CONESTOGA-ROVERS & ASSOCIATES
11100 Metro Airport Center Drive
Suite #160, Romulus, Michigan 48174

TELEPHONE: (734) 942-0909
FACSIMILE: (734) 942-1858

TRANSMITTAL

DATE: February 23, 2000

REFERENCE NO.: 8889-05/70/40

PROJECT NAME: GM Clark Avenue Facility

TO: Ms. Bridget Pitlock
General Motors Corporation
WFG – Remediation Team
485 W. Milwaukee
Mail Code: 482-310-004
Detroit, Michigan 48202

Please find enclosed:
- ☐ Draft
- ☐ Originals
- ☐ Prints
- ☒ Final
- ☒ Other Copies

Sent via:
- ☐ Mail
- ☐ Overnight Courier
- ☐ Same Day Courier
- ☒ Other Hand Deliver by CRA

QUANTITY	DESCRIPTION
3	Groundwater Monitoring Summary Report (Final)
1	Oil Reclamation Facility Phase I ESA (Copy)
1	Oil Reclamation Facility Phase II ESA (Copy)
3	Central Areas Phase V ESA (Final)

- ☐ As Requested
- ☐ For Your Use
- ☐ For Review and Comment
- ☒ For Your Use and Distribution
- ☐

COMMENTS:
Privileged and Confidential
Prepared at General Motors
Counsel's Request

Copy to: Glenn Turchan, file

Completed by: Sue Neiheisel Signed: Sue Neiheisel
[Please Print]

Filing: Correspondence File

CRA

Privileged and Confidential
Prepared at General Motors
Counsel's Request

OIL RECLAMATION FACILITY
PHASE II ENVIRONMENTAL SITE ASSESSMENT

General Motors Corporation
Clark Avenue Facility
Detroit, Michigan

Prepared By:

Conestoga-Rovers & Associates
11100 Metro Airport Center Drive, Suite #160
Romulus, Michigan 48174
(734) 942-0909 Office (734) 942-1858 Fax

APRIL 1998
REF. NO. 8889 (33)
This report is printed on recycled paper.

TABLE OF CONTENTS

LIST OF FIGURES
(Following Report)

LIST OF TABLES

LIST OF APPENDICES

1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) of Romulus, Michigan was retained by General Motors Corporation (GM) of Detroit, Michigan to conduct a Phase II Environmental Site Assessment (Phase II ESA) of the Clark Avenue Oil Reclamation Facility (Site), which is a portion of the GM Clark Avenue Facility, located at 2860 Clark Avenue in Detroit, Michigan. The Site location is presented on Figure 1.1. A Site plan is presented on Figure 1.2.

The purpose of the Phase II ESA was to confirm or deny a release at the Potential Areas of Concern (PAOCs) identified during the Phase I ESA of the Site, which was completed in February 1998 (CRA, February 1998).

This document presents a summary of the Phase II ESA activities for the Site, in the following Sections:

2.0 Scope of Work
3.0 Geology and Hydrogeology
4.0 Analytical Results
5.0 Conclusions

2.0 SCOPE OF WORK

CRA conducted the Phase II ESA field activates at the Site during the period from March 16, 1998 through March 18, 1998, and on April 7, 1998. The Phase II ESA was designed to confirm or deny a release at the PAOCs identified during the Phase I ESA.

2.1 SUMMARY OF PAOCs EVALUATED

Ten PAOCs were identified during the Phase I ESA. PAOC locations are presented on Figure 2.1.

For the purpose of this Phase II ESA, PAOCs are named according to their location and order of discovery. For example, PAOC ORF-1 was the first PAOC discovered at the Oil Reclamation Facility (ORF).

2.2 SOIL INVESTIGATION

A total of 14 investigative boreholes were completed during the Phase II ESA to investigate the soils in the vicinity of the PAOCs on Site.

Table 2.1 presents a summary of boreholes completed to investigate each PAOC. Figure 2.2 presents the borehole locations.

2.3 BOREHOLE INSTALLATION

2.3.1 DRILLING METHODS

Mateco Drilling Company (Mateco), of Grand Rapids, Michigan, performed all Phase II ESA drilling activities at the Site from March 16, 1998 through March 18, 1998 under CRA's supervision. Michigan Concrete Sawing and Drilling, Inc., of Redford, Michigan, performed all concrete coring activities at the Site on April 7, 1998. CRA performed all hand augering activities at the Site on April 7, 1998.

Boreholes located outside the Site buildings (BH-1-98, BH-2-98, BH-3-98, BH-4-98, BH-5-98, BH-6-98, BH-7-98, BH-8-98, BH-11-98, and BH-12-98) were advanced using a drill rig equipped with 4 ¼-inch hollow stem augers (HSAs), approximately two feet into the native clay layer which underlies the surficial fill materials at the Site. Boreholes located inside Building 45 (BH-9-98, BH-10-98, BH-13-98, and BH-14-98) were advanced using concrete coring and hand augering, to approximately two to five feet bgs. Borehole depth within Building 45 was limited due to the use of hand auger.

Borehole stratigraphic logs are presented in Appendix A.

2.3.2 SOIL SAMPLING METHODS

Exterior soil samples were collected continuously, using split spoon samplers via a drill rig equipped with HSAs. One soil sample was collected from each boring for chemical analysis. Soil samples were screened using a photoionization detector (PID) and visually examined for staining and/or odors. The soil sample which exhibited the highest PID reading, or most significant staining/odors, was submitted for chemical analysis.

Soil samples were collected by split-spoon methods in accordance with ASTM Method 1586 and classified using the following protocols:

i) soil samples were collected using a 24-inch long, 2-inch outside diameter carbon-steel split-spoon sampler (pre-cleaned as described in Section 2.3.3). The split-spoon was attached to pre-cleaned drill rods, and driven ahead of the HSAs into the materials to be sampled using a 140-pound hammer, free falling 30 inches. The number of hammer blows were recorded for each 6-inch increment of penetration; and

ii) all collected soil samples were described and visually classified according to the United Soil Classification System (USCS) System, placed in pre-cleaned laboratory-supplied jars, and submitted under Chain-of-Custody (COC) to the analytical laboratory for chemical analyses.

Interior soil samples were collected using a hand auger following concrete surface coring The interior soil borings were advanced with a 6-inch diameter pre-cleaned stainless steel hand auger.

2.3.3 DECONTAMINATION METHODS

Prior to mobilization of sampling equipment, and prior to the commencement of sampling activities, all sampling equipment was thoroughly steam-cleaned to remove oil, grease, mud and other foreign matter.

The drill rig and all downhole drilling and sampling equipment (such as augers, cutting bits, and associated equipment and tools), were cleaned using a hot potable water high-pressure, low-volume rinse.

The soil sampling equipment and tools were cleaned prior to the initial borehole, and in between each borehole installed.

Sampling equipment and tools, including split-spoons and hand augers, were thoroughly cleaned using the following wash sequence:

i) cleaning with potable water and detergent (Alconox), using a brush to remove particulate matter and surface films;
ii) rinsing thoroughly with potable water;
iii) rinsing with isopropanol;
iv) rinsing thoroughly with deionized water;
v) allowing the equipment to air dry as long as possible; and
vi) wrapping with aluminum foil, if appropriate, if the equipment was to be stored or transported.

2.4 SAMPLE ANALYSIS/DATA VALIDATION

Soil samples were collected and submitted to ENCOTEC of Ann Arbor, Michigan, and analyzed for various parameters, including Target Compound List (TCL) volatile organic compounds (VOCs), TCL semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), Target Analyte List (TAL) Metals (Metals), and cyanide.

The sample summary is presented in Table 2.2. Parameter selection was based on information obtained during the Phase I ESA for the Site.

Samples were shipped via overnight courier or hand delivery to ENCOTEC in sealed coolers packed with ice under COC protocol. Analytical reports and COC records are presented in Appendix B.

Quality assessment and validation of the analytical data reported by ENCOTEC was conducted by CRA's Quality Assurance Officer (QAO). The validation of the analytical data was based on laboratory blank data, recovery data from matrix and surrogate spikes, and check samples. The analytical data was assessed for accuracy and precision based on review of the blank and spike recovery data. The analytical data was determined to be valid and suitable for quantitative use specific to this project. The data quality assessment and validation memorandum is presented in Appendix C.

The analytical results for the soil samples were compared to Michigan Act 451, Part 201 Generic Industrial Soil Volatilization to Indoor Air Inhalation Criteria, the Generic Industrial Infinite Source Volatile Soil Inhalation Criteria (VSIC) for Ambient Air, and the Generic Industrial Direct Contact Criteria, as presented in the Michigan Department of Environmental Quality (MDEQ), Environmental Response Division (ERD), Training Material for Part 201 Cleanup Criteria, dated March 1998. Michigan Act 451, Part 201 Generic Residential Direct Contact Criteria are presented for comparison purposes. Where applicable, the most restrictive criteria of the Generic Residential Soil Volatilization to Indoor Air Inhalation Criteria or the Generic Residential Infinite Source VSIC for Ambient Air as presented in the MDEQ, ERD, Training Material for Part 201 Cleanup Criteria was substituted for the Generic Residential Direct Contact Criteria.

3.0 GEOLOGY AND HYDROGEOLOGY

3.1 SITE GEOLOGY

The Site is located on the southeastern edge of the Michigan Basin, a regional geologic feature that includes sedimentary rocks of the Paleozoic age.

An accumulation of unconsolidated sediment deposits cover most of the Michigan area, formed during the glaciation of the Pleistocene Epoch. The lacustrine glacial till which underlies southeastern Michigan is comprised of sand, silt, and clay, and has a thickness of 101 to 200 feet (Hydrogeologic Atlas of Michigan, Western Michigan University, 1981). The glacial till at the Site was reported in previous investigations to be 111 to 125 feet thick. The underlying bedrock is reported to be limestone of the Dundee Limestone, a late Devonian formation. The Dundee Limestone is generally a highly fractured, brown, carboniferous rock.

Through years of development and industrial use, the native soils in many areas of the Site have been overlain by earth fill (i.e., sand and gravel), asphalt, concrete, or structures. This surficial layer of fill at the Site is generally less than ten feet thick.

3.2 SITE HYDROGEOLOGY

The stratigraphy at the Site contains two water bearing zones: a shallow perched water zone within the surficial fill, and an aquifer within the limestone bedrock beneath the lacustrine glacial till.

The first usable aquifer is protected from surficial contamination by impervious material. No wells in the area are reported to be located in the bedrock. The glacial drift is generally not an aquifer, but may include thin interbedded aquifers at depth (Hydrogeologic Atlas of Michigan, Western Michigan University, 1981).

Perched groundwater was encountered at the Site at depths ranging from 2 to 6 feet bgs.

It should be noted that the perched water in many areas of Detroit is considered by the MDEQ, ERD to be groundwater not in an aquifer.

4.0 ANALYTICAL RESULTS

4.1 VOCS

No VOC parameters were detected in any of the soil samples above method detection limits.

4.2 SVOCS

A summary of detected SVOCs in soil samples is presented in Table 4.1. Benzo(a)pyrene was detected above the Michigan Act 451, Part 201 Generic Residential Direct Contact Criteria at borehole BH-11-98. No SVOC parameters were detected above applicable Michigan Act 451, Part 201 Generic Industrial Criteria.

4.3 PCBS

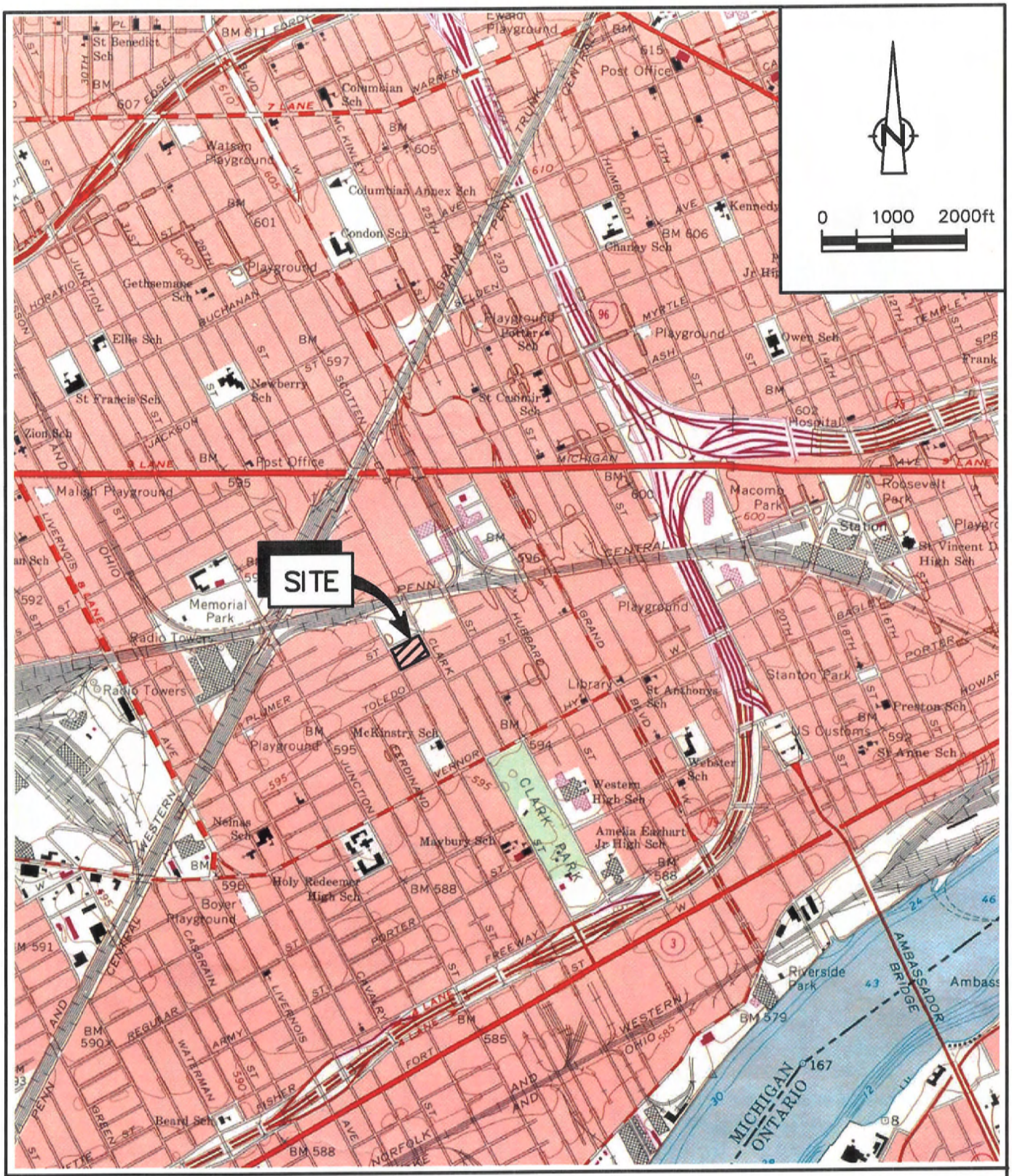
No PCB parameters were detected in any of the soil samples above method detection limits.

4.4 INORGANICS

A summary of detected inorganics in soil samples is presented in Table 4.2. No inorganic parameters were detected above applicable Michigan Act 451, Part 201 Generic Industrial Criteria.

5.0 CONCLUSIONS

Based on the results of the Phase II ESA, no areas of concern (AOCs) were identified.



SOURCE: USGS QUADRANGLE MAP;
DETROIT, MICHIGAN

figure 1.1

SITE LOCATION
PHASE II ESA
GENERAL MOTORS AVENUE OIL RECLAMATION FACILITY
Detroit, Michigan

CRA

08889-00(033)GN-DE004 FEB 05/99

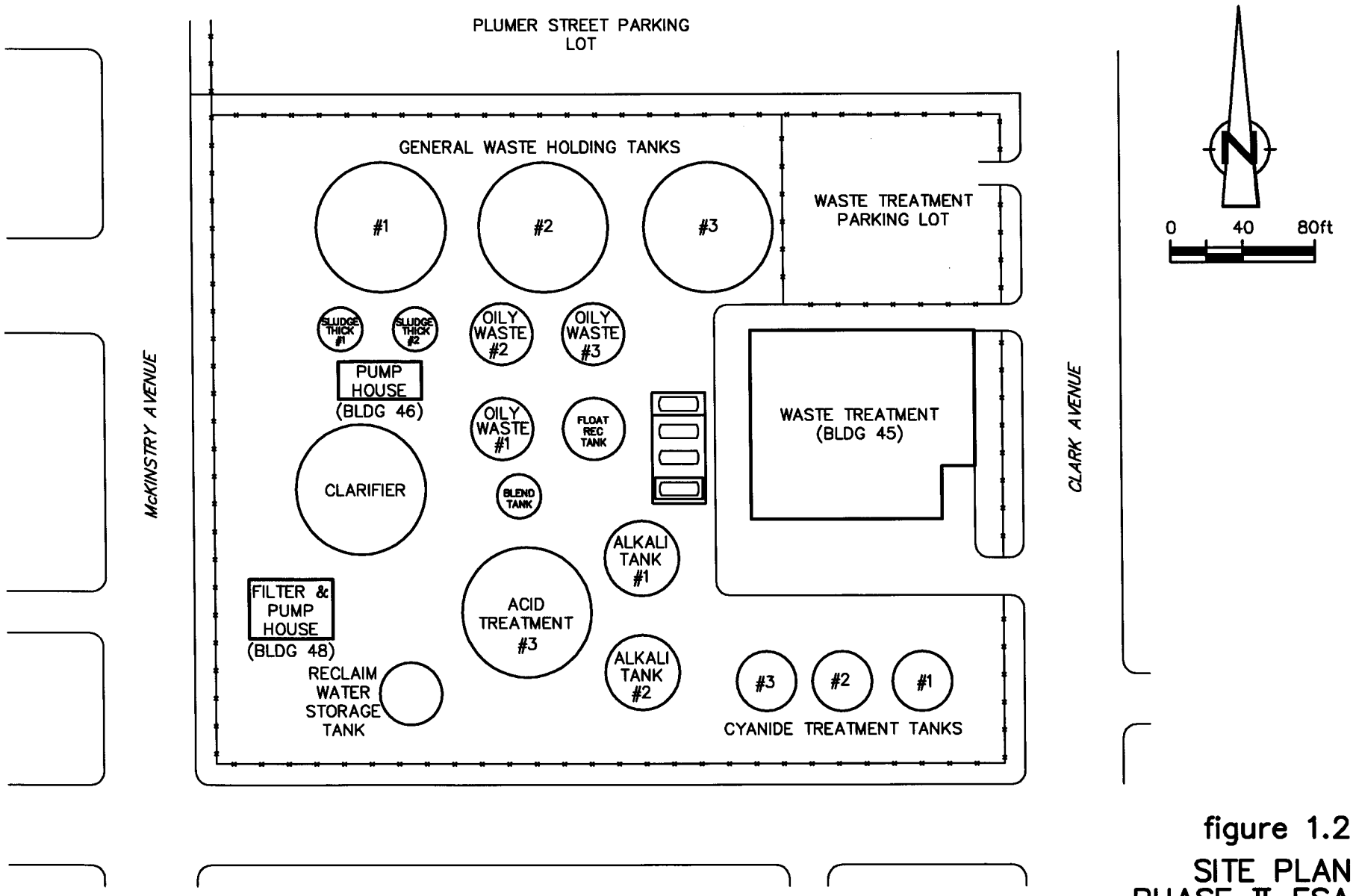


figure 1.2

SITE PLAN
PHASE II ESA
GM CLARK AVENUE OIL RECLAMATION FACILITY
Detroit, Michigan

CRA

08889-00(033)GN-DE001 FEB 05/99

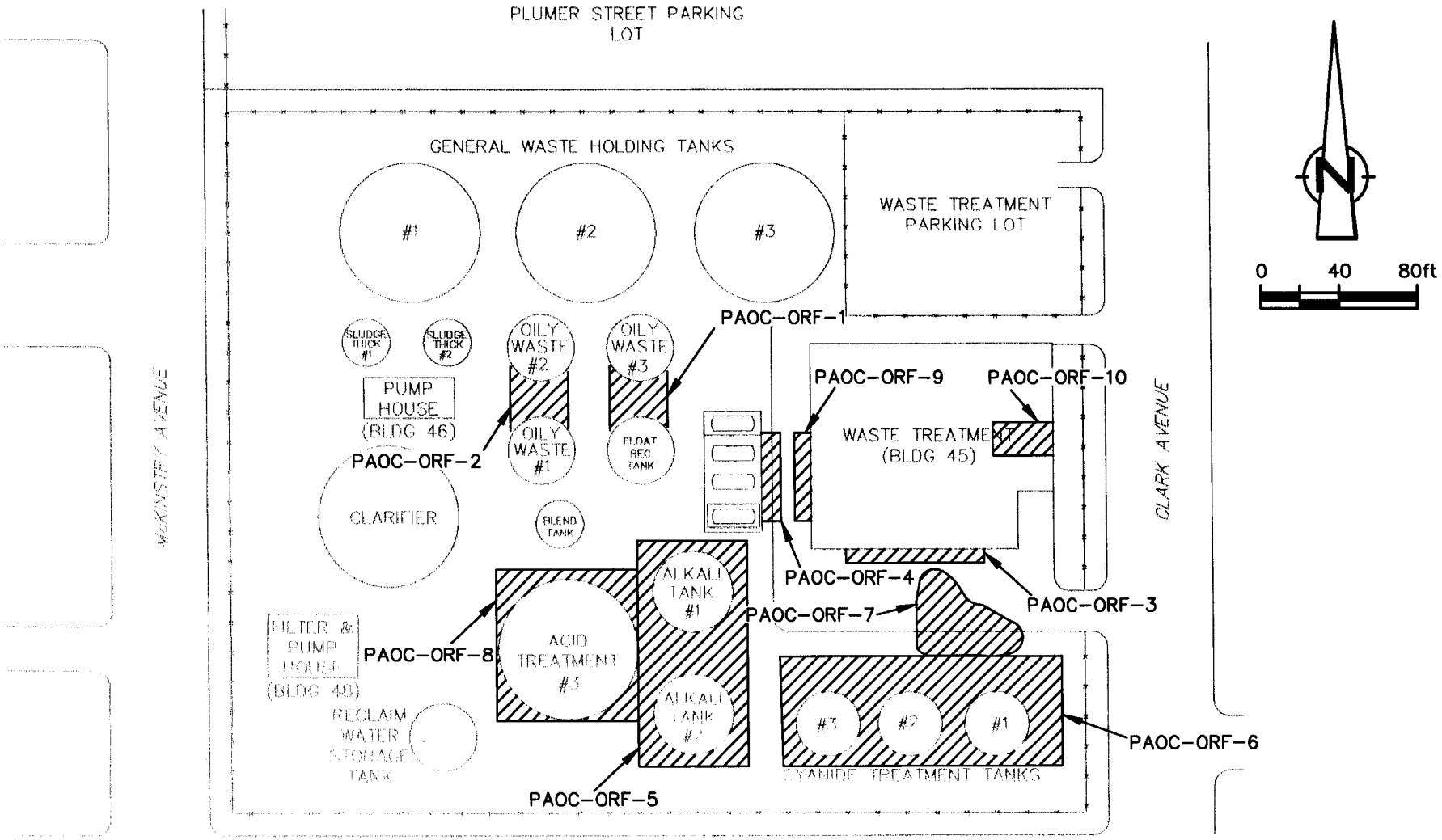


figure 2.1

SUMMARY OF IDENTIFIED PAOCs
PHASE II ESA
GM CLARK AVENUE OIL RECLAMATION FACILITY
Detroit, Michigan

CRA

08889-00(033)GN-DE003 FEB 05/99

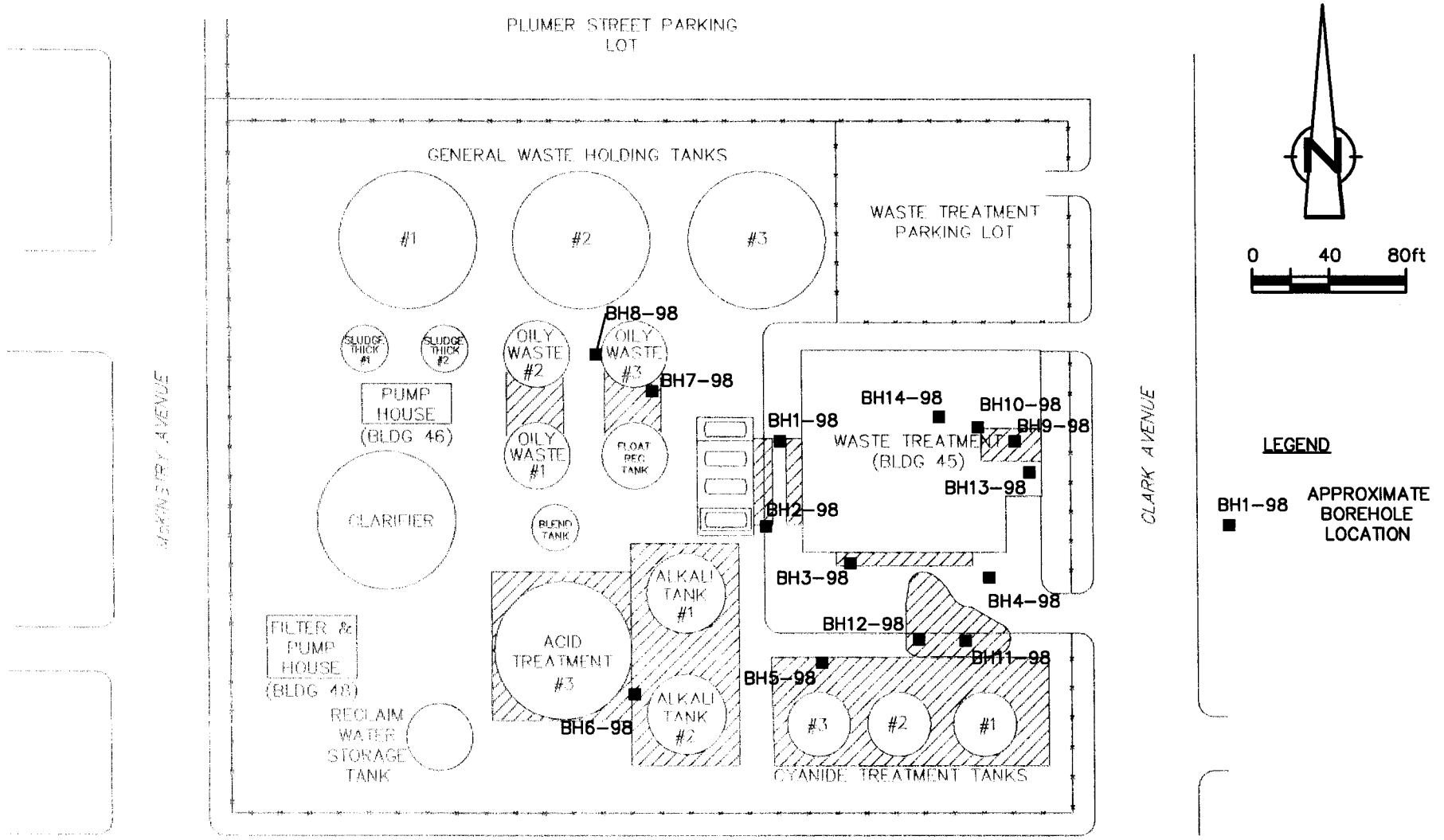


figure 2.2

APPROXIMATE BOREHOLE LOCATIONS
PHASE II ESA
GM CLARK AVENUE OIL RECLAMATION FACILITY
Detroit, Michigan

CRA

08889-00(033)GN-DE002 FEB 05/99

TABLE 2.1

**SUMMARY OF BOREHOLE COMPLETION
PHASE II ENVIRONMENTAL SITE ASSESSMENT ACTIVITIES
OIL RECLAMATION FACILITY
GM CLARK AVENUE SITE
DETROIT, MICHIGAN**

Potential Area of Concern	Phase II Activity	Number of Borings/Samples	Sample Interval (1)	Analysis
1. Surficial Staining - Oily Waste Holding Tanks	Soil Boring BH8-98	1/1	fill	TCL VOCs, TCL SVOCs, PCBs, TAL Metals incl. cyanide
2. Surficial Staining - Oily Waste Holding Tanks	Soil Boring BH7-98	1/2	fill	TCL VOCs, TCL SVOCs, PCBs, TAL Metals incl. cyanide
3. Concrete Staining - Southern Perimeter of Building 45	Soil Borings BH3-98, BH4-98	2/2	fill	TCL VOCs, TCL SVOCs, PCBs, TAL Metals incl. cyanide
4. Concrete Staining - West of Building 45 Near ASTs	Soil Boring BH2-98	1/1	fill	TCL VOCs, TCL SVOCs, PCBs, TAL Metals incl. cyanide
5. Spills/Releases - Acid/Alkali Holding Tanks	Soil Boring BH6-98	1/1	fill	TCL VOCs, TCL SVOCs, PCBs, TAL Metals incl. cyanide
6. Spills/Releases - Cyanide Treatment Tanks	Soil Boring BH5-98	1/1	fill	TCL VOCs, TCL SVOCs, PCBs, TAL Metals incl. cyanide
7. Spills/Releases - South Side of Building 45	Soil Borings BH11-98, BH12-98	2/2	fill	TCL VOCs, TCL SVOCs, PCBs, TAL Metals incl. cyanide
8. Spills/Releases - Acid/Alkali Holding Tanks	Soil Boring BH6-98	1/1	fill	TCL VOCs, TCL SVOCs, PCBs, TAL Metals incl. cyanide
9. Spills/Releases - West of Building 45	Soil Boring BH1-98	1/1	fill	TCL VOCs, TCL SVOCs, PCBs, TAL Metals incl. Cyanide
10. Surficial staining - Interior of Building 45	Soil Borings BH9-98, BH10-98 BH13-98, BH14-98	4/4	fill	TCL VOCs and TCL SVOCs

Notes:

(1) One sample will be collected from each borehole for chemical analysis based on visual, olfactory, and PID observations/readings. Boreholes are estimated to be approximately 9 feet deep.

