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Huntingdon

EPA METHOD 8270
TCL SEMIVOLATILE ORGANIC COMPOUND RESULTS

Client ID: QD3 Lab ID (HSN): 25102RI
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

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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.

HPN: 5039