TCL VOC = Target Compound List Volatile Organic Compounds
TCL SVOC = Target Compound List Semi-Volatile Organic Compounds
PCB = Polychlorinated Biphenyls
TAL Metals = Target Analyte List Metals

TABLE 2.2

SAMPLE SUMMARY
PHASE II ENVIRONMENTAL SITE ASSESSMENT
OIL RECLAMATION FACILITY
GM CLARK AVENUE SITE
DETROIT, MICHIGAN

Sample Number	*Sample Location*	*Depth (feet bgs)*	*Analysis*
S-8889-031698-SF-001	BH1-98	6 - 8	TCL VOC, SVOC, PCB, TAL Metals and Cyanide
S-8889-031698-SF-002	BH2-98	4 - 6	TCL VOC, SVOC, PCB, TAL Metals and Cyanide
S-8889-031698-SF-003	BH3-98	0.75 - 2	TCL VOC, SVOC, PCB, TAL Metals and Cyanide
S-8889-031798-SF-004	BH4-98	4 - 6	TCL VOC, SVOC, PCB, TAL Metals and Cyanide
S-8889-031798-SF-005	BH5-98	0 - 2	TCL VOC, SVOC, PCB, TAL Metals and Cyanide
S-8889-031798-SF-006	BH6-98	2 - 4	TCL VOC, SVOC, PCB, TAL Metals and Cyanide
S-8889-031798-SF-007	BH7-98	2 - 4	TCL VOC, SVOC, PCB, TAL Metals and Cyanide
S-8889-031798-SF-008	BH7-98	2 - 4 (Dup.)	TCL VOC, SVOC, PCB, TAL Metals and Cyanide
S-8889-031798-SF-009	BH8-98	2 - 4	TCL VOC, SVOC, PCB, TAL Metals and Cyanide
S-8889-031798-SF-010	BH9-98	4 - 4.5	TCL VOC and SVOC
S-8889-031898-SF-011	BH11-98	0 - 2	TCL VOC, SVOC, PCB, TAL Metals and Cyanide
S-8889-031898-SF-012	BH12-98	4 - 6	TCL VOC, SVOC, PCB, TAL Metals and Cyanide
S-8889-040798-SF-013	BH14-98	4.5 - 5 (MS/MSD)	TCL VOC and SVOC
S-8889-040798-SF-014	BH10-98	2 - 2.5	TCL VOC and SVOC
S-8889-040798-SF-015	BH13-98	1.5 - 2	TCL VOC and SVOC

Notes:

TCL - Target Compound List
VOC - Volatile Organic Compounds
SVOC - Semi-Volatile Compounds
PCB - Polychlorinated Biphenyls
TAL - Target Analyte List
Dup - Duplicate
MS/MSD - Matrix Spike/Matrix Spike Duplicate

TABLE 4.1

SUMMARY OF DETECTED TCL SEMI-VOLATILE ORGANIC COMPOUNDS IN SOIL SAMPLES
PHASE II ENVIRONMENTAL SITE ASSESSMENT
OIL RECLAMATION FACILITY
GM CLARK AVENUE SITE
DETROIT, MICHIGAN

Sample ID (S-8889-)	*Michigan*	*Michigan*	*Michigan*	*Michigan*	*031698-SF-001*	*031698-SF-002*	*031698-SF-003*	*031798-SF-006*
Sample Location	*Generic*	*Generic*	*Generic*	*Generic*	*BH1-98*	*BH2-98*	*BH3-98*	*BH6-98*
Depth (bgs)	*Residential*	*Industrial*	*Industrial*	*Industrial*	*6 - 8'*	*4 - 6'*	*9" - 2'*	*2 - 4'*
Date Sampled	*Direct Contact*	*Direct Contact*	*Indoor Air*	*Ambient Air*	*3/16/98*	*3/16/98*	*3/16/98*	*3/17/98*
Date Analyzed	*Value (1)*	*Value (2)*	*Value (3)*	*Value (3,5)*	*3/21/98*	*3/21/98*	*3/21/98*	*3/20/98*
Units	*µg/kg*	*µg/kg*	*µg/kg*	*µg/kg*	*µg/kg*	*µg/kg*	*µg/kg*	*µg/kg*
Parameter								
Anthracene	420,000,000	1,000,000,000	1,000,000	1,280,000	ND (330)	ND (330)	ND (330)	ND (330)
Benzo(a)anthracene	14,000	210,000	NLV	ID	ND (330)	ND (330)	340	360
Benzo(a)pyrene	1,400	21,000	NLV	1,120,000	ND (330)	ND (330)	ND (330)	ND (330)
Benzo(b)fluoranthene	14,000	210,000	ID	ID	ND (330)	ND (330)	330	ND (330)
Benzo(g,h,i)perylene	1,500,000	16,000,000	NLV	ID	ND (330)	ND (330)	ND (330)	ND (330)
Benzo(k)fluoranthene	140,000	2,100,000	NLV	ID	ND (330)	ND (330)	ND (330)	ND (330)
Chrysene	1,400,000	21,000,000	ID	ID	ND (330)	ND (330)	ND (330)	400
bis(2-Ethylhexyl)phthalate	700,000	11,000,000	NLV	4,080,000,000	560	ND (330)	ND (330)	ND (330)
Fluoranthene	51,000,000	540,000,000	1,000,000	704,000,000	ND (330)	480	640	710
Indeno(1,2,3-cd)pyrene	14,000	210,000	NLV	ID	ND (330)	ND (330)	ND (330)	ND (330)
Phenanthrene	104,000 (6)	16,000,000	28,000	120,000	ND (330) R	ND (330) R	390 J	720 J
Pyrene	32,000,000	340,000,000	1,000,000	616,000,000	ND (330)	400	600	840

Notes:

(1) - Michigan Department of Environmental Quality, Interim Environmental Response Division Operational Memorandum #8, Revision 4: Generic Residential Cleanup Criteria, June 5, 1995, and Revisions January 26, 1996.

(2) - Michigan Department of Environmental Quality, Environmental Response Division Operational Memorandum #14, Revision 2 , June 6, 1995 and Revisions January 25, 1996.

(3) - Michigan Department of Environmental Quality, Environmental Response Division Operational Memorandum #14, Revision 2 , June 6, 1995 and Revisions January 25, 1996, as defined in MDEQ Training Manual, March 1998.

(4) - The total chromium values detailed are compared to the criteria for chromium VI.

(5) - Values based on Industrial Ambient Air Infinite Source Volatile Soil Inhalation (VSIC) Criteria with a modifier of 0.8 for a source size of 3.6 acres.

(6) - Values based on Residential Ambient Air Infinite Source VSIC with a modifier of 0.8 for a source size of 3.6 acres.

ID - Inadequate data to develop criteria.

bgs - below ground surface.

ND ( ) - Analyte not detected above the report limit in parenthesis.

NLV - Chemical is not likely to volatilize under most conditions

J - Qualified as an estimated value.

R - Qualified as rejected.

2,100 Exceeds one or more of the comparison criteria.

TABLE 4.1

SUMMARY OF DETECTED TCL SEMI-VOLATILE ORGANIC COMPOUNDS IN SOIL SAMPLES
PHASE II ENVIRONMENTAL SITE ASSESSMENT
OIL RECLAMATION FACILITY
GM CLARK AVENUE SITE
DETROIT, MICHIGAN

Sample ID (S-8889-)	*Michigan*	*Michigan*	*Michigan*	*Michigan*	*031798-SF-007*	*031798-SF-008*	*031798-SF-010*	*031898-SF-011*
Sample Location	*Generic*	*Generic*	*Generic*	*Generic*	*BH7-98*	*BH7-98*	*BH9-98*	*BH11-98*
Depth (bgs)	*Residential*	*Industrial*	*Industrial*	*Industrial*	*2 - 4'*	*2 - 4'*	*4 - 4'6"*	*0 - 2'*
Date Sampled	*Direct Contact*	*Direct Contact*	*Indoor Air*	*Ambient Air*	*3/17/98*	*3/17/98*	*3/17/98*	*3/18/98*
Date Analyzed	*Value (1)*	*Value (2)*	*Value (3)*	*Value (3,5)*	*3/21/98*	*3/20/98*	*3/21/98*	*3/20/98*
Units	*µg/kg*	*µg/kg*	*µg/kg*	*µg/kg*	*µg/kg*	*µg/kg*	*µg/kg*	*µg/kg*
						Duplicate		
Parameter								
Anthracene	420,000,000	1,000,000,000	1,000,000	1,280,000	ND (4,600)	ND (450)	ND (330)	1,100
Benzo(a)anthracene	14,000	210,000	NLV	ID	ND (4,600)	ND (450)	400	2,700
Benzo(a)pyrene	1,400	21,000	NLV	1,120,000	ND (4,600)	ND (450)	360	2,100
Benzo(b)fluoranthene	14,000	210,000	ID	ID	ND (4,600)	ND (450)	450	2,700
Benzo(g,h,i)perylene	1,500,000	16,000,000	NLV	ID	ND (4,600)	ND (450)	ND (330)	1,400
Benzo(k)fluoranthene	140,000	2,100,000	NLV	ID	ND (4,600)	ND (450)	ND (330)	850
Chrysene	1,400,000	21,000,000	ID	ID	ND (4,600)	630	480	2,600
bis(2-Ethylhexyl)phthalate	700,000	11,000,000	NLV	4,080,000,000	ND (4,600)	760	ND (330)	ND (460)
Fluoranthene	51,000,000	540,000,000	1,000,000	704,000,000	ND (4,600)	ND (450)	700	5,100
Indeno(1,2,3-cd)pyrene	14,000	210,000	NLV	ID	ND (4,600)	ND (450)	ND (330)	1,200
Phenanthrene	104,000 (6)	16,000,000	28,000	120,000	ND (4,600) R	ND (450) R	360 J	3,600 J
Pyrene	32,000,000	340,000,000	1,000,000	616,000,000	ND (4,600)	930	780	5,000

Notes:

(1) - Michigan Department of Environmental Quality, Interim Environmental Response Division Operational Memorandum #8, Revision 4: Generic Residential Cleanup Criteria, June 5, 1995, and Revisions January 26, 1996.

(2) - Michigan Department of Environmental Quality, Environmental Response Division Operational Memorandum #14, Revision 2 , June 6, 1995 and Revisions January 25, 1996.

(3) - Michigan Department of Environmental Quality, Environmental Response Division Operational Memorandum #14, Revision 2 , June 6, 1995 and Revisions January 25, 1996, as defined in MDEQ Training Manual, March 1998.

(4) - The total chromium values detailed are compared to the criteria for chromium VI.

(5) - Values based on Industrial Ambient Air Infinite Source Volatile Soil Inhalation (VSIC) Criteria with a modifier of 0.8 for a source size of 3.6 acres.

(6) - Values based on Residential Ambient Air Infinite Source VSIC with a modifier of 0.8 for a source size of 3.6 acres.

ID - Inadequate data to develop criteria.

bgs - below ground surface.

ND ( ) - Analyte not detected above the report limit in parenthesis.

NLV - Chemical is not likely to volatilize under most conditions

J - Qualified as an estimated value.

R - Qualified as rejected.

2,100 Exceeds one or more of the comparison criteria.

TABLE 4.2

SUMMARY OF DETECTED TARGET ANALYTE LIST INORGANICS IN SOIL SAMPLES
PHASE II ENVIRONMENTAL SITE ASSESSMENT
OIL RECLAMATION FACILITY
GM CLARK AVENUE SITE
DETROIT, MICHIGAN

Sample ID (S-8889-)	*Michigan*	*Michigan*	*Michigan*	*Michigan*	*031698-SF-001*	*031698-SF-002*	*031698-SF-003*	*031798-SF-004*	*031798-SF-005*	*031798-SF-006*
Sample Location	*Generic*	*Generic*	*Generic*	*Generic*	*BH1-98*	*BH2-98*	*BH3-98*	*BH4-98*	*BH5-98*	*BH6-98*
Sample Depth (bgs)	*Residential*	*Industrial*	*Industrial*	*Industrial*	*6 - 8'*	*4 - 6'*	*9" - 2'*	*4 - 6'*	*0 - 2'*	*2 - 4'*
Date Sampled	*Direct Contact*	*Direct Contact*	*Indoor Air*	*Ambient Air*	*3/16/98*	*3/16/98*	*3/16/98*	*3/17/98*	*3/17/98*	*3/17/98*
Last Date Analyzed	*Value (1)*	*Value (2)*	*Value (3)*	*Value (3,5)*	*3/23/98*	*3/23/98*	*3/23/98*	*3/23/98*	*3/23/98*	*3/23/98*
Units	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*
Parameters										
Aluminum	ID	ID	NLV	NLV	6,800	1,400	2,300	980	2,300	3,100
Arsenic	6.6 (7)	100	NLV	NLV	2.6	2.0	1.5	4.4	1.6	2.1
Barium	30,000	320,000	NLV	NLV	59	9.2	15	9.4	48	69
Beryllium	2.3	35	NLV	NLV	0.38	ND (0.24)	ND (0.23)	ND (0.24)	ND (0.23)	ND (0.24)
Cadmium	210	2,300	NLV	NLV	0.13	0.075	0.17	0.12	0.39	0.89
Calcium	—	—	—	—	40,000	10,000	30,000	40,000	60,000	20,000
Chromium, total (4)	2,000	22,000	NLV	NLV	11	3.1	9.3	ND (2.5)	7.3	21
Cobalt	2,100	23,000	NLV	NLV	7	1.3	1.8	1.9	2.1	2.3
Copper	16,000	170,000	NLV	NLV	20	6.6	9.5	6.0	16	25
Cyanide, total	250 (6)	9,900	NLV	NLV	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)	ND (0.2)
Iron	ID	ID	ID	NLV	10,000	3,000	4,600	4,300	5,000	5,200
Lead	400	400	NLV	NLV	10	3.5	20	4.0	35	50
Magnesium	1,000,000	1,000,000	NLV	NLV	20,000	5,600	10,000	10,000	20,000	8,300
Manganese	2,000	22,000	NLV	NLV	280	40	100	130	150	120
Nickel	32,000	340,000	NLV	NLV	17	3.6	5.7	4.3	43	20
Potassium	—	—	—	—	1,100	190	190	150	190	200
Silver	2,000	21,000	NLV	NLV	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	0.51
Sodium	1,000,000	1,000,000	NLV	NLV	800	160	170	530	100	50
Vanadium	3,700	39,000	NLV	NLV	15	7.5	6.6	4.9	6.4	9.0
Zinc	140,000	1,000,000	NLV	NLV	44	18	39	16	79	72

Notes:

(1) - Michigan Department of Environmental Quality, Interim Environmental Response Division Operational Memorandum #8, Revision 4: Generic Residential Cleanup Criteria, June 5, 1995, and Revisions January 26, 1996.
(2) - Michigan Department of Environmental Quality, Environmental Response Division Operational Memorandum #14, Revision 2 , June 6, 1995 and Revisions January 25, 1996.
(3) - Michigan Department of Environmental Quality, Environmental Response Division Operational Memorandum #14, Revision 2 , June 6, 1995 and Revisions January 25, 1996, as defined in MDEQ Training Manual, March 1998.
(4) - The total chromium values detailed are compared to the criteria for chromium VI.
(5) - Values based on Industrial Ambient Air Infinite Source Volatile Soil Inhalation (VSIC) criteria with a modifier of 0.8 for a source size of 3.6 acres.
(6) - Values based on Residential Ambient Air Infinite Source VSIC Criteria with a modifier of 0.8 for a source size of 3.6 acres.
(7) - Default Type A Cleanup Criteria has been substituted. MDEQ-ERD Operational Memorandum #15, September 30, 1993.
ID - Inadequate data to develop criteria.
bgs - below ground surface
ND ( ) - Analyte not detected above the report limit in parenthesis.
NLV - Chemical is not likely to volatilize under most conditions
J - Qualified as an estimated value.

TABLE 4.2

SUMMARY OF DETECTED TARGET ANALYTE LIST INORGANICS IN SOIL SAMPLES
PHASE II ENVIRONMENTAL SITE ASSESSMENT
OIL RECLAMATION FACILITY
GM CLARK AVENUE SITE
DETROIT, MICHIGAN

Sample ID (S-8889-)	*Michigan Generic Residential Direct Contact Value (1)*	*Michigan Generic Industrial Direct Contact Value (2)*	*Michigan Generic Industrial Indoor Air Value (3)*	*Michigan Generic Industrial Ambient Air Value (3,5)*	*031798-SF-007*	*031798-SF-008*	*031798-SF-009*	*031688-SF-011*	*031898-SF-012*
Sample Location					*BH7-98*	*BH7-98*	*BH8-98*	*BH11-98*	*BH12-98*
Sample Depth (bgs)					*2 - 4'*	*2 - 4'*	*2 - 4'*	*0 - 2'*	*4 - 6'*
Date Sampled					*3/17/98*	*3/17/98*	*3/17/98*	*3/18/98*	*3/18/98*
Last Date Analyzed					*3/23/98*	*3/23/98*	*3/23/98*	*3/23/98*	*3/23/98*
Units	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg*	*mg/kg Duplicate*	*mg/kg*	*mg/kg*	*mg/kg*
Parameters									
Aluminum	ID	ID	NLV	NLV	1,800	2,000	4,700	1,800	4,400
Arsenic	6.6 (7)	100	NLV	NLV	3.2	1.5	0.97	0.58	2.8
Barium	30,000	320,000	NLV	NLV	16	15	41	17	51
Beryllium	2.3	35	NLV	NLV	ND (0.23)	ND (0.23)	ND (0.24)	ND (0.24)	ND (0.25)
Cadmium	210	2,300	NLV	NLV	0.12	0.11	0.081	0.058	0.14
Calcium	---	---	---	---	60,000	100,000	1,100	1,000	40,000
Chromium, total (4)	2,000	22,000	NLV	NLV	3.2	4.2	9.4	3.6	8.5
Cobalt	2,100	23,000	NLV	NLV	2.8	1.8	2.2	ND (0.5)	4.1
Copper	16,000	170,000	NLV	NLV	9.4	11	11	6.6	13
Cyanide, total	250 (6)	9,900	NLV	NLV	ND (0.2)	ND (0.2)	ND (0.2)	230 J	ND (0.2)
Iron	ID	ID	ID	NLV	5,500	6,300	8,200	2,900	9,300
Lead	400	400	NLV	NLV	8.7	10	4.6	3.0	110
Magnesium	1,000,000	1,000,000	NLV	NLV	9,800	10,000	1,100	380	20,000
Manganese	2,000	22,000	NLV	NLV	200	320	160	20	200
Nickel	32,000	340,000	NLV	NLV	6.2	7.1	12	5.0	12
Potassium	---	---	---	---	160	260	290	86	690
Silver	2,000	21,000	NLV	NLV	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
Sodium	1,000,000	1,000,000	NLV	NLV	53	78	27	660	510
Vanadium	3,700	39,000	NLV	NLV	6.8	7.3	13	4.8	13
Zinc	140,000	1,000,000	NLV	NLV	32	35	35	23	40

Notes:

(1) - Michigan Department of Environmental Quality, Interim Environmental Response Division Operational Memorandum #8, Revision 4: Generic Residential Cleanup Criteria, June 5, 1995, and Revisions January 26, 1996.
(2) - Michigan Department of Environmental Quality, Environmental Response Division Operational Memorandum #14, Revision 2 , June 6, 1995 and Revisions January 25, 1996.
(3) - Michigan Department of Environmental Quality, Environmental Response Division Operational Memorandum #14, Revision 2 , June 6, 1995 and Revisions January 25, 1996, as defined in MDEQ Training Manual, March 1998.
(4) - The total chromium values detailed are compared to the criteria for chromium VI.
(5) - Values based on Industrial Ambient Air Infinite Source Volatile Soil Inhalation (VSIC) criteria with a modifier of 0.8 for a source size of 3.6 acres.
(6) - Values based on Residential Ambient Air Infinite Source VSIC Criteria with a modifier of 0.8 for a source size of 3.6 acres.
(7) - Default Type A Cleanup Criteria has been substituted. MDEQ-ERD Operational Memorandum #15, September 30, 1993.
ID - Inadequate data to develop criteria.
bgs - below ground surface
ND ( ) - Analyte not detected above the report limit in parenthesis.
NLV - Chemical is not likely to volatilize under most conditions
J - Qualified as an estimated value.

APPENDIX A

BOREHOLE STRATIGRAPHIC LOGS

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

(DL269)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-1-98
DATE COMPLETED: MARCH 16, 1998
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	0.00					
	CONCRETE	-.5	CEMENT	1C		--	--
	SM-SAND (FILL), some silt, trace gravel, loose, fine grained, poorly graded, brown, moist			1SS		7	0.0
2.5	- black - brown, no fill - medium dense		8"Ø BOREHOLE	2SS		7	0.0
5.0			CUTTINGS	3SS		14	0.0
	- wet - gray - brown	-7.0	2"Ø SPLIT SPOON	4SS		6	1.4
7.5	CL-CLAY, some silt, trace sand and gravel, firm, low plasticity, gray, moist	-8.0					
	END OF HOLE @ 8.0ft BGS						
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

(DL270)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-2-98
DATE COMPLETED: MARCH 16, 1998
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	0.00					
	CONCRETE	-.5	CEMENT	1C		--	--
	SM-SAND (FILL), some silt, trace gravel, loose, fine grained, poorly graded, brown, moist			1SS		7	0.2
2.5	– black – dark brown, no fill – gray brown		8"Ø BOREHOLE CUTTINGS	2SS		8	0.5
5.0	– wet with rust staining – brown		2"Ø SPLIT SPOON	3SS		13	0.8
	– gray	-5.8					
7.5	CL-CLAY, some silt, trace sand and gravel, stiff, low plasticity, gray, moist	-6.0					
	END OF HOLE @ 6.0ft BGS						
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

(DL271)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-3-98
DATE COMPLETED: MARCH 16, 1998
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	0.00					
	CONCRETE	-.8	CEMENT	1C		--	--
	SM-SAND (FILL), some silt, trace gravel, loose, fine grained, poorly graded, gray, moist			1SS		7	0.0
2.5			8"Ø BOREHOLE	2SS		3	0.0
	- dark gray, wet						
5.0	- brown		CUTTINGS	3SS		2	0.0
7.5				4SS		6	--
	CL-CLAY, some silt, trace sand and gravel, soft to firm, low plasticity, gray, moist	-8.0					
10.0			2"Ø SPLIT SPOON	5SS		4	0.0
	END OF HOLE @ 10.0ft BGS	-10.0					
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(DL272)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-4-98
DATE COMPLETED: MARCH 17, 1998
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	0.00					
	CONCRETE	-.5	CEMENT	1C		--	--
	SM-SAND (FILL), some silt, trace gravel, loose, fine grained, poorly graded, brown, moist			1SS		4	0.0
2.5	- black		8"Ø BOREHOLE				
	- brown, moist to wet			2SS		4	0.0
	- gray, wet		CUTTINGS				
5.0	- black		2"Ø SPLIT SPOON	3SS		7	4.8
	CL-CLAY, some silt, trace sand and gravel, firm, low plasticity, gray and brown, moist	-5.3					
	END OF HOLE @ 6.0ft BGS	-6.0					
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(DL273)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-5-98
DATE COMPLETED: MARCH 17, 1998
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	0.00					
	ROCKS (FILL)	-.4					
	SM-SAND (FILL), some silt, trace gravel, loose, fine grained, poorly graded, brown, moist			1SS		5	0.0
2.5	- 2" clay seam		8"Ø BOREHOLE	2SS		3	0.0
	- moist to wet						
5.0	- wet		CUTTINGS	3SS		4	0.0
7.5		-7.7	2"Ø SPLIT SPOON	4SS		6	0.0
	CL-CLAY, some silt, trace sand and gravel, firm, low plasticity, gray, moist	-8.0					
10.0	END OF HOLE @ 8.0ft BGS						
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

(DL274)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-6-98
DATE COMPLETED: MARCH 17, 1998
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	0.00					
	ROCKS (FILL)	-.7	8"Ø BOREHOLE	1SS		3	0.0
2.5	SM-SAND (FILL), some silt, trace gravel, loose, fine grained, poorly graded, brown, moist - very loose, moist to wet		CUTTINGS	2SS		2	0.0
5.0	- wet		2"Ø SPLIT SPOON	3SS		2.5	0.0
	CL-CLAY, some silt, trace sand and gravel, soft, low plasticity, gray, moist	-5.8 -6.0					
7.5	END OF HOLE @ 6.0ft BGS						
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
ANALYSIS ⬭

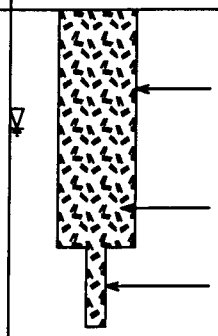
STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(DL275)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-7-98
DATE COMPLETED: MARCH 17, 1998
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	0.00					
	ROCKS (FILL)	-.7					
	SM-SAND (FILL), some silt, little to trace gravel, very loose, brown, moist			1SS		3	0.0
2.5	- gray, wet			2SS		7	2.8
	- black staining, oil-like odor						
5.0	- no staining, brown			3SS		7	0.0
	CL-CLAY, some silt, trace sand and gravel, firm, low plasticity, gray, moist	-6.0		4SS		5	0.0
7.5	END OF HOLE @ 8.0ft BGS	-8.0					
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							



NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(DL276)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-8-98
DATE COMPLETED: MARCH 17, 1998
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	0.00					
	ROCKS (FILL)	-.7	8"Ø BOREHOLE	1SS		6	0.0
-2.5	SM-SAND (FILL), some silt, trace gravel, loose, fine grained, poorly graded, brown, moist - 3" clay seam - 2" of rust staining, wet		CUTTINGS	2SS		8	0.0
-5.0		-5.3	2"Ø SPLIT SPOON	3SS		8	0.0
	CL-CLAY, some silt, trace sand and gravel, firm to stiff, low plasticity, gray, moist	-6.0					
-7.5	END OF HOLE @ 6.0ft BGS						
-10.0							
-12.5							
-15.0							
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(DL277)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-9-98
DATE COMPLETED: MARCH 17, 1998
DRILLING METHOD: HAND AUGER
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	.0					
	CONCRETE	-.5	3"Ø BOREHOLE	1C		--	--
	SM-SAND (FILL), some silt, little gravel, fine grained, poorly graded, brown, moist		CUTTINGS	1HA		--	0.0
2.5				2HA		--	0.0
				3HA		--	0.0
				4HA		--	0.0
				5HA		--	0.0
				6HA		--	0.0
				7HA		--	0.0
5.0	– wet, black staining, pieces of wood, auger refusal	-4.5	▽	8HA		--	0.0
	END OF HOLE @ 4.5ft BGS						
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(DL280)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-10-98
DATE COMPLETED: APRIL 07, 1998
DRILLING METHOD: HAND AUGER
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	.0					
	CONCRETE	-1.0	CEMENT	1C		--	--
	SM-SAND (FILL), some silt, little gravel, fine grained, poorly graded, brown, moist		3"Ø BOREHOLE	1HA		--	0.0
				2HA		--	0.0
2.5	- auger refusal	-2.5	SOIL CUTTINGS	3HA		--	0.0
	END OF HOLE @ 2.5ft BGS						
5.0							
7.5							
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ( )

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(DL278)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-11-98
DATE COMPLETED: MARCH 18, 1998
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	0.00					
	ROCKS (FILL)	-.3					
	SM-SAND (FILL), some silt, trace gravel, loose, fine grained, poorly graded, black, moist			1SS		7	0.0
2.5	- brown		8"Ø BOREHOLE	2SS		6	0.0
	- wet		CUTTINGS				
5.0				3SS		9	0.0
7.5	CL-CLAY, some silt, trace sand and gravel, firm, low plasticity, gray, moist	-7.3	2"Ø SPLIT SPOON	4SS		6	0.0
	END OF HOLE @ 8.0ft BGS	-8.0					
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG
(OVERBURDEN)

(DL279)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-12-98
DATE COMPLETED: MARCH 18, 1998
DRILLING METHOD: 4 ¼" HSA
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	0.00					
	ROCKS (FILL)	-.3	8"Ø BOREHOLE	1SS		2	0.0
2.5	SM-SAND (FILL), some silt, trace gravel, very loose, fine grained, poorly graded, brown, moist - moist to wet - dark gray		CUTTINGS	2SS		3	0.0
5.0			2"Ø SPLIT SPOON	(3SS)		2	0.0
	CL-CLAY, some silt, trace sand and gravel, very soft to soft, low plasticity, gray, moist	-5.8					
7.5	END OF HOLE @ 6.0ft BGS	-6.0					
10.0							
12.5							
15.0							
17.5							
20.0							
22.5							
25.0							
27.5							
30.0							
32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(DL281)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-13-98
DATE COMPLETED: APRIL 07, 1998
DRILLING METHOD: HAND AUGER
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	.0					
	CONCRETE	-.7	CEMENT	1C		--	--
	SM-SAND (FILL), some silt, little gravel, fine grained, poorly graded, brown, moist		3"Ø BOREHOLE	1HA		--	0.0
-2.5	- auger refusal	-2.0	SOIL CUTTINGS	2HA		--	0.0
	END OF HOLE @ 2.0ft BGS						
-5.0							
-7.5							
-10.0							
-12.5							
-15.0							
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

STRATIGRAPHIC AND INSTRUMENTATION LOG (OVERBURDEN)

(DL282)
Page 1 of 1

PROJECT NAME: OIL RECLAMATION FACILITY SITE
PROJECT NUMBER: 8889-70
CLIENT: GENERAL MOTORS CORPORATION
LOCATION: DETROIT, MI

HOLE DESIGNATION: BH-14-98
DATE COMPLETED: APRIL 07, 1998
DRILLING METHOD: HAND AUGER
CRA SUPERVISOR: S. FIELEK

DEPTH ft. BGS	STRATIGRAPHIC DESCRIPTION & REMARKS	ELEV. ft. AMSL	MONITOR INSTALLATION	SAMPLE NUMBER	SAMPLE STATE	SAMPLE 'N' VALUE	SAMPLE PID (ppm)
	GROUND SURFACE	.0					
	CONCRETE	-1.0	CEMENT	1C		--	--
	SM-SAND (FILL), some silt, little gravel, fine grained, poorly graded, brown, moist		3"Ø BOREHOLE	1HA		--	0.0
-2.5				2HA		--	0.0
				3HA		--	0.0
				4HA		--	0.0
				5HA		--	0.0
	- wet, water table encountered		SOIL CUTTINGS	6HA		--	0.0
-5.0	- auger refusal	-5.0		7HA		--	0.0
	END OF HOLE @ 5.0ft BGS			8HA		--	0.0
-7.5							
-10.0							
-12.5							
-15.0							
-17.5							
-20.0							
-22.5							
-25.0							
-27.5							
-30.0							
-32.5							

NOTES: MEASURING POINT ELEVATIONS MAY CHANGE; REFER TO CURRENT ELEVATION TABLE
WATER FOUND ▽ STATIC WATER LEVEL ▼
CHEMICAL ANALYSIS ⬭

APPENDIX B

ANALYTICAL REPORTS

LAIDLAW ENVIRONMENTAL SERVICES

ENCOTEC

REC'D CRA
APR 17 1998
SPG-49

April 17, 1998

Mr. Paul Wiseman
Conestoga-Rovers & Associates. Inc.
Suite 160
11100 Metro Airport Center Drive
Romulus, MI. 48174

RE: Analytical Results / GM Clark Street

Dear Mr. Wiseman:

Please find enclosed two hard copies of the analytical results, QC and case narrative corresponding to samples from the above referenced project, which were received by LEI/ENCOTEC on April 7, 1998.

Please note that this data was previously forwarded to you via facsimile. Transmittals occurred April 14 -15, 1998.

Following review of this data, please feel free to contact me with any questions or concerns.

Sincerely,
Laidlaw Environmental, Inc./ENCOTEC

Jane Rusin

Jane Rusin
Project Manager

Enclosure

SDG CRA-CS-98D1
Batch# 10611
#33000

ANALYTICAL REPORT
Project: 8889-70 Lab #: CS98D1
Location: GM Clark Street
Description
Event:
Samples: 3 - Soil
Analysis: SVOC, VOC
TAT: 3 day
Lab: Encotec
Checked Against Preliminary Data:
Date: 4/17/98 Init.: MR
Date of Validation Memo: 4/20/98
Data Approved By:
Comments:

Laidlaw Environmental, Inc. / Encotec
3985 Research Park Drive Ann Arbor, Michigan 48108
Phone 313.761.1389 Fax 313.761.1034

DATA PACKAGE COVER PAGE

This report contains 27 pages, excluding the cover letter and is only for the submitted samples.

If any pages are missing please contact Laidlaw Environmental, Inc./ENCOTEC immediately.

This document is intended only for the person(s) identified in the cover letter and is to be considered **CONFIDENTIAL.**

This analytical report does not comply with State of Utah batch QC requirements for organic extractables unless otherwise noted in the laboratory narrative.

Flags and Definitions

U = The analyte was not detected at or above the quantitation limit.

E = The analyte was detected at a concentration greater than the calibration range; therefore the result is estimated.

DL = The sample was diluted due to sample matrix, therefore QC was not recoverable.

* = The value is outside quality control limits.

K = Reported concentration is proportional to dilution factor and may be exaggerated.

P = When one or both sample results are <5 times the quantitation limit, the RPD cannot be properly evaluated. It is not included in the total QC count.

G = Result is greater than the numerical value presented.

J = The analyte was detected at a concentration below the quantitation limit but above the method detection limit.

B = The analyte was detected in the associated method blank.

M = Matrix interference has resulted in an elevated quantitation limit or distorted QC result.

NC = Not Calculable.

NA = Not Applicable.

A = If the sample result is >4 times the amount spiked, the MS recovery cannot be properly evaluated. It is not included in the total QC count.

CA = Combustion aid was necessary to achieve results.

SDG	A Sample Delivery Group is a grouping of samples arriving under separate Chains of Custody that are reported together.
QC Set ID	An alphanumeric identification associating appropriate QC data with sample data.
Calculation Basis	Indicates whether the results have been adjusted for moisture content.
Quant Limit	The limit at which the analyte can be reliably reported within the method- specified limits of precision and accuracy under routine operating conditions.
Dil	Dilution Factor.
Conc	The concentration, expressed in appropriate units.
LCS	Laboratory Control Sample.
LCD	Laboratory Control Sample Duplicate.
MS	Matrix Spike.
MSD	Matrix Spike Duplicate.
%Rec	The percent recovery of a fortified analyte (surrogate, matrix spike, lab control sample).
RPD	The relative percent difference for duplicate analyses.
Second Analysis Date	The date on which a sample was analyzed a second time, at a dilution different than that on the (initial) Analysis Date.

If a numerical value is very large, it will be expressed in scientific notation. For example, a concentration of 10,000,000 ug Kg will be reported as 1E7

LABORATORY NARRATIVE

Client Name:	CONESTOGA-ROVERS & ASSOCIATES
Project Name:	8889-70
Project Number:	33000
Sample Delivery Group:	CRA-CS-98D1
Batch Number(s):	100010611
Narrative Date:	April 17, 1998

Samples were received and analyzed without incident, within holding times, with chain-of-custody maintained, and according to the referenced methods, except as noted below:

MS/MSD Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
BNAD0804S	Semivolatiles	Since ≥ 80% of the fortified analytes in the LCS recovered within QC windows, matrix interference is assumed. Corrective action was deemed unnecessary.

I certify that the data presented in this report is accurate, complete and meets the minimum quality assurance standards as specified in 40-CFR 136, 40-CFR-141, and/or SW-846. An assessment of the quality of the data, noting any exceptions, outliers, and/or problems encountered have been narrated herein.

Brian M Roudebush

Walt Roudebush (or designee)
Technical Director

4/17/98
Date

SAMPLE CROSS REFERENCE REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
SDG: CRA-CS-98D1
Submission ID(s): 100010611

Client Sample ID	ENCOTEC Sample ID	Sample Matrix	Date Sampled	Date Received
S-8889-040798-SF-013	200073514	SOIL	04/07/98	04/07/98
S-8889-040798-SF-014	200073515	SOIL	04/07/98	04/07/98
S-8889-040798-SF-015	200073516	SOIL	04/07/98	04/07/98

Ludlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive - Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

METHOD DESCRIPTION REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
SDG: CRA-CS-98D1
Submission ID(s): 100010611

Method Reference	Description
160.3	Residue, Total, Gravimetric, Dried at 103-105o C
8260	Volatile Organic Compounds by GC/MS: Capillary Column
8270	Semivolatile Organic Compounds by GC/MS: Capillary Column

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive - Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-040798-SF-013

Date Sampled:	04/07/98	**ENCOTEC Project ID:**	33000
Date Received:	04/07/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORD0901S
Analysis Date:	04/09/98	**ENCOTEC Submission ID:**	100010611
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200073514
Method Reference:	8260	**Percent Total Solids:**	88.4
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-040798-SF-013

Date Sampled:	04/07/98	**ENCOTEC Project ID:**	33000
Date Received:	04/07/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORD0901S
Analysis Date:	04/09/98	**ENCOTEC Submission ID:**	100010611
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200073514
Method Reference:	8260	**Percent Total Solids:**	88.4
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 04/15/98

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-040798-SF-014

Date Sampled:	04/07/98	**ENCOTEC Project ID:**	33000
Date Received:	04/07/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORD0901S
Analysis Date:	04/09/98	**ENCOTEC Submission ID:**	100010611
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200073515
Method Reference:	8260	**Percent Total Solids:**	95.6
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
0	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-040798-SF-014

Date Sampled:	04/07/98	**ENCOTEC Project ID:**	33000
Date Received:	04/07/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORD0901S
Analysis Date:	04/09/98	**ENCOTEC Submission ID:**	100010611
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200073515
Method Reference:	8260	**Percent Total Solids:**	95.6
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 04/15/98

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-040798-SF-015

Date Sampled:	04/07/98	**ENCOTEC Project ID:**	33000
Date Received:	04/07/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORD0901S
Analysis Date:	04/09/98	**ENCOTEC Submission ID:**	100010611
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200073516
Method Reference:	8260	**Percent Total Solids:**	96.3
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-040798-SF-015

Date Sampled:	04/07/98	**ENCOTEC Project ID:**	33000
Date Received:	04/07/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORD0901S
Analysis Date:	04/09/98	**ENCOTEC Submission ID:**	100010611
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200073516
Method Reference:	8260	**Percent Total Solids:**	96.3
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-040798-SF-013

Date Sampled:	04/07/98	**ENCOTEC Project ID:**	33000
Date Received:	04/07/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Date Extracted:	04/08/98	**ENCOTEC QC Set ID:**	BNAD0804S
Analysis Date:	04/08/98	**ENCOTEC Submission ID:**	100010611
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200073514
Method Reference:	8270	**Percent Total Solids:**	88.4
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	U	
5	Benzo(a)pyrene	50-32-8	330	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
10	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	U	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-040798-SF-013

Date Sampled:	04/07/98	**ENCOTEC Project ID:**	33000
Date Received:	04/07/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Date Extracted:	04/08/98	**ENCOTEC QC Set ID:**	BNAD0804S
Analysis Date:	04/08/98	**ENCOTEC Submission ID:**	100010611
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200073514
Method Reference:	8270	**Percent Total Solids:**	88.4
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
38	Fluoranthene	206-44-0	330	1.0	U	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	U	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	U	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 04/15/98

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-040798-SF-014

Date Sampled:	04/07/98	**ENCOTEC Project ID:**	33000
Date Received:	04/07/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Date Extracted:	04/08/98	**ENCOTEC QC Set ID:**	BNAD0804S
Analysis Date:	04/08/98	**ENCOTEC Submission ID:**	100010611
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200073515
Method Reference:	8270	**Percent Total Solids:**	95.6
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	U	
5	Benzo(a)pyrene	50-32-8	330	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
10	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	U	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-040798-SF-014

Date Sampled:	04/07/98	**ENCOTEC Project ID:**	33000
Date Received:	04/07/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Date Extracted:	04/08/98	**ENCOTEC QC Set ID:**	BNAD0804S
Analysis Date:	04/08/98	**ENCOTEC Submission ID:**	100010611
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200073515
Method Reference:	8270	**Percent Total Solids:**	95.6
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
38	Fluoranthene	206-44-0	330	1.0	U	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	U	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	U	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-040798-SF-015

Date Sampled:	04/07/98	**ENCOTEC Project ID:**	33000
Date Received:	04/07/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Date Extracted:	04/08/98	**ENCOTEC QC Set ID:**	BNAD0804S
Analysis Date:	04/08/98	**ENCOTEC Submission ID:**	100010611
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200073516
Method Reference:	8270	**Percent Total Solids:**	96.3
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	U	
5	Benzo(a)pyrene	50-32-8	330	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
10	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	U	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-040798-SF-015

Date Sampled:	04/07/98	**ENCOTEC Project ID:**	33000
Date Received:	04/07/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Date Extracted:	04/08/98	**ENCOTEC QC Set ID:**	BNAD0804S
Analysis Date:	04/08/98	**ENCOTEC Submission ID:**	100010611
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200073516
Method Reference:	8270	**Percent Total Solids:**	96.3
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
38	Fluoranthene	206-44-0	330	1.0	U	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	U	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	U	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 04/15/98

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date:	N/A	**ENCOTEC Project ID:**	33000
Analysis Date:	04/09/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	VORD0901S
Method Reference:	8260	**ENCOTEC Submission ID:**	100010611
Matrix:	SOIL	**ENCOTEC Method Blank ID:**	200072180

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
734 / 761-1389

SOIL MATRIX SURROGATE RECOVERY
VOLATILE ORGANICS

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Method: 8240 ___ 8260 _X_ 8260A ___
Report Date: April 14, 1998
QC Set I.D.: VORD0901S

ENCOTEC Sample I.D.	% Recovery Dibromofluoromethane (80-120)	% Recovery D4-1,2-Dichloroethane (70-121)	% Recovery D8-Toluene (81-117)	% Recovery BFB (74-121)
200073514	94	101	101	104
200073515	91	108	105	104
200073516	86	110	105	104
200072180 MB	99	100	100	94
200072328 LCS	98	98	100	93
200073514 MS	99	103	107	110
200073514 MSD	95	101	102	103

* Value outside of established quality control windows.
DL = Sample matrix diluted, therefore surrogate recoveries are not applicable.
M = Matrix interferences caused distortion to recovery value.

RECOVERY: __0__ out of __28__ outside QC Windows.

Note:

Form 065VSL2G.GEN Rev. 09/27/97

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
313 / 761-1389

LABORATORY CONTROL SAMPLE (LCS)
VOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: VORD0901S

ENCOTEC ID: 200072328

Compound	Conc. Spiked (mg/Kg)	Conc. LCS (mg/Kg)	Percent Recovery (%)	Quality Control Windows Recovery (%)
Benzene	0.0500	0.0525	105	76-136
Bromodichloromethane	0.0500	0.0497	99	78-131
Bromoform	0.0500	0.0419	84	68-124
Carbon tetrachloride	0.0500	0.0596	119	70-136
Chlorobenzene	0.0500	0.0514	103	73-127
Chloroform	0.0500	0.0521	104	78-126
Dibromochloromethane	0.0500	0.0489	98	67-133
1,1-Dichloroethane	0.0500	0.0556	111	66-140
1,2-Dichloroethane	0.0500	0.0509	102	63-140
1,1-Dichloroethene	0.0500	0.0549	110	47-187
trans-1,2-Dichloroethene	0.0500	0.0528	106	69-143
1,2-Dichloropropane	0.0500	0.0505	101	70-122
Ethylbenzene	0.0500	0.0542	108	73-129
Methylene chloride	0.0500	0.0487	97	61-163
1,1,2,2-Tetrachloroethane	0.0500	0.0451	90	68-120
Tetrachloroethene	0.0500	0.0581	116	61-135
Toluene	0.0500	0.0538	108	71-133
1,1,1-Trichloroethane	0.0500	0.0572	114	67-129
1,1,2-Trichloroethane	0.0500	0.0482	96	73-125
Trichloroethene	0.0500	0.0560	112	64-152

Recovery: 0 out of 20 outside QC windows

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\VLD09S1R.XLS

Rev. 02/24/97

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
313 / 761-1389

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)
LOW LEVEL VOLATILE ORGANICS - WATER MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: VORD0901S

ENCOTEC ID: **200073514**

Compound	Conc. Spiked mg/Kg	Sample Result mg/Kg	Conc. MS mg/Kg	Percent Recovery (%)	Conc. MSD mg/Kg	Percent Recovery (%)	RPD (%)	Quality Control Limits RPD (%)	Quality Control Limits Recovery (%)
1,1-Dichloroethene	0.0500	U	0.0535	107	0.0534	107	0.19	14	61-145
Trichloroethene	0.0500	U	0.0500	100	0.0501	100	0.20	14	71-120
Chlorobenzene	0.0500	U	0.0508	102	0.0504	101	0.79	13	75-130
Toluene	0.0500	U	0.0555	111	0.0519	104	6.70	13	76-125
Benzene	0.0500	U	0.0541	108	0.0518	104	4.34	11	76-127

RPD: 0 out of 5 outside of quality control limits.
Recovery: 0 out of 10 outside of quality control limits.

Note:

SAVED . C:\HPCHEM\1\DATA\QC\VMD09S1R.XLS

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date:	04/08/98	**ENCOTEC Project ID:**	33000
Analysis Date:	04/08/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	BNAD0804S
Method Reference:	8270	**ENCOTEC Submission ID:**	100010611
Matrix:	SOIL	**ENCOTEC Method Blank ID:**	200072161

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	U	
5	Benzo(a)pyrene	50-32-8	330	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
10	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	U	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
38	Fluoranthene	206-44-0	330	1.0	U	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date:	04/08/98	**ENCOTEC Project ID:**	33
Analysis Date:	04/08/98	**ENCOTEC SDG ID:**	CRA-CS-98D1
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	BNAD0804S
Method Reference:	8270	**ENCOTEC Submission ID:**	100010611
Matrix:	SOIL	**ENCOTEC Method Blank ID:**	200072161

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	U	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	U	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
734 / 761-1389

SOIL MATRIX SURROGATE RECOVERY
SEMIVOLATILE ORGANICS

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Method: 8270 X 8270B ___
Report Date: April 14, 1998
QC Set I.D.: BNAD0804S

ENCOTEC Sample I. D.	BASE-NEUTRAL EXTRACTABLE ANALYTES % Recovery Nitrobenzene -d5 (23-120)	% Recovery 2-Fluorobi-phenyl (30-115)	% Recovery Terphenyl -d14 (18-137)	ACID EXTRACTABLE ANALYTES % Recovery Phenol-d5 (24-113)	% Recovery 2-Fluoro-phenol (25-121)	% Recovery 2,4,6-Tribromo-phenol (19-122)
200073514	79	81	61	81	72	76
200073515	82	84	60	92	69	86
200073516	90	90	66	89	78	87
200072161 MB	70	77	79	88	70	87
200072293 LCS	81	77	72	78	75	81
200073514 MS	74	79	55	86	83	84
200073514 MSD	79	82	62	87	77	82

24

* Value outside of quality control windows.
DL = Sample extract diluted, therefore surrogate recoveries not applicable.
M = Matrix interferences caused distortion to recovery value.

RECOVERY: 0 out of 42 outside QC Windows

Note:

Form 090SSL2G.GEN

Rev. 09/27/97

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
313 / 761-1389

LABORATORY CONTROL SAMPLE (LCS)
SEMIVOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: BNAD0804S

ENCOTEC ID: 200072293

Compound	Conc. pike (mg/kg)	Conc. LCS (mg/kg)	Percent Recovery (%)	Quality Control Windows Recovery (%)
2-Chlorophenol	2.00	1.46	73	57-112
bis(2-Chloroethyl)ether	2.00	1.54	77	61-123
Phenol	2.00	1.50	75	58-120
1,3-Dichlorobenzene	2.00	1.44	72	68-114
1,4-Dichlorobenzene	2.00	1.77	89	67-119
1,2-Dichlorobenzene	2.00	1.65	83	71-116
bis(2-Chloroisopropyl)ether	2.00	1.54	77	52-151
Hexachloroethane	2.00	1.68	84	69-126
n-Nitroso-di-n-propylamine	2.00	1.83	92	79-114
Nitrobenzene	2.00	1.71	86	46-137
Isophorone	2.00	1.85	93	61-126
2-Nitrophenol	2.00	1.64	82	62-113
2,4-Dimethylphenol	2.00	1.54	77	54-121
bis(2-Chloroethoxy)methane	2.00	1.54	77	74-127
2,4-Dichlorophenol	2.00	1.57	79	61-116
1,2,4-Trichlorobenzene	2.00	1.74	87	74-120
Naphthalene	2.00	1.73	87	75-119
Hexachlorobutadiene	2.00	1.80	90	58-162
4-Chloro-3-methylphenol	2.00	1.74	87	80-117
2,4,6-Trichlorophenol	2.00	1.72	86	62-116
2-Chloronaphthalene	2.00	1.50	75	70-124
Acenaphthylene	2.00	1.68	84	69-118
2,6-Dinitrotoluene	2.00	1.92	96	30-167
Acenaphthene	2.00	1.96	98	68-131
2,4-Dinitrophenol	2.00	0.740	37	D-113
2,4-Dinitrotoluene	2.00	2.14	107	78-121
4-Nitrophenol	2.00	1.39	70	56-109
Fluorene	2.00	1.55	78	74-132
4-Chlorophenyl phenyl ether	2.00	1.67	84	74-128
Diethylphthalate	2.00	1.71	86	72-128
4,6-Dinitro-2-methylphenol	2.00	1.34	67	2-175
n-Nitrosodiphenylamine	2.00	1.80	90	30-171
4-Bromophenyl phenyl ether	2.00	1.68	84	68-131
Hexachlorobenzene	2.00	1.47	74	68-128
Pentachlorophenol	2.00	1.04	52	18-100
Phenanthrene	2.00	1.89	95	74-126
Anthracene	2.00	1.74	87	75-132
Di-n-butyl phthalate	2.00	1.77	89	77-126
Fluoranthene	2.00	1.87	94	69-141
Pyrene	2.00	1.58	79	65-145
Butyl benzyl phthalate	2.00	1.62	81	71-143
Benzo(a)anthracene	2.00	1.75	88	69-139
Chrysene	2.00	2.22	111	48-182
3-3'-Dichlorobenzidine	2.00	2.03	102	D-292
bis(2-Ethylhexyl)phthalate	2.00	1.86	93	38-188
Di-n-octyl phthalate	2.00	1.97	99	21-173
Benzo(b)fluoranthene	2.00	1.88	94	50-135
Benzo(k)fluoranthene	2.00	1.70	85	62-141
Benzo(a)pyrene	2.00	1.76	88	70-134
Indeno(1,2,3-cd)pyrene	2.00	1.87	94	35-169
Dibenz(a,h)anthracene	2.00	2.28	114	41-171
Benzo(ghi)perylene	2.00	2.14	107	2-192

Recovery: 0 out of 52 outside QC windows

Note:
SAVED AS: D:\DATA\QC\BLD0804S.XLS

Form [illegible].XLS   Rev. [illegible]

Laidlaw Environ ntal, Inc. / ENCOTEC
3985 Research Park ve * Ann Arbor, MI 48108
313 / 761-1389

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)
SEMIVOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: BNAD0804S

SAMPLE SPIKED - ENCOTEC ID: 200073514

Compound	Conc. Spiked (mg/Kg)	Sample Result (mg/Kg)	Conc. MS (mg/Kg)	Percent Recovery (%)	Conc. MSD (mg/Kg)	Percent Recovery (%)	RPD (%)	Quality Control Limits RPD (%)	Quality Control Limits Recovery (%)
1,2,4-Trichlorobenzene	2.00	U	1.62	81	1.58	79	2.54	23	43-113
Acenaphthene	2.00	U	1.57	79	1.59	79	0.78	19	45-124
2,4-Dinitrotoluene	2.00	U	1.51	76	1.54	77	1.65	47	44-109
Pyrene	2.00	U	1.04	52	1.12	56	7.11	36	24-142
N-Nitroso-di-*n*-propylamine	2.00	U	1.83	92	1.87	94	2.28	38	44-115
1,4-Dichlorobenzene	2.00	U	1.58	79	1.59	80	0.39	27	40-108
Pentachlorophenol	3.00	U	0.260	9 *	0.385	13 *	38.91	47	33-129
Phenol	3.00	U	2.64	88	2.70	90	2.44	35	60-97
2-Chlorophenol	3.00	U	2.44	81	2.48	83	1.74	50	49-111
4-Chloro-3-methylphenol	3.00	U	2.43	81	2.20	73	10.02	33	49-120
4-Nitrophenol	3.00	U	1.85	62	1.76	59	4.81	50	41-133

26

RPD: 0 out of 11 outside of QC Limits.
Recovery: 2 out of 22 outside of QC Limits.

Note:
SAVED AS: C:\HPCHEM\1\DATA\QC\BMD08SD.XLS

CRA
CONESTOGA-ROVERS & ASSOCIATES, INC.
11100 Metro Airport Center Drive - Suite 160
Romulus, MI 48174 (313) 942-0909

CHAIN OF CUSTODY RECORD

SHIPPED TO (Laboratory Name): Encotec

REFERENCE NUMBER: 8889-70

PROJECT NAME: Oil Reclamation facility

SAMPLER'S SIGNATURE: Susan Fielek PRINTED NAME: Susan Fielek

SEQ: No.	DATE	TIME		SAMPLE TYPE	No. OF CONTAINERS	PARAMETERS: TCL VOC	PARAMETERS: TCL SVOC	REMARKS
1	040798		S-8889-040798-SF-013*	soil	2	✓	✓	72 hour TAT
2	040798		↓ ↓ ↓ -014	↓	2	✓	✓	
3	040798		↓ ↓ ↓ -015	↓	2	✓	✓	* Run MS/MSD on this sample.

SF 04/07/98

TOTAL NUMBER OF CONTAINERS: 6

RELINQUISHED BY: 1. Susan Fielek	DATE: 040798 TIME: 1740	RECEIVED BY: 1. Joseph L. Koeneman	DATE: 4/7/98 TIME: 1500
RELINQUISHED BY: 2. Joseph L. Koeneman	DATE: 4/7/98 TIME: 4:35	RECEIVED BY: 2. Erin M. Johnston	DATE: 4/7/98 TIME:
RELINQUISHED BY: 3.	DATE: TIME:	RECEIVED BY: 1.	DATE: TIME:

METHOD OF SHIPMENT: Pick up by Encotec AIR BILL No.

White -Fully Executed Copy
Yellow -Receiving Laboratory Copy
Pink -Shipper Copy
Goldenrod -Sampler Copy

5535

SAMPLE TEAM: S. Fielek

RECEIVED FOR LABORATORY BY: Erin M. Johnston
DATE: 4/7/98 TIME: 4:30pm

1001 (F S)-APRIL 29, 93-REV.0-(C)(F-01)

LAIDLAW ENVIRONMENTAL SERVICES

ENCOTEC

REC'D CF
APR - 1 1998
SDG #46

March 31, 1998

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
11100 Metro Airport Center Drive
Suite 160
Romulus, MI 48174

RE: Analytical Results / Oil Reclamation Facility Site
Reference No. 8889

Dear Mr. Wiseman:

Please find enclosed an electronic disk deliverable, two hard copies of the analytical results, QC and case narrative corresponding to samples from the above referenced project, which were received by LEI/ENCOTEC on March 17, 1998.

Please note that this data was previously forwarded to you via facsimile. Transmittals occurred March 20 - 24, 1998.

Following review of this data, please feel free to contact me with any questions or concerns.

Sincerely,
Laidlaw Environmental, Inc./ENCOTEC

Jane Rusin

Jane Rusin
Project Manager

Enclosure

SDG CRA-CS-98C2
Batch# 10137
#33000

[illegible] ANALYTICAL REPORT
[illegible]: 8889 Lab #: CRA-CS 98C2
Name: GM Clark Street
Description
Event: Oil Reclamation Facility
Samples: 3 - Soil
Analysis: TCL SVOC, VOC, PCB
TAL metals + CN⁻
TAT: 72 hr
Lab: Encotec
Checked Against Preliminary Data:
Date: 4/1/98 Init.: MBC
Date of Validation Memo: 4/20/98
[illegible]:
Comments:

Laidlaw Environmental, Inc. / Encotec
3985 Research Park Drive Ann Arbor, Michigan 48108
Phone 313.761.1389 Fax 313.761.1034

DATA PACKAGE COVER PAGE

This report contains 56 pages, excluding the cover letter and is only for the submitted samples.

If any pages are missing please contact Laidlaw Environmental, Inc./ENCOTEC immediately.

This document is intended only for the person(s) identified in the cover letter and is to be considered **CONFIDENTIAL.**

This analytical report does not comply with State of Utah batch QC requirements for organic extractables unless otherwise noted in the laboratory narrative.

Flags and Definitions

U = The analyte was not detected at or above the quantitation limit.

E = The analyte was detected at a concentration greater than the calibration range; therefore the result is estimated.

DL = The sample was diluted due to sample matrix, therefore QC was not recoverable.

* = The value is outside quality control limits.

K = Reported concentration is proportional to dilution factor and may be exaggerated.

P = When one or both sample results are <5 times the quantitation limit, the RPD cannot be properly evaluated. It is not included in the total QC count.

G = Result is greater than the numerical value presented.

J = The analyte was detected at a concentration below the quantitation limit but above the method detection limit.

B = The analyte was detected in the associated method blank.

M = Matrix interference has resulted in an elevated quantitation limit or distorted QC result.

NC = Not Calculable.

NA = Not Applicable.

A = If the sample result is >4 times the amount spiked, the MS recovery cannot be properly evaluated. It is not included in the total QC count.

CA = Combustion aid was necessary to achieve results.

SDG	A Sample Delivery Group is a grouping of samples arriving under separate Chains of Custody that are reported together.
QC Set ID	An alphanumeric identification associating appropriate QC data with sample data.
Calculation Basis	Indicates whether the results have been adjusted for moisture content.
Quant Limit	The limit at which the analyte can be reliably reported within the method- specified limits of precision and accuracy under routine operating conditions.
Dil	Dilution Factor.
Conc	The concentration, expressed in appropriate units.
LCS	Laboratory Control Sample.
LCD	Laboratory Control Sample Duplicate.
MS	Matrix Spike.
MSD	Matrix Spike Duplicate.
%Rec	The percent recovery of a fortified analyte (surrogate, matrix spike, lab control sample).
RPD	The relative percent difference for duplicate analyses.
Second Analysis Date	The date on which a sample was analyzed a second time, at a dilution different than that on the (initial) Analysis Date.

If a numerical value is very large, it will be expressed in scientific notation. For example, a concentration of 10,000,000 ug/Kg will be reported as 1E7.

LABORATORY NARRATIVE

Client Name:	CONESTOGA-ROVERS & ASSOCIATES
Project Name:	8889-70
Project Number:	33000
Sample Delivery Group:	CRA-CS-98C2
Batch Number(s):	100010137
Narrative Date:	March 26, 1998

Samples were received and analyzed without incident, within holding times, with chain-of-custody maintained, and according to the referenced methods, except as noted below:

Method Blank- Positive Results

QC Set ID	Analysis	Corrective Action/Result
VORC1801S VORC1901S	Volatiles	Methylene chloride was detected in the method blank below the quantitation limit. A result was reported on the method blank summary form as a J value.

LCS Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
VORC1801S BNAC1806S	Volatiles Semivolatiles	Since $\geq$ 80% of the LCS/LCD recoveries were within QC windows, corrective action was deemed unnecessary.

MS Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
TCNC2301	Total Cyanide	Since the LCS recovered within QC windows, a post-digestion spike was analyzed but was outside criteria. Matrix interference is assumed.
ICPC1803	Chromium	Since ≥80% of the fortified elements in the LCS (including any analytes found in samples) recovered within QC windows, a post-digestion spike was analyzed but was outside criteria. Matrix interference is assumed.
IMSC1802	Metals	Since ≥80% of the fortified elements in the LCS (including any analytes found in samples) recovered within QC windows, a post-digestion spike was analyzed and was within criteria.

Matrix Duplicate RPD Outliers

QC Set ID	Analysis	Corrective Action/Result
ICPC1803	Metals	Poor reproducibility is not uncommon for nonhomogeneous soil samples. Corrective action was deemed unnecessary.

MS/MSD RPD Outliers

QC Set ID	Analysis	Corrective Action/Result
BNAC1806S	Semivolatiles	Poor reproducibility is not uncommon for nonhomogeneous soil samples. Corrective action was deemed unnecessary.

I certify that the data presented in this report is accurate, complete and meets the minimum quality assurance standards as specified in 40-CFR 136, 40-CFR-141, and/or SW-846. An assessment of the quality of the data, noting any exceptions, outliers, and/or problems encountered have been narrated herein.

Walt Roudebush (or designee)
Technical Director

3/26/98
Date

SAMPLE CROSS REFERENCE REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
SDG: CRA-CS-98C2
Submission ID(s): 100010137

Client Sample ID	ENCOTEC Sample ID	Sample Matrix	Date Sampled	Date Received
S-8889-031698-SF-001	200068974	SOIL	03/16/98	03/17/98
S-8889-031698-SF-002	200068975	SOIL	03/16/98	03/17/98
S-8889-031698-SF-003	200068976	SOIL	03/16/98	03/17/98

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive - Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

METHOD DESCRIPTION REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
SDG: CRA-CS-98C2
Submission ID(s): 100010137

Method Reference	Description
160.3	Residue, Total, Gravimetric, Dried at 103-105o C
9010	Total and Amenable Cyanide, Colorimetric
6020	Inductively Coupled Plasma - Mass Spectrometry
6010	Inductively Coupled Plasma - Atomic Emission Spectroscopy
7471	Mercury, Cold Vapor, Non-Aqueous Matrices
8080	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography
8260	Volatile Organic Compounds by GC/MS: Capillary Column
8270	Semivolatile Organic Compounds by GC/MS: Capillary Column

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive - Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-001

Date Sampled	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010137
Method Reference:	See below	**ENCOTEC Sample ID:**	200068974
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	88.8	**Calculation Basis:**	Dry Weight

	General Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fla
1	Cyanide, Total	TCNC2301	03/23/98	9010	ug/Kg	200	1	U	
2	Solids, Total	TSPC1801	03/18/98	160.3	%	0.10	1	88.8	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-002

Date Sampled	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010137
Method Reference:	See below	**ENCOTEC Sample ID:**	200068975
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	86.0	**Calculation Basis:**	Dry Weight

	General Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fla
1	Cyanide, Total	TCNC2301	03/23/98	9010	ug/Kg	200	1	U	
2	Solids, Total	TSPC1801	03/18/98	160.3	%	0.10	1	86.0	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/23/98

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-003

Date Sampled	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010137
Method Reference:	See below	**ENCOTEC Sample ID:**	200068976
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	87.0	**Calculation Basis:**	Dry Weight

	General Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fla
1	Cyanide, Total	TCNC2301	03/23/98	9010	ug/Kg	200	2	U	
2	Solids, Total	TSPC1801	03/18/98	160.3	%	0.10	1	87.0	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/23/9

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-001

Date Sampled	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010137
Method Reference:	See below	**ENCOTEC Sample ID:**	200068974
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	88.8	**Calculation Basis:**	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fla
1	Aluminum	ICPC1803	03/19/98	6010	ug/Kg	10000	1	6800000	
2	Antimony	IMSC1802	03/19/98	6020	ug/Kg	500	5	U	
3	Arsenic	IMSC1802	03/19/98	6020	ug/Kg	230	5	2600	
4	Barium	ICPC1803	03/19/98	6010	ug/Kg	1000	1	59000	
5	Beryllium	IMSC1802	03/19/98	6020	ug/Kg	230	5	380	
6	Cadmium	IMSC1802	03/19/98	6020	ug/Kg	50	5	130	
7	Calcium	ICPC1803	03/19/98	6010	ug/Kg	45000	10	4E7	
8	Chromium	ICPC1803	03/19/98	6010	ug/Kg	2500	1	11000	
	Cobalt	IMSC1802	03/19/98	6020	ug/Kg	500	5	7000	
	Copper	ICPC1803	03/19/98	6010	ug/Kg	1000	1	20000	
11	Iron	ICPC1803	03/19/98	6010	ug/Kg	2000	1	1E7	
12	Lead	IMSC1802	03/19/98	6020	ug/Kg	1000	5	10000	
13	Magnesium	ICPC1803	03/19/98	6010	ug/Kg	5000	1	2E7	
14	Manganese	ICPC1803	03/19/98	6010	ug/Kg	2000	1	280000	
15	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
16	Nickel	ICPC1803	03/19/98	6010	ug/Kg	1000	1	17000	
17	Potassium	ICPC1803	03/19/98	6010	ug/Kg	10000	1	1100000	
18	Selenium	IMSC1802	03/19/98	6020	ug/Kg	500	5	U	
19	Silver	IMSC1802	03/19/98	6020	ug/Kg	500	5	U	
20	Sodium	ICPC1803	03/19/98	6010	ug/Kg	10000	1	800000	
21	Thallium	IMSC1802	03/19/98	6020	ug/Kg	500	5	U	
22	Vanadium	ICPC1803	03/19/98	6010	ug/Kg	1000	1	15000	
23	Zinc	ICPC1803	03/19/98	6010	ug/Kg	1000	1	44000	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/26/98

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-002

Date Sampled	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010137
Method Reference:	See below	**ENCOTEC Sample ID:**	200068975
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	86.0	**Calculation Basis:**	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fla
1	Aluminum	ICPC1803	03/19/98	6010	ug/Kg	10000	1	1400000	
2	Antimony	IMSC1802	03/19/98	6020	ug/Kg	500	5	U	
3	Arsenic	IMSC1802	03/19/98	6020	ug/Kg	240	5	2000	
4	Barium	ICPC1803	03/19/98	6010	ug/Kg	1000	1	9200	
5	Beryllium	IMSC1802	03/19/98	6020	ug/Kg	240	5	U	M
6	Cadmium	IMSC1802	03/19/98	6020	ug/Kg	50	5	75	
7	Calcium	ICPC1803	03/19/98	6010	ug/Kg	10000	1	1E7	
8	Chromium	ICPC1803	03/19/98	6010	ug/Kg	2500	1	3100	
9	Cobalt	IMSC1802	03/19/98	6020	ug/Kg	500	5	1300	
10	Copper	ICPC1803	03/19/98	6010	ug/Kg	1000	1	6600	
11	Iron	ICPC1803	03/19/98	6010	ug/Kg	2000	1	3000000	
12	Lead	IMSC1802	03/19/98	6020	ug/Kg	1000	5	3500	
13	Magnesium	ICPC1803	03/19/98	6010	ug/Kg	5000	1	5600000	
14	Manganese	ICPC1803	03/19/98	6010	ug/Kg	2000	1	40000	
15	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
16	Nickel	ICPC1803	03/19/98	6010	ug/Kg	1000	1	3600	
17	Potassium	ICPC1803	03/19/98	6010	ug/Kg	10000	1	190000	
18	Selenium	IMSC1802	03/19/98	6020	ug/Kg	500	5	U	
19	Silver	IMSC1802	03/19/98	6020	ug/Kg	500	5	U	
20	Sodium	ICPC1803	03/19/98	6010	ug/Kg	10000	1	160000	
21	Thallium	IMSC1802	03/19/98	6020	ug/Kg	500	5	U	
22	Vanadium	ICPC1803	03/19/98	6010	ug/Kg	1000	1	7500	
23	Zinc	ICPC1803	03/19/98	6010	ug/Kg	1000	1	18000	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-003

Date Sampled	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010137
Method Reference:	See below	**ENCOTEC Sample ID:**	200068976
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	87.0	**Calculation Basis:**	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fl
1	Aluminum	ICPC1803	03/19/98	6010	ug/Kg	10000	1	2300000	
2	Antimony	IMSC1802	03/19/98	6020	ug/Kg	500	5	U	
3	Arsenic	IMSC1802	03/19/98	6020	ug/Kg	230	5	1500	
4	Barium	ICPC1803	03/19/98	6010	ug/Kg	1000	1	15000	
5	Beryllium	IMSC1802	03/19/98	6020	ug/Kg	230	5	U	M
6	Cadmium	IMSC1802	03/19/98	6020	ug/Kg	50	5	170	
7	Calcium	ICPC1803	03/19/98	6010	ug/Kg	46000	10	3E7	
8	Chromium	ICPC1803	03/19/98	6010	ug/Kg	2500	1	9300	
9	Cobalt	IMSC1802	03/19/98	6020	ug/Kg	500	5	1800	
10	Copper	ICPC1803	03/19/98	6010	ug/Kg	1000	1	9500	
11	Iron	ICPC1803	03/19/98	6010	ug/Kg	2000	1	4600000	
12	Lead	ICPC1803	03/19/98	6010	ug/Kg	2000	1	20000	
13	Magnesium	ICPC1803	03/19/98	6010	ug/Kg	5000	1	1E7	
14	Manganese	ICPC1803	03/19/98	6010	ug/Kg	2000	1	100000	
15	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
16	Nickel	ICPC1803	03/19/98	6010	ug/Kg	1000	1	5700	
17	Potassium	ICPC1803	03/19/98	6010	ug/Kg	10000	1	190000	
18	Selenium	IMSC1802	03/19/98	6020	ug/Kg	500	5	U	
19	Silver	IMSC1802	03/19/98	6020	ug/Kg	500	5	U	
20	Sodium	ICPC1803	03/19/98	6010	ug/Kg	10000	1	170000	
21	Thallium	IMSC1802	03/19/98	6020	ug/Kg	500	5	U	
22	Vanadium	ICPC1803	03/19/98	6010	ug/Kg	1000	1	6600	
23	Zinc	ICPC1803	03/19/98	6010	ug/Kg	1000	1	39000	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/26/9

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-001

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	03/18/98	**ENCOTEC QC Set ID:**	PCBC1807S
Analysis Date:	03/19/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068974
Method Reference:	8080	**Percent Total Solids:**	88.8
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	AROCLOR MDEQ Part 201, PCBs only List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
1	PCB-1016	12674-11-2	330	1	U	
2	PCB-1221	11104-28-2	330	1	U	
3	PCB-1232	11141-16-5	330	1	U	
4	PCB-1242	53469-21-9	330	1	U	
5	PCB-1248	12672-29-6	330	1	U	
6	PCB-1254	11097-69-1	330	1	U	
7	PCB-1260	11096-82-5	330	1	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/20/98

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-002

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	03/18/98	**ENCOTEC QC Set ID:**	PCBC1807S
Analysis Date:	03/19/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068975
Method Reference:	8080	**Percent Total Solids:**	86.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	AROCLOR MDEQ Part 201, PCBs only List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
1	PCB-1016	12674-11-2	330	1	U	
2	PCB-1221	11104-28-2	330	1	U	
3	PCB-1232	11141-16-5	330	1	U	
4	PCB-1242	53469-21-9	330	1	U	
5	PCB-1248	12672-29-6	330	1	U	
6	PCB-1254	11097-69-1	330	1	U	
7	PCB-1260	11096-82-5	330	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-003

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	03/19/98	**ENCOTEC QC Set ID:**	PCBC1807S
Analysis Date:	03/19/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068976
Method Reference:	8080	**Percent Total Solids:**	87.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	AROCLOR MDEQ Part 201, PCBs only List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
1	PCB-1016	12674-11-2	330	1	U	
2	PCB-1221	11104-28-2	330	1	U	
3	PCB-1232	11141-16-5	330	1	U	
4	PCB-1242	53469-21-9	330	1	U	
5	PCB-1248	12672-29-6	330	1	U	
6	PCB-1254	11097-69-1	330	1	U	
7	PCB-1260	11096-82-5	330	1	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/20/98

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-001

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC1801S
Analysis Date:	03/18/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068974
Method Reference:	8260	**Percent Total Solids:**	88.8
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-001

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC1801S
Analysis Date:	03/18/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068974
Method Reference:	8260	**Percent Total Solids:**	88.8
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/20/98

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-002

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC1801S
Analysis Date:	03/18/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068975
Method Reference:	8260	**Percent Total Solids:**	86.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fl
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-002

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC1801S
Analysis Date:	03/18/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068975
Method Reference:	8260	**Percent Total Solids:**	86.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fl
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-003

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC1901S
Analysis Date:	03/19/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068976
Method Reference:	8260	**Percent Total Solids:**	87.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
.0	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-003

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC1901S
Analysis Date:	03/19/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068976
Method Reference:	8260	**Percent Total Solids:**	87.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/20/98

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-001

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068974
Method Reference:	8270	**Percent Total Solids:**	88.8
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	U	
5	Benzo(a)pyrene	50-32-8	330	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
10	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	U	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-001

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068974
Method Reference:	8270	**Percent Total Solids:**	88.8
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	560	
38	Fluoranthene	206-44-0	330	1.0	U	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	U	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	U	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/24/98

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-002

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068975
Method Reference:	8270	**Percent Total Solids:**	86.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	U	
5	Benzo(a)pyrene	50-32-8	330	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
.0	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	U	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-002

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068975
Method Reference:	8270	**Percent Total Solids:**	86.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
38	Fluoranthene	206-44-0	330	1.0	480	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	U	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	400	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-003

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068976
Method Reference:	8270	**Percent Total Solids:**	87.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	340	
5	Benzo(a)pyrene	50-32-8	330	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	330	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
10	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	U	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031698-SF-003

Date Sampled:	03/16/98	**ENCOTEC Project ID:**	33000
Date Received:	03/17/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010137
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200068976
Method Reference:	8270	**Percent Total Solids:**	87.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
38	Fluoranthene	206-44-0	330	1.0	640	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	390	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	600	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/24/98

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date	N/A	**ENCOTEC Project ID:**	33000
Analysis Date:	See Below	**ENCOTEC SDG ID:**	CRA-CS-98C2
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	See Below
Method Reference:	See Below	**ENCOTEC Submission ID:**	100010137

	Analyte	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fl:
1	Cyanide, Total	TCNC2301	03/23/98	9010	ug/Kg	200	1	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive
Ann Arbor, Michigan 48108
(313) 761-1389 / FAX: (313) 761-1034

Laboratory Control Sample (LCS)

Inorganics - General Chemistry

Project Name: ENCOTEC
Project Number: 10000

Analysis	QC Set ID	Percent Recovery (%)	*Quality Control Windows Recovery (%)*
Cyanide, Total	TCNC2301	99	*80 - 120*

Recovery: 0 out of 1 outside QC Windows.

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive
Ann Arbor, Michigan 48108
(313) 761-1389 / FAX: (313) 761-1034

Matrix Spike (MS)

Inorganics - General Chemistry

Project Name: Encotec
Project Number: 10000

Analysis	ENCOTEC Sample ID	QC Set ID	Percent Recovery (%)	*Quality Control Windows Recovery (%)*
Cyanide, Total	200068707	TCNC2301	0 *	*75 - 125*

Recovery: 1 out of 1 outside QC Windows.

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive
Ann Arbor, Michigan 48108
(313) 761-1389 / FAX: (313) 761-1034

Matrix Duplicate (MD)

Inorganics - General Chemistry

Project Name: ENCOTEC
Project Number: 10000

Analysis	ENCOTEC Sample ID	QC Set ID	RPD (%)	*Quality Control Windows RPD (%)*
Cyanide, Total	200068707	TCNC2301	8.1	*35*

RPD: 0 out of 1 outside QC Windows.

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date	N/A	**ENCOTEC Project ID:**	33000
Analysis Date:	See Below	**ENCOTEC SDG ID:**	CRA-CS-98C2
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	See Below
Method Reference:	See Below	**ENCOTEC Submission ID:**	100010137

	Analyte	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fl
1	Aluminum	ICPC1803	03/19/98	6010	ug/Kg	10000	1	U	
2	Antimony	IMSC1802	03/19/98	6020	ug/Kg	500	1	U	
3	Arsenic	IMSC1802	03/19/98	6020	ug/Kg	100	1	U	
4	Barium	ICPC1803	03/19/98	6010	ug/Kg	1000	1	U	
5	Beryllium	IMSC1802	03/19/98	6020	ug/Kg	200	1	U	
6	Cadmium	IMSC1802	03/19/98	6020	ug/Kg	50	1	U	
7	Calcium	ICPC1803	03/19/98	6010	ug/Kg	10000	1	U	
8	Chromium	ICPC1803	03/19/98	6010	ug/Kg	2500	1	U	
9	Cobalt	IMSC1802	03/19/98	6020	ug/Kg	500	1	U	
10	Copper	ICPC1803	03/19/98	6010	ug/Kg	1000	1	U	
11	Iron	ICPC1803	03/19/98	6010	ug/Kg	2000	1	U	
12	Lead	IMSC1802	03/19/98	6020	ug/Kg	1000	1	U	
13	Lead	ICPC1803	03/19/98	6010	ug/Kg	2000	1	U	
14	Magnesium	ICPC1803	03/19/98	6010	ug/Kg	5000	1	U	
15	Manganese	ICPC1803	03/19/98	6010	ug/Kg	2000	1	U	
16	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
17	Nickel	ICPC1803	03/19/98	6010	ug/Kg	1000	1	U	
18	Potassium	ICPC1803	03/19/98	6010	ug/Kg	10000	1	U	
19	Selenium	IMSC1802	03/19/98	6020	ug/Kg	500	1	U	
20	Silver	IMSC1802	03/19/98	6020	ug/Kg	500	1	U	
21	Sodium	ICPC1803	03/19/98	6010	ug/Kg	10000	1	U	
22	Thallium	IMSC1802	03/19/98	6020	ug/Kg	500	1	U	
23	Vanadium	ICPC1803	03/19/98	6010	ug/Kg	1000	1	U	
24	Zinc	ICPC1803	03/19/98	6010	ug/Kg	1000	1	U	

QUALITY ASSESSMENT REPORT - LCS Analysis

ENCOTEC Project ID: 33000
ENCOTEC SDG ID: CRA-CS-98C2
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100010137

	Analyte	QC Set ID	Conc Spiked	Conc LCS	Units	Percent Recovery (%)	Flag	Quality Control Windows (%)
1	Aluminum	ICPC1803	2500	2440	mg/Kg	98		80-120
2	Antimony	IMSC1802	2.50	2.74	mg/Kg	110		80-120
3	Arsenic	IMSC1802	2.50	2.35	mg/Kg	94		80-120
4	Barium	ICPC1803	50.0	46.3	mg/Kg	93		80-120
5	Beryllium	IMSC1802	2.50	2.30	mg/Kg	92		80-120
6	Cadmium	IMSC1802	2.50	2.34	mg/Kg	94		80-120
7	Calcium	ICPC1803	2500	2530	mg/Kg	101		80-120
8	Chromium	ICPC1803	50.0	46.9	mg/Kg	94		80-120
9	Cobalt	IMSC1802	2.50	2.74	mg/Kg	110		80-120
10	Copper	ICPC1803	50.0	45.5	mg/Kg	91		80-120
11	Iron	ICPC1803	250	235	mg/Kg	94		80-120
12	Lead	IMSC1802	2.50	2.92	mg/Kg	117		80-120
13	Lead	ICPC1803	50.0	45.5	mg/Kg	91		80-120
14	Magnesium	ICPC1803	2500	2430	mg/Kg	97		80-120
15	Manganese	ICPC1803	10.0	9.39	mg/Kg	94		80-120
16	Mercury	CVAC1902	0.108	0.113	mg/Kg	105		80-120
17	Nickel	ICPC1803	50.0	45.8	mg/Kg	92		80-12
18	Potassium	ICPC1803	2500	2500	mg/Kg	100		80-12
19	Selenium	IMSC1802	2.50	2.14	mg/Kg	86		80-120
20	Silver	IMSC1802	2.50	2.47	mg/Kg	99		80-120
21	Sodium	ICPC1803	2500	2520	mg/Kg	101		80-120
22	Thallium	IMSC1802	2.50	2.95	mg/Kg	118		80-120
23	Vanadium	ICPC1803	50.0	45.9	mg/Kg	92		80-120
24	Zinc	ICPC1803	50.0	46.3	mg/Kg	93		80-120

D=Detected, result must be greater than zero.
Recovery: 0 out of 24 outside QC Windows

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/26/98

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive
Ann Arbor, Michigan 48108
(313) 761-1389 / FAX: (313) 761-1034

Laboratory Control Sample (LCS)

Inorganics - Metals

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: CVAC1902

Analyte	Percent Recovery (%)	*Quality Control Windows Recovery (%)*
Mercury	105	*80 - 120*

Recovery: 0 out of 1 outside QC Windows.

QUALITY ASSESSMENT REPORT - MS Analysis

ENCOTEC SDG ID: CRA-CS-98C2
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100010137
ENCOTEC Sample ID: See Below
Matrix: N/A

	Analyte	ENCOTEC Sample ID	QC Set ID	Conc. Spiked	Sample Result	Conc. MS	Units	Percent Recovery (%)	Flag	QC Window (%)
1	Aluminum	200068760	ICPC1803	2000	1200	3330	mg/Kg	106		80-120
2	Antimony	200068760	IMSC1802	2.21	0.90	2.38	mg/Kg	67 *		75-125
3	Arsenic	200068760	IMSC1802	2.21	1.6	3.08	mg/Kg	67 *		75-125
4	Barium	200068760	ICPC1803	40.0	450	471	mg/Kg	52	A	80-120
5	Beryllium	200068760	IMSC1802	2.21	U	2.41	mg/Kg	109		75-125
6	Cadmium	200068760	IMSC1802	2.21	4.9	6.32	mg/Kg	64 *		75-125
7	Calcium	200068760	ICPC1803	2000	1200	3240	mg/Kg	102		80-120
8	Chromium	200068760	ICPC1803	40.0	69	98.7	mg/Kg	74 *		80-120
9	Cobalt	200068760	IMSC1802	2.21	3.1	4.69	mg/Kg	72 *		75-125
10	Copper	200068760	ICPC1803	40.0	1400	920	mg/Kg	0	A	80-120
11	Iron	200068760	ICPC1803	200	11000	11800	mg/Kg	400	A	80-120
12	Lead	200068760	IMSC1802	2.21	190	91.3	mg/Kg	0	A	75-125
13	Lead	200068760	ICPC1803	40.0	190	210	mg/Kg	50	A	80-120
14	Magnesium	200068760	ICPC1803	2000	240	2170	mg/Kg	96		80-120
15	Manganese	200068760	ICPC1803	8.00	170	187	mg/Kg	212	A	80-120
16	Mercury	200069010	CVAC1902	0.274	U	0.243	mg/Kg	89		75-125
17	Nickel	200068760	ICPC1803	40.0	23	58.1	mg/Kg	88		80-120
18	Potassium	200068760	ICPC1803	2000	83	2090	mg/Kg	100		8
19	Selenium	200068760	IMSC1802	2.21	U	1.64	mg/Kg	74 *		75 5
20	Silver	200068760	IMSC1802	2.21	U	2.10	mg/Kg	95		75-125
21	Sodium	200068760	ICPC1803	2000	110	2060	mg/Kg	98		80-120
22	Thallium	200068760	IMSC1802	2.21	0.28	2.74	mg/Kg	111		75-125
23	Vanadium	200068760	ICPC1803	40.0	7.1	43.1	mg/Kg	90		80-120
24	Zinc	200068760	ICPC1803	40.0	210	244	mg/Kg	85		80-120

D=Detected, result must be greater than zero.
Recovery: 6 out of 18 outside QC Windows

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/31/98

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive
Ann Arbor, Michigan 48108
(313) 761-1389 / FAX: (313) 761-1034

Matrix Spike (MS)

Inorganics - Metals

Project Name: Encotec
Project Number: 10000
QC Set ID: CVAC1902

Analyte	ENCOTEC Sample ID	Percent Recovery (%)	*Quality Control Windows Recovery (%)*
Mercury	200069010	89	*75 - 125*

Recovery: 0 out of 1 outside QC Windows.

QUALITY ASSESSMENT REPORT - MD Analysis

ENCOTEC SDG ID: CRA-CS-98C2
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100010137
ENCOTEC Sample ID: See Below
Matrix: N/A

	Analyte	ENCOTEC Sample ID	QC Set ID	Sample Result	Conc. MD	Units	RPD (%)	Flag	Quality Contro Windows (%)
1	Aluminum	200068760	ICPC1803	1200	1300	mg/Kg	8		20
2	Antimony	200068760	IMSC1802	0.90	1.0	mg/Kg	11		35
3	Arsenic	200068760	IMSC1802	1.6	1.8	mg/Kg	12		35
4	Barium	200068760	ICPC1803	450	540	mg/Kg	18		20
5	Beryllium	200068760	IMSC1802	U	U	mg/Kg	NC		35
6	Cadmium	200068760	IMSC1802	4.9	5.6	mg/Kg	13		35
7	Calcium	200068760	ICPC1803	1200	1500	mg/Kg	22 *		20
8	Chromium	200068760	ICPC1803	69	92	mg/Kg	29 *		20
9	Cobalt	200068760	IMSC1802	3.1	3.7	mg/Kg	18		35
10	Copper	200068760	ICPC1803	1400	1400	mg/Kg	0		20
11	Iron	200068760	ICPC1803	11000	17000	mg/Kg	43 *		20
12	Lead	200068760	IMSC1802	190	230	mg/Kg	19		35
13	Lead	200068760	ICPC1803	190	260	mg/Kg	31 *		20
14	Magnesium	200068760	ICPC1803	240	300	mg/Kg	22 *		20
15	Manganese	200068760	ICPC1803	170	220	mg/Kg	26 *		20
16	Nickel	200068760	ICPC1803	23	29	mg/Kg	23 *		20
17	Potassium	200068760	ICPC1803	83	86	mg/Kg	4		20
18	Selenium	200068760	IMSC1802	U	U	mg/Kg	NC		35
19	Silver	200068760	IMSC1802	U	1.7	mg/Kg	NC		35
20	Sodium	200068760	ICPC1803	110	100	mg/Kg	10		20
21	Thallium	200068760	IMSC1802	0.28	0.29	mg/Kg	4		35
22	Vanadium	200068760	ICPC1803	7.1	9.2	mg/Kg	26 *		20
23	Zinc	200068760	ICPC1803	210	270	mg/Kg	25 *		20

D=Detected, result must be greater than zero.
RPD: 9 out of 20 outside QC Windows

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/26/98

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive
Ann Arbor, Michigan 48108
(313) 761-1389 / FAX: (313) 761-1034

Matrix Duplicate (MD)

Inorganics - Metals

Project Name:	ENCOTEC
Project Number:	10000
QC Set ID:	CVAC1902

Analyte	ENCOTEC Sample ID	RPD (%)	*Quality Control Windows RPD (%)*
Mercury	200069010	NC	*35*

RPD: 0 out of 0 outside QC Windows.

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date:	03/18/98	**ENCOTEC Project ID:**	33000
Analysis Date:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	PCBC1807S
Method Reference:	8080	**ENCOTEC Submission ID:**	100010137
Matrix:	SOIL	**ENCOTEC Method Blank ID:**	200066750

	AROCLOR MDEQ Part 201, PCBs only List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	PCB-1016	12674-11-2	330	1	U	
2	PCB-1221	11104-28-2	330	1	U	
3	PCB-1232	11141-16-5	330	1	U	
4	PCB-1242	53469-21-9	330	1	U	
5	PCB-1248	12672-29-6	330	1	U	
6	PCB-1254	11097-69-1	330	1	U	
7	PCB-1260	11096-82-5	330	1	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
734 / 761-1389

SOILS\SOLIDS MATRIX SURROGATE RECOVERY
POLYCHLORINATED BIPHENYLS

Project Name: CONESTOGA - ROVERS & ASSOCIATES
Project Number: 33000
Method: 8080
Report Date: March 20, 1998
QC Set I.D.: PCBC1807S

ENCOTEC Sample Number	Percent Recovery 2,4,5,6-TCMX (40 - 130)	Percent Recovery Decachlorobiphenyl (32 - 136)
200068974	76	58
200068975	70	97
200068976	65	72
200066750 MB	73	96
200067003 LCS	97	92
200068974 MS	71	46
200068974 MSD	71	70

* Value outside of established quality control windows.
DL = Sample matrix diluted, therefore surrogate recoveries are not applicable.
M = Matrix interferences caused distortion to recovery value.

RECOVERY: 0 out of 14 outside QC Windows.

Note:

Form 057CSN2G.GN1 Rev. 01/16/98

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
(734) 761-1389

LABORATORY CONTROL SAMPLE (LCS)
POLYCHLORINATED BIPHENYLS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set I.D.: PCBC1807S

ENCOTEC I.D.: 200067003

AROCLOR	AMOUNT SPIKED (ug/Kg)	AMOUNT RECOVERED (ug/Kg)	PERCENT RECOVERED (percent)	QC LIMITS RANGE (percent)
PCB 1221	330	412	125	48 - 163
PCB 1248	330	295	89	39 - 155
PCB 1260	330	288	87	37 - 166

RECOVERY: __0__ out of __3__ outside QC Windows

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
734 / 761-1389

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)
POLYCHLORINATED BIPHENYLS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set I.D.: PCBC1807S

SAMPLE SPIKED - ENCOTEC ID: 200068974

Aroclor	Concentration Spiked (ug/Kg)	Sample Result (ug/Kg)	MS Conc (ug/Kg)	% Rec	MSD Conc (ug/Kg)	% Rec	RPD	QUALITY CONTROL WINDOWS RPD	QUALITY CONTROL WINDOWS %Recovery
PCB 1221	330	U	300	91	323	98	7.4	20	48-163
PCB 1248	330	U	394	119	319	97	21*	19	39-155
PCB 1260	330	U	291	88	305	92	4.7	23	37-166

RPD: 0 out of 3 outside QC Windows.
RECOVERY: 0 out of 6 outside QC Windows.

42

Note:

Form 057CSL3G.GN2

Rev. 03/13/97

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date:	N/A	**ENCOTEC Project ID:**	3
Analysis Date:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	VORC1801S
Method Reference:	8260	**ENCOTEC Submission ID:**	100010137
Matrix:	SOIL	**ENCOTEC Method Blank ID:**	200066783

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	1.4	J
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date:	N/A	**ENCOTEC Project ID:**	33000
Analysis Date:	03/19/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	VORC1901S
Method Reference:	8260	**ENCOTEC Submission ID:**	100010137
Matrix:	SOIL	**ENCOTEC Method Blank ID:**	200066791

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	1.2	J
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
734 / 761-1389

SOIL MATRIX SURROGATE RECOVERY
VOLATILE ORGANICS

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Method: 8240 ___ 8260 _X_ 8260A ___
Report Date: March 23, 1998
QC Set I.D.: VORC1801S

ENCOTEC Sample I.D.	% Recovery Dibromofluoromethane (80-120)	% Recovery D4-1,2-Dichloroethane (70-121)	% Recovery D8-Toluene (81-117)	% Recovery BFB (74-121)
200068974	90	84	107	108
200068975	103	106	102	107
200066783 MB	99	100	101	100
200066917 LCS	98	101	102	100
200068720 MS	112	119	106	123M
200068720 MSD	117	121	111	148M

* Value outside of established quality control windows.
DL = Sample matrix diluted, therefore surrogate recoveries are not applicable.
M = Matrix interferences caused distortion to recovery value.

RECOVERY: 0 out of 22 outside QC Windows.

Note:

Form 065VSL2G.GEN Rev. 09/27/97

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
734 / 761-1389

SOIL MATRIX SURROGATE RECOVERY
VOLATILE ORGANICS

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Method: 8240 ___ 8260 _X_ 8260A ___
Report Date: March 23, 1998
QC Set I.D.: VORC1901S

ENCOTEC Sample I.D.	% Recovery Dibromofluoromethane (80-120)	% Recovery D4-1,2-Dichloroethane (70-121)	% Recovery D8-Toluene (81-117)	% Recovery BFB (74-121)
200068976	90	104	103	109
200066791 MB	101	104	103	102
200066926 LCS	101	101	106	106
200068713 MS	102	109	103	109
200068713 MSD	103	109	104	109

* Value outside of established quality control windows.
DL = Sample matrix diluted, therefore surrogate recoveries are not applicable.
M = Matrix interferences caused distortion to recovery value.

RECOVERY: __0__ out of __20__ outside QC Windows.

Note:

orm 065VSL2G.GEN Rev. 09/27/97

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
313 / 761-1389

LABORATORY CONTROL SAMPLE (LCS)
VOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: VORC1801S

ENCOTEC ID: 200066917

Compound	Conc. Spiked (mg/Kg)	Conc. LCS (mg/Kg)	Percent Recovery (%)		Quality Control Windows Recovery (%)
Benzene	0.0500	0.0561	112		76-136
Bromodichloromethane	0.0500	0.0450	90		78-131
Bromoform	0.0500	0.0311	62	*	68-124
Carbon tetrachloride	0.0500	0.0181	36	*	70-136
Chlorobenzene	0.0500	0.0552	110		73-127
Chloroform	0.0500	0.0583	117		78-126
Dibromochloromethane	0.0500	0.0386	77		67-133
1,1-Dichloroethane	0.0500	0.0600	120		66-140
1,2-Dichloroethane	0.0500	0.0537	107		63-140
1,1-Dichloroethene	0.0500	0.0564	113		47-187
trans-1,2-Dichloroethene	0.0500	0.0548	110		69-143
1,2-Dichloropropane	0.0500	0.0562	112		70-122
Ethylbenzene	0.0500	0.0571	114		73-129
Methylene chloride	0.0500	0.0508	102		61-163
1,1,2,2-Tetrachloroethane	0.0500	0.0500	100		68-120
Tetrachloroethene	0.0500	0.0555	111		61-135
Toluene	0.0500	0.0544	109		71-133
1,1,1-Trichloroethane	0.0500	0.0541	108		67-129
1,1,2-Trichloroethane	0.0500	0.0544	109		73-125
Trichloroethene	0.0500	0.0591	118		64-152

Recovery: 2 out of 20 outside QC windows

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\VLC18S1R.XLS

Rev. 02/24/97

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
313 / 761-1389

LABORATORY CONTROL SAMPLE (LCS)
VOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: VORC1901S

ENCOTEC ID: 200066926

Compound	Conc. Spiked (mg/Kg)	Conc. LCS (mg/Kg)	Percent Recovery (%)	Quality Control Windows Recovery (%)
Benzene	0.0500	0.0525	105	76-136
Bromodichloromethane	0.0500	0.0485	97	78-131
Bromoform	0.0500	0.0440	88	68-124
Carbon tetrachloride	0.0500	0.0497	99	70-136
Chlorobenzene	0.0500	0.0528	106	73-127
Chloroform	0.0500	0.0542	108	78-126
Dibromochloromethane	0.0500	0.0484	97	67-133
1,1-Dichloroethane	0.0500	0.0570	114	66-140
1,2-Dichloroethane	0.0500	0.0509	102	63-140
1,1-Dichloroethene	0.0500	0.0528	106	47-187
trans-1,2-Dichloroethene	0.0500	0.0507	101	69-143
1,2-Dichloropropane	0.0500	0.0527	105	70-122
Ethylbenzene	0.0500	0.0541	108	73-129
Methylene chloride	0.0500	0.0480	96	61-163
1,1,2,2-Tetrachloroethane	0.0500	0.0500	100	68-120
Tetrachloroethene	0.0500	0.0532	106	61-135
Toluene	0.0500	0.0533	107	71-133
1,1,1-Trichloroethane	0.0500	0.0531	106	67-129
1,1,2-Trichloroethane	0.0500	0.0523	105	73-125
Trichloroethene	0.0500	0.0546	109	64-152

Recovery: 0 out of 20 outside QC windows

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\VLC19S1R.XLS

Rev. 02/24/97

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
313 / 761-1389

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)

VOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: VORC1801S

ENCOTEC ID: 200068720

Compound	Conc. Spiked (mg/Kg)	Sample Result (mg/Kg)	Conc. MS (mg/Kg)	Percent Recovery (%)	Conc. MSD (mg/Kg)	Percent Recovery (%)	RPD (%)	Quality Control Limits RPD (%)	Quality Control Limits Recovery (%)
1,1-Dichloroethene	0.0500	U	0.0528	106	0.0539	108	2.10	22	59-172
Trichloroethene	0.0500	0.027	0.0772	101	0.0866	120	11.43	24	62-137
Chlorobenzene	0.0500	U	0.0529	106	0.0519	104	1.95	21	60-133
Toluene	0.0500	U	0.0525	105	0.0560	112	6.40	21	59-139
Benzene	0.0500	U	0.0585	117	0.0582	116	0.65	21	66-142

RPD: 0 out of 5 outside of quality control limits.
Recovery: 0 out of 10 outside of quality control limits.

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\VMC18S1R.XLS

Laidlaw Environmen Inc. / ENCOTEC
3985 Research Park Drive Ann Arbor, MI 48108
313 / 761-1389

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)

VOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: VORC1901S

ENCOTEC ID: 200068713

Compound	Conc. Spiked (mg/Kg)	Sample Result (mg/Kg)	Conc. MS (mg/Kg)	Percent Recovery (%)	Conc. MSD (mg/Kg)	Percent Recovery (%)	RPD (%)	Quality Control Limits RPD (%)	Quality Control Limits Recovery (%)
1,1-Dichloroethene	0.0500	U	0.0497	99	0.0510	102	2.62	22	59-172
Trichloroethene	0.0500	U	0.0502	100	0.0501	100	0.28	24	62-137
Chlorobenzene	0.0500	U	0.0522	104	0.0519	104	0.60	21	60-133
Toluene	0.0500	U	0.0496	99	0.0496	99	0.04	21	59-139
Benzene	0.0500	U	0.0552	110	0.0540	108	2.16	21	66-142

RPD: 0 out of 5 outside of quality control limits.
Recovery: 0 out of 10 outside of quality control limits.

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\VMC19S1R.XLS

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date:	03/20/98	**ENCOTEC Project ID:**	[illegible]
Analysis Date:	03/21/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	BNAC1806S
Method Reference:	8270	**ENCOTEC Submission ID:**	100010137
Matrix:	SOIL	**ENCOTEC Method Blank ID:**	20006676C

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	U	
5	Benzo(a)pyrene	50-32-8	330	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
10	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	U	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
38	Fluoranthene	206-44-0	330	1.0	U	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date:	03/20/98	**ENCOTEC Project ID:**	33000
Analysis Date:	03/21/98	**ENCOTEC SDG ID:**	CRA-CS-98C2
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	BNAC1806S
Method Reference:	8270	**ENCOTEC Submission ID:**	100010137
Matrix:	SOIL	**ENCOTEC Method Blank ID:**	200066760

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	U	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	U	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/24/98

Laidlaw Environmental Services / Encotec

GC/MS Semivolatile Analysis

Surrogate Report - Soil Matrix

Project Name: CRA

Method:. 8270 *Project Number:* 33000

QC Set ID: BNAC1806S *Report Date :* 23-Mar-98

	d5-Nitrobenzene		*2-Fluorobiphenyl*		*d14-Terphenyl*		*d5-Phenol*		*2-Fluorophenol*		*2,4,6-Tribromophenol*	
	% Recovery	#	% Recovery	#	% Recovery	#	% Recovery	#	% Recovery	#	% Recovery	#
Limits	23 - 120		30 - 115		18 - 137		24 - 113		25 - 121		19 - 122	
Sample Name												
200068974	65		59		64		68		57		65	
200068975	67		64		59		72		54		70	
200068976	60		56		58		61		53		58	
200066760MB	66		65		62		65		62		68	
200066870LCS	77		66		73		75		59		78	
200068974MS	64		61		68		67		51		71	
200068974MSD	66		60		66		67		53		68	

\# = Value outside of surrogate recovery limits
DL = Sample extract diluted, surrogate recoveries not applicable
MI = Matrix interferences caused distortion to recovery value
Recovery : 0 out of 42 outside QC windows

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
313 / 761-1389

LABORATORY CONTROL SAMPLE (LCS)
SEMIVOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: BNAC1806S

ENCOTEC ID: 200066870

Compound	Conc. pike (mg/kg)	Conc. LCS (mg/kg)	Percent Recovery (%)		Quality Control Windows Recovery (%)
2-Chlorophenol	2.00	1.44	72		57-112
bis(2-Chloroethyl)ether	2.00	1.62	81		61-123
Phenol	2.00	1.50	75		58-120
1,3-Dichlorobenzene	2.00	1.42	71		68-114
1,4-Dichlorobenzene	2.00	1.47	74		67-119
1,2-Dichlorobenzene	2.00	1.55	78		71-116
bis(2-Chloroisopropyl)ether	2.00	1.62	81		52-151
Hexachloroethane	2.00	1.57	79		69-126
n-Nitroso-di-n-propylamine	2.00	1.98	99		79-114
Nitrobenzene	2.00	1.67	84		46-137
Isophorone	2.00	1.47	74		61-126
2-Nitrophenol	2.00	1.56	78		62-113
2,4-Dimethylphenol	2.00	1.53	77		54-121
bis(2-Chloroethoxy)methane	2.00	1.64	82		74-127
2,4-Dichlorophenol	2.00	1.68	84		61-116
1,2,4-Trichlorobenzene	2.00	1.48	74		74-120
Naphthalene	2.00	1.57	79		75-119
Hexachlorobutadiene	2.00	1.55	78		58-162
4-Chloro-3-methylphenol	2.00	1.71	86		80-117
2,4,6-Trichlorophenol	2.00	1.40	70		62-116
2-Chloronaphthalene	2.00	1.46	73		70-124
Acenaphthylene	2.00	1.33	67	*	69-118
2,6-Dinitrotoluene	2.00	1.82	91		30-167
Acenaphthene	2.00	1.48	74		68-131
2,4-Dinitrophenol	2.00	0.700	35		D-113
2,4-Dinitrotoluene	2.00	1.66	83		78-121
4-Nitrophenol	2.00	1.38	69		56-109
Fluorene	2.00	1.59	80		74-132
4-Chlorophenyl phenyl ether	2.00	1.46	73	*	74-128
Diethylphthalate	2.00	1.46	73		72-128
4,6-Dinitro-2-methylphenol	2.00	0.990	50		2-175
n-Nitrosodiphenylamine	2.00	1.63	82		30-171
4-Bromophenyl phenyl ether	2.00	1.45	73		68-131
Hexachlorobenzene	2.00	1.50	75		68-128
Pentachlorophenol	2.00	1.25	63		18-100
Phenanthrene	2.00	1.45	73	*	74-126
Anthracene	2.00	1.69	85		75-132
Di-n-butyl phthalate	2.00	1.56	78		77-126
Fluoranthene	2.00	1.55	78		69-141
Pyrene	2.00	1.38	69		65-145
Butyl benzyl phthalate	2.00	1.64	82		71-143
Benzo(a)anthracene	2.00	1.63	82		69-139
Chrysene	2.00	1.61	81		48-182
3-3'-Dichlorobenzidine	2.00	2.24	112		D-292
bis(2-Ethylhexyl)phthalate	2.00	1.62	81		38-188
Di-n-octyl phthalate	2.00	1.70	85		21-173
Benzo(b)fluoranthene	2.00	1.76	88		50-135
Benzo(k)fluoranthene	2.00	1.28	64		62-141
Benzo(a)pyrene	2.00	1.40	70		70-134
Indeno(1,2,3-cd)pyrene	2.00	1.45	73		35-169
Dibenz(a,h)anthracene	2.00	1.30	65		41-171
Benzo(ghi)perylene	2.00	1.60	80		2-192

Recovery: 3 out of 52 outside QC windows

Note:
SAVED AS: D:\DATA\QC\BLC18S06X.XLS

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
313 / 761-1389

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)
SEMIVOLATILE ORGANICS - SOIL MATRIX

roject Name: ENCOTEC
Project Number: 10000
QC Set ID: BNAC1806S

SAMPLE SPIKED - ENCOTEC ID: 200068974

Compound	Conc. Spiked (mg/Kg)	Sample Result (mg/Kg)	Conc. MS (mg/Kg)	Percent Recovery (%)	Conc. MSD (mg/Kg)	Percent Recovery (%)	RPD (%)	Quality Control Limits RPD (%)	Quality Control Limits Recovery (%)
1,2,4-Trichlorobenzene	2.00	U	1.21	61	1.46	73	18.78	23	43-113
Acenaphthene	2.00	U	1.22	61	1.32	66	7.96	19	45-124
2,4-Dinitrotoluene	2.00	U	1.34	67	1.47	74	9.58	47	44-109
Pyrene	2.00	U	0.894	45	0.868	43	2.95	36	24-142
N-Nitroso-di-*n*-propylamine	2.00	U	1.43	71	1.54	77	7.34	38	44-115
1,4-Dichlorobenzene	2.00	U	0.874	44	1.20	60	31.36 *	27	40-108
Pentachlorophenol	3.00	U	1.81	60	1.81	60	0.13	47	33-129
Phenol	3.00	U	1.84	61	1.80	60	1.97	35	60-97
2-Chlorophenol	3.00	U	1.87	62	2.02	67	7.36	50	49-111
4-Chloro-3-methylphenol	3.00	U	2.24	75	2.21	74	1.65	33	49-120
4-Nitrophenol	3.00	U	1.89	63	1.80	60	4.75	50	41-133

RPD: 1 out of 11 outside of QC Limits.
Recovery: 0 out of 22 outside of QC Limits.

Note:
SAVED AS: D:\DATA\QC\BMC18S06X.XLS

Form 090 L3G.XLS

CRA
CONESTOGA-ROVERS & ASSOCIATES, INC.
11100 Metro Airport Center Drive - Suite 160
Romulus, MI 48174 (313) 942-0909

CHAIN OF CUSTODY RECORD

SHIPPED TO (Laboratory Name): Encotec

REFERENCE NUMBER: 8889-70

PROJECT NAME: Oil Reclamation facility Site

SAMPLER'S SIGNATURE: Susan Fielek PRINTED NAME: Susan Fielek

SEQ: No.	DATE	TIME		SAMPLE TYPE	No. OF CONTAINERS	PARAMETERS: TCL VOC	TCL SVOC	PCB	TAL Metal	Cyanide	REMARKS
1	03/16/98	1530	S-8889-03/16/98-SF-001	Soil	2	✓	✓	✓	✓	✓	72 hour TAT
2	↓	1605	↓ ↓ ↓ -002	↓	2	✓	✓	✓	✓	✓	
3	↓	1720	↓ ↓ ↓ -003	↓	2	✓	✓	✓	✓	✓	

03/16/98

TOTAL NUMBER OF CONTAINERS

RELINQUISHED BY: 1. Susan Fielek	DATE: 03/17/98 TIME: 0630	RECEIVED BY: 1. [signature]	DATE: 3/17/98 TIME: 0845
RELINQUISHED BY: 2. [signature]	DATE: 3/17/98 TIME: 1200	RECEIVED BY: 2. [signature]	DATE: 3/17/98 TIME: 1200
RELINQUISHED BY: 3.	DATE: TIME:	RECEIVED BY: 1.	DATE: TIME:

METHOD OF SHIPMENT: Pick up by Encotec AIR BILL No.

White -Fully Executed Copy Pink -Shipper Copy
Yellow -Receiving Laboratory Copy Goldenrod -Sampler Copy

- 5521

SAMPLE TEAM: S. Fielek

RECEIVED FOR LABORATORY BY: [signature]
DATE: 3/17/98 TIME: 1200

1001 (FORMS)-APRIL 29, 93-REV.0-(C)(F-01)

56

LAIDLAW ENVIRONMENTAL SERVICES

REC'D CRA
MAR 1 1998
SDG 47

ENCOTEC

March 30, 1998

Mr. Paul Wiseman
Conestoga-Rovers & Associates, Inc.
11100 Metro Airport Center Drive
Suite 160
Romulus, MI 48174

RE: Analytical Results / Oil Reclamation Facility Site

Dear Mr. Wiseman:

Please find enclosed an electronic disk deliverable, two hard copies of the analytical results, QC and case narrative corresponding to samples from the above referenced project, which were received by LEI/ENCOTEC on March 18, 1998.

Please note that this data was previously forwarded to you via facsimile. Transmittals occurred March 23 - 26, 1998.

Following review of this data, please feel free to contact me with any questions or concerns.

Sincerely,
Laidlaw Environmental, Inc./ENCOTEC

Jane Rusin

Jane Rusin
Project Manager

Enclosure

SDG CRA-CS-98C3
Batch# 10175, 10176
#33000

ORIGINAL ANALYTICAL REPORT
Project#: 8889-70 Lab #: CRA-CS-98C3
Name: Oil Reclamation Facility
Description
Event: GM Clark Street
Samples: 9-Soil
Analysis: TCL VOC, SVOC, PCB
metal
TAT: 3day
Lab: Encotec
Checked Against Preliminary Data:
Date: 4/1/98 Init.: MBC
Date of Validation Completion: 4/20/98
Comments:

Laidlaw Environmental, Inc. / Encotec
3985 Research Park Drive Ann Arbor, Michigan 48108
Phone 313.761.1389 Fax 313.761.1034

DATA PACKAGE COVER PAGE

This report contains 95 pages, excluding the cover letter and is only for the submitted samples.

If any pages are missing please contact Laidlaw Environmental, Inc./ENCOTEC immediately.

This document is intended only for the person(s) identified in the cover letter and is to be considered **CONFIDENTIAL.**

This analytical report does not comply with State of Utah batch QC requirements for organic extractables unless otherwise noted in the laboratory narrative.

Flags and Definitions

U = The analyte was not detected at or above the quantitation limit.

E = The analyte was detected at a concentration greater than the calibration range; therefore the result is estimated.

DL = The sample was diluted due to sample matrix, therefore QC was not recoverable.

* = The value is outside quality control limits.

K = Reported concentration is proportional to dilution factor and may be exaggerated.

P = When one or both sample results are <5 times the quantitation limit, the RPD cannot be properly evaluated. It is not included in the total QC count.

G = Result is greater than the numerical value presented.

J = The analyte was detected at a concentration below the quantitation limit but above the method detection limit.

B = The analyte was detected in the associated method blank.

M = Matrix interference has resulted in an elevated quantitation limit or distorted QC result.

NC = Not Calculable.

NA = Not Applicable.

A = If the sample result is >4 times the amount spiked, the MS recovery cannot be properly evaluated. It is not included in the total QC count.

CA = Combustion aid was necessary to achieve results.

SDG	A Sample Delivery Group is a grouping of samples arriving under separate Chains of Custody that are reported together.
QC Set ID	An alphanumeric identification associating appropriate QC data with sample data.
Calculation Basis	Indicates whether the results have been adjusted for moisture content.
Quant Limit	The limit at which the analyte can be reliably reported within the method- specified limits of precision and accuracy under routine operating conditions.
Dil	Dilution Factor.
Conc	The concentration, expressed in appropriate units.
LCS	Laboratory Control Sample.
LCD	Laboratory Control Sample Duplicate.
MS	Matrix Spike.
MSD	Matrix Spike Duplicate.
%Rec	The percent recovery of a fortified analyte (surrogate, matrix spike, lab control sample).
RPD	The relative percent difference for duplicate analyses.
Second Analysis Date	The date on which a sample was analyzed a second time, at a dilution different than that on the (initial) Analysis Date.

If a numerical value is very large, it will be expressed in scientific notation. For example, a concentration of 10,000,000 ug/Kg will be reported as 1E7.

LABORATORY NARRATIVE

Client Name:	CONESTOGA-ROVERS & ASSOCIATES
Project Name:	8889-70
Project Number:	33000
Sample Delivery Group:	CRA-CS-98C3
Batch Number(s):	100010175, 10176
Narrative Date:	March 31, 1998

Samples were received and analyzed without incident, within holding times, with chain-of-custody maintained, and according to the referenced methods, except as noted below:

Method Blank- Positive Results

QC Set ID	Analysis	Corrective Action/Result
VORC2001S	Volatiles	Methylene chloride was detected in the method blank below the quantitation limit. A result was reported on the method blank summary form as a J value.

LCS/LCD Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
BNAC1806S	Semivolatiles	Since ≥ 80% of the LCS recoveries were within QC windows, corrective action was deemed unnecessary.

MS Recovery Outliers

QC Set ID	Analysis	Corrective Action/Result
TCNC2201	Total Cyanide	Since the LCS recovered within QC windows, a post digestion spike was analyzed and was within criteria.
IMSC1901 ICPC1904	Antimony, Selenium, Thallium Lead	Since ≥80% of the fortified elements in the LCS (including any analytes found in samples) recovered within QC windows, a post-digestion spike was analyzed and was within criteria.
ICPC1904	Sodium	Since ≥80% of the fortified elements in the LCS (including any analytes found in samples) recovered within QC windows, a post-digestion spike was analyzed but was outside criteria. Matrix interference is assumed.

Matrix Duplicate RPD Outliers

QC Set ID	Analysis	Corrective Action/Result
ICPC1904	Chromium	Poor reproducibility is not uncommon for nonhomogeneous soil samples. Corrective action was deemed unnecessary.

MS/MSD RPD Outliers

QC Set ID	Analysis	Corrective Action/Result
BNAC1806S	Semivolatiles	Poor reproducibility is not uncommon for nonhomogeneous soil samples. Corrective action was deemed unnecessary.

I certify that the data presented in this report is accurate, complete and meets the minimum quality assurance standards as specified in 40-CFR 136, 40-CFR-141, and/or SW-846. An assessment of the quality of the data, noting any exceptions, outliers, and/or problems encountered have been narrated herein.

Walt Roudebush (or designee)
Technical Director

3/30/98
Date

SAMPLE CROSS REFERENCE REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
SDG: CRA-CS-98C3
Submission ID(s): 100010175, 100010176

Client Sample ID	ENCOTEC Sample ID	Sample Matrix	Date Sampled	Date Received
S-8889-031798-SF-004	200069162	SOIL	03/17/98	03/18/98
S-8889-031798-SF-005	200069163	SOIL	03/17/98	03/18/98
S-8889-031798-SF-006	200069164	SOIL	03/17/98	03/18/98
S-8889-031798-SF-007	200069165	SOIL	03/17/98	03/18/98
S-8889-031798-SF-008	200069166	SOIL	03/17/98	03/18/98
S-8889-031798-SF-009	200069167	SOIL	03/17/98	03/18/98
S-8889-031798-SF-010	200069168	SOIL	03/17/98	03/18/98
S-8889-031898-SF-011	200069160	SOIL	03/18/98	03/18/98
S-8889-031898-SF-012	200069161	SOIL	03/18/98	03/18/98

METHOD DESCRIPTION REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
SDG: CRA-CS-98C3
Submission ID(s): 100010175, 100010176

Method Reference	Description
160.3	Residue, Total, Gravimetric, Dried at 103-105o C
9010	Total and Amenable Cyanide, Colorimetric
6020	Inductively Coupled Plasma - Mass Spectrometry
6010	Inductively Coupled Plasma - Atomic Emission Spectroscopy
7471	Mercury, Cold Vapor, Non-Aqueous Matrices
8080	Organochlorine Pesticides and Polychlorinated Biphenyls by Gas Chromatography
8260	Volatile Organic Compounds by GC/MS: Capillary Column
8270	Semivolatile Organic Compounds by GC/MS: Capillary Column

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-004

Date Sampled	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010176
Method Reference:	See below	**ENCOTEC Sample ID:**	200069162
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	83.1	**Calculation Basis:**	Dry Weight

	General Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fla
1	Cyanide, Total	TCNC2201	03/23/98	9010	ug/Kg	200	1	U	
2	Solids, Total	TSPC1901	03/19/98	160.3	%	0.10	1	83.1	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/25/98

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-005

Date Sampled	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010176
Method Reference:	See below	**ENCOTEC Sample ID:**	200069163
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	86.4	**Calculation Basis:**	Dry Weight

	General Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Cyanide, Total	TCNC2201	03/23/98	9010	ug/Kg	200	2	U	
2	Solids, Total	TSPC1901	03/19/98	160.3	%	0.10	1	86.4	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-006

Date Sampled	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010176
Method Reference:	See below	**ENCOTEC Sample ID:**	200069164
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	85.5	**Calculation Basis:**	Dry Weight

	General Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Cyanide, Total	TCNC2201	03/23/98	9010	ug/Kg	200	1	U	
2	Solids, Total	TSPC1901	03/19/98	160.3	%	0.10	1	85.5	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/25/98

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-007

Date Sampled	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010176
Method Reference:	See below	**ENCOTEC Sample ID:**	200069165
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	87.2	**Calculation Basis:**	Dry Weight

	General Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Cyanide, Total	TCNC2201	03/23/98	9010	ug/Kg	200	1	U	
2	Solids, Total	TSPC1901	03/19/98	160.3	%	0.10	1	87.2	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-008

Date Sampled	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010176
Method Reference:	See below	**ENCOTEC Sample ID:**	200069166
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	89.5	**Calculation Basis:**	Dry Weight

	General Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Cyanide, Total	TCNC2201	03/23/98	9010	ug/Kg	200	2	U	
2	Solids, Total	TSPC1901	03/19/98	160.3	%	0.10	1	89.5	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-009

Date Sampled	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010176
Method Reference:	See below	**ENCOTEC Sample ID:**	200069167
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	84.2	**Calculation Basis:**	Dry Weight

	General Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Cyanide, Total	TCNC2402	03/24/98	9010	ug/Kg	200	1	U	
2	Solids, Total	TSPC1901	03/19/98	160.3	%	0.10	1	84.2	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-011

Date Sampled	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010175
Method Reference:	See below	**ENCOTEC Sample ID:**	200069160
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	87.0	**Calculation Basis:**	Dry Weight

	General Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Cyanide, Total	TCNC2201	03/23/98	9010	ug/Kg	200	1	230	
2	Solids, Total	TSPC1901	03/19/98	160.3	%	0.10	1	87.0	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-012

Date Sampled	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010175
Method Reference:	See below	**ENCOTEC Sample ID:**	200069161
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	83.1	**Calculation Basis:**	Dry Weight

	General Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Cyanide, Total	TCNC2201	03/23/98	9010	ug/Kg	200	1	U	
2	Solids, Total	TSPC1901	03/19/98	160.3	%	0.10	1	83.1	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-004

Date Sampled	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010176
Method Reference:	See below	**ENCOTEC Sample ID:**	200069162
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	83.1	**Calculation Basis:**	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Aluminum	ICPC1904	03/19/98	6010	ug/Kg	10000	1	980000	
2	Antimony	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
3	Arsenic	IMSC1901	03/19/98	6020	ug/Kg	240	5	4400	
4	Barium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	9400	
5	Beryllium	IMSC1901	03/19/98	6020	ug/Kg	240	5	U	M
6	Cadmium	IMSC1901	03/19/98	6020	ug/Kg	50	5	120	
7	Calcium	ICPC1904	03/19/98	6010	ug/Kg	96000	10	4E7	
8	Chromium	ICPC1904	03/19/98	6010	ug/Kg	2500	1	U	
9	Cobalt	IMSC1901	03/19/98	6020	ug/Kg	500	5	1900	
10	Copper	ICPC1904	03/19/98	6010	ug/Kg	1000	1	6000	
11	Iron	ICPC1904	03/19/98	6010	ug/Kg	2000	1	4300000	
12	Lead	IMSC1901	03/19/98	6020	ug/Kg	1000	5	4000	
13	Magnesium	ICPC1904	03/19/98	6010	ug/Kg	5000	1	1E7	
14	Manganese	ICPC1904	03/19/98	6010	ug/Kg	2000	1	130000	
15	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
16	Nickel	ICPC1904	03/19/98	6010	ug/Kg	1000	1	4300	
17	Potassium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	150000	
18	Selenium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
19	Silver	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
20	Sodium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	530000	
21	Thallium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
22	Vanadium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	4900	
23	Zinc	ICPC1904	03/19/98	6010	ug/Kg	1000	1	16000	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-005

Date Sampled	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010176
Method Reference:	See below	**ENCOTEC Sample ID:**	200069163
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	86.4	**Calculation Basis:**	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Aluminum	ICPC1904	03/19/98	6010	ug/Kg	10000	1	2300000	
2	Antimony	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
3	Arsenic	IMSC1901	03/19/98	6020	ug/Kg	230	5	1600	
4	Barium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	48000	
5	Beryllium	IMSC1901	03/19/98	6020	ug/Kg	230	5	U	M
6	Cadmium	IMSC1901	03/19/98	6020	ug/Kg	50	5	390	
7	Calcium	ICPC1904	03/19/98	6010	ug/Kg	93000	10	6E7	
8	Chromium	ICPC1904	03/19/98	6010	ug/Kg	2500	1	7300	
9	Cobalt	IMSC1901	03/19/98	6020	ug/Kg	500	5	2100	
10	Copper	ICPC1904	03/19/98	6010	ug/Kg	1000	1	16000	
11	Iron	ICPC1904	03/19/98	6010	ug/Kg	2000	1	5000000	
12	Lead	ICPC1904	03/19/98	6010	ug/Kg	2000	1	35000	
13	Magnesium	ICPC1904	03/19/98	6010	ug/Kg	5000	1	2E7	
14	Manganese	ICPC1904	03/19/98	6010	ug/Kg	2000	1	150000	
15	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
16	Nickel	ICPC1904	03/19/98	6010	ug/Kg	1000	1	43000	
17	Potassium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	190000	
18	Selenium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
19	Silver	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
20	Sodium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	100000	
21	Thallium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
22	Vanadium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	6400	
23	Zinc	ICPC1904	03/19/98	6010	ug/Kg	1000	1	79000	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-006

Date Sampled	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010176
Method Reference:	See below	**ENCOTEC Sample ID:**	200069164
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	85.5	**Calculation Basis:**	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Aluminum	ICPC1904	03/19/98	6010	ug/Kg	10000	1	3100000	
2	Antimony	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
3	Arsenic	IMSC1901	03/19/98	6020	ug/Kg	240	5	2100	
4	Barium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	69000	
5	Beryllium	IMSC1901	03/19/98	6020	ug/Kg	240	5	U	M
6	Cadmium	IMSC1901	03/19/98	6020	ug/Kg	50	5	890	
7	Calcium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	2E7	
8	Chromium	ICPC1904	03/19/98	6010	ug/Kg	2500	1	21000	
9	Cobalt	IMSC1901	03/19/98	6020	ug/Kg	500	5	2300	
10	Copper	ICPC1904	03/19/98	6010	ug/Kg	1000	1	25000	
11	Iron	ICPC1904	03/19/98	6010	ug/Kg	2000	1	5200000	
12	Lead	ICPC1904	03/19/98	6010	ug/Kg	2000	1	50000	
13	Magnesium	ICPC1904	03/19/98	6010	ug/Kg	5000	1	8300000	
14	Manganese	ICPC1904	03/19/98	6010	ug/Kg	2000	1	120000	
15	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
16	Nickel	ICPC1904	03/19/98	6010	ug/Kg	1000	1	20000	
17	Potassium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	200000	
18	Selenium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
19	Silver	IMSC1901	03/19/98	6020	ug/Kg	500	5	510	
20	Sodium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	50000	
21	Thallium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
22	Vanadium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	9000	
23	Zinc	ICPC1904	03/19/98	6010	ug/Kg	1000	1	72000	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-007

Date Sampled	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010176
Method Reference:	See below	**ENCOTEC Sample ID:**	200069165
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	87.2	**Calculation Basis:**	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Aluminum	ICPC1904	03/19/98	6010	ug/Kg	10000	1	1800000	
2	Antimony	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
3	Arsenic	IMSC1901	03/19/98	6020	ug/Kg	230	5	3200	
4	Barium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	16000	
5	Beryllium	IMSC1901	03/19/98	6020	ug/Kg	230	5	U	M
6	Cadmium	IMSC1901	03/19/98	6020	ug/Kg	50	5	120	
7	Calcium	ICPC1904	03/19/98	6010	ug/Kg	92000	10	6E7	
8	Chromium	ICPC1904	03/19/98	6010	ug/Kg	2500	1	3200	
9	Cobalt	IMSC1901	03/19/98	6020	ug/Kg	500	5	2800	
10	Copper	ICPC1904	03/19/98	6010	ug/Kg	1000	1	9400	
11	Iron	ICPC1904	03/19/98	6010	ug/Kg	2000	1	5500000	
12	Lead	IMSC1901	03/19/98	6020	ug/Kg	1000	5	8700	
13	Magnesium	ICPC1904	03/19/98	6010	ug/Kg	5000	1	9800000	
14	Manganese	ICPC1904	03/19/98	6010	ug/Kg	2000	1	200000	
15	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
16	Nickel	ICPC1904	03/19/98	6010	ug/Kg	1000	1	6200	
17	Potassium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	160000	
18	Selenium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
19	Silver	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
20	Sodium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	53000	
21	Thallium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
22	Vanadium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	6800	
23	Zinc	ICPC1904	03/19/98	6010	ug/Kg	1000	1	32000	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-008

Date Sampled	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010176
Method Reference:	See below	**ENCOTEC Sample ID:**	200069166
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	89.5	**Calculation Basis:**	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Aluminum	ICPC1904	03/19/98	6010	ug/Kg	10000	1	2000000	
2	Antimony	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
3	Arsenic	IMSC1901	03/19/98	6020	ug/Kg	230	5	1500	
4	Barium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	15000	
5	Beryllium	IMSC1901	03/19/98	6020	ug/Kg	230	5	U	M
6	Cadmium	IMSC1901	03/19/98	6020	ug/Kg	50	5	110	
7	Calcium	ICPC1904	03/19/98	6010	ug/Kg	89000	10	1E8	
8	Chromium	ICPC1904	03/19/98	6010	ug/Kg	2500	1	4200	
9	Cobalt	IMSC1901	03/19/98	6020	ug/Kg	500	5	1800	
10	Copper	ICPC1904	03/19/98	6010	ug/Kg	1000	1	11000	
11	Iron	ICPC1904	03/19/98	6010	ug/Kg	2000	1	6300000	
12	Lead	IMSC1901	03/19/98	6020	ug/Kg	1000	5	10000	
13	Magnesium	ICPC1904	03/19/98	6010	ug/Kg	5000	1	1E7	
14	Manganese	ICPC1904	03/19/98	6010	ug/Kg	2000	1	320000	
15	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
16	Nickel	ICPC1904	03/19/98	6010	ug/Kg	1000	1	7100	
17	Potassium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	260000	
18	Selenium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
19	Silver	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
20	Sodium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	78000	
21	Thallium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
22	Vanadium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	7300	
23	Zinc	ICPC1904	03/19/98	6010	ug/Kg	1000	1	35000	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-009

Date Sampled	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010176
Method Reference:	See below	**ENCOTEC Sample ID:**	200069167
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	84.2	**Calculation Basis:**	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Aluminum	ICPC1904	03/19/98	6010	ug/Kg	10000	1	4700000	
2	Antimony	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
3	Arsenic	IMSC1901	03/19/98	6020	ug/Kg	240	5	970	
4	Barium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	41000	
5	Beryllium	IMSC1901	03/19/98	6020	ug/Kg	240	5	U	M
6	Cadmium	IMSC1901	03/19/98	6020	ug/Kg	50	5	81	
7	Calcium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	1100000	
8	Chromium	ICPC1904	03/19/98	6010	ug/Kg	2500	1	9400	
9	Cobalt	IMSC1901	03/19/98	6020	ug/Kg	500	5	2200	
	Copper	ICPC1904	03/19/98	6010	ug/Kg	1000	1	11000	
	Iron	ICPC1904	03/19/98	6010	ug/Kg	2000	1	8200000	
12	Lead	IMSC1901	03/19/98	6020	ug/Kg	1000	5	4600	
13	Magnesium	ICPC1904	03/19/98	6010	ug/Kg	5000	1	1100000	
14	Manganese	ICPC1904	03/19/98	6010	ug/Kg	2000	1	160000	
15	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
16	Nickel	ICPC1904	03/19/98	6010	ug/Kg	1000	1	12000	
17	Potassium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	290000	
18	Selenium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
19	Silver	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
20	Sodium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	27000	
21	Thallium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
22	Vanadium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	13000	
23	Zinc	ICPC1904	03/19/98	6010	ug/Kg	1000	1	35000	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-011

Date Sampled	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010175
Method Reference:	See below	**ENCOTEC Sample ID:**	200069160
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	87.0	**Calculation Basis:**	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Aluminum	ICPC1904	03/19/98	6010	ug/Kg	10000	1	1800000	
2	Antimony	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
3	Arsenic	IMSC1901	03/19/98	6020	ug/Kg	240	5	580	
4	Barium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	17000	
5	Beryllium	IMSC1901	03/19/98	6020	ug/Kg	240	5	U	M
6	Cadmium	IMSC1901	03/19/98	6020	ug/Kg	50	5	58	
7	Calcium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	1000000	
8	Chromium	ICPC1904	03/19/98	6010	ug/Kg	2500	1	3600	
9	Cobalt	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
10	Copper	ICPC1904	03/19/98	6010	ug/Kg	1000	1	6600	
11	Iron	ICPC1904	03/19/98	6010	ug/Kg	2000	1	2900000	
12	Lead	IMSC1901	03/19/98	6020	ug/Kg	1000	5	3000	
13	Magnesium	ICPC1904	03/19/98	6010	ug/Kg	5000	1	380000	
14	Manganese	ICPC1904	03/19/98	6010	ug/Kg	2000	1	20000	
15	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
16	Nickel	ICPC1904	03/19/98	6010	ug/Kg	1000	1	5000	
17	Potassium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	86000	
18	Selenium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
19	Silver	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
20	Sodium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	660000	
21	Thallium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
22	Vanadium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	4800	
23	Zinc	ICPC1904	03/19/98	6010	ug/Kg	1000	1	23000	

ANALYTICAL REPORT

Client: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-012

Date Sampled	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	See below
Date Analyzed:	See below	**ENCOTEC Submission ID:**	100010175
Method Reference:	See below	**ENCOTEC Sample ID:**	200069161
Matrix:	SOIL	**Analyte List:**	N/A
Percent Total Solids:	83.1	**Calculation Basis:**	Dry Weight

	Metals Inorganics	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Aluminum	ICPC1904	03/19/98	6010	ug/Kg	10000	1	4400000	
2	Antimony	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
3	Arsenic	IMSC1901	03/19/98	6020	ug/Kg	250	5	2800	
4	Barium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	51000	
5	Beryllium	IMSC1901	03/19/98	6020	ug/Kg	250	5	U	M
6	Cadmium	IMSC1901	03/19/98	6020	ug/Kg	50	5	140	
7	Calcium	ICPC1904	03/19/98	6010	ug/Kg	96000	10	4E7	
8	Chromium	ICPC1904	03/19/98	6010	ug/Kg	2500	1	8500	
9	Cobalt	IMSC1901	03/19/98	6020	ug/Kg	500	5	4100	
10	Copper	ICPC1904	03/19/98	6010	ug/Kg	1000	1	13000	
11	Iron	ICPC1904	03/19/98	6010	ug/Kg	2000	1	9300000	
12	Lead	IMSC1901	03/19/98	6020	ug/Kg	1000	5	11000	
13	Magnesium	ICPC1904	03/19/98	6010	ug/Kg	5000	1	2E7	
14	Manganese	ICPC1904	03/19/98	6010	ug/Kg	2000	1	200000	
15	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
16	Nickel	ICPC1904	03/19/98	6010	ug/Kg	1000	1	12000	
17	Potassium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	690000	
18	Selenium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
19	Silver	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
20	Sodium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	510000	
21	Thallium	IMSC1901	03/19/98	6020	ug/Kg	500	5	U	
22	Vanadium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	13000	
23	Zinc	ICPC1904	03/19/98	6010	ug/Kg	1000	1	40000	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-004

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/19/98	**ENCOTEC QC Set ID:**	PCBC1807S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069162
Method Reference:	8080	**Percent Total Solids:**	83.1
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	AROCLOR MDEQ Part 201, PCBs only List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	PCB-1016	12674-11-2	330	1	U	
2	PCB-1221	11104-28-2	330	1	U	
3	PCB-1232	11141-16-5	330	1	U	
4	PCB-1242	53469-21-9	330	1	U	
5	PCB-1248	12672-29-6	330	1	U	
6	PCB-1254	11097-69-1	330	1	U	
7	PCB-1260	11096-82-5	330	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-005

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/19/98	**ENCOTEC QC Set ID:**	PCBC1807S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069163
Method Reference:	8080	**Percent Total Solids:**	86.4
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	AROCLOR MDEQ Part 201, PCBs only List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	PCB-1016	12674-11-2	330	1	U	
2	PCB-1221	11104-28-2	330	1	U	
3	PCB-1232	11141-16-5	330	1	U	
4	PCB-1242	53469-21-9	330	1	U	
5	PCB-1248	12672-29-6	330	1	U	
6	PCB-1254	11097-69-1	330	1	U	
7	PCB-1260	11096-82-5	330	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-006

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/19/98	**ENCOTEC QC Set ID:**	PCBC1807S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069164
Method Reference:	8080	**Percent Total Solids:**	85.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	AROCLOR MDEQ Part 201, PCBs only List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	PCB-1016	12674-11-2	330	1	U	
2	PCB-1221	11104-28-2	330	1	U	
3	PCB-1232	11141-16-5	330	1	U	
4	PCB-1242	53469-21-9	330	1	U	
5	PCB-1248	12672-29-6	330	1	U	
6	PCB-1254	11097-69-1	330	1	U	
7	PCB-1260	11096-82-5	330	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-007

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/19/98	**ENCOTEC QC Set ID:**	PCBC1807S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069165
Method Reference:	8080	**Percent Total Solids:**	87.2
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	AROCLOR MDEQ Part 201, PCBs only List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	PCB-1016	12674-11-2	330	1	U	
2	PCB-1221	11104-28-2	330	1	U	
3	PCB-1232	11141-16-5	330	1	U	
4	PCB-1242	53469-21-9	330	1	U	
5	PCB-1248	12672-29-6	330	1	U	
6	PCB-1254	11097-69-1	330	1	U	
7	PCB-1260	11096-82-5	330	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-008

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/19/98	**ENCOTEC QC Set ID:**	PCBC1807S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069166
Method Reference:	8080	**Percent Total Solids:**	89.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	AROCLOR MDEQ Part 201, PCBs only List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	PCB-1016	12674-11-2	330	1	U	
2	PCB-1221	11104-28-2	330	1	U	
3	PCB-1232	11141-16-5	330	1	U	
4	PCB-1242	53469-21-9	330	1	U	
5	PCB-1248	12672-29-6	330	1	U	
6	PCB-1254	11097-69-1	330	1	U	
7	PCB-1260	11096-82-5	330	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-009

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/19/98	**ENCOTEC QC Set ID:**	PCBC1807S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069167
Method Reference:	8080	**Percent Total Solids:**	84.2
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	AROCLOR MDEQ Part 201, PCBs only List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	PCB-1016	12674-11-2	330	1	U	
2	PCB-1221	11104-28-2	330	1	U	
3	PCB-1232	11141-16-5	330	1	U	
4	PCB-1242	53469-21-9	330	1	U	
5	PCB-1248	12672-29-6	330	1	U	
6	PCB-1254	11097-69-1	330	1	U	
7	PCB-1260	11096-82-5	330	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-011

Date Sampled:	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/19/98	**ENCOTEC QC Set ID:**	PCBC1807S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010175
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069160
Method Reference:	8080	**Percent Total Solids:**	87.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	AROCLOR MDEQ Part 201, PCBs only List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	PCB-1016	12674-11-2	330	1	U	
2	PCB-1221	11104-28-2	330	1	U	
3	PCB-1232	11141-16-5	330	1	U	
4	PCB-1242	53469-21-9	330	1	U	
5	PCB-1248	12672-29-6	330	1	U	
6	PCB-1254	11097-69-1	330	1	U	
7	PCB-1260	11096-82-5	330	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-012

Date Sampled:	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/19/98	**ENCOTEC QC Set ID:**	PCBC1807S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010175
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069161
Method Reference:	8080	**Percent Total Solids:**	83.1
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	AROCLOR MDEQ Part 201, PCBs only List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	PCB-1016	12674-11-2	330	1	U	
2	PCB-1221	11104-28-2	330	1	U	
3	PCB-1232	11141-16-5	330	1	U	
4	PCB-1242	53469-21-9	330	1	U	
5	PCB-1248	12672-29-6	330	1	U	
6	PCB-1254	11097-69-1	330	1	U	
7	PCB-1260	11096-82-5	330	1	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-004

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069162
Method Reference:	8260	**Percent Total Solids:**	83.1
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/23/98

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-004

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069162
Method Reference:	8260	**Percent Total Solids:**	83.1
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-005

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069163
Method Reference:	8260	**Percent Total Solids:**	86.4
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-005

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069163
Method Reference:	8260	**Percent Total Solids:**	86.4
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-006

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069164
Method Reference:	8260	**Percent Total Solids:**	85.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-006

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069164
Method Reference:	8260	**Percent Total Solids:**	85.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-007

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069165
Method Reference:	8260	**Percent Total Solids:**	87.2
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-007

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069165
Method Reference:	8260	**Percent Total Solids:**	87.2
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-008

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069166
Method Reference:	8260	**Percent Total Solids:**	89.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-008

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069166
Method Reference:	8260	**Percent Total Solids:**	89.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-009

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069167
Method Reference:	8260	**Percent Total Solids:**	84.2
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-009

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069167
Method Reference:	8260	**Percent Total Solids:**	84.2
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-010

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069168
Method Reference:	8260	**Percent Total Solids:**	88.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-010

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069168
Method Reference:	8260	**Percent Total Solids:**	88.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-011

Date Sampled:	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010175
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069160
Method Reference:	8260	**Percent Total Solids:**	87.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-011

Date Sampled:	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010175
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069160
Method Reference:	8260	**Percent Total Solids:**	87.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-012

Date Sampled:	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010175
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069161
Method Reference:	8260	**Percent Total Solids:**	83.1
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	U	
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-012

Date Sampled:	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010175
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069161
Method Reference:	8260	**Percent Total Solids:**	83.1
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-004

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069162
Method Reference:	8270	**Percent Total Solids:**	83.1
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	U	
5	Benzo(a)pyrene	50-32-8	330	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
10	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	U	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-004

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069162
Method Reference:	8270	**Percent Total Solids:**	83.1
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
38	Fluoranthene	206-44-0	330	1.0	U	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	U	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	U	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-005

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069163
Method Reference:	8270	**Percent Total Solids:**	86.4
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	460	1.0	U	
2	Acenaphthylene	208-96-8	460	1.0	U	
3	Anthracene	120-12-7	460	1.0	U	
4	Benzo(a)anthracene	56-55-3	460	1.0	U	
5	Benzo(a)pyrene	50-32-8	460	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	460	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	460	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	460	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	460	1.0	U	
10	Butyl benzyl phthalate	85-68-7	460	1.0	U	
11	Carbazole	86-74-8	460	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	460	1.0	U	
13	4-Chloroaniline	106-47-8	460	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	460	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	460	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	460	1.0	U	
17	2-Chloronaphthalene	91-58-7	460	1.0	U	
18	2-Chlorophenol	95-57-8	460	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	460	1.0	U	
20	Chrysene	218-01-9	460	1.0	U	
21	Di-n-butyl phthalate	84-74-2	460	1.0	U	
22	Di-n-octyl phthalate	117-84-0	460	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	460	1.0	U	
24	Dibenzofuran	132-64-9	460	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	460	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	460	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	460	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	460	1.0	U	
29	2,4-Dichlorophenol	120-83-2	460	1.0	U	
30	Diethyl phthalate	84-66-2	460	1.0	U	
31	Dimethyl phthalate	131-11-3	460	1.0	U	
32	2,4-Dimethylphenol	105-67-9	460	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	1200	1.0	U	
34	2,4-Dinitrophenol	51-28-5	1200	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-005

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069163
Method Reference:	8270	**Percent Total Solids:**	86.4
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
35	2,6-Dinitrotoluene	606-20-2	460	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	460	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	460	1.0	U	
38	Fluoranthene	206-44-0	460	1.0	U	
39	Fluorene	86-73-7	460	1.0	U	
40	Hexachlorobenzene	118-74-1	460	1.0	U	
41	Hexachlorobutadiene	87-68-3	460	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	460	1.0	U	
43	Hexachloroethane	67-72-1	460	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	460	1.0	U	
45	Isophorone	78-59-1	460	1.0	U	
46	2-Methylnaphthalene	91-57-6	460	1.0	U	
47	2-Methylphenol	95-48-7	460	1.0	U	
48	4-Methylphenol	106-44-5	460	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	460	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	460	1.0	U	
51	Naphthalene	91-20-3	460	1.0	U	
52	4-Nitroaniline	100-01-6	1200	1.0	U	
53	3-Nitroaniline	99-09-2	1200	1.0	U	
54	2-Nitroaniline	88-74-4	1200	1.0	U	
55	Nitrobenzene	98-95-3	460	1.0	U	
56	4-Nitrophenol	100-02-7	1200	1.0	U	
57	2-Nitrophenol	88-75-5	460	1.0	U	
58	Pentachlorophenol	87-86-5	1200	1.0	U	
59	Phenanthrene	85-01-8	460	1.0	U	
60	Phenol	108-95-2	460	1.0	U	
61	Pyrene	129-00-0	460	1.0	U	
62	1,2,4-Trichlorobenzene	120-82-1	460	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	460	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	1200	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-006

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069164
Method Reference:	8270	**Percent Total Solids:**	85.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	360	
5	Benzo(a)pyrene	50-32-8	330	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
10	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	400	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-006

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069164
Method Reference:	8270	**Percent Total Solids:**	85.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
38	Fluoranthene	206-44-0	330	1.0	710	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	720	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	840	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-007

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069165
Method Reference:	8270	**Percent Total Solids:**	87.2
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	4600	10	U	M
2	Acenaphthylene	208-96-8	4600	10	U	M
3	Anthracene	120-12-7	4600	10	U	M
4	Benzo(a)anthracene	56-55-3	4600	10	U	M
5	Benzo(a)pyrene	50-32-8	4600	10	U	M
6	Benzo(b)fluoranthene	205-99-2	4600	10	U	M
7	Benzo(g,h,i)perylene	191-24-2	4600	10	U	M
8	Benzo(k)fluoranthene	207-08-9	4600	10	U	M
9	4-Bromophenyl phenyl ether	101-55-3	4600	10	U	
10	Butyl benzyl phthalate	85-68-7	4600	10	U	
11	Carbazole	86-74-8	4600	10	U	M
12	4-Chloro-3-methylphenol	59-50-7	4600	10	U	M
13	4-Chloroaniline	106-47-8	4600	10	U	M
14	bis(2-Chloroethoxy)methane	111-91-1	4600	10	U	M
15	bis(2-Chloroethyl) ether	111-44-4	4600	10	U	M
16	bis(2-Chloroisopropyl) ether	108-60-1	4600	10	U	M
17	2-Chloronaphthalene	91-58-7	4600	10	U	M
18	2-Chlorophenol	95-57-8	4600	10	U	M
19	4-Chlorophenyl phenyl ether	7005-72-3	4600	10	U	M
20	Chrysene	218-01-9	4600	10	U	M
21	Di-n-butyl phthalate	84-74-2	4600	10	U	M
22	Di-n-octyl phthalate	117-84-0	4600	10	U	M
23	Dibenz(a,h)anthracene	53-70-3	4600	10	U	M
24	Dibenzofuran	132-64-9	4600	10	U	M
25	1,4-Dichlorobenzene	106-46-7	4600	10	U	M
26	1,3-Dichlorobenzene	541-73-1	4600	10	U	M
27	1,2-Dichlorobenzene	95-50-1	4600	10	U	M
28	3,3'-Dichlorobenzidine	91-94-1	4600	10	U	M
29	2,4-Dichlorophenol	120-83-2	4600	10	U	M
30	Diethyl phthalate	84-66-2	4600	10	U	M
31	Dimethyl phthalate	131-11-3	4600	10	U	M
32	2,4-Dimethylphenol	105-67-9	4600	10	U	M
33	4,6-Dinitro-2-methylphenol	534-52-1	11000	10	U	M
34	2,4-Dinitrophenol	51-28-5	11000	10	U	M

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-007

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069165
Method Reference:	8270	**Percent Total Solids:**	87.2
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	2,6-Dinitrotoluene	606-20-2	4600	10	U	M
36	2,4-Dinitrotoluene	121-14-2	4600	10	U	M
37	bis(2-Ethylhexyl) phthalate	117-81-7	4600	10	U	M
38	Fluoranthene	206-44-0	4600	10	U	M
39	Fluorene	86-73-7	4600	10	U	M
40	Hexachlorobenzene	118-74-1	4600	10	U	M
41	Hexachlorobutadiene	87-68-3	4600	10	U	M
42	Hexachlorocyclopentadiene	77-47-4	4600	10	U	M
43	Hexachloroethane	67-72-1	4600	10	U	M
4	Indeno(1,2,3-c,d)pyrene	193-39-5	4600	10	U	M
45	Isophorone	78-59-1	4600	10	U	M
46	2-Methylnaphthalene	91-57-6	4600	10	U	M
47	2-Methylphenol	95-48-7	4600	10	U	M
48	4-Methylphenol	106-44-5	4600	10	U	M
49	N-Nitroso-di-n-propylamine	621-64-7	4600	10	U	M
50	N-Nitrosodiphenylamine	86-30-6	4600	10	U	M
51	Naphthalene	91-20-3	4600	10	U	M
52	4-Nitroaniline	100-01-6	11000	10	U	M
53	3-Nitroaniline	99-09-2	11000	10	U	M
54	2-Nitroaniline	88-74-4	11000	10	U	M
55	Nitrobenzene	98-95-3	4600	10	U	M
56	4-Nitrophenol	100-02-7	11000	10	U	M
57	2-Nitrophenol	88-75-5	4600	10	U	M
58	Pentachlorophenol	87-86-5	11000	10	U	M
59	Phenanthrene	85-01-8	4600	10	U	M
60	Phenol	108-95-2	4600	10	U	M
61	Pyrene	129-00-0	4600	10	U	M
62	1,2,4-Trichlorobenzene	120-82-1	4600	10	U	M
63	2,4,6-Trichlorophenol	88-06-2	4600	10	U	M
64	2,4,5-Trichlorophenol	95-95-4	11000	10	U	M

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-008

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069166
Method Reference:	8270	**Percent Total Solids:**	89.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	450	1.0	U	
2	Acenaphthylene	208-96-8	450	1.0	U	
3	Anthracene	120-12-7	450	1.0	U	
4	Benzo(a)anthracene	56-55-3	450	1.0	U	
5	Benzo(a)pyrene	50-32-8	450	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	450	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	450	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	450	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	450	1.0	U	
10	Butyl benzyl phthalate	85-68-7	450	1.0	U	
11	Carbazole	86-74-8	450	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	450	1.0	U	
13	4-Chloroaniline	106-47-8	450	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	450	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	450	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	450	1.0	U	
17	2-Chloronaphthalene	91-58-7	450	1.0	U	
18	2-Chlorophenol	95-57-8	450	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	450	1.0	U	
20	Chrysene	218-01-9	450	1.0	630	
21	Di-n-butyl phthalate	84-74-2	450	1.0	U	
22	Di-n-octyl phthalate	117-84-0	450	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	450	1.0	U	
24	Dibenzofuran	132-64-9	450	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	450	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	450	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	450	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	450	1.0	U	
29	2,4-Dichlorophenol	120-83-2	450	1.0	U	
30	Diethyl phthalate	84-66-2	450	1.0	U	
31	Dimethyl phthalate	131-11-3	450	1.0	U	
32	2,4-Dimethylphenol	105-67-9	450	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	1100	1.0	U	
34	2,4-Dinitrophenol	51-28-5	1100	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-008

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069166
Method Reference:	8270	**Percent Total Solids:**	89.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	2,6-Dinitrotoluene	606-20-2	450	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	450	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	450	1.0	760	
38	Fluoranthene	206-44-0	450	1.0	U	
39	Fluorene	86-73-7	450	1.0	U	
40	Hexachlorobenzene	118-74-1	450	1.0	U	
41	Hexachlorobutadiene	87-68-3	450	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	450	1.0	U	
43	Hexachloroethane	67-72-1	450	1.0	U	
4	Indeno(1,2,3-c,d)pyrene	193-39-5	450	1.0	U	
5	Isophorone	78-59-1	450	1.0	U	
46	2-Methylnaphthalene	91-57-6	450	1.0	U	
47	2-Methylphenol	95-48-7	450	1.0	U	
48	4-Methylphenol	106-44-5	450	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	450	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	450	1.0	U	
51	Naphthalene	91-20-3	450	1.0	U	
52	4-Nitroaniline	100-01-6	1100	1.0	U	
53	3-Nitroaniline	99-09-2	1100	1.0	U	
54	2-Nitroaniline	88-74-4	1100	1.0	U	
55	Nitrobenzene	98-95-3	450	1.0	U	
56	4-Nitrophenol	100-02-7	1100	1.0	U	
57	2-Nitrophenol	88-75-5	450	1.0	U	
58	Pentachlorophenol	87-86-5	1100	1.0	U	
59	Phenanthrene	85-01-8	450	1.0	U	
60	Phenol	108-95-2	450	1.0	U	
61	Pyrene	129-00-0	450	1.0	930	
62	1,2,4-Trichlorobenzene	120-82-1	450	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	450	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	1100	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-009

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069167
Method Reference:	8270	**Percent Total Solids:**	84.2
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	U	
5	Benzo(a)pyrene	50-32-8	330	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
10	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	U	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-009

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069167
Method Reference:	8270	**Percent Total Solids:**	84.2
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
38	Fluoranthene	206-44-0	330	1.0	U	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	U	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	U	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-010

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069168
Method Reference:	8270	**Percent Total Solids:**	88.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	400	
5	Benzo(a)pyrene	50-32-8	330	1.0	360	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	450	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
10	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	480	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031798-SF-010

Date Sampled:	03/17/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/20/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/21/98	**ENCOTEC Submission ID:**	100010176
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069168
Method Reference:	8270	**Percent Total Solids:**	88.5
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
38	Fluoranthene	206-44-0	330	1.0	700	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	360	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	780	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-011

Date Sampled:	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/19/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010175
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069160
Method Reference:	8270	**Percent Total Solids:**	87.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	460	1.0	U	
2	Acenaphthylene	208-96-8	460	1.0	U	
3	Anthracene	120-12-7	460	1.0	1100	
4	Benzo(a)anthracene	56-55-3	460	1.0	2700	
5	Benzo(a)pyrene	50-32-8	460	1.0	2100	
6	Benzo(b)fluoranthene	205-99-2	460	1.0	2700	
7	Benzo(g,h,i)perylene	191-24-2	460	1.0	1400	
8	Benzo(k)fluoranthene	207-08-9	460	1.0	850	
9	4-Bromophenyl phenyl ether	101-55-3	460	1.0	U	
10	Butyl benzyl phthalate	85-68-7	460	1.0	U	
11	Carbazole	86-74-8	460	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	460	1.0	U	
13	4-Chloroaniline	106-47-8	460	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	460	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	460	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	460	1.0	U	
17	2-Chloronaphthalene	91-58-7	460	1.0	U	
18	2-Chlorophenol	95-57-8	460	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	460	1.0	U	
20	Chrysene	218-01-9	460	1.0	2600	
21	Di-n-butyl phthalate	84-74-2	460	1.0	U	
22	Di-n-octyl phthalate	117-84-0	460	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	460	1.0	U	
24	Dibenzofuran	132-64-9	460	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	460	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	460	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	460	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	460	1.0	U	
29	2,4-Dichlorophenol	120-83-2	460	1.0	U	
30	Diethyl phthalate	84-66-2	460	1.0	U	
31	Dimethyl phthalate	131-11-3	460	1.0	U	
32	2,4-Dimethylphenol	105-67-9	460	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	1200	1.0	U	
34	2,4-Dinitrophenol	51-28-5	1200	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-011

Date Sampled:	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/19/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010175
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069160
Method Reference:	8270	**Percent Total Solids:**	87.0
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Fla
35	2,6-Dinitrotoluene	606-20-2	460	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	460	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	460	1.0	U	
38	Fluoranthene	206-44-0	460	1.0	5100	
39	Fluorene	86-73-7	460	1.0	U	
40	Hexachlorobenzene	118-74-1	460	1.0	U	
41	Hexachlorobutadiene	87-68-3	460	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	460	1.0	U	
43	Hexachloroethane	67-72-1	460	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	460	1.0	1200	
45	Isophorone	78-59-1	460	1.0	U	
46	2-Methylnaphthalene	91-57-6	460	1.0	U	
47	2-Methylphenol	95-48-7	460	1.0	U	
48	4-Methylphenol	106-44-5	460	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	460	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	460	1.0	U	
51	Naphthalene	91-20-3	460	1.0	U	
52	4-Nitroaniline	100-01-6	1200	1.0	U	
53	3-Nitroaniline	99-09-2	1200	1.0	U	
54	2-Nitroaniline	88-74-4	1200	1.0	U	
55	Nitrobenzene	98-95-3	460	1.0	U	
56	4-Nitrophenol	100-02-7	1200	1.0	U	
57	2-Nitrophenol	88-75-5	460	1.0	U	
58	Pentachlorophenol	87-86-5	1200	1.0	U	
59	Phenanthrene	85-01-8	460	1.0	3600	
60	Phenol	108-95-2	460	1.0	U	
61	Pyrene	129-00-0	460	1.0	5000	
62	1,2,4-Trichlorobenzene	120-82-1	460	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	460	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	1200	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-012

Date Sampled:	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/19/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010175
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069161
Method Reference:	8270	**Percent Total Solids:**	83.1
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	U	
5	Benzo(a)pyrene	50-32-8	330	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
10	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	U	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	

ANALYTICAL REPORT

CLIENT: CONESTOGA-ROVERS & ASSOCIATES
Project/Site: 8889-70
Sample ID: S-8889-031898-SF-012

Date Sampled:	03/18/98	**ENCOTEC Project ID:**	33000
Date Received:	03/18/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Date Extracted:	03/19/98	**ENCOTEC QC Set ID:**	BNAC1806S
Analysis Date:	03/20/98	**ENCOTEC Submission ID:**	100010175
Second Analysis Date:	N/A	**ENCOTEC Sample ID:**	200069161
Method Reference:	8270	**Percent Total Solids:**	83.1
Matrix:	SOIL	**Calculation Basis:**	Dry Weight

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
38	Fluoranthene	206-44-0	330	1.0	U	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	U	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	U	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date	N/A	**ENCOTEC Project ID:**	33
Analysis Date:	See Below	**ENCOTEC SDG ID:**	CRA-CS-98C3
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	See Below
Method Reference:	See Below	**ENCOTEC Submission ID:**	100010176

	Analyte	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fla
1	Cyanide, Total	TCNC2402	03/24/98	9010	ug/Kg	200	1	U	
2	Cyanide, Total	TCNC2201	03/23/98	9010	ug/Kg	200	1	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive
Ann Arbor, Michigan 48108
(313) 761-1389 / FAX: (313) 761-1034

Laboratory Control Sample (LCS)

Inorganics - General Chemistry

Project Name: ENCOTEC
Project Number: 10000

Analysis	QC Set ID	Percent Recovery (%)	*Quality Control Windows Recovery (%)*
Cyanide, Total	TCNC2201	80	***80 - 120***
Cyanide, Total	TCNC2402	93	***80 - 120***

Recovery: 0 out of 2 outside QC Windows.

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive
Ann Arbor, Michigan 48108
(313) 761-1389 / FAX: (313) 761-1034

Matrix Spike (MS)

Inorganics - General Chemistry

Project Name: Encotec
Project Number: 10000

Analysis	ENCOTEC Sample ID	QC Set ID	Percent Recovery (%)	*Quality Control Windows Recovery (%)*
Cyanide, Total	200069160	TCNC2201	69 *	*75 - 125*
Cyanide, Total	200068720	TCNC2402	98	*75 - 125*

Recovery: 1 out of 2 outside QC Windows.

Ms
Revised: 11/05/96

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive
Ann Arbor, Michigan 48108
(313) 761-1389 / FAX: (313) 761-1034

Matrix Duplicate (MD)

Inorganics - General Chemistry

Project Name: ENCOTEC
Project Number: 10000

Analysis	ENCOTEC Sample ID	QC Set ID	RPD (%)	*Quality Control Windows RPD (%)*
Cyanide, Total	200069160	TCNC2201	22	***35***
Cyanide, Total	200068720	TCNC2402	5.6	***35***

RPD: 0 out of 2 outside QC Windows.

Md
Revised: 11/05/96

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date	N/A	**ENCOTEC Project ID:**	3[illegible]0
Analysis Date:	See Below	**ENCOTEC SDG ID:**	CRA-CS-98C3
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	See Below
Method Reference:	See Below	**ENCOTEC Submission ID:**	100010175

	Analyte	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Fla
1	Aluminum	ICPC1904	03/19/98	6010	ug/Kg	10000	1	U	
2	Antimony	IMSC1901	03/19/98	6020	ug/Kg	500	1	U	
3	Arsenic	IMSC1901	03/19/98	6020	ug/Kg	100	1	U	
4	Barium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	U	
5	Beryllium	IMSC1901	03/19/98	6020	ug/Kg	200	1	U	
6	Cadmium	IMSC1901	03/19/98	6020	ug/Kg	50	1	U	
7	Calcium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	U	
8	Chromium	ICPC1904	03/19/98	6010	ug/Kg	2500	1	U	
9	Cobalt	IMSC1901	03/19/98	6020	ug/Kg	500	1	U	
10	Copper	ICPC1904	03/19/98	6010	ug/Kg	1000	1	U	
11	Iron	ICPC1904	03/19/98	6010	ug/Kg	2000	1	U	
12	Lead	IMSC1901	03/19/98	6020	ug/Kg	1000	1	U	
13	Magnesium	ICPC1904	03/19/98	6010	ug/Kg	5500	1	U	
14	Manganese	ICPC1904	03/19/98	6010	ug/Kg	2000	1	U	
15	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
16	Nickel	ICPC1904	03/19/98	6010	ug/Kg	1000	1	U	
17	Potassium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	U	
18	Selenium	IMSC1901	03/19/98	6020	ug/Kg	500	1	U	
19	Silver	IMSC1901	03/19/98	6020	ug/Kg	500	1	U	
20	Sodium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	U	
21	Thallium	IMSC1901	03/19/98	6020	ug/Kg	500	1	U	
22	Vanadium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	U	
23	Zinc	ICPC1904	03/19/98	6010	ug/Kg	1000	1	U	

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date	N/A	**ENCOTEC Project ID:**	33000
Analysis Date:	See Below	**ENCOTEC SDG ID:**	CRA-CS-98C3
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	See Below
Method Reference:	See Below	**ENCOTEC Submission ID:**	100010176

	Analyte	QC Set ID	Date Analyzed	Method Ref.	Units	Quant Limit	Dil	Conc	Flag
1	Aluminum	ICPC1904	03/19/98	6010	ug/Kg	10000	1	U	
2	Antimony	IMSC1901	03/19/98	6020	ug/Kg	500	1	U	
3	Arsenic	IMSC1901	03/19/98	6020	ug/Kg	100	1	U	
4	Barium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	U	
5	Beryllium	IMSC1901	03/19/98	6020	ug/Kg	200	1	U	
6	Cadmium	IMSC1901	03/19/98	6020	ug/Kg	50	1	U	
7	Calcium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	U	
8	Chromium	ICPC1904	03/19/98	6010	ug/Kg	2500	1	U	
9	Cobalt	IMSC1901	03/19/98	6020	ug/Kg	500	1	U	
10	Copper	ICPC1904	03/19/98	6010	ug/Kg	1000	1	U	
11	Iron	ICPC1904	03/19/98	6010	ug/Kg	2000	1	U	
12	Lead	IMSC1901	03/19/98	6020	ug/Kg	1000	1	U	
13	Lead	ICPC1904	03/19/98	6010	ug/Kg	2000	1	U	
14	Magnesium	ICPC1904	03/19/98	6010	ug/Kg	5500	1	U	
15	Manganese	ICPC1904	03/19/98	6010	ug/Kg	2000	1	U	
16	Mercury	CVAC1902	03/23/98	7471	ug/Kg	100	1	U	
17	Nickel	ICPC1904	03/19/98	6010	ug/Kg	1000	1	U	
18	Potassium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	U	
19	Selenium	IMSC1901	03/19/98	6020	ug/Kg	500	1	U	
20	Silver	IMSC1901	03/19/98	6020	ug/Kg	500	1	U	
21	Sodium	ICPC1904	03/19/98	6010	ug/Kg	10000	1	U	
22	Thallium	IMSC1901	03/19/98	6020	ug/Kg	500	1	U	
23	Vanadium	ICPC1904	03/19/98	6010	ug/Kg	1000	1	U	
24	Zinc	ICPC1904	03/19/98	6010	ug/Kg	1000	1	U	

QUALITY ASSESSMENT REPORT - LCS Analysis

ENCOTEC Project ID: 33000
ENCOTEC SDG ID: CRA-CS-98C3
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100010175

	Analyte	QC Set ID	Conc Spiked	Conc LCS	Units	Percent Recovery (%)	Flag	Quality Control Windows (%)
1	Aluminum	ICPC1904	2500	2430	mg/Kg	97		80-120
2	Antimony	IMSC1901	2.50	2.77	mg/Kg	111		80-120
3	Arsenic	IMSC1901	2.50	2.30	mg/Kg	92		80-120
4	Barium	ICPC1904	50.0	49.2	mg/Kg	98		80-120
5	Beryllium	IMSC1901	2.50	2.36	mg/Kg	94		80-120
6	Cadmium	IMSC1901	2.50	2.34	mg/Kg	94		80-120
7	Calcium	ICPC1904	2500	2280	mg/Kg	91		80-120
8	Chromium	ICPC1904	50.0	47.4	mg/Kg	95		80-120
9	Cobalt	IMSC1901	2.50	2.73	mg/Kg	109		80-120
10	Copper	ICPC1904	50.0	47.4	mg/Kg	95		80-120
11	Iron	ICPC1904	250	232	mg/Kg	93		80-120
12	Lead	IMSC1901	2.50	2.89	mg/Kg	116		80-120
13	Magnesium	ICPC1904	2500	2480	mg/Kg	99		80-120
14	Manganese	ICPC1904	10.0	9.30	mg/Kg	93		80-120
15	Mercury	CVAC1902	0.108	0.113	mg/Kg	105		80-120
16	Nickel	ICPC1904	50.0	46.5	mg/Kg	93		80-120
17	Potassium	ICPC1904	2500	2370	mg/Kg	95		80-120
18	Selenium	IMSC1901	2.50	2.15	mg/Kg	86		80-120
19	Silver	IMSC1901	2.50	2.51	mg/Kg	100		80-120
20	Sodium	ICPC1904	2500	2400	mg/Kg	96		80-120
21	Thallium	IMSC1901	2.50	2.87	mg/Kg	115		80-120
22	Vanadium	ICPC1904	50.0	48.5	mg/Kg	97		80-120
23	Zinc	ICPC1904	50.0	46.6	mg/Kg	93		80-120

D=Detected, result must be greater than zero.
Recovery: 0 out of 23 outside QC Windows

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/26/98

QUALITY ASSESSMENT REPORT - LCS Analysis

ENCOTEC Project ID: 33000
ENCOTEC SDG ID: CRA-CS-98C3
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100010176

	Analyte	QC Set ID	Conc Spiked	Conc LCS	Units	Percent Recovery (%)	Flag	Quality Control Windows (%)
1	Aluminum	ICPC1904	2500	2430	mg/Kg	97		80-120
2	Antimony	IMSC1901	2.50	2.77	mg/Kg	111		80-120
3	Arsenic	IMSC1901	2.50	2.30	mg/Kg	92		80-120
4	Barium	ICPC1904	50.0	49.2	mg/Kg	98		80-120
5	Beryllium	IMSC1901	2.50	2.36	mg/Kg	94		80-120
6	Cadmium	IMSC1901	2.50	2.34	mg/Kg	94		80-120
7	Calcium	ICPC1904	2500	2280	mg/Kg	91		80-120
8	Chromium	ICPC1904	50.0	47.4	mg/Kg	95		80-120
9	Cobalt	IMSC1901	2.50	2.73	mg/Kg	109		80-120
10	Copper	ICPC1904	50.0	47.4	mg/Kg	95		80-120
11	Iron	ICPC1904	250	232	mg/Kg	93		80-120
12	Lead	IMSC1901	2.50	2.89	mg/Kg	116		80-120
13	Lead	ICPC1904	50.0	47.0	mg/Kg	94		80-120
14	Magnesium	ICPC1904	2500	2480	mg/Kg	99		80-120
15	Manganese	ICPC1904	10.0	9.30	mg/Kg	93		80-120
16	Mercury	CVAC1902	0.108	0.113	mg/Kg	105		80-120
17	Nickel	ICPC1904	50.0	46.5	mg/Kg	93		80-120
18	Potassium	ICPC1904	2500	2370	mg/Kg	95		80-120
19	Selenium	IMSC1901	2.50	2.15	mg/Kg	86		80-120
20	Silver	IMSC1901	2.50	2.51	mg/Kg	100		80-120
21	Sodium	ICPC1904	2500	2400	mg/Kg	96		80-120
22	Thallium	IMSC1901	2.50	2.87	mg/Kg	115		80-120
23	Vanadium	ICPC1904	50.0	48.5	mg/Kg	97		80-120
24	Zinc	ICPC1904	50.0	46.6	mg/Kg	93		80-120

D=Detected, result must be greater than zero.
Recovery: 0 out of 24 outside QC Windows

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/26/98

QUALITY ASSESSMENT REPORT - MS Analysis

ENCOTEC SDG ID: CRA-CS-98C3
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100010175
ENCOTEC Sample ID: See Below
Matrix: N/A

	Analyte	ENCOTEC Sample ID	QC Set ID	Conc. Spiked	Sample Result	Conc. MS	Units	Percent Recovery (%)	Flag	QC Windows (%)
1	Aluminum	200069112	ICPC1904	2000	850	3060	mg/Kg	110		80-120
2	Antimony	200069163	IMSC1901	2.33	U	1.46	mg/Kg	63 *		75-125
3	Arsenic	200069163	IMSC1901	2.33	1.6	3.63	mg/Kg	87		75-125
4	Barium	200069112	ICPC1904	40.0	910	950	mg/Kg	100		80-120
5	Beryllium	200069163	IMSC1901	2.33	U	2.52	mg/Kg	108		75-125
6	Cadmium	200069163	IMSC1901	2.33	0.39	2.67	mg/Kg	98		75-125
7	Calcium	200069112	ICPC1904	2000	710	2510	mg/Kg	90		80-120
8	Chromium	200069112	ICPC1904	40.0	13	49.9	mg/Kg	92		80-120
9	Cobalt	200069163	IMSC1901	2.33	2.1	4.51	mg/Kg	103		75-125
10	Copper	200069112	ICPC1904	40.0	U	38.3	mg/Kg	96		80-120
11	Iron	200069112	ICPC1904	200	200	393	mg/Kg	96		80-120
12	Lead	200069163	IMSC1901	2.33	32	U	mg/Kg	0	A	75-125
13	Magnesium	200069112	ICPC1904	2000	120	1990	mg/Kg	94		80-120
14	Manganese	200069112	ICPC1904	8.00	6.0	13.3	mg/Kg	91		80-120
15	Nickel	200069112	ICPC1904	40.0	U	36.8	mg/Kg	92		80-120
16	Potassium	200069112	ICPC1904	2000	1800	3560	mg/Kg	88		80-120
17	Selenium	200069163	IMSC1901	2.33	U	1.46	mg/Kg	63 *		75-125
18	Silver	200069163	IMSC1901	2.33	U	2.09	mg/Kg	90		75
19	Sodium	200069112	ICPC1904	2000	6900	8390	mg/Kg	74 *		80-
20	Thallium	200069163	IMSC1901	2.33	U	2.98	mg/Kg	128 *		75-125
21	Vanadium	200069112	ICPC1904	40.0	2.3	41.2	mg/Kg	97		80-120
22	Zinc	200069112	ICPC1904	40.0	110	155	mg/Kg	112		80-120

D=Detected, result must be greater than zero.
Recovery: 4 out of 21 outside QC Windows

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/26/98

QUALITY ASSESSMENT REPORT - MS Analysis

ENCOTEC SDG ID: CRA-CS-98C3
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100010176
ENCOTEC Sample ID: See Below
Matrix: N/A

	Analyte	ENCOTEC Sample ID	QC Set ID	Conc. Spiked	Sample Result	Conc. MS	Units	Percent Recovery (%)	Flag	QC Windows (%)
1	Aluminum	200069112	ICPC1904	2000	850	3060	mg/Kg	110		80-120
2	Antimony	200069163	IMSC1901	2.33	U	1.46	mg/Kg	63 *		75-125
3	Arsenic	200069163	IMSC1901	2.33	1.6	3.63	mg/Kg	87		75-125
4	Barium	200069112	ICPC1904	40.0	910	950	mg/Kg	100		80-120
5	Beryllium	200069163	IMSC1901	2.33	U	2.52	mg/Kg	108		75-125
6	Cadmium	200069163	IMSC1901	2.33	0.39	2.67	mg/Kg	98		75-125
7	Calcium	200069112	ICPC1904	2000	710	2510	mg/Kg	90		80-120
8	Chromium	200069112	ICPC1904	40.0	13	49.9	mg/Kg	92		80-120
9	Cobalt	200069163	IMSC1901	2.33	2.1	4.51	mg/Kg	103		75-125
10	Copper	200069112	ICPC1904	40.0	U	38.3	mg/Kg	96		80-120
11	Iron	200069112	ICPC1904	200	200	393	mg/Kg	96		80-120
12	Lead	200069163	IMSC1901	2.33	32	U	mg/Kg	0	A	75-125
13	Lead	200069112	ICPC1904	40.0	17	36.9	mg/Kg	50 *		80-120
14	Magnesium	200069112	ICPC1904	2000	120	1990	mg/Kg	94		80-120
15	Manganese	200069112	ICPC1904	8.00	6.0	13.3	mg/Kg	91		80-120
16	Nickel	200069112	ICPC1904	40.0	U	36.8	mg/Kg	92		80-120
17	Potassium	200069112	ICPC1904	2000	1800	3560	mg/Kg	88		80-120
18	Selenium	200069163	IMSC1901	2.33	U	1.46	mg/Kg	63 *		75-125
19	Silver	200069163	IMSC1901	2.33	U	2.09	mg/Kg	90		75-125
20	Sodium	200069112	ICPC1904	2000	6900	8390	mg/Kg	74 *		80-120
21	Thallium	200069163	IMSC1901	2.33	U	2.98	mg/Kg	128 *		75-125
22	Vanadium	200069112	ICPC1904	40.0	2.3	41.2	mg/Kg	97		80-120
23	Zinc	200069112	ICPC1904	40.0	110	155	mg/Kg	112		80-120

D=Detected, result must be greater than zero.
Recovery: 5 out of 22 outside QC Windows

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/26/98

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive
Ann Arbor, Michigan 48108
(313) 761-1389 / FAX: (313) 761-1034

Matrix Spike (MS)

Inorganics - Metals

Project Name: Encotec
Project Number: 10000
QC Set ID: CVAC1902

Analyte	ENCOTEC Sample ID	Percent Recovery (%)	*Quality Control Windows Recovery (%)*
Mercury	200069010	89	*75 - 125*

Recovery: 0 out of 1 outside QC Windows.

QUALITY ASSESSMENT REPORT - MD Analysis

ENCOTEC SDG ID: CRA-CS-98C3
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100010175
ENCOTEC Sample ID: See Below
Matrix: N/A

	Analyte	ENCOTEC Sample ID	QC Set ID	Sample Result	Conc. MD	Units	RPD (%)	Flag	Quality Control Windows (%)
1	Aluminum	200069112	ICPC1904	850	850	mg/Kg	0		20
2	Antimony	200069167	IMSC1901	U	U	mg/Kg	NC		35
3	Arsenic	200069167	IMSC1901	0.97	U	mg/Kg	NC		35
4	Barium	200069112	ICPC1904	910	900	mg/Kg	1		20
5	Beryllium	200069167	IMSC1901	U	U	mg/Kg	NC		35
6	Cadmium	200069167	IMSC1901	0.081	U	mg/Kg	NC		35
7	Calcium	200069112	ICPC1904	710	700	mg/Kg	1		20
8	Chromium	200069112	ICPC1904	13	16	mg/Kg	21 *		20
9	Cobalt	200069167	IMSC1901	2.2	U	mg/Kg	NC		35
10	Copper	200069112	ICPC1904	U	U	mg/Kg	NC		20
11	Iron	200069112	ICPC1904	200	210	mg/Kg	5		20
12	Lead	200069167	IMSC1901	4.6	U	mg/Kg	NC		35
13	Magnesium	200069112	ICPC1904	120	110	mg/Kg	9		20
14	Manganese	200069112	ICPC1904	6.0	5.9	mg/Kg	2		20
15	Nickel	200069112	ICPC1904	U	U	mg/Kg	NC		20
16	Potassium	200069112	ICPC1904	1800	1500	mg/Kg	18		20
17	Selenium	200069167	IMSC1901	U	U	mg/Kg	NC		35
18	Silver	200069167	IMSC1901	U	U	mg/Kg	NC		35
19	Sodium	200069112	ICPC1904	6900	6300	mg/Kg	9		20
20	Thallium	200069167	IMSC1901	U	U	mg/Kg	NC		35
21	Vanadium	200069112	ICPC1904	2.3	2.2	mg/Kg	4		20
22	Zinc	200069112	ICPC1904	110	110	mg/Kg	0		20

D=Detected, result must be greater than zero.
RPD: 1 out of 11 outside QC Windows

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/26/98

QUALITY ASSESSMENT REPORT - MD Analysis

ENCOTEC SDG ID: CRA-CS-98C3
ENCOTEC QC Set ID: See Below
ENCOTEC Submission ID: 100010176
ENCOTEC Sample ID: See Below
Matrix: N/A

	Analyte	ENCOTEC Sample ID	QC Set ID	Sample Result	Conc. MD	Units	RPD (%)	Flag	Quality Control Windows (%)
1	Aluminum	200069112	ICPC1904	850	850	mg/Kg	0		20
2	Antimony	200069167	IMSC1901	U	U	mg/Kg	NC		35
3	Arsenic	200069167	IMSC1901	0.97	U	mg/Kg	NC		35
4	Barium	200069112	ICPC1904	910	900	mg/Kg	1		20
5	Beryllium	200069167	IMSC1901	U	U	mg/Kg	NC		35
6	Cadmium	200069167	IMSC1901	0.081	U	mg/Kg	NC		35
7	Calcium	200069112	ICPC1904	710	700	mg/Kg	1		20
8	Chromium	200069112	ICPC1904	13	16	mg/Kg	21 *		20
9	Cobalt	200069167	IMSC1901	2.2	U	mg/Kg	NC		35
10	Copper	200069112	ICPC1904	U	U	mg/Kg	NC		20
11	Iron	200069112	ICPC1904	200	210	mg/Kg	5		20
12	Lead	200069167	IMSC1901	4.6	U	mg/Kg	NC		35
13	Lead	200069112	ICPC1904	17	15	mg/Kg	12		20
14	Magnesium	200069112	ICPC1904	120	110	mg/Kg	9		20
15	Manganese	200069112	ICPC1904	6.0	5.9	mg/Kg	2		20
16	Nickel	200069112	ICPC1904	U	U	mg/Kg	NC		20
17	Potassium	200069112	ICPC1904	1800	1500	mg/Kg	18		20
18	Selenium	200069167	IMSC1901	U	U	mg/Kg	NC		35
19	Silver	200069167	IMSC1901	U	U	mg/Kg	NC		35
20	Sodium	200069112	ICPC1904	6900	6300	mg/Kg	9		20
21	Thallium	200069167	IMSC1901	U	U	mg/Kg	NC		35
22	Vanadium	200069112	ICPC1904	2.3	2.2	mg/Kg	4		20
23	Zinc	200069112	ICPC1904	110	110	mg/Kg	0		20

D=Detected, result must be greater than zero.
RPD: 1 out of 12 outside QC Windows

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/26/98

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive
Ann Arbor, Michigan 48108
(313) 761-1389 / FAX: (313) 761-1034

Matrix Duplicate (MD)

Inorganics - Metals

Project Name:	ENCOTEC
Project Number:	10000
QC Set ID:	CVAC1902

Analyte	ENCOTEC Sample ID	RPD (%)	*Quality Control Windows RPD (%)*
Mercury	200069010	NC	*35*

RPD: 0 out of 0 outside QC Windows.

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date:	03/19/98	**ENCOTEC Project ID:**	33\
Analysis Date:	03/21/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	PCBC1807S
Method Reference:	8080	**ENCOTEC Submission ID:**	100010175
Matrix:	SOIL	**ENCOTEC Method Blank ID:**	200066757

	AROCLOR MDEQ Part 201, PCBs only List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	PCB-1016	12674-11-2	330	1	U	
2	PCB-1221	11104-28-2	330	1	U	
3	PCB-1232	11141-16-5	330	1	U	
4	PCB-1242	53469-21-9	330	1	U	
5	PCB-1248	12672-29-6	330	1	U	
6	PCB-1254	11097-69-1	330	1	U	
7	PCB-1260	11096-82-5	330	1	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/23/98

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
734 / 761-1389

SOILS\SOLIDS MATRIX SURROGATE RECOVERY
POLYCHLORINATED BIPHENYLS

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Method: 8080
Report Date: March 24, 1998
QC Set I.D.: PCBC1807S

ENCOTEC Sample Number	Percent Recovery 2,4,5,6-TCMX (40 - 130)	Percent Recovery Decachlorobiphenyl (32 - 136)
200069160	89	82
200069161	59	87
200069162	51	65
200069163	65	84
200069164	80	84
200069165	49	101
200069166	53	100
200069167	45	58
200066757 MB	67	89
200067003 LCS	97	92
200068974 MS	71	46
200068974 MSD	71	70

* Value outside of established quality control windows.
DL = Sample matrix diluted, therefore surrogate recoveries are not applicable.
M = Matrix interferences caused distortion to recovery value.

RECOVERY: 0 out of 24 outside QC Windows.

Note:

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
(734) 761-1389

LABORATORY CONTROL SAMPLE (LCS)
POLYCHLORINATED BIPHENYLS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set I.D.: PCBC1807S

ENCOTEC I.D.: 200067003

AROCLOR	AMOUNT SPIKED (ug/Kg)	AMOUNT RECOVERED (ug/Kg)	PERCENT RECOVERED (percent)	QC LIMITS RANGE (percent)
PCB 1221	330	412	125	48 - 163
PCB 1248	330	295	89	39 - 155
PCB 1260	330	288	87	37 - 166

RECOVERY: __0__ out of __3__ outside QC Windows

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
734 / 761-1389

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)
POLYCHLORINATED BIPHENYLS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set I.D.: PCBC1807S

SAMPLE SPIKED - ENCOTEC ID: 200068974

Aroclor	Concentration Spiked (ug/Kg)	Sample Result (ug/Kg)	MS Conc (ug/Kg)	% Rec	MSD Conc (ug/Kg)	% Rec	RPD	QUALITY CONTROL WINDOWS RPD	%Recovery
PCB 1221	330	U	300	91	323	98	7.4	20	48-163
PCB 1248	330	U	394	119	319	97	21*	19	39-155
PCB 1260	330	U	291	88	305	92	4.7	23	37-166

84

RPD: 0 out of 3 outside QC Windows.
RECOVERY: 0 out of 6 outside QC Windows.

Note:

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date:	N/A	**ENCOTEC Project ID:**	33
Analysis Date:	03/20/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	VORC2001S
Method Reference:	8260	**ENCOTEC Submission ID:**	100010175
Matrix:	SOIL	**ENCOTEC Method Blank ID:**	200066799

	VOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acetone	67-64-1	100	1.0	U	
2	Benzene	71-43-2	10	1.0	U	
3	Bromodichloromethane	75-27-4	10	1.0	U	
4	Bromoform	75-25-2	10	1.0	U	
5	Bromomethane	74-83-9	10	1.0	U	
6	2-Butanone (MEK)	78-93-3	100	1.0	U	
7	Carbon disulfide	75-15-0	100	1.0	U	
8	Carbon tetrachloride	56-23-5	10	1.0	U	
9	Chlorobenzene	108-90-7	10	1.0	U	
10	Chloroethane	75-00-3	10	1.0	U	
11	Chloroform	67-66-3	10	1.0	U	
12	Chloromethane	74-87-3	10	1.0	U	
13	Dibromochloromethane	124-48-1	10	1.0	U	
14	1,2-Dichlorobenzene	95-50-1	10	1.0	U	
15	1,4-Dichlorobenzene	106-46-7	10	1.0	U	
16	1,3-Dichlorobenzene	541-73-1	10	1.0	U	
17	1,2-Dichloroethane	107-06-2	10	1.0	U	
18	1,1-Dichloroethane	75-34-3	10	1.0	U	
19	total 1,2-Dichloroethene	540-59-0	10	1.0	U	
20	1,1-Dichloroethene	75-35-4	10	1.0	U	
21	1,2-Dichloropropane	78-87-5	10	1.0	U	
22	trans-1,3-Dichloropropene	10061-02-6	10	1.0	U	
23	cis-1,3-Dichloropropene	10061-01-5	10	1.0	U	
24	Ethylbenzene	100-41-4	10	1.0	U	
25	2-Hexanone	591-78-6	100	1.0	U	
26	4-Methyl-2-pentanone (MIBK)	108-10-1	100	1.0	U	
27	Methylene chloride	75-09-2	10	1.0	1.5	J
28	Styrene	100-42-5	10	1.0	U	
29	1,1,2,2-Tetrachloroethane	79-34-5	10	1.0	U	
30	Tetrachloroethene	127-18-4	10	1.0	U	
31	Toluene	108-88-3	10	1.0	U	
32	1,1,2-Trichloroethane	79-00-5	10	1.0	U	
33	1,1,1-Trichloroethane	71-55-6	10	1.0	U	
34	Trichloroethene	79-01-6	10	1.0	U	
35	Vinyl chloride	75-01-4	10	1.0	U	
36	total Xylenes	1330-20-7	30	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
734 / 761-1389

SOIL MATRIX SURROGATE RECOVERY
VOLATILE ORGANICS

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Method: 8240 ___ 8260 _X_ 8260A ___
Report Date: March 24, 1998
QC Set I.D.: VORC2001S

ENCOTEC Sample I.D.	% Recovery Dibromofluoromethane (80-120)	% Recovery D4-1,2-Dichloroethane (70-121)	% Recovery D8-Toluene (81-117)	% Recovery BFB (74-121)
200069160	80	113	105	113
200069161	91	105	106	106
200069162	103	114	104	120
200069163	102	113	103	111
200069164	110	119	109	121
200069165	108	117	118M	184M
200069166	102	114	118M	185M
200069167	108	117	98	105
200069168	106	117	99	108
200066799 MB	104	111	100	101
200066934 LCS	102	106	101	102
200069160 MS	92	114	102	110
200069160 MSD	91	119	101	108

* Value outside of established quality control windows.
DL = Sample matrix diluted, therefore surrogate recoveries are not applicable.
M = Matrix interferences caused distortion to recovery value.

RECOVERY: __0__ out of __48__ outside QC Windows.

Note:

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
313 / 761-1389

LABORATORY CONTROL SAMPLE (LCS)
VOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: VORC2001S

ENCOTEC ID: 200066934

Compound	Conc. Spiked (mg/Kg)	Conc. LCS (mg/Kg)	Percent Recovery (%)	Quality Control Windows Recovery (%)
Benzene	0.0500	0.0585	117	76-136
Bromodichloromethane	0.0500	0.0526	105	78-131
Bromoform	0.0500	0.0476	95	68-124
Carbon tetrachloride	0.0500	0.0552	110	70-136
Chlorobenzene	0.0500	0.0573	115	73-127
Chloroform	0.0500	0.0624	125	78-126
Dibromochloromethane	0.0500	0.0508	102	67-133
1,1-Dichloroethane	0.0500	0.0642	128	66-140
1,2-Dichloroethane	0.0500	0.0593	119	63-140
1,1-Dichloroethene	0.0500	0.0574	115	47-187
trans-1,2-Dichloroethene	0.0500	0.0557	111	69-143
1,2-Dichloropropane	0.0500	0.0597	119	70-122
Ethylbenzene	0.0500	0.0608	122	73-129
Methylene chloride	0.0500	0.0526	105	61-163
1,1,2,2-Tetrachloroethane	0.0500	0.0577	115	68-120
Tetrachloroethene	0.0500	0.0585	117	61-135
Toluene	0.0500	0.0551	110	71-133
1,1,1-Trichloroethane	0.0500	0.0625	125	67-129
1,1,2-Trichloroethane	0.0500	0.0574	115	73-125
Trichloroethene	0.0500	0.0618	124	64-152

Recovery: 0 out of 20 outside QC windows

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\VLC20S1R.XLS

Rev. 02/24/97

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
313 / 761-1389

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)

VOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: VORC2001S

ENCOTEC ID: 200069160

Compound	Conc. Spiked (mg/Kg)	Sample Result (mg/Kg)	Conc. MS (mg/Kg)	Percent Recovery (%)	Conc. MSD (mg/Kg)	Percent Recovery (%)	RPD (%)	Quality Control Limits RPD (%)	Quality Control Limits Recovery (%)
1,1-Dichloroethene	0.0500	U	0.0464	93	0.0454	91	2.09	22	59-172
Trichloroethene	0.0500	U	0.0479	96	0.0476	95	0.59	24	62-137
Chlorobenzene	0.0500	U	0.0507	101	0.0507	101	0.02	21	60-133
Toluene	0.0500	U	0.0477	95	0.0474	95	0.53	21	59-139
Benzene	0.0500	U	0.0540	108	0.0540	108	0.02	21	66-142

RPD: 0 out of 5 outside of quality control limits.
Recovery: 0 out of 10 outside of quality control limits.

Note:

SAVED AS: C:\HPCHEM\1\DATA\QC\VMC20S1R.XLS

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date:	03/19/98	**ENCOTEC Project ID:**	33
Analysis Date:	03/20/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	BNAC1806S
Method Reference:	8270	**ENCOTEC Submission ID:**	100010176
Matrix:	SOIL	**ENCOTEC Method Blank ID:**	200066756

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
1	Acenaphthene	83-32-9	330	1.0	U	
2	Acenaphthylene	208-96-8	330	1.0	U	
3	Anthracene	120-12-7	330	1.0	U	
4	Benzo(a)anthracene	56-55-3	330	1.0	U	
5	Benzo(a)pyrene	50-32-8	330	1.0	U	
6	Benzo(b)fluoranthene	205-99-2	330	1.0	U	
7	Benzo(g,h,i)perylene	191-24-2	330	1.0	U	
8	Benzo(k)fluoranthene	207-08-9	330	1.0	U	
9	4-Bromophenyl phenyl ether	101-55-3	330	1.0	U	
10	Butyl benzyl phthalate	85-68-7	330	1.0	U	
11	Carbazole	86-74-8	330	1.0	U	
12	4-Chloro-3-methylphenol	59-50-7	330	1.0	U	
13	4-Chloroaniline	106-47-8	330	1.0	U	
14	bis(2-Chloroethoxy)methane	111-91-1	330	1.0	U	
15	bis(2-Chloroethyl) ether	111-44-4	330	1.0	U	
16	bis(2-Chloroisopropyl) ether	108-60-1	330	1.0	U	
17	2-Chloronaphthalene	91-58-7	330	1.0	U	
18	2-Chlorophenol	95-57-8	330	1.0	U	
19	4-Chlorophenyl phenyl ether	7005-72-3	330	1.0	U	
20	Chrysene	218-01-9	330	1.0	U	
21	Di-n-butyl phthalate	84-74-2	330	1.0	U	
22	Di-n-octyl phthalate	117-84-0	330	1.0	U	
23	Dibenz(a,h)anthracene	53-70-3	330	1.0	U	
24	Dibenzofuran	132-64-9	330	1.0	U	
25	1,4-Dichlorobenzene	106-46-7	330	1.0	U	
26	1,3-Dichlorobenzene	541-73-1	330	1.0	U	
27	1,2-Dichlorobenzene	95-50-1	330	1.0	U	
28	3,3'-Dichlorobenzidine	91-94-1	330	1.0	U	
29	2,4-Dichlorophenol	120-83-2	330	1.0	U	
30	Diethyl phthalate	84-66-2	330	1.0	U	
31	Dimethyl phthalate	131-11-3	330	1.0	U	
32	2,4-Dimethylphenol	105-67-9	330	1.0	U	
33	4,6-Dinitro-2-methylphenol	534-52-1	800	1.0	U	
34	2,4-Dinitrophenol	51-28-5	800	1.0	U	
35	2,6-Dinitrotoluene	606-20-2	330	1.0	U	
36	2,4-Dinitrotoluene	121-14-2	330	1.0	U	
37	bis(2-Ethylhexyl) phthalate	117-81-7	330	1.0	U	
38	Fluoranthene	206-44-0	330	1.0	U	
39	Fluorene	86-73-7	330	1.0	U	
40	Hexachlorobenzene	118-74-1	330	1.0	U	
41	Hexachlorobutadiene	87-68-3	330	1.0	U	
42	Hexachlorocyclopentadiene	77-47-4	330	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/23/98

QUALITY ASSESSMENT REPORT - METHOD BLANK Analysis

Extraction Date:	03/19/98	**ENCOTEC Project ID:**	33000
Analysis Date:	03/20/98	**ENCOTEC SDG ID:**	CRA-CS-98C3
Second Analysis Date:	N/A	**ENCOTEC QC Set ID:**	BNAC1806S
Method Reference:	8270	**ENCOTEC Submission ID:**	100010176
Matrix:	SOIL	**ENCOTEC Method Blank ID:**	200066756

	SEMIVOLATILE ORGANICS Target Compound List	CAS #	Quant Limit (ug/Kg)	Dil	Conc (ug/Kg)	Flag
43	Hexachloroethane	67-72-1	330	1.0	U	
44	Indeno(1,2,3-c,d)pyrene	193-39-5	330	1.0	U	
45	Isophorone	78-59-1	330	1.0	U	
46	2-Methylnaphthalene	91-57-6	330	1.0	U	
47	2-Methylphenol	95-48-7	330	1.0	U	
48	4-Methylphenol	106-44-5	330	1.0	U	
49	N-Nitroso-di-n-propylamine	621-64-7	330	1.0	U	
50	N-Nitrosodiphenylamine	86-30-6	330	1.0	U	
51	Naphthalene	91-20-3	330	1.0	U	
52	4-Nitroaniline	100-01-6	800	1.0	U	
53	3-Nitroaniline	99-09-2	800	1.0	U	
54	2-Nitroaniline	88-74-4	800	1.0	U	
55	Nitrobenzene	98-95-3	330	1.0	U	
56	4-Nitrophenol	100-02-7	800	1.0	U	
57	2-Nitrophenol	88-75-5	330	1.0	U	
58	Pentachlorophenol	87-86-5	800	1.0	U	
59	Phenanthrene	85-01-8	330	1.0	U	
60	Phenol	108-95-2	330	1.0	U	
61	Pyrene	129-00-0	330	1.0	U	
62	1,2,4-Trichlorobenzene	120-82-1	330	1.0	U	
63	2,4,6-Trichlorophenol	88-06-2	330	1.0	U	
64	2,4,5-Trichlorophenol	95-95-4	800	1.0	U	

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive ■ Ann Arbor, MI 48108
Telephone: (313) 761-1389 - Telefax: (313) 761-1034

Report Date: 03/23/98

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
734 / 761-1389

SOIL MATRIX SURROGATE RECOVERY
SEMIVOLATILE ORGANICS

Project Name: CONESTOGA-ROVERS & ASSOCIATES
Project Number: 33000
Method: 8270 X 8270B ___
Report Date: March 26, 1998
QC Set I.D.: BNAC1906S

ENCOTEC Sample I. D.	BASE-NEUTRAL EXTRACTABLE ANALYTES % Recovery Nitrobenzene -d5 (23-120)	% Recovery 2-Fluorobi-phenyl (30-115)	% Recovery Terphenyl -d14 (18-137)	ACID EXTRACTABLE ANALYTES % Recovery Phenol-d5 (24-113)	% Recovery 2-Fluoro-phenol (25-121)	% Recovery 2,4,6-Tribromo-phenol (19-122)
200069160	103	93	122	105	103	72
200069161	83	97	119	94	92	80
200069162	80	78	110	75	73	81
200069163	95	88	114	94	81	64
200069164	82	95	114	89	87	80
200069165	DL	DL	DL	DL	DL	DL
200069166	76	67	90	68	67	74
200069167	91	94	125	81	74	83
200069168	84	102	121	103	92	95
200066756 MB	98	93	122	81	76	75
200066870 LCS	77	66	73	75	59	78
200068974 MS	64	61	68	67	51	71
200068974 MSD	66	60	66	67	53	68

* Value outside of quality control windows.
DL = Sample extract diluted, therefore surrogate recoveries not applicable.
M = Matrix interferences caused distortion to recovery value.

RECOVERY: 0 out of 72 outside QC Windows

Note:

Form 090SSL2G.GEN

Rev. 09/27/97

Laidlaw Environmental, Inc. / ENCOTEC
3985 Research Park Drive * Ann Arbor, MI 48108
313 / 761-1389

LABORATORY CONTROL SAMPLE (LCS)
SEMIVOLATILE ORGANICS - SOIL MATRIX

Project Name: ENCOTEC
Project Number: 10000
QC Set ID: BNAC1806S

ENCOTEC ID: 200066870

Compound	Conc. pike (mg/kg)	Conc. LCS (mg/kg)	Percent Recovery (%)		Quality Control Windows Recovery (%)
2-Chlorophenol	2.00	1.44	72		57-112
bis(2-Chloroethyl)ether	2.00	1.62	81		61-123
Phenol	2.00	1.50	75		58-120
1,3-Dichlorobenzene	2.00	1.42	71		68-114
1,4-Dichlorobenzene	2.00	1.47	74		67-119
1,2-Dichlorobenzene	2.00	1.55	78		71-116
bis(2-Chloroisopropyl)ether	2.00	1.62	81		52-151
Hexachloroethane	2.00	1.57	79		69-126
n-Nitroso-di-n-propylamine	2.00	1.98	99		79-114
Nitrobenzene	2.00	1.67	84		46-137
Isophorone	2.00	1.47	74		61-126
2-Nitrophenol	2.00	1.56	78		62-113
2,4-Dimethylphenol	2.00	1.53	77		54-121
bis(2-Chloroethoxy)methane	2.00	1.64	82		74-127
2,4-Dichlorophenol	2.00	1.68	84		61-116
1,2,4-Trichlorobenzene	2.00	1.48	74		74-120
Naphthalene	2.00	1.57	79		75-119
Hexachlorobutadiene	2.00	1.55	78		58-162
4-Chloro-3-methylphenol	2.00	1.71	86		80-117
2,4,6-Trichlorophenol	2.00	1.40	70		62-116
2-Chloronaphthalene	2.00	1.46	73		70-124
Acenaphthylene	2.00	1.33	67	*	69-118
2,6-Dinitrotoluene	2.00	1.82	91		30-167
Acenaphthene	2.00	1.48	74		68-131
2,4-Dinitrophenol	2.00	0.700	35		D-113
2,4-Dinitrotoluene	2.00	1.66	83		78-121
4-Nitrophenol	2.00	1.38	69		56-109
Fluorene	2.00	1.59	80		74-132
4-Chlorophenyl phenyl ether	2.00	1.46	73	*	74-128
Diethylphthalate	2.00	1.46	73		72-128
4,6-Dinitro-2-methylphenol	2.00	0.990	50		2-175
n-Nitrosodiphenylamine	2.00	1.63	82		30-171
4-Bromophenyl phenyl ether	2.00	1.45	73		68-131
Hexachlorobenzene	2.00	1.50	75		68-128
Pentachlorophenol	2.00	1.25	63		18-100
Phenanthrene	2.00	1.45	73	*	74-126
Anthracene	2.00	1.69	85		75-132
Di-n-butyl phthalate	2.00	1.56	78		77-126
Fluoranthene	2.00	1.55	78		69-141
Pyrene	2.00	1.38	69		65-145
Butyl benzyl phthalate	2.00	1.64	82		71-143
Benzo(a)anthracene	2.00	1.63	82		69-139
Chrysene	2.00	1.61	81		48-182
3-3'-Dichlorobenzidine	2.00	2.24	112		D-292
bis(2-Ethylhexyl)phthalate	2.00	1.62	81		38-188
Di-n-octyl phthalate	2.00	1.70	85		21-173
Benzo(b)fluoranthene	2.00	1.76	88		50-135
Benzo(k)fluoranthene	2.00	1.28	64		62-141
Benzo(a)pyrene	2.00	1.40	70		70-134
Indeno(1,2,3-cd)pyrene	2.00	1.45	73		35-169
Dibenz(a,h)anthracene	2.00	1.30	65		41-171
Benzo(ghi)perylene	2.00	1.60	80		2-192

Recovery: 3 out of 52 outside QC windows

Note:
SAVED AS: D:\DATA\QC\BLC1806X.XLS

3985 Research Park Drive * Ann Arbor, MI 48108
313 / 761-1389

MATRIX SPIKE (MS) AND MATRIX SPIKE DUPLICATE (MSD)
SEMIVOLATILE ORGANICS - SOIL MATRIX

roject Name: ENCOTEC
Project Number: 10000
QC Set ID: BNAC1806S

SAMPLE SPIKED - ENCOTEC ID: 200068974

Compound	Conc. Spiked (mg/Kg)	Sample Result (mg/Kg)	Conc. MS (mg/Kg)	Percent Recovery (%)	Conc. MSD (mg/Kg)	Percent Recovery (%)	RPD (%)	Quality Control Limits RPD (%)	Quality Control Limits Recovery (%)
1,2,4-Trichlorobenzene	2.00	U	1.21	61	1.46	73	18.78	23	43-113
Acenaphthene	2.00	U	1.22	61	1.32	66	7.96	19	45-124
2,4-Dinitrotoluene	2.00	U	1.34	67	1.47	74	9.58	47	44-109
Pyrene	2.00	U	0.894	45	0.868	43	2.95	36	24-142
N-Nitroso-di-*n*-propylamine	2.00	U	1.43	71	1.54	77	7.34	38	44-115
1,4-Dichlorobenzene	2.00	U	0.874	44	1.20	60	31.36 *	27	40-108
Pentachlorophenol	3.00	U	1.81	60	1.81	60	0.13	47	33-129
Phenol	3.00	U	1.84	61	1.80	60	1.97	35	60-97
2-Chlorophenol	3.00	U	1.87	62	2.02	67	7.36	50	49-111
4-Chloro-3-methylphenol	3.00	U	2.24	75	2.21	74	1.65	33	49-120
4-Nitrophenol	3.00	U	1.89	63	1.80	60	4.75	50	41-133

93

RPD: 1 out of 11 outside of QC Limits.
Recovery: 0 out of 22 outside of QC Limits.

Note:
SAVED AS: D:\DATA\QC\BMC18S06X.XLS

Form 090[illegible] 3G.XLS

CRA
CONESTOGA-ROVERS & ASSOCIATES, INC.
11100 Metro Airport Center Drive - Suite 160
Romulus, MI 48174 (313) 942-0909

CHAIN OF CUSTODY RECORD

SHIPPED TO (Laboratory Name): Encotec

REFERENCE NUMBER: 8889-7c

PROJECT NAME: Oil Reclamation facility Site

SAMPLER'S SIGNATURE: Susan Fielek PRINTED NAME: Susan fielek

SEQ: No.	DATE	TIME		SAMPLE TYPE	No. OF CONTAINERS	PARAMETERS: TCL VOC / TCL SVOC / TAL Metals / PCB / Cyanide	REMARKS
1	031798	0830	S 8889-031798-SF-004	Soil	2	✓ ✓ ✓ ✓ ✓	72 Hour TAT
2	↓	0920	-005	↓	2	✓ ✓ ✓ ✓ ✓	
3		1050	-006		2	✓ ✓ ✓ ✓ ✓	
4		1125	-007		2	✓ ✓ ✓ ✓ ✓	
5		1130	-008		2	✓ ✓ ✓ ✓ ✓	
6		1210	-009		2	✓ ✓ ✓ ✓ ✓	
7	↓	1545	-010	↓	2	✓ ✓	
			SF 03/17/98				

TOTAL NUMBER OF CONTAINERS 14

RELINQUISHED BY: 1. Susan Fielek	DATE: 03/18/98 TIME: 0630	RECEIVED BY: 1. Joseph L. Kememan	DATE: 3/18/98 TIME: 1450
RELINQUISHED BY: 2. Joseph L. Kememan	DATE: 3/18/98 TIME: 500	RECEIVED BY: 2.	DATE: 3/18/98 TIME: 500pm
RELINQUISHED BY: 3.	DATE: TIME:	RECEIVED BY: 1.	DATE: TIME:

METHOD OF SHIPMENT: Pick up by lab-Encotec AIR BILL No.

White -Fully Executed Copy
Yellow -Receiving Laboratory Copy
Pink -Shipper Copy
Goldenrod -Sampler Copy

SAMPLE TEAM: S. Fielek

RECEIVED FOR LABORATORY BY:

DATE: 3/18/98 TIME: 500pm

- 5522

1001 (FORMS)-APRIL 29, 93-REV.0-(C)(F-01)

CRA

CONESTOGA-ROVERS & ASSOCIATES, INC.
11100 Metro Airport Center Drive - Suite 160
Romulus, MI 48174 (313) 942-0909

CHAIN OF CUSTODY RECORD

SHIPPED TO (Laboratory Name): Encotec

REFERENCE NUMBER: 8889-70

PROJECT NAME: Oil Reclamation facility Site

SAMPLER'S SIGNATURE: Susan Fielek PRINTED NAME: Susan fielek

SEQ: No.	DATE	TIME		SAMPLE TYPE	No. OF CONTAINERS	PARAMETERS: TCL VOC	TCL SVOC	TAL Metals	PCB	Cyanide	REMARKS
1	031898	0815	S-8889-031898-SF-011	soil	2	✓	✓	✓	✓	✓	72 Hour TAT
2	↓	0900	↓ ↓ ↓ ↓ -012	↓	2	✓	✓	✓	✓	✓	
3											

TOTAL NUMBER OF CONTAINERS: 4

RELINQUISHED BY: 1. Susan Fielek	DATE: 03/18/98 TIME: 1445	RECEIVED BY: 1. Joseph L. Kreeman	DATE: 3/18/98 TIME: 1450
RELINQUISHED BY: 2. Joseph L. Kreeman	DATE: 3/18/98 TIME: 5:00	RECEIVED BY: 2.	DATE: 3/18/98 TIME: 500PM
RELINQUISHED BY: 3.	DATE: TIME:	RECEIVED BY: 1.	DATE: TIME:

METHOD OF SHIPMENT: Pick up by Encotec AIR BILL No.

White -Fully Executed Copy; Yellow -Receiving Laboratory Copy; Pink -Shipper Copy; Goldenrod -Sampler Copy

- 5523

SAMPLE TEAM: S. Fielek

RECEIVED FOR LABORATORY BY:

DATE: 3/18/98 TIME: 500PM

1001 (FC 3)-APRIL 29, 93-REV.0-(C)(F-01)

35

APPENDIX C

DATA VALIDATION MEMORANDUM

CRA
11100 Metro Airport Center Drive
Suite 160
Romulus, MI 48174
(313) 942-0909

MEMO

TO: Ian Gaudet

REFERENCE NO: 8889-70

FROM: Mary Cameron/rm/62/Det. MBC

DATE: April 20, 1998

RE: Data Quality Assessment and Validation for Soil Samples Collected from the General Motors Clark Street Oil Reclamation Facility in Detroit, Michigan

---

The following details a quality assessment and validation of the analytical data resulting from the March 16, 17 and 18, 1998, and April 7, 1998, collection of 15 soil samples from the General Motors Clark Street Oil Reclamation Facility in Detroit, Michigan. The samples identified in Table 1 were selectively analyzed for target compound list (TCL) volatile organic compounds (VOC); TCL semi-volatile organic compounds (SVOC); polychlorinated biphenyl (PCB); and target analyte list (TAL) inorganics. Sample analysis was completed at Laidlaw Environmental, Inc./Encotec in Ann Arbor, Michigan (Encotec) in accordance with the methodologies presented in Table 2. The quality control criteria used to assess the data were established by the methods and the quality assurance project plan (QAPP).[1]

Holding Time Period and Sample Analysis

The holding time periods are presented in Table 3. The samples, as indicated by the sample collection, extraction and analysis dates on the chain-of-custody forms and analytical reports provided by Encotec, were prepared and analyzed within the required holding time periods.

Method Blank Samples

Contamination of samples contributed by laboratory conditions or procedures was monitored by concurrent preparation and analysis of method blank samples. Methylene chloride was reported as detected in several TCL VOC method blanks but was reported as non-detect in the associated samples, therefore no qualification was required. The remaining method blank samples were reported to be free from detectable concentrations of target analytes, indicating no laboratory-attributable contamination occurred.

Laboratory Control Sample Analysis

The laboratory control sample (LCS) analyses serve as a monitor of the overall performance in all steps of the sample analysis. Samples results qualified due to LCS percent recovery acceptance criteria violations are summarized in Table 4. The remaining LCS percent recoveries were within the laboratory control limits, indicating that an acceptable level of overall performance was achieved.

---

[1] Application of quality assurance criteria was consistent with "Draft National Functional Guideline for Organic Data Review", December, 1990, revised June, 1991 and "Laboratory Data Validation Functional Guidelines for Evaluating Inorganics Analysis", Draft October 1989.

Surrogate Compound Percent Recoveries (Surrogate Recoveries)

Individual sample performance for the organic analyses was monitored by assessing the results of surrogate compound percent recoveries. The surrogate percent recovery criteria was exceeded in two TCL VOC samples, but the samples were reported as non-detect, hence no qualification was required. The TCL SVOC surrogate recoveries could not be measured for one sample due to dilutions required to successfully analyze the sample. No further qualifications were required. The surrogate recovery acceptance criteria was met for the remaining samples.

Matrix Spike Analysis - Inorganic Analyses

Matrix spike samples were monitored to determine the effects of sample matrix on the laboratories digestion and measurement methods. The samples that should be qualified due to violation of matrix spike recovery criteria are outlined in Table 5. The remainder of the data were within the acceptance criteria.

Duplicate Sample Analyses - Inorganic Analyses

The laboratory precision of matrix-specific metals methods was monitored by the analyses of duplicate samples. The duplicate relative percent difference (RPD) data were within the acceptance criteria.

Matrix Spike/Matrix Spike Duplicate Percent Recoveries - Organic Analyses

To assess the long term accuracy and precision of the analytical methods on various matrices, matrix spike/matrix spike duplicate (MS/MSD) percent recoveries and the RPD of the recoveries were determined. The reported pentachlorophenol quantitation limit for sample S-8889-040798-SF-013 should be qualified as an estimated (UJ) limit due to violation of MS/MSD percent recovery criteria. The remaining MS/MSD percent recoveries and RPDs acceptance criteria were met for all analyses.

Sample Quantitation - Organic Analyses

Sample analyses, requiring laboratory dilutions due to matrix effects, were identified by the laboratory with a "M", no further qualification was required.

Field Quality Assurance/Quality Control

The field quality assurance/quality control consisted of one (1) field duplicate sample set. Overall precision for the sampling event and laboratory procedures was monitored using the results of the field duplicate sample set. Table 6 summarizes the results of the detected analytes in the field duplicate sample set. The RPD for the TCL SVOC was not calculable due to the elevated sample report limits. The remaining data indicate that an adequate level of precision was achieved for the sampling event.

Overall Assessment

The data were found to exhibit acceptable levels of accuracy and precision, based on the provided information, and may be used with the qualifications noted.

TABLE 1

SAMPLE IDENTIFICATION NUMBERS
GENERAL MOTORS CLARK STREET SITE
DETROIT, MICHIGAN

S-8889-031698-SF-001
S-8889-031698-SF-002
S-8889-031698-SF-003
S-8889-031798-SF-004
S-8889-031798-SF-005
S-8889-031798-SF-006
S-8889-031798-SF-007
S-8889-031798-SF-008
S-8889-031798-SF-009
S-8889-031798-SF-010
S-8889-031898-SF-011
S-8889-031898-SF-012
S-8889-040798-SF-013
S-8889-040798-SF-014
S-8889-040798-SF-015

TABLE 2

SUMMARY OF ANALYTICAL METHODS
GENERAL MOTORS CLARK STREET SITE
DETROIT, MICHIGAN

Parameter	*Method*
TCL VOC	SW-846 8260[1]
TCL SVOC	SW-846 8270
PCB	SW-846 8080
TAL Inorganics	
Aluminum	SW-846 6010
Antimony	SW-846 6020
Arsenic	SW-846 6020
Barium	SW-846 6010
Beryllium	SW-846 6010
Cadmium	SW-846 6020
Calcium	SW-846 6010
Chromium	SW-846 6010
Cobalt	SW-846 6020
Copper	SW-846 6010
Iron	SW-846 6010
Lead	SW-846 6010/6020
Magnesium	SW-846 6010
Manganese	SW-846 6010
Mercury	SW-846 7471
Nickel	SW-846 6010
Potassium	SW-846 6010
Selenium	SW-846 6020
Silver	SW-846 6020
Sodium	SW-846 6010
Thallium	SW-846 6020
Total Cyanide	SW-846 9010
Vanadium	SW-846 6010
Zinc	SW-846 6010

[1] "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd Edition, and promulgated updates, November 1986.

TABLE 3

HOLDING TIME PERIODS
GENERAL MOTORS CLARK STREET SITE
DETROIT, MICHIGAN

Analysis	*Holding Time Period*
TCL VOC	- 14 days from sample collection to completion of analysis
TCL SVOC, PCB	- 14 days from sample collection to extraction - 40 days from extraction to completion of analysis
TAL Inorganics -	
Metals (except Mercury)	- 180 days from sample collection to completion of analysis
Mercury	- 28 days from sample collection to completion of analysis
Total Cyanide	- 14 days from sample collection to completion of analysis

TABLE 4

SUMMARY OF QUALIFIED SAMPLE DATA DUE TO LABORATORY CONTROL SAMPLE PERCENT RECOVERY VIOLATION GENERAL MOTORS CLARK STREET SITE DETROIT, MICHIGAN

Analysis	*Parameters*	*Associated Samples*	*Qualifier*[1]
TCL VOC	Bromoform	S-8889-031698-SF-001	R
	Carbon tetrachloride	S-8889-031698-SF-002	R
TCL SVOC	Acenaphthylene	S-8889-031698-SF-001	R
	4-Chlorophenyl phenyl ether	S-8889-031698-SF-002	R
	Phenanthrene	S-8889-031698-SF-003	J/R
		S-8889-031798-SF-004	
		S-8889-031798-SF-005	
		S-8889-031798-SF-006	
		S-8889-031798-SF-007	
		S-8889-031798-SF-008	
		S-8889-031798-SF-009	
		S-8889-031798-SF-010	
		S-8889-031898-SF-011	
		S-8889-031898-SF-012	

[1]The parameters results should be qualified for each of the listed samples as:

J - The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample (for detected parameters).

R - The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified (for non-detected parameters).

TABLE 5

SUMMARY OF QUALIFIED SAMPLE DATA DUE TO OUTLYING MATRIX SPIKE RECOVERY DATA-INORGANICS GENERAL MOTORS CLARK STREET SITE DETROIT, MICHIGAN

Parameters	*Associated Samples*	*Qualifier*[1]
Antimony	S-8889-031798-SF-004	UJ
Selenium	S-8889-031798-SF-005	UJ
	S-8889-031798-SF-006	
	S-8889-031798-SF-007	
	S-8889-031798-SF-008	
	S-8889-031798-SF-009	
	S-8889-031898-SF-011	
	S-8889-031898-SF-012	
Cyanide	S-8889-031798-SF-004	J/UJ
	S-8889-031798-SF-005	
	S-8889-031798-SF-006	
	S-8889-031798-SF-007	
	S-8889-031798-SF-008	
	S-8889-031898-SF-011	
	S-8889-031898-SF-012	

[1] The parameter results should be qualified for each of the listed samples as:

J - The analyte was analyzed for and was positively identified, but the associated numerical value may not be consistent with the amount actually present in the environmental sample (for detected parameters).

UJ - The analyte was analyzed for, but was not detected above the level of the associated value. The associated value may not accurately or precisely represent the sample detection limit (for non-detected parameters).

TABLE 6

SUMMARY OF DETECTED ANALYTIES IN FIELD DUPLICATE SAMPLE SETS
GENERAL MOTORS CLARK STREET SITE
DETROIT, MICHIGAN

Parameter (µg/kg)	*Investigative Sample*	*Duplicate Sample*	*RPD*[1]
	S-8889-031798-SF-007	S-8889-031798-SF-008	
TAL Inorganics			
Aluminum	1,800,000	2,000,000	10
Arsenic	3,200	1,500	72
Barium	16,000	15,000	6.5
Cadmium	120	110	8.7
Calcium	60,000,000	100,000,000	50
Chromium	3,200	4,200	27
Cobalt	2,800	1,800	43
Copper	9,400	11,000	16
Iron	5,500,000	6,300,000	14
Lead	8,700 J[2]	10,000 J	14
Magnesium	9,800,000	10,000,000	2.0
Manganese	200,000	320,000	46
Nickel	6,200	7,100	14
Potassium	160,000	260,000	48
Sodium	53,000	78,000	38
Vanadium	6,800	7,300	7.1
Zinc	32,000	35,000	9.0

TABLE 6

SUMMARY OF DETECTED ANALYTIES IN FIELD DUPLICATE SAMPLE SETS
GENERAL MOTORS CLARK STREET SITE
DETROIT, MICHIGAN

Parameter (µg/kg)	*Investigative Sample*	*Duplicate Sample*	*RPD*
	S-8889-031798-SF-007	S-8889-031798-SF-008	
TCL SVOC			
Chrysene	ND (4,600)[3]	630	NC[4]
bis (2-Ethylhexyl)phthalate	ND (4,600)	760	NC
Pyrene	ND (4,600)	930	NC

[1] RPD – Relative Percent Difference

[2] J – The associated numerical value is an estimated quantity.

[3] ND ( ) – Not detected at the quantitation limit stated in parentheses.

[4] NC – Not Calculable